

# CRC WORLD DICTIONARY OF GRASSES

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Common Names,  
Scientific Names,  
Eponyms, Synonyms,  
and Etymology

VOLUME I  
A - D

UMBERTO QUATTROCCHI

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Taylor & Francis  
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# *Dedication*

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*To Paola, Daria, and Salvatore*



*If circumstances lead me, I will find  
Where truth is hid, though it were hid indeed  
Within the centre.  
(W. Shakespeare, Hamlet)*





# FOREWORD

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Communication is both a complex matter and a universal phenomenon. A sender, a receiver, and the information to be transferred form the essential elements. Communication takes place between humans, between animals, and between plants, but also between humans and animals, as well as between animals and plants. The information to be transferred takes many forms — visual, acoustic, olfactory, and tactile. In science, communication takes place as a rule in rather condensed forms, often visual as a written text; information may even be still more condensed as in a mathematical formula, in bar codes, or in digitized images. In theory, communication in the sciences should be precise and unequivocal, but in real life many ambiguities exist, some of them by coincidence and some deliberately introduced and the source of much confusion. A large number of dictionaries have been published to try to clarify scientific terminology and to ease communication.

Within the natural sciences, the large field of biodiversity uses scientific names for communication, not bar codes or digitized images. The International Codes of Botanical and Zoological Nomenclature set the rules for the use of scientific plant and animal names, resulting in their universal and unequivocal application. Since scientific names cannot by their nature be abbreviated, every specialist has to be aware of an extremely large number of them, many difficult to memorize. Therefore, it is most helpful to know and understand the background of the respective scientific name — its etymology, its history, the name of the person who first coined it, the circumstances of its origin. There is always a time axis in this: scientific names have been formed over centuries; some are ancient, some recent, and this is often not evident to the uninitiated.

There is a high degree of standardization in scientific names, which largely has helped their universal use in communication. By contrast, common names are neither standardized nor universally in use. For species, they may consist of one or more words. In addition, they are only applicable locally, i.e., within the region where a given language is spoken. As a consequence, common names are totally unsuitable for international communication. However, it should be noted that common names also have their background, etymology, and history, often undergoing more changes over time and often more diversified locally than the standardized scientific names.

Umberto Quattrocchi has dealt with this subject in a general way in his *CRC World Dictionary of Plant Names* in four volumes, obligatory reading for all those interested in — as the subtitle puts it — *Common Names, Scientific Names, Eponyms, Synonyms, and Etymology*. Although dealing with names of vascular plants only, this mine of information has found its place on the shelves of reference libraries all over the world and is constantly used by a wide spectrum of users. However, any work of this kind cannot be comprehensive, in particular when considering plant diversity on a global scale and the multitude of languages spoken today, all of them possessing names for plants. Therefore, an in-depth study of a single plant family is most welcome.

For good reasons, Quattrocchi has chosen the grasses, a very large plant group, worldwide in distribution and of prime importance for the world economy, including such major crops as wheat, rice, maize, sugar, and barley, to mention just a few important ones. And he is most suited to do this job: he is well-read, multilingual, possessing a general level of culture equalled by few, and therefore able to go back into etymology and history, often right to the original mention of a particular grass name in the scientific literature long before Linnaeus.

Quattrocchi has had to deal with tens of thousands of grass names and a considerable number of languages, several of them used only outside Europe for an obvious reason. This plant group dominates many extensive areas of the globe: the prairies in temperate North America, the forests of bamboo in Southeast Asia, the dry savannahs in subtropical Africa, as well as the spinifex grassland of central Australia or, in Europe, the wetlands in the Danube delta densely covered by reeds. In short, this new dictionary helps us to understand the complex background of grass names and forms an invaluable addition to our knowledge of this plant family. It is of particular relevance to all of us since the grasses provide the most important source of protein for human nutrition on a global scale, for, as Isaiah V put it “All flesh is grass.”

**H.-Walter Lack**

*Botanischer Garten und Botanisches Museum,  
Berlin-Dahlem,  
Freie Universität Berlin*



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# ABOUT THE AUTHOR

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**Umberto Quattrocchi** was born December 21, 1947, in Bergamo, Italy. He received his degree in political science, his M.D., and his specialization in obstetrics and gynecology all from the University of Palermo.

The author of numerous political and botanical books and articles, his articles on plants and gardening recently have been published in *Hortus* and *The Garden*. A member of the Royal Horticultural Society and Botanical Society of America, a Fellow of the Linnean Society, his studies in

plants and ethnomedicine have taken him to remote areas of the globe.

In 1992 he retired from the practice of medicine to pursue studies in botany and to continue teaching as a professor of political science at the University of Palermo.

His interests include jazz, classical music, book collecting, and the cultivation of tropical, subtropical, and desert species of plants. He lives in Palermo with his wife Paola (also a physician) and their two children Daria and Salvatore.



# INTRODUCTION TO THE GRASS FAMILY (POACEAE – GRAMINEAE)

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To err is human! ...and any errors are mine alone.

These pages bring together a great deal of otherwise-dispersed data — information and morphological description regarding the genera and the species, their geographical distribution, distinctive characters, common and vernacular names, etc.

This account is certainly not complete in itself, also because of the numerous nomenclatural and taxonomic problems encountered and the conflicting taxonomic treatments (see C.W. Hamilton and S.H. Reichard, Current practice in the use of subspecies, variety, and forma in the classification of wild plants. *Taxon* 41: 485-498. 1992), this will always be a work in progress and neverending.

The study is based on secondary and primary data, and the information derives from several sources. It is gathered from a wide variety of electronic, print, and other sources, such as papers of general interest, reports and records, taxonomic revisions, field studies, herbaria and herbarium collections, notes, monographs, pamphlets, botanical literature and literature *tout court*, sources available at various natural history libraries, floras and standard flora works, local floras and local histories, nomenclatural histories, ICBN (W. Greuter et al. 2000: International Code of Botanical Nomenclature [Saint Louis Code] adopted by the Sixteenth International Botanical Congress St. Louis, Missouri, July/August 1999), ICNCP (International Code of Nomenclature for Cultivated Plants), International Union for Conservation of Nature and Natural Resources, IPNI. Also useful have been reference collections, botanical gardens and nurseries, dictionaries, drawings, poetry, journal articles, personal communications, biographies and scientific biographies, and the British Museum General Catalogue of Printed Books, the Royal Botanic Gardens Kew Library Catalogue on the World Wide Web, Manuel du Libraire et de l'Amateur de Livres (by Jacques-Charles Brunet), the Catalogue of Books, Manuscripts, Maps, and Drawings in the British Museum (Natural History), and the Catalogue of Botanical Books in the Collection of Rachel McMasters Miller Hunt, etc.

Classification follows the treatments proposed by W.D. Clayton and S.A. Renvoize (*Genera Graminum*, 1986), Watson and Dallwitz (*The Grass Genera of the World*, Wallingford: CAB International 1992 and 1994), S.W.L. Jacobs and J.E. Everett, Editors, (*Grasses: Systematics and Evolution*, 2000), *Grass Phylogeny Working Group* (GPWG) (Phylogeny and subfamilial classification of the grasses (Poaceae), *Annals of the Missouri Botanical Garden* 88(3): 373-457, 2001), Gerrit Davidse et al. (Missouri Botanical Garden – w3 TROPICOS, Missouri Botanical Garden's

VAST (VAScular Tropicos) nomenclatural database), and *Catalogue of New World Grasses* (R.J. Soreng, G. Davidse, P.M. Peterson, F.O. Zuloaga, E.J. Judziewicz, T.S. Filgueiras, and O. Morrone, Smithsonian Institution, *Contributions from the United States National Herbarium*, 2000-2003).

The classification of Australian grasses follows *Flora of Australia*, Volume 43, Poaceae 1, Introduction and Atlas, Melbourne 2002; and *Flora of Australia*, Volume 44B, Melbourne 2005. The arrangement of subfamilies and tribes follows *Flora of Australia*, 43: 245-277, 2002.

The nomenclature of South African grasses closely follows T.H. Arnold and B.C. de Wet, Editors, *Plants of Southern Africa: Names and Distribution*. Memoirs of the Botanical Survey of South Africa No. 62, Pretoria 1993.

Descriptions compiled follow the patterns and the paths and the outlines and the schemes of the great authors and their works (not necessarily about grasses!): Engler and Sir J.D. Hooker, Michel Adanson, Humboldt, Charles Russell Metcalfe, Frans A. Stafleu and friends, McClure, M.E. Barkworth, Agnes Chase, H.J. Conert, T.A. Cope, Hackel, Grisebach, Henrard, C.E. Hubbard, Hitchcock, R. Pilger, O. Stapf, Steudel, Trinius, L. Watson and M.J. Dallwitz, Constantine S. Rafinesque, William T. Stearn, R.K. Brummitt, H. Walter Lack, W.D. Clayton, S.A. Renvoize, Sylvia Phillips, D.J. Mabberley, Dan H. Nicolson, and others. Their knowledge is the main source of whatever new light this work has been able to shed on the history of grasses. Their work is my cornerstone.

We have obviously included reference information to denote the original sources and all available descriptions. Every effort has been made to ensure the accuracy of the references and other data, but this has not been possible in every case. In the meanwhile, every effort has been made to trace the original source of copyright material contained in this dictionary.

The genera and species dealt with in this work are arranged in alphabetical order. The correct identities and names of all the taxa listed were checked and, where names have changed, the currently accepted name has been applied and the previous name (or names) used have been placed into synonymy.

Obviously, this listing is not meant to be exhaustive, and I do not know most of the species. I also recognize that it is impossible that everyone will agree with the generic and specific treatment I decided to follow, and many decisions may prove to be incorrect, but this work is so full of important and useful information that perhaps it may be considered worthy to serve as a starting point for something better.



After the generic names, after the equal sign (=), could be listed: accepted name, earlier name, blocking name, correct name, homonyms, replaced name, synonyms, or similar names, etc. For names that are not grasses, e.g., *Abola* Lindl. (Orchidaceae), the given data are the testimony of the history and “movement” of the name.

Bibliographic references are listed by year, usually with the exact titles or sometimes using the abbreviation recommended by *Botanico-Periodicum-Huntianum* and G.D.R. Bridson (compiler), S.T. Townsend (Ed.), E.A. Polen (Ed.), and E.R. Smith (editorial assistant), *BPH-2: Periodicals with Botanical Content; Constituting a Second Edition of Botanico-Periodicum-Huntianum*, Hunt Institute for Botanical Documentation, Carnegie Mellon University, Pittsburgh 2004. The names of the authors of all plant names listed follow the abbreviations published by Brummitt and Powell, but usually full names and initials have been used.

This is my choice, probably not the standard way or the correct one, but I clearly don't like the reference given simply by author and date. I prefer to have all the data and full details in front of me quickly and unequivocally intelligible! This work has been arranged in a manner considered most convenient for the user, the references are probably tens of thousands. I understand that such an arrangement makes necessary the duplication of many details, but I believe this is advantageous in that each subject and each entry is a “self-contained unit” which can be utilized without reference elsewhere.

*Repetita iuvant...* Each entry must be considered nothing less than a monograph, more or less complete, more or less exhaustive, more or less boring.

The responsibility of all judgments and errors is my own, and if anything is omitted, misstated, misjudged, or misquoted in the text, I hope the reader will excuse my human limitations.

This dictionary is not meant to be “only” and “strictly” a nomenclatural work. Many and different are the subjects involved: history of botany and botanists, travels and botanical discoveries, history of medicine, explorations, history of genera and species and their names, biography, bibliography, linguistics, history of mankind, history of ideas, history of science, geography, ethnography, etc.

I understand that the choice to include such material could be in some way misleading, but all this too belongs to the history of botany.

### **Warning:**

Many of the plants here described have reputed medicinal properties according to some sources; the traditional medicinal remedies have been taken from the literature and from interviews with healers, traditional or not. They have not been tested. We have reproduced only information we believe to be correct, but we make no claims as to the validity of this information, and anyone testing it does so at his own risk. Self-treatment is dangerous. It is not our intention to prescribe or make specific health claims for any of the described species. Any attempt to diagnose and treat illness should come under the direction of a health-care practitioner.

# A

**Abola Adans.** = *Abola* Lindl. (Orchidaceae),  
*Cinna* L.

Pooideae, Poeae, Aveninae, see *Species Plantarum* 1: 5. 1753, *Familles des Plantes* 2: 31, 511. 1763, John Lindley (1799-1865), *Folia Orchidacea. Abola* 4. London 1852-1855 and *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 35: 343. 1934, *Transactions of the Kentucky Academy of Science* 52: 94-96, 1991, *Sida* 14(4): 581-596. 1991, *Flora Mesoamericana* 6: 242-243. 1994, *Contributions from the United States National Herbarium* 48: 15, 234-236. 2003.

**Acamptocladus Nash** = *Eragrostis* Wolf

From the Greek *akamptos* “unbent, stiff” and *klados* “a branch.”

One species, North America, Mexico. Chloridoideae, Cynodonteae, or Chloridoideae, Eragrostideae, Eragrostidinae, perennial, unbranched, caespitose, tuberous, herbaceous, unarmed, culm internodes short, culm nodes hidden by leaf sheaths, ligule a fringe of hairs, leaves mostly basal, plants bisexual, deciduous inflorescence paniculate, bisexual spikelets, 2 glumes subequal, palea 2-nerved 2-keeled, 2 lodicules free and fleshy, 3 stamens, ovary glabrous, 2 stigmas, open habitats, sandy areas, prairies, plains, often in *Eragrostis*, type *Acamptocladus sessilispicus* (Buckley) Nash, see *Genera Plantarum* 23. 1776, *Icones et Descriptiones Graminum Austriacorum* 4: 15. 1809, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 97. 1862 and *Flora of the Southeastern United States* ... 139-140, 1327. 1903, *Man. Grass. U.S.* 852. 1935, *Acta Bot. Neerl.* 15: 157. 1966, *Contributions from the United States National Herbarium* 41: 9, 81-115. 2001.

## Species

*A. sessilispicus* (Buckley) Nash (*Eragrostis sessilispica* Buckley)

North America. Glumes 1-nerved.

**Achaeta E. Fourn.** = *Calamagrostis* Adans.

From the Greek *a* “without, lacking” and *chaite* “a bristle.”

Pooideae, Poeae, Agrostidinae, see *Familles des Plantes* 2: 31, 530. 1763, *Tentamen Florae Germanicae* 1: 34. 1788, *Mexicanas Plantas* 2: 109. 1886 and *Contributions from the United States National Herbarium* 48: 15, 191-227. 2003.

**Achlaena Griseb.** = *Arthropogon* Nees

From the Greek *a* “without, lacking” and *chlaena*, *chlaenion* “cloak, blanket.”

One species, Cuba and Jamaica. Panicoideae, Panicodae, Paniceae (Arthropogoneae), or Panicodae, Paniceae, Arthropogoninae, perennial, caespitose, herbaceous, foliage mainly basal, auricles absent, ligule a fringed membrane, plants bisexual, open inflorescence paniculate, spikelets laterally compressed and stipitate, 2 narrow glumes unequal, lemmas pointed, palea present, 2 free lodicules, 2 stamens, woods, open areas, savannah, slopes, dry places, close to *Arthropogon* Nees, type *Achlaena piptostachya* Griseb., see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 319-320. 1829, *Catalogus plantarum cubensium* ... 228-229. 1866, *Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-naturwissenschaftliche Classe* 89: 125. 1884 and *Revista do Museu Paulista. Universidade de São Paulo* 13: 1250. 1922, *Botanical Magazine* (Tokyo) 76(902): 290. 1963, *Bradea, Boletim do Herbarium Bradeanum* 3: 303-322. 1982, *Annals of the Missouri Botanical Garden* 88(2): 351-372. 2001, *Contributions from the United States National Herbarium* 46: 13, 110-111. 2003.

## Species

*A. piptostachya* Griseb. (*Arthropogon piptostachyus* (Griseb.) Pilg.; *Arthropogon piptostachyus* (Griseb.) Tateoka, nom. illeg., non *Arthropogon piptostachyus* (Griseb.) Pilg.; *Arthropogon stipitatus* Hack.)

The Caribbean, Cuba.

**Achnatherum P. Beauv.** = *Aristella* (Trin.) Bertol., *Eriocoma* Nutt., *Fendleria* Steud., *Jarava* Ruiz & Pav., *Lasiagrostis* Link, *Macrochloa* Kunth, *Orthoraphium* Nees, *Patis* Ohwi, *Stipa* L., *Timouria* Roshev., *Trichosantha* Steud.

Awne d scale, Greek *achne* "chaff, glume" and *ather* "stalk, barb," referring to the lemma.

About 100-300 species, Eurasia, Africa, America, New Zealand. Stipoideae, Stipeae, or Pooideae, Stipeae, Stipinae, annual or perennial, herbaceous, simple, erect, unbranched, caespitose or shortly rhizomatous, ligule an unfringed membrane or a fringed membrane, auricles present or absent, plants bisexual, with or without cleistogones, inflorescence paniculate few spikeleted to many spikeleted, open or narrow panicle, 1 floret, 2 glumes very unequal, lower glume 1-3-5-nerved, upper glume 3-5-7-nerved awns hairless to hairy to long-plumose, awn persistent, lemma cylindrical and membranous, palea with long hairs, 3 lodicules present, 3 stamens, ovary glabrous, 2 stigmas, open habitats, on dry hillsides, in shallow rocky soil, sometimes included in *Stipa* L., type *Achnatherum calamagrostis* (L.) P. Beauv., see *Species Plantarum* 1: 61, 78-79. 1753, *Flora Peruviana, et Chilensis Prodrumus* 2. 1794, *Flora Peruviana* 1: 5, t. 6, f. b. 1798, *Essai d'une Nouvelle Agrostographie* 19-20, 146, t. 6, f. 7. 1812, *The Genera of North American Plants* 1: 40. 1818, *Fundamenta Agrostographiae* 110. 1820, *Hortus Regius Botanicus Berlinensis* 1: 99. 1827, *Révision des Graminées* 1: 58. 1829, Antonio Bertoloni (1775-1869), *Flora Italica ...* 1: 690. Bologna 1833 [1835], *Nomenclator Botanicus. Editio secunda* 2: 702. 1841, *Synopsis Plantarum Glumacearum* 1: 419-420. 1854 and *Bulletin of the Torrey Botanical Club* 39(3): 102. 1912, *Contr. U.S. Natl. Herb.* 24(6): 181. 1925, *Acta Phytotaxonomica et Geobotanica* 11: 181. 1942, O.R. Matthei, "Estudio crítico de las gramíneas del género *Stipa* en Chile." *Gayana, Botánica* 13: 1-137. 1965, J.A. Caro and E. Sanchez, "Las especies de *Stipa* (Gramineae) del subgenero *Jarava*." *Kurtziana* 7: 61-116. 1973, *Bulletin of the National Science Museum, Series B, Botany* 12: 151-154. 1986, *Journal of Cytology and Genetics* 21: 155. 1986, *Annali di Botanica* 45: 75-102. 1987, *Grass Systematics and Evolution* 251-264. Washington 1987, *New Zealand Journal Bot.* 27: 569-582. 1989, *Phytologia* 74(1): 1-25. 1993, K.A. Robson & J. Maze, "A comparison of rare and common grasses of the Stipeae. I. Greenhouse studies of growth and variation in four species from parapatric populations." *International Journal of Plant Sciences* 156(4): 530-541. 1995, *Gayana, Botánica* 53(2): 277-284. 1996, *Telopea* 6: 579-595. 1996, P.F. Rojas, "New species and new combinations for the tribe Stipeae (Poaceae) in Bolivia." *Gayana, Botánica* 54(2): 163-182. 1997[1998]

Kevin P. Fort & James H. Richards, "Does seed dispersal limit initiation of primary succession in desert playas?" *Am. J. Bot.* 85: 1722-1731. 1998, Khidir W. Hilu & Lawrence A. Alice, "Evolutionary implications of *matK* indels in Poaceae." *Am. J. Bot.* 86: 1735-1741. 1999, *Global Change Biology* 5(6): 659-668. Aug 1999, Sarah Mathews, Rocky C. Tsai and Elizabeth A. Kellogg, "Phylogenetic structure in the grass family (Poaceae): evidence from the nuclear gene phytochrome B." *Am. J. Bot.* 87: 96-107. 2000, Matthew A. Gitzendanner and Pamela S. Soltis, "Patterns of genetic variation in rare and widespread plant congeners." *Am. J. Bot.* 87: 783-792. 2000, *Oryx* 34(2): 129-135. Apr 2000, *Plant, Cell and Environment* 23(6): 649-656. June 2000, *New Phytologist* 150(2): 449-458. May 2001, P. Peñailillo, "El género *Jarava* Ruiz et Pav. (Stipeae-Poaceae): delimitación y nuevas combinaciones." *Gayana, Botánica* 59(1): 27-34. 2002, J. Valdés-Reyna & M.E. Barkworth, "Poaceae II. Pooideae: Tribu Stipeae." *Flora de Veracruz* 127: 1-28. 2002, *Restoration Ecology* 10(1): 16-26. Mar 2002, *Restoration Ecology* 10(2): 195-203. June 2002, *Journal of Ecology* 90(3): 480-494. June 2002, *Contributions from the United States National Herbarium* 48: 15-18, 402-409, 617-650. 2003, *Global Change Biology* 9(2): 276-285. Feb 2003, *Conservation Biology* 17(2): 420-432. Apr 2003, *Global Change Biology* 9(5): 729-735. May 2003, *Global Change Biology* 9(8): 1223-1233. Aug 2003, *Restoration Ecology* 11(3): 370-377. Sep 2003, *Global Ecology and Biogeography* 12(6): 449-460. Nov 2003, *Journal of Biogeography* 30(11): 1751-1761. Nov 2003, *Conservation Biology* 17(6): 1681-1693. Dec 2003, Tara A. Forbis & Daniel F. Doak, "Seedling establishment and life history trade-offs in alpine plants." *Am. J. Bot.* 91: 1147-1153. 2004, *Annals of the Association of American Geographers* 94(1): 117-139. Mar 2004, *Botanical Journal of the Linnean Society* 144(4): 483-495. Apr 2004, *Restoration Ecology* 12(2): 248-257. June 2004, *Molecular Ecology* 13(6): 1455-1467. June 2004, *Restoration Ecology* 12(4): 546-551. Dec 2004, Satya Maliakal-Witt, Eric S. Menges and J.S. Denslow, "Microhabitat distribution of two Florida scrub endemic plants in comparison to their habitat-generalist congeners." *Am. J. Bot.* 92: 411-421. 2005, *Global Change Biology* 11(5): 749-756. May 2005.

### Species

*A. acutum* (Swallen) Valdés-Reyna & Barkworth (*Stipa acuta* Swallen)

America, Mexico. See *Journal of the Washington Academy of Sciences* 30(5): 212. 1940.

*A. altum* (Swallen) Hoge & Barkworth (*Stipa alta* Swallen)

America, Mexico. See *Proceedings of the Biological Society of Washington* 56: 79. 1943.

*A. aridum* (M.E. Jones) Barkworth (*Stipa arida* M.E. Jones; *Stipa mormonum* Mez)

U.S., California. Inflorescence often partly enclosed by uppermost leaf sheath, see *Proceedings of the California Academy of Sciences, Series 2*, 5: 725. 1895 and *Repertorium Specierum Novarum Regni Vegetabilis* 17: 209. 1921. in English: Mormon needlegrass, desert needlegrass

**A. brachychaetum** (Godr.) Barkworth (*Jarava brachychaeta* (Godr.) Peñailillo; *Nassella brachychaeta* (Godr.) Barkworth; *Stipa brachychaeta* Godr.; *Stipa brachychaeta* f. *brachychaeta*; *Stipa brachychaeta* var. *minor* Speg.; *Stipa eminens* f. *viridis* Kuntze; *Stipa lorentziana* Griseb.) (for the German botanist Paul Günther Lorentz, 1835-1881, bryologist, professor of botany in Argentina and Uruguay, explorer, plant collector, owner of a moss herbarium. See P.G. Lorentz and Gustavo Niederlein, *Enumeración sistemática de las plantas colectadas durante la expedición. Informe oficial de la Comisión Científica agregada al Estado Mayor General de la expedición al Rio Negro (Patagonia)*, realizada en los meses de abril, mayo y junio de 1879, bajo las órdenes del Gral. Julio A. Roca. Buenos Aires. Entrega segunda. *Botánica*. 173-294. 1881; Stafleu and Cowan, *Taxonomic literature*. 3: 157-160. 1981; August Heinrich Rudolph Grisebach (1814-1879), *Plantae lorentzianae*. Göttingen 1874; J.H. Barnhart, *Biographical notes upon botanists*. 2: 402. 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 243. 1972; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 203. Oxford 1964; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. Dresden 1916; F.A. Maximilian Kuhn (1842-1894), *Filices africanae ... Accedunt filices Deckenianae et Petersianae*. Lipsiae [Leipzig] 1868; Otto Kersten (1839-1900), *Geographische Nachrichten für Welthandel und Volkswirtschaft ... unter der ... Redaktion von Dr. O.K. [Berlin - Central-Verein für Handelsgeographie, etc. Geographische Nachrichten, etc.] Berlin 1879; Carl Claus von der Decken (1833-1865), Baron C.C. von der Decken's Reisen in Ost Afrika in 1859-61*. Leipzig & Heidelberg 1869-1879).

South America, Argentina, Peru, Uruguay. Perennial bunchgrass, densely tufted, roots fibrous and shallow, erect stems, sheaths open and glabrous, ligule truncate and membranous, auricles absent, foliage tough, blade expanded and linear, panicle exserted and contracted, 1 floret, spikelets gaping, glumes subequal and glabrous, lemmas stiff to hard, callus straight and densely silky, awn once or twice bent, paleas thick and stiff, small cleistogamous seeds develop within the basal leaf sheaths, cleistogamous seed hard-coated, unpalatable to livestock, reproduces by seed, an invasive and noxious weed of pasture, disturbed sites, nearby or along drainage and irrigation ditches, see *Mémoires de la Section des Sciences; Académie des Sciences et Lettres de*

*Montpellier* 1: 450. 1853, *Flora Chilena* 6: 263. 1854 and *Contr. U.S. Natl. Herb.* 24(6): 181. 1925, J.A. Caro, "Las especies de *Stipa* (Gramineae) de la region central Argentina." *Kurtziana* 3: 7-119. 1966, J.A. Caro & E. Sanchez, "La identidad de *Stipa brachychaeta* Godron, *S. caudata* Trinius y *S. bertrandii* Philippi." *Darwinia* 16(3-4): 637-653. 1971, *Taxon* 39(4): 609. 1990, *Gayana, Botánica* 59(1): 30. 2002.

in English: puna grass

in Spanish: espartillo

**A. bracteatum** (Swallen) Valdés-Reyna & Barkworth (*Stipa bracteata* Swallen)

America, Mexico. See *Journal of the Washington Academy of Sciences* 30(5): 213. 1940.

**A. bromoides** (L.) P. Beauv. (*Agrostis bromoides* L.; *Aristella bromoides* (L.) Bertol.; *Lasiagrostis bromoides* (L.) Nevski & Roshev.; *Stipa aristella* L.; *Stipa bromoides* (L.) Dörfel.; *Stipa bromoides* (L.) Beck, nom. illeg., non *Stipa bromoides* (L.) Dörfel.; *Stipa bromoides* (L.) Pilg., nom. illeg., non *Stipa bromoides* (L.) Dörfel.)

Algeria, Armenia, Turkey, Iran, Europe. Perennial, coarse, robust, erect to semierect, leaves mostly basal, open panicles, useful for erosion control, on dark soil, see *Mantissa Plantarum* 30. 1767, *Flora Italica ...* 1: 690. 1834 and *Essai d'une Nouvelle Agrostographie* 20, 146, 147. 1812, *Herbarium normale Cent.* xxxiv, no. 3386. 1897 and *Flora URSS* 2: 72, t. 6, f. 7-9. 1934, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 74: 235, f. 5. 1948, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 107: 203-228. 1985, *Acta Botanica Malacitana* 21: 125-189. 1996.

**A. calamagrostis** (L.) P. Beauv. (*Achnatherum hallerii* (Willd.) P. Beauv.; *Agrostis calamagrostis* L.; *Arundo halleri* Willd.; *Calamagrostis argentea* DC.; *Lasiagrostis calamagrostis* (L.) Link; *Stipa calamagrostis* (L.) Wahlenb.; *Stipa longifolia* Phil., nom. illeg., non *Stipa longifolia* Borbás; *Streptachne calamagrostis* (L.) Dumort.)

South and central Europe. Perennial, stems clumped and robust, leaves attenuate, inflorescence loose, useful for erosion control, see *Systema Naturae, Editio Decima* 2: 872. 1759, *Flora Berolinensis Prodrum* 60. 1787, *Prodrum Florae Novae Hollandiae* 174. 1810, *Essai d'une Nouvelle Agrostographie* 20, 146, 152, t. 6, f. 7. 1812, Georgii Wahlenberg ... *De vegetatione et climate in Helvetia septentrionali ...* 23. Turici Helvetorum [Zürich] 1813, *Observations sur les Graminées de la Flore Belgique* 135. 1823 [1824], *Hortus Regius Botanicus Berolinensis* 1: 99. 1827, *Anales de la Universidad de Chile* 93: 725. 1896 and *Contr. U.S. Natl. Herb.* 24(6): 181. 1925, *Berichte der Bayerischen Botanischen Gesellschaft zur Erforschung der Heimischen Flora* 56: 95-102. 1985, *Fitologija* 39: 72-77. 1991, Roser Guàrdia, José Raventós & Hal Caswell, "Spatial growth and population dynamics of a perennial tussock grass (*Ach-*

*natherum calamagrostis*) in a badland area." *Journal of Ecology* 88(6): 950-963. Dec 2000.

**A. capense** (L.) P. Beauv. (*Agrostis capensis* (L.) Lam.; *Danthonia capensis* (L.) Druce; *Milium capense* L.)

South Africa. See *Mantissa Plantarum* 185. 1771, *Encyclopédie Méthodique, Botanique* 1: 58. 1783, *Flore Française. Troisième Édition* 3: 32. 1805, *Essai d'une Nouvelle Agrostographie* 146, 167. 1812 and *Botanical Exchange Club and Society of the British Isles* 1916: 619. Manchester 1917.

**A. caragana** (Trin. & Rupr.) Nevski (*Achnatherum caragana* (Trin.) Nevski; *Achnatherum caragana* (Trin. & Rupr.) Prokh., nom. illeg., non *Achnatherum caragana* (Trin. & Rupr.) Nevski; *Lasiagrostis caragana* (Trin.) Trin. & Rupr.; *Lasiagrostis caragana* (Trin. & Rupr.) Trin. & Rupr.; *Stipa caragana* Trin.; *Stipa caragana* Trin. & Rupr.)

Asia, China, Russia, Armenia. Perennial bunchgrass, open panicles, straight short deciduous awn, useful for erosion control, common in meadows, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 74. 1830, *Species Graminum Stipaceorum* 90. 1842.

**A. caudatum** (Trin.) S.W.L. Jacobs & J. Everett (*Jarava bertrandii* (Phil.) Peñailillo; *Jarava caudata* (Trin.) Peñailillo; *Stipa amphicarpa* Phil.; *Stipa bertrandii* Phil.; *Stipa caudata* Trin.)

South America, Chile, Argentina. Perennial, caespitose, stout, erect, tall, nodes swollen, intravaginal branching, often cleistogamous, cleistogenes in leaf sheaths, lemma hairy, awned, lodicules nerved, noxious weed species naturalized elsewhere, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 75. 1830, *Linnaea* 33(3-4): 283. 1864, *Anales de la Universidad de Chile* 93: 717, 726. 1896 [also *Anales del Museo Nacional de Chile. Primera Sección — Zoología* 1892: 11, Lam. 3 f. 2. Santiago de Chile 1892] and *Telopea* 6(4): 582. 1996, *Gayana, Botánica* 59(1): 30-31. 2002.

in Spanish: espartillo

**A. clandestinum** (Hack.) Barkworth (*Stipa clandestina* Hack.)

Northern America, U.S., Mexico. See *Repertorium Specierum Novarum Regni Vegetabilis* 8: 516. 1910, *Contr. U.S. Natl. Herb.* 24(7): 238. 1925, *Phytologia* 74(1): 6. 1993.

**A. constrictum** (Hitchc.) Valdés-Reyna & Barkworth (*Stipa constricta* Hitchc.)

America, Mexico. See *Contributions from the United States National Herbarium* 24(7): 244, t. 51, f. 28-29. 1925.

**A. contractum** (B.L. Johnson) Barkworth (*Oryzopsis contracta* (B.L. Johnson) Schlechter; *Oryzopsis hymenoides* var. *contracta* B.L. Johnson; *Stipa contracta* (B.L. Johnson) W.A. Weber, nom. illeg., non *Stipa contracta* Phil.)

U.S. Rare grass, see *Flora Boreali-Americana* 1: 51. 1803 and *Contributions from the United States National Herbarium* 11: 109. 1906, *Botanical Gazette* 107: 24. 1945, *Brittonia* 18(4): 342. 1967 [1966], *Phytologia* 67(6): 428. 1989, *Phytologia* 74(1): 6. 1993.

**A. coronatum** (Thurb.) Barkworth (*Stipa coronata* Thurb.; *Stipa coronata* var. *coronata*)

U.S., California. Glabrous to hairy, leaf sheaths ciliate, inflorescence branches widely spreading to ascending, glumes unequal, chaparral, slopes, gravelly soil, rocky places, see *Geological Survey of California, Botany* 2: 287-288. 1880 and *Taxon* 33: 126-134. 1984, *Phytologia* 74(1): 6. 1993.

**A. curvifolium** (Swallen) Barkworth (*Stipa curvifolia* Swallen)

Northern America, U.S. See *Journal of the Washington Academy of Sciences* 23(10): 456. 1933, *Phytologia* 74(1): 7. 1993.

in English: Guadalupe grass

**A. diegoense** (Swallen) Barkworth (*Stipa diegoensis* Swallen)

North America, Mexico, U.S., California, San Diego Co. Perennial, basal leaf sheaths hairy, lowest internode hairy throughout, glumes subequal, rare or uncommon species, chaparral, rocky soil, see *J. Wash. Acad. Sci.* 30(5): 212, f. 2. 1940, *Phytologia* 74(1): 7. 1993.

in English: San Diego County needlegrass, San Diego needlegrass

**A. duthiei** (Hook.f.) P.C. Kuo & S.L. Lu (*Achnatherum duthiei* (Hook.f.) P.C. Kuo & S.L. Lu ex J.L. Yang; *Stipa duthiei* Hook.f.) (for the British botanist John Firminger Duthie, 1845-1922 (Sussex), 1875 Fellow of the Linnean Society, professor of natural history, plant collector in India, wrote *The Orchids of the North-Western Himalaya*. Calcutta 1906; see J.H. Barnhart, *Biographical notes upon botanists*. 1: 486. 1965; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 223. 1994; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 110. 1972; Isaac Henry Burkill (1870-1965), *Chapters on the History of Botany in India*. 150-151. Delhi 1965; R. Desmond, *The European Discovery of the Indian Flora*. Oxford 1992)

China, India, Nepal, Western Himalaya. On rocky clay soil, alpine and subalpine shrub, gravelly sand, see *Fl. Brit. India* 7(22): 232. 1896 and *Kew Bull.* 125-128. 1922, *Flora Republicae Popularis Sinicae* 9(3): 322, pl. 80, f. 9-14. 1987, *Flora Sichuanica* 5(2): 190. 1988.

**A. editorum** (E. Fourn.) Valdés-Reyna & Barkworth (*Stipa editorum* E. Fourn.)

America, Mexico. See *Mexicanas Plantas* 2: 75. 1886.

**A. eminens** (Cav.) Barkworth (*Stipa eminens* Cav.; *Stipa erecta* E. Fourn., nom. illeg., non *Stipa erecta* Trin.; *Stipa flexuosa* Vasey)

South America, U.S., North America, Texas, Mexico. Perennial, forage, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 42, t. 467, f. 1. 1799, *Mexicanas Plantas* 2: 75. 1886, *Bulletin of the Torrey Botanical Club* 15(2): 49. 1888 and *Taxon* 33: 126-134. 1984, *Phytologia* 74(1): 7. 1993.

in Mexico: agujilla grande, flechilla, flechilla grande

**A. hendersonii** (Vasey) Barkworth (*Oryzopsis exigua* Thurb.; *Oryzopsis exigua* var. *hendersonii* (Vasey) M.E. Jones; *Oryzopsis hendersonii* Vasey; *Stipa hendersonii* (Vasey) Muhl.) (named for professor Louis Forniquet Henderson, 1853-1942, botanist, University of Idaho, plant collector, author of *The Early Flowering of Plants in Lane County, Oregon, in 1934*. Eugene, Oregon, 1936 [Univ. Oregon Monogr., Stud. Bot. No. 1]; see Joseph Ewan, *Rocky Mountain Naturalists*. 227. The University of Denver Press 1950)

Northern America, U.S. See Charles Wilkes (1798-1877), *Narrative of the United States Exploring Expedition*. During the years ... Philadelphia 1845, *United States Exploring Expedition* 17: 481. 1874, *Contributions from the United States National Herbarium* 1(8): 267. Washington, D.C. 1893 and *Contributions to Western Botany* 14: 11. San Francisco 1912, D.C. Haskell, *The United States Exploring Expedition 1838-1842 and Its Publications 1844-1874*. New York 1942, D.B. Tyler, *The Wilkes Expedition: The First United States Exploring Expedition (1838-1842)*. Philadelphia 1968, G.A. Doumani, editor, *Antarctic Bibliography*. Washington, Library of Congress 1965-1979, *Canadian Journal of Botany* 49(9): 1568. 1971, *Phytologia* 74(1): 7. 1993, G.L. Rapson and J. Maze, "Variation and integration in the rare grass *Achnatherum* (*Oryzopsis*) *hendersonii*: phenotypic comparison with parapatric common congeners." *Canadian Journal of Botany* 72: 693-700. 1994, Elizabeth P. Binney & Gary E. Bradfield, "An initial comparison of growth rates in the rare grass *Achnatherum hendersonii* and its common associate *Poa secunda*." *Ecological Research* 15(2): 181-185. June 2000, *Vascular Plants of Wyoming* (edition 3) 377. 2001.

**A. hirticulme** (S.L. Hatch, Valdés-Reyna & Morden) Valdés-Reyna & Barkworth (*Stipa hirticulmis* S.L. Hatch, Valdés-Reyna & Morden)

America, Mexico. See *Systematic Botany* 11(1): 186-188, f. 1. 1986.

**A. hymenoides** (Roemer & Schultes) Barkworth (*Eriocoma cuspidata* Nutt.; *Eriocoma hymenoides* (Roem. & Schult.) Rydb.; *Eriocoma membranacea* (Pursh) Beal; *Eriocoma membranacea* Steud.; *Fendleria rhynchelytroides* Steud.; *Milium cuspidatum* (Nutt.) Spreng.; *Oryzopsis cuspidata* (Nutt.) Benth. ex Vasey; *Oryzopsis hymenoides* (Roem. &

Schult.) Ricker ex Piper; *Oryzopsis hymenoides* (Roem. & Schult.) Ricker; *Oryzopsis hymenoides* var. *hymenoides*; *Oryzopsis membranacea* (Pursh) Vasey; *Stipa hymenoides* Roem. & Schult.; *Stipa membranacea* Pursh, nom. illeg., non *Stipa membranacea* L.; *Urachne lanata* Trin. & Rupr.)

California, Mexico, Canada, U.S. Perennial, leafy, densely tufted, stiff stems, sheaths open, ligule smooth-edged, no auricles, leaves generally smooth and strongly inrolled, open and branched flower head, each spikelet has a single flower with rounded and pointed glumes, dense long white hairs cover the dark reddish oval lemma, stout awn, drought-tolerant, used by Native Americans for food, forage, highly palatable to livestock, good for restoring disturbed or degraded areas, used for revegetation of mined land and for dryland soil stabilization, growing on rocky or sandy soils, desert scrub, at low elevations in dry open grasslands and slopes, see *Flora Americae Septentrionalis; or, ...* 2: 728. 1814, *Systema Vegetabilium* 2: 339. 1817, *The Genera of North American Plants* 1: 40. 1818, *Systema Vegetabilium, editio decima sexta* 1: 251. 1825, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 3,1(2-3): 126. 1834, *Species Graminum Stipaceorum* 19. 1842, *Synopsis Plantarum Glumacearum* 1: 420. 1854, *The Grasses of the United States* 23. 1883, *U.S. Department of Agriculture. Division of Botany. Bulletin* 12(2): 10, t. 10. 1891, *Grasses of North America for Farmers and Students* 2: 232. 1896 and *Contributions from the United States National Herbarium* 11: 109. 1906, *Bulletin of the Torrey Botanical Club* 39(3): 102. 1912, *Phytologia* 74(1): 7-8. New York, New York 1993.

in English: Indian ricegrass, mountain-rice

**A. inebrians** (Hance) Keng (*Stipa inebrians* Hance)

China. Reported to cause staggers when grazed, found in lowland seepage, clay loam, silty clay soil, lowland bench above river, see *Journal of Botany, British and Foreign* 14(163): 212. 1876 and *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 107, 213. 1957.

**A. jacquemontii** (Jaub. & Spach) P.C. Kuo & S.L. Lu (*Lasiagrostis jacquemontii* (Jaub. & Spach) Munro ex Aitch.; *Lasiagrostis jacquemontii* (Jaub. & Spach) Munro ex Boiss.; *Stipa jacquemontii* Jaub. & Spach) (after the French naturalist Victor V. Jacquemont, 1801-1832 (Bombay, India), explorer, plant collector, botanist, traveler in the West Indies and India, made collections for the Royal Museum of Paris, friend of Stendhal, author of *Voyage dans l'Inde* par V.J., pendant les années 1828 à 1832. [Botanical authors: Joseph Decaisne (1807-1882) and Jacques Cambessèdes, 1799-1863] Paris [1835-] 1841-1844, a member of the Légion-d'Honneur. See *Correspondance de Victor Jacquemont avec sa famille et plusieurs de ses amis*, pendant

son voyage dans l'Inde (1828-1832). Deuxième édition. Paris 1835; David Stacton, *A Ride on a Tiger. The Curious Travels of Victor Jacquemont*. London 1954; Pierre Maes, *Un ami de Stendhal, Victor Jacquemont*. Paris 1934; J.H. Barnhart, *Biographical notes upon botanists*. 2: 241. 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 193. 1972; Emil Bretschneider (1833-1901), *History of European Botanical Discoveries in China*. [Reprint of the original edition 1898.] Leipzig 1981; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 730. Stuttgart 1993; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Ignatz Urban (1848-1931), *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. 359. Dresden 1916; Ignatz Urban, editor, *Symbolae Antillanae*. 3: 65. 1902; Isaac Henry Burkill, *Chapters on the History of Botany in India*. Delhi 1965; Jacques Denis Choisy (1799-1859), *Convolvulaceae orientales*. [= *Mém. Soc. Phys. Hist. nat. Genève*. 6(2): [383]-502. 1834] 94. Genève 1834; Georg Christian Wittstein, *Etymologisch-botanisches Handwörterbuch*. 469. Ansbach 1852)

Asia, China, India. Subalpine meadow, silt loam, gravelly loam, see *Illustrationes Plantarum Orientalium* 4: 60, t. 339. Parisii 1851, *Journal of the Linnean Society, Botany* 18: 107. 1880, *Flora Orientalis* 5: 506. 1884 and *Flora Reipublicae Popularis Sinicae* 9(3): 323, pl. 80, f. 15-19. 1987.

**A. latiglume** (Swallen) Barkworth (*Stipa latiglumis* Swallen)

U.S., California, Sierra Nevada. Hairy, basal leaf sheaths hairy, glumes subequal and acuminate, lemma awn bent twice, found in dry slopes, forest, see *Journal of the Washington Academy of Sciences* 23(4): 198, f. 1. 1933, *Phytologia* 74(1): 8. 1993.

**A. lemmonii** (Vasey) Barkworth (*Achnatherum lemmonii* (Swallen) Barkworth; *Stipa columbiana* Macoun; *Stipa columbiana* var. *columbiana*; *Stipa lemmonii* (Vasey) Scribn.; *Stipa lemmonii* var. *pubescens* Crampton; *Stipa minor* (Vasey) Scribn.; *Stipa pringlei* var. *lemmonii* Vasey; *Stipa viridula* var. *minor* Vasey) (for the American botanist John Gill Lemmon, 1832-1908, plant collector in Southern Arizona and Huachuca Mountains near Sierra Vista, correspondent of Asa Gray, he married Sara Allen Plummer (1836-1923), wrote *Conifers of the Pacific Slope*. [Oakland, California 1902], see J.H. Barnhart, *Biographical notes upon botanists*. 2: 367 and 3: 93. 1965)

Northern America, Canada, U.S. Perennial, good for restoring disturbed or degraded areas, used for revegetation of mined land and for dryland soil stabilization, serpentine slopes in chaparral, rich soils, dry rocky ground, dry grav-

elly soil, see *Catalogue of Canadian Plants* 2(4): 191. 1888, *Contributions from the United States National Herbarium* 3(1): 50, 54-55. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46-47. 1898 and *Circular, Division of Agrostology, United States Department of Agriculture* 30: 3. 1901, *Contributions from the United States National Herbarium* 24(7): 253. 1925, *Leaflets of Western Botany* 7(9): 220. San Francisco 1955, *Taxon* 28: 623. 1979, *Phytologia* 74(1): 8. 1993.

in English: Lemmon's needlegrass, pubescent needlegrass

**A. lemmonii** (Vasey) Barkworth subsp. **lemmonii** (*Achnatherum lemmonii* (Swallen) Barkworth var. *lemmonii*; *Stipa lemmonii* (Vasey) Scribn.; *Stipa lemmonii* var. *jonesii* Scribn.; *Stipa lemmonii* var. *lemmonii*)

Northern America, U.S. Perennial, spikelets laterally compressed, glumes more or less equal, coniferous forest, sagebrush scrub, see *Phytologia* 74(1): 8. 1993.

in English: Lemmon's needlegrass

**A. lemmonii** (Vasey) Barkworth subsp. **pubescens** (Crampton) Barkworth (*Achnatherum lemmonii* (Swallen) Barkworth var. *pubescens* (Crampton) Barkworth; *Stipa lemmonii* var. *pubescens* Crampton)

Northern America, U.S. Perennial, see *Leaflets of Western Botany* 7(9): 220. 1955, *Phytologia* 74(1): 8. 1993.

in English: pubescent Lemmon's needlegrass, Lemmon's needlegrass

**A. lettermanii** (Vasey) Barkworth (*Stipa lettermanii* Vasey; *Stipa minor* (Vasey) Scribn.; *Stipa occidentalis* var. *minor* (Vasey) C.L. Hitchc.; *Stipa viridula* Trin. var. *lettermanii* (Vasey) Vasey; *Stipa viridula* var. *minor* Vasey) (named for George Washington Letterman, 1841 (or 1840)-1913, teacher, plant collector, explorer and traveler, see Joseph Ewan, *Rocky Mountain Naturalists*. 249-250. The University of Denver Press 1950)

California, Sierra Nevada, U.S. Perennial, rare, leaf blades usually curled, awn bent twice, forage, dry slopes, sagebrush scrub, meadows, coniferous forest, see *Bulletin of the Torrey Botanical Club* 13: 53. 1886, *Contributions from the United States National Herbarium* 3(1): 50. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46-47. 1898 and *Contributions from the United States National Herbarium* 24(7): 253. 1925, *Vascular Plants of the Pacific Northwest* 1: 714. 1969, *Taxon* 28: 623-624. 1979, *Taxon* 31(2): 294, f. 6. 1982, *Phytologia* 74(1): 9. 1993.

in English: Letterman's needlegrass

**A. multinode** (Scribner ex Beal) Valdés-Reyna & Barkworth (*Stipa multinodis* Scribn. ex Beal)

America, Mexico. See *Grasses of North America for Farmers and Students* 2: 222. 1896.

**A. nelsonii** (Scribn.) Barkworth (*Stipa columbiana* var. *nelsonii* (Scribn.) Hitchc.; *Stipa columbiana* var. *nelsonii* (Scribn.) H. St. John, nom. illeg., non *Stipa columbiana* var. *nelsonii* (Scribn.) Hitchc.; *Stipa nelsonii* Scribn.; *Stipa williamsii* Scribn.) (named for Aven Nelson, 1859-1952, Rocky Mountains botanist, plant collector, professor of biology at the University of Wyoming, his works include *The Cryptogams of Wyoming*, Laramie, Wyoming 1900, with James Francis Macbride (1892-1976) wrote "Western plant studies. II." *Bot. Gaz.* 56: 469-479. Crawfordsville 1913. See J.H. Barnhart, *Biographical notes upon botanists*. 2: 544. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 284. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 307. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Joseph Ewan, *Rocky Mountain Naturalists*. The University of Denver Press 1950; Joseph William Blankinship (1862-1938), "A century of botanical exploration in Montana, 1805-1905: collectors, herbaria and bibliography." in *Montana Agric. Coll. Sci. Studies Bot.* 1: 1-31. 1904 (*Stipa williamsii* Scribn. dedicated to the American botanist Thomas Albert Williams, 1865-1900, professor of botany, plant collector, see Joseph Ewan, *Rocky Mountain Naturalists*. 338. The University of Denver Press 1950 and Joseph William Blankinship (1862-1938), "A century of botanical exploration in Montana, 1805-1905: collectors, herbaria and bibliography." in *Montana Agric. Coll. Sci. Studies Bot.* 1: 1-31. 1904 [1905])

Northern America, Canada, U.S. Perennial, dry soils, see *Catalogue of Canadian Plants* 2(4): 191. 1888, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 45-46, t. 4. 1898 and *Contributions from the United States National Herbarium* 24(7): 254. 1925, *Phytologia* 74: 9. 1993.

in English: Columbia needlegrass

**A. nelsonii** (Scribn.) Barkworth subsp. **dorei** (Barkworth & J.R. Maze) Barkworth (*Stipa columbiana* auct.; *Stipa minor* (Vasey) Scribn.; *Stipa nelsonii* subsp. *dorei* Barkworth & J. Maze; *Stipa nelsonii* Scribn. var. *dorei* (Barkworth & Maze) Dorn; *Stipa occidentalis* Thurb. var. *minor* sensu C.L. Hitchc., non (Vasey) C.L. Hitchc.) (for William George Dore, 1912-1996, author of *Wild-rice*. Dept. of Agriculture, Research Branch, Ottawa 1969 [Canada. Dept. of Agriculture. Publication 1393, *Zizania*], *Grasses of Ontario* / William G. Dore and J. McNeill. Ottawa: Research Branch, Agriculture Canada, no. 26. Hull, Que. 1980)

Northern America, U.S., British Columbia. Perennial, tufted, open sheaths smooth to densely hairy, no auricles, inrolled to flattened leaf blades, narrow spikelike and bristly flower head, glumes subequal, lemma covered in white hairs, awns twice bent, the lowest segment of the awn is

rough, found in dry plains, open woods, clearings, meadows, see *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46. 1898 and *Taxon* 28(5/6): 623. 1979, *Vascular Plants of Wyoming* 298. 1988, *Phytologia* 74(1): 9. 1993.

in English: Columbia needlegrass, Columbian needle grass, Dore's needlegrass

**A. nelsonii** (Scribn.) Barkworth subsp. **nelsonii** (*Stipa columbiana* Macoun var. *nelsonii* (Scribn.) St. John; *Stipa nelsonii* Scribn.; *Stipa nelsonii* subsp. *nelsonii*; *Stipa occidentalis* Thurb. var. *nelsonii* (Scribn.) C.L. Hitchc.; *Stipa williamsii* Scribn.)

Northern America, U.S. Perennial, forage, revegetation, see *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46. 1898 and *Vascular Plants of the Pacific Northwest* 1: 715. 1969, *Phytologia* 74(1): 9. 1993.

in English: Columbia needlegrass, Nelson's needlegrass

**A. nevadense** (B.L. Johnson) Barkworth (*Stipa nevadensis* B.L. Johnson)

U.S., Sierra Nevada. Perennial, delicate, leaf blades usually inrolled, awn bent twice, in open woodlands, sagebrush scrub, see *American Journal of Botany* 49: 257. 1962, *Phytologia* 74(1): 9. 1993.

in English: Nevada needlegrass

**A. occidentale** (Thurb.) Barkworth (*Achnatherum occidentale* (Thurb. ex S. Watson) Barkworth; *Achnatherum occidentale* subsp. *occidentale*; *Stipa occidentalis* Thurb.; *Stipa occidentalis* Thurb. ex S. Watson; *Stipa occidentalis* Bol. ex Hitchc., nom. illeg., non *Stipa occidentalis* Thurb. ex S. Watson; *Stipa occidentalis* var. *montana* Merr. & Davy; *Stipa oregonensis* Scribn.; *Stipa stricta* Vasey, nom. illeg., non *Stipa stricta* Lam.; *Stipa stricta* var. *sparsiflora* Vasey)

Northern America, U.S. Perennial, sheath ciliate at top, leaf blades rolled, leaf glabrous to hairy, glumes more or less equal, awn bent twice, found in dry rocky soil, open places, coniferous forest, see *United States Geological Exploration [sic] of the Fortieth Parallel. Botany* 380. 1871, *Proc. Calif. Acad. Sci.* 4: 169. 1872, *Bulletin of the Torrey Botanical Club* 10: 42. 1883, *Contributions from the United States National Herbarium* 3(1): 51. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 17: 130, f. 426. 1899 and *University of California Publications in Botany* 1: 62. 1902, *Contr. U.S. Natl. Herb.* 24(7): 242. 1925, *Manual of the Grasses of the United States* 963. 1935, *Phytologia* 74(1): 10. 1993.

in English: Western needlegrass

**A. occidentale** (Thurb.) Barkworth subsp. **californicum** (Merr. & Burt Davy) Barkworth (*Achnatherum nelsonii* (Scribn.) Barkworth subsp. *longiaristatum* (Barkworth & Maze) Barkworth; *Achnatherum occidentale* subsp. *californicum* (H.M. Hall) Barkworth; *Stipa californica* Merr. & Burt Davy; *Stipa nelsonii* Scribn. var. *longiaristata*



Barkworth & Maze; *Stipa occidentalis* var. *californica* (Merr. & Burt Davy) C.L. Hitchc.)

Northern America, U.S. Perennial, small, upper awn segment rough to smooth, used for revegetation of mined land and for dryland soil stabilization, found in damp soil, disturbed or degraded areas, coniferous forest, see *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46. 1898 and *University of California Publications in Botany* 1: 61. 1902, *Vascular Plants of the Pacific Northwest* 1: 715. 1969, *Taxon* 28(5/6): 623. 1979, *Phytologia* 74(1): 9-10. 1993.

in English: California needlegrass

**A. occidentale** (Thurb.) Barkworth subsp. **occidentale** (*Stipa occidentalis* Thurb. ex S. Wats.; *Stipa occidentalis* var. *montana* Merr. & Davy; *Stipa occidentalis* var. *occidentalis*)

Northern America, U.S., California. Perennial, hairy awn, found in dry rocky soil, coniferous forest, disturbed or degraded areas, see *University of California Publications in Botany* 1: 62. 1902, *Contr. U.S. Natl. Herb.* 24(7): 242. 1925, *Phytologia* 74(1): 10. 1993.

in English: Western needlegrass

**A. occidentale** (Thurb.) Barkworth subsp. **pubescens** (Vasey) Barkworth (*Stipa elmeri* Piper & Brodie ex Scribner; *Stipa occidentalis* var. *pubescens* (Vasey) Maze, Taylor & MacBryde; *Stipa viridula* var. *pubescens* Vasey) (for the American botanist Adolph Daniel Edward Elmer, 1870-1942, plant collector in Borneo, California, Washington and in the Philippines, author of "A new Grewia." *Leaflet. Philip. Bot.* 2, 1909. See Elmer Drew Merrill, *Plantae Elmerianae Borneenses*. Berkeley 1929; J. Lanjouw and F.A. Stafleu, *Index Herbariorum*. Part II (2), *Collectors E-H*. Regnum Vegetabile vol. 9. 1957; Joseph Ewan, *Rocky Mountain Naturalists*. 203. The University of Denver Press 1950)

Northern America, U.S. Perennial, strongly tufted, sheaths open and smooth or hairy, no auricles, leaves stiff and usually inrolled, spiky and bristly flower head medium to long, protruding and bristly twice-bent awns, on dry ground, coniferous forest, disturbed or degraded areas, see *Contributions from the United States National Herbarium* 3(1): 50. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46. 1898 and *Contr. U.S. Natl. Herb.* 24(7): 241. 1925, *Canadian Journal of Botany* 56(2): 193. 1978, *Phytologia* 74(1): 10. 1993.

in English: stiff needle grass, pubescent Western needlegrass

**A. parishii** (Vasey) Barkworth (*Stipa coronata* subsp. *parishii* (Vasey) Hitchc.; *Stipa coronata* var. *depauperata* (M.E. Jones) Hitchc.; *Stipa coronata* var. *parishii* (Vasey) S.L. Welsh; *Stipa parishii* Vasey)

Sierra Nevada, U.S., California. Basal leaf sheaths ciliate, glumes unequal, awn bent, dry rocky slopes, see *Species*

*Graminum Stipaceorum* 75. 1842, *Geological Survey of California, Botany* 2: 287-288. 1880, *Botanical Gazette* 7(3): 33. 1882 and *Contributions from the United States National Herbarium* 24(7): 227. 1925, *Journal of the Washington Academy of Sciences* 24(7): 292. 1934, *Phytologia* 74(1): 11. 1993, *A Utah Flora: Third Edition, revised* 800. 2003.

**A. parishii** (Vasey) Barkworth subsp. **depauperata** (M.E. Jones) Barkworth (*Stipa coronata* var. *depauperata* (M.E. Jones) Hitchc.; *Stipa parishii* var. *depauperata* M.E. Jones)

America, U.S., Utah. See *Contributions to Western Botany* 14: 11. 1912, *Journal of the Washington Academy of Sciences* 24(7): 292. 1934, *Phytologia* 74(1): 11. 1993.

**A. parishii** (Vasey) Barkworth subsp. **parishii** (*Stipa parishii* var. *parishii*)

America. See *Botanical Gazette* 7(3): 33. 1882.

**A. pekinense** (Hance) Ohwi (*Achnatherum extremorientale* (Hara) Keng; *Achnatherum extremorientale* (Hara) Hara, nom. illeg., non *Achnatherum extremorientale* (Hara) Keng; *Achnatherum extremorientale* (Hara) Keng ex P.C. Kuo, nom. illeg., non *Achnatherum extremorientale* (Hara) Keng; *Stipa extremorientalis* Hara; *Stipa japonica* Hack ex Honda; *Stipa pekinense* Hance; *Stipa sibirica* (L.) Lam.)

China, Japan. Useful for erosion control, see *Species Plantarum* 1: 79. 1753, *Primitiae Florae Amurensis* 326. 1859, *Journal of Botany, British and Foreign* 15(177): 268. 1877 and *Journal of Japanese Botany* 15(7): 459. 1939, *Journal of Japanese Botany* 17(7): 401. 1941, *Bulletin of the National Science Museum* 33: 66. 1953, *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 107, 212. 1957, *Flora Illustralis Plantarum Primarum Sinicarum: Gramineae* 590, f. 524. 1959, *Flora Tsinlingensis*. Tomus 1, Spermatophyta 1(1): 153. Peking 1976 [China. Academia Sinicae. Institutum Botanicum], *Grasses of Japan and its Neighboring Regions* 483. 1987.

**A. perplexum** Hoge & Barkworth (*Stipa perplexa* (Hoge & Barkworth) Wipff & S.D. Jones)

America, U.S., New Mexico. See *Phytologia* 74(1): 11. 1993, *Phytologia* 77(6): 461. 1994[1995].

**A. petriei** (Buchanan) S.W.L. Jacobs & J. Everett (*Stipa petriei* Buchanan) (for the Scottish (b. Morayshire) botanist Donald Petrie, 1846-1925, went to Australia in 1868, in New Zealand 1874-1925, in 1894 chief inspector of schools, Auckland, New Zealand, wrote "List of the flowering plants indigenous to Otago." *Trans. Proc. New Zealand Inst.* 1896, "The Gramina of the Subantarctic Islands of New Zealand." *Subantarct. Is N.Z.* 2: 472-481. 1909 and "Some additions to the Flora of the Subantarctic Islands of New Zealand." *T.N.Z.I.* 47: 59-60. 1915. See J.H. Barnhart, *Biographical notes upon botanists*. 3: 76. 1965; Thomas Frederick Cheeseman, *Manual of the New Zealand Flora*. xxvii.

Wellington 1906; I.H. Vegter, *Index Herbariorum*. Part II (5), *Collectors N-R*. Regnum Vegetabile vol. 109. 1983; I.C. Hedge & J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970)

New Zealand. Perennial, erect, wiry, branching extravaginal, short cataphylls, narrow panicle, lemma hairy, awned, chasmogamous, see *Indigenous Grasses of New Zealand* t. 17, 2, addenda. 1880 and *Telopea* 6(4): 582. 1996.

**A. pinetorum** (M.E. Jones) Barkworth (*Stipa pinetorum* M.E. Jones)

Sierra Nevada, Utah. Inflorescence branches appressed, glumes subequal, awn bent twice, on rocky soil, coniferous forest, see *Proceedings of the California Academy of Sciences*, Series 2, 5: 724. 1895 and *Phytologia* 74(1): 12. 1993.

**A. richardsonii** (Link) Barkworth (*Oryzopsis richardsonii* (Link) Beal; *Stipa richardsonii* Link; *Stipa richardsonii* var. *major* Macoun)

Northern America, U.S., Canada. Perennial, tufted, often purplish, several stemmed, sheaths open and smooth or slightly hairy, no auricles, basal leaves, rough blades usually folded to slightly inrolled, sparse open and drooping flower head with spreading and flexuous branches, single-flowered spikelets, 2 narrow glumes, awn twice bent, grows in low-elevation grasslands and montane openings in forests, see *Enumeratio Plantarum Horti Botanici Berolinensis*, ... 2: 245. 1833, *Catalogue of Canadian Plants* 2(4): 191. 1888, *Botanical Gazette* 15(5)12: 111. 1890 and *Phytologia* 74(1): 12. 1993.

in English: Richardson's needlegrass, spreading needle grass

**A. robustum** (Vasey) Barkworth (*Achnatherum lobatum* (Swallen) Barkworth; *Stipa lobata* Swallen; *Stipa robusta* (Vasey) Scribn.; *Stipa vaseyi* Scribn.; *Stipa viridula* var. *robusta* Vasey)

Northern America, U.S., Mexico. Perennial, a stock-poisoning grass, on rocky areas, hillsides, rocky hill, see *Contributions from the United States National Herbarium* 1(2): 56. 1890, *Bulletin, Division of Agrostology United States Department of Agriculture* 5: 23. 1897, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 46. 1898 and *Journal of the Washington Academy of Sciences* 23(10): 199, f. 2. 1933, *Taxon* 42: 711. 1993, *Phytologia* 74(1): 9, 12. 1993, *Taxon* 44: 610. 1995.

in English: sleepygrass

**A. scribneri** (Vasey) Barkworth (*Stipa scribneri* Vasey)

U.S., New Mexico. Perennial, see *Bulletin of the Torrey Botanical Club* 11: 125. 1884 and *Phytologia* 74(1): 13. 1993.

in English: Scribner needlegrass

**A. speciosum** (Trin. & Rupr.) Barkworth (*Jarava patagonica* (Speg.) Peñailillo; *Jarava speciosa* (Trin. & Rupr.) Peñailillo; *Stipa californica* Vasey ex S. Watson; *Stipa humilis* Cav.; *Stipa humilis* var. *jonesiana* Kuntze; *Stipa humilis* var. *speciosa* (Trin. & Rupr.) Kuntze; *Stipa patagonica* Speg.; *Stipa speciosa* Trin. & Rupr.; *Stipa speciosa* f. *minor* Speg.; *Stipa speciosa* f. *speciosa*; *Stipa speciosa* var. *minor* Vasey; *Stipa speciosa* var. *speciosa*; *Stipa tehuelches* Speg.) (named for the American plant collector Marcus Eugene Jones, 1852-1934, botanist, explorer, mining engineer, Latinist, botanized in Texas and Colorado, collected widely in the Intermountain West, among his writings are *Ferns of the West*. Salt Lake City, Utah 1882 and *Revision of North-American Species of Astragalus*. Salt Lake City, Utah 1923. See J.H. Barnhart, *Biographical notes upon botanists*. 2: 262. Boston 1965; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. 246. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. 277, 361. 1916; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Joseph Ewan, *Rocky Mountain Naturalists*. The University of Denver Press 1950)

Argentina, Chile, Baja California, U.S., Arizona, Mexico. Perennial, caespitose, forming small clumps, basal leaf sheath hairy, inflorescence partly enclosed by uppermost leaf sheath, glumes subequal, awn bent, on rocky slopes, canyons, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 41, t. 466, f. 1. 1799, *Species Graminum Stipaceorum* 45. 1842, *Proceedings of the American Academy of Arts and Sciences* 24: 80. 1889, *Contributions from the United States National Herbarium* 3(1): 52. 1892, *Revista de la Facultad de Agronomía y Veterinaria* 3: 581. 1897, *Revisio Generum Plantarum* 3(2): 371. 1898 and *Anales del Museo Nacional de Montevideo* 4: 58, f. c-d. 1901, *University of California Publications in Botany* 1: 61. 1902, *Contr. U.S. Natl. Herb.* 24(7): 222. 1925, *Revista Argentina de Botánica* 1: 24. 1925, *Phytologia* 74(1): 13. 1993, *Gayana, Botánica* 59(1): 32. 2002.

in English: desert needlegrass

**A. splendens** (Trin.) Nevski (*Lasiagrostis splendens* Kunth; *Lasiagrostis splendens* (Trin.) Kunth; *Stipa altaica* Trin. ex Ledeb.; *Stipa schlagintweitii* Mez; *Stipa splendens* Trin.) (for the German traveler, explorer and plant collector Hermann Alfred Rudolph von Schlagintweit-Sakünlinski (1826-1882), author of *Reisen in Indien und Hochasien*. ... Basirt auf die resultate der wissenschaftlichen mission von Hermann, Adolph und Robert von Schlagintweit, ausgeführt in den jahren 1854-1858. Jena 1869-1880, *Unter-*

*suchungen über die physikalische Geographie der Alpen in ihren Beziehungen zu den Phänomenen der Gletscher, zur Geologie, Meteorologie und Pflanzengeographie*, von Hermann Schlagintweit und Adolph Schlagintweit. Leipzig 1850, *Ueber die Ernährung der Pflanzen mit besonderer Rücksicht auf die Bedingungen ihres Gedeihens in verschiedenen Höhen der Alpen*. [Leipzig, 1850]; he was brother of Adolf von Schlagintweit (1829-1857). See J.H. Barnhart, *Biographical notes upon botanists*. 3: 228. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 353. 1972; Emil Bretschneider (1833-1901), *History of European Botanical Discoveries in China*. [Reprint of the original edition 1898.] Leipzig 1981; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Stafleu & Cowan, *Taxonomic literature*. 5: 187-189. 1985)

China, Tibet, Mongolia, Russia, Siberia. Perennial bunchgrass, clumped, robust and stout stems, leaves scabrous, eaten by sheep, useful for erosion control, occurs in meadows, forest and open grassland areas, lowlands, gravelly sand, deep gravelly loam, brown gravelly soil, swamps, marshy ground along river, stream bottoms, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 54. 1821 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(13-18): 208. 1921, *J. Jap. Bot.* 17: 404. 1941.

in English: chee grass

**A. stillmanii** (Bol.) Barkworth (*Lasiagrostis tenacissima* (L.) Trin. & Rupr.; *Macrochloa tenacissima* (L.) Kunth; *Stipa stillmanii* Bol.; *Stipa tenacissima* L.)

California, Sierra Nevada, U.S. Leaf blade folded or rolled, basal leaf sheath smooth and hairy, glumes subequal, awn bent, found on dry red soil, rocky slopes, coniferous forest, see *Centuria I. Plantarum* ... 6. 1755, *Amoen. Acad.* 4: 266. 1759, *Révision des Graminées* 1: 58. 1829, *Species Graminum Stipaceorum* 94. 1842, *Proceedings of the California Academy of Sciences* 4: 169. 1872 and *Phytologia* 74(1): 14. 1993, *Anal. Jard. Bot. Madrid* 52(2): 179-186. 1995.

**A. swollenii** (C.L. Hitchc. & Spellenb.) Barkworth (*Oryzopsis swollenii* C.L. Hitchc. & Spellenb.)

America. See *Brittonia* 20: 164. 1968, *Phytologia* 74(1): 14. 1993.

**A. thurberianum** (Piper) Barkworth (*Stipa occidentalis* Thurb. ex Torr., nom. illeg., non *Stipa occidentalis* Thurb. ex S. Watson; *Stipa occidentalis* Thurb., nom. illeg., non *Stipa occidentalis* Thurb. ex S. Watson; *Stipa thurberiana* Piper) (after George Thurber, 1821-1890, American botanist, naturalist, 1850-1853 Mexican-U.S. Boundary Survey, chemist, professor of botany and horticulture at Michigan Agricultural College 1859-1863 and editor of the *American Agriculturalist* 1863-1890; see J. Ewan, *Rocky Mountain Naturalists*. 64, 321. 1950; J.H. Barnhart, *Biographical notes upon botanists*. 3: 382. 1965)

Sierra Nevada, U.S. Perennial, hairy, awn bent twice, useful for erosion control, found on foothills, canyons, juniper woodland, disturbed areas, sagebrush scrub, see *United States Geological Exploration [sic] of the Fortieth Parallel. Botany* 380. 1871, *United States Exploring Expedition* 17: 483. 1874 and *Circular, Division of Agrostology, United States Department of Agriculture* 27: 10. 1900, *Phytologia* 74(1): 14. 1993.

in English: Thurber needlegrass, Thurber's needlegrass

**A. wallowaense** J. Maze & K. Robson

U.S., Oregon, Wallowa Co. See *Madroño* 43(3): 401, f. 1-2. 1996.

**A. webberi** (Thurb.) Barkworth (*Eriocoma webberi* Thurb.; *Oryzopsis webberi* (Thurb.) Benth. ex Vasey; *Stipa webberi* (Thurb.) B.L. Johnson)

U.S., California. Stiff, leaf blades rolled, dense inflorescence often enclosed by upper leaf sheath, glumes subequal, lemma hairy, straight awn, open places, slopes, dry flats, disturbed areas, see *Geological Survey of California, Botany* 2: 283-284. 1880, *The Grasses of the United States* 23. 1883 and *Botanical Gazette* 107: 25. 1945, *Phytologia* 74(1): 14. 1993.

**A. x bloomeri** (Boland.) Barkworth (*Oryzopsis bloomeri* (Boland.) Ricker ex Piper; *Oryzopsis bloomeri* (Bol.) Ricker; *Stipa bloomeri* Boland.; x *Stiporyzopsis bloomeri* (Boland.) B.L. Johnson) (for the American (San Francisco) botanist H.G. Bloomer, 1821-1874, see James C. Hickman, editor, *The Jepson Manual: Higher Plants of California*. 1180. University of California Press, Berkeley 1993; F. Boerner & G. Kunkel, *Taschenwörterbuch der botanischen Pflanzennamen*. 4. Aufl. 67. Berlin & Hamburg 1989)

North America, U.S., Oregon. Found in dry sandy soils, desert, see *Proceedings of the California Academy of Sciences* 4: 168. 1872 and *Contributions from the United States National Herbarium* 11: 109. 1906, *American Journal of Botany* 30: 55. 1943, *American Journal of Botany* 32: 602, f. 14-18. 1945, *Phytologia* 74(1): 14. 1993.

**Achneria Munro ex Benth.** = *Achneria* Benth., *Afrachneria* Sprague, *Pentaschistis* (Nees) Spach

Greek *achne* "chaff, glume."

Arundinoideae, Arundineae, see *Flore Française. Troisième Édition* 3: 32. 1805, *Essai d'une Nouvelle Agrostographie* 72, 146. 1812, *Histoire naturelle des Végétaux* 13: 164. Paris 1841, C.G.D. Nees von Esenbeck (1776-1858), *Florae Africae Australioris Illustrationes Monographicae* ... I. Gramineae. Glogaviae 1841, *Genera Plantarum* 3(2): 1158, 1163. 1883 and *Journal of Botany, British and Foreign* 60: 138. 1922, *Blumea* 26(1): 130. 1980, *Wageningen Agricultural University Papers* 92-1(2): 1-557. 1992, M. Lazarides,

“The genus *Eriachne* (Eriachneae, Poaceae).” *Australian Systematic Botany* 8(3): 355-452. 1995, K.C. Klopfer, J.J. Spies & B. Visser, “Cytogenetic studies in the genus *Pentaschistis* (Poaceae: Arundinoideae).” *Bothalia* 28(2): 231-238. 1998.

**Achneria P. Beauv.** = *Eriachne* R. Br.

See *Eriachne* R. Br.

Eriachneae, type *Achneria obtusa* (R. Br.) P. Beauv., see *Prodromus Florae Novae Hollandiae* 183. 1810, Ambroise Marie François Joseph Palisot de Beauvois (1752-1820), *Essai d'une nouvelle Agrostographie, ou nouveaux genres des Graminées*. 72, 73, 146. Paris 1812 and *Blumea* 26(1): 127, 130. 1980.

**Achnodon Link** = *Achnodonton* P. Beauv.,  
*Phleum* L.

From the Greek *achne* “chaff, glume” and *odous, odontos* “tooth.”

Pooideae, Poeae, Alopecurinae, see *Species Plantarum* 1: 59-60. 1753, *Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften* 3: 415. 1801, *Hortus Regius Botanicus Berolinensis* 1: 65. 1827, C.F. Ledebour, *Flora Rossica sive enumeratio plantarum in totius imperii Rossici provinciis Europaeis, Asiaticis et Americanis hucusque observatarum*. 4: 455. Stuttgartiae, E. Schweizerbart, 1842-1853, *Synopsis der mitteleuropäischen Flora* 2: 154. 1899 and *Contributions from the United States National Herbarium* 48: 19, 491-494. 2003.

**Achnodondon Kunth** = *Achnodon* Link,  
*Achnodonton* P. Beauv.

See *Mém. Mus. Hist. Nat.* [Paris] 2: 72. 1815.

**Achnodonton P. Beauv.** = *Phleum* L.

From the Greek *achne* “chaff, glume” and *odous, odontos* “tooth.”

Pooideae, Poeae, Alopecurinae, type *Achnodonton tenuis* (Host) P. Beauv., see *Species Plantarum* 1: 59-60. 1753, *Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften* 3: 415. 1801, *Icones et Descriptiones Graminum Austriacorum* 2: 27, t. 36. 1802, *Essai d'une Nouvelle Agrostographie* 24-25, 146, 173, t. 7, f. 5. 1812, *De Graminibus unifloris et sesquifloris* 164. Petropoli 1824, *Hortus Regius Botanicus Berolinensis* 1: 65. 1827, *Tourist's Fl.* 398. 1850 and *Contr. U.S. Nat. Herb.* 24: 161. 1925, *Contributions from the United States National Herbarium* 48: 19, 491-494. 2003.

**Achrochloa B.D. Jacks.** = *Koeleria* Pers.

From the Greek *a* “absence, lacking,” *chroa* “color, to color” and *chloe, chloa* “grass.”

Pooideae, Poeae, Aveninae, see Christiaan Hendrik Persoon (1761/1762-1836), *Synopsis Plantarum, seu enchiridium botanicum complectens enumerationem systematicam specierum hucusque cognitorum ...* 1: 97. Parisiis lutetiorum [Paris] 1805-1807.

**Achroostachys Benth.** = *Athroostachys*  
Benth.

Greek *a* “absence, lacking,” *chroa* “color, to color” and *stachys* “a spike,” or simply referring to *Athroostachys*.

Bambusoideae, Bambuseae, Arthrostylidiinae, see *Genera Plantarum* 3: 1208-1209. 1883 and *Contributions from the United States National Herbarium* 39: 25. 2000.

**Achyrodes Boehm.** = *Lamarckia* Moench

From the Greek *achyron* “chaff, husk.”

Pooideae, Poeae, Dactylidinae, type *Achyrodes aureum* (L.) Kuntze, see *Species Plantarum* 1: 73. 1753, *Definitiones Generum Plantarum* 420. 1760, *Methodus Plantas Horti Botanici ...* 201. 1794, *Descr. Gram.* 376. 1812, *Revisio Generum Plantarum* 2: 758. 1891 and *Contributions from the United States National Herbarium* 48: 420-421. 2003.

**Aciachne Benth.**

From the Greek *ake, akis, akidos* “a point” and *achne* “chaff, glume.”

About 1-3 species, Venezuela to Peru, high Andes, northern Argentina, Costa Rica. Stipoideae, Stipeae, or Pooideae, Stipeae, Stipinae, perennial, xerophytic, low, tufted, dense mat-forming or cushions, herbaceous, unbranched, wiry, auricles absent, sheaths overlapping, ligule an unfringed membrane, stiff narrow leaves with spiny tips, fibrous roots, plants bisexual, panicle reduced, spikelets pedicellate, 2 glumes more or less equal, lower glume 3- to 5-nerved, upper glume 5-nerved, lemma coriaceous, palea coriaceous, 3 free lodicules, 3 stamens, ovary glabrous, 2 stigmas, cleistogamous or chasmogamous, ground cover, rocky slopes, open habitats, disturbed sites, montane grassland, marshy ground, páramos, puna vegetation, type *Aciachne pulvinata* Benth., see *Hooker's Icones Plantarum* 14: 44-45, pl. 1362. 1881 and *Contributions from the United States National Herbarium* 24(8): 291-556. 1927, *Field Museum of Natural History, Botanical Series* 13(1/1): 96-261. 1936, *Contributions from the Gray Herbarium of Harvard University* 184: 1-223. 1958, *Boletín de la Sociedad Argentina de Botánica*

12: 268-283. 1968, *Taxon* 29: 645-666. 1980, *Nordic Journal of Botany* 7(6): 662-672. 1987, *Flora Mesoamericana* 6: 245. 1994, *Contributions from the United States National Herbarium* 48: 19. 2003.

### Species

**A. acicularis** Laegaard (*Acicarpa uniflora* Baill.)

Bolivia, Peru. Prickly, leaves narrow and sharp, see *Bulletin Mensuel de la Société Linnéenne de Paris* 12: 1073. 1893 and *Nordic Journal of Botany* 7(6): 669. 1987.

in Peru: paku

**A. flagellifera** Laegaard

Ecuador. Tufted, leaves sharp pointed, see *Nordic Journal of Botany* 7(6): 669. 1987.

**A. pulvinata** Benth. (*Agrostis delicatula* Steud. ex Lechler)

Bolivia, Ecuador, Colombia. See *Berberides Americae Australis* 56. 1857, *Hooker's Icones Plantarum* 14: 44-45, t. 1362. 1881 and *Nord. J. Bot.* 7(6): 667. 1987.

### **Acicarpa Raddi** = *Acicarpa* (Calyceraceae), *Digitaria* Haller, *Trichachne* Nees

From the Greek *ake*, *akis*, *akidos* "a point" and *karpos* "fruit."

Panicoideae, Paniceae, Digitariinae, type *Acicarpa sacchariflora* Raddi, see *Historia Stirpium Indigenarum Helvetiae Inchoata* 2: 244. 1768, *Flora Carniolica, Editio Secunda* 1: 52. 1771, *Annales du muséum national d'histoire naturelle* 2: 347, t. 58. 1803, *Agrostografia Brasiliensis sive enumeratio plantarum ad familias naturales graminum et ciperoidarum spectantium, quas in Brasilia ... Lucca* [1823], *Agrostologia Brasiliensis* 2: 85, 87. 1829 [or *Flora Brasiliensis seu Enumeratio Plantarum in Brasilia ... Stuttgartiae et Tubingae 1829-1833*] and *Monograph of the Genus Digitaria* 573, 851, 866. 1950, *Contributions from the United States National Herbarium* 46: 13, 193-213, 622-623. 2003.

### **Acidosasa C.D. Chu & C.S. Chao** = *Acidosasa* C.D. Chu & C.S. Chao ex Keng f., *Metasasa* W.T. Lin

From the Greek *akidos*, *akis* "a point" plus *Sasa*, or from the Latin *acidum* (sour) and *Sasa* (another bamboo genus), referring to the sour edible shoots.

A genus of about one/(six-)eight/22 species, southern China, Guangdong, Hunan, Yunnan, Jiangxi, Fujian, Vietnam. Bambusoideae, Bambusodae, Bambuseae, perennial, monopodial, unarmed, diffuse, shrubby, erect, hollow and cylindrical, woody, 3-5 branches at each node, rhizomes leptomorph, running underground stems, culm sheaths

deciduous, leaves variable in size, plants bisexual, inflorescence a panicle or a raceme, spikelets several-many-flowered and pedicellate, the flowering culms leafy, glumes 2-4 or several, lemmas acuminate or shortly awned, paleas 2-keeled, 3 lodicules, 6 stamens, 3 feathery stigmas, edible young shoots, the young shoots are preserved by local people as a vegetable, in evergreen broad-leaved forest, type *Acidosasa chinensis* C.D. Chu & C.S. Chao (*Acidosasa chinensis* C.D. Chu & C.S. Chao ex Keng f.), see *Journal of Nanjing Technological College of Forest Products* 1979: 142. 1979, *Journal of Bamboo Research* 1(2): 31-33. 1981[1982], *Acta Phytotaxonomica Sinica* 26(2): 145-146, f. 1. 1988, Chao Chi-Son & S.A. Renvoize, "A revision of the species described under *Arundinaria* (Gramineae) in southeast Asia and Africa." *Kew Bulletin* 44(2): 349-367. 1989, *Acta Phytotaxonomica Sinica* 29(6): 517-524. 1991, *A Compendium of Chinese Bamboo* 197-198. 1994, *Taxon* 46(1): 105-107. 1997, *The Flora of China* 5: 61-81. 1997.

### Species

**A. sp.**

in China: suanzhu shu

**A. bilamina** W.T. Lin & Z.M. Wu

China. See *J. South China Agr. Univ.* 14(3): 113, f. 5. 1993.

**A. breviclavata** W.T. Lin

China. See *Journal of Bamboo Research* 5(2): 22-27, f. 1-3. 1986.

**A. brilletii** (A. Camus) C.S. Chao & Renvoize (*Arundinaria brilletii* A. Camus)

Vietnam. See *Bulletin de la Société Botanique de France* 74: 620. 1927 [1928], *Kew Bulletin* 44(2): 351. 1989.

in Vietnam: tre trung, tre tien

**A. chienouensis** (T.H. Wen) C.S. Chao & T.H. Wen (*Acidosasa glauca* B.M. Yang; *Indosasa chienouensis* T.H. Wen)

China. Hunan. Young culms glaucous or green, glabrous, nodes prominent, pruinose below nodes, sheath caducous, sheath blade narrow-triangular to lanceolate, leaves lanceolate, auricles falciform, sheath ligule ciliate, inflorescence racemose and terminal, 2-5 spikelets, glabrous glumes, lemma acuminate, palea rounded, see *Journal of Bamboo Research* 2(1): 67, f. 19. 1983, *Acta Phytotaxonomica Sinica* 22(1): 85-86, f. 1. 1984, *Journal of Bamboo Research* 7(1): 31. 1988, *Acta Phytotaxonomica Sinica* 29(6): 522. 1991.

in China: jan-ou suanzhu, jan'ou suanzhu, chien-ou suanzhu

**A. chinensis** C.D. Chu & C.S. Chao (*Acidosasa chinensis* C.D. Chu & C.S. Chao ex Keng f.)

China, Guangdong. Young culms pubescent, culms green and narrow-striate, nodes prominent, 3 branches on each node, culm sheaths crisp and acuminate, sheaths auricles

absent, sheath ligule short and ciliate, 2-5 leaves on each twig, simple raceme or panicle, flowering branchlets terminal, usually 4 glumes, shoots edible, used for papermaking and weaving, in open areas, mountains, see *Journal of Nanjing Technological College of Forest Products* 1979: 142, t. 1. 1979, *Journal of Bamboo Research* 1: 31. 1982, *Acta Phytotaxonomica Sinica* 29(6): 520, f. 1. 1991, *Taxon* 46(1): 105-107. 1997.

in China: suanzhu

**A. dayongensis** T.P. Yi

China, Jiangxi. Culm green, glabrous, 3 branches on each node, sheath auricles narrow and sickle-shaped, sheath ligule ciliate, sheath blade purplish lanceolate, leaves broad-lanceolate to lanceolate, cultivated, shoot edible, see *Journal Nanjing University, Natural Sciences Edition* 1981: 98. 1981, *Acta Phytotaxonomica Sinica* 21(1): 94-96, pl. 1. 1983, *Bulletin of Botanical Research* 6(4): 25-26, f. 1. 1986, *Journal of Wuhan Botanical Research* 4(4): 335. 1986, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 4. 1991.

in China: Dayong suanzhu

**A. edulis** (T.H. Wen) T.H. Wen (*Sinobambusa edulis* Wen)

China. Young culms not glaucous or only below nodes, shoots eaten as a vegetable, see *Journal of Bamboo Research* 3(2): 30, f. 6. 1984, *Journal of Bamboo Research* 7(1): 31. 1988.

in China: Huang tian zhu

**A. fujianensis** C.S. Chao & H.Y. Zou

China. See *J. Nanjing Inst. Forestry* 88, f. 1. 1984.

in China: Fujian suanzhu

**A. gigantea** (Wen) Q.Z. Xie & W.Y. Zhang (*Indosasa gigantea* (Wen) Wen; *Sinobambusa gigantea* Wen)

China, Fujian. Erect, straight, young culm pinkish green, pruinose, 3 branches on each node, sheath coriaceous, golden yellow to reddish brown, sheath auricles ovate or falciform, leaves long lanceolate, cultivated, ornamental, used as timber, see *Journal of Bamboo Research* 2(1): 57, f. 10. 1983, *Journal of Bamboo Research* 10(1): 22. 1991, *Bulletin of Botanical Research* 13(1): 74. 1993.

**A. glauca** B.M. Yang

China. See *Acta Phytotaxonomica Sinica* 22(1): 85, pl. 1. 1984.

in China: Fen suanzhu

**A. gracilis** W.T. Lin & X.B. Ye

China. Young culms pubescent, see *Acta Phytotaxonomica Sinica* 26(2): 149, f. 4. 1988.

in China: Xiao suanzhu

**A. guangxiensis** Q.H. Dai & C.F. Huang ex Ohrnb.

China. See *Journal of Bamboo Research* 5(3): 64-66, f. 1. 1986.

in China: Guangxi suanzhu

**A. heterolodicula** (W.T. Lin & Z.J. Feng) W.T. Lin (*Oligostachyum heterolodiculum* W.T. Lin & Z.J. Feng)

China. See *Bulletin of Botanical Research* 12(4): 352. 1992, *Guihaia* 10(1): 16, f. 2. 1996.

**A. hirtiflora** Wang & G.H. Ye (*Acidosasa dayongensis* T.P. Yi; *Acidosasa hirtiflora* Z.P. Wang & G.H. Ye ex C.S. Chao & C.D. Chu; *Acidosasa purpurea* (J.R. Xue & T.P. Yi) Keng f.; *Indosasa purpurea* J.R. Xue & T.P. Yi)

China, Guangxi. Young culms glabrous or sparsely pubescent, culm sheaths densely setose, no sheath auricles and cilia, sheath ligule arcuate, glume and lemma densely hairy, shoot edible, see *Journal Nanjing University. Natural Sciences Edition* 1981: 98. 1981, *Acta Phytotaxonomica Sinica* 21(1): 94-96, pl. 1. 1983, *Bulletin of Botanical Research* 6(4): 25-26, f. 1. 1986, *Journal of Wuhan Botanical Research* 4(4): 335. 1986, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 4. 1991.

**A. lentiginosa** W.T. Lin & Z.J. Feng

China. See *Journal of Bamboo Research* 12(2): 37, t. 3. 1993.

**A. lingchuanensis** (C.D. Chu & C.S. Chao) Q.Z. Xie & X.Y. Chen (*Indosasa lingchuanensis* (C.D. Chu & C.S. Chao) Q.Z. Xie & X.Y. Chen; *Indosasa lingchuanensis* (C.D. Chu & C.S. Chao)

China, Lingchuan, Guangxi. Young culm sparsely silky, shoot reddish or greenish, auricles falciform, ligule truncate or convex, sheath blade light green broadly lanceolate, used for fencing, edible shoots, growing along riverbanks, moist ground, along streams, see *Acta Phytotaxonomica Sinica* 21(1): 69-71, pl. 4. 1983, *Bulletin of Botanical Research* 13(1): 74, f. 1-2. 1993, *Acta Phytotaxonomica Sinica* 37(6): 541-544. 1999.

**A. longiligula** (T.H. Wen) C.S. Chao & C.D. Chu (*Acidosasa fujianensis* C.S. Chao & H.Y. Zou; *Indosasa longiligula* T.H. Wen)

Asia, China. Young culms glaucous, see *Journal of Bamboo Research* 2(1): 68, t. 20. 1983, *J. Nanjing Inst. Forest.* 1984(3): 88, f. 1. 1984, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 5. 1991, *Fl. Reipubl. Pop. Sin.* 9(1): 568, pl. 172, f. 6-7. 1996.

**A. longiligula** (T.H. Wen) C.S. Chao & C.D. Chu var. **amara** (Wen) Ohrnb. (*Indosasa longiligula* var. *amara* Wen)

China. Bitter shoots, see *Journal of Bamboo Research* 2(1): 70. 1983.

**A. macula** W.T. Lin & Z.M. Wu

China. See *Journal of Bamboo Research* 11(1): 36, t. 6. 1992.

**A. notata** (Wang & X.B. Ye) S.S. You (*Acidosasa fujianensis* C.S. Chao & H.Y. Zou; *Acidosasa longiligula*

(T.H. Wen) C.S. Chao & C.D. Chu; *Arundinaria concava* C.D. Chu & H.Y. Zou; *Arundinaria notata* (Z.P. Wang & G.H. Ye) Q.H. Dai; *Arundinaria notata* (Z.P. Wang & G.H. Ye) H.Y. Zou; *Arundinaria notata* (Z.P. Wang & G.H. Ye) H.Y. Zuo ex C.S. Chao & G.Y. Yang; *Indosasa longiligulata* T.H. Wen; *Indosasa pusilloaurita* W.T. Lin; *Pleioblastus intermedius* S.Y. Chen; *Pleioblastus maculosoides* T.H. Wen; *Pseudosasa longiligulata* T.H. Wen; *Pseudosasa notata* Z.P. Wang & G.H. Ye; *Pseudosasa wuyiensis* S.L. Chen & G.Y. Sheng).

China, Fujian. Young culm pruinose, nodes weakly prominent, 3 branches at each node, small sheath auricles densely pubescent, sometimes sheath auricles absent, sheath ligule arcuate, raceme terminal or lateral, glabrous glumes, lemmas and palea pubescent, shoots edible, culms used to make containers or instruments, see *Journal Nanjing University, Natural Sciences* 1981(1): 97, f. 4. 1981, *J. Bamboo Res.* 1(1): 27. 1982, *Journal of Bamboo Research* 2(1): 68, t. 20. 1983, *Acta Phytotax. Sin.* 21(4): 408. 1983, *J. Nanjing Inst. Forest.* 1984(3): 88, f. 1. 1984, *Journal of Bamboo Research* 3(2): 33. 1984, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 5. 1991, *Bull. Bot. Res., Harbin.* 11(4): 6. 1991, *Bull. Bot. Res., Harbin.* 12(4): 351, f. 2. 1992, *Journal of Bamboo Research* 12(3): 11. 1993, *Journal of Bamboo Research* 13(1): 11. 1994, *Fl. Reipubl. Pop. Sin.* 9(1): 568, pl. 172, f. 6-7. 1996.

**A. paucifolia** W.T. Lin (*Acidosasa nanunica* (McClure) C.S. Chao & G.Y. Yang; *Indocalamus nanunicus* McClure) China. See *Lingnan University Science Bulletin* 9: 25. 1940, *Bulletin of Botanical Research* (Harbin) 12(4): 352, f. 3. 1992, *Acta Phytotaxonomica Sinica* 39(1): 39. 2001.

**A. purpurea** (Hsueh & Yi) P.C. Keng (*Acidosasa dayongensis* T.P. Yi, also *dayoungensis*; *Acidosasa hirtiflora* Z.P. Wang & G.H. Ye; *Acidosasa hirtiflora* Z.P. Wang & G.H. Ye ex C.S. Chao & C.D. Chu; *Indosasa purpurea* J.R. Xue/Hsueh & T.P. Yi)

China, Hunan, Yunnan, Guangxi. Glabrous and glaucous, nodes prominent, culm sheaths leathery, raceme terminal or lateral, spikelets compressed, hairy glumes, lemmas setose, palea ciliolate, lodicules lanceolate, stigmas plumose, bitter shoots edible, culms used for weaving or fence, see *Journal Nanjing University, Natural Sciences Edition* 1981: 98. 1981, *Acta Phytotaxonomica Sinica* 21(1): 94-96, pl. 1. 1983, *Bulletin of Botanical Research* 6(4): 25-26, f. 1. 1986, *Journal of Wuhan Botanical Research* 4(4): 335. 1986, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 4. 1991. in China: Maguan suanzhu

**A. venusta** (McClure) Z.P. Wang & G.H. Ye ex C.S. Chao & C.D. Chu (*Acidosasa venusta* (McClure) Z.P. Wang & G.H. Ye; *Semiarundinaria venusta* McClure)

China, Guangdong. Young internodes long pubescent to sparsely hairy, nodes prominent, 3 branches at each node,

sheath with deciduous pubescence, no sheath auricles, sheath ligule with a truncate tip, leaves oblong-lanceolate, raceme terminal or lateral, spikelets linear-lanceolate, 2 glumes acute, lemma acute or acuminate, 3 lodicules, ovary glabrous, stigma feathery, see *Lingnan Univ. Sci. Bull.* 9: 55. 1940, *Journal Nanjing University, Natural Sciences Edition* 1981(1): 99. 1981, *Acta Phytotaxonomica Sinica* 29(6): 524, f. 6. 1991.

in China: nizhu

**A. xiushanensis** Yi

China. See *Journal of Bamboo Research* 11(3): 49-51, f. 1. 1992.

in China: Ganzi zhu

## Acophorum Steud.

See *Nomenclator Botanicus. Editio secunda* 1: 20. 1840.

## Acostia Swallen

Dedicated to the Ecuadorian botanist Misael Acosta Solis, 1910-1994, professor of botany, plant collector, author of *Glumifloras del Ecuador*: Catálogo fitogeográfico de las Gramíneas, Ciperáceas y Juncáceas. Quito 1969 [Flora (Ecuador), nos. 13(47-50): 1-216], *Las Fibras y lanas vegetales en el Ecuador*. (Inst. Ecuat. Cienc. Nat., Contrib., no. 21) Bol. Inform. Cient. Nac., no. 48, 1952, "Los pastizales naturales del Ecuador: Conservación y aprovechamiento de los páramos y sabanas." *Revista Geogr.* (Rio de Janeiro) 53: 87-99. 1960, "Plantas indígenas para forrajicultura tropandina." *Revista Acad. Colomb. Ci. Exact.* 15(56): 57-97. 1980. See J.H. Barnhart, *Biographical notes upon botanists*. 1: 10. 1965; R.B. Miller, *Taxon* 34: 178. 1985.

One species, Ecuador. Panicoideae, Panicodae, Paniceae, or Panicoideae, Paniceae, Paspalinae, perennial, herbaceous, slender, densely tufted, leaf sheaths keeled, ligule a fringed membrane, inflorescence spicate, spikelets solitary and paired, glumes one per spikelet, lower glume absent or vestigial, upper glume densely hairy, palea present, growing along rivers and stream banks, sometimes referred to *Digitaria* or *Panicum*, type *Acostia gracilis* Swallen, see *Prodromus Florae Novae Hollandiae* 190. 1810 and *Boletín de la Sociedad Argentina de Botánica* 12: 109. 1968, *Sida* 13(4): 396. 1989, *Contributions from the United States National Herbarium* 46: 13. 2003.

## Species

**A. gracilis** Swallen (*Panicum acostia* R.D. Webster; *Panicum gracile* R. Br.)

Ecuador.

**Acrachne Wight & Arn. ex Chiov.** =  
*Acrachne* Chiov., *Arthrochloa* J.W. Lorch,  
*Arthrochloa* R. Br., *Camusia* Lorch,  
*Normanboria* Butzin

Greek *akros* “the summit, terminal, highest, at the top” and *achne* “chaff, glume, scale,” referring to the terminal glume and lemmas.

Three species, Old World tropics, Africa, Southeast Asia, Australia, China. Chloridoideae, Cynodonteae, or Chloridoideae, Eragrostideae, Eleusininae, annual, mesophytic, herbaceous, tufted, auricles absent, ligule membranous with a ciliate fringe, flat leaf blades, plants bisexual, cleistogamous or chasmogamous, inflorescence spicate digitate or subdigitate or whorled, bisexual solitary spikelets, 6-20 florets, terminal spikelet suppressed or abortive, upper florets reduced, 2 glumes unequal or subequal, upper glume awned and acuminate, lemmas strongly keeled and membranous, palea present, 2 lodicules free and fleshy, 3 stamens, ovary glabrous, 2 stigmas, shade and open habitats, sandy areas, among rocks, seacoast, savannah, closely related to *Eleusine* and *Dactyloctenium*, type *Acrachne verticillata* (Roxb.) Wight & Arn. ex Chiov., see *Chloris Melvilliana* 35. 1823, *Nomenclator Botanicus* edition 2 1: 21. 1840 and *Annuario Reale Ist. Bot. Roma* 8(3): 361-362. 1908, *Bulletin de la Société Botanique de France* 75: 913. 1928, *Blumea* 3: 164-167. 1938, *Atti della reale accademia d'Italia. Memorie della classe di scienze fisiche, matematiche e naturali* 11(2): 65. 1940, *Blumea, Supplement* 3: 44. 1946, *Journal of the Indian Botanical Society* 39: 490. 1960, *Grasses of Burma* ... 487. 1960, *Bulletin of the Research Council of Israel, Section D, Botany* 9: 155. 1961, *Taxon* 27(2-3): 301. 1978, *Kew Bulletin* 37(1): 158-159. 1982, *Grasses S. Queensland* 78-79. 1983, *Journal of Cytology and Genetics* 25: 322-323. 1990, Qing Liu, Nan-Xian Zhao, Gang Hao, Xiao-Ying Hu and Yun-Xiao Liu, “Caryopsis morphology of the Chloridoideae (Gramineae) and its systematic implications.” *Botanical Journal of the Linnean Society* 148(1): 57-72. May 2005.

### Species

*A. henrardiana* (Bor) S.M. Phillips (*Arthrochloa henrardiana* (Bor) J.W. Lorch; *Dactyloctenium henrardianum* Bor)

India, Tamil Nadu. See *Enumeratio Plantarum Horti Botanici Berolinensis*, ... 2: 1029. 1809 and *Blumea, Supplement* 3: 44. 1946, *Journal of the Indian Botanical Society* 39(3): 490, f. 1-5. 1960, *Kew Bulletin* 37(1): 158. 1982.

*A. racemosa* (B. Heyne ex Roem. & Schult.) Ohwi (*Acrachne racemosa* (Roem. & Schult.) Ohwi; *Acrachne racemosa* (B. Heyne) Ohwi; *Acrachne verticillata* (Roxb.) Lindl. ex Chiov.; *Acrachne verticillata* Roxb.; *Acrachne verticillata* (Roxb.) Chiov.; *Acrachne verticillata* (Roxb.) B.D. Jacks.;

*Acrachne verticillata* (Roxb.) Wight & Arn. ex Chiov.; *Eleusine racemosa* Heyne ex Roem. & Schult.; *Eleusine verticillata* Roxb.; *Leptochloa racemosa* (B. Heyne ex Roem. & Schult.) Kunth; *Leptochloa schimperiana* Hochst.; *Leptochloa verticillata* (Roxb.) Kunth; *Sclerodactylon micrandrum* P. C. Keng & L. Liou) (for G.W.H. Schimper)

Africa, Arabia, China, Hainan, Yunnan. Annual, tufted, herbaceous, smooth, erect or geniculately ascending, sparsely branched or simple, ligule a fringed membrane, leaf blades tapering to a tip, slender ascending inflorescence, spike-like racemes whorled, glumes unequal, lanceolate upper glume shortly awned and acuminate, narrowly oblong lower glume acute and mucronate, lemmas tipped with a stout short awn-point, a good fodder grass for cattle, low grazing value, a weed of cultivation, shade-loving, occurs in moist places, field margins, waste ground, ruderal, sandy soils, disturbed places, in gravelly wadi beds, riverbanks, see *Hortus Bengalensis, or a catalogue* ... 8. 1814, *Systema Vegetabilium* 2: 583. 1817, *Flora Indica; or Descriptions* ... 1: 346. 1820, *Nov. Pl. Sp.* 80. 1821, *Révision des Graminées* 1: 91. 1829, *Flora* 38: 203. 1855, *Index Kewensis* 1: 32. 1895 and *Handbook Fl. Ceylon* 5: 277. 1900, *Annuario del Reale Istituto Botanico di Roma* 8(3): 361-362. 1908, *Bulletin of the Tokyo Science Museum* 18: 1. 1947, *Grasses of Ceylon* 81. 1956, *Ceylon Journal of Science, Biological Sciences* 2(2): 125. Colombo 1959.

in Niger: najim, sabagha

in Somalia: dhamba, dhalad

in India: chhinke, jharna, kaadu kapai, kangsi, kuri chinke  
 in Thailand: ya tin ka, ya tin mue kak, ya tin mue tuttu, ya yon hu, yaa teenkaa, yaa teenmue tuttuu, yaa yonhuu

*A. sundararajii* Umamaheswari, Muthukumar & P. Daniel  
 India, Tamil Nadu. See *Kew Bulletin* 52(4): 1007, f. 1. 1997.

**Acratherum Link** = *Arundinella* Raddi

From the Greek *akros* “the summit, highest, at the top” and *ather* “stalk, barb.”

Panicoideae, Arundinelleae, type *Acratherum miliaceum* Link, see *Agrostografia Brasiliensis* 36-37, t. 1, f. 3. 1823, *Hortus Regius Botanicus Berolinensis* 1: 230. 1827, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 102. 1850, *Tentamen Florae Abyssinicae* ... 2: 414. 1850, *Synopsis Plantarum Glumacearum* 1: 114. 1854, *Index Kewensis* 1: 32. 1895 and *Botanical Exchange Club of the British Isles. Report* 1916: 605. 1917, *Graminées du Cameroun* 2: 361. Wageningen: Wageningen Agricultural University Papers, 1992, *Contributions from the United States National Herbarium* 46: 111-113. 2003.



## Acritochaete Pilger

Greek *akritos* “unarranged, confused, doubtful, undistinguishable” and *chaite* “a bristle.”

One species, tropical Africa, from Nigeria to East Africa, Ethiopia. Panicoideae, Panicodae, Paniceae, annual or short-lived perennial, decumbent, trailing, straggling, montane, herbaceous, branched, auricles absent, ligule an unfringed membrane, plants bisexual, inflorescence spicate, erect and spaced racemes, spikelets pedicellate and solitary, 2 glumes very unequal, long awns filiform and flexuous, palea present, 2 free and fleshy lodicules, 3 stamens, ovary glabrous, 2 stigmas, shade species, upland forest, see *Flore d'Oware* 2: 14. 1807 [1810] and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 32: 53-54. 1902, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 40(1,A): 222. 1931, *American Journal of Botany* 52(8): 864-869. 1965, *Flora of Tropical East Africa Gramineae* (part 3). 451-898. Rotterdam 1982.

### Species

*A. volkensis* Pilger (*Oplismenus volkensis* (Pilg.) Mez ex Peter) (for Georg Ludwig August Volkens, 1855-1917)

Africa. Annual, weak, trailing, stoloniferous, rooting at the nodes, lower glume very small, upper lemma acuminate, low grazing value, grazed by stock.

## Acroceras Stapf = *Commelinidium* Stapf, *Neohusnotia* A. Camus

From the Greek *akros* “the summit, terminal, extremity” and *keras* “horn,” referring to the terminal glume or to the thickened crested lemmas.

Some 15/19 species, Old World tropics, Africa, Madagascar, Indomalayan region. Panicoideae, Panicodae, Paniceae, Setariinae, or Panicoideae, Paniceae, Panicinae, perennial or annual, herbaceous, slender, nonwoody, semiaquatic, branched, coarse, tufted, rhizomatous or stoloniferous, usually with long prostrate base, trailing, sprawling, creeping or decumbent-based culms, leaning, often rooting at the lower nodes, culms leafy, auricles absent, narrow membranous ligule, leaves lanceolate to linear-lanceolate to ovate-lanceolate, plants bisexual, inflorescence paniculate, loose racemes, bisexual paired spikelets, 2 florets, lower floret sterile or male, upper floret bisexual or perfect, 2 very unequal glumes keeled with keel apex crested, upper glume and lower lemma thickened and flattened, green crest at the tip of the upper lemma, 2 fleshy and free lodicules, 3 stamens, ovary glabrous, 2 stigmas, sometimes forming floating mats, shade and open habitats, near running fresh water, understory, damp places, shallow water, marshy ground, forests, stream and lake margins, resembling *Lasiacis*, type *Acroceras oryzoides* Stapf, see *North American Flora* 3(2):

200, 210. 1915, *Flora of Tropical Africa* 9: 621-622, 627. 1920, *Bulletin du Muséum National d'Histoire Naturelle (Paris)* 26(7): 664. 1921 [1920], *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11(104): 240. 1931, *Heredity; An International Journal of Genetics* 3: 369-374. 1949, *Bull. Soc. Bot. France* 97: 84-85. 1950, *Cytologia* 19: 97-103. 1954, *Grasses of Burma ...* 275-276. 1960, *Prodromus einer Flora von Südwestafrika* 160: 1-228. 1970, *Brittonia* 23(3): 293-324. 1971, *Canadian Journal of Botany* 52(5): 1075-1090. 1974, *Las Gramíneas de México* 1: 1-260. 1983, A.C. Allem & J.F.M. Valls, *Recursos Forrageiros Nativos do Pantanal Mato-grossense*. Departamento de Difusão de Tecnologia. Brasília, DF. EMBRAPA-CENARGEN. Documento, 8. 1987, *Darwiniana* 28(1-4): 191-217. 1987 [Estudio exomorfológico e histofoliar de las especies americanas del género *Acroceras* (Poaceae: Paniceae).], *Ann. Missouri Bot. Gard.* 77: 125-201. 1990, *Darwiniana* 30(1-4): 87-94. 1990, *Flora of the Guianas. Series A, Phanerogams* 8: 42-45. 1990, *Flora Mesoamericana* 6: 329. 1994, *Flora of Ethiopia and Eritrea* 7: 209-210. 1995, *American Journal of Botany* 88: 1993-2012. 2001, Sandra S. Aliscioni, Liliana M. Giussani, Fernando O. Zuloaga and Elizabeth A. Kellogg, “A molecular phylogeny of *Panicum* (Poaceae: Paniceae): tests of monophyly and phylogenetic placement within the Panicoideae.” *Am. J. Bot.* 90: 796-821. 2003, *Contributions from the United States National Herbarium* 46: 13-14. 2003.

### Species

*A. amplexans* Stapf (*Acroceras basicladum* Stapf; *Neohusnotia amplexans* (Stapf) C.C. Hsu; *Panicum amplexans* (Stapf) Pilg., nom. illeg., non *Panicum amplexans* Chapm.)

Senegal, Ghana, Nigeria, Sudan, Upper Nile, Tanzania, Uganda. Annual, decumbent, scrambling, straggling, weak, linear-lanceolate leaf blades, economic plant, useful grass, sometimes floating, forage, hay, good fodder, high grazing value weakly stemmed, a serious pest of cultivation, a weed of rice paddies and hill rice, marshes, shallow water, wet areas, similar to *Acroceras zizanioides* (Kunth) Dandy, see *Botanical Gazette* 3(3): 20. 1878 and *Flora of Tropical Africa* 9: 625-626. 1920, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11(104): 241. 1931, *Journ. Fac. Sci. Univ. Tokyo, Sect. 3* 9: 94. 1965.

in Gambia: jajeo, njaro, nyaro

in Ghana: bamodo, bamodò, komudo

in Guinea Bissau: labar, lábar

in Mali: diivoonu, haratébé, kitibué, mbu niari, mbuniari, soko, sogo, soko

in Nigeria: geeron tsuntssayee

in Sierra Leone: babarawo, karinkasui, kobolo, mbowi, pisui, sunyugi, yuwi

in Upper Volta: bugau, komudo

**A. attenuatum** Renvoize

Tanzania. Annual, slender, decumbent, branched, mat-forming, rooting at the lower nodes, inflorescence paniculate, poorly branched oblong panicle, spikelets ovate-oblong, in forest shade, see *Kew Bulletin* 34(3): 556. 1979 [1980].

**A. chaseae** Zuloaga & Morrone (*Panicum planopteris* Trin. ex Döll) (for Mary Agnes Chase, 1869-1963)

South America, Brazil. See *Flora Brasiliensis* 2(2): 222. 1877 and *Darwiniana* 28(1-4): 198, f. 2. 1987[1988].

**A. excavatum** (Henrard) Zuloaga & Morrone (*Lasiacis excavata* (Henrard) Parodi; *Panicum excavatum* Henrard)

South America, Paraguay. Perennial, rigid, stoloniferous, open panicle, spreading pedicels, palatable, in forest openings, in semideciduous forest, see *Contributions from the United States National Herbarium* 15: 16. 1910, *Repertorium Specierum Novarum Regni Vegetabilis* 23: 179. 1926, *Notas del Museo de la Plata, Botánica* 8: 92. 1943, *Darwiniana* 28(1-4): 195. 1987 [1988].

in Bolivia: taquarilla

**A. fluminense** (Hack.) Zuloaga & Morrone (*Agenium villosum* (Nees) Pilg.; *Panicum fluminense* Hack.)

South America, Brazil. Ascending, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 362-363. 1829, *A Natural System of Botany* 447. 1836 and *Österreichische Botanische Zeitschrift* 51: 457. 1901, *Repertorium Specierum Novarum Regni Vegetabilis* 43: 82. 1938, *Darwiniana* 28(1-4): 197. 1987[1988].

**A. gabunense** (Hack.) Clayton (*Commelinidium gabunense* (Hack.) Stapf; *Commelinidium mayumbense* (Franchet) Stapf; *Commelinidium nervosum* Stapf; *Echinochloa nervosa* (Stapf) Roberty; *Panicum gabunense* Hack.; *Panicum hensii* K. Schum.; *Panicum mayumbense* Franch.)

Africa, Gabon, Tanzania. Perennial, scrambling, prostrate at the base, rooting at the lower nodes, leaf blades ovate, fodder, found in forest shade, see *Essai d'une Nouvelle Agrostographie* 52, 53, t. 11, f. 1. 1812, *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 31: 70. 1889, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 343. 1895, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 24(3): 332. 1897 and *Flora of Tropical Africa* 9: 627-629. 1920, *Petite Flore de l'Ouest-Africain* 398. 1954, *Bull. Inst. Franç. Afrique Noire Sér. A*, 17: 64. 1955, *Kew Bulletin* 34(3): 557. 1979 [1980].

in Sierra Leone: ngale

**A. macrum** Stapf (*Neohusnotia macra* (Stapf) C.C. Hsu; *Panicum gimmae* Fiori)

Northeastern and southern tropical Africa, Transvaal, Tanzania, Namibia, Mozambique. Perennial, tufted and simple, slender, geniculate and sometimes prostrate, rooting at the lower nodes, with creeping rhizomes, leaf sheath papery

when dry, ligule a ring of short hairs, leaf blades linear and acuminate, racemes erect and arranged singly on the primary axis, spikelets awnless and glabrous, spikelets single or in pairs, lower lemma male, little drought tolerance, useful grass, used for silage, makes good hay, very palatable, high grazing value, native pasture grass, forage, cultivated fodder, tolerates seasonal flooding, occurs in riversides, lake margins, shallow water, sand to black clay soils, seasonally flooded damp grassland, marshy grassland, damp places, vleis, swamps, see *Flora of Tropical Africa* 9: 624. 1920, *Agricoltura Coloniale* 35: 56, 62. 1941, *Journal of the Faculty of Science: University of Tokyo, Botany* 9: 94. 1965.

in English: Nile grass

in Southern Africa: Nylgras

**A. munroanum** (Balansa) Henrard (*Acroceras crassiapiculatum* (Merr.) Alston; *Acroceras ridleyi* (Hack. ex Ridl.) Stapf; *Brachiaria crassiapiculatum* (Merr.) Hitchc. ex Groff, Ding & Groff; *Panicum crassiapiculatum* Merr.; *Panicum latifolium* L.f., nom. illeg., non *Panicum latifolium* L.; *Panicum munroanum* Bal.; *Panicum ridleyi* Hack. ex Ridl.)

Eastern India, Sri Lanka, Malaya, Malaysia, Myanmar (Burma). Perennial, slender and creeping culms with erect tips, rooting at the nodes, ligule membranous, spikelets short-pedicelled, moist habitats, marshes, rice fields, see *Journal de Botanique (Morot)* 4(7): 140. 1890, *Trans. Linn. Soc. London, Bot.* 3: 400. 1893, *The Flora of British India* 7(21): 39. 1896[1897] and *Botanisk Tidsskrift* 24: 98. 1901, *Philippine Journal of Science* 1(Suppl. 5): 356. 1906, George Weidman Groff (1884-1954), *Lingnaam Agricultural Review* 1: 48. 1923 [An Enumeration of the McClure collection of Hainan plants. 1923-1924], *The Flora of the Malay Peninsula* 5: 229. 1925, *A Handbook to the Flora of Ceylon*, Suppl. 6: 324. 1931, *Blumea* 3(3): 444-445. 1940, *Grasses of Ceylon* 125. 1956.

in Thailand: ya bai phai, yaa bai phai

**A. ridleyi** (Hack. ex Ridl.) Stapf (*Panicum ridleyi* Hack. ex Ridl.)

Malay Penins. See *Trans. Linn. Soc. London, Bot.* 3: 400. 1893 and *Botanisk Tidsskrift* 24: 98. 1901, *The Flora of the Malay Peninsula* 5: 229. 1925.

**A. tonkinense** (Balansa) C.E. Hubb. ex Bor (*Acroceras tonkinense* (Balansa) Henrard, nom. illeg., non *Acroceras tonkinense* (Balansa) C.E. Hubb. ex Bor; *Neohusnotia tonkinensis* (Balansa) A. Camus; *Panicum latifolium* var. *majus* Hook.f.; *Panicum tonkinense* Balansa)

Vietnam. See *Species Plantarum* 1: 58-59. 1753, *Journal de Botanique (Morot)* 4(7): 140. 1890, *The Flora of British India* 7(21): 39. 1897 [1896] and *Bulletin du Muséum National d'Histoire Naturelle* 26(7): 664. 1921, *Indian Forest Records: Botany* 1: 3, 78. 1939, *Blumea* 3(3): 451. 1940.

*A. zizanioides* (Kunth) Dandy (*Acroceras oryzoides* Stapf; *Astragalus schimperi* Boiss.; *Astragalus schimperi* var. *aradensis* Zohary; *Echinochloa zizanioides* (Kunth) Roberty; *Panicum balbisianum* Schult.; *Panicum grandiflorum* Trin. ex Nees; *Panicum latifolium* L.f., nom. illeg., non *Panicum latifolium* L.; *Panicum lutetens* K. Schum.; *Panicum melicoides* Poir.; *Panicum ogowense* Franch.; *Panicum oryzoides* Sw., nom. illeg., non *Panicum oryzoides* Ard.; *Panicum pseudoryzoides* Steud.; *Panicum zizanioides* Kunth; *Panicum zizanioides* var. *microphyllum* Döll) (Zaire, Lutete)

Tropical Africa, southern Mexico to northern Argentina, India. Perennial, rhizomatous, weed species, prostrate, scrambling, decumbent and rooting at the lower nodes, leaves lanceolate and acuminate, racemes divergent and spaced, spikelets narrow-oblong, lower lemma sterile, useful grass, good forage and hay, occurs in damp places in shade, roadside ditches, swampy places, seasonally inundated savannahs, in shallow water, see *Animadversionum Botanicarum Specimen Alterum* 2: 16, t. 5. 1764, *Nova Genera et Species Plantarum seu Prodrromus* 23. 1788, *Nova Genera et Species Plantarum* 1: 82. 1815 [1816], *Encyclopédie Méthodique, Botanique* Suppl. 4: 283. 1816, *Mantissa* 2: 254. 1824, *Agrostologia Brasiliensis* 2(1): 143. 1829 [or *Flora Brasiliensis seu Enumeratio Plantarum in Brasilia ... Stuttgartiae et Tubingae 1829-1833*], *Diagnoses plantarum orientalium novarum, ser. I*, 1(2): 53. 1843, *Synopsis Plantarum Glumacearum* 1: 75. 1853, *Flora Brasiliensis* 2(2): 229. 1877, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 344. 1895, *The Flora of British India* 7(21): 39. 1896, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 24(3): 332. 1897 and *Flora of Tropical Africa* 9: 622. 1920, *Journal of Botany, British and Foreign* 69(2): 54. 1931, *Petite Fl. Ouest-Afr.* 398. 1954, *Bulletin de l'Institut Française d'Afrique Noire, Sér. A*, 17: 67. 1955, *Flora Palaestina* 2: 455. 1972.

in English: grama grass

in Spanish: arrocillo

in Bolivia: cañuela

in Guinea-Bissau: quebè faro

in Mali: ngon

in Nigeria: geeron tsuntssayee, iyè etu

in Sierra Leone: bakabine, barekore, ekbil, gbati, karinkasui, kbaraga, kobolo, koboro, kotopoi, kpage, mbowi, melkore, pisui, sunyugi, tamidiserana, yuwi

in West Africa: kbaraga, kotopoi, ngon, pisui, quèbè-fârô, sunyugi, yuwi

in Yoruba: iye etu, jaba

**Acrochaete Peter** = *Acrochaete* N. Pringsheim (Algae), *Setaria* P. Beauv.

From the Greek *akros* “the summit, terminal, highest, top-most” and *chaite* “bristle, mane.”

Panicoideae, Paniceae, Setariinae, type *Acrochaete pseudaristata* Peter, see *Essai d'une Nouvelle Agrostographie* 51, 178. 1812, Nathanael Pringsheim (1823-1894), *Beiträge zur Morphologie des Meeres-Algen ...* Berlin 1862 and *Contr. U.S. Natl. Herb.* 22(3): 156. 1920, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 40(1): 203, Anh. 54, t. 28, f. 2. 1930, *Die Natürlichen Pflanzenfamilien* edition 2 14e: 72. 1940, *Taxon* 31(3): 561. 1982, *Contributions from the United States National Herbarium* 46: 569-593. 2003.

**Acroelytrum Steud.** = *Lophatherum* Brongn.

From the Greek *akros* “the summit, terminal, highest” and *elytron* “a sheath, a cover,” *elyo* “to wind.”

Centothecoideae, Centothecae, see *Voyage autour du Monde* 2(2): 49-50, t. 8. 1831 [1829-30], *Flora* 29: 20-21. 1846 and *Bulletin of the Nanjing Botanical Garden, Mem. Sun Yat Sen* 1988-1989: 14-20. 1988-1989, *Investigatio et Studium Naturae* 12: 48-65. 1992.

**Acrospelion Besser ex Schult. & Schult.f.** = *Acrospelion* Steud, *Trisetum* Pers., *Trisetum* (Besser ex Schult. & Schult.f.) Trin.

Greek *akros* “the summit, terminal, highest” and *spelion*, *pselion*, *psellion* “armlet, bracelet,” *pselioo* “to twine, wreath, crown.”

Pooideae, Poeae, Aveninae, see *Prospectus de l'Histoire des Plantes de Dauphiné* 2: 144. 1787, *Syn. Pl.* 1: 97. 1805, *Essai d'une Nouvelle Agrostographie* 88, 153, t. 18, f. 1. 1812, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 59. 1830 and *U.S.D.A. Bull.* 772: 107-109. 1920, *Taxon* 36: 75. 1987, *Contributions from the United States National Herbarium* 48: 19, 659-676. 2003.

**Acroxis Steud.** = *Muhlenbergia* Schreb.

Chloridoideae, Cynodonteae, Muhlenbergiinae, see *Genera Plantarum* 44. 1789, *Systema Naturae ... editio decima tertia, aucta, reformata* 2: 171. 1791, *Nomenclator Botanicus. Editio secunda* 1: 22. 1840 and *Contributions from the United States National Herbarium* 41: 9, 143-173. 2001.

**Actinochloa Willd. ex Roemer & Schultes**  
= *Actinochloa* Roem. & Schult., *Bouteloua*  
Hornem. ex P. Beauv., *Bouteloua* Lag.,  
*Chondrosum* Desv.

Greek *aktis*, *aktin* “a ray” and *chloe*, *chloa* “grass.”

Chloridoideae, Cynodonteae, Boutelouinae, see *Varietades de Ciencias, Literatura y Artes* 2(4,21): 134, 141. 1805, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 188. 1810, *Essai d'une Nouvelle Agrostographie* 40. 1812, *Gen. Sp. Nov.* 5. 1816, *Systema Vegetabilium* 2: 22, 417. 1817, *A Manual of the Botany of the Northern United States. Second Edition* 553. 1856, *Genera Plantarum* 3(2): 1168. 1883, *Die Natürlichen Pflanzenfamilien* 2(2): 59. 1887 and *Annals of the Missouri Botanical Garden* 66(3): 358. 1979 [1980], *Contributions from the United States National Herbarium* 41: 9, 20-33, 52-55. 2001.

**Actinochloris Steud.** = *Chloris* Sw.

From the Greek *aktis*, *aktin* “a ray” plus *Chloris* Sw.

Chloridoideae, Cynodonteae, see *Nova Genera et Species Plantarum seu Prodromus* 25. 1788, *Nomenclator Botanicus. Editio secunda* 1: 352. 1840 and *Contributions from the United States National Herbarium* 41: 39-52. 2001.

**Actinocladum McClure ex Soderstr.** =  
*Actinocladum* Soderstr.

From the Greek *aktis*, *aktin* “a ray” and *klados* “a branch,” referring to the branching.

One species, Bolivia, central Brazil. Bambusoideae, Bambusoideae, Bambuseae, or Bambusoideae, Bambuseae, Arthrostylidiinae, perennial, tufted, forming extensive colonies, erect, unarmed, branched, sympodial, hollow, woody and persistent, flowering culms leafy, rhizomes pachymorph, ligule a ciliate rim, leaf blades pseudopetiolate, plants bisexual, inflorescence a sparse panicle or raceme, spikelets pedicellate, 2 glumes unequal and acuminate, lemma acuminate or short-beaked, palea acute and 2-keeled, 3 free lodicules, 3 stamens, ovary hairy, 2 stigmas, achene-like caryopsis, savannah, *cerrado*, open savannah, dense scrub, *campo rupestre*, similar to *Rhipidocladum* McClure, *Aulonemia* and *Merostachys*, type *Actinocladum verticillatum* (Nees) McClure ex Soderstr., see *American Journal of Botany* 68(9): 1200-1211. 1981, *Edinburgh Journal of Botany* 48: 73-80. 1991, *Taxon* 42: 879. 1993, Emmet J. Judziewicz et al., *American Bamboos*. 148-150. Smithsonian Institution Press, Washington and London 1999, *Contributions from the United States National Herbarium*

39: 11. 2000, *Flora Fanerogamica do Estado de São Paulo* 1: i-xxv, 1-292. 2001.

#### Species

*A. verticillatum* (Nees) McClure ex Soderstr. (*Actinocladum verticillatum* (Nees) Soderstr.; *Arundinaria verticillata* Nees; *Ludolfia verticillata* (Nees) A. Dietr.; *Rhipidocladum verticillatum* (Nees) McClure)

Central Brazil. Forming dense clumps, caespitose, rhizomatous, leaves monomorphic, synflorescences paniculate, drought-tolerant and fire resistant, forage, arrows made from culm, see *Familles des Plantes* 2: 244. 1763, *Flora Boreali-Americana* 1: 73. 1803, *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 523-525. 1829 [or *Agrostologia Brasiliensis* 1829], *Species Plantarum. Editio sexta* 25. 1833 and *Smithsonian Contributions to Botany* 9: 101, 106, f. 42. 1973, *American Journal of Botany* 68(9): 1201, 1204, f. 1-39. 1981.

in Brazil: taquari, taquari mirim

**Aechmophora Steud.** = *Bromus* L.,  
*Michelaria* Dumort.

From the Greek *aichme* “a point” and *phoros* “bearing, carrying.”

Pooideae, Bromoideae, see *Species Plantarum* 1: 76-78. 1753, *Observations sur les Graminées de la Flore Belgique* 77. 1823 [1824], *Nomenclator Botanicus. Editio secunda* 1: 29. 1840 and *U.S.D.A. Div. Agrostol. Bull.* 23: 1-66. 1900, *Brittonia* 7: 421. 1952, *Notes Roy. Bot. Gard. Edinburgh* 30: 366. 1970, *Bot. Jahrb. Syst.* 102: 447. 1981, *Taxon* 41: 559. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 20, 154-191. 2003.

**Aegialina Schult. & Schult.f.** = *Aegialina*  
Schult., *Aegialitis* Trin., *Rostraria* Trin.

Greek *aigialos* “seashore,” *aiges* “waves.”

Pooideae, Poaceae, Aveninae, type *Aegialina tenuis* (Trin.) Schult., see *Syn. Pl.* 1: 97. 1805, *Fundamenta Agrostographiae* 127, 149, t. 9, 13. 1820, *Mantissa* 2: 13, 222. 1824, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 65. 1830 and *Zlaki SSSR* 267. 1976, *Contributions from the United States National Herbarium* 48: 20, 604. 2003.

**Aegialitis Trin.** = *Aegialitis* R. Br.  
(Plumbaginaceae), *Rostraria* Trin.

Greek *aigialos* “seashore,” *aiges* “waves.”

Pooideae, Poeae, Aveninae, type *Aegialitis tenuis* Trin., see *Prodrum Florae Novae Hollandiae* 426. 1810, *Fundamenta Agrostographiae* 127, t. 9. 1820, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 65. 1830 and *Contributions from the United States National Herbarium* 48: 20, 604. 2003.

### **Aegicon Adans.** = *Aegilops* L.

Pooideae, Triticeae, Triticinae, see *Species Plantarum* 1: 85-87. 1753, *Species Plantarum* 2: 1050-1051. 1753, *Familles des Plantes* 2: 36, 513. 1763, *Enumeratio Methodica Plantarum* 371. 1763, *Illustrationes Plantarum Orientalium* 4: 12, 23. 1851, *Flore de France* 3: 601. 1856 and *Blumea, Supplement* 3: 15, 17. 1946, *Grasses of Burma, Ceylon, India and Pakistan (excluding Bambuseae)* 653-655. 1960, *Feddes Repert.* 91: 225-228. 1980, *Biologisches Zentralblatt* 101(2): 206-208. 1982, *Taxon* 41: 552-583. 1992, *Agric. Univ. Wageningen Papers* 94-7: 1-512. 1994, *Taxon* 44: 611-612. 1995, *Flora de Veracruz* 114: 1-16. 2000, *Contributions from the United States National Herbarium* 48: 20-23. 2003.

### **Aegilemma Á. Löve** = *Aegilops* L.

Greek *aix*, *aigos* "a goat" and *lemma*, *lemmatos* "skin, bark, scale."

Pooideae, Triticeae, Triticinae, type *Aegilemma kotschyi* (Boiss.) Á. Löve, see *Species Plantarum* 1: 85-87. 1753, *Species Plantarum* 2: 1050-1051. 1753, *Familles des Plantes* 2: 36, 513. 1763, *Enumeratio Methodica Plantarum* 371. 1763, *Illustrationes Plantarum Orientalium* 4: 12, 23. 1851, *Flore de France* 3: 601. 1856 and *Blumea, Supplement* 3: 15, 17. 1946, *Grasses of Burma ...* 653-655. 1960, *Feddes Repert.* 91: 225-228. 1980, *Biologisches Zentralblatt* 101(2): 206-208. 1982, *Taxon* 41: 552-583. 1992, *Agric. Univ. Wageningen Pap.* 94-7: 1-512. 1994, *Taxon* 44: 611-612. 1995, *Flora de Veracruz* 114: 1-16. 2000, *Contributions from the United States National Herbarium* 48: 20-23. 2003.

### **Aegilonearum Á. Löve** = *Aegilops* L.

Pooideae, Triticeae, Triticinae, type *Aegilonearum juvenale* (Thell.) Á. Löve., see *Species Plantarum* 1: 85. 1753, *Species Plantarum* 2: 1050-1051. 1753, *Familles des Plantes* 2: 36, 513. 1763, *Enumeratio Methodica Plantarum* 371. 1763, *Illustrationes Plantarum Orientalium* 4: 12, 23. 1851, *Flore de France* 3: 601. 1856 and *Blumea, Supplement* 3: 15, 17. 1946, *Grasses of Burma ...* 653-655. 1960, *Feddes Repert.* 91: 225-228. 1980, *Biologisches Zentralblatt* 101(2): 206-208. 1982, *Taxon* 41: 552-583. 1992, *Agric.*

*Univ. Wageningen Pap.* 94-7: 1-512. 1994, *Taxon* 44: 611-612. 1995, *Flora de Veracruz* 114: 1-16. 2000, *Contributions from the United States National Herbarium* 48: 20-23. 2003.

### **Aegilopodes Á. Löve** = *Aegilops* L.

Pooideae, Triticeae, Triticinae, see *Species Plantarum* 1: 85. 1753, *Species Plantarum* 2: 1050-1051. 1753, *Familles des Plantes* 2: 36, 513. 1763, *Enumeratio Methodica Plantarum* 371. 1763, *Illustrationes Plantarum Orientalium* 4: 12, 23. 1851, *Flore de France* 3: 601. 1856 and *Blumea, Supplement* 3: 15, 17. 1946, *Grasses of Burma ...* 653-655. 1960, *Feddes Repert.* 91: 225-228. 1980, *Biologisches Zentralblatt* 101(2): 206-208. 1982, *Taxon* 41: 552-583. 1992, *Agric. Univ. Wageningen Pap.* 94-7: 1-512. 1994, *Taxon* 44: 611-612. 1995, *Flora de Veracruz* 114: 1-16. 2000, *Contributions from the United States National Herbarium* 48: 20-23. 2003.

**Aegilops L.** = *Aegicon* Adans., *Aegilemma* Á. Löve, *Aegilonearum* Á. Löve, *Aegilopodes* Á. Löve, *Amblyopyrum* Eig, *Amblyopyrum* (Jaub.) Eig, *Chennapyrum* Á. Löve, *Comopyrum* (Jaub. & Spach) Á. Löve, *Comopyrum* (Jaub.) Löve, *Cylindropyrum* (Jaub. & Spach) Á. Löve, *Cylindropyrum* (Jaub.) Löve, *Gastropyrum* (Jaub. & Spach) Á. Löve, *Gastropyrum* (Jaub.) Á. Löve, *Henrardia* C.E. Hubb., *Kiharapyrum* Á. Löve, *Orrhopygium* Á. Löve, *Patropyrum* Á. Löve, *Perlaria* Heist. ex Fabr., *Sitopsis* (Jaub. & Spach) Á. Löve, *Triticum* L.

From an ancient Greek name for a long awned or bearded grass, *aigilops*, applied by Theophrastus to a kind of oak with sweet fruit, and by Dioscorides (4.70) to describe the lachrymal fistula, an ulcer in the eye; *aigilos* is an herb of which goats are fond; Latin *aegilops*, *opis* and *aegilopa*, *ae* for a disease of the eyes, for a kind of oak with edible acorns, for a kind of bulbous plant or for a weed among barley.

About 21-27 species, Mediterranean, Asia, North Africa. Pooideae, Triticeae, Triticinae, annual, herbaceous, rhizomatous, tufted, usually erect, internodes hollow, auricles present or absent, ligule an unfringed membrane, plants bisexual, open to dense inflorescence spicate, spikelets solitary and distichous, 2 glumes subequal and thick, lemmas apex usually toothed or awned, awned or awnless, palea 2-keeled, 2 free and membranous lodicules, 3 stamens, ovary hairy, 2 stigmas, weed species, useful native pasture species, open habitats, sometimes included in *Triticum*, type *Aegilops triuncialis* L., see J.C. Buxbaum,

- Plantarum minus cognitarum centuriae, complectens plantas circa Byzantium et in Oriente observatas* Centuria I. Petropoli 1728-1740, *Species Plantarum* 1: 85-87. 1753, *Species Plantarum* 2: 1050-1051. 1753, *Familles des Plantes* 2: 36, 513. 1763, *Enumeratio Methodica Plantarum* 371. 1763, *Systema Vegetabilium* 2: 769. 1817, *Notes sur Quelques Plantes Critiques, Rares, ou Nouvelles, ...* 2: 69. 1849, *Illustrationes Plantarum Orientalium* 4: 12, 21, 23. 1851, *Flora Dalmatica* 3: 345. 1852, *Synopsis Plantarum Glumacearum* 1: 354. 1854, *Flore de France* 3: 601. 1856, *Plantae Europaeae* 1: 128. 1890 and *Repertorium Specierum Novarum Regni Vegetabilis* Beih. 55: 84, 90, 117. 1929 [Feddes Repertorium], *Blumea, Supplement* 3: 15, 17. 1946, *Grasses of Burma ...* 653-655. 1960, *Feddes Repert.* 91: 225-228, 233-234, 236. 1980, *Godishen Zbornik ... Fakultet Na Univerzitetot Kiril I Metodij* Skopje 35: 145-161. 1982, *Biologisches Zentralblatt* 101(2): 206-208. 1982, *Feddes Repert.* 95: 493, 495. 1984, *Journal of Wuhan Botanical Research* 3(4): 313-318. 1985, *Genera Graminum* 157-158. 1986, *Genome* 30: 36-43, 361-365. 1988, *Godishen Zbornik Prirodno-Matematichki Fakultet na Univerzitetot "Sv. Kiril i Metodij"* 39-40: 353-365. 1989, *Genome* 33: 283-293. 1990, *Boletim da Sociedade Broteriana, ser. 2* 63: 153-205. 1990, *Memoirs of the College of Agriculture; Kyoto University* 137: 1-116. 1990, *Berichte des Geobotanischen Instituts der Eidg. Techn. Hochschule Stiftung Rübel* 57: 182-192. 1991, *Taxon* 41: 552-583. 1992, *Plant Systematics and Evolution* 184: 1-10 and 187: 127-134. 1993, *Acta Botanica Sinica* 36(9): 714-719. 1994, *Agric. Univ. Wageningen Pap.* 94-7: 1-512. 1994 [Wild wheats: a monograph of *Aegilops* L. and *Amblyopyrum* (Jaub. & Spach) Eig.], *Plant Systematics and Evolution* 196: 227-241. 1995, *Taxon* 44: 611-612. 1995, *Flora Mediterranea* 7: 204-213. 1997, *Am. J. Bot.* 85: 1581-1585. 1998, *Edinburgh Journal of Botany* 56: 405-419. 1999, *Flora de Veracruz* 114: 1-16. 2000, *Am. J. Bot.* 89: 1042-1056. 2002, *Am. J. Bot.* 90: 1567-1584. 2003, *Contributions from the United States National Herbarium* 48: 20-23, 234, 238, 241, 370, 409, 468, 478, 614, 676-684. 2003, C. Husband, "Chromosomal variation in plant evolution." *Am. J. Bot.* 91: 621-625. 2004, *Am. J. Bot.* 91: 707-723, 1022-1035, 1364-1370, 1709-1725. 2004, *Plant Breeding* 123(1): 93-95. Feb 2004, *The Plant Journal* 37(4): 528-538. Feb 2004, *Plant Breeding* 123(2): 117-121. Apr 2004, *Journal of Ecology* 92(2): 297-309. Apr 2004, *Plant Breeding* 123(3): 209-212, 294-296. June 2004, *Weed Research* 44(3): 187-194. June 2004, *Weed Biology and Management* 4(2): 103-113. June 2004, *Hereditas* 141(1): 46-54, 68-73, 81-88. July 2004, J. Freeman and E. Ward, "*Gaeumannomyces graminis*, the take-all fungus and its relatives." *Molecular Plant Pathology* 5(4): 235-252. July 2004, *Biological Journal of the Linnean Society* 82(4): 475-484, 599-606, 607-613, 651-663, 665-674. Aug 2004, *Plant Breeding* 123(4): 361-365. Aug 2004, *Physiologia Plantarum* 122(1): 143-151. Sep 2004, *Hereditas* 141(3): 193-198. Dec 2004, *Plant Breeding* 123(6): 595-599. Dec 2004, *Am. J. Bot.* 92: 432-437. 2005, Roberta J. Mason-Gamer, "The  $\beta$ -amylase genes of grasses and a phylogenetic analysis of the Triticeae (Poaceae)." *Am. J. Bot.* 92: 1045-1058. 2005, *Oikos* 108(2): 241-252. Feb 2005, *New Phytologist* 165(2): 391-410. Feb 2005, *Cladistics* 21(1): 5-30. Feb 2005, *Plant, Cell and Environment* 28(2): 176-191. Feb 2005, *Oikos* 109(1): 154-166. Apr 2005, *New Phytologist* 166(1): 5-8, 291-303. Apr 2005.
- Species**
- A. *bicornis*** (Forssk.) Jaub. & Spach (*Aegilops bicornis* (Forssk.) Jaub.; *Agropyron bicorne* (Forssk.) Roem. & Schult.; *Sitopsis bicornis* (Forssk.) Á. Löve; *Triticum bicorne* Forssk.)
- Egypt, Israel. Related to wheat, see *Flora Aegyptiaco-Arabica* 26. 1775, *Systema Vegetabilium* 2: 760. 1817, *Illustrationes Plantarum Orientalium* 4: 11, t. 309. 1850-1853, *Flora of Syria, Palestine, and Sinai* 901. 1896 and *Bulletin de la Société Botanique de Genève* sér. 2 19: 325-326. 1928, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 73. 1929, *Feddes Repert.* 91: 231. 1980, *Biologisches Zentralblatt* 101(2): 206. 1982, *Agric. Univ. Wageningen Pap.* 94-7: 139. 1994.
- A. *biuncialis*** Vis. (*Aegilops biuncialis* var. *archipelagica* Eig; *Aegilops lorentii* Hochst.; *Aegilops lorentii* subsp. *archipelagica* (Eig) Á. Löve; *Aegilops lorentii* var. *velutina* (Zhuk.) K. Hammer; *Aegilops macrochaeta* Shuttlew. & É. Huet ex Duval-Jouve; *Aegilops ovata* subsp. *biuncialis* (Vis.) Anghel & Beldie; *Aegilops ovata* var. *biuncialis* (Vis.) Halácsy; *Aegilops ovata* var. *lorentii* (Hochst.) Boiss.; *Triticum biunciale* (Vis.) K. Richt.; *Triticum lorentii* (Hochst.) Zeven; *Triticum macrochaetum* (Shuttlew. & É. Huet ex Duval-Jouve) K. Richt.; *Triticum macrochaetum* (Shutt. & Huet) K. Richt.)
- Morocco, Iran, Europe. Related to wheat, see *Species Plantarum* 2: 1050-1051. 1753, *Flora Dalmatica* 1: 90, t. 1, f. 2. 1842, *Flora* 28: 25. 1845, *Bulletin de la Société Botanique de France* 16: 384. 1869, *Flora Orientalis* 5: 674. 1884 and *Conspectus Florae Graecae* 3: 431. 1904, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 137, t. 14g. 1929, *Flora Republicii Socialiste Romania* 12: 563. 1972, *Taxon* 22(2-3): 321. 1973, *Feddes Repert.* 91: 239. 1980, *Feddes Repertorium* 95(7-8): 503-504. 1984, *Israel J. Bot.* 35: 53-54. 1986, *Agric. Univ. Wageningen Pap.* 94-7: 146, 150. 1994.
- A. *columnaris*** Zhuk. (*Triticum columnare* (Zhuk.) Ros. Morris & Sears)
- Syria, Turkey. Drought-resistant, see *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 214. 1929, *Feddes Repert.* 95: 503. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 169. 1994.

**A. comosa** Sibth. & Sm. (*Aegilops comosa* Sm.; *Comopyrum comosum* (Sibth. & Sm.) Á. Löve; *Triticum comosum* (Sibth. & Sm.) K. Richt.)

Cyprus, Greece, Turkey. Yellow rust-resistant, see *Florae Graeca* 1: 75, t. 94. 1806, *Plantae Europaeae* 1: 128. 1890, *Fl. Syria, Palestine, & Sinai* 900. 1896, *Mittheilungen der Thüringischen Botanischen Vereins* n.f. 13-14: 62. 1899 and *Conspectus Florae Graecae* 3: 434. 1904, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 109-110, 214, t. 7e-k, 8a, d-e. 1929, *Feddes Repert.* 91: 235. 1980, *Biologisches Zentralblatt* 101(2): 207. 1982, *Agric. Univ. Wageningen Pap.* 94-7: 175. 1994.

**A. comosa** Sibth. & Sm. subsp. **comosa** (*Aegilops comosa* subsp. *comosa*)

Greece, Turkey. See *Florae Graeca* 1: 75, t. 94. 1806.

**A. comosa** Sibth. & Sm. subsp. **heldreichii** (Boiss.) Eig. (*Aegilops caudata* var. *heldreichii* Boiss.; *Aegilops comosa* Sibth. & Sm. subsp. *heldreichii* (Boiss.) Eig.; *Aegilops heldreichii* (Boiss.) Halácsy; *Triticum heldreichii* (Boiss.) K. Richt.)

Greece, Turkey. See *Florae Graeca* 1: 75, t. 94. 1806, *Flora Orientalis* 5: 675. 1884 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 62: 578. 1929.

**A. comosa** Sibth. & Sm. var. **comosa** (*Aegilops comosa* subsp. *comosa*; *Comopyrum comosum* (Sm.) Á. Löve; *Triticum comosum* (Sm.) K. Richt.)

Europe, Turkey. Related to wheat, see *Florae Graeca* 1: 75, t. 94. 1806 and *Agric. Univ. Wageningen Pap.* 94-7: 3, 175-176. 1994.

**A. comosa** Sibth. & Sm. var. **subventricosa** Boiss. (*Aegilops caudata* var. *heldreichii* Boiss.; *Aegilops comosa* subsp. *heldreichii* (Boiss.) Eig; *Aegilops heldreichii* (Boiss.) Holzm. ex Nyman; *Comopyrum comosum* subsp. *heldreichii* (Boiss.) Á. Löve; *Triticum heldreichii* (Boiss.) K. Richt.)

Greece, Turkey. Related to wheat, see *Florae Graeca* 1: 75, t. 94. 1806, *Flora Orientalis* 5: 676. 1884 and *Feddes Repert.* 91: 235. 1980, *Feddes Repert.* 95: 494. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 3, 181-188. 1994.

**A. crassa** Boiss. (*Aegilops crassa* f. *macranthera* Boiss.; *Aegilops crassa* subsp. *macranthera* (Boiss.) Zhuk.; *Aegilops crassa* subsp. *trivialis* Zhuk.; *Aegilops crassa* var. *flavescens* Popova; *Aegilops crassa* var. *glumiaristata* Eig; *Aegilops crassa* var. *macranthera* Boiss.; *Aegilops crassa* var. *rubiginosa* Popova; *Aegilops platyathera* Jaub.; *Gastropyrum crassum* (Boiss.) Á. Löve; *Gastropyrum glumiaristatum* (Eig) Á. Löve & P.E. McGuire; *Triticum crassum* (Boiss.) Aitch. & Hemsl.)

Asia temperate, Turkey, Iraq. Related to wheat, see *Diagnoses plantarum orientalium novarum* 1(7): 129. 1846, *Illustrationes Plantarum Orientalium* 4: 17, t. 313. 1850-

1853, *Flora Orientalis* 5: 677. 1884, *Transactions of the Linnean Society of London, Botany* 3: 127. 1888 and *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 13: 477. 1923, *Bulletin de la Société Botanique de Genève*, sér. 2, 19: 326, 328. 1928, *Feddes Repert.* 91: 234. 1980, *Feddes Repertorium* 95(7-8): 501-502. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 188-189. 1994.

**A. cylindrica** Host (*Aegilops caudata* subsp. *cylindrica* (Host) Hegi; *Aegilops caudata* subsp. *cylindrica* (Host) Fiori, nom. illeg., non *Aegilops caudata* subsp. *cylindrica* (Host) Hegi; *Aegilops cylindrica* Schur, nom. illeg., non *Aegilops cylindrica* Host; *Aegilops cylindrica* Sibth. & Sm., nom. illeg., non *Aegilops cylindrica* Host; *Aegilops cylindrica* f. *brunnea* (Popova) K. Hammer; *Aegilops cylindrica* f. *ferruginea* (Popova) K. Hammer; *Aegilops cylindrica* f. *fuliginosa* (Popova) K. Hammer; *Aegilops cylindrica* f. *prokhanovii* (Tzvelev) K. Hammer; *Aegilops cylindrica* subsp. *aristulata* Zhuk.; *Aegilops cylindrica* subsp. *pauciaristata* Eig; *Aegilops cylindrica* subsp. *pauciaristata* (Eig) Chennav.; *Aegilops cylindrica* var. *albescens* Popova; *Aegilops cylindrica* var. *aristulata* (Zhuk.) Tzvelev; *Aegilops cylindrica* var. *brunnea* Popova; *Aegilops cylindrica* var. *ferruginea* Popova; *Aegilops cylindrica* var. *flavescens* Popova; *Aegilops cylindrica* var. *fuliginosa* Popova; *Aegilops cylindrica* var. *kastorianum* S.S. Karataglis; *Aegilops cylindrica* var. *multiaristata* Jansen & Wacht.; *Aegilops cylindrica* var. *pauciaristata* Eig; *Aegilops cylindrica* var. *prokhanovii* Tzvelev; *Aegilops cylindrica* var. *pubescens* Kloos; *Aegilops cylindrica* var. *rumelica* Velen.; *Aegilops tauschii* auct. taur., non Coss.; *Cylindropyrum cylindricum* (Host) Á. Löve; *Cylindropyrum cylindricum* subsp. *cylindricum*; *Cylindropyrum cylindricum* subsp. *pauciaristatum* (Eig) Á. Löve; *Triticum cylindricum* (Host) Ces.; *Triticum cylindricum* (Host) Cesati, Passerini & Gibelli; *Triticum cylindricum* Cesati, Pass. & Gib.)

Asia, Europe, Turkey, Greece. Noxious weed, invasive, spikelets partly sunken in axis, glumes awned or short-awned, lemmas pointed or awned, in cultivated fields, dry sites, disturbed areas, see *Species Plantarum* 1051. 1753, *Icones et Descriptiones Graminum Austriacorum* 2: 6, t. 7. 1802, *Florae Graeca* 1: 75, t. 95. 1806, *Notes sur Quelques Plantes Critiques, Rares, ou Nouvelles, ...* 2: 69. 1849, *Enumeratio Plantarum Transsilvaniae* 813. 1866, Vincenzo de Cesati (1806-1883), Giovanni Passerini (1816-1893) e Giuseppe Gibelli (1831-1898), *Compendio della Flora Italiana* 1: 86. Milano 1869, *Flora Bulgarica* 627. 1891 and *Illustrierte Flora von Mittel-Europa* 1: 390. 1906, *Nuova Flora Analitica d'Italia* 1: 160. 1923, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 103, t. 6b. 1929, *Nederlandsch Kruidkundig Archief. Verslangenen Mededelingen der Nederlandsche Botanische Vereeniging* 138, f. 5c. 1931, *Novosti Sist. Vyss. Rast.* 10: 37. 1973, *Feddes Repert.* 91: 232-233. 1980, *Biologisches Zentralblatt* 101(2): 207. 1982, *Feddes Repertorium* 95(7-8): 500.

1984, *Plant Systematics and Evolution* 163(1-2): 19. 1989, *Wagen. Agric. Univ. Pap.* 94-7: 199-200, 202-203. 1994, *Genes & Genetic Systems* 71: 243-246. 1996.

in English: jointed goatgrass

**A. dichasians** (Zhuk.) Humphries (*Aegilops caudata* L. pro parte; *Aegilops caudata* pro parte subsp. *caudata*; *Aegilops caudata* pro parte subsp. *dichasians* Zhuk.; *Triticum dichasians* (Zhuk.) Bowden)

Europe, Greece. See *Species Plantarum* 2: 1051. 1753 and *Canadian Journal of Botany* 37: 667. 1959.

**A. geniculata** Roth (*Aegilops brachyathera* Pomel; *Aegilops divaricata* Jord. & Fourr.; *Aegilops echinus* Godr.; *Aegilops erigens* Jord. & Fourr.; *Aegilops erratica* Jord. & Fourr.; *Aegilops fonsii* Sennen; *Aegilops geniculata* Fig. & De Not.; *Aegilops geniculata* subsp. *geniculata*; *Aegilops geniculata* subsp. *gibberosa* (Zhuk.) K. Hammer; *Aegilops geniculata* var. *brachyathera* (Pomel) K. Hammer; *Aegilops geniculata* var. *echinus* (Godr.) K. Hammer; *Aegilops ovata* auct.; *Aegilops ovata* L. pro parte; *Aegilops ovata* subsp. *gibberosa* Zhuk.; *Aegilops ovata* var. *brachyathera* (Pomel) Eig; *Aegilops ovata* var. *echinus* (Godr.) Eig ex Miczyn.; *Aegilops parvula* Jord. & Fourr.; *Aegilops procera* Jord. & Fourr.; *Aegilops pubiglumis* Jord. & Fourr.; *Aegilops sicula* Jord. & Fourr.; *Aegilops vagans* Jord. & Fourr.; *Triticum ovatum* auct.; *Triticum ovatum* (L.) Raspail; *Triticum ovatum* (L.) Gren. & Godr.; *Triticum ovatum* subsp. *ovatum*; *Triticum vagans* (Jord. & Fourr.) Greuter)

Algeria, Spain, Syria, Europe. Noxious weed, invasive, see *Species Plantarum* 2: 1050-1051. 1753, A.W. Roth (1757-1834), *Botanische Abhandlungen und Beobachtungen* 45. Nürnberg 1787, *Annales des Sciences Naturelles; Botanique, sér. 5*, 435. 1825, *Memorie della Reale Accademia delle Scienze di Torino, ser. 2* 12: 262. 1852, *Florula Juvenalis* 48. Montpellier 1853, *Flore de France* 3(2): 601. 1856, *Breviarum Plantarum Novarum ... fasc. 2*: 129-131. Parisii 1868, *Nouveaux matériaux pour la flore atlantique* 389. Paris, Alger 1874 and *Bulletin de la Société Botanique de France* 69: 91. 1922, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 144-145, t. 15b. 1929, *Bulletin de la Société Botanique de France* 76: 716. 1929, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 13: 170. 1967, *Willdenowia* 7(2): 420. 1974, *Feddes Repertorium* 91: 240-241, 248. 1980, *Biol. Zentralbl.* 101: 207. 1982, *Feddes Repert.* 95: 503. 1984, *Taxon* 35: 557. 1986, *Agric. Univ. Wageningen Pap.* 94-7: 220, 225. 1994.

in English: ovate goatgrass

in French: aegilops

in Morocco: senboul-el-far

**A. juvenalis** (Thell.) Eig (*Aegilonearum juvenale* (Thell.) Á. Löve; *Aegilops turcomanica* Roshev.; *Triticum juvenale*

Thell.; *Triticum turcomanocum* (Roshev.) Bowden, also *turcomanicum*)

Iraq, Syria. Related to wheat, see *Repertorium Specierum Novarum Regni Vegetabilis* 3: 281. 1907, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 63, 93. 1929, *Canadian Journal of Botany* 37: 676. 1959, *Feddes Repert.* 91: 235. 1980, *Biologisches Zentralblatt* 101(2): 207-208. 1982, *Pl. Genet. Resources Newslett.* 96: 11-16. 1993, *Agric. Univ. Wageningen Pap.* 94-7: 244, 246. 1994.

**A. kotschyi** Boiss. (*Aegilemma kotschyi* (Boiss.) Á. Löve; *Aegilops geniculata* Fig. & De Not.; *Aegilops glabriglumis* Gand.; *Aegilops kotschyi* var. *leptostachya* (Bornm.) Eig; *Aegilops triuncialis* subsp. *kotschyi* (Boiss.) Zhuk.; *Aegilops triuncialis* var. *kotschyi* (Boiss.) Boiss.; *Aegilops triuncialis* var. *leptostachya* Bornm.; *Triticum kotschyi* (Boiss.) Bowden) (named for the Austrian botanist Carl (Karl) Georg Theodor Kotschy, 1813-1866, plant collector, traveler, from 1835 to 1843 botanical explorer of the Orient, from 1852 Curator of the Herbarium of the Vienna Natural History Museum, his writings include *Die Insel Cypren.* [with Franz Joseph Andreas Nicolaus Unger, 1800-1870] Wien 1865 and *Die Sommerflora des Antilibanon und hohen Hermon.* Wien 1864. See Eduard Fenzl (1808-1879), *Abbildungen und Beschreibungen neuer und selthener Thiere und Pflanzen in Syrien und im westlichen Taurus gesammelt von T. Kotschy.* Stuttgart 1843; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen.* 14. Aufl. Stuttgart 1993; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico.* Philadelphia 1964; J.H. Barnhart, *Biographical notes upon botanists.* 2: 315. 1965; Joseph Vallot, "Études sur la flore du Sénégal." in *Bull. Soc. Bot. de France.* 29: 182-183. Paris 1882; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen.* Dresden 1916; T.W. Bosser, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection.* 218. 1972; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford.* 195. Oxford 1964; A. Lasègue, *Musée botanique de Benjamin Delessert.* Paris 1845; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University.* Cambridge, Mass. 1917-1933)

Libya, Cyprus, Turkey. See *Diagnoses plantarum orientaliarum novarum* 1(7): 129. 1846, *Memorie della Reale Accademia delle Scienze di Torino, ser. 2* 12: 262. 1852, *Österreichische Botanische Zeitschrift* 31: 82. 1881, *Flora Orientalis* 5: 674. 1884, *Verhandlungen der Zoologisch-botanischen Gesellschaft in Wien* 48: 651. 1898 and *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 128-129, t. 12a, d-e. 1929, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 2877. 1939, *Canadian Journal of Botany* 37: 675. 1959, *Feddes Repert.* 91: 237.



1980, *Biologisches Zentralblatt* 101(2): 207. 1982, *Agric. Univ. Wageningen Pap.* 94-7: 252, 254. 1994.

**A. longissima** Schweinf. & Muschler (*Sitopsis longissima* (Schweinf. & Muschl.) Á. Löve; *Triticum longissimum* (Schweinf. & Muschl.) Bowden)

Israel. See *Flora of Syria, Palestine, and Sinai* 901. 1896 and *A Manual Flora of Egypt* by Dr. Reno Muschler ... 1: 156. Berlin 1912, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 10: 489. 1928, *Bulletin de la Société Botanique de Genève* sér. 2 19: 326. 1928, *Canadian Journal of Botany* 37: 666. 1959, *Feddes Repert.* 91: 231-232. 1980, *Feddes Repertorium* 95(7-8): 492. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 261. 1994.

**A. markgrafii** (Greuter) K. Hammer (*Aegilops caudata* auct.; *Aegilops caudata* L.; *Aegilops caudata* subsp. *dichasians* Zhuk., nom. illeg.; *Aegilops caudata* var. *polyathera* Boiss.; *Aegilops dichasians* (Bowden) Humphries; *Aegilops dichasians* (Zhuk.) Humphries; *Aegilops markgrafii* var. *markgrafii*; *Aegilops markgrafii* var. *polyathera* (Boiss.) K. Hammer; *Aegilops ventricosa* L.; *Orrhopygium caudatum* auct.; *Triticum dichasians* Bowden; *Triticum markgrafii* Greuter)

Syria, Turkey, Greece. See *Flora Orientalis* 5: 675. 1884 and *Canadian Journal of Botany* 37: 667. 1957, *Boissiera* 13: 172. 1967, *Bot. J. Linn. Soc.* 78: 236. 1979, *Feddes Repertorium* 91(4): 232. 1980, *Biol. Zentralbl.* 101: 206. 1982, *Taxon* 43: 293-296. 1994, *Agric. Univ. Wageningen Pap.* 94-7: 160, 162. 1994, *Taxon* 45: 675. 1996.

**A. neglecta** Req. ex Bertol. (*Aegilops algeriensis* Gand.; *Aegilops calida* Gand.; *Aegilops campicola* Gand.; *Aegilops mesantha* Gand.; *Aegilops neglecta* subsp. *neglecta*; *Aegilops neglecta* subsp. *recta* (Zhuk.) K. Hammer; *Aegilops neglecta* var. *contorta* (Zhuk.) K. Hammer; *Aegilops ovata* L.; *Aegilops ovata* L. pro parte; *Aegilops ovata* subsp. *triaristata* (Willd.) Rouy; *Aegilops ovata* var. *triaristata* (Willd.) Bluff ex Nees; *Aegilops ovata* var. *triaristata* (Willd.) Lindb.; *Aegilops ovata* var. *triaristata* (Willd.) W. Koch; *Aegilops recta* (Zhuk.) Chennav.; *Aegilops triaristata* Willd.; *Aegilops triaristata* subsp. *contorta* Zhuk.; *Aegilops triaristata* subsp. *intermixta* Zhuk.; *Aegilops triaristata* subsp. *recta* Zhuk.; *Aegilops virescens* Jord. & Fourr.; *Aegilops viridescens* Gand.; *Triticum neglectum* (Req. ex Bertol.) Greuter; *Triticum ovatum* (L.) Gren. & Godr.; *Triticum ovatum* (L.) Raspail; *Triticum ovatum* var. *triaristatum* Asch. & Graebn.; *Triticum ovatum* var. *triaristatum* Schmalh.; *Triticum rectum* (Zhuk.) Bowden; *Triticum triaristatum* (Willd.) Gren. & Godr.)

Israel, Turkey, Europe. See *Species Plantarum* 2: 1050-1051. 1753, *Species Plantarum* 4: 943. 1806, *Annales des Sciences Naturelles; Botanique, sér. 5*, 435. 1825, *Flora Italica* ... 1: 787. 1834, *Compendium Florae Germaniae. Editio altera* 1: 209. 1836, *Spicilegium florum rumelicarum et bithynicarum* ... 2: 425. 1844, *Flore de France* 3(2): 601. 1856,

*Breviarum Plantarum Novarum* ... Fasc. 2: 130. 1868, *Österreichische Botanische Zeitschrift* 31: 81-82. 1881, *Flora* 2: 662. 1897 and *Flore de France* 14: 333. 1913, *Acta societatis scientiarum fennica. Series B. Opera biologica* 12: 11. 1932, *Canad. J. Genet. Cytol.* 8: 135. 1966, *Boissiera* 13: 171. 1967, *Feddes Repert.* 91: 232, 239-240. 1980, *Feddes Repertorium* 95: 503-504. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 266-267, 269, 271. 1994.

**A. ovata** L. (*Aegilops geniculata* Roth; *Aegilops neglecta* Req. ex Bertol.; *Aegilops neglecta* var. *contorta* (Zhuk.) K. Hammer; *Aegilops triaristata* subsp. *contorta* Zhuk.; *Aegilops triaristata* subsp. *intermixta* Zhuk.; *Triticum neglectum* (Req. ex Bertol.) Greuter; *Triticum ovatum* (L.) Raspail; *Triticum ovatum* (L.) Gren. & Godr.; *Triticum ovatum* subsp. *ovatum*)

Europe, Mediterranean, Asia. Spikelets not sunken in axis, upper 3 florets generally sterile, lemma of upper spikelets 3-awned, lemma of lower spikelets generally 2-awned, in disturbed areas, along roadsides, fields, see *Species Plantarum* 2: 1050-1051. 1753, *Botanische Abhandlungen* 45. 1787, *Species Plantarum. Editio quarta* 4: 943. 1806, *Annales des Sciences Naturelles; Botanique, sér. 5*, 435. 1825, *Flora Italica* ... 1: 787. 1834, *Memorie della Reale Accademia delle Scienze di Torino, ser. 2* 12: 262. 1852, *Florula Juvenalis* 48. Montpellier 1853, *Flore de France* 3(2): 601. 1856 and *Boissiera* 13: 171. 1967, *Feddes Repertorium* 91(4): 240. 1980, *Biological Journal of the Linnean Society* 82(4): 503-510. Aug 2004 [Are neopolyploids a likely route for a transgene walk to the wild? The *Aegilops ovata* - *Triticum turgidum durum* case].

**A. peregrina** (Hack.) Maire & Weiller (*Aegilemma peregrina* (Hack.) Á. Löve; *Aegilops peregrina* (Hack.) Eig; *Aegilops peregrina* (Hack.) Melderis; *Triticum peregrinum* Hack.)

Egypt, Syria, Greece. Related to wheat, naturalized elsewhere, see *Annals of Scottish Natural History* 62: 101-102. 1907, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 121. 1929, *Flore de l'Afrique du Nord*: 3: (Encycl. Biol. 48) 358. 1955, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* ser. 2 5(1): 71. 1960, *Feddes Repert.* 91: 236. 1980, *Feddes Repert.* 95: 499. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 287. 1994.

**A. peregrina** (Hack.) Maire & Weiller var. **brachyathera** (Boiss.) Maire & Weiller (*Aegilemma peregrina* subsp. *cylindrostachys* (Eig & Feinbrun) Á. Löve; *Aegilops peregrina* subsp. *cylindrostachys* (Eig & Feinbrun ex Eig) K. Hammer; *Aegilops peregrina* subsp. *cylindrostachys* (Eig & Feinbrun) K. Hammer; *Aegilops peregrina* var. *brachyathera* (Boiss.) K. Hammer; *Aegilops triuncialis* var. *brachyathera* Boiss.; *Aegilops variabilis* subsp. *cylindrostachys* Eig & Feinbrun; *Aegilops variabilis* subsp. *cylindrostachys* Eig & Feinbrun ex Eig; *Triticum peregrinum*

subsp. *cylindrostachys* (Eig & Feinbrun) Kimber & Feldman)

Egypt, Cyprus, Syria, Turkey. Naturalized elsewhere, see *Flora Orientalis* 5: 674. 1884 and *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 125, t. 9b, 11. 1929, *Flore de l'Afrique du Nord*: 3: 360. 1955, *Feddes Repert.* 91: 237. 1980, *Feddes Repert.* 95: 499. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 294. 1994.

**A. peregrina** (Hack.) Maire & Weiller var. *peregrina* (*Aegilemma peregrina* (Hack.) Á. Löve; *Aegilops peregrina* subsp. *peregrina* var. *variabilis* (Eig) K. Hammer; *Aegilops peregrina* var. *variabilis* (Eig) K. Hammer; *Aegilops variabilis* Eig; *Aegilops variabilis* subsp. *euvariabilis* Eig & Feinbrun; *Triticum peregrinum* Hack.)

Egypt, Greece, Turkey. Naturalized elsewhere, see *Ann. Scott. Nat. Hist.* 16(62): 101. 1907, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 121, t. 9-11. 1929, *Feddes Repert.* 91: 236-237, 254. 1980, *Feddes Repert.* 95: 499. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 284, 287. 1994.

**A. searsii** Feldman & Kislev ex K. Hammer (*Aegilops searsii* Feldman & Kislev; *Sitopsis searsii* (Feldman & Kislev ex K. Hammer) Á. Löve; *Sitopsis searsii* (Feldman & Kislev) Á. Löve; *Triticum searsii* (Feldman & Kislev ex K. Hammer) Feldman)

Israel. Related to wheat, found in red soil, see *Israel Journal of Botany* 26(4): 191. 1978, *Feddes Repert.* 91: 231. 1980, *Feddes Repert.* 95(7-8): 492. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 298. 1994.

**A. sharonensis** Eig (*Aegilops longissima* subsp. *sharonensis* (Eig) K. Hammer; *Sitopsis sharonensis* (Eig) Á. Löve)

Israel. See *Flora of Syria, Palestine, and Sinai* 901. 1896 and *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 10: 489. 1928, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 75. 1929, *Feddes Repert.* 91: 231, 303. 1980, *Feddes Repert.* 95: 492. 1984, *Pl. Genet. Resources Newsl.* 96: 11-16. 1993, *Agric. Univ. Wageningen Pap.* 94-7: 298, 303. 1994.

**A. speltoides** Tausch (*Sitopsis speltoides* (Tausch) Á. Löve; *Triticum speltoides* (Tausch) Gren. ex K. Richt.; *Triticum speltoides* (Tausch) Gren.)

Israel, Greece, Bulgaria, Turkey. Forage, naturalized elsewhere, see *Flora* 20: 108-109. 1837 and *Feddes Repert.* 91: 247. 1980, *Feddes Repert.* 95: 491. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 309. 1994, I.G. Adonina, E.A. Salina, T.T. Efremova and T.A. Pshenichnikova, "The study of introgressive lines of *Triticum aestivum* x *Aegilops speltoides* by *in situ* and SSR analyses." *Plant Breeding* 123(3): 220-224 June 2004.

in English: goatgrass

**A. speltoides** Tausch var. *ligustica* (Savign.) Fiori (*Aegilops ligustica* (Savign.) Coss.; *Aegilops speltoides* subsp. *ligustica*

(Savign.) Zhuk.; *Aegilops speltoides* var. *ligustica* (Savign.) Bornm.; *Agropyron ligusticum* Savign.; *Sitopsis speltoides* (Tausch) Á. Löve; *Triticum ligusticum* (Savign.) Bertol.; *Triticum speltoides* subsp. *ligustica* (Savign.) Chennav.)

Israel, Greece, Bulgaria, Turkey. Related to wheat, see *Bull. Soc. Bot. France* 11: 164. 1864 and *Flora Analytica d'Italia* 4 (Append.): 32. 1907, *Feddes Repert.* 91: 231, 247. 1980, *Feddes Repert.* 95: 491. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 319-320. 1994.

**A. speltoides** Tausch var. *speltoides* (*Aegilops aucheri* Boiss.; *Aegilops macrura* Jaub. & Spach; *Aegilops speltoides* var. *aucheri* (Boiss.) Fiori; *Aegilops speltoides* var. *aucheri* (Boiss.) Bornm.; *Aegilops speltoides* var. *aucheri* Meyer; *Sitopsis speltoides* (Tausch) Á. Löve; *Triticum speltoides* (Tausch) Gren. ex K. Richt.; *Triticum speltoides* var. *aucheri* (Boiss.) Asch.)

Israel, Greece, Bulgaria, Turkey. Related to wheat, see *Diagnoses plantarum orientalium novarum* 1(5): 74. 1844 and *Beihefte zum Botanischen Centralblatt* abt. 2 26: 438. 1910, *Feddes Repert.* 91: 230. 1980, *Feddes Repert.* 95: 491. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 309-310, 312, 328. 1994.

in English: goatgrass

**A. tauschii** Coss. (*Aegilops squarrosa* auct.; *Aegilops squarrosa* f. *meyeri* Griseb.; *Aegilops squarrosa* subsp. *meyeri* (Griseb.) Zhuk.; *Aegilops squarrosa* subsp. *salina* Zhuk.; *Aegilops squarrosa* subsp. *salinum* Zhuk.; *Aegilops squarrosa* subsp. *strangulata* Eig; *Aegilops squarrosa* var. *anathera* Eig; *Aegilops squarrosa* var. *meyeri* Griseb.; *Aegilops strangulata* (Eig) N.N. Tzvelev; *Aegilops tauschii* subsp. *strangulata* (Eig) Tzvelev; *Aegilops tauschii* subsp. *tauschii*; *Aegilops tauschii* var. *anathera* (Eig) K. Hammer; *Aegilops tauschii* var. *meyeri* (Griseb.) Tzvelev; *Patropyrum tauschii* (Coss.) Á. Löve; *Patropyrum tauschii* subsp. *salinum* (Zhuk.) Á. Löve; *Patropyrum tauschii* subsp. *strangulata* (Eig) Á. Löve; *Triticum aegilops* P. Beauv. ex Roem. & Schult.; *Triticum tauschii* (Coss.) Schmalh.) (named for the Czech botanist Ignaz Friedrich Tausch, 1793-1848, naturalist, botanical collector; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 362. 1965; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. University of Pennsylvania Press, Philadelphia 1964; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Stafleu and Cowan, *Taxonomic literature*. 6: 182-184. Utrecht 1986; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; N. Hall, *Botanists of the Eucalypts*. Melbourne 1978 and Supplement 1980)

Asia, Eurasia. Naturalized elsewhere, leaf sheaths glabrous and ciliate, ligules membranous, spikes and spikelets cylindrical, glumes coriaceous, lemma lanceolate, palea keels

ciliate, in stony sites, slopes, weedy places, see J.C. Buxbaum, *Plantarum minus cognitarum centuriae, complectens plantas circa Byzantium et in Oriente observatas* Centuria I. Petropoli 1728-1740, *Species Plantarum* 1051. 1753, *Systema Vegetabilium* 2: 769. 1817, *Notes sur Quelques Plantes Critiques, Rares, ou Nouvelles, ...* 2: 69. 1849 and *Repertorium Specierum Novarum Regni Vegetabilis* Beih. 55: 90. 1929, *Feddes Repert.* 91: 233-234. 1980, *Biologisches Zentralblatt* 101(2): 206. 1982, *Feddes Repert.* 95: 493. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 326, 328-329. 1994, Wanlong Li, Peng Zhang, John P. Fellers, Bernd Friebe and Bikram S. Gill, "Sequence composition, organization, and evolution of the core Triticeae genome." *The Plant Journal* 40(4): 500-511. Nov 2004.

**A. triuncialis** L. (*Aegilopodes triuncialis* (L.) Á. Löve; *Aegilopodes triuncialis* subsp. *triuncialis*; *Aegilops croatica* Gand.; *Aegilops echinata* C. Presl; *Aegilops elongata* Lam.; *Aegilops nigricans* Jord. & Fourr.; *Aegilops ovata* subsp. *triaristata* (Willd.) Rouy; *Aegilops ovata* var. *triaristata* (Willd.) Bluff ex Nees; *Aegilops ovata* var. *triaristata* (Willd.) W. Koch; *Aegilops ovata* var. *triaristata* (Willd.) Lindb.; *Aegilops persica* Boiss.; *Aegilops squarrosa* L.; *Aegilops squarrosa* subsp. *squarrosa* (L.) Kihara & Tanaka; *Aegilops triaristata* Willd.; *Aegilops triaristata* Req. ex Bertol., nom. illeg., non *Aegilops triaristata* Willd.; *Aegilops triuncialis* subsp. *orientalis* Eig; *Triticum persicum* (Boiss.) Aitch. & Hemsl.; *Triticum triunciale* (L.) Raspail; *Triticum trunciale* (L.) Raspail) (Latin *triuncis* "of three")

Africa, Asia, Europe. Noxious weed, invasive, naturalized elsewhere, spikelets generally not sunken in axis, upper 2 florets generally sterile, glumes 2-3-awned, lemmas shortly-awned or awn absent, disturbed areas, cultivated fields, along roadsides, see *Species plantarum* 2: 1050-1051. 1753, *Flore de France* 3: 632. 1778, *Species Plantarum* 4: 943. 1806, *Cyperaceae et Gramineae Siculae* 47. Pragae 1820, *Annales des Sciences Naturelles (Paris)* 1(5): 435. 1825, *Flora Italica ...* 1: 789. 1834, *Compendium Florae Germaniae. Editio altera* 1: 209. 1836, *Spicilegium florum rumelicarum et bithynicarum ...* 2: 425. 1844, *Diagnoses plantarum orientalium novarum* 1(7): 129. 1846, *Breviarum Plantarum Novarum ...* 2: 128. 1868, *Österreichische Botanische Zeitschrift* 31: 81. 1881, *Transactions of the Linnean Society of London, Botany* 31: 127. 1888 and *Flore de France* 14: 333. 1913, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 134. 1929, *Acta societatis scientiarum fennica. Series B. Opera biologica* 12: 11. 1932, *Preslia* 30: 248. 1958, *Canadian Journal of Botany* 1959, *Biologisches Zentralblatt* 101(2): 207. 1982, *Taxon* 41: 555. 1992, *Agric. Univ. Wageningen Pap.* 94-7: 344-374. 1994.

in English: barbed goatgrass, barb goat grass, jointed goat grass

in Turkey: çayır otu

**A. triuncialis** L. var. **persica** (Boiss.) Eig (*Aegilopodes triuncialis* subsp. *persica* (Boiss.) Á. Löve; *Aegilops persica* Boiss.; *Aegilops triuncialis* subsp. *persica* (Boiss.) Zhuk.; *Triticum persicum* (Boiss.) Aitch. & Hemsl.)

Iran, Iraq, Turkey. Related to wheat, see *Diagnoses plantarum orientalium novarum* Nov 1(7): 129. 1846, *Trans. Linn. Soc. London, Bot. ser.* 2, 3: 127. 1888 and *Bulletin de la Société Botanique de Genève sér.* 2, 19: 323. 1928, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 134, t. 13c. 1929, *Feddes Repert.* 91: 238. 1980, *Feddes Repert.* 95: 501. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 370-374. 1994.

**A. triuncialis** L. var. **triuncialis** (*Aegilopodes triuncialis* (L.) Á. Löve; *Aegilops elongata* Lam.; *Aegilops squarrosa* L.; *Aegilops triuncialis* var. *assyriaca* Eig; *Aegilops triuncialis* subsp. *triuncialis*; *Triticum triunciale* (L.) Raspail; *Triticum trunciale* (L.) Raspail)

Africa, Asia, Europe. Noxious weed, invasive, related to wheat, see *Species plantarum* 2: 1051. 1753, *Annales des Sciences Naturelles (Paris)* 1(5): 435. 1825 and *Bulletin de la Société Botanique de Genève sér.* 2, 19: 323. 1928, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 134, t. 13b. 1929, *Feddes Repert.* 91: 238-239. 1980, *Biol. Zentralbl.* 101: 207. 1982, *Agric. Univ. Wageningen Pap.* 94-7: 347, 349-360. 1994.

in English: barbed goatgrass, barb goat grass, jointed goat grass

**A. umbellulata** Zhuk. (*Kiharapyrum umbellulata* (Zhuk.) Á. Löve; *Kiharapyrum umbellulatum* (Zhuk.) Á. Löve; *Triticum umbellulatum* (Zhuk.) Bowden)

Greece, Turkey. Related to wheat, see *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 55: 216, t. 15. 1929, *Canadian Journal of Botany* 37: 666. 1959, *Feddes Repert.* 91: 236. 1980, *Biologisches Zentralblatt* 101(2): 207. 1982, *Feddes Repertorium* 95(7-8): 495. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 374-380. 1994.

**A. uniaristata** Vis. (*Aegilops peregrina* (Hack.) Maire & Weiller; *Aegilops uniaristata* Steud.; *Aegilops variabilis* Eig; *Chenopodium uniaristatum* (Vis.) Á. Löve; *Triticum uniaristatum* (Vis.) K. Richt.)

Europe, Greece, Turkey. Related to wheat, see *Flora Dalmatica* 3: 345. 1852, *Synopsis Plantarum Glumacearum* 1: 354. 1854, *Plantae Europaeae* 1: 128. 1890 and *Feddes Repert.* 91: 236. 1980, *Biologisches Zentralblatt* 101(2): 207. 1982, *Feddes Repertorium* 95(7-8): 495. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 380, 382. 1994.

**A. vavilovii** (Zhuk.) Chennav. (*Aegilops crassa* subsp. *vavilovii* Zhuk.; *Gastropyrum vavilovii* (Zhuk.) Á. Löve; *Triticum syriacum* Bowden)

Israel, Syria. Related to wheat, see *Acta Horti Gothoburgensis* 23: 167. 1960, *Canadian Journal of Genetics and Cytology* 8: 135. 1966, *Feddes Repert.* 91: 234. 1980,

*Feddes Repertorium* 95(7-8): 502. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 385. 1994.

**A. ventricosa** Tausch (*Aegilops fragilis* Parl.; *Aegilops subulata* Pomel; *Gastropyrum ventricosum* (Tausch) Á. Löve; *Triticum subulatum* (Pomel) Durand & Schinz; *Triticum ventricosum* Ces.; *Triticum ventricosum* (Tausch) Ces. & al.)

Morocco, Europe. Noxious weed, invasive, related to wheat, naturalized elsewhere, see *Flora* 20: 108. 1837, *Compendio della flora italiana* 1(4): 86. Milano 1869, *Nouveaux matériaux pour la flore atlantique* 388-389. Paris, Alger 1874, *Conspectus Florae Africae* 5: 939. 1894 and *Feddes Repert.* 91: 234. 1980, *Biologisches Zentralblatt* 101(2): 208. 1982, *Pl. Genet. Resources Newsl.* 96: 11-16. 1993, *Agric. Univ. Wageningen Pap.* 94-7: 392. 1994.

### x Aegilosecale Ciferri & Giacomini

*Aegilops* x *Secale*, see *Nomenclator Florae Italicae* 180. 1950, *Genera Graminum* 374. 1986.

### x Aegilotrichum Camus

*Aegilotriticum*, see *Bulletin du Muséum d'Histoire Naturelle* 33: 538. 1927, *Genera Graminum* 374. 1986.

### x Aegilotriticum Camus

*Aegilotriticum*, see *Berichte der Deutschen Botanischen Gesellschaft* 44: 113. 1926, *Fl. Afr. Nord* 3: 370. 1955, *Genera Graminum* 374. 1986.

### x Aegilotriticum P. Fourn.

*Aegilops* x *Triticum*, see *Les Quatre Flores de la France* 89. 1935, *Genera Graminum* 374. 1986.

**Aegopogon Humb. & Bonpl. ex Willd.** = *Atherophora* Steud., *Hymenothecium* Lag., *Schellingia* Steud.

From the Greek *aix*, *aigos* “a goat” and *pogon* “a beard,” referring to the spikes, to the awns.

About 3-4 species, southern America, U.S., Mexico, Guatemala, Argentina. Chloridoideae, Cynodonteae, Muhlenbergiinae, annual or perennial, rather small, herbaceous, straggling, sprawling, stoloniferous, weak, auricles absent, ligule a fringed membrane, narrow linear leaf blades persistent, plants bisexual, inflorescence a false spike, a terminal raceme, central spikelet 1-flowered sessile or pedicelled, deciduous branchlets with clusters of 1-flowered spikelets, spikelets in triplets, longer spikelets male or sterile, shorter

spikelets bisexual, 2 glumes more or less equal and apically 2-lobed, lemma 3-nerved, glumes and lemma awned, palea present, 2 lodicules fleshy and glabrous, 3 stamens, ovary glabrous, 2 stigmas, lateral spikelets pedicelled 1-flowered, forest margins, type *Aegopogon cenchroides* Humb. & Bonpl. ex Willd., see *Species Plantarum. Editio quarta* 4(2): 899. 1805 [1806], *Genera et species plantarum* 4. 1816, *Nomenclator Botanicus. Editio secunda* 1: 167. 1840, *Flora* 33: 231-232. 1850, *Flora Brasiliensis* 2(3B): 161-242, t. 44-58. 1880 and *University of Wyoming Publications* 13(2): 17-23. 1948, *Fieldiana, Botany* 24(2): i-ix, 1-390. 1955 [Flora of Guatemala], R.W. Pohl and G. Davidse, “Chromosome numbers of Costa Rican grasses.” in *Brittonia* 23(3): 293-324. 1971, *Las Gramíneas de México* 1: 1-260. 1983, *Ruizia; Monografías del Real Jardín Botánico* 13: 1-480. 1993 [*Las Gramíneas (Poaceae) del Perú*], *Flora Mesoamericana* 6: 296-297. 1994, *Flora de Veracruz* 114: 1-16. 2000, *Flora of Ecuador* 68: 120-123. 2001, *Contributions from the United States National Herbarium* 41: 9-11, 17, 129, 193. 2001.

### Species

**A. bryophilus** Döll (*Aegopogon argentinus* Mez; *Aegopogon fiebrigii* Mez; *Aegopogon geminiflorus* Kunth; *Aegopogon geminiflorus* var. *muticus* Pilg.; *Aegopogon tenellus* (DC.) Trin.) (dedicated to the German-born scientist Karl [also Carlos] August Gustav Fiebrig [-Gertz], 1879[or 1869]-1951 [Tucumán, Argentina], zoologist, botanist and collector in Paraguay and Bolivia from 1902 onward, 1910-1936 professor of botany and zoology at the University of Asunción and director of a Botanical and Zoological garden, 1934-1936 director of Dept. de Agricultura, 1936-1945 lecturer at the Latin-American institute in Berlin. See *Physis*, Buenos Aires 20: 526. 1954; *Ber. Deutsch. Bot. Ges.* 68a: 151-152. 1955; *Revist. Sudamer. Bót.* 10: 248. 1956)

Brazil, Ecuador to northern Argentina, Bolivia. Annual, weak, very slender, branched from base, leaf sheaths slightly inflated, ligule membranous, leaf blades flat and thin, inflorescence with 15-25 branchlets, clusters with 1 hermaphroditic and 1-2 rudimental spikelets, fertile spikelet slender, sterile spikelets with glumes bilobed and shortly awned, glumes unequal both membranous and bilobed, lemma bilobed and 3-nerved, glume and lemma awned, 3 stamens, see *Nova Genera et Species Plantarum* 1: 133, t. 43. 1815 [1816], *Flora Brasiliensis* 2(3): 239. 1880, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 27(1-2): 25. 1899 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 145. 1921, *Field Museum of Natural History, Botanical Series* 13(1/1): 96-261. 1936, *Contributions from the Gray Herbarium of Harvard University* 184: 1-223. 1958, *Identificación de Especies Vegetales en Chuquisaca – Teoría, Práctica y Resultados* 1-129. 2000, *Hickenia* 3(28): 99-103. 2001.

**A. cenchroides** Humb. & Bonpl. ex Willd. (*Aegopogon breviglumis* (Scribn.) Nash; *Aegopogon cenchroides* var. *abortivus* E. Fourn.; *Aegopogon cenchroides* var. *breviglumis* (Scribn.) Beetle; *Aegopogon cenchroides* var. *cenchroides*; *Aegopogon cenchroides* var. *geminiflorus* (Kunth) Griseb.; *Aegopogon cenchroides* var. *multisetus* E. Fourn.; *Aegopogon cenchroides* var. *trisetus* (Lag.) E. Fourn.; *Aegopogon geminiflorus* Kunth; *Aegopogon geminiflorus* var. *breviglumis* Scribn.; *Aegopogon guatemalensis* Gand.; *Aegopogon multisetus* Steud.; *Aegopogon pusillus* P. Beauv.; *Aegopogon quinquesetus* (Lag.) Roem. & Schult.; *Aegopogon setifer* Nees; *Aegopogon submuticus* Rupr.; *Hymenothecium quinquesetum* Lag.; *Hymenothecium trisetum* Lag.)

North America, Mexico. Annual or perennial bunchgrass, very variable species, wiry, weak, glabrous, tufted, mat-forming, small, erect, scrambling, procumbent, branched, ligule acute, leaf blades linear, leaf sheaths with membranous margins, inflorescence raceme-like with 10-20 branchlets, spikelets purplish to reddish, clusters with 1 hermaphrodite and 2 male or sterile spikelets, glumes subequal and awned, lemma awned, lodicules very small, 3 stamens, forage, weed, found along roadsides, in open weedy areas, slopes, rocky places along streams, in cracks on rocks, arid sites, compacted soil, see *Species Plantarum*. *Editio quarta* 4(2): 899. 1806, *Essai d'une Nouvelle Agrostographie* 122, t. 22, f. 4. 1812, *Genera et species plantarum* 4. 1816, *Nova Genera et Species Plantarum* 1: 133, t. 43. 1815 [1816], *Systema Vegetabilium* 1: 805. 1817, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(1): 25. 1840, *Linnaea* 19(6): 691. 1847, *Synopsis Plantarum Glumacearum* 1: 146. 1854, *Abhandlungen der Königlich Gesellschaft der Wissenschaften zu Göttingen* 24: 301. 1879, *Mexicanas Plantas* 2: 72. 1886, *Zoë* 4(4): 386. 1894 and *North American Flora* 17(2): 139. 1912, *Bulletin de la Société Botanique de France* 66(7): 298. 1919 [1920], *University of Wyoming Publications* 8(2): 23. 1948, *Nómina de las plantas recolectadas en el Valle de Cochabamba* 2: 17-86. 1966, *Cuscatlania* 1(6): 1-29. 1991.

in Mexico: pasto

**A. solisii** G.A. Levin

Mexico. See *Memoir San Diego Society of Natural History* 16: 1-66. 1989 [The vascular flora of Isla Socorro, Mexico].

**A. tenellus** (DC.) Trin. (*Aegopogon cenchroides* var. *abortivus* E. Fourn.; *Aegopogon geminiflorus* Kunth; *Aegopogon geminiflorus* subvar. *purpureus* Griseb. ex E. Fourn.; *Aegopogon geminiflorus* var. *abortivus* E. Fourn.; *Aegopogon geminiflorus* var. *unisetus* (Lag.) E. Fourn.; *Aegopogon gracilis* Vasey; *Aegopogon imperfectus* Nash; *Aegopogon tenellus* var. *abortivus* (Fourn.) Beetle; *Aegopogon tenellus* var. *tenellus*; *Aegopogon unisetus* (Lag.) Roem. & Schult.;

*Chloris pedicellata* Steud. ex E. Fourn.; *Chloris pedicellata* Steud.; *Cynosurus tenellus* Cav. ex DC.; *Hymenothecium tenellum* (Cav. ex DC.) Lag.; *Hymenothecium unisetum* Lag.; *Lamarckia tenella* DC.; *Schellingia tenera* Steud.)

South America, Mexico, U.S. Annual, forage, grassland, see *Species Plantarum*. *Editio quarta* 4(2): 899. 1806, *Catalogus plantarum horti botanici monspeliensis* 120. 1813, *Genera et species plantarum* 4. 1816, *Nova Genera et Species Plantarum* 1: 133, t. 43. 1815 [1816], *Systema Vegetabilium* 2: 805. 1817, *De Graminibus unifloris et sesquifloris* 164. Petropoli 1824, *Flora* 33: 232. 1850, *Mexicanas Plantas* 2: 71-72. 1886, *Bulletin of the Torrey Botanical Club* 13(12): 230. 1886 and *North American Flora* 17(2): 138. 1912, *University of Wyoming Publications* 8(2): 19. 1948.

in English: fragile grass

in Mexico: pasto

**Aelbroeckia De Moor** = *Aeluropus* Trin., *Chamaedactylis* T.F.L. Nees

Chloridoideae, Eragrostideae, see *Fundamenta Agrostographiae* 143, t. 12. 1820, *Flora italiana, ossia descrizione delle piante ...* 1: 461. 1848, *Traité des Graminées* 134. 1854 and *Novosti Sist. Vyss. Rast.* 1966: 25. 1966.

**Aeluropus Trin.** = *Aelbroeckia* De Moor, *Calotheca* Desv. ex Spreng., *Calotheca* Desv., *Chamaedactylis* T.F.L. Nees

Greek *ailouros* "a cat, a weasel" and *pous* "foot," Latin *aelurus* "a cat," referring to the nature of the spikes.

Some 3-5/10 species, Mediterranean, northern China, India, Ethiopia, Sri Lanka. Chloridoideae, Eragrostideae, perennial, low, tough, rigid, herbaceous, decumbent, halophytes, much-branched, toughly rhizomatous or stoloniferous, caespitose, leaf blades often distichous, auricles absent, ligule a very short membrane fringed with hairs, leaves linear often pungent, plants bisexual, inflorescence spicate to capitate, a densely flowered head, florets bisexual, spikelets sessile and solitary, 2 glumes unequal and mucronate, lower glume 1-3-nerved, upper glume 5-7 nerved, lemmas mucronate and chartaceous, palea 3-lobed, 2 free and fleshy lodicules, 3 stamens, ovary glabrous, 2 stigmas, valuable fodder, open habitats, dry saline areas, sand of seashores, salt flats and deserts, type *Aeluropus laevis* Trin., see *Species Plantarum* 1: 66-71, 73-76. 1753, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 190. 1810, *Anleitung zur Kenntniss der Gewächse* 2(1): 167. 1817, Carl Bernhard von Trinius (1778-1844), *Fundamenta Agrostographiae*. 143, t. 12. Viennae (Jan) 1820, Theodor F.L. Nees von Esenbeck (1787-1837) et al.,

*Genera Plantarum Florae Germanicae* iconibus et descriptionibus illustrata ... Bonnae [1833-] 1835-1860, *Traité des Graminées* 134. 1854 and *Grasses of Burma, Ceylon, India and Pakistan* 379-381. 1960, *Novosti Sist. Vyss. Rast.* 1966: 25. 1966, *Fitologija* 39: 72-77. 1991, S. Khattoon & S.I. Ali, *Chromosome Atlas of the Angiosperms of Pakistan*. Karachi 1993 [University of Karachi, Department of Botany], *Annals of the Missouri Botanical Garden* 81(4): 784-791. 1994.

### Species

**A. brevifolius** (J. König ex Willd.) Nees ex Asch. (*Aeluropus brevifolius* Nees ex Steud.; *Aeluropus brevifolius* Trin. ex Wall.; *Aeluropus brevifolius* (J. König ex Willd.) Nees ex Asch. & Schweinf.; *Aeluropus lagopoides* (L.) Trin. ex Thwaites; *Dactylis brevifolia* J. König ex Willd.; *Eleusine brevifolia* (J. König ex Willd.) R. Br. ex Hook.f., nom. illeg., non *Eleusine brevifolia* (Hochst. & Nees) Steud.; *Koeleria brevifolia* Spreng.; *Poa brevifolia* (J. König ex Willd.) Kunth, nom. illeg., non *Poa brevifolia* DC.)

Egypt. See *Systema Naturae, edition 12* 2: 95. 1767, *De Fructibus et Seminibus Plantarum ...* 1: 7. 1788, *Species Plantarum. Editio quarta* 1: 410. 1797, *Syn. Pl.* 1: 97. 1805, *Plantarum Minus Cognitarum Pugillus* 2: 21. 1815, *Révision des Graminées* 1: 111. 1829, *Nomenclator Botanicus. Editio secunda* 1: 30. 1840, *A Numerical List of Dried Specimens* no. 8897. 1849, *Enumeratio Plantarum Zeylanicae* 374. 1864, *Mémoires de l'Institut Égyptien* 2: 173. 1889 and *Annuario del Reale Istituto Botanico di Roma* 8(1): 70. 1903.

**A. lagopoides** (L.) Thw. (*Aeluropus brevifolius* Nees ex Steud.; *Aeluropus brevifolius* Trin. ex Wall.; *Aeluropus brevifolius* (J. König ex Willd.) Nees ex Asch. & Schweinf.; *Aeluropus brevifolius* var. *longifolius* Chiov.; *Aeluropus brevifolius* var. *pygmaeus* A. Terracc. ex Chiov.; *Aeluropus concinnus* Fig. & De Not.; *Aeluropus erythraeus* (A. Terracc.) Mattei; *Aeluropus erythraeus* var. *scandens* Terracc.; *Aeluropus laevis* Trin.; *Aeluropus lagopodioides* (L.) Trin. ex Thwaites; *Aeluropus lagopoides* (L.) Trin. ex Thw.; *Aeluropus lagopoides* (L.) Chiov.; *Aeluropus lagopoides* var. *lagopoides*; *Aeluropus littoralis* var. *repens* (Desf.) Cosson & Durand; *Aeluropus massauensis* (Fresen.) Mattei; *Aeluropus mucronatus* var. *erythraeus* A. Terracc.; *Aeluropus niliacus* (Spreng.) Steud.; *Aeluropus repens* (Desf.) Parl.; *Aeluropus villosus* Trin.; *Aeluropus villosus* Trin. ex C.A. Meyer; *Calotheca niliaca* Spreng.; *Calotheca repens* (Desf.) Spreng.; *Coelachyropsis lagopoides* Bor; *Dactylis brevifolia* J. König ex Willd.; *Dactylis lagopodioides* Dalzell & A. Gibson; *Dactylis lagopoides* L.; *Dactylis repens* Desf.; *Koeleria lagopoides* (L.) Panz. ex Spreng.; *Poa lagopodioides* (L.) Kunth; *Poa massauensis* Fresen.; *Poa repens* (Desf.) M. Bieb.; *Poa tunetana* Spreng.; *Sesleria lagopoides* (L.) Spreng.) (Greek *lagos* “a hare”)

Southern India, Northeast Africa, Mediterranean. Perennial, variable, erect, harsh or pruinose, much-branched, shrubby, sometimes densely tufted, mat-forming, with woody rootstock, with scaly rhizomes and strongly stoloniferous, creeping, sometimes with long prostrate stems rooting at the nodes, leaf blades tough, ligule a ring of hairs, pungent leaves narrow and rigid, inflorescence capitate, 1 ovoid raceme, spikelets elliptic-oblong and curling, florets closely imbricate, glumes hirsute or villous, lower glume ovate-oblong and subacute, lemmas villous on the margins, of some fodder value, good grazing for all stocks, extremely salt-tolerant, useful for erosion control, abundant along the seashores, salt pans, sea littoral, sandy seashores, foreshore sand dunes, seasonally flooded salt plains, salt marshes and saline areas, subkhal, dry saline places, in low moist areas, dry hillsides, saline plains, sandy soils, heavily grazed sites, inhospitable saline soils, see *Flora Carniolica* 189. 1760, *Mantissa* 1: 33. 1767, *Systema Naturae, edition 12* 2: 95. 1767, *Species Plantarum. Editio quarta* 1: 410. 1797, *Flora Atlantica* 1: 79, t. 15. 1798, *Plantarum Minus Cognitarum Pugillus* 2: 20, 22. 1815, *Fundamenta Agrostographiae* 143, t. 12. 1820, *Systema Vegetabilium, editio decima sexta* 1: 332, 347-348. 1825, *Révision des Graminées* 1: 111. 1829, *Verzeichniss der Pflanzen, ... des Caspischen Meeres ...* 18. St. Petersburg 1831, *Museum Senckenbergianum* 2: 143. 1837, *Nomenclator Botanicus. Editio secunda* 1: 30. 1840, *Flora italiana, ossia descrizione delle piante ...* 1: 461-462. 1848, *A Numerical List of Dried Specimens* no. 8897. 1849 [Wallich's Catalogue], *Memorie della Reale Accademia delle Scienze di Torino, ser. 2* 12: 257. 1852, *Exploration Scientifique de l'Algérie* 2: 155. 1855, *The Bombay Flora ...* 298. 1861, George Henry Kendrick Thwaites (1812-1882) and Joseph Dalton Hooker (1817-1911), *Enumeratio plantarum zeylanicae: an enumeration of Ceylon plants* 5: 374. London [1858-] 1864, *Beitrag zur Flora Aethiopiens* 297, 310. Berlin 1867, *Mémoires de l'Institut Égyptien* 2: 173. 1889, *Annuario del Reale Istituto Botanico di Roma* 5: 96. 1893, *The Flora of British India* 7(22): 294, 334. 1897 [1896] and Henry Trimen (1843-1896), *A Handbook to the Flora of Ceylon* 5: 304. 1900, *Annuario del Reale Istituto Botanico di Roma* 8(1): 70. 1903, *Annuario del Reale Istituto Botanico di Roma* 8: 375. 1908, *Boll. Orto Botanico di Palermo* 9: 63. 1910, *Flora Taurico-Caucasica* 3: 69. 1918, *Hand. Fl. Ceylon* 6: 340. London 1931, *Grasses of Ceylon* 45. 1956, *Ceylon Journal of Science, Biological Sciences* 2(2): 122. 1959, *Annalen des Naturhistorischen Museums in Wien* 75: 23, 25. 1971[1972], *Taxon* 49(2): 250. 2000, M. Ajmal Khan & Salman Gulzar, “Light, salinity, and temperature effects on the seed germination of perennial grasses.” *American Journal of Botany* 90: 131-134. 2003.

in Spanish: mamoncillo

in Somalia: garo

in Yemen: kirshah

in India: kadal arugam pul, puvvu gaddi

in Thailand: luk yon phra in, luuk yon phra in, ya luk lom, yaa luuk lom

**A. littoralis** (Gouan) Parl. (*Aeluropus littoralis* subsp. *kuschkenensis* Tzvelev; *Aeluropus pungens* (M. Bieb.) C. Koch; *Calotheca littoralis* (Gouan) Spreng.; *Chamaedactylis maritima* (Schrader) T. Nees; *Dactylis littoralis* (Gouan) Willd.; *Dactylis maritima* Schrad., nom. illeg., non *Dactylis maritima* Curtis; *Festuca littoralis* (Gouan) Sibth. & Sm., nom. illeg., non *Festuca littoralis* Labill.; *Melica littoralis* (Gouan) Raspail; *Poa littoralis* Gouan; *Poa pungens* M. Bieb., nom. illeg., non *Poa pungens* Georgi)

Asia, Iran, Russia, Europe. Perennial, brittle, sod-forming, useful for erosion control, good grazing value, golf course rough, found in moist places, in saline areas, in very dry situations, in low places in salty areas, drainage areas, shallow soil, heavy clay soil, see Antoine Gouan (1733-1821), *Flora Monspeliaca* 470. Lyon 1765, *Species Plantarum. Editio quarta* 1: 408. 1797, *Florae Graecae Prodromus* 1: 61. 1806, *Flora Germanica* 1: 313. 1806, *Flora Taurico-Caucasica* 1: 65. 1808, *Annales des Sciences Naturelles (Paris)* 5: 443. 1825, *Systema Vegetabilium, editio decima sexta* 1: 347. 1825, *Linnaea* 21(4): 408. 1848, *Flora italiana, ossia descrizione delle piante ...* 1: 461. 1848.

in French: pied de chat

in Morocco: senboul-ef-far

**A. macrostachyus** Hack. (*Aeluropus grandiflorus* Munro; *Aeluropus monostachyus* Hack. ex Bor; *Catapodium pungens* Boiss.)

Asia, Afghanistan, India. See *Hortus Regius Botanicus Berolinensis* 1: 44, 280. 1827, *Catalogue of the plants distributed at the Royal Gardens, Kew ...* from the herbaria of Griffith, Falconer, and Helfer. Royal Botanic Gardens, Kew [London] 1865, *Flora Orientalis* 5: 635. 1884 and *Österreichische Botanische Zeitschrift* 52(10): 374. 1902.

**A. micrantherus** Tzvelev (*Aeluropus littoralis* subsp. *micrantherus* (Tzvelev) Tzvelev; *Aeluropus littoralis* var. *micrantherus* (Tzvelev) K.L. Chang)

China, Russia, Mongolia. Procumbent or ascending, branched, leaf blades flat or involute, leaf sheaths glabrous and pilose, ligule usually pilose, inflorescence spike-like, compact congested racemes, spikelets ovate, glumes scabrous, lemmas ovate or broadly ovate, along water courses, on hill slopes, desert, in sandy places, see *Zlaki SSSR* 621. 1976, *Flora in Desertis Reipublicae Populorum Sinarum* 1: 42. 1985.

in China: wei yao zhang mao

**A. pilosus** (X.L. Yang) S.L. Chen & H.L. Yang (*Aeluropus littoralis* var. *pilosus* H.L. Yang; *Aeluropus pilosus* (H.L. Yang) S.L. Chen)

China. Erect or decumbent, densely pubescent, leaf sheaths densely pubescent, leaf blades flat or involute, leaves hispid to densely pubescent, ligule margin ciliate, rhizomes and stolons present, inflorescence spike-like, racemes solitary, spikelets distichous, glumes pubescent and hispid, lemmas apex cuspidate, palea keels hispid, desert sand, see *Acta Botanica Yunnanica* 5(1): 74, pl. 1, f. 9-16. 1983, *Flora Reipublicae Popularis Sinicae* 10(1): 8. 1990.

in China: mao ye zhang mao

**A. pungens** (M. Bieb.) K. Koch (*Aeluropus littoralis* (Gouan) Parl.; *Aeluropus littoralis* subsp. *pungens* (M. Bieb.) Tzvelev; *Aeluropus pungens* (Vahl) Boiss., nom. illeg., non *Aeluropus pungens* (M. Bieb.) Koch; *Festuca pungens* Vahl; *Poa pungens* M. Bieb., nom. illeg., non *Poa pungens* Georgi)

Europe, Russia, Caucasus. Perennial, erect or decumbent, usually branched at base, leaf sheaths glabrous, leaf blades flat or involute, ligule very short with margin ciliate, rhizomatous, inflorescence spike-like, racemes solitary and rather spaced, lemmas with membranous ciliate margins, good forage species, drought resistant, turf, heavy clay loam soil, bank of irrigation canal, alkaline soil, highly salty soils, sandy places, see *Symbolae Botanicae, ...* 1: 10, t. 2. 1790, *Flora Taurico-Caucasica* 1: 65. 1808, *Linnaea* 21(4): 408. 1848, *Flora italiana, ossia descrizione delle piante ...* 1: 461. 1848, *Flora Orientalis* 5: 595. 1884 and *Novosti Sist. Vyss. Rast.* 8: 73. 1971.

in China: xiao zhang mao

**A. pungens** (M. Bieb.) K. Koch var. *hirtulus* S.L. Chen & X.L. Yang

China. Leaf blades densely hirsute, glumes sparsely glabrous, desert sand, see *Bulletin of Botanical Research (Harbin)* 4(2): 123-124. 1984.

in China: ci ye zhang mao

**A. pungens** (M. Bieb.) K. Koch var. *pungens* (*Aeluropus littoralis* subsp. *pungens* (M. Bieb.) Tzvelev; *Poa pungens* M. Bieb.)

China, Eurasia. Leaf blades glabrous, glumes margins ciliate, bank of irrigation canal, alkaline soil, highly salty soils, sandy places.

in China: xiao zhang mao

**A. sinensis** (Debeaux) Tzvelev (*Aeluropus littoralis* subsp. *sinensis* (Debeaux) Tzvelev; *Aeluropus littoralis* var. *sinensis* Debeaux)

China. Nodes more or less pubescent, leaf blades flat, leaf sheaths glabrous and pilose, inflorescence spike-like, compact congested racemes, glumes and lemmas glabrous or scabrous, see *Actes de la Société Linnéenne de Bordeaux* 33: 73. 1879 and *Zlaki SSSR* 621. 1976.

in China: zhang mao

**Aera Asch.** = *Aira* L.

Orthographic variant, from the Greek *aer* “air.”

Pooideae, Poaeae, Airinae, see Paul Friedrich August Ascherson (1834-1913), *Flora der Provinz Brandenburg* 1: 830. Berlin 1864 and *Contributions from the United States National Herbarium* 48: 89-96. 2003.

**Aeropsis Asch. & Graebn.** = *Airopsis* Desv.

Aveneae, see *Species Plantarum* 1: 79-81. 1753, *Icones et Descriptiones Plantarum, quae aut sponte ...* 3: 37, t. 274, f. 1. 1794, *Journal de Botanique (Desvaux)* 1: 200. 1809, *A Manual of the Botany of the Northern United States. Second Edition* 573. 1856, Paul Friedrich August Ascherson, *Synopsis der mitteleuropäischen Flora* 2(1): 298. Leipzig 1899.

**Aethonopogon Kuntze** = *Pollinia* Trin.

*Polytrias* Hack.

Possibly from the Greek *aethes* “irregular, unusual” or Greek *aitho*, *aithen* “to light up, to burn, blaze, to scorch.”

Panicoideae, Andropogoneae, Saccharinae, see *Révision des Graminées* 1: 160. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 2(4): 304. 1832, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 98. 1850, *Genera Plantarum* 3(2): 1127. 1883 [*Pollinia* sect. *Eulalia* (Kunth) Benth. & Hook.f.], *Die Natürlichen Pflanzenfamilien* 2(2): 24. 1887, *Monographiae Phanerogamarum* 6: 189, t. 1, f. 13. 1889, *Revisio Generum Plantarum* 2: 788. 1891 [*Aethonopogon praemorsus* (Nees) Hack. ex Kuntze] and *Flora Mesoamericana* 6: 380. 1994, *Contributions from the United States National Herbarium* 46: 14, 541-542. 2003.

**Afrachneria Sprague** = *Achneria* Munro ex Benth., *Pentastichis* (Nees) Spach

From Africa and the genus *Achneria*.

Arundinoideae, Arundineae, see *Flore Française. Troisième Édition* 3: 32. 1805, *Essai d'une Nouvelle Agrostographie* 72, 146. 1812, *Histoire naturelle des Végétaux* 13: 164. Paris 1841, C.G.D. Nees von Esenbeck (1776-1858), *Flora Africae Australioris Illustrationes Monographicae ...* I. Gramineae. Glogaviae 1841, *Genera Plantarum* 3(2): 1158, 1163. 1883 and *Journal of Botany, British and Foreign* 60: 138. 1922, *Wageningen Agricultural University Papers* 92-1(2): 1-557. 1992, M. Lazarides, “The genus *Eriachne* (*Eriachne*, Poaceae).” *Australian Systematic Botany* 8(3):

355-452. 1995, K.C. Klopffer, J.J. Spies & B. Visser, “Cytogenetic studies in the genus *Pentastichis* (Poaceae: Arundinoideae).” *Bothalia* 28(2): 231-238. 1998.

**Afrotrichloris Chiov.**

From Africa and *Trichloris* Fourn. ex Benth.

Two species, Somalia, northeast tropical Africa. Chloridoideae, Cynodonteae, perennial, herbaceous, unbranched, unarmed, tufted, ligule pilose or a narrow ciliate membrane, narrow leaf blades, plants bisexual, inflorescence a single spike or racemes solitary, 1-sided spike with closely imbricate sessile spikelets several-flowered, lowest floret fertile, 2 glumes acuminate and more or less unequal, lemmas cleft or deeply bifid, sterile lemmas clustered and long-awned, fertile lemma 1-awned and rounded on the back, palea present, 2 free and glabrous lodicules, 3 stamens, ovary glabrous, 2 stigmas, resistant to grazing, sandy soils, woodland, type *Afrotrichloris martinii* Chiov., see *Annali di Botanica* 13(3): 371-372. 1915, *Flora of Ethiopia and Eritrea* 7: 165. 1995.

**Species**

*A. hyaloptera* Clayton

Somalia. Perennial bunchgrass, erect, robust, wiry, densely tufted, leaf blades tough, inflorescence linear, fertile lemma ciliate and villous, sterile lemmas clustered, bushland, orange sand, open areas, dry sandy soil, mixed bushland, see *Kew Bulletin* 21: 105. 1967.

*A. martinii* Chiov.

Somalia. Perennial bunchgrass, wiry, tufted, spike oblong-ovate, fertile lemma pubescent, disturbed sandy areas, stabilized or fixed dunes, coastal, see *Annali di Botanica* 13(3): 372. 1915.

in Somalia: use mullè, ouse mulleh

**Agenium Nees**

From the Greek *a* “absence, negative” and *geneion* “beard.”

About 4 species, Brazil, Argentina, Paraguay. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, or Panicoideae, Andropogoneae, Anthistiriinae, perennial, tufted, herbaceous, branched, leaf blades acuminate, ligule an unfringed membrane, plants bisexual, inflorescence spicate digitate or subdigitate, bisexual spikelets, the upper pedicelled spikelets male, male and female spikelets mixed in the inflorescence, 2 glumes more or less equal, palea absent, 2 free and fleshy lodicules, ovary glabrous, 2 reddish stigmas, savannah, dry areas, open areas, type *Agenium nutans* Nees, see John Lindley (1799-1865), [*An Introduction to the*] *Natural System of Botany* 447. 1836 [*An Introduction to the Natural System of Botany* London 1830] and



*Flora Illustrada de Entre Ríos (Argentina)* 6(2): 447-508. 1969, *Contributions from the United States National Herbarium* 46: 14. 2003.

### Species

**A. leptocladum** (Hack.) Clayton (*Agenium goyazense* (Hack.) Clayton; *Andropogon goyazensis* Hack.; *Andropogon leptocladus* Hack.; *Heteropogon leptocladus* (Hack.) Roberty)

Brazil, Paraguay, northern Argentina. Racemes solitary more or less glabrous, see *Österreichische Botanische Zeitschrift* 51(5): 152. 1901, *Kew Bulletin* 27(3): 447. 1972.

**A. majus** Pilg.

Paraguay. Perennial, tufted, see *Repertorium Specierum Novarum Regni Vegetabilis* 43: 82. 1938.

**A. nutans** Nees (*Agenium villosum* (Nees) Pilg.; *Andropogon agenium* Steud.; *Andropogon neesii* var. *apogynus* (Nees) Hack.; *Andropogon nutans* L.; *Andropogon villosus* f. *apogyna* (Nees) Henrard; *Heteropogon villosus* var. *apogynus* Hack.)

Brazil. See *Species Plantarum* 2: 1045. 1753, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 263. 1832, *An Introduction to the Natural System of Botany* 447. 1836, *Synopsis Plantarum Glumacearum* 1: 395. 1854, *Flora Brasiliensis* 2(4): 270. 1883, *Monographiae Phanerogamarum* 6: 582. 1889 and *Contr. U.S. Natl. Herb.* 12: 125. 1908, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 11(4): 9. 1912, *Mededeelingen van's Rijks-Herbarium* 40: 44. 1921, *Taxon* 33: 95-97. 1984.

**A. villosum** (Nees) Pilg. (*Agenium nutans* Nees; *Andropogon agenium* Steud.; *Andropogon neesii* Kunth, nom. illeg., non *Andropogon neesii* Trin.; *Andropogon neesii* subvar. *glabrescens* Pilg.; *Andropogon neesii* subvar. *paraguayensis* Hack.; *Andropogon neesii* var. *apogynus* (Nees) Hack.; *Andropogon neesii* var. *dactyloides* (Hack.) Hack.; *Andropogon nutans* subvar. *elongatus* Hack.; *Andropogon nutans* subvar. *fuliginosus* Hack.; *Andropogon nutans* subvar. *neesii* Hack.; *Andropogon villosus* Lam.; *Andropogon villosus* (Nees) Ekm., nom. illeg., non *Andropogon villosus* Lam.; *Andropogon villosus* f. *apogyna* (Nees) Henrard; *Andropogon villosus* subvar. *gardneri* (Hack.) Henrard; *Andropogon villosus* subvar. *leianthus* (Hack.) Ekman; *Andropogon villosus* subvar. *leiophyllus* (Hack.) Henrard; *Andropogon villosus* subvar. *paraguayensis* (Hack.) Henrard; *Andropogon villosus* subvar. *riedelianus* (Hack.) Henrard; *Andropogon villosus* subvar. *selloanus* (Hack.) Henrard; *Andropogon villosus* subvar. *typicus* Henrard; *Andropogon villosus* var. *dactyloides* (Hack.) Hack. ex Henrard; *Andropogon villosus* var. *genuinus* (Hack.) Ekman; *Heteropogon villosus* Nees; *Heteropogon villosus* subvar. *gardneri* Hack.; *Heteropogon villosus* subvar. *leianthus*

Hack.; *Heteropogon villosus* subvar. *leiophyllus* Hack.; *Heteropogon villosus* subvar. *riedelianus* Hack.; *Heteropogon villosus* subvar. *selloanus* Hack.; *Heteropogon villosus* subvar. *typicus* Hack.; *Heteropogon villosus* var. *apogynus* Hack.; *Heteropogon villosus* var. *dactyloides* Hack.; *Heteropogon villosus* var. *genuinus* Hack.)

Brazil, Paraguay, Argentina, Bolivia. Perennial bunchgrass, tufted, erect, forming clumps, villous racemes in clusters, sandy soils, *cerrado*, see *Flore de France* 3: 634. 1778, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 362-363. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 491. 1833, *Synopsis Plantarum Glumacearum* 1: 395. 1854, *Flora Brasiliensis* 2(4): 269-270, pl. 62, f. 2. 1883, *Monographiae Phanerogamarum* 6: 582. 1889 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 30(1): 137. 1901, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 11(4): 9-10. 1912, *Mededeelingen van's Rijks-Herbarium* 40: 44. 1921, *Repertorium Specierum Novarum Regni Vegetabilis* 43: 82. 1938.

**Aglycia Willd. ex Steud.** = *Aglycia* Steud., *Eriochloa* Kunth

Perhaps from the Greek *agleykes* "not sweet, sour, harsh."

Panicoideae, Paniceae, Melinidinae, see *Nova Genera et Species Plantarum* 1: 94-95, t. 30. 1815 [1816], *Nomenclator Botanicus. Editio secunda* 1: 37, 66. 1840 and *N. Amer. Fl.* 17: 157. 1912, *Flora Mesoamericana* 6: 333-335. 1994, *Contributions from the United States National Herbarium* 46: 233-239. 2003.

### Agnesia Zuloaga & Judziewicz

Dedicated to the American botanist Mary Agnes Chase (*née* Merrill), 1869-1963, agrostologist, plant collector, traveler, among his writings are *First Book of Grasses*. New York 1922 and "Poaceae (pars)." *North Amer. Fl.* 17(8): 568-579. 1939, with the American botanist Albert Spear Hitchcock (*née* Jennings) (1865-1935) wrote *Grasses of the West Indies*. Washington [D.C.] 1917, *Tropical North American Species of Panicum*. Washington [D.C.] 1915 and *The North American Species of Panicum*. Washington [D.C.] 1910, in 1950 revised the *Manual of the Grasses of the United States* (by A.S. Hitchcock), with Cornelia D. Niles edited *Index to Grass Species*. Boston 1962. See J.H. Barnhart, *Biographical notes upon botanists*. 1: 335. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 71. 1972; J. Ewan, editor, *A Short History of Botany in the United States*. New York and London 1969; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 1964; Frans A. Stafleu & Erik A. Menega, *Taxonomic literature. Suppl. IV*. 57-60. 1997.

One species, Amazonia, South America. Bambusoideae, Oryzodae, Olyreae, or Bambusoideae, Olyreae, Olyrinae, perennial, delicate, dwarf, herbaceous, unarmed, caespitose, flowering culms leafy, plants monoecious, at the upper nodes raceme-like panicles, all the fertile spikelets unisexual, several male spikelets subterminal, 1 single terminal female spikelet, 2 glumes more or less equal, female floret shortly awned, male spikelets without glumes, palea present, shade lover, clumps forming, wet forests, lowland, forest understories, type *Agnesia lancifolia* (Mez) Zuloaga & Judziewicz, see *Systema Naturae, Editio Decima* 1253, 1261, 1379. 1759, *Fam. Pl.* 2: 39, 574. 1763 and *Blumea, Supplement* 3: 62. 1946, *Brittonia* 37: 22-35. 1985, *Systematic Botany* 17(1): 25-28. 1992, *Novon* 3(3): 306-309. 1993, *American Bamboos* 262-264. 1999, *Contributions from the United States National Herbarium* 39: 11. 2000.

### Species

**A. lancifolia** (Mez) Zuloaga & Judziewicz (*Olyra lancifolia* Mez)

Amazonia, Brazil, Colombia, Peru. See *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 7(63): 45. 1917, *Novon* 3(3): 307. 1993.

### **Agraulus P. Beauv.** = *Agrostis* L.

From the Greek *agraulos*, *agraulon* “dwelling in the field, a boor,” *agros* “field” and *aule* “the court-yard, court, hall.”

Pooideae, Poeae, Agrostidinae, type *Agraulus caninus* (L.) P. Beauv., see *Species Plantarum* 1: 61-63. 1753, *Essai d'une Nouvelle Agrostographie* 5, 146-147, t. 3, f. 2, t. 4, f. 7. 1812 and *U.S. Dept. Agric. Bull.* 772: 127. 1920, *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 99. 1957, *Novosti Sist. Vyss. Rast.* 6: 2. 1970, *Fl. Fenn.* 5: 29. 1971, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 42-89. 2003.

### **Agrestis Bubani** = *Agrostis* L.

Latin *agrestis* “pertaining to fields.”

Pooideae, Poeae, Agrostidinae, see *Species Plantarum* 1: 61-63. 1753, *Essai d'une Nouvelle Agrostographie* 5, 146-147, t. 3, f. 2, t. 4, f. 7. 1812 and Pietro Bubani (1806-1888), *Flora Pyrenaea ...* 4: 281. 1901, *U.S. Dept. Agric. Bull.* 772: 127. 1920, *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 99. 1957, *Novosti Sist. Vyss. Rast.* 6: 2. 1970, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 42-89. 2003.

### **Agriopyrum Maly**

See *Species Plantarum* 1: 86-87. 1753 and *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien* 54: 180. 1904, *Illustrierte Flora von Mitteleuropa* 1: 488. 1908.

### **x Agrocalamagrostis Aschers. & Graebn.**

*Agrostis* x *Calamagrostis*.

See *Syn. Mitteleur. Fl.* 2: 223. 1899 and *Genera Graminum* 374. 1986.

### **x Agroelymus E.G. Camus ex A. Camus**

*Agropyron* x *Elymus*.

See *Bulletin du Muséum d'Histoire Naturelle* 33: 538. 1927, *Genera Graminum* 374. 1986.

### **x Agrohordeum E.G. Camus ex A. Camus**

*Agropyron* x *Hordeum*.

See *Bulletin du Muséum d'Histoire Naturelle* 33: 537. 1927, *Genera Graminum* 374. 1986.

### **x Agropogon P. Fourn.** = *Agropogon* P. Fourn.

*Agrostis* L. x *Polypogon* Desf.

Pooideae, Aveneae, perennial, tufted, erect, ascending, creeping, geniculate, rooting at the lower nodes, dense inflorescence paniculate, spikelets persistent, glumes mucronate, alkaline flats, saline soils, type *Agropogon lutosus* (Poir.) P. Fourn., see *Species Plantarum* 1: 61-63. 1753, *Encyclopédie Méthodique. Botanique ... Supplément* 1: 249. 1810, *Compendium Florae Britannicae* (edition 2) 13. 1816 and *United States Department of Agriculture: Bulletin* 772: 138. 1920, Paul Victor Fournier (1877-1964), *Les Quatre Flores de la France* 50. Poinson-les-Grancey 1934, *Monde des Plantes; Revue mensuelle de botanique* 36(213): 20. 1935, *Botanical Magazine* 55(656): 357. 1941, *Journal of Ecology* 33: 333. 1946, *Journal of Japanese Botany* 33: 11. 1958, *Current Science* 49(11): 444. 1980, *Genera Graminum* 374. 1986, *Blumea* 35: 446. 1991, *Flora of Ethiopia and Eritrea* 7: 46. 1995, *Contributions from the United States National Herbarium* 48: 25. 2003.

### Species

x **A. lutosus** (Poir.) P. Fourn. (*Agropogon lutosus* (Poir.) P. Fourn.; *Agrostis stolonifera* L. x *Polypogon monspeliensis* (L.) Desf.) (*Agrostis littoralis* Lam.; *Agrostis littoralis* With., nom. illeg., non *Agrostis littoralis* Lam.; *Agrostis*

*lutosus* Poir.; *Agrostis subaristata* Aitch. & Hemsl.; *Polypogon littoralis* Sm.; *Polypogon lutosus* (Poir.) Hitchc.; *Polypogon subaristatus* (Aitch. & Hemsl.) Bhattacharya & S.K. Jain; x *Agropyron littoralis* (Sm.) C.E. Hubb.)

Europe, Asia. See *Tableau Encyclopédique et Méthodique ... Botanique* 1: 161. 1791, *An Arrangement of British Plants, Third Edition* 1796, *Flora Atlantica* 1: 66. 1798 [1800], *Compendium Florae Britannicae* (edition 2) 13. 1816, *Journal of the Linnean Society, Botany* 19(117-118-119): 192-193, t. 29, f. 1-3. 1882.

### x **Agropyrohordeum E.G. Camus ex A. Camus**

*Agropyron* x *Hordeum*.

See *Riviera Scientifique* 21: 44-45. 1934, *Genera Graminum* 374. 1986.

### **Agropyron Gaertn.** = *Australopyrum* (Tzvelev) Á. Löve, *Costia* Willk., *Kratzmannia* Opiz

From the Greek *agros* "a field, country" and *pyros* "grain, wheat."

About 12-25 species, temperate Old World, Mediterranean to China and Russia. Pooideae, Triticeae, Triticeae, or Pooideae, Triticeae, Hordeinae, perennial, erect or geniculate at base, generally tufted or with creeping rhizomes, herbaceous, mesophytic or xerophytic, unbranched, more or less tuberous or not, leaf blades flat or involute, auricles present or absent, ligule an unfringed membrane, plants bisexual, inflorescence a single spike linear-oblong or ovoid, 3-10 florets, spikelets solitary pedicellate, 2 glumes more or less equal, lemmas lanceolate-oblong and coriaceous, lemmas acute or with a straight apical awn, palea present, 2-3 free and ciliate lodicules, 3 stamens, ovary hairy, 2 stigmas, Ayurvedic use, dry places, dry stony soil, dry sandy soils, open habitats, open steppes, sandy and rocky slopes, waste places, type *Agropyron cristatum* (L.) Gaertn., see *Novi Commentarii Academiae Scientiarum Imperialis Petropolitanae* 14(1): 539-540. 1770, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 190. 1810, *Essai d'une Nouvelle Agrostographie* 102, 146, 180. 1812, *Observations sur les Graminées de la Flore Belgique* 95. 1823 [1824], *Flora Altaica* 1: 112. 1829, *Flore de Lorraine* 3: 191. 1844, *Linnaea* 21(4): 425. 1848, *Botanische Zeitung. Berlin* 16: 377. 1858, *Botanische Zeitung. Berlin* 18: 131. 1860, *Genera Plantarum* 3(2): 1203. 1883 and *Synopsis der mitteleuropäischen Flora* 2: 667. 1901, *Flore de France* 14: 315, 317. 1913, *Handbok i Skandinavien Flora* 2: 273. 1926, *Annales des Sciences Naturelles Botanique*, sér. 10, 14: 234. 1932, *Flora URSS* 2: 648. 1934, *Journal of Nanjing Agricultural University* 1:

19. 1963, *Willdenowia* 5(3): 471. 1969, *Novosti Sist. Vyss. Rast.* 10: 35. 1973, *Fragmenta Floristica et Geobotanica* 23: 317-325. 1977, *J. Linn. Soc. Bot.* 76: 369-384. 1978, *Bot. Zhurn. SSSR* 69(4): 511-517. 1984, *Feddes Repertorium* 95(7-8): 442. 1984, *Acta Botanica Academiae Scientiarum Hungaricae* 31: 181-188. 1985, *American Journal Botany* 72: 767-776. 1985, *Genome* 29: 537-553. 1987, *Annali di Botanica* 45: 75-102. 1987, *Genome* 30: 361-365. 1988, *Grassland of China* 4: 53-60. 1989, *Acta Botanica Yunnanica* 12: 57-66. 1990, *Genome* 33: 563-570. 1990, *Flora Mediterranea* 1: 229-236. 1991, *Acta Botanica Sinica* 33(11): 833-839. 1991, *Acta Phytotaxonomica Sinica* 30(4): 342-345. 1992, *Genome* 35: 676-680. 1992, *Caryologia* 46: 245-260. 1993, *Hereditas; genetiskt arkiv.* 119: 53-58. 1993, *Nordic Journal of Botany* 13: 481-493. 1993, *Plant Systematics and Evolution* 185: 35-53. 1993, *Plant Systematics and Evolution* 186: 193-212. 1993, *Pakistan Journal of Botany* 26: 353-366. 1994, *Plant Systematics and Evolution* 191: 199-201. 1994, *Plant Systematics and Evolution* 194: 189-205. 1995, *Acta Genetica Sinica* 22(2): 109-114. 1995, *Plant Systematics and Evolution* 197: 1-17. 1995, *Phytologia* 83(5): 345-365. 1997, *Flora Mediterranea* 8: 307-313. 1998, *Am. J. Bot.* 85: 1266-1272, 1680-1687. 1998, Gail W.T. Wilson & David C. Hartnett, "Interspecific variation in plant responses to mycorrhizal colonization in tallgrass prairie." *Am. J. Bot.* 85: 1732-1738. 1998, *Opera Botanica* 137: 1-42. 1999, *Newslett. Int. Organ. Pl. Biosyst. (Oslo)* 30: 10-15. 1999, *Am. J. Bot.* 86: 703-710. 1999, *Am. J. Bot.* 87: 230-236, 402-411. 2000, Jean-Michel Gagné & Gilles Houle, "Factors responsible for *Honckenya peploides* (Caryophyllaceae) and *Leymus mollis* (Poaceae) spatial segregation on subarctic coastal dunes." *Am. J. Bot.* 89: 479-485. 2002, *Am. J. Bot.* 89: 494-499, 592-601, 1431-1438. 2002, Said A. Damhoureyeh and David C. Hartnett, "Variation in grazing tolerance among three tallgrass prairie plant species." *Am. J. Bot.* 89: 1634-1643. 2002, *Contributions from the United States National Herbarium* 48: 25-42. 2003, *Am. J. Bot.* 90: 278-283, 924-930, 1045-1053, 1313-1320. 2003, *Am. J. Bot.* 91: 1789-1801. 2004, *Am. J. Bot.* 92: 1045-1058. 2005, *Journal of Applied Ecology* 42(1): 60-69. Feb 2005, *Ecological Entomology* 30(1): 105-115. Feb 2005, *New Phytologist* 165(3): 959-962. Mar 2005, *Botanical Journal of the Linnean Society* 147(4): 501-508. Apr 2005, *Weed Research* 45(2): 114-120. Apr 2005, *Plant Breeding* 124(2): 147-153. Apr 2005, *Global Change Biology* 11(4): 575-587. Apr 2005, *Journal of Ecology* 93(2): 244-255. Apr 2005, *Restoration Ecology* 13(2): 292-301. June 2005, *Journal of Agronomy and Crop Science* 191(3): 172-184. June 2005, *Insect Molecular Biology* 14(3): 309-318. June 2005.

### **Species**

*A. brandzae* Pantu & Solacolou

Romania. Rare species, see *Bulletin de la Section Scientifique de l'Académie Roumaine* 9(1-2): 28. Bucharest 1924, *Revue Roumaine de Biologie, Série Botanique* 18(2): 66. 1973, *Botanical Journal of the Linnean Society* 76(4): 384. 1978, *Feddes Repertorium* 95(7-8): 430. 1984.

**A. caninum** (L.) P. Beauv. (*Agropyrum caninum* (L.) Pall. ex Hegi; *Agropyron abchazicum* Waron.; *Brachypodium caninum* (L.) F. Herm. ex Lindm.; *Elymus caninus* (L.) L.; *Elytrigia canina* (L.) Drob.; *Gouardia canina* (L.) Husn.; *Roegneria canina* (L.) Nevski; *Triticum caninum* L.; *Zeia canina* (L.) Lunell)

Europe. See *Species Plantarum* 1: 86-87. 1753, *Flora suecica* (2): 39. 1755, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 190. 1810, *Essai d'une Nouvelle Agrostographie* 100, 102, 146, pl. 19, f. 35. 1812, *Linnaea* 21(4): 413. 1848, Pierre Tranquille Husnot (1840-1929), *Graminées. Descriptions ... France, Belgique, Isles Britanniques, Suisse* 83. Cahan [Caen] 1899 and *Illustrierte Flora von Mittel-Europa* 1: 488. 1908, *Moniteur du Jardin Botanique de Tiflis* 22: 2. 1912, *American Midland Naturalist* 226. 1915, *Svensk Fanerogamflora* 104. 1918, *Flora Uzbekistanica* 1: 285, 539. 1941, *Taxon* 49(2): 258. 2000.

**A. cristatum** (L.) Gaertn. (*Agropyrum cristatum* (L.) Gaertn.; *Avena cristata* Roem. & Schult.; *Bromus cristatus* L.; *Costia cristata* (L.) Willk.; *Eremopyrum cristatum* (L.) Willk. & Lange; *Triticum cristatum* (L.) Schreb.; *Zeia cristata* (L.) Lunell)

Eurasia, China. Perennial, spikelets spreading, hay and pasture plant, cultivated fodder, suitable for arid situations, waste places, dry mountain slopes, dry meadows, see *Species Plantarum* 1: 78-81, 85-87. 1753, *Novi Commentarii Academiae Scientiarum Imperialis Petropolitanae* 14: 540. 1770, *Beschreibung der Gräser* 2: 12, t. 23, f. 2. 1770, *Systema Vegetabilium* 2: 758. 1817, *Annales des Sciences Naturelles; Botanique, sér. 3* 14: 360. 1851, *Botanische Zeitung. Berlin* (16): 377. 1858, *Prodromus Florae Hispanicae* 1: 108. 1870 and *American Midland Naturalist* (4): 226. 1915, *Botanical Journal of the Linnean Society* 76(4): 384. 1978, R.Z. Wang, "Demographic variation and biomass allocation of *Agropyron cristatum* grown on steppe and dune sites in the Hunshandake Desert, North China." *Grass and Forage Science* 60(1): 99-102. Mar 2005, S.K. Dong et al. "Productivity and persistence of perennial grass mixtures under competition from annual weeds in the alpine region of the Qinghai-Tibetan Plateau." *Weed Research* 45(2): 114-120. Apr 2005.

in English: crested wheatgrass, fairway crested wheatgrass

**A. cristatum** (L.) Gaertn. subsp. **cristatum**

Eurasia, southwest Asia, China.

**A. cristatum** (L.) Gaertn. subsp. **pectinatum** (M. Bieb.) Tzvelev (*Agropyron cristatiforme* Sarkar; *Agropyron cristatum* f. *pectiniforme* (Roem. & Schult.) A.V. Bukhteeva;

*Agropyron cristatum* var. *pectinatum* (M. Bieb.) Roshevitz ex Fedtsch.; *Agropyron cristatum* var. *pectiniforme* (Steud.) A.V. Bukhteeva; *Agropyron cristatum* var. *pectiniforme* (Roem. & Schult.) H.L. Yang; *Agropyron cristatum* var. *pectiniforme* (Roem. & Schult.) Matveev; *Agropyron lavrenkoanum* var. *pectinatum* (M. Bieb.) M. Bieb.; *Agropyron pectinatum* (M. Bieb.) P. Beauv.; *Agropyron pectiniforme* Roemer & J.A. Schultes; *Elymus pectinatus* (M. Bieb.) Lainz; *Eremopyrum cristatum* var. *pectinatum* (M. Bieb.) P. Candargy; *Triticum pectinatum* M. Bieb.; *Triticum pectiniforme* Steud.)

North America. See *Species Plantarum* 1: 83-84. 1753, *Flora Taurico-Caucasica* 1: 87. 1808, *Essai d'une Nouvelle Agrostographie* 102, 146, 180. 1812, *Systema Vegetabilium* 2: 758. 1817, *Nomenclator Botanicus* 855. 1821 and *Archives de Biologie Végétale Pure et Appliquée* 1: 61. 1901, *Canadian Journal of Botany* 34: 333. 1956, *Boletín del Instituto de Estudios Asturianos. Suplemento de ciencias. Oviedo*. 44. 1970, *Bot. Zhurn. SSSR* 69(4): 511-517. 1984, *Flora Reipublicae Popularis Sinicae* 9(3): 113, pl. 27, f. 9. 1987, *Caryologia* 46: 245-260. 1993, *Plant Systematics and Evolution* 194: 189-205. 1995, *Botanical Journal of the Linnean Society* 117: 159-168. 1995.

in English: crested wheatgrass

**A. cristatum** (L.) Gaertn. var. **cristatum**

Eurasia, southwest Asia, China.

**A. cristatum** (L.) Gaertn. var. **pectiniforme** (Roemer & Schultes) H.Y. Yang (*Agropyron cristatum* f. *pectiniforme* (Roem. & Schult.) A.V. Bukhteeva; *Agropyron cristatum* var. *pectiniforme* (Roem. & Schult.) Matveev; *Agropyron cristatum* var. *pectiniforme* (Steud.) A.V. Bukhteeva; *Agropyron pectiniforme* Roemer & J.A. Schultes; *Triticum pectiniforme* Steud.)

Eurasia, southwest Asia, China. Glumes and lemmas glabrous or smooth, see *Systema Vegetabilium* 2: 758. 1817 and *Flora Reipublicae Popularis Sinicae* 9(3): 113, pl. 27, f. 9. 1987.

**A. cristatum** (L.) Gaertn. var. **pluriflorum** H.Y. Yang

Eurasia, southwest Asia, China. Spike ovoid-lanceolate, see *Bull. Bot. Res. Harbin* 4(4): 88. 1984.

**A. dasyanthum** Ledeb. (*Agropyron cristatum* subsp. *dasyanthum* (Ledeb.) Á. Löve; *Agropyron dasyanthum* (Ledeb. ex Spreng.) Ledeb.; *Eremopyrum dasyanthum* (Ledeb. ex Spreng.) P. Candargy; *Triticum dasyanthum* Ledeb. ex Spreng.)

Eurasia, Russia. Rare species, see *Systema Vegetabilium, editio decima sexta* 1: 325. 1825 and *Archives de Biologie Végétale Pure et Appliquée* 1: 34, 62. 1901, *Feddes Repertorium* 95(7-8): 431. 1984.

**A. desertorum** (Fischer ex Link) Schultes (*Agropyron cristatum* subsp. *desertorum* (Fisch. ex Link) Á. Löve; *Agropyron cristatum* var. *desertorum* (Fisch. ex Link) Dorn;

*Agropyron desertorum* (Fisch.) J.A. Schultes; *Agropyron desertorum* (Link) J.A. Schultes; *Agropyron sibiricum* var. *desertorum* (Fisch. ex Link) Trautv. ex Boiss.; *Eremopyrum sibiricum* var. *desertorum* (Fisch. ex Link) P. Candargy; *Triticum desertorum* Fisch. ex Link)

Eurasia. Spikelets spreading to ascending, florets 3-8, useful for erosion control, waste places, roadsides, disturbed areas, see *Essai d'une Nouvelle Agrostographie* 102, 146, 181. 1812, *Enumeratio Plantarum Horti Regii Berolinensis Altera* 1: 97. 1821, *Mantissa* 2: 412. 1824, *Flora Orientalis* 5: 667. 1884 and *Archives de Biologie Végétale Pure et Appliquée* 1: 33-34, 60. 1901, *Feddes Repertorium* 95(7-8): 431. 1984, *Vascular Plants of Wyoming* 298. 1988.

in English: desert crested wheatgrass

**A. desertorum** (Fischer ex Link) Schultes var. *desertorum* China.

**A. desertorum** (Fischer ex Link) Schultes var. *pilosiusculum* Meld. (*Agropyron sinkiangense* D.F. Cui)

China. Lemmas densely pilose, see *Fl. Mong.* 1: 121. 1949.

**A. deweyi** Á. Löve

Turkey. Rare species, see *Feddes Repertorium* 95(7-8): 432. 1984.

**A. embergeri** Maire

Morocco. Rare species, see Louis Emberger (1897-1969) and René Maire, *Catalogue des plantes du Maroc, spermatophytes et ptéridophytes*. 1941, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 33(4): 100. 1942.

**A. fragile** (Roth) P. Candargy (*Agropyron angustifolium* (Link) Schult.; *Agropyron cristatum* subsp. *fragile* (Roth) A. Löve; *Agropyron cristatum* subsp. *sibiricum* (Willd.) Á. Löve; *Agropyron cristatum* var. *fragile* (Roth) Dorn; *Agropyron fragile* Roth; *Agropyron fragile* (Roth) Nevski; *Agropyron fragile* subsp. *sibiricum* (Willd.) Melderis; *Agropyron fragile* var. *sibiricum* (Willd.) Tzvelev; *Agropyron sibiricum* (Willd.) P. Beauv.; *Agropyrum fragile* (Roth) Nevski; *Brachypodium fragile* (Roth) P. Beauv.; *Eremopyrum sibiricum* (Willd.) P. Candargy; *Triticum angustifolium* Link; *Triticum fragile* Roth; *Triticum sibiricum* Willd.)

Europe, Eurasia. Spikelets appressed, see *Enumeratio Plantarum Horti Botanici Berolinensis*, ... 135. 1809, *Essai d'une Nouvelle Agrostographie* 100, 102, 146, 155, 180-181. 1812, H.F. Link (1767-1851), *Enumeratio Plantarum Horti Regii Botanici Berolinensis Altera*. Berolini 1821-1822, *Mantissa* 2: 412. 1824 and *Archives de Biologie Végétale Pure et Appliquée* 1: 33-34, 60. 1901, *Fl. URSS* 2: 656, 1934, *Botanical Journal of the Linnean Society* 76(4): 384. 1978, *Feddes Repertorium* 95(7-8): 432. 1984, *Vascular Plants of Wyoming* 298. 1988.

in English: Siberian wheatgrass

**A. junceiforme** (Á. Löve & D. Löve) Á. Löve & D. Löve (*Agropyron jacutorum* Nevski; *Agropyron junceum* subsp.

*boreali-atlanticum* Simonet ex Guin.; *Elymus farctus* (Viv.) Runemark ex Melderis subsp. *boreali-atlanticus* (Simonet & Guin.) Melderis; *Elytrigia jacutorum* (Nevski) Nevski; *Elytrigia juncea* (L.) Nevski; *Elytrigia junceiformis* Á. Löve & D. Löve, *Thinopyrum junceiforme* (Á. Löve & D. Löve) Á. Löve)

Europe. See *Acta Inst. Bot. Acad. Sci. URSS* 1 2: 78. 1936, *Fl. British Isles* 1462. 1952, *Taxon* 29(2-3): 351. 1980, *South African Journal of Botany* 54: 541-550. 1988, *Acta Botanica Neerlandica* 41: 407-415. 1992, *Genome* 35: 758-764. 1992.

**A. junceum** (L.) P. Beauv. (*Agropyron junceum* (L.) Roem. & Schult. ex Opiz, nom. illeg., non *Agropyron junceum* (L.) P. Beauv.; *Braconotia juncea* (L.) Godr.; *Elymus junceus* Fisch.; *Elymus multinodus* Gould; *Elytrigia juncea* (L.) Nevski; *Festuca juncea* (L.) Moench; *Festuca juncea* Phil., nom. illeg., non *Festuca juncea* (L.) Moench; *Thinopyrum junceum* (L.) Á. Löve; *Triticum junceum* L.)

Europe. See *Centuria I. Plantarum* ... 1: 6. 1755, *Mantissa Plantarum* 2: 327. 1771, *Methodus Plantas Horti Botanici* ... 190. 1794, *Mémoires de la Société Impériale des Naturalistes de Moscou* 1: 25, t. 4. 1811, *Essai d'une Nouvelle Agrostographie* 102, 146, 180. 1812, *Flore de Lorraine* 3: 192. 1844, *Verzeichniss der von Friedrich Philippi auf der Hochebene der Provinzen Antofagasta und Tarapacá gesammelten Pflanzen* 88, 89. 1891 and *Madroño* 9(4): 126. 1947, *Taxon* 29(2-3): 351. 1980, *Acta Botanica Neerlandica* 41: 407-415. 1992, *Genome* 36: 641-651. 1993.

**A. michnoi** Roshev. (*Agropyron cristatum* subsp. *michnoi* (Roshev.) Á. Löve)

Mongolia, Russia. Erect, leaf sheaths glabrous, long creeping branching rhizomes, spike dense and elliptic or elliptic lanceolate, 5-7(-10) florets, lemmas lanceolate and more or less woolly and bristly, palea acuminate, forage, on sandy areas, banks, see *Bulletin du Jardin Botanique Principal de l'URSS* 28: 384. 1929 [also *Izv. Glavn. Bot. Sada SSSR*], *Feddes Repertorium* 95(7-8): 432. 1984.

**A. mongolicum** Keng (*Agropyron cristatum* subsp. *mongolicum* (Keng) Á. Löve)

China. See *Journal of the Washington Academy of Sciences* 28: 305, f. 4. 1938, *Feddes Repertorium* 95(7-8): 432. 1984.

**A. mongolicum** Keng var. *mongolicum*

China.

**A. mongolicum** Keng var. *villosum* H.L. Yang

China. Glumes and lemmas densely villous, in sandy places, see *Bull. Bot. Res.* Harbin 4(4): 89. 1984.

**A. nathaliae** Sipliv. (*Agropyron michnoi* subsp. *nathaliae* (Sipliv.) Tzvelev)

Russia. See *Novosti Sist. Vyss. Rast.* 1968: 13. 1968, *Novosti Sist. Vyss. Rast.* 10: 34. 1973, *Feddes Repertorium* 95(7-8): 432. 1984.

**A. pectinatum** (Labill.) P. Beauv. (*Agropyron pectinatum* (M. Bieb.) P. Beauv.; *Australopyrum pectinatum* (Labill.) Á. Löve; *Triticum pectinatum* M. Bieb.)

Hungary. See *Novae Hollandiae Plantarum Specimen* 1: 21, t. 25. 1805, *Flora Taurico-Caucasica* 1: 87. 1808, *Essai d'une Nouvelle Agrostographie* 102, 146, 180. 1812 and *Feddes Repertorium* 95(7-8): 443. 1984, *New Zealand Journal of Botany* 31: 1-10. 1993.

in English: comb wheatgrass, spiked bluegrass

**A. pungens** (Pers.) Roem. & Schult. (*Agropyron pseudorepens* Scribn. & J.G. Sm.; *Agropyron pungens* Reichb. ex Nyman; *Agropyron repens* subsp. *pungens* (Pers.) Hook.f.; *Agropyron repens* var. *pungens* (Pers.) Duby; *Agropyron tetrastachys* Scribn. & J.G. Sm.; *Braconotia pungens* (Pers.) Godr.; *Elymus pauciflorus* subsp. *pseudorepens* (Scribn. & J.G. Sm.) Gould; *Elymus pungens* (Pers.) Melderis; *Elytrigia atherica* (Link) Kerguelen; *Elytrigia juncea* subsp. *x pungens* (Pers.) Tutin; *Elytrigia pungens* (Pers.) Tutin; *Psammopyrum pungens* (Pers.) Á. Löve; *Thinopyrum pungens* (Pers.) Barkworth; *Triticum pungens* Pers.; *Triticum repens* var. *pungens* (Pers.) Duby)

Europe. See *Tableau Encyclopédique et Méthodique ... Botanique* 1: 207. 1791, *Syn. Pl.* 1: 109. 1805, *Systema Vegetabilium* 2: 753. 1817, *Botanicon Gallicum* 1: 529. 1828 [also *Aug. Pyrami de Candolle Botanicon Gallicum ... Editio secunda. Ex herbariis et schedis Candollianis propriisque digestum a J.É. Duby.* 1: 529. Paris 1828], *Flore de Lorraine* 3: 192. 1844, Carl Fredrik Nyman (1820-1893), *Conspectus florae europaeae: seu Enumeratio methodica plantarum phanerogamarum Europae indigenarum, indicatio distributionis geographicae singularum etc.* 840. 1882, Sir Joseph Dalton Hooker (1817-1911), *The Student's Flora of the British Islands*, 3rd edition 504. London 1884, *Bulletin, Division of Agrostology United States Department of Agriculture* 4: 32, 34. 1897 and *Madroño* 10(3): 94. 1949, *Watsonia* 2: 186. 1952, *Botanisk Tidsskrift* 55: 300. 1960, *Botanical Journal of the Linnean Society* 76(4): 380. 1978, *Veröffentlichungen des Geobot. Inst. Rübel in Zürich* 87: 50. 1986, *Phytologia* 83(4): 304. 1997 [1998].

**A. repens** (L.) P. Beauv. (*Agropyron leersianum* (Wulfen ex Schweigger) Rydb.; *Agropyron repens* f. *geniculatum* Farw.; *Agropyron repens* f. *heberhachis* Fernald; *Agropyron repens* f. *pilosum* (Scribn.) Fernald; *Agropyron repens* f. *setiferum* Fernald; *Agropyron repens* f. *stoloniferum* Farw.; *Agropyron repens* f. *vaillantianum* (Wulfen & Schreb.) Fernald; *Agropyron repens* var. *pilosum* Scribn.; *Agropyron repens* var. *subulatum* Roem. & Schult.; *Braconotia officinarum* Godr.; *Elymus repens* (L.) Gould; *Elytrigia repens* (L.) Desv. ex B.D. Jacks.; *Elytrigia repens* (L.) Desv. ex Nevski, nom. illeg., non *Elytrigia repens* (L.) Desv. ex B.D. Jacks.; *Elytrigia repens* (L.) Desv.; *Trisetum repens* subsp. *magellanicum* (E. Desv.) Macloskie; *Triticum infestum* Salisb.; *Triticum leersianum* Wulfen ex Schweigg.; *Triticum*

*repens* L.; *Triticum repens* var. *magellanicum* E. Desv.; *Triticum vaillantianum* Wulfen & Schreb.; *Zeia repens* (L.) Lunell)

Kashmir, West Tibet. A troublesome weed, a source of essential oil, the plant used for straining milk, used as a tisane or demulcent, tea for continence, rhizomes diuretic and demulcent, boil to wash swollen legs, in India the juice of the root used for cirrhous liver, the roots utilized as a paper material, forage, see *Species Plantarum* 1: 86. 1753, *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 27. Londini [London] (Nov-Dec) 1796, *Specimen Florae Erlangensis* 1: 143. 1804, *Syn. Pl.* 1: 97. 1805, August F. Schweigger (1783-1821), *Flora Erlangensis*, edition 2, 1: 144. 1811, *Essai d'une Nouvelle Agrostographie* 102, 146, 180, t. 20, f. 2. 1812, *Journal de Botanique, rédigé par une société de botanistes* 1: 73. 1813, *Systema Vegetabilium* 2: 754. 1817, *Flore de Lorraine* 3: 192. 1844, *Flora Chilena* 6: 452. 1854, *Index Kewensis* 1: 836. 1893, *Flora of Mount Desert Island, Maine* 183. 1894 and *Reports of the Princeton University Expeditions to Patagonia, 1896-1899, Volume viii, 1* [2], *Botany* 8(1,5,1): 205. 1904, *American Midland Naturalist* 4: 227. 1915, *Brittonia* 1(2): 85. 1931, *Rhodora* 35(413): 184. 1933, *Madroño* 9(4): 127. 1947, *Svensk Bot. Tidskr.* 44: 132. 1950, *Pl. Syst. Evol.* 166: 99. 1989, *Willdenowia* 26: 267. 1996.

in English: English couch, English twitch, couch grass, quack grass, dog grass, twitch

in French: chiendent

in Brazil: grama

in Mexico: k'an-suuk, pasto

in Morocco: nnjem, njem, en-najam, en njil, âfar, âgesmir, taggamaît, tîl

**A. scabrum** (R. Br.) P. Beauv. (*Anthosachne scabra* (R. Br.) Nevski; *Elymus rectisetus* (Nees) Á. Löve & Connor; *Elymus scabrus* (R. Br.) Á. Löve; *Festuca scabra* Vahl; *Festuca scabra* Labill., nom. illeg., non *Festuca scabra* Vahl; *Roegneria scabra* (R. Br.) J.L. Yang & C. Yen; *Triticum scabrum* R. Br.; *Vulpia rectiseta* Nees)

Europe. See *Symbolae Botanicae, ...* 2: 21. 1791, *Novae Hollandiae Plantarum Specimen* 1: 22, t. 26. 1804, *Flora Badensis Alsatica* 1: 8. 1805, *Prodromus Florae Novae Hollandiae* 178. 1810, *Essai d'une Nouvelle Agrostographie* 102, 146, 181. 1812, *Synopsis Plantarum Glumacearum* 1: 237. 1855 [1854] and *New Zealand Journal of Botany* 20(2): 183. 1982, *Feddes Repertorium* 95(7-8): 468. 1984, *Bothalia* 18: 114-119. 1988, *Canadian Journal of Botany* 69(2): 291. 1990, *Bothalia* 27: 75-82. 1997.

in English: common wheatgrass

**A. sibiricum** (Willd.) P. Beauv. (*Agropyron cristatum* subsp. *sibiricum* (Willd.) Á. Löve; *Agropyron fragile* (Roth) P. Candargy; *Agropyron fragile* subsp. *sibiricum* (Willd.)

Melderis; *Eremopyrum sibiricum* (Willd.) P. Candargy; *Triticum sibiricum* Willdenow)

Mongolia, China, Russia. Erect or geniculate at base, tufted, leaf blades flat or involute, spikes slightly curved, 9-11 florets, glumes ovate-lanceolate and oblique, lemmas glabrous or scabrid, palea equal to or slightly shorter than lemma, sandy areas, steppes, semideserts, see *Enumeratio Plantarum Horti Botanici Berolinensis*, ... 135. 1809, *Essai d'une Nouvelle Agrostographie* 102, 146, 181. 1812 and *Archives de Biologie Végétale Pure et Appliquée* 1: 33, 58, 60. 1901, *Botanical Journal of the Linnean Society* 76(4): 384. 1978, *Feddes Repertorium* 95(7-8): 432. 1984.

**A. tanaiticum** Nevski

Eurasia, Russia. Rare species.

**A. velutinum** Nees (*Australopyrum retrofractum* subsp. *velutinum* (Nees) Á. Löve; *Australopyrum velutinum* (Nees) B.K. Simon)

Australia. See *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 417. 1843 and *Feddes Repertorium* 95(7-8): 443. 1984, *Austrobaileya* 2(3): 241. 1986.

in English: mountain wheatgrass, velvet wheatgrass

**A. violaceum** (Hornem.) Lange (*Agropyron violaceum* (Hornem.) Vasey; *Elymus hyperarcticus* (Polunin) Tzvelev; *Elymus trachycaulus* subsp. *violaceus* (Hornem.) Á. Löve & D. Löve; *Elymus violaceus* (Hornem.) Feilberg; *Roegneria violacea* (Hornem.) Melderis; *Triticum caninum* var. *violaceum* (Hornem.) Laest.; *Triticum violaceum* Hornem.)

Europe. See *Species Plantarum* 1: 86-87. 1753, *Flora Danica* 12(35): t. 2044. 1832, *Botaniska Notiser* 1856: 77. 1856, J.M.C. Lange (1818-1898), *Conspectus Florae Groenlandicae* 1880 [Meddel. om Grønland ... Tredie Hefte.] and *Bulletin of the National Museum of Canada* 92: 95, pl. 4. 1940, *Svensk Botanisk Tidskrift* 44: 159. 1950, *Rhodora* 56(662): 28. 1954, *Arkticheskaia Flora SSSR* 2: 44. 1964, *Botaniska Notiser* 128(4): 502. 1975 [1976], *Meddelelser om Grønland, Bioscience* 15: 12. 1984.

**Agropyropsis (Batt. & Trabut) A. Camus**  
= *Agropyropsis* A. Camus, *Agropyropsis* (Trab.)  
A. Camus, *Catapodium* Link

Resembling the genus *Agropyron* Gaertn.

Two species, North Africa. Pooideae, Poodae, Poeae, perennial, herbaceous, halophytic, tufted, stoloniferous, unbranched, leaves mainly basal, auricles absent, ligule an unfringed membrane, plants bisexual, inflorescence a single spike, spikelets solitary, 2 glumes more or less equal, palea present, 2 free membranous lodicules, 3 stamens, ovary glabrous with the apical appendage, 2 stigmas, in saline soils, damp places, see *Hortus Regius Botanicus Berolinensis*

1: 44, 280. 1827 and *Flore d'Alger* 233. 1904, *Bulletin de la Société Botanique de France* 82: 11. 1935.

### Species

**A. gracilis** (Balansa ex Coss. & Durieu) A. Camus (*Festuca lolium* Balansa ex Coss. & Durieu)

North Africa, Algeria. See *Société Botanique de France* 2: 311. 1855 and *Revue de Botanique Appliquée et d'Agriculture Tropicale* 15: 1050. 1935.

**A. lolium** (Balansa ex Coss. & Durieu) A. Camus (*Catapodium lolium* (Balansa ex Coss. & Durieu) Hack.; *Festuca lolium* Balansa ex Coss. & Durieu)

North Africa, Algeria. See *Société Botanique de France* 2: 311. 1855 and *Revue de Botanique Appliquée et d'Agriculture Tropicale* 15: 1050. 1935, *Bulletin de la Société Botanique de France* 82: 11. 1935.

### Agropyrum Roemer & Schultes

Orthographic variant of *Agropyron* Gaertn., see *Systema Vegetabilium* 2: 750. 1817.

### x Agrositanion Bowden

*Agropyron* x *Sitanion*.

See *Canadian Journal of Botany* 45: 720. 1967, *Genera Graminum* 374. 1986.

### Agrosticula Raddi = Sporobolus R. Br.

Greek *agrostis*, *agrostidos* "grass, weed, couch grass," Latin *agrostis*, *is*.

Chloridoideae, Cynodonteae, Sporobolinae, type *Agrosticula muralis* Raddi, see *Prodromus Florae Novae Hollandiae* 169-170. 1810, *Agrostografia Brasiliensis* 33, 36, t. 1, f. 2. 1823, *Nom. Bot.* 2: 1274. 1874 and *Contributions from the United States National Herbarium* 18(7): 368. 1917, *Revista Sudamericana de Botánica* 6(5-6): 145. 1940, *Flora Mesoamericana* 6: 273-276. 1994, *Contributions from the United States National Herbarium* 41: 200-219. 2001.

**Agrostis L.** = *Agraulus* P. Beauv., *Agrestis* Bubani, *Anomalotis* Steud., *Bromidium* Nees, *Bromidium* Nees & Meyen, *Candollea* Steud., *Chaetotropis* Kunth, *Decandolea* Bastard, *Decandolia* Batard, *Didymochaeta* Steud., *Heptaseta* Koidz., *Lachnagrostis* Trin., *Linkagrostis* Romero García et al.,

*Neoschischkinia* Tzvelev, *Notonema* Raf.,  
*Pentatherum* Nabelek, *Podagrostis* (Griseb.)  
 Scribn. & Merr., *Senisetum* Koidz., *Senisetum*  
 Honda, *Trichodium* Michaux, *Vilfa* Adans.

From the Latin *agrostis*, *is* and Greek *agrostis*, *agrostidos* “grass, weed, couch grass,” *agron*, *agros* “field,” probably referring to the habitat; Latin *ager*, the ancient Indian *ajrah*, the Gothic *akrs*.

About 200-220 species, temperate regions and tropical mountains. Pooideae, Poodae, Aveneae, or Pooideae, Poaceae, Agrostidinae, annual or perennial bunchgrass, variable, tufted, erect, decumbent and geniculately ascending, sometimes rhizomatous or stoloniferous, herbaceous and leafy, glabrous nodes, hollow internodes, auricles absent, leaf sheath rounded, ligule membranous, bristled leaves linear and narrow, leaf blades flat or involute, plants bisexual, culm with panicle rachis persistent, inflorescence paniculate more or less deciduous, loose or contracted panicles of very small spikelets whorled and slightly laterally flattened, 1-flowered spikelets borne on thread-like branches, 1 floret bisexual, 2 glumes coarse and keeled exceeding the single floret, lemmas 3- to 5-nerved and membranous, unawned or awned, awn sharply bent, short and small callus glabrous or bearded, palea present or absent, 2 free and glabrous lodicules, 3 stamens, ovary glabrous and without the apical appendage, 2 stigmas plumose, small fruit longitudinally grooved, endosperm sometimes liquid, weed species, ornamental, shade species, for pastures and lawns, bowling greens, putting greens and playing fields, cultivated fodder, forage, native pasture species, found in grasslands, páramos, rainforest, pampas, sometimes sand dunes, woodland, dry and rocky habitats, open habitats, there is considerable taxonomic confusion concerning this genus, this group is (or should be) currently under revision and review, intergeneric hybrids with *Polypogon* Desf., *Calamagrostis* Adans. and *Lachnagrostis* Trin., type *Agrostis canina* L., see *Species Plantarum* 1: 61-63. 1753, *Genera Plantarum*. edition 5. 30. 1754, *Familles des Plantes* 2: 495. 1763, *Flora Boreali-Americana* 1: 41-42, t. 8. 1803, *Essai sur la Flore du Département de Maine et Loire* 15, 28-29. 1809, *Essai d'une Nouvelle Agrostographie* 5, 146-148, 182, t. 3, 4, f. 2, 7. 1812, *A Sketch of the Botany of South-Carolina and Georgia* 1: 134. 1816, *Syst. Veg.* 2(2): 343. 1817, *Fundamenta Agrostographiae* 128, t. 10. 1820, *Observations sur les Graminées de la Flore Belgique* 127-129. 1823 [1824], *Systema Vegetabilium, editio decima sexta* 1: 259. 1825, *Bulletin Botanique* [Genève] 1: 220. 1830, *Nomenclator Botanicus. Editio secunda* 1: 273. 1840, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 362. 1841, *A Manual of the Botany of the Northern United States* 577. 1848, C.F. von Ledebour (1785-1851), *Flora*

*Rossica* 4(13): 436. 1852 [Grisebach is the author of the Gramineae], *Synopsis Plantarum Glumacearum* 1: 185, 198. 1854 [1855], *Fl. Chil.* 6: 317, 320. 1854 and *Syn. Mitteleur. Fl.* 2: 194. 1900, *Contributions from the United States National Herbarium* 13(3): 58. 1910, *Fl. France* 14: 59. 1913, *U.S. Dept. Agric. Bull.* 772: 127. 1920, *J. Fac. Sci. Univ. Tokyo, Sect. 3, Bot.* 3(1): 187. 1930, *Botanical Magazine* (Tokyo) 46: 371. 1932 and 47: 146. 1933, *Fl. N. Amer.* 17: 515. 1937, *Bull. Torrey Bot. Club* 72(6): 543. 1945, *Bol. Soc. Argent. Bot.* 1: 121. 1946, *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 99. 1957, *Symbolae Botanicae Upsaliensis* 17, 1: 1-112. 1960, *Records Dom. Mus.* 5(15): 142-143. 1965, *Bot. Zhurn.* 53: 309. 1968, *Novosti Sist. Vyss. Rast.* 6: 2. 1970, *Fl. Fenn.* 5: 29. 1971, *Novosti Sist. Vyss. Rast.* 8: 59. 1971, *The Flora of Canada* 2: 93-545. 1978 [1979], *Bothalia* 12: 637. 1979, *Darwiniana* 24: 187-210. 1982, *Blumea* 28: 199-228. 1982, *Fontqueria* 3: 11-12. 1983, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 107: 203-228. 1985, *Journal of Cytology and Genetics* 21: 155. 1986, *Boletim da Sociedade Broteriana, ser. 2* 61: 81-104. 1988, *Ruizia* 7: 135. 1988, *Bulletin de la Société Botanique de Belgique* 122: 161-169. 1989, *A Key to Australian Grasses* 1-150. 1990, *Gayana, Botánica* 47: 3-7. 1990, *Fitologija* 39: 72-77. 1991, *New Zealand J. Bot.* 29: 139-161. 1991, *Cytologia* 56: 437-452. 1991, *Flora Mediterranea* 1: 229-236. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1331-1332. 1991, *Taxon* 41: 556. 1992, *Parodiana* 7(1-2): 179-255. 1992, *Acta Botanica Neerlandica* 42: 73-80. 1993, *Parodiana* 8(2): 129-151. 1993, *Bot. Zhurn. (Moscow & Leningrad)* 78(4): 36-47. 1993, *Flora Mesoamericana* 6: 237-240. 1994, *Flora of Ethiopia and Eritrea* 7: 46-51. 1995, *Taxon* 44: 611-612. 1995, *Gayana, Botánica* 54(2): 91-156. 1997, *Opera Botanica* 137: 1-42. 1999, *Botanical Journal of the Linnean Society* 134: 495-512. 2000 [The *Deschampsia cespitosa* complex in central and northern Europe: a morphological analysis.], *Telopea* 9(3): 439-448. 2001, *Journal of the Royal Society of New Zealand* 32(1): 89-112. 2002, *Am. J. Bot.* 89: 1303-1310, 1410-1421, 1431-1438. 2002, *Contributions from the United States National Herbarium* 48: 42-89. 2003, *Am. J. Bot.* 90: 796-821, 1416-1424. 2003, Michael T. Tercek, Donald P. Hauber and Steven P. Darwin, “Genetic and historical relationships among geothermally adapted *Agrostis* (bentgrass) of North America and Kamchatka: evidence for a previously unrecognized, thermally adapted taxon.” *Am. J. Bot.* 90: 1306-1312. 2003, Jorge Chiapella & Nina S. Probatova, “The *Deschampsia cespitosa* complex (Poaceae: Aveneae) with special reference to Russia.” *Botanical Journal of the Linnean Society* 142(2): 213-228. June 2003, *Am. J. Bot.* 91: 523-530, 1312-1318. 2004, *Diversity & Distributions* 10(5-6): 505-506 Sep 2004, *Environmental Microbiology* 6(10): 1070-1080. Oct 2004, Roger del Moral and Andrew J. Eckert, “Colonization of volcanic deserts from productive



patches." *Am. J. Bot.* 92: 27-36. 2005, *Ecology Letters* 8(6): 652-661. June 2005, *Conservation Biology* 19(3): 955-962. June 2005. *Environmental Microbiology* 7(6): 780-788. June 2005, *Global Change Biology* 11(6): 894-908. June 2005, *New Phytologist* 166(3): 737-751. June 2005, *Journal of Applied Ecology* 42(3): 567-576. June 2005.

### Species

**A. adamsonii** Vickery (*Lachnagrostis adamsonii* (Vickery) S.W.L. Jacobs)

Australia, Victoria. Endangered species, annual, erect or geniculate, leaf blades linear, auricles absent, basal leaf sheaths scabrous, ligule membranous, leaf blades linear, inflorescence a large panicle, spikelets one-flowered, 2 glumes, see *Contributions from the New South Wales National Herbarium* 1: 107. 1941, *Telopea* 9(3): 445. 2001.

in English: Adamson's bent

**A. aemula** R. Br. (*Agrostis semibarbata* Trin.; *Agrostis solandri* F. Muell.; *Calamagrostis aemula* (R. Br.) Steud.; *Deyeuxia aemula* (R. Br.) Kunth; *Deyeuxia forsteri* sensu Rodway, non Kunth; *Lachnagrostis aemula* (R. Br.) Nees ex Hook.f.; *Lachnagrostis aemula* (R. Br.) Trin.; *Vilfa aemula* (R. Br.) P. Beauv.)

Australia, South Australia. Annual or perennial, erect, tufted, glabrous, coastal, ligule membranous, leaves linear to shortly acuminate and flat, inflorescence of chasmogamous spikelets, panicle spreading and not drooping, spikelets usually purple, glumes acuminate, lemma truncate and hairy on the back, callus shortly bearded, palea thin and bifid, weedy grass, grows in grassland, in open habitats, grassland, see *Prodromus Florae Novae Hollandiae* 172. 1810, *Essai d'une Nouvelle Agrostographie* 16, 146, 181. 1812, *Fundamenta Agrostographiae* 128. 1820, *Révision des Graminées* 1: 77. 1829, *Nomenclator Botanicus. Editio secunda* 1: 249. 1840, *Handbook of the New Zealand Flora* 329. 1867, *Lund Fysiogr. Sällsk. Minneskr. med ...* 8: 32, t. 7, f. 41-47. 1878 and *Contr. New South Wales Herb.* 1: 101-119. 1941, *New Zealand J. Bot.* 29: 147. 1991.

in English: blown grass

**A. aemula** R. Br. var. **aemula**

Australia. Leaf blades flat and linear, see *A Key to Australian Grasses* 1-150. 1990.

**A. aemula** R. Br. var. **setifolia** (Hook.f.) Vickery (*Agrostis billardieri* var. *setifolia* Hook.f.; *Lachnagrostis punicea* (A.J. Brown & N.G. Walsh) S.W.L. Jacobs)

Australia, Tasmania, Victoria. Found in dry areas, leaf blades filiform, lower glume acuminate, see *Prodromus Florae Novae Hollandiae* 171-172. 1810, *Flora Tasmaniae* 2: 115. 1858 and *Contributions from the New South Wales National Herbarium* 1: 116. 1941, *Telopea* 9(3): 446. 2001.

**A. aequata** Nees (*Calamagrostis aequata* (Nees) J.M. Black; *Deyeuxia aequata* (Nees) Benth.; *Lachnagrostis aequata* (Nees) S.W.L. Jacobs)

New South Wales, Victoria, South Australia, Tasmania. Annual, more or less tufted, geniculate and ascending, auricles absent, basal leaf sheaths not keeled, ligule membranous, leaves narrow and flat, inflorescence of chasmogamous spikelets, panicle loose with numerous spreading branches, glumes scabrous on the keels, lemma truncate and glabrous, awnless, palea present, hairy callus, grows in coastal habitats, in beach sands, sometimes considered a synonym for *Agrostis rudis* Roemer & Schultes, see *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 412. 1843, *Flora Australiensis: A Description ...* 7: 578. 1878 and *Flora of South Australia* 1: 70. 1922, *Telopea* 9(3): 445. 2001.

in English: blown grass

**A. aequivalvis** (Trin.) Trin. (*Agrostis canina* var. *aequivalvis* Trin.; *Calamagrostis aequivalvis* (Trin.) Steffen; *Deyeuxia aequivalvis* Benth. ex Vasey; *Podagrostis aequivalvis* (Trin.) Scribn. & Merr.)

U.S., Pacific Northwest, northern America, Canada. Perennial, see *Species Plantarum* 1: 62. 1753, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(2): 171. 1832, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 362. 1841, *Flora Rossica* 4(13): 436. 1852, *Contributions from the United States National Herbarium* 3(1): 77. 1892 and *Contributions from the United States National Herbarium* 13(3): 58. 1910, *Illustrated Flora of the Pacific States* 1: 1-557. 1923, *Beihefte zum Botanischen Centralblatt* 58b: 162. 1938.

in English: Arctic bent, arctic bentgrass, northern bent grass

**A. agrostiflora** (Beck) Rauschert (*Agrostis agrostiflora* (Beck) Janchen & Neumayer; *Agrostis schraderana* Bech.; *Calamagrostis agrostiflora* Beck; *Calamagrostis agrostiflora* (Schr.) Beck; *Calamagrostis humilis* (Roem. & Schult.) O. Schwarz; *Calamagrostis tenella* (Schr.) Link, non Host)

Europe. See *Flora Germanica* 220. 1806, *Flora von Nieder-Österreich* 61. 1891 and *Wiener Botanische Zeitschrift* 93: 79. 1944, *Feddes Repertorium* 73: 49. 1966.

**A. alpina** Scop. (*Agraulus alpinus* (Scop.) P. Beauv.; *Agrostis alpina* (Scop.) Bubani; *Agrostis alpina* Leyss.; *Agrostis alpina* Lam.; *Agrostis alpina* Stokes; *Agrostis canina* var. *alpina* (Leyss.) Ducommun; *Agrostis canina* var. *alpina* (Scop.) Kuntze, nom. illeg., non *Agrostis canina* var. *alpina* (Leyss.) Ducommun; *Agrostis canina* var. *alpina* Alph. Wood, nom. illeg., non *Agrostis canina* var. *alpina* (Leyss.) Ducommun)

Europe. See *Species Plantarum* 1: 62. 1753, *Flora Halensis* 16. 1761, *Flora Carniolica, Editio Secunda* 1: 60. 1772, *Encyclopédie Méthodique, Botanique* 1: 58. 1783, *A Botanical Arrangement of British Plants* (2nd edition) 1: 71. 1787, *Essai d'une Nouvelle Agrostographie* 5, 146. 1812, *Voyage botanique dans le midi de l'Espagne* 2: 646. 1844, *The American Botanist and Florist* 384. 1871, *Revisio Generum Plantarum* 3: 338. 1898, *Synopsis der mitteleuropäischen Flora* 2: 187. 1899 and *Flora Pyrenaea ...* 4: 287. 1901.

**A. ambatoensis** Asteg.

Argentina. See *Boletín de la Sociedad Argentina de Botánica* 20(3-4): 271. 1892.

**A. anadyrensis** Soczava

Eurasia, U.S., Alaska. See *Flora URSS* 2: 176, t. 13, f. 8 ad, 746. 1934.

**A. arisan-montana** Ohwi (*Agrostis arisan-montana* var. *meglandra* Y.C. Yang; *Agrostis infirma* var. *arisan-montana* (Ohwi) Veldkamp; *Agrostis rigidula* subsp. *arisan-montana* (Ohwi) T. Koyama, nom. illeg., non *Agrostis rigidula* var. *arisan-montana* (Ohwi) Veldkamp; *Agrostis rigidula* var. *arisan-montana* (Ohwi) Veldkamp)

Asia, Taiwan, Mt Arisan. See *Synopsis Plantarum Glumacearum* 1: 171. 1854, *Pl. Jungh.* 3: 342. 1854 and *Acta Phytotaxonomica et Geobotanica* 2(3): 161. 1933, *Blumea* 28(1): 217. 1982, *Bulletin of Botanical Research* 4(4): 98-99. 1984, *Grasses of Japan and Its Neighboring Regions* 485. 1987, *Blumea* 41(2): 408. 1996.

**A. aristiglumis** Swallen (*Agrostis microphylla* Steud.)

U.S., California. Endangered species, growing on slopes, see *Synopsis Plantarum Glumacearum* 1: 164. 1854 and *Leaflets of Western Botany* 5(3): 56. 1947.

in English: awned bent grass

**A. arvensis** Phil.

Chile. See *Linnaea* 29(1): 87. 1858.

**A. australiensis** Mez

Australia, Victoria, Tasmania, New South Wales. Annual, densely tufted, erect, slender, leafy, auricles absent, basal leaf sheaths not keeled, leaves rigid, ligule membranous, inflorescence of chasmogamous spikelets, panicle lax, purplish spikelets, glumes acute, lemma thin and truncate, palea minute or absent, grows in damp areas, in open habitats, see *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 302. 1921.

in English: Australian bent

**A. avenacea** J.F. Gmelin (*Agrostis debilis* Poir.; *Agrostis debilis* (Kunth) Spreng., nom. illeg., non *Agrostis debilis* Poir.; *Agrostis filiformis* (Forst.f.) Sprengel, nom. illeg., non *Agrostis filiformis* Vill.; *Agrostis forsteri* Roemer & Schultes; *Agrostis leonii* Parodi; *Agrostis ligulata* Steud.; *Agrostis retrofracta* Willd.; *Agrostis solandri* F. Muell.; *Avena filiformis* Forst.f.; *Avena retrofracta* Willd.; *Calamagrostis*

*avenacea* (J.F. Gmelin) Bech., nom. illeg., non *Calamagrostis avenacea* (J.F. Gmel.) W.R.B. Oliv.; *Calamagrostis avenacea* (J.F. Gmelin) W.R.B. Oliv.; *Calamagrostis filiformis* (Forst.f.) Cockayne, nom. illeg., non *Calamagrostis filiformis* Griseb.; *Calamagrostis retrofracta* (Willd.) Link; *Calamagrostis willdenowii* (Trin.) Steud.; *Deyeuxia filiformis* (Forst.f.) Petrie, nom. illeg., non *Deyeuxia filiformis* (Griseb.) Hook.f.; *Deyeuxia forsteri* Kunth, nom. illeg.; *Deyeuxia retrofracta* (Willd.) Kunth; *Lachnagrostis avenacea* (J.F. Gmelin) Veldkamp; *Lachnagrostis filiformis* (Forst.f.) Trinius; *Lachnagrostis retrofracta* (Willd.) Trin.; *Lachnagrostis willdenowii* Trin.; *Vilfa debilis* (Poir.) P. Beauv.; *Vilfa retrofracta* (Poir.) P. Beauv.)

Australia, New Zealand. Annual or perennial, tufted, clump-forming, erect or geniculate in lower part, slender to robust, glabrous, herbaceous, culms scabrous below panicle, auricles absent, basal leaf sheaths not keeled, fine green leaves linear and flat, ligule membranous, rhizomatous, chasmogamous spikelets, inflorescence a large open panicle sometimes drooping when young, panicle branches in distant whorls on the central axis, usually greenish to purple spikelets, glumes narrow and scabrous, lemma truncate and villous or hairy on the back, geniculate awn, callus shortly bearded, palea thin and membranous, very variable species naturalized elsewhere, weed, fodder, grazed when young, in New South Wales livestock poisonings associated with this grass, grows on moist soils, on damp disturbed soils, grassland, in vernal pools, on dry bare soil, along a stream, riverbanks, riparian woodland, clearings, clayey soil, roadsides, gardens, landslips, drains, channels, see *Florulae Insularum Australium Prodromus* 9. 1786, *Histoire des Plantes de Dauphiné* 2: 78. 1787, *Systema Naturae ... editio decima tertia, aucta, reformata* 2(1): 171. 1791, *Mantissa Prima Florae Halensis* 32. 1807, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 94. 1809, *Encyclopédie Méthodique. Botanique ... Supplément* 1: 249. 1810, *Essai d'une Nouvelle Agrostographie* 16, 147-148, 181-182. 1812, *Nova Genera et Species Plantarum* 1: 128. 1815 [1816], *Systema Vegetabilium* 2: 359. 1817, *Fundamenta Agrostographiae* 128, t. 10. 1820, *De Graminibus unifloris et sesquifloris* 217. 1824, *Systema Vegetabilium, editio decima sexta* 1: 262. 1825, *Révision des Graminées* 1: 77. 1829, *Hortus Regius Botanicus Berlinensis* 2: 247. 1833, *Synopsis Plantarum Glumacearum* 1: 173, 192. 1854 and *New Zealand Department Lands Report Botanical Survey Tongariro National Park* 35. 1908, *The Subantarctic Islands of New Zealand* 2: 474. 1909, *Transactions and Proceedings of the New Zealand Institute* 99: 127. 1917, *Candollea* 7: 519. 1938, *Revista Argentina de Agronomía* 29(1-2): 19, f. 3. 1962 [1963], *Palm. Hort. Franc.* 3: 71. 1991, *Blumea* 37(1): 230. 1992, *New Zealand J. Bot.* 33: 19-20. 1995, *Bothalia* 26(1): 63-67. 1996, Paul H. Zedler and Charles Black, "Exotic plant invasions in an endemic-rich habitat: The spread of an introduced Australian grass, *Agrostis*

*avenacea* J. F. Gmel., in California vernal pools." *Austral. Ecology* 29(5): 537-546. Oct 2004.

in English: bent grass, avens bent grass, blown grass, common blown grass, New Zealand wind grass, bents, fairy grass, Pacific bent, Pacific bentgrass

in Hawaii: he'upuea, he'upueo

**A. *avenacea*** J.F. Gmelin var. ***perennis*** Vickery

Australia. See *Systema Naturae ... editio decima tertia, aucta, reformata* 2(1): 171. 1791 and *Contributions from the New South Wales National Herbarium* 1: 114. 1941.

**A. *bacillata*** Hack.

Costa Rica. Perennial, caespitose, montane, erect, leaves mostly basal, open panicle with yellowish cream flowers, often placed in *Podagrostis* (Griseb.) Scribner & Merr., found in open areas, páramos, see *Österreichische Botanische Zeitschrift* 52(2): 59. 1902, *Brittonia* 23(3): 293-324. 1971.

**A. *barbuligera*** Stapf (*Lachnagrostis barbuligera* (Stapf) Rúgolo & A.M. Molina)

South Africa. Perennial, tufted, flat leaf blade, ligule membrane-like, usually in marshy areas, see *Flora Capensis* 7(3): 548. 1899.

**A. *barbuligera*** Stapf var. ***barbuligera***

South Africa. Perennial, tufted, forming small clumps, basal sheaths splitting into fibers, panicle flexuous, lemmas awned, found in mountain grassland, in mountain grassveld, see *Flora Capensis* 7(3): 548. 1899.

**A. *barbuligera*** Stapf var. ***longipilosa*** Goossens & Papendorf

South Africa. Perennial, tufted, basal sheaths splitting, panicle flexuous, hairy lemmas, found in mountain grassland, see *Flora Capensis* 7(3): 548. 1899 and *South African Journal of Science* 41: 179. 1945.

**A. *basalis*** Luces

Venezuela. See *Boletín de la Sociedad Venezolana de Ciencias Naturales* 15(80): 10-11, f. 6. 1953.

**A. *bergiana*** Trin.

North America, Africa. See *De Graminibus unifloris et sesquifloris* 203. 1824.

**A. *bergiana*** Trin. var. ***bergiana***

South Africa. Perennial or annual, short-lived, weak, delicate, open panicle, palea present, growing in mountain grassland, wet or moist places.

**A. *bergiana*** Trin. var. ***laeviuscula*** Stapf

South Africa. Perennial or annual, weak, delicate, open panicle, palea present, growing in mountain grassland, wet or moist places, see *Flora Capensis* 7: 547. 1899.

**A. *bergiana*** Trin. var. ***submutica*** Nees

South Africa. See *Florae Africae Australioris Illustrationes Monographicae* I. Gramineae. 150. 1841.

**A. *billardieri*** R. Br. (*Agrostis diffusa* Banks & Sol. ex Hook.f.; *Agrostis labillardieri* Roem. & Schult.; *Agrostis solandri* F. Muell., p.p.; *Avena filiformis* Labill.; *Deyeuxia billardieri* (R. Br.) Kunth; *Calamagrostis aemula* var. *billardieri* (R. Br.) Maiden & Betche; *Calamagrostis billardieri* (R.Br.) Steud.; *Deyeuxia billardierei* (R. Br.) Kunth; *Lachnagrostis billardieri* (R. Br.) Trinius; *Vilfa billardieri* (R. Br.) P. Beauv.) (named for the French explorer Jacques Julien Houtton de Labillardière, 1755-1834, botanist, traveler, from 1791-1795 on expedition to find the French navigator Jean François de Galaup de la Pérouse (1741-1788), among his works *Icones plantarum Syriae rariorum. Lutetiae Parisiorum* [Paris] 1791 [1791-1812], *Relation du voyage à la recherche de la Pérouse*. Paris [1800] and *Novae Hollandiae plantarum specimen*. Paris 1804-1806 [1807]. See Antoine Lasègue (1793-1873), *Musée botanique de M. Benjamin Delessert*. 573. Paris, Leipzig 1845; J.H. Barnhart, *Biographical notes upon botanists*. 2: 331. 1965; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; I. Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. 1916; M.N. Chaudhri, I.H. Vegter and C.M. De Wal, *Index Herbariorum, Part II (3), Collectors I-L. Regnum Vegetabile* vol. 86. 1972; H.M. Cooper, *French Exploration in South Australia*. Adelaide 1952; John Dunmore, *French Explorers in the Pacific*. Oxford 1965-1969; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Frans A. Stafleu, *Linnaeus and the Linnaeans: The Spreading of Their Ideas in Systematic Botany, 1735-1789*. Utrecht 1971; N.J.B. Plomley, *The Baudin Expedition and the Tasmanian Aborigines*. Hobart 1982; Numa Broc, *Dictionnaire illustré des explorateurs français du XIXe siècle*. Afrique. Paris 1988; Sir James Edward Smith, *A Specimen of the Botany of New Holland*. 1, t. 1. London 1793; Warren R. Dawson, *The Banks Letters*. London 1958; J.C. Dryander, *Catalogus bibliothecae historico-naturalis Josephi Banks*. London 1796-1800; Ida Lee, *Early Explorers in Australia: From the Log-books and Journals, including the Diary of Allan Cunningham*. London 1925; Jonathan Wantrup, *Australian Rare Books, 1788-1900*. Hordern House, Sydney 1987)

Australia, Victoria, South Australia, Tasmania. Annual or perennial, glabrous, erect, caespitose, leaves nonauriculate, basal leaf sheaths not keeled, leaf blade flat and linear to filiform or shortly acuminate, ligule membranous and hairy, inflorescence of chasmogamous spikelets, panicle branched, spikelets straw-colored or purplish, glumes scabrous on the keel, lemmas glabrous and awned, awn geniculate and exserted, callus shortly bearded, palea lanceolate and bifid, found on sandy soils, coastal areas, open habitats,

see *Prodromus Florae Novae Hollandiae* 171. 1810, *Essai d'une Nouvelle Agrostographie* 16, 147, 181. 1812, *Fundamenta Agrostographiae* 128, t. 10. 1820, *Révision des Graminées* 1: 77. 1829, *Nomenclator Botanicus. Editio secunda* 1: 249. 1840, *Flora Tasmaniae* 2: 115. 1858 and *A Census of New South Wales Plants* 21. 1916, *Contr. New South Wales Herb.* 1: 101-119. 1941, *New Zealand Journal of Botany* 33: 1-33. 1995.

in English: coastal blown grass, blown grass, coast blown grass

**A. billardieri** R. Br. var. **billardieri**

Australia. Leaf blades flat and linear, see *Prodromus Florae Novae Hollandiae* 171. 1810.

**A. billardieri** R. Br. var. **collicola** D.I. Morris (*Agrostis collicula* (D.I. Morris) A.J. Brown & N.G. Walsh, also spelled *collicola*; *Lachnagrostis collicola* (D.I. Morris) S.W.L. Jacobs)

Tasmania. Leaf blades flat, inflorescence a panicle, lemma awned and aristate, see *Prodromus Florae Novae Hollandiae* 171. 1810 and *Muelleria* 7(2): 147. 1990, *Muelleria* 14: 80. 2000, *Telopea* 9(3): 445. 2001.

**A. billardieri** R. Br. var. **filifolia** Vickery (*Lachnagrostis punicea* subsp. *filifolia* (Vickery) S.W.L. Jacobs)

Tasmania. Leaf blades filiform, lemma awned, a coastal grass, see *Prodromus Florae Novae Hollandiae* 171. 1810 and *Contributions from the New South Wales National Herbarium* 1: 110. 1941, *Telopea* 9(3): 446-447. 2001.

**A. billardieri** R. Br. var. **robusta** Vickery (*Agrostis robusta* (Vickery) A.J. Brown & N.G. Walsh; *Lachnagrostis robusta* (Vickery) S.W.L. Jacobs)

Tasmania. Leaf blades involute, lemma awned, a coastal grass, see *Prodromus Florae Novae Hollandiae* 171. 1810 and *Contributions from the New South Wales National Herbarium* 1: 110. 1941, *Telopea* 9(3): 447. 2001.

**A. billardieri** R. Br. var. **tenuiseta** D.I. Morris (*Lachnagrostis billardieri* subsp. *tenuiseta* (D.I. Morris) S.W.L. Jacobs)

Tasmania. Rare species, leaf blades flat, a coastal grass, see *Prodromus Florae Novae Hollandiae* 171. 1810, *Fundamenta Agrostographiae* 128, t. 10. 1820 and *Muelleria* 7(2): 147. 1990, *Telopea* 9(3): 445. 2001.

**A. blasdalei** A.S. Hitchc. (*Agrostis blasdalei* var. *blasdalei*; *Agrostis blasdalei* var. *marinensis* Crampton; *Agrostis breviculmis* auct. non A.S. Hitchc.) (named for Walter Charles Blasdale, b. 1871, plant collector)

U.S., California. Vulnerable and rare species, perennial, rhizomatous, decumbent to erect, dense cylindrical inflorescence, base often partly enclosed by upper leaf, lemma sometimes awned above middle, awn straight, gravelly soils, dunes, coastal bluffs, see *Proceedings of the Biological Society of Washington* 41: 160-161. 1928.

in English: Blasdale's bent grass, Blasdale's bentgrass, cliff bent, cliff bent grass

**A. blasdalei** A.S. Hitchc. var. **blasdalei**

U.S., California. Vulnerable species.

in English: Blasdale's bent grass

**A. blasdalei** A.S. Hitchc. var. **marinensis** Crampton (California, Marin County)

U.S., California. Endangered or possibly extinct species, erect, slender, found in coastal prairie, coastal dunes, see *Proceedings of the Biological Society of Washington* 41: 160-161. 1928.

in English: Marin bent grass

**A. boormanii** Vickery (John Luke Boorman, fl. 1899-1919, botanist, plant collector in Australia)

Australia, New South Wales. Annual, slender, erect to geniculate, tufted, nonauriculate, basal leaf sheaths not keeled, ligule membranous and glabrous, leaves acuminate, inflorescence of chasmogamous spikelets, green and purple panicle contracted, greenish and purple spikelets, glumes acute, lemma awned and glabrous, palea absent, see *Contributions from the New South Wales National Herbarium* 1: 105. 1941, *Telopea* 9(3). 2001.

**A. borealis** Hartm. (*Agrostis bakeri* Rydb.; *Agrostis borealis* f. *macrantha* (Eames) Fernald; *Agrostis borealis* var. *americana* (Scribner ex Macoun) Fernald; *Agrostis borealis* var. *macrantha* Eames; *Agrostis borealis* var. *typica* Fernald; *Agrostis canina* var. *alpina* Oakes; *Agrostis canina* var. *tenella* Torr.; *Agrostis concinna* Tuck.; *Agrostis mertensii* Trin. subsp. *borealis* (Hartm.) Tzvelev; *Agrostis novae-angliae* Vasey, nom. illeg., non *Agrostis novae-angliae* Tuck.; *Agrostis pickeringii* Tuck.; *Agrostis pickeringii* var. *rupicola* Tuck.; *Agrostis rubra* L.; *Agrostis rubra* var. *alpina* (Oakes) MacMill.; *Agrostis rubra* var. *americana* Scribner ex Macoun; *Trichodium concinnum* (Tuck.) Alph. Wood) (for the American naturalist Charles Pickering, 1805-1878, botanist, zoologist, anthropologist, traveler, physician, M.D. Harvard 1826, explorer, plant geographer, historian, ethnologist, 1838-1842 with Charles Wilkes (1798-1877) and William Dunlop Brackenridge (1810-1893) on the U.S. expedition to Antarctic islands and northwest coast of North America, wrote *Chronological History of Plants*. Boston 1879. See D.C. Haskell, *The United States Exploring Expedition 1838-1842 and Its Publications 1844-1874*. New York 1942; D.B. Tyler, *The Wilkes Expedition: The First United States Exploring Expedition (1838-1842)*. Philadelphia 1968; Sydney A. Spence, *Antarctic Miscellany. Books, Periodicals and Maps Relating to the Discovery and Exploration of Antarctica*. London 1980; Howard Atwood Kelly & Walter Lincoln Burrage, *Dictionary of American Medical Biography*. New York 1928; J.W. Harshberger, *The Botanists of Philadelphia and Their Work*. 190-193. 1899; Joseph Ewan, *Rocky Mountain Naturalists*. [b. 1806] The University

of Denver Press 1950; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 224. Oxford 1964; J.H. Barnhart, *Biographical notes upon botanists*. 3: 84. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 310. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 466. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; J. Ewan, editor, *A Short History of Botany in the United States*. 1969; Jeannette Elizabeth Graustein, *Thomas Nuttall, Naturalist. Explorations in America, 1808 - 1841*. 475. Cambridge, Harvard University Press 1967; Elmer Drew Merrill, *Contr. U.S. Natl. Herb.* 30(1): 242. 1947; John Dunmore, *Who's Who in Pacific Navigation*. 265-267. Honolulu 1991; G.A. Doumani, editor, *Antarctic Bibliography*. Washington, Library of Congress 1965-1979; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964)

Europe, Asia, northern America, Canada. Alpine, crevices, mountains, cliffs, see *Species Plantarum* 1: 62. 1753, *Linnaea* 10(3): 302. 1836, Carl Johan Hartman (1790-1849), *Handbok i Skandinaviens Flora*, edition 3, 17. 1838, *Catalogue of Vermont Plants* 32. 1842, *American Journal of Science* 45(1): 42. 1843, *Fl. New York* 2: 443. 1843, *Mag. Hort. Bot.* 9(4): 143. 1843, *A Class-book of Botany* (2) 600. 1847, *Catalogue of Canadian Plants, Part VI, Musci* 25: 391. 1890, *Contributions from the United States National Herbarium* 3(1): 76. 1892, *The Metaspermae of the Minnesota Valley* 65. 1892 and *Rhodora* 11(125): 88. 1909, *Bulletin of the Torrey Botanical Club* 36: 532. 1909, *Rhodora* 35: 204-205. 1933, *Novosti Sist. Vyss. Rast.* 10: 90. 1973.

in English: northern bentgrass

in Japan: miyamanukabo

**A. bourgeaei** E. Fourn. (*Agrostis alba* (L.) Lunell; *Agrostis alba* L.; *Agrostis bourgeaei* E. Fourn. ex Hemsl.; *Agrostis thyrsgera* Mez)

North America, Mexico. Aquatic, see *Species Plantarum* 1: 63. 1753, *Biologia Centrali-Americana; ... Botany ...* 3: 550. 1885, *Mexicanas Plantas* 2: 95. 1886 and *American Midland Naturalist* 4: 216. 1915, *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 301. 1921.

**A. boyacensis** Swallen & García-Barriga

Colombia, Boyaca. See *Caldasia* 2(8): 303, f. A. 1943.

**A. brachiata** Munro ex Hook.f.

India, Bihar, West Bengal. Lemma awnless and glabrous, palea minute, see *The Flora of British India* 7: 256. 1897 and *Edinburgh J. Bot.* 56: 388. 1999.

**A. brachyathera** Steud. (*Agrostis flavidula* Steud.)

Argentina, Chile, Sandy Point-Punta Arenas, Magellan Strait, Tierra del Fuego. See *Synopsis Plantarum Glumacearum* 1: 421-422. 1854.

**A. breviculmis** A.S. Hitchc. (*Agrostis nana* (J. Presl) Kunth, nom. illeg., non *Agrostis nana* Delile; *Trichodium nanum* J. Presl)

Southern America, Peru, Argentina, Chile. Perennial bunchgrass, herbaceous, montane, densely tufted, prostrate, forming small clumps, ligule erose, inflorescence erect, spikelets green with purple to violet tips, growing in gravelly soil, grassland, moist places, muddy bogs, flood deposit, disturbed areas, bottomland, sandy soil, see *Révision des Graminées* 3: 596. 1829, *Reliquiae Haenkeanae* 1(4-5): 243. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1(1): 226. 1833 and *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 36, t. 18. 1905, *Contributions from the United States National Herbarium* 24(8): 291-556. 1927, *Field Museum of Natural History, Botanical Series* 13(1/1): 96-261. 1936, *Contributions from the Gray Herbarium of Harvard University* 184: 1-223. 1958.

**A. calderoniae** Acosta Cast.

North America, Mexico. See *Phytologia* 62(6): 449, f. 1. 1987.

**A. canina** L. (*Agraulis caninus* (L.) P. Beauv.; *Agrostis canina* (L.) Bubani; *Agrostis alba* f. *aristata* Millsp.; *Agrostis canina* Ucria; *Agrostis canina* f. *fasciculata* J. Rousseau; *Agrostis canina* f. *varians* (Thuill.) Beldie; *Agrostis canina* subsp. *fascicularis* (Curtis ex Sinclair) Hyl.; *Agrostis canina* var. *alba* Desv.; *Agrostis canina* var. *alpina* Alph. Wood, nom. illeg., non *Agrostis canina* var. *alpina* (Leys.) Ducommun; *Agrostis canina* var. *fascicularis* (Curtis ex Sinclair) Martin; *Agrostis canina* var. *stolonifera* Blytt; *Agrostis canina* var. *stolonifera* Meinsh., nom. illeg., non *Agrostis canina* var. *stolonifera* Blytt; *Agrostis canina* var. *stolonifera* Vasey, nom. illeg., non *Agrostis canina* var. *stolonifera* Blytt; *Agrostis canina* var. *stolonifera* Walp., nom. illeg., non *Agrostis canina* var. *stolonifera* Blytt; *Agrostis canina* var. *varians* (Thuill.) Ducommun; *Agrostis falklandica* Hook.f.; *Agrostis fascicularis* Sincl.; *Agrostis fascicularis* Curtis ex Sinclair; *Agrostis stricta* Parl.; *Agrostis sudavica* Natk.-Ivanauk.; *Agrostis tenuifolia* Curtis; *Agrostis tenuis* Batard. ex Roemer & Schultes, nom. illeg., non *Agrostis tenuis* Sibth.; *Agrostis wightii* Nees ex Steud.; *Milium caninum* (L.) Lag.; *Trichodium caninum* (L.) Schrad.)

Europe. Perennial, small, tufted to loosely tufted, often stoloniferous, without rhizomes, erect or ascending, slender, ligules acute, pale-green to grayish green leaves, inflorescence loosely panicle-like, spikelets 1-flowered, dark purple glumes elliptic-lanceolate and acute, lemma shorter than glumes, on the lemma awn geniculate and bent, palea minute, small seeds, weed species naturalized elsewhere,

soil binder and cover species, useful for erosion control, suitable for lawns and golf courses, putting greens, permanent wet pastures, very resistant to cold, sensitive to drought, optimum on very acid soils, found in fields and meadows, hillsides, open sandy field, shady slopes, in wet and very wet soils, in marshy places, sandy or peaty soil, rocks near the sea, see *Species Plantarum* 1: 62. 1753, *Enum. Brit. Grasses* 42. 1787, *Hortus regius Panhormitanus* ... 57. Panormi 1789, *Flore Descriptive et Analytique des Environs de Paris* éd. 2 1: 35. 1799, *Flora Germanica* 1: 198. 1806, *Essai d'une Nouvelle Agrostographie* 5, 146, 147, t. 3, 4, f. 2, t. 4, 7. 1812, George Sinclair (1786-1834), *Hortus gramineus Woburnensis* 154. 1816, *Elenchus Plantarum Novarum* 10. 1816, *Systema Vegetabilium* 2: 277. 1817, *Observations sur les Plantes des Environs d'Angers* 50. 1818, *Flora Antarctica* 2: 373. 1846, *Norsk Flora* 151. 1847, *Fl. New Zealand* 1: 296. 1853, *Synopsis Plantarum Glumacearum* 1: 168. 1854, *Taschenb. Schweiz. Bot.* 852. 1869, *The American Botanist and Florist* 384. 1871, *T.N.Z.I.* 3: 160. 1871, *Bulletin, West Virginia Agricultural Experiment Station* 24(2): 469. 1892, *Contributions from the United States National Herbarium* 3(1): 75. 1892 and *Flora Pyrenaea* ... 4: 286. 1901, *Reports of the Princeton University Expeditions to Patagonia* ... *Botany* 8(5): 186. 1904, *Kongliga Svenska Vetenskapsakademiens Handlingar* 50(3): 12. 1913, *New Zealand DSIR Bull.* 49: 108. 1936, *Contributions de l'Institut Botanique de l'Université de Montréal* 32: 56, f. 5. 1938, *Nordisk Kärnväxtflora* 1: 323. 1953, *Fl. Fenn.* 5: 29. 1971, *Flora Republicii Socialiste Romania* 12: 158. 1972, *Taxon* 31(1): 71. 1982, *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Botanica* 33: 51-55. 1986, *Taxon* 41: 556. 1992, *Opera Botanica* 137: 1-42. 1999.

in English: velvet bent grass, velvet bent, brown bent, Rhode Island bent

in French: agrostis des chiens

in Italian: cappellini delle torbiere

in Spanish: agróstide canina, agróstide de perro, agróstide perruna

in German: Hundstraubgras

**A. canina** L. subsp. **canina**

Europe. See *Species Plantarum* 1: 62. 1753 and *The Flora of Canada* 2: 93-545. 1978 [1979].

**A. capensis** (L.) Lam. (*Achnatherum capense* (L.) P. Beauv.; *Agrostis capensis* Steud.; *Agrostis capensis* Willd., nom. illeg., non *Agrostis capensis* (L.) Lam.; *Milium capense* L.)

South Africa. See *Mantissa Plantarum* 185. 1771, *Encyclopédie Méthodique, Botanique* 1: 58. 1783, *Species Plantarum* 1: 372. 1797, *Essai d'une Nouvelle Agrostographie* 146, 167. 1812, *Flora* 12: 467. 1829.

**A. capillaris** L. (*Agrostis alba* subsp. *vulgaris* (With.) Douin; *Agrostis alba* subvar. *pumila* (L.) Cosson & Durand;

*Agrostis alba* subvar. *pumila* (L.) Cosson & Germ.; *Agrostis alba* var. *aristata* A. Gray, nom. illeg., non *Agrostis alba* var. *aristata* Spenn.; *Agrostis alba* var. *minor* Vasey; *Agrostis alba* var. *silvatica* (Huds.) K. Richt.; *Agrostis alba* var. *stricta* Alph. Wood; *Agrostis alba* var. *silvatica* (Huds.) Sm.; *Agrostis alba* var. *tenuis* (Sibth.) Fiori; *Agrostis alba* var. *vulgaris* (With.) Coss. & Dur., nom. illeg., non *Agrostis alba* var. *vulgaris* G. Mey.; *Agrostis alba* var. *vulgaris* (With.) Fiori, nom. illeg., non *Agrostis alba* var. *vulgaris* G. Mey.; *Agrostis capillaris* Huds., nom. illeg., non *Agrostis capillaris* L.; *Agrostis capillaris* Boiss. & Lange ex Andersson, nom. illeg., non *Agrostis capillaris* L.; *Agrostis capillaris* Pourret ex Nyman; *Agrostis capillaris* Schischk.; *Agrostis capillaris* Thore; *Agrostis capillaris* var. *aristata* (Parnell) Druce; *Agrostis diffusa* Muhl. ex Spreng., nom. illeg., non *Agrostis diffusa* Host; *Agrostis hispida* Willd.; *Agrostis laxa* Gray; *Agrostis lithuanica* Besser ex Roem. & Schult.; *Agrostis palustris* var. *stricta* (Willd.) House; *Agrostis polymorpha* Huds.; *Agrostis polymorpha* var. *capillaris* (L.) Huds.; *Agrostis polymorpha* var. *pumila* (L.) Huds.; *Agrostis pumila* L.; *Agrostis rubra* var. *pumila* (L.) Wimm. & Grab.; *Agrostis stolonifera* var. *minor* (Vasey) Farw., nom. illeg., non *Agrostis stolonifera* var. *minor* Meinsh.; *Agrostis stolonifera* var. *vulgaris* (With.) Celak., nom. illeg., non *Agrostis stolonifera* var. *vulgaris* Heuff.; *Agrostis stricta* (Roem. & Schult.) Büse, nom. illeg., non *Agrostis stricta* J.F. Gmel.; *Agrostis stricta* Muhl., nom. illeg., non *Agrostis stricta* J.F. Gmel.; *Agrostis stricta* Willd., nom. illeg., non *Agrostis stricta* J.F. Gmel.; *Agrostis silvatica* Hudson; *Agrostis tarda* Bartl.; *Agrostis tenuis* Sibth.; *Agrostis tenuis* f. *aristata* (Parnell) Wiegand; *Agrostis tenuis* var. *aristata* (Parnell) Druce; *Agrostis tenuis* var. *hispida* (Willd.) Philipson; *Agrostis tenuis* var. *pumila* (L.) Druce; *Agrostis tenuis* var. *tenuis*; *Agrostis vulgaris* With.; *Agrostis vulgaris* var. *aristata* A. Gray; *Agrostis vulgaris* var. *aristata* Parnell; *Agrostis vulgaris* var. *pumila* (L.) Pers.; *Decandolia vulgaris* (With.) Bastard; *Trichodium capillaris* (L.) Roth; *Trichodium strictum* Roem. & Schult.; *Vilfa divaricata* var. *pumila* (L.) Gray; *Vilfa vulgaris* (With.) P. Beauv.)

Europe, western Asia. Perennial, variable, slender, small size, forming large clumps, erect or spreading, loosely to densely tufted or rhizomatous, with short rhizomes, often stoloniferous with trailing stolons, stems horizontal then ascendent, leaves flat and narrow, ligule obtuse or truncate, leaf sheath glabrous, inflorescence of chasmogamous spikelets, panicle ovoid and loose, 1 floret, glumes subequal acute and lanceolate, lemma truncate and usually awnless, no awn in the spikelets except the aristate form, callus usually glabrous, palea present, small seeds, pastures, ornamental cultivated grass widely naturalized elsewhere, lawns and bowling greens, sometimes cut for hay, occasional weed in higher rainfall areas, pasture weed, turf species, tolerates shade and drought, extremely resistant to summer heat and

winter cold, producing stolons and rhizomes simultaneously, useful for erosion control and soil conservation, found on sandy soils and dunes, open meadows, along roadsides, waste places, thickets, riverbanks, rocky soils, lawns, open habitats, fields, disturbed ground, hillsides, pastures, modified grassland, peaty soil, dry fields, often associated with *Festuca rubra* L., hybridizes with *Agrostis stolonifera* L., see *Species Plantarum* 1: 62-63. 1753, *Flora Anglica* 27-28. 1762, *Mantissa Plantarum* 1: 31. 1767, *Flora Anglica, Editio Altera* 1: 31. 1778, *Flora Oxoniensis* 36. 1794, *An Arrangement of British Plants, Third Edition* 1796, *Species Plantarum* 1: 366, 370. 1797, *Essai d'une Chloris du Département des Landes, à Dax ...* 26. 1803, *Synopsis Plantarum* 1: 75. 1805, *Essai sur la Flore du Département de Maine et Loire* 28. 1809, *Descriptio uberior Graminum* 65. 1817, *Systema Vegetabilium* 2: 281. 1817, *A Natural Arrangement of British Plants* 2: 147. London 1821, *Novae Plantarum Species* 41. 1821, *English Flora* 1: 93. 1824, *Systema Vegetabilium, editio decima sexta* 1: 260. 1825, *Flora Silesiae* 1: 52. 1827, *Mantissa* 3(Add. 1): 586. 1827, *The Grasses of Scotland* 1: 34, t. 13. 1842, *A Manual of the Botany of the Northern United States* 578. 1848, *Exploration Scientifique de l'Algérie* 2: 63. 1854, *Plantae Junghuhnianae* 3: 341. 1854, *Flora Descriptive et Analytique des Environs de Paris (edition 2)* 797. 1861, *Annals of Botany. Oxford* 6: 981. 1861, *A Class-book of Botany* 774. 1861, *Prodromus der Flora von Böhmen* 710. 1881, *Conspectus florum europaeae* 801. Örebro Sueciae 1878-1890, *Plantae Europaeae* 1: 43. 1890, *Contributions from the United States National Herbarium* 3(1): 78. 1892, *Flora Analytica d'Italia* 1: 63. 1896 and *Report of the Michigan Academy of Science, Arts and Letters* 6: 202. 1904, *List of British Plants* 79. Oxford 1908, *Nuova Flora Analytica d'Italia* 1: 97. 1923, *New York State Museum Bulletin* 254: 98. 1924, *Rhodora* 26(301): 2. 1924, *The Flora of Oxfordshire (edition 2)* 474. 1927, *Flore Complète Illustrée en Couleurs de France, Suisse et Belgique* 11: 142. 1931, *Journal of the Linnean Society, Botany* 51: 86, t. 7. 1937, *New Zealand J. Agric. Res.* 1: 265-266. 1958, *New Zealand J. Bot.* 21: 141-156. 1983, Rapson G.L. & J.B. Wilson, "Non-adaptation in *Agrostis capillaris* L. (Poaceae)." *Functional Ecology* 2: 479-490. 1988, *Boletim da Sociedade Broteriana, ser. 2* 61: 81-104. 1988, *Bulletin de la Société Botanique de Belgique* 122: 161-169. 1989, *Fitologija* 39: 72-77. 1991, *New Zealand J. Bot.* 29: 139-161. 1991, *Flora Mediterranea* 8: 251-262. 1998, *Opera Botanica* 137: 1-42. 1999.

in English: colonial bent, colonial bent grass, New Zealand bent grass, Prince Edward Island bent grass, brown top, brown top bent, common bent grass, common bent, Rhode Island bent, Rhode Island bent grass

in French: agrostis commun, agrostide commun, agrostide ténue

in Spanish: agróstide común, hierba fina

in German: gemeines Straußgras, Rotstraußgras

**A. castellana** Boiss. & Reut. (*Agrostis alba* subsp. *castellana* (Boiss. & Reut.) P. Fourn.; *Agrostis alba* var. *olivetorum* (Gren. & Godr.) Asch. & Graebn.; *Agrostis alba* var. *olivetorum* (Gren. & Godr.) Fiori; *Agrostis azorica* (Hochst.) Tutin & E.F. Warb.; *Agrostis byzantina* Boiss.; *Agrostis capillaris* subsp. *castellana* (Boiss. & Reut.) O. Bolòs, Masalles & Vigo; *Agrostis capillaris* subsp. *olivetorum* (Gren. & Godr.) O. Bolòs, Masalles & Vigo; *Agrostis capillaris* var. *olivetorum* (Gren. & Godr.) Kerguélen; *Agrostis castellana* var. *hispanica* (Boiss. & Reut.) Ball; *Agrostis castellana* var. *olivetorum* (Gren. & Godr.) Kerguélen; *Agrostis hispanica* Boiss. & Reut.; *Agrostis olivetorum* Gren. & Godr.; *Agrostis stolonifera* subsp. *castellana* (Boiss. & Reut.) Maire & Weiller; *Agrostis stolonifera* var. *hispanica* (Boiss. & Reut.) Maire & Weiller)

Mediterranean, Portugal, Spain. Perennial, gray-green, erect, tufted, long slender rhizomes, leaf sheath glabrous, ligule ciliate, panicle usually linear-lanceolate and contracted after flowering, awn present or absent, spikelets awned from near the base of the lemma, glumes subequal acute or acuminate, palea apex bifid, ornamental, garden weed, lawn grass, found in pastures, stony waste ground, light soils, along roadsides, riverbanks, see *Species Plantarum* 1: 62. 1753, *Diagnoses Plantarum Novarum Hispanicarum* 26. 1842, *Pugillus Plantarum Novarum Africae Borealis Hispaniaeque Australis* 120. 1852, *Flore de France* 3: 483. 1855, *Journal of the Linnean Society, Botany* 16: 714. 1878, *Flora Analytica d'Italia* 1: 63. 1896, *Synopsis der mitteleuropäischen Flora* 2: 175. 1899 and *Les Quatre Flores de la France* 49. 1946, *Flore de l'Afrique du Nord*: 2(45): 121. 1953, *Bulletin de la Société Botanique de France* 123(5-6): 318. 1976, *Ruizia*; *Monografías del Real Jardín Botánico* 7: 111. 1988, *Collectanea Botanica a Barcinonensi Botanico Instituto Edita* 17(1): 96. 1987[1988], *New Zealand Journal of Botany* 29: 101-116, 139-161. 1991.

in English: highland bent, dryland browntop

in Italian: cappellini di Castiglia

**A. clavata** Trin. (*Agrostis abakanensis* Less. ex Trin.; *Agrostis clavata* subsp. *clavata*; *Agrostis exarata* Trin. subsp. *clavata* (Trin.) T. Koyama; *Agrostis macrothyrsa* Hack.; *Agrostis teberdensis* Litv.; *Trichodium clavatum* (Trin.) Schult. & Schult.f.)

Eurasia, Mongolia, Russia. Forage, desert steppe, open wet meadows, wet areas, stream bank, marsh, sandy soils, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. Leipzig 1821, *De Graminibus unifloris et sesquifloris* 207. Petropoli 1824, *Mantissa* 3: 556. 1827, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 325. 1841 and *Schedae ad herbarium Florae Rossicae*, a

Museo botanico Academiae imperialis scientiarum Petropolitanae editum Sanktpeterburg 1898-1911, *Repertorium Specierum Novarum Regni Vegetabilis* 7: 318. 1909, *Bulletin of Botanical Research* 4(4): 99. 1984, *Grasses of Japan and its Neighboring Regions* 484. 1987, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1174-1178. 1991.

in English: clubed bent

in Japan: yamanukabo

**A. clavata** Trin. subsp. *matsumurae* (Hack. ex Honda) Tateoka (*Agrostis macrothyrsa* Hack.; *Agrostis matsumurae* Hack. ex Honda)

Japan. See *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. 1821 and *Repertorium Specierum Novarum Regni Vegetabilis* 7: 318. 1909, *Journal of the Faculty of Science: University of Tokyo, Botany* 3(1): 188, 191. 1930, *Bull. Nat. Sci. Mus. Tokyo* 2: 161. 1968.

**A. clavata** Trin. subsp. *micrantha* (Steud.) Y.C. Tong

China. See *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. 1821, *Synopsis Plantarum Glumacearum* 1: 170. 1854 and *Flora Xizangica* 5: 233-234. 1987.

**A. clavata** Trin. var. *nukabo* Ohwi

Asia, Japan. See *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. 1821 and *Botanical Magazine (Tokyo)* 55: 356. 1941.

**A. clavata** Trin. var. *szechuanica* Y.C. Tong ex Y.C. Yang (*Agrostis szechuanica* (Y.C. Tong ex Y.C. Yang) L. Liou)

China. See *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. 1821 and *Bulletin of Botanical Research* 4(4): 99. 1984, *Vascular Plants of the Hengduan Mountains* 2: 2247. 1994 [Heng Duan shan qu wei guan zhi wu = Vascular plants of the Heng Duan mountains: vol 2 / editor-in-chief: Wang Wen Tsai, / vice editor-in-chief: Wu Su Gong / editors: Lang Kai Yong, Li Pei Qiong, Pu Fa Ting, Chen Shu Kun. Beijing: Science Press, 1994].

**A. clivicola** Crampton (*Agrostis densiflora* Vasey)

U.S., California. See *Contributions from the United States National Herbarium* 3(1): 72. 1892 and *Brittonia* 19: 174. 1967.

in English: coastal bluff bentgrass

**A. clivicola** Crampton var. *clivicola*

U.S. See *Brittonia* 19: 174. 1967.

in English: coastal bluff bentgrass

**A. clivicola** Crampton var. *punta-reyesensis* Crampton

U.S., California. Vulnerable species, see *Brittonia* 19: 174. 1967.

in English: Point Reyes bentgrass

**A. continuata** Stapf (*Agrostis natalensis* Stapf)

South Africa. Perennial, tufted, coarse, inflorescence spicate dense and narrow, overlapping spikelets, found in moist places, wet sites, sandy areas, see *Kew Bulletin* 1897: 290. 1897 [*Bulletin of Miscellaneous Information Kew* 1897: 290. 1897].

**A. curtisii** Kerguelen (*Agrostis setacea* Curtis)

Europe. Perennial, densely tufted, panicle purple and oblong, useful for erosion control, see William Curtis (1746-1799), *Flora Londinensis* London [1775-] 1777-1798 and *Lejeunia* 75(Err. & Corr.): 1. 1975, *Bulletin de la Société Botanique de France* 123(5-6): 318. 1976, *Boletim da Sociedade Broteriana, ser. 2* 61: 81-104. 1988, *Boletim da Sociedade Broteriana, ser. 2* 63: 153-205. 1990.

in English: bristle-leaved bent grass

**A. cypricola** Lindb.f.

Cyprus. Indeterminate species, see Harald Lindberg, 1871-1963, *Itinera mediterranea*. Helsingfors 1932, *Årsbokvowsikirja. Societas Scientiarum Fennica ...* 20(7): 5. Helsinki 1942.

**A. densiflora** Vasey (*Agrostis arenaria* (Vasey) Scribn., nom. illeg., non *Agrostis arenaria* Gouan; *Agrostis californica* Trin.; *Agrostis clivicola* Crampton; *Agrostis clivicola* var. *clivicola*; *Agrostis clivicola* Crampton var. *punta-reyesensis* Crampton; *Agrostis densiflora* var. *arenaria* Vasey; *Agrostis densiflora* var. *densiflora*; *Agrostis glomerata* auct. non (J. Presl) Kunth)

U.S., California. Perennial, dense inflorescence cylindrical, glumes back scabrous, lemma sometimes awned above middle, awn straight, seashore, sandy soils, coastal bluffs, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 328, 359. 1841, *Bulletin of the Torrey Botanical Club* 13: 54. 1886, *Contributions from the United States National Herbarium* 3(1): 72. 1892 and *Brittonia* 19: 174. 1967.

in English: bent grass, California bent grass, California bentgrass, Point Reyes bent grass, coastal bluff bent grass

**A. diffusa** S.M. Phillips (*Agrostis kilimandscharica* Mez; *Agrostis kilimandscharica* var. *sororia* (C.E. Hubb.) Hedberg; *Agrostis sororia* C.E. Hubb.)

Ethiopia. Perennial, slender, loosely tufted, ascending, straggling, linear leaves, large inflorescence paniculate, open panicle ovate, glumes unequal and keeled, lemma awned, awn geniculate, see *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 2. 1922, *Bulletin of Miscellaneous Information Kew* 1936(5): 303. 1936, *Symbolae Botanicae Upsaliensis* 15: 51. 1957, *Kew Bulletin* 41(1): 137, f. 4A-D. 1986.

**A. dimorpholemma** Ohwi

Japan, Asia. Indeterminate species, see *Botanical Magazine (Tokyo)* 55(656): 351. 1941.



**A. drummondiana** (Steud.) Vickery (*Deyeuxia drummondiana* (Steud.) Benth.; *Deyeuxia drummondii* (Steud.) Benth.; *Dichelachne drummondiana* Steud.; *Lachnagrostis drummondiana* (Steud.) Rúgolo & A.M. Molina; *Lachnagrostis drummondiana* (Steud.) S.W.L. Jacobs)

Western Australia. Annual, caespitose, noded, auricles absent, basal leaf sheaths not keeled, ligule membranous, inflorescence of chasmogamous spikelets, a panicle yellowish green and loosely contracted, see *Synopsis Plantarum Glumacearum* 1: 120. 1854, *Flora Australiensis: A Description ...* 7: 580. 1878 and *Contributions from the New South Wales National Herbarium* 1(3): 111. 1941, *Blumea* 22(1): 5-12. 1974, *Telopea* 9(3): 445. 2001.

**A. dyeri** Petrie (*Agrostis dyeri* var. *aristata* Hack.) (named for the British (b. Westminster, London) botanist Sir William Turner Thiselton-Dyer, 1843-1928 (d. Witcombe, Gloucestershire), married the eldest daughter of Sir J.D. Hooker Lady Harriet Ann Hooker (1854-1945, d. Weir Quay, Devon), student of Thomas Henry Huxley (1825-1895), naturalist, professor of Natural History and Botany, 1872 private secretary and editorial assistant to J.D. Hooker, 1872 Fellow of the Linnean Society, from 1872 to 1876 taught botany at the Royal Horticultural Society at South Kensington and Chiswick, 1880 Fellow of the Royal Society, succeeded his father-in-law (Sir J.D. Hooker) as Director of the Royal Botanic Gardens at Kew 1885-1905, 1899 knighted, his works include *Cycadaceae of Mexico and Central America*. London 1883, with Henry Trimen (1843-1896) published *Flora of Middlesex*. 1869, with Arthur H. Church *How Plants Grow*. 1869, 1902-1913 editor of *Flora of Tropical Africa*, in 1905-1906 editor of the *Curtis's Botanical Magazine*. See Gerald L. Geison, in *D.S.B.* 13: 341-344. 1981; Gilbert Westacott Reynolds (1895-1967), *The Aloes of South Africa*. 95, 249, 499. Balkema, Rotterdam 1982; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Stafleu & Cowan, *Taxonomic literature*. 6: 264-267. 1986; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 677-678. 1994; Mea Allan, *The Hookers of Kew, 1785-1911*. London 1967; J.H. Barnhart, *Biographical notes upon botanists*. 1: 489. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 398. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 160. Oxford 1964; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 734. Philadelphia 1964; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 409. 1973; H.R. Fletcher, *Story of the Royal Horticultural Society, 1804-1968*. Oxford 1969; Andrew Thomas Gage (1871-1945), *A History of the Lin-*

*nean Society of London*. London 1938; H.R. Fletcher & W.H. Brown, *Royal Botanic Garden Edinburgh, 1670-1970*. Edinburgh 1970; A. White & B.L. Sloane, *The Stapelieae*. Pasadena 1937; Ernest Nelmès & William Cuthbertson, *Curtis's Botanical Magazine Dedications, 1827-1927*. [1931]; Francis Wall Oliver (1864-1951), editor, *Makers of British Botany*. Cambridge 1913).

New Zealand. Subalpine to alpine, tufted, stiff, erect or geniculate at base, leaf blade usually flat, leaf sheaths membranous and ribbed, ligule truncate, panicle lanceolate and narrowly branched, panicle open or contracted after flowering, glumes equal to subequal smooth and acute, awn absent or present, found in grassland, herbfield, tussock grassland, see *Transactions and Proceedings of the New Zealand Institute* 22: 441. 1889 and *Manual of the New Zealand Flora* 865. 1906, *New Zealand J. Bot.* 25: 41-78. 1987, *New Zealand J. Bot.* 29: 148-149. 1991.

**A. elliotii** Hack. (for the English (b. India, Calcutta) botanist George Francis Scott-Elliot, 1862-1934 (d. Dumfries, Scotland), 1890 Fellow of the Linnean Society, botanist on the Sierra Leone Boundary Commission, plant collector in Sierra Leone (1891-1892) and in East Africa (with the British East Africa Expedition, 1893-1894), President of the Antiquarian Society, among his writings are *Report on the District Traversed by the Anglo-French Boundary Commission*. Sierra Leone. Botany. 1893, *The Flora of Dumfriesshire*. Dumfries 1896 and *A Naturalist in Mid-Africa: Being an Account of a Journey to the Mountains of the Moon and Tanganyika*. London 1896; see Samuel P. Oliver, *The Life of Philibert Commerson*. Edited by G.F. Scott-Elliot. London 1909; J.H. Barnhart, *Biographical notes upon botanists*. 1: 504. 1965; Benjamin Daydon Jackson (1846-1927), "A list of the contributors to the herbarium of the Royal Botanic Gardens, Kew, brought down to 31st December 1899." *Bull. Misc. Inf. Kew*. 1901 and "A list of the collectors whose plants are in the herbarium of the Royal Botanic Gardens, Kew, to 31st December 1899." in *Kew Bulletin*. 1-80. 1901; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 320. Cape Town 1981; [Sotheby's - Marquess of Bute], *Catalogue of a portion of the valuable library from Dumfries House, Ayrshire*. The Property of the Most Hon. The Marquess of Bute. The First Portion: the important collection of mathematical and scientific books. Sale of 3-4 July 1961. The Second Portion: Americana, early printed books, travel, early Italian literature, bibliography, books on the arts and architecture. Sale of 16-18 Oct. 1961. London; F.N. Hepper and Fiona Neate, *Plant Collectors in West Africa*. 73-74. 1971; G. Murray, *History of the Collections Contained in the Natural History Departments of the British Museum*. London 1904; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Auguste Jean Baptiste Chevalier (1873-1956), *Flore vivante*

de l'Afrique Occidentale Française. 1: xxvii-xxx. Paris 1938)

Madagascar. See *Journal of the Linnean Society, Botany* 29: 65. 1891.

**A. *elliottiana*** J.A. Schultes (*Agrostis arachnoides* Elliott, nom. illeg., non *Agrostis arachnoides* Poir.; *Agrostis elliottiana* Schult.f. *elliottiana*; *Agrostis elliottiana* f. *molesta* Shinnery; *Agrostis exigua* Thurb.; *Notonema agrostoides* Raf. ex Merr.; *Notonema arachnoides* Raf. ex B.D. Jacks.) (named for the American botanist Stephen Elliott, 1771-1830, author of *A Sketch of the Botany of South-Carolina and Georgia*. Charleston 1821-1824; see J.H. Barnhart, *Biographical notes upon botanists*. 1: 504. Boston 1965; J.W. Harshberger, *The Botanists of Philadelphia and Their Work*. Philadelphia 1899; Jeannette E. Graustein, *Thomas Nuttall, Naturalist. Explorations in America, 1808-1841*. Harvard University Press 1967; Ernest Earnest, *John and William Bartram, Botanists and Explorers 1699-1777, 1739-1823*. Philadelphia 1940; Josephine Herbst, *New Green World*. [An account of the botanical discoveries of John and William Bartram.] London 1954; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 115. 1972; William Darlington (1782-1863), *Reliquiae Baldwinianae*. Philadelphia 1843; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 454. 1973)

Northern America, U.S., Indiana, Missouri. Annual, delicate, caespitose, lower blades flat to inrolled, rhizomatous, open inflorescence paniculate with lower branches spreading and upper ascending, lemma generally awned from near tip, awn wavy to bent, found in fields, foothills, roadsides, rocky riverbeds, vernal pool margins, open sandy soils, dry soils, see *Encyclopédie Méthodique, Botanique* Suppl. 1: 249. 1810, *A Sketch of the Botany of South-Carolina and Georgia* 1: 134. 1816, *Mantissa* 2: 202. 1824, *Geological Survey of California, Botany* 2: 275. 1880, *Index Kewensis* 2: 319. 1894 and *Index Rafinesquianus* 74, 76. 1949, *Rhodora* 56(662): 28. 1954, *Phytologia* 37(4): 317-407. 1977, *Taxon* 34: 547-551. 1985.

in English: Elliott's bent, Elliott's bent grass, annual tick-legrass

**A. *eriantha*** Hack.

South Africa. Perennial, tufted, rhizomatous, inflorescence a large open panicle with spreading and straight branches, lemmas with delicate awns, relatively palatable, little grazing value, grows in wet and damp areas, open sour grassland, cultivated lands, in mountain grassveld, see *Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich* 49: 172. 1904.

in English: large panicle agrostis

in South Africa: grootpluim-agrostis

**A. *eriantha*** Hack. var. ***eriantha***

South Africa. Perennial, tufted, rhizomatous, folded leaf blade, panicle with rigid and straight branches, lemmas awned, grows in wet areas, disturbed areas, cultivated lands.

**A. *eriantha*** Hack. var. ***planifolia*** Gooss. & Papendorf

South Africa. Rare species, flat leaf blade, see *South Africa J. Sci.* 41: 181. 1945.

**A. *exarata*** Trinius (*Agrostis aenea* Trinius; *Agrostis aenea* (Trin.) Trin.; *Agrostis alashana* Hultén; *Agrostis alaskana* Hultén; *Agrostis alascana* Hultén; *Agrostis alaskana* var. *breviflora* Hultén; *Agrostis albicans* Buckley; *Agrostis ampla* A.S. Hitchcock; *Agrostis asperifolia* Trin.; *Agrostis canina* var. *aenea* Trin.; *Agrostis densiflora* auct.; *Agrostis drummondii* Torr. ex Hook.f.; *Agrostis exarata* f. *asperifolia* (Trin.) Vasey; *Agrostis exarata* Trin. subsp. *minor* (Hook.) C.L. Hitchc.; *Agrostis exarata* var. *aenea* (Trin.) Griseb.; *Agrostis exarata* var. *exarata*; *Agrostis exarata* var. *minor* Hook.; *Agrostis exarata* var. *monolepis* (Torrey) A.S. Hitchc.; *Agrostis exarata* Trin. var. *pacifica* Vasey; *Agrostis exarata* Trin. var. *purpurascens* Hultén; *Agrostis grandis* Trin.; *Agrostis longiligula* A.S. Hitchc.; *Agrostis longiligula* A.S. Hitchc. var. *australis* J.T. Howell; *Agrostis longiligula* var. *longiligula*; *Agrostis melaleuca* (Trin.) A.S. Hitchc.; *Agrostis microphylla* Steud. var. *major* Vasey; *Agrostis oregonensis* Nutt. ex A. Gray; *Agrostis scouleri* Trin.; *Chaetotropis asperigluma* (Steud.) Nicora (from the Latin *exaratus* "furrowed, ploughed") (for the botanist and plant collector John Scouler, 1804-1871, a Scottish naturalist who explored the northwest U.S., Brazil and Canada)

Northern America, U.S., Canada. Perennial bunchgrass, slender, erect, occasionally rhizomatous, no auricles, open sheaths glabrous to scaberulous, ligule hyaline and lacerate, leaf blades flat and rough, narrow panicle open to spike-like, tiny spikelets green or sometimes purplish, palea absent or rudimentary, grain brownish, forage, a pioneer species, found in wet meadows, stream and lake margins, clearings, in recently disturbed sites, on bare mineral soil, in dry habitats, swamps, in moist open places, riparian communities, damp dark soil, forest openings, grasslands, boggy spots, marshes, woodlands, ditches and along roadsides, in water, meadow, see *Species Plantarum* 1: 62. 1753, *De Graminibus unifloris et sesquifloris* 164. Petropoli 1824, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(2): 170. 1832, *Flora Boreali-Americana* 2: 293. 1839, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 316-317, 329, 332. 1841, *Flora Antarctica* 372. 1846, *Flora Rossica* 4(13): 441. 1852, *Synopsis Plantarum Glumacearum* 1: 164, 422. 1854, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 91, 334. 1862, *U.S.D.A. Div. Bot. Spec. Bull.*

(new edition) 1889: 107, t. 106. 1889, *U.S. Department of Agriculture. Division of Botany. Bulletin* 13(1): 31. 1892, *Contributions from the United States National Herbarium* 3(1): 58, 72. 1892 and *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 38, 51, 54, t. 20, 36, f. 2, 3. 1905, *American Journal of Botany* 2: 303. 1915, *American Journal of Botany* 21(3): 136. 1934, *Flora of the Aleutian Islands* 71, 73. 1937, *Leaflets of Western Botany* 4: 246. 1946, *Vascular Plants of the Pacific Northwest* 1: 467. 1969, *Flora Patagónica* 8(3): 402. 1978.

in English: bentgrass, spike bentgrass, spike bent grass, spike bent, spiked bent grass, spike redtop, western redtop, western bentgrass, Pacific bentgrass, long-tongue bent

in Japan: onukabo

**A. exarata** Trin. var. **monolepis** (Torrey) Hitchc. (*Agrostis ampla* f. *monolepis* (Torr.) Beetle; *Polypogon monspeliensis* var. *monolepis* Torr.)

Northern America, U.S., California. Perennial, small, rare, see *Flora Atlantica* 1: 67. 1798, *De Graminibus unifloris et sesquifloris* 164. 1824, *Pacif. Railr. Rep.* 5(2): 366. 1858 and *American Journal of Botany* 21(3): 136. 1934, *Bulletin of the Torrey Botanical Club* 72: 544. 1945.

in English: bentgrass, spike bentgrass

**A. exserta** Swallen

Guatemala. Alpine, see *Contributions from the United States National Herbarium* 29(9): 404. 1950.

**A. filipes** Hook.f. (*Agrostis nervosa* Nees ex Trin. var. *aristata* Munro ex Hook.f.)

India, Sikkim, Himachal Pradesh, West Bengal, Himalayas. Perennial, lemma awned, on open hilly slopes, sandy soils, near water streams, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 328. 1841, *The Flora of British India* 7(22): 256. 1897 [1896] and *Journal of Cytology and Genetics* 21: 155. 1986, *Cytologia* 53: 287-290. 1988.

**A. flaccida** Hack. (*Agrostis borealis* var. *flaccida* (Hack.) T. Koyama & T. Shimizu)

Asia, Japan. See *Handbok i Skandinavien Flora*, 3rd ed., 17. 1838, *Flora Baicalensi-Dahurica* 18. 1856 (original publication took place in parts in the *Bulletin de la Société Impériale des Naturalistes de Moscou*, *Bulletin de la Société Impériale des Naturalistes de Moscou* 29(1): 18. 1856, *Bulletin de l'Herbier Boissier* 7(9): 649. 1899 and *Botanical Magazine* (Tokyo) 40(474): 324. 1926, *Botanical Magazine* (Tokyo) 51: 58. 1936, *Botanical Magazine* (Tokyo) 55(656): 353, 439. 1941, *Botanical Magazine* 88: 65-87. 1975, *New Alpine Flora of Japan* 2: 359. 1983 [1982], *Botanical Magazine* 100: 273-293. 1987, *Grasses of Japan and its Neighboring Regions* 484. 1987, *Bot. Zhurn. (Moscow & Leningrad)* 74: 1675-1678. 1989, *Bot. Zhurn. (Moscow & Leningrad)* 75: 1783-1786. 1990.

**A. flaccida** Hack. var. **festucoides** Honda

Japan. See *Bulletin de l'Herbier Boissier* 7(9): 649. 1899 and *Botanical Magazine* (Tokyo) 55: 439. 1941.

**A. flaccida** Hack. var. **morrisonensis** (Hayata) Honda (*Agrostis morrisonensis* Hayata)

Japan, Taiwan, Mt. Morrison. See *Bulletin de l'Herbier Boissier* 7(9): 649. 1899 and *Icones plantarum formosandarum nec non et contributiones ad floram formosanam*. 7: 86, f. 53. 1918, *Botanical Magazine* (Tokyo) 40(474): 324. 1926, *Blumea* 28: 214. 1982.

**A. foliata** Hook.f. (*Agrostis nigrifolia* Pilg.; *Agrostis stuebelii* Pilg.; *Agrostis toluensis* Kunth)

Colombia, Ecuador. Tufted, páramos, see *Nova Genera et Species Plantarum* 1: 135. 1815 [1816], *Flora Antarctica* 1: 95. 1844[1845], *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 25(5): 713-714. 1898 and *Brittonia* 23(3): 293-324. 1971.

**A. fukuyamae** Ohwi (*Agrostis infirma* var. *fukuyamae* (Ohwi) Veldkamp; *Agrostis rigidula* subsp. *fukuyamae* (Ohwi) T. Koyama; *Agrostis rigidula* var. *fukuyamae* (Ohwi) Veldkamp)

China. See *Synopsis Plantarum Glumacearum* 1: 171. 1854 and *Repertorium Specierum Novarum Regni Vegetabilis* 36(936-941): 39. 1934, *Blumea* 28(1): 219-220. 1982, *Grasses of Japan and its Neighboring Regions* 485. 1987, *Blumea* 41(2): 408. 1996.

**A. ghiesbreghtii** E. Fourn. (*Agrostis ghiesbreghtii* E. Fourn. ex Hemsl.; *Agrostis setifolia* E. Fourn. ex Hemsl.; *Agrostis setifolia* E. Fourn., nom. illeg., non *Agrostis setifolia* Brot.)

North America, Mexico. See *Biologia Centrali-Americana; ... Botany ...* 3: 551. 1885, *Mexicanas Plantas* 2: 97. 1886.

**A. gigantea** Roth (*Agrostis alba* auct.; *Agrostis alba* sensu J.M. Black, non L.; *Agrostis alba* Kunze; *Agrostis alba* L.; *Agrostis alba* f. *aristata* (Fernald) Fernald, nom. illeg., non *Agrostis alba* f. *aristata* Millsp.; *Agrostis alba* f. *aristigera* (Fernald) Fernald; *Agrostis alba* subsp. *gigantea* (Roth) V. Jirásek; *Agrostis alba* subsp. *gigantea* (Roth) Arcang.; *Agrostis alba* auct., non L. subsp. *gigantea* (Roth) V. Jirásek; *Agrostis alba* var. *diffusa* (Host) Asch. & Graebn.; *Agrostis alba* var. *dispar* (Michx.) Alph. Wood; *Agrostis alba* var. *gigantea* (Roth) G. Mey.; *Agrostis alba* var. *major* Gaudin; *Agrostis alba* var. *vulgaris* G. Mey.; *Agrostis campestris* Phil.; *Agrostis diffusa* Host; *Agrostis dispar* Michx.; *Agrostis exarata* var. *mutica* Hicken; *Agrostis gigantea* var. *dispar* (Michx.) Philipson; *Agrostis graniticola* Klokov; *Agrostis korczagii* Senjan.-Korcz.; *Agrostis nigra* With.; *Agrostis praticola* Klokov; *Agrostis sabulicola* Klokov; *Agrostis semi-nuda* Knapp; *Agrostis stolonifera* f. *aristigera* Fernald; *Agrostis stolonifera* f. *diffusa* (Host) Maire & Weiller; *Agrostis stolonifera* subsp. *gigantea* Gaudin ex Sch. & Martens; *Agrostis stolonifera* subsp. *gigantea* (Roth) Schübl. & G. Martens; *Agrostis stolonifera* subsp.

*gigantea* (Roth) Maire & Weiller; *Agrostis stolonifera* subsp. *gigantea* (Roth) Beldie, nom. illeg., non *Agrostis stolonifera* subsp. *gigantea* (Roth) Maire & Weiller; *Agrostis stolonifera* var. *diffusa* (Host) Neillr.; *Agrostis stolonifera* var. *gigantea* (Roth) Bréb.; *Agrostis stolonifera* var. *gigantea* (Roth) Klett & Richter ex Peterm., nom. illeg., non *Agrostis stolonifera* var. *gigantea* (Roth) Bréb.; *Agrostis stolonifera* var. *major* (Gaudin) Farwell; *Agrostis virletii* E. Fourn. ex Hemsl.; *Agrostis virletii* E. Fourn.; *Cinna karataviensis* N. Pavlov; *Vilfa alba* Gray, nom. illeg., non *Vilfa alba* (L.) P. Beauv.; *Vilfa dispar* (Michx.) P. Beauv.; *Vilfa divaricata* (Hoffm.) Gray; *Vilfa gigantea* (Roth) P. Beauv.; *Vilfa nigra* (With.) Gray)

Eurasia. Perennial, coarse, erect or geniculate at base, tufted, robust, glabrous, usually unbranched, strongly rhizomatous with more or less elongated and long-creeping rhizomes, sometimes or usually stoloniferous, sometimes trailing and rooting at nodes, no auricles, sheaths open and smooth or minutely scabrid, ligule obtuse or truncate or denticulate, leaves flat and scabrous, open-branched flower heads, very loose panicle oblong pyramidal and lobed, spikelets 1-flowered with pedicels always closely scabrid, glumes subequal lanceolate and acute, glabrous lemmas truncate and usually awnless, palea bifid or truncate, callus shortly bearded or glabrous, small reddish grains, chasmogamous spikelets, noxious weed species naturalized elsewhere, cultivated, ornamental, invasive, palatable, grazed, fodder and forage, permanent wet pastures and lawns, turf, good resistance to cold, good drought-resistance, useful for erosion control, soil binder and cover plant, cut for hay, grows near water or in dry and disturbed sites, moist to saturated soil, open sandy wet alluvium, wet meadows and moist areas, damp waste ground, in riparian areas, along streams, opening in wooded slopes, roadsides, alluvial floodplains, drainage area, riverbanks, along ditches, grasslands, open grassy field, wet prairies and fields, sandy soils, clay loam soil, sandy loam, shores, boggy soil, there is considerable taxonomic confusion concerning this species, see *Species Plantarum* 1: 63. 1753, *Tentamen Florae Germanicae* 1: 31. 1788, *Flora Germanica*, edition 2, 1: 37. 1800, *Flora Boreali-Americana* 1: 52. 1803, *Gramina Britannica* pl. 115. London 1804, *Icones et Descriptiones Graminum Austriacorum* 4: 32, t. 55. 1809, *Essai d'une Nouvelle Agrostographie* 16, 147, 181. 1812, *A Natural Arrangement of British Plants* 2: 145-146. 1821, *Gram. Unifl. Sesquifl.* 207. 1824, *Neues Hamburgisches Magazin* 1823: 134. 1824, *Flora Helvetica* 1: 189. 1828, *Flora von Württemberg* 64. 1834, *Flore de la Normandie* 390. 1835, Georg F.W. Meyer (1782-1856), *Chloris Hanoverana* 655. Göttingen 1836, W.L. Petermann (1806-1855), *Flora Lipsiensis Excursoria* 83. Lipsiae 1838, *Flora* 29: 678. 1846, *Linnaea* 29(1): 87. 1858, *Flora von Nieder-Oesterreich* 2: 43. 1859, *A Class-book of Botany* 774. 1861, *Compendio della Flora Italiana* 768. 1883, *Biologia Centrali-*

*Americana*; ... *Botany* ... 3: 552. 1885, *Mexicanas Plantas* 2: 96. 1886, *Index Kew.* 1: 61. 1895, *Synopsis der mitteleuropäischen Flora* 1: 174. 1899 and *Physis. Revista de la Sociedad Argentina de Ciencias Naturales* 2: 6. 1915, *Report of the Michigan Academy of Science, Arts and Letters* 21: 351. 1920, *New Zealand J. Agric.* 28: 73-91. 1924, *Rhodora* 35: 317. 1933, *Journal of the Linnean Society, Botany* 51: 93. 1937, *Rhodora* 49: 112. 1947, *Rhodora* 51(609): 192. 1949, *Flore de l'Afrique du Nord*: 2: 120, 123. 1953, *Flora Republicii Socialiste Romania* 12: 152. 1972, *Fl. Fennica* 5: 1-209. 1975, *Flora Patagónica* 8(3): 369-394. 1978, *Flora Mediterranea* 1: 229-236. 1991, *New Zealand Journal of Botany* 29: 139-161. 1991, *Cytologia* 56: 437-452. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 76: 476-479. 1991, *Parodiana* 7(1-2): 179-255. 1992, *Parodiana* 8(2): 129-151. 1993, *Gayana, Botánica* 54(2): 91-156. 1997, *Opera Botanica* 137: 1-42. 1999.

in English: black bent grass, giant bentgrass, bonnet grass, red top, red top bent, black bent, creeping bent grass, fine bentgrass, florin

in French: agrostis géant, agrostide géante, agrostide blanche

in Spanish: agróstide blanca, agróstide mayor, pasto quila

in German: Fioringras, Riesenstraußgras, weiße Straußgras

*A. gigantea* Roth subsp. *gautieri* (Sennen) Romo (*Agrostis gautieri* Sennen)

Europe. See *Bulletin de la Société Botanique de France* 74: 406. 1927, Angel M. Romo, *Flora i vegetació del Montsec* (pre-Pirineus catalans). Barcelona 1989.

*A. gigantea* Roth subsp. *gigantea*

Europe.

*A. gigantea* Roth subsp. *maeotica* (Klokov) Tzvelev (*Agrostis maeotica* Klokov)

Europe, Ukraine. See *Novosti Sist. Vyss. Rast.* 8: 57. 1971.

*A. glabra* (J. Presl) Kunth (*Agrostis andina* Phil.; *Agrostis gayana* E. Desv.; *Agrostis glabra* Hochst. ex E. Desv.; *Agrostis glabra* J. Presl ex Trin., nom. illeg., non *Agrostis glabra* (J. Presl) Kunth; *Agrostis pyrogea* Speg.; *Agrostis pyrogea* var. *mutica* Hack.; *Trichodium glabrum* J. Presl)

South America. See *Reliquiae Haenkeanae* 1(4-5): 244. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 226. 1833, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 342. 1841, *Flora Chilena* 6: 313-314. 1854, *Anales de la Universidad de Chile* 43: 561. 1873, *Anales Museo Nacional de Historia Natural de Buenos Aires* 5: 83. 1896 and *Reports of the Princeton University Expeditions to Patagonia 1896-1899, Botany, Volume viii, Supplement* 8(3): 41. 1914 [1915].

*A. glabra* (J. Presl) Kunth var. *glabra*

South America.

**A. glabra** (J. Presl) Kunth var. **melanthes** (Phil.) Rúgolo et De Paula (*Agrostis melanthes* Phil.; *Calamagrostis laxiflora* Phil.; *Deyeuxia laxiflora* Phil.; *Deyeuxia vidalii* Phil.; *Stylagrostis laxiflora* (Phil.) Mez)

South America, Chile. See *Anales de la Universidad de Chile* 43: 563. 1873, *Verzeichniss der von Friedrich Philippi auf der Hochebene der Provinzen Antofagasta und Tarapacá gesammelten Pflanzen* 84. Leipzig 1891 [also: *Catalogus praevious plantarum in itinere ad Tarapaca a Friderico Philippi lectarum.*], *Anales de la Universidad de Chile* 94: 17-18. 1896 and *Botanisches Archiv* 1(1): 20. 1922, *Flora Patagónica* 8(3): 386. 1978.

**A. goughensis** C.E. Hubb. (Gough Island is situated at 40°20'S, 10°0'W, 230 miles (350 km) South East of Tristan da Cunha, South Atlantic Ocean)

Tristan da Cunha. Indeterminate species, see J.B. Heaney & M.W. Holdgate, "The Gough Island Scientific Survey." *Geographical Journal* 123: 20-31. 1957, *Bulletin of the British Museum (Natural History), Botany* 8: 379. 1981, Y.M. Chamberlain, M.W. Holdgate and N.M. Wace, "The littoral ecology of Gough Island, South Atlantic Ocean." *Tethys* 11: 302-319. 1985.

**A. gracilifolia** C.E. Hubb. (*Agrostis bryophila* var. *elgonensis* C.E. Hubb.; *Agrostis dissitiflora* C.E. Hubb.; *Agrostis leptophylla* C.E. Hubb.)

Uganda. Perennial bunchgrass, variable, alpine, slender, erect, loosely to densely tufted, leaf blades filiform, open inflorescence paniculate lanceolate, panicle branches spreading, spikelets lanceolate, glumes subequal, lemma mucronate and awned, awn geniculate, damp grassland, mountains, moist or boggy places, meadows, see *Kew Bulletin* 1936(5): 307-309. 1936, *Bulletin of Miscellaneous Information Kew* 1937: 63. 1937.

**A. gracilifolia** C.E. Hubb. subsp. **bryophila** (C.E. Hubb.) S.M. Phillips (*Agrostis bryophila* C.E. Hubb.; *Agrostis bryophila* var. *bryophila*)

Uganda, Zaire. Perennial, loosely tufted, glabrous lemma, awn geniculate, see *Bulletin of Miscellaneous Information Kew* 1936(5): 307, 309. 1936 [*Kew Bulletin* 1936(5): 307, 309. 1936], *Opera Botanica* 121: 54, f. 3,3. 1993.

**A. gracilifolia** C.E. Hubb. subsp. **gracilifolia** (*Agrostis bryophila* var. *elgonensis* C.E. Hubb.; *Agrostis dissitiflora* C.E. Hubb.; *Agrostis leptophylla* C.E. Hubb.; *Agrostis volkensii* var. *deminuta* Pilg.)

Uganda, Kenya. Perennial, densely tufted, lemma glabrous or pilose, awn geniculate, see *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 9(87): 512. 1926.

**A. gracilifolia** C.E. Hubb. subsp. **parviflora** S.M. Phillips  
Ethiopia. Perennial, loosely tufted, ligule pointed to acute, narrow leaves, awn geniculate, see *Opera Botanica* 121: 55, f. 3,1. 1993.

**A. griffithiana** (Hook.f.) Bor (*Calamagrostis griffithiana* Hook.f.)

India, Himachal Pradesh, Uttar Pradesh, Meghalaya, Nagaland. Lemma hairy, awn of lemma always exerted, found growing on moist places, on hilly slopes, see *The Flora of British India* 7(22): 263. 1897 [1896] and *Grasses of Burma, Ceylon, India and Pakistan* 387. 1960.

**A. hallii** Vasey (*Agrostis davyi* Scribn.; *Agrostis hallii* var. *hallii*; *Agrostis hallii* var. *pringlei* (Scribn.) A.S. Hitchc.; *Agrostis occidentalis* Scribn. & Merr.; *Agrostis pringlei* Scribn.) (named for Elihu Hall, 1822-1882, plant collector in U.S., with J.P. Harbour in plant collecting expedition to the mountains of central Colorado; see Joseph Ewan, *Rocky Mountain Naturalists*. 36, 221, 223-224, 278, 285, 340. The University of Denver Press 1950; Edith M. Allison, "Bibliography and History of Colorado Botany." *Univ. Colorado Studies*. 6: 51-76. 1908; *Mem. New York Bot. Gard.* 19(3): 331. 1975; Stafleu & Cowan, *Taxonomic literature*. 2: 17-18. Utrecht 1979; J.H. Barnhart, *Biographical notes upon botanists*. 2: 113. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 159. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 192. 1973; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933)

U.S., California, Oregon. Perennial, rhizomatous, lower leaf blades flat, open to compact inflorescence lanceolate to ovate with branches ascending to appressed, awnless, hillsides, moist areas, open oak woodland, coniferous forest, see *Contributions from the United States National Herbarium* 3(1): 74. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 7: 156, f. 138. 1897 and *Circular, Division of Agrostology, United States Department of Agriculture* 30: 3. 1901, *Bulletin of the Torrey Botanical Club* 29(7): 466. 1902, *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 33, t. 12. 1905.

in English: Hall's bent grass, Hall's bent, Hall's bentgrass, Hall redtop

**A. hendersonii** A.S. Hitchc. (*Agrostis aristiglumis* Swallen; *Agrostis microphylla* Steud. var. *hendersonii* (A.S. Hitchc.) Beetle) (named for professor Louis Forniquet Henderson, 1853-1942, botanist, University of Idaho, plant collector, friend of Charles Vancouver Piper, 1867-1926; see Joseph Ewan, *Rocky Mountain Naturalists*. 36, 227. 1950)

U.S., California, Oregon. Endangered and rare species, uncommon, annual, lower leaf blades flat to inrolled, inflorescence cylindrical with branches ascending to appressed, glumes tip acuminate, lemma awned at the middle, awn more or less bent, palea absent, found in wet areas, vernal pools, see *Synopsis Plantarum Glumacearum* 1: 164. 1854 and *Journal of the Washington Academy of Sciences* 20(15):

381. 1930, *Bulletin of the Torrey Botanical Club* 72(6): 547, f. 8. 1945.

in English: Henderson's bent grass, Henderson's bent, Henderson's bentgrass

**A. hideoi** Ohwi (*Senisetum hideoi* (Ohwi) Honda)

Asia, Japan. Indeterminate species, see *Botanical Magazine* (Tokyo) 44: 568. 1930 and 46: 371. 1932.

**A. hissarica** Roshev. (*Polypogon hissaricus* (Roshev.) Bor)

Iran. Open panicle, see *Flora Iranica* ... 70: 307. 1970, *Cytologia* 56: 437-452. 1991.

**A. holdgateana** C.E. Hubb.

Tristan da Cunha. Indeterminate species, see J.B. Heaney & M.W. Holdgate, "The Gough Island scientific survey." *Geographical Journal* 123: 20-31. 1957, M.W. Holdgate, "The biological report of the Royal Society Expedition to Tristan da Cunha, 1962, part III—the fauna of the Tristan da Cunha islands." *Philosophical Transactions, Royal Society of London Series B, Biological Sciences* 249: 361-402. 1965, N.M. Wace & M.W. Holdgate, *Man and Nature in the Tristan da Cunha Islands*. Gland and Cambridge, IUCN. (IUCN Monograph No. 6) 1976, Y.M. Chamberlain, M.W. Holdgate and N.M. Wace, "The littoral ecology of Gough Island, South Atlantic Ocean." *Tethys* 11: 302-319. 1985.

**A. hookeriana** C.B. Clarke ex Hook.f. (*Agrostis hookeriana* C.B. Clarke; *Agrostis hookeriana* Munro ex Duthie; *Agrostis poluninii* Bor)

India, Nepal, Jammu-Kashmir, Himachal Pradesh, Sikkim, Tamil Nadu. Lemma glabrous and awned, grows at higher altitudes, see *Grasses of North-Western India* 30. 1883, *The Flora of British India* 7(22): 256. 1897 [1896] and *Kew Bulletin* 1953: 269. 1953, *Bulletin of Botanical Research* 4(4): 100-101, f. 6. 1984.

**A. hooveri** Swallen (dedicated to Robert Francis Hoover, 1913-1970)

U.S., California. Vulnerable and rare species, uncommon, perennial, lower leaf sheaths finely tomentose, leaf blades flat and inrolled, inflorescence lanceolate with ascending branches, lemma awned below middle, awn bent, palea absent, in dry sandy soils, open woodland, oak woodland, open chaparral, see *Leaflets of Western Botany* 5(12): 198. 1949.

in English: Hoover's bent grass, Hoover's bent, Hoover's bentgrass

**A. howellii** Scribn. (after the American botanist Thomas Jefferson Howell, 1842-1912, see J.H. Barnhart, *Biographical notes upon botanists*. 2: 211. 1965; Joseph Ewan, *Rocky Mountain Naturalists*. 73, 227. 1950; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 184. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; R. Zander, F. Encke, G. Buch-

heim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; J. Ewan, edition, *A Short History of Botany in the United States*. New York and London 1969)

U.S., Oregon. Vulnerable species, see *Contributions from the United States National Herbarium* 3(1): 76. 1892.

in English: Howell's bent grass, Howell's bent

**A. hugoniana** Rendle

China. Found in subalpine meadows, abandoned fields, see *Journal of the Linnean Society, Botany* 36(254): 389-390. 1904, *Bulletin of Botanical Research* 4(4): 99-100, f. 4. 1984.

**A. hugoniana** Rendle var. *aristata* Keng ex Y.C. Yang

China. See *Journal of the Linnean Society, Botany* 36(254): 389-390. 1904, *Bulletin of Botanical Research Harbin* 4(4): 99-100, f. 4. 1984.

**A. humilis** Vasey (*Agrostis thurberiana* A.S. Hitchc.; *Podagrostis humilis* (Vasey) Björkman; *Podagrostis thurberiana* (A.S. Hitchc.) Hultén)

British Columbia, California, Oregon, Sierra Nevada. Perennial, tufted, no auricles, open sheaths, ligule somewhat toothed, leaves mostly basal, very narrow leaves, inflorescence narrowly oblong and open, small and narrow flower head, awnless, palea present, rare species, grows in subalpine to alpine meadows, slopes and stream banks, intergrades with *Agrostis thurberiana* Hitchc., see *Bulletin of the Torrey Botanical Club* 10: 21. 1883 and *Symbolae Botanicae Upsaliensis* 17: 15. 1960.

in English: mountain bent grass, alpine bentgrass

**A. hyemalis** (Walter) Britton, Sterns & Poggenburg (*Agrostis hyemalis* (Walter) Lunell; *Agrostis antecedens* E.P. Bicknell; *Agrostis canina* var. *hiemalis* (Walter) Kuntze; *Agrostis canina* var. *hyemalis* (Walter) Kuntze; *Agrostis hiemalis* (Walter) Britton, Sterns & Poggenb.; *Agrostis hyemalis* (Walter) Lunell; *Agrostis hyemalis* var. *hyemalis*; *Agrostis hyemalis* var. *laxiflora* (Michx.) Beetle; *Agrostis laxiflora* Poir.; *Agrostis leptos* Steud.; *Agrostis scabra* Willd.; *Cornucopiae hyemalis* Walt.; *Trichodium laxiflorum* Muhl., nom. illeg., non *Trichodium laxiflorum* Michx.; *Trichodium laxum* Schult.)

Asia, Japan, Korea, U.S., Mexico, northern America. Perennial, tufted, slender, erect to decumbent, no auricles, sheaths glabrous, ligule hyaline and often erose, leaves mostly basal and very narrow, panicle open and diffuse, spikelets purplish or reddish, panicles break off and blow around in the wind, palea absent, found in dry fields, in dry to moist open soils, dry sandy places, sandy soil, seepage areas, sterile soil, ditches, stream banks, shores and rocky shores, wet meadows, open woods, open fallow field, abandoned fields, see *Flora Caroliniana, secundum* ... 73. 1788, *Species Plantarum. Editio quarta* 1: 370. 1797, *Flora Boreali-Americana* 1: 42, t. 8. 1803, *Encyclopédie Méthodique. Botanique* ... *Supplément* 1: 255. 1810, *Descriptio uberior*

*Graminum* 60. 1817, *Mantissa* 2: 157. 1824, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 222. 1833, *Synopsis Plantarum Glumacearum* 1: 169. 1854, *Pittonia* 1: 184-189. Berkeley, California, U.S. 1888, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York City* 68. New York, Torrey Botanical Club 1888, *Revisio Generum Plantarum* 3(3): 338. 1898 and *Report of the Michigan Academy of Science, Arts and Letters* 6: 203. 1904, *Bulletin of the Torrey Botanical Club* 35(10): 473-475. 1908, *Contributions from the United States National Herbarium* 13(3): 56. 1910, *American Midland Naturalist* 4: 216. 1915, *Phytologia* 52(1): 11. 1982.

in English: winter bent, winter bentgrass, ticklegrass, slender bent grass, fly-away grass, hairgrass

in French: agrostis d'hiver

**A. *hyemalis*** (Walter) Britton & al. var. ***hyemalis***

Northern America, U.S. Annual, small, caespitose, clumps forming, disturbed soil, moist areas, dry places, ravines, see *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York City* 68. New York 1888.

in English: winter bentgrass, ticklegrass, hairgrass

in French: agrostis d'hiver

**A. *hyemalis*** (Walter) Britton & al. var. ***scabra*** (Willd.) H.L. Blomq. (*Agrostis hyemalis* var. *tenuis* (Tuck.) Gleason; *Agrostis scabra* Willd.; *Agrostis scabra* var. *tenuis* Tuck.)

Asia, Japan, Korea, U.S., Mexico, Canada, Northern America. Annual, useful for erosion control, see *Species Plantarum. Editio quarta* 1: 370. 1797, *American Journal of Science and Arts* 45: 45. 1843, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York City* 68. New York 1888 and *Phytologia* 4(1): 21. 1952, *Diversity* 16: 43-45. 2000.

in English: rough hair grass, winter bentgrass, ticklegrass, hairgrass

**A. *hygrometrica*** Nees (*Agrostis juergensii* Hack.; *Bromidium hygrometricum* (Nees) Nees & Meyen; *Bromidium ramboi* (Parodi) Rúgolo; *Bromidium ramboi* (Parodi) Rúgolo var. *ramboi*; *Deyeuxia hygrometrica* (Nees) Speg.) (for Balduino Rambo, S.J., 1905-1961, plant collector in Brazil)

Southern America, southern Brazil to Argentina, Uruguay. Contracted panicle, lemma 5-awned and one awn conspicuous, found near rivers, small streams, low fields, marshy ground, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 404. 1829, *Gramineae* 23. 1841, *Revisio Generum Plantarum* 3(3): 343. 1898 and *Repertorium Specierum Novarum Regni Vegetabilis* 7: 318. 1909, *Bradea*, *Boletim do Herbarium Bradeanum* 2(35): 244. 1978, *Flora Illustrada Catarinense* 1(Gram.): 443-906. 1982.

**A. *hygrometrica*** Nees var. ***hygrometrica*** (*Agrostis juergensii* Hack.; *Agrostis ramboi* Parodi; *Bromidium hygrometricum* (Nees) Nees & Meyen)

South America. See *Flora Brasiliensis seu Enumeratio Plantarum* 2: 404. 1829, *Gramineae* 23. 1841, *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 19(Suppl. 1): 155. 1843 and *Repertorium Specierum Novarum Regni Vegetabilis* 7: 318. 1909, *Boletín de la Sociedad Argentina de Botánica* 1: 119, f. 1. 1946.

**A. *idahoensis*** Nash (*Agrostis bakeri* Rydb.; *Agrostis borealis* Hartman var. *recta* (Hartman) Boivin; *Agrostis borealis* var. *recta* (Nash) B. Boivin; *Agrostis clavata* auct. non Trin.; *Agrostis filicumis* M.E. Jones; *Agrostis idahoensis* var. *bakeri* (Rydb.) W.A. Weber; *Agrostis tenuiculmis* Nash; *Agrostis tenuiculmis* var. *recta* Nash; *Agrostis tenuis* Vasey, nom. illeg., non *Agrostis tenuis* Sibth.; *Agrostis tenuis* var. *erecta* Vasey ex Nash)

U.S., Alaska, California, New Mexico, Montana. Perennial, rare, reddish, leaf blades flat and inrolled with age, inflorescence lanceolate to ovate with ascending branches, lemma awnless, useful for erosion control, ornamental, turf, on damp soil, open areas, wet meadows, coniferous forest, see *Flora Oxoniensis* 36. 1794, *Bulletin of the Torrey Botanical Club* 10: 21. 1883, *Bulletin of the Torrey Botanical Club* 24(1): 42-43. 1897 and *Memoirs of the New York Botanical Garden* 1: 32. 1900, *Bulletin of the Torrey Botanical Club* 36: 532. 1909, *Contributions to Western Botany* 14: 13. 1912, *Man. Grass. U.S.* 782. 1935, *Phytologia* 43(1): 105. 1979, *Phycologia* 58(6): 382. 1985.

in English: Idaho bent grass, Idaho bent, colonial bentgrass

**A. *imbecilla*** Zotov (*Agrostis tenella* Petrie, nom. illeg., non *Agrostis tenella* Hoffm.)

New Zealand. Perennial, slender, filiform, erect or geniculate at base, loosely tufted, leaf blade filiform and involute, leaf sheath narrow and membranous, ligule obtuse, long spike-like panicles contracted, glumes subequal or equal lanceolate, lemma apex denticulate, awnless or rarely awned, palea ovate, in damp places, tussock grassland, montane to subalpine, see *Fl. Germ. edition 2* 1: 36. 1800, *Transactions and Proceedings of the New Zealand Institute* 22: 442. 1890 and *Transactions and Proceedings of the New Zealand Institute* 73: 233. 1943, *New Zealand Journal of Botany* 29: 101-116, 139-161. 1991, *Flora of New Zealand* 5: 232. 2000.

**A. *imberbis*** Phil. (*Agrostis moyanoi* var. *plicatifolia* Speg.; *Agrostis pulchella* f. *purpurascens* Stuck.; *Agrostis pulchella* f. *virescens* Stuck.; *Agrostis scabra* W. Gray f. *purpurascens* Kurtz; *Agrostis scabra* f. *virescens* Kurtz; *Agrostis scabra* var. *purpurascens* Kurtz; *Agrostis scabra* var. *virescens* Kurtz; *Agrostis scotantha* Phil.; *Agrostis stenophylla* Phil.)

Chile, Argentina. See *Species Plantarum. Editio quarta* 1(1): 370. 1797, *Systema Vegetabilium* 2: 367. 1817, *Revista*

*del Museo de La Plata* 5: 300-301. 1893, *Anales de la Universidad de Chile* 94: 10-11, 16. 1896, *Revista de la Facultad de Agronomía; Universidad Nacional de La Plata* 3: 627. 1897, *Anales Museo Nacional de Historia Natural de Buenos Aires* 7: 189. 1902, *Anales Museo Nacional de Historia Natural de Buenos Aires* 13: 475. 1906.

**A. inaequiglumis** Griseb.

China, Nepal, West Bengal, Sikkim, Arunachal Pradesh. Annual, dwarf, lemma awnless, found in subalpine meadows, moist soils, disturbed soil, waste areas, along roadsides, gravelly clay loam, clay loam soil, marsh meadows, alpine pastures, see *Abhandlungen der Kön. Gesellschaft der Wissenschaften zu Göttingen* 80. 1868 and *Grasses of Burma, Ceylon, India and Pakistan* 387. 1960.

**A. inaequiglumis** Griseb. var. **nana** Y.C. Yang

China. See *Bulletin of Botanical Research* 4(4): 99, f. 3. 1984.

**A. inconspicua** Kunze ex E. Desv. (*Agrostis airaeformis* Steud.; *Agrostis airiformis* Steud.; *Agrostis airoides* Franch., nom. illeg., non *Agrostis airoides* Torr.; *Agrostis airoides* var. *flaccidifolia* Speg.; *Agrostis inconspicua* Kunze; *Agrostis mertensii* Trin.; *Agrostis umbellata* var. *mutica* Hack. ex Macloskie & Dusén)

South America, Chile, Argentina. See *Annals of the Lyceum of Natural History of New York* 1(1): 151-152. 1824, *Herbarium Pedemontanum* 6: 18. 1836, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg* sér. 6 4(1): 331. 1845, *Flora Chilena* 6: 315. 1854, *Synopsis Plantarum Glumacearum* 1: 172. 1854, Paul Hariot (1854-1917) et al., *Mission Scientifique du Cap Horn. 1882-1883. Botanique* 5: 382, t. 11. 1889 and *Anales Museo Nacional de Historia Natural de Buenos Aires* 7: 190. 1902, *Reports of the Princeton University Expeditions to Patagonia 1896-1899, Botany, Volume viii, Supplement* 8(3): 42. 1914 [1915], *Gayana, Bot.* 54(2): 110. 1997.

**A. infirma** Büse

Asia. Perennial, see F.A.W. Miquel (1811-1871), *Plantae Junghuhnianae*. Enumeratio plantarum, quas in insulis Java et Sumatra, detexit Fr. Junghuhn ... Lugduni-Batavorum [Leiden] and Parisiis [1851-1857] and *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 303. 1921, *Reinwardtia* 2(2): 225. 1953, *Blumea* 41(2): 408-409. 1996.

**A. infirma** Büse var. **borneensis** (Stapf) Veldkamp (*Agrostis canina* L. var. *borneensis* Stapf; *Agrostis rigidula* Steud. var. *borneensis* (Stapf) J.M. Linden & Voskuil)

Malaysia, Sabah, Mount Kinabalu. Perennial, tufted, erect, see *Transactions of the Linnean Society of London* 4: 246. 1894 and *Blumea* 28: 199-228. 1982.

**A. infirma** Büse var. **diffusissima** (Ohwi) Veldkamp (*Agrostis reinwardtii* Büse var. *diffusissima* Ohwi; *Agrostis rigidula* var. *diffusissima* (Ohwi) Veldkamp)

Malaysia, Sabah, Mount Kinabalu. See *Bull. of the Tokyo Science Mus.* 18: 8. 1947, *Blumea* 28: 218. 1982, *Blumea* 41(2): 408. 1996.

**A. infirma** Büse var. **kinabaluensis** (Ohwi) Veldkamp (*Agrostis kinabaluensis* Ohwi; *Agrostis rigidula* var. *kinabaluensis* (Ohwi) Veldkamp)

Malaysia, Sabah, Mount Kinabalu. Perennial, densely tufted, erect, see *Bull. Tokyo Science Mus.* 18: 8. 1947, *Blumea* 28: 220. 1982, *Blumea* 41(2): 409. 1996.

**A. inflata** Scribn. (*Agrostis microphylla* Steud.)

Northern America, U.S., Canada. Rocky places, see *Synopsis Plantarum Glumacearum* 1: 164. 1854, *Canadian Record of Science* 6: 152. 1894.

in English: spider bent grass

**A. insularis** Rúgolo & A.M. Molina

Chile. See *Gayana, Botánica* 54(2): 111, f. 10, 11. 1997.

**A. jahnii** Lucas (for the Venezuelan naturalist Alfredo Jahn, 1867-1940, botanical collector in high Orinoco, see J.H. Barnhart, *Biographical notes upon botanists*. 2: 243. 1965)

Venezuela. See *Bol. Soc. Venez. Cienc. Naturales* 4, 110 p. 1937, *Boletín de la Sociedad Venezolana de Ciencias Naturales* 15(80): 12-14, f. 8. 1953.

**A. keniensis** Pilg.

Uganda, Kenya, Tanzania, Ethiopia. Perennial, tufted, erect, linear leaf blades, narrow inflorescence, panicle branches ascending, glumes lanceolate-oblong and acute, lemma lanceolate, awn weakly geniculate, see *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 9(87): 513. 1926.

**A. koelerioides** E. Desv. (*Agrostis anomala* (Trin.) Herter, nom. illeg., non *Agrostis anomala* Willd.; *Agrostis koelerioides* Romo, nom. illeg., non *Agrostis koelerioides* E. Desv.; *Aira anomala* Trin.; *Bromidium anomalum* (Trin.) Döll; *Bromidium hygrometricum* var. *anomalum* (Trin.) Kuntze; *Cornucopiae perennans* Walter; *Deyeuxia anomala* (Trin.) Benth. & Hook.f.)

South America, Chile, Argentina. See *Flora Caroliniana, secundum ...* 74. 1788, *Species Plantarum. Editio quarta* 1: 370. 1797, *Linnaea* 10(3): 301. 1836, *Gramineae* 22-23. 1841, *Flora Chilena* 6: 317. 1854, *Flora Brasiliensis* 2(3): 103, pl. 30, f. 2. 1878, *Genera Plantarum* 3: 1153. 1883, *Revisio Generum Plantarum* 3(3): 342. 1898 and *Revista de la Facultad de Agronomía y Veterinaria* 7: 161, f. 10D. 1930, *Estudios Botánicos en la Región Uruguaya* 32. 1931, *Treballs de l'Institut Botànic de Barcelona* 11: 37. 1987.

**A. kuntzei** Mez (*Agrostis exasperata* var. *viridis* Kuntze; *Polypogon exasperatus* (Trin.) Renvoize)

Chile, Bolivia. Perennial, tufted, erect or ascending, leaf blades linear, loose panicles oblong, glumes lanceolate, in moist places, see *Reliquiae Haenkeanae* 1(4-5): 238. 1830, *Mémoires de l'Académie Impériale des Sciences de Saint*



*Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 352. 1841, *Synopsis Plantarum Glumacearum* 1: 422. 1854, *Berberides Americae Australis* 56. 1857, *Linnaea* 29(1): 88. 1858, *Anales de la Universidad de Chile* 94: 17. 1896, *Revisio Generum Plantarum* 3: 339. 1898 and *Anales Museo Nacional de Historia Natural de Buenos Aires* 7: 187, 190. 1902, *Nova Acta Regiae Societatis Scientiarum Upsaliensis*, ser. 4, 1: 175, t. 9, f. 9-11. 1905, *Anales del Museo Nacional de Buenos Aires* 13: 474. 1906, *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 300. 1921, *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 3. 1922, *Contributions from the United States National Herbarium* 24(8) 381. 1927, *Symbolae Botanicae Upsaliensis* 17(1): 14. 1960, *Flora Patagónica* 8(3): 402. 1978, *Gramíneas de Bolivia* 235-236. 1998.

**A. lachnantha** Nees (*Agrostis vestita* Hochst. ex A. Rich.; *Lachnagrostis lachnantha* (Nees) Rúgolo & A.M. Molina)

Tropical Africa, Namibia, Sudan, South Africa, Yemen, Ethiopia. Annual or short-lived perennial bunchgrass, slender, erect or ascending, sometimes rooting at the nodes, loosely tufted, forming small clumps, sometimes stoloniferous or rhizomatous, ligule a membrane-like, narrow spike-like panicle with ascending branches, glumes persistent after the flower has fallen, lemma 3-nerved and pilose, useful to stabilizing waterlogged soils, found in open habitats, rocky soil, pastures, swamps and marshes, pond margins, low lying areas, wet areas, mountain springs, see *Linnaea* 10(Litt.): 115-116. 1836, *Tentamen Florae Abyssinicae ...* 2: 401. 1850 and *Prodromus einer Flora von Südwestafrika* 160: 1-228. 1970, *Annals of the Missouri Botanical Garden* 75: 866-873. 1988, *Bothalia* 26(1): 63-67. 1996, Alina Freire Fierro y David A. Neill, eds, *La Botánica en el Nuevo Milenio: Memorias del Tercer Congreso Ecuatoriano de Botánica* 29. Quito 2002 [Publicaciones de la Fundación Ecuatoriana para la Investigación y el Desarrollo de la Botánica].

in English: South African bent grass, bent grass

in Southern Africa: sesweu, vinkagrostis, vinkgras, vleigras, mohlwa wa mafika (= grass of the boulders), chabola, tjhabola, tihaloa, tjhaola

**A. lachnantha** Nees var. **glabra** Gooss. & Papendorff

South Africa. See *Linnaea* 10: 115-116. 1836 and *South African Journal of Science* 41: 184. 1945.

**A. lachnantha** Nees var. **lachnantha** (*Agrostis huttoniae* (Hack.) C.E. Hubb.; *Agrostis huttoniae* (Hack.) C.E. Hubb. ex Gooss. & Papendorff; *Agrostis lachnantha* var. **glabra** Goossens & Papendorff; *Calamagrostis huttoniae* Hack.)

Tropical Africa, Sudan, South Africa. Perennial bunchgrass or annual, short-lived, loosely tufted, robust, forming small clumps, found in open habitats, riverbanks, seepage, wet places, marshy areas, see *Linnaea* 10: 115-116. 1836 and *Rec. Albany Museum* 1: 340. Grahamstown 1905, *Flora of*

*Tropical Africa* 10: 172. 1937, *South African Journal of Science* 41: 179. 1945.

in English: South African bent grass

in Southern Africa: bandgras, kruipgras, polgras, roggras, vinkagrostis, vinkgras, vleigras; chabola (Sotho)

**A. lacunis** D.I. Morris (*Lachnagrostis lacunis* (D.I. Morris) S.W.L. Jacobs)

Tasmania. Perennial, hydrophytic, aquatic, erect or geniculate to ascending, branched above and rooting at the nodes, leaves nonauriculate, basal leaf sheaths not keeled, ligule membranous, chasmogamous spikelets, panicle open and pyramidal, growing in shallow water, see *Muelleria* 7(2): 149-153. 1990, *Telopea* 9(3): 446. 2001.

**A. laxissima** Swallen (*Agrostis abietorum* Swallen)

Guatemala. See *Contributions from the United States National Herbarium* 29(9): 402-403. 1950.

**A. lehmannii** Swallen

Colombia. Páramo, see *Contributions from the United States National Herbarium* 29(6): 263-264. 1948 [1949].

**A. lenis** Roseng., Arrill. & Izag.

Southern Brazil and Uruguay. Perennial, erect, ascending, stoloniferous, panicle effuse, lemma awnless, callus glabrous, common in swampy places, sandy soils, see *Gramíneas Uruguayas* 19, 21, 23-24, f. 1. 1970.

**A. lepida** A.S. Hitchc. (*Agrostis pallens* Trin.)

U.S., California, Oregon. Rare species, found in open areas, gravelly soil, woods, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 328. 1841 and *A Flora of California* 1: 121. 1912.

in English: sequoia bent grass

**A. leptotricha** E. Desv. (*Agrostis lechleri* Steud.; *Agrostis moyanoi* Speg.; *Agrostis moyanoi* var. **major** Speg.; *Agrostis moyanoi* var. **puberigluma** Speg.) (dedicated to the German botanist Wilibald (Willibaldus) Lechler, 1814-1856, naturalist, pharmacist, explorer, 1850-1855 Chile) (for Carlos Moyano, Argentina)

Southern America, Chile, Argentina. See *Flora Chilena* 6: 316, t. 76, f. 1. 1854, *Synopsis Plantarum Glumacearum* 1: 422. 1854, *Revista de la Facultad de Agronomía; Universidad Nacional de La Plata* 3: 627. 1897 and *Anales Museo Nacional de Historia Natural de Buenos Aires* 7: 189. 1902, *Gayana, Botánica* 42: 1-157. 1985, *Gayana, Botánica* 54(2): 113. 1997.

**A. liebmanni** (E. Fourn.) Hitchc. (*Apera liebmanni* E. Fourn.)

America. See *Mexicanas Plantas* 2: 97. 1886 and *North American Flora* 17(7): 519. 1937.

**A. limitanea** J. Black (*Lachnagrostis limitanea* (J.M. Black) S.W.L. Jacobs)

South Australia. Endangered species, perennial, noded, tufted, glabrous, erect, stiff, leaves nonauriculate, basal leaf sheaths densely scabrous, ligule acute and membranous, loose panicle partially exerted, glumes scabrous on the keel, lemmas glabrous and awnless, callus glabrous, see *Transactions and Proceedings of the Royal Society of South Australia* 55: 137, f. 5. 1931, *Telopea* 9(3): 446. 2001.

**A. limprichtii** Pilger (for the German botanist Hans Wolfgang Limpricht, b. 1877, traveler, botanical explorer in China and Tibet, wrote *Botanische Reisen in den Hochgebirgen Chinas und Ost-Tibets*. Dahlem bei Berlin 1922, he was son of the German bryologist Karl Gustav Limpricht (1834-1902); see E.D. Merrill & Egbert H. Walker, *A Bibliography of Eastern Asiatic Botany*. 273. The Arnold Arboretum of Harvard University, Jamaica Plain, Massachusetts 1938; J.H. Barnhart, *Biographical notes upon botanists*. 2: 382. 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 238. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 267 and 268. 1973)

Asia, China. Alpine shrub, subalpine meadows, pastures, rocky clay loam, marsh meadow, granitic gravelly loam, see *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 12: 307. 1922.

**A. longiberbis** Hack. (*Agrostis capillaris* L.; *Agrostis longiberbis* Hack. ex L.B. Sm.; *Agrostis longiberbis* Hack. ex Usteri; *Calamagrostis capillaris* Nees ex Steud.)

Southern Brazil. Panicle effuse, lemma awnless, callus ciliate, found in fields, see *Species Plantarum* 1: 62. 1753, *Synopsis Plantarum Glumacearum* 1: 188. 1854 and Alfred Usteri, *Flora der Umgebung der Stadt São Paulo in Brasilien* 152. Jena 1911, *Phytologia* 22(2): 88, f. 1-3. 1971.

**A. longiligula** Hitchc. (*Agrostis exarata* Trin.)

Northern America, U.S., California. Found in shallow water, swamps, wet meadow, see *De Graminibus unifloris et sesquifloris* 207. Petropoli 1824 and *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 54, t. 36, f. 3. 1905, *Leaflets of Western Botany* 4: 246. 1946.

in English: Pacific bentgrass, long-tongue bent

**A. lyallii** Hook.f. (*Deyeuxia filiformis* var. *lyallii* (Hook.f.) Petrie; *Deyeuxia filiformis* var. *lyallii* (Hook.f.) Zotov; *Deyeuxia forsteri* var. *lyallii* (Hook.f.) Hack.; *Lachnagrostis lyallii* (Hook.f.) Zotov) (named for the British (b. Kincardineshire) naturalist David Lyall, 1817-1895 (Cheltenham, Glos), British Columbia Boundary Commission, surgeon, explorer, plant collector, botanist, 1839-1842 on Ross's Antarctic Voyage, 1847 New Zealand, 1852 with Edward Belcher (1799-1877) in the Arctic (a search for the lost

Franklin expedition), in 1862 a Fellow of the Linnean Society. See J.H. Barnhart, *Biographical notes upon botanists*. 2: 415. 1965; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 204. Oxford 1964; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. Dresden 1916; Thomas Frederick Cheeseman, *Manual of the New Zealand Flora*. xxvii. Wellington 1906; R. Glenn, *The Botanical Explorers of New Zealand*. Wellington 1950; Captain Sir Edward Belcher, *The Last of the Arctic Voyages, being a narrative of the expedition in HMS Assistance ... in search of Sir John Franklin*. London 1855; G.A. Doumani, editor, *Antarctic Bibliography*. Washington, Library of Congress 1965-1979; Joseph Ewan, *Rocky Mountain Naturalists*. The University of Denver Press 1950; Leonard Huxley, *Life and Letters of Sir J.D. Hooker*. London 1918; John T. Walbran, *British Columbia Coast Names, 1592-1906. To Which are Added a Few Names in Adjacent United States Territory, Their Origin and History*. First Edition. Ottawa: Government Printing Bureau, 1909; John Norris, *Strangers Entertained: A History of the Ethnic Groups of British Columbia*. Vancouver: British Columbia Centennial '71 Committee, 1971; G.P.V. Akkrigg & Helen B. Akkrigg, *British Columbia Place Names*. Victoria: Sono Nis Press, 1986)

New Zealand. Perennial, see *Révision des Graminées* 1: 77. 1829, *Flora Novae-Zelandiae* 1: 297. 1853 and *Manual of the New Zealand Flora* 869. 1906, *The Subantarctic Islands of New Zealand* 2: 474. 1909, *Transactions of the Royal Society of New Zealand* 73: 235. 1943, *Records of the Dominion Museum (N.Z.)* 5: 142. 1965.

**A. magellanica** Lam. (*Agrostis antarctica* Hook.f.; *Agrostis araucana* Phil.; *Agrostis chonotica* Phil.; *Agrostis cognata* Steud.; *Agrostis macrathera* Phil.; *Agrostis magellanica* var. *antarctica* (Hook.f.) Franch.; *Agrostis magellanica* var. *antarctica* (Hook.f.) Pilg., nom. illeg., non *Agrostis magellanica* var. *antarctica* (Hook.f.) Franch.; *Agrostis magellanica* var. *cognata* (Steud.) Macloskie & Dusén; *Agrostis multiculmis* Hook.f.; *Agrostis rinihuensis* Phil.; *Vilfa magellanica* (Lam.) P. Beauv.)

New Zealand. Perennial, very variable, subalpine to alpine, tufted, leafy, erect to prostrate or slightly geniculate at base, leaf blade folded and inrolled, leaf sheath membranous, ligule truncate and denticulate, panicle contracted, glumes subequal, lemma glabrous, awn flexuous and twisted, slopes, stony ground, damp soil, see *Encyclopédie Méthodique, Botanique* 1: 160. 1791, *Essai d'une Nouvelle Agrostographie* 16, 148, 181. 1812, *Fl. Antarct.* 1: 95. 1845[ante], *Flora Antarctica* 2: 374. 1846, *Synopsis Plantarum Glumacearum* 1: 421. 1854, *Linnaea* 29(1): 87. 1858, *Mission Scientifique du Cap Horn, Botanique* 5: 381. 1889, *Anales de la Universidad de Chile* 94: 10, 14. 1896 and

*Repertorium Specierum Novarum Regni Vegetabilis* 12: 304. 1913, *Reports of the Princeton University Expeditions to Patagonia, Botany, Supplement* 40. 1914, *New Zealand Journal of Botany* 29: 139-161. 1991.

**A. mannii** (Hook.f.) Stapf (*Calamagrostis mannii* (Hook.f.) Engl.; *Deyeuxia mannii* Hook.f.)

West tropical Africa. Perennial, slender, erect, ascending, loosely tufted, glumes subequal, hairy awned lemma, related to *Agrostis producta* Pilg., see *Journal of the Linnean Society, Botany* 7: 228. 1864, *Abhandlungen der Königlich Preussischen Akademie der Wissenschaften. Physikalisch-mathematische Classe* 1891: 2. 1892, *Flora Capensis* 7: 549. 1899 and *Opera Botanica* 121: 159-172. 1993.

**A. mannii** (Hook.f.) Stapf subsp. **aethiopica** S.M. Phillips Ethiopia. Perennial, slender, erect, ascending, loosely tufted, linear leaf blades, loose and open inflorescence paniculate, spikelets clustered, glumes subequal and acute, lemma awned, awn geniculate, moist soils, grassland, see *Kew Bulletin* 41(1): 134, f. 4E-F. 1986.

**A. mannii** (Hook.f.) Stapf subsp. **mannii**

West Africa.

**A. maritima** Lam. (*Agrostis alba* f. *maritima* (Lam.) Parl.; *Agrostis alba* subsp. *maritima* (Lam.) Arcang.; *Agrostis alba* subsp. *maritima* (Lam.) P. Fourn.; *Agrostis alba* var. *maritima* (Lam.) G. Mey.; *Agrostis maritima* L.; *Agrostis maritima* With.; *Agrostis palustris* Huds.; *Agrostis stolonifera* L.; *Agrostis stolonifera* subsp. *maritima* (Lam.) Vasc.; *Agrostis stolonifera* var. *maritima* (Lam.) W.D.J. Koch; *Agrostis stolonifera* var. *maritima* (Lam.) L. Vilysoo; *Agrostis stolonifera* var. *stolonifera*; *Agrostis straminea* Hartm.; *Vilfa maritima* (Lam.) P. Beauv.)

Northern America. See *Species Plantarum* 1: 62. 1753, *Flora Anglica* 27. 1762, *Encyclopédie Méthodique, Botanique* 1: 61. 1783, *Essai d'une Nouvelle Agrostographie* 16, 148, 181. 1812, *Flore de France* Suppl. 5. 253. 1815, C.P. Thunberg (1743-1828), *Genera graminum in Scandinavia indigenorum recognita ... Upsaliae* 1819, *Neues Hamburgisches Magazin* 1823: 138. Hamburg, Leipzig 1824, *Synopsis der Deutschen und Schweizer Flora, ...* 781. 1837, *Flora italiana, ossia descrizione delle piante ...* 1: 181. 1848, *Prodromus Florae Hispanicae* 1: 52. 1861, *Compendio della Flora Italiana* 768. 1883, *Bulletin Société Botanique de Rochelaise. La Rochelle* 18: 45. 1896 and B.D. Jackson (1846-1927), *Index to the Linnean herbarium ...* London 1912 [also *Proc. Linn. Soc.* 124 Suppl.: 1-152. Oct 1912], *Les Quatre Flores de la France*, éd. 2, 49. 1946, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1174-1178. 1991.

in English: seaside bent

in French: agrostis maritime, agrostide maritime

**A. masafuerana** Pilger (Robinson Crusoe (= Juan Fernández) Islands are a Chilean National Park and a World Bio-

sphere Reserve. Located 667 kms W of continental Chile at 33°S latitude, the archipelago consist of three principal islands: Masatierra (= Isla Robinson Crusoe), Masafuera (= Isla Alejandro Selkirk) and Santa Clara)

Chile, Juan Fernandez Islands. Indeterminate species, see *Repertorium Specierum Novarum Regni Vegetabilis* 16: 388. 1920, *The Natural History of Juan Fernandez and Easter Island* Uppsala 1920-1956, *Brittonia* 54(3): 154-163. 2002.

**A. meionectes** Vickery (*Lachnagrostis meionectes* (Vickery) S.W.L. Jacobs) (perhaps from Greek *meionekteo* "to be poor, come short, fall short, to be short," *meionektikos* "disposed to take too little," *meion* "smaller, less" and *echo* "to hold, to sustain")

Australia, Victoria, New South Wales. Rare species, annual, noded, densely tufted, slender, small, nonauriculate, basal leaf sheaths not keeled, ligule membranous, leaves flat or folded, inflorescence of chasmogamous spikelets, open panicle with slender and purplish spikelets, glumes more or less equal and divergent, lemma awned and pubescent, alpine grass, in alpine and subalpine moist sites, see *Contributions from the New South Wales National Herbarium* 4(1): 12. 1966, *Telopea* 9(3): 446. 2001.

**A. meridensis** Luces

Venezuela. Páramos, moist to marshy places, see *Boletín de la Sociedad Venezolana de Ciencias Naturales* 15(80): 11-12, f. 7. 1953.

**A. mertensii** Trinius (*Agrostis bakeri* Rydb.; *Agrostis boliviana* Mez; *Agrostis borealis* Hartman; *Agrostis borealis* f. *borealis*; *Agrostis borealis* f. *macrantha* (Eames) Fern.; *Agrostis borealis* subsp. *viridissima* (Kom.) Tzvelev; *Agrostis borealis* var. *americana* (Scribn. ex Macoun) Fernald; *Agrostis borealis* var. *bakeri* (Rydb.) Koji Ito; *Agrostis borealis* var. *borealis*; *Agrostis borealis* var. *macrantha* Eames; *Agrostis borealis* var. *paludosa* (Scribn.) Fern.; *Agrostis canina* var. *alpina* Oakes; *Agrostis canina* var. *mertensii* (Trin.) Kuntze; *Agrostis canina* var. *tenella* Torr.; *Agrostis compressa* Döll, nom. illeg., non *Agrostis compressa* Willd.; *Agrostis concinna* Tuck.; *Agrostis gelida* Trin.; *Agrostis idahoensis* Nash var. *bakeri* (Rydb.) W.A. Weber; *Agrostis laxiflora* Poir. var. *mertensii* (Trin.) Griseb.; *Agrostis mertensii* Trin. subsp. *borealis* (Hartman) Tzvelev; *Agrostis novae-angliae* Vasey, nom. illeg., non *Agrostis novae-angliae* Tuck.; *Agrostis paludosa* Scribn.; *Agrostis pickeringii* Tuck.; *Agrostis pickeringii* var. *pickeringii*; *Agrostis pickeringii* var. *rupicola* Tuck.; *Agrostis poeppigiana* Phil.; *Agrostis rubra* L. pro parte; *Agrostis rubra* var. *alpina* (Oakes) MacMill.; *Agrostis rubra* var. *americana* Scribner ex Macoun; *Agrostis rupestris* auct. non All.; *Agrostis scabra* var. *montana* Tuck. ex Vasey; *Agrostis viridissima* Kom.; *Agrostis williamsii* Phil.; *Trichodium concinnum* (Tuck.) Alph. Wood) (named for the American botanist Charles Fuller Baker, 1872-1927, professor of tropical agri-

culture, see J.H. Barnhart, *Biographical notes upon botanists*. 1: 107. 1965, T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 21. Boston, Mass. 1972, Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 1964, S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 17. 1973)

Circumpolar, northern and southern America, Canada, U.S., Argentina, Chile, Japan, Europe. Perennial, caespitose, erect, ligule membranous, leaf sheaths glabrous, leaves mostly in a basal tuft, inflorescence paniculate and diffuse, panicle dark, spikelets 1-flowered, palea vestigial, anthers yellow, found in mountain ledges, turfy places, slopes, hummocks, hummock grasslands, see *Species Plantarum* 1: 62. 1753, *Linnaea* 10(3): 302. 1836, *Handbok i Skandinavien Flora*, edition 3, 17. 1838, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 343. 1841, *Catalogue of Vermont Plants* 32. 1842, *Mag. Hort. Bot.* 9(4): 143. 1843, *Fl. New York* 2: 443. 1843, *American Journal of Science* 45(1): 42. 1843, *A Class-book of Botany* (2) 600. 1847, *Flora Rossica* 4(13): 442. 1852, *Catalogue of Canadian Plants, Part VI, Musci* 25: 391. 1890, *Contributions from the United States National Herbarium* 3(1): 76. 1892, *The Metaspermae of the Minnesota Valley* 65. 1892, *Anales de la Universidad de Chile* 94: 12, 13. 1896, *Bulletin, Division of Agrostology United States Department of Agriculture* 11: 49, f. 7. 1898, *Revisio Generum Plantarum* 3: 338. 1898 and *Bulletin of the Torrey Botanical Club* 36: 532. 1909, *Rhodora* 11(125): 88. 1909, *Repertorium Specierum Novarum Regni Vegetabilis* 13: 85. 1914, *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 1. 1922, *Rhodora* 35: 205, 207. 1933, *Journal of Geobotany; or the Hokuriku Journal of Botany* 9: 68. 1961, *Novosti Sist. Vyss. Rast.* 8: 62. 1971, *Novosti Sist. Vyss. Rast.* 10: 90. 1973, *Botanical Magazine* 88: 65-87. 1975, *New Alpine Flora of Japan* 2: 359. 1983, *Le Naturaliste Canadien* 113(4): 331. 1986, *Botanical Magazine* 100: 273-293. 1987, *Grasses of Japan and its Neighboring Regions* 484. 1987, *Bot. Zhurn. (Moscow & Leningrad)* 74: 1675-1678. 1989, *Bot. Zhurn. (Moscow & Leningrad)* 75: 1783-1786. 1990.

in English: northern bentgrass

**A. meyenii** Trin. (*Agrostis canina* f. *inclusa* Hack.; *Agrostis canina* f. *mutica* Hack., nom. illeg., non *Agrostis canina* var. *mutica* Sincl.; *Agrostis canina* subsp. *grandiflora* Hack., nom. illeg., non *Agrostis canina* var. *grandiflora* Hack. ex Druce; *Agrostis canina* var. *falklandica* (Hook.f.) Macloskie; *Agrostis canina* var. *falklandica* (Hook.f.) Hack. ex Skotts., nom. illeg., non *Agrostis canina* var. *falklandica* (Hook.f.) Macloskie; *Agrostis canina* var. *falklandica* (Hook.f.) Hack.; *Agrostis conferta* Nees & Meyen; *Agrostis*

*conferta* var. *austro-patagonica* Pilg.; *Agrostis conferta* var. *austropatagonica* Pilg.; *Agrostis falklandica* Hook.f.; *Tri-chodium pusillum* Nees ex Meyen)

Chile, Argentina. Alpine grass, growing in marshy places, rocky sites, see *Species Plantarum* 1: 62. 1753, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 312. 1841, *Gramineae* 11-12. 1841, *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 19(Suppl. 1): 143-144. 1843, *Flora Antarctica* 2: 373. 1846 and *Reports of the Princeton University Expeditions to Patagonia ... Botany* 8(5): 186. 1904, *Wissenschaftliche Ergebnisse der Schwedischen Südpolar-Expedition 1901-1903* 4(4): 5. 1906, *Kongliga Svenska Vetenskapsakademiens Handlingar* 50(3): 12. 1913, *Repertorium Specierum Novarum Regni Vegetabilis* 12: 304. 1913.

**A. micrantha** Steud. (*Agrostis clavata* subsp. *micrantha* (Steud.) Y.C. Tong)

Nepal, Myanmar, India. Stout, spikelets green, glumes unequal, lower glume acute, palea present, a good fodder grass, usually growing in pine forests, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 55. 1821, *Synopsis Plantarum Glumacearum* 1: 170, 174. 1854 and *Flora Xizangica* 5: 233-234. 1987.

**A. microphylla** Steud. (*Agraulis brevifolius* Nees ex Torr.; *Agrostis alopecuroides* (Buckley) A. Gray, nom. illeg., non *Agrostis alopecuroides* Lam.; *Agrostis aristiglumis* Swallen; *Agrostis exarata* var. *microphylla* (Steud.) Hitchc.; *Agrostis exarata* var. *microphylla* S. Watson ex Vasey; *Agrostis inflata* Scribn.; *Agrostis microphylla* var. *intermedia* Beetle; *Agrostis microphylla* var. *microphylla*; *Agrostis virescens* var. *microphylla* (Steud.) Scribn.; *Deyeuxia alopecuroides* Nutt. ex A. Gray; *Polypogon alopecuroides* Buckley)

British Columbia, Mexico, California. Annual, leaf blades scabrous, inflorescence dense and cylindrical, glumes acuminate, lemma awned from middle, awn slightly bent, palea absent, on wet soil, slopes, vernal pools, on rocks, cliffs, see *Nova Genera et Species Plantarum* 1: 135-136. 1815 [1816], *Gram. Unifl. Sesquifl.* 207. 1824, *Synopsis Plantarum Glumacearum* 1: 164. 1854, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 88, 333. 1862, *Contributions from the United States National Herbarium* 3(1): 58, 72. 1892, *Canadian Record of Science* 6: 152. 1894 and *Circular, Division of Agrostology, United States Department of Agriculture* 30: 2-3. 1901, *American Journal of Botany* 2: 303. 1915, *Journal of the Washington Academy of Sciences* 20(15): 381. 1930, *Bulletin of the Torrey Botanical Club* 72(6): 547, f. 7, 8. 1945, *Leaflets of Western Botany* 5(3): 56. 1947.

in English: small-leaf bentgrass, small-leaf bent, small-leaved bentgrass, little-leaf bentgrass, awned bent grass

**A. moldavica** Dobrescu & Beldie (*Agrostis gigantea* subsp. *moldavica* (Dobrescu & Beldie) Dihoru)

Romania. Rare species.

**A. mongolica** Roshev.

Mongolia. Found on marshy areas along the rivers and small streams, moist meadows, dry stream beds, mountain steppe, dark soils.

**A. montevidensis** Spreng. ex Nees (*Agrostis canina* L. var. *montevidensis* (Spreng. ex Nees) Kuntze; *Agrostis laxiflora* var. *aristata* Griseb.; *Agrostis montevidensis* var. *aristata* Döll; *Agrostis montevidensis* var. *montevidensis*; *Agrostis montevidensis* var. *submutica* Döll)

Uruguay, southern Brazil to Argentina, Bolivia, Paraguay. Annual, rare, tufted, inflorescence a strongly spreading panicle with ascending branches, spikelets distant, straight pedicels, paleas usually absent, little grazing value, common in moist and disturbed areas, mountain grasslands, along roadsides, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 255. 1810, *Botanical Appendix to Captain Franklin's Narrative* 731. 1823, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 403. 1829, *Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen* 19: 254. 1874, *Plantae lorentzianae*. [Plants collected by the German botanist Paul Günther Lorentz, 1835-1881.] 206. Göttingen 1874, *Flora Brasiliensis* 2(3): 29. 1878, *Revisio Generum Plantarum* 3(2): 338. 1898.

in English: fog grass

in Spanish: pasto ilusión

in South Africa: misbeltgras

**A. montevidensis** Spreng. ex Nees f. *montevidensis* (*Agrostis montevidensis* var. *aristata* Döll)

South America, Uruguay. See *Flora Brasiliensis* 2(3): 29. 1878.

**A. montevidensis** Spreng. ex Nees f. *submutica* (Döll) Kämpf (*Agrostis montevidensis* var. *submutica* Döll)

South America. See *Flora Brasiliensis* 2(3): 29. 1878 and *Anuário Técnico do Instituto de Pesquisas Zootécnicas "Francisco Osorio"* 2: 577. Porto Alegre 1974[1975].

**A. muelleriana** Vickery (*Agrostis canina* var. *gelida* (F. Muell.) Buchanan; *Agrostis canina* var. B. Hook.f.; *Agrostis gelida* F. Muell., nom. illeg., non *Agrostis gelida* Trin.; *Agrostis muelleri* Benth., nom. illeg., non *Agrostis muelleri* J. Presl)

New Zealand, Australia, Victoria, Tasmania, New South Wales. Annual, small, tufted to densely tufted, slender, erect, noded, nonauriculate, leaf blade with rough margins, leaf sheath more or less membranous, basal leaf sheaths not keeled, ligule membranous acute to truncate, leaf blades flat or folded or involute, inflorescence of chasmogamous spikelets, short panicles narrow and contracted, spikelets purplish, glumes acute to lanceolate more or less unequal,

lemma awned and glabrous, slender awn, palea minute and ovate, found in alpine and subalpine grasslands, wet situations, fens and bogs, seepages, rocky ground, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 343. 1841, *Abhandlungen der Böhmisches Gesellschaft der Wissenschaften, nebst der Geschichte derselben* 3: 550. Prague 1845, *Transactions of Proceedings of the Royal Society of Victoria* 43. 1854-1855, *Handbk. N.Z. Fl.* 328. 1864, *Flora Australiensis: A Description ...* 7: 576. 1878, *Indigenous Grasses of New Zealand* pl. 20A. Wellington 1878-1880 [illustrated by John Buchanan, 1819-1898] and *Contributions from the New South Wales National Herbarium* 1: 103. 1941, *New Zealand Journal of Botany* 29: 101-116, 139-161. 1991.

in English: Mueller's bent

**A. munroana** Aitchison & Hemsley (*Calamagrostis munroana* (Aitch. & Hemsley) Boiss.; *Calamagrostis munroana* var. *stricta* Hook.f.)

Pakistan. Lemma hairy, awn of lemma very short and shortly exerted beyond the glumes, fodder, pasture grass, see *Journal of the Linnean Society, Botany* 19: 192. 1882, *Flora Orientalis* 5: 523. 1884 and *Grasses of Burma, Ceylon, India and Pakistan ...* 388. 1960, *Journal of Cytology and Genetics* 21: 155. 1986, *Cytologia* 56: 437-452. 1991, *Annals of the Missouri Botanical Garden* 81(4): 784-791. 1994.

**A. munroana** Aitch. & Hemsley subsp. *indica* Sunanda Bhattacharya & S.K. Jain

India, Himachal Pradesh, Uttar Pradesh, Jammu-Kashmir. Stout, tall, leaf blades linear-lanceolate, panicle open, common in moist open fields, hilly slopes, see *Bulletin of the Botanical Survey of India* 25(1-4): 205. 1983[1985].

**A. munroana** Aitch. & Hemsley subsp. *munroana*

India, Pakistan. Dwarf, slender, leaf blades linear to filiform, inflorescence spicate, panicle linear, eaten by sheep, cattle and goats, common on alpine slopes, near snow, see *Journal of the Linnean Society, Botany* 19: 192. 1882.

**A. muscosa** Kirk (*Agrostis aemula* subsp. *spathacea* Berggr.; *Agrostis parviflora* var. *perpusilla* Hook.f.)

New Zealand. Perennial, small, low, montane to subalpine, glaucous or greenish, much branched at base, forming round cushions, leaf sheaths hyaline, ligule truncate to acute and fimbriate, leaves usually reflexed, inflorescence often recurved contracted, panicle sometimes hidden among leaf sheaths, glumes more or less unequal, lemma awnless, in tussock grassland, lowland, stony ground, bare soil, see *Prodromus Florae Novae Hollandiae* 170, 172. 1810, *Flora Novae-Zelandiae* 1: 296. 1853, *Handbook N.Z. Fl.* 328. 1864, Sven Berggren (1837-1917), *Lund Fysiogr. Sällsk. Minneskr. med ...* 8: 32, t. 7, f. 41-47. 1878 [Regia Societas

Physiographorum Lundensis], *Transactions and Proceedings of the New Zealand Institute* 13: 385. 1881 and *New Zealand J. Bot.* 29: 139-161. 1991.

in English: pincushion grass

**A. myriantha** Hook.f. (*Agrostis himalayana* Bor; *Agrostis platyphylla* Mez)

India, China, Tibet, Nepal. Glumes equal to subequal, a good fodder grass, grows on sandy soil, on hills under coniferous forest, see *The Flora of British India* 7(22): 257. 1897 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(492-503): 302. 1921, *Kew Bulletin* 8: 269. 1953, *Edinb. J. Bot.* 56(3): 390. 1999.

**A. myriantha** Hook.f. var. **myriantha** (*Agrostis myriantha* var.  *khasiana* Hook.f.)

India, China, Tibet, Nepal. See *The Flora of British India* 7(22): 257. 1897 and *Edinb. J. Bot.* 56(3): 390. 1999.

**A. myriantha** Hook.f. var. **yangbiensis** B.S. Sun & Y. Cai Wang

Yunnan, China. See *Acta Phytotaxonomica Sinica* 30(4): 366. 1992.

**A. nebulosa** Boiss. & Reut. (*Agrostis capillaris* hort. non L.; *Agrostis elegans* Thore; *Agrostis nebulosa* Bourg. ex Reuter & Lange; *Neoschischkinia nebulosa* (Boiss. & Reut.) Tzvelev)

Morocco, Europe, Spain, Portugal. Annual, ornamental, tufted, linear and flat leaves, panicle loose and oblong, awns lacking, see *Diagnoses Plantarum Novarum Hispanicarum* 27. 1842, *Bibliothèque Universelle de Genève* 38: 218. 1842, *Bulletin de la Société Botanique de France* 11: 47. 1864 and *Bot. Zhurn. (Moscow & Leningrad)* 53: 309. 1968, *Lagascalia* 12: 124-128. 1983, *Boletim da Sociedade Brotteriana, ser. 2* 61: 81-104. 1988, *Gayana, Botánica* 54: 118. 1997.

in English: cloud grass

**A. nervosa** Nees ex Trin. (*Agrostis clarkei* Hook.f.; *Agrostis nervosa* Nees)

India, Pakistan, Nepal. Leaf blades narrow and filiform, glumes unequal, lower glume longer, palea absent, an excellent fodder grass, grows at higher altitudes, on hilly slopes, on alpine pastures, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 328. 1841.

**A. nipponensis** Honda

Asia, Japan. See *Botanical Magazine (Tokyo)* 41: 380. 1927.

**A. novogaliciana** McVaugh

Mexico. Rare species, see *Flora Novo-Galiciana* 14: 41-42, f. 10. 1983, *Monocotiledóneas Mexicanas: una Sinopsis Florística* 10: 7-236. 2000.

**A. oregonensis** Vasey (*Agrostis attenuata* Vasey; *Agrostis borealis* var. *californica* (Vasey) T. Koyama ex B. Boivin; *Agrostis diegoensis* Vasey; *Agrostis hallii* var. *californica* Vasey; *Agrostis lepida* A.S. Hitchc.; *Agrostis oregonensis* Nutt. ex A. Gray; *Agrostis pallens* var. *vaseyi* St. John; *Agrostis schiedeana* var. *armata* Suksd.)

U.S., California, Alaska, Wyoming. Perennial, leaf blades flat, inflorescence ovate to lanceolate, lemma sometimes awned above middle, awn straight, forage, moist areas, swamps, stream banks, meadows, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 327. 1841, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 334. 1862, *Bulletin of the Torrey Botanical Club* 13: 55. 1886, *Botanical Gazette* 11(12): 337. 1886, *Contributions from the United States National Herbarium* 3(1): 74. 1892 and *Werdenda* 1(2): 1. 1923, *Phytologia* 43(1): 105. 1975.

in English: Oregon bent, Oregon bentgrass, Oregon redtop

**A. oresbia** Edgar (Greek *oresbios*, living on mountains, *oros* "mountain")

New Zealand. Perennial, subalpine to alpine, tufted, erect, sometimes stoloniferous, leaf blade flat or folded, leaf sheath hyaline and ribbed, ligule smooth truncate, open panicle oblong to pyramidal with spreading branches, glumes more or less unequal, lemmas awned, palea ovate, water courses, cliffs, tussock grassland, rocky places, seepages, also in shade, see *New Zealand Journal of Botany* 29(2): 143, f. 2. 1991.

**A. pallens** Trin. (*Agrostis canina* var. *stolonifera* Vasey, nom. illeg., non *Agrostis canina* var. *stolonifera* Blytt; *Agrostis densiflora* var. *littoralis* (Vasey) Vasey; *Agrostis diegoensis* Vasey; *Agrostis diegoensis* var. *foliosa* Vasey; *Agrostis exarata* var. *littoralis* Vasey; *Agrostis foliosa* Vasey, nom. illeg., non *Agrostis foliosa* hort. ex Roem. & Schult.; *Agrostis lepida* A.S. Hitchc.; *Agrostis multiculmis* Vasey ex Beal; *Agrostis pallens* var. *foliosa* Hitchc.; *Agrostis pallens* var. *vaseyi* St. John)

U.S., California, British Columbia. Perennial, small, creeping rhizomes, leaves mostly basal, leaf blades flat to inrolled, inflorescence lanceolate to narrowly ovate, spike-like panicle, lemma sometimes awned near tip, awn straight, palea absent or vestigial, forage, found in open meadows and woodland, forest, subalpine zones, gravelly woods, dry places, see *Species Plantarum* 1: 62. 1753, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 328. 1841, *Bulletin of the Torrey Botanical Club* 13: 54-55. 1886, *Contributions from the United States National Herbarium* 3(1): 72, 74-75. 1892, *Grasses of North America for Farmers and Students* 328. 1896 and *U.S. Department*

of Agriculture Bureau of Plant Industry Bulletin 68: 34, t. 14, f. 1. 1905, *A Flora of California* 1: 121. 1912, *Flora of Southeastern Washington and adjacent Idaho* 30. 1937.

in English: seashore bent, bent grass, leafy bent grass, sea-shore bentgrass, thingrass

**A. pallescens** Cheeseman (*Agrostis muelleri* var. *paludosa* Hack.)

New Zealand. Montane to alpine grass, rhizomatous, small, tufted, slender, erect, leaf blade involute and filiform, leaf sheath more or less hyaline, ligule truncate and ciliate, narrowly branched inflorescence, open panicle delicate ovate to pyramidal to oblong, glumes more or less equal and subobtusate, lemma glabrous and awnless, palea ovate, swamps and seepages, mountains, boggy spots, tussock grassland, see *Flora Australiensis: A Description ...* 7: 567. 1878 and *Manual of the New Zealand Flora* 864. 1906, *Transactions and Proceedings of the New Zealand Institute* 53: 423. 1921, *New Zealand Journal of Botany* 29: 152. 1991.

**A. pallida** With. (*Agraulus pallidus* (With.) Gray; *Agrostis pallida* DC., nom. illeg., non *Agrostis pallida* With.; *Agrostis pallida* Nees ex Steud.; *Agrostis pallida* Schkuhr)

Europe. See Christian Schkuhr (1740-1811), *Botanisches Handbuch* 1791-1803, *Flore de France* Suppl. 5: 251. 1815, *A Natural Arrangement of British Plants* 2: 149. 1821, *Flora Lipsiensis Excursoria* 83. 1838, *Nomenclator Botanicus* edition 2 1: 45. 1840 and *Flore de France* 14. 1913, *Berichte der Bayerischen Botanischen Gesellschaft zur Erforschung der Heimischen Flora* 14: 72. 1914.

**A. pallida** With. subvar. **violacea** Rouy

France.

**A. pallida** With. var. **virescens** Zimm.

Europe.

**A. parviflora** R. Br. (*Agrostis intricata* Nees; *Agrostis parviflora* Chev., nom. illeg., non *Agrostis parviflora* R. Br.; *Agrostis scabra* sensu Rodway, p.p., non Willd.; *Vilfa parviflora* (R. Br.) P. Beauv.)

Australia, Victoria, Tasmania, New South Wales. Annual, delicate, noded, loosely tufted, slender, erect or ascending, nonauriculate, basal leaf sheaths not keeled, ligule membranous obtuse or truncate, panicles spreading and few-flowered, spikelets purplish or greenish, glumes acute, lemma unawned and truncate, palea minute, found in alpine and subalpine grasslands, wet situations, open habitats, fens, bogs, see *Prodromus Florae Novae Hollandiae* 170. 1810, *Flore Descriptive et Analytique des Environs de Paris* 2: 141. 1827, *Flora Novae-Zelandiae* 1: 296. 1853.

in English: hair bent

**A. peninsularis** Hook.f.

India, Tamil Nadu, Kerala. Lemma glabrous, awn basal, grows on exposed hill slopes, see *The Flora of British India* 7(22): 255. 1897 [1896].

**A. perennans** (Walter) Tuck. (*Agrostis abakanensis* Less. ex Trin.; *Agrostis aberrans* Steud.; *Agrostis altissima* (Walt.) Tuckerman; *Agrostis anomala* Willd.; *Agrostis campyla* Tuck.; *Agrostis canina* subsp. *grandiflora* Hack.; *Agrostis canina* var. *grandiflora* Hack.; *Agrostis chinantlae* E. Fourn.; *Agrostis chinantlae* E. Fourn. ex Hemsl.; *Agrostis cornucopiae* Sm.; *Agrostis decumbens* (Michx.) Link, nom. illeg., non *Agrostis decumbens* Host; *Agrostis elata* (Pursh) Trin.; *Agrostis elegans* (Kunth) Roem. & Schult., nom. illeg., non *Agrostis elegans* (Walter) Salisb.; *Agrostis elegans* (Walter) Salisb.; *Agrostis elegans* Thore ex R.J. Loisel, nom. illeg., non *Agrostis elegans* (Walter) Salisb.; *Agrostis exarata* var. *angustifolia* Hack.; *Agrostis fasciculata* (Kunth) Roem. & Schult.; *Agrostis flavidula* Steud.; *Agrostis humboldtiana* Steud.; *Agrostis hyemalis* var. *elata* (Pursh) Fernald; *Agrostis hyemalis* var. *oreophila* (Trin.) Farw.; *Agrostis intermedia* Scribner ex Kearney, nom. illeg., non *Agrostis intermedia* Balb.; *Agrostis kufium* Speg.; *Agrostis michauxii* Trin., nom. illeg., non *Agrostis michauxii* Zuccagni; *Agrostis novae-angliae* Tuck.; *Agrostis noveboracensis* Spreng.; *Agrostis oreophila* Trin.; *Agrostis perennans* f. *atherophora* Fernald; *Agrostis perennans* f. *chaetophora* Fernald; *Agrostis perennans* f. *perennans*; *Agrostis perennans* var. *aestivalis* Vasey; *Agrostis perennans* var. *elata* (Pursh) A.S. Hitchc.; *Agrostis perennans* var. *humilis* Farw.; *Agrostis perennans* var. *perennans*; *Agrostis pseudointermedia* Farw.; *Agrostis pulchella* Kunth, nom. illeg., non *Agrostis pulchella* (R. Br.) Roth ex Roemer & Schultes; *Agrostis scabra* var. *perennans* (Walter) Alph. Wood; *Agrostis schiedeana* Trin.; *Agrostis schiedeana* var. *schiedeana*; *Agrostis schweinitzii* Trin.; *Agrostis scribneriana* Nash ex Small; *Agrostis tenuifolia* var. *fretensis* Hook.f.; *Agrostis violacea* Phil., nom. illeg., non *Agrostis violacea* Thuill.; *Agrostis weberbaueri* Mez; *Alopecurus carolinianus* Spreng., nom. illeg., non *Alopecurus carolinianus* Walter; *Cornucopiae altissima* Walter; *Cornucopiae perennans* Walt.; *Leersia angustifolia* Munro ex Prod.; *Leersia capensis* Müll. Hal.; *Oryza hexandra* (Sw.) Döll; *Trichodium altissimum* (Walter) Michx. ex A. Wood; *Trichodium decumbens* Michx.; *Trichodium elatum* Pursh; *Trichodium muhlenbergianum* Schult.; *Trichodium noveboracense* (Spreng.) Schult.; *Trichodium perennans* (Walt.) Elliott; *Trichodium scabrum* Darl.; *Vilfa elegans* Kunth; *Vilfa fasciculata* Kunth) (Mexico, Chinantla) (U.S., New York, as Nov. Eborae) (for the American botanist Lewis David von Schweinitz, 1780-1835, mycologist, plant collector; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 250. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 357. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge,

Mass. 1917-1933; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 241. Oxford 1964; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 1973; Stafleu and Cowan, *Taxonomic literature*. 5: 437-442. 1985; J. Ewan, editor, *A Short History of Botany in the United States*. New York and London 1969; J.W. Harshberger, *The Botanists of Philadelphia and Their Work*. 127-132. 1899; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; William Darlington, *Reliquiae Baldwinianae*. Philadelphia 1843; Jeannette Elizabeth Graustein, *Thomas Nuttall, Naturalist. Explorations in America, 1808-1841*. Cambridge, Harvard University Press 1967; William Jay Youmans, editor, *Pioneers of Science in America*. New York 1896)

Northern and southern America, U.S., Mexico, Canada, Honduras, Chile, Argentina. Perennial, erect, sprawling, herbaceous, very variable, solitary or tufted, bases decumbent, pinkish inflorescence, forage, found in open woods, open grassy areas, wet places, in páramos, dry open ground, rocky or gravelly banks, thickets, sphagnum bog, swale or swamp, light shade, roadside ditch, disturbed areas and opening, slopes, see *Species Plantarum* 1: 62. 1753, *Enum. Brit. Grasses* 42. 1787, *Flora Caroliniana, secundum* ... 74. 1788, *Nova Genera et Species Plantarum seu Prodrromus* 21. 1788, *Gentleman's Magazine* 59: 873, t. 1789. 1789, *Prodrromus stirpium in horto ad Chapel Allerton vigentium*. 25. Londini [London] (Nov-Dec) 1796, *Species Plantarum* 1: 370. 1797, *Nachtr. Bot. Gart. Halle* 10. 1801, *Flora Boreali-Americana* 1: 42. 1803, *Journal de Botanique, rédigé par une société de botanistes* 2: 207, t. 8. 1809, *Flora Americae Septentrionalis; or, ...* 1: 61. 1814, *Nova Genera et Species Plantarum* 1: 139. 1815 [1816], *A Sketch of the Botany of South-Carolina and Georgia* 1: 99. 1816, *Systema Vegetabilium* 2: 362. 1817, *Mantissa* 2: 159. 1824, *De Graminibus unifloris et sesquifloris* 206, 207. Petropoli 1824, *Systema Vegetabilium, editio decima sexta* 1: 260. 1825, *Hortus Regius Botanicus Berolinensis* 1: 80. 1827, *Mantissa* 3(Add. 1): 555. 1827, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 223. 1833, *Florula Cestrica* 1: 54. 1837, *Nomenclator Botanicus editor* 2 1: 40. 1840, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 311, 317, 323, 325, 327. 1841, *American Journal of Science and Arts* 45: 44. 1843, *Magazine of horticulture, botany and all useful discoveries and improvements in rural affairs* 9(4): 143. Boston and New York 1843, *Flora Antarctica* 372. 1846, *A Class-book of Botany* 599. 1847, *American Journal of Science and Arts, ser. 2*, 6: 231. 1848, *Synopsis Plantarum Glumacearum* 1: 421-422. 1854, *Botanische Zeitung, Berlin* 14(20): 345.

1856, *A Class-book of Botany* 774. 1861, *Flora Brasiliensis* 2(2): 10. 1871, *Anales de la Universidad de Chile* 43: 560. 1873, *Biologia Centrali-Americana; ... Botany ...* 3: 550. 1885, *Mexicanas Plantas* 2: 96. 1886, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York City* 68. 1888, *Contributions from the United States National Herbarium* 3(1): 76. 1892, *Bulletin of the Torrey Botanical Club* 20: 476. 1893, *Anales Museo Nacional de Historia Natural de Buenos Aires* 5: 282. 1896 and *Svenska Expeditionen till Magellansländer* 3(5): 219. 1900, *Ann. Rep. Comm. Parks and Boul. Detroit* 11: 46. 1900, *Flora of the Southeastern United States ...* 126. 1903, *Report of the Michigan Academy of Science, Arts and Letters* 6: 202. 1904, *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 50, t. 33. 1905, *Wissenschaftliche Ergebnisse der Schwedischen Südpolar-Expedition 1901-1903* 4(4): 5. 1906, *Rhodora* 23(274): 229. 1921 [1922], *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 1. 1922, *Botanisches Archiv* 1: 217. 1922, *Papers of the Michigan Academy of Science, Arts and Letters* 1: 87. 1923, *Rhodora* 35: 317. 1933, *Bull. Cranbrook Inst. Sci.* 34: 16. Bloomfield Hills, MI. 1953, *Taxon* 45: 100. 1996.

in English: autumn bent, upland bent, autumn bentgrass, tall bentgrass

in Colombia: pasto gallina

*A. personata* Edgar (*Agrostis canina* L.; *Agrostis dyeri* var. *delicatior* Hack.; *Agrostis parviflora* R. Br.; *Agrostis perennans* (Walter) Tuck.; *Agrostis scabra* Willd.)

New Zealand. Tufted, slender, loose, geniculate at base or erect, soft flaccid leaves smooth or scabrid, leaf sheath membranous, ligule obtuse to truncate, delicate panicle ovate to pyramidal with filiform branches spreading when old, glumes acute and subequal, lemma glabrous awnless or awned, palea round, open areas, grassland, lowland to alpine, forest margins, see *Manual of the New Zealand Flora* 865. 1906, *New Zealand Journal of Botany* 29(2): 149, 151-152. 1991.

*A. petelotii* (Hitchc.) Noltie (*Aniselytron petelotii* (Hitchc.) Soják; *Aniselytron petelotii* (Hitchc.) Bennet & Raizada, nom. illeg., non *Aniselytron petelotii* (Hitchc.) Soják; *Aulacolepis petelotii* Hitchc.; *Calamagrostis petelotii* (Hitchc.) Govaerts; *Deyeuxia abnormis* Hook.f.; *Deyeuxia petelotii* (Hitchc.) S.M. Phillips & W.L. Chen; *Neoaulacolepis petelotii* (Hitchc.) Rauschert) (after the French botanist Paul Alfred Pételot, 1885-(after) 1940, bryologist, in Vietnam, lauréat de l'Académie des Sciences, chargé de cours à la Faculté Mixte de Médecine et de Pharmacie de Saigon, Chef de la Division de Botanique du Centre de Recherches Scientifiques et Techniques, his works include "La botanique en Indochine. Bibliographie." *Bull. Econ. Indochine*. 32: 587-632. 1929, *Les plantes médicinales du Cambodge, du Laos et du Viêt Nam*. Saigon 1952-1954 and "Bibliographie



botanique de l'Indochine." *Arch. Rech. Agron. Past. Viêt-nam*. 24: 1-102. 1955, with Charles Cresson wrote *Catalogue des produits de l'Indochine, Produits médicaux*. 1928-1935; see E. Perrot & P. Hurrier, *Matière médicale et pharmacopée sino-annamite*. Paris 1907; Stafleu & Cowan, *Taxonomic literature*. 4: 189. 1983; L. Menaut, "La matière médicale cambodgienne." *Bull. Econ. Indochine*. 1929; I.C. Hedge & J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970)

Asia. Densely tufted, erect and slender, lemma unawned, see *The Flora of British India* 7: 268. 1897 and *Journal of the Washington Academy of Sciences* 24(7): 291. 1934, *Indian Forester* 107(7): 434. 1981, *Taxon* 31(3): 561. 1982, *Gard. Bull. Singapore* 37(2): 213-223. 1984, *Edinburgh Journal of Botany* 56(3): 384, 386-387. 1999, *World Checklist of Seed Plants* 3(1): 11. 1999, *Novon* 13(3): 319. 2003.

**A. petriei** Hack. (*Agrostis petriei* var. *mutica* Hack.) (for the Scottish (b. Morayshire) botanist Donald Petrie, 1846-1925, went to Australia in 1868, in New Zealand 1874-1925, in 1894 chief inspector of schools, Auckland, New Zealand, wrote "List of the flowering plants indigenous to Otago." *Trans. Proc. New Zealand Inst.* 1896, "The Gramina of the Subantarctic Islands of New Zealand." *Subantarct. Is N.Z.* 2: 472-481. 1909 and "Some additions to the Flora of the Subantarctic Islands of New Zealand." *T.N.Z.I.* 47: 59-60. 1915. See J.H. Barnhart, *Biographical notes upon botanists*. 3: 76. 1965; Thomas Frederick Cheeseman, *Manual of the New Zealand Flora*. xxvii. Wellington 1906; I.H. Vegeter, *Index Herbariorum*. Part II (5), *Collectors N-R*. Regnum Vegetabile vol. 109. 1983; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 549. London 1994)

New Zealand. Perennial, montane to subalpine, lax, tussocky, erect or geniculate at base, clumped, leaf blades stiff and obtusely tipped, ligule obtuse, lower sheaths scabrous to scabrid, upper sheaths smooth and ribbed, wiry leaves scabrid and involute, panicle oblong, glumes more or less equal to subequal, lemma ovate and denticulate, awned, round palea, grassland, on dry rocky places, stony ground, see *Transactions and Proceedings of the New Zealand Institute* 35: 379. 1903.

**A. philippiana** Rúgolo & De Paula (*Agrostis clausa* Steud.; *Agrostis clausa* Phil., nom. illeg., non *Agrostis clausa* Steud.)

South America, Chile. See *Synopsis Plantarum Glumacearum* 1: 169. 1854, *Anales de la Universidad de Chile* 43: 562. 1873 and *Flora Patagónica* 8(3): 379. 1978, *Parodiána* 7: 208. 1992.

**A. pilosula** Trinius (*Agrostis ciliata* Trin., nom. illeg., non *Agrostis ciliata* Thunb.; *Agrostis royleana* Trin.; *Agrostis wallichiana* Steud.; *Calamagrostis ciliata* Nees ex Steud.; *Calamagrostis griffithiana* Hook.f.; *Calamagrostis hooke-*

*riana* Nees ex Steud.; *Calamagrostis jacquemontii* Hook.f.; *Calamagrostis neesii* Steud.; *Calamagrostis pilosula* (Trinius) Hook.f.; *Calamagrostis roylei* Nees ex Steud.; *Deyouxia royleana* (Trin.) Trimen; *Lachnagrostis ciliata* Nees ex Trin.; *Lachnagrostis royleana* Nees ex Trin.; *Lachnagrostis scabra* Nees ex Trin.; *Pentatherum pilosulum* (Trin.) Tzvelev)

Sri Lanka, India, Sikkim, Nepal, Pakistan, Himalaya. A very variable species, slender, tufted, caespitose, perennial, erect, leaf sheaths glabrous, glumes subequal, lemmas awned and pubescent, in moist places, montane grasslands, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 371-373. 1841, *Synopsis Plantarum Glumacearum* 1: 174. 1854, *The Flora of British India* 7: 263, 265. 1896 and *Kew Bulletin* 1954: 459. 1954, *Grasses of Ceylon* 61. 1956, *Grasses of Burma ...* 388. 1960, *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985], *Journal of Cytology and Genetics* 22: 161-162. 1987, *Cytologia* 56: 437-452. 1991.

**A. pilosula** Trin. f. *ciliata* (Trin.) Bhattacharya & S.K. Jain (*Agrostis ciliata* Trin.; *Agrostis pilosula* var. *ciliata* (Trin.) Bor)

India. Spikelets purple, grows on exposed hilly slopes, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 373. 1841 and *Kew Bulletin* 1954: 459. 1954, *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985].

**A. pilosula** Trin. f. *filifolia* (Bor) Bhattacharya & S.K. Jain (*Agrostis pilosula* var. *filifolia* Bor)

India, Tamil Nadu. Leaves filiform, see *Kew Bulletin* 1954: 459. 1954, *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985].

**A. pilosula** Trin. f. *pilosula*

India, Sri Lanka, Pakistan. Inflorescence paniculate effuse, grows on open hilly slopes, near water.

**A. pilosula** Trin. f. *wallichiana* (Steud.) Bhattacharya & S.K. Jain (*Agrostis wallichiana* Steud.)

India, Tamil Nadu, Sikkim. Leaves linear-lanceolate, on wet sandy soils, see *Synopsis Plantarum Glumacearum* 1: 174. 1854 and *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985].

**A. pilosula** Trin. var. *alpestris* (Hook.f.) Veldkamp

India. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 372. 1841, *The Flora of British India* 7: 264. 1896 and *Blumea* 28(1): 203. 1982.

*A. pilosula* Trin. var. *ciliata* (Trin.) Bor (*Agrostis ciliata* Trin., nom. illeg., non *Agrostis ciliata* Thunb.; *Calamagrostis ciliata* Nees ex Steud.; *Calamagrostis jacquemontii* Hook.f.; *Lachnagrostis ciliata* Nees ex Trin.)

India. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 373. 1841, *Synopsis Plantarum Glumacearum* 1: 193. 1855 [1854], *The Flora of British India* 7: 265. 1896 and *Kew Bulletin* 1954: 459. 1954.

*A. pilosula* Trin. var. *filifolia* Bor (*Agrostis pilosula* f. *filifolia* (Bor) Bhattacharya & S.K. Jain)

India. See *Kew Bulletin* 1954: 459. 1954, *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985].

*A. pilosula* Trin. var. *royleana* (Trin.) Bor (*Agrostis royleana* Trin.; *Calamagrostis hookeriana* Nees ex Steud.; *Calamagrostis pilosula* var. *alpestris* Hook.f.; *Calamagrostis roylei* Nees ex Steud.)

India. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 371. 1841, *Synopsis Plantarum Glumacearum* 1: 192-193. 1854, *The Flora of British India* 7: 264. 1896 and *Kew Bulletin* 1954: 459. 1954, *Bulletin of the Botanical Survey of India* 25(1-4): 210. 1983[1985].

*A. pilosula* Trin. var. *wallichiana* (Steud.) Bor (*Agrostis muliensis* J.L. Yang; *Agrostis wallichiana* Steud.; *Calamagrostis pilosula* var. *wallichiana* (Steud.) Hook.f.)

India, China. Wet soils, see *Synopsis Plantarum Glumacearum* 1: 174. 1854 and *Kew Bulletin* 1954: 459. 1954, *Acta Botanica Yunnanica* 5(1): 50-51, f. 4. 1983.

*A. pittieri* Hackel (after the Swiss-born American botanist Henri (Henry) François Pittier (Pitter de Fábrega), 1857-1950, bryologist, plant collector, traveler, botanical explorer, an authority on the flora of Tropical America, 1882-1887 Switzerland (Lausanne), Costa Rica 1887, sent plants to Th. Durand, from 1905 with USDA (Colombia, Venezuela and Central America), 1913 Venezuela (first botanical exploration), his writings include *Manual de las Plantas Usuales de Venezuela* y su Suplemento. Caracas 1971, "Flora venezolana: plantas medicinales." *Memor. 4° Congreso Ven. de Med.* 2: 167-172. 1925, *Leguminosas de Venezuela. I. Papilionáceas.* Venezuela 1944, *Clave analítica de las familias de plantas superiores de la América Tropical.* Caracas 1937, "Existe la tagua o marfil vegetal en Venezuela?" *Bol. Com. e Industr.* Año I, no. 4, 103-104. 1920, "La caoba venezolana." *Bol. Com. e Industr.* 18: 582-593. 1921 and "Exploraciones, botánicas y otras, en la cuenca de Maracaibo." *Bol. Com. e Industr.* Año IV, no. 39-40. Caracas 1923, with Tobías Lasser, Ludwig Schnee et al. wrote *Catálogo de la flora venezolana.* Caracas 1945-1947; see J.H. Barnhart, *Biographical notes upon botanists.* 3: 90. 1965; T.W. Bossert, *Biographical dictio-*

*nary of botanists represented in the Hunt Institute portrait collection.* 312. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University.* 1917-1933; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey.* Library of the New York Botanical Garden. 328. 1973; G. Murray, *History of the collections contained in the Natural History Departments of the British Museum.* 1: 175. London 1904; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico.* 585-586. Philadelphia 1964; Irving William Knobloch, compil., "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs.* VI. 1983)

Costa Rica. Vulnerable species, perennial, herbaceous, caespitose, erect, leaves mostly basal and glabrous, lax panicles, see *Österreichische Botanische Zeitschrift* 52(2): 60. 1902.

*A. planifolia* K. Koch (*Agrostis vinealis* subsp. *planifolia* (K. Koch) Tzvelev)

Europe, northern America. Erect, herbaceous, subalpine, clumping, purplish, meadows and wet meadows, slopes, steep slopes, see *Linnaea* 21(3): 380. 1848 and *Novosti Sist. Vyss. Rast.* 8: 61. 1971.

*A. planifolia* K. Koch var. *mutica* Grossh.

Russia. See *Not. Syst. Herb. Hort. Bot. Petrop.* 4: 17. 1923.

*A. planifolia* K. Koch var. *pallida* Grossh.

Russia. See *Not. Syst. Herb. Hort. Bot. Petrop.* 4: 17. 1923.

*A. planifolia* K. Koch var. *pudica* Grossh.

Russia. See *Not. Syst. Herb. Hort. Bot. Petrop.* 4: 17. 1923.

*A. planifolia* K. Koch var. *variiflora* Grossh.

Russia. See *Not. Syst. Herb. Hort. Bot. Petrop.* 4: 17. 1923.

*A. platensis* Parodi

Argentina. See *Revista Argentina de Agronomía* 18: 143, f. 1. 1951.

*A. plebeia* R. Br. (*Calamagrostis aemula* var. *plebeia* Maiden & Betche; *Calamagrostis aemula* var. *plebeia* (R. Br.) Maiden & Betche; *Calamagrostis plebeia* (R. Br.) Kuntze; *Deyeuxia australis* (Steud.) Benth. & Hook.f.; *Deyeuxia plebeia* (R. Br.) Benth.; *Deyeuxia plebeia* (R. Br.) Kuntze; *Didymochaeta australis* Steud.; *Lachnagrostis plebeia* (R. Br.) Trin.; *Vilfa plebeia* (R. Br.) P. Beauv.)

Western Australia. Annual, caespitose, noded, auricles absent, basal leaf sheaths not keeled, ligule membranous, inflorescence of chasmogamous spikelets, a panicle loosely contracted, see *Prodromus Florae Novae Hollandiae* 1: 172. 1810, *Fundamenta Agrostographiae* 128. 1820, *Nomenclator Botanicus. Editio secunda* 1: 249. 1840, *Flora Australiensis: A Description ...* 7: 580-581. 1878 and J.H. Maiden (1859-1925) & Ernst Betche (1851-1913), *A Census of New South Wales Plants.* Sydney 1916.

*A. polypogonoides* Stapf

South Africa. Perennial, tufted, glumes awned, occurs in wet places, see *Flora Capensis* 7: 549. 1899.

**A. preissii** (Nees) Vickery (*Agrostis preissii* Vickery; *Agrostis solandri* F. Muell.; *Calamagrostis filiformis* var. *preissii* (Nees) Pilg.; *Deyeuxia filiformis* var. *preissii* (Nees) Domin; *Deyeuxia forsteri* var. *preissii* (Nees) Benth.; *Deyeuxia preissii* Nees; *Deyeuxia preissii* (Nees) B.D. Jacks.; *Lachnagrostis preissii* Nees)

Western Australia. Annual, caespitose, noded, erect or geniculate, auricles absent, basal leaf sheaths not keeled, ligule membranous and acute, leaf blades folded, inflorescence of chasmogamous spikelets, a green panicle loosely contracted, see *Plantae Preissianae* 2: 97. 1846-1847, *Flora Australiensis: A Description ...* 75: 579. 1878, *Index Kewensis* 1: 740. 1895 and *Bibliotheca Botanica* 85: 352. 1915, *Contributions from the New South Wales National Herbarium* 1: 111. 1941.

**A. producta** Pilg. (*Calamagrostis producta* (Pilg.) Mez ex Peter)

East Africa. Perennial, tufted, erect or decumbent, fibrous basal sheaths, leaf blades usually linear, glumes subequal, hairy awned lemma, in upland grassland, see *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 39: 600. 1907, *Feddes Repertorium, Beiheft* 40(1): 294. 1931.

**A. quinqueseta** (Hochst. ex Steud.) Hochst. (*Agrostis alpicola* Hochst.; *Agrostis congesta* C.E. Hubb.; *Agrostis mildbraedii* Pilg.; *Agrostis quinqueseta* (Steud.) C.E. Hubb.; *Agrostis quinqueseta* (Steud.) Hochst.; *Anomalotis quinqueseta* Steud.; *Trisetaria quinqueseta* Hochst.)

Ethiopia, Uganda. Perennial, variable, slender, wiry, stout, erect to ascending, loosely tufted, leaf blades linear, shortly rhizomatous, linear inflorescence spicate, erect panicle, narrow spikelets linear-oblong, glumes lanceolate-oblong enclosing the floret, lemma 5-nerved, awn weakly geniculate, see *Synopsis Plantarum Glumacearum* 1: 198. 1854, *Flora* 38: 284-285. 1855 and *Wissenschaftliche Ergebnisse der Deutschen Zentral-Afrika-Expedition 1907-1908, Botanik* 2: 47. 1910, *Bulletin of Miscellaneous Information Kew* 1936(5): 301. 1936, *Flora of Tropical Africa* 10: 182. 1937, *Opera Botanica* 121: 159-172. 1993.

**A. reuteri** Boiss.

Spain. See P.E. Boissier (1810-1885), *Voyage botanique dans le midi de l'Espagne* 2: 645. Paris Mai 1844 and *Flore de l'Afrique du Nord*: 2: 128. 1953, *Boletim da Sociedade Broteriana, ser. 2* 61: 81-104. 1988 and 63: 29-66. 1990.

**A. rossiae** Vasey (*Agrostis exarata* var. *rossiae* (Vasey) G. Jones; *Agrostis variabilis* auct. non Rydb.) (named for the botanical collector Edith A. Ross, see Joseph Ewan, *Rocky Mountain Naturalists*. 293. The University of Denver Press 1950)

U.S., Wyoming, Yellowstone National Park. Endangered species, small, see *De Graminibus unifloris et sesquifloris* 207. 1824, *Contributions from the United States National Herbarium* 3(1): 76. 1892 and *University of Washington Publications in Biology* 5: 113. 1936.

in English: Ross' bentgrass, Ross bentgrass, Ross' bent

**A. royleana** Trin. (*Agrostis pilosula* Trin.; *Agrostis pilosula* var. *royleana* (Trin.) Bor)

India, Jammu-Kashmir, Himachal Pradesh; Sri Lanka, Pakistan. Alpine grass, awn exserted, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg, Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 371-372. 1841 and *Kew Bulletin* 1954: 459. 1954.

**A. rudis** Roemer & Schultes (*Agrostis scabra* R. Br., nom. illeg., non *Agrostis scabra* Willd.; *Calamagrostis rudis* (Roem. & Schult.) Steud.; *Deyeuxia scabra* (R. Br.) Kunth; *Deyeuxia scabra* (P. Beauv.) Kunth; *Lachnagrostis rudis* (Roem. & Schult.) Trin.; *Vilfa scabra* (R. Br.) P. Beauv.; *Vilfa scabra* P. Beauv.)

Australia. Annual, scabrous, noded, loosely caespitose, erect or geniculate and ascending, auricles absent, basal leaf sheaths glabrous, ligule obtuse, leaves flat and linear, inflorescence of chasmogamous spikelets, panicle spreading, glumes scabrous on the keels and sides, lemmas glabrous and shortly 4-toothed, awn absent, found in damp areas, sometimes considered a synonym for *Agrostis aequata* Nees, see *Prodromus Florae Novae Hollandiae* 172. 1810, *Essai d'une Nouvelle Agrostographie* 16, 182. 1812, *Systema Vegetabilium* 2: 360. 1817, *Fundamenta Agrostographiae* 128. 1820, *Révision des Graminées* 1: 77. 1829.

in English: bent grass, bent

**A. rupestris** All. (*Agrostis rupestris* (All.) Bubani; *Agrostis rupestris* Willd. ex Kunth, nom. illeg., non *Agrostis rupestris* All.)

Europe. See *Flora Pedemontana sive enumeratio methodica stirpium indigenarum Pedemontii* 2: 237. Torino 1785, *Histoire des Plantes de Dauphiné* 2: 78. 1787, *Hortus Regius Botanicus Berolinensis* 1: 81. 1827, *Révision des Graminées* 1: 70. 1829, *Österreichische Botanische Zeitschrift* 9: 50. 1859, *Flora von Nieder-Österreich* 1: 60. 1890 and *Flora Pyrenaea per ordine naturales gradatim digesta* 4: 288. Milano 1901, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 32: 221. 1941, *Flora Republicii Socialiste Romania* 12: 162. 1972, *Candollea* 29(1): 45. 1974, *Fitologija* 41: 70-75. 1991.

in English: rock bent

in French: agrostide des rochers

in Italian: cappellini della silice

**A. rupestris** All. subsp. *pyrenaica* (Pourret) Dostál (*Agrostis pyrenaica* Pourret)

Europe. See J. Dostál (1903-1999), *Folia Musei Rerum Naturalium Bohemiae Occidentalis* 21: 17. 1984 [Notes to the nomenclature of the taxa of the Czechoslovak flora.].

*A. rupestris* All. var. *atlantis* Maire

Europe. See *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 32: 221. 1941.

*A. rupestris* All. var. *aurata* (All.) Gaudin (*Avena aurata* All.)

Europe. See *Flora Pedemontana* 2: 237, 255. 1785, *Flora Helvetica* 1: 179. 1828.

*A. rupestris* x *agrostiflora* (*Agrostis rubra* Dujard., nom. illeg., non *Agrostis rubra* L.)

Europe. See *Species Plantarum* 62. 1753, *Flore Complète d'Indre et Loire* 278. 1833.

*A. sandwicensis* Hillebrand (*Agrostis fallax* Hillebrand; *Agrostis rockii* Hack.)

U.S., Hawaii. Perennial, erect, caespitose, more or less solitary, leaf sheaths with margins overlapping, ligule membranous, inflorescence paniculate, 2 glumes unequal, palea vestigial, rare species, in open bogs, well-drained areas, see *Flora of the Hawaiian Islands* 515. 1888.

in English: Hawaii bentgrass, Hawaii bent

*A. scabra* Willd. (*Agrostis geminata* Trin.; *Agrostis geminata* f. *exaristata* Fernald; *Agrostis geminata* f. *geminata*; *Agrostis hiemalis* auct.; *Agrostis hiemalis* (Walter) Britton, Sterns & Poggenb.; *Agrostis hiemalis* var. *laxiflora* (Michx.) Beetle; *Agrostis hyemalis* (Walter) Britton, Sterns & Poggenb.; *Agrostis hyemalis* f. *exaristata* (Fernald) Scoggan; *Agrostis hyemalis* f. *tuckermanii* (Fernald) Scoggan; *Agrostis hyemalis* var. *geminata* (Trin.) A.S. Hitchc.; *Agrostis hyemalis* var. *keweenawensis* Farw.; *Agrostis hyemalis* var. *laxiflora* (Michx.) Beetle; *Agrostis hyemalis* var. *nutkaensis* (Kunth) Scribn. & Merr.; *Agrostis hyemalis* var. *scabra* (Willdenow) H.L. Blomquist; *Agrostis hyemalis* var. *tenuis* (Tuckerman) Gleason; *Agrostis laxa* Muhl.; *Agrostis laxa* Schreb. ex Pursh; *Agrostis laxiflora* (Michx.) Richardson, nom. illeg., non *Agrostis laxiflora* Poir.; *Agrostis laxiflora* var. *caespitosa* Torr.; *Agrostis laxiflora* var. *montana* (Torr.) Tuck.; *Agrostis laxiflora* var. *scabra* (Willd.) Torr.; *Agrostis laxiflora* var. *tenuis* (Tuck.) Torr.; *Agrostis michauxii* var. *laxiflora* (Michaux) A. Gray; *Agrostis nootkaensis* Trin., nom. illeg., non *Agrostis nutkaensis* Kunth; *Agrostis nutkaensis* Kunth; *Agrostis peckii* House; *Agrostis scabra* R. Br., nom. illeg., non *Agrostis scabra* Willd.; *Agrostis scabra* f. *exaristata* (Fernald) Hultén; *Agrostis scabra* f. *setigera* Fernald; *Agrostis scabra* f. *tuckermanii* Fernald; *Agrostis scabra* subsp. *septentrionalis* (Fern.) A. & D. Löve; *Agrostis scabra* var. *aristata* Hultén; *Agrostis scabra* var. *geminata* (Trin.) Swallen; *Agrostis scabra* var. *keweenawensis* (Farw.) Farw.; *Agrostis scabra* var. *montana* (Torr.) Fernald; *Agrostis scabra* var. *oreophila* Alph. Wood; *Agrostis scabra* var. *scabra*; *Agrostis scabra* var.

*septentrionalis* Fern.; *Agrostis scabra* var. *tenuis* Tuck.; *Agrostis scabrata* Nutt. ex A. Gray; *Agrostis scabriuscula* Buckley; *Agrostis torreyi* Tuck., nom. illeg., non *Agrostis torreyi* Kunth; *Trichodium album* J. Presl; *Trichodium laxiflorum* Michx.; *Trichodium montanum* Torr.; *Trichodium scabrum* (Willd.) Muhl.; *Vilfa scabra* P. Beauv.)

U.S., northern America. Perennial or short-lived perennial, clump-forming, slender, ascending to erect, leafy, no auricles, open sheaths, basal leaves often scabrous, fibrous root system, very open-branched drooping flower heads, inflorescences break away at maturity, palea absent, relatively unpalatable, a pioneer species, suitable for rehabilitation of disturbed sites, useful for erosion control, invasive, found in dry or wet open soil, coniferous forest, in moist meadows, on sandy loam, sandy-peaty ground, rocky slopes, rocky shores, dry habitats, on stream banks, swamps, wet moss, marshes, bogs, woodlands, forest openings, stream and lake margins, on recently disturbed sites, in ditches, semiarid grasslands, in pastures or abandoned fields, along roadsides, muddy sites, see *Species Plantarum. Editio quarta* 1: 370. 1797, *Transactions of the American Philosophical Society* 4: 236. 1799, *Flora Boreali-Americana* 1: 42, t. 8. 1803, *Prodromus Florae Novae Hollandiae* 172. 1810, *Essai d'une Nouvelle Agrostographie* 16, 182. 1812, *Catalogus Plantarum Americae Septentrionalis* 10. 1813, *Flora Americae Septentrionalis*; or, ... 1: 61. 1814, *Botanical Appendix to Captain Franklin's Narrative* 731. 1823, *A Flora of the Northern and Middle Sections of the United States* 84. 1823, *De Graminibus unifloris et sesquifloris* 207. 1824, *Reliquiae Haenkeanae* 1(4-5): 244. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 222. 1833, *North American Gramineae and Cyperaceae* 1: 17. 1834, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 326. 1841, *American Journal of Science and Arts* 45: 43, 45. 1843, *Fl. New York* 2: 442. 1843, *Magazine of horticulture, botany and all useful discoveries and improvements in rural affairs* 9(4): 143. 1843, *A Class-book of Botany* 774. 1861, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 90, 334. 1862, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York City* 68. 1888, *Proceedings of the Portland Society of Natural History* 2: 91. 1895 and *Report of the Michigan Academy of Science, Arts and Letters* 6: 203. 1904, *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 44, t. 28, f. 1. 1905, *Contributions from the United States National Herbarium* 13(3): 56. 1910, *American Midland Naturalist* 7(4-5): 126. 1921, *Rhodora* 35: 207, 209-211, pl. 246, f. 1-2. 1933, *Papers of the Michigan Academy of Science, Arts and Letters* 23: 125. 1938, *Proceedings of the Biological Society of Washington* 54: 45. 1941, *Acta Universitatis Lundensis* n.s 38: 156, map 111 b. 1942, *The*

*Grasses of North Carolina* 82. 1948, *Phytologia* 4(1): 21. 1952, *The Flora of Canada* 1: 51. 1978, *Phytologia* 52(1): 11. 1982.

in English: rough bentgrass, rough bent, fly-away grass, ticklegrass, hairgrass, winter bentgrass

in Japan: ezonukabo

**A. scabrifolia** Swallen

Colombia. Páramos, see *Contributions from the United States National Herbarium* 29(6): 264. 1948 [1949].

**A. scabriglumis** Boiss. & Reut. (*Agrostis alba* subsp. *scabriglumis* (Boiss. & Reut.) Asch. & Graebn. ex Maire; *Agrostis alba* var. *scabriglumis* (Boiss. & Reut.) Boiss.; *Agrostis stolonifera* subsp. *scabriglumis* (Boiss. & Reut.) Maire)

Europe, Algeria. See *Pugillus Plantarum Novarum Africae Borealis Hispaniaeque Australis* 125. 1852, *Flora Orientalis* 5: 514. 1884, *Bulletin de la Société Botanique de France* 32(sér. 2) 7: 395. 1885 and *Mémoires de la Société d'Histoire Naturelle de l'Afrique du Nord* 3: 64. 1933, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 34: 140. 1943.

**A. schaffneri** E. Fourn. (*Agrostis schaffneri* E. Fourn. ex Hemsl.; *Agrostis tacubayensis* E. Fourn. ex Hemsl.; *Agrostis tacubayensis* E. Fourn.)

North America, Mexico. See *Biologia Centrali-Americana; ... Botany ...* 3: 551. 1885, *Mexicanas Plantas* 2: 94-95. 1886.

**A. schimperiana** Steud. (*Agrostis hirtella* Steud.; *Agrostis schimperiana* Hochst. ex Steud.; *Agrostis schimperiana* Hochst. ex A. Rich.; *Polypogon schimperianus* (Hochst. ex Steud.) Cope)

Yemen. Perennial, loosely tufted, sometimes stoloniferous or rhizomatous, open panicle, lemmas 5-nerved glabrous, similar or virtually identical to *Agrostis lachnantha* Nees, found in marsh and wet places, mountain springs, often in *Polypogon*, see *Tentamen Florae Abyssinicae ...* 2: 400. 1850, *Synopsis Plantarum Glumacearum* 1: 170, 173. 1854, *Abhandlungen der Königlichen Akademie der Wissenschaften in Berlin* 58. 1894 and *Annuario del Reale Istituto Botanico di Roma* 8(1): 52. 1903, *Grass. Saudi Arabia* 132. 1989, *Kew Bulletin* 50(1): 116. 1995.

**A. schlechteri** Rendle (*Lachnagrostis schlechteri* (Rendle) Rúgolo & A.M. Molina) (dedicated to the German botanist Friedrich Richard Rudolf Schlechter, 1872-1925, traveler, plant collector and orchidologist, student of Engler, assistant to Harry Bolus (1834-1911), in 1899-1900 leader of the German West Africa Rubber Expedition, from 1921 to 1925 Curator at Berlin-Dahlem, his writings include *Die Orchideen; ihre Beschreibung, Kultur und Züchtung*. Berlin 1914-1915, *West Afrikanische Kautschuk-Expedition*. Berlin 1910 and *Die Guttapercha-und Kautschuk-Expedition*. Berlin 1911. See J.H. Barnhart, *Biographical notes upon*

*botanists*. 3: 228. 1965; Ludwig E. Theodor Loesener, *Notizbl. Bot. Gart. Berl.* 9: 912-948. 1926; Anthonius Josephus Maria Leeuwenberg, "Isotypes of which holotypes were destroyed in Berlin." *Webbia*. 19: 861-863. 1965; René Letouzey (1918-1989), "Les botanistes au Cameroun." in *Flore du Cameroun*. 7: 1-110. Paris 1968)

South Africa. Annual, panicle open, lemmas glabrous, grows in mountain, wet places, see *Journal of Botany, British and Foreign* 37(441): 380. 1899 and *La Botánica en el Nuevo Milenio: Memorias del Tercer Congreso Ecuatoriano de Botánica* 29. 2002.

**A. schmidianus** A. Camus

Europe. See *Bulletin du Muséum d'Histoire Naturelle sér.* 2 29: 187. 1957.

**A. schmidii** (Hook.f.) C.E.C. Fisch. (*Agrostis schmidii* (Hook.f.) Bor, nom. illeg., non *Agrostis schmidii* (Hook.f.) C.E.C. Fisch.; *Calamagrostis schmidii* Hook.f.)

India, Tamil Nadu. Indeterminate species, woody rootstock, leaf blades contracted at the base into a rigid petiole, see *Fl. Brit. India* 7: 264. 1897 and *Flora of the Presidency of Madras Part 10*: 1810. 1934, *Grasses of Burma, Ceylon, India and Pakistan* 389. 1960.

**A. sclerophylla** C.E. Hubb. (*Agrostis alpicola* Hochst.; *Sporobolus alpicola* Hochst. ex A. Rich.; *Vilfa alpicola* Steud.)

Ethiopia, Kenya. Perennial, compact, low and cushion-forming, leaf blades stiff and tough, leaf sheaths closely imbricate, erect panicle, glumes lanceolate-oblong, lemma 5-nerved, among rocks, mountains, see *Tentamen Florae Abyssinicae ...* 2: 395. 1850, *Synopsis Plantarum Glumacearum* 1: 154. 1854, *Flora* 38: 284. 1855 and *Bulletin of Miscellaneous Information Kew* 1936(5): 310. 1936.

**A. serranoi** Phil. (*Agrostis delfini* Phil.; *Agrostis fuegiana* Hack.; *Agrostis oligoclada* Phil.; *Agrostis vaginata* Phil., nom. illeg., non *Agrostis vaginata* Steud.) (for F. Torres Delfin, 1852-1904, Chilean botanist)

Chile. See *Anales de la Universidad de Chile* 94: 15. 1896 and *Svenska Expeditionen till Magellansländer* 3(5): 220. 1900.

**A. sikkimensis** Bor (*Agrostis divaricata* Hoffm.; *Agrostis divaricata* Griseb., nom. illeg., non *Agrostis divaricata* Hoffm.; *Vilfa divaricata* (Hoffm.) Gray)

India, West Bengal, Sikkim. Alpine grass, dwarf, slender, glumes unequal, lower glume acute to acuminate, palea minute, grows on hilly slopes, moist places, along riverbanks, see *Flora Germanica*, edition 2, 1: 37. 1800, *A Natural Arrangement of British Plants* 2: 146. 1821, *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Mathematisch-physikalische Klasse* 1868: 81. 1868 and *Kew Bulletin* 502. 1954.

**A. stolonifera** L. (*Agrostis adscendens* Lange; *Agrostis alba* sensu Alston, non L.; *Agrostis alba* auct., non L.; *Agrostis*

*alba* L.; *Agrostis alba* f. *maritima* (Lam.) Parl.; *Agrostis alba* auct., non L. subsp. *alba* var. *alba*; *Agrostis alba* subsp. *filifolia* (Link) Henriq.; *Agrostis alba* subsp. *patula* (Gaudin) Arcang.; *Agrostis alba* auct., non L. subsp. *stolonifera* (L.) V. Jirásek; *Agrostis alba* subsp. *stolonifera* (L.) V. Jirásek; *Agrostis alba* subsp. *stolonizans* (Besser ex Schult. & Schult.f.) Lavrenko; *Agrostis alba* subvar. *coarctata* (Ehrh. ex Hoffm.) Blytt; *Agrostis alba* var. *albida* (Trin.) Griseb.; *Agrostis alba* var. *coarctata* (Ehrh. ex Hoffm.) Cosson & Germ.; *Agrostis alba* var. *compacta* Hartm.; *Agrostis alba* var. *palustris* (Huds.) Persoon; *Agrostis alba* var. *patula* (Gaudin) Gaudin; *Agrostis alba* var. *stolonifera* (L.) Sm.; *Agrostis alba* var. *straminea* (Hartm.) Richter; *Agrostis albida* Trin.; *Agrostis ambigua* Roem. & Schult.; *Agrostis aspera* Weber; *Agrostis brevis* Knapp; *Agrostis bryoides* Dumort.; *Agrostis caespitosa* Gaudich. ex Mirb., nom. illeg., non *Agrostis caespitosa* (L.) Salisb.; *Agrostis caespitosa* Gaudich., nom. illeg., non *Agrostis caespitosa* (L.) Salisb.; *Agrostis capillaris* Pollich, non L.; *Agrostis capillaris* var. *stolonifera* (L.) Druce; *Agrostis coarctata* Ehrh. ex Hoffm.; *Agrostis decumbens* Hall. f. ex Gaudin, nom. illeg., non *Agrostis decumbens* Host; *Agrostis densissima* Druce; *Agrostis depressa* Vasey; *Agrostis dulcis* (Pers.) Sibth. ex Kunth; *Agrostis eliasii* Sennen; *Agrostis filifolia* Link; *Agrostis flava* O.F. Müll.; *Agrostis gaditana* (Boiss. & Reut.) Nyman; *Agrostis glaucescens* (C. Presl) Spreng.; *Agrostis jacutica* Schischkin; *Agrostis karsensis* Litv.; *Agrostis macrantha* Schischkin; *Agrostis maritima* Lam.; *Agrostis maritima* With.; *Agrostis mutabilis* Knapp, nom. illeg., non *Agrostis mutabilis* Sibth.; *Agrostis nemoralis* Phil.; *Agrostis palustris* Hudson; *Agrostis patula* Gaudin; *Agrostis polymorpha* Huds.; *Agrostis polymorpha* var. *palustris* (Huds.) Huds.; *Agrostis polymorpha* var. *stolonifera* (L.) Huds.; *Agrostis prorepens* (W.D.J. Koch) G. Mey. ex Asch.; *Agrostis prorepens* (W.D.J. Koch) Rouy; *Agrostis prostrata* Hook.f.; *Agrostis pseudoalba* Klokov; *Agrostis reptans* Rydb.; *Agrostis scabriglumis* Boiss. & Reut.; *Agrostis sibirica* Petrov; *Agrostis sicala* Kunth; *Agrostis sinaica* Boiss.; *Agrostis stolonifera* Leers, nom. illeg., non *Agrostis stolonifera* L.; *Agrostis stolonifera* subsp. *albida* (Trin.) Tzvelev; *Agrostis stolonifera* subsp. *palustris* (Huds.) Tzvelev; *Agrostis stolonifera* subsp. *straminea* (Hartm.) Tzvelev; *Agrostis stolonifera* var. *compacta* Hartman; *Agrostis stolonifera* var. *maritima* (Lam.) W.D.J. Koch; *Agrostis stolonifera* var. *palustris* (Hudson) Farwell; *Agrostis stolonifera* var. *prorepens* W.D.J. Koch; *Agrostis stolonizans* Besser; *Agrostis stolonizans* Besser ex Schult. & Schult.f.; *Agrostis straminea* Hartm.; *Agrostis tenuis* var. *stolonifera* (L.) Podp.; *Agrostis vulgaris* var. *stolonifera* (L.) G. Mey.; *Agrostis vulgaris* var. *stolonifera* (L.) W.D.J. Koch; *Agrostis wightii* Nees ex Steud.; *Agrostis zerovii* Klokov; *Apera palustris* (Huds.) Gray; *Decandolia stolonifera* (L.) Bastard; *Milium maritimum* (Lam.) Clem. & Rubic; *Milium stoloniferum* (L.) Lag.; *Sporobolus gaudichaudii* (Steudel) Albov; *Vilfa coarctata* (Ehrh. ex Hoffm.) P. Beauv.; *Vilfa*

*glaucescens* C. Presl; *Vilfa maritima* (Lam.) P. Beauv.; *Vilfa stolonifera* (L.) P. Beauv.)

Europe, exact native range obscure. Perennial, variable, sometimes loosely or densely tufted, leafy stolons, mat-forming, small size, low-growing and trailing, slender, culms ascendant and decumbent, base prostrate, sometimes rooting from the lower nodes, auricles absent, leaf sheath smooth or scabrid, basal leaf sheaths not keeled, ligule rounded obtuse and membranous, leaves rolled and then flat, inflorescence of chasmogamous spikelets, loose panicle contracted after flowering, spikelets clustered and lanceolate, glumes acute more or less equal or unequal, glabrous lemmas unawned and oblong, palea present, small seeds, fodder grass, forage, palatable, cultivated, ornamental, weed species widely naturalized elsewhere, pioneer species, tolerates cold and shade, resistant to salt-spray, turf grass mixtures, suitable for lawns and golf courses, pasture grass, useful for erosion control, recommended for marshlands and moist pastures, found in wet meadows and wasteland, disturbed sites, in boggy places, on sand, along roadsides and in ditches, grassy roadsides, open habitats, prairies, forest openings, lawns, on riverbanks, margins of marsh, seepage areas, stream and lake margins, fresh to wet soils, shores, in salt marshes, shallow water, closely related to and difficult to separate from *Agrostis gigantea* Roth and *Agrostis capillaris* L., hybridizes with *Agrostis capillaris* L., see *Species Plantarum* 1: 62-63. 1753, *Flora Anglica* 27. 1762, *Flora Anglica, Editio Altera* 1: 31-32. 1778, *Encyclopédie Méthodique, Botanique* 1: 61. 1783, *Supplemento Florae Holsaticae* 6: 4. 1787, *Journal für die Botanik* 2: 313. 1789, *Deutschland Flora* 1: 37. 1800, *Gramina Britannica*; or representations of the British grasses pl. 28, 116. London 1804, *Synopsis Plantarum* 1: 75-76. 1805, *Alpina* 3: 14. 1808, *Essai sur la Flore du Département de Maine et Loire* 29. 1809, *Agrostologia Helvetica, definitionem ...* 1: 78. 1811, *Essai d'une Nouvelle Agrostographie* 16, 147-148, 181-182. 1812, *Elenchus Plantarum Novarum* 10. 1816, *Systema Vegetabilium* 2: 352. 1817, *Genera Graminum in Scandinavia indigenorum recognita* 4. Upsaliae 1819, *Cyperaceae et Gramineae Siculae* 23. Pragae 1820, *A Natural Arrangement of British Plants* 2: 148. 1821, *English Flora* 1: 93. 1824, *Systema Vegetabilium, editio decima sexta* 1: 258. 1825, *Fl. Belg.* 152. 1827, *Mantissa* 3 (add .1): 562. 1827, *Flora Helvetica* 1: 188. 1828, *Révision des Graminées* 1: 71. 1829, *Voyage autour du Monde, entrepris par Ordre du Roi, ... exécuté sur les Corvettes de S. M. l'Uranie et la Physicienne ... Botanique* 407. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 218. 1833, *Chloris Hanoverana* 657. 1836, *Synopsis der Deutschen und Schweizer Flora, ...* 781-782. 1837, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 344. 1841, *Handbok i Skandinavien Flora* 24. 1843,

*Synopsis Florae Germanicae et Helveticae* (edition 2) 902. 1843, *Flora Antarctica* 2: 373. 1846, *Norsk Flora* 149. 1847, *Flora italiana, ossia descrizione delle piante ...* 1: 181. 1848, *Flora Rossica* 4(13): 437. 1852, *Diagnoses plantarum orientalium novarum* 2(13): 46. 1854, *Synopsis Plantarum Glumacearum* 1: 168. 1854, *Linnaea* 30(2): 205. 1859, *Flore Descriptive et Analytique des Environs de Paris* éd. 2 797. 1861, *Flora der Provinz Brandenburg* 1: 819. 1864, *Compendio della Flora Italiana* 768. 1883, *Bulletin of the Torrey Botanical Club* 13: 54. 1886, *Plantae Europaeae* 1: 43. 1890 and *Boletim da Sociedade Broteriana* 20: 43. 1905, *Flore de France* 14: 61. 1913, *Report. Botanical Exchange Club. London.* 1913: 343. 1914, *Sched. Herb. Fl. Ross.* 8: 147. 1917, *Flora of the Rocky Mountains* 54. 1917, *Annual Report of the Michigan Academy of Science, Arts and Letters* 21: 351. 1919 [1920], *List of British Plants* edition 2 126. 1928, *Flora Iakutiae* 1: 175, f. 57. 1930, *Handb. Fl. Ceylon* 6: 337. 1931, *Flora URSS* 2: 177, 179, 746-747. 1934, *Grasses of Ceylon* 61. 1956, *Grasses of Burma ...* 390. 1960, *Willdenowia* 5: 480-481. 1969, *Fl. Fenn.* 5: 1. 1971, *Novosti Sist. Vyss. Rast.* 8: 58. 1971, *Taxon* 31(1): 71. 1982, S.Y. Park et al., "Heat-shock response in heat-tolerant and nontolerant variants of *Agrostis palustris* Huds." *Plant Physiology* 111: 515-524. 1996, S.A. Heckathorn et al., "In vivo evidence from an *Agrostis stolonifera* selection genotype that chloroplast small heat-shock proteins can protect photosystem II during heat stress." *Functional Plant Biology* 29(8): 933-944. 2002, A. MacLeod, S.D. Wratten, N.W. Sotherton and M.B. Thomas, "Beetle banks as refuges for beneficial arthropods in farmland: long-term changes in predator communities and habitat." *Agricultural and Forest Entomology* 6(2): 147-154. May 2004.

in English: redtop bent grass, creeping bent grass, creeping bent, spreading bent, marsh bent, fiorin, redtop, carpet bent-grass, bentgrass

in French: agrostis stolonifère, agrostide stolonifère, agrostis à stolons

in Spanish: agróstide estolonífera

in Mexico: castillitos, nombre de Dios, zacate de piedras castillitos, zacate de piedras quilla

in German: Flechtstraubgras

*A. stolonifera* L. var. *palustris* (Huds.) Farw. (*Agrostis alba* var. *decumbens* Eaton & Wright, nom. illeg., non *Agrostis alba* var. *decumbens* Gaudin; *Agrostis alba* var. *palustris* (Huds.) Pers.; *Agrostis densissima* Druce; *Agrostis exarata* var. *stolonifera* Vasey; *Agrostis mutabilis* Knapp, nom. illeg., non *Agrostis mutabilis* Sibth.; *Agrostis palustris* Huds.; *Agrostis palustris* var. *palustris*; *Agrostis polymorpha* var. *palustris* (Huds.) Huds.; *Agrostis stolonifera* subsp. *palustris* (Huds.) Tzvelev; *Agrostis stolonifera* var. *latifolia* G. Sinclair; *Apera palustris* (Huds.) Gray)

Russia, Europe. Perennial, decumbent, low-growing, stoloniferous, leafy, dark green, fine-textured, panicle contracted, useful for erosion control, resistant to cold and heat and shade and saline soil, exact native range obscure, ornamental widely cultivated and naturalized, recommended for putting greens, common on golf courses, lawns, grows in bottomlands, in marshy places, see *Species Plantarum* 1: 63. 1753, *Flora Anglica* 27. 1762, *Flora Anglica, Editio Altera* 1: 31-32. 1778, *Gramina Britannica*; or representations of the British grasses pl. 28. 1804, *Synopsis Plantarum* 1: 76. 1805, *Hortus gramineus Woburnensis* 112. London 1816, *A Natural Arrangement of British Plants* 2: 148. 1821, *De Graminibus unifloris et sesquifloris* 207. 1824, *A Manual of Botany* 117. 1840, *Bulletin of the Torrey Botanical Club* 13: 54. 1886 and *Report. Botanical Exchange Club. London.* 1913: 343. 1914, *Annual Report of the Michigan Academy of Science, Arts and Letters* 21: 351. 1919 [1920], *Novosti Sist. Vyss. Rast.* 8: 58. 1971, *Flora Patagónica* 8(3): 369-394. 1978.

in English: creeping bent grass, creeping bent, marsh bent

*A. stolonifera* L. var. *ramosa* (Gray) Veldkamp

Malaysia. Perennial, branched, stoloniferous, in disturbed areas, grassy places, see *Blumea* 28: 223. 1982.

*A. stolonifera* L. var. *stolonifera* (*Agrostis alba* L.; *Agrostis alba* f. *maritima* (Lam.) Parl.; *Agrostis alba* f. *natans* Glück; *Agrostis alba* subsp. *decumbens* (Gaudin) Arcang.; *Agrostis alba* subsp. *filifolia* (Link) Henriq.; *Agrostis alba* subsp. *maritima* (Lam.) P. Fourn.; *Agrostis alba* subsp. *stolonifera* (L.) V. Jirásek; *Agrostis alba* subvar. *decumbens* (Gaudin) Meyer; *Agrostis alba* var. *albida* (Trin.) Griseb.; *Agrostis alba* var. *condensata* Hack. ex Druce; *Agrostis alba* var. *conferta* Pauquy; *Agrostis alba* var. *decumbens* Gaudin; *Agrostis alba* var. *densiflora* Guss.; *Agrostis alba* var. *foucaudi* Husn.; *Agrostis alba* var. *glaucescens* Woods; *Agrostis alba* var. *maritima* (Lam.) G. Mey.; *Agrostis alba* var. *pallida* Spenner; *Agrostis alba* var. *patula* (Gaudin) Gaudin; *Agrostis alba* var. *pontica* Grecescu; *Agrostis alba* var. *stolonifera* (L.) Sm.; *Agrostis alba* var. *straminea* Woods; *Agrostis alba* var. *sylvatica* (Huds.) Sm.; *Agrostis decumbens* Gaudin ex Muhl., nom. illeg., non *Agrostis decumbens* Host; *Agrostis decumbens* Hall. f. ex Gaudin, nom. illeg., non *Agrostis decumbens* Host; *Agrostis dulcis* (Pers.) Sibth. ex Kunth; *Agrostis maritima* Lam.; *Agrostis maritima* var. *clementei* Willk. & Lange; *Agrostis nemoralis* Phil.; *Agrostis palustris* var. *stolonifera* (L.) Druce; *Agrostis patula* Gaudin; *Agrostis polymorpha* Huds.; *Agrostis polymorpha* var. *stolonifera* (L.) Huds.; *Agrostis polymorpha* var. *sylvatica* (Huds.) Huds.; *Agrostis prorepens* (W.D.J. Koch) G. Mey. ex Asch.; *Agrostis prorepens* (W.D.J. Koch) Rouy; *Agrostis prostrata* Hook.f.; *Agrostis stolonifera* L.; *Agrostis stolonifera* subsp. *maritima* (Lam.) Vasc.; *Agrostis stolonifera* var. *alba* Lilj.; *Agrostis stolonifera* var. *angustifolia* Sincl.; *Agrostis stolonifera* var. *bottnica* Hyl.; *Agrostis stolonifera* var.

*decumbens* Retz.; *Agrostis stolonifera* var. *decumbens* Lilj., nom. illeg., non *Agrostis stolonifera* var. *decumbens* Retz.; *Agrostis stolonifera* var. *dulcis* Pers.; *Agrostis stolonifera* var. *effusa* Meinsh.; *Agrostis stolonifera* var. *maritima* (Lam.) W.D.J. Koch; *Agrostis stolonifera* var. *maritima* Hartm.; *Agrostis stolonifera* var. *patula* (Gaudin) Rchb.; *Agrostis stolonifera* var. *prorepens* W.D.J. Koch; *Agrostis stolonifera* var. *pumila* Peterm.; *Agrostis stolonifera* var. *straminea* (Hartm.) Hartm.; *Agrostis stolonifera* var. *tenuis* Heuff.; *Agrostis stolonifera* var. *viridula* Andersson; *Agrostis stolonifera* var. *vulgaris* Heuff.; *Agrostis straminea* Hartm.; *Agrostis sylvatica* Huds.; *Vilfa maritima* (Lam.) P. Beauv.)

Eurasia. Perennial, stoloniferous, open panicle pyramidal, important fodder grass, boggy spots, open dry fields, along roadsides, on limestone, alkaline soils, see *Species Plantarum* 1: 62-63. 1753, *Flora Anglica* 28. 1762, *Flora Anglica, Editio Altera* 1: 31-32. 1778, *Florae Scandinaviae prodromus: enumerans plantas Sveciae, Lapponiae, Finlandiae et Pomeraniae ac Daniae, Norvegiae, Holsatiae, Islandiae Groenlandiaeque* (edition 1) 14. Holmiae [Stockholm] 1779, *Encyclopédie Méthodique, Botanique* 1: 61. 1783, *Journal für die Botanik* 2: 313. 1789, *Synopsis Plantarum* 1: 75. 1805, *Alpina* 3: 14. 1808, *Agrostologia Helvetica*, definitionem descriptionemque graminum et plantarum eis affinium in Helvetia sponte nascentium complectens 1: 78. Paris, Genève 1811, *Essai d'une Nouvelle Agrostographie* 16, 148, 181. 1812, *Hortus gramineus Woburnensis* 112, 234. London 1816, *Descriptio uberior Graminum* 68. 1817, *Genera graminum in Scandinavia indigenorum cognita* 4. Upsaliae 1819, *Hannoversches Magazin* 1823: 134, 138. 1824, *English Flora* 1: 93. 1824, *Flora Friburgensis et regionum proxime adjacentum ...* 1: 94. Friburgi Brisgoviae 1825, *Flora Helvetica* 1: 187-188. 1828, *Flora Germanica Excursoria* 26. 1830, *Suppl. Florae siculae prodromus* 1: 15. Napoli 1832, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 218. 1833, *Synopsis der Deutschen und Schweizer Flora, ...* 781. 1837, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 344. 1841, *Synopsis Florae Germanicae et Helveticae* (edition 2) 902. 1843, *Flora Antarctica* 2: 373. 1846, *Flora italiana, ossia descrizione delle piante ...* 1: 181. 1848, *The Tourist's Flora* 40, 400. London 1850, *Flora Rossica* 4(13): 437. 1852, *Plantae Scandinaviae Descriptionibus et Figuris analyticis Adumbratae. Fasciculus Secundus Gramineae Scandinaviae ...* [other title page: *Gramineae Scandinaviae* in Dania, Suecia, Norvegia et Fennia sponte crescentes, descriptae et delineatae] 93. Stockholm 1852, *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien* 8: 225-226. 1858, *Linnaea* 30(2): 205. 1859, *Prodromus Florae Hispanicae* 1: 52. 1861, *Flora ingrifica* 460. St. Petersburg 1878 [the *Flora ingrifica* deals

with the flora of Ingermanland, the former province of St. Petersburg], *Compendio della Flora Italiana* 768. 1883, *Synopsis der mitteleuropäischen Flora* 2(1): 174. 1899 and *Boletim da Sociedade Broteriana* 20: 43. 1905, *Report. Botanical Exchange Club. London*. 1913: 343. 1914, *The Flora of Oxfordshire (edition 2)* 473. 1927, *Taxon* 22: 388-389. 1973.

in English: fiorin, white bent

**A. subpatens** Hitchc. (*Agrostis vinosa* Swallen)

Costa Rica, Guatemala. Perennial, caespitose, erect, leaves mostly basal, forage, found in dry rocky soil, in disturbed sites, alpine meadows, see *North American Flora* 17(7): 527. 1937, *Contributions from the United States National Herbarium* 29(9): 402. 1950.

**A. subrepens** (Hitchc.) Hitchc. (*Agrostis hiemalis* var. *subrepens* Hitchc.; *Agrostis hyemalis* var. *subrepens* Hitchc.)

North America, Mexico. See *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 44. 1905, *North American Flora* 17(7): 525. 1937.

**A. subulata** Hook.f

New Zealand. Perennial, alpine, tufted, prostrate to erect, leaf blade ribbed and inrolled, leaf sheath ribbed, ligule denticulate, spike-like contracted oblong panicles, glumes subequal, usually awnless, see *Flora Antarctica* 1: 95, t. 53. 1845[ante] and *Bot. Not.* 113: 185-191. 1960, *New Zealand J. Bot.* 21: 13-20. 1983, *New Zealand Journal of Botany* 29: 101-116, 139-161. 1991.

**A. subulifolia** Stapf

South Africa. Annual or perennial, delicate, tufted, leaf blade folded, ligule a membrane unfringed, panicle open to contracted, lemmas glabrous, grows in mountain, wet places, bogs, marshy places, see *Bulletin of Miscellaneous Information Kew* 1910: 130. 1910.

in South Africa: jwang ba phororo (= grass of the waterfall), mathubisa a dibata

**A. tandilensis** (Kuntze) Parodi (*Agrostis hygrometrica* Nees var. *tandilensis* (Kuntze) L.B. Sm. & Wassh.; *Agrostis kennedyana* Beetle; *Agrostis koelerioides* var. *pampeana* Parodi; *Bromidium hygrometricum* (Nees) Nees & Meyen; *Bromidium hygrometricum* var. *tandilense* Kuntze; *Bromidium tandilense* (Kuntze) Rúgolo; *Deyeuxia hygrometrica* var. *tandilense* (Kuntze) Speg.)

Argentina. Annual, leaf blades flat and inrolled, dense inflorescence cylindrical, lemma awned below middle, lemma tip 4-toothed, awns bent, palea absent, vernal pools, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 404. 1829, *Gramineae* 23. 1841, *Flora Chilena* 6: 317. 1854, *Revisio Generum Plantarum* 3(3): 343. 1898 and *Contribución al Estudio de la Flora del Tandil* 54. La Plata & Buenos Aires 1901, *Revista de la Facultad de Agronomía y Veterinaria* 7: 161, f. 10D. 1930, *Darwiniana* 6: 158. 1943, *Bulletin of the Torrey Botanical Club* 72(6): 547, f. 6. 1945, *Manual*



of the Grasses of the United States (edition 2, revised by A. Chase) 1951, *Bradea*, *Boletim do Herbarium Bradeanum* 2(35): 244. 1978, *Darwiniana* 24(1-4): 202. 1982.

in English: Kennedy's bent, Kennedy's bentgrass

**A. tateyamensis** Tateoka

Asia, Japan. See *Botanical Magazine* (Tokyo) 88(1010): 65-87. 1975.

in Japan: tateyamanukabo

**A. tenerrima** Trin. (*Agrostis elegans* Thore ex R.J. Loisel, nom. illeg., non *Agrostis elegans* (Walter) Salisb.; *Neoschischkinia elegans* Tzvelev)

West Mediterranean. Annual, tufted, flimsy, leaves linear, branched panicles, awns absent, see *Prodr. Stirp. Chap. Allerton* 25. 1796, *Journal de Botanique, rédigé par une société de botanistes* 2: 207, t. 8. 1809 [Desvaux], *De Graminibus unifloris et sesquifloris* 205. 1824 and *Bot. Zhurn. (Moscow & Leningrad)* 53: 309. 1968, *Anales del Jardín Botánico de Madrid* 45: 273. 1988, *Boletim da Sociedade Broteriana, ser. 2* 61: 81-104. 1988, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66. 1990, *Taxon* 45: 100. 1996.

**A. tenuifolia** Curtis (*Agrostis canina* L.; *Agrostis canina* var. *tenuifolia* (M. Bieb.) Boiss.; *Agrostis tenuifolia* M. Bieb., nom. illeg., non *Agrostis tenuifolia* Curtis; *Agrostis vinealis* Schreb.)

Eurasia, Asia. See *Species Plantarum* 1: 61-63. 1753, *Spicilegium Florae Lipsicae* 47. Lipsiae 1771, *Enumeration British Grasses* 42. London 1787, *Flora Taurico-Caucasica* 1: 56. 1808, *Flora Antarctica* 2: 372. 1846, *Flora Rossica* 4(13): 441. 1852, *Flora Orientalis* 5: 516. 1884 and *Taxon* 41: 556. 1992.

**A. tenuis** Sibth. (*Agrostis alba* var. *minor* Vasey; *Agrostis alba* var. *sylvatica* (Huds.) Sm.; *Agrostis alba* var. *tenuis* (Sibth.) Fiori; *Agrostis alba* var. *vulgaris* (With.) Coss. & Durieu, nom. illeg., non *Agrostis alba* var. *vulgaris* G. Mey.; *Agrostis alba* var. *vulgaris* (With.) Plues, nom. illeg., non *Agrostis alba* var. *vulgaris* G. Mey.; *Agrostis capillaris* L.; *Agrostis capillaris* Huds., nom. illeg., non *Agrostis capillaris* L.; *Agrostis hispida* Willd.; *Agrostis lithuanica* Besser ex Roem. & Schult.; *Agrostis stolonifera* var. *hispida* (Willd.) Farw.; *Agrostis stolonifera* var. *minor* (Vasey) Farw., nom. illeg., non *Agrostis stolonifera* var. *minor* Meinsh.; *Agrostis stolonifera* var. *vulgaris* (With.) Celak.; *Agrostis sylvatica* Huds.; *Agrostis vulgaris* With.; *Agrostis vulgaris* var. *hispida* (Willd.) G. Mey.; *Agrostis vulgaris* var. *plena* G. Mey.; *Decandolia vulgaris* (With.) Bastard; *Vilfa vulgaris* (With.) P. Beauv.; *Vilfa vulgaris* (With.) Gray, nom. illeg., non *Vilfa vulgaris* (With.) P. Beauv.)

North America, Europe, northern Asia. Stout, rhizomatous, lemma equal the glumes, used for lawns and cricket pitches, grows on dry soils, fields, waste places, see *Species Plantarum* 1: 61-63. 1753, *Flora Anglica* edition 2: 27-28. 1762,

*Flora Oxoniensis* 36. 1794, *Species Plantarum. Editio quarta* 1: 370. 1797, Toussaint Bastard [Batard] (1784-1846), *Essai sur la Flore du Département de Maine et Loire* 28. Angers 1809, *Essai d'une Nouvelle Agrostographie* 16, t. 5, f. 8. 1812, Samuel Frederick Gray (1766-1828), *A natural arrangement of British plants*, according to their relations to each other as pointed out by Jussieu, De Candolle, Brown, & c. ... With an introduction to botany ... London 1821, *English Flora* 1: 93. 1824, *Hannoversches Magazin* (ser. II) 1823: 140. 1824, *Mantissa* 3(Add. 1): 586. 1827, Georg Friedrich Wilhelm Meyer (1782-1856), *Flora des Königreichs Hannover*, etc. Göttingen, 1842-1854, *Exploration Scientifique de l'Algérie* 2: 63. 1855, *Brit. Grasses* 151. 1867, *Prodromus der Flora von Böhmen* 710. 1881, *Contributions from the United States National Herbarium* 3(1): 78. 1892 and *Report of the Michigan Academy of Science, Arts and Letters* 6: 202. 1904, *Rep. Michigan Acad. Sci.* 1919: 351. 1920, *Nuova Flora Analitica d'Italia* 1: 97. 1923, *Turun yliopiston julkaisu - Annales Universitatis Turkuensis, Sarja A II, Biologia-Geographica* 3: 1-12. 1982 [also *Ann. Univ. Fenn. Abo.*, A 3: 1-12. 1982], *Bot. Zhurn.* 72: 1069-1074. 1987, *Bot. Zhurn. (Moscow & Leningrad)* 75: 1185. 1990, *Bot. Zhurn. (Moscow & Leningrad)* 78(4): 36-47. 1993.

in English: New Zealand bent, colonial bent, common bent, fine bent, brown top

**A. thurberiana** A.S. Hitchc. (*Agrostis atrata* Rydb.; *Agrostis hillebrandii* Thurb. ex Bol.; *Podagrostis thurberiana* (Hitchc.) Hultén) (after George Thurber, 1821-1890, American botanist, naturalist and botanical collector, author and editor; see Joseph Ewan, *Rocky Mountain Naturalists*. 64, 321. The University of Denver Press 1950; J.H. Barnhart, *Biographical notes upon botanists*. 3: 382. 1965; J. Ewan, editor, *A Short History of Botany in the United States*. 45. New York and London 1969; Stafleu and Cowan, *Taxonomic literature*. 6: 334-335. 1986; Irving William Knobloch, compiled by, "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs*. VI. Plainfield, N.J. 1983) (Latin *atratus, a, um* "blackened")

California, Montana, Alaska, Sierra Nevada. Perennial, sometimes rhizomatous, leaf blades flat, oblong inflorescence more or less open, lemma awnless, found in wet places, heavy soils, coniferous forest, intergrades with *Agrostis humilis* Vasey, see *Transactions of the California State Agricultural Society* 1864-5: 136. 1866 and *U.S. Department of Agriculture Bureau of Plant Industry Bulletin* 68: 23, t. 1, f. 1. 1905, *Bulletin of the Torrey Botanical Club* 36: 531. 1909, *Flora of the Aleutian Islands* 75. 1937.

in English: Thurber bent grass, Thurber redtop, Thurber bent, Thurber's bentgrass

**A. toluensis** Kunth (*Agrostis araucana* Phil.; *Agrostis glomerata* (J. Presl) Kunth; *Agrostis hoffmannii* Mez; *Agrostis nana* var. *aristata* Griseb.; *Agrostis nigritella* Pilg.;

*Agrostis toluensis* Willd. ex Steud.; *Agrostis virescens* Kunth; *Agrostis virescens* var. *pumila* Rupr.; *Vilfa glomerata* J. Presl (Mexico, Toluca)

Southern America, Mexico, Peru, Guatemala, Argentina, Bolivia. Perennial bunchgrass, alpine, herbaceous, open, tufted, bluish green stiff foliage, acute to truncate ligule hyaline or opaque, leaves erect to spreading, green to purplish erect inflorescence, forage, growing in or near rocky places, moist areas, grassland, cliffs, hollows and depressions, marshy sites, see *Nova Genera et Species Plantarum* 1: 135-136. 1815 [1816], *Reliquiae Haenkeanae* 1(4-5): 239. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 219, 226. 1833, *Bulletin de l'Académie Royale des Sciences et Belles-lettres de Bruxelles* 52: 229. 1842, *Synopsis Plantarum Glumacearum* 1: 164. 1854, *Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen* 24: 294. 1879 and *Annuaire du Conservatoire et Jardin Botaniques de Genève* 17: 292. 1914, *Repertorium Specierum Novarum Regni Vegetabilis* 18: 3. 1922, *Brittonia* 23(3): 293-324. 1971.

*A. toluensis* Kunth var. *andicola* (Pilg.) Rúgolo & A.M. Molina (*Agrostis nana* var. *andicola* Pilg.)

South America. Alpine, hummocks forming, see *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1(1): 226. 1833 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 37: 505. 1906, *Parodiiana* 8(2): 142. 1993.

*A. toluensis* Kunth var. *toluensis*

South America.

*A. trachychlaena* C.E. Hubb.

Tristan da Cunha. Rare species, see *Bulletin of the British Museum (Natural History)*, *Botany* 8: 383. 1981.

*A. transcaspica* Litv. (*Agrostis stolonifera* subsp. *transcaspica* (Litv.) Tzvelev)

Temperate Asia. Useful for erosion control, see *Schedae ad herbarium Florae Rossicae*, a Museo botanico Academiae imperialis scientiarum Petropolitanae editum Sanktpeterburg 1898-1911, *Journ. Bot. U.R.S.S.* 28: 245. 1943, *Novosti Sist. Vyss. Rast.* 8: 58. 1971.

*A. triaristata* (Hook.f.) Bor (*Agrostis triaristata* Knapp; *Calamagrostis triplifera* Hook.f.; *Deyeuxia triaristata* Hook.f.; *Deyeuxia tripilifera* (Hook.f.) Keng)

India, West Bengal, Sikkim. Lemma glabrous, growing in open fields, woods, rocky places, see *The Flora of British India* 7(22): 266. 1897 [1896] and *Sunyatsenia* 6(1): 68. 1941, *Grasses of Burma, Ceylon, India and Pakistan* 391. 1960.

*A. trichodes* (Kunth) Roem. & Schult. (*Agrostis bogotensis* Hack.; *Aira trichodes* (Kunth) Spreng.; *Vilfa trichodes* Kunth)

South America. See *Nova Genera et Species Plantarum* 1: 139. 1815 [1816], *Systema Vegetabilium* 2: 361. 1817, *Systema Vegetabilium, editio decima sexta* 1: 276. 1825 and *Repertorium Specierum Novarum Regni Vegetabilis* 8: 518. 1910.

*A. trinii* Turcz. ex M.A. Litv. (*Agrostis canina* subsp. *trinii* (Turcz.) Hultén; *Agrostis coarctata* subsp. *trinii* (Turcz.) H. Scholz; *Agrostis flaccida* subsp. *trinii* (Turcz. ex M.A. Litv.) T. Koyama; *Agrostis flaccida* subsp. *trinii* (Turcz.) T. Koyama; *Agrostis flaccida* var. *trinii* (Turcz.) Ohwi; *Agrostis trinii* Turcz.; *Agrostis vinealis* Schreb.; *Agrostis vinealis* subsp. *trinii* (Turcz. ex M.A. Litv.) Tzvelev; *Agrostis vinealis* subsp. *trinii* (Turcz.) Tzvelev)

Eurasia, Russia, Mongolia. Wet and poorly drained soils, wet meadow area, dark brown soil, alluvial soil, see *Spicilegium Florae Lipsicae* 47. 1771, *Deutschland Flora* 1: 37. 1800, *Flora Baicalensi-Dahurica* seu descriptio plantarum in regionibus cis- et transbaicalensibus atque in Dahuria sponte nascentium Mosquae 1842-1856[-1857], *Bulletin de la Société Impériale des Naturalistes de Moscou* 29(1): 18. 1856, *Bulletin de l'Herbier Boissier* 7(9): 649. 1899 and *J. Fac. Agr. Hokkaido Univ.* 26: 135. 1931, *Botanical Magazine (Tokyo)* 55(656): 353. 1941, *Kongliga Svenska Vetenskapsakademiens Handlingar* 5(Circumpolar): 114. 1962 [also E. Hultén, *The Circumpolar Plants*. I. Vascular cryptogams, conifers and monocotyledons. 1: 114. Stockholm 1962 [Kungl. Svenska Vetenskapsakademiens handlingar. Fjärde Serien. Band 8. Nr 5.]], *Willdenowia* 5(3): 484. 1969, *Novosti Sist. Vyss. Rast.* 8: 60. 1971, *Grasses of Japan and its Neighboring Regions* 484. 1987.

in Japan: kuronukabo

*A. tungnathii* Bhattacharya & S.K. Jain

India, Uttar Pradesh. Lemma hairy and awned, alpine grass, grows in open dry places, see *Bulletin of the Botanical Survey of India* 25(1-4): 204. 1983[1985].

*A. turrialbae* Mez (*Agrostis arcta* Swallen; *Agrostis vesca* Swallen) (Volcan Turrialba was named by early Spanish settlers who called it Torre Alba, or "white tower," for the plumes of smoke that poured from its summit, the volcano is 3,329 meters high and is about 15 minutes from the Atlantic slope town of Turrialba)

Costa Rica, Guatemala. See *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 4. 1922, *Contributions from the United States National Herbarium* 29(9): 405. 1950.

*A. uliginosa* Phil. (*Agrostis paucinodis* Hack.)

Chile. See *Anales de la Universidad de Chile* 27: 323. 1865, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 6: 242. 1885.

*A. umbellata* Colla (*Agrostis canina* var. *umbellata* (Colla) Kuntze; *Agrostis chilensis* Trin.; *Agrostis glabra* Hochst. ex E. Desv.; *Agrostis paradisiaca* Steud.; *Agrostis patens* Trin.;

*Agrostis pusilla* Dumort.; *Agrostis stricta* Trin., nom. illeg., non *Agrostis stricta* J.F. Gmel.; *Agrostis umbellata* Trin., nom. illeg., non *Agrostis umbellata* Colla; *Colpodium pusillum* Nees)

Chile. See *Observations sur les Graminées de la Flore Belgique* 129, t. 10, f. 37. 1823 [1824], *Herbarium Pedemontanum* 6: 18. 1836, *Linnaea* 10(3): 302. 1836, *Flora Africae Australioris Illustrationes Monographicae* 149. 1841, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 322, 342, 370. 1841, *Flora Chilena* 6: 314. 1854, *Synopsis Plantarum Glumacearum* 1: 163. 1854, *Revisio Generum Plantarum* 33: 338. 1898 and *Reports of the Princeton University Expeditions to Patagonia 1896-1899, Botany, Volume viii, Supplement* 8(3): 42. 1914 [1915].

**A. variabilis** Rydb. (*Agrostis michauxii* var. *alpina* Rupr.; *Agrostis varians* Trin., nom. illeg., non *Agrostis varians* Thuill.)

U.S., Alaska, California, Colorado, Canada. Perennial, erect, tuft-forming, sheaths smooth and open, no auricles, flat to folded leaves, leaves mostly basal, ligule with slightly hairy margin, sometimes rhizomatous, inflorescence cylindrical and dense, small spike-like flower head, usually unawned lemma, palea reduced or absent, grows generally in alpine and subalpine environments, meadows, on open ridges, forest, see *Flore Descriptive et Analytique des Environs de Paris* éd. 2 1: 35. 1799, Attilio Zuccagni (1754-1807), *Centuria I: observationum botanicarum ...* [Turici, Zürich 1806], *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 314. 1841, *Bulletin de l'Académie Royale des Sciences et Belles-lettres de Bruxelles* 52: 228. 1842 and *Memoirs of the New York Botanical Garden* 1: 32. 1900. in English: alpine bent, variable bentgrass, mountain bent, mountain bentgrass, mountain redtop

**A. venezuelana** Mez

Venezuela. See *Repertorium Specierum Novarum Regni Vegetabilis* 18(1-3): 4. 1922.

**A. venusta** Trin. (*Agrostis aemula* var. *pumila* F. Muell. ex Hook.f.; *Lachnagrostis willdenowii* Nees non Trin.)

New South Wales, Victoria, Tasmania, New Zealand. Annual, tufted, slender, erect, small, auricles absent, basal leaf sheaths not keeled, ligule obtuse and membranous, leaves narrow and filiform, inflorescence of chasmogamous spikelets, panicle open, lemma awned and glabrous, palea often absent, found in open habitats, damp areas, see *Prodromus Florae Novae Hollandiae* 172. 1810, *Gram. Unifl. Sesquifl.* 217. 1824, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie:*

*Sciences Naturelles* 6,4(3-4): 340. 1841 and *Contr. New South Wales Herb.* 1: 101-119. 1941.

in English: graceful bent

**A. vitalii** Phil. (*Agrostis buchtienii* Hack.) (dedicated to F. Vidal Gormaz)

Southern America, Chile, Argentina. See *Anales de la Universidad de Chile* 48: 561. 1873 and *Repertorium Specierum Novarum Regni Vegetabilis* 2: 69. 1906, *Bulletin de la Société Botanique de France* 73: 677. 1927.

**A. vinealis** Schreb. (*Agrostis alba* var. *vinealis* (Schreb.) Richter; *Agrostis canina* f. *montana* C. Hartm.; *Agrostis canina* L. subsp. *montana* (Hartm.) Hartm.; *Agrostis canina* subsp. *pusilla* (Dumort.) Malagarriga; *Agrostis canina* var. *montana* Hartman; *Agrostis coarctata* Ehrh.; *Agrostis coarctata* Ehrh. ex Hoffm.; *Agrostis coarctata* subsp. *hyperborea* (Laestadius) H. Scholz; *Agrostis coarctata* subsp. *syreistschikowii* (P.A. Smirn.) H. Scholz; *Agrostis ericetorum* Préaub. & Bouvet; *Agrostis hyperborea* Laest.; *Agrostis marschalliana* Seregin; *Agrostis pusilla* Dumort.; *Agrostis rubra* L. pro parte; *Agrostis stricta* J.F. Gmel.; *Agrostis stricta* subsp. *syreistchikowii* (P.A. Smirn.) Soó; *Agrostis syreistschikowii* P.A. Smirn.; *Agrostis tenuifolia* M. Bieb., nom. illeg., non *Agrostis tenuifolia* Curtis; *Agrostis trinii* Turcz.; *Agrostis trinii* Turcz. ex M.A. Litv.; *Agrostis vinealis* Brot.; *Agrostis vinealis* Salisb.; *Agrostis vinealis* With.; *Agrostis vinealis* subsp. *trinii* (Turcz.) Tzvelev; *Agrostis vinealis* subsp. *trinii* (Turcz. ex M.A. Litv.) Tzvelev; *Agrostis vulgaris* var. *vinealis* (Schreb.) Schur)

Europe, Russia. See *Species Plantarum* 1: 62. 1753, *Spicilegium Florae Lipsicae* 47. Lipsiae 1771, *Systema Naturae ... editio decima tertia, aucta, reformata* 2: 170. Leipzig 1791[-1792], *Deutschland Flora* 1: 37. 1800, *Flora Lusitanica* 1: 74. 1804, *Flora Taurico-Caucasica* 1: 56. 1808, *Observations sur les Graminées de la Flore Belgique* 129, t. 10, f. 37. 1823, *Handbok i Skandinaviens flora* (edition 2) 19. Stockholm 1832, *Flora Baicalensi-Dahurica* 18. 1856, *Enumeratio Plantarum Transsilvaniae* 734. 1866, *Plantae Europaeae* [vol. 2: *Europaeae*] 1: 43. 1890 and *Novosti Sist. Vyss. Rast.* 1966, *Willdenowia* 5: 480-482, 484. 1969, *Novosti Sist. Vyss. Rast.* 8: 60. 1971, *Feddes Repertorium* 85(7-8): 434. 1974, *Journal of Cytology and Genetics* 23: 38-52. 1988, *Cell and Chromosome Research* 12: 60-61. 1989, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1331-1332. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 78(4): 36-47. 1993, *Opera Botanica* 137: 1-42. 1999, *Willdenowia* 19: 199-213. 1999.

in English: brown bent grass, brown bent

**A. vinealis** Schreb. subsp. *vinealis* (*Agrostis canina* f. *arida* (Schltdl.) Junge; *Agrostis canina* var. *arida* Schltdl.)

Europe, Russia. See *Flora Berlinensis* 1: 45. 1823 and *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten* 22(Beih. 3): 62. 1905.

in English: bent grass

**A. virescens** Kunth (*Agrostis tolucensis* Kunth)

North America, Mexico. See *Nova Genera et Species Plantarum* 1: 135-136. 1815 [1816], *Bulletin de l'Académie Royale des Sciences et Belles-lettres de Bruxelles* 52: 229. 1842, *Synopsis Plantarum Glumacearum* 1: 164. 1854 and *Circular, Division of Agrostology, United States Department of Agriculture* 30: 2-3. 1901.

**A. viridis** Gouan (*Agrostis semiverticillata* (Forssk.) C. Chr.; *Agrostis semiverticillatus* (Forssk.) C. Chr.; *Agrostis verticillata* Vill.; *Agrostis viridis* Raf. ex B.D. Jacks.; *Agrostis viridissima* Kom.; *Phalaris semiverticillata* Forssk.; *Polypogon semiverticillatus* (Forssk.) Hyl.; *Polypogon viridis* (Gouan) Breistr.)

Mediterranean. Perennial, loosely tufted, strongly decumbent at the base to long-trailing, stoloniferous with creeping stolons, erect, glabrous, smooth, often rooting at nodes, ligule scarious, sheath smooth, dense inflorescence narrowly lanceolate to elliptic, panicle contracted with whorled branches usually densely covered in spikelets, small spikelets 1-flowered, panicle more or less interrupted, spikelets falling entire, glumes falling with the spikelet, lemma 5-nerved more or less pubescent, awn absent, growing on open ground by streams, disturbed areas, moist places, irrigation ditches, canal banks, ponds and ditches, seepage areas, around springs, see *Hortus Regius Monspelitensis* 546. 1762, *Flora Aegyptiaco-Arabica* 17. 1775, *Index Kewensis* 1: 65. 1893 and *Repertorium Specierum Novarum Regni Vegetabilis* 13: 85. 1914, *Dansk Botanisk Arkiv* 4(3): 12. 1922, *Bulletin de la Société Botanique de France* 110(89 Sess. Extraord.): 56. 1966, *Journal of Cytology and Genetics* 21: 155. 1986, *Annali di Botanica* 45: 75-102. 1987, *Lagascalia* 15: 119-124. 1988, *Phytologia* 64: 390-398. 1988, *Journal of the Indian Botanical Society* 69: 447-451. 1990, *Cytologia* 56: 437-452. 1991, *Boletim da Sociedade Broteriana, ser. 2* 64: 35-74. 1991, *Bothalia* 26(1): 63-67. 1996.

in English: water bent grass, water bent

in Arabic: deil el-far

**A. volkensii** Stapf

Tanzania, Uganda. Perennial, erect, slender, densely tufted, leaf blades narrow and filiform, old basal leaf sheaths papery, open panicle lanceolate, glumes equal and acute, lemma lanceolate more or less hairy to pilose, awn geniculate, mountains, sometimes confused with *Agrostis producta* Pilger, see *Bulletin of Miscellaneous Information Kew* 1897: 289. 1897 and *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 9(87): 512. 1926.

**A. wacei** C.E. Hubb.

Tristan da Cunha. Indeterminate species, see N.M. Wace & M.W. Holdgate, *Man and Nature in the Tristan da Cunha Islands*. Gland and Cambridge, IUCN. (IUCN Monograph

No. 6) 1976, *Bulletin of the British Museum (Natural History)*, *Botany* 8: 383. 1981, Y.M. Chamberlain, M.W. Holdgate and N.M. Wace, "The littoral ecology of Gough Island, South Atlantic Ocean." *Tethys*. 11: 302-319. 1985.

**A. wardii** Bor

India, Manipur. Lemma awned, growing on open grassy slopes, see *Kew Bulletin* 1949: 444. 1949.

**A. zenkeri** Trin. (*Agrostis abnormis* Munro ex Hook.f.; *Agrostis pleiophylla* Mez; *Calamagrostis zenkeri* (Trin.) Davidse; *Deyeuxia abnormis* Munro ex Hook.f.; *Deyeuxia abnormis* Hook.f.; *Deyeuxia zenkeri* (Trin.) Veldkamp)

India, Sikkim, West Bengal, Tamil Nadu, Meghalaya. Glumes mostly equal or subequal, growing in open dry places, wastelands, coniferous forests, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 363. 1841, *The Flora of British India* 7(22): 268. 1897 [1896] and *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 301. 1921, *Kew Bull.* 9: 441-442. 1954, *The Gardens' Bulletin Singapore* 37(2): 218-219. 1984 [1985], *Edinb. J. Bot.* 56(3): 384, 386, 399. 1999.

### **Agrostomia Cerv. = Chloris Sw.**

Chloridoideae, Cynodonteae, type *Agrostomia mutica* Cerv., see *Nova Genera et Species Plantarum seu Prodrum* 25. 1788, *Flora Indiae Occidentalis* 1: 203. 179, *Nova Genera et Species Plantarum* 1: 167-168, pl. 50. 1815 [1816], *La Naturaleza [periódico científico de la Sociedad Mexicana de Historia Natural]* 1: 345-346. Mexico City 1870 and *North American Flora* 17(8): 596. 1939, *Brigham Young University Science Bulletin: Biological Series* 19(2): 1-133. 1974, *Flora Mesoamericana* 6: 287-288. 1994, *Contributions from the United States National Herbarium* 41: 14, 39-52. 2001.

### **x Agrotrigia Tzvelev**

*Agropyron* x *Elytrigia*.

See *Novosti Sist. Vyssh. Rast.* 9: 63. 1972, *Genera Graminum* 374. 1986.

### **x Agrotrisecale Ciferri & Giacom.**

*Agropyron* x *Secale* x *Triticum*.

See *Nomencl. Fl. Ital., Pt. 1* 48. 1950, *Genera Graminum* 374. 1986.

### **x Agrotriticum Ciferri & Giacomini**

*Agropyron* x *Triticum*.

See *Nomencl. Fl. Ital., Pt. 1* 48. 1950, *Genera Graminum* 374. 1986.

**Aikinia Wallich** = *Aikinia* R. Br.  
(Gesneriaceae), *Ratzeburgia* Kunth

For the British (b. Lancs) chemist Arthur Aikin, 1773-1854 (London), 1818 Fellow of the Linnean Society, son of the British naturalist and physician John Aikin (1747-1822); see Dawson Turner & Lewis Weston Dillwyn (1778-1855), *The Botanist's Guide through England and Wales*. London 1805, *Révision des Graminées* 2: 487, t. 158. 1831, *Plantae Asiaticae Rariores* 3: 46, 65, t. 273. 1832 and *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 85. 1960.

**Aimeea Rifat** = *Vietnamosasa* T.Q. Nguyen

Named for the French botanist Aimée Antoinette Camus, 1879-1965.

Southeast Asia, Vietnam, Thailand, Cambodia, Laos. Bambusoideae, Bambusodae, Bambuseae, Racemobambosinae, see *Bull. Mus. Nat. Hist. Paris* 25: 672. 1919, *Bull. Mus. Nat. Hist. Paris* 27: 450. 1921, *Journal Arnold Arboretum* 6: 151-152. 1925, *Kew Bulletin* 44(2): 365. 1989, *Bot. Zhurn.* 75: 221-225. 1990.

**Aira L.** = *Airella* (Dumort.) Dumort., *Aspris* Adans., *Caryophyllea* Opiz, *Fiorinia* Parl., *Fussia* Schur, *Salmasia* Bubani

From the Greek ancient name applied to another plant, possibly *Lolium temulentum* L.; Latin *aera* for a weed among grain, darnel, tare or cockle (Plinius). See Hippocrates, *De Morbis Mulierum*. II. 193, *De Natura Muliebri*. 105; Aristoteles, *De Somno et Vigilia*. 456b 30 (editor D. Ross, Oxford 1955).

About 8-12 species, Mediterranean, temperate Europe, North Africa, western Asia. Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Airinae, annual or biennial, small and flimsy, herbaceous, delicate, slender, caespitose or tufted, glabrous to scabrous, erect or ascending, unbranched, glabrous nodes, hollow internodes, auricles absent, sheaths terete, ligule membranous and unfringed, leaves setaceous and short, leaf blade filiform or narrow-linear to linear, plants bisexual, inflorescence an open or contracted panicle, delicate panicles lax and branched, small and solitary spikelets laterally compressed and pedicellate, pedicels more or less thickened at the apex, short rachilla not prolonged beyond the florets, 2 bisexual florets, 2 papery and keeled glumes equal or subequal, reduced floret absent, lemmas

acuminate to lanceolate and bifid, awned or unawned, awn geniculate with a twisted column, palea tightly clasped by the lemma and apically notched, 2 acute to lanceolate lodicules free and membranous, 3 stamens, ovary glabrous, 2 stigmas, some species ornamental and cultivated, fodder grasses, little forage value, of limited importance as stock feed, weeds, not considered troublesome, found in dry and open habitats, sandy soils, disturbed areas, grasslands, sometimes confused with *Deschampsia* P. Beauv., type *Aira praecox* L., see *Species Plantarum* 1: 63-66. 1753, *Genera Plantarum* edition 5. 31. 1754, *Familles des Plantes* 2: 496. 1763, *Observations sur les Graminées de la Flore Belgique* 120, 121. 1824, *Compendium Florae Germaniae. Editio altera* 1(1): 139. 1836, Salomon Thomas Nicolai Drejer (1813-1842), *Flora excursoria hafniensis Hafniae* 1838, *A Manual of the Botany of the Northern United States* 605. 1848, *Flora italiana, ossia descrizione delle piante ...* 1: 232. Firenze 1848 [1850], *A Manual of the Botany of the Northern United States. Second Edition* 572. 1856, Ferdinand Schur (1799-1878), *Enumeratio Plantarum Transsilvaniae* 754. Vindobonae [Wien] 1866, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *U.S. Dept. Agr. Bull.* 772: 116. 1920, *Amer. J. Bot.* 21: 135. 1934, *N. Amer. Fl.* 17: 567. 1939, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 13: 179-180. 1967, *Brittonia* 23(3): 293-324. 1971, *Acta Biologica Cracoviensia, Series Botanica* 27: 57-74. 1985, *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Botanica* 34: 27-32. 1987, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66, 153-205. 1990, *New Zealand Journal of Botany* 29: 101-116. 1991, *Boletim da Sociedade Broteriana, ser. 2* 64: 35-74. 1991, *Taxon* 41: 556. 1992, *Opera Botanica* 121: 159-172. 1993, *Flora Mesoamericana* 6: 235. 1994, *Taxon* 44: 611-612. 1995, *Bothalia* 26(1): 53-61. 1996, *Thaiszia* 9(1): 31-40. 1999, *Contributions from the United States National Herbarium* 48: 89-96. 2003.

**Species**

*A. alpina* L. (*Aira alpina* Lilj., nom. illeg., non *Aira alpina* L.; *Aira alpina* Roth ex Schur, nom. illeg., non *Aira alpina* L.; *Aira alpina* Savi; *Aira caespitosa* subsp. *alpina* (L.) Hook.f.; *Aira major* subsp. *alpina* (L.) Syme ex J.E. Sowerby; *Avena alpina* (L.) Trin., nom. illeg., non *Avena alpina* Sm.; *Deschampsia alpina* (L.) Roem. & Schult.; *Deschampsia caespitosa* subsp. *alpina* (L.) Tzvelev; *Deschampsia cespitosa* subsp. *alpina* (L.) Tzvelev, nom. illeg., non *Deschampsia cespitosa* var. *alpina* Schur; *Deschampsia cespitosa* var. *alpina* Schur)

North Europe. See *Species Plantarum* 65. 1753, *Botanicon etruscum* sistens plantas in Etruria sponte crescentes ... Pisis 1: 52. 1808-1825, *Essai d'une Nouvelle Agrostographie* 91, 149, 160. 1812, *Systema Vegetabilium* 2: 686. 1817, *Fundamenta Agrostographiae* 157. 1820, *Österreichische*

*Botanische Zeitschrift* 9: 326. 1859, *The Student's Flora of the British Islands* 3: 437. 1870, *English Botany, ... third edition* 11: 65. 1877 and *Taxon* 49(2): 243. 2000.

**A. caryophyllea** L. (*Agrostis caryophyllea* (L.) Salisb.; *Aira latigluma* Steud.; *Airella caryophyllea* (L.) Dumort.; *Airop-sis caryophyllea* (L.) Fr.; *Aspris caryophyllea* (L.) Nash; *Avena caryophyllea* (L.) Weber; *Caryophyllea airoides* Opiz; *Fussia caryophyllea* (L.) Schur; *Salmasia vulgaris* Bubani)

Europe, Eurasia, Africa, Morocco, Algeria. Annual, low, delicate, variable, herbaceous, solitary or tufted, erect, slender, glabrous, auricles absent, sheaths open and rough or scabrid, ligule slightly hairy and more or less toothed at the apex or shortly denticulate, leaf blades extremely narrow, leaves grooved and scabrous, open and widely branched flower head, loose and spreading panicles broadly ovoid, silvery-gray to purplish spikelets, glumes are equal and enclose two flowers, shining entire glumes acute to acuminate, lemmas awned and scabrid, bent and twisted awns, palea slightly shorter than the lemmas, anthers yellow, glabrous fruit laterally and ventrally compressed, forage, weed naturalized elsewhere, ornamental, grows in dry and open rocky sites, sandy soils, rock gardens, grasslands, pastures, disturbed areas, ballast, subalpine shrubland, near moist areas, upland, see *Species Plantarum* 1: 66. 1753, *Prodrum stirpium in horto ad Chapel Allerton vigentium*. 25. Londini [London] 1796, Elias Magnus Fries (1794-1878), *Novitiarum florum suecicae mantissa* [prima, altera, tertia] et Continuationes [1-5] [Academic Dissertations]. Lund 1832-1845, *Synopsis Plantarum Glumacearum* 1: 22. 1853, *Enumeratio Plantarum Transsilvaniae* 754. 1866, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *Flora Pyrenaea ...* 4: 316. 1901, *An Illustrated Flora of the Northern United States* 1: 214. 1913.

in English: silver hairgrass, silvery hairgrass, silvery hair grass, common silver hairgrass, silver European hairgrass

in French: canche caryophyllée

in Italian: nebbia maggiore

**A. caryophyllea** L. subsp. *caryophyllea*

Eurasia. Sea level to subalpine, see *Species Plantarum* 1: 66. 1753 and *New Zealand Journal of Botany* 29: 101-116. 1991.

**A. caryophyllea** L. subsp. *multiculmis* (Dumort.) Bonnier & Layens (*Aira caryophyllea* subsp. *multiculmis* (Dumort.) P. Fourn., nom. illeg., non *Aira caryophyllea* subsp. *multiculmis* (Dumort.) Bonnier & Layens; *Aira multiculmis* Dumort.)

Southwestern Europe. Sandy wasteland, along roadsides, see *Observations sur les Graminées de la Flore Belgique* 121, t. 7, f. 28. 1823 [1824], *Flore de France* 358. 1894 and *New Zealand Journal of Botany* 29: 101-116. 1991.

**A. caryophyllea** L. var. *caryophyllea*

Europe. Found in dry sand, waste places, see *Species Plantarum* 1: 66. 1753.

in English: silver hairgrass

**A. cupaniana** Guss. (*Aira capillaris* var. *cupaniana* (Guss.) Fiori; *Aira caryophyllea* var. *cupaniana* (Guss.) Cosson & Durand; *Airella cupaniana* (Guss.) Dumort.; *Avena cupaniana* (Guss.) Nyman) (after the Italian monk Francesco Cupani, 1657-1710/1711, botanist, a pupil of Silvio Boccone, in Misilmeri (near Palermo) founded the Botanic Garden of Giuseppe del Bosco principe della Cattolica, his works include *Hortus Catholicus*, seu Ill. et Excell. Principis Catholicae ducis Misilmeris, comitis Vicaris, baronis Prizi, nec non magni baronis Siculianae. Neapoli 1696, *Supplementum alterum ad Hortum Catholicum*. Panormi 1697, *Catalogus plantarum sicularum* noviter adinventarum. Panormi [Palermo] 1692, *Syllabus plantarum Siciliae* nuper detectarum. Panormi 1694 and *Pamphyton siculum*, sive historia naturalis de animalibus, stirpibus, fossilibus, etc. Panormi 1713; see Carl Linnaeus, *Species Plantarum*. 200. 1753 and *Genera Plantarum*. edition 5. 93. 1754; Mariella Azzarello Di Misa, a cura di, *Il Fondo Antico della Biblioteca dell'Orto Botanico di Palermo*. 80-81. Palermo 1988; Giuseppe M. Mira, *Bibliografia Siciliana*. 1: 285-286. Palermo 1881; *Ann. Naturhist. Mus. Wien* 103B: 461-472. 2001)

Europe, Mediterranean. Annual, variable, delicate, open, solitary or tufted or caespitose, slender, usually erect or geniculate at the base, sheaths scabrid, ligule acute and hyaline, leaf blades folded or involute, inflorescence open and spreading, loose and broadly ovoid silvery panicles, cleistogamous spikelets, glumes subobtusate to acuminate and often mucronate, glumes mostly denticulate, lower lemma often awnless, palea hyaline to membranous, anthers yellow or purple, fruit ventrally compressed and shallowly longitudinally grooved, forage, weed species naturalized elsewhere, found in disturbed areas, shallow soil, slopes, grasslands, disturbed woodland, in pastures, see *Flora Siculae Synopsis* 1: 148. 1843, *Exploration Scientifique de l'Algérie* 2: 95. 1854-1855, *Sylloge Florae Europaeae* 414. 1854-1855, *Compendio della Flora Italiana* 1: 59. 1869, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868, *Synopsis der mitteleuropäischen Flora* 2: 284. 1899 and Michele Lojacono-Pojero (1853-1919), *Flora Sicula* 3: 297. Palermo 1908-1909, *Nuova Flora Analitica d'Italia* 1: 103. 1923, *Flore de l'Afrique du Nord*: 2: 352. 1953.

in English: English hairgrass, silver hairgrass, silvery hairgrass

in Italian: nebbia cupaniana, nebbia di Cupani

in Morocco: sibouss, ivraie aristée

in South Africa: haasgras

**A. elegans** Willd. ex Kunth (*Aira capillaris* Host, non Savi; *Aira caryophyllea* var. *capillaris* (Host) Mutel; *Aira elegans* Vill., *Aira elegans* Willd. ex Gaudin; *Aira elegans* subsp.

*ambigua* (Arcang.) Holub; *Aira elegantissima* Schur; *Aspris capillaris* (Host) A.S. Hitchc.)

Europe, Mediterranean. Erect, tufted, slender, leaf sheath membranous to submembranous, ligule smooth and denticulate, loose inflorescence ovate paniculate very delicate, scabrid glumes ovate-lanceolate, lemmas membranous and usually awned, lower lemma sometimes awnless, lowland, swamp margins, grassland, some authors used the name *Aira elegantissima* Schur, see *Agrostologia Helvetica, definitionem ...* 1: 130, 355. 1811, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 289. 1833, *Nomenclator Botanicus. Editio secunda* 1: 44. 1840, *Verhandlungen und Mittheilungen des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt* 4: 85. 1853, *Synopsis Plantarum Glumacearum* 1: 221. 1854, *Flore de France* 3: 505. 1855, *Verhandlungen des Botanischen Vereins von Berlin und Brandenburg* 3-4: 79. 1861-62, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *Phytologia* 69: 301-302. 1990, *New Zealand Journal of Botany* 29: 101-116. 1991, *Phytologia* 74: 49. 1993.

in English: annual hairgrass, elegant hairgrass

in Italian: nebbia minore

**A. elegantissima** Schur (*Aira ambigua* De Not., nom. illeg., non *Aira ambigua* Michx.; *Aira capillaris* Host, nom. illeg., non *Aira capillaris* Savi; *Aira capillaris* subsp. *ambigua* Arcang.; *Aira capillaris* var. *ambigua* (Arcang.) Asch. & Graebn.; *Aira caryophyllea* var. *capillaris* (Host) Vis.; *Aira corsica* Jord., nom. illeg., non *Aira corsica* Tausch; *Aira elegans* Willd. ex Gaudin; *Aira elegans* Willd. ex Kunth; *Aira elegans* subsp. *ambigua* (Arcang.) Holub; *Aira elegans* subsp. *notarisiana* (Steud.) Soják; *Aira elegantissima* subsp. *hosteana* Holub; *Aira notarisiana* Steud.; *Airella capillaris* (Host) Dumort.; *Aiopsis capillaris* (Host) Schur; *Aspris capillaris* (Host) Hitchc.; *Avena capillaris* (Host) Mert. & W.D.J. Koch; *Fussia capillaris* (Host) Schur)

Mediterranean, Europe, Eurasia. Annual, herbaceous, loosely tufted or solitary, slender, erect or decumbent, flimsy and narrow, sheath and ligule glabrous to slightly scabrous, ligule hyaline and acute, leaf blade flat or convolute, open inflorescence, panicles loose and ovoid with spreading branches, fine and delicate inflorescences, glumes acute, lemmas scabrid and acuminate, more or less exserted awns, lower lemma often awnless, palea gaping and narrowly ovate, anthers yellow or purple, glabrous fruit ventrally compressed and not grooved, forage, ornamental, in disturbed areas, sandy to clay soils, grasslands, open woodland, damp ground, open sites, in pastures, see *Species Plantarum* 1: 66. 1753, *Icones et Descriptiones Graminum Austriacorum* 4: 20, t. 35. 1809, *Agrostologia Helvetica, definitionem ...* 1: 130, 355. 1811, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 289. 1833, *Nomenclator Botanicus. Editio secunda* 1: 44. 1840, *Flora Dalmatica* 1: 68. 1842, *Annales des Sciences Naturelles; Botanique, sér.*

3 5: 365. 1846, *Verhandlungen und Mittheilungen des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt* 4: 85. 1853, *Synopsis Plantarum Glumacearum* 1: 221. 1854, *Flore de France* 3: 505. 1855, *Österreichische Botanische Zeitschrift* 9: 328. 1859, *Verhandlungen des Botanischen Vereins von Berlin und Brandenburg* 3-4: 79. 1861-62, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *United States Department of Agriculture: Bulletin* 772: 116. 1920, *Folia Geobotanica et Phytotaxonomica* 8(2): 176. 1973, *Notes from the Royal Botanic Garden, Edinburgh* 40(3): 509. 1983, *Phytologia* 69: 301-302. 1990, *New Zealand Journal of Botany* 29: 101-116. 1991, *Phytologia* 74: 49. 1993.

in English: elegant European hairgrass, delicate hairgrass, lace hairgrass

**A. praecox** L. (*Agrostis praecox* (L.) Salisb.; *Airella praecox* (L.) Dumort.; *Aiopsis praecox* (L.) Fr.; *Aspris praecox* (L.) Nash; *Avena praecox* (L.) P. Beauv.; *Caryophyllea praecox* (L.) Opiz; *Fussia praecox* (L.) Schur; *Salmasia praecox* (L.) Bubani; *Trisetum praecox* (L.) Dumort.)

Europe. Annual, herbaceous, montane to subalpine, small, erect, slender, solitary or tufted, sheaths inflated and smooth to scaberulous, ligule acute and hairy to scabrid, leaf blade convolute and grooved, panicle linear with erect branches, dense spike-like and narrow-obovate panicles, spikelets crowded, tightly closed flower head, hermaphrodite florets 2 per spikelet, glumes acute and shining, lemmas awned, shortly exserted awns, palea ciliate rounded to narrowly ovate or oblanceolate, yellow anthers, glabrous fruit ventrally compressed and deeply furrowed, forage, weed species, growing in disturbed areas, open sites, rocky slopes, in wetter sclerophyll forest, sandy and acidic soils, stony disturbed surfaces, ballast and waste ground, very similar to *Aira caryophyllea* L., see *Species Plantarum* 1: 63, 65-66. 1753, *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 24. 1796, *Essai d'une Nouvelle Agrostographie* 89, 149, 154. 1812, *Observations sur les Graminées de la Flore Belgique* 122, t. 8, f. 30. 1823, Elias Magnus Fries, *Novitiarum florum suecicae mantissa* [prima, altera, tertia] et Continuaciones [1-5] [Academic Dissertations]. Lund 1832-1845, *Enumeratio Plantarum Transsilvaniae* 754. 1866, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868, *Synopsis der mitteleuropäischen Flora* 2: 285. 1899 and *Flora Pyrenaea ...* 4: 316. 1901, *An Illustrated Flora of the Northern United States* 1: 215. 1913, *List of British Plants* edition 2 127. 1928, *Amer. J. Bot.* 21: 135. 1934, *New Zealand Journal of Botany* 29: 101-116. 1991, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Brittonia* 54(3): 154-163. 2002.

in English: early hairgrass, early hair grass, early silver hairgrass, yellow hairgrass, spike hairgrass

**A. provincialis** Jordan (*Aira caryophyllea* var. *provincialis* (Jordan) Fiori; *Aira provincialis* Gennar ex Nyman; *Airella*

*provincialis* (Jordan) Dumort.; *Avena provincialis* (Jordan) Nyman)

Europe. Annual, small, glaucous, slender, erect or geniculate at the base, solitary or clumped or tufted or caespitose, auricles absent, sheaths scabrous, ligule acute and membranous, scabrous leaves grooved or convolute, panicle very open and loose, hermaphrodite florets 2 per spikelet, glumes acute and scabrous, lemma acute and awned, palea 2-dentate, occurs in disturbed areas and woodland, sandy soils, similar to *Aira caryophyllea* L., see *Pugillus Plantarum Novarum* 142. 1852, *Sylloge Florae Europaeae*, Suppl., 71. 1865, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868, *Flora Analytica d'Italia* 1: 67. 1886.

in English: hairgrass

in French: canche de Provence

in Italian: nebbia della Provenza

**A. tenorei** Guss. (*Aira capillaris* subvar. *tenorii* (Guss.) Cosson & Durand, also spelled *tenorei*; *Aira capillaris* var. *tenorii* (Guss.) Walp.; *Aira caryophyllea* var. *tenorii* (Guss.) T. Durand & Schinz; *Aira pulchella* Link; *Aira pulchella* subsp. *tenorei* (Guss.) Asch. & Graebn. ex Bonte; *Aira pulchella* var. *tenorei* (Guss.) Fiori; *Aira tenorei* Focke ex Willk. & Lange; *Airella tenorii* (Guss.) Dumort.; *Airopsis pulchella* Ten.) (for the Italian botanist Michele Tenore, 1780-1861, his writings include *Catalogo delle piante che si coltivano nel Regio Orto Botanico di Napoli*. Napoli 1845 and *Index Seminum in Horto Botanico Neapolitano Collectorum*. 1839, uncle of the Italian botanist Vincenzo Tenore (1825-1886); see Stafleu and Cowan, *Taxonomic literature*. 6: 212-219. 1986; Mariella Azzarello Di Misa, editor, *Il Fondo Antico della Biblioteca dell'Orto Botanico di Palermo*. 265-268. Palermo 1988; J.H. Barnhart, *Biographical notes upon botanists*. 3: 367. 1965; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 789. 1993; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 396. 1972; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. University of Pennsylvania Press, Philadelphia 1964; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 252. Oxford 1964)

South Europe. Solitary or tufted, slender, panicles diffuse, spikelets unawned, glumes obtuse, see *Flora Napolitana* 3: 56, 102. 1824-1829, *Fl. Sic. Prodr.* 1: 62. 1827, *Exploration Scientifique de l'Algérie* 2: 96. 1854-1855, *Annals of Botany*. Oxford 6: 993. 1861, *Prodromus Florae Hispanicae* 1: 55. 1861, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *Flora Sicula* (Lojacono) 3: 300. 1909, *Nuova*

*Flora Analytica d'Italia* 1: 103. 1923, *Decheniana* 94: 118. 1937.

**A. uniaristata** Lag. & Rodr. (*Aira caryophyllea* subsp. *uniaristata* (Lag. & Rodr.) Maire; *Aira cupaniana* auct., non Guss.)

North Africa, Europe. See *Anales de Ciencias Naturales* 6(16): 148. 1803, *Compendio della Flora Italiana* 1: 59. 1869 and *Bulletin de l'Académie Internationale de Géographie, Botanique* 18: 469. 1908, *Catalogue des Plantes du Maroc* 1: 45. 1931, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 30: 307. 1939, *Flore de l'Afrique du Nord*: 2: 350. 1953.

### **Airella (Dumort.) Dumort.** = *Aira* L.

The diminutive of *Aira*.

Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Airinae, type *Airella caryophyllea* (L.) Dumort., see *Observations sur les Graminées de la Flore Belgique* 120, 121. 1824, *Bulletin de la Société Botanique de Belgique* 7: 68. 1868 and *N. Amer. Fl.* 17: 567. 1939, *Contributions from the United States National Herbarium* 48: 89-96. 2003.

### **Airidium Steud.** = *Deschampsia* P. Beauv.

Resembling *Aira* L.

Pooideae, Poeae, Airinae, type *Airidium elegantulum* Steud., see *Essai d'une Nouvelle Agrostographie* 91, 149, 160. 1812, *A Manual of the Botany of the Northern United States* 605. 1848, *Synopsis Plantarum Glumacearum* 1: 423. 1854 and *Contributions from the United States National Herbarium* 48: 245-256. 2003.

### **Airochloa Link** = *Koeleria* Pers.

Probably from the Greek *aira* "hair-grass" and *chloe*, *chloa* "grass."

Pooideae, Poodae, Aveninae, type *Airochloa cristata* (L.) Link, see *Syn. Pl.* 1: 97. 1805, *Hortus Regius Botanicus Berolinensis* 1: 126-127. 1827, *Genera Plantarum* 3(2): 1184. 1883, *Die Natürlichen Pflanzenfamilien* 2(2): 70. 1887 and *U.S. Dept. Agric. Bull.* 772: 107. 1920, *Contributions from the United States National Herbarium* 48: 97, 409-419. 2003.

### **Airopsis Desv.** = *Aeropsis* Asch. & Graebn., *Sphaerella* Bubani

Resembling *Aira* L.

One species, Africa, northwest Africa, Sicily, southwest Europe. Pooideae, Poodae, Aveneae, Airopsidaeae, annual,



slender to very slender, herbaceous, auricles absent, uppermost sheath inflated, ligule an unfringed membrane, plants bisexual, inflorescence paniculate open or contracted, spikelets 2-flowered, 2 glumes equal or subequal, lemmas awnless orbicular 3-nerved, palea present, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, open habitats, sandy areas, see *Species Plantarum* 1: 79-81. 1753, *Icones et Descriptiones Plantarum, quae aut sponte ...* 3: 37, t. 274, f. 1. 1794, *Journal de Botanique (Desvaux)* 1: 200. 1809, *Fl. France* 3: 435. 499. 1855, *A Manual of the Botany of the Northern United States. Second Edition* 573. 1856, Paul Friedrich August Ascherson, *Synopsis der mitteleuropäischen Flora* 2(1): 298. Leipzig 1899 and *Boletim da Sociedade Broteriana, ser. 2* 43: 1-140. 1969, *Grana; an international journal of palynology ...* 15: 7-17. 1975, *Boletim da Sociedade Broteriana, ser. 2* 63: 153-205. 1990.

### Species

*A. tenella* (Cav.) Cosson & Durand (*Airopsis tenella* (Cav.) Asch. & Graebn.)

Europe. Annual, lemma gibbous, open sandy places, see *Exploration Scientifique de l'Algérie* 2: 97. 1867.

in Italian: nebbia, nebbia globosa

in French: airopsis délicat

**Alectoridia A. Rich.** = *Arthraxon* P. Beauv.

Greek *alektor* “a cock.”

Panicoideae, Andropogoneae, Andropogoninae, type *Alectoridia quartiniana* A. Rich., see A.M.F.J. Palisot de Beauvois, *Essai d'une nouvelle Agrostographie* 111, t. 11, f. 6. (Dec.) 1812, *Tentamen Florae Abyssinicae ...* 2: 447-448, t. 102. 1850 and *Contributions from the United States National Herbarium* 46: 104-110. 2003.

### Alexfloydia B.K. Simon

For the Australian botanist Alexander Geoffrey Floyd, forster, ecologist, botanical collector in Papua New Guinea and Australia, author of *Rainforest Trees of Mainland South-eastern Australia*. Melbourne 1989, *Australian Rainforests in New South Wales*. 2 vols. 1990; see Lawrence Alexander Sidney Johnson (1925-1997) and Barbara Gillian Briggs (1934-), in *Botanical Journal of the Linnean Society*. 70: 176. London (Sep.) 1975.

1 species, Australia, New South Wales. Panicoideae, Panicoideae, Paniceae, perennial, stoloniferous, unarmed, herbaceous, soft, branched, nodes hidden by leaf sheaths, internodes shorter than the leaf sheaths ligule a fringe of hairs, blades flat and smooth, leaves linear and glabrous, plants bisexual, inflorescence a reduced panicle, elliptic

spikelets pedicellate and compressed, 2 florets, lower floret male, upper floret bisexual, 2 glumes very unequal and papery, lower lemma elliptic and papery, upper lemma oblong and glabrous, palea present, 2 free and membranous lodicules, 3 stamens, sometimes referred to *Panicum* L., type *Alexfloydia repens* B.K. Simon, the caterpillar *Ocybadistes knightorum* Lambkin & Donaldson feeds at night on *Alexfloydia*, see B.K. Simon, “*Alexfloydia*, *Cliffordiochloa* and *Dallwatsonia*, three new panicoid grass genera from eastern Australia.” in *Austrobaileya* 3(4): 669-691. 1992.

### Species

*A. repens* B.K. Simon

New South Wales. Perennial, threatened species, weak, stoloniferous, trailing, mat-forming, sheath loose and hairy, ligule a fringe of hairs, lower glume ovate and acute, upper glume elliptic, upper lemma apiculate, a food source of a butterfly living on the midnorth coast of New South Wales, ground cover, grows in moist places, mangrove forest, see *Austrobaileya* 3(4): 670, f. 1. 1992.

**Allagostachyum Steud.** = *Tribolium* Desv.

Greek *allage* “change” and *stachys* “spike,” see *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 168, t. 7, f. 2. 1831, *Nomenclator Botanicus. Editio secunda* 1: 50. 1840.

**Allelothea Steud.** = *Lophatherum* Brongn.

Greek *allelon* “reciprocally, mutually” and *theke* “box, capsule.”

Centothecoideae, Centotheceae, see *Voyage Autour du Monde* 2(2): 49-50, t. 8. 1829 [1831], Ernst Gottlieb von Steudel (1783-1856), *Synopsis plantarum glumacearum*. 1: 117. Stuttgartiae [1853-] 1855 and *Bulletin of the Nanjing Botanical Garden, Mem. Sun Yat Sen* 14-20. 1988-1989 [Sun Yat-Sen Tomb and Memorial] [*Nanjing Zhongshan Zhiwuyuan yanjiu lunwenji*], *Investigatio et Studium Naturae* 12: 48-65. 1992 [*Kao cha yu yen chiu*. Shanghai].

**Alloochaete (Rendle) C.E. Hubb.** =

*Alloochaete* C.E. Hubb.

Probably from the Greek *allos* “different, other, diverse” and *chaite* “a bristle.”

About 6 species, Africa, south tropical Africa, Tanzania, Angola, Malawi. Arundinoideae, Danthonieae, perennial, herbaceous, unbranched, tufted, leaves mainly basal, auricles absent, sheath bases densely hairy to tomentose, ligule a fringe of hairs, plants bisexual, narrow inflorescence paniculate, spikelets compressed, 2 glumes more or less equal,

proximal lemmas awned, palea present, 3 stamens, 2 stigmas, open habitats, montane grassland, rocky places, moist peaty soils, shrubby hillsides, type *Alloeochoete andongensis* (Rendle) C.E. Hubb., see *Hooker's Icones Plantarum* 35: t. 3418. 1940, J.M.J. de Wet, "Leaf Anatomy and Phylogeny in the Tribe Danthoneieae." *American Journal of Botany* 43, 3: 175-182. Mar 1956, C.H.S. Kabuye and S.A. Renvoize, "The genus *Alloeochoete*, tribe Danthoneieae (Gramineae)." *Kew Bulletin* 30(3): 569-577. 1975.

### Species

*A. andongensis* (Rendle) C.E. Hubb. (*Danthonia andongensis* Rendle)

Africa. See *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 2(1): 212. 1899.

*A. geniculata* Kabuye

Africa. Perennial, tufted, procumbent, inflorescence lax.

*A. gracillima* Kabuye

Africa. Perennial, tufted, slender, bulbous, inflorescence contracted.

*A. namuliensis* Chippindall

Africa. See *Journal of South African Botany* 11: 101, f. 2. 1945.

*A. oreogena* Launert

Africa, Malawi. Tussock, large, tree trunk-like structure, leaves drooping, see *Garcia de Orta, Série de Botânica* 1(1-2): 91-92. Lisbon 1973.

*A. ulugurensis* Kabuye

Africa.

**Alloiatheros Raf.** = *Alloiatheros* Elliott ex Raf., *Gymnopogon* P. Beauv.

Chloridoideae, Cynodonteae, see *Essai d'une Nouvelle Agrostographie* 41, 164. 1812, *Bulletin Botanique [Genève]* 1: 221. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 284. 1833, *Nomenclator Botanicus* edition 2 2: 55. 1840, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 69. 1888, *Index Kewensis* 1: 83. 1893 and E.D. Merrill (1876-1956), *Index rafinesquianus*. The plant names published by C.S. Rafinesque, etc. 74. Jamaica Plain, Massachusetts, U.S. 1949, *Contributions from the United States National Herbarium* 41: 124-127. 2001.

### **Allolepis Soderstr. & H.F. Decker**

From the Greek *allos* "different, other, diverse" and *lepis* "a scale," referring to the unequal male and female lemmas.

One species, North America, Texas and Mexico, southern U.S. Chloridoideae, Cynodonteae, Monanthochloinae, perennial, herbaceous, erect, caespitose, unarmed, stoloniferous and rhizomatous, long robust stolons, auricles absent, leaf blades flat and not pungent, leaves with a non-distichous arrangement, ligule membranous with ciliate fringe, plants dioecious, inflorescence paniculate, short racemes appressed to an axis, male florets 3-staminate, subcoriaceous glumes 3- to 7-nerved, lemma acute and 3- to 5-nerved, palea margins overlapping the caryopsis, lodicules cuneate, ovary glabrous, 2 stigmas, found in open sandy places, open habitats, genus linked to *Monanthochloe* Engelm., similar to and segregate of *Distichlis* Raf., type *Allolepis texana* (Vasey) Soderstr. & H.F. Decker, see *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts* 89: 104. 1819, *Contributions to the United States National Herbarium* 1: 29-65. 1890, *United States Department of Agriculture, Division of Agrostology* 16: 1-6. 1899 and *Gram. Afr. Trop.* 1: 94. 1962, *Madroño* 18(2): 33-64. 1965, *Willdenowia* 5: 472. 1969, *Sida* 16: 529-544. 1995, *Contributions from the United States National Herbarium* 41: 15. 2001.

### Species

*A. texana* (Vasey) Soderstr. & Decker (*Distichlis texana* (Vasey) Scribn.; *Poa texana* Vasey; *Sieglingia wrightii* Vasey)

Northern America. See *Contributions from the United States National Herbarium* 1(2): 60. 1890, *Contributions from the United States National Herbarium* 1(8): 269. 1893, *Circular, Division of Agrostology, United States Department of Agriculture* 16: 2. 1899 and *Madroño* 18(2): 36. 1965.

**Alloteropsis J. Presl** = *Alloteropsis* J.S. Presl ex C. Presl, *Axonopus* Hook.f., *Bluffia* Nees, *Coridochloa* Nees, *Holoseetum* Steud., *Mezochloa* Butzin, *Pterochlaena* Chiov.

From the Greek *allotrios* "foreign, strange, stranger, alien," *allotereon* "foreign" and *opsis* "resemblance."

About 5-8/10-15 species, Old World tropics, Australia, Asia, India, tropical and South Africa. Panicoideae, Panicodae, Paniceae, Setariinae, or Panicoideae, Paniceae, Paspalinae, perennial or annual, herbaceous, unbranched, erect or ascending, caespitose or decumbent, tuberous or not, forming tussocks, tufted and hairy at the nodes, shoots more or less aromatic, ligule a fringed membrane, leaves mostly basal, auricles absent, hollow internodes, leaf blade rolled in bud, plants bisexual, slender racemes digitate or subdigitate, spikelets short-awned and paired or clustered, florets 2 and dissimilar, lower floret usually male, upper floret bisexual, 2 glumes very unequal, lower glume shorter than

the spikelet, upper glume ciliate on the margins, upper lemma shortly awned, palea present and hairy to papillate, 2 lodicules free and fleshy, 3 stamens, ovary glabrous, 2 stigmas, native pasture species, forage, drought resistant, marshes, weedy places, open or shaded habitats, rainforest, type *Alloteropsis distachya* J. Presl, see *Prodromus Florae Novae Hollandiae* 192. 1810, *Reliquiae Haenkeanae* 1(4-5): 343-344, t. 47. 1830, *Edinburgh New Philosophical Journal* 15: 381. 1833, *Delectus Seminum quae in Horto Hamburgensium Botanico* 1834: 8. 1834, *Fl. Afr. Austr. Ill. 1. Gramineae*, 61. 1841, *Synopsis Plantarum Glumacearum* 1: 118. 1854, *Index Kewensis* 1: 618. 1893, *The Flora of British India* 7(21): 63. 1897 [1896] and *Contributions from the United States National Herbarium* 12(6): 210. 1909, F.M. Bailey, in *Queensland Agricultural Journal*. 27: 69, t. XIX. 1911, *Annali di Botanica* 13: 47. 1914, *Willdenowia* 4: 209, 21. 1966, *Flora of Tropical East Africa* 451-898. 1982, *Annals of the Missouri Botanical Garden* 75: 866-873. 1988, *Botanical Journal of the Linnean Society* 97: 255-259. 1988, *ASBS Symposium 1990: Indo-Pacific Biogeography*, 14. 1990, *Contributions from the United States National Herbarium* 46: 16. 2003.

### Species

#### *A. angusta* Stapf

Africa, Angola. See *Flora of Tropical Africa* 9: 485. 1919.

*A. cimicina* (L.) Stapf (*Agrostis cimicina* (L.) Poir.; *Agrostis digitata* Lam.; *Agrostis digitata* (Sw.) Poir., nom. illeg., non *Agrostis digitata* Lam.; *Alloteropsis latifolia* (Peter) Pilg.; *Alloteropsis quintasii* (Mez) Pilg.; *Axonopus cimicinus* (L.) P. Beauv.; *Axonopus latifolius* Peter; *Coridochloa cimicina* (L.) Nees ex Chase; *Coridochloa cimicina* (L.) Nees; *Coridochloa cimicina* (L.) Nees ex B.D. Jacks.; *Eriachne melicacea* f. *fragrans* F.M. Bailey, nom. inval.; *Eriachne melicacea* var. *fragrans* F.M. Bailey; *Milium cimicinum* L.; *Milium digitatum* Sw.; *Panicum cimicinum* (L.) Retz.; *Urochloa cimicina* (L.) Kunth; *Urochloa quintasii* Mez)

Old World tropics, Southeast Asia, tropical Africa, Australia. Short-lived perennial or annual, erect or decumbent or ascending, tufted, low spreading habit, terete, often rooting from the lower nodes, fibrous roots, leaves lanceolate to ovate, inflorescence 1-whorled, spike-like racemes on the top of the peduncle, spikelets ovate-elliptic solitary or clustered, upper glume cartilaginous, upper lemma awned, palea hairy or papillate, weed species, hay, economic and useful plant, roots used in toothache by Lodhas (India), forage, moderate fodder value, useful for erosion control, found in moist areas, along roadsides, lowland, open habitats, weedy places, dry open forest, open dry soils, along water courses, sandy clay soil, sandy soils among rocks, waste places, see *Mantissa Plantarum Altera* 184. 1771, *Obs. Bot.* 3: 9. 1783, *Encyclopédie Méthodique, Botanique* 1: 59. 1783, *Nova Genera et Species Plantarum seu Prodromus* 24. 1788, *Encyclopédie Méthodique, Botanique*

Suppl. 1: 258. 1810, *Essai d'une Nouvelle Agrostographie* 12, 154. 1812, *Révision des Graminées* 1: 31. 1829, *Edinburgh New Philosophical Journal* 15: 381. 1833, *Enum. Pl. Zeyl.* 5: 358. 1864, *Index Kewensis* 1: 618. 1893 and *Handb. Fl. Ceylon* 5: 166. 1900, *Proceedings of the Biological Society of Washington* 24: 129. 1911, *Flora of Tropical Africa* 9: 487. 1919, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 57: 195. 1921, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 40: 164, 165, Anhang 21. 1930, *Handb. Fl. Ceylon* vol. 6: 327. 1931, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 12: 382. 1935, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 13: 263. 1936, *Grasses of Ceylon* 149, pl. 35. 1956, *Ceylon J. Sci., Biol. Sci.* 2(2): 128. 1959, *Grasses of Burma ...* 276. 1960, *Bull. Bot. Soc. Beng.* 32: 48-53. 1978.

in English: Cockatoo grass, bug seed grass, summer grass, carpet grass

in Sri Lanka: unni pul, budeni tana

in India: suni, siuri, neeru sajjae hullu

in China: chou chong cao

#### *A. distachya* J. Presl

Philippines. See *Reliquiae Haenkeanae* 1(4-5): 344, t. 47. 1830.

*A. paniculata* (Benth.) Stapf (*Axonopus paniculatus* Stapf; *Echinochloa paniculata* (Benth.) Roberty; *Mezochloa aubertii* (Mez) Butzin; *Oplismenus benthamii* (Steud.) Corderm.; *Panicum aubertii* Mez; *Panicum benthamii* (Benth.) Steud.; *Urochloa paniculata* Benth.)

Africa, Benin, Zambia. Annual, often decumbent, forming large tufts, digitate racemes, purple spikelets, scented roots, good fodder, a weed of rice, moist soils, dry sites, damp places, see *Niger Flora* 558. 1849, *Synopsis Plantarum Glumacearum* 1: 43. 1854[1853], *Flore de l'Île de la Réunion* 118. 1895 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 34(1): 134. 1904, *Flora of Tropical Africa* 9: 486-487. 1919, *Petite Flore de l'Ouest-Africain* 398. 1954, *Bull. Inst. Franc. Afr. Noire, Sér. A.*, 17: 67. 1955, *Willdenowia* 4: 209, 211. 1966.

in Mali: hori, subu

in Sierra Leone: kasota, kesinkr, ndiwi, yane, yani, yobovatu

in West Africa: hori, ndiwi, subu, yani

#### *A. papillosa* Clayton

South Africa, Kenya. Perennial, tufted, knotted at the base, leaf sheaths hairy, on sandy soils, open or shaded habitats, see *Kew Bulletin* 33(1): 21. 1978.

*A. semialata* (R. Br.) Hitchc. (*Alloteropsis eckloniana* (Nees) Hitchc.; *Alloteropsis gwebiensis* Stent & Rattray; *Alloteropsis homblei* Robyns; *Alloteropsis semialata* var. *eckloniana* (Nees) C.E. Hubb. ex Bor, nom. illeg., non

*Alloteropsis semialata* var. *eckloniana* (Nees) Pilg.; *Alloteropsis semialata* var. *ecklonii* (Stapf) Stapf; *Axonopus ecklonianus* Stapf ex Chiov.; *Axonopus semialatus* (R. Br.) Hook.f.; *Axonopus semialatus* var. *ecklonianus* (Nees) Peter; *Axonopus semialatus* var. *ecklonii* (Nees) Stapf; *Bluffia eckloniana* Nees; *Coridochloa semialata* (R. Br.) Nees ex Lindl.; *Coridochloa semialata* (R. Br.) Nees; *Oplismenus semialatus* (R. Br.) Desv.; *Panicum semialatum* R. Br.; *Panicum semialatum* var. *ecklonianum* (Nees) Hack. ex T. Durand & Schinz; *Paspalum semialatum* (R. Br.) Eyles; *Paspalum semialatum* var. *ecklonii* Eyles; *Pterochaena catangensis* Chiov.; *Urochloa semialata* (R. Br.) Kunth

Tropical Africa, Asia, Australia. Perennial, polymorphic, shortly rhizomatous, densely tufted, erect, herbaceous, tussock-forming, smooth basal stems, vigorous rootstock, the base thickened and coated with densely hairy scales, leaf blades linear, sheath silky tomentose, erect leaves silky to hairy, ligule a short silky rim, racemes digitate, spikelets shortly acuminate and awned, lower glume ovate, upper glume acuminate and more or less winged, upper lemma lanceolate, golden anthers, large seeds purple black, seeds heavily, attractive and ornamental, a decreaser species, economic plant, good grazing, good fodder value, pasture species, forage, grazed by cattle, palatable and nutritious when young, uprooted and eaten by pigs, can withstand burning and heavy grazing, very drought resistant, can withstand some waterlogging, in Australia stems used to dip honey out native bee hives, seed of this grass is a favourite food of hooded parrots and golden-shouldered parrots as well, occurs in open grassland or woodland, clay soil, savannah, see *Mant. Pl. Altera* 184. 1771, *Obs. Bot.* 3: 9. 1783, *Prodromus Florae Novae Hollandiae* 192. 1810, *Révision des Graminées* 1: 31. 1829, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 185. 1831, *Edinburgh New Philosophical Journal* 15: 381. 1833, *Delectus Seminum quae in Horto Hamburgensium Botanico* 1834: 8. 1834, *Journal of Botany* 2: 97. London 1850 [*The Journal of Botany*, Hooker, being a second series of the *Botanical Miscellany*], *Enum. Pl. Zeyl.* 5: 358. 1864, *Conspectus Florae Africae* 5: 764. 1894, *Fl. Br. Ind.* 7(21): 64. 1896, *Flora Capensis* 7: 418. 1899 and *Handb. Fl. Ceylon* vol. 5: 167. 1900, *Contributions from the United States National Herbarium* 12(6): 210. 1909, *Annali di Botanica* 13: 47. Roma 1914, *Proceedings of the Biological Society of Washington* 29: 128. 1916, *Transactions of the Royal Society of South Africa* 5: 299. 1916, *Fl. Trop. Afr.* 9: 485, 487. 1919, *Nuovo Giornale Botanico Italiano* 26: 79. 1919, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 1: 165. 1929, *Handb. Fl. Ceylon* 6: 237. 1931, *Bulletin du Jardin Botanique de l'État* 9(3): 172. 1932, *Proceedings of the Rhodesia Scientific Association* 32: 21. 1933, *Grasses of Ceylon* 149. 1956, *Ceylon J. Sci., Biol. Sci.* 2(2): 128. 1959, *Grasses of Burma ...* 276-277. 1960, *S. Afr. J. Sci.* 70: 169-173. 1974, *Bothalia* 14: 205-213. 1983, *Annals of the*

*Missouri Botanical Garden* 75: 866-873. 1988, *Botanical Journal of the Linnean Society* 97: 255-259. 1988.

in English: Cockatoo grass, sugar bag grass, blackseed grass in the Philippines Islands: timi

in China: mao ying cao

**A. semialata** (R. Br.) Hitchc. subsp. *eckloniana* (Nees) Gibbs-Russ. (*Alloteropsis eckloniana* (Nees) Hitchc.; *Alloteropsis semialata* auctt.; *Alloteropsis semialata* (R. Br.) Hitchc.; *Alloteropsis semialata* (R. Br.) Hitchc. var. *ecklonii* (Stapf) Stapf; *Bluffia eckloniana* Nees; *Panicum semialatum* var. *ecklonianum* (Nees) Hack. ex T. Durand & Schinz)

Africa, Swaziland, Tanzania, South Africa. Perennial, tufted, short rhizomatous, unbranched culms, leaf blades flattened and densely hairy, basal sheath ribbed, ligule membranous, racemes digitate, spikelets with a short awn, unpalatable grass, low grazing value, growing in open sour grassland, moist places, in sour bushveld, hill slopes, on stony soils, see *Delectus Seminum quae in Horto Hamburgensium Botanico* 1834: 8. 1834, *Conspectus Florae Africae* 5: 764. 1894 and *Bothalia* 14(2): 211. 1983.

in English: black-seed grass

in South Africa: donkersaadgras

in China: zi wen mao ying cao

**A. semialata** (R. Br.) Hitchc. subsp. *semialata* (*Alloteropsis semialata* (R. Br.) Hitchc.; *Arundinella schultzei* Benth.; *Holisetum philippicum* Steud.; *Oplismenus semialatus* (R. Br.) Desv.; *Panicum philippicum* (Steud.) Villalobos; *Panicum semialatum* R. Br.; *Urochloa semialata* (R. Br.) Kunth)

Africa, Kenya, Nigeria, Senegal, Swaziland, Tanzania, South Africa, Asia temperate and tropical, India, China, Thailand, Sri Lanka, Australia, Northern Territory, Queensland, Western Australia, New South Wales. In small dense tufts, woody rootstock, leaf blades convolute, leaves narrow and sparsely hairy, spikelets loosely arranged, growing in hard dry sandy soils, hill slopes, along forest margins, woodland, see *Prodromus Florae Novae Hollandiae* 192. 1810, *Révision des Graminées* 1: 31. 1829, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 185. 1831, *Synopsis Plantarum Glumacearum* 1: 118. 1854, *Flora Australiensis: A Description ...* 7: 545. 1878.

in China: yuan bian zhong, mao ying cao

**A. semialata** (R. Br.) Hitchc. var. *viatica* (Griffith) Ellis & S. Karthikeyan ex S. Karthikeyan (*Aira viatica* Griffith; *Alloteropsis semialata* var. *viatica* (Griffith) J.L. Ellis & Karth.)

India, Assam, Kerala, Sri Lanka. Upper glumes winged, see *Notulae ad Plantas Asiaticas* 3: 54. 1851 and *Bulletin of the Botanical Survey of India* 13(3-4): 175. 1971[1974], *Journal of the Bombay Natural History Society* 70(3): 594. 1973[1974].

## Alopecuropsis Opiz

Resembling the genus *Alopecurus* L.

Pooideae, Poaceae, Alopecurinae, type *Alopecuropsis textilis* (Boiss.) Opiz, see *Species Plantarum* 1: 60-61. 1753, *Lotos* 7: 84. 1857 and *Regnum Veg.* 127: 17. 1993, *Contributions from the United States National Herbarium* 48: 97-106. 2003.

## **Alopecurus** L. = *Alopecuropsis* Opiz, *Colobachne* P. Beauv., *Tozzettia* Savi

From the Greek *alopekourous*, grass like a fox's tail, *alopex* "a fox" and *oura* "a tail," referring to the shape of the panicle, from the form of the spike-like panicle; Latin *alopecurus*, a kind of plant, according to Sprengel a species of *Saccharum*; see Carl Linnaeus, *Species Plantarum*. 60. 1753 and *Genera Plantarum*. edition 5. 30. 1754.

About 25-36(-50) species, northern temperate areas, Eurasia, temperate South America. Pooideae, Poodae, Aveneae, or Pooideae, Poaceae, Alopecurinae, annual or perennial, tufted, leafy, few- to many-noded, herbaceous, rhizomatous or stoloniferous, sometimes decumbent or geniculate at base, sometimes rooting at lower nodes, unbranched, glabrous nodes, hollow internodes, narrow leaf blades linear to linear-lanceolate, leaf sheath open, ligule an unfringed membrane, leaves flat, plants bisexual, inflorescence dense and cylindrical, a soft and narrow spike-like panicle, spikelets densely crowded and arranged in a dense spiral, spikelets with female-fertile florets only, 1 bisexual floret, reduced floret absent, 2 glumes more or less equal and strongly keeled and not awned, lemma 3- to 5-nerved enclosed within the glumes, obtuse lemma membranous and awned on dorsal surface, awn bent and twisted or straight, palea usually absent or very reduced, lodicules absent, 3 stamens, ovary glabrous, stigmas exerted, agricultural weed species, palatable forage for livestock, useful cultivated fodder grasses, native pasture species, ornamental, found in grasslands, swampy ground, irrigation channels, damp meadows, pampas, stony slopes, open habitats, similar to *Phleum* L., type *Alopecurus pratensis* L., see *Species Plantarum* 1: 60-61. 1753, *Species Plantarum, Editio Secunda* 89. 1762, *Memorie di Matematica e di Fisica della Società Italiana delle Scienze* 8(2): 477. 1799, *Annalen der Botanik ... Herausgegeben von Dr. Paulus Usteri ... Zürich 1791-1800, English Botany* 21: t. 1467. 1805, *Essai d'une Nouvelle Agrostographie* 22, 158. 1812, *Observations sur les Graminées de la Flore Belgique* 132. 1823 [1824], *Flora Rossica* 4(14): 640. 1853, *Nuovi Generi e Nuove Specie di Piante Monocotiledoni* 11. 1854, *Lotos* 7: 84. 1857 and *Flora Pyrenaea ...* 4: 274-275. 1901, *American Midland Naturalist* 4: 216. 1915, *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 345-369. 1931, *Novosti Sist. Vyss. Rast.* 6: 18. 1970, *Flora Iranica: Gramineae* 70: 277. Graz

1970, *Novosti Sist. Vyss. Rast.* 8: 12-22. 1971, *Fragmenta Floristica et Geobotanica* 23: 317-325. 1977, *Turun yliopiston julkaisu - Annales Universitatis Turkuensis, Sarja A II, Biologia-Geographica* 3: 1-12. 1982 [also *Ann. Univ. Fenn. Abo.*, A 3: 1-12. 1982], *Bot. Zhurn. SSSR* 69(12): 1703-1704. 1984, *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Botanica* 32: 57-70. 1985, *Bot. Zhurn. SSSR* 70(12): 1698-1699. 1985, *Taxon* 34: 346-351. 1985, *Acta Biologica Cracoviensia, Series Botanica* 28: 65-85. 1986, *Journal of Cytology and Genetics* 21: 155. 1986, *Journal of Cytology and Genetics* 22: 161-162. 1987, *Annali di Botanica* 45: 75-102. 1987, *Travaux de l'Institut Scientifique, Université Mohammed V. Série Botanique* 35: 1-168. 1988 [by N. Galland], *Willdenowia* 19: 199-213. 1989, *Bot. Zhurn. (Moscow & Leningrad)* 74: 1675-1678. 1989, *Cytologia* 55: 169-173, 217-223. 1990, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66. 1990, *Bot. Zhurn. (Moscow & Leningrad)* 75: 1185. 1990, *Flora Mediterranea* 1: 229-236. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 76: 476-479. 1991, *Cytologia* 56: 437-452. 1991, *Fitologija* 39: 72-77. 1991, *Bocconeae, Monographiae Herbarii Mediterranei Panormitani* 3: 229-250. 1992, *Regnum Veg.* 127: 17. 1993, *Flora Mesoamericana* 6: 242. 1994, *Annals of the Missouri Botanical Garden* 81(4): 784-791. 1994, *Bot. Zhurn. (Moscow & Leningrad)* 81(5): 98-101. 1996, *Flora Mediterranea* 7: 204-213. 1997, *Watsonia* 21: 365-368. 1997, *Flora Mediterranea* 8: 307-313. 1998, *Turkish Journal of Botany* 23(4): 245-262. 1999, *Opera Botanica* 137: 1-42. 1999, *Contributions from the United States National Herbarium* 48: 97-106, 237, 656. 2003, *Am. J. Bot.* 91: 889-898. 2004, *Functional Ecology* 18(1): 77-86. Feb 2004, *Ecography* 27(2): 242-252. Apr 2004, *Weed Research* 44(3): 178-186, June 2004, *Weed Research* 44(5): 375-387. Oct 2004, *Weed Research* 44(6): 414-432, 460-468. Dec 2004, *Weed Research* 45(1): 2-17. Feb 2005, *Journal of Applied Ecology* 42(1): 13-24. Feb 2005, *Journal of Ecology* 93(1): 138-147. Feb 2005, *Ecology Letters* 8(4): 419-429. Apr 2005, *Global Change Biology* 11(4): 525-536. Apr 2005, *Journal of Applied Ecology* 42(2): 239-250. Apr 2005 [Predicting plant species' responses to river regulation: the role of water level fluctuations.], *Plant Breeding* 124(2): 147-153. Apr 2005, *Journal of Agronomy and Crop Science* 191(2): 152-160. Apr 2005, *Weed Research* 45(2): 140-148. Apr 2005, *New Phytologist* 166(2): 537-550. May 2005, *Oikos* 109(3): 521-534. June 2005, *Weed Research* 45(3): 165-174, 202-211, 220-227. June 2005.

## Species

*A. aequalis* Sobol. (*Alopecurus aequalis* f. *fluitans* Parodi; *Alopecurus aequalis* f. *foliosus* Parodi; *Alopecurus aequalis* f. *notacens* (Hack.) Parodi; *Alopecurus aequalis* f. *violaceus* (Hack.) Parodi; *Alopecurus aequalis* subsp. *aequalis*; *Alopecurus aequalis* subsp. *amurensis* (Kom.) Hultén; *Alopecurus aequalis* subsp. *amurensis* (Kom.) T. Koyama, nom. illeg., non *Alopecurus aequalis* subsp. *amurensis*

(Kom.) Hultén; *Alopecurus aequalis* subsp. *aristulatus* (Michx.) Tzvelev; *Alopecurus aequalis* subsp. *natans* (Wahlenb.) Á. Löve & D. Löve; *Alopecurus aequalis* var. *aequalis*; *Alopecurus aequalis* var. *amurensis* (Kom.) Ohwi; *Alopecurus aequalis* var. *aristulatus* (Michx.) Tzvelev; *Alopecurus aequalis* var. *fluitans* (Parodi) Mariano; *Alopecurus aequalis* var. *natans* (Wahlenb.) Fernald; *Alopecurus aequalis* var. *sonomensis* P. Rubtzov; *Alopecurus aequalis* var. *violaceus* (Hack.) Mariano; *Alopecurus amurensis* Kom.; *Alopecurus aristulatus* Michx.; *Alopecurus aristulatus* var. *merriami* (Beal ex J.M. Macoun) H. St. John; *Alopecurus aristulatus* var. *natans* (Wahlenb.) Simmons; *Alopecurus baptarrhenius* S.M. Phillips; *Alopecurus brachytrichus* Ohwi; *Alopecurus caespitosus* Trin.; *Alopecurus diandrus* Griff.; *Alopecurus fulvus* Smith; *Alopecurus fulvus* f. *violacea* Hack.; *Alopecurus fulvus* var. *amurensis* (Kom.) Roshev.; *Alopecurus geniculatus* f. *robustior* Hack. ex Kneuck.; *Alopecurus geniculatus* subsp. *fulvus* (Sm.) C. Hartm.; *Alopecurus geniculatus* var. *aequalis* (Sobol.) Fiori; *Alopecurus geniculatus* var. *aequalis* (Sobol.) Paunero; *Alopecurus geniculatus* var. *amurensis* (Kom.) Roshev.; *Alopecurus geniculatus* var. *aristulatus* (Michx.) Torr.; *Alopecurus geniculatus* var. *armurensis* (Kom.) Fedtsch.; *Alopecurus geniculatus* var. *caesius* Neilr.; *Alopecurus geniculatus* var. *fulvus* (L.) Weinm.; *Alopecurus geniculatus* var. *fulvus* (Sm.) Schrad.; *Alopecurus geniculatus* var. *natans* Wahlenb.; *Alopecurus geniculatus* var. *robustus* Vasey; *Alopecurus grandiflorus* (Roshevitz) Petrov; *Alopecurus hitchcockii* Parodi; *Alopecurus howellii* var. *merriamii* Beal ex J.M. Macoun; *Alopecurus howellii* var. *merriamii* Beal; *Alopecurus paludosus* P. Beauv. ex Mert & Koch; *Alopecurus palustris* subsp. *fulvus* (Sm.) Syme ex Sowerby; *Alopecurus subaristatus* Pers.; *Tozzettia fulva* (Sm.) Lunell (after Clinton Hart Merriam, 1855-1942; after Mr. Thomas Jefferson Howell, 1842-1912; see J.H. Barnhart, *Biographical notes upon botanists*. 2: 211. 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 184. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; J. Ewan, edition, *A Short History of Botany in the United States*. New York and London 1969)

Circumboreal. Annual or perennial bunchgrass, tufted, open, aquatic or semiaquatic, emergent, culms ascending and often bent at the nodes, mostly decumbent and sometimes rooting at the lower nodes, leaves erect to floating, auricles absent, culm leaf blades linear-lanceolate, leaf sheath smooth and loosely wrapped around the stem, ligule membranous, inflorescence of chasmogamous spikelets, compressed and narrow spike-like panicle, glumes membranous and keeled with silky hairs, palea absent, lemma awn weak and straight, straight awn included within or

arising from near middle of the lemma, seeds ground into a flour and used with other cereals in making bread, weed species of rice and other cereals, a good fodder plant, a famine food, ornamental, common in pastures, rice fields, wet places, edges of ponds and ditches, wet meadows, dry to damp bare soil, damp hilly slopes shores and stream banks, border of lake, bog edges, shallow water, water-filled ditches, open marshy ground, see *Flora Petropolitana* 16. 1799, *Flora Boreali-Americana* 1: 43. 1803, *Synopsis Plantarum* 1: 80. 1805, *English Botany* 21, t. 1467. 1805, *Flora Lapponica* 22. 1812, *A Flora of the Northern and Middle Sections of the United States* 1: 97. 1823, *Species Graminum* 3: t. 241. 1829-1830, *Linnaea* 12(4): 424. 1838, *Notulae ad Plantas Asiaticas* 3: 11. 1851, *Anales del Jardín Botánico de Madrid* 10: 312. 1852, *Flora von Nieder-Oesterreich* 35. 1859, *English Botany, ... third edition* 11: 23. 1873, *Bulletin of the Torrey Botanical Club* 15: 13. 1888, *Grasses of North America for Farmers and Students* 2: 278. 1896, *The Fur Seals and Fur Seal Islands of the North Pacific Ocean* 4 parts. 3: 573. [also issued as Treasury Department Doc. No. 2017] Washington, D.C.: Government Printing Office, 1899 and *Svenska Expeditionen till Magelansländer* 3(5): 218. 1900, *Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie* 11: 54. 1905, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 6(17): 4. 1907, *American Midland Naturalist* 4: 216. 1915, *Nuova Flora Analitica d'Italia* 1: 92. 1923, *Rhodora* 27(323): 198. 1925, *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 365-366, f. 7ii, 8. 1931, *Acta Phytotaxonomica et Geobotanica* 5: 51. 1936, *Botanical Magazine* (Tokyo) 55(656): 360. 1941, *Acta Horti Gothoburgensis* 204: 94. 1956, *Leaflets of Western Botany* 9(11): 170-172. 1961, E. Hultén, *The Circumpolar Plants*. I. Vascular cryptogams, conifers and monocotyledons. 1: 108. Stockholm 1962 [Kungl. Svenska Vetenskapsakademien handlingar. Fjärde Serien. Band 8. Nr 5.], *Flora URSS* 2: 36. 1964, *Novosti Sist. Vyss. Rast.* 8: 20. 1971, *Flora Patagónica* 8(3): 348. 1978, *Kew Bulletin* 41(4): 1027. 1986, *Grasses of Japan and its Neighboring Regions* 485. 1987.

in English: short-awn foxtail, short-awn foxtail grass, shortawn foxtail, short-awn meadow-foxtail, short-awned foxtail, orange foxtail, foxtail, water foxtail, Sonoma alopecurus

in Italian: coda di topo arrossata

in German: Roter Fuchsschwanz, Rotgelbes Fuchsschwanzgras

**A. aequalis** Sobol. var. **aequalis** (*Alopecurus aequalis* Sobol. var. *natans* (Wahlenb.) Fern.; *Alopecurus aristulatus* Michx.; *Alopecurus geniculatus* L. var. *aristulatus* (Michx.) Torr.)

U.S. Perennial, see *Flora Petropolitana* 16. 1799, *Flora Lapponica* 22. 1812 and *Rhodora* 27(323): 198. 1925.

in English: short-awn foxtail

**A. aequalis** Sobol. var. *sonomensis* N.I. Rubtzov

U.S., California. Perennial, endangered species, open marshy areas, see *Flora Petropolitana* 16. 1799 and *Leaflets of Western Botany* 9(11): 170-172. 1961.

in English: Sonoma alopecurus, Sonoma shortawn foxtail

**A. alpinus** Vill. (*Alopecurus alpinus* Sm., nom. illeg., non *Alopecurus alpinus* Vill.; *Alopecurus alpinus* f. *altaicus* Griseb.; *Alopecurus alpinus* subsp. *borealis* (Trin.) Jurtzev; *Alopecurus alpinus* subsp. *glaucus* (Less.) Hultén; *Alopecurus alpinus* subsp. *stejnegeri* (Vasey) Hultén; *Alopecurus alpinus* var. *borealis* (Trin.) Griseb.; *Alopecurus alpinus* var. *glaucus* (Less.) Krylov; *Alopecurus alpinus* var. *occidentalis* (Scribn. & Tweedy) Boivin; *Alopecurus alpinus* var. *stejnegeri* (Vasey) Hultén; *Alopecurus altaicus* (Griseb.) Petrov; *Alopecurus behringianus* Gand.; *Alopecurus borealis* Trin.; *Alopecurus glaucus* Less.; *Alopecurus glaucus* var. *altaicus* Griseb.; *Alopecurus magellanicus* Lam.; *Alopecurus occidentalis* Scribn. & Tweedy)

Northern America, U.K. Perennial bunchgrass, caespitose, occurs in alpine moist meadows and streamsides, roadside ditch, moist montane valleys, subalpine and alpine meadows, see also *Alopecurus borealis* Trin., see *Histoire des Plantes de Dauphiné* éd. 2 1: 306, 427. 1786, *Tableau Encyclopédique et Méthodique ... Botanique* 1: 168. 1791, *English Botany* pl. 1126. 1803, *Fundamenta Agrostographiae* 58. 1820, *Linnaea* 9(2): 206. 1834, *Flora Rossica* 4(13): 461-462. 1852, *Botanical Gazette* 11: 170. 1886, *Proceedings of the United States National Museum* 10: 153. 1887 and *Bulletin de la Société Botanique de France* 66(7): 298. 1919 [1920], *Kongl. Svenska Vetenskapsakad. Handl.* 5: 90. 1927, *Flora Iakutiae* 1: 146. 1930, *Arkiv för Botanik, Andra Serien* 7(1): 9-10. 1968, *Provancheria* 12: 32. 1981.

**A. anatolicus** M. Dogan

Eurasia, Turkey. See *Notes from the Royal Botanic Garden, Edinburgh* 45(1): 114, f. 2. 1988, *Turkish Journal of Botany* 23(4): 245-262. 1999.

**A. antarcticus** Vahl (*Alopecurus alpinus* f. *antarctica* (Vahl) Hack.; *Alopecurus alpinus* var. *antarcticus* (Vahl) Macloskie & Dusén; *Alopecurus alpinus* var. *aristatus* Hook.f.; *Alopecurus antarcticus* Lechler ex Steud.; *Alopecurus magellanicus* Lam.; *Alopecurus magellanicus* var. *magellanicus*; *Alopecurus pratensis* L.)

South America. See *Species Plantarum* 1: 60. 1753, *Symbolae Botanicae, ...* 2: 18. 1791, *Tableau Encyclopédique et Méthodique ... Botanique* 1: 168. 1791, *Flora Antarctica* 370. 1846, *Synopsis Plantarum Glumacearum* 1: 148. 1854 and *Svenska Expeditionen till Magellansländer* 3(5): 260. 1900, *Reports of the Princeton University Expeditions to Patagonia ... Botany* 8(Suppl.): 33. 1915[1914], *British Antarctic Survey Scientific Reports* 60: 1-202, 1-6 pls. 1968, *Regnum Veg.* 127: 17. 1993.

**A. anthoxanthoides** Boiss. (*Alopecurus utriculatus* subsp. *anthoxanthoides* (Boiss.) Dogan)

Northern America. See Alexander Russell (1715-1786), *The Natural History of Aleppo (edition 2)* 2: 243. London 1794, *Diagnoses plantarum orientalium novarum* 1(13): 42. 1854 and *Notes from the Royal Botanic Garden, Edinburgh* 40(1): 86. 1982.

**A. arundinaceus** Poir. (*Alopecurus armenus* (K. Koch) Grossh.; *Alopecurus arundinaceus* subsp. *armenus* (K. Koch) Tzvelev; *Alopecurus brachystachyus* M. Bieb.; *Alopecurus candicans* Salzm. ex Steud.; *Alopecurus castellanus* Boiss. & Reut.; *Alopecurus elatior* Jacq. ex Hook.f.; *Alopecurus exaltatus* Less.; *Alopecurus lasiostachyus* Link; *Alopecurus muticus* Karav. & Kir.; *Alopecurus nigrescens* Jacq.; *Alopecurus nigricans* Hornem.; *Alopecurus nigricans* var. *humilis* Fries; *Alopecurus nigricans* var. *ventricosus* (Pers.) Rchb.; *Alopecurus pratensis* subsp. *arundinaceus* (Poir.) Douin ex Bonn.; *Alopecurus pratensis* subsp. *ventricosus* (Pers.) Thell.; *Alopecurus pratensis* subsp. *ventricosus* (Rchb.) Paunero; *Alopecurus pratensis* subsp. *ventricosus* (Rchb.) Thell.; *Alopecurus pratensis* var. *armenus* K. Koch; *Alopecurus pratensis* var. *arundinaceus* (Poir.) Kuntze; *Alopecurus pratensis* var. *exaltatus* (Less.) Griseb.; *Alopecurus pratensis* var. *nigricans* (Hornem.) Wahlenb.; *Alopecurus pratensis* var. *ruthenicus* Trin.; *Alopecurus pratensis* var. *ventricosus* (Pers.) Cosson & Durand; *Alopecurus pratensis* var. *ventricosus* (Rchb.) Cosson & Durand; *Alopecurus repens* M. Bieb.; *Alopecurus ruthenicus* Weinm.; *Alopecurus ruthenicus* var. *exserens* Griseb.; *Alopecurus ruthenicus* var. *nigricans* (Hornem.) Regel; *Alopecurus salvatoris* Loscos ex Willk.; *Alopecurus sibiricus* hort. ex Roem. & Schult.; *Alopecurus ventricosus* Pers., nom. illeg., non *Alopecurus ventricosus* (Gouan) Huds.; *Alopecurus ventricosus* var. *exserens* (Griseb.) Asch. & Graebn.; *Alopecurus ventricosus* var. *exserens* (Griseb.) Serb. & Nyár.; *Alopecurus ventricosus* var. *lobatus* Grossh.)

Temperate Eurasia. Perennial, strongly rhizomatous and creeping, sod-forming, erect, often purplish at the base, leaf sheaths inflated and glabrous, ligule membranous, leaves linear and scabrid, panicle broad-cylindric and green to green-purple, spikelets urceolate, glumes lanceolate and acute and ciliate on the keels, lemmas ovate and oblique-truncate, awn curved, fodder, forage, palatable and nutritious, useful for erosion control in moist areas, found in wetland pastures and mountain meadows, shores, stream banks, ditches, wet meadows, see *Species Plantarum* 1: 60. 1753, *Flora Anglica, Editio Altera* 1: 28. 1778, *Synopsis Plantarum* 1: 80. 1805, *Encyclopédie Méthodique, Botanique* 8: 766. 1808, *Hortus Regius Botanicus Hafniensis* 1: 68. 1813, *Eclogae Graminum* 2: 17, t. 13. 1814, *Systema Vegetabilium* 2: 271. 1817, *Flora Taurico-Caucasica* Suppl. 3: 54, 56. 1819, *Flora Suecica, Editio Secunda Aucta et Emendata* 1: 37. 1824, *De Graminibus unifloris et sesquifloris* 145. Petropoli 1824, *Hortus Regius Botanicus*

*Berolinensis* 1: 71. 1827, *Novitiae florae svecicae. Editio altera* 8. Lundae 1828, *Flora Germanica Excursoria* 1: 31. 1830, *Linnaea* 9(2): 207. 1834, *Nomenclator Botanicus* edition 2 1: 61. 1840, *Diagnoses Plantarum Novarum Hispanicarum* 26. 1842, *Bulletin de la Société Impériale des Naturalistes de Moscou* 15: 527. 1842, *Linnaea* 21(3): 381. 1848, *Flora Rossica* 4(13): 463-464. 1852, *Exploration Scientifique de l'Algérie* 2: 56. 1854-1855, *Österreichische Botanische Zeitschrift* 40: 144. 1890, *The Flora of British India* 7: 238. 1896, *Synopsis der mitteleuropäischen Flora* 2: 134. 1899 and *Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich* 52: 436. 1908, *Anales del Jardín Botánico de Madrid* 10(2): 316. 1951, *Novosti Sist. Vyss. Rast.* 8: 18. 1971, *Flora Republicii Socialiste Romania* 12: 114. 1972, *Transactions of the Nebraska Academy of Sciences* 18: 141-150. 1991.

in English: creeping foxtail, creeping meadow foxtail

in German: Rohr-Fuchsschwanz, Rohr-Fuchsschwanzgras

in Turkey: çayir otu

**A. australis** Nees (*Alopecurus geniculatus* L.)

Australia. See *Species Plantarum* 1: 60. 1753, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 412. 1843 and *Taxon* 49(2): 245. 2000.

in English: marsh foxtail grass

**A. baptarrhenius** S.M. Phillips (*Alopecurus aequalis* Sobol.)

Ethiopia. Annual or short-lived perennial, erect or ascending, tufted, leaf blades narrowly linear, upper leaf sheaths inflated, ligule acute, panicle cylindrical, glumes ciliate and hispid, awn exserted, growing in shallow water, muddy riverbanks, along streams, wet places, closely related to *Alopecurus aequalis* Sobol., see *Flora Petropolitana* 16. 1799 and *Kew Bulletin* 41(4): 1027. 1986.

**A. bonariensis** Parodi & Thell. (*Alopecurus antarcticus* var. *brachyatherus* Parodi; *Alopecurus aristulatus* Michx.; *Alopecurus geniculatus* L.; *Alopecurus magellanicus* var. *brachyatherus* (Parodi) Mariano)

South America, Argentina. See *Species Plantarum* 1: 60. 1753, *Flora Boreali-Americana* 1: 43. 1803 and *Repertorium Specierum Novarum Regni Vegetabilis* 23(18-25): 302. 1927, *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 358, f. 4. 1931 [*Univ. Nac. Buenos Aires Rev. Agron.* 7: 358, f. 4. 1931], *Flora Patagónica* 3: 345. 1978, *Turk. J. Bot.* 23(4): 254. 1999, *Taxon* 49(2): 245. 2000.

**A. borealis** Trin. (*Alopecurus alpinus* Vill.; *Alopecurus alpinus* Sm., nom. illeg., non *Alopecurus alpinus* Vill.; *Alopecurus alpinus* f. *altaicus* Griseb.; *Alopecurus alpinus* subsp. *borealis* (Trin.) Jurtzev; *Alopecurus alpinus* subsp. *glaucus* (Less.) Hultén; *Alopecurus alpinus* subsp. *stejnegeri* (Vasey) Hultén; *Alopecurus alpinus* var. *borealis* (Trin.) Griseb.; *Alopecurus alpinus* var. *glaucus* (Less.) Krylov; *Alopecurus alpinus* var. *occidentalis* (Scribn. & Tweedy)

Boivin; *Alopecurus alpinus* var. *stejnegeri* (Vasey) Hultén; *Alopecurus glaucus* Less.; *Alopecurus magellanicus* Lam.; *Alopecurus magellanicus* var. *brachyatherus* (Parodi) Mariano; *Alopecurus magellanicus* var. *bracteatus* (Phil.) Mariano; *Alopecurus occidentalis* Scribn. & Tweedy; *Alopecurus pseudobrachystachyus* Ovcz.; *Alopecurus stejnegeri* Vasey) (for Leonard Hess Stejneger (1851-1943), botanical collector in Alaska, see Frank Alfred Golder (1877-1929), *Bering's voyages*; an account of the efforts of the Russians to determine the relation of Asia and America ... American Geographical Society, New York 1922-1925)

Europe, Siberia, Asia temperate, Canada, U.S. Perennial, caespitose, low, gray flowers, pubescent inflorescence spikeate and ovoid, overlapping spikelets ovoid and dark purple, glumes pubescent, lemma acute and glabrous, awn straight, growing in alpine meadow, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 168. 1791, *English Botany* pl. 1126. 1803, *Fundamenta Agrostographiae* 58. 1820, *Flora Rossica* 4(13): 461. 1852, *Botanical Gazette* 11: 170. 1886, *Proceedings of the United States National Museum* 10: 153. 1887 and *Svenska Expeditionen till Magellansländer* 3(5): 260. 1900, *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 358, f. 4. 1931, *Flora URSS* 2: 153, t. 10, f. 7, 745. 1934, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 7(1): 9. 1968, *Flora Patagónica* 3: 344-345. 1978, *Provancheria* 12: 32. 1981, *Turkish Journal of Botany* 23(4): 245-262. 1999.

in English: alpine foxtail, polar foxtail, boreal alopecurus

in French: vulpin de Gérard, vulpin des Alpes, vulpin alpin

in Italian: coda di topo alpina, coda di topo di Gérard

**A. borii** Tzvelev (*Alopecurus nepalensis* Trin. ex Steud.)

India, Russia, Pakistan, Afghanistan. Narrow panicle linear, lemma unawned, grows on black soil, plains, dry places, see *Synopsis Plantarum Glumacearum* 1: 148. 1854 and *Novosti Sist. Vyss. Rast.* 8: 19-21. 1971.

**A. brachystachyus** M. Bieb. (*Alopecurus arundinaceus* Poir.; *Alopecurus pratensis* subsp. *brachystachyus* (M. Bieb.) Trab.; *Alopecurus ventricosus* var. *brachystachyus* (M. Bieb.) Hackel in O. Fedtsch. & B. Fedtsch.)

China, Eurasia. Sandy loam, rocky soil, mountain meadow steppe, see *Flora Anglica, Editio Altera* 1: 28. 1778, *Encyclopédie Méthodique, Botanique* 8: 766. 1808, *Flora Taurico-Caucasica* Suppl. 3: 56. 1819, *Flore d'Alger* 145. 1895.

**A. bulbosus** Gouan (*Alopecurus bulbosus* Huds., nom. illeg., non *Alopecurus bulbosus* Gouan; *Alopecurus bulbosus* Poir., nom. illeg., non *Alopecurus bulbosus* Gouan)

Europe. Riverside species, useful for erosion control, growing in brackish grassland, in water meadow, see *Hortus Regius Monspelienensis* 37. 1762, *Flora Anglica* 24. 1762, *Voyage en Barbarie* 2: 94. 1789, *Hortus gramineus Woburnensis* 184. London 1816, *Exploration Scientifique de l'Algérie* 2:



57. 1854 and V.K. Sieber and B.G. Murray, "Spontaneous polyploids in marginal populations of *Alopecurus bulbosus* Gouan (Poaceae)." *Botanical Journal of the Linnean Society* 81(4): 293-300. 1980.

in English: bulbous foxtail, foxtail

in French: vulpin bulbeux

in German: Zwiebel-Fuchsschwanz, Knolliges Fuchsschwanzgras, Knollen-Fuchsschwanzgras

**A. carolinianus** Walter (*Alopecurus carolinianus* Spreng., nom. illeg., non *Alopecurus carolinianus* Walter; *Alopecurus geniculatus* var. *caespitosus* Scribner; *Alopecurus geniculatus* var. *ramosus* (Poiret) H. St. John; *Alopecurus gracilis* Willd. ex Trin.; *Alopecurus macounii* Vasey; *Alopecurus pedalis* Bosc ex P. Beauv.; *Alopecurus ramosus* Poir.) (dedicated to the Irish-born Canadian botanist and ornithologist John Macoun, 1831-1920, father of James Melville Macoun, 1862-1920; see R. Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 460. 1994; Joseph Ewan, *Rocky Mountain Naturalists*. 257-258. [John Macoun, b. 1832] The University of Denver Press 1950; Stafleu & Cowan, *Taxonomic literature*. 3: 232-234. 1981; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 248. 1972; J.H. Barnhart, *Biographical notes upon botanists*. 2: 432. 1965; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 277-278. 1973; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. Oxford 1964; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970) North America, U.S., Canada, British Columbia. Annual or perennial, erect to decumbent, small, tufted, clumped, fibrous roots, long membranous ligule, soft and erect spike-like panicles, 1-flowered spikelets, long awns of the glumes, very tiny grains, occurs in cultivated land and fallow fields, sunny habitats, waste areas, ephemeral wetlands, shallow water, old fields, on dry rocks, wet to swampy meadows, moist areas, riverbeds, damp soil, in sloughs, roadside ditches, around ponds and margin of alkaline ponds, low prairies, see *Species Plantarum* 1: 60. 1753, *Flora Caroliniana, secundum systema vegetabilium perillustris Linnaei digesta* ... 74. Londini [London] 1788, *Erster Nachtrag zu der Beschreibung des botanischen Gartens der Universität zu Halle* 10. Halle 1801, *Encyclopédie Méthodique, Botanique* 8: 776. 1808, *Essai d'une Nouvelle Agrostographie* 4. 1812, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg, Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(1-2): 38. 1840, *Bulletin of the*

*Torrey Botanical Club* 15: 12. 1888, *Catalogue of Canadian Plants* 25: 389. 1890 and *Rhodora* 19(224): 167. 1917.

in English: tufted meadow-foxtail, meadow-foxtail, Carolina foxtail, annual foxtail, common foxtail

**A. creticus** Trin. (*Alopecurus agrestis* var. *creticus* (Trin.) Marchesetti; *Alopecurus creticus* Wilk. & Lange; *Alopecurus thracicus* Penev & Kozuharov)

Europe, Bulgaria. See *Species Plantarum, Editio Secunda* 89. 1762, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 45. 1821, *Prodromus Florae Hispanicae* 1: 41. Stuttgartiae 1861, *Flora di Trieste* 607. Trieste 1897 and *Conspectus Florae Graecae* 3: 343. 1904, *Notes from the Royal Botanic Garden, Edinburgh* 28: 187. 1968.

in English: Cretan meadow-foxtail

**A. dasyanthus** Trautv. (*Alopecurus vaginatus* (Willd.) Boiss., nom. illeg., non *Alopecurus vaginatus* (Willd.) Pall. ex Kunth; *Polypogon vaginatus* Willd.) (from the Greek *dasy* "thick, shaggy, hairy" and *anthos* "flower")

Asia temperate, Eurasia. Useful for erosion control, see *Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften* 3: 44. 1801, *Flora Orientalis* 5: 488. 1884.

**A. geniculatus** L. (*Alopecurus aequalis* Sobol.; *Alopecurus australis* Nees; *Alopecurus geniculatus* Lindh. ex Scheele, nom. illeg., non *Alopecurus geniculatus* L.; *Alopecurus geniculatus* Sibth. ex Steudel, nom. illeg., non *Alopecurus geniculatus* L.; *Alopecurus geniculatus* var. *aquaticus* Schltld.; *Alopecurus geniculatus* var. *viridis* Neillr.; *Alopecurus pallenscens* Piper; *Alopecurus paludosus* Crantz; *Alopecurus palustris* subsp. *geniculatus* (L.) Syme ex Sowerby; *Tozzetia geniculata* (L.) Bubani)

Eurasia. Perennial or annual, tufted, stoloniferous, rhizomatous, small, glabrous, spreading from geniculate base, creeping and ascending, rooted on the nodes, glaucous, stems often floating in water, auricles absent, membranous ligules pointed or blunt, leaf blades linear acute or acuminate, green to grayish green to bluish leaves, spike-like panicle linear or narrow-oblong with densely crowded spikelets, chasmogamous, silky dark green to black inflorescence cylindrical and slender, spikelets 1-flowered, glumes obtuse to mucronate and ciliate along the keel, glumes free or united, lemma truncate and awned, bent awn inserted below the middle of the lemma, palea absent, weed species, a good forage, cold resistant, drought sensitive, coastal and inland, grows in moist or dry places, damp areas, roadsides, shallow water, river flats, wet margins of rivers, ditches, meadows and seeps, swamp edges, in wheat field, see *Species Plantarum* 1: 60. 1753, *Flora Berolinensis* 1: 39. 1823, *Nomenclator Botanicus* edition 2 1: 61. 1840, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 412. 1843, *Linnaea* 22(3): 340. 1849, *Flora von Nieder-Oesterreich* 35. 1859, *English Botany, ... third edition* 11: 25. 1873 and *The Flora of the Palouse Region* ... 18. Pullman, Wash. 1901, *Flora Pyrenaea* ... 4: 275. 1901, *Fl.*

*Iranica* 70: 285. 1970, *Phytologia* 37(4): 317-407. 1977, *Flora Patagónica* 3: 134-136, 340-348. 1978, *Turkish Journal of Botany* 23(4): 254. 1999, *Taxon* 49(2): 245. 2000.

in English: marsh foxtail, marsh foxtail grass, marsh meadow-foxtail, water foxtail, water foxtail grass, floating foxtail, floating foxtail grass, kneed foxtail

in French: vulpin genouillé

in Italian: coda di topo ginocchiata

in German: Knich-Fuchsschwanz

in Mexico: cola de zorra

**A. geniculatus** L. var. *geniculatus*

America.

**A. geniculatus** L. var. *patagonicus* Parodi

South America. See *Revista de la Facultad de Agronomía y Veterinaria* (Buenos Aires) 7: 363, f. 71. 1931.

**A. heleochloides** Hack.

South America, Chile. See *Repertorium Specierum Novarum Regni Vegetabilis* 10(243-247): 166. 1911.

**A. himalaicus** Hook.f.

Russia, Iran, Afghanistan, Pakistan, Jammu-Kashmir. Panicle oblong and silky, glumes lanceolate densely hairy, alpine grass eaten by sheep and cattle, goats and yak, found near glaciers, on exposed hill slopes, see *The Flora of British India* 7(22): 238. 1897 [1896] and *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 303: 339. 1932.

**A. hitchcockii** Parodi (*Alopecurus aequalis* Sobol.)

South America, Bolivia, Peru. Aquatic, floating, see *Flora Petropolitana* 16. 1799 and *Revista de la Facultad de Agronomía y Veterinaria* (Buenos Aires) 7(2): 366, f. 8. 1931.

**A. laguroides** Bal. (*Alopecurus vaginatus* var. *unipaleaceus* Boiss.)

Turkey. Rare species, alpine, see *Bulletin de la Société Botanique de France* 21: 11. 1874, *Flora Orientalis* 5: 488-489. 1884 and *Turkish Journal of Botany* 23(4): 245-262. 1999.

**A. lanatus** Sm. (*Alopecurus lanatus* Sibth. & Sm.; *Alopecurus phaleioides* K. Koch)

East Mediterranean, Turkey. Perennial, alpine, tiny, densely white tomentose to silver, caespitose, erect or curved, dwarf, slender, thick rootstock black and cylindrical, stems geniculate at node, sheaths tomentose and inflated, leaves linear and basal, brown blooms, panicles ovoid-globose, glumes lanceolate and hispid-pubescent, lemma oblique-truncate and ciliate, awn geniculate, attractive and ornamental, see *Florae Graecae Prodromus* 1: 43. 1806 and *Flora Mediterranea* 1: 238-240. 1991, *Turkish Journal of Botany* 23(4): 245-262. 1999.

in German: zottiger Fuchsschwanz

**A. lechleri** Steud. (*Alopecurus alpinus* f. *lechleri* (Steud.) Dusén; *Alopecurus antarcticus* Lechler ex Steud.; *Alopecurus antarcticus* var. *lechleri* (Steud.) Parodi)

Chile. See *Synopsis Plantarum Glumacearum* 1: 148. 1854 and *Reports of the Princeton University Expeditions to Patagonia 1896-1899, Botany, Volume viii, Supplement* 8(3): 34. 1914 [1915], *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 356, f. 3. 1931.

**A. longearistatus** Maxim.

Asia temperate, Siberia, Eurasia. See *Primitiae Florae Amurensis* 327. St. Petersburg 1859.

**A. magellanicus** Lam. (*Alopecurus alpinus* Sm., nom. illeg., non *Alopecurus alpinus* Vill.; *Alopecurus alpinus* f. *antarctica* (Vahl) Hack.; *Alopecurus alpinus* f. *stejnegeri* (Vasey) A.E. Porsild; *Alopecurus alpinus* subsp. *alpinus*; *Alopecurus alpinus* subsp. *borealis* (Trin.) Jurtzev; *Alopecurus alpinus* subsp. *glaucus* (Less.) Hultén; *Alopecurus alpinus* subsp. *stejnegeri* (Vasey) Hultén; *Alopecurus alpinus* var. *altaicus* (Griseb.) Kryl.; *Alopecurus alpinus* var. *antarcticus* (Vahl) Macloskie & Dusén; *Alopecurus alpinus* var. *aristatus* Hook.f.; *Alopecurus alpinus* var. *borealis* (Trin.) Griseb.; *Alopecurus alpinus* var. *gracilior* Hook.f.; *Alopecurus alpinus* var. *occidentalis* (Scribn. & Tweedy) B. Boivin; *Alopecurus alpinus* var. *stejnegeri* (Vasey) Hultén; *Alopecurus altaicus* (Griseb.) Petrov; *Alopecurus antarcticus* Vahl; *Alopecurus antarcticus* var. *brevispiculatus* Hack. ex Buchtien; *Alopecurus behringianus* Gand.; *Alopecurus borealis* Trin.; *Alopecurus borealis* subsp. *borealis*; *Alopecurus borealis* subsp. *glaucus* (Less.) Dogan; *Alopecurus bracteatus* Phil.; *Alopecurus glaucus* Less.; *Alopecurus glaucus* var. *altaicus* Griseb.; *Alopecurus occidentalis* Scribn. & Tweedy; *Alopecurus pseudobrachystachyus* Ovcz.; *Alopecurus roshevitzianus* Ovcz.; *Alopecurus stejnegeri* Vasey; *Alopecurus tenuis* Kom.; *Alopecurus triceps* Krause; *Alopecurus variegatus* Steud.)

South America, Argentina, Chile. Growing on wetter areas with poor drainage, in moist depressions, wet meadows, sandy banks, in very moist sites with poor drainage, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 168. 1791, *Symbolae Botanicae, ...* 2: 18. 1791, *English Botany* pl. 1126. 1803, *Fundamenta Agrostographiae* 58. 1820, *Linnaea* 9(2): 206. 1834, *Flora Antarctica* 2: 370. 1846, *Synopsis Plantarum Glumacearum* 1: 148. 1854, *Botanical Gazette* 11: 170. 1886, *Proceedings of the United States National Museum* 10: 153. 1887, *Anales de la Universidad de Chile* 94: 6. 1896 and *Svenska Expeditionen till Magellansländer* 3(5): 260. 1900, *Contribuciones a la Flora de Bolivia* 1: 72. 1910, *Repertorium Specierum Novarum Regni Vegetabilis* 13: 85. 1914, *Beihefte zum Botanischen Centralblatt* 32: 346. 1914, *Reports of the Princeton University Expeditions to Patagonia ... Botany* 8(Suppl.): 33. 1915, *Bulletin de la Société Botanique de France* 66(7): 298. 1919 [1920], *Flora Iakutiae* 1: 146.

1930, *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 358, f. 4. 1931, *Rhodora* 41(485): 177. 1939, *Flora Patagónica* 3: 344-345. 1978, *Provancheria* 12: 32. 1981, *Turkish Journal of Botany* 23(4): 259. 1999.

**A. magellanicus** Lam. var. **bracteatus** (Phil.) Mariano (*Alopecurus antarcticus* f. *bracteatus* (Phil.) L. Parodi ex Probst.; *Alopecurus antarcticus* var. *bracteatus* (Phil.) Parodi; *Alopecurus bracteatus* Phil.)

America. See *Anales de la Universidad de Chile* 94: 6. 1896 and *Revista de la Facultad de Agronomía y Veterinaria* 7(2): 354, f. 2f. 1931, *Mitteilungen der Naturforschenden Gesellschaft in Solothurn* 9: 10. 1932, *Flora Patagónica* 3(7): 344. 1978.

**A. magellanicus** Lam. var. **magellanicus** (*Alopecurus alpinus* f. *antarctica* (Vahl) Hack.; *Alopecurus alpinus* var. *antarcticus* (Vahl) Macloskie & Dusén; *Alopecurus alpinus* var. *aristatus* Hook.f.; *Alopecurus alpinus* var. *gracilius* Hook.f.; *Alopecurus antarcticus* Vahl; *Alopecurus variegatus* Steud.)

America. See *Symbolae Botanicae, ...* 2: 18. 1791, *Flora Antarctica* 2: 370. 1846, *Synopsis Plantarum Glumacearum* 1: 148. 1854 and *Svenska Exped. Magell.* 3(5): 260. 1900, *Reports of the Princeton University Expeditions to Patagonia 1896-1899, Botany, Volume viii, Supplement* 8(3): 33. 1914 [1915].

**A. myosuroides** Hudson (*Alopecurus agrestis* L.; *Alopecurus coerulescens* Steud. & Hochst. ex Steud.; *Alopecurus myosuroides* var. *versicolor* (Biasol.) Roshev.; *Alopecurus purpurascens* Link; *Tozzettia agrestis* (L.) Bubani) (Greek *mus*, *mys*, *mys* “mouse” and *oura* “a tail”)

Eurasia, North Africa. Annual, tufted, erect, slender, glabrous, auricles absent, ligule truncate, leaf blade flat, inflorescence of chasmogamous spikelets, panicle cylindrical and slender, glumes ciliate on the keels and united to the middle, lemma acute and ovate, lemma keel smooth, awn inserted near the base of the lemma, palea absent, lodicules absent, anthers yellow, crop pest, agricultural weed species, noxious weed of disturbed and cultivated ground, a good forage grass, growing near shore, waste places, fields, saline marshes, coastal marshes, open habitats, arable land, in heavy clay loam or light soils, see *Flora Anglica* 1: 23. 1762, *Species Plantarum, Editio Secunda* 89. 1762, *Flora* 12: 514. 1829, *Nomenclator Botanicus, Editio Secunda* 1: 60. 1840, *Linnaea* 17(4): 400. 1844, *Flora Orientalis* 5: 485. 1844, *Flora Antarctica* 2: 370. 1846, *Synopsis der mitteleuropäischen Flora* 2: 130. 1899 and *Flora Pyrenaea ...* 4: 274. 1901, *Flora de la Provincia de Buenos Aires* 4(2): 35. 1970, *Notes from the Royal Botanic Garden, Edinburgh* 40(3): 509. 1983, *Flora of Turkey and the East Aegean Islands* 9: 384. 1985, *Notes from the Royal Botanic Garden, Edinburgh* 45(1): 111, f. 1. 1988, *Turkish Journal of Botany* 23(4): 250. 1999, *Taxon* 49(2): 245. 2000, Ian Cummins and Robert Edwards, “Purification and cloning

of an esterase from the weed black-grass (*Alopecurus myosuroides*), which bioactivates aryloxyphenoxypropionate herbicides.” *The Plant Journal* vol. 39, issue 6: 894-904. Sep 2004.

in English: slender foxtail, slender meadow foxtail, mouse foxtail, black twitch, black grass, large foxtail, slimspike foxtail

in French: vulpin des prés, vulpin des champs, vulpin fausse queue de souris

in Italian: coda di topo dei campi, erba codina, erba topina

in German: Acker-Fuchsschwanz, Acker-Fuchsschwanzgras

**A. myosuroides** Hudson var. **breviaristatus** Marches. ex Asch. & Graebn.

Europe. See *Synopsis der mitteleuropäischen Flora* 2: 130. 1899.

**A. myosuroides** Hudson var. **compositus** Asch. & Graebn.

Europe. See *Synopsis der mitteleuropäischen Flora* 2: 130. 1899.

**A. myosuroides** Hudson var. **latialatus** Dogan (*Alopecurus adanensis* Dogan)

Europe, Turkey. See *Notes from the Royal Botanic Garden, Edinburgh* 40(3): 509. 1983, *Notes from the Royal Botanic Garden, Edinburgh* 45(1): 111, f. 1. 1988, *Turkish Journal of Botany* 23(4): 245-262. 1999.

**A. nepalensis** Trin. ex Steud.

Nepal, Russia, Iran, Afghanistan, Pakistan, India, Punjab, Uttar Pradesh. Erect or geniculate, a fodder grass, a weed in cultivated fields, on forest edges, plains, clearings, see *Journal of Cytology and Genetics* 21: 152-154. 1986, *Journal of Cytology and Genetics* 22: 12-22. 1987.

**A. ponticus** K. Koch (*Alopecurus caucasicus* Seregin; *Alopecurus glacialis* K. Koch; *Alopecurus sericeus* Albov; *Colobachne pontica* (K. Koch) Nyman)

Asia temperate, Eurasia. See *Linnaea* 21(3): 382. 1848, *Botaniska Notiser* 1851: 69. 1851 and *Novosti Sist. Vyss. Rast.* 8: 15. 1971.

**A. pratensis** L. (*Alopecurus alpinus* f. *songaricus* Schrenk; *Alopecurus alpinus* var. *songaricus* Schrenk ex Fisch. & Meyen; *Alopecurus alpinus* var. *ventricosus* Karav. & Kir.; *Alopecurus altissimus* Schur; *Alopecurus antarcticus* Vahl; *Alopecurus aquaticus* (Dumort.) Tinant; *Alopecurus brachyglossus* Peterm.; *Alopecurus ciliatus* All.; *Alopecurus elongatus* Peterm.; *Alopecurus laguriformis* Schur; *Alopecurus laxiflorus* Ovcz.; *Alopecurus obscurus* (Ledeb.) Schur; *Alopecurus pallidus* Dumort.; *Alopecurus pratensis* Lange; *Alopecurus pratensis* f. *alpestris* Wahlenb.; *Alopecurus pratensis* f. *breviaristatus* Beck; *Alopecurus pratensis* subsp. *alpestris* (Wahlenb.) Selander; *Alopecurus scaber* Opiz; *Alopecurus seravschanicus* Ovcz.; *Alopecurus sericeus* Gaertn.; *Alopecurus songaricus* (Schrenk) Petrov, also

spelled *soongaricus*; *Alopecurus trivialis* Seidl ex Opiz; *Phalaris aristata* Schousboe ex Willd.; *Tozzettia pratensis* (L.) Savi)

Eurasia. Perennial, stout, long-lived, robust, upright or geniculate at base, sometimes rooting at the lower nodes, often shortly rhizomatous, clump-forming, tufts loose or compact, smooth, glabrous, dark green, with short rhizomes and short ascending stolons, auricles absent, ligule membranous and blunt, sheath inflated and smooth, dark green leaves scabrid and flat, chasmogamous spikelets, silky purplish to black spike-like panicle cylindrical and dense, spikelets 1-flowered and densely packed, glumes acute and fringed or ciliate on the keel, lemma acute and awned, lemma keel ciliate, awn strong or slender and curved or protruding, palea absent, anthers deep yellow to purple, achenes fluffy and light colored, extremely resistant to cold, tolerates shade, drought sensitive, useful for erosion control, a good forage grass, quite palatable as pasture or hay, used as a hay grass for wetlands in Europe, cultivated fodder, groundcover, thrives on cool and wet soils, in wet areas of pastures, low-lying areas, grassy wasteland, wet subalpine meadows, in moist meadows, moist or swampy areas of hills, in fields and waste places, wet floodplains, roadsides, on slightly acid to alkaline soils, along ditches and streams, along railroads, marshy places, see *Species Plantarum* 1: 60. 1753, *Flora Pedemontana* 2: 235. 1785, *De Fructibus et Seminibus Plantarum* ... 1: 2, t. 1, f. 2. 1788, *Symbolae Botanicae*, ... 2: 18. 1791, *Memorie di Matematica e di Fisica della Società Italiana delle Scienze* 8(2): 477. 1799, *Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften* 3: 413. 1801, *English Botany* pl. 1126. 1803, *Flora Lapponica* 21. 1812, *Observations sur les Graminées de la Flore Belgique* 133. 1823, *Bulletin de la Société Impériale des Naturalistes de Moscou* 14: 361. 1841, *Enumeratio Plantarum Novarum 1841-1842*, *Linnaea* 16 (Litt.): 148-152. 1843, *Flora* 27: 231-232. 1844, *Archiv für Naturgeschichte* 18: 362. 1852, *Österreichische Botanische Zeitschrift* 9: 13. 1859, *Bulletin de la Société Botanique de France* 11: 47. 1864, *Flora von Nieder-Österreich* 56. 1890 and *Flora Iakutiae* 1: 147. 1930, *Flora URSS* 2: 151, 744-745, t. 1, 11, f. 4, 5. 1934, *Acta Phytogeographica Suecica* 28: 33. 1950, M.C.J. Van Adrichem, "Performance of meadow foxtail (*Alopecurus pratensis*).", in *J. Forage Notes*. 19(2): 50-52. 1974, *Regnum Veg.* 127: 17. 1993.

in English: meadow foxtail, field meadow foxtail, blackgrass, golden foxtail grass, yellow foxtail grass

in French: vulpin des prés, vulpin des champs

in Italian: coda di topo comune

in German: Wiesen-Fuchsschwanz, Gold-Fuchsschwanz

in Spanish: cola de zorra, rabo de zorra, vulpino

**A. pratensis** L. subsp. **laguriformis** (Schur) Tzvelev (*Alopecurus alpinus* f. *songaricus* Schrenk; *Alopecurus alpinus* var. *songaricus* Schrenk ex Fisch. & Meyen; *Alopecurus*

*alpinus* var. *ventricosus* Karav. & Kir.; *Alopecurus antarcticus* Vahl; *Alopecurus brachystachyus* auct., non M. Bieb.; *Alopecurus laguriformis* Schur; *Alopecurus laxiflorus* Ovcz.; *Alopecurus pratensis* subsp. *alpestris* (Wahlenb.) Selander; *Alopecurus seravschanicus* Ovcz.; *Phalaris aristata* Schousboe ex Willd.)

Europe. See *Verh. und Mitth. Siebenbürgischen Vereins für Naturw. zu Hermannstadt* 1: 182. 1850, *Archiv für Naturgeschichte* 18: 362. 1852 and *Novosti Sist. Vyss. Rast.* 8: 19. 1971.

**A. pratensis** L. subsp. **pratensis** (*Alopecurus pratensis* subsp. *alpestris* (Wahlenb.) Selander)

Europe. See *Species Plantarum* 1: 60. 1753, *Flora Lapponica* 21. 1812 and *Acta Phytogeographica Suecica* 28: 33. 1950, *Opera Botanica* 137: 1-42. 1999.

**A. rendlei** Eig (*Alopecurus utriculatus* auct., non Banks & Sol.; *Alopecurus utriculatus* (L.) Pers., nom. illeg., non *Alopecurus utriculatus* Banks & Sol.; *Panicum flexuosum* Raf., nom. illeg., non *Panicum flexuosum* Retz.; *Panicum rafinesquianum* Schult.; *Phalaris utricularis* Salisb.; *Phalaris utriculata* L.; *Tozzettia pratensis* (L.) Savi; *Tozzettia pratensis* Savi; *Tozzettia utriculata* [as "utriculata"] Savi) (in honor of the great botanist Constantine (Constantin) Samuel Rafinesque (-Schmaltz), 1783-1840 (b. near Constantinople, d. Philadelphia, Pennsylvania), economist, plant collector, naturalist, traveler, botanical explorer, conchologist, archaeologist, spent many years of his life in Sicily (1804-1815) and in U.S., a prolific writer, among his works are *Caratteri di alcuni nuovi generi e nuove specie di animali e piante della Sicilia*, con varie osservazioni sopra i medesimi. Palermo 1810, *Florula ludoviciana*; or, a flora of the state of Louisiana. New York 1817, *Neogenyton*. [Lexington, Ky.] 1825 and *Specchio delle scienze o giornale enciclopedico della Sicilia*, deposito letterario delle moderne cognizioni, etc. Palermo 1814; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 123. 1965; Joseph Ewan, in *D.S.B.* 11: 262-264. 1981; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 1993; Stafleu and Cowan, *Taxonomic literature*. 4: 549-563. 1983; Alexander B. Adams, *Eternal Quest. The Story of the Great Naturalists*. New York 1969; William Darlington, *Reliquiae Baldwinianae*. Philadelphia 1843 and *Memorials of John Bartram and Humphry Marshall*. 1849; Edward Lee Greene, *Landmarks of Botanical History*. Edited by Frank N. Egerton. 74-75. Stanford University Press, Stanford, California 1983; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 322. 1972; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 229. Oxford 1964; Jeannette Elizabeth Graustein, *Thomas Nuttall, Naturalist. Explorations in America, 1808-1841*. Cambridge, Harvard University Press 1967; William Jay Youmans, editor, *Pioneers of Science in America*. 182-195. New York 1896; E.M. Tucker,

*Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Alex Berman, "C.S. Rafinesque (1783-1840): a challenge to the historian of pharmacy." *American Journal of Pharmaceutical Education*. 16: 409-418. 1952; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Joseph Ewan, *Rocky Mountain Naturalists*. The University of Denver Press 1950; Michael A. Flannery, "The Medicine and Medicinal Plants of C.S. Rafinesque." *Economic Botany*. 52(1): 27-43. 1998; H.B. Haag, "Rafinesque's interests - a century later: medicinal plants." *Science*. 94: 403-406. 1941; E.D. Merrill (1876-1956), *Index rafinesquianus*. The plant names published by C.S. Rafinesque, etc. Jamaica Plain, Massachusetts, U.S. 1949; Mariella Azzarello Di Misa, a cura di, *Il Fondo Antico della Biblioteca dell'Orto Botanico di Palermo*. 224. Palermo 1988; Garrison and Morton, *Medical Bibliography*. 1849. 1961; Giuseppe M. Mira, *Bibliografia Siciliana*. 2: 260. ["Carlo Rafanesque Schmaltz," sic!] Palermo 1881; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 606. University of Pennsylvania Press, Philadelphia 1964; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 467. 1973)

Eurasia, Europe. Weed, see *Species Plantarum* 1: 60. 1753, *Systema Naturae, Editio Decima* 869. 1759, *The Natural History of Aleppo* edition 2. 2: 243. 1794, *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 17. Londini [London] (Nov-Dec) 1796, *Memorie di Matematica e di Fisica della Società Italiana delle Scienze* 8(2): 477. 1799, *Synopsis Plantarum* 1: 80. 1805, *Précis des Découvertes et Travaux Somnologiques* 45. 1814, *Mantissa* 2: 257. 1824 and *Journal of Botany, British and Foreign* 75: 187. 1937, *Fitologija* 39: 72-77. 1991, *Webbia* 49(2): 265-329. 1995, *Turk. J. Bot.* 23(4): 248. 1999, *Taxon* 49(2): 253. 2000.

in English: Rendle's meadow foxtail, Rendle's foxtail

in French: vulpin de Rendle, vulpin en outre, vulpin à utricule, vulpin utriculé

in Italian: coda di topo ovata

in German: Weitscheidiger Fuchsschwanz, Aufgeblasener Fuchsschwanz

**A. saccatus** Vasey (*Alopecurus californicus* Vasey; *Alopecurus howellii* Vasey) (for Thomas Jefferson Howell, 1842-1912)

North America, U.S., Oregon. Annual, wet places, poor soil, vernal pools, wetlands, damp gravelly soil, see *Botanical Gazette* 6(11): 290. 1881, *Bulletin of the Torrey Botanical Club* 15: 12-13. 1888.

in English: Pacific meadow foxtail, Pacific foxtail, foxtail

**A. seravschanicus** Ovcz. (*Alopecurus pratensis* L.) (Russia, Tadzikskaja, Seravschan [Zeravsan])

Eurasia. See *Species Plantarum* 1: 60. 1753 and *Regnum Veg.* 127: 17. 1993.

**A. textilis** Boiss. (*Alopecuropsis textilis* (Boiss.) Opiz; *Alopecurus vaginatus* var. *textilis* (Boiss.) G. Westb.)

Eurasia, Iran. See *Diagnoses plantarum orientalium novarum* 13: 40. 1854, *Lotos* 7: 84. 1857, *Flora Orientalis* 5: 488. 1884 and *Novosti Sist. Vyss. Rast.* 8: 15. 1971.

**A. thracicus** Penev & Kozuharov (*Alopecurus creticus* Trin.)

Bulgaria. Vulnerable species, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 45. 1821 and *Notes from the Royal Botanic Garden, Edinburgh* 28: 187. 1968.

**A. utriculatus** Banks & Sol. (*Alopecurus anthoxanthoides* Boiss.; *Alopecurus utriculatus* (L.) Pers., nom. illeg., non *Alopecurus utriculatus* Banks & Sol.)

Asia temperate, Syria, Greece. Useful for erosion control, see *Systema Naturae, Editio Decima* 869. 1759, *The Natural History of Aleppo* edition 2. Revised, enlarged, and illustrated with notes by Pat. Russell [Patrick Russell, 1727-1805] 2: 243. London 1794, *Synopsis Plantarum* 1: 80. 1805, *Diagnoses plantarum orientalium novarum* 13: 42. 1854 and *Notes from the Royal Botanic Garden, Edinburgh* 40(1): 86. 1982, *Turkish Journal of Botany* 23(4): 245-262. 1999.

in Italian: coda di topo ovata

in German: Aufgeblasener Fuchsschwanz, Aufgeblasenes Fuchsschwanzgras

**A. utriculatus** Banks & Sol. subsp. *anthoxanthoides* (Boiss.) Dogan (*Alopecurus anthoxanthoides* Boiss.)

Turkey. See *Diagnoses plantarum orientalium novarum* 1(13): 42. 1854 and *Notes from the Royal Botanic Garden, Edinburgh* 40(1): 86. 1982.

**A. utriculatus** Banks & Sol. subsp. *gaziantepicus* Dogan

Turkey. See *Notes from the Royal Botanic Garden, Edinburgh* 45(1): 114. 1988.

**A. utriculatus** Banks & Sol. subsp. *malatyaensis* Dogan

Turkey. See *Notes from the Royal Botanic Garden, Edinburgh* 45(1): 114. 1988.

**A. utriculatus** Banks & Sol. var. *brachyathera* Bornm.

Greece. See *Repertorium Specierum Novarum Regni Vegetabilis* 25: 326. 1928.

**A. vaginatus** (Willd.) Pall. ex Kunth (*Alopecurus brevifolius* Grossh.; *Alopecurus longifolius* Kolak.; *Alopecurus vaginatus* Pall.; *Alopecurus vaginatus* (Willd.) Boiss., nom. illeg., non *Alopecurus vaginatus* (Willd.) Pall. ex Kunth; *Alopecurus vaginatus* (Willd.) Trin., nom. illeg., non *Alopecurus vaginatus* (Willd.) Pall. ex Kunth; *Colobachne vaginata* (Willd.) P. Beauv.; *Polypogon vaginatus* Willd.)

Asia temperate, Syria, Iran, Iraq. Sheaths much dilated, useful for erosion control, see *Nova Acta Academiae*

*Scientiarum Imperialis Petropolitanae. Praecedit Historia ejusdem Academiae* 1797, *Der Gesellschaft Naturforschender Freunde zu Berlin, neue Schriften* 3: 44. 1801, *Essai d'une Nouvelle Agrostographie* 22, 158. 1812, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 25. 1833, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(1-2): 26. 1840, *Flora Orientalis* 5: 488. 1884 and *Flora Kavkaza* 1: 75. Baku 1928.

### Altoparadisium Filg. et al.

Two species, Brazil, Goiás, Alto Paraíso. Panicoideae, Paniceae, Arthropogoninae, perennial, caespitose, herbaceous, erect, hollow, contracted terminal panicle with verticillate branches, soft spikelets dorsiventrally compressed, only 2 spikelet bracts, lower floret absent, lower glume absent or awned, upper glume awned, 2 lodicules, 3 stamens, 2 stigmas, related to *Arthropogon*, *Canastra*, *Homolepis* and *Achlaena*, type *Altoparadisium chapadense* Filg. et al., see *Flora Brasiliensis seu Enumeratio Plantarum* 319. 1829 and T.S. Filgueiras, G. Davidse, F.O. Zuloaga & O. Morrone, "The establishment of the new genus *Altoparadisium* and a reevaluation of *Arthropogon* (Poaceae, Paniceae)," *Annals of the Missouri Botanical Garden* 88(2): 351-372. 2001 ["*Arthropogon bolivianus* and *Arthropogon rupestris* are reduced to varieties of *Altoparadisium chapadense*"], *Contributions from the United States National Herbarium* 46: 16-17. 2003.

#### Species

*A. chapadense* Filg. & al.

Chapada dos Veadeiros, Brazil. Erect, herbaceous, related to *Arthropogon scaber*, see *Annals of the Missouri Botanical Garden* 88(2): 363-366, f. 1-3. 2001.

*A. scabrum* (Pilg. & Kuhl.) Pilg. & al. (*Arthropogon scaber* Kuhl. & Pilg., nom. illeg., non *Arthropogon scaber* Pilg. & Kuhl.; *Arthropogon scaber* Pilg. & Kuhl.)

South America, Brazil. Erect, herbaceous, see *Comissão de Linhas Telegraficas Estratégicas de Matto-Grosso ao Amazonas, Botanica* 67 (Bot. 11): 37-38, t. 2. 1922, *Revista do Museu Paulista. Universidade de São Paulo* 13: 1249. 1922, *Annals of the Missouri Botanical Garden* 88(2): 366, f. 7. 2001.

*A. scabrum* (Pilg. & Kuhl.) Pilg. & al. var. *bolivianum* (Filg.) Filg. & al. (*Arthropogon bolivianus* Filg.)

South America. See *Brittonia* 38(1): 71, f. 1g. 1986, *Annals of the Missouri Botanical Garden* 88(2): 366. 2001.

*A. scabrum* (Pilg. & Kuhl.) Pilg. & al. var. *rupestre* (Filg.) Filg. & al. (*Arthropogon rupestris* Filg.)

South America. Rhizomatous, slopes, rocky places, see *Nordic Journal of Botany* 16(1): 69, f. 1. 1996, *Annals of the Missouri Botanical Garden* 88(2): 366. 2001.

*A. scabrum* (Pilg. & Kuhl.) Pilg. & al. var. *scabrum*

South America. See *Annals of the Missouri Botanical Garden* 88(2): 366, f. 7. 2001.

### Alvimia C.E. Calderón ex Soderstr. & Londoño = *Alvimia* Soderstrom & Londoño

Dedicated to the Brazilian botanist Paulo de T. Alvim, naturalist, Itabuna, Brazil.

About 3 species, Brazil. Bambusoideae, Bambusodae, Bambuseae, or Bambusoideae, Bambuseae, Arthrotyliidiinae, perennial, woody, strong, unarmed, leafy, solid, ascending, slender, scandent, climbing and hanging, smooth, persistent, branched, cylindrical culms, rhizomes pachymorph, auricles present, ligule ciliate, outer ligule sometimes lacking, sheath silky or pubescent, leaves disarticulating from the sheaths, plants bisexual, synflorescences spicate and paniculate, pseudospikelets slender and lax, glumes 0-3 awnless, palea present notched and awnless, 3 lodicules free and membranous, 2 or rarely 3 stamens, ovary glabrous without the apical appendage, stigmas plumose, fleshy fruits olives-like, forest, coastal forest, similar to *Atractantha*, type *Alvimia auriculata* Soderstr. & Londoño, see T.R. Soderstrom & X. Londoño, "A morphological study of *Alvimia* (Poaceae: Bambuseae), a new Brazilian bamboo genus with fleshy fruits," *American Journal of Botany* 75(6): 819-839. 1988, *Bonplandia* (Corrientes) 8(1-4): 81. 1994, *American Bamboos* 151-154. 1999, *Contributions from the United States National Herbarium* 39: 11. 2000.

#### Species

*A. auriculata* Soderstr. & Londoño

Brazil, Bahia. Smooth culms, climbing, forming dense clumps, shortly rhizomatous, coastal, sandy white soil, see *American Journal of Botany* 75(6): 833, f. 3-7, 12. 1988.

*A. gracilis* Soderstr. & Londoño

Brazil. Decumbent or curved, delicate, climbing, strong, solid, slender, smooth, small leaves, forming dense clumps, coastal, damp habitat, see *American Journal of Botany* 75(6): 835, f. 8, 11, 13-16. 1988.

*A. lancifolia* Soderstr. & Londoño

Brazil. Woody, slender, climbing, see *American Journal of Botany* 75(6): 837, f. 1-2, 9, 17. 1988.

### Alycia Willd. ex Steud. = *Eriochloa* Kunth

See *Nova Genera et Species Plantarum* 1: 94-95, t. 30. 1815 [1816], *Nomenclator Botanicus. Editio secunda* 1: 37, 66,

747. 1840 and *N. Amer. Fl.* 17: 157. 1912, *Flora Mesoamericana* 6: 333-335. 1994, *Contributions from the United States National Herbarium* 46: 233-239. 2003

**Amagris Raf.** = *Calamagrostis* Adans.

Derived from *Calamagrostis*.

Pooideae, Poae, Agrostidinae, see *Familles des Plantes* 2: 31, 530. 1763, *Tentamen Florae Germanicae* 1: 34. 1788, Constantine Samuel Rafinesque, *Principes Fondamentaux de Somiologie* 27. Palerme 1814, *Flora Telluriana*. 1: 17, 84. 1836 [1837] and *Contributions from the United States National Herbarium* 48: 191-227. 2003.

**Amaxitis Adans.** = *Dactylis* L.

Pooideae, Poodae, Poae, or Pooideae, Poae, Dactylidinae, see *Species Plantarum* 1: 71. 1753, *Familles des Plantes* 2: 34, 515. 1763 and *Flora Pyrenaea ...* 4: 359. 1901, *University of California Publications in Botany* 31(1): 1-40. 1959 [Cytogenetic and evolutionary studies in the genus *Dactylis*. I: Morphology, distribution, and interrelationships of the diploid subspecies.], *Contributions from the United States National Herbarium* 48: 242-244. 2003.

**Amblyachyrum Hochst. & Steud.** = *Amblyachyrum* Steud., *Apocopsis* Nees, *Apocopsis* Nees

From the Greek *amblys* “blunt, obtuse” and *achyron* “chaff, husk.”

Type *Amblyachyrum mangalorensis* Hochst. ex Steud., see *Synopsis Plantarum Glumacearum* 1: 413. 1854 [1855] and *Proceedings of the Linnean Society of London* 1: 93-94. 1841, *Monographiae Phanerogamarum* 6: 259. 1889 and *Blumea* 4(3): 523. 1941, *Taxon* 34: 159-164. 1985.

**Amblychloa Link** = *Sclerochloa* P. Beauv.

From the Greek *amblys* “blunt, obtuse” and *chloe, chloa* “grass.”

Pooideae, Poae, Puccinelliinae, type *Sclerochloa dura* (L.) P. Beauv., see *Species Plantarum* 1: 72. 1753, *Essai d'une nouvelle Agrostographie* 97, 98, 174, 177, t. 19, f. 4. 1812, *Commentationes Botanicae* 26-27. 1822, *Botanicon Gallicum* 1: 522. Paris 1828-1830, *Linnaea* 17(4): 399. 1844, *Spicilegium florae rumelicae et bithynicae ...* 2: 431. 1846, Carl Frederik Nyman (1820-1893), *Sylloge florae europaeae, seu Plantarum vascularium Europae indigenarum, enumeratio, adjectis synonymis gravioribus et indicata singularum distributione geographica*. 423. 1855, *Index Kewensis* 1: 104. 1895 and *Contr. U.S. Natl. Herb.* 10: 2.

1906, *American Journal of Botany* 18(8): 684-685, f. 1-4. 1931, *Journal of Cytology and Genetics* 21: 155. 1986, D.M. Brandenburg, J.R. Estes & J.W. Thieret, “Hard Grass (*Sclerochloa dura*, Poaceae) in the United States.” *Sida*. 14(3): 369-376. 1991, *Cytologia* 56: 437-452. 1991, *Flora Mediterranea* 8: 307-313. 1998, *Contributions from the United States National Herbarium* 48: 608-609. 2003.

**Amblyopyrum (Jaub.) Eig** = *Aegilops* L., *Amblyopyrum* Eig

From the Greek *amblys* “blunt, obtuse” and *pyros* “grain, wheat.”

One species, western Asia. Pooideae, Triticeae, or Pooideae, Triticeae, Triticinae, annual, herbaceous, ligule an unfringed membrane, plants bisexual, inflorescence a single spike, spikelets embedded in the rachis, 2 glumes more or less equal, palea present, 2 lodicules free and membranous, 3 stamens, ovary hairy, 2 stigmas, sometimes included in *Aegilops* L., see *Species Plantarum* 2: 1050-1051. 1753, *Illustrationes Plantarum Orientalium* 4: 23. 1851 and Alexander Eig (1894-1938), “*Amblyopyrum* Eig.: a new genus separated from the genus *Aegilops*.” Tel-Aviv 1929, *Feddes Repert.* 91: 225-228. 1980, *Feddes Repert.* 95: 425-521. 1984, *Taxon* 41: 555-556. 1992, *Nordic Journal of Botany* 13: 481-493. 1993, *Agric. Univ. Wageningen Pap.* 94-7: 1-512. 1994 [Wild wheats: a monograph of *Aegilops* L. and *Amblyopyrum* (Jaub. & Spach) Eig.], *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 20-23. 2003.

**Species**

*A. muticum* (Boiss.) Eig (*Aegilops loliacea* Jaub.; *Aegilops mutica* Boiss.; *Aegilops mutica* f. *gandiljanii* K. Hammer; *Aegilops mutica* f. *liiacea* (Jaub.) K. Hammer; *Aegilops mutica* f. *mutica*; *Aegilops mutica* f. *nuluci* (Gandilyan) K. Hammer; *Aegilops mutica* f. *nurub* (Gandilyan) K. Hammer; *Aegilops mutica* f. *nuruni* (Gandilyan) K. Hammer; *Aegilops mutica* f. *puluci* (Gandilyan) K. Hammer; *Aegilops mutica* f. *puruni* (Gandilyan) K. Hammer; *Aegilops mutica* subsp. *liiacea* (Jaub.) Zhuk.; *Aegilops mutica* subsp. *tripsacoides* (Jaub.) Zhuk.; *Aegilops mutica* var. *liiacea* (Jaub.) Eig; *Aegilops mutica* var. *nual* Gandilyan; *Aegilops mutica* var. *nuluci* Gandilyan; *Aegilops mutica* var. *nurub* Gandilyan; *Aegilops mutica* var. *nuruni* Gandilyan; *Aegilops mutica* var. *pual* Gandilyan; *Aegilops mutica* var. *puluci* Gandilyan; *Aegilops mutica* var. *puruni* Gandilyan; *Aegilops mutica* var. *typica* Eig; *Aegilops tripsacoides* Jaub. & Spach; *Aegilops tripsacoides* Jaub.; *Amblyopyrum muticum* subsp. *liiaceum* (Jaub.) Á. Löve; *Amblyopyrum muticum* var. *liiaceum* (Jaub.) Eig; *Amblyopyrum muticum* var. *typicum* Eig; *Triticum muticum* (Boiss.) Hack.; *Triticum muticum* var. *tripsacoides* (Jaub.) Thell.; *Triticum tripsacoides* (Jaub. & Spach) Bowden; *Triticum tripsacoides*

(Jaub.) Bowden; *Triticum tripsacoides* f. *lohiaceum* (Jaub.) Bowden; *Triticum tripsacoides* f. *tripsacoides*)

Turkey. Related to wheat, see *Diagnoses plantarum orientarium novarum* 1(5): 73. 1844, *Illustrationes Plantarum Orientalium* 2: 121, t. 200. 1847, *Illustrationes Plantarum Orientalium* 4: 23, t. 317. 1851 and *Annals of Scottish Natural History* 103. 1907, *Bulletin de la Société Botanique de Genève* 19: 329. 1928, *Canad. J. Bot.* 37: 666. 1957, *Canadian Journal of Botany* 37: 666. 1959, *Feddes Repert.* 91: 119, 229-230. 1980, *Feddes Repert.* 95: 494. 1984, *Agric. Univ. Wageningen Pap.* 94-7: 405-406. 1994.

**A. muticum** (Boiss.) Eig var. **lohiaceum** (Jaub. & Spach) Eig (*Aegilops loliacea* Jaub. & Spach; *Aegilops loliacea* Jaub.; *Amblyopyrum muticum* var. *lohiaceum* (Jaub.) Eig)

Armenia, Turkey. See *Illustrationes Plantarum Orientalium* 4: 23, t. 317. 1851 and *Bulletin de la Société Botanique de Genève* 19: 329. 1928, *Agric. Univ. Wageningen Pap.* 94-7: 417. 1994.

**A. muticum** (Boiss.) Eig var. **muticum**

Turkey, Armenia. See *Agric. Univ. Wageningen Pap.* 94-7: 408. 1994.

### **Amblytes Dulac = *Molinia* Schrank**

Greek *amblytes* “bluntness, dullness.”

Arundinoideae, Arundineae, see *Species Plantarum* 63. 1753, *Baiersche Flora* 1: 100, 334. 1789, *Methodus Plantas Horti Botanici ...* 183. 1794, *Flore du Département des Hautes-Pyrénées* 80. 1867 and *U.S. Dept. Agric. Bull.* 772: 50. 1920, *Fragmenta Floristica et Geobotanica* 21: 21-50. 1975, *Zlaki SSSR* 557. 1976, *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Botanica* 33: 51-55. 1986, *Symbolae Botanicae Upsaliensis* 27(2): 139-145. 1986[1987], *Bot. Zhurn.* 74: 1675-1678. 1989, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66, 153-205. 1990, *Contributions from the United States National Herbarium* 46: 296. 2003.

### **Ammochloa Boiss. = *Cephalochloa* Coss. & Durieu, *Dictyochloa* (Murb.) E.G. Camus**

From the Greek *ammos* “sand” and *chloe, chloa* “grass,” referring to the habitat.

About 3-4 species, Mediterranean. Pooideae, Poodae, Aveneae, annual, herbaceous, caespitose, unbranched, leaves mostly basal, auricles absent, ligule an unfringed membrane, plants bisexual, inflorescence paniculate contracted and ovoid, at the base of the inflorescence sterile spikelets reduced to small bracts, 2 glumes more or less equal, lemmas mucronate, palea present, lodicules absent, 2-3 stamens, ovary glabrous, 2 stigmas, open areas, sandy

places, dry areas, dry sandy places, see *Diagnoses plantarum orientarium novarum* ser. 1. 2(13): 51-52. 1854, *Annales des Sciences Naturelles, Botanique, sér. 4* 1: 229. 1854 and *Acta Universitatis Lundensis* 36(4): 12. 1900, *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 63: 1. 45. 1931, *Kew Bulletin, Additional Series* 13: 109. 1986 [*Genera Graminum*].

### **Species**

**A. involucrata** Murb.

Morocco. See *Acta Universitatis Lundensis* 36: 11-12, f. 3; t. 13, f. 3-7. 1900.

**A. palaestina** Boiss.

Palestine. See *Diagnoses plantarum orientarium novarum* 2(13): 52. 1854, *Bulletin de la Société Botanique de France* 1: 317. 1854 and Renato Pampanini (1875-1949), *Plantae tripolitanae ... florum vascularis Tripolitaniae*. Firenze 1914, *Flore de l'Afrique du Nord* 3: 10-11. 1955.

**A. subacaulis** Balansa ex Coss. & Durieu (*Ammochloa palaestina* f. *subacaulis* (Balansa ex Coss. & Durieu) Maire & Weiller; *Ammochloa palaestina* var. *subacaulis* (Balansa ex Coss. & Durieu) Pamp.)

Algeria. See *Bulletin de la Société Botanique de France* 1: 317. 1854 and *Bollettino della Società Botanica Italiana* 1914: 11. 1914, *Flore de l'Afrique du Nord* 3: 10-11. 1955.

**A. unispiculata** Eig

Palestine. See *Repertorium Specierum Novarum Regni Vegetabilis, Beihefte* 63: 1. 45. 1931.

### **Ammophila Host = *Psamma* P. Beauv.**

From the Greek *ammos* “sand” and *philos* “loving,” referring to its habitat.

About 2-4 species, North temperate, Europe, North Africa, North America. Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Agrostidinae, perennial, coarse, tough, stiff, erect, herbaceous, unbranched, rhizomatous with hard and long rhizomes scaly and spreading, clumped, forming compact tussock, production of great numbers of vertical tillers and culms, glabrous nodes, hollow internodes, heavy foliage cover, leaves mostly basal, ligule acute and membranous, auricles absent, linear leaves pungent and gray-green to glaucous, leaves adapted to avoid excessive water loss, plants bisexual, a dense spike-like panicle more or less cylindrical, spikelets flattened laterally and bisexual, 1 floret bisexual, 2 glumes equal or subequal, coriaceous lemmas awnless and carinate or sharply keeled, palea present, 2 lodicules membranous and not toothed, 3 stamens, ovary glabrous, 2 stigmas, fruit ellipsoid and longitudinally grooved, sand-binder, ornamental, plays an important role in the process of dune formation and stabilization of coastal dunes, highly adapted to colonize shifting sand, widely



planted to repair or stabilize dune areas, useful for erosion control, hybrids with *Calamagrostis* Adans., type *Ammophila arundinacea* Host, see *Icones et Descriptiones Graminum Austriacorum* 4: 24, t. 41. 1809, *Essai d'une Nouvelle Agrostographie* 143, 176. 1812, *A Manual of the Botany of the Northern United States* 583. 1848 and A.H.L. Huiskes, "Biological flora of the British Isles: *Ammophila arenaria* (L.) Link." in *Journal of Ecology* 67: 363-382. 1979, *Watsonia* 18: 415-417. 1991, *New York Flora Association Newsletter* 3(1): 4. 1992, *New York Flora Association Newsletter* 5(2): 5-7. 1994, Alfred M. Wiedemann and Andrea Pickart, "The *Ammophila* problem on the Northwest Coast of North America." *Landscape and Urban Planning* 34: 287-299. 1996, *Am. J. Bot.* 84: 118. 1997, *Am. J. Bot.* 85: 1638-1645. 1998, *Am. J. Bot.* 86: 703-710. 1999, *Opera Botanica* 137: 1-42. 1999, *Am. J. Bot.* 87: 1578-1583. 2000, *Journal of Ecology* 88(5): 825-839. Oct 2000, *Am. J. Bot.* 89: 479-485, 623-631, 1431-1438. 2002, *Journal of Ecology* 90(2): 394-403. Apr 2002, *Contributions from the United States National Herbarium* 48: 107. 2003, *Restoration Ecology* vol. 12, issue 1: 29-35. Mar 2004, *New Phytologist* vol. 162, issue 3: 697-704. June 2004, *Environmental Microbiology* 6(8): 769-779. Aug 2004, *Ecology Letters* 7(8): 721-733. Aug 2004, *Ecology Letters* 7(10): 975-989. Oct 2004, *Plant Species Biology* 19(3): 175-184. Dec 2004, *Functional Ecology* 18(6): 914-924. Dec 2004, *Biological Journal of the Linnean Society* 83(4): 509-525. Dec 2004, *Journal of Ecology* 93(1): 5-15. Feb 2005, *Restoration Ecology* 13(1): 215-222. Mar 2005, *Journal of Ecology* 93(2): 441-470. Apr 2005, *Botanical Journal of the Linnean Society* 147(4): 501-508. Apr 2005.

### Species

**A. arenaria** (L.) Link (*Ammophila arundinacea* Host; *Ammophila littoralis* (P. Beauv.) Rothm.; *Arundo arenaria* L.; *Arundo littoralis* P. Beauv. ex Steud.; *Calamagrostis arenaria* (L.) Roth; *Phalaris ammophila* (Host) Link; *Phalaris maritima* Nutt.; *Psamma arenaria* (L.) Roem. & Schult.; *Psamma littoralis* P. Beauv.)

Europe. Perennial, robust, coarse, erect, herbaceous, rigid and smooth, growing in small dense compact tufts, spreading rapidly by underground tough rhizomes that send vertical shoots upward, roots rather thin and fibrous, leaf sheath glabrous, thin and long ligules, leaves erect, inflorescence cylindrical, dense spike-like panicles, spikelets ascending, glumes narrow and subequal, lanceolate lemmas stiff and glabrous, thatching, baskets and brooms, rhizomes used for making rope and mats, coastal species, sand and dunes binder or stabilizer, drought-tolerant, useful for erosion control, not suitable for permanent erosion control, this grass is the prime colonist of unstable and mobile sand hills in dune systems, highly and perfectly adapted to colonize shifting sands of the foredune, used to control shifting dunes in coastal regions, sometimes an invasive and aggressive

weed, introduced to the west coast of North America in 1868 to stabilize sand dunes in the San Francisco area, threatens coastal sand dunes in the eastern and western United States, dies out when sand ceases to move, grows naturally in sand dunes along the coast, see *Species Plantarum* 1: 82. 1753, *Tentamen Florae Germanicae* 1: 34. 1788, *Icones et Descriptiones Graminum Austriacorum* 4: 24, t. 41. 1809, *Essai d'une Nouvelle Agrostographie* 144, t. 6, f. 1,176. 1812, *Systema Vegetabilium* 2: 845. 1817, *The Genera of North American Plants* 1: 48. 1818, *Enumeratio Plantarum Horti Regii Berolinensis Altera* 1: 66. 1821, *Hortus Regius Botanicus Berolinensis* 1: 105. 1827, *Nomenclator Botanicus* edition 2. 1: 144. 1840 and *Feddes Repertorium* 52: 269. 1943, *The American Grass Book* 186. 1953, *Webbia* 49(2): 265-329. 1995, *Taxon* 49(2): 247. 2000, *Molecular Ecology* 9(9): 1223-1232. Sep 2000, Cameron E. Webb, Ian Oliver and Anthony J. Pik, "Does coastal foredune stabilization with *Ammophila arenaria* restore plant and arthropod communities in Southeastern Australia?" *Restoration Ecology* 8(3): 283-288. Sep 2000, *New Phytologist* 150(3): 697-706. June 2001, *Journal of Ecology* 90(6): 978-988. Dec 2002, *New Phytologist* 162(3): 697-704. June 2004, *Environmental Microbiology* 6(8): 769-779. Aug 2004, *Ecology Letters* 7(8): 721-733. Aug 2004, *Journal of Ecology* 92(5): 906-927. Oct 2004, *Plant Species Biology* 19(3): 175-184. Dec 2004, *Biological Journal of the Linnean Society* 83(4): 509-525. Dec 2004, *Journal of Ecology* 93(2): 441-470. Apr 2005, *Botanical Journal of the Linnean Society* 147(4): 501-508. Apr 2005.

in English: marram grass, marram, beach grass, mel grass, Holland dune grass, European beach grass, European beachgrass

in French: élyme des sables, roseau des sables, ammophile des sables

in Spanish: grama de las dunas

**A. arenaria** (L.) Link subsp. **arenaria**

North and west Europe, southward to northwest Spain. Perennial, rhizomatous, branched, auricles absent, ligule long acuminate and hairy to scabrous, basal leaf sheaths not keeled, leaf blades linear and strongly involute, a panicle oblong and strongly contracted, inflorescence of chasmogamous spikelets, palea narrowly ovate to narrowly elliptic, sand and dunes binder or stabilizer, see *Hortus Regius Botanicus Berolinensis* 1: 105. 1827.

in English: marram grass

**A. arenaria** (L.) Link subsp. **arundinacea** (Husn.) H. Lindb. (*Ammophila arenaria* subsp. *arenaria* var. *australis* (Mabille) Hayek; *Ammophila australis* (Mabille) Porta & Rigo; *Ammophila littoralis* (P. Beauv.) Rothm.; *Ammophila pallida* (C. Presl) Fritsch; *Psamma australis* Mabille)

Europe, Morocco, Turkey. Useful for erosion control, see *Acta societatis scientiarum fennica. Series B. Opera biologica* 1(2): 10. Helsinki 1932.

*A. arenaria* (L.) Link subsp. *australis* (Mabille) M. Laínz (*Psamma australis* Mabille)

Europe. See *Recherches sur les plantes de la Corse* 1: 33. Paris 1867.

*A. arenaria* (L.) Link var. *arundinacea* (Host) Husn. (*Ammophila arundinacea* Host)

Europe. See *Icones et Descriptiones Graminum Austriae* 4: 24, t. 41. 1809, *Graminées. Descriptions ... France, Belgique, Isles Britanniques, Suisse* 19. 1896.

*A. arenaria* (L.) Link var. *australis* (Mabille) Durand & Barratte (*Psamma australis* Mabille)

Europe. See *Recherches sur les plantes de la Corse* 1: 33. 1867 and *Florae libycae prodromus* ou catalogue raisonné des plantes de Tripolitaine 255. Genève 1910, *Bull. Soc. Bot. France* 57: 629-630. 1910.

*A. breviligulata* Fernald (*Ammophila arenaria* var. *breviligulata* (Fernald) S.G. Archer & C.E. Bunch)

Northeast northern America, U.S., Canada. Perennial, herbaceous, erect, low-growing, dark green to bluish green, coarse, tough, stiff, with strong and deep creeping rhizomes, vigorous, stems surrounded by old leaf sheaths, ligules firm and short, leaves linear rolled inward, lanceolate spikelets in dense spike-like panicles, glumes slightly scabrous, lemma rough, grain brown, low palatability, a pioneer colonist, can become invasive, can tolerate severe maritime exposure, useful for erosion control, used for initial sand dune stabilization, primary stabilization and revegetation of coastal sand dunes, growing on sandy sea-beach, sand dunes dune bluff edges, see *Rhodora* 22(256): 71. 1920, *The American Grass Book* 186. 1953, Denise M. Seliskar, "The response of *Ammophila breviligulata* and *Spartina patens* (Poaceae) to grazing by feral horses on a dynamic mid-Atlantic barrier island." *Am. J. Bot.* 90: 1038-1044. 2003.

in English: American beach grass, American beachgrass, American marram, beachgrass

*A. champlainensis* F. Seymour (on Lake Champlain)

Northern America. Found in shores, margins of fresh water, lakes and riverbanks, see *Sida* 2: 349. 1966.

in English: Champlain beachgrass

## x *Ammocalamagrostis* P. Fourn.

*Ammophila* x *Calamagrostis*.

See *Monde des Plantes; revue mensuelle de botanique* 35: 28. 1934, *Genera Graminum* 374. 1986.

**Ampelocalamus S.L. Chen, T.H. Wen & G.Y. Sheng** = *Patellocalamus* W.T. Lin, *Sinarundinaria* Nakai

Greek *ampelos* "a vine" and *kalamos* "a reed, cane."

About 11 species, China, Hainan. Bambusoideae, Bambuseae, Arundinariinae, unicaspitose, small, sympodial, shrubby, lianoid, clumping, scandent, scrambling, climbing, culms erect below and pendulous or drooping upward, rhizomes short-necked pachymorph, manifold-branching, branches slender and short, internodes cylindrical and glabrous, culm sheath shedding late and far shorter than internode, sheath auricles distinct with long radial cilia, sheath blade developed, leaf blades lacking cross-veins, flowering semelauctant, diffuse panicle, large spikelets, 1-2 thin glumes, 3 stamens, 2 plumose stigmas, subtropical bamboos, culms for weaving, leaves as animal fodder, type *Ampelocalamus actinotrichus* (Merr. & Chun) S.L. Chen, T.H. Wen & G.Y. Sheng, see *Linnaea* 9(4): 476. 1835 and *Journal of Japanese Botany* 11(1): 1. 1935, *Acta Phytotaxonomica Sinica* 19: 332-334, f. 1. 1981, *Journal of Bamboo Research* 2(1): 15. 1983, *Journal of South China Agricultural University* 10(2): 45-46. 1989, *Kew Bulletin* 51(4): 809-813. 1996.

### Species

*A. actinotrichus* (Merrill & Chun) S.L. Chen, T.H. Wen & G.Y. Sheng (*Arundinaria actinotricha* Merr. & Chun; *Indocalamus actinotrichus* (Merr. & Chun) McClure; *Pleioblastus actinotrichus* (Merr. & Chun) Keng f.)

China, Hainan Island, Guangdong. Thin, upper portion drooping, clumping, young culms with deciduous tomentum, culms and culm sheaths setose, sheath shorter than internode and shedding late sheath blade long lanceolate, sheath auricles caducous with stellate cilia, sheath ligule very short and ciliate, leaf lanceolate, lateral veins distinct, rhizomes will not run sideways, ornamental, growing in forests, see *Sunyatsenia* 2(3-4): 206-207, pl. 36. 1935, *Sunyatsenia* 6(1): 32. 1941, *Flora Illustralis Plantarum Primarium Sinicarum: Gramineae* 34, f. 23. 1959, *Acta Phytotaxonomica Sinica* 19(3): 334, f. 1. 1981.

in English: radiant hairy bamboo

in Chinese: She mao xuan zhu

*A. anhispidis* Wen

China. See *Journal of Bamboo Research* 4(2): 11, f. 2. 1985.

*A. calcareus* C.D. Chu & C.S. Chao

China, Guizhou, Libo. Soft and slender, manifold branching, 5-7 branches at each node, culms top drooping to scandent, leaning, clumping, culms and culm sheaths pubescent, culm sheaths persistent shorter than the internode, sheath blade ovate lanceolate or lanceolate, lateral veins not distinct, sheath auricles ciliate, sheath ligule densely hairy to fimbriate, rhizomes will not run sideways, 2-3 leaves on each branch, leaves oblong-lanceolate, see *Acta Phytotaxonomica Sinica* 21(2): 204-206, pl. 1. 1983.

*A. ludianensis* Yi & R.S. Wang (*Drepanostachyum ludianense* (T.P. Yi & R.S. Wang) Keng f.)

China. See *Journal of Bamboo Research* 4(2): 3-5, f. 1. 1985, *Journal of Bamboo Research* 5(2): 35. 1986.

**A. mianningensis** (Q. Li & X. Jiang) D.Z. Li & Stapleton (*Dendrocalamus mianningensis* Q. Li & X. Jiang; *Patellocalamus mianningensis* (Q. Li & X. Jiang) T.P. Yi)

China. See *Journal of Southwestern Forestry College* 1984(1): 134, f. 1. 1984, *Journal of Bamboo Research* 12(2): 54. 1993, *Kew Bulletin* 51(4): 811. 1996.

**A. microphyllus** (Hsueh/Xue & Yi) Hsueh & Yi (*Drepanostachyum microphyllum* (J.R. Xue & T.P. Yi) Keng f. ex Yi; *Sinocalamus microphyllus* J.R. Xue & T.P. Yi)

China. See *Journal of the Yunnan Forestry College* 1: 71-73, f. 2. 1982, *Journal of Bamboo Research* 4(2): 7-8. 1985, *Journal of Bamboo Research* 12(4): 46. 1993.

**A. naibunensis** (Hayata) T.H. Wen (*Arundinaria naibunensis* Hayata; *Drepanostachyum naibunense* (Hayata) Keng f.)

Asia. See *Journal of the College of Science, Imperial University of Tokyo* 30(1): 408-409. 1911, *Journal of Bamboo Research* 5(2): 32, f. 4. 1986, *Journal of Bamboo Research* 6(3): 34. 1987.

in English: Naibun bamboo

in China: Nei men zhu

in Japan: Naibun medake

**A. patellaris** (Gamble) Stapleton (*Chimonobambusa jainiana* C.R. Das & D.C. Pal; *Dendrocalamus patellaris* Gamble; *Drepanostachyum jainianum* (C.R. Das & D.C. Pal) R.B. Majumdar; *Drepanostachyum patellaris* (Gamble) J.R. Xue & D.Z. Li; *Patellocalamus patellaris* (Gamble) W.T. Lin; *Sinarundinaria jainiana* (C.R. Das & D.C. Pal) H.B. Naithani; *Sinocalamus patellaris* (Gamble) T.Q. Nguyen)

India, Sikkim, Darjeeling. Pendulous, semiscandent above, internodes striate, leaf sheaths glabrous, culms for weaving, leaves as animal fodder, see *Annals of the Royal Botanic Garden, Calcutta* 7: 86-87, t. 75. 1896 and *Journal of Economic and Taxonomic Botany, Additional Series* 4(3): 1023. 1983, *Bulletin of the Botanical Survey of India* 25(1-4): 235. 1983 [1985], *Journal of South China Agricultural University* 10(2): 46. 1989, *Bot. Zhurn.* (Moscow & Leningrad) 74(11): 1662. 1989, *Edinburgh Journal of Botany* 51(3): 321-323, f. 7. 1994, *Kew Bulletin* 51(4): 811. 1996.

Local names: nibha, ghopi bans, pajiok

**A. saxatilis** (Hsueh & Yi) Hsueh & Yi (*Drepanostachyum saxatile* (J.R. Xue & T.P. Yi) Keng f. ex Yi; *Sinocalamus saxatilis* J.R. Xue & T.P. Yi)

China. See *Journal of the Yunnan Forestry College* 1: 69, f. 1. 1982, *Journal of Bamboo Research* 4(2): 5. 1985, *Journal of Bamboo Research* 12(4): 46. 1993.

**A. scandens** J.R. Xue & W.D. Li (*Drepanostachyum scandens* (J.R. Xue & W.D. Li) Keng f. & T.P. Yi)

China. See *Journal of Bamboo Research* 4(2): 5-7, f. 2. 1985 and 12(4): 46. 1993.

**Ampelodesma T. Durand & Schinz** =  
*Ampelodesma* P. Beauv. ex Benth.,  
*Ampelodesma* P. Beauv., *Ampelodesmos* Link

Pooideae, Stipeae, Ampelodesmeae, see *Essai d'une Nouvelle Agrostographie* 78, pl. 15, f. 11. 1812, *Conspectus Florae Africae* 5: 874. 1894 and *Contributions from the United States National Herbarium* 48: 108. 2003.

**Ampelodesmos Link** = *Ampelodesma* T. Durand & Schinz, *Ampelodesma* P. Beauv., *Ampelodonax* Lojacq

Latin and Greek *ampelodesmos*, ancient name for *Lygeum spartum*, used in Sicily for tying up vines (Plinius).

One species, Mediterranean, North Africa. Stipoideae, Ampelodesmeae, or Pooideae, Poeae, or Pooideae, Stipeae, Ampelodesmeae, perennial, coastal, herbaceous, robust, solid, coarse, leaf blades harsh, rhizomatous, internodes solid, auricles absent, ligule a fringed membrane, plants bisexual, dense inflorescence panicle with slender branches, spikelets 2-6-flowered, 2 membranous glumes more or less equal, lemmas incised mucronate or awned, palea present 2-dentate, 3 lodicules free and membranously hairy, 3 stamens, ovary with hairy apical appendage, 2 white stigmas, in dry places, oak woodland, coastal, resembles *Festuca*, type *Ampelodesmos tenax* (Vahl) Link, see *Essai d'une Nouvelle Agrostographie* 78, pl. 15, f. 11. 1812, *Hortus Regius Botanicus Berolinensis* 1: 136. 1827, *Conspectus Florae Africae* 5: 874. 1894 and *Flora Sicula* 3: 282. 1909, *Brittonia* 16: 76-79. 1964, *Taxon* 29: 645-666. 1980, *Kew Bulletin, Additional Series* 13: 93. 1986 [W.D. Clayton and S.A. Renvoize, *Genera Graminum*], *Contributions from the United States National Herbarium* 48: 108. 2003.

#### Species

**A. mauritanicus** (Poir.) T. Durand & Schinz (*Ampelodesmos bicolor* (Poir.) Kunth; *Ampelodesmos effusus* Steud.; *Ampelodesmos effusum* Steud.; *Ampelodesmos mauritanica* (Poir.) T. Durand & Schinz; *Ampelodesmos tenax* (Vahl) Link; *Ampelodonax bicolor* (Poir.) Lojac.; *Arundo bicolor* Poir.; *Arundo mauritanica* Poir.; *Arundo tenax* Vahl)

Tunisia, Europe, Turkey. Perennial, clumped, ligule membranous and ciliate, terminal inflorescence panicle-like with drooping branches, bisexual spikelets, glumes acuminate, cultivated, naturalized, used for rope making, see J.L.M. Poir. (1755-1834), *Voyage en Barbarie*, ou lettres écrites de l'ancienne Numidie pendant les années 1785 & 1786, sur la religion, les coutumes & les mœurs des Maures & des arabes-bédouins; avec un essai sur l'histoire naturelle

de ce pays. 2: 104. Paris 1789, *Symbolae Botanicae*, ... 2: 25. 1791, *Hortus Regius Botanicus Berolinensis* 1: 136. 1827, *Révision des Graminées* 1: 79. 1829, *Synopsis Plantarum Glumacearum* 1(3): 195. 1855 [1854], *Exploration Scientifique de l'Algérie* 2: 127. 1855, *Conspectus Florae Africae* 5: 874. 1894.

in English: dis grass, diss grass, Mauritania vine reed

in Morocco: dîs, diss, âdles

### **Ampelodonax Lojacono** = *Ampelodesmos* Link

From the Greek *ampelos* "a vine" and *donax*, *donakos* for "a kind of reed."

Pooideae, Stipeae, Ampelodesmeae, type *Ampelodonax bicolor* (Poir.) Lojac., see *Hortus Regius Botanicus Berolinensis* 1: 136. 1827 and *Flora Sicula* 3: 282. 1908-1909, *Contributions from the United States National Herbarium* 48: 108. 2003.

### **Amphibromus Nees** = *Helictotrichon* Besser, *Helictotrichon* Besser ex Schult. & Schult.f., *Helictotrichon* Schult.

From the Greek *amphi* "both, of two kinds, on both sides, around, double" and the grass genus *Bromus* L. or *bromos* "food, the oat," possibly alluding to similarity with the genus *Avena* L.

About 6-12 species, Australia, New Zealand, South America. Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Aveninae, perennial, aquatic or semi aquatic, slender, herbaceous, erect or geniculate at base, tufted or spreading, sometimes decumbent, stems with swollen nodes, rhizomatous, auricles absent, sheath margins free, ligule membranous and entire becoming lacerated with age, leaves often rough to scabrous, linear leaf blade flat or inrolled, glabrous nodes, hollow internodes, plants bisexual, hidden cleistogenes when present in the leaf sheaths, inflorescence a narrow loose elongated panicle with slender branches, solitary spikelets compressed laterally and pedicellate, flowering may be cleistogamous or chasmogamous, florets bisexual 3-10 or uppermost male, 2 subequal glumes acute or obtuse, firm lemmas longer than the glumes, lemmas toothed or bifid, awns more or less twisted geniculate or straight, callus hairy to silky, palea with 2 ciliate keels and apically notched, 2 lodicules free and membranous, 3 stamens, ovary glabrous or slightly hairy at apex, 2 stigmas white, common in damp areas, wet or inundated habitats, waterholes and swamps, lagoons, sometimes referred to *Helictotrichon* Besser, type *Amphibromus neesii* Steud., see *London Journal of Botany* 2: 420. 1843, *Synopsis Plantarum*

*Glumacearum* 1: 328. 1854 and Jason Richard Swallen (1903-1991), "The grass genus *Amphibromus*." *Amer. J. Bot.* 18: 411-415. 1931, *Feddes Repertorium* 45: 7. 1938, S.W.L. Jacobs and L. Lapinuro, "The Australian species of *Amphibromus* (Poaceae)." in *Telopea* 2: 715-729. 1986, *A Key to Australian Grasses* 1-150. 1990, *Contributions from the United States National Herbarium* 48: 108-109. 2003.

### **Species**

**A. archeri** (Hook.f.) P. Morris (*Amphibromus archeri* (Hook.f.) P. Morris var. *papillosus* P. Morris; *Amphibromus neesi* sensu Rodway, p.p., non Steudel; *Danthonia archeri* Hook.f.) (the species is dedicated to the Australian (born in Tasmania) botanist William Archer, 1820-1874 (d. Longford, Tasmania), architect, Fellow of the Linnean Society, correspondent of Sir Joseph D. Hooker (1817-1911), sent algae to William Henry Harvey; see G. Whiting, *The Products and Resources of Tasmania*. With an Appendix containing papers on the Vegetable Products ... By the Hon. W. Archer. [London. International Exhibition, 1862.] Hobart Town 1862; Joseph Dalton Hooker, *Flora Tasmaniae*. 1: 262, t. 80, 81. London 1857; J. Lanjouw & F.A. Stafleu, *Index Herbariorum*. Part II, *Collectors A-D*. Regnum Vegetabile vol. 2. 1954; R. Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 20. London 1994; Stafleu & Cowan, *Taxonomic literature*. 1: 58. Utrecht 1976)

South Australia, Victoria, Tasmania. Perennial, caespitose, erect, basal culm internodes often swollen, basal leaf sheaths not keeled, auricles absent, ligule acute and membranous, leaf blades ribbed or channelled, leaves often rough to scabrous, panicle erect, cleistogamous or chasmogamous spikelets, glumes unequal and glabrous, lemma bristled, scabrous awn bent and twisted, palea 2-keeled, lodicules hyaline, yellow-brown glabrous and oblong fruit, in damp areas, wet or inundated habitats, waterholes and swamps, lagoons, see *Flora Tasmaniae* 2: 122, t. 163B. 1858 and *Victorian Naturalist; Journal and Magazine of the Field Naturalists' Club of Victoria* 51: 146-147, t. 26, 2-3. Melbourne 1934, *Telopea* 2: 726. 1986.

in English: swamp wallaby-grass, pointed swamp wallaby-grass (wallaby = small kangaroo)

**A. fluitans** Kirk (*Amphibromus gracilis* P. Morris)

Victoria, Tasmania, New South Wales, New Zealand. Perennial, lowland to montane, rare or threatened or endangered, erect or floating above, decumbent culms rooting at lower nodes, rhizomatous or stoloniferous, glabrous to scabrous, weakly tufted, auricles absent, papery leaf sheaths not keeled, ligule entire, leaf blade flat or linear, panicle more or less erect enclosed below by uppermost leaf sheath, spikelets spreading and erect, cleistogamous or chasmogamous, glumes unequal, lemmas hispid and 2-toothed, awn straight and stout, palea smooth and 2-keeled, ovary

glabrous, fruit yellow-brown to dark, occurs in shallow waters, wetlands, open habitats, in permanent swamps, see *Transactions and Proceedings of the New Zealand Institute* 16: 374, t. 28. 1884 and *American Journal of Botany* 18: 411-415. 1931, *Victoria Naturalist* 51: 145, t. 26, f. 5. 1934, *Telopea* 2: 728-729. 1986, *Wellington Bot. Soc. Bull.* 43: 29-32. 1987, *Fl. New Zealand* 5: 298-299. 2000.

in English: graceful swamp wallaby-grass, water brome, river swamp wallaby-grass

**A. macrorhinus** S.W.L. Jacobs & Lapinpuro (*Amphibromus neesii* sensu Jessop)

South Australia, Western Australia, New South Wales, Victoria, Tasmania. Perennial, endangered grass, tufted, small tussocks, erect, coarse, auricles absent, ligule acute and membrane-like, basal leaf sheaths not keeled, leaves glabrous to scabrous, panicles erect and open with spreading spikelets, spikelets cleistogamous or chasmogamous, glumes more or less unequal, lemma papillose and rough, awn bent and slightly twisted, fruit yellow-brown to dark, similar to *Amphibromus nervosus* (Hook.f.) Druce, occurs on floodplains, riverbanks, inland and coastal rivers, grassland, riparian habitats, in damp soaks, in waterholes and low-lying wet places, see *Telopea* 2(6): 723. 1986.

in English: long-nosed swamp wallaby-grass

**A. neesii** Steudel (*Amphibromus nervosus* (Hook.f.) Druce; *Amphibromus nervosus* (Hook.f.) Baill.; *Avena nervosa* R. Br., nom. illeg., non *Avena nervosa* Lam.; *Avenastrum nervosum* (R. Br.) Vierh.; *Danthonia archeri* Hook.f.; *Danthonia nervosa* Colenso, nom. illeg., non *Danthonia nervosa* Hook.f.; *Danthonia nervosa* Hook.f., nom. illeg., non *Avena nervosa* R. Br.; *Helictotrichon neesi* (Steud.) Stace) (for the German (b. near Erbach, Hesse) botanist Christian Gottfried (Daniel) Nees von Esenbeck, 1776-1858 (d. Breslau, Wroclaw), physician, 1800 Dr. Med., editor of Robert Brown, professor of botany, botanical collector; see J.H. Barnhart, *Biographical notes upon botanists.* 2: 542. 1965)

New South Wales, Victoria, Tasmania. Perennial, rare, light green, graceful, tall and weeping, tufted, sometimes rhizomatous, forming erect tussocks and colonies, basal culm internodes not swollen, auricles absent, ligule acute, leaf sheaths glabrous or scabrous, leaves very rough to scabrous, panicle open and very loose, spreading spikelets cleistogamous or chasmogamous, glumes green and purplish, awn flexuous, palea acute and 2-keeled, fruit yellow-brown to dark, flowers in response to rain or flooding, growing in marshes and lagoons, open habitats, wetlands, wet ground, bog gardens, floodplains, river flats, often confused with *Amphibromus nervosus* (Hook.f.) Druce, see *Prodromus Florae Novae Hollandiae* 1: 178. 1810, *Synopsis Plantarum Glumacearum* 1: 328. 1854, *Flora Tasmaniae* 2: 121-122, t. 163A, B. 1858, *Histoire des Plantes* 12: 203. 1893, *Transactions and Proceedings of the New Zealand Institute* 28: 612. 1896 and *Verhandlungen der Gesellschaft Deutscher*

*Naturforscher und Ärzte* 85(2): 672. 1914, *Botanical Society and Exchange Club of the British Isles* 1916: 604. 1917, *Telopea* 2: 718, 721, 726. 1986, *Watsonia* 18: 413. 1991.

in English: swamp wallaby-grass, Southern swamp wallaby-grass

**A. nervosus** (Hook.f.) Druce (*Amphibromus neesii* sensu Jessop; *Amphibromus neesii* Steud.; *Amphibromus nervosus* (Hook.f.) Baill.; *Avena nervosa* R. Br., nom. illeg., non *Avena nervosa* Lam.; *Avenastrum nervosum* Vierh.; *Avenastrum nervosum* (R. Br.) Vierh.; *Danthonia nervosa* Colenso, nom. illeg., non *Danthonia nervosa* Hook.f.; *Danthonia nervosa* Hook.f., nom. illeg., non *Avena nervosa* R. Br.; *Helictotrichon neesii* (Steud.) Stace)

South Australia, Western Australia, New South Wales, Victoria. Perennial, tufted, erect, semiaquatic, sometimes rooting at the nodes, auricles absent, ligule acute, sheaths glabrous, leaves glabrous to scabrous, leaf blade linear, panicle erect, spreading spikelets cleistogamous or chasmogamous, glumes more or less unequal and acute, lemma scabrous, awn bent and twisted, palea acute and 2-keeled, fruit compressed and glabrous, flowers in response to rain or flooding, withstands summer drought, similar to *Amphibromus neesii* Steudel, found in open habitats, swamps, moist areas, on the floodplains and banks of rivers, see *Prodromus Florae Novae Hollandiae* 1: 178. 1810, *Synopsis Plantarum Glumacearum* 1: 328. 1854, *Flora Tasmaniae* 2: 121-122, t. 163A, B. 1858, *Histoire des Plantes* 12: 203. 1893, *Transactions and Proceedings of the New Zealand Institute* 28: 612. 1896 and *Verhandlungen der Gesellschaft Deutscher Naturforscher und Ärzte* 85(2): 672. 1914, *Botanical Society and Exchange Club of the British Isles* 1916: 604. 1917, *Telopea* 2: 718, 720-721, 726. 1986, *Watsonia* 18: 413. 1991.

in English: common swamp wallaby-grass, veined swamp wallaby-grass, swamp wallaby-grass

**A. pithogastrus** S.W.L. Jacobs & Lapinpuro (Greek *pithos* "a large jar" and *gaster* "belly, paunch")

New South Wales, Victoria. Perennial, rare, tufted, not stoloniferous, swellings on the lower nodes, auricles absent, short ligule acute and entire, leaf sheaths glabrous, leaves glabrous to scabrous, leaf blades linear, panicle erect and slender, green to cream to straw-colored flowers, cleistogamous spikelets, spikelets on hispid pedicels, flowers in response to rain or flooding, glumes green, lemmas swollen, awn bent and twisted, short palea glabrous and acute, fruit yellow-brown, rare or threatened or endangered, presumed extinct in the south eastern part of New South Wales, similar to *Amphibromus neesii* Steudel, found in seasonally wet places, marshes and intermittent wetlands, moist habitats, near swamps, riparian forests, in swampy areas, see *Telopea* 2(6): 724. 1986.

in English: plump swamp wallaby-grass

**A. quadridentulus** (Döll) Swallen (*Avena montevidensis* Hack.; *Avena quadridentula* Döll; *Helictotrichon quadridentulum* (Döll) Renvoize; *Uralepis quadridentata* Döll)

South America, Brazil, Argentina, Uruguay. Swamps and moist areas, see *Flora Brasiliensis* 2(3): 100, pl. 29, f. 2. 1878, *Flora Brasiliensis* 2(3): 240. 1880 and *Österreichische Botanische Zeitschrift* 52(5): 188. 1902, *American Journal of Botany* 18: 414. 1931, *Kew Bulletin* 42: 921-925. 1987.

**A. recurvatus** Swallen

Victoria, Tasmania, Western Australia, South Australia. Perennial, tufted, purplish, erect, auricles absent, ligule entire and acute, leaf sheaths glabrous or pubescent, leaves glabrous to scabrous, green and purple erect panicle, chasmogamous spikelets, glumes more or less unequal, lemma hispid, awn bent and slightly twisted, palea obtuse, purple anthers, fruit compressed and glabrous, found in swamps and lagoons, open habitats, marshes and margins, see *American Journal of Botany* 18: 415. 1931, *Telopea* 2(6): 719. 1986.

in Australia: dark swamp wallaby-grass

**A. scabrivalvis** (Trin.) Swallen (*Avena scabrivalvis* Trin.; *Bromus gilliesii* Nees ex Steud.; *Bromus holciformis* Steud. & Hochst.; *Helictotrichon scabrivalvis* (Trin.) Govaerts, also *scabrivalve*; *Helictotrichon scabrivalvis* (Trin.) Renvoize, nom. illeg., non *Helictotrichon scabrivalvis* (Trin.) Govaerts) (for the Scottish physician John Gillies, 1792-1834 (d. Edinburgh), botanist, naval surgeon, M.D. 1817, 1820-1828 in Argentina, plant collector in South America, correspondent of John Miers (1789-1879) and William Jameson (1796-1873); see J.H. Barnhart, *Biographical notes upon botanists*. 2: 50. 1965; A. Lasègue, *Musée botanique de Benjamin Delessert*. 486. Paris 1845; John Miers, *Travels in Chile and La Plata*. 1: 226. London 1826; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 171. Oxford 1964; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993)

Southern America, Chile, Argentina. Perennial, erect, rhizomatous, aquatic, basal corms, cleistogamous reproduction, cleistogamous spikelets enclosed within the leaf sheaths, ovary hairy, growing in shallow water, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 2(1): 28. 1836, *Synopsis Plantarum Glumacearum* 1: 324, 328. 1854 and *American Journal of Botany* 18: 413. 1931, *World Checklist of Seed Plants* 2(1): 14. 1996, S.A. Renvoize, *Gramíneas de Bolivia* 155, f. 37. 1998.

in English: swamp wallaby grass

**A. scabrivalvis** (Trin.) Swallen var. **indigestus** Nicora

South America, Argentina, Chile. See *Darwiniana* 18: 101, f. 6. 1973, *Flora Patagónica* 3: 1-583. 1978 [Gramineae], *Monographs in Systematic Botany from the Missouri Botanical Garden* 47: i-xi, 1-178. 1994 [*Catálogo de la familia Poaceae en la República Argentina*].

**A. scabrivalvis** (Trin.) Swallen var. **scabrivalvis**

Chile, Argentina. See *American Journal of Botany* 18: 413. 1931.

**A. sinuatus** S.W.L. Jacobs & Lapinpuro

New South Wales, Victoria, Tasmania. Perennial, rare, threatened or endangered plants, stoloniferous and rooting at the lower nodes, decumbent and ascending, lower nodes occasionally swollen, auricles absent, basal leaf sheaths not keeled, ligule acuminate and entire, panicle erect and flexuous, spikelets cleistogamous or chasmogamous, lemmas with straight awns, palea acute and 2-keeled, fruit compressed and yellow-brown to dark, found in swamps and lagoons, areas with permanent swamps, open habitats, wet mud, wetlands, see *Telopea* 2(6): 727. 1986.

in English: wavy swamp wallaby-grass

**A. vickeryae** S.W.L. Jacobs & Lapinpuro

Western Australia, Darling region, coastal districts, wet areas. Perennial, tufted or caespitose, robust, basal internodes swollen, auricles absent, ligule acute, leaf sheaths not keeled, leaves more or less scabrous or glabrous, leaf blade flat and linear, panicle erect and contracted, chasmogamous spikelets, lemma 4-lobed, short bristle produced at the end of each lemma lobe, finely hispid lemma back, palea acute, red brown fruit, species close to and confused with *Amphibromus nervosus* (Hook.f.) Druce, found in wet areas, coastal districts, see *Telopea* 2(6): 725. 1986.

**A. whitei** C.E. Hubb.

Queensland. Perennial, tufted, ligule hyaline and long acute, auricles absent, basal leaf sheaths not keeled, leaves glabrous and scabrous, panicle green and erect, cleistogamous spikelets, palea hyaline and 2-keeled, anthers yellow, ovary glabrous, fruit dark yellow and compressed, extinct species, in freshwater swamp, see *Bulletin of Miscellaneous Information Kew* 1941: 30. 1941.

## Amphicarpon Kunth

Greek *amphi* “both, on both sides” and *karpos* “fruit”; see *Manual of the Southeastern Flora* 88. 1933, E.D. Merrill, *Index rafinesquianus*. 74. 1949.

## Amphicarpon Raf.

Greek *amphi* “both, on both sides” and *karpos* “fruit”; see C.S. Rafinesque, in *Am. Monthly Mag. Crit. Rev.* 2: 175. 1818 and *Manual of the Southeastern Flora* 88. 1933, E.D. Merrill, *Index rafinesquianus*. 74. 1949.

## Amphicarpum Kunth

From the Greek *amphi* “both, on both sides” and *karpos* “fruit,” see *Révision des Graminées* 1(2): 28. 1829.

Two species, southeastern U.S. Panicoideae, Panicoideae, Paniceae, or Panicoideae, Paniceae, Paspalinae, annual or perennial, herbaceous, unarmed, decumbent, auricles absent, ligule a fringe of hairs, plants bisexual, cleistogamous and chasmogamous, inflorescence paniculate, hidden cleistogamous subterranean, spikelets pedicellate, 1 or 2 very unequal glumes per spikelet, lower glume reduced or absent, lemmas acuminate, palea present, 3 stamens, open habitats, sandy fields, riverbanks, pinewoods, type *Amphicarpum purshii* Kunth, see *Révision des Graminées* 1(2): 28. 1829 and *American Journal of Botany* 35: 382-396. 1948, *Taxon* 20(2-3): 351. 1971, *Contributions from the United States National Herbarium* 46: 17. 2003.

### Species

**A. amphicarpon** (Pursh) Nash (*Amphicarpon amphicarpon* (Pursh) Nash; *Amphicarpon purshii* Kunth; *Amphicarpum purshii* Kunth; *Milium amphicarpon* Pursh)

U.S. See *Flora Americae Septentrionalis; or, ...* 1: 62-63, t. 2. 1814, *Révision des Graminées* 1: 28. 1829, *Memoirs of the Torrey Botanical Club* 5(23): 352. 1894.

**A. muhlenbergianum** (Schult.) Hitchc. (*Amphicarpon floridanum* Chapm.; *Amphicarpum floridanum* Chapm.; *Milium muhlenbergianum* Schult.)

U.S. See *Mantissa* 2: 178. 1824, *Flora of the Southern United States* 572. 1860 and *Bartonia* 14: 34. 1932.

**A. purshii** Kunth (*Amphicarpon amphicarpon* (Pursh) Nash; *Amphicarpon purshii* Kunth; *Milium amphicarpon* Pursh)

North America. Leaves mostly basal, ponds, roadsides, see *Flora Americae Septentrionalis; or, ...* 1: 62-63, t. 2. 1814, *Révision des Graminées* 1: 28. 1829, *Memoirs of the Torrey Botanical Club* 5: 352. 1894.

## Amphidonax Nees ex Lindl. = *Amphidonax* Nees, *Arundo* L.

From the Greek *amphi* “both, on both sides” and *donax*, *donakos* for “a kind of reed.”

Arundinoideae, Arundineae, type *Amphidonax bengalensis* Roxb. ex Nees, see *Species Plantarum* 1: 81. 1753, *An Introduction to the Natural System of Botany* 449. 1836, *Synopsis Plantarum Glumacearum* 1: 197. 1855 [1854] and N.L. Britton (1859-1934), *Flora of Bermuda* 29. New York 1918, *Contributions from the United States National Herbarium* 46: 113-115. 2003.

## Amphigenes Janka = *Festuca* L.

From the Greek *amphigenes* “of doubtful gender.”

Pooideae, Poaceae, type *Amphigenes nutans* Hack. ex B.D. Jacks., see *Species Plantarum* 1: 73-76, 81-82. 1753, F.G. Dietrich (1768-1850), *Nachtrag zum vollständigen Lexicon der Gärtnererei und Botanik ...* 3: 333. Berlin 1817, *Linnaea* 30(5): 619. 1860, *Index Kewensis* 1: 111. 1895 and *Watsonia* 16: 300. 1987, *Contributions from the United States National Herbarium* 48: 312-368. 2003.

## Amphilophis Nash = *Amphilophis* (Trin.) Nash, *Bothriochloa* Kuntze

Greek *amphilophos* “encompassing the neck,” *amphi* “on both sides” and *lophos* “a crest.”

Panicoideae, Andropogoneae, Sorghinae, type *Amphilophis torreyanus* (Steud.) Nash, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(4): 285. 1832, *Revisio Generum Plantarum* 2: 762. 1891 and Nathaniel Lord Britton (1859-1934), *Manual of the Flora of the Northern States and Canada* 71. New York 1901, *Darwiniana* 38(1-2): 127-186. 2000, *Contributions from the United States National Herbarium* 46: 135-141. 2003.

## Amphipogon R. Br. = *Gamelythrum* Nees, *Pentacraspedon* Steud.

From the Greek *amphi* “both, around, all round” and *pogon* “a beard,” referring to the hairy rachis of the spikelet, or to lemma and palea with ciliate awns, or to the bearded spikelets.

About 5-9 species, Australia. Arundinoideae, Amphipogoneae, perennial, more or less shortly rhizomatous, tufted or spreading or tussocky, herbaceous, more or less glandular, erect or geniculate at the base, unbranched, leaf blades convolute and pungent, auricles absent, ligule a fringe of hairs, narrow leaves stiff and hairy, glabrous and dark nodes, plants bisexual, inflorescence spiciform or capitate, terminal and dense spikes or panicles, bisexual spikelets awned and sessile, lower spikelets sometimes sterile, 2 glumes persistent and more or less equal, deeply cleft lemmas with ciliate awns, short hairy callus, palea deeply 2-lobed, 2 glabrous and fleshy lodicules, 3 stamens, 2 stigmas, fruit compressed, occur in dry sandy grassland, open habitats, rocky hillsides or ridges, genus of controversial placement, sometimes referred to and confused with *Enneapogon* Desv. ex P. Beauv., type *Amphipogon laguroides* R. Br., see *Species Plantarum. Editio quarta* 4(2): 899. 1805 [1806], *Prodromus Florae Novae Hollandiae* 175. 1810, *London J. Bot.* 2: 415. 1843, Ernst Gottlieb von Steudel (1783-1856), *Synopsis plantarum glumacearum* 1: 151. 1854 [1855] and

J.W. Vickery, "The species of *Amphipogon* R.Br." in *Contributions from the New South Wales National Herbarium* 1(5): 281-295. 1950, Nigel P. Barker, "The relationships of *Amphipogon*, *Elytrophorus* and *Cyperochloa* (Poaceae) as suggested by rbcL sequence data." *Telopea* 7(3): 205-213. 1997, Shauna Roche, John M. Koch and Kingsley W. Dixon, "Smoke enhanced seed germination for mine rehabilitation in the southwest of Western Australia." *Restoration Ecology* 5(3): 191-203. Sep 1997, Sarah Mathews, Rocky C. Tsai and Elizabeth A. Kellogg, "Phylogenetic structure in the grass family (Poaceae): evidence from the nuclear gene phytochrome B." *Am. J. Bot.* 87: 96-107. 2000, T.R. Read, S.M. Bellairs, D.R. Mulligan and D. Lamb, "Smoke and heat effects on soil seed bank germination for the re-establishment of a native forest community in New South Wales." *Austral. Ecology* 25(1): 48-57. Feb 2000, *Flora of Australia* vol. 44B, Poaceae 3: 9-18. 2005.

### Species

**A. amphipogonoides** (Steud.) Vickery (*Amphipogon pentacraspedon* Wawra; *Pentacraspedon amphipogonoides* (Steudel) Vickery)

Western Australia. Lemma 3-dentate and awnless, palea 2-dentate, see *Synopsis Plantarum Glumacearum* 1: 151. 1854 and *Contributions from the New South Wales National Herbarium* 1(5): 286. 1950.

**A. avenaceus** R. Br. (*Aegopogon avenaceus* (R. Br.) P. Beauv.; *Amphipogon brownii* F. Muell.; *Amphipogon strictus* var. *avenaceus* (R. Br.) Benth.)

Western Australia. See *Prodromus Florae Novae Hollandiae* 175. 1810, *Essai d'une Nouvelle Agrostographie* 122, 146, 150. 1812, *Fragmenta Phytographiae Australiae* 8: 201. 1874, *Flora Australiensis: A Description ...* 7: 598. 1878 and *Contributions from the New South Wales National Herbarium* 1(5): 284-285. 1950.

**A. caricinus** F. Muell. (*Amphipogon brownii* F. Muell.; *Amphipogon strictus* R. Br.; *Amphipogon strictus* sensu J.M. Black, non R. Br.; *Amphipogon strictus* var. *desertorum* Domin; *Amphipogon strictus* var. *occidentalis* Pilg.) (like the genus *Carex* L., Latin classical name *carex*, *icis* (Vergilius) for a sedge, reed-grass or rush; see Carl Linnaeus, *Species Plantarum*. 972. 1753 and *Genera Plantarum*. edition 5. 420. 1754)

Western Australia, New South Wales, Northern Territory, Queensland, South Australia, Victoria. Perennial, harsh, shortly rhizomatous or forming erect tufts, rhizomes more or less oblique, stems erect and wiry, leafy, narrow and pointed leaves, dense purplish panicles oblong to narrow-cylindrical, shallow soils, dry areas, drought resistant, hot and dry positions, unpalatable, see *Prodromus Florae Novae Hollandiae* 175. 1810, *Linnaea* 25(4): 445. 1853, *Fragmenta Phytographiae Australiae* 8: 201. 1874 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und*

*Pflanzengeographie* 35: 71. 1904, *Repertorium Specierum Novarum Regni Vegetabilis* 10: 119. 1911, *Contr. New South Wales Herb.* 1(5): 289. 1950.

in English: long-gray-beard grass, long-beard grass, bearded heads

**A. caricinus** F. Muell. var. *caricinus*

Western Australia, New South Wales, Northern Territory, Queensland, South Australia, Victoria. Perennial, erect, rigid, sometimes rhizomatous, panicle spike-like, pale spikelets, palea smooth, sandy soils, see *Contributions from the New South Wales National Herbarium* 1(5): 291. 1950.

in English: long-gray-beard grass

**A. caricinus** F. Muell. var. *scaber* Vickery (also *scabra*)

Queensland. See *Contributions from the New South Wales National Herbarium* 1(5): 292. 1950.

**A. debilis** R. Br. (*Aegopogon debilis* (R. Br.) P. Beauv.; *Amphipogon brownii* F. Muell.; *Amphipogon debilis* var. *typica* Domin)

Western Australia. Glumes tridentate, see *Prodromus Florae Novae Hollandiae* 175. 1810, *Essai d'une Nouvelle Agrostographie* 122, 146, 150. 1812, *Fragmenta Phytographiae Australiae* 8: 201. 1874 and *Journal of the Linnean Society, Botany* 41: 275. 1912, *Contributions from the New South Wales National Herbarium* 1(5): 283-284. 1950.

**A. debilis** R. Br. var. *fallax* Domin

Western Australia. Some doubt about this var., see *Journal of the Linnean Society, Botany* 41: 275. 1912, *Contributions from the New South Wales National Herbarium* 1(5): 284. 1950.

**A. imbricatus** Gand. (*Amphipogon strictus* R. Br.)

New South Wales. See *Prodromus Florae Novae Hollandiae* 175. 1810 and *Bulletin de la Société Botanique de France* 66(7): 298. 1919 [1920], *Contributions from the New South Wales National Herbarium* 1(5): 292. 1950.

**A. laguroides** R. Br. (*Aegopogon laguroides* (R. Br.) P. Beauv.; *Amphipogon cygnorum* Nees; *Amphipogon cygnorum* Nees ex Lehmann)

Western Australia. See *Prodromus Florae Novae Hollandiae* 175. 1810, *Essai d'une Nouvelle Agrostographie* 122, 146, 150. 1812, *Plantae Preissianae* 2: 100. 1846-1847 and *Contributions from the New South Wales National Herbarium* 1(5): 287-288. 1950.

**A. laguroides** R. Br. subsp. *havelii* T. MacFarlane

Western Australia.

**A. laguroides** R. Br. subsp. *laguroides*

Western Australia.

**A. sericeus** (Vickery) T. MacFarlane (*Amphipogon caricinus* var. *sericeus* Vickery)



Western Australia, Northern Territory. Leaves flat, feathery lemma lobes hairy, see *Contributions from the New South Wales National Herbarium* 1(5): 290. 1950.

**A. strictus** R. Br. (*Aegopogon strictus* (R. Br.) P. Beauv.; *Amphipogon brownii* F. Muell.; *Amphipogon elatior* Gand.; *Amphipogon pinifolius* Mez)

Western Australia, New South Wales, Northern Territory, South Australia. Perennial, slender, forming dense tussocks, short and creeping rhizomes, stems erect and wiry, stiff leaves erect and narrow, dense purplish or dark gray panicles capitate, feathery awns, coastal regions, on damp and moist soils, see *Prodromus Florae Novae Hollandiae* 175. 1810, *Essai d'une Nouvelle Agrostographie* 122, 146, 150. 1812, *Plantae Preissianae* 2: 101. 1846-1847, *Linnaea* 25(4): 445. 1853, *Fragmenta Phytographiae Australiae* 8: 201. 1874, *Flora Australiensis: A Description ...* 7: 598. 1878 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 35: 71. 1904, *Bulletin de la Société Botanique de France* 66(7): 298. 1919 [1920], *Repertorium Specierum Novarum Regni Vegetabilis* 17: 212. 1921, *Contributions from the New South Wales National Herbarium* 1(5): 289, 292-295. 1950.

in English: gray-beard grass

**A. turbinatus** R. Br. (*Aegopogon turbinatus* (R. Br.) P. Beauv.; *Aegopogon turbinatus* (R. Br.) Nees ex Vickery; *Amphipogon restionaceus* Pilger; *Gamelythrum turbinatum* (R. Br.) Nees)

Western Australia. See *Prodromus Florae Novae Hollandiae* 175. 1810, *Essai d'une Nouvelle Agrostographie* 122, 146. 1812, *London Journal of Botany* 2: 415. 1843 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 35: 72, f. 3D-J. 1904, *Contributions from the New South Wales National Herbarium* 1(5): 285-286. 1950.

**Amphochaeta N.J. Andersson** = *Pennisetum* Rich.

From the Greek *amphi* "both, around" and *chaite* "a bristle."

Panicoideae, Paniceae, Cenchrinae, type *Amphochaeta exaltata* Andersson, see *Syn. Pl.* 1: 72. 1805, *Kongliga Svenska Vetenskapsakademiens Handlingar* 1853: 136-137. 1855, *Index Kewensis* 1: 112. 1893 and *Contr. U.S. Natl. Herb.* 22: 210. 1921, *Flora Mesoamericana* 6: 371-374. 1994, *Sida* 19(3): 523-530. 2001, *Contributions from the United States National Herbarium* 46: 527-536. 2003.

**Anachortus Jirásek & Chrtek** = *Corynephorus* P. Beauv.

From the Greek *ana* "without" and *chortos* "green herbage, grass."

Pooideae, Poaceae, Airinae, type *Anachortus macrantherus* (Boiss. & Reut.) V. Jirásek & Chrtek, see *Essai d'une Nouvelle Agrostographie* 90, 149, 159. 1812 and *Preslia* 34: 383. 1962, *Contributions from the United States National Herbarium* 48: 109, 239. 2003.

**Anachyris Nees** = *Paspalum* L.

From the Greek *ana* "without" and *achyron* "chaff, husk."

Panicoideae, Paniceae, Paspalinae, type *Anachyris paspaloides* Nees, see *Systema Naturae, Editio Decima* 846, 855, 1359. 1759, *Species Graminum* 3: t. 271. 1829-1830, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 103. 1850, *Genera Plantarum* 3(2): 1097-1098. 1883 and *Contr. U.S. Natl. Herb.* 12: 116. 1908, *Contributions from the United States National Herbarium* 24(8): 435. 1927, *Repertorium Specierum Novarum Regni Vegetabilis* 26(7-15): 229. 1929, *Contributions from the United States National Herbarium* 46: 443-527. 2003.

**Anachyrium Steud.** = *Anachyris* Nees, *Paspalum* L.

From the Greek *ana* "without" and *achyron* "chaff, husk."

Panicoideae, Paniceae, Paspalinae, see *Synopsis Plantarum Glumacearum* 1: 33. 1855 [1853].

**Anadelphia Hackel** = *Diectomis* P. Beauv., *Monium* Stapf, *Pobeguinea* (Stapf) Jacq.-Fél.

From Greek *anadelphos* "without brother or sister."

About 13-14 species, tropical Africa, Senegal to Zambia. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, annual or perennial, caespitose, herbaceous, branched or unbranched, auricles present or absent, ligule an unfringed membrane, plants bisexual, inflorescence paniculate open or contracted, single loose racemes exerted or enclosed, spatheoles linear to narrowly lanceolate, few spikelets, male and female fertile spikelets in the same inflorescence, 2 glumes more or less equal, palea absent, 2 small free lodicules, 3 stamens, ovary glabrous, 2 stigmas, savannah, rainforest, on shallow soils, related to *Elymandra*, sometimes or often included in *Pobeguinea* (Stapf) Jacq.-Fél., type *Anadelphia virgata* Hack., see *Species Plantarum* 2: 1045. 1753, *Essai d'une Nouvelle Agrostographie* 132-133, 160, t. 23. 1812, *Mémoires du Muséum d'Histoire Naturelle* 2: 69. 1815, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 6: 240-241. 1885, *Die Natürlichen Pflanzenfamilien* 2(2): 27. 1887 and *Journal de Botanique (Morot)* 19: 100. 1905, *Flora of Tropical Africa* 9: 399-400. 1919, *Revue internationale de*

*botanique appliquée et d'agriculture tropicale* 30: 172. 1950, *Kew Bulletin* 20: 275-285. 1966.

### Species

***A. afzeliana*** (Rendle) Stapf (*Anadelphia arrecta* Stapf; *Andropogon afzelianus* Rendle)

West tropical Africa, Gabon. Perennial, tufted, slender, basally branched, wiry, geniculate, weakly stemmed, good thatching, grazed when young, savannah damp places, marshy areas, see *Journal of Botany, British and Foreign* 31: 357. 1893 and *Flora of Tropical Africa* 9: 397. 1919.

in English: thatchgrass

in Nigeria: bayan maraya, beere, bere

in Senegal: bati, fati, mu git, nantag

in Sierra Leone: anepel, enepel, enepel ebana, enepel ebira, enepel erekrek, foni, foni mayambe, fovo, gbolesehrena, gbongbonelo, kulusa-binyi, puile, tikolo mese

in Yoruba: beere, bere

***A. bigeniculata*** W.D. Clayton

West tropical Africa, Sierra Leone, Guinea. Annual, see *Kew Bulletin* 20: 283, f. 3. 1966.

in Guinea: fugolo

***A. chevalieri*** Reznik (*Pobeguinea chevalieri* (Reznik) Jacq.-Fél.)

Guinea. See *Revue internationale de botanique appliquée et d'agriculture tropicale* 14: 199. 1934, *Revue internationale de botanique appliquée et d'agriculture tropicale* 30: 173. 1950.

***A. funerea*** (Jacq.-Fél.) Clayton (*Monium funereum* Jacq.-Fél.)

Tropical Africa. See *Revue internationale de botanique appliquée et d'agriculture tropicale* 30: 186. 1950, *Kew Bulletin* 20: 281. 1966.

***A. leptocoma*** (Rendle) Stapf (*Andropogon leptocomus* Trin.)

West tropical Africa. Perennial, good thatching, low grazing value, low-lying savannah, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 264. 1832 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 54: 284. 1917.

in English: thatch grass, thatchgrass, thatching grass

in Nigeria: beere, bere

in Sierra Leone: anbunthi, foni, foni mayambe, kilaichieyo

in Yoruba: beere, bere

***A. macrochaeta*** (Stapf) Clayton (*Monium macrochaetum* Stapf)

Tropical Africa. See *Flora of Tropical Africa* 9: 400. 1919, *Kew Bulletin* 20: 281. 1966.

***A. polychaeta*** Clayton

Tropical Africa, Senegal. See *Kew Bulletin* 20: 281, f. 2. 1966.

***A. pumila*** Jacq.-Fél. (*Hypogynium pumilum* (Jacq.-Fél.) Roberty)

Tropical Africa. See *Revue internationale de botanique appliquée et d'agriculture tropicale* 30: 178, t. 6. 1950, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 187. 1960.

***A. scyphofera*** W.D. Clayton

Zambia. Annual, herbaceous, leaf blades linear and very narrow, ligule an unfringed membrane, plants bisexual, open inflorescence paniculate, 2 glumes subequal, lower glume grooved, palea present, 2 fleshy lodicules, ovary glabrous, open habitats, see *Kew Bulletin* 20: 278, f. 1. 1966.

***A. tenuifolia*** Stapf

West tropical Africa, Guinea. In damp places, see *Flora of Tropical Africa* 9: 392. 1919.

***A. trepidaria*** (Stapf) Stapf (*Andropogon trepidarius* Stapf)

West tropical Africa, Guinea. Annual, grazed, thatching grass, see *Journal de Botanique (Morot)* 19: 100. 1905, *Flora of Tropical Africa* 9: 390. 1919.

in Guinea: tchelbi

***A. trichaeta*** (Reznick) Clayton

Africa. A single fertile spikelet with 2 vestigial pedicels, see *Kew Bulletin* 20: 281. 1966.

***A. virgata*** Hack.

Liberia. See *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 6: 241. 1885.

### **Anastrophus Schldl. = Axonopus P. Beauv.**

From the Greek *ana* "up, back again" and *strophos* "twisted, twisted cord or band," *stropho* "to twist, to twine."

Panicoideae, Paniceae, Paspalinae, type *Paspalum platyculmum* Thouars ex Nees, see *Systema Naturae, Editio Decima* 846, 855, 1359. 1759, *Essai d'une Nouvelle Agrostographie* 12, 154. 1812, *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 24. 1829, *Botanische Zeitung. Berlin* 8: 681. 1850, *Genera Plantarum* 3(2): 1098. 1883 and *Contr. U.S. Natl. Herb.* 12: 142. 1908, *Die natürlichen Pflanzenfamilien, Zweite Auflage* 14e: 53. 1940, *Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales* 26(98): 13-23. 2002, *Contributions from the United States National Herbarium* 46: 116-134. 2003.

**Anatherostipa (Hack. ex Kuntze) Peñailillo**= *Nicoraella* Torres

From the Greek *a* “without, negative” and *ather* “stalk, barb.”

About 11 species, Argentina, Bolivia, Chile, Ecuador, Peru. Pooideae, Stipeae, Stipinae, perennial, caespitose, erect, ligule membranous, auricles absent, plants bisexual, narrow inflorescence, 2 glumes papery equal or subequal, palea present, 2-3 lodicules, 3 stamens, some species known for their toxicity, arid regions, desert, mountains, type *Anatherostipa saltensis* (Kuntze) Peñailillo, see *Species Plantarum* 1: 78-79. 1753, Ernst Gottlieb von Steudel (1783-1856), *Synopsis plantarum glumacearum*. 1: 121. Stuttgartiae 1854, *Revisio Generum Plantarum* 3(2): 372. 1898 and *Anales del Museo Nacional de Montevideo* 4: III, 36. 1901, *Bulletin of Miscellaneous Information Kew* 1923(8): 301-303. 1923, *Contr. U.S. Natl. Herb.* 24(7): 216. 1925, *Blumea, Supplement* 3: 63. 1946, *Revista Argentina de Agronomía* 17(3): 201. 1950, *Gayana, Botánica* 13: 1-137. 1965, *Boletín de la Sociedad Argentina de Botánica* 12: 268-283. 1968, *Boletín de la Sociedad Argentina de Botánica* 11(4): 239. 1969, *Kew Bulletin* 40(4): 727-729. 1984[1985], Patricio Peñailillo B., “*Anatherostipa*, un nuevo género de Poaceae (Stipeae) / *Anatherostipa*, a new genus of Poaceae (Stipeae).” *Gayana, Botánica* 53(2): 277-284. 1996, A.M. Torres, “*Nicoraella* (Gramineae) un nuevo genero para America del Sur.” *Comisión de Investigaciones Científicas* 13: 69-77. 1997, *Gayana, Botánica* 54(2): 163-182. 1997, Khidir W. Hilu & Lawrence A. Alice, “Evolutionary implications of *matK* indels in Poaceae.” *Am. J. Bot.* 86: 1735-1741. 1999, Sarah Mathews, Rocky C. Tsai and Elizabeth A. Kellogg, “Phylogenetic structure in the grass family (Poaceae): evidence from the nuclear gene phytochrome B.” *Am. J. Bot.* 87: 96-107. 2000, J. Valdés-Reyna & M.E. Barkworth, “Poaceae II. Pooideae: Tribu Stipeae.” *Flora de Veracruz* 127: 1-28. 2002, *Contributions from the United States National Herbarium* 48: 109-110, 467. 2003.

**Species**

**A. bomanii** (Hauman) Peñailillo (*Nicoraella bomanii* (Hauman) Torres; *Stipa bomanii* Hauman) (named for E. Boman, botanical collector in Argentina and Andes)

Argentina, Bolivia. Perennial, leaf blades filiform acicular, linear panicle, lanceolate glumes acute, toxic, sandy soils, rocky places, see *Anales del Museo Nacional de Buenos Aires* 29: 397, f. 1. 1917, *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 73. 1997.

**A. brevis** (Torres) Peñailillo (*Nicoraella brevis* Torres)

Argentina. See *Comisión de Investigaciones Científicas* 13: 73, f. 1H-I. 1997, *Contributions from the United States National Herbarium* 48: 109. 2003.

**A. coroi** F. Rojas (*Achnatherum coroi* F. Rojas ex Renvoize)

Bolivia. Perennial, leaf blades filiform, panicles linear, glumes subequal lanceolate and acuminate, see *Gayana, Botánica* 54(2): 170-171, f. 2. 1997, *Gramíneas de Bolivia* 84. 1998.

**A. hans-meyeri** (Pilg.) Peñailillo (*Anatherostipa hans-meyeri* (Pilg.) F. Rojas, nom. illeg., non *Anatherostipa hans-meyeri* (Pilg.) Peñailillo; *Stipa hans-meyeri* Pilg.; *Stipa nivalis* Steud. ex Lechler) (for Hans (Johannes August Theodor) Meyer, 1885-1935, botanical collector in Brazil and Ecuador)

Ecuador, Peru, Bolivia. Perennial, caespitose, leaves mainly basal, leaf blades involute rigid pungent, dense panicle narrowly oblong, glumes lanceolate acuminate, callus obtuse bearded, páramos, puna, montane, forming dense clumps and small tufts, sandy places, grasslands, see *Berberides Americae Australis* 56. 1857 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 56(Beibl 123): 24. 1920, *Contr. U.S. Natl. Herb.* 24(7): 216, 272. 1925, *Gayana, Botánica* 53(2): 279. 1996, *Gayana, Botánica* 54(2): 170. 1997.

**A. henrardiana** (Parodi) Peñailillo (*Nicoraella henrardiana* (Parodi) Torres; *Stipa henrardiana* Parodi)

Argentina. See *Blumea, Supplement* 3: 68 1946, *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 74. 1997.

**A. mucronata** (Griseb.) F. Rojas (*Anatherostipa saltensis* (Kuntze) Peñailillo; *Nicoraella mucronata* (Griseb.) Torres; *Oryzopsis mucronata* (Griseb.) Parodi; *Piptochaetium mucronatum* Griseb.; *Stipa saltensis* Kuntze)

Argentina. See *Symbolae ad Floram Argentinam. Zweite ...* 296-297. 1879, *Revisio Generum Plantarum* 3(2): 372. 1898 and *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 6(25): 230, 306, f. 3D-E. 1944, *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 72. 1997, *Gayana, Botánica* 54(2): 170. 1997.

**A. obtusa** (Nees & Meyen) Peñailillo (*Helopus obtusus* (Meyen) Steud.; *Nicoraella obtusa* (Nees & Meyen) Torres; *Oryzopsis neesii* Pilg.; *Piptatherum obtusum* Nees & Meyen; *Piptatherum obtusum* Meyen; *Stipa boliviensis* Hack.; *Stipa jujuyensis* Speg.; *Stipa obtusa* (Nees & Meyen) Hitchc.; *Urachne obtusa* (Nees & Meyen) Trin. & Rupr.)

Bolivia, Peru, Argentina. Perennial, caespitose, leaves mainly basal, leaf blades filiform rigid acuminate, panicle oblong, glumes ovate-oblong obtuse-acute, forming large clumps, puna, see *Reise um die Erde* 2: 32. 1835, *Nomenclator Botanicus. Editio secunda* 1: 747. 1840, *Gramineae* 18-19. 1841, *Species Graminum Stipaceorum* 22. 1842, *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 19(Suppl. 1): 150-151. 1843 and *Repertorium Specierum Novarum Regni Vegetabilis* 11: 21. 1912, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 56(Beibl. 123): 26. 1920, *Contributions from*

the *United States National Herbarium* 24(7): 284. 1925, *Revista Argentina de Botánica* 1(1): 39. 1925, *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 74. 1997.

**A. orurenensis** F. Rojas (*Achnatherum orurense* F. Rojas ex Renvoize)

Bolivia. Perennial, leaf blades convolute and pungent, loose panicles, subequal glumes ovate-lanceolate and acuminate, see *Gayana, Botánica* 54(2): 171-172, f. 3. 1997, *Gramíneas de Bolivia* 81. 1998.

**A. rigidiseta** (Pilg.) Peñailillo (*Nicoraella rigidiseta* (Pilg.) Torres; *Oryzopsis rigidiseta* Pilg.; *Stipa lechleriana* Steud. ex Lechler; *Stipa peruviana* Hitchc.; *Stipa rigidiseta* (Pilg.) Hitchc.)

Bolivia, Peru. Forming large clumps, see *Gramineae* 18-19. 1841, *Berberides Americae Australis* 56. 1857 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 56(Beibl. 123): 26. 1920, *Contributions from the United States National Herbarium* 24(7): 285. 1925, *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 75. 1997.

**A. rosea** (Hitchc.) Peñailillo (*Stipa rosea* Hitchc.)

Ecuador. Open ground, see *Contributions from the United States National Herbarium* 24(7): 272. 1925, *Contributions from the United States National Herbarium* 48: 110. 2003.

**A. venusta** (Phil.) Peñailillo (*Nicoraella venusta* (Phil.) Torres; *Stipa venusta* Phil.)

Chile. See *Verzeichniss der von Friedrich Philippi auf der Hochebene der Provinzen Antofagasta und Tarapacá gesammelten Pflanzen* 81. 1891 and *Gayana, Botánica* 53(2): 279. 1996, *Comisión de Investigaciones Científicas* 13: 75. 1997.

### **Anatherum Nabelek** = *Festuca* L.

Greek *a* “without, negative” and *ather* “stalk, barb,” see A.M.F.J. Palisot de Beauvois, *Essai d'une nouvelle Agrostographie*. 128. (Dec.) 1812.

### **Anatherum P. Beauv.** = *Andropogon* L., *Vetiveria* Bory

Greek *a* “without, negative” and *ather* “stalk, barb.”

Panicoideae, Andropogoneae, Andropogoninae, type *Anatherum bicorne* (L.) P. Beauv., see *Species Plantarum* 2: 1045-1046. 1753, A.M.F.J. Palisot de Beauvois, *Essai d'une nouvelle Agrostographie* 128, 150, atlas t. 22, f. 11. 1812, *Bull. Sci. Soc. Philom. Paris* 1822: 43. 1822 and *Fl. Trop. E. Afr. Gramineae* 770. 1982, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 46: 20-64. 2003.

### **Ancistrachne** S.T. Blake

Greek *ankistron* “fish-hook” and *achne* “chaff, glume,” referring to the hooked or curved hairs on the spikelets.

About 3-4 species, Philippines, Australia. Panicoideae, Panicoideae, Paniceae, perennial, wiry, branched above, erect or spreading or decumbent, shrubby and persistent to herbaceous, caespitose, sometimes scrambling or tufted, glabrous nodes, solid internodes, leaves narrow, auricles absent, ligule fringed and hairy, plants bisexual, inflorescence paniculate and open, spikelets sessile, 2 florets, lower floret sterile, upper floret bisexual, 2 glumes very unequal, upper glume with hooked or curved hairs or spines, palea present, 2 lodicules free and fleshy, 3 stamens, ovary glabrous, 2 stigmas, fruit small and compressed, shade species, type *Ancistrachne uncinulata* (R. Br.) S.T. Blake, see *Nova Genera et Species Plantarum* 1: 94-95. 1815 [1816] and *Philippine Journal of Science* 37: 135. 1928, *University of Queensland Papers, Department of Biology* 1(19): 1-12. 1941 [Papers, Department of Biology, University of Queensland].

### **Species**

**A. maidenii** (A.A. Ham.) Vickery (*Eriochloa maidenii* A.A. Ham.) (after the British-born (Londoner by birth) Australian botanist Joseph Henry Maiden, 1859-1925 (Sydney), studied botany under Prof. R. Bentley and Prof. D. Oliver, 1880 migrated to Australia, member of the Council of the Royal Society and Linnean Society of New South Wales and President of both Societies, Honorary Secretary of the Australasian Association for the Advancement of Science, Curator and Secretary of the Technological Museum, investigator of the economic botanical resources of Australia, 1896 succeeded the late Mr. Charles Moore as Government Botanist of New South Wales and Director of the Botanic Gardens of Sydney, 1889 Fellow of the Linnean Society (in 1915 was awarded its Gold Medal), from 1896 to 1924 New South Wales Government Botanist, 1916 admitted into the Royal Society of London, 1916 was appointed to the Imperial Service, among his writings are *The Useful Native Plants of Australia*. (Including Tasmania). London and Sydney 1889, *The Olive and Olive Oil*; being notes on the culture of the tree and extraction of the oil as carried out in South Australia and the Continent of Europe. Sydney 1887, *The Forest Flora of New South Wales*. Sydney [1903-] 1904-1925, *Mount Seaview and the Way Thither*. Sydney 1898 and *Sir Joseph Banks: the “Father of Australia.”* Sydney, London 1909, with Ernst Betche (1851-1913) wrote *A Census of New South Wales Plants*. Sydney 1916. See R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Stafleu & Cowan, *Taxonomic Literature*. 3: 249-255. 1981; J.H. Barnhart, *Biographical Notes upon Botanists*. 2: 437. 1965; I.C. Hedge & J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970; Ida Kaplan

Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; E.D. Merrill, *Bernice P. Bishop Mus. Bull.* 144: 129-130. 1937 and *Contr. U.S. Natl. Herb.* 30(1): 202-203. 1947; A.B. Rendle, *The Journal of Botany*. 54: 316, t. 545. 1916; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 249. 1972; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 206. Oxford 1964; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Frans A. Stafleu, *Linnaeus and the Linnaeans. The Spreading of Their Ideas in Systematic Botany, 1735-1789*. Utrecht 1971)

Australia, New South Wales. Perennial, vulnerable species, scrambling, decumbent and ascending, slender and rigid, sheath hairy, ligule ciliate, racemes terminaly or axillary, fertile floret elliptic to lanceolate, upper glume and lower lemma with curved hairs, upper lemma mucronate, see *Proceedings of the Linnean Society of New South Wales* 37(4): 709-711. 1912[1913], *Contributions from the New South Wales National Herbarium* 3(2): 83. 1961.

*A. numaeensis* (Balansa) S.T. Blake (*Panicum numaeense* Balansa)

New Caledonia. Endangered species, see *Bulletin de la Société Botanique de France* 19: 325. 1872 and *Proceedings of the Royal Society of Queensland* 81: 1. 1969.

*A. uncinulata* (R. Br.) S.T. Blake (*Panicum uncinulatum* R. Br.)

Australia, Queensland, New South Wales. Perennial, shrubby, sheath pilose, upper glume and lower lemma with hooked spines, upper lemma acute, grows in woodland, useful for erosion control, forage, economic plant, see *Prodromus Florae Novae Hollandiae* 191. 1810 and *University of Queensland Papers: Department of Biology* 1(19): 5, t. 2. 1941.

in English: hooky grass, hooked-hairy panic grass

**Ancistragrostis S.T. Blake** = *Echinopogon* P. Beauv., *Hystericina* Steud.

From the Greek *ankistron* “fish-hook.”

Two species, Papua New Guinea. Pooideae, Poodae, Aveneae, perennial, caespitose, herbaceous, unbranched, leaves mostly basal, ligule an unfringed membrane, auricles absent, leaf blades convolute or rolled, plants bisexual, contracted inflorescence paniculate, spikelets with rachilla extension, 1-flowered, 2 glumes more or less equal and persistent, lemmas convolute and strongly hooked, short subulate subapical awn hooked or not, palea present, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, damp places, montane, grassland, related to *Calamagrostis*, type *Ancistragrostis uncinoides* S.T. Blake,

see *Essai d'une Nouvelle Agrostographie* 42-43, 148, 161. 1812, *Synopsis Plantarum Glumacearum* 1: 35, 37. 1855 [1853] and *Blumea, Supplement* 3: 56-62. 1946.

### Species

*A. uncinoides* S.T. Blake (*Calamagrostis uncinoides* (S.T. Blake) Reeder; *Deyeuxia uncinoides* (S.T. Blake) P. Royen & Veldkamp)

New Guinea. Perennial, small, caespitose, inflorescence a narrow panicle, see *Journal of the Arnold Arboretum* 31: 324. 1950, *The Alpine Flora of New Guinea* 2: 1140. 1979.

**Ancistrochloa Honda** = *Calamagrostis* Adans.

From the Greek *ankistron* “fish-hook” and *chloe*, *chloa* “grass.”

Type *Ancistrochloa fauriei* (Hack.) Honda, see *Familles des Plantes* 2: 31, 530. 1763, *Tentamen Florae Germanicae* 1: 34. 1788, *Bulletin de l'Herbier Boissier* 7(9): 653. 1899 and *Journal of Japanese Botany* 12: 18. 1936, *Botanical Magazine* 89: 99-104. 1976, *Botanical Magazine* 91: 141-171. 1978.

**Andropogon L.** = *Anatherum* P. Beauv., *Arthrostachys* Desv., *Arthrolophis* (Trin.) Chiov., *Athrolophis* (Trin.) Chiov., *Diectomis* Kunth, *Dimeiostemon* Raf., *Eriopodium* Hochst., *Euklastaxon* Steud., *Eupogon* Desv., *Heterochloa* Desv., *Homoeatherum* Nees ex Lindl., *Hypogynium* Nees, *Leptopogon* Roberty

From the Greek *aner*, *andros* “a man, male” and *pogon* “a beard,” the hairy spikelets resemble a man's beard, the pedicels of sterile spikelets are villous.

About 100-113 species, tropics and subtropics. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, annual or perennial bunchgrass, herbaceous, caespitose or decumbent, rhizomatous with rhizomes creeping, mostly robust and solid culms, never aromatic, base may be purplish or reddish, sometimes branched, auricles absent, sheaths and culms smooth or hairy, ligules often conspicuous with or without hairs, long arching basal leaves, plants bisexual, when present hidden cleistogenes in the leaf sheaths, inflorescence terminal to compound, racemes paired and digitate or subdigitate, racemes non deflexed at maturity, racemes digitate or rarely single, spikelets paired, sessile spikelet bisexual and often awned, shape of the sessile spikelet lower glume variable, stalked spikelet sterile or male and unawned, 2 florets, upper floret bisexual in the

sessile spikelets, upper floret male or sterile or suppressed in the pedicellate spikelets, lower floret reduced to an empty lemma, glumes more or less equal, lower glume usually membranous to coriaceous and 2-keeled, upper glume occasionally awned, upper lemma bilobed and awned or sometimes entire and awnless, palea present or absent, 2 tiny lodicules glabrous, stamens 1-3, anthers brown, ovary glabrous, 2 stigmas, extrafloral nectaries, the dispersal unit winged and plumose, handsome foliage, thatching grass, good fodder, feed green or dried, eaten by cattle, used in erosion control, pasture weeds, savannah, ruderal habitats, tropical highlands, in neglected places, marginal lands, currently there is disagreement over the taxonomic treatment of the genus, see *Species Plantarum* 2: 1045-1046. 1753, *Genera Plantarum*. edition 5. 468. 1754, *Essai d'une Nouvelle Agrostographie* 128, 132, 150, 160. 1812, *Mémoires du Muséum d'Histoire Naturelle* 2: 69. 1815, *Observ. Gramin. Belg.* 84, 90, 141. 1824, *Neogenyton* 4. 1825, *Flora Brasiliensis seu Enumeratio Plantarum* 364, 366. 1829, *Rel. Haenk.* 1(4-5): 331. 1830, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 170-171, 178, t. 8, 9, f. 2, 3. 1831, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 268. 1832, *A Natural System of Botany* ed 2 448. 1836, *Fl. Afr. Austral. Ill.* 103, 109. 1841, *Flora* 29: 115. 1846, *Synopsis Plantarum Glumacearum* 1: 412. 1854 [1855], *Fl. France Prosp.* 3: 469. 1855, *Fl. Austral.* 7: 535. 1878, *J. Linn. Soc., Bot.* 19: 72. 1881, *Flora Brasiliensis* 2(4): 283, 294-296, 303. 1883, *Gen. Pl.* 3(2): 1134. 1883, *Die Natürlichen Pflanzenfamilien* 2(2): 26-29. 1887, *Monogr. Phan.* 6: 397, 400, 402, 471, 594, 617, 647. 1889, *Index Kewensis* 1: 760. 1893 and *J. Bot. (Morot)* 19: 100. 1905, *Bollettino della Società Botanica Italiana* 1917: 57. 1917, *Madroño* 14: 18-29. 1957, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 193. 1960, *Brittonia* 19: 70-76. 1967, *Hook. Ic. Pl.* 37: t. 3644. 1967, *Primates* 10: 103-148. 1969, *Kew Bulletin* 27: 457-474. 1972, *Folia Primatologica* 21: 36-60. 1974, *Anuário Técnico do Instituto de Pesquisas Zootécnicas "Francisco Osorio"* 7: 317-410. 1980, *Trop. E. Afr. Gramineae* 770. 1982, *J. Arnold Arbor.* 64(2): 171-254. 1982, *Boletín de la Sociedad Argentina de Botánica* 24: 137-149. 1985, *Brittonia* 38(4): 411-414. 1986, *Annals of the Missouri Botanical Garden* 75: 866-873. 1988, *Annals of the Missouri Botanical Garden* 77(1): 125-201. 1990, *Taxon* 41: 556. 1992, *Bothalia* 24: 241-246. 1994, *Flora Mesoamericana* 6: 387-390. 1994, *Taxon* 44: 611-612. 1995, Lucia G. Le Roux and Elizabeth A. Kellogg, "Floral development and the formation of unisexual spikelets in the Andropogoneae (Poaceae)." *Am. J. Bot.* 86: 354-366. 1999, *Journal of the Torrey Botanical Society* 127(2): 101-106. 2000, Ana Zanin and Hilda Maria Longhi-Wagner, "Taxonomic Novelties in *Andropogon* (Poaceae-Andropogoneae) for Brazil." *Novon* 13(3): 368-375. 2003, *Contributions*

*from the United States National Herbarium* 46: 20-64. 2003.

### Species

*A. sp.*

in Nigeria: raneraneho, yakawre

in Upper Volta: coobol, soobol, yantaare

in Yoruba: eruwa pupa, kokofa, kokofia, koriko ifa, poponloro

*A. abyssinicus* R. Br. ex Fresen. (*Andropogon amethystinus* Steud.; *Andropogon glabrescens* Hochst. ex Steud.; *Andropogon multinervius* Hochst. ex Steud.; *Andropogon plagiopus* Hochst. ex Steud.; *Andropogon polyatherus* Hochst. ex A. Rich.; *Andropogon polyatherus* subvar. *glabrescens* (Hochst. ex Steud.) Hack.; *Andropogon polyatherus* subvar. *intermedius* Chiov.; *Andropogon polyatherus* subvar. *multinervis* (Hochst. ex Steud.) Hack.; *Andropogon polyatherus* subvar. *scabriglumis* Hack.; *Andropogon polyatherus* var. *plagiopus* (Hochst. ex Steud.) Hack.; *Exothea abyssinica* (Hochst. ex A. Rich.) Andersson; *Sorghum abyssinicum* (R. Br. ex Fresen.) Kuntze; *Sorghum abyssinicum* (Fresen.) Kuntze)

Ethiopia. Annual, loosely tufted, ascending, leaf blades flat, racemes paired and villous to almost glabrous, geniculate awn, pedicelled spikelet usually 2-awned and male, a weed of pasture, in open grassland, disturbed areas, arable land, sometimes confused with *Andropogon distachyos* L. and *Andropogon amethystinus* Steud., see *Methodus Plantas Horti Botanici ...* 207. 1794, *Museum Senckenbergianum* 2: 146. 1837, *Tentamen Florae Abyssinicae ...* 2: 455. 1850, *Synopsis Plantarum Glumacearum* 1: 371, 374. 1854, *Nova Acta Regiae Societas Scientiarum Upsaliensis, ser. 3, 2*: 253, t. 3. 1857, *Monographiae Phanerogamarum* 6: 467. 1889, *Revisio Generum Plantarum* 2: 791. 1891 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 282. 1908, *American Journal of Botany* 43: 395-404. 1956.

*A. aequatoriensis* Hitchc.

Ecuador. See *Contributions from the United States National Herbarium* 24(8): 499. 1927.

*A. africanus* Franch. (*Anatherum africanum* (Franch.) Roberty; *Andropogon nardus* var. *prolixus* Stapf; *Andropogon prolixus* (Stapf) Stapf)

Tropical Africa. Perennial, caespitose, good cattle-grazing pasture, swampy sites, seasonally flooded plains, moist meadow, rocky places, wet sandy areas, see *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 325. 1895, *Flora Capensis* 7: 352. 1898 and *Bulletin de la Société Botanique de France* 55: 102. 1908, *Boissiera.* 9: 207. 1960.

in Nigeria: ranerane-ho, raneraneho, yakawre

*A. amboinicus* (L.) Merr. (*Eragrostis amboinica* (L.) Druce; *Poa amboinica* L.)

Philippines, Asia, India. See *Mantissa Plantarum* 557. 1771, *Symbolae Botanicae*, ... 2: 102. 1791 and *Report. Botanical Exchange Club. London*. 1916: 621. 1917, Elmer Drew Merrill (1876-1956), *An Interpretation of Rumphius's Herbarium Amboinense* Publication No. 9: 88. Manila 1917, Cornelis Andries B. Backer (1874-1963), *Handboek voor de Flora van Java* 2: 99. Batavia 1928, *Blumea* 37(1): 227-237. 1992.

**A. amethystinus** Steud. (*Andropogon abyssinicus* sensu Chippind., non R. Br. ex Fresen.; *Andropogon abyssinicus* R. Br. ex Fresen.; *Andropogon homogamus* Stapf; *Andropogon humilis* Hochst. ex A. Rich.; *Andropogon pilosellus* Stapf; *Andropogon polyatherus* A. Rich. var. *plagiopus* (Steud.) Hack.; *Andropogon pratensis* Hack.; *Andropogon pratensis* Hochst.; *Andropogon pratensis* Hochst. ex Hack.; *Andropogon pratensis* subvar. *pilosus* Hack.; *Andropogon pratensis* var. *pseudoabyssinicus* Chiov.; *Sorghum abyssinicum* (R. Br. ex Fresen.) Kuntze)

Tropical and southern Africa, Tanzania, Cameroon, Equatorial Guinea. Perennial, variable, straggling, loosely or densely tufted, erect to ascending, sometimes shortly rhizomatous with wiry rhizomes, basal leaf sheaths glabrous, ligule a ciliate membrane, leaves flat or inrolled, inflorescence not plumose, racemes paired and terminal, lower glume of sessile spikelet smooth and winged or wingless, fertile lemma awned, pedicelled spikelet 1- to 2-awned, sessile spikelet lanceolate to elliptic, geniculate awn, grazed by sheep and goats, whole plant eaten by baboons, common in mountain grassland, on steep slope, cliffs, hard soil, along roadsides, rocky mountain slopes, rock crevices, upland evergreen forest, open places, see *Museum Senckenbergianum* 2: 146. 1837, *Tentamen Florae Abyssinicae* ... 2: 455. 1850, *Synopsis Plantarum Glumacearum* 1: 371, 374. 1854, *Monographiae Phanerogamarum* 6: 463-464, 467. 1889, *Revisio Generum Plantarum* 2: 791. 1891 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 282. 1908, *Flora of Tropical Africa* 9: 217, 221, 228. 1919, *Annals of the Missouri Botanical Garden* 75: 866-873. 1988, *Bothalia* 24: 241-246. 1994.

**A. amethystinus** Steud. var. *breviaristatus* Hack.

Abyssinia. See *Synopsis Plantarum Glumacearum* 1: 371. 1854, *Monographiae Phanerogamarum* 6: 464. 1889.

**A. angustatus** (J. Presl) Steud. (*Andropogon apricus* Trin.; *Andropogon aturensis* Maury; *Andropogon mocquersyisii* Benoist; *Cymbachne angustata* (J. Presl) Roberty; *Diectomis angustata* J. Presl; *Diectomis laxa* Nees; *Sorghum laxum* (Nees) Kuntze)

Mexico and West Indies, Venezuela, Brazil. Annual, erect, caespitose, slender, callus of sessile spikelet pungent, forming colonies, páramos, roadsides, savannah, white sandy soils, riverbanks, ponds, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 340-341. 1829, *Reliquiae Haenkeanae* 1(4-5): 333. 1830, *Mémoires de l'Académie Impériale des*

*Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 83. 1836, *Journal de Botanique (Morot)* 3: 158, f. 4. 1889, *Synopsis Plantarum Glumacearum* 1: 370. 1854, *Revisio Generum Plantarum* 2: 790. 1891 and *Bulletin de la Société Botanique de France* 87: 340. 1940, *Boissiera*. 9: 254. 1960.

**A. appendiculatus** Nees (*Andropogon brazzae* Franch.; *Andropogon pseudapricus* Stapf; *Leptopogon appendiculatus* (Nees) Roberty)

Africa, Swaziland, Lesotho, South Africa. Perennial, erect, variable, stems strongly flattened, densely tufted, forming dense stands, sheaths keeled and compressed, broad leaves folded at the base, 1-2 flowering branches per culm, racemes arranged semidigitately, spikelets dark purple and paired, lower glume of the sessile spikelets grooved, useful palatable grass, high grazing value, can withstand heavy grazing, occurs in the seasonally wet areas, vleis, shady places, low-lying ground, stream banks, sandy soils, moist ground, loamy sand, see *Florae Africae Australioris Illustrationes Monographicae* 105. 1841, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 326. 1895 and *Flora of Tropical Africa* 9: 242. 1919, *Boissiera*. 9: 197. 1960, *Bothalia* 24: 241-246. 1994.

in English: bluestem

in South Africa: tajwe, vlei bluestem, blougras, vleiblougras, marotlo a mafubedu

**A. appendiculatus** Nees var. *ischaemum* Nees

South Africa. See *Florae Africae Australioris Illustrationes Monographicae* 105. 1841.

**A. appendiculatus** Nees var. *polycladus* Hack.

South Africa. See *Florae Africae Australioris Illustrationes Monographicae* 105. 1841, *Bulletin de l'Herbier Boissier* 4: Append. 3. 11. 1896 and *Kew Bulletin* 32(1): 1. 1977.

**A. appendiculatus** Nees var. *serrulatus* (Link) Nees (*Andropogon serrulatus* Link)

South Africa. See *Hortus Regius Botanicus Berolinensis* 1: 241. 1827, *Florae Africae Australioris Illustrationes Monographicae* 105. 1841, *Bulletin de l'Herbier Boissier* 4: Append. 3. 11. 1896.

**A. arctatus** Chapman (*Andropogon distachyos* L.; *Andropogon tetrastachyus* Elliott var. *distachyus* Chapm.; *Leptopogon carinatus* (Nees) Roberty; *Leptopogon carinatus* subvar. *arctatus* (Chapman) Roberty; *Sorghum arctatum* (Chapm.) Kuntze)

U.S., Florida. Perennial, tufted culms, green, nodes smooth, sheaths smooth or pubescent, mostly smooth leaves, papery ligule thin and smooth, racemes paired and silky, pedicellate spikelet a sterile scale, fruit a minute grain, threatened plant, occurs in wetlands or nonwetlands, in pine flatwoods, bogs and disturbed areas, see *Species Plantarum* 2: 1046. 1753, *A Sketch of the Botany of South-Carolina and Georgia* 1:

150, t. 8, f. 4. 1816, *Flora of the Southern United States* 581. 1860, *Botanical Gazette* 3(3): 20. 1878, *Revisio Generum Plantarum* 2: 791. 1891 and *Boissiera*. 9: 197-198. 1960, *J. Arnold Arbor.* 64: 207. 1983.

in English: pinewoods bluestem

**A. arenarius** Hack. (*Anatherum virginicum* subvar. *arenarium* (Hack.) Roberty; *Andropogon arenarius* f. *arenarius*; *Andropogon arenarius* f. *subcompletus* Hack. ex Lindm.)

Brazil, Uruguay. See *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Flora* 68(8): 134. 1885 and *Kongliga Svenska Vetenskapsakademiens Handlingar* 34(6): 6. 1900, *Boissiera*. 9: 212. 1960, *Brittonia* 38(4): 411-414. 1986.

**A. ariani** Edgew.

India. See *Journal of the Proceedings of the Linnean Society* 6: 208. 1862.

**A. aridus** Clayton

Somalia. Perennial, branched, dense cushions forming, densely tufted, leaves folded or inrolled, terminal racemes paired or solitary, lower glume convex on the back, upper glume acute, upper lemma awned, stony hills, see *Kew Bulletin* 32(1): 1. 1977.

**A. ascinodis** C.B. Clarke (*Andropogon apricus* Hook.f., non Trinius; *Andropogon apricus* var. *indicus* Hack.)

India, Myanmar. Perennial, tufted, lower glume of sessile spikelet deeply grooved, a fodder grass, on exposed areas, slopes, hillsides, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 83. 1836, *Journal of the Linnean Society, Botany* 25: 87, t. 36. 1889, *Monographiae Phanerogamarum* 6: 457. 1889, *Fl. Brit. Ind.* 7: 169. 1897.

**A. auriculatus** Stapf

Tropical Africa, Senegal. Perennial, caespitose, forage, on sandy beaches, see *Flora of Tropical Africa* 9: 258. 1919.

in Sierra Leone: puile

**A. barretio** G.A. Norrmann & Quarin (for Ismar L. Barreto, botanist in Brazil)

Brazil. See *Bonplandia* 5: 291-293. 1983, *Darwiniana* 39(1-2): 171, f. 1. 2001.

**A. bentii** Stapf (named for James Theodore Bent, 1852-1897, traveler, botanical collector in Arabia, Socotra and Sudan; see Theodore Bent and Mrs. Theodore Bent [Mabel Virginia Anna Bent, née Hall-Dare], *Southern Arabia*. London 1900)

Socotra. Similar to *Andropogon kelleri* Hack., see *Kew Bulletin* 6: 224. 1907.

**A. bicornis** L. (*Anatherum bicorne* (L.) P. Beauv.; *Andropogon bicornis* Forssk., nom. illeg., non *Andropogon bicornis* L.; *Andropogon bicornis* var. *absconditus* Hack.; *Andropogon bicornis* var. *angustifolius* Pilg.; *Andropogon*

*bicornis* var. *burchellii* Hack.; *Andropogon bicornis* var. *gracillimus* Hack.; *Andropogon bicornis* var. *hybridus* Hack.; *Andropogon bicornis* var. *paranensis* Bertoni; *Andropogon bicornis* var. *virginicoides* Hack.; *Andropogon brevicornis* L.; *Melochia graminifolia* A. St.-Hil.; *Saccharum bicorne* (L.) Griseb.; *Sorghum bicorne* (L.) Kuntze)

Brazil, Mexico to Argentina, Venezuela, Costa Rica. Perennial bunchgrass, herbaceous, erect, glabrous, branching from the base, robust, semiaquatic, emergent, rhizomatous, internodes reddish, leaves long and narrow with rough margins, straight racemes aggregated into large and profusely branched inflorescences, cottony white awns or awnless, sessile spikelets awnless, a prolific seeder forming dense stands, noxious weed, invasive, potential seed contaminant, propagation by seed dispersed by wind and water, naturalized, unpalatable, forage and paper production, roots diuretic and sudorific, decoction of roots is diuretic and emollient, occurs on pasture and road bank, old abandoned fields, canal banks, marshy areas, damp places, clearings, sandy soils, forest margins, savannah, riverbanks, along roadsides, pine savannah, disturbed areas, in seasonally inundated savannahs, ditches, see *Species Plantarum* 2: 1046. 1753, *Flora Aegyptiaco-Arabica* 173. 1775, *Essai d'une Nouvelle Agrostographie* 128, 150 atlas t. 22, f. 11. 1812, *Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen* 7: 266. 1857, *Flora Brasiliensis* 2(4): 284-285. 1883, *Monographiae Phanerogamarum* 6: 418. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 27(1-2): 23. 1899 and *Anales Científicos Paraguayos* 2(5): 144. 1918, *Biota* 2: 82. 1958, *Anuário Técnico do Instituto de Pesquisas Zootécnicas "Francisco Osorio"* 7: 317-410. 1980, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Brittonia* 38(4): 411-414. 1986, *Taxon* 48: 573. 1999.

in English: horse's tail, Indian beardgrass, West Indian fox-tail grass, West Indian foxtail, foxtail, seed grass, deer grass

in Spanish: paja, cola de caballo, rabo de zorro, matojo de techar, barba de indio

in Colombia: cola de venado, cola de zorro, rabo de gato

in Ecuador: puntero, rabo de zorro

in Brazil: capim rabo de raposa, capim-andaime, capim-rabo-de-burro, capim sapê, sapê, capim amargoso, capim d'agua, capim de bezerro, capim mole, capim peba, capim vassoura, capupuba, sapê

in Mexico: cola de zorra, cola de venado, rabo de mula, zacate agrio, zacate amarillo

Common names: Bartgras, z'herbe panache, cola de venado, pajón conojera

**A. bogotensis** (Hack.) A. Zanin & Longhi-Wagner (*Andropogon incanus* var. *bogotensis* Hack.; *Andropogon lateralis*



var. *bogotensis* (Hack.) Henrard; *Andropogon multiflorus* Renvoize)

South America, Colombia. Perennial, erect, caespitose, leaf blades linear, branched inflorescence, racemes delicate and exserted, wet savannahs, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 329-330. 1829, *Monographiae Phanerogamarum* 6: 433. 1889 and *Mededeelingen van's Rijks-Herbarium* 40: 43. 1921, *Gramíneas de Bolivia* 596, f. 138. 1998.

**A. bourgeaei** Hack. (*Anatherum bourgeaei* (Hack.) Roberty; *Sorghum bourgeaui* (Hack.) Kuntze) (named for the French traveler Eugène Bourgeau, 1813-1877, botanical collector in Europe and Mexico, North America and Algeria)

America, Mexico. Perennial, erect, see *Flora* 68(8): 134. 1885, *Revisio Generum Plantarum* 2: 791. 1891 and *Boissiera*. 9: 211. 1960.

**A. brachyatherus** Hochst. (*Andropogon brachyatherus* Hochst. ex A. Rich., nom. illeg., non *Andropogon brachyatherus* Hochst.; *Ischaemum brachyatherum* (Hochst.) Fenzl ex Hack.)

Africa. See *Flora* 27: 241. 1844, *Tentamen Florae Abyssinicae* ... 2: 457. 1850, *Monographiae Phanerogamarum* 6: 239. 1889.

**A. brachystachyus** Chapman (*Anatherum brachystachyum* (Chapm.) Roberty; *Sorghum brachystachyum* (Chapm.) Kuntze)

U.S., Florida. Perennial, caespitose, tufted culms, nodes and sheaths smooth, papery ligule thin and with a fringe of hairs, leaf blades scabrous, 2-branched racemes, pedicellate spikelet reduced to a single scale, fruit a minute grain, found in pine flatwoods, sand hill, wet roadsides and ecotones of depression marsh, abundant in seasonal ponds and swales, see *Flora of the Southern United States* Suppl. 668. 1883, *Revisio Generum Plantarum* 2: 791. 1891 and *Boissiera*. 9: 211. 1960, *Journal of the Arnold Arboretum* 64: 171-254. 1983.

in English: short-spike bluestem

**A. brazzae** Franch. (*Andropogon appendiculatus* Nees; *Andropogon appendiculatus* var. *genuinus* Durand & Schinz; *Leptopogon appendiculatus* (Nees) Roberty) (for the Italian-born (Castel Gandolfo, Rome) French explorer Count Pierre (Pietro) Paul François Camille Savorgnan de Brazza, 1852-1905 (Dakar, Senegal), colonial administrator who founded the French (Middle) Congo, 1874 became a French citizen, explored Equatorial Africa, between 1875 and 1878 this first mission covered 900 miles of inland territory (discovering many plant and animal species unknown in Europe), 1880 he reached the Congo River, founded Brazzaville, in 1886 he was named governor general of the French Congo, wrote *Conférences et lettres de P. Savorgnan de Brazza sur ses trois explorations dans*

*l'Ouest africain, de 1875 à 1886*. Paris 1887. See C. de Chavannes, *Avec Brazza*. Souvenir de la mission de l'Ouest-Africain. 1935; Francesco Savorgnan di Brazzà, *L'Uomo che donò un Impero*. Vita e opera di Pietro Savorgnan di Brazzà. Firenze 1945; Robert de Saint Jean, "Deux témoignages sur les colonies: Las Casas et André Gide." *La Revue hebdomadaire*. 36e année, n 47: 358-364. 19 novembre 1927)

Tropical Africa, Zambia. Perennial, robust, rare, tufted, rhizomatous, leaning, glaucous, basal sheaths keeled and flattened, 4-15 racemes per spathe, lower glume of sessile spikelets concave, found near water, dry sandy soils, see *Florae Africae Australioris Illustrationes Monographicae* I. Gramineae. 105. 1841, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 326. 1895 and *Boissiera*. 9: 197. 1960.

**A. brevifolius** Sw. (*Andropogon obtusifolius* Poir.; *Pollinia brevifolia* (Sw.) Spreng.; *Schizachyrium brevifolium* (Sw.) Nees ex Büse; *Schizachyrium platyphyllum* (Franch.) Stapf; *Sorghum brevifolium* (Sw.) Kuntze)

Asia, Japan. Slender, decumbent, much-branched, leaves narrow and short, spikes solitary and very slender, limestone, see *Nova Genera et Species Plantarum seu Prodrromus* 26. 1788, *Encyclopédie Méthodique, Botanique* Suppl. 1: 583. 1810, *Prodromus Florae Novae Hollandiae* 1: 202. 1810, *Plantarum Minus Cognitarum Pugillus* 2: 13. 1815, *Tentamen Florae Abyssinicae* ... 2: 452. 1850, *Plantae Junghuhnianae* 3: 359. 1854, *Enumeratio Plantarum in Japonia Sponte Crescentium* ... 2: 610. 1879, *Monographiae Phanerogamarum* 6: 363-365. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 324. 1895 and *Contr. U.S. Natl. Herb.* 12: 143. 1908, *Flora of Tropical Africa* 9: 188. 1917, *Botanical Magazine* 56: 10. 1942, *Journal of the Arnold Arboretum* 29: 363. 1948, *Taxon* 34: 159-164. 1985.

in India: wanji-jari, ware-gare

in Japan: ushi-kusa (= ox grass)

**A. brevifolius** Sw. var. **cryptopodus** (Ohwi) Reeder (*Andropogon cryptopodus* Ohwi)

New Guinea. See *Nova Genera et Species Plantarum seu Prodrromus* 26. 1788 and *Botanical Magazine* 56: 10. 1942, *Journal of the Arnold Arboretum* 29: 363. 1948.

**A. brevifolius** Sw. var. **flaccidus** (A. Rich.) Hack. (*Andropogon flaccidus* A. Rich.)

Africa. See *Nova Genera et Species Plantarum seu Prodrromus* 26. 1788, *Tentamen Florae Abyssinicae* ... 2: 452. 1850, *Plantae Junghuhnianae* 3: 359. 1854, *Monographiae Phanerogamarum* 6: 364. 1889.

**A. brevifolius** Sw. var. **fragilis** (R. Br.) Hack. (*Andropogon fragilis* R. Br.)

Australia. See *Nova Genera et Species Plantarum seu Prodrromus* 26. 1788, *Prodromus Florae Novae Hollandiae* 1: 202. 1810, *Monographiae Phanerogamarum* 6: 364. 1889.

*A. brevifolius* Sw. var. *leptatherus* Hack. (*Andropogon sulcatus* Ekman; *Schizachyrium sulcatum* (Ekman) S.T. Blake)

Colombia. See *Nova Genera et Species Plantarum seu Prodromus* 26. 1788, *Monographiae Phanerogamarum* 6: 364. 1889 and *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 10(17): 4, t. 1, f. 3, t. 6, f. 3. 1911, *Proceedings of the Royal Society of Queensland* 80(6): 78. 1969.

*A. brevifolius* Sw. var. *minor* Vanderyst

Africa. See *Bulletin agricole du Congo Belge* 9: 238. 1918.

*A. brevifolius* Sw. var. *paradoxus* (Büse) Ohwi (*Schizachyrium paradoxum* Büse)

Asia. See *Plantae Junguhnianae* 3: 359. 1854 and *Acta Phytotaxonomica et Geobotanica* 11: 169. 1942.

*A. brevifolius* Sw. var. *sinensis* Rendle

Asia. See *Journal of the Linnean Society, Botany* 36: 372. 1889.

*A. cabanisii* Hack. (*Andropogon ternarius* Michx. var. *cabanisii* (Hack.) Fernald & Griscom; *Sorghum cabanisii* (Hack.) Kuntze)

U.S., Florida. See *Flora Boreali-Americana* 1: 57. 1803, *Flora* 68(8): 133. 1885, *Revisio Generum Plantarum* 2: 791. 1891 and *Rhodora* 37(436): 138. 1935.

in English: firegrass

*A. campestris* Trin. (*Andropogon camporum* Trin. ex Steud.; *Andropogon campestris* Kunth, nom. illeg., non *Andropogon campestris* Trin.)

America, Brazil. See *Synopsis Plantarum* 1: 103. 1805, *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 338-339. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 277. 1832, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 489. 1833, *Synopsis Plantarum Glumacearum* 1: 378. 1854.

*A. canaliculatus* Schumach.

Benin, Ghana, Kenya. Perennial, tufted, erect, little bulk-forming, leaf blades narrowly linear, paired racemes, loose false panicle, lower glume of sessile spikelet linear and deeply grooved, grazed, highly palatable to cattle, unpalatable when old, used for thatching and matting, grows in seasonal swamps, short savannah, damp sites, lakeshore, swampy grassland, see *Beskrivelse af Guineeske planter* 52-53. 1827, *Kongel. Danske Vidensk. Selsk. Naturvidensk. Math. Afh.* 3: 72-73. 1828 and *Flora of Tropical Africa* 9: 252. 1919.

in Zaire: mwehwe (Shi)

*A. capillaris* (Thunb.) Kunth (*Achneria capillaris* (Thunb.) Stapf, nom. illeg., non *Achneria capillaris* (R. Br.) P. Beauv.; *Andropogon capillaris* Heyne ex Steud.; *Arundinella mutica* Nees; *Holcus capillaris* Thunb.; *Pentaschistis*

*capillaris* (Thunb.) McClean; *Sorghum capillaris* (Thunb.) Roem. & Schult.)

South Africa. See *Prodromus Plantarum Capensium, ...* 20. 1794, *Systema Vegetabilium* 2: 840. 1817, *De Graminibus Paniceis* 63. 1826, *Révision des Graminées* 1: 166. 1829, *Synopsis Plantarum Glumacearum* 1: 116. 1854, *Hooker's Icones Plantarum* 27(1): t. 2604, 1-2. 1899 and *South African Journal of Science* 23: 281. 1926, *Bothalia* 18: 119-122. 1988, *Taxon* 41: 709-720. 1992.

*A. capillipes* Nash (*Andropogon glaucus* Muhl., nom. illeg., non *Andropogon glaucus* Retz.; *Andropogon virginicus* var. *glaucus* (Muhl.) Hack.; *Cymbopogon glaucus* (Muhl.) Schult.)

Northern America, southeast U.S., Florida. Tufted, ornamental, glaucous, erect, rhizomatous, branching from upper nodes, leaf sheaths distichous and yellowish, racemes subtended by reddish and inflated spathes, capillary peduncles, sessile spikelet villous, sterile floret absent, native to lowland areas and marshes in the southeastern U.S., see *Species Plantarum* 2: 1046. 1753, *Descriptio uberior Graminum* 278. 1817, *Mantissa* 2: 459. 1824, *Monographiae Phanerogamarum* 6: 411. 1889 and *Bulletin of the New York Botanical Garden* 1(5): 431-432. 1900, *Journal of the Arnold Arboretum* 64: 171-254. 1983.

*A. carinatus* Nees (*Andropogon carinatus* var. *exserens* Hack.; *Andropogon carinatus* var. *genuinus* Hack.; *Andropogon carinatus* var. *leiophyllus* Hack.; *Andropogon lateralis* Nees; *Andropogon sanlorenzanus* Killen)

South America, Bolivia, Brazil. Perennial bunchgrass, caespitose, unbranched, single terminal inflorescence, sessile spikelet awned, pedicellate spikelet neuter or staminate, sandy places, savannah, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 329-331. 1829, *Flora Brasiliensis* 2(4): 288. 1883, *Monographiae Phanerogamarum* 6: 434. 1889 and *Boletín de la Sociedad Argentina de Botánica* 24: 137-149. 1985, *Brittonia* 38(4): 411-414. 1986, *Annals of the Missouri Botanical Garden* 77(1): 136-137, f. 2. 1990, *Annals of the Missouri Botanical Garden* 81(4): 768-774. 1994.

*A. chinensis* (Nees) Merr. (*Andropogon apricus* var. *chinensis* Nees (Hack.); *Andropogon ascinodis* C.B. Clarke; *Andropogon chinense* (Nees) Merr.; *Andropogon patris* Robyns; *Andropogon schinzii* Hack. ex Schinz; *Andropogon schinzii* Hack.; *Homoeatherum chinense* Nees) (for the Swiss botanist Hans Schinz, 1858-1941, traveler, professor of botany, among his writings are *Plantae menyharthianae ein Beitrag zur Kenntniss der Flora des Unteren Sambesi ...* Wien, 1905 [Collector: Ladislav Menyharth, 1849-1897], "Durch Südwestafrika." *Verh. Ges. Erdk. Berl.* 14: 322-324. 1887, *Mein Lebenslauf*. Zürich 1940, *Observations sur une collection de plantes du Transvaal*. Genève 1891. See Albert Thellung (1881-1928), "Verzeichnis der Veröffentlichungen von Prof. Dr. Hans Schinz." *Beibl. Viertelj.-Schr.*

*naturf. Ges. Zürich* 15 (Jahrg. 73): 773-783. 1928, the bibliography of works and papers by Schinz; Théophile Alexis Durand (1855-1912), *Conspectus florae Africae*, ou, Enumération des plantes d'Afrique, par T.D. et Hans Schinz. Bruxelles 1895-1898; J.H. Barnhart, *Biographical notes upon botanists*. 3: 227. 1965; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 311-313. Cape Town 1981; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 353. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Elmer Drew Merrill, *Bernice P. Bishop Mus. Bull.* 144: 163. 1937; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; A. White & B.L. Sloane, *The Stapelieae*. Pasadena 1937; Stafleu & Cowan, *Taxonomic literature*. 5: 175-181. 1985)

Tropical Africa, South Africa, Namibia, Benin, Swaziland, China, Thailand, India. Perennial, robust, coarse, stiff, erect, densely tufted, slightly bulbous at the base, branched culms, leaf sheath round, ligule membranous, leaf blades linear with acute to acuminate apex, knotty rootstock, loose false panicle of paired racemes exerted from linear bract, 2-3 racemes per spatheole, spikelets paired, pedicelled spikelet lanceolate to oblong-elliptic and 2-awned, lower glume of sessile spikelets deeply grooved, pasture grass utilized when young, used in rehabilitation projects, haulm used as thatch, common on hill slope, poor shallow stony soils, sandy soils, poor sandy soils, rocky hillsides, stony slopes, bushveld, wasteland and old clearing, open grassveld, loamy soils, wooded savannah, old fallows, see *A Natural System of Botany* edition 2 448. 1836, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 83. 1836, *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 139. 1888, *Monographiae Phanerogamarum* 6: 457. 1889 and *Philippine Journal of Science* 12(2): 101. 1917, *Bothalia* 24: 241-246. 1994.

in English: hairy blue grass, hairy blue andropogon

in Guinea: oniri

in Nigeria: bere, dargaza, gamari boderi, senteni

in Senegal: nyisyil

in South Africa: harige-blougras, tweevingergras, zweifingerbartgras

in Upper Volta: jantaaje, pita, yantaare

in Yoruba: bere

**A. chrysargyreus** (Stapf) Stapf ex A. Chev. (*Andropogon nyassae* Rendle; *Cymbopogon chrysargyreus* Stapf; *Hyparrhenia chrysargyrea* (Stapf) Stapf; *Hyparrhenia nyassae* (Rendle) Stapf)

Africa. See *Journal of Botany, British and Foreign* 31: 358. 1893 and *Journal de Botanique (Morot)* 2: 213. 1909, *Sudania* 1: 77. 1911, *Flora of Tropical Africa* 9(2): 312-314. 1919, W.D. Clayton, "A revision of the genus *Hyparrhenia*." *Kew Bulletin, Additional Series* 2: 1-196. 1969.

**A. chrysostachyus** Steud. (*Leptopogon chrysostachyus* (Steud.) Roberty)

Ethiopia, Tanzania. Perennial, caespitose, leaf blades flat, inflorescence terminal, racemes subdigitate, spikelets villos, pedicelled spikelet male, in open grassland, pastures, see *Synopsis Plantarum Glumacearum* 1: 377. 1854 and *Boissiera*. 9: 201. 1960.

**A. coloratus** Hack. (*Andropogon coloratus* Nees ex Wight; *Andropogon nardus* var. *coloratus* Hook.f.; *Cymbopogon coloratus* (Hook.f.) Stapf)

Argentina. See N. Wallich (1786-1854), *A Numerical List of Dried Specimens of plants ...* no. 1703. London 1829, *The Flora of British India* 7(21): 206. 1897 [1896] and *Bulletin of Miscellaneous Information Kew* 1906: 321. 1906, *Anales del Museo Nacional de Buenos Aires* 21: 13. 1911.

**A. cordatus** Swallen

Bolivia. Erect, branched, clumped, many-stemmed, see *Contributions from the United States National Herbarium* 29(6): 274-275. 1948 [1949].

**A. cordofanus** Hochst. (*Andropogon gayanus* Kunth var. *cordofanus* (Hochst.) Hack.; *Andropogon sorghum* subsp. *cordofanus* (Hochst.) Piper)

Africa, Ethiopia. See *Flora Lusitanica* 1: 88. 1804, *Flora* 27: 245. 1844, *Monographiae Phanerogamarum* 6: 448. 1889 and *Proceedings of the Biological Society of Washington* 28: 39. 1915.

**A. crassus** Sohns

Venezuela. See *Memoirs of the New York Botanical Garden* 9: 405, f. 76. 1957.

**A. crispifolius** Guala & Filg.

Brazil. Erect, more or less scandent, leaves rolled, see *Nordic Journal of Botany* 15(1): 59, f. 1. 1995.

**A. crossotus** Cope

Arabia, Yemen. Perennial, densely tufted, erect, ligule a truncate membrane, leaves flat, terminal and lateral racemes pairs, lower glume of sessile spikelets acute but not mucronate, pedicelled spikelet awnless, found in open rocky hills, see *Kew Bulletin* 39(4): 833. 1984.

**A. crucianus** Renvoize (*Andropogon insolitus* sensu Killeen, non Sohns)

Bolivia, Santa Cruz. Perennial, caespitose, erect, leaf blades linear, densely branched inflorescence narrow-oblong, racemes solitary, moist places, see *Memoirs of the New York Botanical Garden* 9(3): 271, f. 9. 1957, *Ann. Missouri Bot.*

*Gard.* 77: 137. 1990, *Gramíneas de Bolivia* 596, f. 142. 1998.

**A. distachyos** L. (*Apluda distachyos* (L.) P. Beauv.; *Chrysopogon distachyos* (L.) Rossi; *Pollinia distachya* (L.) Sprengel)

Tropical Africa, Asia. Perennial, tufted to densely to loosely tufted, erect, sometimes straggling, rarely rhizomatous, base with silky hairs, ligule a ciliate rim, basal leaf sheaths usually pilose to silky-pubescent, flat-leaved, 2 terminal racemes per spathe, lower glume of sessile spikelets deeply grooved, lower glume of sessile spikelets flat and winged, endangered, palatable, readily grazed by sheep and goats, a roadside weed, desert grass, grows on dry slopes in mountain grassland, field borders, around streams, open areas, dry slopes, bushland, disturbed places, rocky hillsides, sometimes confused with *Andropogon amethystinus* Steud., see *Species Plantarum* 1046. 1753, *Plantarum Minus Cognitarum Pugillus* 2: 12. 1815, *Monographiae Phanerogamarum* 6: 462. 1889 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 281. 1908, *Nuov. Giorn. Bot. Ital.* n.s. 19: 416-417. 1912, *Bulletin agricole du Congo Belge* 9: 238. 1918, *Fl. Trop. E. Afr. Gramineae* (3): 770. 1982, *Annali di Botanica* 45: 75-102. 1987, *Taxon* 41: 556. 1992.

in English: mountain andropogon

in French: andropogon à deux épis

in South Africa: tweevingergras

**A. distachyos** L. subvar. *alpina* Chiov.

Africa, Eritrea. See *Annuario del Reale Istituto Botanico di Roma* 8(3): 281. 1908.

**A. distachyos** L. subvar. *luxurians* Chiov.

Africa, Eritrea. See *Annuario del Reale Istituto Botanico di Roma* 8(3): 281. 1908.

**A. distachyos** L. var. *hirtus* Chiov.

Africa. See *Nuov. Giorn. Bot. Ital.* n.s. 19: 416-417. 1912.

**A. diuturnus** Sohns (*Andropogon crassus* Sohns)

Venezuela. See *Memoirs of the New York Botanical Garden* 9(3): 405-406, f. 76, 77. 1957.

**A. durifolius** Renvoize (*Andropogon angustatus* (J. Presl) Steud.; *Andropogon durifolium* Renvoize)

Brazil, Bahia. Perennial, rhizomatous, erect, sparsely branching, wiry, largely tufted, acuminate leaf blades folded or inrolled, racemes paired, spikelets paired, awn weakly geniculate, found on open areas, slopes, hillsides, see *Reliquiae Haenkeanae* 1(4-5): 333. 1830, *Synopsis Plantarum Glumacearum* 1: 370. 1854 and *Kew Bulletin* 39(1): 181. 1984.

**A. elliotii** Chapm. (*Anatherum virginicum* subvar. *elliottii* (Chapm.) Roberty; *Andropogon clandestinus* Alph. Wood, nom. illeg., non *Andropogon clandestinus* Nees ex Steud.; *Andropogon elliotii* f. *gracilior* (Hack.) Blomq.; *Andropogon elliotii* var. *gracilior* Hack.; *Andropogon elliotii* var.

*projectus* Fernald & Griscom; *Andropogon gracilior* (Hack.) Nash ex Small; *Andropogon gyrans* Ashe; *Andropogon gyrans* var. *gyrans*; *Sorghum elliotii* (Chapm.) Kuntze)

Northern America. Tufted, compact, bearded node, inflated and coppery-colored upper sheaths, linear leaves, racemes paired and sericeous, awn geniculate, pedicellate spikelets vestigial and white-pubescent, forage, found in sterile soils along roads, in abandoned fields, dry or moist fields or open woods, sandstone, see *Flora of the Southern United States* 581. 1860, *A Class-book of Botany* 809. 1861, *Monographiae Phanerogamarum* 6: 415. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Bulletin of the Torrey Botanical Club* 23: 145-146. 1896, *Journal of the Elisha Mitchell Scientific Society* 15: 113. 1898 and *Flora of the Southeastern United States ...* 63. 1903, *Rhodora* 37(436): 139. 1935, *The Grasses of North Carolina* 203. 1948, *Boissiera*. 9: 212. 1960, *Journal Arnold Arboretum* 64: 210. 1983, *Memoirs of the New York Botanical Garden* 85: i-xi, 1-246. 2000.

in English: Elliott's broomsedge, Elliott's bluestem, Elliott bluestem, Elliott beardgrass, beardgrass, plumegrass

**A. eucomus** Nees (also spelled *eucomis*)

Africa, Malawi, Zambia, South Africa. Perennial, densely tufted, upright, leaf sheath flattened and glabrous, ligule membranous with scattered hairs, leaf blade keeled, inflorescence plumose, digitate racemes borne terminally on the branches, spikelets hairy and with a single awn, lower glume of sessile spikelets deeply grooved, pedicelled spikelets suppressed, ornamental, palatable, very low grazing value, indicator of poorly drained soils, occurs in the seasonally wet areas, waste ground, moist places, poorly drained soils, uncultivated lands, on disturbed soils, undisturbed sandveld vleis, wetland areas, along roadsides, seepage areas, see *Florae Africae Australioris Illustrationes Monographicae* 104. 1841 and *Cytologia* 19: 97-103. 1954, *Bothalia* 21(2): 163-170. 1991, *Bothalia* 24: 241-246. 1994.

in English: oldman's beard, silver thread grass, small silver andropogon, snowflake grass

in Southern Africa: fynblaar andropogon, kapokgras, kleinwitbaardandropogn, kleinwitbaardgras, veergras; mohlaala, mohlala (Sotho)

**A. exaratus** Hack.

Paraguay, Argentina. See *Flora* 68(8): 135. 1885 and *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 11(4): 7. 1912, *Boletín de la Sociedad Argentina de Botánica* 24: 137-149. 1985.

**A. fastigiatus** Swartz (*Andropogon diatherus* Steud.; *Andropogon hochstetteri* Steud.; *Cymbachne fastigiata* (Sw.) Roberty; *Diectomis fastigiata* Kunth; *Diectomis fastigiata* (Sw.) P. Beauv.; *Diectomis fastigiata* (Swartz) Kunth, nom. illeg., non *Diectomis fastigiata* (Sw.) P. Beauv.; *Heteropogon hochstetteri* (Steud.) Schweinf.; *Heteropogon*

*hochstetteri* (Steud.) Andersson ex Schweinf.; *Pollinia fastigiata* (Sw.) Spreng.; *Sorghum fastigiatum* (Sw.) Kuntze)

Tropics. Annual, caespitose, rare, erect, herbaceous, coarse, leaf blades flat and linear, ligule a glabrous membrane, solitary racemes terminal and lateral, inflorescence often partially enclosed by the upper leaf sheaths, racemes single and axillary, lower glume of sessile spikelet deeply grooved, upper glume of the pedicellate spikelet enlarged and wing-like, lower glume of pedicellate spikelet papery, upper glume of the sessile and pedicellate spikelets aristate, weed, grazed when young, used for thatching, found in dry sandy soil, shallow soil, loamy sand, bare gravelly soil, on lava flow, riverbank, edge of forest, rocky hillsides, along roadsides, dry bushland, open areas, open pine forest, dry savannah, dry fallows, open savannah, sandstone, see *Nova Genera et Species Plantarum seu Prodromus* 26. 1788, *Essai d'une Nouvelle Agrostographie* 132, 160. 1812, *Plantarum Minus Cognitarum Pugillus* 2: 13. 1815, *Nova Genera et Species Plantarum* 1: 193. 1815 [1816], *Synopsis Plantarum Glumacearum* 1: 378, 384. 1854, *Revisio Generum Plantarum* 2: 791. 1891 and *Boissiera*. 9: 255. 1960, *Flowering Plants of Jamaica* 1972, *Phytologia* 37(4): 317-407. 1977, *Fieldiana: Botany, New Series* 4: 1-608. 1980, *Cuscatlania* 1(6): 1-29. 1991.

in India: liyur

in Guinea: fugolo

in Nigeria: bayan maraya, garbazam, jam bauje, yama

**A. festuciformis** Rendle (*Andropogon festucaeformis* Rendle; *Hypogynium schlechteri* (Hack.) Pilg.; *Hypogynium spathiflorum* Nees)

Tropical Africa. Perennial, densely tufted, basal sheaths keeled and compressed, inflorescence glabrous, 1-2 racemes per spathe, lower glume of sessile spikelet flat, usually in moist places, bogs, wet savannah, near streams, in seasonally wet areas, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 366. 1829, *Catalogue of the African plants collected by Dr. Friedrich Welwitsch in 1853-1861* 2(1): 145. London 1896-1901 and *Bulletin de l'Herbier Boissier, sér. 2*, 6(9): 703. 1906, *Die natürlichen Pflanzenfamilien, Zweite Auflage* 14e: 156. 1940.

**A. flavescens** J. Presl (*Rottboellia sanguinea* Retz.; *Schizachyrium sanguineum* (Retz.) Alston)

Peru. See *Observationes Botanicae* 3: 25. 1783, *Reliquiae Haenkeanae* 1(4-5): 339. 1830 and *A Handbook to the Flora of Ceylon* 6: 334. 1931, *Annals of the Missouri Botanical Garden* 81(4): 768-774. 1994.

**A. floridanus** Scribn. (*Anatherum virginicum* (L.) Spreng. subvar. *floridanum* (Scribn.) Roberty; *Andropogon bakeri* Scribn. & C.R. Ball) (for C.H. Baker, botanical collector in Florida)

U.S., Florida. Perennial, caespitose, found in sand hill, swamp margin, pine flatwoods and scrub, coastal pinelands,

pinelands, occasional in oak scrub and scrubby flatwoods, see *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Bulletin of the Torrey Botanical Club* 23: 145. Apr 1896 and *Bulletin, Division of Agrostology United States Department of Agriculture* 24: 39, f. 14. 1901, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 212. 1960, *Journal of the Arnold Arboretum* 64: 171-254. 1983.

in English: Florida bluestem, Florida broomsedge

**A. gabonensis** Stapf (*Andropogon gayanus* Kunth)

Africa. Perennial, robust, herbaceous, grazed when young by buffaloes, found near water, see *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 491. 1833, *Synopsis Plantarum Glumacearum* 1: 371, 386. 1854 and *Journal de Botanique, rédigé par une société de botanistes sér. 2* 2(2): 207. 1909, *Bulletin de l'Institut Française d'Afrique Noire* 22: 108. 1960.

in Angola: titutu

**A. gayanus** Kunth (*Andropogon gabonensis* Stapf; *Andropogon gayanus* var. *squamulatus* (Hochst.) Stapf; *Andropogon guineensis* Schumach.; *Andropogon guineensis* Steud., nom. illeg., non *Andropogon guineensis* Schumach.; *Andropogon patris* Robyns; *Andropogon reconditus* Steud.; *Andropogon squamulatus* Hochst.; *Andropogon tomentellus* Steud.; *Cymbachne guineensis* (Schumach.) Roberty)

Tropical and South Africa. Perennial bunchgrass or rarely annual, polymorphic, tufted, waxy bloom, erect, caespitose, tussocky, herbaceous, robust, coarse, dense stands forming, reedlike flattened stems, roots more or less fibrous, blades linear and finely pointed, racemes axillary and paired in false loose panicles, pedicellate spikelets male and glabrous, sessile spikelets with a geniculate awn, weed, cultivated fodder, forage, grazed by ruminants, palatable and nutritious when young, hard and tall flowering stems, once flowering stems harsh and of little nutritional value, grains eaten, fiber from the stems for thatching and coarse matting, excellent drought tolerance, used for reclaiming badly overgrazed and eroded land, grows on sandy soils, grassland, high rainfall areas, edge of floodplains, moist bottomland, along roadsides, sandy clays, on sandy loams to loamy sands, sands to black cracking clays, wooded savannah, in open woodland and savannah, transitional woodland, deciduous bushland, see *Beskrivelse af Guineiske planter* 51-52. 1827, *Kongel. Danske Vidensk. Selsk. Naturvidensk. Math. Aft.* 3: 71-72. 1828, *Révision des Graminées* 1: 163. 1829, *Bull. Jard. Bot. Brux.* 8: 227. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 491. 1833, *Flora* 27: 244-245. 1844, *Synopsis Plantarum Glumacearum* 1: 371, 386. 1854, *Monographiae Phanerogamarum* 6: 448-449. 1889 and *Mémoires de la Société Botanique de France* 2(8): 102. 1907, *Bulletin de la Société Botanique de France* 55: 102. 1908, *Flora of Tropical Africa* 9: 263. 1919, *Flore Agrostologique du Congo Belge* 137. 1929, *Bulletin de*

*l'Institut Française d'Afrique Noire* 22: 108. 1960, G.E. Roberty (1907-1971), *Monographie systématique des Andropogoneés du globe* 244. Paris 1960, *Fl. W. Trop. Africa* edition 2, 3: 488. 1972, S.A. Setterfield, M.M. Douglas, L.B. Hutley and M.A. Welch, "Effects of canopy cover and ground disturbance on establishment of an invasive grass in an Australia savannah." *Biotropica* 37(1): 25-31. Mar 2005.

in English: Rhodesian blue grass, Rhodesian andropogon, tambuki grass, gamba grass, onaga grass

in Nicaragua: gamba

in Arabic: sméné

in Benin: koumbossou, irouwa

in Gambia: wa

in Ghana: purim pieklega, purim pielega

in Mali: dagué, guelori, kiené, mussa waga, nguon, uaga, waba, waga, wako, zara

in Niger: ahamdoroem, ajeghar, dakhié, djabar, gamba, lali, radyaré, ranièré, soobre, subna, subu nya, teebeened, yay-yere, yawiri, yawur

in Nigeria: dadeppure, ekpo, erè, eré, eruwà, gábàà, gámbà, gambà, gamba, gámbàà, girman darr daya, igomough, iikube, ikpo, ikpò, ikpo agu, jimfi, kalawal, madlbak, palawal, sefunkwe, sugu, sugu kal, suwu, suwu bul, suwu kal, suwukal, waawan ruwa, welho

in Senegal: badoba, cicca, dagué, ebuk, etiub, gandany, ginyidi, guelori, hat, khat, kiene, kiené, makas, mediidi, mussa waga, o nduy, okas, soya, uaga, vaba, waga, waga gué, yev, yew, zara

in Sierra Leone: kabusa, puile

in Tropical Africa: Gamba grass

in Upper Volta: danye, dayye, kagarire, kessé, lanyere, mofogo, mokiri, mopaka, mopoko, pita, ranyere, soporé

in Yoruba: aruwa ako funfun, eruwa, eruwà, èrùwà, eruwa ako, eruwa funfun, èrùwà funfun

in India: sadabahar

in the Philippines: batad, bayag, bukakau

in Thailand: ya kumba

in Vietnam: hung th'ao

**A. gayanus** Kunth var. **bisquamulatus** (Hochst.) Hack. (*Andropogon aethiopicus* Rupr. ex Steud.; *Andropogon bisquamulatus* Hochst.; *Andropogon gayanus* Kunth; *Andropogon gayanus* var. *argyrophaeus* Stapf; *Andropogon gayanus* var. *argyrophoeus* Stapf)

Africa, Guinea, Ghana, Nigeria, Sudan. Pedicelled spikelets more or less hairy, forage, very palatable to livestock, savannah, colonizer of denuded and wasteland, best on well-drained sandy clays of medium to high fertility, see *Flora* 27: 245. 1844, *Synopsis Plantarum Glumacearum* 1: 372. 1854, *Monographiae Phanerogamarum* 6: 448. 1889 and

*Mémoires de la Société Botanique de France* 2(8): 102. 1907, *Bulletin de la Société Botanique de France* 55: 102. 1908.

in English: gamba grass

in Spanish: rabo de zorro

**A. gayanus** Kunth var. **cordofanus** (Hochst.) Hack. (*Andropogon cordofanus* Hochst.; *Andropogon sorghum* subsp. *cordofanus* (Hochst.) Piper)

Africa, Ethiopia. See *Flora Lusitanica* 1: 88. 1804, *Flora* 27: 245. 1844, *Monographiae Phanerogamarum* 6: 448. 1889 and *Proceedings of the Biological Society of Washington* 28: 39. 1915.

**A. gayanus** Kunth var. **gayanus**

Africa, Nigeria, Ghana, Mali, Sudan. Perennial, tufted, glaucous, pedicelled spikelets glabrous, useful for erosion control in damp areas, occurs in periodic swamps and damp places, in seasonally flooded places.

**A. gayanus** Kunth var. **glaucus** Vanderyst

Africa. See *Bulletin agricole du Congo Belge* 9: 240. 1918.

**A. gayanus** Kunth var. **monostachyus** Vanderyst

Africa. See *Bulletin agricole du Congo Belge* 9: 240. 1918.

**A. gayanus** Kunth var. **polycladus** (Hack.) Clayton (*Andropogon appendiculatus* var. *polycladus* Hack.; *Andropogon gayanus* var. *squamulatus* (Hochst.) Stapf; *Andropogon squamulatus* Hochst.)

Africa, Guinea, Ghana, South Africa, Angola, Tanzania. Perennial, tufted, erect, glaucous, robust, branched, thick and woody when old, leaf sheath rounded hairy or glabrous, ligule membranous with a fringe of hairs, leaf blade narrow at the base, inflorescences from the uppermost nodes, false panicle with paired racemes, pedicellate spikelets scaberulous and awned, lower glume of sessile spikelet broad and flat, thatching grass, palatable, forage, good grazing grass in the young stages, grazed by hippos, best on well-drained sandy clays of medium to high fertility, black volcanic soil, bushveld, stony places, coarse soil, see *Florae Africae Australioris Illustrationes Monographicae* 105. 1841, *Flora* 27: 244. 1844, *Bulletin de l'Herbier Boissier* 4: Append. 3. 11. 1896 and *Flora of Tropical Africa* 9: 263. 1919, *Kew Bulletin* 32(1): 1. 1977.

in English: Rhodesian bluegrass, blue grass

in South Africa: blougras, Rhodesieseandropogon, grootbaardgras, hohes bartgras

**A. gayanus** Kunth var. **squamulatus** (Hochst.) Stapf (*Andropogon gayanus* Kunth; *Andropogon gayanus* var. *polycladus* (Hack.) Clayton; *Andropogon helophilus* K. Schum. ex Engl.; *Andropogon squamulatus* Hochst.)

Tropical Africa. Caespitose, see *Schimperi iter Abyssinicum. Sectio secunda* no. 715. 1842, *Flora* 27: 244. 1844, *Die Pflanzenwelt Ost-Afrikas* 50(c): 98. 1895, *Bulletin de l'Herbier Boissier* 4: Append. 3. 11. 1896 and *Flora of*

*Tropical Africa* 9: 263. 1919, J.B. Gillett, "W.G. Schimper's botanical collecting localities in Ethiopia." *Kew Bulletin* 27(1): 115-128. 1972, *Kew Bulletin* 32(1): 1. 1977.

in Angola: kota-kota, sola, tete-ialikota

**A. gerardii** Vitman (*Andropogon chrysocomus* Nash; *Andropogon furcatus* Muhl. ex Willd.; *Andropogon furcatus* var. *villosa* Loew; *Andropogon gerardi* Vitman; *Andropogon gerardii* var. *chrysocomus* (Nash) Fern.; *Andropogon glomeratus* (Walter) Britton, Sterns & Poggenb.; *Andropogon hallii* var. *grandiflorus* Scribn.; *Andropogon provincialis* Lam., nom. illeg., non *Andropogon provinciale* Retz.; *Andropogon provincialis* subvar. *furcatus* (Muhl. ex Willd.) Hack.; *Andropogon provincialis* subvar. *lindheimeri* Hack.; *Andropogon provincialis* subvar. *pynanthus* Hack.; *Andropogon provincialis* var. *paucipilus* (Nash) Fernald & Griscom; *Andropogon provincialis* var. *tennesseensis* Scribn.; *Andropogon tennesseensis* (Scribn.) Scribn.; *Andropogon virginicus* var. *abbreviatus* (Hack.) Fernald & Griscom; *Cinna glomerata* Walter; *Leptopogon furcatus* (Muhl. ex Willd.) Roberty) (after Ferdinand Jacob Lindheimer, 1801-1879 (Texas, U.S.), German botanist, in 1834 United States, plant collector, he sent plants to Asa Gray. See J.H. Barnhart, *Biographical notes upon botanists*. 2: 386. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 239. 1972; Irving William Knobloch, compil., "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs*. VI. 1983; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 219. Oxford 1964; Gordon Douglas Rowley, *A History of Succulent Plants*. Strawberry Press, California 1997; George Engelmann (1809-1884), Asa Gray & Joseph William Blankinship (1862-1938), *Plantae lindheimerianae*. Boston 1845-1850)

Northern America, Canada to Mexico, U.S. Long-lived perennial with tufted and solid culms, shortly stoloniferous, rhizomes short or absent, extensive root system, forming large glaucous upright clumps, vegetation gray to blue green to reddish bronze with lavender tones, bluish to red-purple nodes on the stems, ligule a fringed membrane, sheath compressed and purplish at the base, leaves glaucous and flattened, auricles absent, purplish red and terminal racemes, inflorescence in threes or multiples of three, flowering stalk grows in three finger-like branches, spikelets in pairs, stalked spikelet male and not reduced, pedicels and internodes stiffly hirsute, fruit a minute grain, ornamental and weed species, analgesic, carminative and diuretic, naturalized, cultivated, excellent and highly palatable livestock forage when actively growing, fodder, good prairie hay, used by wildlife for food and cover, provides nesting and concealment cover for birds, excellent drought tolerance,

good grass for erosion control and revegetation, tolerant of various soil types from wet clay to dry sand, occurs along riverbanks, on sandy soils, roadsides and moist meadows, open roadside, at edge of roadside ditch, coastal marshes, prairies and open fields, degraded prairie, foothills, sand hills, pine flatwoods, dry rocky soil, see Fulgenzio Vitman (1728-1806), *Species Plantarum* 2: 1046. Mediolani [Milano] 1753, *Encyclopédie Méthodique, Botanique* 1: 376. 1785, *Flora Caroliniana, secundum ...* 59. 1788, *Summa Plantarum, ...* 6: 16. 1792, *Species Plantarum* 4: 919. 1806, *Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-naturwissenschaftliche Classe* 89(1): 127-128. 1884, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Monographiae Phanerogamarum* 6: 408, 442-443. 1889, *Bulletin of the Agricultural Experiment Station of the University of Tennessee* 7(2): 23. 1894, *Bulletin, Division of Agrostology United States Department of Agriculture* 5: 21. 1897, *Circular, Division of Agrostology, United States Department of Agriculture* 16: 1. 1899 and *Rhodora* 37(436): 142, 147, t. 338, f. 3. 1935, *11th Ann. Report Huntington College Bot. Gard. & Arboretum* 10. 1947, *Boissiera*. 9: 196. 1960, *Le Naturaliste Canadien* 94: 521. 1967, *Genome* 29: 374-379. 1987, *Novon* 2(2): 108. 1992, *Phytologia* 80(5): 346. 1996, *American Journal of Botany* 84(2): 201. 1997 [Evolutionary implications of meiotic chromosome behavior, reproductive biology, and hybridization in 6x and 9x cytotypes of *Andropogon gerardii* (Poaceae).], Anderson R.C., B.A.D. Hetrick and G.W.T. Wilson, "Mycorrhizal dependence of *Andropogon gerardii* and *Schizachyrium scoparium* in two prairie soils." *American Midland Naturalist* 132(2): 366-376. 1994, *Am. J. Bot.* 85: 776. 1998, *American Journal of Botany* 86(7): 974-979. 1999 [Comparison of common cytotypes of *Andropogon gerardii* (Andropogoneae, Poaceae).], Peggy A. Schultz, R. Michael Miller, Julie D. Jastrow, Claudia V. Rivetta and James D. Bever, "Evidence of a mycorrhizal mechanism for the adaptation of *Andropogon gerardii* (Poaceae) to high- and low-nutrient prairies." *Am. J. Bot.* 88: 1650-1656. 2001.

in English: big bluestem, Monarch prairie grass, turkey-foot, turkey claw grass, beard grass

in Spanish: popotillo gigante

**A. gerardii** Vitman subsp. x *chrysocomus* (Nash) Wipff [*Andropogon gerardii* subsp. *gerardii* x *Andropogon gerardii* subsp. *hallii*] (*Andropogon chrysocomus* Nash; *Andropogon gerardii* var. *chrysocomus* (Nash) Fernald; *Andropogon provincialis* var. *chrysocomus* (Nash) Fernald & Griscom)

North America, U.S., Kansas. See *Encyclopédie Méthodique, Botanique* 1: 376. 1785 and *Manual of the Flora of the Northern States and Canada* 70. 1901, *N. Amer. Fl.*

17(2): 120. 1912, *Rhodora* 37(436): 147. 1935, *Rhodora* 45(534): 258. 1943, *Phytologia* 80(5): 344. 1996.

**A. gerardii** Vitman subsp. *gerardii*

America.

**A. gerardii** Vitman subsp. *hallii* (Hack.) Wipff (*Andropogon geminatus* Hack. ex Beal; *Andropogon gerardii* var. *incanescens* (Hack.) B. Boivin; *Andropogon gerardii* var. *paucipilus* (Nash) Fernald; *Andropogon hallii* Hack.; *Andropogon hallii* var. *bispicatus* Vasey ex Beal; *Andropogon hallii* var. *flaveolus* Hack.; *Andropogon hallii* var. *incanescens* Hack.; *Andropogon hallii* var. *muticus* Hack.; *Andropogon paucipilus* Nash; *Andropogon provincialis* var. *paucipilus* (Nash) Fernald & Griscom; *Leptopogon flaveolus* (Hack.) Roberty; *Sorghum hallii* (Hack.) Kuntze)

America. See *Encyclopédie Méthodique, Botanique* 1: 376. 1785, *Summa Plantarum, ...* 6: 16. 1792, *Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-naturwissenschaftliche Classe* 89(1): 127-128. 1884, *Monographiae Phanerogamarum* 6: 444. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Grasses of North America for Farmers and Students* 2: 55. 1896 and *Manual of the Flora of the Northern States and Canada* 70. 1901, *North Amer. Fl.* 17(2): 121. 1912, *Rhodora* 37(436): 147. 1935, *Rhodora* 45(534): 258. 1943, *Boissiera*. 9: 196. 1960, *Le Naturaliste Canadien* 94: 521. 1967, *Phytologia* 80(5): 329, 343-344. 1996.

**A. gerardii** Vitman var. *gerardii*

North America.

**A. gerardii** Vitman var. *hondurensis* R.W. Pohl (*Andropogon hondurensis* (R.W. Pohl) Wipff)

Honduras. See *Novon* 2(2): 108. 1992, *Phytologia* 80(5): 346. 1996, *Ceiba* 42(1): 1-71. 2001[2002].

**A. glaucescens** Kunth (*Andropogon amplius* J. Presl; *Andropogon glaucescens* Schltld. ex Hack.; *Andropogon glaucescens* subvar. *glaucescens*; *Andropogon glaucescens* subvar. *typicus* Hack.; *Andropogon glaucescens* var. *genuinus* Hack.; *Leptopogon glaucescens* (Kunth) Roberty)

South America, Ecuador. Annual, erect, see *Nova Genera et Species Plantarum* 1: 186-187. 1815 [1816], *Reliquiae Haenkeanae* 1(4-5): 339. 1830, *Flora Brasiliensis* 2(4): 289. 1883, *Monographiae Phanerogamarum* 6: 411. 1889 and *Boissiera*. 9: 201. 1960.

**A. glaucophyllus** Roseng., B.R. Arrill. & Izag.

South America, Uruguay. Perennial, caespitose, 3 stamens, see *Gramíneas Uruguayas* 161, 163, 165-169. 1970.

**A. glaziovii** Hack. (*Anatherum virginicum* subvar. *glauopsis* (Elliott) Roberty; *Anatherum virginicum* subvar. *glaziovii* (Hack.) Roberty)

Brazil. Perennial bunchgrass, caespitose, robust, clumped, foliage mainly basal, rhizomatous, leaf blades folded or flat, inflorescence branches spreading, racemes flexuous, elon-

gate panicles, sessile spikelets awned, common in seasonally inundated areas, marshy places, savannah, see *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *A Sketch of the Botany of South-Carolina and Georgia* 1(2): 150. 1816, *Flora Brasiliensis* 2(4): 286. 1883 and *Boissiera*. 9: 212-213. 1960, *Brittonia* 38(4): 411-414. 1986.

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. (*Anatherum macrourum* Griseb.; *Anatherum macrourum* (Michx.) Griseb.; *Anatherum virginicum* subvar. *glomeratus* (Walter) Roberty; *Anatherum virginicum* subvar. *reinoldii* (León) Roberty; *Andropogon cabanisii* Hack.; *Andropogon corymbosus* (Chapm. ex Hack.) Nash; *Andropogon corymbosus* var. *abbreviatus* (Hack.) Nash; *Andropogon densus* Desv.; *Andropogon densus* Desv. ex Ham.; *Andropogon gerardii* Vitman; *Andropogon glomeratus* subsp. *reinoldii* (León) Cat. Guerra; *Andropogon glomeratus* var. *abbreviatus* (Hack.) Scribn.; *Andropogon glomeratus* var. *corymbosus* (Chapm. ex Hack.) Scribn.; *Andropogon glomeratus* var. *tenuispatheus* Nas; *Andropogon macrourum* Michx.; *Andropogon macrourum* var. *abbreviatus* Hack.; *Andropogon macrourum* var. *corymbosus* Chapm. ex Hack.; *Andropogon macrourum* var. *genuinus* Hack.; *Andropogon macrourus* Michx.; *Andropogon macrourus* var. *abbreviatus* Hack.; *Andropogon macrourus* var. *corymbosus* Chapm. ex Hack.; *Andropogon macrourus* var. *genuinus* Hack.; *Andropogon reinoldii* León; *Andropogon spathaceus* Trin.; *Andropogon tenuispatheus* (Nash) Nash; *Andropogon virginicus* f. *tenuispatheus* (Nash) Fernald & Griscom; *Andropogon virginicus* var. *abbreviatus* (Hack.) Fernald & Griscom; *Andropogon virginicus* var. *corymbosus* (Chapm. ex Hack.) Fernald & Griscom; *Andropogon virginicus* var. *tenuispatheus* (Nash) Fernald & Griscom; *Cinna glomerata* Walter; *Cinna glomerata* (Willd.) Link, nom. illeg., non *Cinna glomerata* Walter; *Dimeistemon macrurus* Raf. ex B.D. Jacks.; *Polypogon glomeratus* Willd.; *Sorghum glomeratum* (Walter) Kuntze)

Central and southern America, West Indies, Greater Antilles, Mexico, eastern and southern U.S., Florida, Costa Rica. Perennial, herbaceous, caespitose, erect and robust, tussock or clump forming, stems flattened, sheaths smooth, ligule papery and pubescent, flattened blue-green leaf blades, bushy and broom-like inflorescences, feathery and club-shaped panicles, pedicellate spikelet absent, fruit a minute grain, ornamental, naturalized, weed species, medicinal, forage, potential seed contaminant, grown for its attractive foliage, generally intolerant of dry soils, typically occurs in moist soils in swamp peripheries and margins, lake and pond margins, marshes, pastures, depression wetlands and disturbed upland sites, low spots and coastal areas, wet ditches, disturbed wet areas, road bank, bogs, abundant in seasonal ponds and swales of pine flatwoods isolated clusters, see *Species Plantarum* 1: 5. 1753, *Species Plantarum* 2: 1046. 1753, *Flora Caroliniana, secundum ...* 59. 1788, *Summa Plantarum, ...* 6: 16. 1792, *Flora Boreali-Ameri-*



*cana* 1: 56-57. 1803, *Enumeratio Plantarum Horti Botanici Berolinensis*, ... 87. 1809, *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Fundamenta Agrostographiae* 186. 1820, *Prodromus Plantarum Indiae Occidentalis* 8. 1825, *Hortus Regius Botanicus Berolinensis* 2: 237. 1833, *Memoirs of the American Academy of Arts and Science, new series* 8: 534. 1863, *Flora* 68(8): 133. 1885, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Monographiae Phanerogamarum* 6: 408-409. 1889, *Revisio Generum Plantarum* 2: 790. 1891, *Index Kewensis* 1: 760. 1895 [1893] and *Bulletin, Division of Agrostology United States Department of Agriculture* 7 (edition 3): 15. 1900, *Manual of the Flora of the Northern States and Canada* 69-70. 1901, *Flora of the Southeastern United States ...* 61. 1903, *North American Flora* 17(2): 113. 1912, *Memorias de la Sociedad Cubana de Historia Natural "Felipe Poey"* 5. 1922, *Rhodora* 37(436): 142, t. 338, f. 1, 2, 3. 1935, *Rhodora* 42(502): 416. 1940, *Boissiera* 9: 212-213. 1960, *J. Arnold Arbor.* 64: 244. 1983, *Fontqueria* 44: 144. 1996.

in English: bushy beardgrass, bushy bluestem, bushy broom grass, bush beardgrass, chalky bluestem

in Mexico: ch'it suuk, cola de zorra, pasto, popotillo matorralero, tallo azul matorralero

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. var. **glaucopsis** (Elliott) C. Mohr (*Anatherum virginicum* subvar. *glaucopsis* (Elliott) Roberty; *Andropogon glaucopsis* (Elliott) Nash, nom. illeg., non *Andropogon glaucopsis* (Elliott) Steud.; *Andropogon glaucopsis* Ell.; *Andropogon glaucopsis* (Elliott) Steud.; *Andropogon glaucus* Muhl., nom. illeg., non *Andropogon glaucus* Retz.; *Andropogon macrourum* var. *glaucopsis* Elliott; *Andropogon macrourus* var. *glaucopsis* Elliott; *Andropogon virginicus* var. *glaucopsis* (Elliott) A.S. Hitchc.; *Cymbopogon glaucus* (Muhl.) Schult.)

Northern America, U.S. Perennial, caespitose, green spikelets, useful for erosion control, revegetation, forage, fodder, abundant in seasonal ponds and swales of pine flatwoods, wetlands, wet savannahs, ditches, flatwoods, sand hills, scrub and coastal strands, see *Species Plantarum* 2: 1046. 1753, *Flora Boreali-Americana* 1: 56. 1803, *A Sketch of the Botany of South-Carolina and Georgia* 1: 150. 1816, *Descriptio uberior Graminum* 278. 1817, *Mantissa* 2: 459. 1824, *Nomenclator Botanicus* edition 2 1: 91. 1840, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Bulletin of the Torrey Botanical Club* 24(1): 21. 1897 and *Flora of the Southeastern United States ...* 63. 1903, *American Journal of Botany* 21(3): 139. 1934, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 212. 1960.

in English: chalky bluestem, purple bluestem

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. var. **glomeratus** (*Andropogon corymbosus* (Chapm. ex Hack.) Nash; *Andropogon corymbosus* var. *abbreviatus* (Hack.) Nash; *Andropogon glomeratus* var. *abbreviatus* (Hack.) Scribn.; *Andropogon glomeratus* var. *corymbosus* (Chapm. ex Hack.) Scribn.; *Andropogon macrourum* var. *viridis* Chapm. ex Vasey; *Andropogon macrourum* var. *viridis* Curtiss ex Hack.; *Andropogon macrourus* var. *abbreviatus* Hack.; *Andropogon macrourus* var. *corymbosus* Chapm. ex Hack.; *Andropogon macrourus* var. *genuinus* Hack.; *Andropogon macrourus* var. *macrourus*; *Andropogon macrourus* var. *viridis* Chapm. ex Vasey; *Andropogon macrourus* var. *viridis* Curtiss ex Hack.; *Andropogon virginicus* var. *abbreviatus* (Hack.) Fern. & Grisc.; *Andropogon virginicus* var. *corymbosus* (Chapman ex Hack.) Fernald & Griscom; *Cinna glomerata* Walter)

U.S. Perennial, green spikelets, occurs in bogs, disturbed roadsides, interdunal swales, swamps, flatwoods and ditches, see *Species Plantarum* 2: 1046. 1753, *Flora Boreali-Americana* 1: 56. 1803, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Monographiae Phanerogamarum* 6: 408-409, 411. 1889, *Contributions from the United States National Herbarium* 3(1): 11. 1892 and *Bulletin, Division of Agrostology United States Department of Agriculture* 7 (edition 3): 15. 1900, *Manual of the Flora of the Northern States and Canada* 69-70. 1901, *Rhodora* 37(436): 142, t. 338, f. 2. 1935.

in English: Virginia broom beard grass

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. var. **hirsutior** (Hack.) C. Mohr (*Andropogon macrourus* var. *hirsutior* Hack.; *Andropogon virginicus* f. *hirsutior* (Hack.) Fernald & Griscom; *Andropogon virginicus* var. *hirsutior* (Hack.) A.S. Hitchc.; *Andropogon virginicus* var. *tenuispatheus* (Nash) Fernald & Griscom)

U.S. Perennial, see *Species Plantarum* 2: 1046. 1753, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Monographiae Phanerogamarum* 6: 409. 1889, *Bulletin of the Torrey Botanical Club* 24(1): 21. 1897 and *Flora of the Southeastern United States ...* 61. 1903, *Journal of the Washington Academy of Sciences* 23(10): 456. 1933, *Rhodora* 37(436): 142, t. 338, f. 1. 1935.

in English: hairy beardgrass

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. var. **pumilus** Vasey ex L.H. Dewey (*Anatherum virginicum* subvar. *tenuispatheum* (Nash) Roberty; *Andropogon glomeratus* var. *pumilus* Vasey; *Andropogon glomeratus* var. *pumilus* (Vasey) Vasey ex L.H. Dewey; *Andropogon glomeratus* var. *tenuispatheus* Nash; *Andropogon macrourum* var. *pumilus* Vasey; *Andropogon macrourus* var. *pumilus*

Vasey; *Andropogon tenuispatheus* (Nash) Nash; *Andropogon virginicus* f. *tenuispatheus* (Nash) Fernald & Griscom; *Andropogon virginicus* var. *tenuispatheus* (Nash) Fernald & Griscom)

U.S., Utah, Nevada. Perennial, ligule papery and sometimes with dense pubescence, green spikelets, occurs in flatwoods, scrub and disturbed dry areas, meadows, pastures and ditches, see *Species Plantarum* 2: 1046. 1753, *Flora Boreali-Americana* 1: 56. 1803, *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888, *Botanical Gazette* 16: 27. 1891, *Contributions from the United States National Herbarium* 2(3): 496. 1894 and *Flora of the Southeastern United States ...* 61. 1903, *North American Flora* 17(2): 113. 1912, *Rhodora* 37(436): 142, t. 338, f. 1, 2, 3. 1935, *Rhodora* 42(502): 416. 1940, *Boissiera*. 9: 213. 1960, *J. Arnold Arbor*. 64: 244. 1983.

in English: bushy beardgrass

**A. glomeratus** (Walter) Britton, Sterns & Poggenb. var. **scabrillumis** C.S. Campbell

U.S., California, New Mexico. Perennial, usually occurs in wetlands, see *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 67. 1888 and *Systematic Botany* 11(2): 291. 1986.

in English: southwestern bushy bluestem, bushy beardgrass

**A. gracilis** Spreng. (*Andropogon gracilis* J. Presl, nom. illeg., non *Andropogon gracilis* Spreng.; *Andropogon juncifolius* Desv.; *Andropogon juncifolius* Desv. ex Ham.; *Andropogon sericatus* Swallen; *Schizachyrium gracile* (Spreng.) Nash; *Schizachyrium scoparium* subvar. *gracile* (Spreng.) Roberty; *Schizachyrium sericatum* (Swallen) Gould; *Sorghum gracile* (Spreng.) Kuntze)

U.S., northern America. Perennial, slender, densely tufted, erect, wiry, leaf blades filiform, feathery inflorescence racemose, pedicellate spikelets reduced to an awned or awnless glume, open savannah, heavy clay, rocky hills, see *Prodromus Plantarum Indiae Occidentalis* 9. 1825, *Systema Vegetabilium, editio decima sexta* 1: 284. 1825, *Reliquiae Haenkeanae* 1(4-5): 336. 1830, *Revisio Generum Plantarum* 2: 791. 1891 and *Flora of the Southeastern United States ...* 60. 1903, *Manual of the Grasses of the West Indies* 389. 1936, *Journal of the Washington Academy of Sciences* 31(8): 355, f. 8. 1941, *Boissiera*. 9: 229. 1960, *Brittonia* 19(1): 73. 1967.

**A. gracilis** Spreng. var. **firmior** Hitchc. (*Schizachyrium gracile* var. *firmior* J. Jiménez Alm.)

Haiti. Erect or spreading, leaning, see *Manual of the Grasses of the West Indies* 389-390. 1936, *Anales Acad. Republ. Dominicana, Bot.* 1(1): 111. 1975.

**A. gracilis** Spreng. var. **gracilis**

America.

**A. greenwayi** Napper (for the South African (b. Transvaal) botanist Percy (Peter) James Greenway, 1897-1980, from 1927 to 1950 East African Agricultural Research Station (Amani), in 1928 a Fellow of the Linnean Society, 1950-1958 botanist of the East African Herbarium in Nairobi, systematic botanist, plant collector with Colin Graham Trapnell and John P. Micklethwait Brennan (1917-1985) in Northern and Southern Rhodesia and Nyasaland, 1970-1971 President of the Kew Guild, author of *A Swahili-Botanical-English Dictionary of Plant Names*. Dar es Salaam 1940 and "The Pawpaw or Papaya." *E. A. Agri. Journ.* 13: 228-233. Nairobi 1948, coauthor (with Ivan Robert Dale, 1904-1963) of *Kenya Trees & Shrubs*. Nairobi 1961, editor of Jessie Williamson's *Useful Plants of Nyasaland*. Zomba, Nyasaland 1955 and of the *East African Agricultural Journal*; see Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 295. 1994; J. Lanjouw & F.A. Stafleu, *Index Herbariorum*. Part II, *Collectors A-D*. Regnum Vegetabile vol. 2. 1954; *Kew Bull.* 55(3): 695. 2000; F. Nigel Hepper, "Botanical collectors in West Africa, except French territories, since 1860." in *Comptes Rendus de l'Association pour l'étude taxonomique de la flore d'Afrique*, (A.E.T.F.A.T.). 69-75. Lisbon 1962; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 103. Cape Town 1981; F.N. Hepper & Fiona Neate, *Plant Collectors in West Africa*. 13. Utrecht 1971)

Tanzania, Ethiopia, Kenya, Arabia. Perennial, weak, wiry, slender, erect, loosely tufted, glaucous, mat-forming, shortly rhizomatous or stoloniferous, spreading, basal leaf sheaths glabrous, ligule a ciliate membrane, leaves flat, racemes paired and terminal, sessile spikelet linear to lanceolate with a membranous tip, lower glume of sessile spikelet linear-lanceolate and not mucronate, pedicelled spikelet awnless, cultivate fields, open grassland, field borders, volcanic soils, open mountain slopes, grassy places, see *Kirkia* 3: 121. 1963.

in Somalia: domar, agar

**A. gyrans** Ashe (*Anatherum virginicum* subvar. *elliottii* (Chapm.) Roberty; *Anatherum virginicum* subvar. *laxiflorum* (Scribn.) Roberty; *Andropogon campyloracheus* Nash; *Andropogon clandestinus* Alph. Wood, nom. illeg., non *Andropogon clandestinus* Nees ex Steud.; *Andropogon elliottii* Chapm.; *Andropogon elliottii* f. *gracilior* (Hack.) Blomq.; *Andropogon elliottii* var. *elliottii*; *Andropogon elliottii* var. *gracilior* Hack.; *Andropogon elliottii* var. *laxiflorus* Scribn.; *Andropogon elliottii* var. *projectus* Fernald & Griscom; *Andropogon gracilior* (Hack.) Nash ex Small; *Andropogon subtenuis* Nash ex Small; *Andropogon ternarius* Michx.; *Andropogon virginicus* var. *graciliformis* León; *Chrysopogon elliottii* C. Mohr; *Sorghastrum elliottii* (C. Mohr) Nash; *Sorghum elliottii* (Chapm.) Kuntze)

U.S., Florida. Perennial, caespitose, silvery and green to vivid orange, showy flowers, deer resistant, occurs almost always under natural conditions in wetlands, gravelly soils, sandstone, abandoned fields, dry to moist soil, in sand pine scrub, open woods, see *Species Plantarum* 2: 1046. 1753, *Flora Boreali-Americana* 1: 57. 1803, *Flora of the Southern United States* 581. 1860, *A Class-book of Botany* 809. 1861, *Monographiae Phanerogamarum* 6: 415. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Bulletin of the Torrey Botanical Club* 23: 146. 1896, *Bulletin of the Torrey Botanical Club* 24: 21. 1897, *Journal of the Elisha Mitchell Scientific Society* 15: 113. 1898 and *Bulletin of the New York Botanical Garden* 1(5): 431. 1900, *Flora of the Southeastern United States* ... 63, 64. 1903, *North American Flora* 17(2): 130. 1912, *Bulletin of the Torrey Botanical Club* 53: 457. 1926, *Rhodora* 37(436): 139. 1935, *The Grasses of North Carolina* 203. 1948, *Boissiera*. 9: 212. 1960, *Journal Arnold Arboretum* 64: 210, 213. 1983, Patricia Dolores Davila Aranda, "Systematic revision of the genus *Sorghastrum* (Poaceae: Andropogoneae)." 175, 185. [Thesis - Ph.D.] Ames, Iowa: Iowa State University 1988.

in English: Elliott's bluestem, Elliott bluestem, Elliott beardgrass, bottlebrush bluestem, broomsedge

**A. gyrans** Ashe var. **gyrans** (*Anatherum virginicum* subvar. *laxiflorum* (Scribn.) Roberty; *Andropogon campyloracheus* Nash; *Andropogon clandestinus* Alph. Wood, nom. illeg., non *Andropogon clandestinus* Nees ex Steud.; *Andropogon elliotii* Chapman; *Andropogon elliotii* f. *gracilior* (Hack.) Blomq.; *Andropogon elliotii* var. *gracilior* Hack.; *Andropogon elliotii* var. *laxiflorus* Scribn.; *Andropogon elliotii* var. *projectus* Fernald & Griscom; *Andropogon gracilior* (Hack.) Nash ex Small; *Andropogon subtenuis* Nash; *Andropogon subtenuis* Nash ex Small; *Andropogon virginicus* var. *graciliformis* León)

U.S., northern America. Perennial, green spikelets, occurs in sand hills, in well-drained sandy soils, flatwoods and scrub, disturbed dry areas, seepage slopes, wet pine flatwoods and disturbed roadsides, open woods and abandoned fields, see *Species Plantarum* 2: 1046. 1753, *Flora of the Southern United States* 581. 1860, *A Class-book of Botany* 809. 1861, *Monographiae Phanerogamarum* 6: 415. 1889, *Bulletin of the Torrey Botanical Club* 23: 146. 1896, *Journal of the Elisha Mitchell Scientific Society* 15: 113. 1898 and *Bulletin of the New York Botanical Garden* 1: 431. 1900, *Flora of the Southeastern United States* ... 63, 64. 1903, *Bulletin of the Torrey Botanical Club* 53: 457. 1926, *Rhodora* 37(436): 139. 1935, *The Grasses of North Carolina* 203. 1948, *Boissiera*. 9: 213. 1960.

in English: beardgrass, broom-straw, Elliott's bluestem

**A. gyrans** Ashe var. **stenophyllus** (Hack.) C.S. Campbell (*Andropogon perangustatus* Nash; *Andropogon virginicus* subvar. *stenophyllus* Hack.; *Andropogon virginicus* var. *stenophyllus* (Hack.) Fernald & Griscom)

U.S., Florida. Perennial with tufted culms, green, nodes smooth, sheaths pubescent, fringed ligule, leaf blades long and filiform, inflorescence with few branches, pinkish tan spathes, 2 racemes with silky hairs and long awns, pedicellate spikelet absent, found in wet pine flatwoods and wet roadside swales, wet ditches, edges of disturbed wetlands, bogs, savannahs, lake and pond margins, see *Species Plantarum* 2: 1046. 1753, *Monographiae Phanerogamarum* 6: 411. 1889, *Journal of the Elisha Mitchell Scientific Society* 15: 113. 1898 and *Flora of the Southeastern United States* ... 62. 1903, *Rhodora* 37(436): 142, t. 337, f. 2. 1935, *Journal of the Arnold Arboretum* 64(2): 217, f. 11C-D, 32-33. 1983.

in English: slim bluestem

**A. hallii** Hackel (*Andropogon chrysocomus* Nash; *Andropogon geminatus* Hack. ex Beal; *Andropogon gerardii* subsp. *hallii* (Hack.) Wipff; *Andropogon gerardii* var. *chrysocomus* (Nash) Fernald; *Andropogon gerardii* var. *incanescens* (Hack.) Boivin; *Andropogon gerardii* var. *paucipilus* (Nash) Fernald; *Andropogon hallii* var. *bispicatus* Vasey ex Beal; *Andropogon hallii* var. *flaveolus* Hack.; *Andropogon hallii* var. *incanescens* Hack.; *Andropogon hallii* var. *muticus* Hack.; *Andropogon paucipilus* Nash; *Andropogon provincialis* var. *chrysocomus* (Nash) Fernald & Griscom; *Andropogon provincialis* var. *paucipilus* (Nash) Fernald & Griscom; *Leptopogon flaveolus* (Hack.) Roberty; *Sorghum hallii* (Hack.) Kuntze)

Canada, Mexico, Arizona, New Mexico, South Dakota, Montana, Nebraska, North Dakota, northern America, U.S. Perennial, covered with a white waxy bloom, solid culms, strongly rhizomatous with rhizome spreading, extensive system of roots and rhizomes, rapid and extensive lateral spread, leaf sheaths keeled, leaf blades with prominent midribs, linear leaves glaucous or greenish, ligule a fringed membrane, hairy racemes, bisexual spikelets awned or unawned, seeds very pubescent, naturalized, cultivated, highly palatable and nutritious, forage for livestock, provides good to excellent forage for grazing and browsing wildlife species, fodder, seeds are consumed by game birds, prairie chickens and songbirds, useful for erosion control, revegetation of disturbed sites with sandy soil, found almost exclusively on sandy soils, sand hills and sand hill prairie, windblown sand dunes, high and low sandy plains, see *Encyclopédie Méthodique, Botanique* 1: 376. 1785, *Summa Plantarum*, ... 6: 16. 1792, *Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-naturwissenschaftliche Classe* 89(1): 127-128. 1884, *Monographiae Phanerogamarum* 6: 444. 1889, *Revisio Generum Plantarum* 2: 791. 1891, *Grasses of North America for Farmers and Students* 2: 55. 1896 and *Manual of the Flora of the Northern States and Canada* 70. 1901, *North Amer. Fl.* 17(2): 120-121. 1912, *Rhodora* 37(436): 147. 1935, *Rhodora* 45(534): 258. 1943, *Boissiera*. 9: 196.

1960, *Le Naturaliste Canadien* 94: 521. 1967, *Phytologia* 80(5): 343-344. 1996.

in English: sand bluestem, Hall's bluestem, Woodward sand bluestem, sand hill bluestem, turkeyfoot

in Mexico: popotillo arenoso

**A. huillensis** Rendle (Huilla is a place in Angola)

Tropical Africa. Perennial, tufted, sometimes shortly rhizomatous, basal sheaths folded, ligule membranous, 5-7 flowering branches per culm, feathery racemes arranged digitately or semidigitately at the tip of the branches, 4-10 racemes per spathe, spikelets sessile and glabrous with a thin awn, lower glume of sessile spikelets deeply grooved, low grazing value, occurs in wet areas, damp pastures, sandy soil, wet sandy soils, bushveld, open habitats, meadows, wooded meadow, edge of vleis, riverbanks, open grassland, see *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 2(1): 146-147. 1899 and *Bothalia* 24: 241-246. 1994.

in English: large silver andropogon, oldman's beard

in South Africa: grootwitbaardandropogon, rietgras, grootwitbaardgras

**A. hypogynus** Hack. (*Andropogon hypogynus* var. *anatherus* Hack.; *Andropogon hypogynus* var. *conjungens* Hack.; *Andropogon hypogynus* var. *genuinus* Hack.; *Andropogon hypogynus* var. *hypogynus*; *Andropogon insolitus* Sohns; *Andropogon lateralis* Nees; *Hypogynium campestre* Nees)

Brazil. Perennial, tufted, erect, forming large clumps, pedicelled spikelet well-developed, common in damp places, floodplains, savannah, seasonally marshy grassland, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 329, 365. 1829, *Flora Brasiliensis* 2(4): 289-290, pl. 66. 1883 and *Memoirs of the New York Botanical Garden* 9(3): 271, f. 9. 1957, *Boissiera*. 9: 198. 1960, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Brittonia* 38(4): 411-414. 1986.

**A. indetonsus** Sohns (*Andropogon crassifolius* Sohns)

Brazil. Tufted, forming colonies, moist places, see *Memoirs of the New York Botanical Garden* 9(3): 269. 1957.

**A. ingratus** Hack. (*Andropogon sincoranus* Renvoize)

Brazil. See *Österreichische Botanische Zeitschrift* 51(5): 151. 1901, *Kew Bulletin* 39(1): 181. 1984, *Novon* 13(3): 372, f. 3. 2003.

**A. insolitus** Sohns (*Andropogon crucianus* Renvoize)

Venezuela, Brazil. Perennial, caespitose, elongate racemes, sessile spikelet bisexual, rachis internodes and pedicels ciliate, closely related to *Andropogon virgatus*, savannah marsh, see *Memoirs of the New York Botanical Garden* 9(3): 271, f. 9. 1957, *Gramineas de Bolivia* 596, f. 142. 1998.

**A. kelleri** Hack. (*Anatherum cyrtocladum* (Stapf) Roberty; *Andropogon bentii* auct. non Stapf; *Andropogon cyrtocladus* Stapf; *Schizachyrium kelleri* (Hackel) Stapf)

East Africa, Ethiopia. Perennial, bushy, densely clumped, suffrutescent, woody, branched, rhizomatous, racemes solitary and terminal, lower glume of the sessile spikelet linear-lanceolate and concave, weed, arid habitats, dry stony soils, silty areas, sandy soils, depressions, see *Mémoires de l'Herbier Boissier* 20: 6. 1900, *Bulletin of Miscellaneous Information Kew* 6: 209. 1907, *Kew Bulletin* 6: 224. 1907, *Boissiera*. 9: 210. 1960.

in Somalia: durr, tun

**A. lacunosus** J.G. Anderson

Tropical Africa. Perennial, straggling, trailing, lower glume of sessile spikelets rounded and pitted, growing in moist places, swamps, see *Bothalia* 8: 113. 1962.

**A. lateralis** Nees (*Andropogon brevis* Trin.; *Andropogon cryptopus* Trin. ex Hack.; *Andropogon glaucescens* subvar. *cryptopus* Hack.; *Andropogon glaucescens* subvar. *typicus* Hack.; *Andropogon glaucescens* var. *brevis* (Trin.) Hack.; *Andropogon glaucescens* var. *lateralis* (Nees) Hack.; *Andropogon hypogynus* Hack.; *Andropogon incanus* Hack.; *Andropogon incanus* subvar. *cryptopus* Hack.; *Andropogon incanus* subvar. *typicus* Hack.; *Andropogon incanus* var. *brevis* (Trin.) Hack.; *Andropogon incanus* var. *lateralis* (Nees) Hack.; *Andropogon incanus* var. *ramosissimus* Hack.; *Andropogon incanus* var. *subtilior* Hack.; *Andropogon incanus* var. *trichocoleus* Hack.; *Andropogon lateralis* subsp. *cryptopus* (Hack.) A. Zanin; *Andropogon lateralis* var. *brevis* (Trin.) Hack. ex Henrard; *Andropogon lateralis* var. *incanus* (Hack.) Henrard; *Andropogon lateralis* var. *ramosissimus* (Hack.) Henrard; *Andropogon lateralis* var. *subtilior* (Hack.) Henrard; *Andropogon lateralis* var. *trichocoleus* (Hack.) Henrard; *Andropogon lindmanii* Hack.; *Andropogon virginicus* L.; *Andropogon virginicus* subsp. *genuinus* Hack.; *Leptopogon carinatus* subvar. *incanus* (Hack.) Roberty; *Leptopogon carinatus* subvar. *lateralis* (Nees) Roberty; *Leptopogon carinatus* subvar. *ramosissimus* (Hack.) Roberty; *Leptopogon carinatus* subvar. *subtilior* (Hack.) Roberty; *Leptopogon carinatus* subvar. *trichocoleus* (Hack.) Roberty) (dedicated to the Swedish botanist Carl Axel Magnus Lindman, 1856-1928, traveler, 1892-1894 in Brazil; see J.H. Barnhart, *Biographical notes upon botanists*. 2: 386. 1965; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 239. 1972; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 200. 1964; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 268. 1973; Frederico Carlos Hoehne, M. Kuhlmann and Oswaldo Handro, *O jardim botânico de São Paulo*. 1941; Thorgny Ossian Bolivar Napoleon Krok, 1834-1921, *Bibliotheca botanica suecana*. [Posthum. edited by the Swedish botanists Carl Axel Magnus Lindman

(1856-1928) and Fredrik Rutger Aulin, 1841-1923.] Uppsala & Stockholm [1925]; Johannes Eugenius Bülow Warming (1841-1924), *Symbolae ad floram Brasiliae centralis cognoscendam quas edidit Eug. Warming*. Havniae 1867-1894)

Argentina, central Brazil, Bolivia, Uruguay. Perennial, variable, caespitose, subwoody, branched at the middle and upper nodes, pedicels and internodes villous, fodder, forage, usually on sandy soils, savannah, open fields, wet places, seasonally humid savannahs, see *Species Plantarum* 2: 1045-1046. 1753, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 329, 365. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 268. 1832, *Flora Brasiliensis* 2(4): 285, 289-290, pl. 66. 1883, *Monographiae Phanerogamarum* 6: 431-433. 1889 and *Kongliga Svenska Vetenskapsakademiens Handlingar* 34(6): 6, t. 2. 1900, *Mededeelingen van's Rijks-Herbarium* 40: 42-43. 1921, *Boissiera*. 9: 198. 1960, *Flora Illustrada de Entre Ríos (Argentina)* 6(2): 447-508. 1969, *Fl. Trop. E. Afr. Gramineae* 770. 1982, *J. Arnold Arbor.* 64: 224. 1983, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Brittonia* 38(4): 411-414. 1986, *Taxon* 41: 556. 1992, *Annals of the Missouri Botanical Garden* 81(4): 768-774. 1994, *Taxon* 44: 611-612. 1995.

in English: caninha grass

in Argentina: paja colorada, capú-puitá, capú-putá

in Brazil: capim-caninha

**A. *lateralis*** Nees subsp. ***cryptopus*** (Hack.) A. Zanin (*Andropogon incanus* subvar. *cryptopus* Hack.)

South America, Brazil. See *Monographiae Phanerogamarum* 6: 432. 1889.

**A. *lateralis*** Nees subsp. ***lateralis*** (*Andropogon herzogii* Hack.; *Andropogon hirsutus* Kunth; *Andropogon lateral* var. *lateralis*)

Paraguay. See *Nova Genera et Species Plantarum* 1: 186. 1815 [1816] and *Repertorium Specierum Novarum Regni Vegetabilis* 7: 49. 1909.

**A. *lateralis*** Nees var. ***bogotensis*** (Hack.) Henrard (*Andropogon bogotensis* (Hack.) A. Zanin & Longhi-Wagner; *Andropogon incanus* var. *bogotensis* Hack.)

America. See *Flora Brasiliensis seu Enumeratio Plantarum* 2: 329. 1829, *Monographiae Phanerogamarum* 6: 433. 1889, *Mededeelingen van's Rijks-Herbarium* 40: 43. 1921.

**A. *lateralis*** Nees var. ***incanus*** (Hack.) Henrard (*Andropogon incanus* Hack.)

America. See *Flora Brasiliensis seu Enumeratio Plantarum* 2: 329. 1829, *Monographiae Phanerogamarum* 6: 431-433. 1889, *Mededeelingen van's Rijks-Herbarium* 40: 42. 1921, *Boissiera*. 9: 198. 1960.

**A. *lawsonii*** Hook.f (*Chrysopogon lawsonii* (Hook.f.) Roberty; *Chrysopogon lawsonii* (Hook.f.) Veldkamp; *Vetiveria lawsonii* (Hook.f.) Blatt. & McCann)

Asia, India. Reduced fodder value, growing in moist ground, wet places, moist lawn, see *The Flora of British India* 7(21): 187. 1896 and *Journal of the Bombay Natural History Society* 32: 409. 1928, *Boissiera*. 9: 260. 1960, J.F. Veldkamp, "A revision of *Chrysopogon* Trin. including *Vetiveria* Bory (Poaceae) in Thailand and Malesia with notes on some other species from Africa and Australia." in *Austrobaileya*. 5: 503-533. 1999.

in India: kaare hullu, mani hullu, thoddu kaare hullu

**A. *laxatus*** Stapf (*Andropogon ternatus* (Spreng.) Nees; *Andropogon ternatus* var. *africanus* Rendle; *Saccharum ternatum* Spreng.)

Tropical Africa. Perennial, rare, tufted, herbaceous, slender, forming large clumps, leaf blades folded, leaf sheaths keeled, plumose inflorescence, paired racemes, pedicellate spikelets absent or reduced, 2-3 racemes per spathe, lower glume of sessile spikelets deeply grooved, on wet to marshy places, roadsides, moist meadows, dry areas, wooded pastures, sometimes confused with *Andropogon eucomus* Nees, see *Systema Vegetabilium, editio decima sexta* 1: 283. 1825, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 326. 1829 and *Flora of Tropical Africa* 9: 237-238. 1919, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Genome* 29: 340-344. 1987, *Wageningen Agricultural University Papers* 92-1: 430. 1992.

in Tanzania: mahua kinyaturu, mahwa kinyaturu

**A. *lehmannii*** Pilg.

Colombia. Perennial, slender, forming colonies, see *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 27(1-2): 24. 1899.

**A. *leprodes*** Cope

Somalia. Perennial, unbranched, greenish to glaucous, densely tufted, old leaf sheaths persistent at the base, racemes subdigitate and terminal, lower glume of sessile spikelet scabrid or scabrous and nerved in the depression, glumes of the pedicelled spikelet awnless, see *Kew Bulletin* 50(1): 111, f. 1C-D. 1995.

**A. *leucostachyus*** Kunth (*Anatherum domingense* Roem. & Schult.; *Anatherum virginicum* (L.) Spreng.; *Anatherum virginicum* (L.) Desv., nom. illeg., non *Anatherum virginicum* (L.) Spreng.; *Anatherum virginicum* subvar. *leucostachyum* (Kunth) Roberty; *Andropogon domingensis* (Roem. & Schult.) Steud.; *Andropogon lanuginosus* Kunth; *Andropogon leucostachyus* subsp. *genuinus* Hack.; *Andropogon leucostachyus* subvar. *mas* Hack.; *Andropogon leucostachyus* subvar. *typicus* Hack.; *Andropogon leucostachyus* var. *subvillosus* Hack.; *Andropogon virginicus* L.; *Andropogon virginicus* subsp. *leucostachyus* (Kunth) Hack.; *Sorghum leucostachyus* (Kunth) Kuntze)

Central America, Mexico, West Indies to Argentina, Brazil. Perennial, erect, herbaceous, densely caespitose, clumped, glabrous, branched, ligule delicate and truncate, flat or folded leaf blades acute to acuminate, inflorescence with silky-white hairs or densely pilose, racemes subdigitate and clustered, spikelets paired, sessile spikelet awnless or weakly awned, pedicelled spikelet rudimentary, in small clumps or tufts, a pest, a weed of pastures, naturalized, forage, sometimes used as abortifacient, found along disturbed roadsides, sandy soil, burned savannah, disturbed savannahs, mountain savannah, sandy savannah, wooded savannah, restinga forest, open rocky pasture, open areas both dry and moist, stream banks, depressions, disturbed places, pine forest, rocky roadside, open grassland, see *Species Plantarum* 2: 1046. 1753, *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Nova Genera et Species Plantarum* 1: 187-188. 1815 [1816], *Systema Vegetabilium* 2: 809. 1817, *Nomenclator Botanicus* 45. 1821, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 175. 1831, *Flora Brasiliensis* 2(3): 286. 1877, *Flora Brasiliensis* 2(4): 286. 1883, *Monographiae Phanerogamarum* 6: 419-420. 1889, *Revisio Generum Plantarum* 2: 792. 1891 and *Boissiera*. 9: 213. 1960, *Journal of the Arnold Arboretum* 64(2): 224. 1983, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985.

in Spanish: grama

in Brazil: capim membeça

in Nicaragua: walang

**A. liebmannii** Hack. (*Anatherum virginicum* (L.) Spreng. subvar. *liebmannii* (Hack.) Roberty; *Anatherum virginicum* subvar. *mohrii* (Hack.) Roberty; *Andropogon liebmannii* subvar. *genuinus* Hack.; *Andropogon liebmannii* subvar. *mohrii* Hack.; *Andropogon liebmannii* subvar. *rariopilis* Hack.; *Andropogon mohrii* (Hack.) Hack. ex Vasey; *Andropogon mohrii* Hack. ex B.D. Jacks.; *Andropogon mohrii* (Hack.) Vasey; *Andropogon mohrii* var. *pungensis* Ashe; *Sorghum liebmannii* (Hack.) Kuntze)

Mexico. Perennial, good forage, found in grassy swamps, riverbanks, see *Flora* 68: 132. 1885, *Bot. Gaz.* 13: 295. 1888, *Monographiae Phanerogamarum* 6: 413. 1889, *Revisio Generum Plantarum* 2: 792. 1891, *Contributions from the United States National Herbarium* 3(1): 11. 1892, *Journal of the Elisha Mitchell Scientific Society* 15: 114. Raleigh, North Carolina 1899 and *Boissiera*. 9: 213. 1960, *Journal of the Arnold Arboretum* 64(2): 171-254. 1983.

**A. liebmannii** Hack. var. *liebmannii* (*Andropogon liebmannii* subvar. *rariopilis* Hack.)

Mexico. See *Monographiae Phanerogamarum* 6: 413. 1889.

**A. liebmannii** Hack. var. *pungensis* (Hack.) C.S. Campb. (*Anatherum virginicum* subvar. *mohrii* (Hack.) Roberty; *Andropogon liebmannii* subvar. *mohrii* Hack.; *Andropogon liebmannii* var. *pungensis* (Ashe) C.S. Campb.; *Andropogon*

*mohrii* (Hack.) Vasey; *Andropogon mohrii* (Hack.) Hack. ex Vasey; *Andropogon mohrii* Hack. ex B.D. Jacks.; *Andropogon mohrii* var. *pungensis* Ashe)

Northern America, Mexico, U.S., Florida. Perennial with tufted culms, nodes smooth, pubescent leaves, sheaths pubescent, ligule fringed and papery, racemes with silky hairs, pedicellate spikelet reduced to a single scale, minute grain, found in bogs, savannahs and wet pine flatwoods, see *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Bot. Gaz.* 13: 295. 1888, *Monographiae Phanerogamarum* 6: 413. 1889, *Contributions from the United States National Herbarium* 3(1): 11. 1892, *Journal of the Elisha Mitchell Scientific Society* 15: 113-114. 1899 and *Boissiera*. 9: 213. 1960.

in English: Mohr's bluestem, broomsedge

in Mexico: tallo azul mexicano

**A. ligulatus** (Stapf) Clayton (*Andropogon laxatus* var. *ligulatus* Stapf)

Tropical Africa. See *Flora of Tropical Africa* 9: 238. 1919, *Kew Bulletin* 32(1): 2. 1977.

**A. lima** (Hack.) Stapf (*Andropogon amethystinus* var. *breviaristatus* Hack.; *Andropogon amethystinus* var. *lima* Hack.; *Eulalia hydrophila* Chiov.; *Eulalia hydrophila* var. *filiformis* Chiov.)

Tropical Africa, East Africa. Perennial, densely tufted, coarse, erect, tussocky, leaf blades erect and scabrid, racemes terminal and paired, lower glume of the sessile spikelet flat or slightly concave, grazed when young, found in montane grasslands, see *Monographiae Phanerogamarum* 6: 464. 1889 and *Flora of Tropical Africa* 9: 217. 1919, *Atti della reale accademia d'Italia. Mem. Cl. Sci. Fis. Math. Nat.* 11(2): 62-63. 1940.

**A. lindmannii** Hack. (*Andropogon lateralis* Nees)

Brazil. See *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 329-330. 1829 and *Kongliga Svenska Vetenskapsakademien Handlingar* 34(6): 6, t. 2. 1900.

**A. lividus** Thwaites (*Cymbopogon lividus* (Thw.) Willis)

Sri Lanka, India, Tamil Nadu. Perennial, densely tufted, tussocky, ligule membranous, leaves erect and glabrous, paired racemes, upper glume winged, a fodder grass, grows on wet places, see *Enumeratio Plantarum Zeylaniae* 367. 1864 and *Handb. Fl. Ceylon* 5: 244. 1900, *A Revised Catalogue of the Indigenous Flowering Plants & Ferns of Ceylon* 110. Colombo 1911, *Handb. Fl. Ceylon* 6: 335. 1931, *Grasses of Ceylon* 195. 1956, *Grasses of Burma ...* 91. 1960, *Taxon* 34: 159-164. 1985.

in English: spear grass, purple grass

in Tamil: pandripul

**A. longiberbis** Hackel (*Anatherum virginicum* subvar. *longiberbe* (Hack.) Roberty; *Sorghum longiberbis* (Hack.) Kuntze)

Southeast U.S., Florida, Georgia. Wiry, branched above, leaves elongate and arching, panicle elongate with paired and flexuous racemes, sessile spikelet awned, pilose pedicels, found in sand dunes, dry sand hills, old fields and dry rocky soils, see *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Flora* 68(8): 131. 1885, *Revisio Generum Plantarum* 2: 792. 1891 and *Boissiera*. 9: 213. 1960, *Journal of the Arnold Arboretum* 64(2): 223. 1983.

in English: long-beard bluestem

**A. longipes** Hack.

Sri Lanka, India, Tamil Nadu. Lower glume of sessile spikelet flat or concave, see *Flora* 68(8): 138. 1885 and *Taxon* 34: 159-164. 1985.

**A. macrophyllus** Stapf

Tropical Africa. Perennial, robust, tough, fodder grass, palatable to cattle, see *Flora of Tropical Africa* 9: 264. 1919.

in Ghana: esire

in Sierra Leone: kofu-na, tofo, tofo-ke

**A. macrophyllus** Stapf var. *pilosus* Reznik

Tropical Africa. See *Flora of Tropical Africa* 9: 264. 1919, *Bulletin du Muséum d'Histoire Naturelle sér. 2* 5: 500. 1933.

**A. macrothrix** Trin. (*Anatherum virginicum* subvar. *nashianum* (Hitchc.) Roberty; *Andropogon nashianus* Hitchc.; *Andropogon ternatus* subsp. *macrothrix* (Trin.) Hack.)

South America, Brazil, Paraguay. Perennial, pedicellate spikelets vestigial, sessile spikelets awned, single terminal inflorescence, densely villous rachis internodes and pedicels, moist areas, similar to *Andropogon ternatus* (Sprengel) Nees, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 326-327. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 270. 1832, *Flora Brasiliensis* 2(4): 287. 1883 and *Contributions from the United States National Herbarium* 12(6): 193-194. 1909, *Boissiera*. 9: 213. 1960.

**A. mannii** Hook.f. (*Andropogon platybasis* J.G. Anders.) (for the German botanist Gustav Mann, 1836-1916, Kew gardener 1859, plant collector, botanical explorer, traveler, 1859-1862 on William Balfour Baikie's Niger Expedition, 1863 India and Assam, 1863-1891 Indian Forest Service, sent plants and seeds to Kew, with the German botanist Hermann Wendland (1825-1903) wrote "On the palms of Western Tropical Africa." *Trans. Linn. Soc.* 24: 421-439. 1864; see J.H. Barnhart, *Biographical notes upon botanists.* 2: 443. 1965; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford.* 206. Oxford 1964; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University.* 1917-1933; F.N. Hepper & F. Neate, *Plant Collectors in West Africa.* 53. 1971; René Letouzey, "Les botanistes au Cameroun." in *Flore du Cameroun.* 7: 48. Paris 1968; Ernest Nelmes & William Cuthbertson, *Curtis's Botanical Magazine Dedications, 1827-1927.* 274-276. [1931]; Joseph Vallot, "Études sur la flore du Sénégal." in *Bull. Soc. Bot. de France.* 29: 184. Paris 1882; Ronald William John Keay, "Botanical Collectors in West Africa prior to 1860." in *Comptes Rendus A.E.T.F.A.T.* 55-68. Lisbon 1962; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium.* Edinburgh 1970; F. Nigel Hepper, "Botanical collectors in West Africa, except French territories, since 1860." in *Comptes Rendus de l'Association pour l'étude taxonomique de la flore d'Afrique, (A.E.T.F.A.T.).* 69-75. Lisbon 1962; Sir Clements Robert Markham (1830-1916), *Peruvian Bark.* A popular account of the introduction of *Cinchona* cultivation into British India ... London 1880; Claude Spencer et alii, "Survey of plants for antimalarial activity." *Lloydia.* 10(3): 145-174. [referring to *Mannia africana* Hook.] 1947)

Tropical Africa. Perennial, rare, variable, erect, densely and largely tufted, basal sheaths keeled and compressed, leaf blades erect and folded, inflorescence terminal, spikelets shortly hairy to glabrous, 2-3 racemes per spathe, lower glume of sessile spikelets concave or flat, growing in mountain grassland, moist places, riverbanks, see *Journal of the Proceedings of the Linnean Society* 7: 232. 1864 and *Kirkia* 1: 102. 1961.

**A. multiflorus** Renvoize (*Andropogon bogotensis* (Hack.) A. Zanin & Longhi-Wagner)

Bolivia. Perennial, caespitose, erect, leaf blades linear and acute, inflorescence much branched, racemes exserted and digitate, moist savannah, see *Gramineas de Bolivia* 596, f. 138. 1998.

**A. munroi** C.B. Clarke (*Andropogon gyirongensis* L. Liou; *Andropogon hookeri* Munro ex Hack.; *Andropogon tristis* Nees ex Hack.; *Cymbopogon hookeri* (Munro ex Hack.) Stapf ex Bor; *Cymbopogon munroi* (C.B. Clarke) Noltie; *Cymbopogon tibeticus* Bor)

India. Inflorescence of 4-8 racemes, see *Journal of the Linnean Society, Botany* 25: 87-88, t. 37. 1889, *Monographiae Phanerogamarum* 6: 439, 614. 1889 and *Indian Forest Records: Botany* 1: 92. 1939, *Kew Bulletin* 8(2): 275-276. 1953, *Kew Bulletin* 27(3): 447-450. 1972, *Flora Xizangica* 5: 329-331. 1987, *Edinburgh Journal of Botany* 56(3): 400. 2000.

**A. perdignus** Sohns

Venezuela. Bunchgrass, see *Memoirs of the New York Botanical Garden* 9(3): 274, f. 11. 1957.

**A. perligulatus** Stapf (*Andropogon canaliculatus* Schumacher.; *Andropogon patris* Robyns)

West tropical Africa, Togo. Perennial, robust, tufted, erect, leaf blades linear, paired racemes, loose false panicle, lower glume of sessile spikelet linear and deeply grooved, swampy places, moist meadow, see *Bull. Jard. Bot. Brux.* 8: 227. 1830 and *Bulletin of Miscellaneous Information Kew*

1908: 410. 1908, *Flore Agrostologique du Congo Belge* 137. 1929.

**A. pinguipes** Stapf

Tropical Africa. Annual, browsed, good forage when young, used for thatching and for making mats and screens, see *Bulletin of Miscellaneous Information Kew* 1908: 411. 1908.

in Senegal: banôbo, bohdo, goloba, gomgom, gongon, ngétiétiadi, ngolumban, taf

**A. pohlianus** Hack. (*Cymbachne amplexens* subvar. *pohliana* (Hack.) Roberty) (named for the Bohemian-born Austrian botanist Johann Baptist Emanuel Pohl, 1782-1834, traveler, physician, author of *Plantarum Brasiliae icones et descriptiones ... Vindobonae* [Wien]. See J.H. Barnhart, *Biographical notes upon botanists*. 3: 94. 1965; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 226-227. 1964; A. Lasègue, *Musée botanique de Benjamin Delessert*. 332, 477, 505, 526. Paris 1845; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; *Fl. Bras.* 1(1): 78-82. 1906).

Brazil. See *Flora Brasiliensis* 2(4): 304, pl. 69. 1883 and *Boissiera*. 9: 244. 1960, *Bulletin de l'Institut Française d'Afrique Noire* 22: 105. 1960.

**A. polytychos** Steud. (*Andropogon polytychus* Steud.; *Andropogon polypticus* Steud.; *Dichanthium polytychos* (Steud.) A. Camus) (also spelled *polytychon* or *polytychum*)

Sri Lanka, Myanmar (Burma). Perennial, densely tufted, tussocks, leaves erect and pilose, ligule membranous, auricles absent, subdigitate racemes terminal, upper glume not winged, see *Synopsis Plantarum Glumacearum* 1: 380. 1854 and *Handb. Fl. Ceylon* 5: 237. 1900, *Bulletin du Muséum d'Histoire Naturelle* 27: 549. 1921, *Handb. Fl. Ceylon* 6: 333, 335. 1931, *Grasses of Ceylon* 191, 195. 1956, *Grasses of Burma ...* 91, 135. 1960, *Phanerogamarum Monographiae* 12: 1-225. 1980, *Taxon* 34: 159-164. 1985.

**A. polytychos** Steud. var. *deccanensis* Bor ex Clayton (*Andropogon polytychos* var. *deccanensis* Bor)

India, Tamil Nadu. Leaf blades filiform, 1-2 racemes, peduncle below inflorescence hairy, see *Grasses of Burma, Ceylon, India and Pakistan* 91, 135. 1960, *Kew Bulletin* 27(3): 448. 1972.

**A. polytychos** Steud. var. *polytychos*

Myanmar, India, Kerala, Tamil Nadu. Leaf blades flat, peduncle below inflorescence glabrous, in swampy or dry areas.

**A. pringlei** Scribner & Merr. (*Anatherum argyraeum* var. *pringlei* (Scribn. & Merr.) Roberty)

North America, Mexico. Perennial, tufted, see *Bulletin, Division of Agrostology United States Department of Agriculture* 24: 7. 1901, *Boissiera*. 9: 207. 1960.

**A. pseudapricus** Stapf (*Anatherum africanum* (Franch.) Roberty; *Andropogon africanus* Franch.; *Andropogon appendiculatus* Nees; *Andropogon appendiculatus* var. *genuinus* Durand & Schinz; *Andropogon apricus* Trin.; *Andropogon apricus* var. *africanus* Hack.; *Andropogon brazzae* Franch.; *Leptopogon appendiculatus* (Nees) Roberty)

West tropical Africa, Chad, Benin, Burkina Faso, Togo. Annual bunchgrass with long cycle, tufted, grazed by stock, used for thatching and as a building material, used to make mats and screens, common on shallow or sandy soils, riverbanks, sandstone, irrigation ditches, loamy sand, on dry fallow land, see *Florae Africae Australioris Illustrationes Monographicae* 105. 1841, *Monographiae Phanerogamarum* 6: 457. 1889, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 326. 1895 [or 1893] and *Flora of Tropical Africa* 9: 242. 1919, *Boissiera*. 9: 197, 207. 1960, *Bothalia* 24: 241-246. 1994.

in Arabic: geishsh an naar

in Gambia: fula nyantango, nianga, njanga, seioko, sheioko

in Ghana: daziman

in Niger: jan bako, séhuko, selsené

in Nigeria: acho, dogo, funu kiango, gamari boderi, geishsh an naar, jan bako, jan baujee, jan daatsii, jan ramnoa, jan raunao, katjin, labanda, mai gindin biri, ngir masan, tidingho

in Senegal: mafar mbil, ndiangua, ndianyuè

in tropical Africa: fula nyantango, gamari boderi, mafar mbil, ndiangua, njanga, sheioko, tangolo, yantaré

in Upper Volta: kaloiega, kjiempuh, monkatjin, njianparagha, si'uko, siikuwo, tangolo, yandeparaga, yantarè

**A. pumilus** Roxb. (*Andropogon demissus* Steud.; *Andropogon pachyarthrus* Hack.; *Arthrolophis pumilus* (Roxb.) Chiov.)

India, Maharashtra, Madhya Pradesh. Annual, tufted, quite glabrous, smooth, erect or geniculate, low, decumbent below, rather slender, leaf blades rather narrow and linear, numerous radiating branches growing all directions, glabrous racemes, good hay and very good silage, suitable for horses and cattle both green and dry, good fodder grass, palatable to livestock, common on dry or semidry places, heavy soil, black soils, shallow soil, waste ground, see *Hortus Bengalensis, or a catalogue ...* 7. 1814, *Flora Indica; or Descriptions ...* 1: 277. 1820, *Synopsis Plantarum Glumacearum* 1: 388. 1854, *Fodder Grasses N. India* 37. 1888, *Monographiae Phanerogamarum* 6: 449. 1889 and *Bollettino della Società Botanica Italiana* 1917(6/7): 57, 59. 1917.



in India: baerki, bairki, bhurbusi, chikkanuga hullu, chimanchara, gangerua, garren, ghondhani, gondad, gondavaala, gondwal, kaavattam pullu, lahan masrut, lal gondali, lalgavat, malakava, malakaya, malka-phalka, mushel, tagargoti, tambrut, zinzvo

**A. pungens** T.A. Cope (*Andropogon chinensis* auct. non (Nees) Merr.)

Somalia. Perennial, tufted, green, leaves flat, racemes paired, a false panicle, very pungent callus, lower glume of sessile spikelet deeply depressed and upper glume awned, upper lemma 2-toothed, often coastal, plains, see *Kew Bulletin* 50(1): 109-117. 1995.

**A. ravus** J.G. Anderson

Southern Africa. Perennial, glaucous, rhizomatous with knotted and branched rhizomes, ligule a fringed membrane, inflorescence spatheate, glumes awned, lower glume of sessile spikelets deeply grooved, palatable, low grazing value, grows in mountain sourveld, see *Bothalia* 7: 417. 1960.

**A. saccharoides** Sw. (*Amphilophis saccharoides* (Sw.) Nash; *Amphilophis torreyanus* (Steud.) Nash; *Andropogon argenteus* DC.; *Andropogon argenteus* Elliott, nom. illeg., non *Andropogon argenteus* DC.; *Andropogon argenteus* Vanderyst, nom. illeg., non *Andropogon argenteus* DC.; *Andropogon glaucus* Torr., nom. illeg., non *Andropogon glaucus* Retz.; *Andropogon jamesii* Torr.; *Andropogon kunthii* E. Fourn.; *Andropogon laguroides* DC.; *Andropogon preamaturus* Fernald, also spelled *prematurois*; *Andropogon saccharoides* subsp. *laguroides* (DC.) Hack.; *Andropogon saccharoides* subvar. *argenteus* (DC.) Hack.; *Andropogon saccharoides* subvar. *paucirameus* Hack.; *Andropogon saccharoides* var. *glaucus* Scribn.; *Andropogon saccharoides* var. *laguroides* (DC.) Hack.; *Andropogon saccharoides* var. *surius* Krause; *Andropogon saccharoides* var. *torreyanus* (Steud.) Hack.; *Andropogon scoparius* subsp. *genuinus* Hack.; *Andropogon tenuirachis* E. Fourn.; *Andropogon torreyanus* Steud.; *Bothriochloa laguroides* (DC.) Herter; *Bothriochloa laguroides* (DC.) Pilg., nom. illeg., non *Bothriochloa laguroides* (DC.) Herter; *Bothriochloa saccharoides* (Sw.) Rydb.; *Bothriochloa saccharoides* subsp. *saccharoides*; *Bothriochloa saccharoides* var. *laguroides* (DC.) Beetle; *Bothriochloa saccharoides* var. *torreyana* (Steud.) Gould; *Dichanthium saccharoides* subvar. *laguroides* (DC.) Roberty; *Dichanthium saccharoides* subvar. *paucirameus* (Hack.) Roberty; *Dichanthium saccharoides* subvar. *torreyanum* (Steud.) Roberty; *Holcus saccharoides* (Sw.) Kuntze ex Stuck.; *Holcus saccharoides* var. *laguroides* (DC.) Hack.; *Sorghum argenteum* (Elliott) Kuntze; *Sorghum saccharoides* (Sw.) Kuntze; *Sorghum saccharoides* var. *laguroides* (DC.) Kuntze; *Trachypogon argenteus* (DC.) Nees; *Trachypogon laguroides* (DC.) Nees)

Southern America. In clearings, oak wood, dry soils, irrigation ditch, see *Nova Genera et Species Plantarum seu*

*Prodromus* 26. 1788, *Catalogus plantarum horti botanici monspeliensis* 77-78. 1813, *Genera et species plantarum* 3. 1816, *A Sketch of the Botany of South-Carolina and Georgia* 1: 148. 1816, *Annals of the Lyceum of Natural History of New York* 1(1): 153-154. 1824, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 348-349. 1829, *Nomenclator Botanicus. Editio secunda* 1: 93. 1840, *Linnaea* 19(6): 694. 1847, *Exploration of the Red River of Louisiana* 302. 1853, *Synopsis Plantarum Glumacearum* 1: 380. 1854, *Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen* 24: 309. 1879, *Flora Brasiliensis* 2(4): 292-293. 1883, *Mexicanas Plantas* 2: 58-59. 1886, *Monographiae Phanerogamarum* 6: 384, 493-497. 1889, *Revisio Generum Plantarum* 2: 790, 792. 1891, *Contributions from the United States National Herbarium* 2(3): 497. 1894, *Memoirs of the Torrey Botanical Club* 5: 28. 1894, *Grasses of North America for Farmers and Students* 2: 57. 1896, *Revisio Generum Plantarum* 3(2): 368. 1898 and *Manual of the Flora of the Northern States and Canada* 71. 1901, *Anales del Museo Nacional de Buenos Aires* 11: 48. 1904, *Bulletin de l'Herbier Boissier, sér. 2*, 4(3): 266. 1904, *Anales del Museo Nacional de Buenos Aires* 21: 16. 1911, *North American Flora* 17(2): 125. 1912, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 11(4): 8. 1912, *Beihefte zum Botanischen Centralblatt* 32: 334. 1914, *Bulletin agricole du Congo Belge* 9: 237. 1918, *Contributions from the United States National Herbarium* 24(8): 497. 1927, *Brittonia* 1(2): 81. 1931, *Revista Sudamericana de Botánica* 6(5-6): 135. 1940, *Die natürlichen Pflanzenfamilien, Zweite Auflage* 14c: 160. 1940, *Rhodora* 42(502): 413-415, pl. 626, f. 1-3. 1940, *Field & Laboratory* 23(1): 18-19. 1955, *Madroño* 14(1): 25. 1957, *The Southwestern Naturalist* 3: 212. 1959, *Boissiera* 9: 168. 1960, *Phytologia* 30(5): 344, 346. 1975, *Systematic Botany* 8(2): 168-184. 1983, *Phytologia* 61: 119-125. 1986, *Cuscatlania* 1(6): 1-29. 1991, *Fontqueria* 46: [i-ii], 1-259. 1997, *Boletim do Instituto de Biociências, Universidade Federal do Rio Grande do Sul* 57: 52, f. 6, 19. 1998.

in Mexico: pasto blanco, popotillo plateado, zacate aceite

**A. saccharoides** Sw. var. **erianthoides** Hack. (*Bothriochloa brasiliensis* (Hack.) Henrard)

Southern America, Brazil. See *Flora Brasiliensis* 2(4): 293. 1883, *Monographiae Phanerogamarum* 6: 496. 1889 and Jan Valckenier Suringar, *Nederlandsche Dendrologische Vereeniging. Gedenkboek J. Valckenier Suringar*, 24 December, 1864 - 17 October, 1932. Wageningen 1942.

**A. scabriglumis** Swallen

Ecuador. See *Memoirs of the New York Botanical Garden* 9(2): 144-145. 1955.

**A. schirensis** Hochst. ex A. Rich. (*Andropogon congoensis* Franch.; *Andropogon dummeri* Stapf; *Andropogon schirensis* Hochst.; *Andropogon schirensis* var. *angustifolius* Stapf, also spelled *angustifolia*) (for the South African botanist

Richard Arnold Dummer [formerly Dümmer], 1887-1922, botanical collector in South Africa, Kenya and Uganda; see J.H. Barnhart, *Biographical notes upon botanists*. 1: 477. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 109. 1972; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 140-141. 1981; Hugh Neville Dixon (1861-1944), *Uganda mosses* collected by R. Dummer and others. [*Smithsonian Misc. Coll.* lxxix. no. 8] Washington 1918)

Malawi, tropical Africa, Tanzania, South Africa, Benin, Namibia, Swaziland, Kalahari. Perennial, variable, slender, densely tufted, unbranched, erect, swollen nodes, ligule an unfringed membrane, leaf blades flat, basal leaf sheaths fibrous, roots aromatic, inflorescence one pair of terminal racemes per culm, spikelets paired, ligule membranous, expanded leaf blades, glumes awnless, lower glume of the sessile spikelets deeply grooved, growing in large tufts, thatching grass, low to medium palatability, good grazing when young and tender, occurs in derived savannah, swamp margins, shallow soil over rocks, open forest, well-drained areas, savannah woodland, sandy soil, in dry areas of meadow, grassland, wet grassland, wooded grassland, montane grassland, sandy grassland, deep sand, rocky hillsides, on stony slopes, moist meadow, open bushveld, open woodland, deciduous bushland, see *Tentamen Florae Abyssinicae* ... 2: 456. 1850, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 325. 1895 [or 1893], *Flora Capensis* 7: 340. 1898 and *Flora of Tropical Africa* 9: 248. 1919, *Bulletin de la Société Botanique de Belgique* 55: 40. 1922, *Cytologia* 19: 97-103. 1954, *Bothalia* 24: 241-246. 1994.

in English: hairy bluegrass, stab grass

in Angola: iole-iole

in Chad: cewte' (Zimé)

in Nigeria: hahaendenoh, lawrehe, rumiya, yambiu

in South Africa: tweevingergras, gesteekgras

in Tanzania: Ng'onga (= spiny spikes) kinyaturu

**A. schottii** Rupr. ex Hack. (*Schizachyrium sanguineum* (Retz.) Alston; *Schizachyrium sanguineum* subvar. *schottii* (Rupr. ex Hack.) Roberty; *Schizachyrium schottii* (Rupr. ex Hack.) Nash; *Sorghum schottii* (Rupr. ex Hack.) Kuntze) (named for Heinrich W. Schott, 1794-1865)

Southern America, Brazil. See *Observationes Botanicae* 3: 25. 1783, *Flora Brasiliensis* 2(3): 299. 1883, *Monographiae Phanerogamarum* 6: 383. 1889, *Revisio Generum Plantarum* 2: 792. 1891 and *North American Flora* 17(2): 105. 1912, *A Handbook to the Flora of Ceylon* 6: 334. 1931, *Boissiera*. 9: 222. 1960, *Annals of the Missouri Botanical Garden* 81(4): 768-774. 1994.

**A. selloanus** (Hack.) Hack. (*Anatherum virginicum* subvar. *selloanus* (Hack.) Roberty; *Andropogon leucostachyus*

subsp. *selloanus* Hack.; *Andropogon leucostachyus* var. *selloanus* Hack.; *Euklastaxon tenuifolius* Steud.)

Mexico, West Indies, Brazil, Argentina, Bolivia, Venezuela. Perennial, herbaceous, loosely to densely tufted, slender, erect to suberect, somewhat geniculate, simple or branching, forming small clumps, leaf blades obtuse and conspicuously keeled, densely pilose racemes subdigitate and clustered, spikelets paired, sessile spikelet awnless or weakly awned, pedicelled spikelet rudimentary, palatable, forage, growing in pine forest, pastures, roadsides, open pinewoods, steep slope, wetlands, savannah, open habitats, sandy soils, wet savannah, disturbed places, see *Synopsis Plantarum Glumacearum* 1: 412. 1854, *Monographiae Phanerogamarum* 6: 420. 1889 and *Bulletin de l'Herbier Boissier, sér. 2*, 4: 266. 1904, *Boissiera*. 9: 213. 1960, *Anuário Técnico do Instituto de Pesquisas Zootécnicas "Francisco Osorio"* 7: 317-410. Porto Alegre 1980, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Genome* 29: 340-344. 1987, *Darwiniana* 30(1-4): 87-94. 1990.

**A. shimadae** Ohwi (*Schizachyrium shimadae* (Ohwi) Ohwi) (named for T. Shimada)

Asia, Taiwan. See *Acta Phytotaxonomica et Geobotanica* 4(2): 58. 1935 and 6: 151. 1937.

**A. tectorum** Schumach. (*Andropogon gayanus* Kunth; *Andropogon tectorum* Schumach. & Thonn.)

Tropical Africa, Benin, Nigeria. Perennial, tufted, sturdy, robust, straight, pithy, branching upward, often stilt-rooted, leaves softly pubescent, inflorescence a spreading panicle, spikelets 1-flowered arranged in pairs, lower spikelet bisexual and sessile, upper male spikelet, 3 stamens, stigmas yellow, pasture grass, readily grazed before anthesis, forage, good fodder for horses, used in fencing and for matting and for roofing, wetland, under trees, shady sites, see Heinrich Christian Friedrich Schumacher (1757-1830), *Beskrivelse af Guineiske Planter som ere fundne af Danske Botanikere isaer af Etatsraad Thonning*. 49-50. [Copenhagen 1828-29], *Kongel. Danske Vidensk. Selsk. Naturvidensk. Math. Afh.* 3: 69-70. 1828, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 491. 1833 and *Bulletin du Muséum d'Histoire Naturelle* 5: 496. 1933.

in English: horse grass

in Guinea: anawen, esampan, luri, wara

in Guinea-Bissau: djagalhe quentche, uaba

in Mali: wara

in Niger: kelkeldé

in Nigeria: eruwà dudu, gábàà, gám-bàà, ikpò, ikpuru oto

in Senegal: badoni, diamel, humir

in Sierra Leone: ambobo, bendan, bende, bobo, bobogia, etanke, fovo, hos gras, ngongoi, nomina, tonfo, yobainyi

in Upper Volta: dayye koobi

in Yoruba: eruwà dudu, abo èruwà, èruwà aranwu

*A. tenuiberbis* Munro ex Hack. (*Andropogon tenuiberbis* Hack.; *Leptopogon tenuiberbis* (Hack.) Roberty; *Schizachyrium tenuiberbe* Munro ex Hack.)

Tropical Africa, Benin, Tanzania, Central African Republic. Perennial, coarse, herbaceous, robust, tufted, tussocky, flattened stem bases, hairy spikelets, used for thatching, found in moist meadows, stream side, see *Monographiae Phanerogamarum* 6: 434-435. 1889 and *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 203. 1960.

*A. ternarius* Michx. (*Amphilophis argentea* (DC.) Roshev.; *Anatherum argyraeum* (Schult.) Roberty; *Andropogon argenteus* DC.; *Andropogon argenteus* Elliott, nom. illeg., non *Andropogon argenteus* DC.; *Andropogon argenteus* Vanderyst, nom. illeg., non *Andropogon argenteus* DC.; *Andropogon argyraeus* Schult.; *Andropogon argyraeus* var. *tenuis* Vasey; *Andropogon belvisii* Desv.; *Andropogon elliotii* Chapm.; *Andropogon elliotii* var. *glaucescens* Scribn.; *Andropogon gyrans* Ashe; *Andropogon mississippiensis* Scribn. & C.R. Ball; *Andropogon muhlenbergianus* Schult.; *Andropogon saccharoides* subvar. *argenteus* (DC.) Hack.; *Andropogon scribnerianus* Nash; *Andropogon ternarius* Desv., nom. illeg., non *Andropogon ternarius* Michx.; *Andropogon ternarius* var. *glaucescens* (Scribn.) Fernald & Griscom; *Andropogon ternarius* var. *ternarius*; *Sorghum argenteum* (Elliott) Kuntze; *Trachypogon argenteus* (DC.) Nees)

Southeast U.S., Florida, northern America. Perennial bunchgrass, caespitose, tufted, basal culm buds, erect, branching above, purple-glaucous and glabrous leaves, lax inflorescence racemose, cream to gray-plumose racemes straight and rigid, fluffy silver seed heads, spikelets paired, sessile fertile spikelet glabrous, sprouts from perennating buds at the base of the culms, weed species, ornamental, forage, occurs in open woods, woodland borders, in dry soils, dry sand, margin of sandy firelanes, prairies, pastures, ditches and waste ground, coastal plain, in wet pine flatwoods, old fields, dry woods, sand hills and scrub, see *Flora Boreali-Americana* 1: 57. 1803, *Catalogus plantarum horti botanici monspeliensis* 77. 1813, *A Sketch of the Botany of South-Carolina and Georgia* 1: 148. 1816, *Mantissa* 2: 450, 455. 1824, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 348. 1829, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 171-172. 1831, *Flora of the Southern United States* 581. 1860, *Flora Brasiliensis* 2(4): 292. 1883, *Revisio Generum Plantarum* 2: 790. 1891, *Contributions from the United States National Herbarium* 3(1): 12. 1892, *Bulletin, Division of Agrostology United States Department of Agriculture* 1: 20. 1895, *Bulletin of the Torrey Botanical Club* 23: 145. 1896, *Journal of the Elisha Mitchell Scientific Society* 15: 113. 1898 [1899] and *Bulletin of the New York Botanical Garden* 1: 432-433. 1900, *Bulletin, Division of Agrostology United States Department of*

*Agriculture* 24: 39, 40, f. 15. 1901, *Bulletin agricole du Congo Belge* 9: 237. 1918, *Rhodora* 37(436): 137. 1935, *Boissiera*. 9: 207. 1960, *J. Arnold Arbor.* 64: 210. 1983.

in English: splitbeard bluestem, paintbrush bluestem, splitbeard beardgrass, silvery beardgrass, feather bluestem

*A. ternarius* Michx. var. *cabanisii* (Hack.) Fern. & Grisc. (*Andropogon cabanisii* Hack.; *Sorghum cabanisii* (Hack.) Kuntze)

U.S., Florida. Perennial, caespitose, erect, sprouts from perennating buds at the base of the culms, occurs in dry pinewoods of Florida, on fine sand, occasionally on sand hills and in sand pine scrub of central Florida, sometimes occurs in moist sites as well, see *Flora* 68(8): 133. 1885, *Revisio Generum Plantarum* 2: 791. 1891 and *Rhodora* 37(436): 138. 1935.

in English: firegrass

*A. ternarius* Michx. var. *ternarius* (*Andropogon ternarius* var. *glaucescens* (Scribn.) Fern. & Grisc.)

U.S. Caespitose, open areas, dry sandy soil, see *Rhodora* 37(436): 137. 1935.

in English: silvery beardgrass

*A. ternatus* (Spreng.) Nees (*Andropogon laxatus* Stapf; *Andropogon macrothrix* Trin.; *Andropogon ternatus* subsp. *genuinus* Hack.; *Andropogon ternatus* subsp. *macrothrix* (Trin.) Hack.; *Saccharum ternatum* Spreng.)

Brazil, Argentina. Perennial bunchgrass, erect, forming small clumps, filiform leaves, plumose inflorescence, pedicelled spikelet rudimentary, sessile spikelet strongly awned, dry wooded pastures, wet sites, marshy areas, savannah, rocky places, grassland, páramos, see *Systema Vegetabilium, editio decima sexta* 1: 283. 1825, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 326. 1829, *Reliquiae Haenkeanae* 1(4-5): 339. 1830, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 270. 1832, *Flora Brasiliensis* 2(4): 287. 1883, *Monographiae Phanerogamarum* 6: 425. 1889, *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 2(1): 147. 1899 and *Flora of Tropical Africa* 9: 237. 1919, *Bol. Soc. Argent. Bot.* 24: 137-149. 1985, *Genome* 29: 340-344. 1987.

*A. tracyi* Nash (named for the American botanist Samuel Mills Tracy, 1847-1920, plant collector, see Joseph Ewan, *Rocky Mountain Naturalists*. 200, 323-324. The University of Denver Press 1950)

U.S., Florida. Perennial, caespitose, found in dry pine flatwoods and sand hills, occasional in turkey oak sand hills, see *Bulletin of the New York Botanical Garden* 1: 433-434. 1900.

in English: Tracy's bluestem

*A. urbanianus* Hitchc. (*Anatherum virginicum* subvar. *urbanianum* (Hitchc.) Roberty)

The Caribbean, Santo Domingo. Erect or ascending, leaf blades stiff and appressed, racemes paired or solitary, on dry slopes, see *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815 and *Botanical Gazette* 54(5): 424. 1912, *Boissiera* 9: 214. 1960.

**A. *vetus*** Sohns (*Andropogon crassus* Sohns)

Venezuela. See *Memoirs of the New York Botanical Garden* 9: 277, 405, f. 12. 1957.

**A. *virgatus*** Desv. ex Ham. (*Anatherum inerme* (Steud.) Griseb.; *Anatherum spathiflorum* (Nees) Griseb.; *Anatherum virgatum* (Desv. ex Ham.) Desv.; *Andropogon inermis* Steud.; *Andropogon spathiflorus* (Nees) Kunth; *Andropogon spathiflorus* var. *inermis* (Steud.) Hack.; *Andropogon virgatus* Desv.; *Hypogynium spathiflorum* Nees; *Hypogynium virgatum* (Desv.) Dandy; *Hypogynium virgatum* (Desv. ex Ham.) Dandy)

Central America, West Indies to Uruguay. Perennial, caespitose, glabrous, erect, branched, leaf sheaths glabrous and finely ciliate, ligule membranous, leaf blades flat to inrolled, inflorescence contracted, solitary racemes scarcely exerted, rachis internodes and pedicels glabrous, sessile spikelet pistillate, somewhat palatable, in damp places, sandy savannahs, clay soils, canal banks, inundated sites, savannah marsh, seasonal ponds, see *Prodromus Plantarum Indiae Occidentalis* 9. 1825, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 366. 1829, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 175. 1831, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 496. 1833, *Synopsis Plantarum Glumacearum* 1: 390. 1854, *Catalogus plantarum cubensium* ... 236. 1866, *Flora Brasiliensis* 2(4): 296. 1883 and *Journal of Botany, British and Foreign* 69(2): 54. 1931, *Hickenia* 1: 73-78. 1977, *Brittonia* 38(4): 411-414. 1986.

**A. *virginicus*** L. (*Anatherum virgatum* (Desv.) Desv.; *Anatherum virgatum* (Desv. ex Ham.) Desv.; *Anatherum virginicum* (L.) Spreng.; *Anatherum virginicum* (L.) Desv., nom. illeg., non *Anatherum virginicum* (L.) Spreng.; *Anatherum virginicum* subvar. *tetrastachyum* (Elliott) Roberty; *Andropogon curtisianus* Steud.; *Andropogon dissitiflorum* Michx.; *Andropogon dissitiflorus* Michx.; *Andropogon eriophorus* Scheele, nom. illeg., non *Andropogon eriophorus* Willd.; *Andropogon glaucescens* Schldtl. ex Hack.; *Andropogon leucostachyus* Kunth; *Andropogon louisianae* Steud.; *Andropogon tetrastachyus* Elliott; *Andropogon vaginatus* Elliott; *Andropogon vaginatus* J. Presl, nom. illeg., non *Andropogon vaginatus* Elliott; *Andropogon virgatus* Desv., nom. illeg., non *Andropogon vaginatus* Elliott; *Andropogon virginicus* f. *virginicus*; *Andropogon virginicus* subsp. *genuinus* Hack.; *Andropogon virginicus* subvar. *ditior* Hack.; *Andropogon virginicus* var. *genuinus* Fernald & Griscom; *Andropogon virginicus* var. *tetrastachyus* (Elliott) Hack.; *Andropogon virginicus* var. *vaginatus* (Elliott) Alph. Wood; *Andropogon virginicus*

var. *viridis* Hack.; *Cinna lateralis* Walter; *Dimeiostemon tetrastachys* Raf. ex B.D. Jacks.; *Dimeiostemon vaginatus* Raf. ex B.D. Jacks.; *Holcus virginicus* Muhl. ex Steud.; *Sorghum virginicum* (L.) Kuntze) (named for Moses Ashley Curtis, 1808-1872)

America. Perennial bunchgrass, erect, tufted, coarse, usually slender, compressed, branching above, solid culms, basal leaves curled when old and dry, nodes smooth, leaf blade flat or folded, membranous ligule a ciliate or ciliate rim, leaf sheaths more or less tuberculate-hirsute on the margins, upper sheaths somewhat inflated, leaves pubescent, inflorescence paniculate or corymbiform, racemes inserted singly and appearing alternate, rachis slender and sericeous to long-villous, 1 fertile floret above a sterile floret, sessile spikelet bisexual, pedicellate spikelet absent or reduced to a hairy pedicel or a minute scale, pedicellate spikelet undeveloped with only the villous pedicels present, awn straight, palea minute or absent, small seeds dispersed by wind, pioneer species, noxious weed, potential seed contaminant, invasive, naturalized, extremely durable to almost any adverse conditions such as drought or salt spray, medicinal value, astringent, a tea made from the leaves used in the treatment of diarrhoea, boil plant with sugar for a tea for fever, a yellow dye obtained from the stems, used for food by songbirds (seeds) and deer (plants) and for cover by quail, sometimes grazed, low palatability and nutritive value, commonly seen in abandoned old fields, poorly drained soils, savannah, seasonally inundated fields, open areas, clay soil, subhumid to humid subtropical areas on a wide range of soils, roadsides and road banks, riverbanks, disturbed and waste ground, in dry sterile soil, sandy fields, dry sandy soils, coastal sand dunes, along railroad tracks, on wet open and swampy places, open pastures, bogs, lake and pond margins, along dry lakeshores, wet ditches, grassy spots, hilltop and moist hillsides, see *Species Plantarum* 2: 1046. 1753, *Flora Caroliniana, secundum* ... 59. 1788, *Flora Boreali-Americana* 1: 57. 1803, *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *A Sketch of the Botany of South-Carolina and Georgia* 1: 148, 150, t. 8, f. 4. 1816, *Nova Genera et Species Plantarum* 1: 187. 1815 [1816], *Reliquiae Haenkeanae* 1(4-5): 336. 1830, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 175. 1831, *Nomenclator Botanicus. Editio secunda* 1: 773. 1840, *Flora* 27: 51. 1844, *Synopsis Plantarum Glumacearum* 1: 383, 390. 1854, *A Class-book of Botany* 808. 1861, *Flora Brasiliensis* 2(4): 285-286. 1883, *Monographiae Phanerogamarum* 6: 408-411. 1889, *Revisio Generum Plantarum* 2: 792. 1891, *Index Kewensis* 1: 760. 1893 and *Flora of the Southeastern United States* ... 61. 1903, *Contr. U.S. Natl. Herb.* 12: 125. 1908, *Bulletin of the Torrey Botanical Club* 53: 457. 1926, *Journal of the Washington Academy of Sciences* 23(10): 456. 1933, *American Journal of Botany* 21(3): 139. 1934, *Rhodora* 37(436): 142, t. 337, 338, f. 1, 2, 3. 1935, *Rhodora* 42(502): 416. 1940, *Boissiera. Mémoires du*

*Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 213. 1960, *Journal of the Arnold Arboretum* 64(2): 171-254. 1983.

in English: yellow bluestem, yellow sedge bluestem, Virginia bluestem, broom sedge, broom sedge bluestem, whisky grass, whiskey grass, fevergrass

in Mexico: popotillo pajon

**A. virginicus** L. var. **decipiens** C.S. Campbell

U.S., Florida. Found in pine flatwoods, open areas, disturbed areas in both wet and dry situations, see *Systematic Botany* 11(2): 290. 1986.

**A. virginicus** L. var. **glaucus** Hack. (*Andropogon capillipes* Nash; *Andropogon glaucus* Muhl., nom. illeg., non *Andropogon glaucus* Retz.; *Andropogon virginicus* var. *dealbatus* C. Mohr ex Hack.; *Andropogon virginicus* var. *glaucus* (Muhl.) Hack.; *Cymbopogon glaucus* (Muhl.) Schult.)

Northern America, U.S., Florida. Perennial, caespitose, green spikelets, found in wetlands and uplands, frequent in seasonal ponds and swales, scrub and dry woodlands, one form of this grass grows in wet roadsides, wet pine flatwoods and disturbed wetlands, the other form grows in a variety of disturbed upland sites, see *Descriptio uberior Graminum* 278. 1817, *Mantissa* 2: 459. 1824 *Monographiae Phanerogamarum* 6: 411. 1889 and *Bulletin of the New York Botanical Garden* 1(5): 431-432. 1900.

in English: chalky bluestem

**A. virginicus** L. var. **virginicus** (*Anatherum virginicum* subvar. *tetrastachyum* (Ell.) Roberty; *Andropogon curtisianus* Steud.; *Andropogon dissitiflorus* Michx.; *Andropogon eriophorus* Scheele, nom. illeg., non *Andropogon eriophorus* Willd.; *Andropogon tetrastachyus* Elliott; *Andropogon vaginatus* Elliott; *Andropogon vaginatus* J. Presl, nom. illeg., non *Andropogon vaginatus* Elliott; *Andropogon virginicus* subvar. *genuinus* Hack.; *Andropogon virginicus* var. *genuinus* Fernald & Griscom; *Andropogon virginicus* var. *tetrastachyus* (Ell.) Hackel; *Andropogon virginicus* var. *vaginatus* (Elliott) Alph. Wood; *Cinna lateralis* Walter; *Dimeiosstemon vaginatus* Elliott ex B.D. Jacks.) (dedicated to the American botanist Moses Ashley Curtis, 1808-1872, specialist in fungi and lichens, plant collector in Northern America; see J.H. Barnhart (1871-1949), *Biographical notes upon botanists*. 1: 406. Boston 1965; Stafleu and Cowan, *Taxonomic literature*. 1: 573-574. Utrecht 1976; Frans A. Stafleu and Erik A. Mennega, *Taxonomic literature. Supplement IV*. 515-517. 1997; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 451. 1973; Jeannette E. Graustein, *Thomas Nuttall, Naturalist. Explorations in America, 1808-1841*. Harvard University Press 1967)

North America, U.S., Florida. Perennial, caespitose, green spikelets, weed species, occurs in wetlands and nonwet-

lands, characteristic of disturbed places and disturbed wet areas, found in bogs, flatwoods and sand hills, old fields, wet pine flatwoods, wet ditches, fresh and brackish marshes, lake and pond margins and depression wetlands, see *Flora Caroliniana, secundum ...* 59. 1788, *Flora Boreali-Americana* 1: 57. 1803, *Plantarum Minus Cognitarum Pugillus* 2: 16. 1815, *Reliquiae Haenkeanae* 1(4-5): 336. 1830, *A Sketch of the Botany of South-Carolina and Georgia* 1: 148, 150, t. 8, f. 4. 1816, *Flora* 27: 51. 1844, *Synopsis Plantarum Glumacearum* 1: 390. 1854, *A Class-book of Botany* 808. 1861, *Monographiae Phanerogamarum* 6: 410-411. 1889, *Index Kewensis* 1: 760. 1893 and *Rhodora* 37(436): 142. 1935, *Boissiera. Mémoires du Conservatoire de Botanique et de l'Institut de Botanique Systématique de l'Université de Genève* 9: 213. 1960.

in English: broomsedge, broomsedge bluestem, Virginia broom beard grass

## Andropterum Stapf

From the Greek *aner*, *andros* “a man, male” and *pteron* “wing.”

One species, tropical Africa, Mozambique. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, perennial, decumbent, herbaceous, auricles absent, ligule a fringe of hairs, plants bisexual, inflorescence a single raceme, spikelets compressed, 2 glumes awnless, lower glume 2-keeled, type *Andropterum variegatum* Stapf, see *Flora of Tropical Africa* 9: 38. 1917, *Memoirs of the New York Botanical Garden* 9: 112. 1954.

### Species

**A. variegatum** Stapf

Mozambique.

## Androscepia Brongn. = Themeda Forssk.

From the Greek *aner*, *andros* “man” and *skepe* “a covering, shelter, protection.”

Panicoideae, Andropogoneae, Anthistiriinae, type *Androscepia gigantea* (Cav.) Brongn., see *Flora Aegyptiaco-Arabica* 178. 1775, *Icon. Pl. Rar.* 5: 36, t. 458. 1799, *Voyage Autour du Monde* 77-78. 1829 [1831], *Fodder Grasses North. India* 43. 1888 and *Grasses of Burma ...* 248-255. 1960, *Contributions from the United States National Herbarium* 46: 613. 2003.

## Anelytrum Hackel = Avena L.

From the Greek *a* “without, not” and *elytron* “a sheath, a cover,” *elyo* “to wind.”

Pooideae, Poaeae, Aveninae, type *Anelytrum avenaceum* Hack., see *Species Plantarum* 1: 79-81. 1753 and *Repertorium Specierum Novarum Regni Vegetabilis* 8: 519. 1910, *Taxon* 40: 132. 1991, *Contributions from the United States National Herbarium* 48: 126-138. 2003.

### **Anemagrostis Trin.** = *Apera* Adans.

From the Greek *anemos* “wind” and *agrostis*, *agrostidos* “grass, weed, couch grass,” referring to the spikes.

Pooideae, Poaeae, Agrostidinae, type *Anemagrostis spicaventi* (L.) Trin., see *Systema Naturae, Editio Decima* 2: 872. 1759, *Familles des Plantes* 2: 495. 1763, *Essai d'une Nouvelle Agrostographie* 31, 151. 1812, *Fundamenta Agrostographiae* 128-129, t. 11. 1820, *Observations sur les Graminées de la Flore Belgique* 127, 128. 1823 [1824], *Synopsis Plantarum Glumacearum* 1: 115. 1854 and *U.S. Dept. Agric. Bull.* 772: 127. 1920, *Grasses of Burma ...* 394. 1960, *Contributions from the United States National Herbarium* 48: 115. 2003.

### **Anemanthele Veldkamp** = *Stipa* L.

Probably from the Greek *anemos* “wind” and *anthele* “a type of inflorescence, a little flower” or *thele* “nipple.”

Monotypic, New Zealand. Stipoideae, Stipeae, perennial, herbaceous, simple, densely caespitose, wiry, with short creeping rhizomes, leaves mostly basal, auricles absent, ligule an unfringed membrane, plants bisexual, inflorescence paniculate with capillary branchlets or branches, flowers bisexual, spikelets disarticulating above the glumes, 2 glumes subequal, lower glume 1-nerved, palea present, 2 free lodicules, 1 stamen, ovary glabrous, 2 stigmas, wild and cultivated, ornamental, type *Anemanthele lessoniana* (Steud.) Veldkamp, see *Species Plantarum* 1: 61-63, 78-79. 1753 and *Contr. U.S. Natl. Herb.* 24(7): 216. 1925, J. Veldkamp, “*Anemanthele* Veldk. (Gramineae: Stipeae) a new genus from New Zealand.” *Acta Botanica Neerlandica* 34: 105-109. 1985.

#### **Species**

*A. lessoniana* (Steud.) Veldkamp (*Agrostis lessoniana* Steud.; *Agrostis procera* A. Rich., nom. illeg., non *Agrostis procera* Retz.; *Agrostis rigida* A. Rich., nom. illeg., non *Agrostis rigida* (Kunth) Spreng.; *Agrostis rigida* Less. & A. Rich., nom. illeg., non *Agrostis rigida* (Kunth) Spreng.; *Apera arundinacea* Hook.f.; *Apera purpurascens* Colenso; *Dichelachne procera* Steud.; *Dichelachne rigida* Steud.; *Oryzopsis lessoniana* (Steud.) Veldkamp; *Oryzopsis rigida* (Steud.) Zotov; *Stipa arundinacea* (Hook.f.) Benth.) (after the French botanist René Primevère Lesson, 1794-1849, physician, pharmacist, ornithologist, professor of botany, explorer, from 1822 to 1825 took part in the voyage of the

*Coquille* commanded by Louis-Isidor Duperrey (1786-1865), from 1826 to 1829 with Dumont d'Urville on *Astrolabe* expedition, among his writings are *Flore rochefortine*. Rochefort 1835, *Voyage Médical autour du monde*. Paris 1829, *Notice historique sur l'Admiral Dumont d'Urville*. Rochefort 1846, *Journal d'un Voyage Pittoresque autour du Monde exécuté sur la Corvette La Coquille commandée par M. L.I. Duperrey*. Paris 1830 and *Voyage autour du Monde entrepris par ordre du Gouvernement sur la Corvette La Coquille*. Paris 1838-1839; see J.H. Barnhart, *Biographical notes upon botanists*. 2: 372. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 235. 1972; Günther Schmid, *Chamisso als Naturforscher. Eine Bibliographie*. Leipzig 1942; Stafleu and Cowan, *Taxonomic literature*. 2: 853. 1979; John Dunmore, *Who's Who in Pacific Navigation*. Honolulu 1991)

New Zealand. Perennial, densely tufted, unbranched, erect, bambusiform habit, rhizomatous, leaves drooping, nodding panicles, glumes acute to acuminate, found along streams, forest and forest margins, along roadsides, shady sites, sometimes confused with *Microlaena polynoda* (Hook.f.) Hook.f., see *Systema Vegetabilium, editio decima sexta* 1: 262. 1825., *Voyage de Découvertes autour du Monde ... sur la corvette L'Astrolabe pendant les Années 1826-1829 ... Botanique* 1: 124-125. 1832, *Nomenclator Botanicus. Editio secunda* 1: 41. 1840, *Flora Novae-Zelandiae* 295, t. 67. 1853, *Synopsis Plantarum Glumacearum* 1: 120-121. 1854, *Journal of the Linnean Society, Botany* 19: 81. 1881, *Transactions and Proceedings of the New Zealand Institute* 21: 106. 1889 and *Transactions of the Royal Society of New Zealand, Botany* 73: 235. 1943, *Blumea* 22(1): 11. 1974, *Acta Botanica Neerlandica* 34: 107-108. 1985, *New Zealand J. Bot.* 27: 580. 1989.

in English: New Zealand wind grass

### **Aneurolepidium Nevski** = *Leymus* Hochst.

Greek *aneuros* “without nerve” and *lepidion* “a little scale.”

Pooideae, Triticeae, Hordeinae, type *Aneurolepidium multicaule* (Kar. & Kir.) Nevski, see *Flora* 31: 118. 1848 and *Flora URSS* 2: 229, 708. 1934, *Novosti Sist. Vyss. Rast.* 9: 62. 1972, *American Journal of Botany* 71: 609-625. 1984, *Contributions from the United States National Herbarium* 48: 422-425. 2003.

### **Anisachne Keng** = *Calamagrostis* Adans.

From the Greek *anisos* “unequal” and *achne* “chaff, glume.”

Monotypic, China, Yunnan, Guizhou. Pooideae, Poaeae, Agrostidinae, perennial, glabrous, herbaceous, panicles terminal, spikelets 1-flowered, on grassland, type *Anisachne*

*gracilis* Keng, see *Familles des Plantes* 2: 31, 530. 1763, *Tentamen Florae Germanicae* 1: 34. 1788 and *Claves Generum et Specierum Graminearum Primarum Sinicarum Appendice Nomenclatione Systematica* 208. 1957, *Journal of the Washington Academy of Sciences* 48(4): 117-118, f. 2. 1958, *Bulletin of Botanical Research* 18(4): 398, f. 1. 1998, *Contributions from the United States National Herbarium* 48: 191-227. 2003.

### Species

*A. gracilis* Keng

China.

### Anisantha K. Koch = *Bromus* L.

From the Greek *anisos* “unequal” and *anthos* “flower.”

Pooideae, Bromeae, type *Anisantha pontica* Koch, see *Species Plantarum* 1: 76-78. 1753, *Observations sur les Graminées de la Flore Belgique* 116. 1823 [1824], *Linnaea* 21: 394. 1848 and *U.S.D.A. Div. Agrostol. Bull.* 23: 1-66. 1900, *Brittonia* 7: 421. 1952, *Notes Roy. Bot. Gard. Edinburgh* 30: 366. 1970, *Bot. Jahrb. Syst.* 102: 447. 1981, *Taxon* 41: 559. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 154-191. 2003.

### Aniselytron Merr. = *Aulacolepis* Ettingsh. (Pinaceae), *Aulacolepis* Hack., *Calamagrostis* Adans., *Neoaulacolepis* Rauschert

From the Greek *anisos* “unequal” and *elytron* “a sheath, a cover.”

About 2-3 species. Asia, China, India, Malaysia, Indonesia. Pooideae, Poodae, Aveneae, perennial, herbaceous, tufted, decumbent, auricles absent, ligule a fringed membrane-like, plants bisexual, cleistogamous or chasmogamous, open inflorescence paniculate, spikelets pedicellate, 2 glumes unequal, lemma coriaceous and keeled, palea present, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, forest, montane, shade, sandy soil, type *Aniselytron agrostoides* Merrill, see *Familles des Plantes* 2: 31, 530. 1763, *Tentamen Florae Germanicae* 1: 34. 1788, *Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-naturwissenschaftlichen Classe. Abteilung I* 102: 135, 147. 1893, *Transactions of the Linnean Society of London, Botany* 4: 247, t. 20c, 10-16. 1894, *Hooker's Icones Plantarum* 27: sub t. 2607. 1899 and *Repertorium Specierum Novarum Regni Vegetabilis* 3(42-43): 241-244. 1906 [1907], *Philippine Journal of Science* 5(4): 328-330. 1910, *Journal of the Washington Academy of Sciences* 24(7): 291. 1934, *Brittonia* 2(2): 117. 1936, *Indian Forester* 107(7): 434. 1981, *Taxon* 31(3): 561. 1982, H.M. Korthof et J.F. Veldkamp, “A revision of *Aniselytron* with

some new combinations in *Deyeuxia* in SE. Asia (Gramineae).” *The Gardens' Bulletin Singapore* 37(2): 213-223. 1984, *Contributions from the United States National Herbarium* 48: 191-227. 2003.

### Species

*A. agrostoides* Merr. (*Aulacolepis agrostoides* (Merr.) Ohwi; *Aulacolepis agrostoides* var. *formosana* Ohwi; *Calamagrostis aniselyton* Govaerts)

Philippines. See *Philippine Journal of Science* 5(4): 329-330. 1910, *Acta Phytotaxonomica et Geobotanica* 4(1): 30. 1935, *World Checklist of Seed Plants* 3(1): 9. 1999.

*A. agrostoides* Merr. var. *formosana* (Ohwi) N. Zhao (*Aulacolepis agrostoides* var. *formosana* Ohwi; *Aulacolepis formosana* (Ohwi) L. Liou)

Philippines, Taiwan. See *Acta Phytotaxonomica et Geobotanica* 4(1): 30. 1935, *Vascular Plants of the Hengduan Mountains* 2: 2254. 1994, *Journal of Tropical and Subtropical Botany* 3(2): 49. 1995.

*A. gracilis* (Keng) N. Zhao (*Anisachne gracilis* Keng)

China. See *Journal of the Washington Academy of Sciences* 48(4): 117-118, f. 2. 1958, *Journal of Tropical and Subtropical Botany* 3(2): 50. 1995.

*A. treutleri* (Kuntze) Soják (*Aniselytron clemensae* (Hitchc.) Soják; *Aniselytron clemensae* (Hitchc.) Bennet & Raizada; nom. illeg., non *Aniselytron clemensae* (Hitchc.) Soják; *Aniselytron japonicum* (Hack.) Bennet & Raizada; *Aniselytron milioides* (Honda) Bennet & Raizada; *Aniselytron pseudopoda* (Jansen) Soják; *Aniselytron pseudopoda* (Jansen) Bennet & Raizada, nom. illeg., non *Aniselytron pseudopoda* (Jansen) Soják; *Aniselytron treutleri* (Kuntze) Bennet & Raizada, nom. illeg., non *Aniselytron treutleri* (Kuntze) Soják; *Aulacolepis clemensae* Hitchc.; *Aulacolepis clemensiae* Hitchc.; *Aulacolepis japonica* Hack.; *Aulacolepis milioides* (Honda) Ohwi; *Aulacolepis pseudopoda* (Jansen) Ohwi; *Aulacolepis treutleri* (Kuntze) Hack.; *Aulacolepis treutleri* var. *japonica* (Hack.) Ohwi; *Aulacolepis treutleri* var. *milioides* (Honda) Ohwi; *Calamagrostis treutleri* (Kuntze) Govaerts; *Deyeuxia pseudopoda* Jansen; *Deyeuxia treutleri* (Kuntze) Stapf; *Deyeuxia treutleri* (Kuntze) Rauschert; *Milium treutleri* Kuntze; *Neoaulacolepis clemensae* (Hitchc.) Rauschert; *Poa milioides* Honda) (for the British (b. India) physician William John Treutler, 1841-1915 (d. Sussex), plant collector in Sikkim, 1868 Fellow of the Linnean Society)

Southeast Asia, Borneo, Sumatra. See *Revisio Generum Plantarum* 2: 780. 1891, *Hooker's Icones Plantarum* 24(4): t. 2396. 1895 and *Repertorium Specierum Novarum Regni Vegetabilis* 3(42-43): 241-244. 1906 [or 1907], *Botanical Magazine* 41(491): 641. 1927, *Acta Phytotaxonomica et Geobotanica* 2(3): 161-162. 1933, *Journal of the Washington Academy of Sciences* 24(7): 290. 1934, *Acta Phytotaxonomica et Geobotanica* 6(3): 151. 1937, *Botanical*

*Magazine* (Tokyo) 55(656): 361. 1941, *Acta Botanica Neerlandica* 2: 363, f. 1. 1953, *Journal of Japanese Botany* 31: 137. 1956, *Indian Forester* 107(7): 434. 1981, *Taxon* 31(3): 561. 1982, *Gard. Bull. Singapore* 37(2): 216-217. 1985, *World Checklist of Seed Plants* 3(1): 11. 1999.

### Anisopogon R. Br.

From the Greek *anisos* “unequal” and *pogon* “a beard,” referring to the hairy back of the lemmas.

One species, Australia. Stipoideae, Anisopogoneae, perennial, caespitose or shortly rhizomatous, erect, herbaceous, canelike stems, ligule a ciliate rim or a fringed membrane, leaf blade narrow and convolute, glabrous nodes, hollow internodes, plants bisexual, inflorescence paniculate, few spikelets, spikelets large and pendulous, 1 bisexual floret, 2 glumes linear, lemma densely hairy and awned, glumes more or less equal, 3 lodicules free and membranous, 3 stamens, ovary hairy, 2 or 3 stigmas, an attractive species, in open forest, open habitats, emerges through thick heath, see R. Brown, *Prodromus florae Novae Hollandiae*. 176. 1810, *Florae Africae Australioris Illustrationes Monographicae* 265. 1841, *Synopsis Plantarum Glumacearum* 1: 237. 1854, *Mémoires, Société d'Émulation du Doubs* 4: 391. 1860.

#### Species

*A. avenaceus* R. Br. (*Avena anisopogon* Raspail; *Danthonia anisopogon* Trin.; *Danthonia anisopogon* (R. Br.) Trin.; *Deyeuxia avenacea* (R.Br.) Sprengel)

Victoria, New South Wales, Queensland. Perennial, forming erect and tall tussocks, glabrous, leaves inrolled, auricles absent, panicle loose and slender, pedicellate spikelets, glumes subequal, lemma stalked and hairy, palea stiffly pointed, growing on heathy sandstones, in dry sclerophyll forest, open habitats, see *Annales des Sciences Naturelles (Paris)* 5: 439. 1825.

in English: oat spear-grass

### Anisopyrum (Griseb.) Gren. & Duval = *Leymus* Hochst.

From the Greek *anisos* “unequal” and *pyros* “grain, wheat.”

Pooideae, Triticeae, Hordeinae, see *Flora* 31: 118. 1848, *Flora Rossica* 4(13): 343. 1852, Jean Charles M. Grenier (1808-1875), *Florula massiliensis advena*. Florule exotique des environs de Marseille ... Supplément 24. Besançon [1859 or 1860] [also in *Mémoires, Société d'Émulation du Doubs* 3(4): 369-392. 1860, and *Bull. Soc. Bot. Fr.* 7: 124-126. 1860] and *Novosti Sist. Vyss. Rast.* 9: 62. 1972, *American Journal of Botany* 71: 609-625. 1984, *Contributions*

*from the United States National Herbarium* 48: 422-425. 2003.

### Anomalotis Steud. = *Agrostis* L.

From the Greek *anomalos* “abnormal, anomalous.”

Pooideae, Poeae, Agrostidinae, type *Anomalotis quinqueseta* Steud., see *Species Plantarum* 1: 61-63. 1753, *Synopsis Plantarum Glumacearum* 1: 198. 1854 [1855], *Flora* 38: 285. 1855 and *Flora of Tropical Africa* 10: 182. 1937, *Taxon* 41: 556. 1992, *Opera Botanica* 121: 159-172. 1993, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 42-89. 2003.

### Anomochloa Brongn.

From the Greek *anomalos* “abnormal, irregular, uneven,” *anomía*, *anomós* “lawless, irregular” and *chloe*, *chloa* “grass.”

One species, Brazil, tropics. Anomochloideae, Anomochloaeae, or Bambusoideae, Oryzodae, Anomochloaeae, perennial, herbaceous, tufted, unbranched, solid, forming large clumps, ligule a band of hairs, rhizomatous, leaf blades cordate and pseudopetiolate, rhizomes pachymorph, plants bisexual, compound inflorescence leafy and spiciform, 3-6 spathes, 2 bracts derived from spathiform leaf-sheaths, anomalous spikelets 1-flowered, glumes absent, lodicules absent or present, 4 stamens, ovary glabrous, 1 stigma, forest shade, forest undergrowth, edge of forest, disturbed areas, type *Anomochloa marantoidea* Brongn., see *Ann. Sci. Nat. Bot.*, sér. 3, 16: 368, pl. 23. 1851, *Flora Brasiliensis* 2(2A): 1-32, t. 1-11. 1871 and *Fam. Pl., Monocot.* 2: 219. 1934, *Bot. Jahrb.* 76: 366-379. 1954, *Willdenowia* 1: 772. 1957, *Darwiniana* 29: 41-45. 1989, *Smithsonian Contributions to Botany* 68: 1-52. 1989, L.G. Clark, W. Zhang and J.F. Wendel, “A phylogeny of the grass family based on *ndhF* sequence data.” *Systematic Botany* 20: 436-460. 1995, L.G. Clark & E.J. Judziewicz, “The grass subfamilies Anomochloideae and Pharoideae.” *Taxon* 45: 641-645. 1996, M.R. Duvall & B.R. Morton, “Molecular phylogenetics of Poaceae: an expanded analysis of *rbcL* sequence data.” *Molecular Phylogenetics and Evolution* 5: 352-358. 1996, Khidir W. Hilu and Lawrence A. Alice, “Evolutionary implications of *matK* indels in Poaceae.” *Am. J. Bot.* 86: 1735-1741. 1999, *American Bamboos* 322-325. 1999, *Contributions from the United States National Herbarium* 39: 11. 2000, Sarah Mathews, Rocky C. Tsai and Elizabeth A. Kellogg, “Phylogenetic structure in the grass family (Poaceae): evidence from the nuclear gene phytochrome B.” *Am. J. Bot.* 87: 96-107. 2000, Brandon S. Gaut, “Evolutionary dynamics of grass genomes.” *New Phytologist* 154(1): 15-28. Apr 2002, Paula J. Rudall & Richard M. Bateman, “Evolution of zygomorphy in monocot flowers: iterative



patterns and developmental constraints." *New Phytologist* 162(1): 25-44. Apr 2004.

### Species

*A. marantoidea* Brongn. (*Anomochloa macrantoidea* A. Braun ex Pritz.)

Brazil. Perennial, bambusoid leaf anatomy, see G.A. Pritzel (1815-1874), *Iconum Botanicarum Index locupletissimus* 74. Berlin 1866.

### Anoplia Steud. = *Leptochloa* P. Beauv.

From the Greek *anoplos* "without the *hoplon* or large shield, unarmed."

Chloridoideae, Cynodonteae, see *Essai d'une Nouvelle Agrostographie* 71, 161. 1812, *Linnaea* 19(6): 691. 1847, *Synopsis Plantarum Glumacearum* 1: 210. 1854, *Biologia Centrali-Americana; ... Botany ...* 3(19): 558. 1885 and *Contr. U.S. Natl.* 24(6): 180. 1925, *Contributions from the United States National Herbarium* 41: 130-137. 2001.

### *Anthaenantia* P. Beauv. = *Anthenantia* P. Beauv., *Aulaxanthus* Elliott, *Aulaxia* Nutt., *Leptocoryphium* Nees

Greek *anthos* "flower" and *enantion* "opposite, against."

About 2-4 species, North America, southeast U.S. Panicoideae, Paniceae, Paspalinae, perennial, erect, stiff, glabrous, solid, leaf sheaths terete, ligule a ciliate membrane, leaf blades flat, panicles narrow or loosely contracted, primary branches ascending and secondary spreading, spikelet terminal and solitary, florets 2, lower floret sterile and staminate, upper floret fertile, first glume absent, second glume present, upper lemma boat-shaped, lemmas of upper florets indurate or cartilaginous and awnless, palea of upper florets present, stamens 3, in wet or boggy habitat, similar to *Digitaria* and *Leptocoryphium* Nees, type *Anthaenantia villosa* (Michx.) P. Beauv., see *Essai d'une Nouvelle Agrostographie* 48, 151, t. 10, f. 7. 1812, *A Sketch of the Botany of South-Carolina and Georgia* 1: 102. 1816, *The Genera of North American Plants* 1: 47. 1818, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 83-84. 1829 and *International Organization of Plant Biosystematists Newsletter* 13: 20-21. 1989, *Contributions from the United States National Herbarium* 46: 65-66. 2003.

### Species

*A. lanata* (Kunth) Benth. (*Anthaenantia lanata* var. *genuina* Arechav.; *Anthaenantia lanata* var. *lanata*; *Anthaenantia lanata* var. *mollis* (Nees) Arechav.; *Anthaenantia lanatum* (Kunth) Benth.; *Anthenantia lanata* (Kunth) Benth.; *Leptocoryphium lanatum* (Kunth) Nees; *Leptocoryphium lanatum* var. *genuinum* Döll; *Leptocoryphium lanatum* var.

*lanatum*; *Leptocoryphium lanatum* var. *molle* (Nees) Döll; *Leptocoryphium molle* Nees; *Milium juncooides* Speng.; *Milium lanatum* (Kunth) Roem. & Schult.; *Milium molle* (Nees) Kunth; *Panicum fusciflorum* Steud.; *Panicum hirticaulum* Desv., nom. illeg., non *Panicum hirticaule* J. Presl; *Paspalum dentatosulcatum* Arechav.; *Paspalum lanatum* Kunth)

America. See *Nova Genera et Species Plantarum* 1: 94, t. 29. 1815 [1816], *Systema Vegetabilium, editio decima sexta* 2: 322. 1817, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 83-85. 1829, *Révision des Graminées* 1: 28. 1829, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 194. 1831, *Synopsis Plantarum Glumacearum* 1: 93. 1854, *Flora Brasiliensis* 2(2): 121. 1877, *Journal of the Linnean Society, Botany* 19: 39. 1881, *Anales de Sociedad Científica Argentina* 16: 105 [126]. 1883, *Anales del Museo Nacional de Montevideo* 1: 76, 96. 1894.

*A. rufa* (Elliott) Schult. (*Anthaenantia rufa* (Nutt.) J.A. Schultes; *Anthaenantia rufa* var. *scabra* Nash; *Aulaxanthus rufus* Elliott; *Aulaxia rufa* (Elliott) Nutt.; *Leptocoryphium drummondii* Müll. Hal.; *Monachne rufa* (Elliott) Bertol.; *Panicum aulaxanthus* (Elliott) Kuntze; *Panicum ciliatiflorum* var. *rufum* Alph. Wood; *Panicum rufum* (Elliott) Kunth)

America, U.S. Perennial, see *A Sketch of the Botany of South-Carolina and Georgia* 1(2): 103. 1816, *Genera Plantarum* 1: 48. 1818, *Mantissa* 2: 258. 1824, *Révision des Graminées* 1: 35. 1829, *Memorie della Reale Accademia delle Scienze dell'Istituto di Bologna* 2: 596, t. 41, f. 1. 1850, *Botanische Zeitung. Berlin* 19(43): 314. 1861, *The American Botanist and Florist* pt. 2: 392. 1871, *Revisio Generum Plantarum* 3(2): 361. 1898 and *Flora of the South-eastern United States ...* 79. 1903.

in English: purple silkscale

*A. villaregalis* (McVaugh & R. Guzmán) Espejo & López-Ferrari (*Leptocoryphium villaregalis* McVaugh & R. Guzmán)

America. See *Flora Novo-Galiciana* 14: 218-220, f. 15. 1983, *Acta Botánica Mexicana* 51: 62. 2000.

*A. villosa* (Michx.) P. Beauv. (*Anthenantia villosa* (Michx.) P. Beauv.; *Aulaxanthus ciliatus* Elliott; *Aulaxia ciliata* (Elliott) Nutt.; *Leptocoryphium obtusum* Steud.; *Oplismenus erianthos* (Poir.) Kunth; *Panicum anthaenantia* Kuntze; *Panicum ciliatiflorum* Alph. Wood, nom. illeg., non *Panicum ciliatiflorum* Kunth; *Panicum ciliatiflorum* var. *ciliatiflorum*; *Panicum erianthum* Poir.; *Panicum hirticalycinum* Bosc ex Roem. & Schult.; *Panicum hirticalycinum* Bosc ex Steud.; *Panicum hirticalycinum* Bosc ex Spreng.; *Panicum ignoratum* Kunth; *Panicum villosum* Lam.; *Phalaris villosa* Michx.)

America, U.S. Perennial, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 173. 1791, *Flora Boreali-Americana* 1: 43. 1803, *Essai d'une Nouvelle Agro-*

*stographie* 48, 151, t. 10, f. 7. 1812, *A Sketch of the Botany of South-Carolina and Georgia* 1: 102. 1816, *Encyclopédie Méthodique, Botanique* 4: 284. 1816, *Systema Vegetabilium* 2: 468. 1817, *Genera Plantarum* 1: 47. 1818, *Systema Vegetabilium, editio decima sexta* 1: 315. 1825, *Révision des Graminées* 1: 45. 1829, *Revisio Generum Plantarum* 2: 217, t. 20. 1830, *Nomenclator Botanicus. Editio secunda* 2: 257. 1841, *Synopsis Plantarum Glumacearum* 1: 34. 1855 [1853], *A Class-book of Botany* pt. 2: 768. 1861, *Revisio Generum Plantarum* 33: 361. 1898.

in English: green silkscale

### **Anthaenantiopsis Mez ex Pilger = Anthaenantiopsis Pilger**

Resembling *Anthaenantia*.

About 4 species, South America, Brazil, Argentina. Panicoideae, Panicodae, Paniceae or Panicoideae, Paniceae, Paspalinae, perennial, tufted, herbaceous, hollow, auricles absent, narrow leaf blades linear, ligule a membrane unfringed or fringed, leaves pseudopetiolate, plants bisexual, inflorescence spicate, racemes divergent, spikelets shortly pedicellate, 1 or 2 glumes unequal per spikelet, lemmas smooth, indurated lower lemma, palea present, 2 free and fleshy lodicules, 3 stamens, ovary glabrous, 2 stigmas, open habitats, savannah, type *Anthaenantiopsis trachystachya* (Nees) Mez ex Pilg., see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 125-127. 1829 and *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11(104): 237-238. 1931, *Notas del Museo de la Plata, Botánica* 8(40): 75-100. 1943, *Kew Bulletin* 42(4): 924. 1987, O. Morrone et al., "Revision of *Anthaenantiopsis* (Poaceae: Panicoideae: Paniceae)." *Systematic Botany* 18(3): 434-453. 1993, *Flora Fanerogámica Argentina* 19(1): 11-16. 1995, A.M. Cialdella et Andrea S. Vega, "Estudios sobre la variación estructural de las espiguillas en géneros de la tribu Paniceae (Poaceae)." *Darwiniana* 34: 173. 1996, *American Journal of Botany* 88: 1670-1674. 2001 ["In *Anthaenantiopsis*, the lower lemma is usually membranous and similar to the upper lemma, or the lower lemma is crustaceous and similar to the upper glumes."], *Contributions from the United States National Herbarium* 46: 66-67. 2003.

#### **Species**

*A. fiebrigii* Parodi (*Anthaenantiopsis fiebrigii* Mez; *Anthaenantiopsis fiebrigii* Mez)

Bolivia. See *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 56 (Beibl. 125): 11. 1921.

*A. perforata* (Nees) Parodi (*Anthaenantiopsis trachystachya* (Nees) Mez ex Pilg.; *Panicum perforatum* Nees; *Panicum trachystachyum* var. *lineare* Döll)

Brazil, Matto Grosso. See *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 125-127. 1829, *Flora Brasiliensis* 2(2): 192. 1877 and *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11: 237. 1931.

*A. perforata* (Nees) Parodi var. *camporum* Morrone, Filg. & Zuloaga

Brazil. See *Systematic Botany* 18(3): 445. 1993.

*A. perforata* (Nees) Parodi var. *perforata*

Brazil.

*A. rojasiana* Parodi (*Panicum trachystachyum* Nees) (for T. Rojas, 1877-1954)

Brazil, Paraguay. Perennial, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 125-126. 1829 and *Notas del Museo de la Plata, Botánica* 8: 87, f. 3. 1943.

*A. trachystachya* (Nees) Mez ex Pilger (*Anthaenantiopsis perforata* (Nees) Parodi; *Anthaenantiopsis trachystachya* (Nees) Mez; *Anthaenantiopsis trachystachya* (Nees) Mez; *Panicum trachystachyum* Nees; *Panicum trachystachyum* var. *angustifolium* Döll; *Panicum trachystachyum* var. *trachystachyum*)

Southern Brazil, Matto Grosso, Bolivia, Paraguay. Perennial, acute leaf blades, spike-like inflorescence with spikelets in short racemes, in wet areas, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 125-127. 1829, *Flora Brasiliensis* 2(2): 192. 1877 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 56(Beibl. 125): 11. 1921, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11: 237. 1931, *Notas del Museo de la Plata, Botánica* 8(40): 91. 1943.

### **Anthenantia P. Beauv. = Anthaenantia P. Beauv., Aulaxanthus Elliott, Aulaxia Nutt.**

Orth. var. *Anthaenantia*.

Panicoideae, Paniceae, Paspalinae, type *Anthenantia villosa* (Michx.) P. Beauv., see *Essai d'une Nouvelle Agrostographie* 48, 151, t. 10, f. 7. 1812, *A Sketch of the Botany of South-Carolina and Georgia* 1: 102. 1816, *The Genera of North American Plants* 1: 47. 1818 and *Contributions from the United States National Herbarium* 46: 65-66. 2003, *Sida* 21: 303-308. 2004.

### **Anthephora Schreber = Hypudaerus A. Braun**

From the Greek *anthos* "flower" and *phoros* "bearing, carrying," *phero, phoreo* "to bear."

About 12 species, Africa, Arabia, tropical America. Panicoideae, Panicodae, Paniceae, Cenchrinae, annual or perennial, erect, decumbent, geniculate, herbaceous, caespitose, long rhizomatous, auricles absent, ligule an unfringed or

fringed membrane, leaves flat, plants bisexual, inflorescence a cylindrical false spike with wavy rachis, clusters of spikelets surrounded by an involucre of coriaceous bristles or scales, lower floret reduced to a lemma, upper floret bisexual, spikelets flattened and lanceolate, 1 glume per spikelet, lower glume absent, upper lemma cartilaginous, palea present, lodicules absent or present, 3 stamens, ovary glabrous, 2 stigmas, open habitats, savannah, dry areas, sandy savannah, rainforest, type *Anthephora elegans* Schreb., see *Beschreibung der Gräser* 2: 105, t. 44. Leipzig 1769-1810, *Flora* 24: 275. 1841 and A.P. Goossens, "The genus *Anthephora* Schreb." *Transactions of the Royal Society of South Africa* 20: 189-200. 1932, *Trans. Amer. Microscop. Soc.* 79: 211-218. 1960, *Brittonia* 23(3): 293-324. 1971, *Annals of the Missouri Botanical Garden* 75: 866-873. 1988, *Flora Mesoamericana* 6: 376. 1994, *Flora of Ethiopia and Eritrea* 7: 279-283. 1995, *Memoirs of the New York Botanical Garden* 78: 509-540. 1996, *Contributions from the United States National Herbarium* 46: 67-68. 2003.

### Species

*A. ampullacea* Stapf & C.E. Hubb.

Tropical Africa, Angola, Nigeria. Perennial, tussocky, hardy, persistent, robust, useful for erosion control, on sandy places, wasteland, see *Flora of Tropical Africa* 9: 939. 1930.

*A. argentea* Goossens (*Anthephora angustifolia* Goossens)

South Africa, central and southern Kalahari. Perennial, tufted, slender, wiry, upright, unbranched or occasionally branched, broad-leaved, shortly rhizomatous, leaf sheath glabrous and rounded, ligule membranous, rigid leaves, older leaves curled, silver woolly spike, acute lower glume, very high grazing value, valuable and palatable grass, high nutritive value, grows on loose sandy soils, on sand dunes, undisturbed veld, see *Transactions of the Royal Society of South Africa* 20: 194, 198, f. 2, 4. 1932.

in English: silver wool grass

in South Africa: silwerborseltjiegras, silber kruggras

*A. cristata* (Döll) Hack. ex De Wildeman & T. Durand (*Anthephora appendiculata* A. Braun; *Anthephora cristata* (Döll) Hack.; *Anthephora elegans* Schreb.; *Anthephora elegans* var. *cristata* Döll)

Nigeria, Ghana, Guinea. See *Flora Brasiliensis* 2(2): 314. 1877 and É.A.J. De Wildeman (1866-1947), "Études de systématique et de géographie botaniques sur la flore du Bas- et du Moyen-Congo." in *Annales du Musée du Congo (Belge)*. Botanique. Sér. 5 Congo-Kasai. 255. 1910.

in English: oldfield grass

*A. hermaphrodita* (L.) Kuntze (*Anthephora cuspidata* Andersson; *Anthephora elegans* Schreb.; *Anthephora elegans* var. *armata* Döll; *Anthephora villosa* Spreng.; *Cen-*

*chrus laevigatus* Trin.; *Cenchrus pilosus* Kunth; *Cenchrus tripsacoides* Cav.; *Cenchrus villosus* (Spreng.) Spreng.; *Cenchrus villosus* (R. Br. ex Fresen.) Kuntze, nom. illeg., non *Cenchrus villosus* (Spreng.) Spreng.; *Tripsacum hermaphroditum* L.; *Tripsacum hermaphroditum* Panz., nom. illeg., non *Tripsacum hermaphroditum* L.)

South America, West Indies, Mexico. Annual or perennial bunchgrass, herbaceous, tufted, glabrous, low, inflorescence rachis zigzag and angled, ovate bracts, spikelets lanceolate and dorsally compressed, ornamental weed, forage, growing in hard dry soils, beaches, open areas, weedy places, among other shrubs and grasses, open grassland, abandoned fields, old lawns, along roadsides, dark brown soil, see *Systema Naturae, Editio Decima* 2: 1253, 1261, 1379. 1759, *Vollständiges Pflanzensystem* 12: 655. 1785, *Elenchus Plantarum Horti Regni Botanici Matritensis* 9. 1803, *Nova Genera et Species Plantarum* 1: 116, t. 36. 1815 [1816], *Fundamenta Agrostographiae* 172. 1820, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 3: 14. 1822, *Systema Vegetabilium, editio decima sexta* 1: 301. 1825, Nils Johann Andersson (Anderson) (1821-1880), *Om Galapagos-öarnes Vegetation*. Lund 1854, *Flora Brasiliensis* 2(2): 314. 1877, *Revisio Generum Plantarum* 3(3): 347. 1898 and *Feddes Repert.* 49: 52. 1940, *Taxon* 49(2): 257. 2000.

in English: oldfield grass

in Mexico: ne och, ne och suuk, pasto

*A. laevis* Stapf & C.E. Hubb. (*Anthephora elegans* Rupr. ex Steudel, nom. illeg., non *Anthephora elegans* Schreb.; *Anthephora elegans* var. *laevis* Schweinf.; *Anthephora hochstetteri* var. *tellinii* Chiov.) (named for the Italian naturalist Achille Tellini, botanical collector in Eritrea, see *Catalogo Ragionato delle Specie degli Uccelli*. Venezia 1904 [Estratto originale del: Reale Istituto Veneto di Scienze, Lettere ed Arti, *Catalogo ragionato delle specie di uccelli* raccolti dal prof. Achille Tellini nella colonia Eritrea dall'ottobre 1902 al marzo 1903.]; H. Schouteden, "Excursion del Dott. Achille Tellini nell'Eritrea. Hemiptera." *Annales de la Société Entomologique de Belgique* 49: 6-10. 1905; I.A.D. Robertson, "The Pyrrhocoroidea (Hemiptera - Heteroptera) of the Ethiopian region." *Journal of Insect Science* 4.14. (43pp.) 2004)

Red Sea, Sudan. Perennial, tufted, slender, ascending, leaf blades glabrous or pubescent, stiff inflorescence narrowly cylindrical, spikelets clusters erect, involucre scales glabrous and smooth, found in dry stony soils, see *Bull. Herb. Boiss.* 2, App. 2: 17. 1894, Georg August Schweinfurth (1836-1925), *Sammlung Arabisch-aethiopischer Pflanzen*. Ergebnisse von Reisen in den Jahren 1881 ... und 1894. Genève [1894-] 1896 [-1899] and *Annuario del Reale Istituto Botanico di Roma* 8(3): 291. 1908, *Flora of Tropical Africa* 9: 937. 1930.

**A. nigrimana** Stapf & C.E. Hubb. (*Antheophora lynesii* Stapf & C.E. Hubb.) (possibly dedicated to Hubert Lynes, 1874-1942, Rear-Admiral, retired 1922, botanical collector in Sudan and Morocco. See *Sudan Notes and Rec.* 119-137. 1921; H. Lynes, "On the birds of north and central Darfur, with notes on the west-central Kordofan and north Nuba provinces of British Sudan." *Ibis*, ser 11, 6: 399-446. 1924; Hubert Lynes, "Contribution to the ornithology of the southern Congo-basin. Lynes-Vincent tour of 1933-1934." *Rev. Zool. Bot. Afr.* 31: 1-129. 1938)

Nigeria, Kenya, Yemen, Sudan, Ethiopia. Perennial, tufted, leafy, erect or geniculately ascending, leaf blades flat and acute, narrow cylindrical inflorescence glabrous to hairy or sparsely pilose, spikelet clusters erect, clusters with pubescent peduncle, involucre bracts elliptic and pilose, lower lemma glabrous or ciliate, low seed production, grain used as a famine-food, low grazing value, a weed of arable land, found on rocky hillsides, dry rocky sites, dry sandy and gravelly soils, sandstone, fallows, open hills, sometimes confused with *Antheophora pubescens* Nees, see *Flora of Tropical Africa* 9: 937-938. 1930.

in Niger: dîrî, dyri, diriol, sangitia, zangitiya

in Nigeria: kashin bera

**A. pubescens** Nees (*Antheophora abyssinica* A. Rich.; *Antheophora cenchroides* (Hochst.) K. Schum. ex Engl.; *Antheophora hochstetteri* Nees ex Hochst.; *Antheophora hochstetteri* Nees; *Antheophora kotschy* Hochst.; *Hypudaerus cenchroides* Hochst.)

Tropical and South Africa. Perennial, erect, tufted to densely tufted, simple, unbranched, leafy, tussock grass, leaf blades usually shortly pubescent, leaf sheath usually round, ligule a papery membrane, shortly rhizomatous with strong creeping rhizome, leaves often curling when old, inflorescence a silky-hairy spike, spikelets clusters densely packed, clusters with bearded peduncle, involucre bracts lanceolate and densely villous, lower glumes shortly awned or acuminate, lower lemma ciliate, grain used as a famine-food, pasture grass, forage, usually very palatable, excellent drought resistance, useful to reduce soil erosion, occurs in undisturbed dry veld areas, hillsides, slopes, well-drained ground, rocky sites, deciduous bushland, low rainfall sandy areas, savannah, grassland, in dry areas, sandy soils, see *Flora Africae Australioris Illustrationes Monographicae* 1: 74. 1841, *Flora* 27: 249-250. 1844, *Tentamen Florae Abyssinicae* ... 2: 389. 1850, *Die Pflanzenwelt Ost-Afrikas* 50: 99. 1895 and *Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich* 56: 70. 1911.

in English: bottle brush grass, cat's tail grass, wool grass

in South Africa: bloubuffelsgras, borsel, borseltjiegras, krulblaargras, wolgras, kruggras

**A. ramosa** Goossens

South Africa. Perennial, tufted, shrub-like, branching from the base, leaf blade with thickened margins, ligule membranous, spikelets hairy, lower glume acute, good pasture, common in rocky places, stony sites, hillsides, see *Transactions of the Royal Society of South Africa* 20: 192, f. 1. 1932.

in South Africa: vertakte borseltjiegras, verzweigtes kruggras

**A. schinzii** Hack. (*Antheophora undulatifolia* Hack.)

South Africa. Annual, tufted, each culm with an inflorescence, leaf blade soft with wavy margins, ligule membranous, inflorescence a spike with long hairs, spikelets in group of five, lower glumes convex and curved, pioneer grass, pasture, tender and palatable, found on sandy soils, disturbed soil, see *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 139. 1888, *Bulletin de l'Herbier Boissier* 4(App. 3): 12. 1896.

in English: annual wool grass

in South Africa: eenjarige borseltjiegras, einjähriges kruggras

**A. truncata** Robyns (*Antheophora gracilis* Stapf & C.E. Hubb.)

Zimbabwe. Savannah, old fields, see *Bulletin du Jardin Botanique de l'État* 9(3): 198. 1932, *Bulletin of Miscellaneous Information Kew* 1933: 271. 1933.

### **Anthipsimus Raf.** = *Muhlenbergia* Schreb.

Chloridoideae, Cynodonteae, Muhlenbergiinae, type *Anthipsimus gonopodus* Raf., see *Genera Plantarum* 44. 1789, *Systema Naturae ... editio decima tertia, aucta, reformata* 2: 171. 1791, C.S. Rafinesque, in *Jour. Phys. Chim. Hist. Nat. et des Arts* 89: 105. 1819 and *Contributions from the United States National Herbarium* 41: 143-173. 2001.

### **Anthistiria L.f.** = *Themeda* Forssk.

From the Greek *anthistemi* "to stand against, to resist, compare" (*anti* "against" and *istemi* "to stand"), or from *anthes-terion*, the eighth month of the Attic year, when *anthes-teria*, the Feast of Flowers, was held.

Panicoideae, Andropogoneae, Anthistiriinae, type *Anthistiria ciliata* L.f. (for *Andropogon quadrivalvis* L.), see *Flora Aegyptiaco-Arabica* 178. 1775, *Nova Graminum Genera* 35. 1779, *Supplementum Plantarum* 113. 1781 [1782] and *Contributions from the United States National Herbarium* 46: 613. 2003.

### **Anthochloa Nees & Meyen**

From the Greek *anthos* "a flower" and *chloe, chloa* "grass."

About 1 species, South America, high Andes. Meliceae, or Pooideae, Poodae, Poeae, Poinae, perennial, low to dwarf, caespitose, forming small tufts, herbaceous, auricles absent, leaf blades narrow and linear, ligule an unfringed membrane, plants bisexual, contracted inflorescence paniculate, panicles partially included in the sheaths, spikelets several-flowered and shortly pedicellate, female and sterile florets distally in the spikelet, lower florets hemaphrodite and the uppermost sterile, 2 glumes subequal, lemmas toothed, palea 3-lobed and 2-keeled, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, growing in high-Andean punas, grasslands, moist soil, gravel, open habitats, high mountains, rocky slopes, type *Anthochloa lepidula* Nees & Meyen, unstable classification, see Franz Julius Ferdinand Meyen (1804-1840), *Reise um die Erde 2*: 14. 1834 and *Gayana, Botánica* 8: 11-15. 1963, *Contributions from the United States National Herbarium* 48: 111. 2003.

### Species

*A. lepidula* Nees & Meyen (*Anthochloa lepidula* Nees & Meyen; *Anthochloa rupestris* J. Rémy)

Bolivia, Chile, Peru. See *Gramineae* 122. 1841, *Annales des Sciences Naturelles; Botanique, sér. 3* 6: 347. 1846.

### Anthopogon Nutt. = *Gymnopogon* P. Beauv.

From the Greek *anthos* “flower” and *pogon* “beard,” referring to the hairy tube of the corolla.

Chloridoideae, Cynodonteae, see *Essai d'une Nouvelle Agrostographie* 41, 164. 1812, *The Genera of North American Plants* 1: 81. 1818, *Preliminary Catalogue of Anthophyta and Pteridophyta Reported as Growing Spontaneously within One Hundred Miles of New York* 69. 1888 and *Iowa State College Journal of Science* 45(3): 319-385. 1971, *Flora Mesoamericana* 6: 290. 1994, *Contributions from the United States National Herbarium* 41: 124-127. 2001.

### Anthosachne Steud. = *Elymus* L.

From the Greek *anthos* “flower” and *achne* “chaff, glume.”

Pooideae, Triticeae, Hordeinae, type *Anthosachne australasica* Steud., see *Species Plantarum* 1: 83-84. 1753, Ernst Gottlieb von Steudel (1783-1856), *Synopsis plantarum glumacearum*. 1: 237. Stuttgartiae 1854 and *Canad. J. Bot.* 42: 554. 1964, *Novosti Sist. Vyss. Rast.* 10: 25. 1973, *Blumea* 34: 61-76. 1989, *Taxon* 41: 562-563. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 279-307. 2003.

**Anthoxanthum L.** = *Ataxia* R. Br., *Dimesia* Raf., *Disarrenum* Labill., *Flavia* Fabr., *Flavia* Heister ex Fabricius, *Foenodorum* Krause, *Hierochloe* R. Br., *Savastana* Schrank, *Savastana* Raf. (Melastomataceae), *Torresia* Ruiz & Pav., *Xanthonanthos* St.-Lag., *Xanthonanthus* St.-Lager

From the Greek *anthos* “flower” and *xanthos* “yellow,” the mature spikelets are yellowish.

About 15-25 species, temperate Asia and Africa, tropical mountains. Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Phalaridinae, annual or perennial, slender, cylindrical, herbaceous, unbranched, ascending to erect, caespitose or decumbent, internodes hollow, leaf blades linear to lanceolate, no auricles, leaf sheath rounded, ligule membranous, leaves flat and more or less basal, rhizomes short or absent, plants bisexual, panicle contracted to spiciform, dense spike-like panicle erect, spikelets lanceolate and sessile, 3 florets per spikelet, the lower 2 florets sterile or male and reduced to empty lemmas, uppermost floret bisexual, 2 glumes unequal and papery, lower glume 1-veined, upper glume 3-veined, sterile floret lemmas papery and awned, fertile floret lemmas stiff and unawned, sterile lemmas longer than fertile, palea present, lodicules absent, stamens 2 or 3 in bisexual florets, ovary glabrous, stigmas pubescent, strongly sweetly coumarin scented, weed species, occurs in sunlight or shade, meadows, grasslands, hill pasture and heath, open habitats, very unstable classification, the genus is in great need of revision, sometimes including *Hierochloe* R. Br., type *Anthoxanthum odoratum* L., see *Species Plantarum* 1: 28. 1753, *Genera Plantarum*. edition 5. 17. 1754, *Enumeratio Methodica Plantarum* 206. 1759, *Baiersche Flora* 1: 100, 337. 1789, *Flora Peruviana, et Chilensis Prodromus* 125. 1794, *Systema Vegetabilium Florae Peruviana, et Chilensis* 1: 251. 1798 [authors: José Antonio Pavón (1754-1840) and Hipolito Ruiz Lopez (1754-1815)], *Novae Hollandiae Plantarum Specimen* 2: 82-83, f. 232. 1807, *Prodromus Florae Novae Hollandiae* 208. 1810, *Essai d'une Nouvelle Agrostographie* 62, 164, t. 12, f. 5. 1812, *American monthly magazine and critical review* 1: 442. 1817, *Chloris Melvilliana* 35. 1823, *Révision des Graminées* 1: 22. 1829, *Sylva Telluriana* 100. 1838, *Annales de la Société Botanique de Lyon* 7: 119. 1880, *Annales de la Société Botanique de Lyon* 8: 189. 1881, *Botanical Magazine* 11: 443. 1897, *Flora Capensis* 7: 466. 1899 and *Die Naturwissenschaften; Wochenschrift für die Fortschritte der Reinen ...* 10: 220. Berlin 1911, *Journal of the Faculty of Science: University of Tokyo, Botany* 3(1): 225, 227. 1930, *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 3(14): 183-212. 1941, *Botaniska Notiser* 123: 201-202. 1970, *Brittonia* 23(3): 293-324. 1971, *Lagascalia* 3: 99-141. 1973, *Bot. Zhurn. SSSR* 69(4): 511-517. 1984, Y. Schouten & J.F. Veldkamp, “A revision

of *Anthoxanthum* including *Hierochloe* (Gramineae) in Malasia and Thailand.," *Blumea* 30(2): 319-351. 1985, *Bot. Zhurn. SSSR* 70(5): 698-700. 1985, *Bot. Zhurn. SSSR* 71: 1426-1427. 1986, *Symbolae Botanicae Upsaliensis* 27: 147-154. 1986, *Botanica Helvetica* 96: 145-158. 1986, *Bot. Zhurn. SSSR* 72: 1069-1074. 1987, H.E. Connor and E. Edgar, "Name changes in the indigenous New Zealand Flora, 1960-1986 and Nomina Nova IV, 1983-1986." *New Zealand Journal of Botany*. vol. 25: 115-170. ["*Anthoxanthum* is the older name and species of *Hierochloe* are transferred to it; exceptions are the indigenous New Zealand taxa described by Zotov, etc."] 1987, *Travaux de l'Institut Scientifique, Université Mohammed V. Série Botanique* 35: 1-168. 1988, *Acta Biologica Cracoviensis, Series Botanica* 30: 119-136. 1989, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66. 1990, *Anales del Jardín Botánico de Madrid* 47: 411-417. 1990, *Folia Geobotanica et Phytotaxonomica* 25: 381-388. 1990, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1331-1332. 1991, *Fitologija* 39: 72-77. 1991, *Flora Mediterranea* 1: 157-173, 229-237. 1991, *Candollea* 48(2): 582-591. 1993, *Regnum Veg.* 127: 19. 1993, *Flora Mesoamericana* 6: 236. 1994, *International Organization of Plant Biosystematists Newsletter* 24: 15-19. 1995, *Harvard Papers in Botany* 1(9): 11-90. 1996, *Bot. Zhurn. (Moscow & Leningrad)* 81(4): 119-121. 1996, *Linzer Biologische Beiträge* 29(1): 5-43. 1997, *Phyton. Annales Rei Botanicae* 38(2): 307-321. 1998, *Opera Botanica* 137: 1-42. 1999, *Grass and Forage Science* 54(1): 1-18. Mar 1999 [The extent of semi-natural grassland communities in lowland England and Wales: a review of conservation surveys 1978-1996], *Ecology Letters* 2(3): 140-148. May 1999, *Contributions from the United States National Herbarium* 48: 111-115. 2003, *New Phytologist* 161(1): 303-312. Jan 2004 [Horizontal and vertical distribution of root absorption zones of four common grass species in a mountain grassland.], *Functional Ecology* 18(6): 851-860. Dec 2004 [Inflorescence architecture and wind pollination in six grass species.], *Ecology Letters* 8(1): 30-37. Jan 2005, *Journal of Ecology* 93(1): 214-226. Feb 2005, *Functional Ecology* 19(1): 196-199. Feb 2005, *Functional Ecology* 19(2): 344-354. Apr 2005, *Ecological Management and Restoration* 6(1): 51-60. Apr 2005, *Clinical & Experimental Allergy* 35(4): 441-447. Apr 2005, *Allergy* 60(5): 619-625. May 2005, *Ecology Letters* 8(6): 652-661. June 2005, *Restoration Ecology* 13(2): 257-264. June 2005, *Oikos* 110(2): 360-368. Aug 2005.

### Species

**A. alpinum** Á. Löve & D. Löve (*Anthoxanthum alpinum* Schur; *Anthoxanthum odoratum* subsp. *alpinum* (Á. Löve & D. Löve) Hultén; *Anthoxanthum odoratum* subsp. *nipponicum* (Honda) Tzvelev)

Europe, Scandinavia. See *Enumeratio Plantarum Transsylvanicae* 725. 1866 and *Botanical Magazine* 40: 317. 1926,

*Kongliga Svenska Vetenskaps Akademiens Handlingar* 7: 9. 1958.

in English: sweet vernal grass

**A. altissimum** (Steud.) Veldkamp (*Hierochloe altissima* Steud.)

America, Chile. See *Synopsis Plantarum Glumacearum* 1: 13. 1854 and *Blumea* 30(2): 347. 1985.

**A. amarum** Brot. (*Anthoxanthum odoratum* var. *amarum* (Brot.) Trin.)

Portugal, Europe. Perennial, damp places, see *Flora Lusitana* 1: 32. 1804, *Species Graminum* 1: t. 15. 1824.

**A. arcticum** Veldkamp (*Hierochloe pauciflora* R. Br.; *Hierochloe pauciflora* f. *pauciflora*; *Hierochloe pauciflora* f. *setigera* Lepage)

America. See *Chloris Melvilliana* 35. 1823 and *Nature Canada* 81: 255. 1952, *Blumea* 30(2): 349. 1985.

**A. aristatum** Boiss. (*Anthoxanthum angustifolium* Planellas Giralt; *Anthoxanthum aristatum* Boiss. subsp. *puelii* (Lecoq & Lamotte) Pinto da Silva; *Anthoxanthum carrenianum* Parl.; *Anthoxanthum lloydii* Jord. ex Boreau; *Anthoxanthum odoratum* subsp. *aristatum* (Boiss.) Trab.; *Anthoxanthum odoratum* var. *aristatum* (Boiss.) Coss. & Durieu; *Anthoxanthum odoratum* var. *puelii* (Lecoq & Lamotte) Coss. & Durieu; *Anthoxanthum ovatum* subsp. *aristatum* (Boiss.) Litard.; *Anthoxanthum ovatum* var. *aristatum* (Boiss.) Pérez Lara; *Anthoxanthum puelii* Lecoq & Lamotte; *Anthoxanthum puelii* var. *lloydii* (Jord. ex Boreau) Marais & Menier) (after the French botanist Timothée Puel, 1812-1890, physician, wrote *Catalogue des plantes vasculaires qui croissent dans le département Lot*. Cahors 1845-1853; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 114. 1965; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; J.T. Timothée Puel, *Essai sur les causes locales de la différence de taille qu'on observe chez les habitants des deux cantons de Latronquière et de Livernon*. in Collection des thèses soutenues à la Faculté de Médecine de Paris. an 1839-1878. Paris 1839-1878)

Europe, Mediterranean. Annual, herbaceous, aromatic, caespitose, slender or filiform, glabrous or slightly hairy, erect or spreading, often much branched above and rooting at the lower nodes, upper blades softly hairy, leaf sheaths not keeled and submembranous, leaves nonauriculate, ligule membranous, a short panicle erect and spike-like, hermaphrodite florets 1 per spikelet, proximal incomplete florets 2 per spikelet, awn of lower floret more or less straight, awn of second floret geniculate, glumes unequal and glabrous, lodicules absent, ovary glabrous, fruit compressed, meadow grass, cultivated and occasionally escaped, weed species of cultivated and wasteland, disturbed sites, in open habitats, see *Species Plantarum* 1: 28. 1753, *Voyage botanique dans le midi de l'Espagne* 2: 638. 1842, *Catalogue Raisonné des*

*Plantes Vasculaires du Plateau Central de la France* 385. 1847, *Flore du Centre de la France* éd. 2 2: 576. 1849, *Ensayo de una Flora fanerogámica Gallega* 398. Santiago 1852, *Exploration Scientifique de l'Algérie* 2: 21-22. 1854, *Flore du Centre de la France* 2: 697. 1857, *Bulletin de la Société Botanique de France* 24: 381. 1877, *Anales de la Sociedad Española de Historia Natural* 15: 382. 1886 and *Candollea* 7: 231. 1937, *Agronomia Lusitana* 333(18): 1. 1971.

in English: small sweet vernal grass, sweet vernal grass, annual vernal grass

in Danish: enårig gulaks

in Finnish: Vihnesimake

in Spanish: antoxanto aristado

in French: flouve annuelle, flouve de Puel

**A. aristatum** Boiss. subsp. **aristatum**

Europe. See *Voyage botanique dans le midi de l'Espagne* 2: 638. 1839-1845.

**A. aristatum** Boiss. subsp. **macranthum** Valdez (*Anthoxanthum odoratum* f. *macranthum* (B. Valdez) G. López)

Europe, Spain, Italy. See *Lagascalia* 3(1): 130. 1973, *Anales del Jardín Botánico de Madrid* 51(2): 312. 1993[1994].

**A. brevifolium** Stapf

South Africa. Perennial, tufted, rhizomatous, very similar and confused with *Anthoxanthum ecklonii* (Nees ex Trin.) Stapf, see *Bulletin of Miscellaneous Information Kew* 1910: 59. 1910.

**A. davidsei** (R.W. Pohl) Veldkamp (*Hierochloe davidsei* R.W. Pohl)

America, Costa Rica. Páramos, see *Iowa State Journal of Research* 47: 71, f. 1. 1972, *Blumea* 30(2): 347. 1985.

**A. dregeanum** (Nees ex Trin.) Stapf (*Anthoxanthum dregeanum* (Nees) Stapf; *Hierochloe dregeana* Nees ex Trin.)

South Africa. Perennial, tufted, rhizomatous, rigid leaves, lower glume 3-nerved, common in mountain, mountain slopes, very similar to *Anthoxanthum tongo* (Nees ex Trin.) Stapf, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 5,3(3): 83. 1839, *Flora Capensis* 7: 466-467. 1899.

**A. ecklonii** (Nees) Stapf (*Anthoxanthum ecklonii* (Nees ex Trin.) Stapf; *Hierochloe ecklonii* Nees)

South Africa. Perennial, loosely or densely tufted, strongly aromatic, forming loose clumps, rhizomatous, stoloniferous, bulbous base, ligule an unfringed membrane, leaves soft and scabrid, inflorescence spicate contracted, lower glume 1-nerved, lower lemma brown, common in moist

places, streamsides, mountain slopes, shade, similar to *Anthoxanthum odoratum* L., see *Flora Capensis* 7: 466. 1899.

in South Africa: leshomo, lethu

**A. gracile** Bivona

Mediterranean. Annual, silvery-gray, loose tussocks, leaf blades downy and arching, ovate panicle of flowers, see *Stirpium Rariorum Minusque Cognitarum in Sicilia* ... 1: 13, t. 1, f. 2. Palermo 1813[1816].

**A. gunckelii** (Parodi) Veldkamp (*Hierochloe gunckelii* Parodi) (for Luer Hugo Gunckel (1901-1997), author of "Nombres indígenas de plantas chilenas." *Bol. Filol.* 11: 191-327. 1960, *Contribución al conocimiento de la flora valdiviana: botánica miscelánea: sexta contribución.* Santiago 1933, "Breve historia del antiguo jardín botánico de la Quinta Normal de Santiago de Chile." *Farm. Chilena* 24(12): 537-542. 1950 and "Fitonimia Atacameña, especialmente cunza." *Revista Universitaria*, Santiago 30, 1967. See Carlos Munizaga et Hugo Gunckel, "Notas etnobotánicas del pueblo atacameño de Socaire, o etnobotánica de Socaire." *Publicaciones del Centro de Estudios Antropológicos* 5, Universidad de Chile, Santiago 1958; *Anales de la Universidad de Chile* Sexta Serie, N°13, agosto de 2001)

America, Chile. See *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 3(14): 197, f. 5-6. 1941, *Blumea* 30(2): 348. 1985, *Aliso* 15: 3. 1996 [24 June 1997].

**A. hirtum** (Schrank) Y. Schouten et Veldkamp (*Hierochloe arctica* J. Presl; *Hierochloe hirta* (Schrank) Borbás; *Hierochloe odorata* subsp. *hirta* (Schrank) Tzvelev; *Savastana hirta* Schrank)

America. See *Baiersche Flora* 1: 337. 1789, *Reliquiae Haenkeanae* 1(4-5): 252. 1830 and V. von Borbás (1844-1905), *A Balaton flórája*: ii. Szakasz: a Balaton tavának és partmellékénck növényfölfrajza es edényes növényzete. Balaton Tud. Tanulm. Eredményei 315. 1900. 1900, *Bot. Not.* 124(1): 146. 1971, *Novosti Sist. Vyss. Rast.* 10: 81. 1973, *Blumea* 30(2): 348. 1985, *Berichte der Bayerischen Botanischen Gesellschaft zur Erforschung der Heimischen Flora* 60: 73-83. 1989.

**A. hirtum** (Schrank) Y. Schouten & Veldkamp subsp. **arcticum** (J. Presl) G.C. Tucker (*Hierochloe arctica* J. Presl; *Hierochloe hirta* subsp. *arctica* (J. Presl) G. Weim.; *Hierochloe hirta* var. *annulata* (Petrov) L. Vil'yasoo; *Hierochloe odorata* subsp. *arctica* (J. Presl) Tzvelev; *Hierochloe odorata* var. *annulata* Petrov)

America. See *Reliquiae Haenkeanae* 1(4-5): 252. 1830 and *Botaniska Notiser* 124(1): 150. 1971, *Zlaki SSSR* 349. 1976, *Harvard Papers in Botany* 1(9): 66. 1996.

**A. horsfieldii** (Kunth ex Bennett) Mez ex Reeder (*Anthoxanthum horsfieldii* Mez)

Indonesia. See *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 291. 1921.

**A. horsfieldii** (Kunth ex Bennett) Mez ex Reeder var. **borneense** (Jansen) Y. Schouten (*Anthoxanthum angustum* (Hitchc.) Ohwi var. *borneense* Ohwi ex Jansen)

Borneo, Mount Kinabalu. Perennial, tufted, erect, see *Bulletin of the Tokyo Science Museum* 18: 8. 1947, *Reinwardtia* 2(2): 227. 1953, *Blumea* 30(2): 335. 1985.

**A. horsfieldii** (Kunth ex Bennett) Mez ex Reeder var. **horsfieldii** (*Anthoxanthum clarkei* (Hook.f.) Ohwi; *Anthoxanthum horsfieldii* (Kunth ex Bennett) Mez ex Reeder; *Anthoxanthum neesii* Mez; *Ataxia horsfieldii* Kunth ex Bennett; *Ataxia horsfieldii* Kunth; *Ataxia javanica* R. Br. ex Hass.; *Hierochloe clarkei* Hook.f.; *Hierochloe horsfieldii* (Kunth ex Bennett) Maxim.) (named for Dr. Thomas Horsfield, 1773-1859 (London), American physician, botanist and zoologist, 1800-1818 plant collector in Malesian islands, 1820 Fellow of the Linnean Society, 1828 Fellow of the Royal Society of London, from 1820 Keeper of the East India Company Museum at London. See D.G. Crawford, *A History of the Indian Medical Service, 1600-1913*. 2: 170-171. London 1914; Lady Sophia Raffles, *Memoir of the Life and Public Services of Sir Thomas Stamford Raffles*. London 1830; Colin Clair, *Sir Stamford Raffles*. Founder of Singapore. Herts. 1936; Emily Hahn, *Raffles of Singapore: A Biography*. New York 1946 (1st American edition); J.H. Barnhart, *Biographical notes upon botanists*. 2: 205. 1965; John Joseph Bennett (1801-1876) and Robert Brown, *Plantae Javanicae rariores*, descriptae iconibus illustratae, quas in insula Java, annis 1802-1818, legit et investigavit Thomas Horsfield, M.D. London 1838-1852; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Mea Allan, *The Hookers of Kew 1785-1911*. London 1967; J. Ewan, editor, *A Short History of Botany in the United States*. 38. 1969; M. Archer, *Natural History Drawings in the India Office Library*. 46-48, 80-82. London 1962; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933)

Java, Indonesia. See *Révision des Graminées* 1: 22. 1829, *Plantae Javanicae Rariores* 8, t. 3. 1838, *Cat. Pl. Hort. Bot. Bogor*. 16. 1844, *Diagnoses plantarum novarum asiaticarum* 7: 930. 1888, *The Flora of British India* 7(21): 223. 1896 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 291. 1921, *Bulletin of the Tokyo Science Museum* 18: 8. 1947, *Journal of the Arnold Arboretum* 24: 325, 327. 1950.

**A. horsfieldii** (Kunth ex Bennett) Mez ex Reeder var. **siamense** (Bor) Y. Schouten (*Anthoxanthum siamense* Bor)

Thailand. See *Journal of Indian Botany* 42A: 10, f. 1. 1963, *Blumea* 30(2): 338. 1985.

in Thailand: ya lin bang

**A. juncifolium** (Hack.) Veldkamp (*Hierochloe juncifolia* (Hack.) Parodi; *Hierochloe utriculata* var. *juncifolia* Hack.)

America, Argentina. See *Révision des Graminées* 1: 139, t. 8. 1829 and *Anales del Museo Nacional de Buenos Aires*

21: 64. 1911, *Notas del Museo de la Plata, Botánica* 3: 27. 1938, *Blumea* 30(2): 348. 1985.

**A. mexicanum** (Rupr. ex E. Fourn.) Mez (*Ataxia mexicana* Rupr. ex E. Fourn.; *Hierochloe mexicana* (Rupr. ex E. Fourn.) Benth. ex Hitchc.; *Savastana mexicana* (Rupr. ex E. Fourn.) Beal; *Torresia mexicana* Hitchc.)

America. See *Mexicanas Plantas* 2: 71. 1886, *Grasses of North America for Farmers and Students* 2: 187. 1896 and *American Journal of Botany* 2: 301. 1915, *Repertorium Specierum Novarum Regni Vegetabilis* 17(19-30): 291. 1921, *Contributions from the United States National Herbarium* 24(9): 614. 1930.

**A. monticola** (Bigelow) Veldkamp (*Dimesia monticola* (Bigelow) Raf.; *Dimesia monticola* Raf. ex B.D. Jacks.; *Hierochloe alpina* (Sw. ex Willd.) Roem. & Schult.; *Hierochloe alpina* var. *monstruosus* Koidz.; *Hierochloe monstruosa* (Koidz.) Honda; *Hierochloe monticola* (Bigelow) Á. Löve & D. Löve, nom. illeg., non *Hierochloe monticola* Mez; *Hierochloe orthantha* T.J. Sørensen; *Holcus alpinus* Sw. ex Willd.; *Holcus monticola* Bigelow; *Savastana alpina* (Sw. ex Willd.) Scribn.; *Torresia alpina* (Sw. ex Willd.) Hitchc.)

America. See *Species Plantarum. Editio quarta* 4(2): 937. 1806, *New England Journal of Medicine and Surgery, and the Collateral Branches of Science* 5: 334. 1816, *American Monthly Magazine and Critical Review* 1: 442. 1817, *Systema Vegetabilium* 2: 515. 1817, *Index Kewensis* 1: 760. 1893, *Memoirs of the Torrey Botanical Club* 5(3): 34. 1894 and *American Journal of Botany* 2: 300. 1915, *Botanical Magazine* (Tokyo) 32: 63. 1918, *Botanical Magazine* (Tokyo) 40: 319. 1926, *Meddelelser om Grønland* 136(8): 1. 1954, *Taxon* 13(6): 201. 1964, *Blumea* 30(2): 347. 1985.

**A. monticola** (Bigelow) Veldkamp subsp. **alpinum** (Sw. ex Willd.) Soreng (*Hierochloe alpina* (Sw. ex Willd.) Roem. & Schult.; *Hierochloe alpina* f. *alpina*; *Hierochloe alpina* f. *soperi* Polunin; *Hierochloe alpina* subsp. *alpina*; *Hierochloe alpina* var. *alpina*; *Hierochloe alpina* var. *aristata* Raspail; *Holcus alpinus* Sw. ex Willd.)

America. See *Species Plantarum. Editio quarta* 4(2): 937. 1806, *Systema Vegetabilium* 2: 515. 1817, *Annales des Sciences d'Observation* 2: 85. 1829 and *Bulletin of the National Museum of Canada* 92: 43-44, pl. 1. 1940, *Fl. Canada* 2: 282. 1978, *Contributions from the United States National Herbarium* 48: 112. 2003.

**A. monticola** (Bigelow) Veldkamp subsp. **monticola** (*Anthoxanthum monticola* subsp. *orthanthum* (T.J. Sørensen) G.C. Tucker; *Hierochloe alpina* subsp. *orthantha* (T.J. Sørensen) G. Weim.; *Hierochloe alpina* var. *orthantha* (T.J. Sørensen) Hultén)

America. See *Botaniska Notiser* 124(1): 161. 1971, *Harvard Papers in Botany* 9: 66. 1996.



**A. nitens** (Weber) Y. Schouten & Veldkamp (*Avena odorata* (L.) Koeler; *Dimesia fragrans* Raf.; *Hierochloe borealis* (Schrud.) Roem. & Schult.; *Hierochloe fragrans* (Willd.) Roem. & Schult.; *Hierochloe nashii* (E.P. Bicknell) Kaczmarek; *Hierochloe odorata* (L.) P. Beauv.; *Hierochloe odorata* (L.) Wahlenb.; *Hierochloe odorata* f. *eamesii* Fernald; *Hierochloe odorata* var. *fragrans* (Willd.) K. Richt.; *Holcus borealis* Schrad.; *Holcus fragrans* Willd.; *Holcus odoratus* L.; *Poa nitens* Weber; *Savastana nashii* E.P. Bicknell; *Savastana odorata* (L.) Scribn.; *Savastana odorata* var. *fragrans* (Willd.) Farw.; *Torresia nashii* (E.P. Bicknell) House; *Torresia odorata* (L.) Hitchc.)

America, Europe. See *Species Plantarum* 2: 1048. 1753, *Primitiae Florae Holsaticae*, Suppl., 2, no. 6. 1787, *Descriptio Graminum in Gallia et Germania* 299. 1802, *Flora Germanica* 1: 252. 1806, *Species Plantarum. Editio quarta* 4(2): 936. 1806, *Essai d'une Nouvelle Agrostographie* 62, 164, t. 12, f. 5. 1812, *American monthly magazine and critical review* 1: 442. 1817, *Systema Vegetabilium* 2: 514. 1817, *Flora Upsaliensis* 8: 32. 1820, *Plantae Europaeae* 1: 31. 1890, *Memoirs of the Torrey Botanical Club* 5(3): 34. 1894, *Bulletin of the Torrey Botanical Club* 25(2): 104, pl. 328. 1898 and *American Midland Naturalist* 3: 198. 1914, *American Journal of Botany* 2: 301. 1915, *Rhodora* 19(224): 152. 1917, *Report of the Michigan Academy of Science, Arts and Letters* 21: 350. 1920, *New York State Museum Bulletin* 243-244: 58. 1923, *Blumea* 30(2): 348. 1985.

**A. nitens** (Weber) Y. Schouten & Veldkamp subsp. **nitens** (*Hierochloe odorata* f. *odorata*; *Hierochloe odorata* subsp. *odorata*)

America.

**A. occidentale** (Buckley) Veldkamp (*Anthoxanthum occidentale* (Buckley) G.C. Tucker, nom. illeg., non *Anthoxanthum occidentale* (Buckley) Veldkamp; *Hierochloe macrophylla* Thurb. ex Bol.; *Hierochloe occidentalis* Buckley; *Savastana macrophylla* (Thurb. ex Bol.) Beal; *Torresia macrophylla* (Thurb. ex Bol.) Hitchc.)

America. See *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 100. 1862, *Calif. Agric. Soc. Trans.* 1864-1865: 132. 1866, *Grasses of North America for Farmers and Students* 2: 187. 1896 and *American Journal of Botany* 2: 300. 1915, *Blumea* 30(2): 348. 1985, *Harvard Papers in Botany* 1(9): 66. 1996.

**A. odoratum** L. (*Anthoxanthum odoratum* subsp. *odoratum*; *Anthoxanthum odoratum* var. *altissimum* Eaton; *Anthoxanthum pilosum* Döll; *Anthoxanthum villosum* Dumort.; *Hierochloe odorata* (L.) P. Beauv.; *Xanthanthos odoratum* (L.) St.-Lag.)

Europe, temperate Asia, northwest Africa. Perennial bunchgrass, herbaceous, fragrant, bitter-tasting, simple, erect or ascending or spreading, glabrous, slender or robust, small, loosely or densely tufted, roots quite shallow, leaf sheaths

firmly encircling the culm, auricles absent or reduced, ligule membranous and truncate, upper blades slightly ciliate, dense panicle spike-like green or purple and erect, chasmogamous, glumes unequal and rough or villous or glabrous, lower glume 1-nerved, lowest 2 florets sterile and with lemma pubescent and dark, uppermost floret bisexual and with smooth lemma, awns geniculate or straight, ovary glabrous, stigmas white, sweetly or strongly scented when the green blades are dried, yields essential aromatic oil, reproduces by seeds dispersed by wind, fodder grass, forage, cultivated in hay fields and widely naturalized in temperate regions, not palatable, little food value, weed and aggressive species but is not considered a major weed pest, very resistant to cold and heat, good resistance to drought, provocative of hay asthma, it produces a lot of pollen and is a major irritant to people who suffer from hay fever, in Europe inhalation of grass pollen is the predominant cause of hay fever and related hypersensitivity reactions, a useful expectorant when made up into gargles and sprays, used also as hair tonic and scalp cleanser, forms extensive ground cover in open mesic and dry habitats at high elevations, in a great variety of habitats and on a wide range of soils, invades disturbed areas, found in mixed pastures and meadows, open fields, along roadsides, waste places, woods, in damp sites, herbaceous swamp, hill pasture and heath, fields, moors, boggy sites, clay soils, similar to *Anthoxanthum ecklonii* (Nees) Stapf, see *Species Plantarum* 1: 28. 1753, *Essai d'une Nouvelle Agrostographie* 62, 164, t. 12, f. 5. 1812, *Manual of the Flora of the Northern States and Canada* 10. 1817, *Observations sur les Graminées de la Flore Belgique* 129, t. 10, f. 38. 1823, *Rheinische Flora* 122. 1843, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* edition 3 11: 17. 1873, *Annales de la Société Botanique de Lyon* 7: 119. 1880 and *Handb. Fl. Ceylon* 6: 336. 1931, *Grasses of Ceylon* 54. 1956, *Grasses of Burma ...* 431. 1960, *Turun yliopiston julkaisu - Annales Universitatis Turkuensis, Sarja A II, Biologia-Geographica* 3: 1-12. 1982 [also *Ann. Univ. Fenn. Abo.*, A 3: 1-12. 1982], *Botanica Helvetica* 96: 145-158. 1986, *Regnum Veg.* 127: 19. 1993.

in English: sweet vernal grass, sweet vernal, large sweet vernal grass, scented vernal grass, sweet scented vernal grass, spring grass, vanilla grass

in French: flouve odorante

in Spanish: grama de olor

in Colombia: pasto de olor

in Mexico: zacate primavera

in Morocco: dîl el-fâr

in Finnish: Tuoksusimake

in Swedish: Vårbrodd

in South Africa: heuninggras

**A. odoratum** L. subsp. **nipponicum** (Honda) Tzvelev (*Anthoxanthum alpinum* Á. Löve & D. Löve; *Anthoxanthum nipponicum* Honda; *Anthoxanthum nipponicum* var. *furumii* Honda; *Anthoxanthum odoratum* subsp. *alpinum* (Á. Löve & D. Löve) Hultén; *Anthoxanthum odoratum* subsp. *furumii* (Honda) T. Koyama; *Anthoxanthum odoratum* var. *nipponicum* (Honda) Tzvelev)

Asia, Japan, Europe. See *Botanical Magazine* (Tokyo) 40: 317-318. 1926, *Kongl. Svenska Vetensk. Akad. Handl.* 7: 9. 1958, *Bulletin of the National Science Museum, Series B, Botany* 13: 123-127. 1987, *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Botanica* 34: 27-32. 1987, *Grasses of Japan and its Neighboring Regions* 486. 1987.

**A. odoratum** L. subsp. **odoratum** (*Anthoxanthum odoratum* var. *villosum* (Dumort.) Syme)

Europe. See *Observations sur les Graminées de la Flore Belgique* 129, t. 10, f. 38. 1823 [1824], *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* edition 3 11: 17. 1873.

**A. pusillum** (Hack. ex Dusén) Veldkamp (*Hierochloe pusilla* Hack. ex Dusén)

America, Argentina. See *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 7(2): 4, t. 1, f. 7. 1907, *Blumea* 30(2): 349. 1985.

**A. redolens** (Vahl) P. Royen (*Avena antarctica* (Labill.) Roem. & Schult., nom. illeg., non *Avena antarctica* Thunb.; *Avena redolens* (Vahl) Pers.; *Disarrenum antarcticum* Labill.; *Hierochloe antarctica* (Labill.) R. Br.; *Hierochloe antarctica* var. *redolens* (Vahl) Brongn.; *Hierochloe arenaria* Steud.; *Hierochloe banksiana* Endl.; *Hierochloe magellanica* (Desr.) Hook.f.; *Hierochloe magellanica* Hook.f. ex Steud.; *Hierochloe magellanica* Hook.f.; *Hierochloe moorei* De Paula; *Hierochloe redolens* (Vahl) Roem. & Schult.; *Hierochloe redolens* R. Br. ex Hook.f., nom. illeg., non *Hierochloe redolens* (Vahl) Roem. & Schult.; *Hierochloe redolens* var. *magellanica* (Hook.f.) Macloskie; *Hierochloe redolens* var. *major* Speg.; *Hierochloe redolens* var. *typica* Parodi; *Hierochloe sorianoii* De Paula; *Holcus redolens* Vahl; *Holcus redolens* Sol. ex G. Forst.; *Melica magellanica* Desr.; *Savastana antarctica* (Labill.) Speg.; *Torresia antarctica* (Labill.) P. Beauv.; *Torresia magellanica* (Desr.) P. Beauv.; *Torresia redolens* (Vahl) Roem. & Schult.)

America, Chile, Argentina. See *Florulae Insularum Australium Prodrum* 92. 1786, *Symbolae Botanicae, ...* 2: 102. 1791, *Encyclopédie Méthodique, Botanique* 4: 72. 1797, *Syn. Pl.* 1: 100. 1805, *Novae Hollandiae Plantarum Specimen* 2: 83, f. 232. 1807, *Prodromus Florae Novae Hollandiae* 1: 209. 1810, *Essai d'une Nouvelle Agrostographie* 63, 160, 164, 179. 1812, *Systema Vegetabilium, editio decima sexta* 2: 676. 1817, *Voyage Autour du Monde* 2: 144, t. 23. 1833, *Annalen des Wiener Museums der Naturgeschichte* 1: 156. 1836, *Flora Antarctica* 1: 91-92. 1844, *Flora Antarctica*

2: 375. 1846, *Synopsis Plantarum Glumacearum* 1: 14, 416. 1854[1853], *Anales Museo Nacional de Historia Natural de Buenos Aires* 5: 81. 1896 and *Anales Museo Nacional de Historia Natural de Buenos Aires* 7: 184. 1902, *Reports of the Princeton University Expeditions to Patagonia, 1896-1899, Volume viii, 1* [2], *Botany* 8(1,5,1): 167. 1904, *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 3: 189, f. 1. 1941, *New Zealand J. Bot.* 11: 574. 1973, *Boletín de la Sociedad Argentina de Botánica* 15(4): 393, 396. 1974, *The Alpine Flora of New Guinea* 2: 1185, f. 382. 1979, *Allertonia* 7: 345. Lawai, Kauai, Hawaii: National Tropical Botanical Garden and Allerton Gardens. 1998.

**A. redolens** (Vahl) P. Royen var. **redolens** (*Avena redolens* (Vahl) Pers.; *Disarrenum antarcticum* Labill.; *Hierochloe antarctica* (Labill.) R. Br.; *Hierochloe antarctica* var. *redolens* (Vahl) Brongn.; *Hierochloe arenaria* Steud.; *Hierochloe banksiana* Endl.; *Hierochloe magellanica* (Desr.) Hook.f.; *Hierochloe magellanica* Hook.f. ex Steud.; *Hierochloe magellanica* Hook.f.; *Hierochloe moorei* De Paula; *Hierochloe redolens* (Vahl) Roem. & Schult.; *Hierochloe redolens* R. Br. ex Hook.f., nom. illeg., non *Hierochloe redolens* (Vahl) Roem. & Schult.; *Hierochloe redolens* var. *magellanica* (Hook.f.) Macloskie; *Hierochloe redolens* var. *micrantha* Parodi; *Hierochloe redolens* var. *redolens*; *Hierochloe sorianoii* De Paula; *Holcus redolens* Vahl; *Melica magellanica* Desr.; *Savastana antarctica* (Labill.) Speg.; *Torresia antarctica* (Labill.) P. Beauv.; *Torresia magellanica* (Desr.) P. Beauv.; *Torresia redolens* (Vahl) Roem. & Schult.)

America. See *Symbolae Botanicae, ...* 2: 102. 1791, *Syn. Pl.* 1: 100. 1805, *Novae Hollandiae Plantarum Specimen* 2: 83, f. 232. 1807, *Prodromus Florae Novae Hollandiae* 1: 209. 1810, *Voyage Autour du Monde* 2: 144, t. 23. 1833, *Annalen des Wiener Museums der Naturgeschichte* 1: 156. 1836, *Synopsis Plantarum Glumacearum* 1: 416. 1854 and *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 3(14): 189, 195, f. 1-3. 1941.

**A. spicatum** (Parodi) Veldkamp (*Hierochloe spicata* Parodi)

America, Chile. See *Revista del Museo de La Plata (Nueva Serie), Sección Botánica* 3(14): 196, f. 4. 1941, *Blumea* 30(2): 349. 1985.

**A. tongo** (Nees ex Trin.) Stapf (*Anthoxanthum tongo* (Trin.) Stapf; *Ataxia tongo* Nees ex Trin.)

South Africa. Perennial, tufted, straggling, leaves filiform, contracted panicle, lower glume 3- to 5-nerved, in damp sites, moist shady places, very similar to and not clearly distinguished from *Anthoxanthum dregeanum* (Nees ex Trin.) Stapf, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 5,3(3): 78. 1839, *Flora Capensis* 7: 467-468. 1889 and *Bothalia* 18: 114-119. 1988.

*A. utriculatum* (Ruiz & Pav.) Y. Schouten & Veldkamp  
America.

**Antichloa Steud.** = *Bouteloua* Lag.,  
*Chondrosium* Desv.

From the Greek *anti* “for, in place of, against” and *chloe*, *chloa* “grass.”

Chloridoideae, Cynodonteae, Boutelouinae, see *Varietades de Ciencias, Literatura y Artes* 2(4,21): 134, 141. 1805, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 188. 1810, *Nomenclator Botanicus. Editio secunda* 1: 108. 1840 and *Contributions from the United States National Herbarium* 41: 20-33. 2001.

### Antinoria Parl.

Two species, Mediterranean. Pooideae, Poodae, Aveneae, annual or perennial, herbaceous, tufted, erect, decumbent, auricles absent, narrow linear leaf blades, ligule an unfringed membrane, plants bisexual, open inflorescence paniculate with divaricate branchlets, spikelets pedicellate, upper floret stipitate, 2 glumes subequal, lemmas membranous, palea 2-keeled, 3 stamens, ovary glabrous, 2 stigmas, found in damp places, see *Species Plantarum* 1: 63-66. 1753, *Flora Palermitana* 1: 92, 94-95. 1845 and *Flora Sicula* 3: 294. 1909.

### Species

*A. agrostidea* (DC.) Parl. (*Airopsis agrostidea* var. *annua* Lange; *Airopsis agrostidea* var. *natans* Hack.; *Antinoria agrostidea* f. *annua* (Lange) P. Silva; *Antinoria agrostidea* f. *genuina* P. Silva; *Antinoria agrostidea* subsp. *annua* (Lange) P. Silva; *Antinoria agrostidea* var. *algeriensis* Maire; *Antinoria agrostidea* var. *annua* Lange ex Maire; *Antinoria agrostidea* var. *insularis* (Parl.) Maire; *Antinoria agrostidea* var. *natans* (Hack.) Richter; *Antinoria agrostidea* var. *perennis* Maire; *Poa agrostidea* DC.)

Sicily. Annual, floating, see *Syn. Gall.* 132. 1806, *Flore Française. Troisième Édition* 5: 262. 1815, *Catalogue Raisonné des Graminées de Portugal* 17. 1880, *Plantae Europaeae* 1: 54. 1890 and *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 20: 41. 1929, *Agronomia Lusitana* 8: 8-9. 1946 [Estação Agronómica Nacional, Portugal], *Agronomia Lusitana* 40(1): 5. 1980, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66. 1990.

in Italian: nebbia di Antinori

in French: antinorie fausse-agrostide, la canche faux agrostis

*A. insularis* Parl. (*Aira insularis* (Parl.) Woods; *Aira insularis* (Parl.) Boiss., nom. illeg., non *Aira insularis* (Parl.)

Woods; *Airopsis insularis* (Parl.) Nyman; *Antinoria agrostidea* var. *insularis* (Parl.) Maire)

Mediterranean, Sicily. Erect, glabrous, geniculate, fibrous roots, ligule lancolate, branched panicle, glume scabrous, see *Flora Palermitana* 1: 94. 1845, Joseph Woods (1776-1864), *The Tourist's Flora* 403. London 1850, *Médecine Traditionnelle et Pharmacopée* 411. 1854-1855, *Flora Orientalis* 5: 528. 1884 and *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 20: 41. 1929.

in French: antinorie insulaire, antinorie des îles

**Antitragus Gaertn.** = *Crypsis* Aiton

Greek *anti* “against” and *tragos* “a billy-goat, he-goat,” genus *Tragus*.

Chloridoideae, Cynodonteae, Sporobolinae, or Chloridoideae, Zoysieae, Sporobolinae, type *Crypsis aculeata* (L.) Aiton, see *Hortus Kewensis; or, a catalogue ...* 1: 48. 1789, *De Fructibus et Seminibus Plantarum ...* 2: 7, t. 80. 1790 and *Contributions from the United States National Herbarium* 41: 56-57. 2001.

**Antonella J.A. Caro** = *Tridens* Roem. & Schult.

Chloridoideae, Cynodonteae, type *Antonella nicorae* (Anton) Caro, see *Syn. Pl.* 2: 9. Nov 1806 [1807], *Essai d'une Nouvelle Agrostographie* 77, f. 15. 1812, *Systema Vegetabilium* 2: 34, 599. 1817 and *Kurtziana* 10: 51, f. 1. 1977, *Dominguezia* 2: 18-20. 1981, *Contributions from the United States National Herbarium* 41: 16, 121-122, 224-230, 239. 2001.

**Antoschmidtia Boissier** = *Schmidtia* Steud.  
ex J.A. Schmidt

In honor of the German botanist Johann Anton Schmidt, 1823-1905, professor of botany, traveler, plant collector, 1851 Capo Verde Islands, author of *Beiträge zur Flora der Cap Verdischen Inseln*. Heidelberg 1852 and *Flora von Heidelberg*. Heidelberg 1857, and contributor to C.F.P. von Martius, *Flora Brasiliensis* (Labiatae, Scrophulariaceae, Phytolaccaceae, Nyctaginaceae, Plumbaginaceae, Plantaginaceae); see David Porter (1780-1843), *Journal of a Cruise Made to the Pacific Ocean ... in the United States Frigate Essex, in the Years 1812, 1813, and 1814*. Containing descriptions of the Cape Verd [*sic*] Islands, etc. Philadelphia 1815; J.H. Barnhart, *Biographical notes upon botanists*. 3: 232. 1965; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*.

353. 1972; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933.

See *Beiträge zur Flora der Cap Verdischen Inseln* 144-145. 1852, *Transactions of the Linnean Society of London, Botany* 2: 31. 1881, *Flora Orientalis* 5: 559. 1884 and *Flora Capensis* 7: 658. 1900, *Bothalia* 2: 421, 423. 1928, *Reperitorium Specierum Novarum Regni Vegetabilis, Beihefte* 40(1): 307. 1931, *Annals of the Transvaal Museum* 16: 405. 1935.

### **Apera Adans.** = *Anemagrostis* Trin.

Greek *aperos* “unmaimed,” referring to the vestigial florets.

About 3 species, Eurasia, Europe, Afghanistan. Pooideae, Poodae, Aveneae or Pooideae, Poeae, Agrostidinae, annual, herbaceous, tufted, hollow, auricles absent, narrow leaf blades, ligule an unfringed membrane, plants bisexual, panicle open or contracted, spikelets with rachilla extension, 2 glumes unequal, lemma membranous long-awned, palea present, 2 free membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, agricultural weed species, waste ground, open habitats, old fields, arable land, dry sandy soils, type *Apera spica-venti* (L.) P. Beauv., see *Species Plantarum* 1: 61-63, 73-76. 1753, *Familles des plantes* 2: 495. 1763, *Genera Plantarum* 44. 1789, *Essai d'une Nouvelle Agrostographie* 31, 151. 1812, *Fundamenta Agrostographiae* 128-129, t. 11. 1820, *Observations sur les Graminées de la Flore Belgique* 127, 128. 1823 [1824] and *U.S. Dept. Agric. Bull.* 772: 127. 1920, Oscar R. Matthei, “La presencia del genero *Apera* (Gramineae) en Chile.” *Bol. Soc. Biol. Concepción* 48: 161-163. 1974, *Preslia* 51(3): 213-237. 1979, *Newslett. Int. Organ. Pl. Biosyst. (Oslo)* 26/27: 25-26. 1997, *Opera Botanica* 137: 1-42. 1999, *Taxon* 49(2): 243. 2000, *Contributions from the United States National Herbarium* 48: 115. 2003.

#### **Species**

*A. intermedia* Hack.

Asia, Eurasia. Found in gray sandy loam, shallow soil, around saline seep, see *Annalen des K. K. Naturhistorischen Hofmuseums* 20: 430. 1905, Albert Bruce Jackson (1876-1947), “*Apera intermedia* as an alien in Britain.” *Ann. Scot. Nat. Hist.* 1907.

*A. interrupta* (L.) P. Beauv. (*Agrostis interrupta* (L.) Bubani; *Agrostis anemagrostis* subsp. *interrupta* (L.) Syme; *Agrostis interrupta* L.; *Agrostis spica-venti* subsp. *interrupta* (L.) Hook.f.; *Agrostis spica-venti* var. *interrupta* (Gaertner, Meyer & Scherbius) G. Mey.; *Anemagrostis interrupta* (L.) Trin.; *Apera spica-venti* var. *interrupta* (L.) Beal; *Muhlenbergia interrupta* (L.) Steud.)

Asia, Europe. Annual, see *Systema Naturae, Editio Decima* 2: 872. 1759, *Oekonomisch-Technische Flora der Wetterau* 1: 88. Frankfurt am Main 1799, *Essai d'une Nouvelle Agrostographie* 31, 151. 1812, *Fundamenta Agrostographiae* 129. 1820, *Chloris Hanoverana* 655. 1836, *Synopsis Plantarum Glumacearum* 1: 177. 1854, *The Student's Flora of the British Islands* 432. 1870, *English Botany* edition 3 11: 43-44. 1873, *Grasses of North America for Farmers and Students* 2: 357. 1896 and *Flora Pyrenaea* ... 4: 289. 1901, *Bulletin de la Société Botanique de France* 74: 406. 1927. in English: dense silky-bent, interrupted wind grass

*A. spica-venti* (L.) P. Beauv. (*Agrostis anemagrostis* Syme; *Agrostis anemagrostis* subsp. *spica-venti* (L.) Syme; *Agrostis gracilis* Salisb.; *Agrostis spica-venti* L.; *Agrostis ventosa* Dulac; *Anemagrostis spica-venti* (L.) Trin.; *Apera longiseta* Klokov; *Festuca spica-venti* (L.) Raspail; *Muhlenbergia spica-venti* (L.) Trin.)

Eurasia, Asia, Europe. Annual, herbaceous, weed, found in ballast and waste ground, meadows, see *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 25. [London] 1796, *Essai d'une Nouvelle Agrostographie* 31, 151. 1812, *Fundamenta Agrostographiae* 129, t. 11. 1820, *Annales des Sciences Naturelles; Botanique, sér. 5*: 445. 1825, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6,4(3-4): 285. 1841, *Flore de Département des Hautes-Pyrénées* 74. 1867, *English Botany* edition 3 11: 43. 1873. in English: loose silky-bent, silky bent grass, common wind grass, wind grass

in French: agrostide jouet-du-vent

### **Aphanelytrum Hackel**

Greek *aphanes* “obscure, inconspicuous, invisible” and *elytron* (*elyo* “to wind”) “a sheath, a cover.”

One species, Ecuador, Colombia, Bolivia. Pooideae, Poeae, Poinae, or Pooideae, Poodae, Poeae, perennial, herbaceous, scrambling, decumbent, leaning, stoloniferous, auricles absent, leaf blades flat and glabrous, ligule an unfringed membrane, plants bisexual, lax inflorescence paniculate, rachilla internodes filiform, spikelets 2-3-flowered and pedicellate, 2 glumes vestigial, lemmas herbaceous and keeled, palea present, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, montane forests, moist places, shade, type *Aphanelytrum procumbens* Hack., see *Essai d'une Nouvelle Agrostographie* 39, 155. 1812, *Anales de la Universidad Central del Ecuador* 3(25): 480. 1889 and *Österreichische Botanische Zeitschrift* 52: 12-13. 1902, A. Chase, “The structure of spikelets of *Aphanelytrum*.” *Botanical Gazette* 61: 340-343. 1916, *Arnaldoa* 8(2): 53-56. 2002, *Contributions from the United States National Herbarium* 48: 115. 2003.

**Species**

*A. procumbens* Hack. (*Aphanelytrum decumbens* Hack. ex Sodiro; *Brachyelytrum procumbens* (Hack.) Hack.)

South America. Perennial, delicate, branched, smooth or scabrous, leaf blades linear, panicle oblong, spikelets erect or pendulous, lemmas lanceolate and acuminate.

**Aplexia Raf.** = *Leersia* Sw., *Leersia* Sol. ex Sw.

Greek *aplektos* “unplaited,” *a* “negative” and *plektos* “twisted, plaited,” *pleko* “to twist, enfold.”

Ehrhartoideae, Oryzeae, Oryzinae, type *Leersia virginica* Willd., see *Nova Genera et Species Plantarum seu Prodrromus* 1, 21. 1788, *Species Plantarum. Editio quarta* 1(1): 325. 1797, C.S. Rafinesque, *Neogenyton* 4. 1825, *Index Kewensis* 1: 162. 1893 and E.D. Merrill, *Index rafinesquianus* 74, 75. 1949, *Annals of the Missouri Botanical Garden* 74: 432-433. 1987, *Contributions from the United States National Herbarium* 39: 64-67. 2000.

**Aplocera Raf.** = *Ctenium* Panzer

Greek *haplos* “simple, single” and *keras* “horn,” possibly referring to the genus *Monocera* Elliott.

Chloridoideae, Cynodonteae, see *Flora Caroliniana, secundum ...* 249. 1788, *Ideen zu einer künftigen Revision der Gattungen der Gräser*. 38, 61. 1813, *Denkschriften der Bayer[ischen]. Botanischen Gesellschaft in Regensburg* 4: 311, t. 13, f. 1-2. 1813 [1814], *Sketch Bot. S. Carolina* 1(2): 176. 1816, *Medical Flora* 2: 193. 1830, *A Class-book of Botany* 806. 1861 and E.D. Merrill, *Index rafinesquianus* 74. 1949, *Contributions from the United States National Herbarium* 41: 57-58. 2001.

**Apluda L.** = *Calamina* P. Beauv.

From the Latin name *apluda* (*appl-*) *ae* for chaff or bran, alluding to the involucre, or to the spikelets.

One species, tropical Asia. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, or Panicoideae, Andropogoneae, Ischaeminae, perennial, rambling, woody, leafy, more or less glaucous, often scrambling or decumbent and rooting at the nodes, auricles absent, leaf sheath short, ligule an unfringed membrane, leaf blades linear-lanceolate and often falsely petiolate, plants bisexual, inflorescence racemose, large terminal open compound panicle, naviculate to boat-shaped spathe, raceme comprising 1 sessile and 2 pedicelled spikelets, central sessile branch composed of a fertile floret with a male floret below it, sessile spikelets awned or not, pedicellate spikelets unawned, lower floret staminate,

upper floret hermaphrodite, 2 glumes more or less equal and more or less leathery or thin, lemmas membranous, palea reduced to a membranous scale, 2 lodicules free and fleshy, stamens 2-3, ovary glabrous, 2 stigmas, a good fodder when young suitable for all classes of animals, good hay and silage, stalks used for making hats, growing at the edge of woodlands and in hedges, thickets, on moist or dry stony soils, forest margins, type *Apluda mutica* L., see *Species Plantarum* 1: 82. 1753, *Genera Plantarum* edition 5. 35. 1754, *Essai d'une Nouvelle Agrostographie* 128, 157. 1812 and *Flora of Tropical Africa* 9: 5. 1917, *Phytologia* 10(5): 321-406. 1964, *Journal of Cytology and Genetics* 15: 51-57. 1980, M. Lazarides, “The tropical grasses of Southeast Asia (excluding bamboos).” *Phanerogamarum Monographiae* 12: 1-225. Vaduz 1980, *Journal of Cytology and Genetics* 20: 205-206. 1985, *Journal of Cytology and Genetics* 25: 140-143, 322-323. 1990, *Regnum Veg.* 127: 20. 1993, *Annals of the Missouri Botanical Garden* 81(4): 775-783. 1994, *Contributions from the United States National Herbarium* 46: 68-69. 2003.

**Species**

*A. mutica* L. (*Andropogon aristatus* (L.) Raspail, nom. illeg., non *Andropogon aristatus* Poir.; *Andropogon glaucus* Retz.; *Andropogon glaucus* Torr., nom. illeg., non *Andropogon glaucus* Retz.; *Andropogon glaucus* Muhl., nom. illeg., non *Andropogon glaucus* Retz.; *Apluda aristata* L.; *Apluda cumingii* Büse ex de Vriese; *Apluda geniculata* Roxb.; *Apluda gigantea* (P. Beauv.) Spreng.; *Apluda glauca* (Retz.) Schreb.; *Apluda humilis* (J. Presl) Kunth; *Apluda inermis* Regel; *Apluda mutica* subsp. *aristata* (L.) Babu; *Apluda mutica* subsp. *aristata* (L.) R.D. Gaur, nom. illeg., non *Apluda mutica* subsp. *aristata* (L.) Babu; *Apluda mutica* var. *aristata* (L.) Hack. ex Backer; *Apluda mutica* var. *aristata* (L.) Pilger, nom. illeg., non *Apluda mutica* var. *aristata* (L.) Hack. ex Backer; *Apluda varia* Hackel; *Apluda varia* subsp. *aristata* (L.) Hack.; *Apluda varia* subsp. *mutica* (L.) Hack.; *Apluda varia* var. *humilis* (J. Presl) Hack.; *Apluda varia* var. *intermedia* Hack.; *Calamina gigantea* P. Beauv.; *Calamina humilis* J. Presl; *Calamina mutica* (L.) P. Beauv.)

Southeast Asia, India. Annual or perennial, leafy, tufted, slender, straggling, creeping or scandent, base decumbent, rooting from lower nodes, often rambling among bushes, leaves oblong, flowering branches erect, inflorescence a panicle, small clusters of spikelets, each cluster contains a triple branch of spikelets enclosed in a sheathing bract, lateral branches sterile florets supported by flattened pedicels, good fodder value, palatable to stock when young, young grass eaten by buffaloes, a forest grass, garden edges, plains, along bushes, ditch and river banks, wet places, along roadsides, on poor soil, in waste grounds, see *Amoen. Acad.* 4: 303. 1756, *Centuria II. Plantarum ...* 2: 7. 1756, *Observationes Botanicae* 5: 20. 1789, *Beschreibung der*

*Gräser* 2: 99. 1810, *Essai d'une Nouvelle Agrostographie* 128-129, 151, t. 23, f. 1. 1812, *Hortus Bengalensis, or a catalogue ...* 8. 1814, *Annals of the Lyceum of Natural History of New York* 1(1): 153-154. 1824, *Annales des Sciences Naturelles (Paris)* 5: 307. 1825, *Systema Vegetabilium, editio decima sexta* 1: 290. 1825, *Reliquiae Haenkeanae* 1(4-5): 344. 1830, *Plantae Indiae Batavae Orientalis* 105. 1857, *Die Natürlichen Pflanzenfamilien* 22: 26. 1887, J.F. Duthie, *The Fodder Grasses of Northern India*. 44-45. Roorkee 1888, *Monographiae Phanerogamarum* 6: 196-199. 1889 and *Handb. Fl. Ceylon* 5: 226. 1900, *Mémoires de la Société Royale des Sciences, Lettres et Arts de Nancy* 2: 54. 1928, *Handb. Flora van Java* 2: 54. Batavia 1928, *Handb. Fl. Ceylon* 6: 331. 1931, *Die natürlichen Pflanzenfamilien, Zweite Auflage* 14e: 130. 1945, *Grasses of Ceylon* 177. 1956, *Grasses of Burma ...* 93. 1960, *Herbaceous Flora of Dehra Dun* 582. 1977, *Journal of Economic and Taxonomic Botany* 9(1): 59. 1987, *Taxon* 49(2): 246. 2000.

in English: snubgrass

in Japan: Okinawa-karu-kaya (= Okinawa cut-grass)

in Bhutan: karuki

in China: shui zhe cao

in India: akku hullu, baru, bhajura, bhangri, bhanjra, bhanjura, bhanjuri, bhankta, bhas, bhickma, bhumbhuru, bhus jari, bonta, chhari, chickwar, dhanghi khad, dhuri ghas, gandhani, gandhi, ganni, gawan, ghaghara, ghandani, goroma, gugar gadi, gugargadi, kaadu hanchi hullu, kadmor, kari hanchi hullu, kari kaachi hullu, karmoria, kattingiya sufed, kharvel, khavas, kurdia, makkha, manda pillu, manda pul, moongil pul, moshi, mungil pillu, munmona, murmuru, palakhari, paodi, patpatawan, phota, phula jara, phulaer, phules, phuli, phulor, phulria, phulse, poklia, poladi gavat, polki, ponai, pootstrangali, putstryagali, sanna kari hullu, santhran, send, tach, tachla, tachula, tambat, tambati, tulse paodi

in Sri Lanka: kuru kudu tana, kuru kuda tana, moongil pul, mungil pul, munjil pul

in Thailand: ya kom bang, ya phai, ya phrik phran, yaa phai, yaa phrik phraan

### **Apochaete (C.E. Hubb.) J.B. Phipps =** *Tristachya* Nees

From the Greek *apo* “away, being away from, lack of” and *chaite* “bristle.”

Panicoideae, Arundinelleae, type *Apochaete hispida* (L.f.) J.B. Phipps, see *Supplementum Plantarum* 111. 1781 [1782], *Flora Brasiliensis seu Enumeratio Plantarum* 2: 458. 1829, *Die Pflanzenwelt Ost-Afrikas* 109. 1895, *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 374. 1895 and *Bulletin of Miscellaneous Information Kew* 1936(5): 322.

1936, *N. Amer. Flora* 17(8): 578. 1939, *Bulletin de la Société Botanique de Belgique* 90: 187. 1958, *Kirkia* 4: 105. 1964, *Kirkia* 5: 235-258. 1966, *Boletim da Sociedade Broteriana, ser. 2* 41: 198. 1967, *Kew Bulletin* 21(1): 119-124. 1967, *Kew Bulletin* 26(1): 111-123. 1971, *Flora Mesoamericana* 6: 378. 1994, *Contributions from the United States National Herbarium* 46: 627-628. 2003.

### **Apochiton C.E. Hubb.**

From the Greek *apo* “away, being away from, lack of” and *chiton* “a tunic, cover.”

One species, tropical East Africa. Chloridoideae, Eragrostideae, annual, herbaceous, unarmed, loosely tufted, erect, decumbent, auricles absent, ligule membranous and fringed, narrow linear leaf blades, plants bisexual, inflorescence paniculate, spikelets pedicellate, 2 glumes 3-nerved, lemmas silky and awned, palea 2-awned, fleshy lodicules present, 3 stamens, ovary glabrous, 2 stigmas, savannah, open habitats, seasonally wet soils, related to *Triraphis*, type *Apochiton burttii* C.E. Hubb., see *Hooker's Icones Plantarum* 34: t. 3319. 1936.

### **Species**

*A. burttii* C.E. Hubb. (after the British (b. York) botanist Bernard Dearman Burt, 1902-1938 (d. Tanganyika, Tanzania, killed in air crash), 1933 Fellow of the Linnean Society, cousin of Joseph Burt Davy (1870-1940); see Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 122. London 1994; F.N. Hepper and Fiona Neate, *Plant Collectors in West Africa*. 15. 1971)

Tanzania.

### **Apoclada McClure**

From the Greek *apo* “away, being away from, lack of” and *klados* “a branch,” referring to the separate branching.

About 1-2 species, Brazil. Bambusoideae, Bambusodae, Bambuseae, or Bambusoideae, Bambusodae, Guaduiniae, perennial, tufted, tall, sympodial, unarmed, shrub or small tree, solid or hollow, leafy, branch complement 5 subequal, ligule fringed, rhizomes pachymorph, plants bisexual, synflorescences terminal with a single spikelet, spikelets several- to many-flowered, glumes absent or present, palea present, free lodicules, 3-6 stamens, ovary glabrous, 2 plumose stigmas, growing in colonies, open woodland, damp and sunny places, mesic forests, sandy soil, type *Apoclada simplex* McClure et L.B. Smith, see *Flora Illustrada Catarinense Gramíneas — Suplemento. Bambúseas* 1(Gram.-Supl.): 1-78. 1967, *Smithsonian Contributions to Botany* 9: 1-148. 1973, *Systematic Botany* 20(3): 207-223. 1995 [A cladistic analysis and revision of the genus *Apoclada* (Poaceae: Bambusoideae: Bambusodae), by G.F. Guala],

*American Bamboos* 231-234. 1999, *Bamboo Science and Culture* 14(1): 15-20. 2000, G.F. Guala, "A brief note on the forage value of *Apoclada* species." *Bamboo Science and Culture* 15: 48. 2001, *Bamboo Science and Culture: The Journal of the American Bamboo Society* 17(1): 1-3. 2003.

### Species

*A. simplex* McClure & L.B. Smith (*Apoclada diversa* McClure & L.B. Smith)

Southeastern Brazil. Erect, reedlike, see *Fl. Il. Catarin.* 1(GRAM-Suppl.): 59-62, t. 10, f. s-y. 1967.

### **Apocopsis Nees** = *Amblyachyrum* Steud., *Amblyachyrum* Hochst. & Steud.

Possibly from the Greek *apokope* "cutting off, amputation," *apokopos* "castrated, abrupt."

About 15 species, China, Indomalaysian region, tropical Asia, Myanmar (Burma), India. Panicoideae, Andropogonaceae, Andropogoneae, Andropogoninae, annual or perennial, herbaceous, leaf blades flat and narrow, ligule an unfringed membrane, plants bisexual, inflorescence of 1-3 digitate racemes, imbricate spikelets, racemes paired and solitary, sessile and pedicellate spikelets, sessile spikelet bisexual and deciduous, lowermost spikelets barren and awnless, 2 florets, lower floret male and the upper bisexual, 2 glumes unequal, lower glume chartaceous to coriaceous, upper glume truncate, lemmas awned or not, upper lemma linear and awned, lodicules absent, stamens 2 or absent, ovary glabrous, 2 stigmas, pedicellate spikelets reduced to a little barren pedicel, found in open places, hillsides, damp ground, dry shallow soils, pans, slopes, type *Apocopsis royleanus* Nees, see *Proceedings of the Linnean Society of London* 1: 93-94. 1841, *Synopsis Plantarum Glumacearum* 1: 413. 1854, *Journal of the Linnean Society, Botany* 19: 67. 1881, *Monographiae Phanerogamarum* 6: 259. 1889, *J. Bot. (Morot)* 4: 84. 1890 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 44: 519. 1910, *Bulletin du Muséum d'Histoire Naturelle* 25: 285. 1919, *Blumea* 4(3): 523. 1941, *Kew Bull.* 7: 101-116. 1952, *Thai Forest Bulletin. Botany* 6: 46. 1972, *Taxon* 34: 159-164. 1985.

### Species

*A. anomalus* Bor

Myanmar. See *Kew Bulletin* 12(3): 415. 1958.

*A. breviglumis* Keng & S.L. Chen

China. See *Acta Phytotaxonomica Sinica* 13(1): 59-60, pl. 3. 1975.

*A. burmanicus* Narayanaswami ex Bor

Myanmar. See *Kew Bulletin* 1951: 169. 1951.

*A. cochinchinensis* A. Camus

Vietnam. See *Bulletin du Muséum d'Histoire Naturelle* 25: 286. 1919.

*A. collina* Balansa (*Apocopsis borneensis* Ridl.; *Apocopsis collinus* Balansa)

Vietnam, Indonesia. Perennial, tufted, see *Journal de Botanique (Morot)* 4: 84. 1890 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 44: 519. 1910.

*A. courtallumensis* (Steud.) Henrard (*Andropogon courtallumensis* Steud.; *Apocopsis courtallumensis* Henrard; *Apocopsis wightii* Steud.; *Apocopsis wightii* Nees ex Thwaites; *Apocopsis wightii* Nees ex Steud.; *Apocopsis wightii* Nees ex Hack.)

India, Tamil Nadu, Sri Lanka. Perennial, in waste places, often confused with *Apocopsis mangalorensis* (Hochst.) Henrard, see *Synopsis Plantarum Glumacearum* 1: 377. 1854, *Enumeratio Plantarum Zeylanicae* 365. 1864, *Monographiae Phanerogamarum* 6: 258. 1889 and *Blumea* 4(3): 524. 1941, *Grasses of Ceylon* 171. 1956.

in Thailand: ya khon bung

*A. floccosus* Bor

Myanmar. See *Kew Bulletin* 12(3): 414. 1958.

*A. mangalorensis* (Hochst.) Henrard (*Amblyachyrum mangalorensis* Hochst.; *Amblyachyrum mangalorensis* Hochst. ex Steud.; *Apocopsis beckettii* Thwaites ex Hack.; *Apocopsis courtallumensis* sensu Senaratna, non (Steud.) Henrard; *Apocopsis mangalorensis* (Hochst. ex Steud.) Henrard; *Apocopsis wightii* subsp. *mangalorensis* (Hochst.) Hack.; *Apocopsis wightii* subsp. *mangalorensis* (Hochst. ex Steud.) Hack.; *Apocopsis wightii* subvar. *beckettii* Hack.; *Apocopsis wightii* var. *beckettii* Trimen; *Apocopsis wightii* var. *beckettii* Thwaites ex Trimen; *Apocopsis wightii* var. *zeylanica* Hack.)

Southern India, Tamil Nadu, Sri Lanka. Annual, geniculately ascending, well-exserted inflorescence racemose with 2 or 3 barren spikelets at the base, in waste places, see *Synopsis Plantarum Glumacearum* 1: 413. 1854, *Flora* 39: 26. 1856, *A Systematic Catalogue of the Flowering Plants and Ferns in Ceylon* 107. 1885, *Monographiae Phanerogamarum* 6: 259, 269. 1889 and *Blumea* 4(3): 523. 1941, *Grasses of Ceylon* 171. 1956, *Grasses of Burma ...* 96. 1960.

*A. paleacea* (Trinius) Hochr. (*Andropogon himalayensis* Steud.; *Andropogon paleaceus* (Trin.) Steud.; *Apocopsis himalayensis* (Steud.) W. Wats. & E.T. Atkinson; *Apocopsis paleaceus* (Trin.) Hochr.; *Apocopsis royleana* Nees; *Ischaemum paleaceum* Trin.)

Asia, Nepal. Perennial, creeping, rhizomatous, culms leafy near base, leaves acute and hairy, fodder grass, open places, rocky sites, near drains, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 293. 1832, *Illustrations of the Botany ... of the Himalayan Moun-*

*tains* ... 1: 417. 1839, *Synopsis Plantarum Glumacearum* 1: 376-377. 1854, *Himalayan Districts of the North-western Provinces of India* 10: 392. 1882 and *Bulletin of the New York Botanical Garden* 6: 262. 1910.

**A. peguensis** Bor

Myanmar. See *Kew Bulletin* 1949: 28. 1949.

**A. pulcherrimus** Bor

Myanmar. See *Kew Bulletin* 1951: 168. 1951.

**A. schmidianus** A. Camus

Asia. See *Bulletin du Muséum d'Histoire Naturelle, sér. 2* 29: 187. 1957.

**A. siamensis** A. Camus

Thailand. See *Notulae Systematicae. Herbarium du Muséum de Paris* 3(3): 83. 1914.

**A. vaginata** Hack. (*Apocopsis wightii* var. *vaginata* (Hack.) Hook.f.)

India, Tamil Nadu, Uttar Pradesh. Annual, inflorescence within the uppermost leaf-sheath, common in open pastures and forest clearings, see *Österreichische Botanische Zeitschrift* 41: 8. 1891, *The Flora of British India* 7(21): 143. 1897 [1896].

**A. wrightii** Munro (*Apocopsis wightii* var. *wrightii* (Munro) Hack.) (for Charles Wright, collector of the species)

Asia. See *Proceedings of the American Academy of Arts and Sciences* 4: 363. 1860, *Monographiae Phanerogamarum* 6: 259. 1889.

in Thailand: yaa khon bung

**A. wrightii** Munro var. *macrantha* S.L. Chen (*Apocopsis heterogama* Keng & S.L. Chen)

China. See *Acta Phytotaxonomica Sinica* 13(1): 60-61, pl. 4. 1975, *Bulletin of Botanical Research* 12(4): 317. 1992.

**Apogon Steud.** = *Apogon* S. Elliott  
(Asteraceae, Compositae), *Chloris* Sw.

From the Greek *a* "negative, without" and *pogon* "beard."

See *Nova Genera et Species Plantarum seu Prodromus* 1, 25. 1788, *A Sketch of the Botany of South-Carolina and Georgia* 2: 267. 1822 [1824], *Nomenclator Botanicus. Editio secunda* 1: 352. 1840 and *Contributions from the United States National Herbarium* 41: 39-52. 2001.

**Apogonia (Nutt.) E. Fourn.** = *Coelorachis*  
Brongn., *Mnesithea* Kunth

From the Greek *a* "negative, without" and *pogon* "beard."

Panicoideae, Andropogoneae, Rottboelliinae, see *The Genera of North American Plants* 1: 83. 1818, *Révision des Graminées* 1: 153. 1829, *Voyage Autour du Monde* 2: 64,

f. 14. 1829 [1831], *Mexicanas Plantas* 2: 63. 1886 and *North American Flora* 17(1): 86. 1909, *Blumea* 31(2): 291, 293. 1986, *Flora Mesoamericana* 6: 396-397. 1994.

**Arberella Soderstr. & C.E. Calderón**

Dedicated to the British botanist Agnes Arber, 1879-1960, philosopher, plant morphologist, F.L.S. 1908, married Edward Alexander Newell Arber 1909, F.R.S. 1946, author of *Herbals*, their origin and evolution, a chapter in the history of botany 1470-1670. Cambridge (1938) 1953, "On grasses in herbal literature." *Darwiniana* 5: 20-30. 1941 and *Goethe's Botany. The Metamorphosis of Plants* (1790) and Tobler's *Ode to Nature* (1782). Waltham 1946, *The Gramineae: A Study of Cereal, Bamboo, and Grass*. Cambridge Univ. Press 1934. See Rudolf Schmid, "Agnes Arber, née Robertson (1879-1960): fragments of her life, including her place in biology and women's studies." *Annals of Botany*, 88, 2001; J.H. Barnhart, *Biographical notes upon botanists*. 1: 70. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 30. 1972; *Taxon* 9(9): 261-263. 1960; Harry Godwin, *Dict. Sci. Biogr.* 1: 205-206. 1970.

About 3-7 species, tropical America, Costa Rica to Brazil. Bambusoideae, Olyreae, Olyrinae, or Bambusoideae, Oryzodae, Olyreae, perennial, clump-forming, herbaceous, unarmed, caespitose, leafy, solid, leaf blades lanceolate, ligule membranous, plants monoecious, inflorescence a panicle bearing 1 female spikelet with male spikelets below, spikelets 1-flowered, 2 glumes 5- to 11-nerved, male spikelets 3-staminate, lemma pubescent, short callus, palea present, 3 free and fleshy lodicules, no stamens, ovary glabrous, 2 plumose stigmas, swollen internode between glumes and floret of female spikelet, forest, wet forests, slopes, forest floor, undergrowth, related to *Cryptochloa* and *Lithachne*, type *Arberella dressleri* Soderstr. & C.E. Calderón, see *Annals of the Missouri Botanical Garden* 29: 317. 1942, *Brittonia* 31(4): 433-445. 1979, *Brittonia* 34: 199-209. 1982, *Brittonia* 37(1): 22-35. 1985, *Flora of the Guianas. Series A, Phanerogams* 59-62, 1990, *Novon* 1(2): 76-87. 1991, *Novon* 2(2): 81-110. 1992, *Flora Mesoamericana* 6: 214-215. 1994, *American Bamboos* 264-266. 1999, *Contributions from the United States National Herbarium* 39: 12-13. 2000, *Taxon* 50: 559-568. 2001.

**Species**

**A. bahiensis** Soderstr. & Zuloaga

Brazil, Venezuela. See *Brittonia* 37(1): 23, f. 1, 2. 1985.

**A. costaricensis** (Hitchc.) Soderstr. & C.E. Calderón (*Radia costaricensis* Hitchc.)

Costa Rica, Panama. See *Proceedings of the Biological Society of Washington* 40: 87. 1927, *Brittonia* 31(4): 439. 1979.



*A. dressleri* Soderstr. & C.E. Calderón

Central America, Panama. See *Brittonia* 31(4): 433. 1979.

*A. flaccida* (Döll) Soderstr. & C.E. Calderón (*Olyra flaccida* Döll)

Central and South America, Brazil, Colombia. Perennial, variable, caespitose, glabrous, geniculate-ascending, erect, lowland forests, see *Flora Brasiliensis* 2(2): 326. 1877 and *Brittonia* 31(4): 443. 1979.

*A. graymii* Davidse (for the agrostologist Michael Howard Grayum, b. 1949, Missouri Botanical Garden)

Costa Rica. See *Novon* 2(2): 94, f. 6. 1992.

*A. lancifolia* Soderstr. & Zuloaga

Panama. Without callus, see *Brittonia* 37(1): 25, f. 3, 4. 1985.

*A. venezuelae* Judz. & Davidse

Venezuela, Amazonas. See *Novon* 1(2): 76, f. 1. 1991.

### Arcangelina Kuntze = *Kralikia* Coss. & Durieu, *Tripogon* Roem. & Schult.

For the Italian botanist Giovanni Arcangeli, 1840-1921, Director of the Botanical Gardens of Torino (1879-1883) and Pisa (1881-1915); see J.H. Barnhart, *Biographical notes upon botanists*. 1: 71. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 13. 1972; I.K. Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 1964; Oreste Mattiolo (1856-1947), *Cronistoria dell'Orto Botanico della Regia Università di Torino*. in *Studi sulla vegetazione nel Piemonte* pubblicati a ricordo del II Centenario della fondazione dell'Orto Botanico della R. Università di Torino. Checchini, Torino 1929; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Frans A. Stafleu & Erik A. Mennega, *Taxonomic literature. Supplement I: A-Ba*. 143-145. ["Director botanical garden of Firenze 1877-1878."] Königstein 1992; O. Mattiolo, *Cenni cronologici sugli Orti Botanici di Firenze*. in Pubblicazioni R. Ist. Studi Superiori Pratici e di Perfezionamento, Sez. Scienze Fis. Natur. Firenze 1899; G. Martinoli, "L'Orto Botanico di Pisa." *Agricoltura*. 7: 59-66. Roma 1963.

Chloridoideae, see *Systema Vegetabilium* 2: 34, 600. 1817, *Bull. Soc. Bot. France* 14: 89. 1867, *Revisio Generum Plantarum* 2: 759. 1891 and *Contributions from the United States National Herbarium* 41: 231. 2001.

### Arctagrostis Griseb.

Greek *arktos* "the north" (Akkadian *arqu*, *urqu* "yellow") plus *agrostis*, *agrostidos* "grass, weed," referring to the habitat, arctic.

About 1-6 species, Arctic, Europe, North America and Greenland. Pooideae, Poodae, Aveneae or Pooideae, Poae, Poinae, perennial, robust, rhizomatous, herbaceous, auricles absent, ligule an unfringed membrane, plants bisexual, open or contracted panicle, spikelets pedicellate and 1-flowered, 2 glumes nerved and acute, lemmas keeled and 3-nerved, palea present, 2 free and membranous lodicules, 2-3 stamens, ovary glabrous, 2 stigmas, open habitats, tundra, lakeshore, sandy soils, coastal tundra regions, marshy tundra, related to *Colpodium* Trin., type *Arctagrostis latifolia* (R. Br.) Griseb., see *Flora Rossica* 4: 434. 1852 and *Canadian Journal of Botany* 68: 2422-2432. 1990, *Canadian Journal of Botany* 70: 80-83. 1991, *Canadian Journal of Botany* 72: 1039-1050. 1994, Hong Qian, "Floristic analysis of vascular plant genera of North America north of Mexico: characteristics of phytogeography." *Journal of Biogeography* 26(6): 1307-1321. Nov 1999, *Am. J. Bot.* 89: 1410-1421. 2002, *Contributions from the United States National Herbarium* 48: 115-117. 2003, W. Wyatt Oswald, Linda B. Brubaker, Feng Sheng Hu and Daniel G. Gavin, "Pollen-vegetation calibration for tundra communities in the Arctic Foothills, northern Alaska." *Journal of Ecology* 91(6): 1022-1033. Dec 2003, Jeffrey M. Welker, Jace T. Fahnestock, Greg H.R. Henry, Kevin W. O'Dea and Rodney A. Chimner, "CO<sub>2</sub> exchange in three Canadian High Arctic ecosystems: response to long-term experimental warming." *Global Change Biology* 10(1)2: 1981-1995. Dec 2004, Robert D. Hollister, Patrick J. Webber and Craig E. Tweedie, "The response of Alaskan arctic tundra to experimental warming: differences between short- and long-term responses." *Global Change Biology* 11(4): 525-536. Apr 2005.

### Species

*A. arundinacea* (Trin.) Beal (*Arctagrostis caespitans* V. Vassil.; *Arctagrostis calamagrostidiformis* V. Vassil.; *Arctagrostis festucacea* Petrov; *Arctagrostis latifolia* subsp. *arundinacea* (Trin.) Tzvelev; *Arctagrostis latifolia* var. *arundinacea* (Trin.) Griseb.; *Arctagrostis tenuis* V. Vassil.; *Arctagrostis ursorum* (Kom.) Kom. ex Roshev.; *Arctagrostis viridula* V. Vassil.; *Catabrosa arundinacea* (Trin.) Fries; *Colpodium arundinaceum* (Trin.) Hook.; *Poa ursorum* Kom.; *Sporobolus arundinaceus* (Trin.) Kunth; *Vilfa arundinacea* Trin.)

Northern America, Russia. See *Gram. Unifl. Sesquifl.* 157. 1824, *Grass. N. Amer.* 2: 317. 1896 and *Repertorium Specierum Novarum Regni Vegetabilis* 13: 161. 1914, *Flora Iakutiae* 1: 155. 1930, *Flora URSS* 2: 168. 1934, *Bot. Zhurn. (Moscow & Leningrad)* 51: 1105. 1966, *Botanicheskii Zhurnal* 68: 1325-1325. 1983.

*A. latifolia* (R. Br.) Griseb. (*Arctagrostis anadyrensis* V. Vassil.; *Arctagrostis arundinacea* var. *festucacea* (Petrov) Tzvelev; *Arctagrostis calamagrostidiformis* V. Vassil.; *Arctagrostis festucacea* Petrov; *Arctagrostis latifolia* subsp.

*gigantea* Tzvelev; *Arctagrostis tenuis* V. Vassil.; *Arctagrostis ursorum* (Kom.) Kom. ex Roshev.; *Arctagrostis viridula* V. Vassil.; *Catabrosa latifolia* (R. Br.) Fries; *Colpodium latifolium* R. Br.; *Poa ursorum* Kom.)

Asia temperate, Siberia, Norway, Europe, northern America. Perennial, stout, leafy, densely clumped, shortly rhizomatous, inflorescences narrow and erect to open and lax, useful for erosion control, revegetation, forage, drought sensitive, see *Chloris Melvilliana* 28. 1823, *Novitarum Florae Suecicae Mantissa*, Tert. 173. Lund 1842 and *Repertorium Specierum Novarum Regni Vegetabilis* 13: 161. 1914, *Flora Iakutiae* 1: 155. 1930, *Flora URSS* 2: 168. 1934, *Arkticheskaia Flora SSSR* 2: 38. 1964.

in English: Arctic grass, polar grass, Russian grass

**A. latifolia** (R. Br.) Griseb. subsp. *arundinacea* (Trin.) Tzvelev (*Arctagrostis angustifolia* Nash; *Arctagrostis angustifolia* Nash var. *crassispica* Bowden; *Arctagrostis arundinacea* (Trin.) Beal; *Arctagrostis arundinacea* var. *arundinacea*; *Arctagrostis arundinacea* var. *crassispica* Bowden; *Arctagrostis calamagrostidiformis* V.N. Vassil.; *Arctagrostis festucea* Petrov; *Arctagrostis latifolia* f. *parviflora* Reverd.; *Arctagrostis latifolia* var. *alaskensis* Vasey; *Arctagrostis latifolia* var. *angustifolia* (Nash) Hultén; *Arctagrostis latifolia* var. *arundinacea* (Trin.) Griseb.; *Arctagrostis macrophylla* Nash; *Arctagrostis parviflora* (Reverd.) V.V. Petrovsky; *Arctagrostis poaeoides* Nash; *Arctagrostis poaeoides* Nash ex Britton & Rydb.; *Arctagrostis tenuis* V.N. Vassil.; *Arctagrostis tilesii* (Griseb.) Petrov; *Arctagrostis ursorum* (Kom.) Kom. ex Roshev.; *Catabrosa arundinacea* (Trin.) Fries; *Colpodium arundinaceum* (Trin.) Hook.; *Colpodium tilesii* Griseb.; *Poa ursorum* Kom.; *Sporobolus arundinaceus* (Trin.) Kunth; *Vilfa arundinacea* Trin.)

U.S., Russia, Siberia. Perennial, wet meadows, see *Gram. Unifl. Sesquifl.* 157. 1824, *Flora Boreali-Americana* 2: 238. 1840, *Novitarum Florae Suecicae Mantissa*, Tert. 173. 1842, *Flora Rossica* 4(13): 385, 435. 1852, *A Descriptive Catalogue of the Grasses of the United States* 48. 1885, *Grasses of North America for Farmers and Students* 2: 317. 1896 and *Bulletin of the New York Botanical Garden* 2(6): 151-153. 1901, *Repertorium Specierum Novarum Regni Vegetabilis* 13: 161. 1914, *Flora Iakutiae* 1: 155, 163, f. 54. 1930, *Flora URSS* 2: 168. 1934, *Acta Universitatis Lundensis, n.s.* 38: 146. 1942, *Canadian Journal of Botany* 38: 118. 1960, *Bot. Zhurn. (Moscow & Leningrad)* 51: 1105. 1966.

in English: wideleaf polargrass

**A. latifolia** (R. Br.) Griseb. subsp. *latifolia* (*Arctagrostis anadyrensis* V. Vassil.; *Arctagrostis aristulata* Petrov; *Arctagrostis glauca* Petrov; *Arctagrostis latifolia* f. *aristata* Holmb.; *Arctagrostis latifolia* f. *latifolia*; *Arctagrostis latifolia* subsp. *gigantea* Tzvelev; *Arctagrostis latifolia* subsp. *nahanniensis* Porsild; *Arctagrostis latifolia* var. *aristulata*

(Petrov) Tzvelev; *Arctagrostis latifolia* var. *gigantea* (Tzvelev) Tzvelev; *Arctagrostis latifolia* var. *latifolia*; *Arctagrostis latifolia* var. *longiglumis* Polunin; *Arctagrostis stricta* Petrov; *Cinna brownii* Rupr.; *Colpodium latifolium* R. Br.; *Vilfa gigantea* Turcz. ex Griseb.)

Canada, U.S. Erect, rhizomatous, see *Beiträge zur Pflanzenkunde des Russischen Reiches* 2: 66. 1845, *Flora Rossica* 4(13): 435. 1852 and Otto Rudolf Holmberg (1874-1930), [C.J. Hartman] *Handbok i Skandinaviens Flora* 1: 141. Stockholm 1922, *Flora Iakutiae* 1: 156, 159, 161, t. 50, 51. 1930, *Bull. Natl. Mus. Canada* 92 (Biol. Ser. 24): 48, t. 1. 1940, *Bull. Natl. Mus. Canada* 171 (Biol. Ser. 64): 120. 1961, *Arkticheskaia Flora SSSR* 2: 38. 1964, *Zlaki SSSR* 526. 1976.

in English: wideleaf polargrass, polar grass

**A. poaeoides** Nash ex Britton & Rydb.

Canada. See *Bulletin of the New York Botanical Garden* 2(6): 151-153. 1901.

## x Arctodupontia Tzvelev

*Arctophila x Dupontia*.

See *Novosti Sist. Vyssh. Rast.* 10: 91. 1973, *Genera Graminum* 374. 1986.

## Arctophila (Rupr.) N.J. Andersson = *Arctophila* (Rupr.) Rupr. ex Andersson

From the Greek *arktos* “a bear, the north” and *philos* “lover, loving.”

One species, Arctic. Pooideae, Poeae, Poinae, or Pooideae, Poodae, Poeae, perennial, height variable, herbaceous, robust, hollow, rooting at the lower nodes, auricles absent, narrow linear leaf blades, ligule an unfringed membrane, leaves distichous, rhizomatous, stoloniferous, plants bisexual, inflorescence paniculate, spikelets pedicellate and 2- to 6-flowered, floret callus bearded, 2 glumes subequal and shorter than adjacent lemmas, lemmas keeled and 3-nerved, palea present, 2 free and membranous lodicules, 3 stamens, ovary glabrous, 2 stigmas, fodder with high nutritive value, open habitats, wet ground, margins of ponds, swamps, marshy places, bogs, crevices, seashore, along streams, similar to *Colpodium* Trin., type *Arctophila fulva* (Trin.) Andersson, see *Species Plantarum* 1: 67-70. 1753, *Baierische Flora* 1: 100, 334. 1789, *Nouveau Bulletin des Sciences, publié par la Société Philomatique de Paris* 2: 189. 1810, *Fundamenta Agrostographiae* 119, t. 7. 1820, *Handbok i Skandinaviens Flora, Tredje Upplagen* 24. 1838, *Flora Danica* 14: pl. 2343. 1843, *Beitr. Pfl. Russ. Reich.* 2: 62-64, t. 4-6. 1846[1845], *Flora Rossica* 4(13): 385-386. 1852, *Plantae Scandinaviae Descriptionibus et Figuris analyticis Adumbratae. Fasciculus Secundus Gramineae Scandinaviae*

... 48-49. 1852 and *Ottawa Naturalist* 16: 77-85. 1902, *Newslett. Int. Organ. Pl. Biosyst. (Oslo)* 28: 14. 1997, *Phytologia* 82(2): 73-78. 1997, Hong Qian, "Floristic analysis of vascular plant genera of North America north of Mexico: characteristics of phytogeography." *Journal of Biogeography* 26(6): 1307-1321. Nov 1999, *Global Change Biology* 6(4): 459-473. Apr 2000, D.A. Walker, "Hierarchical subdivision of Arctic tundra based on vegetation response to climate, parent material and topography." *Global Change Biology* 6(s1): 19-34. Dec 2000, *Global Change Biology* 7(5): 511-530. May 2001, *Contributions from the United States National Herbarium* 48: 118-119. 2003, *Tellus B* 55(2): 215-231. Apr 2003, W. Wyatt Oswald, Patricia M. Anderson, Linda B. Brubaker, Feng Sheng Hu and Daniel R. Engstrom, "Representation of tundra vegetation by pollen in lake sediments of northern Alaska." *Journal of Biogeography* 30(4): 521-535. Apr 2003, W. Wyatt Oswald, Linda B. Brubaker, Feng Sheng Hu and Daniel G. Gavin, "Pollen-vegetation calibration for tundra communities in the Arctic Foothills, northern Alaska." *Journal of Ecology* 91(6): 1022-1033. Dec 2003, C. Brochmann et al., "Polyploidy in arctic plants." *Biological Journal of the Linnean Society* 82(4): 521-536. Aug 2004, J.T. Ngai and R.L. Jefferies, "Nutrient limitation of plant growth and forage quality in Arctic coastal marshes." *Journal of Ecology* 92(6): 1001-1010. Dec 2004.

### Species

**A. fulva** (Trin.) Andersson (*Arctophila brizoides* Holm; *Arctophila chrysantha* Holm; *Arctophila effusa* Lange; *Arctophila fulva* (Trin.) Rupr. ex Andersson; *Arctophila fulva* f. *aristata* (Polunin) Scoggan; *Arctophila effusa* f. *depauperata* Nath.; *Arctophila fulva* subsp. *fulva*; *Arctophila fulva* subsp. *pendulina* (Laest.) Á. Löve & D. Löve; *Arctophila fulva* subsp. *similis* (Rupr.) Tzvelev; *Arctophila fulva* var. *fulva*; *Arctophila fulva* var. *pendulina* (Laest.) Holmb.; *Arctophila fulva* var. *similis* (Rupr.) Tzvelev; *Arctophila gracilis* Holm; *Arctophila laestadii* Rupr.; *Arctophila mucronata* Hack. ex Vasey; *Arctophila pendulina* (Laest.) Andersson; *Arctophila trichopoda* Holm; *Colpodium fulvum* (Trin.) Griseb.; *Colpodium fulvum* f. *aristatum* Polunin; *Colpodium fulvum* f. *depauperatum* (Nath.) Polunin; *Colpodium fulvum* var. *effusum* (Lange) Polunin; *Colpodium malmgrenii* Andersson; *Colpodium mucronatum* Beal; *Colpodium pendulinum* (Laest.) Griseb.; *Colpodium pendulinum* var. *simile* (Rupr.) Griseb.; *Glyceria fulva* (Trin.) Fries; *Glyceria pendulina* Laest.; *Graphephorum fulvum* (Trin.) A. Gray; *Graphephorum pendulina* (Laest.) A. Gray; *Molinia pendulina* (Laest.) Hartm.; *Poa deflexa* Rupr.; *Poa fulva* Trin.; *Poa laestadii* Rupr.; *Poa latiflora* Rupr.; *Poa pendulina* (Laest.) J. Vahl; *Poa poecilantha* Rupr.; *Poa remotiflora* Rupr.; *Poa similis* Rupr.; *Poa trichoclada* Rupr.)

Canada, Greenland, U.S., Russia. Perennial, somewhat succulent stems, low to dwarf, excellent fodder grass, pasture

for deer, eaten by waterbirds, growing in wet meadows, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(4): 378. 1830, *Flora Suecica (edition 2)* 2: 1088. 1833, E.M. Fries (1794-1878), *Summa Vegetabilium Scandinaviae* 244. Uppsala 1845, *Annals of the Botanical Society of Canada* 1: 57. 1861, *Conspectus Florae Groenlandicae* 1: 167. 1880, *Kongl. Svenska Vetenskapsakad. Handl.* 20: 32. 1883, *A Descriptive Catalogue of the Grasses of the United States* 88. 1885, *Öfversigt af Förhandlingar: Kongl. Svenska Vetenskaps-Akademien* 23: 121, pl 2, f 1. 1886, *Grasses of North America for Farmers and Students* 2: 558. 1896 and *Ottawa Naturalist* 16(3): 82-84, f. 3-4, 6-8. 1902, *Repert. Spec. Nov. Regni. Veg.* 3: 337. 1907, *Handbok i Skandinaviens Flora* 2: 224. 1925, *Journal of Botany, British and Foreign* 76: 96. 1938, *Bulletin of the National Museum of Canada* 92: 78. 1940, *Botaniska Notiser* 114: 49. 1961, *Zlaki SSSR* 486. 1976, *The Flora of Canada* 1: 51. 1978.

in English: pendantgrass, Arctic march grass

### Arctopoa (Griseb.) Probatova = Poa L.

Greek *arktos* "a bear, the north" and *poa* "grass, pasture grass."

Pooideae, Poodae, Poeae, or Pooideae, Poeae, Poinae, see *Species Plantarum* 1: 67-70. 1753, *Flora Altaica* 1: 96-97. 1829, *Reliquiae Haenkeanae* 1(4-5): 273. 1830, *Flora Rossica* 4(13): 392. 1852, *The Flora of British India* 7(22): 339. 1897 [1896] and *Arctic. Fl. SSSR* 2: 121-122. 1964 [*Flora Arctica URSS*], *Novosti Sist. Vyss. Rast.* 8: 34. 1971, *Novosti Sist. Vyss. Rast.* 11: 32, 49-52. 1974, *Novosti Sist. Vyss. Rast.* 13: 41. 1976, *Bot. Zhurn. SSSR* 69(12): 1699-1700. 1984, *Contributions from the United States National Herbarium* 48: 505-580. 2003.

### Argillochloa W.A. Weber = Festuca L.

Greek *argillos* "white clay, argil" and *chloe, chloa* "grass."

Pooideae, Poeae, Loliinae, type *Argillochloa dasyclada* (Hack. ex Beal) W.A. Weber, see *Species Plantarum* 1: 73-76. 1753, *Grasses of North America (edition 2)* 2: 602. 1896 and *Phytologia* 55(1): 1. 1984, *Watsonia* 16: 300. 1987, *Contributions from the United States National Herbarium* 48: 312-368. 2003.

### Argopogon Mimeur = Ischaemum L.

From the Greek *argos* "white" and *pogon* "beard."

Panicoideae, Andropogoneae, Ischaeminae, type *Argopogon vuilletii* Mimeur, see *Species Plantarum* 2: 1049. 1753 and *Revue internationale de botanique appliquée et*

*d'agriculture tropicale* 31: 211, 213. 1951, *Flora Mesoamericana* 6: 386-387. 1994, *Contributions from the United States National Herbarium* 46: 275-276. 2003.

**Aristaria Jungh.** = *Themeda* Forssk.

Latin *arista* for “the awn” or “beard” of grain.

Panicoideae, Andropogoneae, Anthistiriinae, type *Aristaria barbata* Jungh., see *Flora Aegyptiaco-Arabica* 178. 1775, *Tijdschrift voor Natuurlijke Geschiedenis en Physiologie* 7: 296-297. 1840, *Tijdschrift voor Natuurlijke Geschiedenis en Physiologie* 10: 117. 1843, *The Fodder Grasses of Northern India* 43. 1888, *Monographiae Phanerogamarum* 6: 676. 1889 and *Contributions from the United States National Herbarium* 46: 613. 2003.

**Aristavena F. Albers & Butzin** = *Deschampsia* P. Beauv.

Latin *arista* and *avena*.

Pooideae, Poeae, Airinae, type *Aristavena setacea* (Huds.) F. Albers & Butzin, see *Flora Anglica* 30. 1762, *Essai d'une Nouvelle Agrostographie* 91, 149, 160. 1812, *Catalogue Raisonné des Graminées de Portugal* 33. 1880 and *Willdenowia* 8(1): 83. 1977, *Watsonia* 19: 134-137. 1992, *Plant Systematics and Evolution* 205: 99-110. 1997, *Opera Botanica* 137: 1-42. 1999, *Contributions from the United States National Herbarium* 48: 245-246. 2003.

**Aristella Bertol.** = *Achnatherum* P. Beauv., *Aristella* (Trin.) Bertol., *Aristella* Kütz. (Algae), *Stipa* L.

From the Latin *arista* “the awn.”

Pooideae, Stipeae, Stipinae, type *Aristella bromoides* (L.) Bertol., see *Species Plantarum* 1: 78-79. 1753, *Mantissa Plantarum* 30. 1767, *Essai d'une Nouvelle Agrostographie* 19-20, 146, pl. 6, f. 7. 1812, *Fundamenta Agrostographiae* 110. 1820, *Flora Italica* 1: 690. 1833, *Linnaea* 8: 563. 1833 [1834] and *Contributions from the United States National Herbarium* 48: 15-18, 617-650. 2003.

**Aristida L.** = *Aristopsis* Catusus Guerra, *Arthratherum* P. Beauv., *Chaetaria* P. Beauv., *Curtopogon* P. Beauv., *Kielboul* Adans., *Moulinia* Raf., *Schistachne* Fig. & De Not., *Stipagrostis* Nees, *Streptachne* Kunth, *Streptachne* R. Br., *Trixostis* Raf.

From the Latin *arista*, *ae* “the awn, the beard of an ear of grain,” because many of the species have extremely long awns.

About 250-350 species, cosmopolitan, warm-temperate, tropical and subtropical. Arundinoideae, Aristideae, or Aristidoideae, Aristideae, annual or perennial bunchgrass, herbaceous, caespitose, forming tussocks, slender wiry culms, solid or hollow internodes, no auricles, ligule shortly hairy, leaves flat or often inrolled and mostly basal, leaf blades acute linear to linear-lanceolate to filiform, plants bisexual, if present the hidden cleistogenes in the leaf sheaths, inflorescence a narrow panicle open or spicate, spikelets not secund and pedicellate, 1 bisexual floret, equal or unequal glumes membranous and keeled, lower glume 1-nerved, lemma convolute or involute, lemmas narrow and cylindrical with a 3-branched awn or 3 awns, all 3 awns quite glabrous or upwardly scabrous, callus long and pointed and shortly bearded, small and hyaline palea, lodicules absent or present, 2 or 3 lodicules membranous when present, 1-3 stamens, ovary glabrous, 2 stigmas reddish or dark brown, sharply pointed seeds spear-like, weed species, ornamental, native pasture species, usually not valuable as fodder, the awns of many species can injure livestock, drought-tolerant, growing in semiarid woodlands, bare land, savannah, degraded pastures, rainforest, grassland, pampas, in low rainfall areas, on poor dry soils, in stony arid soils, under certain conditions several species could develop toxic properties, genus divided according to the awn characters, a difficult genus taxonomically, type *Aristida adscensionis* L., see *Species Plantarum* 1: 82. 1753, *Genera Plantarum*. edition 5. 35. 1754, *Familles des Plantes* 2: 31, 539. 1763, *Neues Journal für die Botanik* 3: 255. 1809, *Prodromus Florae Novae Hollandiae* 174. 1810, *Essai d'une Nouvelle Agrostographie* 32, 152, 158-159, t. 8, f. 7. 1812, *Nova Genera et Species Plantarum* 1: 124, t. 40. 1815 [1816], *A Sketch of the Botany of South-Carolina and Georgia* 1: 142-143, t. 8, f. 3. 1816, *Conspectus Regni Vegetabilis* 50. 1828, *Bulletin Botanique [Genève]* 1: 221. 1830, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 83. 1830, *Linnaea* 7(3): 290-291. 1832, *Species Graminum Stipaceorum* 155, 163. 1842, *Memorie della Reale Accademia delle Scienze di Torino, ser. 2* 12: 252. 1852 and *Bibliotheca Botanica* 85(1): 341. 1915, *Contr. U.S. Natl. Herb.* 22(7): 519, 529. 1924, *Contributions from the United States National Herbarium* 24(8): 291-556. 1927, *Mededeelingen van's Rijks-Herbarium* 58: 34-36, 45-46. 1929, *Contributions from the Gray Herbarium of Harvard University* 184: 1-223. 1958, *Kurtziana* 1: 123-206. 1961, *Flora Illustrada de Entre Ríos (Argentina)* 6(2): 208-224. 1969, *Flora de la Provincia de Buenos Aires* 4(2): 352-369. 1970, *Brittonia* 23(3): 293-324. 1971, *Folia Primatologica* 21: 36-60. 1974, *Phytologia* 37(4): 317-407. 1977, *Folia Geobotanica et Phytotaxonomica* 16(4): 439. 1981,

*Flora Illustrada Catarinense* 1(Gram.): 443-906. 1982, *Journal of Cytology and Genetics* 18: 58-59. 1983, *Proceedings of the Indian National Science Academy. Part B, Biological Sciences* 5: 609-626. 1985, *Rhodora* 88(855): 367-387. 1986, *Annals of the Missouri Botanical Garden* 77(1): 139-141. 1990, *Acta Botanica Brasiliica* 4(1): 105-124. 1990, *Taxon* 40: 5-17. 1991, *Boletín de la Sociedad Argentina de Botánica* 29(1-2): 85-92. 1993, *Flora Mesoamericana* 6: 253-257. 1994, *Flora del Valle de Tehuacán-Cuicatlán* 3: 1-35. 1994, *Flora of Ethiopia and Eritrea* 7: 76-85. 1995, *Grassland of China* 1995(1): 16-20. 1995, *Annals of the Missouri Botanical Garden* 82: 593-595. 1995, *Candollea* 53(2): 466-470. 1998, *Bot. Rev.* 64: 1-85. 1998, *Boletim do Instituto de Botânica (São Paulo)* 12: 113-179. 1999, *Acta Botánica Mexicana* 63: 1-45. 2003, *Contributions from the United States National Herbarium* 46: 69-104. 2003, *Flora of Australia* vol. 44B, Poaceae 3: 71-118. 2005.

### Species

*A.* sp.

in Nigeria: ulumboju

in Mexico: pasto

*A. abnormis* Chiov. (*Aristida redacta* auct. non Stapf)

Ethiopia, Somalia, Arabia. Annual, slender, tufted, wiry, erect, spreading, branched, loose and open inflorescence paniculate, glumes subequal narrowly lanceolate, lower glume usually deciduous, lemma scabrous to scabrid, column without an articulation, lateral awns absent or reduced, hillsides, limestone, dry sandy areas, stony soils, related to *Aristida refracta* Griseb., see *Annuario del Reale Istituto Botanico di Roma* 8(1): 48, t. 6. 1903.

in Somalia: tiif

*A. achalensis* Mez (*Aristida achalensis* var. *elongata* Henrard; *Aristida achalensis* var. *tucumana* (Henrard) Henrard; *Aristida decipiens* Henrard; *Aristida elongata* Henrard; *Aristida mandoniana* Henrard; *Aristida tucumana* Henrard)

Argentina, Sierra Achala. Perennial, erect, see *Mededeelingen van's Rijks-Herbarium* 40: 55. 1921, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 149. 1921, *Mededeelingen van's Rijks-Herbarium* 54: 4. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 641-642. 1928, *Mededeelingen van's Rijks-Herbarium* 58(A): 221, t. 102. 1932, *Meded. Rijks-Herb.* 54(C): 712. 1933.

*A. achalensis* Mez var. *achalensis*

America.

*A. achalensis* Mez var. *tucumana* (Henrard) Henrard (*Aristida tucumana* Henrard)

America. See *Mededeelingen van's Rijks-Herbarium* 54(B): 641-642. 1928, *Mededeelingen van's Rijks-Herbarium* 58: 234, t. 110. 1932.

*A. acuta* S.T. Blake

Australia, New South Wales, Queensland. Tufted, perennial, culms thin and few-noded, leaves scabrous, sheath smooth, panicle loose to open and sparse, unequal glumes linear to ovate, lower glume long-acuminate, upper glume abruptly acuminate and entire, lemma with purplish spots, awns flattened to concave to filiform, mostly in open forest, see *Proceedings of the Royal Society of Queensland* 51: 169, t. 4, f. 1-3. 1940.

in English: slender wiregrass

*A. acutiflora* Trin. & Rupr. (*Aristida brachyptera* var. *acutiflora* (Cosson & Bal.) T. Durand & Schinz; *Aristida zittelii* Asch.; *Arthratherum brachyatherum* var. *acutiflorum* (Trin. & Rupr.) Cosson & Durand; *Stipagrostis acutiflora* (Trin. & Rupr.) De Winter)

Central Africa. See *Species Graminum Stipaceorum* 167. 1842, *Exploration Scientifique de l'Algérie* 2: 291. 1867, *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 21: 70. 1880, *Conspectus Florae Africae* 5: 801. 1894 and *Meded. Rijks-Herb.* 54(B): 690. 1928, *Flore de l'Afrique du Nord*: 2: 41. 1953, *Kirkia* 3: 133. 1963.

in Niger: ematale, assoerdin, taerhemut, idébon

*A. adoensis* Hochst. (*Aristida adoensis* Hochst. ex A. Rich., nom. illeg., non *Aristida adoensis* Hochst.)

Africa, Ethiopia. Perennial, small, erect, tussocky, smooth, leaf blades filiform, basal leaves, inflorescence spiciform, panicle linear, densely crowded spikelets, glumes subequal, lemma keeled, awns subequal, seeds typically 3-awned, grains eaten by baboons, found along roadsides, clearings, well-drained grassland, scrubland, shrubland, wooded grassland, see *Schimperi iter Abyssinicum. Sectio III* 1806. 1844, *Tentamen Florae Abyssinicae ...* 2: 390. 1850.

*A. adscensionis* L. (*Aristida adscensionis* f. *modestina* Hack.; *Aristida adscensionis* f. *viridis* Kuntze; *Aristida adscensionis* L. subsp. *guineensis* (Trin. & Rupr.) Henr.; *Aristida adscensionis* subvar. *condensata* Hack.; *Aristida adscensionis* var. *abortiva* Beetle; *Aristida adscensionis* var. *abyssinica* (Trin. & Rupr.) Engl.; *Aristida adscensionis* var. *adscensionis*; *Aristida adscensionis* var. *aethiopica* (Trin. & Rupr.) T. Durand & Schinz; *Aristida adscensionis* var. *bromoides* (Kunth) Henrard; *Aristida adscensionis* var. *canariensis* (Willd.) T. Durand & Schinz; *Aristida adscensionis* var. *coarctata* (Kunth) Kuntze; *Aristida adscensionis* var. *condensata* (Hack.) Henrard; *Aristida adscensionis* var. *decolorata* (E. Fourn.) Beetle; *Aristida adscensionis* var. *ehrenbergii* (Trin. & Rupr.) Henrard; *Aristida adscensionis* var. *festucoides* (Poir.) Henrard; *Aristida adscensionis* var. *humilis* (Kunth) Kuntze; *Aristida adscensionis* var. *interrupta* (Cav.) Beetle; *Aristida adscensionis* var. *mexicana* Hack. ex Henrard; *Aristida adscensionis* var. *modesta* Hack.; *Aristida adscensionis* var. *nigrescens* (J. Presl) Beetle; *Aristida adscensionis* var. *normalis* Kuntze; *Aristida*

*adscensionis* var. *pygmaea* (Trin. & Rupr.) T. Durand & Schinz; *Aristida adscensionis* var. *scabriflora* Hack.; *Aristida adscensionis* var. *strictiflora* (Trin. & Rupr.) T. Durand & Schinz; *Aristida adscensionis* var. *typica* Stapf; *Aristida aethiopica* Trin. & Rupr.; *Aristida aethiopica* (Trin. & Rupr.) Trin. & Rupr. ex Henrard; *Aristida americana* var. *bromoides* (Kunth) Scribn. & Merr.; *Aristida bromoides* Kunth; *Aristida caerulescens* Desf.; *Aristida caerulescens* Desf.; *Aristida canariensis* Willd.; *Aristida coarctata* Kunth; *Aristida confusa* Trin. & Rupr.; *Aristida confusa* (Trin. & Rupr.) Trin. & Rupr. ex Henrard; *Aristida curvata* (Nees) Trin. & Rupr.; *Aristida curvata* (Nees) Trin. & Rupr. ex Henrard; *Aristida curvata* (Nees) Dur. & Schinz; *Aristida curvata* var. *abyssinica* A. Rich.; *Aristida debilis* Mez; *Aristida depressa* auct., non Retz.; *Aristida dispersa* Trin. & Rupr.; *Aristida dispersa* var. *bromoides* (Kunth) Trin. & Rupr.; *Aristida dispersa* var. *coarctata* (Kunth) Trin. & Rupr.; *Aristida dispersa* var. *humilis* (Kunth) Trin. & Rupr.; *Aristida dispersa* var. *nana* Trin. & Rupr.; *Aristida dispersa* var. *nigrescens* (J. Presl) Trin. & Rupr.; *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida ehrenbergii* Trin. & Rupr.; *Aristida ehrenbergii* (Trin. & Rupr.) Trin. & Rupr. ex Henrard; *Aristida fasciculata* Torr.; *Aristida festucoides* Poir.; *Aristida festucoides* Steud. & Hochst.; *Aristida grisebachiana* E. Fourn.; *Aristida grisebachiana* var. *decolorata* E. Fourn.; *Aristida grisebachiana* var. *grisebachiana*; *Aristida guineensis* Trin. & Rupr.; *Aristida humilis* Kunth; *Aristida interrupta* Cav.; *Aristida laxa* Willd. ex Trin. & Rupr.; *Aristida macrochloa* Hochst.; *Aristida mandoniana* Henr.; *Aristida maritima* Steud.; *Aristida mauritiana* Hochst. ex A. Rich., nom. illeg., non *Aristida mauritiana* Kunth; *Aristida modatica* Steud.; *Aristida nana* (Trin. & Rupr.) Steud.; *Aristida nana* Steud.; *Aristida nigrescens* J. Presl; *Aristida peruviana* Beetle; *Aristida pusilla* Trin. & Rupr.; *Aristida schaffneri* E. Fourn.; *Aristida schaffneri* E. Fourn. ex Hemsl.; *Aristida stricta* Michx.; *Aristida stricta* var. *decolorata* E. Fourn. ex Dávila & Sánchez-Ken; *Aristida stricta* var. *grisebachiana* E. Fourn. ex Dávila & Sánchez-Ken; *Aristida submucronata* Schumach.; *Aristida vulgaris* var. *abyssinica* Trin. & Rupr.; *Aristida vulgaris* var. *aethiopica* Trin. & Rupr.; *Aristida vulgaris* var. *canariensis* (Willd.) Trin. & Rupr.; *Aristida vulgaris* var. *curvata* (Nees) Trin. & Rupr.; *Aristida vulgaris* var. *strictiflora* Trin. & Rupr.; *Chaetaria adscensionis* (L.) P. Beauv.; *Chaetaria bromoides* (Kunth) Roem. & Schultes; *Chaetaria canariensis* (Willd.) Nees; *Chaetaria coarctata* (Kunth) Roem. & Schult.; *Chaetaria curvata* Nees; *Chaetaria fasciculata* (Torr.) Schultes; *Chaetaria humilis* (Kunth) Roem. & Schultes; *Chaetaria interrupta* (Cav.) P. Beauv.; *Chaetaria nana* Nees ex Steud.) Tropics, subtropics and warm temperate regions. Annual or short-lived perennial, extremely variable, tufted, yellow to bright green, simple or often branched, culms erect or ascending and many-noded, ligule a ring of hairs, leaf sheath tight and glabrous, narrow and long pointed leaves, flexuous and narrow inflorescence,

panicle usually contracted, young panicles feathery, seed head purplish, spikelets densely clustered on the branches, scabrous and stiff awns terete, glumes usually unequal, upper glume emarginate or bifid, lemma laterally compressed, awns very variable, sharp seeds may penetrate the skin of the sheep, a pioneer grass, useful for erosion control, unpalatable, poor forage, of little or no value for grazing, grazed when young and tender, weed species, in India used for making broomsticks, flowers used topically for itch and ringworm, found in sandy soils, semiarid situations, poor sandy and stony soils, plains and low hills, poor dry soil, cultivated areas, shallow soils on stony hills, open bush, open shrubland, disturbed poor soil, grassland, moist areas, on disturbed and bare soils, wasteland, roadsides, floodplains, along washes and canyons in desert scrub and desert grassland, rocky places, fallows, on rocky slopes, coarse sand, lawn, see *Species Plantarum* 1: 82. 1753, *Flora Atlantica* 1: 109, t. 21, f. 2. 1798, *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 45, t. 471, f. 2. 1799, *Flora Boreali-Americana* 1: 41. 1803, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 99. 1809, *Essai d'une Nouvelle Agrostographie* 30, 151, 158. 1812, *Nova Genera et Species Plantarum* 1: 121-122. 1815 [1816], *Systema Vegetabilium* 2: 396. 1817, *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Mantissa* 3(Add.1): 578. 1827, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 387. 1829, *Reliquiae Haenkeanae* 1(4-5): 223. 1830, *Nomenclator Botanicus* edition 2 1: 131, 340. 1840, *Florae Africae Australioris Illustrationes Monographicae* 186. 1841, *Species Graminum Stipaceorum* 129-134, 137, 140. 1842, *Abhandlungen der Böhmisches Gesellschaft der Wissenschaften, nebst der Geschichte derselben* 3: 550. 1845, *Tentamen Florae Abyssinicae ...* 2: 392. 1850, *Synopsis Plantarum Glumacearum* 1: 137-139. 1855 [1854], *Flora* 38: 200. 1855, *Biologia Centrali-Americana; ... Botany ...* 3: 542. 1885, *Mexicanas Plantas* 2: 78. 1886, *Conspectus Florae Africae* 5: 799-800. 1894, *The Flora of British India* 7: 224. 1897, *Revisio Generum Plantarum* 3: 340. 1898 and *Circular, Division of Agrostology, United States Department of Agriculture* 32: 5. 1901, *Anales del Museo Nacional de Buenos Aires* 11: 89, 91. 1904, *Anales del Museo Nacional de Buenos Aires* 13: 450. 1906, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 151. 1921, *Mededeelingen van's Rijks-Herbarium* 40: 55. 1921, *Contr. U.S. Natl. Herb.* 22(7): 542-543. 1924, *Mededeelingen van's Rijks-Herbarium* 54: 2, 9, 13, 15, 21, 54, 62, 112, 124-126, 132-133, 158, 216, 265. 1926-1927, *Mededeelingen van's Rijks-Herbarium* 54(B): 537. 1928, *Kurtziana* 1: 141-142. 1961, *Phytologia* 28(4): 315, 317-318. 1974, *Phytologia* 30(5): 348. 1975, *Fl. Novo-Galic.* 14: 53. 1983, *Madroño* 40: 266. 1993, *Flora del Valle de Tehuacán-Cuicatlán* 3: 9-10. 1994.

in English: annual bristle grass, broomstick grass, annual three-awn, common needle grass, annual three-awned grass,

three-awn, three-awn grass, six-weeks three-awn, sixweeks threeawn, six-weeks three-awn grass, annual stick grass

in French: aristida bleuté

in India: barlia, bhusaria, bundi oobina hullu, cheevam pul, dhonsa, kaadu nose hullu, kaadu sanna hanchi hullu, kodai bala pullu, lappa, mahtari mulmul, mhutari mulmul, nalla putiki, oosi pullu, poraka gaddi, shigan pullu

in Spanish: flechilla, agujilla, plumilla, zacate, zacate de agua, zacate de semilla, zacate tres barbas, tres barbas anual, tres barbas, Aristida común, cola de zorra

in Mexico: pasto, tres barbas, tres barbas anual, zacate de agua, zacate de agua tres barbas, zacate cola de zorra

in Arabic: lhayet lehmar, thunayb

in Ghana: motodo

in Mali: dugun bee, allomoze, tezenat

in Mauritania: lhayet lehmar

in Morocco: chich-ed-dib, tizzit

in Niger: agaemmud, alaemos, budu, kalabon, kalau, seko, subu galigali, wutsiya'r kurege

in Nigeria: ba-zayyana, bazayyanao, datsi, gatsaura, iru ofe, katsaura, lale shamuwa, oka olongo, selbi, tsintsinyar dutse, tsintsinyar dutsee, wicco tenemeje, wutsiyar kurege baki

in Senegal: hetieb, mbol tieb

in Somalia: birre', birreh, bille, harfo, tinleh, madweed, ebateete

in Southern Africa: besemgras, eenjarige steekgras, einjäh-rige stechgras, lossteekgras, steekgras; lefielo (Sotho)

in Sudan: homra, gaaw

in Upper Volta: celbi, selbo

in Yoruba: oka olongo, iru ofe

**A. adscensionis** L. subsp. **guineensis** (Trin. & Rupr.) Henrard

Tropic, subtropic and warm temperate regions. See *Mededeelingen van's Rijks-Herbarium* 54: 216. 1926.

**A. aequiglumis** Hack.

South Africa. Tufted, stout, unbranched, short and stout rhizome, leaves mostly basal, dense and contracted inflorescence, glumes subequal to equal, lower glume mucronate, 3 awns, found in seasonally flooded areas, rocky slopes, highveld, bushveld, hillsides, sandy soils, eroded soils, see *Bulletin de l'Herbier Boissier* 3(8): 381. 1895.

in English: curly-leaved three-awned grass

**A. altissima** Arechav. (*Aristida laevis* (Nees) Kunth; *Chaetaria laevis* Nees)

Uruguay. See *Flora Brasiliensis seu Enumeratio Plantarum* 2: 384-385. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 192. 1833 and *Anales del Museo Nacional de Montevideo* 4(1): 80-81, 73, t. 5. 1902.

**A. amazonensis** Longhi-Wagner

Brazil. See *Kew Bulletin* 49(4): 817, f. 1. 1994.

**A. amplexifolia** Caro & E.A. Sánchez (*Aristida antoniana* Steud. ex Döll)

Argentina. See *Flora Brasiliensis* 2(3): 19. 1878 and *Mededeelingen van's Rijks-Herbarium* 54: 31. 1926, *Darwiniana* 19(2-4): 413-417, f. 1. 1975.

**A. anisochaeta** Clayton

Ethiopia, Somalia. Perennial or annual, short lived, wiry, much-branched, tufted, delicate open and loose panicle, slender capillary branches, glumes very unequal, lemma fusiform, central awn stout and long, lateral awns very fine and short, found on red sandy soils, plains, limestone, see *Kew Bulletin* 23: 211. 1969, *Kew Bulletin*: 47(2): 277-282. 1992.

in Somalia: xalfo

**A. annua** B.K. Simon

Australia, Queensland. Vulnerable species, see *Austrobaileya* 2(1): 87, f. 1A. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. anthoxanthoides** (Domin) Henrard (*Aristida adscensionis* L. var. *anthoxanthoides* Domin; *Aristida adscensionis* var. *subaequiglumis* Domin; *Aristida depressa* sensu Benth., non Retz.; *Aristida peregrina* Henrard) (from the genus *Anthoxanthum* L. and *eidos*, *oides* "resemblance," Greek *anthos* "flower" and *xanthos* "yellow")

South Australia, Western Australia, Northern Territory, Queensland, New South Wales. Annual or rarely short-lived perennial, sparsely tufted, small, slender, erect, stems usually bent at the lower nodes, simple or sparsely branched, sheath usually scabrous, bluish green leaves minutely scabrous and rigid, dense oblong spike-like panicle pale yellow, glumes unequal, lower glume acute, upper glume obtuse, glumes mucronate and with scabrid keels, lemma strongly nerved and without an articulation, awns equal and flattened, on clay or heavy soils, palatable and grazed, attractive, see *Species Plantarum* 1: 82. 1753 and *Bibliotheca Botanica* 85(2): 343, t. 15, f. 9-12. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 16, 29-30. 1926.

in English: yellow three-awned grass, yellow three-awn, pale wire grass

**A. antoniana** Steud. ex Döll (*Aristida amplexifolia* Caro & E.A. Sánchez; *Aristida antoniana* Steud. ex Lechler; *Aristida enodis* Hack.; *Aristida pflanzii* Mez)

South America, Bolivia. Perennial, caespitose, erect, ligule hairy, leaf blades pungent, panicles oblong, glumes lanceolate and subequal, lemma cylindrical, awns persistent and unequal, on rocky places, see *Berberides Americana Australis* 56. 1857, *Flora Brasiliensis* 2(3): 19. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 11: 21.

1912, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 151. 1921, *Darwiniana* 19(2-4): 413-417, f. 1. 1975.

**A. appressa** Vasey (*Aristida appressa* var. *brevior* Vasey; *Aristida orizabensis* var. *pseudospadicea* (F.T. Hubb.) Henrard; *Aristida pseudospadicea* F.T. Hubb.)

Mexico. Savannah, along roadsides, see *Mexicanas Plantas* 2: 78. 1886, *Contributions from the United States National Herbarium* 1(8): 282. 1893 and *Proceedings of the American Academy of Arts and Sciences* 49(8): 500. 1913, *Mededeelingen van's Rijks-Herbarium* 54(B): 473. 1928.

**A. arida** B.K. Simon

South Australia. Tufted, perennial, inflorescence narrow and spike-like, glumes smooth and keeled and unequal in length, lemma convolute and densely spiny-tuberculate, awns scaberulous and flattened, not palatable, see *Austrobaileya* 2(1): 87, f. 1B. 1984, *Acta Botanica Yunnanica* 10: 49-54. 1988, *Australian Systematic Botany* 5: 129-226. 1992.

**A. arizonica** Vasey

U.S. Erect, forage, growing on dry soils, see *Bulletin of the Torrey Botanical Club* 13(2): 27. 1886 and *Contr. U.S. Natl. Herb.* 22(7): 568. 1924, *Phytologia* 37(4): 317-407. 1977, *Memoirs San Diego Society of Natural History* 12: 1-140. 1981.

in English: Arizona three-awn, Arizona threeawn, needle grass

in Spanish: tres aristas

in Mexico: tres aristas arizónico

**A. arubensis** Henrard

Aruba, the Caribbean, Venezuela. Perennial, caespitose, see *Mededeelingen van's Rijks-Herbarium* 54: 41-42. 1926.

**A. asplundii** Henrard (for the Swedish botanist Eric (Erik) Asplund, 1888-1974, plant collector in Cuba and South America)

Bolivia, Argentina. Perennial, densely caespitose, coarse, stiff, leaves mostly basal, leaf blades stiff and more or less pungent, inflorescence pyramidal with single branches or rarely 2 together, the whole inflorescence often breaking off at maturity, glumes subequal linear-lanceolate, on grazed land, eroded places, open slopes, see *Mededeelingen van's Rijks-Herbarium* 54: 42-43. 1926, *Sida* 17: 709. 1997.

**A. asplundii** Henrard var. *asplundii*

America.

**A. asplundii** Henrard var. *pauciflora* Sulekic

Argentina. See *Darwiniana* 41(1-4): 167-168, f. 4. 2003.

**A. australis** B.K. Simon

South Australia. Tufted, perennial, leaf blades flat and flexuous, inflorescences loosely contracted, glumes smooth, lemma smooth, awns slender, see *Austrobaileya* 2(1): 88, f. 1C. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. balansae** Henr.

Asia, Indochina, Vietnam. See *Repertorium Specierum Novarum Regni Vegetabilis* 17: 397. 1921.

in Thailand: ya faek mai, ya phraek mai, ya hang suea, ya hang ma chingchok, yaa faek mai, yaa haang suea, yaa haangmaa ching chok, yaa phraek mai

**A. barbicollis** Trin. & Rupr. (*Aristida congesta* subsp. *barbicollis* (Trin. & Rupr.) De Winter)

Kenya, South Africa, Mozambique. Perennial, densely tufted, erect, leaf blades linear, leaf sheaths silky, panicle ovate, spikelets clustered, glumes unequal, lower glume lanceolate and acute, upper glume linear and bifid, on disturbed areas, closely related to *Aristida mutabilis* Trin. & Rupr., see *Species Graminum Stipaceorum* 152. 1842 and *Mededeelingen van's Rijks-Herbarium* 58: 132. 1929, *Mededeelingen van's Rijks-Herbarium* 54(C): 705. 1933.

in English: spreading prickly grass, spreading three-awn, spreading bristlegrass

in South Africa: witsteekgras, lossteekgras

**A. basiramea** Engelman ex Vasey (*Aristida basiramea* var. *basiramea*; *Aristida basiramea* var. *curtissii* (A. Gray) Shinners)

U.S. Annual, short, 3-awned, stems and leaves sparsely hairy, ligule a short ring of hairs, growing on dry sandy soil and open ground, in sand prairie and sand savannah, on sand barrens, abandoned sandy fields, see *Botanical Gazette* 9: 76. 1884, *A Manual of the Botany of the Northern United States (edition 6)* 640. 1890 and *Contr. U.S. Natl. Herb.* 22(7): 533. 1924, *American Midland Naturalist* 23: 633. 1940, *Rhodora* 88(855): 367-387. 1986.

in English: forked-tip three-awn grass, forked threeawn, forking three-awn, forktip three-awn, fork-tip three-awn grass, branching needle-grass

**A. behriana** F. Muell. (after the German botanist Hans Hermann Behr, 1818-1904, physician, traveler in Australia and California, wrote *Flora of the Vicinity of San Francisco*. San Francisco. 1888; see J.H. Barnhart, *Biographical notes upon botanists*. 1: 154. 1965)

South Australia, Victoria, New South Wales, Queensland, Northern Territory. Perennial, forming low open tussocks, small, short, erect, rigid, culms simple and compressed, sheath scaberulous, leaf blade convolute and scabrous, inflorescence dense and contracted, panicle brush-like and purplish, glumes unequal, lemma convolute and more or less smooth, awns often purple filiform and stiff, ornamental and showy, drought-resistant, growing in dry areas, open woodlands and grasslands, on loamy soils, see *Transactions and Proceedings of the Victorian Institute for the Advancement of Science* 1: 44. 1855 and *Mededeelingen van's Rijks-Herbarium* 54: 52. 1926, *Brunonia* 3(2): 271-333. 1980, *Australian Systematic Botany* 5: 129-226. 1992.



in English: brush wire grass, bunch wire grass, three-awned grass

**A. benthamii** Henrard (after the English (b. Devon) botanist George Bentham, 1800-1884 (London), son of Samuel Bentham and nephew of Jeremy Bentham, taxonomist, from 1829 to 1840 Secretary of the Horticultural Society, 1862 Fellow of the Royal Society of London and in 1826 of the Linnean Society, from 1861 to 1874 President of the Linnean Society, among his most valuable writings are *Handbook of the British Flora*. London 1858, *Flora hongkongensis*. London 1861, *Labiatarum genera et species*. London 1832-1836, *The Botany of the Voyage of H.M.S. Sulphur*, under the command of captain Sir Edward Belcher ... during the years 1836-1842. London 1844[-1846] and *Catalogue des plantes indigènes des Pyrénées et du bas Languedoc*. Paris 1826 author of most of the *Genera Plantarum* (London 1862-1883) of Bentham and Joseph Dalton Hooker (1817-1911) and in collaboration with Ferdinand Mueller of *Flora Australiensis*. London 1863-1878, his herbarium amounted to over 100,000 specimens. See J.H. Barnhart, *Biographical notes upon botanists*. 1: 165. 1965; Antoine Lasègue (1793-1873), *Musée botanique de M. Benjamin Delessert*. Paris, Leipzig 1845; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 34. 1972; George Taylor, in *D.S.B.* 2: 614-615. 1981; Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker*. London 1918; B. Daydon Jackson, *George Bentham*. London 1906; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; Francis Wall Oliver (1864-1951), editor, *Makers of British Botany*. Cambridge 1913; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 130. Oxford 1964; Mea Allan, *The Hookers of Kew*. London 1967; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 447. 1973; Merle A. Reinikka, *A History of the Orchid*. Timber Press 1996; Emil Bretschneider, *History of European Botanical Discoveries in China*. [Reprint of the original edition 1898.] Leipzig 1981; N. Hall, *Botanists of the Eucalypts*. Melbourne 1978 and Supplement 1980; M. Hadfield et al., *British Gardeners: A Biographical Dictionary*. London 1980)

Australia, Queensland, New South Wales, Tasmania. Perennial, densely and compactly tufted, slender, simple or branched, culms terete or compressed, sheath scabrous, leaves flexuous to curly, panicle contracted and narrow or loose and open, subequal or unequal glumes linear to ovate, lower glume long-acuminate, upper glume with a bifid apex and a mucro between the lobes, lemma linear to elliptic dark or purple, awns filiform, tolerates stock grazing, grows in sandy soils, in poor gravelly soils, in Tasmania endangered, see *Mededeelingen van's Rijks-Herbarium* 58(A):

246, t. 117. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 705. 1933, *Brunonia* 3(2): 271-333. 1980, *Austrobaileya* 2(1): 87-102. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

in English: three-awned spear-grass, wire grass

**A. benthamii** Henrard var. **benthamii**

Queensland, New South Wales. Lemma without tubercles, see *Australian Systematic Botany* 5: 129-226. 1992.

**A. benthamii** Henrard var. **spinulifera** B.K. Simon

Queensland, New South Wales. Lemma with tubercles, see *Austrobaileya* 2(1): 94. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. beyrichiana** Trin. & Rupr. (*Aristida stricta* auct. nonn.; *Aristida stricta* Michx.; *Aristida stricta* Michx. var. *beyrichiana* (Trin. & Rupr.) D.B. Ward)

U.S., Florida, South Carolina. Perennial, tufted, ground cover, bunchgrass, green, fire-stimulated flowering, cover for bird nesting, growing in scrubby flatwoods, fields, grasslands, bogs, roadsides, mesic flatwoods, open woods, savannahs, see *Flora Boreali-Americana* 1: 41. 1803, *Species Graminum Stipaceorum* 104. 1842 and *Rhodora* 95(881): 25-37. 1993, *Novon* 11(3): 362. 2001.

in English: wire grass, wiregrass, three-awn wiregrass, southern wiregrass, Beyrich's three-awn

**A. biglandulosa** J.M. Black (*Aristida biglandulosa* var. *laevis* B.K. Simon)

Australia, Northern Territory. See *Transactions and Proceedings of the Royal Society of South Australia* 57: 146, t. 8, f. 9. 1933, *Austrobaileya* 2(1): 95, f. 5C. 1984, *Australian Systematic Botany* 5: 177. 1992.

**A. biglandulosa** J.M. Black var. **biglandulosa**

South Australia, Queensland. Perennial, tufted, robust, branched, glaucous, leaf blades scabrous above, inflorescence narrow-cylindrical, glumes cuspidate and with scarbid keels, awns subequal, grazed when young.

in English: two-gland three-awn, two gland threeawn

**A. bipartita** (Nees) Trin. & Rupr. (*Chaetaria bipartita* Nees)

South Africa, Mozambique. Perennial, tufted, weak, erect or geniculate, hard leaves, open panicle with stiff branches, spikelets purplish 3-awned, lower glume awned, the whole inflorescence breaks off at maturity, unpalatable, very low grazing value, common in moist areas, on soils very clayey, overgrazed veld, in disturbed areas, near vleis, along roadsides, see *Florae Africae Australioris Illustrationes Monographicae* 187. 1841, *Species Graminum Stipaceorum* 144. 1842.

in English: rolling grass, rolling three-awned grass, three-awn rolling grass

in Southern Africa: krulgras, rolgras, rolsteekgras, steekgras; bohlayana-ba-pere (Sotho)

**A. bissei** Catusas

Cuba. See *Novosti Sist. Vyss. Rast.* 20: 7. 1983, *Acta Botanica Cubana* 24: 4. 1985.

**A. blakei** B.K. Simon (for Stanley Thatcher Blake, 1910-1973)

Queensland, New South Wales. Annual or very short-lived perennial, tufted, smooth, glaucous, many branched at the lower nodes, sheath smooth, narrow panicle loosely contracted and with branches erect, subequal or unequal glumes lanceolate and notched, mauve lemma linear-elliptic and tuberculate, awns filiform and divergent, grows on clay and sandy soils, see *Austrobaileya* 2(1): 88, f. 1D. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. brachyathera** Coss. & Balansa (*Aristida brachyathera* (Coss. & Durieu) Diels; *Arthratherum brachyatherum* (Coss. & Balansa) Coss. & Durieu; *Stipagrostis brachyathera* (Coss. & Balansa) De Winter)

Algeria. Rare species, see *Bulletin de la Société Botanique de France* 5: 169, 786. 1858, *Exploration Scientifique de l'Algérie* 2: 290. 1867 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 54. 1917, *Kirkia* 3: 133. 1963.

**A. brainii** Melderis

Zimbabwe. Rare species, see *Boletim da Sociedade Brotteriana, ser. 2* 44: 279. 1970.

**A. brasiliensis** Longhi-Wagner (*Aristida implexa* Trin.; *Aristida megapotamica* Spreng.)

Brazil. Solitary, on moist ground, see *Systema Vegetabilium, editio decima sexta* 4: 31. 1827, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4: 48. 1836 and *Novon* 2(1): 36-37, 39, f. 1. 1992.

**A. brittonorum** Hitchc. (Nathaniel Lord Britton 1859-1934, Elizabeth Gertrude Britton 1858-1934)

Cuba. Endangered species, perennial, stout, erect, leaf blades involute, narrow panicle, glumes acuminate, awns subequal, found in white sand, see *Contributions from the United States National Herbarium* 22(7): 584. 1924, *Fontqueria* 46: [i-ii], 1-259. 1997.

**A. burbridgeae** B.K. Simon (*Aristida pruinosa* var. *tenuis* C. Gardner)

Western Australia. Perennial, loosely tufted, branched, inflorescence spicate, similar to *Aristida latzii*, see *Bibliotheca Botanica* 85(2): 345-346. 1915, *Flora of Western Australia* 1(1): 168. 1952, *Austrobaileya* 2(1): 89, f. 1G. 1984.

**A. burraensis** B.K. Simon

Queensland, North Kennedy District, Burra Range. Perennial, compactly tufted, branched or unbranched, congested inflorescence spicate, lemma with terete awns, similar to *Aristida nitidula* and *Aristida latzii*, see *Austral. Syst. Bot.* 5: 211, f. 15E, *Austrobaileya* 2(1): 89, f. 1G. 1984.

**A. calcicola** Hitchc. & Ekman

Cuba. See *North American Flora* 17(5): 405. 1935.

**A. californica** Thurber (*Aristida californica* var. *fugitiva* Vasey; *Aristida californica* var. *major* Vasey; *Aristida fugitiva* Vasey ex S. Watson; *Aristida jonesii* Vasey; *Aristida peninsularis* Hitchc.)

U.S., Sonora, California, Arizona, Baja California. Annual or perennial, erect or ascending, densely pubescent, densely tufted, leaf blades flat or involute, panicles few-flowered, florets reddish, good forage, sandy beaches, sandy deserts, see *Trans. Calif. State Agric. State Soc.* 134. 1864, *Geological Survey of California, Botany* 2: 289. 1880, *Proceedings of the California Academy of Sciences, Series 2, 2*: 212. 1889, *Proceedings of the American Academy of Arts and Sciences* 24: 80. 1889, *Contributions from the United States National Herbarium* 3(1): 48-49. 1892 and *Contributions from the United States National Herbarium* 22(7): 521. 1924, F. Shreve and I.L. Wiggins, *Vegetation and Flora of the Sonoran Desert* 1: 262-266. 1964, *Phytologia* 37(4): 317-407. 1977, *Memoirs of the San Diego Society of Natural History* 12: 1-140. 1981.

**A. californica** Thurb. var. **californica**

U.S., California. See *Great Basin Naturalist* 52(1): 41-52. 1992.

in English: California three-awn

in Spanish: tres barbas de California

**A. californica** Thurb. var. **glabrata** Vasey (*Aristida californica* Thurb. var. *major* Vasey; *Aristida glabrata* (Vasey) A.S. Hitchc.)

U.S., Baja California, Mexico. Perennial bunchgrass, small, green to gray-green, not very leafy, stems wiry and hard with sharp ends, short leaves glabrous, slender inflorescence, each spikelet bears at its tip three slender spreading awns, grazed, good forage, withstands rather heavy grazing, growing on dry sandy soils, see *Proceedings of the California Academy of Sciences, Series 2, 3*: 178. 1891 and *Contributions from the United States National Herbarium* 22(7): 522. 1924.

in English: Santa Rita threeawn, threeawn

**A. calycina** R. Br. (*Aristida glumaris* Henrard)

Western Australia, Queensland, New South Wales, Victoria, Northern Territory. Perennial, tufted, erect, wiry and branched, sheath smooth, leaves scabrous, panicle contracted and usually loose, equal or unequal glumes lanceolate, lower glume acute to acuminate, upper glume obtuse, lemma purple or brown, margins of involute lemma

with rows of tubercles, awns divergent and flattened, on poor and sandy soils, semiarid tropics, see *Prodromus Florae Novae Hollandiae* 1: 173. 1810 and *Bibliotheca Botanica* 85: 345. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 71. 1926, *Mededeelingen van's Rijks-Herbarium* 58(A): 247, 297, t. 117. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 708, 718-719. 1933, *Brunonia* 3(2): 271-333. 1980, *Austrobaileya* 2(1): 95. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

in English: three-awned spear-grass, white spear grass

**A. calycina** R. Br. var. *calycina* (*Aristida glumaris* Henrard) Western Australia, Queensland, New South Wales, Victoria, Northern Territory. Lemma without tubercles, lower glume shorter than upper, grows on poor and sandy soils, see *Mededeelingen van's Rijks-Herbarium* 54: 71. 1926, *Mededeelingen van's Rijks-Herbarium* 58(A): 247, t. 117. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 718-719. 1933, *Brunonia* 3(2): 271-333. 1980, *Australian Systematic Botany* 5: 129-226. 1992.

in English: dark wire grass, number nine wire-grass

**A. calycina** R. Br. var. *filifolia* B.K. Simon

Queensland. Loosely tufted, branched, leaf blades filiform, see *Austrobaileya* 2(1): 95. 1984.

**A. calycina** R. Br. var. *praealta* Domin (*Aristida armata* Henrard; *Aristida praealta* (Domin) Henrard)

Queensland, New South Wales, Northern Territory. Lemma furrow with tubercles, lower glume longer than upper, grows on poor and sandy soils, see *Bibliotheca Botanica* 85(2): 345. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 72. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 463-464. 1927, *Mededeelingen van's Rijks-Herbarium* 58(A): 197, t. 87. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 703-704. 1933, *Austrobaileya* 2(1): 87-102. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

in English: wiregrass

**A. canescens** Henr.

South Africa. See *Mededeelingen van's Rijks-Herbarium* 58(A): 210, 309, t. 95. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 709. 1933.

**A. canescens** Henr. subsp. *canescens*

South Africa. Perennial, tufted, slender, erect, more or less unbranched, 3 awns, lower glume unawned, grows on poor and sandy soils, stony soils, eroded ground, disturbed areas.

in South Africa: vaalsteekgras

**A. canescens** Henr. subsp. *ramosa* De Winter

South Africa. Perennial, tufted, slender, erect, sometimes geniculate, more or less unbranched or culms branched from the upper nodes, contracted inflorescence, 3 awns, lower glume awned, see *Kirkia* 3: 132. 1963.

**A. capillacea** Lam. (*Aristida capillacea* Cav., nom. illeg., non *Aristida capillacea* Lam.; *Aristida elegans* Rudge; *Aristida sanctae-luciaae* Trin.; *Chaetaria capillacea* (Lam.) P. Beauv.; *Chaetaria capillaris* Nees)

Mexico, Bolivia, Brazil. Annual, delicate, very slender, densely tufted, glabrous, erect, often profusely branching from the base, leaf blades linear, sheaths slightly inflated, ligule an irregular rim of hairs, inflorescence a diffuse panicle ovate to oblanceolate, small open spikelets, awns spreading to ascending, glumes unequal lanceolate, very short membranous palea, 2 narrow lodicules, dry savannah, along roads, road banks, open habitats, slopes, mountains, riverbanks, white sandy soil, seasonally humid habitats, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 156. 1791, *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43, t. 468, f. 1. 1799, *Histoire des plantes de la Guiane Française* 22, pl. 30. 1805, *Essai d'une Nouvelle Agrostographie* 30, 158, t. 8, f. 5. 1812, *De Graminibus Paniceis* 25. 1826, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 388. 1829 and *Mededeelingen van's Rijks-Herbarium* 54: 80. 1926, *Meded. Rijks-Herb.* 58(C): 531. 1928, *Bol. Inst. Bot.* (São Paulo) 12: 145. 1999.

**A. capillifolia** Henrard

South Australia. Perennial, tufted, slender, leaf blades filiform and scabrous, inflorescence spike-like and loose, glumes nerved, lemma scabrous, awns subequal and flattened, low palatability, see *Mededeelingen van's Rijks-Herbarium* 58(A): 298, t. 154. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 711. 1933, *Journal of the Royal Society of Western Australia* 44(3): 77-83. 1961, *Brunonia* 3(2): 271-333. 1980, *Australian Systematic Botany* 5: 220. 1992.

in English: needle-leaved three-awn

**A. caput-medusae** Domin (*Aristida ramosa* var. *compacta* Benth.; *Aristida vagans* var. *compacta* Benth.)

Queensland, New South Wales. Perennial, erect, tufted, knotty rootstock, culms wiry and strongly branched, sheath smooth, leaves scabrous, dense spike-like panicle oblong-ovate, glumes acute to obtuse, upper glume acuminate and sometimes notched, lemma purple, awns divergent, on rocky hillsides, on loamy red earth soils, see *Icones Plantarum* 5: 45, t. 471, f. 1. 1799, *Prodromus Florae Novae Hollandiae* 1: 173. 1810, *Flora Australiensis: A Description ...* 7: 563. 1878 and *Bibliotheca Botanica* 85(2): 344, t. 14, f. 3-5. 1915, *Mededeelingen van's Rijks-Herbarium* 54(B): 654. 1928, *Brunonia* 3(2): 271-333. 1980, *Australian Systematic Botany* 5: 129-226. 1992.

in English: many-headed wiregrass

**A. chapadensis** Trin.

South America. Brazil. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série.*

*Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 48. 1836.

**A. chaseae** A.S. Hitchc. (dedicated to the American botanist Mary Agnes Chase (née Merrill), 1869-1963, agrostologist, plant collector, traveler)

Puerto Rico. Perennial, decumbent, endangered species, found on stony places, open habitats, see *Contributions from the United States National Herbarium* 22(7): 575. 1924, *Sida* 13(4): 423-447. 1989.

in English: Chase's three-awn grass, Chase's three-awn

**A. chichlayense** Tovar (also *chichlayensis*) (Peru, Lambayeque, Chiclayo)

Peru. Rare species, small, annual, caespitose, see *Publicaciones del Museo de Historia Natural "Javier Prado." Serie B. Botánica* 32: 11. 1984, *Madroño* 40(4): 266-267. 1993.

**A. circinalis** Lindm. (*Aristida acuminata* Hack.; *Aristida aristiglumis* Caro; *Aristida leptochaeta* Hack.; *Aristida misionum* Mez; *Aristida rosacea* Mez; *Aristida succedanea* Henrard)

South America, Brazil. Perennial, caespitose, erect, leaf blades involute, panicle narrowly oblong, glumes lanceolate, awns ascending, low forage value, stony places, similar to *Aristida succedanea* Henrard and *Aristida aristiglumis* Caro, see *Kongliga Svenska Vetenskapsakademiens Handlingar* 34(6): 13, t. 7A. 1900, *Repertorium Specierum Novarum Regni Vegetabilis* 6(21-26): 344. 1909, *Repertorium Specierum Novarum Regni Vegetabilis* 7: 313. 1909, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 151. 1921, *Mededeelingen van's Rijks-Herbarium* 58(A): 294, t. 144. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 740-741. 1933, *Kurtziana* 1: 198-201, f. 18D-F. 1961.

**A. cognata** Trin. & Rupr. (*Aristida cognata* var. *media* Trin. & Rupr.)

West Indies. Forming clumps, see *Species Graminum Stipaceorum* 127-128. 1842 and *Manual of the Grasses of the West Indies* 1936, *Flora of the Netherlands Antilles* 1: 121-203. 1963, *Flora of the Lesser Antilles, Leeward and Windward Islands* 3: 25-220. 1979, *Sida* 13(4): 423-447. 1989, *Memoirs of the New York Botanical Garden* 78: 509-540. 1996.

in English: spreading three-awn

**A. condensata** Chapman (*Aristida combsii* Scribn. & C.R. Ball; *Aristida condensata* var. *combsii* (Scribn. & Ball) Henr.; *Aristida stricta* var. *condensata* (Chapm.) Vasey) (for Robert Combs, 1872-1899)

Warm regions, U.S., Florida. In dry soil, sandy soils, see *Flora Boreali-Americana* 1: 41. 1803, *Botanical Gazette* 3(3): 19. 1878, *Contributions from the United States National Herbarium* 3(1): 45. 1892 and *Bulletin, Division of Agrostology United States Department of Agriculture* 24:

43, f. 17. 1901, *Mededeelingen van's Rijks-Herbarium* 54: 108. 1926.

in English: Piedmont three-awn grass

**A. condylifolia** Caro

Argentina. See *Darwiniana* 14(2-3): 391. 1967.

**A. congesta** Roemer & Schultes (*Aristida alopecuroides* Hack.; *Aristida congesta* var. *megalostachya* Henrard; *Aristida congesta* var. *pilifera* Chiov.; *Aristida elyptrophoroides* Chiov.; *Chaetaria congesta* (Roem. & Schult.) Nees)

Southern Africa, Kenya, Namibia, Mozambique, Yemen. Perennial or annual, small, slender, erect, tufted or densely tufted, ligule a fringe of hairs, leaves rolled and glabrous, spike-like panicle dense and contracted with the primary branches erect, white flower heads, glumes unequal terminating in a short awn point, lemma scabrid, awns more or less equal, pioneer grass grazed by the sheep, stems eaten by baboons, found in waste ground, open sandy plains, deserts and xeric shrublands, semiarid woodlands, degraded sites, sandy soil, clayey soils, rocky sandy soils, similar to *Aristida barbicollis* Trin. & Rupr., see *Systema Vegetabilium* 2: 401. 1817, *Florae Africae Australioris Illustrationes Monographicae* I. Gramineae. 189. 1841, *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 144. 1888 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 333-334. 1908, *Agricoltura Coloniale* 18: 351. 1924, *Mededeelingen van's Rijks-Herbarium* 58: 126. 1929, *Mededeelingen van's Rijks-Herbarium* 54(C): 711. 1933, *Prodromus einer Flora von Südwestafrika* 160: 1-228. 1970.

in English: tassel bristlegrass, white stickgrass, tassel three-awn

in South Africa: katstertsteekgras, witsteekgras, steekgras, aapstertsteekgras, bolepo, lefielo

**A. congesta** Roemer & Schultes subsp. *barbicollis* (Trin. & Rupr.) De Winter (*Aristida barbicollis* Trin. & Rupr.)

Africa. Annual to perennial, tufted, slender, leaf sheath keeled, ligule a ring of hairs, open panicle, clusters of spikelets, a single floret with a tripartite awn, lower glume awned, very low grazing value, a pioneer grass, seeds penetrate the fleece, found in grassland areas, overgrazed veld, on disturbed areas, rocky hillsides, uncultivated lands, along roadsides, shallow sandy soils, dry areas, bushveld, see *Species Graminum Stipaceorum* 152. 1842.

in English: buffalo grass, piercing grass, spreading three-awn, spreading prickle grass, stick grass, tassel bristle grass, tassel three-awn, white stick grass, perennial stick grass, perennial bristle grass

in South Africa: aapstertsteekgras, besempol, duin(e)steekgras, katstertsteekgras, klossaadsteekgras, klitsgras, kortbeensteekgras, kortsteekgras, langsteekgras, lossteekgras, rotstertsteekgras, steekgras, witsteekgras; lefielo (Sotho)

**A. congesta** Roem. & Schult. subsp. **congesta** (*Aristida alopecuroides* Hack.; *Aristida longicauda* Hack. & Henriques; *Aristida longicauda* Hack.)

South Africa. Perennial or annual, densely tufted, slender, erect or geniculate, sometimes branched from the lower nodes, leaf sheath keeled, ligule a fringe of short hairs, leaf blades glabrous, spike-like panicle very dense and contracted, single floret with a 3-partite awn, lower glume awned, a pioneer grass, little value as grazing, grazed only when young, seeds penetrate the fleece, common in bushveld, grassland, hard or stony sites, semiarid regions, on loamy soil, denuded soil, savannah, along roadsides, uncultivated lands, overgrazed veld, see *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 144. 1888, *Boletim da Sociedade Broteriana* 6: 143. 1888.

in English: buffalo grass, cat's-tail three-awned grass, piercing grass, stickgrass, tassel three-awned grass, tassel three-awn

in Southern Africa: katstertsteekgras, klossiesteekgras, kortbeen, meerjarige steekgras, steekgras, ausdauerndes stechgras; lefielo (Sotho)

**A. constricta** Longhi-Wagner

Brazil. See *Novon* 2(1): 39, f. 2. 1992.

**A. contorta** F. Muell. (*Aristida arenaria* Gaudich., nom. illeg., non *Aristida arenaria* Trin.; *Aristida arenaria* var. *brevistipitata* Henrard; *Aristida arenaria* var. *hirsuta* Henrard; *Aristida contorta* F. Muell. var. *hirsuta* (Henrard) H. Eichler; *Arthratherum arenarium* (Gaudich.) Nees ex Lehm.)

Australia. Ephemeral or annual or short-lived perennial, more or less drooping, densely tufted, small and weak, culms thin and wiry, sheath scabrous, leaves filiform and wavy, panicle contracted and often nodding, glumes nerved and mucronate to aristulate, lemma convolute and smooth, lemma brownish when mature and with an articulation below a twisted column, awns subequal or equal, the ripe florets can be harmful to animals, fruits round legs can immobilize sheep, grazing grass, moderate feed value when dry, readily eaten by stock especially when green, an increaser species, pioneer grass useful for erosion control and soil binding, coloniser on coastal plains and hind dunes, growing in dry areas, shallow soils, floodplains, mulga areas, on alluvial soils, alluvial plains, open woodlands, on loamy open woodland, on rocky slopes, fore dunes, on sandy soils, on sand clay and sandy loams, parklands, red-earth, sand plains, grasslands, see *Voyage autour du Monde, entrepris par Ordre du Roi, ... exécuté sur les Corvettes de S. M. l'Uranie et la Physicienne ... Botanique* 407. 1830, *Plantae Preissianae* 2: 98. 1846-1847, *Transactions and Proceedings of the Victorian Institute for the Advancement of Science* 1: 44. 1855 and *Mededeelingen van's Rijks-Herbarium* 54: 36. 1926, *Mededeelingen van's*

*Rijks-Herbarium* 54(C): 703. 1933, *Supplement to Black's Flora of South Australia* 48. 1965, *Brunonia* 3(2): 271-333. 1980, *Australian Systematic Botany* 5: 129-226. 1992.

in English: mulga grass, sand wire grass, wind grass, silver grass, curly wire grass, sand spear-grass, kerosene grass (= refers to its flammability as it dries), bunch kerosene grass, bunched kerosene grass

**A. correlliae** P.M. McKenzie, Urbatsch & Proctor (for the American botanist Donovan Stewart Correll, 1908-1983, orchidologist, USDA 1944-1956, Texas Research Foundation 1956-1972, Fairchild Tropical Garden 1973-1983, with Oakes Ames (1874-1950) wrote *Orchids of Guatemala*. Chicago 1952-1953, with Marshall Conring Johnston wrote *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner, Texas 1970, he was married to Helen Elizabeth Butts on June 26, 1937. See J.H. Barnhart, *Biographical notes upon botanists* 1: 383. 1965; *Taxon* 32(3): 530. 1983; Donovan S. Correll, *Supplement to Orchids of Guatemala and British Honduras*. Chicago 1965; Helga Dietrich, *Bibliographia Orchidacearum*. Jena 1981)

West Indies. See *Systematic Botany* 15(3): 421-424. 1990.

**A. cumingiana** Trin. & Rupr. (*Aristida capillacea* Cav., nom. illeg., non *Aristida capillacea* Lam.; *Aristida cumingiana* var. *diminuta* (Mez) Jacq.-Fél.; *Aristida cumingiana* var. *reducta* Pilg.; *Aristida cumingiana* var. *uniseta* Stent & J.M. Rattray; *Aristida delicatula* Hochst. ex A. Rich.; *Aristida diminuta* (Mez) C.E. Hubb.; *Aristida trichodes* (Nees) Walp.; *Aristida tuberculosa* Nutt.; *Chaetaria trichodes* Nees; *Chaetaria tuberculosa* (Nutt.) Schult.; *Stipa diminuta* Mez)

Asia, Philippines. Annual, delicate, solitary or tufted, open inflorescence paniculate, very small spikelets, glumes unequal, lemma lanceolate, awns unequal, in moist areas, damp situations, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43, t. 468, f. 1. 1799, *The Genera of North American Plants* 1: 57. 1818, *Mantissa* 2: 211. 1824, *Proceedings of the Rhodesia Scientific Association* 32: 48. 1833, *Species Graminum Stipaceorum* 141. 1842, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 101. 1850, *Tentamen Florae Abyssinicae ...* 2: 393. 1850, *Annals of Botany. Oxford* 3: 753. 1853 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(13-18): 208. 1921, *Meded. Rijks-Herb.* 54: 80. 1926, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 11: 805. 1933, *Kew Bulletin* 4: 480. 1949, *Journal d'Agriculture Tropicale et de Botanique Appliquée* 13: 51. 1966, *Blumea* 37(1): 227. 1992.

in Thailand: ya khon kratai, ya lueat, yaa khon krataai, yaa lueat

**A. curtifolia** Hitchc.

Cuba. See *Contributions from the United States National Herbarium* 12(6): 235-236. 1909.

**A. curvata** Nees (*Aristida adscensionis* L.; *Aristida curvata* (Nees) Trin. & Rupr. ex Henrard; *Chaetaria curvata* Nees) Africa. See *Species Plantarum* 1: 82. 1753, *Florae Africae Australioris Illustrationes Monographicae* 186. 1841, *Tentamen Florae Abyssinicae ...* 2: 392. 1850 and *Mededeelingen van's Rijks-Herbarium* 54: 9, 124-126. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 487. 1928.

**A. cyanantha** Steud. (*Chaetaria cyanantha* Nees)

Asia, India, Western Himalaya. Perennial, tufted, bushy, erect, solid, slender, purplish inflorescence, large spreading terminal panicle, a tripartite awn, grazed by cattle when tender, grows in dry places, on dry rocky soil, arid zones, stony soils, see *Synopsis Plantarum Glumacearum* 1: 141. 1855 [1854].

in India: matri jara, suhni, suhi

**A. dasydesmis** (Pilg.) Mez

South Africa. Perennial, densely tufted, erect, slender, much-branched, leaves folded and rigid, lower glume awnless, 3 awns, common in arid areas, see *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 148. 1921, *Mededeelingen van's Rijks-Herbarium* 54: 131. 1926.

**A. depressa** Retz.

Southern India, Sri Lanka. Annual, slender, hard, wiry, erect or ascending, more or less branched, narrow subulate leaves, panicle spike-like interrupted, spikelets sessile narrow and crowded, glumes muticous, thatching and matting grass, used to fill saddles of camels, probably not palatable, low nutritive value, flowers used for itch and ringworm, culms used for making brooms, dry and arid zones, saline habitats, sandy places, sometimes included in *Aristida adscensionis* L., see *Obs. Bot.* 4: 22. 1786 and *Grasses of Ceylon* 63. 1956, *Ceylon J. Sci., Biol. Sci.* 2(2): 126. 1959, *Grasses of Burma ...* 409. 1960.

in India: choti parba, ghyan, ghyani, lam, lam'e, lamb, lamba, lamp, nalli pootiki, rampla, sinka

in Sri Lanka: teli tana

**A. desmantha** Trin. & Rupr.

U.S., Texas. Annual, found in open sandy soil or sandy woods, see *Species Graminum Stipaceorum* 109. 1842.

in English: curly three-awn, three awn, curly threeawn, western tripleawn grass, western threeawn

**A. dewinteri** Giess (after the South African botanist Bernard De Winter (b. 1924), plant collector in the regions of Namibia, first collected this tree in the Kaokoveld, from 1973 to 1989 Director of the Botanical Research Institute, served as President of the South African Association for the Advancement of Science, as well as the South African Association of Botanists and as Chairman of the Advisory Committee for Botanical Research in Agriculture, his writings include "A morphological, anatomical and cytological study of *Potamophila prehensilis* (Nees) Benth." *Bothalia*. 6.

1951, "Plant life of the Namib Desert." *S. Afr. Biol. Soc.* 3: 19-20. 1962 and "South African trees." *S. Afr. For. J.* 88: 6-8. 1974, with M. De Winter and Donald Joseph Boomer Killick wrote *Sixty-Six Transvaal Trees*. Pretoria 1966 and *Know Your Trees. A Selection of Indigenous South African Trees*. Cape Town 1973, with J. Vahrmeijer wrote *The National List of Trees*. Pretoria 1972)

South Africa. Annual, rare, tufted, bright yellow spikelets, glumes with a dark spot, lower glume without a mucro or awn, 3 awns, see *Bothalia* 10(2): 365. 1971.

**A. dichotoma** Michaux (*Aristida dichotoma* f. *major* Shinners; *Aristida dichotoma* var. *curtissii* Gray ex S. Watson & Coulter; *Aristida basiramea* Engelmann ex Vasey var. *curtissii* (A. Gray) Shinners; *Avena paradoxa* Willd. ex Kunth; *Avena setacea* Muhl. ex Trin., nom. illeg., non *Avena setacea* Vill.; *Cyrtopogon dichotomus* (Michx.) P. Beauv.; *Cyrtopogon dichotomus* (Michx.) Spreng.)

U.S., Florida, Texas, Illinois, North Carolina, Canada, Ontario. Annual, central awn bent and basally coiled, side awns straight, growing in dry soil, open upland woods, sterile soils, along highways, rocky prairies, eroded slopes, often in hard white clay soil, see *Flora Boreali-Americana* 1: 41. 1803, *Essai d'une Nouvelle Agrostographie* 32, 159, t. 8, f. 7. 1812, *Systema Vegetabilium, editio decima sexta* 1: 266. 1825, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 87. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 188. 1833, *Botanical Gazette* 9: 76. 1884, *A Manual of the Botany of the Northern United States (edition 6)* 640. 1890 and *Contr. U.S. Natl. Herb.* 22(7): 535. 1924, *American Midland Naturalist* 23: 633-634. 1940.

in English: Shinners' three-awn, Shinners' three-awned grass, churchmouse three-awn, church mouse three-awn, churchmouse threeawn, povertygrass, poverty-grass, three-awn grass

**A. dichotoma** Michx. var. *curtissii* Gray ex S. Watson & Coulter (*Aristida basiramea* var. *curtissii* (Gray ex S. Wats. & Coult.) Shinners; *Aristida basiramea* var. *curtissii* (A. Gray) Shinners; *Aristida curtissii* (Gray ex S. Wats. & Coult.) Nash; *Aristida curtissii* (A. Gray) Nash; *Aristida dichotoma* var. *curtissii* A. Gray)

U.S. Annual, caespitose, open sandy soils, eroded soils, dry open sites, see *Flora Boreali-Americana* 1: 41. 1803, *Botanical Gazette* 9: 76. 1884, *A Manual of the Botany of the Northern United States (edition 6)* 640. 1890 and *Manual of the Flora of the Northern States and Canada* 94. 1901, *Contr. U.S. Natl. Herb.* 22(7): 535. 1924, *American Midland Naturalist* 23: 633. 1940.

**A. dichotoma** Michx. var. *dichotoma*

U.S. See *Flora Boreali-Americana* 1: 41. 1803.

*A. diffusa* Trin. (*Aristida vestita* var. *diffusa* (Trin.) Trin. & Rupr.)

South Africa, Lesotho, Zimbabwe, Botswana. Perennial, caespitose, wiry, flexible leaves, unpalatable, very low grazing value, useful for erosion control, used for making soft brooms, found in shallow and stony soils, dry ground, on sandy soils, open places, poor overgrazed veld, roadsides, see *Prodromus Plantarum Capensium*, ... 19. 1794, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 157-158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(B): 665-668. 1928.

in English: copper wiregrass, iron grass

in South Africa: koperdraadgras, ystergras, lefielo, monya

*A. diffusa* Trin. subsp. *burkei* (Stapf) Melderis (*Aristida burkei* Stapf; *Aristida diffusa* var. *burkei* (Stapf) Schweick.)

Transvaal, South Africa, Lesotho, Zimbabwe, Botswana. Perennial, densely tufted, unbranched or nearly so, slender, dark nodes, auricles glabrous, leaf sheath glabrous, hard leaves, inflorescence an open panicle, spikelets 3-awned, lower glume obtuse and unawned, unpalatable, of little value for grazing, growing on shallow stony soils, in open grassland, on slopes, in overgrazed veld, see *Flora Capensis* 7: 557. 1899 and *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 14(122): 195-196. 1938.

in English: iron grass

in South Africa: koperdraadgras, ystergras

*A. diffusa* Trin. subsp. *diffusa* (*Aristida diffusa* var. *genuina* Henr.; *Aristida diffusa* var. *pseudo-hystrix* (Trin. & Rupr.) Henr.; *Aristida diffusa* var. *pseudohystrix* (Trin. & Rupr.) Henrard)

South Africa. Perennial, erect, slender, densely tufted, unbranched or branched, leaves flexible, 3 awns, common in sandy soils, rocks, disturbed places, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(B): 471. 1928.

*A. divaricata* Humb. & Bonpl. ex Willd. (*Aristida barbata* E. Fourn.; *Aristida barbata* E. Fourn. ex Hemsl.; *Aristida divaricata* J. Jacq., nom. illeg., non *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida divaricata* Lag., nom. illeg., non *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida divaricata* Lag. ex Henrard, nom. illeg., non *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida havardii* Vasey; *Aristida humboldtiana* Trin. & Rupr.; *Aristida jacquiniana* var. *subaequilonga* Henrard; *Aristida lemmonii* Scribn.; *Aristida mexicana* Scribn. ex Henrard; *Aristida oligantha* Michx.; *Aristida palmeri* Vasey; *Aristida scova* Vasey ex Beal; *Chaetaria divaricata* (Humb. & Bonpl. ex

Willd.) P. Beauv.) (after the French-born American botanist Valéry Havard, 1846-1927, physician, botanical collector in Texas and the Southwest; see J.H. Barnhart, *Biographical notes upon botanists*. 2: 140. 1965; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Joseph Ewan, *Rocky Mountain Naturalists*. 224-225. The University of Denver Press 1950; Joseph William Blankinship (1862-1938), "A century of botanical exploration in Montana, 1805-1905: collectors, herbaria and bibliography." in *Montana Agric. Coll. Sci. Studies Bot.* 1: 1-31. 1904 [1905]; F.A. Stafleu and R.S. Cowan, *Taxonomic literature*. 2: 105. Utrecht 1979)

U.S., Texas, California, Mexico. Perennial bunchgrass, erect, simple, glabrous, dark green, leaves mostly basal, very open inflorescence, each spikelet with 3 spreading awns at its tip, twisted awn column, glumes subequal, poor forage, grows on dry rocky hills, sandy fields, desert grassland, see *Flora Boreali-Americana* 1: 41. 1803, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 99. 1809, *Essai d'une Nouvelle Agrostographie* 30, 158. 1812, *Eclogae Graminum Rariorum* 7, t. 6. 1813, *Nov. Gen. Sp.* 1: 123. 1816, *Genera et species plantarum* 3. 1816, *Flora* 19(2): 508. 1836, *Species Graminum Stipaceorum* 118. 1842, *Bulletin of the Torrey Botanical Club* 10: 42. 1883, *Biologia Centrali-Americana; ... Botany ...* 3: 532. 1885, *Mexicanas Plantas* 2: 78. 1886, *Bulletin of the Torrey Botanical Club* 13(2): 27. 1886, *Transactions of the New York Academy of Sciences* 14(2): 23. 1894, *Grasses of North America for Farmers and Students* 2: 199. 1896 and *Contr. U.S. Natl. Herb.* 22(7): 548. 1924, *Mededeelingen van's Rijks-Herbarium* 54: 150. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 270, 345-347. 1927, *Phytologia* 37(4): 317-407. 1977.

in English: poverty three-awn, poverty threeawn, spreading threeawn, spreading three-awn grass

in Mexico: tres aristas barbado, tres barbas abierto, zacate

*A. divulsa* N.J. Andersson (*Chloris anisopoda* Rob.; *Chloris anisopoda* Scribn. ex B.L. Rob.)

Galápagos Islands, Ecuador. Rare species, perennial, erect, densely caespitose, open inflorescence, panicle branches naked at the base, glabrous glumes, awns minutely scabrous, see *Om Galapagos-öarnes Vegetation* 143. Lund 1854, *Kongl. Svensk. Vet.-Akad. Handl.* 1853: 143. 1855 and *Proceedings of the American Academy of Arts and Sciences* 38: 118. 1902, Ira L. Wiggins & Duncan M. Porter, *Flora of the Galápagos Islands* 827-828. Stanford, California 1971, *Patterns of Evolution in Galapagos Organisms* 33-54. 1983, *Reports from the Botanical Institute, University of Aarhus* 16: 1-74. 1987, *Libro Rojo de las Plantas Endémicas del Ecuador* 2000.

**A. dominii** B.K. Simon

Tropical Australia, Queensland. Annual, compact, tufted, confused with *Aristida hirta* and *Aristida superpendens* see *Austrobaileya* 2(3): 281, f. 1. 1986.

**A. echinata** Henrard (*Aristida ramosa* var. *scaberula* Henrard)

Queensland. Perennial, coarse, compact, tufted, strongly branched, lemmas tuberculate, see *Prodromus Florae Novae Hollandiae* 1: 173. 1810 and *Mededeelingen van's Rijks-Herbarium* 58(A): 285, t. 139. 1929, *Mededeelingen van's Rijks-Herbarium* 58(A): 260. 1932, *Meded. Rijks-Herb.* 54(C): 713-714, 736. 1933.

**A. echinulata** Roseng. & Izag.

Uruguay. Perennial, low forage value, see *Boletín de la Facultad de Agronomía de Universidad de la República, Montevideo* 94: 3, f. 1. 1967.

**A. ecuadoriensis** Henrard

Ecuador. Perennial, caespitose, erect, scabrid, ligule a rim of short hairs, blades of culm leaves folded or involute, narrow inflorescence paniculate, spikelets linear, panicle branches soft, glumes slightly unequal, lemma shortly bearded, palea membranous, lodicules narrowly obovate, 3 stamens, along roadsides, slopes, see *Mededeelingen van's Rijks-Herbarium* 58(A): 307, t. 149. 1932.

**A. effusa** Henr. (*Aristida caerulescens* var. *brevisetata* Hack.; *Aristida waibeliana* Henrard)

South Africa, Namibia. Annual, erect, tufted, branched, leaf blade glabrous, ligule a fringe of hairs, leaf sheath keeled, open ovate inflorescence, spikelets clustered at the end of the branches, lower glume acute and unawned, 3 awns, pioneer, found in dense stands, unsuitable for grazing, little forage value, common on stony soils, along roadsides, see *Flora Atlantica* 1: 109, t. 21, f. 2. 1798, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 11: 400. 1889 and *Mededeelingen van's Rijks-Herbarium* 54: 155-156. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 679-681. 1928.

in English: spreading steekgras, spreading stick grass

in South Africa: pluimsteekgras, rispen-steckgras

**A. ekmaniana** Henr. (*Aristida ekmaniana* Henrard; *Aristida riparia* sensu Eckm., non Trin.; *Aristida trinii* Henrard) (for the Swedish botanist Erik Leonard Ekman, 1883-1931, explorer, plant collector in Argentina, Brazil, Cuba and Hispaniola. See J.H. Barnhart, *Biographical notes upon botanists*. 1: 502. 1965; Carl Frederik Albert Christensen (1872-1942), *The Collection of Pteridophyta Made in Hispaniola by E.L. Ekman 1917 and 1924-1930*. Stockholm 1936 in *Kongl. Vetenskaps Akademiens Handlingar*. Ser. 3. bd. 16. no. 2; [Por el Dr. Erik L. Ekman.], *Excursión Botánica al Nord-Oeste de la República Dominicana*. Santo Domingo 1930; Ida Kaplan Langman, *A Selected Guide to*

*the Literature on the Flowering Plants of Mexico*. Philadelphia 1964)

Brazil. Perennial, forming small tufts, see *Mededeelingen van's Rijks-Herbarium* 54: 160-161. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 638-640. 1928, *Acta Botanica Brasilica* 4(1): 105-124. 1990, *Boletim do Instituto de Botânica* (São Paulo) 12: 113-179. 1999.

**A. elliptica** (Nees) Kunth (*Chaetaria elliptica* Nees)

America. See *Flora Brasiliensis seu Enumeratio Plantarum* 2: 389-390. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 93. 1833 and *Meded. Rijks-Herb.* 54: 166. 1926, *Bol. Inst. Bot.* (São Paulo) 12: 130. 1999.

**A. eludens** Allred & Valdés-Reyna

Mexico. See *Novon* 5(3): 212-214, f. 3. 1995.

**A. engleri** Mez

Africa, Namibia. Perennial, tufted, inflorescence a contracted panicle, pioneer grass, see *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 147. 1921.

in English: Engler's bristle grass

**A. engleri** Mez var. *engleri*

South Africa. Perennial, densely tufted, unbranched or sparsely branched, erect to geniculate, leaf blade glabrous, ligule a fringe of short hairs, leaf sheaths of lower leaves keeled, leaves flexible, inflorescence a contracted panicle, lower glume acute, column extending to form three awns, found in rocky places.

in English: Engler's bristle grass, bristle three-awn

in South Africa: Engler-se-steekgras, gelbes steckgras

**A. engleri** Mez var. *ramosissima* De Winter

South Africa. Perennial, much-branched, tufted, leaf blade more or less expanded, ligule a fringe of short hairs, leaf sheaths keeled, leaves flexible, inflorescence an open panicle, column extending to form three awns, little forage value, on red sandy soils, rocky places, stony soil, see *Kirkia* 3: 132. 1963.

in South Africa: Engler-se-steekgras, gelbes steckgras

**A. erecta** Hitchc.

Cuba. See *Contributions from the United States National Herbarium* 12(6): 236. 1909.

**A. exserta** S.T. Blake

Australia, western Australia, Northern Territory, Queensland. Perennial, tufted, compact, thin, fastigiate, inflorescences loosely contracted, small spiciform panicles, lower glumes 3-nerved, lemmas involute, close to *Aristida capillifolia*, see *Proceedings of the Royal Society of Queensland* 51(10): 172, t. 5, f. 6-9. 1940.

**A. fendleriana** Steud. (*Aristida fasciculata* var. *fendleriana* (Steud.) Vasey ex L.H. Dewey; *Aristida longiseta* var. *fendleriana* (Steud.) Merr.; *Aristida purpurea* Nutt. var. *fend-*



*dleri* Vasey; *Aristida purpurea* Nutt. var. *fendleriana* (Steud.) Vasey; *Aristida subuniflora* Nash)

U.S., New Mexico. Perennial bunchgrass, often weedy, ligules hairy, short curly mostly basal leaves, inflorescence paniculate, tripartite awn, colonizer grass, forage, found on sandy or gravelly soils, dry sandy soils, disturbed sites, sandy loams soils, see *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Synopsis Plantarum Glumacearum* 1: 420. 1855 [1854], *Catalogue of Plants* 55. 1874, *Contributions from the United States National Herbarium* 3(1): 46. 1892, *Contributions from the United States National Herbarium* 2(3): 515. 1894 and *Circular, Division of Agrostology, United States Department of Agriculture* 34: 5-6. 1901, *Flora of the Southeastern United States ...* 116. 1903, *Great Basin Naturalist* 50: 74. 1990.

in English: Fendler threeawn, threeawn

in Mexico: tres aristas largo

**A. ferrilateris** S.M. Phillips (*Aristida adoensis* auct.)

Arabia, Yemen. Perennial, erect, densely tufted, smooth, leaves flat or involute, panicle contracted with branches erect or spreading or deflexed, glumes more or less equal terminating in a short awn point, smooth lemma, awns unequal, grows on open grassy cliff edges, rocky slopes, in shallow grassland among rocks, related to *Aristida adoensis* Hochst., see *Kew Bulletin* 41(4): 1029. 1986.

**A. filifolia** (Arechav.) Herter (*Aristida pallens* f. *filifolia* Arechav.; *Aristida pallens* f. *rubelliana* Arechav.; *Aristida pallens* var. *patula* Trin. & Rupr.; *Aristida pallens* var. *tragopogon* Trin. & Rupr.; *Aristida rubelliana* (Arechav.) Herter)

Uruguay. Perennial, low forage value, stony places, hills, slopes, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43, t. 468, f. 2. 1799, *Species Graminum Stipaceorum* 116-117. 1842 and *Anales del Museo Nacional de Montevideo* 4(1): 72, 75, pl. 2. 1902, *Revista Sudamericana de Botánica* 6(5-6): 141. 1940, *Revista Sudamericana de Botánica* 9: 99. 1953.

in Spanish: espartillo

**A. flabellata** Caro

Argentina. See *Kurtziana* 1: 148-150, f. 4D-F. 1961.

**A. flabellata** Caro var. *flabellata*

Argentina.

**A. flabellata** Caro var. *glabriflora* Caro

America. See *Kurtziana* 1: 150-151. 1961.

**A. flaccida** Trin. & Rupr. (*Aristida flaccida* var. *uniglumis* Döll; *Aristida laxa* Trin. ex Henrard, nom. illeg., non *Aristida laxa* Cav.)

Brazil. In dry areas, see *Species Graminum Stipaceorum* 117-118. 1842, *Flora Brasiliensis* 2(3): 13. 1878 and *Mededeelingen van's Rijks-Herbarium* 54: 178-179, 202. 1926.

**A. flexuosa** E. Fourn. (*Aristida flexuosa* E. Fourn. ex Hemsl.; *Aristida schiedeana* Trin. & Rupr.; *Aristida schiedeana* var. *schiedeana*)

Mexico. See *Species Graminum Stipaceorum* 120-121. 1842, *Biologia Centrali-Americana; ... Botany ...* 3: 533. 1885, *Mexicanas Plantas* 2: 77. 1886.

**A. floridana** (Chapman) Vasey (*Ortachne floridana* (Chapm.) Nash; *Streptachne floridana* Chapm.)

U.S., Florida. Endangered species, see *Flora of the Southern United States* 554. 1860, *A Descriptive Catalogue of the Grasses of the United States* 35. 1885 and *Flora of the Southeastern United States ... edition 2* 119. 1903, Robert W. Long and Olga Lakela, *A Flora of Tropical Florida* Coral Gables, Fla. 1971.

in English: Key West three-awn, Key West threeawn, Key West three-awned grass, Florida three-awned grass

**A. forsteri** B.K. Simon

Australia, southern Queensland. Perennial, compact, tufted, branched, inflorescences loosely contracted, lower glume 1-nerved, similar to *Aristida muricata*, see *Austrobaileya* 4(2): 147. 1994.

**A. fragilis** Hitchc. & Ekman

Cuba. Perennial, erect, caespitose, wiry, slender, glabrous, leaf sheaths glabrous, ligule a ciliate membrane, awn bent at the base, see *North American Flora* 17(5): 393. 1935.

**A. friesii** Hack. ex Henrard

Bolivia. See *Mededeelingen van's Rijks-Herbarium* 54: 186-187. 1926.

**A. funiculata** Trin. & Rupr. (*Aristida macrathera* A. Rich.)

North Africa to Pakistan, Somalia, Sudan, White Nile region, boundary between the Saharan and Sahelian zones. Annual, erect, wiry, very slender, densely tufted, short, many stemmed, leaves flat or folded, contracted panicle linear, unequal glumes linear-lanceolate, lower glume longer than the upper, awns more or less equal, long filiform awns with three capillary branches, used for fodder, eaten by cattle in the young stage and when tender, desert grass, on very poor dry rocky soil, dry sandy soils, stony plain, see *Nomenclator Botanicus. Editio secunda* 1: 131. 1840, *Species Graminum Stipaceorum* 159. 1842, *Tentamen Florae Abyssinicae ...* 2: 393. 1850, *Journal of the Asiatic Society of Bengal. Part 2. Natural History* 21: 160, 183. 1852, *Beiträge zur Flora der Cap Verdischen Inseln* 140. Heidelberg 1852, *Journal of the Proceedings of the Linnean Society* 6: 209. 1862, *The Flora of British India* 7: 227. 1896 and *Bibliotheca Botanica* 85(2): 338. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 328, 425. 1927, *Bul-*

*letin de la Société d'Histoire Naturelle de l'Afrique du Nord* 32: 218. 1941.

in India: bhurbhur, charbi jara, choti bhurri, mohwa bhuski, mowha bhuski, rusli, sarfi

in Mali: holu, kasso, kelbi, ngasan, nkassa, selbére

in Niger: alaemos, bu kraiba, buta'n kurege, chinini, fari n'tchawa, fari'n tchawa, kalawu, korom, lakelwado, so ka tumbi, sowulgumm, taelummus, tazima, tazmei, wudhuwo, zangua

in Nigeria: datsi

in Senegal: dohandok, galé kiam

in Somalia: birreh, bille

in Upper Volta: bissi, celbi, fitaako, hudo ranecho, selbo, sudumore

**A. funiculata** Trin. & Rupr. var. **funiculata** (*Aristida funicularis* Trin. ex Steud.; *Aristida funicularis* Edgew.)

North Africa. See *Nomenclator Botanicus. Editio secunda* 1: 131. 1840, *Journal of the Asiatic Society of Bengal. Part 2. Natural History* 21: 160, 183. 1852.

**A. funiculata** Trin. & Rupr. var. **mallica** (Edgew.) Henrard (*Aristida mallica* Edgew.)

Asia, India. Dwarf, leaves scabrous, pilose, glumes nearly equal, see *Journal of the Proceedings of the Linnean Society* 6: 209. 1862 and *Mededeelingen van's Rijks-Herbarium* 54: 328. 1927.

**A. geminiflora** E. Fourn. (*Aristida fournieriana* Hitchc.; *Aristida geminiflora* Steud.)

Mexico. See *Synopsis Plantarum Glumacearum* 1: 144. 1854, *Mexicanas Plantas* 2: 77. 1886 and *North American Flora* 17: 384. 1935.

**A. gibbosa** (Nees) Kunth (*Aristida marginalis* Ekman; *Aristida orizabensis* E. Fourn. ex Hemsl.; *Aristida orizabensis* E. Fourn., in Mexico, Veracruz, Valle de Orizaba; *Aristida sorzogonensis* J. Presl; *Chaetaria gibbosa* Nees)

Mexico, Honduras, Brazil. Perennial, erect, simple, glabrous, basal leaves, leaf blades not spirally coiled, lateral awns ascending, forage, in savannah, moist savannah, rocky places, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 383-384. 1829, *Reliquiae Haenkeanae* 1(4-5): 224. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 189. 1833, *Biologia Centrali-Americana; ... Botany ...* 3: 534. 1885, *Mexicanas Plantas* 2: 78. 1886 and *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 10(17): 23, t. 3, f. 2, t. 6, f. 12. 1911, *Proceedings of the American Academy of Arts and Sciences* 49(8): 500. 1913, *Mededeelingen van's Rijks-Herbarium* 54(B): 473. 1928.

**A. glaziovii** Hack. ex Henrard

Brazil. See *Mededeelingen van's Rijks-Herbarium* 54: 204. 1926.

**A. gracilipes** Henrard (*Aristida vagans* var. *gracilipes* Domin; *Aristida vagans* var. *gracillima* Benth.)

Queensland, New South Wales. Perennial, bushy, slender, loosely tufted, culms terete and branched, leaves finely pointed and long scabrous, panicle loose to open, glumes lanceolate and acuminate, upper glume obtuse and notched, beaked lemma linear to elliptic, awns erect or divergent, rainforest, in woodland, similar to *Aristida caput-medusae* and *Aristida vagans*, see *Icones Plantarum* 5: 45, t. 471, f. 1. 1799, *Flora Australiensis: A Description ...* 7: 563. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 9: 551. 1911, *Mededeelingen van's Rijks-Herbarium* 54: 209. 1926.

in English: wire grass

**A. gracillima** Oliv.

Africa. See *Transactions of the Linnean Society of London* 29: 173, t. 114. 1875.

**A. granitica** B.K. Simon

Queensland. Perennial, compact, tufted, endangered species, lower glume shorter than the upper, similar to *Aristida dominii* and *Aristida superpendens*, see *Austrobaileya* 2(1): 91, f. 2A. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. guayllabambensis** Laegaard (Ecuador, Pichincha, near Guayllabamba, north of Quito)

Ecuador. Perennial, densely caespitose, erect, glabrous, leaf blades narrowly linear, ligule a dense rim of hairs, inflorescence a narrow panicle with branches erect, narrow spikelets, glumes subequal or unequal, lemma fusiform and slightly rough, palea membranous and 2-nerved, narrow membranous lodicules, 3 stamens, along roadsides, arid zones, dry slopes, open sandy slopes, related to *Aristida venezuelae* Henrard, see *Flora of Ecuador* 57: 49, f. 9A-C. 1997 [also *Flora of Ecuador*, no. 57. 214(1) *Gramineae* (part 1): 49-52. 1997], R. Valencia, N. Pitman, S. León-Yáñez & P.M. Jørgensen, *Libro Rojo de las Plantas Endémicas del Ecuador* 2000.

**A. gypsophila** Beetle (*Aristida gypsophila* f. *diffusa* Allred & Valdés-Reyna; *Aristida gypsophila* f. *gypsophiloides* Allred & Valdés-Reyna)

Warm regions, Mexico. Tufted, good forage, rocky soils, see *Phytologia* 49(1): 36-37. 1981, *Brittonia* 49(1): 65. 1997.

in English: gypsum threeawn

**A. gypsophila** Beetle f. *diffusa* Allred & Valdés-Reyna

Mexico. See *Brittonia* 49(1): 65. 1997.

**A. gypsophila** Beetle f. *gypsophila*

America.

**A. gypsophila** Beetle f. *gypsophiloides* Allred & Valdés-Reyna

Mexico. See *Brittonia* 49(1): 65. 1997.

**A. gyrans** Chapman (*Aristida refracta* Griseb.)

U.S., Florida. Perennial, green spikelets, growing in flatwoods, scrub, dry sandy pinelands, disturbed sites and dry sandy soils, see *Catalogus plantarum cubensium* ... 228. 1866, *Botanical Gazette* 3(3): 18-19. 1878.

in English: corkscrew three-awn, corkscrew three-awn grass

**A. hackelii** Arechav.

Uruguay. Perennial, stony ground, low forage value, see *Anales del Museo Nacional de Montevideo* 4(1): 73, 79. 1902.

**A. hamulosa** Henrard (*Aristida gentilis* var. *breviaristata* Henrard; *Aristida humboldtiana* var. *minor* Vasey; *Aristida imbricata* Henrard; *Aristida ternipes* var. *gentilis* (Henrard) Allred; *Aristida ternipes* var. *hamulosa* (Henrard) Trent)

U.S., Arizona. Perennial, simple, glabrous, basal leaves, open panicle, glumes subequal, forage, open soil, bare soil, dry open soils, rocky places, gravel, related to *Aristida ternipes* Cav., see *Icones et Descriptiones Plantarum, quae aut sponte* ... 5: 46. 1799, *Species Graminum Stipaceorum* 118. 1842, *Contributions from the United States National Herbarium* 3(1): 47. 1892 and *Contr. U.S. Natl. Herb.* 22(7): 548. 1924, *Mededeelingen van's Rijks-Herbarium* 54: 196-197, 219-221. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 253-255. 1927, *Sida* 10(2): 260. 1990, *Phytologia* 77(5): 412. 1994 [1995].

**A. hassleri** Hack. (*Aristida hassleri* var. *aculeolata* Hack.; *Aristida longiramea* var. *boliviana* Henrard)

Paraguay. Perennial, caespitose, leaf blades spirally coiled when old, awns recurved, unpalatable, see *Reliquiae Haenkeanae* 1(4-5): 224. 1830, *Bulletin de l'Herbier Boissier, sér. 2*, 4(3): 277. 1904, *Repertorium Specierum Novarum Regni Vegetabilis* 7: 373. 1909, *Mededeelingen van's Rijks-Herbarium* 40: 56. 1921, *Mededeelingen van's Rijks-Herbarium* 54(A): 222. 1927.

**A. havardii** Vasey (*Aristida barbata* E. Fourn.; *Aristida barbata* E. Fourn. ex Hemsl.; *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida scova* Vasey ex Beal) (dedicated to the French-born American botanist Valery Havard, 1846-1927)

U.S., New Mexico, Texas. Perennial, decumbent, branched, leaves linear or curved, open panicles, straight column, prairies, see *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 99. 1809, *Essai d'une Nouvelle Agrostographie* 30, 158. 1812, *Biologia Centrali-Americana*; ... *Botany* ... 3: 532. 1885, *Mexicanas Plantas* 2: 78. 1886, *Bulletin of the Torrey Botanical Club* 13(2): 27. 1886, *Grasses of North America for Farmers and Students* 2: 199. 1896.

in English: Havard's three-awn, Havard threeawn

**A. helicophylla** S.T. Blake (Greek *helix*, *helikos* "whirl, convolution" and *phyllon* "a leaf")

Queensland, New South Wales, Northern Territory. Perennial, erect, glaucous or pruinose, simple or sparsely branched, sheath smooth, leaves curly or flexuous, panicle spike-like, glumes unequal, lower glume acute to acuminate, lemma brown or purple and narrow-elliptic, lemma much shorter than the glumes and with a pseudo-articulation, awns flattened and recurved to flexuous, grows on sandy soils, see *Proceedings of the Royal Society of Queensland* 51: 171, t. 4, f. 8-12. 1940, *Brunonia* 3(2): 271-333. 1980.

**A. hintonii** Hitchc.

Mexico. See *North American Flora* 17(5): 382. 1935.

**A. hitchcockiana** Henrard

Mexico. See *Mededeelingen van's Rijks-Herbarium* 54(A): 233-234. 1927.

**A. holathera** Domin (*Aristida browniana* Henrard; *Aristida muelleri* Henrard; *Aristida stipoides* R. Br., nom. illeg., non *Aristida stipoides* Lam.; *Aristida stipoides* var. *brachyathera* Domin; *Aristida stipoides* var. *normalis* Domin; *Aristida stipoides* var. *tenuisetulosa* Pilg.; *Aristida tenuisetulosa* (Pilg.) Mez)

Australia. Sand dune stabilizer, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 157. 1791, *Prodromus Florae Novae Hollandiae* 1: 174. 1810, *Essai d'une Nouvelle Agrostographie* 33, 152. 1812 and *Fragmenta Florae Philippinae* 2: 146. 1904, *Bibliotheca Botanica* 85(2): 337, 340, t. 13-14, f. 9, 12, 18-19. 1915, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 147. 1921, *Mededeelingen van's Rijks-Herbarium* 54: 63-64. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 358-359. 1927, *Mededeelingen van's Rijks-Herbarium* 54(B): 593, 627. 1928, *Austrobaileya* 2(1): 95, f. 3A. 1984, *Austrobaileya* 2: 283. 1986, *Blumea* 37(1): 228. 1992.

**A. holathera** Domin var. *holathera* (*Aristida browniana* Henrard; *Aristida browniana* var. *browniana*; *Aristida muelleri* Henrard; *Aristida stipoides* R. Br., nom. illeg., non *Aristida stipoides* Lam.) (Greek *holos* "entire" and *ather* "stalk, barb, spine, beard, awn")

Australia. Short-lived perennial or annual, tufted, stiffly erect, simple or branched, sheath striate, leaves rigid and scabrous, panicle sparse, glumes very unequal and nerved, lemma with an articulation or swollen joint below a twisted column, lemma purplish when mature, awns subequal and filiform, normally neglected by stock, low palatability and nutritional value when dry, grazed when young, found on sandy soils and sand dunes, alluvial plains, coarse sandy soils on riverbanks, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 157. 1791, *Prodromus Florae Novae Hollandiae* 1: 174. 1810, *Essai d'une Nouvelle*

*Agrostographie* 33, 152. 1812 and *Fragmenta Florae Philippinae* 2: 146. 1904, *Bibliotheca Botanica* 85(2): 337, 340, t. 13-14, f. 9, 12, 18-19. 1915, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 147. 1921, *Mededeelingen van's Rijks-Herbarium* 54: 63-64. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 358-359. 1927, *Mededeelingen van's Rijks-Herbarium* 54(B): 593, 627. 1928, *Austrobaileya* 2(1): 95, f. 3A. 1984, *Austrobaileya* 2: 283. 1986, *Blumea* 37(1): 228. 1992.

in English: kerosene grass, erect kerosene grass, tall kerosene grass, white grass

**A. holathera** Domin var. *latifolia* (B.K. Simon) B.K. Simon (*Aristida browniana* var. *latifolia* B.K. Simon)

Australia. Perennial, loosely tufted, unbranched, leaf blades flattened, see *Austrobaileya* 2(1): 95, f. 3A. 1984, *Austrobaileya* 2: 283. 1986.

**A. hordeacea** Kunth (*Aristida hordeacea* Hochst. ex Steud., nom. illeg., non *Aristida hordeacea* Kunth; *Aristida hordeacea* var. *longiaristata* Henrard; *Aristida steudeliana* Trin. & Rupr.)

Tropical Africa, Benin, Namibia. Annual, erect or geniculate, ascending, tufted, delicate to robust, coarse, much branched from the base, culm internodes pubescent, leaf blade expanded and linear, ligule a whorl of short hairs, leaves and sheaths scabrid, leaf sheath keeled and hairy, very dense inflorescence spicate, a dense compact panicle oblong, spikelets clustered in fascicles, glumes subequal, lower glume long-awned, column absent, three awns, a wet season grass, low grazing value, no forage value, pioneer, grows in dry situations, small pans, heavy soils, vleis, banks of vleis, open areas, open grassland, dry grassland, shallow depressions, swampy areas, mopane woodlands, waste places, deciduous bush savannah, see *Révision des Graminées* 2: 517, t. 173. 1831, *Species Graminum Stipaceorum* 155. 1842, *Synopsis Plantarum Glumacearum* 1: 142. 1854 and *Mededeelingen van's Rijks-Herbarium* 54(A): 244. 1927.

in English: fox brush

in Niger: alaemos, fari'n hatji, kalafhu, lillimo, milmilo, ngibi bulduy , sewuko, subu kur g , tazmei

in Nigeria: wutsiyar bera, wutsiyar 'bera

in South Africa: jakkalsstert, garssteekgras, gersten-stechgras

in Upper Volta: bonguburu, butakureje

**A. hubbardiana** Schweick.

Africa. Annual, branched, erect to geniculate, densely tufted, inflorescence dense and spicate, no articulation on the lemma, column absent, three awns, on damp soil, seasonally flood depressions, see *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 14(122): 196-197. 1938.

**A. hygrometrica** R. Br.

Australia tropical and semiarid. An increaser species, annual, loosely tufted, with spear-like callus, a severe hazard to sheep, in sandy and alluvial soils, similar to *Aristida holathera* and *Aristida contorta*, see *Prodromus Florae Novae Hollandiae* 174. 1810 and *Mededeelingen van's Rijks-Herbarium* 54(A): 248. 1927.

in English: northern kerosene grass

**A. hystrix** L.f.

Northern India. Branched, rigid, rather straggling, large oval panicle with spreading branches, probably not palatable or grazed by cattle only when tender, common on dry sandy or stony soils, see *Suppl. Pl.* 113. 1781 [1782] and *Handb. Fl. Ceylon* 6: 336. 1931, *Grasses of Ceylon* 64. 1956, *Ceylon J. Sci., Biol. Sci.* 2(2): 126. 1959, *Grasses of Burma ...* 410. 1960.

in India: bili unugada hullu, dolluba gaddi, kale kussal, lal rampla, lappa, lapri dhauli, mathari kussal, pavenburri, pavnburri, shilpuroo-kalli

**A. inaequiglumis** Domin

South Australia, Queensland, Western Australia, Northern Territory. Perennial, loosely tufted, robust, culms branched and leafy, leaves scabrous, inflorescence narrow-cylindrical, acuminate glumes inverse and nerved, lemma smooth with a pseudo-articulation at the apex, awns equal, unpalatable and normally neglected by stock, growing on alluvial soils, on floodplains, mulga shrublands, on red earths, on river frontages, on sandy soils, very similar to *Aristida pruinosa*, *Aristida ingrata* and *Aristida helicophylla*, see *Bibliotheca Botanica* 85(2): 347. 1915.

in English: wiregrass, speargrass, unequal threeawn, feathertop threeawn

**A. ingrata** Domin

Tropical Australia, Queensland. Perennial, loosely tufted, branched, leaf blades coiled at maturity, smooth lemma grooves, lemma with a pseudoarticulation, in alluvial soils and sand, similar to *Aristida sciuroides*, *Aristida inaequiglumis* and *Aristida helicophylla*, see *Bibliotheca Botanica* 85(2): 346. 1915.

**A. jaliscana** R. Guzm n & Jaramillo

Mexico. See *Phytologia* 51(7): 470. 1982.

**A. jaucensis** Catusus

Cuba. See *Novosti Sist. Vyss. Rast.* 21: 22. 1984, *Acta Botanica Cubana* 24: 2. 1985.

**A. jerichoensis** (Domin) Henrard (*Aristida ingrata* var. *jerichoensis* Domin)

Queensland, New South Wales, Northern Territory. Perennial, compactly tufted, culms simple or branched from the lower nodes, sheath smooth, flexuous leaves, panicle contracted and dense, glumes narrowly oblong-ovate and subequal, dark purplish lemma linear-oblong, awns flattened

and filiform, growing on sandy and clay loams, arid areas, similar to *Aristida benthamii*, see *Bibliotheca Botanica* 85(2): 346. 1915, *Mededeelingen van's Rijks-Herbarium* 54(A): 261, 270. 1927, *Mededeelingen van's Rijks-Herbarium* 58(A): 300. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 722-723. 1933, *Austr. Syst. Bot.* 5: 175. 1992.

in English: Jericho wiregrass, number nine wiregrass, wiregrass

*A. jerichoensis* (Domin) Henrard var. *jerichoensis*

Queensland, New South Wales. Margins of the lemma furrow without tubercles, grows on poor soils.

*A. jerichoensis* (Domin) Henrard var. *subspinulifera* Henrard

Queensland, New South Wales, Northern Territory. Margins of the lemma with tubercles or spines, lemma without a pseudo-articulation, grows on rocky hillsides, see *Mededeelingen van's Rijks-Herbarium* 58(A): 300. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 722-723. 1933, *Austr. Syst. Bot.* 5: 175. 1992.

in English: Jericho wire grass

*A. jorullensis* Kunth (*Aristida manzanilloana* Vasey; *Aristida pilosa* Labill.; *Ortachne pilosa* (Kunth) Nees; *Strep-tachne pilosa* Kunth)

Mexico. See *Nova Genera et Species Plantarum* 1: 124. 1815 [1816], *Sertum Austro-Caledonicum* 12, t. 17. 1824, *Révision des Graminées* 1: 62. 1829, *The Botany of the Voyage of H.M.S. Herald* 225. 1854, *Synopsis Plantarum Glumacearum* 1: 121. 1854, *Contributions from the United States National Herbarium* 1(8): 282. 1893.

*A. jubata* (Arechav.) Herter (*Aristida pallens* f. *jubata* Arechav.; *Aristida pallens* var. *macrochaeta* Hack.; *Aristida pallens* var. *major* Döll; *Aristida pallens* var. *tragopogon* Trin. & Rupr.; *Aristida tragopogon* (Trin. & Rupr.) Herter)

South America. Perennial, stony ground, low forage value, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43, t. 468, f. 2. 1799, *Species Graminum Stipaceorum* 116-117. 1842, *Flora Brasiliensis* 2(3): 14. 1878 and *Anales del Museo Nacional de Montevideo* 4(1): 72, 74-75, t. 1. 1902, *Anales del Museo Nacional de Buenos Aires* 13: 452. 1906, *Revista Sudamericana de Botánica* 6(5-6): 141. 1940, *Revista Sudamericana de Botánica* 9(4): 98. 1953.

in Spanish: espartillo

*A. junciformis* Trin. & Rupr.

Africa, South Africa. Leaves wiry and rolled, dark green, a good ground cover, a very persistent pioneer virtually impossible to eradicate, useless as animal feed, unpalatable and not grazed, only the very young leaves are grazed, found in sour grassland, on poor soils of sandstone origin, see *Species Graminum Stipaceorum* 143-144. 1842 and *Cytologia* 19: 97-103. 1954.

in English: wire grass, Ngongoni bristlegrass, Ngongoni three-awn, Gongoni three-awn grass, Gongoni grass, Gongoni three-awn

in Southern Africa: ngongoni

*A. junciformis* Trin. & Rupr. subsp. *galpinii* (Stapf) De Winter (*Aristida galpinii* Stapf) (after Ernest Edward Galpin, 1858-1941, banker and plant collector, naturalist and botanist, author of "A contribution to the knowledge of the flora of Drakensberg." *S. Afr. J. Sci.* 6: 209-229. 1909, "The native timbers of the Springbok Flats." *Mem. Bot. Surv. S. Afr.* 7: 25. 1924 and *Botanical Survey of the Springbok Flats, Transvaal*. Cape Town [1927] [Botanical Survey of South Africa. Memoir. no. 12]; see J. Lanjouw and F.A. Stafleu, *Index Herbariorum*. Part II (2), *Collectors E-H*. Regnum Vegetabile vol. 9. 1957; Gilbert Westacott Reynolds, *The Aloes of South Africa*. Balkema, Rotterdam 1982; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 160-164. 1981)

Africa. Perennial, erect, densely tufted, rhizomatous, long rhizome, leaves mostly basal, inflorescence contracted, lower glume mucronate to shortly awned, three awns, on shallow soils, rocky slopes, overgrazed areas, high mountainous sourveld, see *Species Graminum Stipaceorum* 143-144. 1842 and *Bulletin of Miscellaneous Information Kew* 1910: 130. 1910, *Kirkia* 3: 132. 1963.

*A. junciformis* Trin. & Rupr. subsp. *junciformis*

Namibia, South Africa. Perennial, erect, densely tufted, stout rhizome, usually unbranched, tough and fibrous when mature, leaf sheath round, narrow contracted panicle, tripartite awn, lower glume awned or mucronate, pioneer grass, invasive, very unpalatable, grazed only when young, used for brooms, found in open mountain grassveld, savannah, poor stony soils, stony hillsides, damp places, in bushveld, grassland, disturbed areas, overgrazed veld, fynbos [The word *fynbos* comes from the Dutch for fine-leaved plants; *fynbos* is the major vegetation type of the small botanical region known as the Cape Floral Kingdom; *fynbos* plants are readily recognised by the sclerophyllous (hard, tough and leathery leaved) and microphyllous (small leaved) nature of almost all woody plants and is characterised by having more than 5% cover of Cape reeds], along roadsides and depressions where water collects.

in English: bristle grass, Gongoni grass, Gongoni three-awn, Ngongoni three-awn (= Ngongoni veld, Natal), Ngongoni bristle grass, wire grass

in Southern Africa: assegaasteekgras, besemgras, Gongonisteekgras, heigras, koperdraadgras, Ngongonisteekgras, steekgras; lefielo (Sotho); nGongoni, umGongoni (Zulu)

*A. kelleri* Hack. (after A. Keller, plant collector in Somalia in 1891)

Somalia, Ethiopia, Kenya. Perennial, wiry, densely tufted, inflated uppermost leaf-sheath, branched rootstock,

compact inflorescence, spike-like panicle not fully exerted from the uppermost sheath, spikelets densely crowded, glumes linear and unequal, lower glume mucronate, upper glume awned, lemma smooth and glabrous, weakly twisted column, central awn curved outward, lateral awns straight, on sandy soil, light-orange sand, limestone, see *Mémoires de l'Herbier Boissier* 20: 8. 1900, *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: bajeh, machew, maar

**A. kenyensis** Henrard

Kenya. Annual, loosely tufted, slender, smooth, leaf blades linear, leaf sheaths glabrous, leaf blades linear, panicle open, glumes subequal and pointed, lemma linear and scarbrid, in dry areas, open habitats, clearings, overgrazed sites, grassland, see *Mededeelingen van's Rijks-Herbarium* 54(C): 722-724. 1933.

**A. kerstingii** Pilger

Tropical Africa. Annual or short-lived perennial, solitary or tufted, slender, inflorescence almost spike-like, spikelets very short, outer scales awned, good fodder, disturbed land, see *Meded. Rijks-Herb.* 54(A): 277. 1927, *Taxon* 36: 283. 1987, *Bulletin du Muséum National d'Histoire Naturelle, séries 4, Section B, Adansonia. Botanique Phytochimie* 10: 421-433. 1988.

in Nigeria: alkaman daji, datsi

in Upper Volta: celbi, selbo

**A. kimberleyensis** B.K. Simon

Australia, Western Australia. Perennial, decumbent, sprawling, loosely tufted, branched, lower glume 3-nerved, convolute lemmas, similar to *Aristida schultzei* and *Aristida sciuroides*, see *Austrobaileya* 2(1): 91. 1984.

**A. kunthiana** Trin. & Rupr.

Mali, Senegal. Rare species, see *Species Graminum Stipaceorum* 151-152. 1842.

**A. laevigata** Hitchc. & Ekman

Cuba. Perennial, erect, caespitose, glabrous, ligule a ciliate membrane, leaf blades involute, open panicle long-exserted, glumes subequal, see *North American Flora* 17(5): 390. 1935.

**A. laevis** (Nees) Kunth (*Aristida adscensionis* subvar. *densiflora* Hack.; *Aristida adscensionis* var. *argentina* Hack.; *Aristida altissima* Arechav.; *Aristida complanata* Trin.; *Aristida laevis* var. *argentina* (Hack.) Henrard; *Aristida subinterrupta* Arechav.; *Aristida subinterrupta* var. *argentina* (Hack.) Henrard; *Aristida subinterrupta* var. *subinterrupta*; *Chaetaria laevis* Nees)

Southern Brazil to Argentina. Perennial, low forage value, see *Species Plantarum* 1: 82. 1753, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 384-385. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et*

*Naturelles* 1(1): 85-86. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 192. 1833 and *Anales del Museo Nacional de Montevideo* 4(1): 77-78, 80-81, t. 3, 5. 1902, *Anales del Museo Nacional de Buenos Aires* 11: 88. 1904, *Anales del Museo Nacional de Buenos Aires* 21: 65. 1911, *Mededeelingen van's Rijks-Herbarium* 54: 11. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 609. 1928, *Kurtziana* 1: 123-206. 1961.

**A. lanigera** Longhi-Wagner

Brazil. See *Kew Bulletin* 49(4): 819, f. 2. 1994.

**A. lanosa** Muhl. ex Ell. (*Aristida gossypina* Bosc ex P. Beauv.; *Aristida lanata* Poir., nom. illeg., non *Aristida lanata* Forssk.; *Aristida lanosa* Muhl.; *Aristida lanosa* var. *lanosa*; *Aristida lanosa* var. *macera* Fernald & Griscom; *Aristida lanuginosa* Bosc ex Trin., nom. illeg., non *Aristida lanuginosa* Burch.; *Aristida lanuginosa* Clarion ex Steud.; *Chaetaria gossypina* P. Beauv. ex Roem. & Schult.; *Chaetaria gossypina* Bosc ex P. Beauv.; *Moulinsia lanosa* Raf. ex B.D. Jacks.)

U.S., Florida. Perennial, endangered species, leaf sheaths densely hairy to woolly, occurs in open woodlands, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 453. 1810, *Essai d'une Nouvelle Agrostographie* 30, 152, 158. 1812, *Catalogus Plantarum Americae Septentrionalis* 14. 1813, *A Sketch of the Botany of South-Carolina and Georgia* 1: 143. 1816, *Systema Vegetabilium* 2: 391. 1817, *Bulletin Botanique [Genève]* 1: 221. 1830, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 46. 1836, *Synopsis Plantarum Glumacearum* 1: 565. 1854 and *Rhodora* 37(436): 135-136, pl. 335. 1935, *Rhodora* 87(850): 147-155. 1985, *Rhodora* 88(855): 367-387. 1986.

in English: woolly-sheath three-awn, woollysheat three-awn, woolly tripleawn grass, woolly three-awned grass, woolly tripleawn grass, woolly threeawn, woolly threeawn grass, woollyleaf threeawn, longleaf threeawn

**A. latifolia** Domin (*Aristida latifolia* var. *minor* J.M. Black) (with broad leaves)

South Australia, Queensland, Western Australia, Northern Territory, New South Wales. Perennial or short-lived perennial with a shallow root system, erect and slender, glabrous, densely caespitose, robust, forming slender tussocks, culms rigid and usually simple or sparsely branched, leaf-sheaths ciliate at the orifice, greenish to glaucous leaves twisted or curly at maturity, narrow and feathery purplish panicle spike-like with spreading or drooping branches, glumes subequal or unequal, lower glume 1-nerved, lemma brownish and purple with a twisted column, numerous awns subequal and filiform, dartlike seeds with a sharply pointed tip, three-awned seeds easily penetrate the staples of wool, hardy species, low nutritive value, it will not stand heavy grazing, relatively unpalatable and normally neglected by

stock, grows on clay soils, semiarid open grassland, heavy soils, marine soils, cracking clay soils, inland regions, alluvial silts, similar to *Aristida macroclada*, *Aristida psammophila*, *Aristida warburgii* and *Aristida schultzii*, see *Bibliotheca Botanica* 85(2): 339-340, t. 13, f. 13-14. 1915, *Transactions and Proceedings of the Royal Society of South Australia* 57: 147. 1933.

in English: feathertop wire grass, feathertop wiregrass, feathertop, feather-top wire grass, curly spear grass

**A. latzii** B.K. Simon

Australia, Northern Territory. Perennial, rigid culms, compact, tufted, rigid filiform leaves, smooth lemmas, flattened awns, similar to *Aristida nitidula*, *Aristida burraensis* and *Aristida burbidgeae*, see *Austrobaileya* 2(1): 91, f. 2B. 1984.

**A. laxa** Cav. (*Aristida divaricata* Lag. ex Henrard, nom. illeg., non *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida divaricata* Lag., nom. illeg., non *Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida jacquiniana* Tausch; *Aristida jacquiniana* var. *jacquiniana*; *Aristida jacquiniana* var. *subaequilonga* Henrard; *Aristida karwinskiana* Trin. & Rupr.; *Aristida lagascae* Henrard; *Aristida laxa* Trin. ex Henrard, nom. illeg., non *Aristida laxa* Cav.; *Aristida laxa* Willd. ex Trin. & Rupr.; *Aristida laxa* var. *karwinskiana* (Trin. & Rupr.) Henrard; *Aristida laxa* var. *laxa*; *Aristida laxa* var. *longiramea* (J. Presl) Henrard; *Aristida longiramea* J. Presl; *Aristida oligophylla* Pilg.; *Aristida spadicea* Kunth; *Chaetaria spadicea* (Kunth) Roem. & Schult.; *Chaetaria spadicea* (Kunth) Nees, nom. illeg., non *Chaetaria spadicea* (Kunth) Roem. & Schult.)

South America. Perennial, caespitose, stiff, erect or divergent, more or less prostrate, foliage mainly basal, ligule a dense rim of hairs, leaves spirally curling when old, inflorescence a pyramidal panicle, spikelets more or less distally clustered, panicle branches erect to divergent, glumes subequal, on dry open slopes, grassland, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 44-45, t. 470, f. 1. 1799, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 99. 1809, *Nova Genera et Species Plantarum* 1: 123. 1815 [1816], *Genera et species plantarum* 3. 1816, *Systema Vegetabilium* 2: 397. 1817, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 385. 1829, *Reliquiae Haenkeanae* 1(4-5): 224. 1830, *Flora* 19(2): 508. 1836, *Species Graminum Stipaceorum* 130. 1842, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 25(5): 711. 1898 and *Meded. Rijks-Herb.* 54: 150, 178-179, 202, 291. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 270, 281-282, 311. 1927, *Mededeelingen van's Rijks-Herbarium* 54(B): 576. 1928, *Annals of the Missouri Botanical Garden* 82: 593-595. 1995.

**A. laxa** Cav. var. **karwinskiana** (Trin. & Rupr.) Henrard (*Aristida karwinskiana* Trin. & Rupr.)

Mexico. See *Species Graminum Stipaceorum* 121-122. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(A): 274, 275. 1927.

**A. laxa** Cav. var. **laxa**

America.

**A. laxa** Cav. var. **longiramea** (J. Presl) Henrard (*Aristida longiramea* J. Presl; *Aristida longiramea* var. *longiramea*) America. See *Reliquiae Haenkeanae* 1(4-5): 224. 1830 and *Mededeelingen van's Rijks-Herbarium* 54(A): 311. 1927.

**A. lazaridis** B.K. Simon (also spelled **lazarides**)

Australia, Queensland. Perennial, tufted, compact, branched, open panicle, tropical and subtropical, similar to *Aristida leptopoda*, see *Austrobaileya* 2(1): 92, f. 2C. 1984.

**A. leichhardtiana** Domin (*Aristida ramosa* var. *leptathera* Benth.) (after the German scientist Friedrich Wilhelm Ludwig Leichhardt, 1813-1848 (lost on a wild journey across Australia, a mission in the interior of Queensland, and nothing certain is known of his fate), explorer, naturalist and botanist, 1842 in Australia, plant collector, lectured on botany in Sydney, remembered for his long journey in 1844-1845 from Darling Downs to Port Essington (an early settlement in the far north of the Northern Territory), author of *Journal of an Overland Expedition in Australia, from Moreton Bay to Port Essington ... during ... 1844-45*. London 1847, also published papers in *Tasmanian Journal of Natural Science*. See Keith Willey, *Strange Seeker: The Story of Ludwig Leichhardt*. London and New York 1966; M. Arousseau, *The Letters of F.W. Ludwig Leichhardt*. London and New York 1968; James A. Baines, *Australian Plant Genera. An Etymological Dictionary of Australian Plant Genera*. 210-211. Chipping Norton, N.S.W. 1981; Ferdinand von Mueller, *The Fate of Dr. Leichhardt, and A Proposed New Search for His Party*. [Melbourne 1865]; F. von Mueller, *Fragmenta Phytographiae Australiae*. 10: 67-68. 1876; J.F. Mann, *Eight Months with Dr. Leichhardt in the Years 1846-1847*. 1888; [Ludwig Leichhardt], *An Explorer at Rest. Ludwig Leichhardt at Port Essington and on the Homeward Voyage 1845-1846*. Introduction and annotations by E. M. Webster. Melbourne 1986; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 233. 1972; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Charles Sturt (1795-1869), *Narrative of an expedition into Central Australia, Performed ... during the Years 1844, 1845 and 1846*. 2: App. 81. London 1849; Douglas Pike, editor, *Australian Dictionary of Biography*. 2: 102-104. 1967)

Queensland, New South Wales. Perennial, slender to robust, tussocky, erect, thin and simply branched, loosely tufted, sheath smooth, leaves scabrous, panicle much branched loose to open, unequal glumes lanceolate and long-acuminate, lemma purple or brown and linear to elliptic, awns

filiform and divaricate, grows on sandy soils, in sclerophyll forest, similar to *Aristida personata*, see *Prodromus Florae Novae Hollandiae* 1: 173. 1810, *Flora Australiensis: A Description ...* 7: 563. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 9: 551. 1911.

**A. leptopoda** Benth.

Queensland, New South Wales. Perennial, densely tussocky, compactly tufted, erect or ascending, strongly branched, sheath papery, leaves ending in a very long point, open-headed, panicle open at maturity with branches divaricate to drooping, spikelets terminal, glumes lanceolate and very long-acuminate, convolute lemma purplish linear to elliptic, awns filiform and stiff, young plants grazed, mature plants hard and prickly, grows on heavy soils, in arid and semiarid areas, similar to *Aristida behriana*, *Aristida lazardis*, *Aristida vickeryae* and *Aristida obscura*, see *Flora Australiensis: A Description ...* 7: 562. 1878 and *Austr. Syst. Bot.* 5: 206. 1992.

in English: white speargrass

**A. leptura** Cope

Somalia. Annual, panicle exerted from the uppermost sheath, glumes subequal finely awned, found in disturbed soil, marshes, edge of marshes, see *Kew Bulletin* 47(2): 277. 1992.

**A. liebmannii** E. Fourn. (*Aristida liebmannii* E. Fourn. ex Hemsl.)

Mexico. See *Biologia Centrali-Americana; ... Botany ...* 3: 534. 1855, *Mexicanas Plantas* 2: 78. 1886.

**A. lignosa** B.K. Simon

Queensland, New South Wales. Perennial, caespitose, compact, very robust and woody, branched and terete, strongly fasciculated branches, glabrous and smooth, sheath smooth, leaves scabrous and stiff to flexuous, panicle narrow with branches filiform, glumes lanceolate, lemma linear-elliptic and scabrous, awns subequal and slender, on stony or rocky soils, grows in dry sclerophyll forest, see *Austrobaileya* 2(1): 92, f. 2D. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. longespica** Poir. (specific epithet sometimes spelled **longispica**) (*Aristida geniculata* Raf.; *Aristida gracilis* Elliott; *Aristida gracilis* Elliott var. *depauperata* A. Gray; *Aristida longespica* var. *geniculata* Fernald; *Aristida longespica* var. *geniculata* (Raf.) Fernald; *Aristida simpliciflora* var. *texana* Vasey; *Curtopogon gracilis* Nees ex Trin. & Rupr.; *Trixostis gracilis* Raf.; *Trixostis gracilis* Raf. ex B.D. Jacks.)

U.S., North America. Annual, caespitose, good forage, on coastal meadow marshes, thin dry soils, seashores, open glade, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *A Sketch of the Botany of South-Carolina and Georgia* 1: 142, t. 8, f. 3. 1816, *American Monthly Magazine and Critical Review* 2(2): 119. 1817, *Bulletin Botanique [Genève]* 1: 221. 1830, *Species Graminum*

*Stipaceorum* 101. 1842, *A Manual of Botany of the Northern United States (edition 5)* 618. 1867, *Botanical Gazette* 3(3): 18. 1878, *Contributions from the United States National Herbarium* 3(1): 44. 1892 and *Rhodora* 35: 318. 1933.

in English: slimspike threeawn, three-awn, three-awned grass

**A. longespica** Poir. var. **geniculata** (Raf.) Fernald (*Aristida geniculata* Raf.; *Aristida gracilis* Elliott; *Aristida gracilis* var. *gracilis*; *Aristida intermedia* Scribn. & Ball; *Aristida necopina* Shinnery)

U.S. Annual, awns can cause damage, growing on sandy soils, sandy ridges, open sandy prairies, sandy open ground, along railroads and roadsides, rocky prairies, on moist calcareous sand of interdunal flats, rocky dry open woods, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *A Sketch of the Botany of South-Carolina and Georgia* 1: 142, t. 8, f. 3. 1816, *American Monthly Magazine and Critical Review* 2(2): 119. 1817 and *Bulletin, Division of Agrostology United States Department of Agriculture* 24: 44, f. 18. 1901, *Rhodora* 35: 318. 1933, *Rhodora* 56(662): 30. 1954.

in English: Kearney threeawn, red threeawn, plains three-awn, three-awn grass, false arrow feather, long-spike three-awned grass, spiked needlegrass

**A. longespica** Poir. var. **longespica**

U.S., North America. Annual, growing on sandy soil and especially in hard clayey soil, in fields, dry sandy soils, open and waste ground, along railroads and highways, rocky prairies, bluff edges, open woods and eroded slopes, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810.

in English: three-awn, red threeawn, three-awn grass, slimspike threeawn

**A. longicollis** (Domin) Henrard (*Aristida adscensionis* var. *longicollis* Domin)

Australia, Queensland, Northern Territory, New South Wales. Perennial, compact, tufted, branched, erect, rigid, smooth, sheath scabrous to pubescent, panicle spike-like and dense, unequal glumes thinly membranous and entire or notched, lemma not tuberculate, awns capillary and divaricate, grows in open woodland and mallee communities, rocky and sandy soils, similar to *Aristida psammophila*, see *Species Plantarum* 1: 82. 1753 and *Bibliotheca Botanica* 85(2): 343, t. 15, f. 5-8. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 14. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 306-307. 1927.

**A. longiflora** Schum. (*Aristida longiflora* Schumach. & Thonn.)

Central Africa. See *Beskrivelse af Guineiske planter* 48. 1827, *Kongel. Danske Vidensk. Selsk. Naturvidensk. Math. Afh.* 3: 68. 1828.



in Niger: aggoer, alaenta, anasuwa, assoré, azoer, bata, bataré, buwird'y, siri nyéré, surungéji, yanta

**A. longifolia** Trin. (*Aristida bromoides* Salzm. ex Trin. & Rupr.; *Aristida temulenta* Luces)

Brazil, Venezuela. Perennial, densely tufted, herbaceous, forming large clumps, erect, deciduous leaf blades, ligule membranous, leaves linear tapering to a filiform tip, inflorescence very open, lax panicles sparsely branched, spikelets 1-flowered with narrowly lanceolate glumes, awned, central awn ascending, in forest, sandy soils, *cerrado*, shade of trees, savannah, river beds, forest edge, among trees, rocky places, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 84. 1830, *Species Graminum Stipaceorum* 118. 1842 and *Boletín de la Sociedad Venezolana de Ciencias Naturales* 15(80): 16-19, f. 11. 1953.

in Bolivia: aguaraguai

**A. macrantha** Hack.

Paraguay. See *Repertorium Specierum Novarum Regni Vegetabilis* 7: 372. 1909, *Meded. Rijks-Herb.* 54(A): 321. 1927.

**A. macroclada** Henrard (*Aristida novae-guineae* Ohwi)

Australia, Northern Territory, New Guinea. Perennial, compact, tufted, sparsely branched, similar to *Aristida psammophila* and *Aristida longicollis*, see *Mededeelingen van's Rijks-Herbarium* 54(A): 325-326, f. 1927, *Botanical Magazine* (Tokyo) 56: 2. 1942.

**A. macroclada** Henrard var. **macroclada**

Australia, Northern Territory, New Guinea. Perennial, see *Mededeelingen van's Rijks-Herbarium* 54(A): 325-326, f. 1927, *Botanical Magazine* (Tokyo) 56: 2. 1942.

**A. macroclada** Henrard var. **queenslandica** (B.K. Simon) Veldkamp (*Aristida macroclada* subsp. *queenslandica* B.K. Simon)

Queensland, New Guinea. Perennial, see *Austrobaileya* 2(1): 95, f. 3B. 1984, *Reinwardtia* 12: 137. 2004.

**A. macrophylla** Hack. (*Aristida endomelas* Mez; *Aristida hassleri* var. *aculeolata* Hack.; *Aristida kleinii* L.B. Sm.; *Aristida subarticulata* Mez) (in honor of the Brazilian botanist Roberto Miquel (Miguel) Klein, born 1926, or 1923-1992, ecologist, his writings include "Árvores nativas da floresta subtropical do Alto Uruguai." *Sellowia*. 24(24): 9-62. Itajaí 1972, "Árvores nativas da Ilha de Santa Catarina." *Insula*, Boletim do Centro de Pesquisas e Estudos Botânicos. 3: 3-93, out. Florianópolis 1969, "Árvores nativas indicadas para o reflorestamento no sul do Brasil." *Sellowia*. 18: 29-40. Itajaí 1966, "Contribuição à identificação de árvores nativas nas florestas no sul do Brasil." *Silvicultura em São Paulo*. 16A pt. 1: 421-440. São Paulo 1982, "Ecologia da flora e vegetação do Vale do Itajaí." *Sellowia*. 31(31): 1-164, dez. Itajaí 1979 and "Observações e considerações sobre a vegetação do Planalto Nordeste

Catarinense." *Sellowia*. 15(15): 39-56, dez. Itajaí 1963; see *Sellowia* 15: 196. 1963; *Bradea* 1: 179. 1972; *Fl. Ilustr. Catarin.* (Loganiaceas) 34. 1976; *Ann. Missouri Bot. Gard.* 64: 318. 1977 [1978])

South America, Brazil. Perennial bunchgrass, caespitose, foliage coarse, awns spirally coiled, unpalatable, see *Bulletin de l'Herbier Boissier, sér. 2*, 4(3): 277. 1904, *Ergebnisse der Botanischen Expedition nach Südbrasilien* 1: 16. 1906, *Denkschr. Kaiserl. Akad. Wiss., Math.-Naturwiss. Kl.* 79: 77. 1908, *Repertorium Specierum Novarum Regni Vegetabilis* 7: 373. 1909, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 150. 1921, *Phytologia* 22(2): 88, f. 4-8. 1971.

**A. mandoniana** Henrard (*Aristida achalensis* Mez; *Aristida adscensionis* L.) (for the French traveler Gilbert Mandon, 1799-1866)

Bolivia, Argentina. See *Species Plantarum* 1: 82. 1753 and *Mededeelingen van's Rijks-Herbarium* 40: 55. 1921, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 149. 1921, *Meded. Rijks-Herb.* 54: 9. 1926.

**A. marginalis** Ekman

South America, Brazil. Blades of culm leaves flat, glumes subequal and distinctly awned.

**A. megapotamica** Spreng. (*Aristida implexa* Trin.; *Aristida paraguayensis* Lindm.; *Aristida sellowii* Mez; *Jarava megapotamica* (Spreng.) Peñailillo; *Stipa filifolia* Nees)

Bolivia, central Brazil to Argentina. Perennial, callus not 2-dentate, low forage value, in dry stony areas, see *Systema Vegetabilium, editio decima sexta* 4: 31. 1827, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 379. 1829, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 48. 1836 and *Kongliga Svenska Vetenskapsakademiens Handlingar* 34(6): 14, t. 7, f. B. 1900, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 148. 1921, *Mededeelingen van's Rijks-Herbarium* 58(A): 216-217. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 724-725. 1933, *Gayana, Botánica* 59(1): 31-32. 2002.

**A. megapotamica** Spreng. var. **brevipes** Henrard

Brazil. See *Mededeelingen van's Rijks-Herbarium* 58(A): 217. 1932, *Meded. Rijks-Herb.* 54(C): 724. 1933.

**A. megapotamica** Spreng. var. **longipes** Henrard

Paraguay. See *Meded. Rijks-Herb.* 58(A): 725. 1927, *Mededeelingen van's Rijks-Herbarium* 58(A): 216. 1932.

**A. megapotamica** Spreng. var. **megapotamica**

Bolivia.

**A. mendocina** Phil. (*Aristida cordobensis* Hack.; *Aristida inversa* Hack.; *Aristida inversa* f. *macrantha* Parodi; *Aristida mendocina* var. *macrantha* (Parodi) Henrard)

Argentina, Bolivia. Perennial, caespitose, foliage cauline, glumes unequal, unpalatable, colonizer on sand dunes, open habitats, sandy soil, stony ground, see *Anales de la Universidad de Chile* 36: 205. 1870 and *Anales del Museo Nacional de Buenos Aires* 11: 91. 1904, *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 8: 37. 1908, *Revista de la Sociedad Argentina de Ciencias Naturales* 8: 76. 1925, *Meded. Rijks-Herb.* 54: 118. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 267. 1927.

**A. meridionalis** Henrard

Tanzania, Botswana, Mozambique, South Africa. Perennial, hard, robust, fibrous, densely tufted, unbranched, erect and sometimes geniculate, hard and shiny leaf sheath, ligule a ring of woolly hairs, leaf blade inrolled, leaves flexible ending with a narrow point, inflorescence an open panicle, pendulous spikelets with a tripartite awn, moisture-loving grass, low grazing value, utilized in the young stage, thatching grass, used for broom-making, ornamental, growing in a low rainfall zone on sand dunes, open habitats, damp depressions, along roads, sandy and stony soils, moist places, deep sand, moist areas around vleis, see *Mededeelingen van's Rijks-Herbarium* 54(A): 344-345. 1927.

in English: giant three-awn, giant stick grass

in South Africa: langbeensteekgras, leeusteekgras, löwenstechgras

**A. mexicana** Scribner ex Henrard

Mexico. Sandy areas, see *Mededeelingen van's Rijks-Herbarium* 54(A): 344-345. 1927.

**A. migiurtina** Chiov.

Somalia, Arabia, Yemen. Perennial, tufted, dwarf, decumbent to erect, branched at the base, stiff leaf blades, leaves short and curved to involute, loosely contracted and obconical panicle, long-awned spikelets, glumes very unequal and awn-tipped, lower glume entire, upper glume bifid, awns subequal, growing in open areas, on barren stony slopes, sandy or stony soils, beaches and sand dunes, seasonally flooded places, see *Plantae Novae vel Minus Notae e regione Aethiopia* 29. 1928 [1911-1951, series published in different journals, also *Plantae Novae vel Minus Notae ex Aethiopia*], *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: gud lebah

**A. minutiflora** Caro

Argentina. Stony soils, see *Kurtziana* 1: 151-154, f. 2B, 4-5. 1961.

**A. minutiflora** Caro var. **glabriflora** Caro

Argentina. See *Kurtziana* 1: 154. 1961.

**A. minutiflora** Caro var. **minutiflora**

Argentina.

**A. mohrii** Nash (for the American botanist Charles T. Mohr, 1824-1901, born in Esslingen am Neckar, pharmacist, explorer, pioneer, botanical collector in Alabama and

Suriname, author of *The Forests [and Grasses] of Alabama*. 1878, *The Timber Pines of the Southern United States ...* New York 1884 [*Bull. U.S. Div. For.*, no. 13, 1897. 176 pp.], *Plant Life of Alabama*. 1901, *The Medicinal Plants of Alabama*. Mobile, Ala. 1893. See J.H. Barnhart, *Biographical notes upon botanists*. 2: 502. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 270. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 295-296. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. 1916; J. Ewan, editor, *A Short History of Botany in the United States*. 14, 92. 1969; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. 111. 1970; *Man. Grass. U.S.* 987. 1951)

North America, U.S., Alabama. Perennial, green spikelets, found in sand hills, scrub and dry flatwoods, on sandy slopes, see *Bulletin of the New York Botanical Garden* 1(5): 436. 1900, K.W. Allred, "Studies in the *Aristida* (Gramineae) of the southeastern United States. IV. Key and conspectus.," *Rhodora* 88(855): 367-387. 1986.

in English: Mohr's three-awn, Mohr's threeawn grass

**A. mollissima** Pilg.

Africa, Botswana. See *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 40: 80. 1908.

**A. mollissima** Pilg. subsp. **argentea** (Schweick.) Melderis (*Aristida argentea* Schweick.)

Africa, Zimbabwe. Perennial, erect to geniculate, densely tufted, lower culm internodes woolly to densely tomentose, narrow lax inflorescence, lower glume awned, three awns, species of open habitats, mountain slopes, sandveld, sandy to stony sandy soils, disturbed areas, see *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 76(2): 218-220. 1954.

**A. mollissima** Pilg. subsp. **mollissima**

Africa, Kenya, Zimbabwe. Perennial, erect, densely tufted, lower culm internodes woolly to tomentose, contracted inflorescence spicate, lower glume awned, three awns, species of open habitats, sandy to stony sandy soils, red sands.

**A. monticola** Henrard

South Africa. Perennial, long rhizomatous, much-branched, densely tufted, hairy ligule, a contracted to lax panicle, lower glume sometimes mucronate but unawned, three awns, young leaves and inflorescences grazed, used to promote the birth of a calf, common in moist and shady areas, stream banks, mountain slopes, see *Mededeelingen van's Rijks-Herbarium* 54(A): 355-356. 1927.

in South Africa: seotla

**A. moritzii** Henrard

Venezuela. See *Mededeelingen van's Rijks-Herbarium* 54: 133. 1926, *Meded. Rijks-Herb.* 54(A): 356-357. 1927, *Flora of Ecuador*, no. 57. 214(1) *Gramineae* (part 1): 53. 1997.

**A. multiramea** Hack. (*Aristida adscensionis* var. *laevis* Hack.)

Argentina. Stony places, sandy soils, see *Anales del Museo Nacional de Buenos Aires* 11: 89. 1904, *Anales del Museo Nacional de Buenos Aires* 21: 67, t. 1, f. a-c. 1911, *Meded. Rijks-Herb.* 54(A): 364. 1927.

**A. muricata** Henrard (Latin *muricatus*, *a*, *um* "roughened, with hard points, full of prickles, pointed, shaped like a purple-fish")

Queensland, New South Wales. Perennial, tufted, compact, simple or branched from the lower nodes, panicle more or less dense with wavy branches, equal or unequal glumes cuspidate, lower glume acuminate 1-nerved, upper glume obtuse, lemma linear and densely spiny, awns filiform and flattened, grows on clay loam or sandy soils, similar to *Aristida forsteri* and *Aristida exserta*, see *Mededeelingen van's Rijks-Herbarium* 58(A): 286, t. 154. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 727-729. 1933.

**A. murina** Cav. (*Aristida crinita* J. Presl; *Aristida pallens* var. *murina* (Cav.) Trin. & Rupr.)

South America. Perennial, leaves flat, low forage value, fields, moist ground, sandy meadow, hillsides, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43-44, t. 468-469, f. 1-2. 1799, *Reliquiae Haenkeanae* 1(4-5): 223. 1830, *Species Graminum Stipaceorum* 117. 1842 and *Flora Illustrada de Entre Ríos (Argentina)* 6(2): 208-224. 1969, *Flora de la Provincia de Buenos Aires* 4(2): 352-369. 1970, *Flora Patagónica* 3: 1-583. 1978, *Acta Botanica Brasilica* 4(1): 105-124. 1990, *Boletim do Instituto de Botânica* (São Paulo) 12: 113-179. 1999.

**A. mutabilis** Trin. & Rupr. (*Aristida articulata* Edgew.; *Aristida astroclada* Chiov.; *Aristida cassanellii* A. Terracc.; *Aristida longeradiata* Steud.; *Aristida meccana* Hochst. ex Trin. & Rupr.; *Aristida meccana* Trin. & Rupr.; *Aristida mutabilis* var. *laeviglumis* Henrard; *Aristida tenuis* Hochst., nom. illeg., non *Aristida tenuis* (Kunth) Kunth)

Yemen, Sudan, Somalia, Saudi Arabia. Annual, rather variable, loosely tufted, sprawling, erect or ascending, wiry, slender, much-branched, short leaf blades, leaves usually convolute, open or contracted inflorescence, contracted or spreading panicle, spikelets clustered and terminal, more or less equal glumes acute mucronate or awned, lemma scabrid narrowed above the middle, awns more or less equal, fodder grass, low nutritional value, browsed by all stock when young and tender, sharp and pungent awns can cause injury to horses' mouths, used to make mats and basket sieves, used for stuffing saddles, abundant on sand dunes, open

waste places, desert, sandy soils, subdesert, grassland, stony plains, Sahara-Indian distribution, related to *Aristida barbicollis* Trin. & Rupr., see *Species Graminum Stipaceorum* 150-152. 1842, *Synopsis Plantarum Glumacearum* 1: 140. 1855 [1854], *Flora* 38: 200. 1855, *Journal of the Proceedings of the Linnean Society* 6: 209. 1862, *Annali di Botanica* 5: 94. 1894 and *Bulletin de la Société Botanique de France* 53: 32. 1906, *Annali di Botanica* 10(3): 409. 1912, *Mededeelingen van's Rijks-Herbarium* 54: 84. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 239, 339, 367-369. 1927, *Mededeelingen van's Rijks-Herbarium* 58: 136. 1929, *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 30: 368. 1939, *Grass. Saudi Arabia* 216. 1989, *Kew Bulletin* 47(2): 277-282. 1992, *Gram. Cameroun* 2: 101. 1992.

in English: white grass

in Arabic: gau

in Mali: allomoze, amadzarne, kelbi, ibirsiagué, okras, pupo supho

in Niger: alamuza, anadzarné, fari'n tchawa, gèch abiat, kalafhu, kalawa, kalawu, karagého, kasura, kotokolé, rané-raného, séko, sub kaarey, subu kuwaré, tazmei, telawlawt

in Nigeria: baya, gau, datsi, gatsuaa, gatsaua, kas makaru, katsaura

in Somalia: maruet, dub derigan, half, xalfo

in Upper Volta: celbi, selbo

**A. neglecta** León ex Hitchc. (*Aristida neglecta* subsp. *decumbens* Catusus; *Aristopsis bissei* Catusus)

Cuba, the Caribbean. See *Contributions from the United States National Herbarium* 22(7): 567. 1924, *Folia Geobotanica et Phytotaxonomica* 16(4): 439. 1981, *Bot. Zurn. (Kiev)* 69(6): 874. 1984.

**A. nicorae** Sulekic

Argentina. See *Darwiniana* 41(1-4): 175-177, f. 8. 2003.

**A. niederleinii** Mez (*Aristida pallens* var. *macrochaeta* Hack.)

Argentina. See *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43, t. 468, f. 2. 1799 and *Anales del Museo Nacional de Buenos Aires* 13: 452. 1906, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 150. 1921, *Kurtziana* 1: 178. 1961.

**A. nitidula** (Henrard) S.T. Blake ex J.M. Black (*Aristida echinata* Henrard var. *nitidula* Henrard)

Australia. Perennial, compactly tufted, culms usually simple, sheath tuberculate scabrous, leaves stiff and setaceous or bristly, spike-like and narrow inflorescence, glumes subequal and nerved, upper glume mucronate, lemma convolute and densely spiny-tuberculate toward the apex, awns subequal and flattened, moderately palatable to rabbits, grows on hills and stony sites, similar to *Aristida capillifolia*, *Aristida arida*, *Aristida blakei*, *Aristida australis*,

*Aristida strigosa*, *Aristida latzii* and *Aristida burraensis*, see *Mededeelingen van's Rijks-Herbarium* 58(A): 285, t. 139. 1929, *Transactions and Proceedings of the Royal Society of South Australia* 67: 46. 1943.

in English: flat-awned three-awn

**A. obscura** Henrard (*Aristida obscura* var. *luxurians* Henrard)

Queensland, South Australia, Western Australia, Northern Territory, New South Wales. Perennial, tussocky, rare, loosely tufted, semierect or sprawling, terete culms strongly branched and fastigiate, sheath scabrous to pubescent, leaves flat to convolute, inflorescence loose to open, glumes unequal and acuminate, lemma purple and densely tuberculate-spiny or scabrous, awns subequal and divergent, palatable, grows on loamy soils, similar to *Aristida behriana*, *Aristida vickeryae* and *Aristida leptopoda*, see *Mededeelingen van's Rijks-Herbarium* 54(A): 385-387. 1927, *Mededeelingen van's Rijks-Herbarium* 58(A): 262, t. 126. 1932.

in English: brush three-awn, brush threeawn, smallbrush wire grass, rough-seed wire-grass

**A. obtusa** Delile (*Arthratherum obtusum* (Delile) Nees; *Stipagrostis obtusa* (Delile) Nees)

North Africa, Sahara, Morocco, Saudi Arabia. See *Description de l'Égypte, ... Histoire Naturelle, Tom. Second* 175, t. 13, f. 2. 1812, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 198. 1833, *Florae Africae Australioris Illustrationes Monographicae* I. Gramineae. 179. 1841 and Roberto Corti (1909-1986), *Flora e vegetazione del Fezzán e della regione di Gat*. Firenze 1942 [Reale società geografica italiana. Il Sáhara italiano, pte. 1. Fezzán e oasi di Gat.], *Mémoires, Institut de Recherches Sahariennes. Algiers* 6: 16. 1959, *Bothalia* 21(2): 163-170. 1991, *Lagascalia* 20(2): 265-275. 1998.

in Morocco: sham, selyan

**A. oligantha** Michaux (*Aristida divaricata* Humb. & Bonpl. ex Willd.; *Aristida macrochaeta* Steud.; *Aristida micropoda* Trin. & Rupr.; *Aristida oligantha* var. *nervata* Beal; *Aristida pallens* Nutt.; *Aristida pauciflora* Buckley; *Aristida ramossissima* Engelm. ex Gray var. *chaseana* Henr.; *Chaetaria oligantha* (Michx.) P. Beauv., also spelled *olygantha*)

U.S., Florida, California, Texas, Illinois. Annual, tufted, culms glabrous to scabrous, branched at the woolly base and nodes, clumped, smooth sheath, ligules short-fringed, leaf blades flat to involute and pubescent, open inflorescence narrowly paniculate, glumes subequal and short-awned, lemmas tipped by three diverging awns, lemma awns free at the base, invasive weed, poor forage, mature awns may injure animals, grows on dry sterile soils, dry sandy areas, dry rocky soil, abandoned fields, overgrazed and disturbed sites, depressed situations, waste ground, eroded slopes, sandy alluvium, open grassy areas, hard clay soil, open habitats, along railroads, clayey roadsides, see

*Flora Boreali-Americana* 1: 41. 1803, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 99. 1809, *Essai d'une Nouvelle Agrostographie* 30, 158. 1812, *The Genera of North American Plants* 1: 57. 1818, *Species Graminum Stipaceorum* 107-108. 1842, *Synopsis Plantarum Glumacearum* 1: 134. 1855 [1854], *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 92-93. 1862, *Grasses of North America for Farmers and Students* 2: 202. 1896.

in English: Oldfield three-awn, Oldfield threeawn, plains three-awn grass, prairie three-awn, prairie three-awn grass, few-flowered aristida

**A. oligospira** (Hack.) Henrard

South America, Paraguay. Perennial, caespitose, densely clumped, savannah, see *Bulletin de l'Herbier Boissier, sér.* 2, 4(3): 277. 1904, *Mededeelingen van's Rijks-Herbarium* 54: 160. 1926, *Meded. Rijks-Herb.* 54(A): 391-392. 1927, *Bol. Inst. Bot.* (São Paulo) 12: 141. 1999.

**A. orcuttiana** Vasey (*Aristida hypomegas* Mez; *Aristida schiedeana* Trin. & Rupr.; *Aristida schiedeana* var. *orcuttiana* (Vasey) Allred & Valdés-Reyna) (dedicated to the American (California) botanist Charles Russell Orcutt, 1864-1929, plant collector and naturalist, 1882-1886 Baja California, editor of *The West American Scientist*. vol. 1-21. 1881-1919)

U.S., New Mexico, California, Mexico. Forage, see *Species Graminum Stipaceorum* 120-121. 1842, *Bulletin of the Torrey Botanical Club* 13(2): 27. 1886 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 146. 1921, *Contr. U.S. Natl. Herb.* 22(7): 526. 1924, *Mededeelingen van's Rijks-Herbarium* 54(A): 250. 1927, *Novon* 5: 217. 1995.

in English: Orcutt's threeawn

in Mexico: tres barbas volador

**A. pallens** Cav. (*Aristida glaberrima* Steud.; *Aristida niederleinii* Mez; *Aristida pallens* Nutt.; *Aristida pallens* Pursh, nom. illeg., non *Aristida pallens* Cav.; *Aristida pallens* var. *genuina* Trin. & Rupr.; *Aristida pallens* var. *intermedia* Trin. & Rupr.; *Chaetaria pallens* (Cav.) P. Beauv.)

Central Brazil, Argentina, Chile. Perennial, erect, clumped, leaves and roots laxative, low forage value, growing in dry places, dry hillsides, rocky areas, depressed situations, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 43-44, t. 468-469, f. 1-2. 1799, *Essai d'une Nouvelle Agrostographie* 30, 152, 158. 1812, *Flora Americae Septentrionalis; or, ...* 2: 728. 1814, *The Genera of North American Plants* 1: 57. 1818, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 381. 1829, *Species Graminum Stipaceorum* 116-117. 1842, *Synopsis Plantarum Glumacearum* 1: 135. 1855 [1854], *Flora Brasiliensis* 2(3): 14. 1878 and *Anales del Museo Nacional de Montevideo* 4(1): 72, 74-75, t. 1-2. 1902, *Anales del Museo Nacional de Buenos Aires* 13: 452.

1906, *Anales del Museo Nacional de Buenos Aires* 21: 69. 1911, *Mededeelingen van's Rijks-Herbarium* 54: 201. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 408, 410. 1927, *Revista Sudamericana de Botánica* 6(5-6): 141. 1940, *Revista Sudamericana de Botánica* 9: 98-99. 1953, *Kurtziana* 1: 171-175, f. 1, 9B, 10D-F. 1961.

in English: goat's beard

in Brazil: capim barba de bode, capim de bode, barba de bode, barba da bode

*A. pallens* Cav. var. *geminata* Caro

Argentina. See *Kurtziana* 1: 171-175, f. 1, 9B, 10D-F. 1961.

*A. pallens* Cav. var. *pallens* (*Aristida pallens* var. *genuina* Trin. & Rupr.; *Chaetaria pallens* (Cav.) P. Beauv.)

South America. See *Essai d'une Nouvelle Agrostographie* 30, 152, 158. 1812, *Species Graminum Stipaceorum* 116. 1842.

*A. pallida* Steud.

Central Africa, Sudan, Niger. See *Synopsis Plantarum Glumacearum* 1: 143. 1855 [1854].

in Niger: aggur, awukaraz, azwoezag, enegarwagh, furué, kasawura, manrgo, surungeewol, surungéji, taezeyzey, tchibby, waajag, yanta

*A. pallida* Steud. var. *chudaei* (Batt. & Trab.) Maire & Weiller (*Aristida aristidis* Coss. var. *chudaei* Batt. & Trab.)

Central Africa. See *Synopsis Plantarum Glumacearum* 1: 143. 1855 [1854], *Flore d'Alger* 2: (Monocot.) 158. 1895 and *Bulletin de la Société Botanique de France*, sér. 4, 6: 32. 1906, *Flore de l'Afrique du Nord*: 2: 51. 1953.

*A. palustris* (Chapman) Vasey (*Aristida affinis* auct. non (J.A. Schultes) Kunth; *Aristida purpurascens* Poir. var. *alabamensis* Trin. & Rupr.; *Aristida virgata* Trin. var. *palustris* Chapm.)

U.S., Florida. Seasonally flooded areas, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 60. 1821, *Mantissa* 210. 1824, *Révision des Graminées* 1: 61. 1829, *Flora of the Southern United States* 555. 1860, *A Descriptive Catalogue of the Grasses of the United States* 35. 1885 and *Rhodora* 87(850): 147-155. 1985, *Rhodora* 88(855): 367-387. 1986.

in English: long-leaf three-awn, longleaf threeawn

*A. pansa* Wooton & Standl. (*Aristida dissita* I.M. Johnston; *Aristida pansa* f. *contracta* Allred & Valdés-Reyna; *Aristida pansa* var. *dissita* (I.M. Johnston) Beetle; *Aristida tehucanensis* Sánchez-Ken & Dávila)

U.S., New Mexico. Erect, sheath pubescent, forage, growing in arid and semiarid areas, grassland, mountain scrub, see *Contributions from the United States National Herbarium* 16: 112. 1913, *Journal of the Arnold Arboretum* 24(4): 401-402. 1943, *Phytologia* 27(6): 441. 1974, *Flora del Valle de Tehuacán-Cuicatlán* 3: 18, f. 1. 1994, *Brittonia* 49(1): 62-63. 1997.

in English: Wooton's three-awn, Wooton threeawn

in Mexico: tres aristas perenne

*A. pansa* Wooton & Standl. f. *contracta* Allred & Valdés-Reyna (*Aristida pansa* var. *pansa*)

Mexico. See *Brittonia* 49(1): 63. 1997.

*A. pansa* Wooton & Standl. f. *dissita* (I.M. Johnst.) Allred & Valdés-Reyna (*Aristida dissita* I.M. Johnston; *Aristida pansa* var. *dissita* (I.M. Johnston) Beetle; *Aristida tehucanensis* Sánchez-Ken & Dávila)

Mexico. See *Journal of the Arnold Arboretum* 24(4): 401-402. 1943, *Phytologia* 27(6): 441. 1974, *Flora del Valle de Tehuacán-Cuicatlán* 3: 18, f. 1. 1994, *Brittonia* 49(1): 62. 1997.

*A. pansa* Wooton & Standl. f. *pansa*

America.

*A. paoliana* (Chiov.) Henrard (*Aristida hemmingii* Clayton; *Aristida stipiformis* Lam. ex Poir. var. *paoliana* Chiov.)

Kenya, Somalia, Ethiopia. Perennial, woody, slender, freely branched from all nodes, loosely tufted, leaf blades narrowly linear, knotted base, nodding open and loose panicle, glumes unequal, lower glume emarginate to 2-lobed, upper glume 2-toothed and shortly awned, upper portion of the lemma narrowed and scabris, awns subequal, small grain, on orange sand, red sandy soil, related to *Aristida stenophylla* Henr., see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810 and *Annali di Botanica* 13(3): 371. 1915, *Mededeelingen van's Rijks-Herbarium* 54(A): 420-421. 1927, *Kew Bulletin* 23: 211. 1969, *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: ula dheere

*A. parishii* A.S. Hitchc. (*Aristida purpurea* Nutt. var. *parishii* (A.S. Hitchc.) Allred; *Aristida wrightii* var. *parishii* (A.S. Hitchc.) Gould) (collected by S.B. Parish and W.F. Parish, Colorado Desert, 1882) (dedicated to the brothers Samuel Bonsall Parish (1838-1928) and William F. Parish, American botanists and botanical collectors; Samuel Bonsall Parish wrote *A Catalogue of Plants Collected in the Salton Sink*. Washington, D.C. 1913. See George Neville Jones (1903-1970), *An Annotated Bibliography of Mexican Ferns*. Univ. Illinois Press 1966; J.H. Barnhart, *Biographical notes upon botanists*. 3: 48. 1965; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 566. University of Pennsylvania Press, Philadelphia 1964; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 301. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 321. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; G. Murray, *History of the Collections Contained in the Natural History Departments of the British Museum*. 1: 172. London

1904; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970; Irving William Knobloch, compil., "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs*. VI. 1983; George Edmund Lindsay (b. 1916), *Notes Concerning The Botanical Explorers and Exploration of Lower California, Mexico*. San Francisco 1955)

U.S., California, North America. Perennial, scattered, good forage, common on rocky slopes and along washes, see *Transactions of the American Philosophical Society, new series*, 5: 145. 1837 and *Flora of the Southeastern United States ...* 116, 1327. 1903, *A Flora of California* 1: 101. 1912, *Phytologia* 37(4): 317-407. 1977, *Journal of the Arnold Arboretum* 60(2): 320. 1979, *Brittonia* 36(4): 392. 1984.

in English: Parish's threeawn, threeawn, Parish three-awn

**A. parodii** Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 54(A): 428-429. 1927.

**A. parvula** (Nees) De Winter (*Stipa parvula* Nees)

South Africa. Annual, erect to geniculate, tufted, sometimes prostrate, lower glume awned, solitary awn, lateral awns missing, on stony soils, along water courses, rocky hillsides, disturbed areas, see *Florae Africae Australioris Illustrationes Monographicae* 169. 1841 and *Kirkia* 3: 132. 1963.

**A. patula** Chapman ex Nash (*Aristida scabra* sensu Chapm.)

U.S., Florida. Perennial, shortly rhizomatous, green spikelets, rare species growing in moist sandy barrens, sandy coast, open forest, savannah, flatwoods, grassland, ponds and disturbed sites, see *Bulletin of the Torrey Botanical Club* 23: 98. 1896 and *Rhodora* 88(855): 367-387. 1986.

in English: tall three-awn, threeawn

**A. pedroensis** Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 58(A): 232, t. 130. 1932, *Meded. Rijks-Herb.* 54(C): 731. 1933.

**A. pendula** Longhi-Wagner

Brazil. Perennial, erect, see *Bradea, Boletim do Herbarium Bradeanum* 5(5): 59-62, f. 1. 1988.

**A. pennei** Chiov. (*Aristida jemensis* Henrard ex Schwartz; *Aristida jemensis* Henrard)

Yemen, Arabia. Perennial, erect, short, smooth, tufted to densely tufted, foliage basal, leaves involute, panicle contracted, glumes unequal terminating in a short awn point, lemma scabrid, awns more or less equal stiff and spreading, widespread on stony and sandy plain, dry soil, on mountain slopes, see *Annali di Botanica* 2: 366. 1905, *Mitteilungen aus dem Institut für allgemeine Botanik in Hamburg* 10: 321. 1939.

**A. pernicioso** Domin

Western Australia, Northern Territory, tropical and subtropical Queensland. Perennial, compact, tufted, lemma awn column present, see *Bibliotheca Botanica* 85(2): 340-341, t. 13, f. 15-17. 1915.

**A. personata** Domin (*Aristida ramosa* var. *speciosa* Henrard)

Australia. Perennial, compact, tufted, slender to robust, branched, loose to open panicle, similar to *Aristida ramosa*, see *Mededeelingen van's Rijks-Herbarium* 58(A): 260, 290, t. 141. 1932, *Meded. Rijks-Herb.* 54(C): 731-732, 737. 1933, *Austr. Syst. Bot.* 5: 200. 1992.

**A. peruviana** Beetle (*Aristida adscensionis* L.)

Peru. Rare species growing on sand dunes near the ocean, see *Species Plantarum* 1: 82. 1753 and *Mededeelingen van's Rijks-Herbarium* 54: 9. 1926, *Phytologia* 30(5): 348. 1975, *Madroño* 40: 266. 1993.

**A. petersonii** Allred & Valdés-Reyna (for the American botanist Paul M. Peterson, born 1954, curator of grasses, *National Museum of Natural History, Smithsonian Institution*, interested in the subfamily Chloridoideae. See *Syst. Bot.* 14: 316. 1989; *Brittonia* 42(1): 47. 1990; P.M. Peterson & C.R. Annable, "Systematics of the annual species of *Muhlenbergia* (Poaceae: Eragrostideae)." *Syst. Bot. Monographs* 31: 1-109. 1991; *Madroño* 40: 71. 1993; *Amer. J. Bot.* 81: 622-629. 1994; *Novon* 5(3): 209. 1995; *Ann. Miss. Bot. Gard.* 82: 108. 1995; P.M. Peterson, R.D. Webster and J. Valdés-Reyna, "Genera of New World Eragrostideae (Poaceae: Chloridoideae)." *Gayana, Bot.* 54(2): 172. 1997; P.M. Peterson and J.J. Ortíz-Díaz, "Allelic variation in the amphitropical disjunct *Muhlenbergia torreyi* (Poaceae: Muhlenbergiinae)." *Brittonia* 50: 381-391. 1998; *Sida* 19(1): 66. 2000; S. Laegaard and P.M. Peterson, *Gramineae* (part 2) Subfam. Chloridoideae. Pp. 1-131. In: Harling, G. & L. Andersson (eds.). *Flora of Ecuador*. 2001; P.M. Peterson and Y. Herrera-Arrieta, "A leaf blade anatomical survey of *Muhlenbergia* (Poaceae: Muhlenbergiinae)." *Sida* 19: 469-506. 2001; *Contr. U.S. Natl. Herb.* 41: 1-255. 2001 [P.M. Peterson & al., Catalogue of New World grasses (Poaceae): II. subfamily Chloridoideae.]

Mexico. See *Novon* 5(3): 209-212, f. 1. 1995.

**A. pilgeri** Henr. (dedicated to the German botanist Robert Knuds Friedrich Pilger, 1876-1953, traveler, botanical explorer, plant collector in Brazil (Matto Grosso), Director at Botanical Garden Berlin-Dahlem, his works include "Gramineae novae, a cl. K. Skottsberg in Patagonia australi et in Fuegia collectae." *Repert. Spec. Nov. Regni Veg.* 12: 304-308. 1913 and "Sobra algunas gramíneas de América del Sur." *Revista Argent. Agron.* 11(4): 257-264. 1944. See L.R. Parodi, "Robert Pilger." *Revista Argent. Agron.* 20(2): 107-114. 1953; H. Melchior, "Zum Gedächtnis von Robert Pilger." *Bot. Jahrb. Syst.* 76(3): 385-409. 1954; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. University of Pennsylvania Press,

Philadelphia 1964; E.D. Merrill, in *Bernice P. Bishop Mus. Bull.* 144: 151. 1937; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 310. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 327. 1973; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; August Weberbauer, *Die Pflanzenwelt der peruanischen Andes in ihren Grundzügen dargestellt*. 39. Leipzig 1911)

South Africa. Perennial, densely tufted, coarse, robust, unbranched, leaf blade expanded at the base, lower internodes glabrous, ligule a fringe of short hairs, basal leaves leaf sheaths slightly keeled, inflorescence a compact panicle contracted and branched, spikelets with short pedicels, lower glume long awned, lemma articulation, three awns unequal, column twisted, very little forage value, tough and unpalatable, on sandy soils, veld, moist depressions, stony places, floodplains, riverbanks, see *Mededeelingen van's Rijks-Herbarium* 54(A): 443-445. 1927.

in English: Pilger's stick grass

in South Africa: Pilger-se-steekgras, Pilgers stechgras

**A. pinifolia** Catusas

The Caribbean, Cuba. Savannah, sandy soil, see *Novosti Sist. Vyss. Rast.* 20: 7. 1983, *Acta Botanica Cubana* 24: 3. 1985.

**A. pittieri** Henrard

Venezuela. Savannah, see *Mededeelingen van's Rijks-Herbarium* 54(A): 447-448. 1927.

**A. platychaeta** S.T. Blake

Queensland, New South Wales. Perennial, loosely tufted, slender, thin and smooth, unbranched, leaf blades flexuous to curly, sheath almost smooth, leaves scabrous, contracted inflorescences, usually loose panicle spike-like, equal or subequal glumes ovate to lanceolate, lemma linear-cylindrical white-tuberculate, awns filiform and divergent, grows in grassland, similar to *Aristida nitidula*, *Aristida blakei*, *Aristida strigosa*, *Aristida capillifolia* and *Aristida arida*, see *Proceedings of the Royal Society of Queensland* 51: 174, t. 5, f. 10-13. 1940.

**A. polyclados** Domin

Australia, Queensland. Annual, compact, tufted, branched, compressed, inverse glumes, twisted column, lemma articulation, see *Bibliotheca Botanica* 85(2): 338, t. 13, f. 10-12. 1915.

**A. portoricensis** Pilger

Puerto Rico. Largely tufted, culms spreading at base, endangered or threatened species, growing on red clay, rocky soils, sandy areas and dry fields, stony places, savannahs

and open fields, see *Symbolae Antillarum* 4: 100. 1903, *Flora of Puerto Rico and Adjacent Islands: A Systematic Synopsis* 1-342. 1982, *Sida* 13(4): 423-447. 1989.

in Spanish: pelos del diablo

**A. pradana** León

Cuba. Perennial, tufted, erect, wiry, rocky and stony soils, see *Bulletin of the Torrey Botanical Club* 53: 458. 1926.

**A. protensa** Henrard

Somalia. Perennial, densely tufted, short dense panicle spike-like cuneate below, glumes very unequal, lower glume linear-lanceolate, upper glume 2-toothed at the tip, linear upper glume with expanded base, slightly dilated distal end of the column, awns subequal, see *Mededeelingen van's Rijks-Herbarium* 54(B): 467-468. 1928, *Kew Bulletin* 47(2): 277-282. 1992.

**A. pruinosa** Domin

Western Australia, Queensland, Northern Territory. Perennial, loosely tufted, robust, branched, pruinose culms, subequal glumes, tuberculate lemma grooves, tropical and subarid, sands and alluvial soils, similar to *Aristida calycina* var. *praealta* and *Aristida biglandulosa*, see *Bibliotheca Botanica* 85(2): 345-346. 1915.

**A. psammophila** Henrard (Greek *psammos* "sand" and *philos* "lover, loving")

Queensland, New South Wales. Perennial, compact, tufted, culms sparsely branched and more or less terete, sheath scabrous, leaves scabrous, panicle more or less spike-like, glumes lanceolate and unequal, lemma pale brown, awns stiff and filiform, poor soils, sandy soils, similar to *Aristida longicollis*, *Aristida latifolia* and *Aristida macroclada*, see *Mededeelingen van's Rijks-Herbarium* 58(A): 229, t. 142. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 734-735. 1932.

**A. pubescens** Caro & E.A. Sánchez

Argentina. See *Darwiniana* 19(2-4): 417-421, f. 2. 1975.

**A. purpurascens** Poir. (*Aristida affinis* (Schult.) Kunth; *Aristida elliotiana* Steud.; *Aristida geyeriana* Steud.; *Aristida neesiana* Trin. & Rupr.; *Aristida purpurascens* var. *alabamensis* Trin. & Rupr.; *Aristida purpurascens* var. *glaucescens* Kearney ex Scribn. & Ball; *Aristida purpurascens* var. *minor* Vasey; *Aristida racemosa* Muhl., nom. illeg., non *Aristida racemosa* Spreng.; *Aristida recurvata* Kunth; *Aristida riedeliana* Trin. & Rupr.; *Aristida stricta* Steud., nom. illeg., non *Aristida stricta* Michx.; *Aristida tenuispica* Hitchc.; *Chaetaria affinis* Schult.; *Chaetaria purpurascens* (Poir.) P. Beauv.; *Chaetaria recurvata* (Kunth) Roem. & Schult.)

U.S., Louisiana, Florida, Texas, North America, Mexico, Canada, Honduras. Perennial, growing on dry sandy soils, in open sterile ground, wetlands, gravelly soils, in sand barrens, see *Encyclopédie Méthodique. Botanique* ...

*Supplément* 1: 452. 1810, *Essai d'une Nouvelle Agrostographie* 30, 152, 158. 1812, *Nova Genera et Species Plantarum* 1: 123. 1815 [1816], *Descriptio uberior Graminum* 172. 1817, *Systema Vegetabilium, editio decima sexta* 2: 397. 1817, *Mantissa* 210. 1824, *Révision des Graminées* 1: 61. 1829, *Species Graminum Stipaceorum* 102, 113. 1842, *Nomenclator Botanicus. Editio secunda* 1: 132. 1854, *Synopsis Plantarum Glumacearum* 1: 133. 1855 [1854], *Contributions from the United States National Herbarium* 3(1): 46. 1892, *Grasses of North America for Farmers and Students* 2: 201. 1896 and *Bulletin, Division of Agrostology United States Department of Agriculture* 24: 45. 1901, *Contributions from the United States National Herbarium* 22(7): 572, 578, 581. 1924, *Rhodora* 88(855): 383. 1986.

in English: arrowfeather, broomsedge, arrowgrass, arrowfeather three-awn, arrowfeather threeawn

**A. purpurascens** Poir. var. **purpurascens** (*Aristida affinis* (J.A. Schultes) Kunth; *Aristida purpurascens* var. *minor* Vasey; *Chaetaria affinis* Schult.)

North America, U.S., Texas, Florida. Perennial, green spikelets, growing in dry flatwoods, sand hills and disturbed sites, wetland, see *Mantissa* 210. 1824, *Révision des Graminées* 1: 61. 1829, *Contributions from the United States National Herbarium* 3(1): 46. 1892.

in English: arrowfeather

**A. purpurascens** Poir. var. **tenuispica** (A.S. Hitchc.) Allred (*Aristida tenuispica* A.S. Hitchc.)

U.S., North America. Open areas, savannah, see *Contributions from the United States National Herbarium* 22(7): 581. 1924, *Rhodora* 88(855): 383. 1986.

**A. purpurascens** Poir. var. **virgata** (Trin.) Allred (*Aristida chapmaniana* Nash; *Aristida gracilis* var. *virgata* (Trin.) Alph. Wood; *Aristida perennis* Panz. ex Trin. & Rupr.; *Aristida purpurascens* var. *depauperata* Vasey ex Beal; *Aristida stricta* Steud., nom. illeg., non *Aristida stricta* Michx.; *Aristida virgata* Trin.)

U.S., North America. In dry sandy soil, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 60. 1821, *Species Graminum Stipaceorum* 104. 1842, *Nomenclator Botanicus. Editio secunda* 1: 132. 1854, *The American Botanist and Florist* 389. 1871, *Grasses of North America for Farmers and Students* 2: 201. 1896 and *Flora of the South-eastern United States ...* 118, 1327. 1903, *Contr. U.S. Natl. Herb.* 22(7): 578. 1924, *Rhodora* 88(855): 383. 1986.

in English: Trinius threeawn, wandlike three-awn grass

**A. purpurea** Nuttall (*Aristida aequiramea* Scheele; *Aristida berlandieri* (Trin. & Rupr.) Hitchc.; *Aristida fasciculata* var. *californica* (Vasey) Vasey ex L.H. Dewey; *Aristida fasciculata* var. *hookeri* (Trin. & Rupr.) L.H. Dewey; *Aristida filipendula* Buckley; *Aristida longiseta* var. *hookeri* (Trin. & Rupr.) Merr.; *Aristida purpurea* var. *aequiramea* (Scheele) Merr.; *Aristida purpurea* var. *berlandieri* Trin. &

Rupr.; *Aristida purpurea* var. *californica* Vasey; *Aristida purpurea* var. *capillarifolia* Merr.; *Aristida purpurea* var. *hookeri* Trin. & Rupr.)

U.S., California, Mexico. Perennial bunchgrass, densely tufted, inrolled leaves, seed head nodding and purplish, 3-awned spikelets, spreading awns, grazed only when young and green, poor forage, grows on rocky hills, grassy plains, sandy plains and arid situations, dry upland, see *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Species Graminum Stipaceorum* 107. 1842, *Linnaea* 19(6): 688. 1847, *Linnaea* 22(3): 343. 1849, *Synopsis Plantarum Glumacearum* 1: 420. 1855 [1854], *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 93. 1862, *Mexicanas Plantas* 2: 78. 1886, *Contributions from the United States National Herbarium* 3(1): 46-47. 1892, *Contributions from the United States National Herbarium* 2(3): 515. 1894 and *Circular, Division of Agrostology, United States Department of Agriculture* 34: 5, 7-8. 1901, *Contributions from the United States National Herbarium* 11: 107. 1906, *A Flora of California* 1: 101. 1912, *Contributions from the United States National Herbarium* 17(3): 280. 1913, *Contr. U.S. Natl. Herb.* 22(7): 556. 1924, *Intermountain Flora* 6: 455-456. 1977, *Sida* 9(4): 358, f. 1. 1982, *Brittonia* 36(4): 391-392. 1984, *Novon* 5(3): 221. 1995.

in English: purple three-awn, purple threeawn, red three-awn, wiregrass, democrat grass

in Mexico: tres aristas morado

**A. purpurea** Nutt. f. **brownii** (Warnock) Allred & Valdés-Reyna (*Aristida brownii* Warnock)

South America, U.S., Texas. Perennial, see *Sida* 9(4): 358, f. 1. 1982, *Novon* 5(3): 221. 1995.

**A. purpurea** Nutt. var. **curvifolia** (E. Fourn.) Allred (*Aristida curvifolia* E. Fourn. ex Hemsl.; *Aristida curvifolia* E. Fourn.)

America. See *Biologia Centrali-Americana; ... Botany ...* 3: 533. 1885, *Mexicanas Plantas* 2: 78. 1886 and *Brittonia* 36(4): 392. 1984, *Fl. Valle Tehuacán-Cuicatlán* 3: 12. 1994.

**A. purpurea** Nutt. var. **fendleriana** (Steud.) Vasey (*Aristida fasciculata* var. *fendleriana* (Steud.) Vasey ex L.H. Dewey; *Aristida longiseta* var. *fendleriana* (Steud.) Merr.; *Aristida purpurea* var. *fendleri* Vasey)

U.S. Perennial, found in dry sandy soil, see *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Synopsis Plantarum Glumacearum* 1: 420. 1855 [1854], Sereno Watson (1826-1892), *Catalogue of Plants Collected in ... 1871-73*, etc. 55. Washington 1874 [Geogr. and Geol. Expl., Wheeler's Exped.], *Contributions from the United States National Herbarium* 3(1): 46. 1892, *Contributions from the United States National Herbarium* 2(3): 515. 1894 and *Circular, Division of Agrostology, United States*



*Department of Agriculture* 34: 5-6. 1901, *Flora of the Southeastern United States* ... 116. 1903.

**A. *purpurea*** Nutt. var. ***longiseta*** (Steud.) Vasey (*Aristida curtisetata* Buckley; *Aristida fasciculata* var. *nuttallii* Thurb. ex Beal; *Aristida glauca* (Nees) Steud., nom. illeg., non *Aristida glauca* (Nees) Walp.; *Aristida longiseta* Steud.; *Aristida longiseta* subsp. *rariflora* Hitchc.; *Aristida longiseta* var. *longiseta*; *Aristida longiseta* var. *rariflora* A.S. Hitchc.; *Aristida longiseta* var. *rariflora* (Hitchc.) Hitchc.; *Aristida longiseta* var. *robusta* Merr.; *Aristida pallens* Pursh, nom. illeg., non *Aristida pallens* Cav.; *Aristida purpurea* subsp. *robusta* (Merr.) Piper; *Aristida purpurea* var. *longiseta* (Steud.) Vasey ex Rothr.; *Aristida purpurea* var. *robusta* (Merr.) Piper; *Aristida rariflora* (Hitchc.) Henrard; *Aristida reverchonii* Vasey; *Aristida reverchonii* var. *angusta* Vasey; *Aristida vaseyi* Wooton & Standl.) (after the French botanist Julien Reverchon, 1834-1905, plant collector (Dallas, Texas), traveler, brother of the French plant collector Elisée Reverchon (1835-1914); see J.H. Barnhart, *Biographical notes upon botanists*. 3: 147. Boston 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 330. Boston, Mass. 1972; I.C. Hedge and J.M. Lamond, *Index of Collectors in the Edinburgh Herbarium*. Edinburgh 1970)

Canada, British Columbia, U.S., California, Texas, New Mexico, Mexico. Perennial bunchgrass, tufted, three-awned, green, sheaths open, ligule a short fringe of hairs, short leaves stiff and rolled, narrow pyramid-shaped flower head, glumes awn-tipped, scales surrounding each seed, forage, low palatable weed, grazed before the seed heads form, growing in thick clumps, on roadsides, arid lands, in dry plains, on rocky slopes in desert scrub and desert grassland, on dry grassland sites and bare rocky soils, on sandy or gravelly plains and hills, well-drained soils, in the steppe and montane zones, see *Flora Americae Septentrionalis*; or, ... 2: 728. 1814, *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Linnaea* 19(6): 688. 1847, *Synopsis Plantarum Glumacearum* 1: 135, 420. 1854, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 92. 1862, *Report Upon United States Geographical Surveys West of the One Hundredth Meridian, in Charge of First Lieut. Geo. M. Wheeler* ... vol. vi—*Botany* 6: 286. 1878, *Bulletin of the Torrey Botanical Club* 13: 52. 1886, *Contributions from the United States National Herbarium* 3(1): 46. 1892, *Grasses of North America for Farmers and Students* 2: 208. 1896 and *Circular, Division of Agrostology, United States Department of Agriculture* 34: 5, 8. 1901, *Contributions from the United States National Herbarium* 11: 107. 1906, *New Mexico Agricultural Experiment Station: Bulletin* 81: 55. 1912, *Contributions from the United States National Herbarium* 22(7): 554, 565. 1924, *Mededeelingen van's Rijks-Herbarium*

54(A): 314. 1927, *Intermountain Flora* 6: 456. 1977, *Great Basin Naturalist* 50: 74. 1990.

in English: red three-awn, red threeawn, longawned aristida, longawned threeawn, dogtown grass, dogtown-grass, Fendler threeawn, wire grass

in Mexico: tres aristas rojo

**A. *purpurea*** Nutt. var. ***nealleyi*** (Vasey) Allred (*Aristida glauca* (Nees) Steud., nom. illeg., non *Aristida glauca* (Nees) Walp.; *Aristida glauca* (Nees) Walpers; *Aristida nealleyi* (Vasey) Vasey; *Aristida purpurea* var. *glauca* (Nees) A.H. Holmgren & N.H. Holmgren; *Aristida reverchonii* Vasey; *Aristida reverchonii* var. *angusta* Vasey; *Aristida stricta* var. *nealleyi* Vasey; *Aristida vaseyi* Wooton & Standl.; *Chaetaria glauca* (Nees) (for the American (b. England, Scarborough, Yorks) botanist George Vasey, 1822-1893 (d. Washington, U.S.), agrostologist, physician, in 1868 and 1869 explorer with J.W. Powell in Colorado, Curator of the United States National Herbarium, with J.W. Chickering, E. Foreman, Wm.H. Seaman and L.F. Ward wrote *Flora Columbiana*. Washington 1876, his works include *The Grasses of the United States*. Washington 1883, *Grasses of the South*. Washington 1887, *Grasses of the Southwest*. Washington 1890-1891 and *Grasses of the Pacific Slope*. Washington 1892-1893; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 427. 1965; Howard Atwood Kelly & Walter Lincoln Burrage, *Dictionary of American Medical Biography*. New York 1928; J. Ewan, editor, *A Short History of Botany in the United States*. 45. New York and London 1969; Joseph Ewan, *Rocky Mountain Naturalists*. 327. The University of Denver Press 1950; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 703. 1994; William Marriott Canby (1831-1904) & Joseph Nelson Rose (1862-1928), "George Vasey: a biographical sketch." *Bot. Gaz.* 18: 170-183. 1893; Frederick Vernon Coville (1867-1937), "Death of Dr. George Vasey." *Bull. Torr. Bot. Club.* 20: 218-220. 1893; J.W. Harshberger, *The Botanists of Philadelphia and Their Work*. Philadelphia 1899; Irving William Knobloch, compiled by, "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs*. VI. Plainfield, N.J. 1983)

U.S., North America. Perennial, forage, found on dry soils, deserts, on sand ridge, along roadsides, see *Flora Boreali-Americana* 1: 41. 1803, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Linnaea* 19(6): 688. 1847, *Annals of Botany. Oxford* 1: 925. 1849, *Synopsis Plantarum Glumacearum* 1: 135. 1854, *Bulletin of the Torrey Botanical Club* 13: 52. 1886, *Contributions from the United States National Herbarium* 1(2): 55. 1890, *Contributions from the United States National Herbarium* 3(1): 45-46. 1892 and *Circ. Div. Agrostol. U.S.D.A.* 34: 8. 1901, *New Mexico Agricultural Experiment Station: Bulletin* 81: 55. 1912, *Contr. U.S. Natl. Herb.* 22(7): 554. 1924, *Intermountain Flora* 6: 455. 1977, *Brittonia* 36(4): 391. 1984.

in English: three-awn, blue threeawn, Reverchon threeawn  
in Spanish: tres barbas

in Mexico: tres barbas liso

**A. purpurea** Nutt. var. **parishii** (Hitchc.) Allred (*Aristida parishii* Hitchc.; *Aristida wrightii* var. *parishii* (Hitchc.) Gould)

U.S. See *Flora of the Southeastern United States* ... 116, 1327. 1903, *A Flora of California* 1: 101. 1912, *Journal of the Arnold Arboretum* 60(2): 320. 1979, *Brittonia* 36(4): 392. 1984.

**A. purpurea** Nutt. var. **perplexa** Allred & Valdés-Reyna

U.S., New Mexico. Sandy soil, pasture, see *Novon* 5(3): 217-221, f. 6. 1995.

**A. purpurea** Nutt. var. **purpurea** (*Aristida aequiramea* Scheele; *Aristida berlandieri* (Trin. & Rupr.) Hitchc.; *Aristida eggertii* Hitchc.; *Aristida fasciculata* var. *californica* (Vasey) Vasey ex L.H. Dewey; *Aristida fasciculata* var. *hookeri* (Trin. & Rupr.) L.H. Dewey; *Aristida fasciculata* var. *micrantha* (Vasey) Vasey ex L.H. Dewey; *Aristida filipendula* Buckley; *Aristida longiseta* var. *hookeri* (Trin. & Rupr.) Merr.; *Aristida micrantha* (Vasey) Nash; *Aristida muhlenbergioides* E. Fourn.; *Aristida purpurea* var. *aequiramea* (Scheele) Merr.; *Aristida purpurea* var. *berlandieri* Trin. & Rupr.; *Aristida purpurea* var. *californica* Vasey; *Aristida purpurea* var. *capillarifolia* Merr.; *Aristida purpurea* var. *hookeri* Trin. & Rupr.; *Aristida purpurea* var. *laxiflora* Merr.; *Aristida purpurea* var. *micrantha* Vasey; *Aristida roemeriana* Scheele)

U.S., California, North America. Perennial bunchgrass, dark green, single-stemmed, branched, small leaves, open and drooping inflorescence, spikelets three-awned, poor forage, low palatability, growing in small dense clumps, on rocky or sandy plains and slopes, on clayey soils, along roadsides, dry upland, see *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Species Graminum Stipaceorum* 107. 1842, *Linnaea* 22(3): 343. 1849, *Proceedings of the Academy of Natural Sciences of Philadelphia* 14: 93. 1862, *Mexicanas Plantas* 2: 79. 1886, *Contributions from the United States National Herbarium* 3(1): 47. 1892, *Contributions from the United States National Herbarium* 2(3): 515. 1894 and *Circular, Division of Agrostology, United States Department of Agriculture* 34: 5, 7-8. 1901, *Flora of the Southeastern United States* ... 117. 1903, *Contributions from the United States National Herbarium* 17(3): 280. 1913, *Contributions from the United States National Herbarium* 22(7): 556, 560. 1924.

in English: purple three-awn, purple threeawn, perennial threeawn, purple needle-grass

in Mexico: tres aristas morado

**A. purpurea** Nutt. var. **wrightii** (Nash) Allred (*Aristida brownii* Warnock; *Aristida wrightii* Nash)

Mexico, U.S., Texas. Clumping, spikelets reddish, found in gypsum soil, see also *Aristida wrightii* Nash, see *Transactions of the American Philosophical Society, new series*, 5: 145. 1837 and *Flora of the Southeastern United States* ... 116, 1327. 1903, *Brittonia* 36(4): 393. 1984.

in English: Wright's threeawn

**A. purpusiana** Hitchc.

North America, Mexico, Baja California. See *Contributions from the United States National Herbarium* 17(3): 276. 1913.

**A. pycnostachya** Cope

Somalia. Perennial, densely tufted, tussocky, woody base, elongate panicle fully exerted and without the cuneate base, glumes unequal, upper glume entire, column not dilated at the distal end, awns subequal, weed, found on sandy soil, see *Kew Bulletin* 47(2): 277. 1992.

in Somalia: meyro

**A. queenslandica** Henrard

Australia, Queensland. Perennial, loosely tufted, see *Mededeelingen van's Rijks-Herbarium* 54(B): 488-489. 1928, *Brunonia* 3(2): 271-333. 1980.

**A. queenslandica** Henrard var. **dissimilis** (S.T. Blake) B.K. Simon (*Aristida dissimilis* S.T. Blake)

Australia. Densely tufted, green to dark green, erect, culm internodes glabrous, on sandy soil, rocky slopes, see *Proceedings of the Royal Society of Queensland* 51: 170, t. 4, f. 4-7. 1940, *Austrobaileya* 2(1): 96. 1984, *Australian Systematic Botany* 5: 129-226. 1992.

**A. queenslandica** Henrard var. **queenslandica**

Australia, Queensland, New South Wales, Northern Territory. Perennial, wiry and more or less simple to branched, slender tussocks-forming, culm internodes hirsute or villous, sheath smooth, loose panicle contracted and often nodding, glumes lanceolate, lower glume acuminate, upper glume abruptly acuminate, lemma purplish and involute, awns dissimilar and more or less stiff, grain with a ventral furrow, on shallow soils, open forest.

in English: wire grass

**A. ramosa** R. Br. (*Aristida ramosa* var. *scaberula* Henrard; *Aristida ramosa* var. *speciosa* Henrard)

Western Australia, Queensland, New South Wales, Victoria, South Australia. Perennial, loosely tufted, erect, tough and rigid, usually much branched and fastigiate, canelike, forming slender tussocks, sheath often tuberculate, ligule membranous, leaves green and rolled, inflorescence branches more or less contracted, panicle loose and very narrow, glumes unequal and lanceolate, lower glume acute, upper glume obtuse, lemma smooth and not tuberculate apically, purplish lemma linear to elliptic, awns filiform spreading

or divergent, 3 stamens, ornamental, found on rocky areas, on poor soils, similar to *Aristida personata* and *Aristida echinata*, see *Prodromus Florae Novae Hollandiae* 1: 173. 1810, *Flora Australiensis: A Description ...* 7: 563. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 9: 551. 1911, *Mededeelingen van's Rijks-Herbarium* 58(A): 260, 290, t. 141. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 731-732, 736. 1933, *Brunonia* 3(2): 271-333. 1989, *New Zealand Journal of Botany* 29: 117-129. 1991, *Australian Systematic Botany* 5: 129-226. 1992.

in English: cane wire grass, purple wire grass

**A. ramosissima** Engelm. ex A. Gray (*Aristida ramosissima* f. *uniaristata* (A. Gray) Mohlenbr.; *Aristida ramosissima* var. *chaseana* Henrard; *Aristida ramosissima* var. *uniaristata* A. Gray) (named for the American botanist Mrs. Agnes Chase (née Merrill), 1869-1963)

U.S., Texas, Florida. Annual, growing on sterile or open clayey soils, roadsides and dry openings, see *A Manual of the Botany of the Northern United States. Second Edition* 550. 1856, *A Manual of Botany of the Northern United States (edition 5)* 618. 1867 and *Contr. U.S. Natl. Herb.* 22(7): 538. 1924, *Mededeelingen van's Rijks-Herbarium* 54(B): 498. 1928, *Illustrated Flora of Illinois* 329. 1973.

in English: slender three-awn, branched three-awn grass, s-curve three-awn, s-curve threeawn, Chase threeawn

**A. recta** Franch. (*Aristida atroviolacea* Hack.; *Aristida gossweileri* Pilg.; *Aristida hooki* De Wild.) (for the botanist John Gossweiler, 1873-1952, plant collector; see Alberto Judice Leote Cavaco (b.1916), *Contribution à l'étude de la flore de la Luanda d'après les récoltes de Gossweiler, 1946-1948*. Lisboa 1959 [Publicações culturais da Companhia de Diamantes de Angola, vol. 42], J. Lanjouw and F.A. Stafleu, *Index Herbariorum*. Part II, *Collectors A-D*. Regnum Vegetabile vol. 2. 1954)

Tropical Africa. Perennial, erect, tufted, rhizomatous, slender, basal leaf sheaths persistent, narrow leaves, contracted inflorescence, spikelets deep purple, lower glume awned, three awns, common around vleis, damp places, seepage areas, sour mountain grassland, slopes, in seepage meadow, see *Bulletin de la Société d'Histoire Naturelle d'Autun* 8: 365. 1895 and *Bulletin de l'Herbier Boissier, sér. 2*, 6(9): 707. 1906, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 39: 598. 1907.

**A. recurvata** Kunth (*Aristida neesiana* Trin. & Rupr.; *Aristida purpurascens* Poir.; *Aristida riedeliana* Trin. & Rupr.; *Chaetaria recurvata* (Kunth) Roem. & Schult.) (for the German traveler Ludwig Riedel, 1790-1861, plant collector in Brazil; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 156. Boston 1965; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 233. Oxford 1964; Stafleu and Cowan, *Taxonomic literature*. 4: 789-790. 1983)

Central America to Brazil. Perennial, erect, caespitose, sparsely branched, basal leaf sheaths persistent and curling, with awn branches twisted and reflexed, awns spirally coiled, unpalatable, forming dense clumps, found in rocky places, open areas, open grassy area, shallow soil, savannah, along forest edge, slopes, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *Nova Genera et Species Plantarum* 1: 123. 1815 [1816], *Systema Vegetabilium, editio decima sexta* 2: 397. 1817, *Species Graminum Stipaceorum* 113. 1842.

**A. refracta** Griseb. (*Aristida gyrans* Chapm.)

India, U.S., North America, Cuba. Growing in clumps, lemma enclosing the grain, related to *Aristida abnormis* Chiov., see *Catalogus plantarum cubensium ...* 228. 1866, *Botanical Gazette* 3(3): 18-19. 1878 and *Sida* 13(4): 423-447. 1989, *Fontqueria* 46: [i-ii], 1-259. 1997.

in English: island-thicket three-awn

**A. repens** Trin. (*Aristida subspicata* Trin. & Rupr.; *Chloris anisopoda* Scribn. ex B.L. Rob.)

Ecuador, Galápagos. Annual, delicate, terete, weak, much-branched, erect ore ascending, decumbent at base, leaf sheaths more or less flattened, ligule a row of hairs, leaf blades flat and involute, panicle contracted, glumes awned, weedy species, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 87. 1830 and *Flora of the Galápagos Islands* 828-829. 1971.

**A. rhiniochloa** Hochst. (*Aristida andoniensis* Henrard; *Aristida serrulata* Chiov.)

Tropical Africa, Niger, Namibia, Mali, Mauritania, South Africa. Annual, tufted, erect, branched, prickly, scabrid, coarse, spiny, leaf sheaths keeled and rough with long white hairs, ligule a ring of short hairs, leaf blades keeled and scabrous, leaves hard and prickly, panicle open to slightly contracted, coarse spikelets, awns at near right angles to the spikelet, glumes oblong and papery, lower glume awned, lemma linear-lanceolate and scabrid, three sharp awns ascending, column absent and no articulation, pioneer grass, low grazing value, growing on red clay soils, on stony slopes, sand to sandy loam, deciduous bushland, heavy soil, gravel plains, open grassveld, disturbed areas, rocky slopes, overgrazed veld, eroded soils, uncultivated lands, see *Flora* 38: 200. 1855 and *Agricoltura Coloniale* 18: 351. 1924, *Mededeelingen van's Rijks-Herbarium* 54(B): 691-692. 1928.

in English: large-seeded three-awn

in South Africa: skurwe steekgras, skurwesteekgras, rauhspelzen stechgras

**A. rhizomophora** Swallen

U.S., Florida. Coarse and vulnerable species with well-developed rhizomes, very palatable, found in wet prairie,

mesic flatwoods, pine flatwood, see *Journal of the Washington Academy of Sciences* 19(10): 196, f. 1. 1929.

in English: Florida three-awn grass, Florida three-awn, Florida three-awned grass, Florida threeawn

**A. riograndensis** Severo & Boldrini

Warm regions, South America, North America. See *Bradea*, *Boletim do Herbarium Bradeanum* 3(30): 239-242, f. 1. 1982, *Acta Botanica Brasilica* 4(1): 105-124. 1990, *Boletim do Instituto de Botânica* (São Paulo) 12: 113-179. 1999.

**A. riparia** Trin. (*Aristida implexa* var. *aequa* Trin. & Rupr.; *Aristida planifolia* Swallen; *Aristida riparia* var. *andina* Henrard)

South America, Brazil, Panama. Perennial or annual, erect, caespitose, forming small clumps, foliage coarse, compact inflorescence densely flowered, glumes lanceolate, callus 2-dentate, unpalatable, savannah, overgrazed fields, *campo rupestre*, *cerrado*, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4: 48. 1836, *Species Graminum Stipaceorum* 124. 1842 and *Bulletin de l'Herbier Boissier, sér. 2, 4(3)*: 277. 1904, *Meded. Rijks-Herb.* 54(A): 392. 1927, *Mededeelingen van's Rijks-Herbarium* 58(A): 185. 1932, *Meded. Rijks-Herb.* 54(C): 739. 1933, *Annals of the Missouri Botanical Garden* 30(2): 145. 1943, *Bol. Inst. Bot.* (São Paulo) 12: 141. 1999.

**A. roemeriana** Scheele (*Aristida fasciculata* var. *micrantha* (Vasey) Vasey ex L.H. Dewey; *Aristida micrantha* (Vasey) Nash; *Aristida muhlenbergioides* E. Fourn.; *Aristida purpurea* Nutt.; *Aristida purpurea* var. *micrantha* Vasey; *Aristida purpurea* var. *purpurea*)

U.S., Texas, Mexico. Branched, eaten by cattle, low forage value, found on reddish soils, grassy plains, see *Annals of the Lyceum of Natural History of New York* 1(1): 154-155. 1824, *Transactions of the American Philosophical Society, new series*, 5: 145. 1837, *Linnaea* 22(3): 343. 1849, *Mexicanas Plantas* 2: 79. 1886 and *Flora of the Southeastern United States* ... 117. 1903.

in English: Roemer threeawn

in Mexico: cola de zorra, tres aristas mexicano

**A. rosei** Hitchc.

Santo Domingo. See *Contributions from the United States National Herbarium* 22(7): 584. 1924.

**A. sanctae-luciae** Trin. (*Aristida capillacea* Lam.)

Warm regions, Brazil. Forming small clumps, found in moist areas, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 156. 1791, *Essai d'une Nouvelle Agrostographie* 30, 158, t. 8, f. 5. 1812, *De Graminibus Paniceis* 25. 1826 and *Mededeelingen van's Rijks-Herbarium* 58(C): 531. 1928, *Bol. Inst. Bot.* (São Paulo) 12: 145. 1999.

**A. sandinensis** Catusus

Cuba. Sandy soils, see *Novosti Sist. Vyss. Rast.* 21: 21. 1984, *Acta Botanica Cubana* 24: 2. 1985.

**A. sayapensis** Caro

Argentina. Sandy soil, see *Kurtziana* 1: 159-162, f. 6A, 7A-C. 1961.

**A. scabrivalvis** Hack.

South Africa. Annual, see *Bulletin de l'Herbier Boissier, sér. 2, 6(9)*: 708. 1906, *Kirkia* 3: 132. 1963.

**A. scabrivalvis** Hack. subsp. **contracta** (De Winter) Meld. (*Aristida scabrivalvis* subsp. **contracta** Melderis)

South Africa. Annual, tufted, erect to geniculate, spikelets in dense clusters at the ends of the branches, lower glume awned, three awns, usually in disturbed and open areas, along roadsides, hillslopes.

**A. scabrivalvis** Hack. subsp. **scabrivalvis**

South Africa. Annual, tufted, erect to geniculate, often branched, leaf sheath keeled, ligule membrane-like, leaf blade slightly rough, open panicle with spreading branches, three scabrid awns, lower glume strongly awned, no grazing value, usually in disturbed areas, old fields, undisturbed open bushveld, uncultivated lands, savannah, along roadsides, shallow and sandy soils, limy soil.

in English: purple three-awn

in South Africa: pers steekgras

**A. schebehliensis** Henrard (Uebi Scebeli, or Shebeli, Shebelli)

Somalia. Perennial, branched, wiry, tussocky, panicle contracted, glumes acuminate, lemma not narrowed above the middle, awns unequal to subequal, see *Mededeelingen van's Rijks-Herbarium* 54(B): 537-539. 1928, *Kew Bulletin* 47(2): 277-282. 1992.

**A. schiedeana** Trin. & Rupr. (*Aristida flexuosa* E. Fourn.; *Aristida orcuttiana* Vasey; *Aristida virletii* E. Fourn.; *Aristida virletii* E. Fourn. ex Hemsl.) (for the German botanist Christian Julius Wilhelm Schiede, 1798-1836, physician, traveler, gardener, traveling companion of Ferdinand Deppe (1794-1861), from 1828 to 1836 plant collector and botanical explorer in Mexico, his writings include *De plantis hybridis sponte natis*. Cassellis Cattorum [Kassel] 1825, with A. de Chamisso wrote "Plantarum mexicanarum a cl. viris Schiede et Deppe collectarum recensio brevis." *Linnaea*. 1830-1831; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 224. 1965; Ludolf Karl Adelbert von Chamisso and D.F.L. von Schlechtendal, "De plantis in expeditione speculatoria Romanzoffiana observatis." *Linnaea*. 1: 1-73. 1826; Stephan F. Ladislaus Endlicher, *Atakta botanika*. Nova genera et species plantarum descripta et iconibus illustrata. Vienna 1833; I.H. Vegter, *Index Herbariorum*. Part II (6), *Collectors S. Regnum Vegetabile* vol. 114. 1986; H.N. Clokie, *Account of the Herbaria of the*

Department of Botany in the University of Oxford. 239. Oxford 1964; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Günther Schmid, *Chamisso als Naturforscher*. Eine Bibliographie. Leipzig 1942; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. 678. 1964; Gordon Douglas Rowley, *A History of Succulent Plants*. Strawberry Press, Mill Valley, California 1997; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Irving William Knobloch, compil., "A preliminary verified list of plant collectors in Mexico." *Phytologia Memoirs*. VI. 1983)

Central America, Mexico. Perennial, densely caespitose, erect, simple, more or less scabrous, basal leaves, panicle ovate with diverging branches, lateral awns very short erect or divergent, good forage value, similar to *Aristida laxa*, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 46. 1799, *Species Graminum Stipaceorum* 120-121. 1842, *Biologia Centrali-Americana; ... Botany ...* 3: 535. 1885, *Mexicanas Plantas* 2: 76-77. 1886, *Bulletin of the Torrey Botanical Club* 13(2): 27-28. 1886 and *Contr. U.S. Natl. Herb.* 22(7): 525-526. 1924, *Journal of the Washington Academy of Sciences* 23(10): 453. 1933, *Taxon* 33: 126-134. 1984, *Novon* 5: 217. 1995.

in Mexico: tres barbas abierto, amarredera, raicilla, jokut-araku siruku (purépecha)

*A. schiedeana* Trin. & Rupr. var. *orcuttiana* (Vasey) Allred & Valdés-Reyna (*Aristida hypomegas* Mez; *Aristida orcuttiana* Vasey)

North America. See *Species Graminum Stipaceorum* 120-121. 1842, *Bulletin of the Torrey Botanical Club* 13(2): 27. 1886 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 146. 1921, *Contr. U.S. Natl. Herb.* 22(7): 526. 1924, *Mededeelingen van's Rijks-Herbarium* 54(A): 250. 1927, *Novon* 5(3): 217. 1995.

in English: singleawn aristida, beggarstick threeawn, Orcutt's threeawn

*A. schiedeana* Trin. & Rupr. var. *schiedeana*

America.

*A. schultzii* Mez

Tropical Australia, Northern Territory and Queensland. Perennial, compact, tufted, branched, fastigiate, inflorescence loosely contracted, lower glume 3- to 7-nerved, similar to *Aristida warburgii* and *Aristida kimberleyensis*, see *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 149. 1921.

*A. sciuroides* Domin (*Aristida borealis* B.K. Simon)

Tropical and subtropical Queensland. Perennial, robust, tufted, compact, branched, lemma pseudoarticulation absent, lemma involute, similar to *Aristida ingrata* and *Aristida kimberleyensis*, see *Bibliotheca Botanica* 85(2): 347.

1915, *Austrobaileya* 2(1): 89, f. 1E. 1984, *Austr. Syst. Bot.* 5: 178. 1992.

*A. sciurus* Stapf

South Africa. Perennial, tufted, erect, unbranched, robust, hard, fibrous, shortly rhizomatous, basal sheaths with woolly hairs, leaf blade narrower than the leaf sheaths, hanging panicle, spikelets with three awns, lower glume shorter than the upper, lemma not articulated, common on moist sandy soils, along roadsides, in mountainous sour grassland, mountain sourveld, see *Flora Capensis* 7: 557. 1899 and *Mededeelingen van's Rijks-Herbarium* 54(B): 549. 1928.

in English: bristle grass, tall three-awned grass, tall three-awn

in South Africa: steekgras, groot steekgras, langsteekgras

*A. scribneriana* Hitchc. (*Aristida lanuginosa* Burch.; *Aristida lanuginosa* Scribn. ex Hitchc., nom. illeg., non *Aristida lanuginosa* Burch.)

North America, Mexico. See *Travels in the Interior of South Africa* 2: 226. 1824 and *Contributions from the United States National Herbarium* 17(3): 278. 1913, *Contributions from the United States National Herbarium* 22(7): 566. 1924.

*A. setacea* Retz. (*Aristida caerulescens* sensu Thw., non Desf.; *Aristida quinqueseta* Steud.; *Aristida setacea* hort. ex Steud.; *Chaetaria setacea* (Retz.) P. Beauv.)

Southern India, Sri Lanka. Perennial, caespitose, slender, erect or ascending, more or less branched, nodes thickened and prominent, wiry, ligule a ciliate membrane, leaves wavy, panicle contracted or loose, spear-like florets, glumes awned, probably not palatable, culms used for making brooms and brushes, for paper manufacture and screens, dry and arid zones, roadsides, plantations, saline habitats, disturbed sites, sandy places, wet zones, coastal saline situations, grassland, savannah, scrubby forests, see *Observationes Botanicae* 4: 22. 1786, *Essai d'une Nouvelle Agrostographie* 30, 158. 1812, *Nomenclator Botanicus. Editio secunda* 1: 132. 1840, *Synopsis Plantarum Glumacearum* 1: 420. 1855 [1854] and *Handb. Fl. Ceylon* 5: 253. 1900, *Grasses of Ceylon* 64. 1956, *Ceylon J. Sci., Biol. Sci.* 2(2): 126. 1959, *Grasses of Burma ...* 412. 1960.

in India: cheepuru gaddi, dodda hanchi hullu, gaddi parakalu, hallu chuch-ho hullu, hayapuchhika, kamboji, maashaparni, moti kussal, naayi hanchi hullu, poochika gaddi, thoda pampillu

in Sri Lanka: et tuttili, et tuttiri

*A. setifolia* Kunth (*Aristida arenaria* Trin.; *Aristida doelliana* Henrard; *Aristida elatior* Döll ex Henrard; *Aristida elatior* Cav.; *Aristida gardneriana* Steud.; *Aristida sabulosa* Kunth; *Aristida setifolia* var. *arenaria* (Trin.) Trin. & Rupr.; *Aristida setifolia* var. *grandiflora* Döll; *Aristida setifolia* var. *grandiflora* Trin. & Rupr.; *Aristida setifolia* var. *intermedia*

Trin. & Rupr.; *Aristida setifolia* var. *parviflora* Döll; *Aristida tarapotana* Mez; *Chaetaria setifolia* (Kunth) Nees)

South America, Venezuela. Annual, densely tufted, contracted panicle, glumes narrowly lanceolate and keeled, lemma awns deciduous, savannah, open habitats, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 6: 65, t. 589, f. 1. 1801, *Nova Genera et Species Plantarum* 1: 122. 1815 [1816], *De Graminibus Paniceis* 25. 1826, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 381-383. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 196. 1833, *Species Graminum Stipaceorum* 126-127. 1842, *Synopsis Plantarum Glumacearum* 1: 137. 1855 [1854], *Flora Brasiliensis* 2(3): 22. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 151. 1921, *Mededeelingen van's Rijks-Herbarium* 54: 154, 161-163. 1926, *Bol. Inst. Bot.* (São Paulo) 12: 146. 1999.

**A. sieberiana** Trin. (also spelled *sieberana*) (*Aristida pallida* Steud.; *Aristida sieberiana* Trin. ex Spreng.; *Aristida sieberiana* var. *nubica* Trin. & Rupr.)

Tropical Africa, Somalia, Guinea, Mali, Chad, Mauritania, Sudan, Ghana. Perennial, branched, robust, woody, suffruticose, loosely tufted, mat-forming, strong root system, panicle contracted, lower glumes bifid and awned, cylindrical lemma not narrowed above, long sharp awns unequal, unpalatable and scarcely eaten or good for livestock and readily grazed, used for thatching, found in sandy soils, dry inland sandy areas, coastal sand, orange sand, dunes, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 61. 1821, *Species Graminum Stipaceorum* 161. 1842.

in Arabic: gau

in Mali: allomoze, amadzarne, ibirsiaguè, kelbi, okras, pufu sufo

in Niger: aggur, awukaraz, azwoezag, enegarwagh, furuè, kasawura, manrgo, surungeewol, surungéji, taezeyzey, tchibby, waajag, yanta

in Nigeria: baya, datsi, gatsaura, gatsuara, gau, kas makaru, katsaura, suwulamè

in Somalia: marchain, birreh, baradooli

in Senegal: diarhat, negeret, paldinak, paldinaq, sirin

**A. simpliciflora** Chapman

U.S., Florida, Alabama, Georgia. Vulnerable and endangered species, growing in longleaf pine-wiregrass savannahs, moist pinewoods, grasslands, damp pine barrens, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *Botanical Gazette* 3(3): 18. 1878, *Contributions from the United States National Herbarium* 3(1): 44. 1892 and *Contr. U.S. Natl. Herb.* 22(7): 580. 1924, *Mededeelingen van's Rijks-Herbarium* 54(B): 568. 1928.

in English: Southern three-awned grass, Southern threeawn, Southern three-awn, Chapman three-awn grass, Chapman threeawn

**A. somalensis** Stapf

Ethiopia, Somalia, Kenya. Perennial, tufted, ovate panicle, glumes unequal and acuminate, column without an articulation, found in granitic areas, dry bushland, slopes, see *Bulletin of Miscellaneous Information Kew* 1907: 216. 1907, *Mededeelingen van's Rijks-Herbarium* 54(B): 572. 1928, *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: soda'eleh, sodaheleh

**A. spanospicula** Allred, Valdés-Reyna & Sánchez-Ken

Mexico. See *Novon* 5(3): 214-217, f. 4. 1995

**A. spectabilis** Hack.

South Africa. Perennial, densely tufted, membranous lower glume without mucro or awn, lemma articulation, three awns, on shallow soils, sandy soils, rocky mountain slopes, see *Bulletin de l'Herbier Boissier* 3(8): 380. 1895.

in South Africa: bergsteekgras

**A. spegazzinii** Arechav. (*Aristida pampeana* Speg.; *Aristida spegazzinii* f. *colorata* Hack.; *Aristida spegazzinii* var. *abbreviata* Hack.; *Aristida spegazzinii* var. *genuina* Hack.; *Aristida spegazzinii* var. *pallescens* Hack.; *Aristida spegazzinii* var. *spegazzinii*)

South America, Uruguay, Argentina. Annual or short-lived perennial, tufted, low forage value, forming clumps, along roadsides, see *Anales Museo Nacional de Historia Natural de Buenos Aires* 4: 177, f. 1. 1895 Carlos Luigi Spegazzini (1858-1926), *Contribucion al estudio de la flora de la Sierra de la Ventana ...* 62. La Plata 1896 and *Anales del Museo Nacional de Buenos Aires* 11: 93-94. 1904, *Anales del Museo Nacional de Buenos Aires* 21: 70. 1911, *Meded. Rijks-Herb.* 54(B): 580, 582. 1928, *Bol. Inst. Bot.* (São Paulo) 12: 147. 1999.

**A. spiciformis** Elliott (*Aristida squarrosa* Trin.; *Aristida stricta* Muhl., nom. illeg., non *Aristida stricta* Michx.; *Chaetaria squarrosa* (Trin.) Schult.)

U.S., Florida, North America. Perennial, tufted, stiffly erect, inflorescence erect, dense panicle spike-like, column of awn twisted, found in moist-dry sites, droughty and poorly drained soils, flatwoods and wet flatwoods, wet prairie, dry prairie, coastal plain, coastal swales, sand hill, brackish marshes, savannahs and scrub, see *A Sketch of the Botany of South-Carolina and Georgia* 1(2): 141. 1816, *Descriptio uberius Graminum* 174. 1817, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 52. 1821, *Mantissa* 3(Add. 1): 577. 1827.

in English: three-awn grass, bottlebrush three-awn, bottlebrush threeawn, bottlebrush three awn grass, bottlebrush grass, pine barren three-awned grass

**A. spiciformis** Elliott var. *antillarum* Cat. Guerra

America, the Caribbean. See *Bot. Zurn. (Kiev)* 69(6): 874. 1984.

***A. spiciformis*** Elliott var. *spiciformis*

America.

***A. spuria*** Domin

Australia, Queensland, New South Wales. Perennial, short-lived, erect, thin, slender, forming compact tufts, strongly branched, fastigiate, smooth glabrous culm internodes, sheath glabrous or pilose, leaf blades setaceous and involute, inflorescence loosely contracted, panicle linear, glumes linear and acuminate, lemma narrow-linear, awns dissimilar, similar to *Aristida utilis*, see *Bibliotheca Botanica* 85(2): 341-342. 1915, *Austr. Syst. Bot.* 5: 150. 1992.

***A. stenophylla*** Henrard

Somalia. Perennial, branched, wiry, tussocky, panicle contracted, usually blunt awnless glumes, lemma not narrowed above the middle, awns unequal to subequal, grassland, limestone, dry sandy and stony soils, shrubland, open bushland, orange sand, related to *Aristida sieberiana* Trin., see *Mededeelingen van's Rijks-Herbarium* 54(B): 587-588. 1928, *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: xalfo, maad, marchain, birre', birreh

***A. stenostachya*** W.D. Clayton

Tanzania, Somalia, Kenya, Zambia. Perennial, densely tufted, contracted or spike-like inflorescence, glumes subequal, lemma smooth, column without an articulation, growing in sandy soils, bushland, clearings, see *Boletín de la Sociedad Argentina de Botánica* 12: 111. 1968, *Kew Bulletin* 47(2): 277-282. 1992.

***A. stipiformis*** Lam. ex Poir. (*Aristida stipiformis* Hochst. ex Steud., nom. illeg., non *Aristida stipiformis* Lam. ex Poir.)

Senegal, Africa. See *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *Synopsis Plantarum Glumacearum* 1: 143. 1854 and *Annali di Botanica* 13(3): 371. 1915, *Mededeelingen van's Rijks-Herbarium* 54(A): 420-421. 1927.

***A. stipitata*** Hack. ex Schinz

Africa, Zimbabwe, Namibia. Perennial, polymorphic, variable, tufted to densely tufted, coarse, smooth, glabrous, erect, unbranched or branched from the upper nodes, leaf sheath round, ligule a short ciliate membrane, leaf blades tapering to a narrow tip, inflorescence rigid and erect, compact spike-like panicle, spikelets with a twisted column, three rough awns, unpalatable, very low grazing value, found in open savannah, in open bushveld, deep sandy soils, in disturbed areas, rocky places, along vleis, see *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 143. 1888.

in English: long-awned three-awn, sandveld long-awned stick grass

in South Africa: langnaaldsteekgras, sandveld stechgras, steifes stechgras

***A. stipitata*** Hack. ex Schinz subsp. *graciliflora* (Pilg.) Meld. (*Aristida graciliflora* Pilg.; *Aristida stipitata* var. *graciliflora* (Pilg.) De Winter)

Africa, Zimbabwe. Perennial, loosely tufted, slender, erect, lower internodes glabrous or pubescent, narrow inflorescence, lower glume awned, three awns, found in disturbed areas, rocky places, seepage zones, see *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 39: 599. 1907, *Kirkia* 3: 133. 1963, *Prodromus einer Flora von Südwestafrika* 160: 34. 1970.

***A. stipitata*** Hack. ex Schinz subsp. *ramifera* (Pilg.) Meld. (*Aristida ramifera* Pilg.; *Aristida stipitata* subsp. *ramifera* Hack.)

Africa, Zambia. Green to yellow, inflorescence yellowish to greenish, found in open areas, sandy places, see *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 39: 599. 1907, *Boletim da Sociedade Broteriana* 44: 288. 1970.

***A. stipitata*** Hack. ex Schinz subsp. *robusta* (Stent & Rattray) Melderis (*Aristida graciliflora* var. *robusta* Stent & Rattray; *Aristida stipitata* var. *robusta* (Stent & Rattray) De Winter)

Africa, Zimbabwe, Zambia. Perennial, robust, tufted, lower internodes glabrous or pubescent, narrow inflorescence, lower glume awned, three awns, found in disturbed areas, sandy soils, see *Proceedings of the Rhodesia Scientific Association* 32: 44. 1933, *Kirkia* 3: 133. 1963, *Prodromus einer Flora von Südwestafrika* 160: 34. 1970.

***A. stipitata*** Hack. ex Schinz subsp. *spicata* (De Winter) Meld. (*Aristida stipitata* var. *spicata* De Winter)

Africa, Zimbabwe, Zambia. Perennial, slender, erect, tufted, branched at the upper nodes, lower internodes glabrous or pubescent, narrow spicate inflorescence, panicle dense, lower glume awned, three awns, on deep sandy soils, see *Kirkia* 3: 133. 1963, *Prodromus einer Flora von Südwestafrika* 160: 34. 1970.

***A. stipitata*** Hack. ex Schinz subsp. *stipitata*

Africa, Zimbabwe, Zambia. Perennial, robust, strong, erect, tufted, branched or unbranched, lower internodes glabrous or pubescent, narrow spicate inflorescence, panicles dense and spike-like, lower glume awned, three awns, pasture, low forage value, pioneer grass, thatching grass, on deep sandy soils, see *Verhandlungen des Botanischen Vereins für die Provinz Brandenburg und die angrenzenden Länder* 30: 143. 1888.

***A. stipoides*** Lam. (*Aristida fontismagni* Schweick.; *Aristida stipoides* R. Br., nom. illeg., non *Aristida stipoides* Lam.; *Arthratherum stipoides* (R. Br.) P. Beauv.)

Tropical Africa. Annual, loosely tufted, robust, succulent and sweet nodes, galls in the basal joints, nodes and internodes glabrous, auricles woolly, leaf sheaths slightly keeled at the base, ligule a woolly fringe of hairs, leaf blades

expanded or rolled, inflorescence an open and drooping panicle, spikelets glabrous, lower glume lanceolate without mucro or awn, three awns, pioneer grass, worthless as grazing, grazed only when very young, thatching grass, ruderal, eaten by local people, on deep sandy soils, sandy depressions, uncultivated lands, seasonal floodplains, rocky hillsides, along roadsides, old cultivations, see *Tableau Encyclopédique et Méthodique ... Botanique* 1: 157. 1791, *Prodromus Florae Novae Hollandiae* 1: 174. 1810, *Essai d'une Nouvelle Agrostographie* 33, 152. 1812 and *Fragmenta Florae Philippinae* 2: 146. 1904, *Bibliotheca Botanica* 85(2): 337, 340, t. 13-14, f. 9, 12, 18-19. 1915, *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 147. 1921, *Mededeelingen van's Rijks-Herbarium* 54(B): 593, 627. 1928, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 76(2): 220-221. 1954, *Austrobailyea* 2: 283. 1986, *Blumea* 37(1): 228. 1992.

in Mali: teloloud, telolud

in Niger: aggur mumu, agilé mumu, fono sunfey, foon sumfey, fulam sugu, funsumfey, gudged'y, katchiema, katchierma, katsemu, kevel, korledo, shohon waynabé, sugunaly, suwu nalli

in Nigeria: garasa, garasà, garlasa, gwiiwar tsoohuwà, gwiiwar tsohuwa, hanhande, katsemu, sodo, sodoji, tsintsiyar kogi, tsintsiyar koogii, urleho, wutsiyar jaakii, yuus soroduk

in Senegal: bebela, budel, diahal dieg, gendarat, makir, makiro, mpal diinah, paldinaq, siraba, siriba

in South Africa: grootfonteinsteekgras, grootfonteiner stechgras

*A. stipoides* Lam. var. *meridionalis* Stapf

Tropical Africa. See *Tableau Encyclopédique et Méthodique ... Botanique* 1: 157. 1791, *Flora Capensis* 7: 562-563. 1899.

*A. stricta* Michx. (*Aristida beyrichiana* Trin. & Rupr.; *Aristida stricta* Muhl., nom. illeg., non *Aristida stricta* Michx.; *Aristida stricta* Steud., nom. illeg., non *Aristida stricta* Michx.; *Aristida stricta* var. *stricta*; *Chaetaria stricta* (Michx.) P. Beauv.)

Southeast U.S., North America. Perennial bunchgrass shallow rooted, upright, densely tufted, sometimes rhizomatous, clump-forming, smooth, stiff and flexible leaves folded together lengthwise, sheaths hairy, leaves densely hairy on the upper surface, loosely arranged spikelets in a slender panicle, spikelets with three distinctive awns, retains leaves all year, cattle forage, when mature is a low quality forage, tolerates seasonal flooding, usually flowers after its habitat has been burned, found in infertile sands and sandy loams, wetlands, wet prairies, scrub and uplands, in the coastal plain, sandy and seasonally wet areas, *Pinus palustris* savannahs, well-drained hills, boggy areas, wet pine savannahs and flatwoods, see *Flora Boreali-Americana* 1: 41.

1803, *Essai d'une Nouvelle Agrostographie* 30, 152, 158. 1812, *Descriptio uberior Graminum* 174. 1817, *Species Graminum Stipaceorum* 104. 1842, *Nomenclator Botanicus. Editio secunda* 1: 132. 1854, *Synopsis Plantarum Glumacearum* 1: 133. 1855 [1854], *Contributions from the United States National Herbarium* 1(2): 55. 1890, *Contributions from the United States National Herbarium* 3(1): 45. 1892 and *Rhodora* 95(881): 25-37. 1993, *Flora del Valle de Tehuacán-Cuicatlán* 3: 9-10. 1994, *Novon* 11(3): 362. 2001, J.B. West, J.F. Espeleta and L.A. Donovan, "Root longevity and phenology differences between two co-occurring savannah bunchgrasses with different leaf habits." *Functional Ecology* 17(1): 20-28. Feb 2003.

in English: pineland three-awn, pineland three-awn grass, pineland threeawn, wiregrass, Carolina wiregrass, bottlebrush threeawn

*A. strigosa* (Henrard) S.T. Blake ex J.M. Black (*Aristida calycina* var. *strigosa* Henrard) (Latin *strigosus* "covered with strigae, with stiff bristles")

Australia. Perennial, tufted, compact, coarse, tussocky, culms branched and rigid, sheath scabrous, leaves scabrous flat, spike-like and dense inflorescence with branches erect, glumes unequal and nerved, lemma hairy or bristly toward the apex, awns subequal and filiform, not grazed, growing on shallow soils, on sandy soils and rocky hills, similar to *Aristida capillifolia*, *Aristida platychaeta*, *Aristida nitidula* and *Aristida arida*, see *Mededeelingen van's Rijks-Herbarium* 58(A): 297. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 708. 1933, *Transactions and Proceedings of the Royal Society of South Australia* 1 67: 45. 1943.

in English: rough three-awn, rough wire grass, wiregrass

*A. subaequans* Döll

Brazil. See *Flora Brasiliensis* 2(3): 19, pl. 4. 1878.

*A. subspicata* Trin. & Rupr. (*Aristida caudata* Andersson; *Aristida compacta* Andersson; *Stipa rostrata* Andersson)

Ecuador. Perennial, densely tufted, ligule a row of hairs, leaf sheaths scabrous or glabrous, leaf blades flat or involute, inflorescence spike-like densely contracted, spikelets congested and sessile, glumes unequal and more or less scabrous, awns scabrous, see *Species Graminum Stipaceorum* 125-126. 1842, *Om Galapagos-öarnes Vegetation* 142, 144-145. Lund 1854, *Kongl. Svensk. Vet.-Akad. Handl.* 1853: 142, 144. 1855 and *Flora of the Galápagos Islands* 829-831. 1971.

*A. subulata* Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 54(B): 612-614. 1928.

*A. succedanea* Henrard (*Aristida circinalis* Lindm.)

South America, Brazil. Perennial, caespitose, erect, leaves filiform, panicle oblong, glumes lanceolate and subequal, awns ascending, savannahs, see *Kongliga Svenska Vetenskapsakademiens Handlingar* 34(6): 13, t. 7A. 1900,



*Mededeelingen van's Rijks-Herbarium* 58(A): 294, t. 144. 1932, Henrard, *Meded. Rijks-Herb.* 54(C): 740-74. 1933.

**A. *superpendens*** Domin (*Aristida hirta* Domin)

Australia, Northern Territory, Queensland, Indonesia. Perennial, compact, tufted, branched, compressed, inflorescences contracted or more or less open, alluvial soils, similar to *Aristida dominii*, see *Bibliotheca Botanica* 85(2): 339, t. 13, 15, f. 8-9, 13-14. 1915.

**A. *suringarii*** Henr. (professor of botany Willem Frederik Reinier Suringar, 1832-1898)

The Caribbean. See *Mededeelingen van's Rijks-Herbarium* 54(B): 616-618. 1928, *Flora of the Netherlands Antilles* 1: 121-203. 1963, Sida 13: 293-301, 423-447. 1989.

in English: St. Eustatius three-awn

**A. *swartziana*** Steud. (named after the Swedish botanist Olof Peter Swartz (Svarts, Svartz, Swarts, Swarz), 1760-1818, traveler (West Indies and northeast South America), physician, he published *Nova genera et species plantarum seu Prodromus descriptionum vegetabilium maximam partem incognitorum*. Stockholm, Uppsala & Åbo 1788, *Icones plantarum incognitarum quas in Indiae occidentali ...* Erlangae 1794-1800 and *Flora Indiae occidentalis*. Erlangae 1797-1806; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 351. 1965; T.W. Bossert, compil., *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 390. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Georg Christian Wittstein, *Etymologisch-botanisches Handwörterbuch*. 855. 1852; Frederico Carlos Hoehne, M. Kuhlmann and Oswaldo Handro, *O jardim botânico de São Paulo*. 1941; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 787. 1993; Emil Bretschneider, *History of European Botanical Discoveries in China*. [Reprint of the original edition 1898.] Leipzig 1981; R.E.G. Pichi Sermolli, "Names and types of fern genera - 2. Angiopteridaceae, Marattiaceae, Danaeaceae, Kaulfussianaceae, Matoniaceae, Parkeriaceae." *Webbia*. 12(2): 339-373. 1957; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. University of Pennsylvania Press, Philadelphia 1964; Mariella Azzarello Di Misa, a cura di, *Il Fondo Antico della Biblioteca dell'Orto Botanico di Palermo*. 262. Regione Siciliana, Palermo 1988)

Jamaica, the Caribbean. Erect, tufted, leaf blades involute, narrow panicles, awns subequal, arid and sandy sites, rocky savannahs, open ground, see *Synopsis Plantarum Glumacearum* 1: 137. 1855 [1854] and *Mededeelingen van's Rijks-Herbarium* 54: 618-619. 1928, Hitchcock, A.S., *Manual of the Grasses of the West Indies* 94-95. 1936, J.C. Lindeman & A.L. Stoffers, *Flora of the Netherlands Antilles* 1: 121-203. 1963, F.W. Gould, *Flora of the Lesser Antilles, Leeward and Windward Islands* 3: 25-220. 1979.

in English: Swartz's three-awn

**A. *takeoi*** Ohwi (named for Takeo Itô, plant collector on Yonagumi, Japan; see M.N. Chaudhri, I.H. Vegter and C.M. De Wal, *Index Herbariorum*, Part II (3), *Collectors I-L*. Regnum Vegetabile vol. 86. 1972)

Japan. See *Botanical Magazine* (Tokyo) 45: 183. 1931.

in English: big pine-leaved lawngrass

in Japan: ô-matsuba-shiba

**A. *tarapotana*** Mez (*Aristida setifolia* Kunth) (from Tarapoto, the largest city in the Department of San Martin (capital Moyobamba) in Peru)

Peru. Rare species, fields, abandoned fields, see *Nova Genera et Species Plantarum* 1: 122. 1815 [1816], *Flora Brasiliensis seu Enumeratio Plantarum* 2: 381-383. 1829 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 151. 1921, *Field Museum of Natural History, Botanical Series* 13(1/1): 96-261. 1936, *Revista de Ciencias (San Marcos)* 74: 48-57. 1986.

**A. *tenuiflora*** Steud.

Africa, Senegal. See *Synopsis Plantarum Glumacearum* 1: 138. 1855 [1854].

**A. *tenuifolia*** Hitchc.

Mexico. Stony places, see *Proceedings of the California Academy of Sciences, Series 4*, 21(24): 296. 1935.

**A. *tenuisetata*** Cope

Somalia. Perennial, wiry, densely tufted, panicle loosely contracted, glumes 2-toothed and narrowly lanceolate, lemma not narrowed above the middle, flexuous awns unequal and slender, growing in sand dunes, coastal plains, see *Kew Bulletin* 47(2): 278. 1992.

**A. *teretifolia*** Arechav. (*Aristida arechavaletae* Henrard; *Aristida chaseana* Herter; *Aristida complanata* Trin.; *Aristida intermedia* Scribn. & C.R. Ball; *Aristida intermedia* Arechav., nom. illeg., non *Aristida intermedia* Scribn. & C.R. Ball)

Uruguay. Perennial, low forage value, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 85-86. 1830 and *Bulletin, Division of Agrostology United States Department of Agriculture* 24: 44, f. 18. 1901, *Anales del Museo Nacional de Montevideo* 4(1): 73, 78-80, t. 4. 1902, *Mededeelingen van's Rijks-Herbarium* 54: 35. 1926, *Revista Sudamericana de Botánica* 5: 23. 1937.

**A. *ternipes*** Cav. (*Aristida scabra* (Kunth) Kunth; *Aristida schiedeana* var. *minor* Vasey; *Aristida tenuis* (Kunth) Kunth; *Muhlenbergia scabra* (Kunth) Trin. & Rupr.; *Muhlenbergia tenuis* (Kunth) Trin. & Rupr.; *Ortachne scabra* (Kunth) E. Fourn.; *Ortachne tenuis* (Kunth) E. Fourn.; *Stipa tenuis* Willd ex Steud.; *Streptachne cubensis* A. Rich.; *Streptachne scabra* Kunth; *Streptachne tenuis* Kunth)

Venezuela, U.S., Mexico, Colombia. Perennial, caespitose, erect, hanging, slender, glabrous, ligule a rim of short hairs, narrow leaf blades, panicle very broad and open with two branches at each node, narrow spikelets, glumes unequal, first glume linear-lanceolate and long-acuminate, a single awn, lateral awns minute or obsolete, purplish glumes, forage, growing on rocky slopes, on sandy and gravelly bajadas, related to *Stipa*, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 46. 1799, *Nova Genera et Species Plantarum* 1: 124-125, t. 40. 1815 [1816], *Révision des Graminées* 1: 62. 1829, *Nomenclator Botanicus. Editio secunda* 2: 643. 1841, *Mémoires Présentés à l'Académie Impériale des Sciences de Saint Pétersbourg par Divers Savans et lus dans ses Assemblées* 5 (1): 183. 1842, *Species Graminum Stipaceorum* 120-121, 183. 1842, *Historia Fisica Política y Natural de la Isla de Cuba, Botánica* 11: 311. 1850, *Bulletin de la Société Botanique de France* 27: 295. 1880, *Bulletin of the Torrey Botanical Club* 13(2): 28. 1886, *Mexicanas Plantas* 2: 80. 1886, *Contributions from the United States National Herbarium* 3(1): 48. 1892 and *Contributions from the United States National Herbarium* 22: 525. 1924, *Cuscatlania* 1(6): 1-29. 1991, *Flora del Valle de Tehuacán-Cuicatlán* 3: 1-35. 1994.

in English: spider grass, spidergrass

in Spanish: zacate araña, tre barbas arqueado

in Mexico: aceitilla, chak suuk, tok-su'uk, tok suuk, tres barbas arqueado, zacate araña

**A. ternipes** Cav. var. **gentilis** (Henn.) Allred (*Aristida gentilis* Hennard; *Aristida gentilis* var. *breviaristata* Hennard; *Aristida gentilis* var. *gentilis*; *Aristida hamulosa* Hennard; *Aristida humboldtiana* var. *minor* Vasey; *Aristida imbricata* Hennard; *Aristida ternipes* var. *hamulosa* (Henn.) Trent; *Aristida ternipes* var. *minor* (Vasey) A.S. Hitchc.)

North America, U.S. Perennial, with three awns at the end of a straight awn column, forage, common on rocky slopes in desert scrub and desert grassland, edge of fields, see *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 46. 1799, *Species Graminum Stipaceorum* 118. 1842, *Contributions from the United States National Herbarium* 3(1): 47. 1892 and *Contr. U.S. Natl. Herb.* 22(7): 548. 1924, *Mededeelingen van's Rijks-Herbarium* 54: 196-197, 219-221. 1926, *Mededeelingen van's Rijks-Herbarium* 54(A): 253-255. 1927, *Sida* 10(2): 260. 1990, *Phytologia* 77(5): 412. 1994 [1995].

in English: hook threeawn, threeawn spider grass, poverty three-awn

in Spanish: zacate araña de tres barbas

**A. ternipes** Cav. var. **minor** (Vasey) Hitchc. (*Aristida divergens* Vasey; *Aristida schiedeana* var. *minor* Vasey; *Aristida ternipes* var. *divergens* (Vasey) Hitchc.)

America, Mexico. See *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 46. 1799, *Species Graminum Stipace-*

*orum* 120-121. 1842, *Bulletin of the Torrey Botanical Club* 13(2): 28. 1886, *Contributions from the United States National Herbarium* 3(1): 48. 1892 and *Contributions from the United States National Herbarium* 22(7): 525. 1924, *Journal of the Washington Academy of Sciences* 23(10): 453. 1933.

**A. ternipes** Cav. var. **ternipes** (*Aristida scabra* (Kunth) Kunth; *Aristida tenuis* (Kunth) Kunth; *Muhlenbergia scabra* (Kunth) Trin. & Rupr.; *Muhlenbergia tenuis* (Kunth) Trin. & Rupr.; *Ortachne scabra* (Kunth) E. Fourn.; *Ortachne tenuis* (Kunth) E. Fourn.; *Stipa tenuis* Willd. ex Steud.; *Streptachne cubensis* A. Rich.; *Streptachne scabra* Kunth; *Streptachne tenuis* Kunth)

South and Central America. See *Icones et Descriptiones Plantarum, quae aut sponte ...* 5: 46. 1799, *Nova Genera et Species Plantarum* 1: 124-125, t. 40. 1815 [1816], *Révision des Graminées* 1: 62. 1829, *Nomenclator Botanicus. Editio secunda* 2: 643. 1841, *Mémoires Présentés à l'Académie Impériale des Sciences de Saint Pétersbourg par Divers Savans et lus dans ses Assemblées* 5 (1): 183. 1842, *Species Graminum Stipaceorum* 183. 1842, *Historia Fisica Política y Natural de la Isla de Cuba, Botánica* 11: 311. 1850, *Bulletin de la Société Botanique de France* 27: 295. 1880, *Mexicanas Plantas* 2: 80. 1886.

in Spanish: zacate araña

**A. thompsonii** B.K. Simon

Australia, northeastern Queensland. Perennial, compact, tufted, branched, nodes glabrous, leaf blades involute setaceous, inflorescences loosely contracted, convolute lemmas, similar to *Aristida spuria* and *Aristida utilis*, see *Austrobaileya* 4(2): 105, f. 1. 1994.

**A. torta** (Nees) Kunth (*Aristida breviglumis* Mez; *Aristida spadicea* Trin.; *Aristida spadicea* Kunth; *Aristida tinctoria* Trin. & Rupr.; *Aristida tinctoria* var. *contractior* Döll; *Aristida tinctoria* var. *patula* Döll; *Chaetaria spadicea* (Kunth) Nees, nom. illeg., non *Chaetaria spadicea* (Kunth) Roem. & Schult.; *Chaetaria torta* Nees)

South America. Perennial, caespitose, leaves mainly basal, inflorescence paniculate, panicles loosely contracted, glumes lanceolate and strongly keeled, awns unequal, central awn arcuate, open savannah, shallowly inundated savannahs, see *Nova Genera et Species Plantarum* 1: 123. 1815 [1816], *Flora Brasiliensis seu Enumeratio Plantarum* 2: 385-386. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 190. 1833, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 6(2): 43. 1836, *Species Graminum Stipaceorum* 111-112. 1842, *Flora Brasiliensis* 2(3): 17. 1878 and *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 152. 1921, *Contr. U.S. Natl. Herb.* 22(7): 579. 1922, *Meded. Rijks-Herb.* 54(B): 534, 576. 1928.

**A. trachyantha** Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 54(B): 636-638. 1928.

**A. transvaalensis** Henr.

South Africa. Perennial, densely tufted, branched, lower glume awned, central awn usually solitary, on shallow soils, hillsides, see *Mededeelingen van's Rijks-Herbarium* 58(A): 235, t. 111. 1932, *Mededeelingen van's Rijks-Herbarium* 54(C): 742-744. 1933.

in English: rock threeawn, rock three-awns

**A. triticoides** Henrard

Somalia, Ethiopia, Yemen. Perennial, densely tufted, erect, basal leaf sheaths persistent, ligule villous, branching root-stock, dense panicle spike-like, lower glume linear-lanceolate finely acute or shortly awned, upper glume emarginate to bifid, central awn recurved at the base, lateral awns straight, on red sand, stony soils, limestone, rocky areas, related to *Aristida kelleri* Hack., see *Mededeelingen van's Rijks-Herbarium* 58: 101, t. 30. 1929, *Mededeelingen van's Rijks-Herbarium* 54(C): 744-745. 1933, *Kew Bulletin* 47(2): 277-282. 1992.

in Somalia: mahen, mahjen

**A. tuberculosa** Nuttall (*Chaetaria tuberculosa* (Nutt.) Schultes)

U.S., Georgia, Florida. Annual, spike loose and open, lemma awns are twisted and united into a basal column, forage, grows on dunes and dunes areas, in sand prairie and sand savannah, in sandy soil, forests, dry soil, sterile soil, see *The Genera of North American Plants* 1: 57. 1818, *Mantissa* 2: 211. 1824.

in English: three-awned grass, three awn grass, dune three-awn grass, seaside three-awn, seaside threeawn, beach needlegrass, beach three-awn grass, beach three-awned grass, seabeach needlegrass, sea-beach needlegrass, needle grass

in Mexico: zacate torcido

**A. tuitensis** Sánchez-Ken & Dávila

Mexico. See *Novon* 5(2): 190, f. 1. 1995.

**A. uruguayensis** Henrard

Uruguay. Perennial, tufted, low forage value, see *Mededeelingen van's Rijks-Herbarium* 54(B): 647-649. 1928.

**A. uruguayensis** Henrard var. *laevis* Caro

Argentina. Perennial, low forage value, see *Darwiniana* 14(2-3): 394. 1967.

**A. uruguayensis** Henrard var. *uruguayensis*

South America.

**A. utilis** F.M. Bailey (*Aristida streptachne* (F. Muell.) Domin; *Stipa streptachne* F. Muell.; *Streptachne stipoides* R. Br.)

New Guinea, Australia, Queensland. Perennial, compact, tufted, inflorescences more or less open with branches loosely appressed, resembling *Aristida spuria*, see *Prodromus Florae Novae Hollandiae* 174. 1810, *Journal and Proceedings of the Royal Society of New South Wales* 15: 237. 1882 and *Queensland Agricultural Journal* 18: 340. 1907, *Bibliotheca Botanica* 85: 342. 1915.

**A. utilis** F.M. Bailey var. *grandiflora* B.K. Simon

Queensland, Australia. See *Austrobaileya* 2(1): 95. 1984.

**A. utilis** F.M. Bailey var. *utilis*

New Guinea, Australia.

**A. vagans** Cav. (*Aristida parviflora* Steud.)

Queensland, New South Wales. Perennial, compact, 3-awned, wiry, tufted or rhizomatous, culms strongly branched or simple, leaf blade involute, ligule ciliate, sheath glabrous, leaves scabrous or pilose, inflorescence branches not appressed, panicle loose or open, glumes lanceolate and acuminate, lower glume acute, upper glume obtuse, beaked lemma linear to elliptic, awns filiform and divergent, grows in dry sclerophyll forest, clay, on rocky and sandy soils, similar to *Aristida caput-medusae* and *Aristida gracilipes*, see *Icones Plantarum* 5: 45, t. 471, f. 1. 1799, *Synopsis Plantarum Glumacearum* 1: 140-141. 1855 [1854], *Flora Australiensis: A Description ...* 7: 563. 1878 and *Bibliotheca Botanica* 85(2): 344, t. 14, f. 3-5. 1915, *Mededeelingen van's Rijks-Herbarium* 54: 82. 1926, *Mededeelingen van's Rijks-Herbarium* 54(B): 654. 1928.

in English: wire grass, three-awned spear-grass, three-awn spear-grass, threeawn speargrass

**A. vaginata** Hitchc.

Mexico. See *Proceedings of the California Academy of Sciences, Series 4*, 21(24): 297. 1935.

**A. valida** Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 54(B): 655-656. 1928.

**A. venezuelae** Henrard (*Aristida venezuelae* Henrard)

Venezuela, Peru. Perennial, loosely caespitose, slender, glabrous, sometimes branching from lower culm nodes, leaf blades involute first and flat when old and withering, narrow panicle with short branches, narrow spikelets, glumes unequal, lemma tuberculate in upper part, awns twisted at base, palea nerveless, narrow lodicules, open slopes, rocky slopes, dry places, along roadsides, close to *Aristida guayllabambensis* Laegaard, see *Mededeelingen van's Rijks-Herbarium* 54(B): 659-660. 1928, *Flora of Ecuador*, no. 57. 214(1) *Gramineae* (part 1): 49-52. 1997.

**A. venustula** Arechav. (*Aristida pallens* f. *breviaristata* Hack.; *Aristida pallens* var. *tenuicula* Hack.; *Aristida pallens* var. *tenuifolia* (Nees) Trin. & Rupr.; *Chaetaria pallens* var. *tenuifolia* Nees)

Uruguay. Perennial, awns filiform, lower glume 5-nerved, low forage value, see *Flora Brasiliensis seu Enumeratio Plantarum* 2: 381. 1829, *Species Graminum Stipaceorum* 116. 1842 and *Anales del Museo Nacional de Montevideo* 4(1): 72, 77. 1902, *Anales del Museo Nacional de Buenos Aires* 13: 452. 1906, *Anales del Museo Nacional de Buenos Aires* 21: 69. 1911, *Meded. Rijks-Herb.* 54(A): 408-409. 1927.

*A. venustula* Arechav. var. *scabrifolia* Hack.

Argentina. Perennial, see *Anales del Museo Nacional de Buenos Aires* 21: 71. 1911.

*A. venustula* Arechav. var. *venustula*

America. Perennial.

*A. venustula* Arechav. var. *venustuloides* (Caro) Longhi-Wagner

South America. See *Darwiniana* 14(2-3): 387. 1967, *Boletim do Instituto de Botânica* (São Paulo) 12: 152. 1999.

*A. vestita* Thunb.

South Africa, Namibia. Perennial, densely tufted, lower culm internodes pubescent, lower glume without mucro or awn, three awns, on stony soils, black clay, dry sandy loam, see *Prodromus Plantarum Capensium*, ... 19. 1794, *Species Graminum Stipaceorum* 158. 1842, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 11: 400. 1889.

in English: large woolly three-awn

in South Africa: harde steekgras

*A. vestita* Thunb. var. *brevistipitata* Trin. & Rupr.

South Africa. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(B): 665. 1928.

*A. vestita* Thunb. var. *densa* Trin. & Rupr.

South Africa. See *Species Graminum Stipaceorum* 158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54: 666. 1928.

*A. vestita* Thunb. var. *diffusa* (Trin.) Trin. & Rupr.

South Africa. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 157-158. 1842.

*A. vestita* Thunb. var. *eckloniana* Trin. & Rupr.

South Africa. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(B): 667. 1928.

*A. vestita* Thunb. var. *parviflora* Trin. & Rupr.

South Africa. See *Species Graminum Stipaceorum* 158. 1842.

*A. vestita* Thunb. var. *pseudohystrix* Trin. & Rupr.

South Africa. See *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 1(1): 86. 1830, *Species Graminum Stipaceorum* 158. 1842, *Synopsis Plantarum Glumacearum* 1: 142. 1855 [1854] and *Mededeelingen van's Rijks-Herbarium* 54(B): 471. 1928.

*A. vestita* Thunb. var. *schraderiana* Trin. & Rupr.

South Africa. See *Species Graminum Stipaceorum* 158. 1842 and *Mededeelingen van's Rijks-Herbarium* 54(B): 668. 1928.

*A. vexativa* Henrard

Argentina. See *Mededeelingen van's Rijks-Herbarium* 54(B): 669-671. 1928.

*A. vickeryae* B.K. Simon (named for Joyce Winifred Vickery, 1908-1979)

New South Wales. Perennial, compact, tufted, glabrous, branched, culms smooth and terete, sheath smooth, panicle open, glumes purplish smooth and cuspidate, lemma convolute, awns very slender, similar to *Aristida leptopoda*, *Aristida obscura*, *Aristida behriana* and *Aristida ramosa*, see *Austrobaileya* 2(1): 94. 1984.

*A. victoriana* Sulekic

Argentina. See *Darwiniana* 41(1-4): 184-186, f. 11. 2003.

*A. vilfifolia* Henrard (*Aristopsis balatovae* Catusas)

Cuba. Savannah, see *Mededeelingen van's Rijks-Herbarium* 54(B): 671-672. 1928, *Folia Geobotanica et Phytotaxonomica* 16(4): 440. 1981.

*A. villosa* B.L. Robinson & Greenman

Ecuador, Galápagos Islands. Rare species, annual, erect and ascending, decumbent at the base, branched, leaf sheaths villous, leaf blades flat, panicle contracted, glumes unequal, see *American Journal of Science* 50: 144. 1895 and *Flora of the Galápagos Islands* 831-832. 1971, D.M. Porter, *Patterns of Evolution in Galapagos Organisms* 33-54. 1983, *Reports from the Botanical Institute, University of Aarhus* 16: 1-74. 1987, R. Valencia, N. Pitman, S. León-Yáñez & P.M. Jørgensen, *Libro Rojo de las Plantas Endémicas del Ecuador* i-vi, 1-489. 2000.

*A. virgata* Trin. (*Aristida chapmaniana* Nash; *Aristida gracilis* var. *virgata* (Trin.) Alph. Wood; *Aristida perennis* Panz ex Trin. & Rupr.; *Aristida purpurascens* var. *depauperata* Vasey ex Beal; *Aristida stricta* Steud., nom. illeg., non *Aristida stricta* Michx.)

North America, U.S. In dry sandy soil, see *Encyclopédie Méthodique. Botanique ... Supplément* 1: 452. 1810, *A Sketch of the Botany of South-Carolina and Georgia* 1: 142, t. 8, f. 3. 1816, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 60. 1821, *Species Graminum Stipaceorum* 104. 1842, *Nomenclator Botanicus. Editio secunda* 1: 132. 1854, *Flora of the Southern United States* 555. 1860, *The*

*American Botanist and Florist* 389. 1871, *A Descriptive Catalogue of the Grasses of the United States* 35. 1885, *Grasses of North America for Farmers and Students* 2: 201. 1896 and *Flora of the Southeastern United States ...* 118, 1327. 1903, *Contr. U.S. Natl. Herb.* 22(7): 578. 1924.

in English: threeawn, wire grass, threeawn grass, wandlike three-awn grass

**A. wachterii** Henrard

Africa, Zimbabwe. See *Mededeelingen van's Rijks-Herbarium* 54(C): 746-747. 1933.

**A. warburgii** Mez (*Aristida heterochaeta* Henrard; *Aristida intricata* S.T. Blake) (possibly dedicated to the German botanist and traveler Otto Warburg, 1859-1938, his works include *Die Pflanzenwelt*. Leipzig und Wien 1913-1922, *Die Muskatnuss*. Leipzig 1897 and *Monographie der Myrsiticaceen*. Halle 1897, editor and publisher of many composite works and besides author of *Plantae Hellwigianae*. Flora von Kaiser Wilhelms-Land ... Leipzig 1894 (collector Franz Carl Hellwig, 1861-1889) and *Die Kulturpflanzen Usambaras ...* Berlin 1894; see John Hendley Barnhart, *Biographical notes upon botanists*. 3: 458. 1965; T.W. Bosser, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 426. Boston, Mass. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 797. Stuttgart 1993; the British botanist and collector Edmund Frederic Warburg, 1908-1966, was the son of Oscar Emmanuel Warburg, 1876-1937)

Queensland, New South Wales. Perennial, compact, tufted, erect or sprawling, simple and few-noded, sheath glabrous, leaves bristly and scabrous, panicle loosely contracted or more or less open, inflorescence branches loosely appressed, glumes unequal, lower glume 3- to 7-nerved, lemma brown and purplish, column twisted, lemma awns dissimilar, on sandy soils, on rocky ridges, similar to *Aristida schultzii* and *Aristida latifolia*, see *Repertorium Specierum Novarum Regni Vegetabilis* 17(8-12): 149. 1921, *Mededeelingen van's Rijks-Herbarium* 54(A): 226-228. 1927, *Proceedings of the Royal Society of Queensland* 51(10): 172, f. 1-5. 1940.

in English: three-awned spear-grass

**A. welwitschii** Rendle

Tropical Africa. See *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 21: 202. 1899 and *Meded. Rijks-Herb.* 54(B): 683. 1928.

in Angola: kipusu

**A. welwitschii** Rendle var. *minor* Rendle

Tropical Africa. See *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 21: 202. 1899 and *Meded. Rijks-Herb.* 54(B): 683. 1928.

**A. welwitschii** Rendle var. *subtomentosa* Henrard

Tropical Africa. See *Catalogue of the African Plants Collected by Dr. F. Welwitsch in 1853-61* 21: 202. 1899 and *Mededeelingen van's Rijks-Herbarium* 54(B): 683-685. 1928.

**A. wrightii** Nash (*Aristida purpurea* Nutt. var. *wrightii* (Nash) Allred)

North America, U.S., Texas. Perennial bunchgrass, densely tufted, erect, seed head purplish and then yellow, spikelet with 3 spreading awns, poor forage value, useful for erosion control, habitat of gravelly, sandy or dry plains, rocky areas, see *Transactions of the American Philosophical Society, new series*, 5: 145. 1837 and *Flora of the Southeastern United States ...* 116, 1327. 1903, *A Flora of California* 1: 101. 1912, *Journal of the Arnold Arboretum* 60(2): 320. 1979, *Brittonia* 36(4): 393. 1984.

in English: Wright threeawn, Wright's threeawn, Wright tripleawn grass

in Mexico: tres barbas, tres barbas perenne, zacate tres barbas

**Aristidium (Endl.) Lindley = *Bouteloua* Lag.**

From the Latin *arista, ae* "the awn, the beard of an ear of grain."

Chloridoideae, Cynodonteae, Boutelouinae, type *Dinebra aristoides* Kunth, see *Varietades de Ciencias, Literatura y Artes* 2(4,21): 134, 141. 1805, *Fragmenta Botanica* 77. 1809, *Nova Genera et Species Plantarum* 1: 171-172. 1815 [1816], *Fundamenta Agrostographiae* 161. 1820, *De Graminibus unifloris et sesquifloris* 242. Petropoli 1824, *Genera Plantarum* 94. 1836, *The Vegetable Kingdom* 116. 1847 and *Contributions from the United States National Herbarium* 41: 20-33. 2001.

**Aristopsis Catus Guerra = *Aristida* L.**

Resembling *arista, ae* "the awn, the beard of an ear of grain, beard of grain."

Arundinoideae, Aristideae, or Aristidoideae, Aristideae, type *Aristopsis bissei* Catus, see *Species Plantarum* 1: 82. 1753 and *Folia Geobotanica et Phytotaxonomica* 16(4): 439. 1981, *Contributions from the United States National Herbarium* 46: 69-104. 2003.

**Arrhenatherum P. Beauv. =**

*Pseudarrhenatherum* Rouy, *Thorea* Rouy,  
*Thorea* Briquet (Apiaceae, alt. Umbelliferae),  
*Thoreochloa* Holub

From the Greek *arrhen* “male, masculine” and *ather* “a bristle, awn,” referring to the awn of staminate floret, to the bristled staminate florets, alluding to the awn of the male floret; see A.M.F.J. Palisot de Beauvois, *Essai d'une nouvelle Agrostographie*. 55, 152, 153, t. 11, f. 5. (Dec) 1812.

About 4-10 species, Europe, Mediterranean, North Africa. Pooideae, Poodae, Aveneae, or Pooideae, Poeae, Aveninae, perennial, loosely tufted, tall, herbaceous, erect or slightly spreading, slender, unbranched, glabrous nodes, hollow internodes, basal internodes occasionally swollen, auricles absent, ligule an unfringed membrane, sheaths smooth and rounded, leaves flat and linear, plants bisexual, flowers in narrow panicles, florets dimorphic, spikelets solitary and flattened or compressed laterally, 2 florets and falling together at maturity, spikelets pedicellate, upper floret hermaphrodite and shortly awned, 2 glumes very unequal acuminate and membranous to papery, lemmas acute and submembranous, lower lemma with a twisted geniculate awn, hairy callus present, callus short, palea 2-keeled, 2 lodicules free and membranous, 3 stamens, ovary apex hairy, 2 stigmas white, fruit not grooved, weed species, cultivated fodder, found in dry grassland, edges of woods, disturbed ground, open habitats, sometimes referred to *Helictotrichon* Besser, intergeneric hybrids with *Avena* L., type *Arrhenatherum avenaceum* P. Beauv. ex Boiss., see *Essai d'une Nouvelle Agrostographie* 55, 152, 153. 1812, *Voyage botanique dans le midi de l'Espagne* 2: 657. 1844 and *Archives des Sciences Physiques et Naturelles* sér. 4. 13: 614. 1902, *Flore de France* 14: 142. 1913, *Bulletin de la Société Botanique de France* 68: 401. 1921, *Bot. Jahrb. Syst.* 75: 321-332. 1951, *Kew Bulletin* 16: 247-250. 1962, *Acta Universitatis Carolinae: Biologica* 1962: 154. 1963, *Acta Botanica Malacitana* 10: 123-154. 1985, *Boletim da Sociedade Broteriana, ser. 2* 63: 29-66. 1990, *Fitologija* 39: 72-77. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 76: 1331-1332. 1991, *Bot. Zhurn. (Moscow & Leningrad)* 78(4): 36-47. 1993, *Flora Mediterranea* 5: 340-345. 1995, *Annals of Botany. Oxford* 86: 1135-1142. 2000, Gary L. Hannan & Michael W. Orick, “Isozyme diversity in *Iris Cristata* and the threatened glacial endemic *I. Lacustris* (Iridaceae).” *Am. J. Bot.* 87: 293-301. 2000, *Contributions from the United States National Herbarium* 48: 119-121. 2003, Susan J. Mazer, Horacio Paz and Michael D. Bell, “Life history, floral development, and mating system in *Clarkia xantiana* (Onagraceae): do floral and whole-plant rates of development evolve independently?” *Am. J. Bot.* 91: 2041-2050. 2004.

**Species**

*A. album* (Vahl) Clayton (*Arrhenatherum album* var. *erianthum* (Boiss. & Reut.) Romero Zarco; *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl subsp. *erianthum* (Boiss. & Reut.) Cout.; *Arrhenatherum erianthum* Boiss. & Reut.; *Avena alba* Vahl)

Spain, Europe. Erect to prostrate, useful for erosion control, see *Symbolae Botanicae, ... 2*: 24. 1791, *Diagnoses Plantarum Novarum Hispanicarum praesertim in Castella nova lectarum* 121. Genève 1842 and *Memórias da Sociedade Broteriana* 6: 10. Coimbra 1950, *Kew Bulletin* 16: 250. 1962, *Agronomia Lusitana* 40(1): 6. 1980, *Acta Botanica Malacitana* 10: 145. 1985.

in English: tall oatgrass

*A. calderae* A. Hansen

Spain, Canary Islands. Rare species, see Alfred Hansen, “Contributions to the flora of the Canary Islands (especially Tenerife).” *Cuad. Bot. Canar.* 14-15: 59-70. 1972.

*A. elatius* (L.) P. Beauv. ex J. & C. Presl (*Arrhenatherum americanum* P. Beauv.; *Arrhenatherum avenaceum* (Scop.) P. Beauv.; *Arrhenatherum avenaceum* (Scop.) P. Beauv. subsp. *avenaceum*; *Arrhenatherum bulbosum* (Willd.) C. Presl; *Arrhenatherum elatius* (L.) Mertens & Koch, nom. illeg., non *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl; *Arrhenatherum tuberosum* F.W. Schultz; *Avena avenaceum* (Scop.) P. Beauv.; *Avena bulbosa* Willd.; *Avena elata* Salisb., nom. illeg., non *Avena elata* Forssk.; *Avena elatior* L.; *Avena tuberosa* Gilib.; *Avenastrum elatius* (L.) Jess.; *Holcus avenaceus* Scop.; *Holcus bulbosus* (Willd.) Schrad.; *Hordeum avenaceum* Wigg. ex P. Beauv.)

Europe, western Asia, Mediterranean, North Africa. Perennial bunchgrass, short-lived, robust, slender, coarse, loosely tufted, tussocks forming or culms solitary, erect or spreading or ascending, glabrous or hairy, basal internodes more or less swollen, auricles absent, blade rolled when young, ligule hairy, leaves scabrous and coarse, sheaths smooth and keeled, green to purple tinged inflorescence, shining panicle erect or nodding, chasmogamous spikelets, the upper floret sterile, lower flower usually male with a long bent awn on the lemma, the second bisexual with usually a shorter awn on the lemma, glumes acute, lemmas hairy at the base, awn bent and twisted, palea 2-keeled and hyaline, anthers yellow, ovary pubescent, fruit elliptical and laterally compressed, seed shatters at maturity, ornamental, does not tolerate shade, resistant to summer drought, weed of crops and roadsides, potentially invasive, cultivated fodder plant, planted pasture, used for making hay and for grazing, weed species of dry grasslands, fields, waste ground, disturbed places, gardens, roadside verges, grassland and hay meadows, on well-drained and dry soils, see *Species Plantarum* 1: 79. 1753, *Flora Carniolica, Editio Secunda* 2: 276. 1772, *Exercitia Phytologica* 2: 538. 1792, *Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten*

*Entdeckungen in der Gesamten Naturkunde* 2: 116. Berlin 1799, *Flora Germanica* 1: 248. 1806, *Essai d'une Nouvelle Agrostographie* 55-56, 152-153, 165, t. 11, f. 5. 1812, *Flora Cechica* 17. 1819, *Cyperaceae et Gramineae Siculae* 29. 1820, *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 23. Londini [London] (Nov-Dec) 1796, *Jahresbericht der Pollichia* 20-21: 272. 1863 and Cugen J. M. Acheroy A. L. Loutfi, D. Petit and P. Vernet, "Breeding system differentiation in *Arrhenatherum elatius* populations: evolution toward selfing?" *Evolutionary Trends in Plants* 3: 17-24. 1989, Ducouso, A., D. Petit, M. Valero and P. Vernet. 1990 Genetic variation between and within populations of a perennial grass: *Arrhenatherum elatius*. *Heredity* 65: 179-188. 1990.

in English: tall oatgrass, tall oat grass, tall oats, false oat, French rye-grass, meadow oatgrass, evergreen grass

in Colombia: avena alta

in South Africa: Franse hawergras, langswenkgras

**A. elatius** (L.) P. Beauv. ex J. Presl & C. Presl f. **striatum** F.T. Hubb. (*Arrhenatherum bulbosum* var. *variegatum* Hitchc.; *Arrhenatherum elatius* f. *striatum* (F.T. Hubb.) L.B. Sm.; *Arrhenatherum elatius* var. *bulbosum* (Willd.) Spenn.; *Arrhenatherum elatius* var. *striatum* (F.T. Hubb.) L.B. Sm.)

America. See *Flora Friburgensis* 1: 113. 1825 and *The Standard Cyclopaedia of Horticulture* 1(A-B): 397. 1914, *Rhodora* 18: 235. 1916, *Mémoires de la Société Royale des Sciences, Lettres et Arts de Nancy* 49: 269. 1947, *Rhodora* 49: 267. 1947.

**A. elatius** (L.) P. Beauv. ex J. Presl & C. Presl subsp. **bulbosum** (Willd.) Schübl. & G. Martens (*Arrhenatherum avenaceum* (Scop.) P. Beauv. subsp. *praecatorium* (Thuill.) Rouy; *Arrhenatherum avenaceum* var. *bulbosum* (Schr.) Hartm.; *Arrhenatherum bulbosum* (Willd.) C. Presl; *Arrhenatherum elatius* subsp. *bulbosum* (Willd.) Hyl., nom. illeg., non *Arrhenatherum elatius* subsp. *bulbosum* (Willd.) Schübl. & G. Martens; *Arrhenatherum elatius* (L.) P. Beauv. ex J. Presl & C. Presl subsp. *nodosum* (Parl.) Arcang.; *Arrhenatherum elatius* var. *bulbosum* (Willd.) Spenner; *Arrhenatherum elatius* var. *tuberosum* (Gilib.) Thielens; *Avena bulbosa* Willd.; *Avena elatior* subsp. *bulbosa* (Willd.) Litard.; *Avena tuberosa* Gilib., nom. inval.)

South and west Europe. Ornamental, culm with basal internodes swollen and bulbous, found in fields, roadsides, waste ground, lowland to montane, see *Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der Gesamten Naturkunde* 2: 116. Berlin 1799, *Cyperaceae et Gramineae Siculae* 29. 1820 and *Candollea* 15: 13. 1955, *New Zealand Journal of Botany* 29: 101-116. 1991.

in English: tuber oat grass, bulbous oat grass, onion twitch

**A. elatius** (L.) P. Beauv. ex J. Presl & C. Presl subsp. **elatius** (*Arrhenatherum avenaceum* (Scop.) P. Beauv.; *Avena elatior* L.)

Europe. Weed species widely naturalized in temperate regions, sea level to montane, useful for erosion control, fodder, forage weed species of dry grasslands, fields and old fields, waste ground, roadside verges, grassland and hay meadows, on well-drained and dry soils, border of woods, see *Flora Cechica* 17. 1819 and *New Zealand Journal of Botany* 29: 101-116. 1991.

in English: tall oat grass, meadow oat grass, false oat grass, French rye

**A. elatius** (L.) P. Beauv. ex J. Presl & C. Presl subsp. **sardoum** (Em. Schmid) Gamisans (*Arrhenatherum elatius* subsp. *braun-blauquetii* P. Monts. & L. Villar; *Arrhenatherum elatius* var. *sardoum* E. Schmid; *Arrhenatherum murcicum* Sennen)

Europe. See *Candollea* 29(1): 46. 1974.

**A. elatius** (L.) P. Beauv. ex J. Presl & C. Presl var. **bulbosum** (Willd.) Spenner (*Arrhenatherum avenaceum* var. *bulbosum* (Schr.) Hart.; *Arrhenatherum avenaceum* var. *bulbosum* (Willd.) Hartm.; *Arrhenatherum avenaceum* var. *nodosum* Reichb.; *Arrhenatherum bulbosum* (Willd.) C. Presl; *Arrhenatherum bulbosum* var. *variegatum* Hitchc.; *Arrhenatherum elatius* f. *bulbosum* (Willd.) T. Koyama; *Arrhenatherum elatius* f. *striatum* (F.T. Hubb.) L.B. Sm.; *Arrhenatherum elatius* f. *striatum* F.T. Hubb.; *Arrhenatherum elatius* subsp. *bulbosum* (Willd.) Schübler & Martens; *Arrhenatherum elatius* var. *nodosum* (Reichb.) F.T. Hubb.; *Arrhenatherum elatius* var. *tuberosum* Thiel.; *Arrhenatherum elatius* var. *tuberosum* (F.W. Schultz) Thielens; *Arrhenatherum tuberosum* (Gilib.) F.W. Schultz; *Arrhenatherum tuberosum* F.W. Schultz; *Avena bulbosa* Willd.; *Avena elatior* L.; *Avena elatior* var. *bulbosa* (Willd.) St.-Amans; *Avena elatior* var. *tuberosa* (F.W. Schultz) Asch.; *Avena tuberosa* Gilib.; *Holcus avenaceus* Scop.; *Holcus avenaceus* var. *bulbosus* (Willd.) Gaudin; *Holcus bulbosus* (Willd.) Schr.)

Europe, Asia. Perennial, erect, stout, basal internodes occasionally swollen into bulbous structures or a chain of bulbous corms, propagules, nodes hairy, leaf blade channelled or grooved, panicle narrow, male lemmas awned, often a troublesome weed in arable land, pasture grass, ornamental, higher rainfall areas, wet ground, ornamental, rare in grassland, corms eaten by pigs, see *Flora Carniolica, Editio Secunda* 2: 276. 1772, *Exercitia Phytologica* 2: 538. 1792, *Flora Germanica* 1: 248. 1806, *Agrostologia Helvetica, definitionem ...* 1: 136. 1811, *Flora Cechica* 17. 1819, *Handbok i Skandinaviens Flora, edn. 8* 51. 1820, *Flora Agenaise* 47. 1821, *Flora Friburgensis* 1: 113. 1825, *Flora Germanica Excursoria* 1: 53. 1830, *Jahresbericht der Pollichia* 20-21: 272. 1863, *Flora der Provinz Brandenburg* 1: 826. 1864, *Bulletin de la Société Botanique de Belgique* 12:

184. 1873 and *The Standard Cyclopedia of Horticulture* 1(A-B): 397. 1914, *Rhodora* 18: 234-235. 1916, *Rhodora* 49: 267. 1947, *Grasses of Japan and its Neighboring Regions* 486. 1987, *A Key to Australian Grasses* 1-150. 1990, *Monographs in Systematic Botany from the Missouri Botanical Garden* 47: i-xi, 1-178. 1994.

in English: false oat, onion couch, onion twitch, bulbous false oat, bulbous oatgrass

in Mexico: avena falsa alta

**A. elatius** (L.) P. Beauv. ex J. & C. Presl var. **elatius** (*Arrhenatherum elatius* var. *biaristatum* (Peters.) Peters.; *Avena elatior* L.; *Avena elatior* var. *elatior*)

Europe, Asia. Leaf blade not grooved, glabrous nodes, basal internodes not swollen, palea acute or obtuse, found in grassland, semishade, wooded slopes, roadsides and waste ground, see *Flora Cechica* 17. 1819.

in English: false oats, false oatgrass, tall oatgrass

**A. kotschyii** Boiss. (*Avena kotschyii* (Boiss.) Steud.) (named for the Austrian botanist Carl (Karl) Georg Theodor Kotschy, 1813-1866, plant collector, traveler, from 1835 to 1843 botanical explorer of the Orient, from 1852 Curator of the Herbarium of the Vienna Natural History Museum, his writings include *Die Insel Cypern*. [with Franz Joseph Andreas Nicolaus Unger, 1800-1870.] Wien 1865 and *Die Sommerflora des Antilibanon und hohen Hermon*. Wien 1864. See Eduard Fenzl (1808-1879), *Abbildungen und Beschreibungen neuer und selthener Thiere und Pflanzen in Syrien und im westlichen Taurus gesammelt von T. Kotschy*. Stuttgart 1843; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico*. Philadelphia 1964; J.H. Barnhart, *Biographical notes upon botanists*. 2: 315. 1965; Joseph Vallot, "Études sur la flore du Sénégal." in *Bull. Soc. Bot. de France*. 29: 182-183. Paris 1882; Ignatz Urban, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. Dresden 1916; T.W. Bosser, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 218. 1972; H.N. Clouke, *Account of the Herbaria of the Department of Botany in the University of Oxford*. 195. Oxford 1964; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Ethelyn Maria Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933)

Turkey, Iran, Syria. Perennial, useful for erosion control, steep rocky slope, *Diagnoses plantarum orientalium novarum* 1(7): 122. 1846, *Synopsis Plantarum Glumacearum* 1: 235. 1854.

**A. longifolium** (Thore) Dulac (*Arrhenatherum longifolium* (Nees) Potz. nom. illeg., non *Arrhenatherum longifolium* (Thore) Dulac; *Arrhenatherum thorei* Durieu; *Avena*

*longifolia* Thore; *Pseudarrhenatherum longifolium* (Thore) Rouy; *Trisetum longifolium* Nees)

Europe. Useful for erosion control, see *Florae Africae Australioris Illustrationes Monographicae* 348. 1841, *Flore du Département des Hautes-Pyrénées* 78. 1867 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 75: 327. 1951.

**A. palaestinum** Boiss. (*Arrhenatherum avenaceum* var. *palaestinum* (Boiss.) Hack.; *Arrhenatherum elatius* var. *palaestinum* (Boiss.) Boiss.; *Arrhenatherum erianthum* auct. balcan., non Boiss. & Reut.; *Avena palaestina* (Boiss.) Steud.)

Europe, Greece, Israel. Perennial, useful for erosion control, see *Diagnoses Plantarum Novarum Hispanicarum* 1852: 121. 1852, *Synopsis Plantarum Glumacearum* 1: 425. 1855, *Flora Orientalis* 5: 550. 1884, *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien* 127. 1890 and *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 61(Beibl. 140): 163. 1928.

**Arrozia Schrad. ex Kunth** = *Caryochloa* Trin., *Luziola* Juss.

The Spanish name for rice.

Ehrhartoideae, Oryzeae, Luziolinae, type *Arrozia micrantha* Schrad. ex Kunth, see *Genera Plantarum* 33. 1789, *Systema Naturae ... editio decima tertia, aucta, reformata* 2: 637. 1791, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 11. 1833, *Journal of the Linnean Society, Botany* 19(115, 116): 55. 1881 and *Flora Mesoamericana* 6: 222-223. 1994, *Contributions from the United States National Herbarium* 39: 69-71. 2000.

**Arthragrostis Lazarides**

Greek *arthron* "a joint" and *agrostis*, *agrostidos* "grass, weed, couch grass," referring to the spikelets.

About three species, Australia. Panicoideae, Panicoideae, Paniceae, or Paniceae, Panicinae, annual, herbaceous, simple or branched, internodes hollow, auricles absent, narrow leaf blades linear, ligule a ciliate membrane, leaves hirsute to hispid, plants bisexual, open inflorescence paniculate, a contracted loose panicle with deciduous branches, spikelets solitary and long-pedicelled, spikelet 2-flowered, upper floret hermaphrodite borne on a filiform internode, 2 glumes unequal and membranous, palea present, 2 free and fleshy lodicules, 3 stamens, ovary glabrous, 2 stigmas plumose, open habitats, open scrub, type *Arthragrostis deschampsoides* (Domin) Lazarides, see M. Lazarides, "New taxa of tropical Australian grasses (Poaceae)." *Nuytsia*. 5(2): 285-287. 1984.



**Species**

**A. aristispicula** B.K. Simon

Australia. See *Austrobaileya* 2(3): 238. 1986.

**A. clarksoniana** B.K. Simon

Australia. See *Austrobaileya* 3(4): 585, f. 1. 1992.

**A. deschampsoides** (Domin) Lazarides (*Panicum deschampsoides* Domin)

Australia. Annual, slender, flaccid, stipitate fertile floret, see *Bibliotheca Botanica* 85: 320. 1915.

**Arthratherum P. Beauv.** = *Aristida* L.,  
*Streptachne* R. Br.

From the Greek *arthron* “a joint” and *ather*, *atheros* “chaff, spine, prickle, barb, awn.”

Arundinoideae, Aristideae, or Aristidoideae, Aristideae, type *Arthratherum hygrometricum* (R. Br.) P. Beauv., see *Species Plantarum* 1: 82. 1753, *Essai d'une nouvelle Agrostographie* 32, 152, t. 8, f. 8. 1812, *Conspectus Regni Vegetabilis* 50. 1828, *Species Graminum Stipaceorum* 155. 1842 and *Contr. U.S. Natl. Herb.* 22(7): 519. 1924, *Contributions from the United States National Herbarium* 46: 69-104. 2003.

**Arthraxon P. Beauv.** = *Alectoridia* A. Rich.,  
*Arthraxon* (Eichler) Tiegh. (Loranthaceae),  
*Batratherum* Nees, *Lasiolytrum* Steud., *Lucaea*  
Kunth, *Pleuroplitis* Trin., *Psilopogon* Hochst.  
ex A. Rich.

From the Greek *arthron* “a joint” and *axon* “axis,” referring to the rachis, to the jointed rachides; see A.M.F.J. Palisot de Beauvois, *Essai d'une nouvelle Agrostographie*. 111, t. 11, f. 6. (Dec) 1812.

About 7(-10)/20-25 species, Old World tropics, mainly in India. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, annual or perennial, herbaceous, slender, often trailing, decumbent and rooting from lower nodes, auricles absent, ligule a ciliate membrane, leaf blades linear-lanceolate to ovate-lanceolate, plants bisexual, terminal and axillary slender subdigitate racemes, spikelets solitary and sessile or pairs of sessile and pedicellate spikelets, sessile spikelets awned and with 2 florets, lower floret reduced to a lemma, upper floret bisexual, glumes equal or subequal, lower glume convex or laterally 2-keeled, lemmas membranous, upper lemma entire and awned, awn sometimes basal, pedicellate spikelet much reduced or absent or vestigial, palea present or absent, 2 lodicules free and fleshy, 2-3 stamens, ovary glabrous, shade or open habitats, rainforest, wet places, moist pastures, rocky slopes, old cultivated fields, similar to *Schizachyrium*, type *Arthraxon ciliaris* P.

Beauv., see *Essai d'une Nouvelle Agrostographie* 111, t. 11, f. 6. 1812, *Fundamenta Agrostographiae* 174-175, t. 16. 1820, *Révision des Graminées* 2: 489, t. 159. 1831, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(4): 271, 275. 1832, *Edinburgh New Philosophical Journal* 18: 180-182. 1835, *Flora* 29: 18. 1846, *Tentamen Florae Abyssinicae ...* 2: 447-448, t. 102. 1850, *Beiträge zur Flora der Cap Verdischen Inseln* 152. 1852, *Flora Rossica* 4(14): 477, 478. 1853, *Synopsis Plantarum Glumacearum* 1: 414. 1854, *Flora van Nederlandsch Indië* 3: 481. 1857, *Bulletin de l'Académie Impériale des Sciences de Saint Pétersbourg*, sér. 3, 10: 369-370, 373-377, t. 10, f. 5, 6-10. 1866, *Bulletin de la Société Botanique de France* 42: 352. 1895 and *Journal of Cytology and Genetics* 15: 51-57. 1980, *Blumea* 27(1): 255-300. 1981, *Journal of Cytology and Genetics* 25: 140-143. 1990, *Opera Botanica* 121: 159-172. 1993, *Annals of the Missouri Botanical Garden* 81(4): 775-783. 1994, *Flora Mesoamericana* 6: 393. 1994, *Contributions from the United States National Herbarium* 46: 104-110. 2003.

**Species**

**A. breviaristatus** Hack. (*Arthraxon hispidus* var. *hispidus*;  
*Arthraxon nitidulus* Stapf ex Bor)

Eastern India, Southeast Asia, China. Found in moist and swampy places, used as cattle fodder, see *Monographiae Phanerogamarum* 6: 350. 1889 and *Botanical Magazine* 26(307): 214. 1912, *Grasses of Burma ...* 101, 688. 1960.

**A. castratus** (Griff.) Naray. ex Bor (*Andropogon castratus* Griff.; *Andropogon rudis* Nees ex Steud.; *Arthraxon dalatensis* A. Camus ex M. Schmid; *Arthraxon hainanensis* Keng & S.L. Chen; *Arthraxon pilipes* Backer; *Arthraxon rudis* (Nees ex Steud.) Hochst.)

India, Sri Lanka. Perennial, creeping, straggling, ascending, leaf sheaths villous to hirsute, racemes ascending, spikelets solitary, pedicellate spikelets reduced to a pedicel, lemma margin ciliate, for cattle fodder, hillsides, swampy places, forest openings, see *Notulae ad Plantas Asiaticas* 3: 89. 1851, *Synopsis Plantarum Glumacearum* 1: 383. 1854, *Flora* 39: 188. 1856, *Enum. Pl. Zeyl.* 368. 1864, Henry Trimen (1843-1896), *A Systematic Catalogue of the Flowering Plants and ferns indigenous to or growing wild in Ceylon* 107. Colombo 1885 and *Handb. Fl. Ceylon* 5: 224. 1900, *De Nuttige Planten van Nederlandsch-Indië* 1: 124. 1922, *Handb. Fl. Ceylon* 6: 331. 1931, *Flora of Assam* 5: 376. 1940, *Grasses of Ceylon* 187. 1956, *Grasses of Burma ...* 99. 1960, *Flora Hainanica* 4: 538, f. 1260. 1977, *Blumea* 27: 263. 1981.

in English: castrate carp grass

**A. cuspidatus** (Hochst. ex A. Rich.) Hochst. ex Hack. (*Andropogon cuspidatus* Hochst. ex A. Rich.; *Arthraxon cuspidatus* Hochst.; *Arthraxon cuspidatus* (Hochst. ex

A. Rich.) Hochst.; *Arthraxon hispidus* var. *hispidus*; *Batratherum cuspidatum* (Hochst. ex A. Rich.) Hochst.)

Ethiopia. Annual, slender, erect, ascending, leaf blades lanceolate, inflorescence of flexuous racemes silky-villous, sessile spikelet linear-lanceolate, pedicelled spikelet sterile, 2 stamens, wet ground, see *Tentamen Florae Abyssinicae* ... 2: 456. 1850, *Flora* 39(no.12): 178, 188. 1856.

**A. deccanensis** Jain

India, Maharashtra. Lower glume linear-lanceolate, see *Journal of the Bombay Natural History Society* 68(1): 297-299, t. 297. 1971.

**A. depressus** Stapf ex C.E.C. Fischer

India, Karnataka. Indeterminate species, lower glume of sessile spikelet linear-lanceolate, see *Bulletin of Miscellaneous Information Kew* 349. 1933.

**A. echinatus** (Nees) Hochst. (*Andropogon echinatus* (Nees) Heyne; *Andropogon echinatus* Heyne ex Steud., nom. illeg., non *Andropogon echinatus* (Nees) Heyne; *Arthraxon echinatus* (Nees) Heyne ex Kuntze, nom. illeg., non *Arthraxon echinatus* (Nees) Hochst.; *Arthraxon lanceolatus* var. *echinatus* (Nees) Hack.; *Arthraxon spathaceus* Hook.f.; *Batratherum echinatum* Nees)

India. Lower glume of sessile spikelet rarely smooth on the back, found in moist situations, see *Edinburgh New Philosophical Journal* 18: 181. 1835, *Nomenclator Botanicus* edition 2 1: 91. 1840, *Synopsis Plantarum Glumacearum* 1: 383. 1854, *Flora* 39: 188. 1856, *Monographiae Phanerogamarum* 6: 348. 1889, *Revisio Generum Plantarum* 2: 759. 1891, *The Flora of British India* 7(21): 145. 1897 [1896].

**A. hispidus** (Thunb.) Makino (*Alectoria quartiniana* A. Rich.; *Arthraxon antsirabensis* A. Camus; *Arthraxon ciliaris* P. Beauv.; *Arthraxon ciliaris* var. *cryptatherus* Hack.; *Arthraxon hispidus* (Thunb.) Merr.; *Arthraxon hispidus* var. *ciliaris* (P. Beauv.) Honda ex Nakai; *Arthraxon hispidus* var. *cryptatherus* (Hack.) Honda; *Arthraxon hispidus* var. *hispidus*; *Arthraxon hookeri* (Hackel) Henrard; *Arthraxon mauritianus* Stapf ex C.E. Hubb.; *Arthraxon micans* (Nees) Hochst.; *Arthraxon quartinianus* (A. Rich.) Nash; *Batratherum micans* Nees; *Clidemia gracilis* Pittier; *Phalaris hispida* Thunb.) (Madagascar, Antsirabe) (for the French botanist Léon Richard Quartin-Dillon, d. 1841, physician, explorer, plant collector, died during the Lefebvre expedition in Ethiopia, wrote *Des différences appréciables entre le sang de la veine porte et celui des autres veins*. in *Collection des thèses soutenues à la Faculté de Médecine de Paris*. an 1839-1878, tom. 14. Paris 1839-1878. See T. Lefebvre, *Voyage en Abyssinie exécuté ... par une Commission scientifique, composée de MM. T. Lefebvre, A. Petit et Quartin-Dillon, etc.* [1845]; I.H. Vegter, *Index Herbariorum*. Part II (5), *Collectors N-R*. Regnum Vegetabile vol. 109. 1983; Staffeu and Cowan, *Taxonomic literature*. 4: 452 and 763-764. Utrecht 1983; Achille Richard (1794-1852), *Tentamen florae abyssinicae*. [Collectors: R.

Quartin-Dillon and A. Petit] Parisiis [1847-1851]; J.H. Barnhart, *Biographical notes upon botanists*. 3: 118. 1965; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; Joseph Vallot, "Études sur la flore du Sénégal." in *Bull. Soc. Bot. de France*. 29: 187. Paris 1882; A. White and B.L. Sloane, *The Stapelieae*. Pasadena 1937)

Southeast Asia, China, Japan, India, Sikkim, Asia temperate and tropical, Philippines, Australia, New South Wales, Queensland. Perennial or annual, subshrub, wiry, arching, low-growing, creeping habit, very slender, hispid, ascending, much-branched, decumbent and rooting from the lower nodes, sometimes reddish purple, fibrous roots, leaf bases encircle the sheath, leaves lanceolate to ovate, ligule short and membranous, inflorescences deflexed, racemes greenish to purple, spikelets solitary, lower glume purplish and scabrous, greenish upper glume compressed and keeled, lemma margin glabrous, yellowish grains, invasive weed rapidly spreading and naturalized elsewhere, used as cattle fodder, weed in tea plantations, yellow dye, medicine in China, considered a vulnerable species in Australia, usually found in moist pastures, cultivated areas, hay fields and wet ditches, around margins of pools and lagoons, on muddy banks, floodplain forests, along shores, open disturbed sites, gravel, open areas, depressional wet areas, in scattered clumps on roadside, on road bank, edge of roadside, along trails, sometimes confused with *Commelina communis* L. and *Panicum clandestinum* Hochst. ex Chiov., *Arthraxon mauritianus* Stapf ex C.E. Hubb. considered a vulnerable species in Mauritius, see *Flora Japonica*, ... 44. 1784, *Essai d'une Nouvelle Agrostographie* 111, t. 11, f. 6. 1812, *Edinburgh New Philos. J.* 18: 182. 1835, *Tentamen Florae Abyssinicae* ... 2: 448, t. 102. 1850, *Flora* 39: 189. 1856 and *Botanical Magazine* (Tokyo) 26(307): 214. 1912, *Philippine Journal of Science* 7(4): 229. 1912, *North American Flora* 17(2): 99. 1912, *Bulletin of Miscellaneous Information Kew* 1939: 653. 1939, *Bulletin de la Société Botanique de France* 95: 149. 1948, *Grasses of Ceylon* 187. 1956, *Grasses of Burma* ... 101-102. 1960, *Webbia* 49(2): 265-329. 1995.

in English: small carp grass, jointhead arthraxon

in Spanish: zacate común, zacate

in Japan: ko-buna-gusa, kobunagusa

in China: jin cao

in India: nela bidira hullu, thurade, thurde, turade, undar gin, undri

**A. hispidus** (Thunb.) Makino var. *hispidus* (*Alectoria quartiniana* A. Rich.; *Andropogon alectoria* A. Rich. ex Steud.; *Andropogon amplexifolius* Trin.; *Andropogon ciliaris* (P. Beauv.) Raspail; *Andropogon cuspidatus* Hochst. ex A. Rich.; *Andropogon lasiocoleus* Steud.; *Andropogon micans* (Nees) Steud.; *Andropogon nudus* Nees ex Steud.; *Andropogon quartinianus* A. Rich.; *Andropogon submuticus* Nees ex Steud.; *Arthraxon antsirabensis* A. Camus;

*Arthraxon brevistaratus* Hack.; *Arthraxon caucasicus* (Rupr. ex Regel) Tzvelev; *Arthraxon centrasiaticus* (Griseb.) Gamajun.; *Arthraxon ciliare* subsp. *langsdorffii* (Trin.) Hack.; *Arthraxon ciliare* subsp. *nudus* (Nees ex Steud.) Hack.; *Arthraxon ciliare* subsp. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliare* subsp. *submuticus* (Nees ex Steud.) Hack.; *Arthraxon ciliare* subsp. *vriesii* (Büse) Hack.; *Arthraxon ciliare* var. *coloratus* (Hochst.) Hack.; *Arthraxon ciliare* var. *cryptatherus* Hack.; *Arthraxon ciliare* var. *gracilis* (Kunth) Hack.; *Arthraxon ciliare* var. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliare* var. *quartinianus* (A. Rich.) E.G. Camus & A. Camus, nom. illeg., non *Arthraxon ciliaris* var. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliaris* P. Beauv.; *Arthraxon ciliaris* subsp. *langsdorffii* (Trin.) Hack.; *Arthraxon ciliaris* subsp. *nudus* (Nees ex Steud.) Hack.; *Arthraxon ciliaris* subsp. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliaris* subsp. *submuticus* (Nees ex Steud.) Hack.; *Arthraxon ciliaris* subsp. *vriesii* (Büse) Hack.; *Arthraxon ciliaris* var. *australis* Benth.; *Arthraxon ciliaris* var. *centrasiaticus* (Griseb.) Hack.; *Arthraxon ciliaris* var. *coloratus* (Hochst.) Hack.; *Arthraxon ciliaris* var. *cryptatherus* Hack.; *Arthraxon ciliaris* var. *genuinus* Hack.; *Arthraxon ciliaris* var. *glabrescens* Hack.; *Arthraxon ciliaris* var. *gracilis* (Kunth) Hack.; *Arthraxon ciliaris* var. *hookeri* Hack.; *Arthraxon ciliaris* var. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliaris* var. *tenellus* Benth.; *Arthraxon coloratus* Hochst.; *Arthraxon cryptatherus* (Hack.) Koidz.; *Arthraxon cryptatherus* subsp. *nudus* (Nees ex Steud.) Koidz.; *Arthraxon cryptatherus* subsp. *submuticus* (Nees ex Steud.) Koidz.; *Arthraxon cryptatherus* var. *centrasiaticus* (Griseb.) Koidz.; *Arthraxon cryptatherus* var. *ciliaris* (P. Beauv.) Koidz.; *Arthraxon cuspidatus* (Hochst. ex A. Rich.) Hochst.; *Arthraxon cuspidatus* (Hochst. ex A. Rich.) Hochst. ex Hack.; *Arthraxon cuspidatus* var. *micans* (Nees) Hack.; *Arthraxon gracilis* (Kunth) Hochst.; *Arthraxon hispidus* (Thunb.) Makino; *Arthraxon hispidus* f. *brevisetus* (Regel) Ohwi; *Arthraxon hispidus* f. *centrasiaticus* (Griseb.) Ohwi; *Arthraxon hispidus* f. *formosanus* Ohwi; *Arthraxon hispidus* f. *hispidissimus* (Honda) Ohwi; *Arthraxon hispidus* f. *hispidus*; *Arthraxon hispidus* f. *japonicus* (Regel) Ohwi; *Arthraxon hispidus* f. *kobuna* (Honda) Ohwi; *Arthraxon hispidus* f. *monticola* (Hiyama) Hiyama; *Arthraxon hispidus* f. *quartinianus* (A. Rich.) Backh.; *Arthraxon hispidus* f. *riukiensis* Ohwi; *Arthraxon hispidus* f. *vriesii* (Büse) Backh.; *Arthraxon hispidus* subsp. *caucasicus* (Rupr. ex Regel) Tzvelev; *Arthraxon hispidus* subsp. *centrasiaticus* (Griseb.) Tzvelev; *Arthraxon hispidus* subsp. *ciliaris* (P. Beauv.) Masam. & Yanag.; *Arthraxon hispidus* subsp. *langsdorffii* (Trin.) Tzvelev; *Arthraxon hispidus* var. *brevisetus* (Regel) Hara; *Arthraxon hispidus* var. *centrasiaticus* (Griseb.) Honda; *Arthraxon hispidus* var. *ciliaris* (P. Beauv.) Koidz.; *Arthraxon hispidus* var. *cryptatherus* (Hack.) Honda; *Arthraxon hispidus* var. *hispidissimus* Honda; *Arthraxon hispidus* var. *hookeri* (Hack.) Honda; *Arthraxon hispidus* var. *japonicus* (Regel) Hack. ex Mori; *Arthraxon hispidus* var. *langsdorffii* (Trin.) Backh.; *Arthraxon hispidus* var. *macranthus* Ohwi; *Arthraxon hispidus* var. *microphyllus* Honda; *Arthraxon hispidus* var. *monticola* Hiyama; *Arthraxon hispidus* var. *muticus* (Honda) Ohwi; *Arthraxon hispidus* var. *nudus* (Nees ex Steud.) Ohwi; *Arthraxon hispidus* var. *vriesii* (Büse) Backh.; *Arthraxon hispidus* var. *vriesii* (Büse) Ohwi; *Arthraxon hookeri* (Hack.) Henrard; *Arthraxon inermis* Hook.f.; *Arthraxon japonicus* Miq.; *Arthraxon kobuna* Honda; *Arthraxon langsdorffii* (Trin.) Hochst.; *Arthraxon langsdorffii* var. *centrasiaticus* (Griseb.) Kom.; *Arthraxon langsdorffii* var. *cryptatherus* (Hack.) Kom.; *Arthraxon langsdorffii* var. *submuticus* (Regel) Grossh.; *Arthraxon langsdorffianus* (Trin.) Hochst.; *Arthraxon lasiocoleos* (Steud.) Hochst.; *Arthraxon major* (Hochst. ex Steud.) Hochst.; *Arthraxon mauritanus* Stapf ex C.E. Hubb.; *Arthraxon nitidulus* Stapf ex Bor; *Arthraxon nudus* (Nees ex Steud.) Hochst.; *Arthraxon okamotoi* Ohwi; *Arthraxon pallidus* Henrard; *Arthraxon pauciflorus* Honda; *Arthraxon pauciflorus* var. *muticus* Honda; *Arthraxon plumbeus* (Nees ex Arn.) Hochst.; *Arthraxon quartinianus* (A. Rich.) Nash; *Arthraxon quartinianus* subsp. *quartinianus*; *Arthraxon quartinianus* subsp. *vriesii* (Büse) Henrard; *Arthraxon quartinianus* var. *glabrescens* (Hack.) Jain; *Arthraxon quartinianus* var. *monostachyus* Jansen; *Arthraxon quartinianus* var. *montanus* Jacq.-Fél.; *Arthraxon quartinianus* var. *quartinianus*; *Arthraxon satarensis* M.R. Almeida; *Arthraxon schimperi* (Hochst.) Hochst.; *Arthraxon submuticus* (Nees ex Steud.) Hochst.; *Arthraxon violaceus* (Steud.) Hochst.; *Batratherum cuspidatum* (Hochst. ex A. Rich.) Hochst.; *Batratherum micans* Nees; *Batratherum plumbeum* Duthie; *Batratherum submuticum* (Nees ex Steud.) Nees ex W. Watson; *Chilochloa hispida* P. Beauv.; *Deyeuxia japonica* Spreng.; *Digitaria hispida* (Thunb.) Spreng.; *Lasiolytrum hispidum* (Thunb.) Steud.; *Lasiolytrum hispidum* Steud.; *Lucaea gracilis* Kunth; *Lucaea langsdorffii* (Trin.) Steud.; *Lucaea major* Hochst. ex Steud.; *Lucaea plumbea* (Nees ex Arn.) Steud.; *Lucaea violacea* Steud.; *Lucaea vriesii* Büse; *Phalaris hispida* Thunb.; *Pleuroplitis caucasica* (Rupr. ex Regel) Trautv.; *Pleuroplitis centrasiatica* Griseb.; *Pleuroplitis langsdorffii* Trin.; *Pleuroplitis langsdorffii* var. *brevisetata* Regel; *Pleuroplitis langsdorffii* var. *caucasica* Rupr. ex Regel; *Pleuroplitis langsdorffii* var. *centrasiatica* (Griseb.) Regel; *Pleuroplitis langsdorffii* var. *chinensis* Regel; *Pleuroplitis langsdorffii* var. *gracilis* (Kunth) Regel; *Pleuroplitis langsdorffii* var. *japonica* Regel; *Pleuroplitis langsdorffii* var. *submutica* Regel; *Pleuroplitis major* (Hochst. ex Steud.) Regel; *Pleuroplitis plumbea* Nees ex Arn.; *Pleuroplitis quartiniana* (A. Rich.) Regel; *Pleuroplitis quartiniana* var. *caespitosa* Regel; *Pleuroplitis quartiniana* var. *plumbea* (Nees ex Arn.) Regel; *Pleuroplitis quartiniana* var. *tenella* Regel; *Pollinia ciliaris* (P. Beauv.) Spreng.; *Psilopogon schimperi* Hochst.)

Africa, Asia. See *Historia Stirpium Indigenarum Helvetiae Inchoata* 2: 244. 1768, *Flora Japonica*, ... 44. 1784, *Essai d'une Nouvelle Agrostographie* 37, 43, 111, 158, t. 11, f. 6. 1812, *Fundamenta Agrostographiae* 175, t. 16. 1820, *Annales des Sciences Naturelles (Paris)* 5: 307. 1825, *Systema Vegetabilium, editio decima sexta* 1: 245, 271, 289. 1825, *Révision des Graminées* 2: 489, t. 159. 1831, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(3): 274. 1832, *Edinburgh New Philosophical Journal* 18: 181-183. 1835, *Flora* 29: 117-118. 1846, *Tentamen Florae Abyssinicae* ... 2: 448, 456, 469, t. 102. 1850, *Flora Rossica* 4(14): 477. 1853, *Plantae Junghuhnianae* 366. 1854, *Synopsis Plantarum Glumacearum* 1: 382-383, 413-414. 1854, *Flora* 39: 178, 188-189. 1856, *Annales Museum Botanicum Lugduno-Batavi* 2: 288. 1866, *Bulletin de l'Académie Impériale des Sciences de St-Pétersbourg* 10: 370, 373-375, 377, t. 10, f. 5-10. 1866, *Flora Australiensis: A Description* ... 7: 524. 1878, *Himalayan Districts of the North-western Provinces of India* 10: 392. 1882, *Genera Plantarum* 3(2): 1127. 1883, *Monographiae Phanerogamarum* 6: 350, 353-358. 1889, *The Flora of British India* 7(21): 145. 1897 [1896] and *Botanical Magazine (Tokyo)* 26(307): 214. 1912, *North American Flora* 17(2): 99. 1912, Tamezō Mori (1884-1962), *An Enumeration of Plants Hitherto Known From Corea*. July 1921. 38. Seoul 1922, *Observationes Botanicae* 7: 300. 1922, *Botanical Magazine (Tokyo)* 39(467): 276-278, 301. 1925, *Handboek voor de Flora van Java* 2: 75. 1928, *Journal of the Faculty of Science: University of Tokyo, Botany* 3: 329. 1930, *Flora Symbolae Orientali-Asiaticae* 71. 1930, *Botanical Magazine (Tokyo)* 45: 43. 1931, *Flora URSS* 2: 13. 1934, *Botanical Magazine* 49: 697-698. 1935, *Botanical Magazine (Tokyo)* 52: 186. 1938, *Bulletin of Miscellaneous Information Kew* 1939: 653. 1939, *Transactions of the Natural History Society of Taiwan* 31: 326. 1941, *Blumea* 4(3): 525-526. 1941, *Acta Phytotaxonomica et Geobotanica* 11(3): 164-165. 1942, *Bulletin of the Tokyo Science Museum* 18: 1. 1947, *Bulletin de la Société Botanique de France* 95: 149. 1948, *Journal of Japanese Botany* 23: 56. 1948, *Reinwardtia* 2(2): 231. 1953, *Journal of Japanese Botany* 33: 192. 1958, *Grasses of Burma* ... 101, 688-689. 1960, *Les Graminées d'Afrique Tropicale* 1: 292, t. 229. 1962, *Journal of the Bombay Natural History Society* 66: 515, f. A-H. 1969 [1970], *Journal of the Indian Botanical Society* 51: 180, t. 14. 1972, *Zlaki SSSR* 705-706. 1976, *Novosti Sist. Vyss. Rast.* 14: 233. 1977, *Journal of Cytology and Genetics* 15: 51-57. 1980, *Taxon* 34: 159-164. 1985, *Opera Botanica* 121: 159-172. 1993.

**A. hookeri** (Hack.) Henrard (*Arthraxon ciliaris* P. Beauv. var. *hookeri* Hack.; *Arthraxon hispidus* var. *hispidus*)

India, West Bengal, Manipur, Sikkim. In waste places, see *Monographiae Phanerogamarum* 6: 357. 1889 and *Blumea* 4(3): 526. 1941.

**A. inermis** Hook.f. (*Arthraxon hispidus* var. *hispidus*)

India. Pedicel absent or rudimentary, common in forests, see *The Flora of British India* 7(21): 145. 1897 [1896] and *Taxon* 34: 159-164. 1985.

**A. inermis** Hook.f. var. *tzvelevii* Jain

India, Maharashtra. See *Science and Culture* 37(1): 55. 1971.

**A. jubatus** Hack.

Maharashtra, India. Spikelets long-awned, on moist ground, rocky places, see *Monographiae Phanerogamarum* 6: 358. 1889.

**A. junnarensis** Jain & Hemadri (*Arthraxon hispidus* var. *junnarensis* (Jain & Hemadri) Welzen)

Maharashtra, India. See *Journal of the Bombay Natural History Society* 68(1): 300-301. 1971, *Blumea* 27(1): 277. 1981.

**A. lanceolatus** (Roxb.) Hochstetter (*Andropogon lanceolatus* Roxb.; *Arthraxon lanceolatus* Miq., nom. illeg., non *Arthraxon lanceolatus* (Roxb.) Hochst.; *Batratherum lanceolatum* (Roxb.) Nees)

India, Southeast Asia. Much-branched, very variable, used for grazing and for hay, found on moist ground, see *Flora Indica; or Descriptions* ... 1: 262. 1820, *Edinburgh New Philosophical Journal* 18: 181. 1835, *Flora* 39: 188. 1856. in India: doongad, nagri

**A. lanceolatus** (Roxb.) Hochst. var. *echinatus* (Nees) Hack. (*Andropogon echinatus* (Nees) Heyne; *Andropogon echinatus* Heyne ex Steud., nom. illeg., non *Andropogon echinatus* (Nees) Heyne; *Arthraxon echinatus* (Nees) Heyne ex Kuntze, nom. illeg., non *Arthraxon echinatus* (Nees) Hochst.; *Arthraxon echinatus* (Nees) Hochst.; *Arthraxon spataceus* Hook.f.; *Batratherum echinatum* Nees)

Asia, China, India. See *Edinburgh New Philosophical Journal* 18: 181. 1835, *Synopsis Plantarum Glumacearum* 1: 383. 1854, *Flora* 39: 188. 1856, *Monographiae Phanerogamarum* 6: 348. 1889, *The Flora of British India* 7: 145. 1896 and *Blumea* 27: 285. 1981.

**A. lanceolatus** (Roxb.) Hochst. var. *lanceolatus* (*Andropogon lanceolatus* Roxb.; *Andropogon prionodes* Steud.; *Andropogon serrulatus* A. Rich., nom. illeg., non *Andropogon serrulatus* Link; *Arthraxon lanceolatus* (Roxb.) Hochst.; *Arthraxon lanceolatus* (Roxb.) Hochst. f. *glaberrimus* Chiov.; *Arthraxon lanceolatus* (Roxb.) Hochst. f. *puberulus* Chiov.; *Arthraxon lanceolatus* (Roxb.) Hochst. subvar. *serrulatus* Hack.; *Arthraxon lanceolatus* (Roxb.) Hochst. subvar. *typicus* Hack.; *Arthraxon lanceolatus* (Roxb.) Hochst. subvar. *wallichii* Hack.; *Arthraxon lanceolatus* (Roxb.) Hochst. var. *genuinus* Hack.; *Arthraxon lanceolatus* (Roxb.) Hochst. var. *puberulus* (Chiov.) Mattei; *Arthraxon lanceolatus* (Roxb.) Hochst. var. *serrulatus* (Hack.) Fiori, nom. illeg.,

non *Arthraxon lanceolatus* var. *serrulatus* (Hack.) T. Durand & Schinz; *Arthraxon lanceolatus* (Roxb.) Hochst. var. *serrulatus* (Hack.) T. Durand & Schinz; *Arthraxon prionodes* (Steud.) Dandy; *Arthraxon serrulatus* (A. Rich.) Mattei; *Arthraxon serrulatus* Hochst.; *Batratherum lanceolatum* (Roxb.) Nees)

Asia, China, India. Perennial, rare, trailing, lower glume spiny, female fertile lemma awned, see *Edinburgh New Philosophical Journal* 18: 181. 1835, *Synopsis Plantarum Glumacearum* 1: 383. 1854, *Flora* 39: 188. 1856, *Monographiae Phanerogamarum* 6: 348. 1889 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 278. 1908, *Bollettino r. Orto Botanico e Giardino Coloniale di Palermo* 9: 40. 1910, *Nuovo Giornale Botanico Italiano* 47: 26. 1940.

**A. lanceolatus** (Roxb.) Hochst. var. **meeboldii** (Stapf) Welzen (*Arthraxon meeboldii* Stapf; *Arthraxon purandharensis* Bharucha & Y. Satyan.) (after the German botanist Alfred Karl Meebold, 1863-1952, traveler and botanical collector, from 1928 to 1938 traveled widely in Australia, South Africa and southwest. U.S., novelist and essayist, poet, his works include *Indien*. München 1908 [1907]; see I.H. Vegter, *Index Herbariorum*. Part II (4), *Collectors M. Regnum Vegetabile* vol. 93. 1976; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 249. Cape Town 1981)

India. Used as fodder, found in open grassland on a hillside, *Arthraxon meeboldii* Stapf considered an indeterminate species in India, see *Bulletin of Miscellaneous Information Kew* 1908: 449. 1908, *Journal of the Bombay Natural History Society* 52: 481. 1954, *Blumea* 27(1): 285. 1981.

**A. lancifolius** (Trinius) Hochstetter (*Andropogon lancifolius* Trin.; *Andropogon microphyllus* Trin.; *Andropogon multicaulis* Steud.; *Arthraxon comorensis* A. Camus; *Arthraxon figarii* (De Not.) Asch. & Schweinf.; *Arthraxon lancifolius* var. *birmanicus* Kuntze; *Arthraxon lancifolius* var. *eremophilus* Bor; *Arthraxon lancifolius* var. *hindustanicus* Jain & Deshpande; *Arthraxon linifolius* Henrard; *Arthraxon microphyllus* (Trin.) Hochst.; *Arthraxon microphyllus* f. *intermedius* Backh.; *Arthraxon microphyllus* f. *lancifolius* (Trin.) Hack.; *Arthraxon microphyllus* var. *lancifolius* (Trin.) Hack.; *Arthraxon minor* Hochst.; *Arthraxon molle* (Nees) Balf., nom. illeg., non *Arthraxon molle* (Nees) Duthie; *Arthraxon molle* (Nees) Duthie; *Arthraxon schimperii* (Hochst.) Hochst.; *Arthraxon schmidtii* Hochst.; *Batratherum lancifolium* (Trin.) W. Watson ex Atkins; *Batratherum molle* Nees; *Batratherum molle* var. *tenuis* Nees; *Batratherum schimperii* Hochst.; *Batratherum schimperii* Nees ex Hochst.; *Lucaea ciliata* (J.A. Schmidt) Steud.; *Lucaea schimperii* (Hochst. ex A. Rich.) Steud.; *Pleuroplitis ciliata* J.A. Schmidt; *Pleuroplitis lancifolia* (Trin.) Regel; *Pleuroplitis microphylla* (Trin.) Regel; *Pleuroplitis schimperii* (Hochst. ex A. Rich.) Regel; *Pogonatherum tenue*

Edgew.; *Psilopogon figarii* De Not.; *Psilopogon schimperii* Hochst. ex A. Rich.; *Psilopogon schimperii* Hochst.)

India, Capo Verde Islands. Annual, very slender, delicate, trailing, creeping, loosely tufted, at first decumbent and rooting at the nodes, finally ascending, leaf sheaths glabrous or pubescent somewhat inflated, leaves acuminate and pointed, slender racemes ciliate, spikelets paired and solitary, filiform peduncles, pedicelled spikelet absent or present, pedicellate spikelets staminate or sterile, lower glume of sessile spikelets smooth, 2 stamens, fodder, growing among rocks, damp situations, exposed hill slopes, road banks, steep stony slopes, rocky sites, steep banks, open places, plains, riverbanks, cliffs, wadi, gullies, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 2: 271, 275. 1832, *Edinburgh New Philosophical Journal* 18: 181, 182. 1835, *Flora* 29: 117. 1846, *Synopsis Plantarum Glumacearum* 1: 383, 414. 1854, *Flora* 39: 179, 188, 189. 1856, *Enum. Pl. Zeyl.* 368. 1864, *A Systematic Catalogue of the Flowering Plants and Ferns Indigenous to or Growing Wild in Ceylon* 108. 1885, *Transactions of the Royal Society of Edinburgh* 31: 315. 1888, *Monographiae Phanerogamarum* 6: 352. 1889 and *Handb. Fl. Ceylon* 5: 22. 1900, *Handb. Fl. Ceylon* 6: 331. 1931, *Blumea* 4(3): 525. 1941, *Bulletin de la Société Botanique de France* 98: 36. 1951, *Grasses of Ceylon* 187. 1956, *Grasses of Burma ...* 100. 1960, *Journal of the Indian Botanical Society* 50a: 95. 1971, *Journal of the Indian Botanical Society* 51: 176, t. 8. 1972, *Journal of Cytology and Genetics* 20: 205-206. 1985, *Annals of the Missouri Botanical Garden* 81(4): 775-783. 1994.

in Thailand: yaa doi, yaa yung daeng, ya doi, ya yung daeng

**A. lancifolius** (Trinius) Hochstetter var. **hindustanicus** Jain & Deshpande (*Arthraxon microphyllus* var. *hindustanicus* (Jain & Deshpande) S.M. Almeida & M.R. Almeida)

India. See *Flora* 39: 189. 1856 and *Journal of the Indian Botanical Society* 51: 176, t. 8. 1972, *Journal of the Bombay Natural History Society* 82(2): 445. 1985.

**A. micans** (Nees) Hochstetter (*Alectoridia quartiniana* A. Rich.; *Andropogon alectoridia* A. Rich. ex Steud.; *Andropogon micans* (Nees) Steud.; *Andropogon quartinianus* A. Rich.; *Arthraxon ciliare* subsp. *quartinianus* (A. Rich.) Hack.; *Arthraxon ciliare* var. *coloratus* (Hochst.) Hack.; *Arthraxon ciliare* var. *quartinianus* (A. Rich.) Hack.; *Arthraxon coloratus* Hochst.; *Arthraxon cuspidatus* var. *micans* (Nees) Hack.; *Arthraxon hispidus* f. *quartinianus* (A. Rich.) Backh.; *Arthraxon hispidus* var. *hispidus*; *Arthraxon major* (Hochst. ex Steud.) Hochst.; *Arthraxon micans* (Nees) Franch.; *Arthraxon quartinianus* (A. Rich.) Nash; *Batratherum micans* Nees; *Lucaea major* Hochst. ex Steud.; *Pleuroplitis major* (Hochst. ex Steud.) Regel; *Pleuroplitis quartiniana* (A. Rich.) Regel; *Pleuroplitis*

*quartiniana* var. *caespitosa* Regel; *Pleuroplitis quartiniana* var. *tenella* Regel)

Africa, India. Annual, decumbent, wiry, slender, trailing, shortly stoloniferous, flexuous racemes, pedice reduced, sessile spikelet narrowly lanceolate, 2 stamens, pedicelled spikelet absent, thicket forming, cattle fodder, a weed of cultivation, rocky outcrops, woodland, grassland, along water courses, upland evergreen forests, along roadsides, see *Edinburgh New Philosophical Journal* 18: 182-183. 1835, *Tentamen Florae Abyssinicae ...* 2: 448, 469, t. 102. 1850, *Synopsis Plantarum Glumacearum* 1: 382-383, 414. 1854, *Flora* 39: 188. 1856, *Bulletin de l'Académie Impériale des Sciences de St-Petersbourg* 10: 370, 377. 1866, *Nouvelles archives du muséum d'histoire naturelle, sér. 2*, 10: 109. 1887, *Monographiae Phanerogamarum* 6: 353, 356-357. 1889 and *Botanical Magazine* 26(307): 214. 1912, *North American Flora* 17(2): 99. 1912, *Handboek voor de Flora van Java* 2: 75. 1928, *Blumea* 27(1): 255-300. 1981.

in Sierra Leone: tamedí sakena

**A. microphyllus** (Trinius) Hochstetter (*Andropogon lancifolius* Trin.; *Andropogon microphyllus* Trin.; *Arthraxon lancifolius* (Trin.) Hochst.; *Arthraxon lancifolius* f. *genuinus* Backh.; *Arthraxon lancifolius* var. *microphyllus* (Trin.) Kuntze; *Arthraxon microphyllus* var. *genuinus* Hack.; *Arthraxon sikkimensis* Bor; *Batratherum molle* var. *parvulum* Nees; *Pleuroplitis microphylla* (Trin.) Regel)

India. Slender, tufted, annual, lower glume of sessile spikelets grooved, used as cattle fodder, see *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles* 2(4): 271, 275. 1832, *Edinburgh New Philosophical Journal* 18: 182. 1835, *Flora* 39: 188-189. 1856, *Monographiae Phanerogamarum* 6: 351. 1889 and *Kew Bulletin* 1951: 447. 1952, *Blumea* 27: 292. 1981.

**A. prionodes** (Steud.) Dandy (*Andropogon prionodes* Steud.; *Andropogon serrulatus* A. Rich., nom. illeg., non *Andropogon serrulatus* Link; *Arthraxon lanceolatus* f. *glaberrimus* Chiov.; *Arthraxon lanceolatus* f. *puberulus* Chiov.; *Arthraxon lanceolatus* subvar. *serrulatus* Hack.; *Arthraxon lanceolatus* var. *lanceolatus*; *Arthraxon lanceolatus* var. *serrulatus* (Hack.) T. Durand & Schinz; *Arthraxon lanceolatus* var. *serrulatus* (Hack.) Fiori, nom. illeg., non *Arthraxon lanceolatus* var. *serrulatus* (Hack.) T. Durand & Schinz; *Arthraxon serrulatus* Hochst.; *Batratherum serrulatum* Hochst. ex A. Rich.) (Greek *prion* "a saw")

Tropical East Africa, Ethiopia, Yemen, India, China, Thailand. Perennial, wiry, straggling, tufted to loosely tufted, ascending, knotty base, shortly rhizomatous, leaves acuminate with a fine point, racemes with villous internodes, spikelets always paired, sessile spikelet linear to lanceolate, lower glume papery and convex, pedicelled spikelet lanceolate to narrowly lanceolate, 3 stamens, found among

rocks, cliffs, damp places, scrubby hillsides, eroded hillsides, steep rocky slopes, often in partial shade, see *Hortus Regius Botanicus Berolinensis* 1: 241. 1827, *Tentamen Florae Abyssinicae ...* 2: 458. 1850, *Synopsis Plantarum Glumacearum* 1: 383. 1854, *Flora* 39: 188. 1856, *Monographiae Phanerogamarum* 6: 348. 1889, *Conspectus florae Africae*, ou, Enumération des plantes d'Afrique. 5: 704. Bruxelles (Jardin botanique de l'État), Berlin (R. Friedlaender & Sohn), Paris (Paul Klincksieck) 1895-1898 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 278. 1908, *Blumea* 27: 292. 1981.

**A. raizadae** Jain, Hemadri & Deshpande (*Arthraxon lanceolatus* var. *raizadae* (Jain, Hemadri & Deshpande) Welzen)

India, Maharashtra. See *Journal of the Indian Botanical Society* 51: 103, 180, t. 21. 1972, *Blumea* 27(1): 287, f. 11A, Map 3. 1981.

**A. submuticus** (Nees ex Steud.) Hochst. (*Andropogon submuticus* Nees ex Steud.; *Arthraxon ciliare* subsp. *submuticus* (Nees ex Steud.) Hack.; *Arthraxon ciliaris* subsp. *submuticus* (Nees ex Steud.) Hack.; *Arthraxon cryptatherus* subsp. *submuticus* (Nees ex Steud.) Koidz.; *Batratherum submuticum* (Nees ex Steud.) Nees ex Steud.; *Batratherum submuticum* (Nees ex Steud.) Nees ex W. Watson)

India, Nepal. Spikelets awnless, see *Synopsis Plantarum Glumacearum* 1: 382. 1854, *Flora* 39: 188. 1856, *Monographiae Phanerogamarum* 6: 356. 1889 and *Botanical Magazine* (Tokyo) 39: 301. 1925.

**A. villosus** C.E.C. Fisch. (*Arthraxon lanceolatus* var. *villosus* (C.E.C. Fisch.) Welzen)

India. See *Bulletin of Miscellaneous Information Kew* 1933: 350. 1933, *Blumea* 27(1): 288. 1981.

**Arthrochlaena Benth.** = *Arthrochlaena* Boiv. ex Benth., *Sclerodactylon* Stapf

From the Greek *arthron* "a joint" and *chlaena*, *chlaenion* "cloak, blanket."

Eragrostideae, see *Journal of the Linnean Society, Botany* 19: 107. 1881 and *Bulletin of Miscellaneous Information Kew* 1911: 318. 1911.

**Arthrochloa J.W. Lorch** = *Acrachne* Wight and Arn. ex Chiov., *Normanboria* Butzin

Greek *arthron* "a joint" and *chloe*, *chloa* "grass."

Chloridoideae, Cynodonteae, or Chloridoideae, Eragrostideae, Eleusininae, type *Arthrochloa henrardiana* (Bor) Lorch, see *Annuario del Reale Istituto Botanico di Roma* 8(3): 361-362. 1908, *Blumea, Supplement* 3: 44. 1946, *Journal of the Indian Botanical Society* 39(3): 490, f. 1-5. 1960,

*Taxon* 27(2-3): 301. 1978, *Kew Bulletin* 37(1): 158-159. 1982, *Journal of Cytology and Genetics* 25: 322-323. 1990.

**Arthrochloa R. Br.** = *Arthrochloa* Schult.,  
*Holcus* L.

Greek *arthron* “a joint” and *chloe*, *chloa* “grass.”

Pooideae, Poaceae, Holcinae, see *Species Plantarum* 2: 1047-1048. 1753, *Chloris Melvilliana* 35. 1823, *Mantissa* 2: 524. 1827 and *Annuario del Reale Istituto Botanico di Roma* 8(3): 361-362. 1908, *Blumea, Supplement* 3: 44. 1946, *J. Indian Bot. Soc.* 39: 490. 1960, *Taxon* 27(2-3): 301. 1978, *Contributions from the United States National Herbarium* 48: 387-388. 2003.

**Arthrochortus Lowe** = *Lolium* L.

From the Greek *arthron* “a joint” and *chortos* “green herbage, grass.”

Pooideae, Poaceae, Loliinae, type *Arthrochortus loliaceus* Lowe, see *Species Plantarum* 1: 83. 1753, *Hooker's Journal of Botany and Kew Garden Miscellany* 8: 301. 1856 and *Techn. Bull. U.S.D.A.* 1392: 7. 1968, *Contributions from the United States National Herbarium* 48: 426-431. 2003.

**Arthrolophis (Trin.) Chiov.** = *Andropogon* L., *Arthrolophis* Chiov.

From the Greek *arthron* “a joint” and *lophos* “a crest, back of the neck, ridge, tuft.”

Panicoideae, Andropogoneae, Andropogoninae, see *Flora Indica; or Descriptions ...* 1: 277. 1820 and *Bollettino Società Botanica Italiana* 1917(6-7): 57, 59. 1917, *Contributions from the United States National Herbarium* 46: 20-64. 2003.

**Arthropogon Nees** = *Achlaena* Griseb.

From the Greek *arthron* “a joint” and *pogon* “beard.”

About 5-7 species, West Indies, Brazil, Bolivia. Panicoideae, Paniceae, Arthropogoninae, or Panicoideae, Panicoideae, Paniceae (Arthropogoneae), perennial, herbaceous, tufted, narrow leaf blades, ligule fringed, plants bisexual, inflorescence a panicle with ascending branches or spicate and not branching, 2- to 3-awned, spikelets with bearded callus, 2 glumes unequal, lower glume linear to awnlike, upper glume coriaceous, lower lemma awned or not, palea present or absent, 2 lodicules, 3 stamens, ovary glabrous, 2 stigmas, savannahs, type *Arthropogon villosus* Nees, see *Flora Brasiliensis seu Enumeratio Plantarum* 319. 1829, *Catalogus plantarum cubensium ...* 228-229. 1866 and

*Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 69: 418. 1939, *Willdenowia* 6(3): 515-516. 1972, *Bradea (Bol. do Herbarium Bradeanum)* 3(36): 303-322. 1982, *Am. J. Bot.* 88: 1988-1992, 1993-2012. 2001, *Ann. Missouri Bot. Gard.* 88: 351-372. 2001, *Contributions from the United States National Herbarium* 46: 13, 110-111. 2003, *Am. J. Bot.* 90: 796-821. 2003.

**Species**

*A. fitifolius* Filg.

Brazil. Leaf blades cylindrical, upper glume apex entire.

*A. lanceolatus* Filg. (*Canastra lanceolata* (Filg.) Morrone & al.)

Brazil. Erroneously placed within this genus, now reclassified in the genus *Canastra*, see *Novon* 11(4): 429. 2001.

*A. scaber* Pilg. & Kuhl. (*Altoparadisium scabrum* (Pilg. & Kuhl.) Pilg. & al.; *Arthropogon bolivianus* Filg.; *Arthropogon scaber* Kuhl. & Pilg., nom. illeg., non *Arthropogon scaber* Pilg. & Kuhl.)

Brazil, Bolivia. Panicle narrowly elliptic, species transferred to the new genus *Altoparadisium*, see *Comissão de Linhas Telegraficas Estratégicas de Matto-Grosso ao Amazonas, Botanica* 67(Bot. 11): 37-38, t. 2. 1922, *Revista do Museu Paulista. Universidade de São Paulo* 13: 1249. 1922, *Brittonia* 38(1): 71, f. 1G. 1986, *Annals of the Missouri Botanical Garden* 88(2): 366, f. 7. 2001.

*A. villosus* Nees (*Arthropogon villosus* var. *glabrescens* S. Moore; *Deyeuxia brasiliensis* Spreng. ex Steud.; *Eutriana villosa* Steud.)

Central and southern Brazil. Erect, inflorescence a pyramidal panicle with ascending branches, spikelets 2-awned, lower lemma mucous, palatable, see *Flora Brasiliensis seu Enumeratio Plantarum* 2(1): 320. 1829, *Nomenclator Botanicus. Editio secunda* 1: 497, 620. 1840, *Transactions of the Linnean Society of London, Botany* 4: 508. 1895.

*A. xerachne* Ekman

Brazil. Inflorescence spicate, spikelets 3-awned, upper glume deeply bifid, lower lemma awned, see *Arkiv för Botanik utgivet av K. Svenska Vetenskapsakademien* 10(17): 9, t. 1, f. 4, t. 6, f. 4. 1911.

**Arthrostachya Link** = *Gaudinia* P. Beauv.

From the Greek *arthron* “a joint” and *stachys* “a spike.”

Pooideae, Pooideae, Aveneae, or Pooideae, Poaceae, Aveninae, type *Arthrostachya coarctata* Link, see *Essai d'une Nouvelle Agrostographie* 95, 153, 164. 1812, *Hortus Regius Botanicus Berolinensis* 1: 151. 1827 and *Contr. U.S. Natl. Herb.* 24: 192. 1925, *Contributions from the United States National Herbarium* 48: 370. 2003.

**Arthrostachys Desv.** = *Andropogon* L.

From the Greek *arthron* “a joint” and *stachys* “a spike.”

Panicoideae, Andropogoneae, Andropogoninae, type *Arthrostachys gracilis* Desv., see *Species Plantarum* 2: 1045. 1753, *Mémoires de la Société d'Agriculture, Sciences et Arts d'Angers* 1: 178, t. 9, f. 2. 1831 and *Fl. Trop. E. Afr. Gramineae* 770. 1982, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 46: 20-64. 2003.

**Arthrostylidium Rupr.**

From the Greek *arthron* “joint” and *stylidium* “a small pillar.”

About 20-32 species, tropical America, West Indies to Brazil, Caribbean Islands, Central and South America. Bambusoideae, Bambuseae, Arthrostylidiinae, or Bambusoideae, Bambusodae, Bambuseae, perennial, tufted, sympodial, woody, unarmed, scrambler or climber, viny or subviny, scandent or clambering, persistent, thick-walled, leaf blades pseudopetiolate, internodes cylindrical, 3-many branches per node, short auricular bristles around sheath margin, triangular meristem above node wanting, rhizomes pachymorph, plants bisexual, inflorescence a slender raceme, rachis zig-zag, spikelets solitary, lowermost floret usually sterile, glumes 1-3 unequal, palea present, 3 free lodicules, 3 stamens, ovary glabrous, 2 stigmas, forest, cloud-forest, wet places, along streams, primary forest, slopes, undergrowth, seasonally flooded areas, in moist forest, related to *Rhipidocladum* and *Merostachys*, type *Arthrostylidium cubense* Rupr., see *Bambuseae* 27-28, t. 4, f. 13. 1839, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 3: 117. 1840 and *Contr. U.S. Natl. Herb.* 24: 307. 1927, *Man. Grass. West Indies* 15-21. 1936, *Smithsonian Contributions to Botany* 9: 1-148. 1973, *Annals of the Missouri Botanical Garden* 72(4): 864-873. 1985, *Acta Botanica Cubana* 37: 1-7. 1987, *Novon* 2(2): 81-110. 1992, *Systematic Botany* 18(1): 80-99. 1993, *Flora Mesoamericana* 6: 197-198. 1994, *American Bamboos* 154-159. 1999, *Contributions from the United States National Herbarium* 39: 13-17. 2000.

**Species*****A. angustifolium* Nash**

Cuba. Climbing, short racemes on a central axis, see *Torreya* 3(11): 172. 1903, *Acta Botanica Cubana* 37: 1-7. 1987.

***A. auriculatum* Londoño & L.G. Clark**

Colombia. See *Novon* 8(4): 410, f. 1. 1998.

***A. banoense* Cat. Guerra**

The Caribbean. See *Acta Botanica Cubana* 37: 6. 1987.

***A. canaliculatum* Renvoize**

Bolivia. See *Gram. Bolivia* 33, f. 3. 1998.

***A. chiribiquetensis* Londoño & L.G. Clark**

Colombia. See *Novon* 8(4): 412, f. 2. 1998.

***A. cubense* Rupr. (*Arundinaria cubense* (Rupr.) Hack., also *cubensis*)**

Cuba. On cliffs, see *Bambuseae* 28, t. 4, f. 13. 1839 and *Oesterr. Bot. Z.* 53: 69. 1903, *Acta Botanica Cubana* 37: 1-7. 1987.

***A. distichum* Pilger**

The Caribbean. Montane, see *Symb. Antill.* 2: 342. 1901, *Acta Botanica Cubana* 37: 1-7. 1987.

***A. ecuadorensis* Judz. & L.G. Clark**

Ecuador, Colombia. Scandent, see *Syst. Bot.* 18(1): 82, f. 1. 1993.

***A. ekmanii* Hitchc.**

The Caribbean. See *Man. Grasses W. Indies* 16. 1936.

***A. excelsum* Griseb. (*Arundinaria excelsa* (Griseb.) Hack.)**

The Caribbean, Guatemala, Mexico, Honduras, Panama, Nicaragua. Wet forests, shade, see *Fl. Brit. West Indies* 529. 1864 and *Oesterr. Bot. Z.* 53: 69. 1903.

***A. farctum* (Aubl.) Soderstr. & Lourteig (*Arthrostylidium capillifolium* Griseb.; *Arthrostylidium pinifolium* Cat. Guerra; *Arundinaria capillifolia* (Griseb.) Hack.; *Arundo farcta* Aubl.; *Calamagrostis farcta* J.F. Gmel.)**

The Caribbean, West Indies. Filiform leaf-blades, sometimes only 1-3 spikelets, slopes, thickets, dry places, see *Familles des Plantes* 2: 31, 530. 1763, *Histoire des plantes de la Guiane Française* 1: 52. 1775, *Systema Naturae ... editio decima tertia, aucta, reformata* 2: 172. 1791, *Bambuseae* 27. 1839, *Mem. Amer. Acad. Arts, n.s.*, 8: 531. 1862 and *Oesterr. Bot. Z.* 53: 69. 1903, *Phytologia* 64(2): 163. 1987.

in Bolivia: siqinqa, siwinqa

***A. fimbriatum* Griseb. (*Arundinaria fimbriata* (Griseb.) Hack.)**

The Caribbean. Rocky places, mountains, see *Mem. Amer. Acad. Arts, n.s.*, 8: 531. 1862 and *Acta Botanica Cubana* 37: 1-7. 1987.

***A. fimbrinodum* Judz. & L.G. Clark (*Arthrostylidium fimbrinodum* Judz. & L.G. Clark ex Judz.)**

Brazil, Amazonian regions. Arching and hanging, erect, scandent, trailing, climbing, see *Ann. Missouri Bot. Gard.* 79(1): 170. 1992, *Syst. Bot.* 18(1): 84, f. 2. 1993.

***A. grandifolium* Judz. & L.G. Clark**

Brazil. More or less scandent, see *Syst. Bot.* 18(1): 88, f. 3. 1993.

in Brazil: taboquinha folha larga



**A. haitiense** (Pilg.) Hitchc. & Chase (*Arundinaria haitiensis* Pilg., also *haitiense*)

The Caribbean. Climbing, montane, see *Contr. U.S. Natl. Herb.* 18(7): 399. 1917.

**A. judziewiczii** Davidse

Costa Rica, Panama. Slender, scandent, primary forest, see *Novon* 2(2): 81-110. 1992.

**A. longiflorum** Munro (*Arundinaria longiflora* (Munro) Hack.; *Guadua exaltata* Döll)

Venezuela. Coastal, see *Trans. Linn. Soc. London* 26(1): 41, t. 1. 1868, *Fl. Bras.* 2(3): 181. 1880 and *Oesterr. Bot. Z.* 53: 69. 1903, *Systematic Botany* 18(1): 80-99. 1993.

**A. merostachyoides** R.W. Pohl (*Merostachys glabra* Pohl)

Costa Rica. Arching, see *Novon* 2(2): 83, f. 1. 1992.

**A. multispicatum** Pilger (*Arundinaria multispicata* (Pilg.) Hack.)

The Caribbean, Uruguay. Mountain forests, see *Symb. Antill.* 2: 340. 1901, *Oesterr. Bot. Z.* 53: 69. 1903, *Acta Botanica Cubana* 37: 1-7. 1987.

**A. obtusatum** Pilger (*Arundinaria obtusata* (Pilg.) Hack.)

The Caribbean. See *Symb. Antill.* 2: 340. 1901, *Oesterr. Bot. Z.* 53: 69. 1903, *Flora of the Lesser Antilles. Leeward and Windward Islands* 3: 25-220. 1979.

**A. pinifolium** Cat. Guerra

The Caribbean. Mountainous pine forests, see *Acta Botanica Cubana* 4: 4. 1980, *Acta Botanica Cubana* 37: 1-7. 1987.

**A. pubescens** Rupr. (*Arundinaria pubescens* (Rupr.) Hack.)

Colombia, Venezuela, the Caribbean. Erect, scandent, scrambling, montane, forests, see *Bambuseae* 29, t. 4. 1839, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 3: 119. 1840 and *Oesterr. Bot. Z.* 53: 69. 1903, *Acta Botanica Cubana* 37: 1-7. 1987, *Systematic Botany* 18(1): 80-99. 1993.

**A. punctulatum** Londoño & L.G. Clark

Colombia. See *Novon* 8(4): 415, f. 3. 1998.

**A. reflexum** Hitchc. & Ekman

The Caribbean. Climbing, forming dense thickets, on cliffs, see *Man. Grasses W. Indies* 19. 1936.

**A. sarmentosum** Pilger

The Caribbean, Venezuela. Climbing, found along streams, wet forests, see *Symb. Antill.* 4: 108. 1903, *Flora of Puerto Rico and Adjacent Islands: A Systematic Synopsis.* 1982, *J. Amer. Bamb. Soc.* 5(3-4): 69, f. 1a. 1984[1986], *Systematic Botany* 18(1): 90. 1993.

**A. scandens** McClure (*Arthrostylidium cacuminis* McClure)

Venezuela, Amazonas, Guyana. Erect, scandent, arching, climbing, decumbent, rooting at the lower nodes, woody, internodes hollow, loosely clumped, rhizomes sympodial, erect spicate racemes, 3-5-flowered, the lowest and uppermost florets sterile, forming extensive and dense thickets, in moist areas, forests, along streams and rivers, see *New York Bot. Gard.* 10(5): 3-4. 1964, *Systematic Botany* 18(1): 80-99. 1993.

in Venezuela: debeuni

**A. schomburgkii** (Benn.) Munro (*Arundinaria schomburgkii* Benn.)

(for the German (b. Freiburg) botanist Sir Robert Hermann Schomburgk, 1804-1865 (d. Berlin), traveler, explorer, in British Guiana (with his brother Richard), plant collector in Siam and Venezuela, 1844 knighted, 1859 Fellow of the Royal Society, British Consul in Santo Domingo and Bangkok, sent plants to Reichenbach, his writings include *A Description of British Guiana.* London 1840, *Reisen in Guayana u. am Orinoko.* Leipzig 1845, *The Natural History of the Fishes of Guiana.* 1841-1843 and *The History of Barbados.* London 1848, brother of the German botanist and explorer Moritz Richard Schomburgk (1811-1891); see A. Lasègue, *Musée botanique de Benjamin Delessert.* 216-219. 1845; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen.* 14. Aufl. 776. 1993; J.H. Barnhart, *Biographical notes upon botanists.* 3: 238. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection.* 354. 1972; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey.* Library of the New York Botanical Garden. 361. 1973; Ida Kaplan Langman, *A Selected Guide to the Literature on the Flowering Plants of Mexico.* 1964; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University.* Cambridge, Mass. 1917-1933; J.W. Harshberger, *The Botanists of Philadelphia and Their Work.* 190. 1899; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists.* 612. 1994; Georg Christian Wittstein, *Etymologisch-botanisches Handwörterbuch.* 796. 1852; G. Murray, *History of the collections contained in the Natural History Departments of the British Museum.* 1: 181. 1904; Henri Pittier, *Manual de las Plantas Usuales de Venezuela y su Suplemento.* Caracas 1978; J.D. Milner, *Catalogue of Portraits of Botanists Exhibited in the Museums of the Royal Botanic Gardens.* Royal Botanic Gardens, Kew, London 1906; D.J. Carr and S.G.M. Carr, eds., *People and Plants in Australia.* 1981; Stafleu & Cowan, *Taxonomic literature.* 5: 295-301. 1985)

South America, Venezuela, Amazonas. Long culm internodes, cloud forest, see *Proceedings of the Linnean Society of London* 1: 51. 1840, *Transactions of the Linnean Society of London* 18(4): 562. 1841, *Transactions of the Linnean Society of London* 26(1): 41. 1868 and *Mem. New York Bot.*

*Gard.* 10(5): 2-3. 1964, *Annals and Mag. of Natural History* 30(1): 15. London 1981, *Systematic Botany* 18(1): 93. 1993.

in Venezuela; curatas, curas

**A. simpliciusculum** (Pilger) McClure (*Arundinaria simpliciuscula* Pilger)

Brazil, Colombia, Ecuador, Peru. Erect, scandent, along streams, forest margins, see *Bot. Jahrb. Syst.* 56(Beib. 123): 29. 1920, *Ruizia* 13: 1-480. 1993, *Systematic Botany* 18(1): 95. 1993.

**A. urbanii** Pilger (*Arundinaria urbanii* Pilger) (after the German botanist Ignatz Urban, 1848-1931, specialized on the flora of the West Indies, from 1889 professor Botanical Garden and Museum at Berlin-Dahlem, wrote on botanical biography, among his most valuable writings are *Morphologie der Gattung Bauhinia*. 1885, *Geschichte des Königlichen Botanischen Museums zu Berlin-Dahlem (1815-1913). Nebst Aufzählung seiner Sammlungen*. Dresden 1916, *Plantae novae Antillanae*. Berlin 1895 and *Zur Flora Südamerikas*. Halle a.S. 1882, edited *Symbolae Antillanae seu fundamenta florum Indiae occidentalis*. Berolini etc. 1898-1928; see J.H. Barnhart, *Biographical notes upon botanists*. 3: 417. 1965; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 411. 1972; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. 1917-1933; S. Lenley et al., *Catalog of the manuscript and archival collections and index to the correspondence of John Torrey*. Library of the New York Botanical Garden. 418. 1973; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. Stuttgart 1993; Stafleu and Cowan, *Taxonomic literature*. 6: 606-619. 1986)

The Caribbean, Cuba. Montane, savannah, riverbanks, see *Symb. Antill.* 2: 339. 1901, *Oesterr. Bot. Z.* 53: 69. 1903, *Systematic Botany* 18(1): 80-99. 1993.

**A. venezuelae** (Steud.) McClure (*Arundinaria standleyi* Hitchc.; *Chusquea venezuelae* Steud.)

South and Central America. Erect, scandent, caespitose, woody, solid, aromatic, fodder, used for making baskets, found in wet forests, closely related to *Arthrostylidium excelsum* Griseb. and *Arthrostylidium pubescens* Rupr., see *Syn. Pl. Glumac.* 1: 337. 1854, *Trans. Linn. Soc. London* 26: 55. 1868 and *Proc. Biol. Soc. Wash.* 40: 79. 1927, *Journal Washington Academy of Sciences* 32(6): 172. 1942, *Smithsonian Contr. Bot.* 9: 21. 1973, *Annals of the Missouri Botanical Garden* 74(2): 424-428. 1987, *Systematic Botany* 18(1): 96. 1993.

in Venezuela: lata

**A. virolinensis** Londoño & L.G. Clark

Colombia. See *Novon* 8(4): 417, f. 4. 1998.

**A. youngianum** L.G. Clark & Judz. (for Stephen M. Young) Ecuador, Colombia. Erect, scandent, see *Syst. Bot.* 18(1): 98, f. 7. 1993.

in Colombia: tundillas

**Arundarbor Kuntze** = *Bambusa* Schreb.

Latin *arundo*, *dinis* (*harundo*) “a reed, cane” and *arbor* “a tree.”

Bambusoideae, Bambuseae, Bambusinae, type *Arundarbor arundinacea* (Retz.) Kuntze, see *Genera Plantarum* 1: 236. 1789, *Species Plantarum. Editio quarta* 2: 245. 1799, *Revisio Generum Plantarum* 2: 760-761. 1891 and *Contributions from the United States National Herbarium* 39: 29-35. 2000.

**Arundinaria Michaux** = *Bashania* Keng f. & T.P. Yi, *Butania* Keng f., *Clavinodum* T.H. Wen, *Ludolfia* Willd., *Ludolphia* Willd., *Macronax* Raf., *Miegia* Pers., *Nipponocalamus* Nakai, *Oligostachyum* Wang & Ye, *Omeiocalamus* Keng f., *Pleioblastus* Nakai, *Polyanthus* Y.C. Hu, *Triglossum* Roem. & Schult., *Triglossum* F.E.L. Fisch. ex Roem. & Schult., *Tschompskia* Aschers. & Graebn.

From the Latin *arundo*, *dinis* (*harundo*) “a reed, cane”; see André Michaux (1746-1803), *Flora Boreali-Americana* 1: 73. Paris 1803.

Monotypic or about 50/150 species, warm and temperate regions, China, northern India to Japan, North America. Bambusoideae, Bambusodae, Bambuseae, or Bambusoideae, Bambuseae, Arundinariinae, perennial, erect or climbing, unarmed, woody and persistent, slender, reedlike, shrub or small tree, cylindrical, usually not scandent, unicaespitose or pluricaespitose, forming thickets, the main branches dominant, internodes cylindrical, long or short leptomorph rhizomes, rhizomes monopodial or sympodial, flowering culms leafless or leafy, culm internodes hollow, ligule a fringed membrane, plants bisexual, flowering semeluctant, inflorescence a panicle or a raceme, bisexual spikelets, hermaphrodite florets, 1 or 3 very unequal glumes per spikelet, 3-6 stamens, ovary glabrous without the apical appendage, 2 or 3 stigmas, fruit grooved, often cultivated as ornamentals or used in bonsai, widespread in forest, grassland, mountains and high altitudes, *Bashania* Keng f. & Yi, *Fargesia* Franch. and *Pleioblastus* Nakai formerly included in and probable synonyms of *Arundinaria* Michx., type *Arundinaria macrosperma* Michx., see *Gen. Pl.* 786. 1791, *Flora Boreali-Americana*. 1: 73-74. Paris 1803, *Synopsis Plantarum* 1: 101, 102. Paris et Tubingae 1805, *Medical Repository* ser. 2, 5: 353. 1808, *Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der gesammten Naturkunde*. 2: 230, 320. Berlin 1808, *Catalogue du Jardin ... Razoumoffsky ...*

à Gorenki ... 6. 1812, *Systema Vegetabilium* 2: 55, 846. 1817, *The Genera of North American Plants, and Catalogue of the Species, to the Year 1817*. 1: 39. Philadelphia 1818, *Western Review and Miscellaneous Magazine* 1: 93. Lexington, Kentucky 1819, *Transactions of the American Philosophical Society, new series*, 5: 149. 1837, *Transactions of the Linnean Society of London* 26(1): 15. 1868, *Bulletin de la Société Nationale d'Acclimatation de France*, sér. 3, 5: 774, f. 43-50. 1878, J. Mooney, *Myths of the Cherokee and Sacred Formulas of the Cherokee*. 1889 [Reprint, Nashville, Tenn., Charles Elder, 1972] and *Synopsis der mitteleuropäischen Flora* 2, 1: 772. 1902, *Journal of the Arnold Arboretum* 6(3): 145-153. 1925, *Acta Phytotax. Geobot.* 10(4): 264. 1941, *Journal of Japanese Botany* 18(7): 350, 364. 1942, *Taxon* 6(7): 207. 1957, *Smithsonian Contributions to Botany* 9: 1-148. 1973, *Acta Phytotaxonomica et Geobotanica* 30(4-6): 145. 1979, *Ann. Bot.* 48: 407-410. 1981, *Journal of Bamboo Research* 1(2): 38, 42, 171, 175. 1982, *Journal Nanjing University. Natural Sciences Edition* 1982: 95. 1982, *Journal of Bamboo Research* 2: 20. 1983, *Journal of Bamboo Research* 3(2): 23, 25, t. 1. 1984, W.D. Clayton & S.A. Renvoize "Genera graminum." *Kew Bulletin, Additional Series* 13: 45-46. 1986, *Smithsonian Contr. Botany* 72: 1-75. 1988, *Kew Bulletin* 44(2): 349-367. 1989, *Journal of Bamboo Research* 10(3): 28-30. 1991, *J. Bamb. Res.* 12(4): 1-6. 1993, *J. Bamb. Res.* 13(1): 1-23. 1994, *Castanea* 62: 8-21. 1997, *American Bamboos* 195-198. 1999, *Oryx* 33(4): 301-322. Oct 1999, *Restoration Ecology* 7(4): 348-359. Dec 1999, *Contributions from the United States National Herbarium* 39: 18-24, 68-69, 71, 75-76, 81, 106, 116. 2000, *African Journal of Ecology* 38(2): 123-129. June 2000, *African Journal of Ecology* 38(4): 369-371. Dec 2000, Gregory A. Carter and Alan K. Knapp, "Leaf optical properties in higher plants: linking spectral characteristics to stress and chlorophyll concentration." *Am. J. Bot.* 88: 677-684. 2001, *Oryx* 35(3): 250-259. July 2001, *African Journal of Ecology* 39(4): 366-373. Dec 2001, Sandra S. Aliscioni, Liliana M. Giussani, Fernando O. Zuloaga and Elizabeth A. Kellogg, "A molecular phylogeny of *Panicum* (Poaceae: Paniceae): tests of monophyly and phylogenetic placement within the Panicoideae." *Am. J. Bot.* 90: 796-821. 2003, *Journal of Biogeography* 31(2): 225-239. Feb 2004, Chris Carpenter, "The environmental control of plant species density on a Himalayan elevation gradient." *Journal of Biogeography* 32(6): 999-1018. June 2005.

### Species

**A. alpina** K. Schum. (*Sinarundinaria alpina* (K. Schum.) C.S. Chao & Renvoize; *Yushania alpina* (K. Schum.) W.C. Lin)

Kenya, Tanzania. Robust, hollow-stemmed, thick-walled, erect, rhizomes woody, leaf blades linear-lanceolate, culm sheaths densely pubescent, inflorescence paniculate,

spikelets 4- to 11-flowered, glumes ovate, lemmas pubescent and acuminate, forming extensive clumps, cultivated, growing gregariously, used for water piping, for hut building, found in montane forest, see *Bulletin of the Taiwan Forest Research Institute* 248: 14. 1974, *Kew Bulletin* 44(2): 361. 1989, Ib Friis, *Forests and Forest Trees of Northeast Tropical Africa: Their Natural Habitats and Distribution Patterns in Ethiopia, Djibouti and Somalia*. London: HMSO 1992.

in English: Green Mountain bamboo, mountain bamboo

in Burundi: umugano

in Kenya: murangi, ol-diani, terga, tegundet, tegat, mwanzi

in Malawi: mlasi, lulasi, musyombe, nsungwi

**A. amabilis** McClure (*Pseudosasa amabilis* (McClure) Keng f. 1957; *Pseudosasa amabilis* (McClure) Keng f. 1959, nom. illeg., non *Pseudosasa amabilis* (McClure) Keng f. 1957; *Pseudosasa amabilis* var. *amabilis*)

Asia, China. See *Lingnan Science Journal* 10(1): 6, t. 1-8. 1931, *Lingnan Sci. J.* 13: 503. 1934.

**A. anceps** Mitford (*Sinarundinaria anceps* (Mitford) C.S. Chao & Renvoize; *Yushania anceps* (Mitford) W.C. Lin)

Southeast U.S. A running bamboo, see *The Bamboo Garden* 181. 1896 and *Bulletin of the Taiwan Forest Research Institute* 248: 9. 1974, *Kew Bulletin* 44(2): 359. 1989.

in English: Mitford bamboo

**A. basigibbosa** McClure

China. Often cultivated, see *Lingnan University Science Bulletin* 9: 1. 1940.

**A. chino** (Franch. & Sav.) Makino (*Arundinaria laydekeri* Bean ex Vilm.; *Arundinaria simonii* var. *chino* (Franch. & Sav.) Makino; *Bambusa chino* Franch. & Sav.; *Pleioblastus chino* (Franch. & Sav.) Makino; *Pleioblastus maximowiczii* var. *chino* (Franch. & Sav.) Nakai)

Japan, Asia temperate. Perennial, ornamental, see *Botanical Magazine (Tokyo)* 14(161): 98. 1900, *Bulletin de la Société Dendrologique de France* 12: 80. 1909, *Botanical Magazine (Tokyo)* 26(300): 14. 1912, *Journal of Japanese Botany* 3(6): 23. 1926.

**A. chino** (Franch. & Sav.) Makino f. **angustifolia** (Mitford) C.S. Chao & Renvoize (*Arundinaria angustifolia* (Mitford) J. Houz.; *Bambusa angustifolia* Mitford; *Pleioblastus angustifolius* (Mitford) Nakai; *Pleioblastus chino* f. *angustifolia* (Mitford) Muroi; *Pleioblastus chino* f. *angustifolius* (Mitford) Muroi & H. Okamura)

Japan, Asia temperate. Cultivated, see *The Bamboo Garden* 46: 547. 1894 and *Journal of Japanese Botany* 10(5): 294. 1934, *Kew Bulletin* 44(2): 368. 1989.

**A. chrysantha** Mitford (*Arundinaria chrysantha* Mitford ex Bean; *Pleioblastus chrysanthus* (Mitford) D.C. McClint.; *Pleioblastus chrysanthus* (Mitford ex Bean) D.C. McClint.;

*Sasa chrysantha* (Mitford) E.G. Camus; *Sasa chrysantha* (Mitford ex Bean) E.G. Camus)

Presumably from Japan. See *Gardener's Chronicle & Agricultural Gazette* 15: 238. 1894 and *Les Bambusées* 23. 1913, *Plantsman* 4(3): 191. 1982.

**A. debilis** Thwaites (*Indocalamus debilis* (Thw.) Alston; *Sinarundinaria debilis* (Thwaites) C.S. Chao & Renvoize)

Sri Lanka. Scandent, vinelike, delicate, thin-walled, spreading, leaves linear to linear-lanceolate, 2 glumes early deciduous and papery, the branches hang from small trees, sympodial pachymorph rhizome, culm leaves tardily deciduous, 3 stamens, 2 plumose stigmas, cattle fodder, sometimes excluded from *Indocalamus* and *Arundinaria*, see *Enum. Pl. Zeyl.* 375. 1864, *Trans. Linn. Soc. London* 26: 24-25. 1868, *For. Man.* 230-233. 1873, *Ann. Roy. Bot. Gard. (Calcutta)* 7(1): 8, pl. 6. 1896 and *Handb. Fl. Ceylon* 5: 311-312. 1900, *Bambus.* 30, pl. 12. 1913, *Handb. Fl. Ceylon* 6: 341-342. 1931, *Grasses of Ceylon* 30-31. 1956, *Smithsonian Contr. Bot.* 72: 3. 1988, *Kew Bulletin* 44(2): 355. 1989.

**A. decalvata** Döll

Brazil. See *Fl. Brasil.* 2, 3: 170. 1880.

**A. densifolia** Munro (*Chimonobambusa densifolia* (Munro) Nakai; *Sinarundinaria densifolia* (Munro) C.S. Chao & Renvoize; *Yushania densifolia* (Munro) R.B. Majumdar)

Sri Lanka. Closely packed culms, thin-walled, dense thickets, erect, sympodial pachymorph rhizomes, culm leaves persistent, spikelets with 1 fertile floret, rhizomes with air cavities, 2 glumes, 3 stamens, 2 plumose stigmas, this bamboo grows in standing water, bogs, wet patanas, see *Transactions of the Linnean Society of London* 26(1): 32. 1868, *Fl. Brit. Ind.* 7: 379. 1896, *Ann. Roy. Bot. Gard. (Calcutta)* 7(1): 8-9, pl. 7. 1896 and *Handb. Fl. Ceylon* 5: 312. 1900, *Indian Trees* 664. 1906, *Bambus.* 31, pl. 21c. 1913, *Journal of the Arnold Arboretum* 6: 151. 1925, *Handb. Fl. Ceylon* 6: 342. 1931, *Grasses of Ceylon* 31. 1956, *Smithsonian Contr. Bot.* 72: 12. 1988, *Kew Bulletin* 44(2): 354. 1989.

**A. flabellata** (Fournier ex Hemsley) McClure (*Guadua flabellata* Fournier ex Hemsley)

Mexico. Sometimes excluded from *Arundinaria*, see *Biol. Centr.-Amer.* 3: 588. 1885, *Mexic. Pl.* 2: 131. 1886 and *Bamb.* 114. 1913, *Phytologia* 10(2): 162. 1964.

**A. floribunda** Thw. (*Indocalamus floribundus* (Thw.) Nakai; *Sinarundinaria floribunda* (Thwaites) C.S. Chao & Renvoize)

Sri Lanka. Shrubby, montane, forming small clumps, erect, sympodial pachymorph rhizomes, roots without air cavities, hollow culms, internodes green, nodes thick, culm leaves deciduous, spikelets with 2-3 fertile florets, 2 glumes, 3 stamens, orange anthers basifixed, see *Enum. Pl. Zeyl.* 375. 1864, *Trans. Linn. Soc. London* 26: 20. 1868, *For. Man.* 230. 1873, *Ann. Roy. Bot. Gard. (Calcutta)* 7(1): 5-6, pl. 3. 1896, *Fl. Brit. Ind.* 7: 377-378. 1896 and *Handb. Fl. Ceylon*

5: 310-311. 1900, *Bambus.* 28-29, pl. 16b. 1913, *Journal of the Arnold Arboretum* 6: 148. 1925, *Handb. Fl. Ceylon* 6: 342. 1931, *Grasses of Ceylon* 30. 1956, *Kew Bulletin* 44(2): 356. 1989.

**A. funghomii** McClure

Eastern Asia. Cultivated, see *Lingnan University Science Bulletin* 9: 3. 1940.

**A. gigantea** (Walter) Muhlenb. (*Arundinaria bambusina* (Fisch.) Trin.; *Arundinaria gigantea* Chapm., nom. illeg., non *Arundinaria gigantea* (Walter) Muhl.; *Arundinaria gigantea* Nutt.; *Arundinaria gigantea* (Walter) Muhlenb. subsp. *tecta* (Walter) McClure; *Arundinaria gigantea* var. *gigantea*; *Arundinaria gigantea* var. *tecta* (Walter) Scribn.; *Arundinaria macrosperma* Michx.; *Arundinaria macrosperma* var. *arborescens* Munro; *Arundinaria macrosperma* var. *suffruticosus* Munro; *Arundinaria macrosperma* var. *tecta* (Walter) Alph. Wood; *Arundinaria tecta* (Walter) Muhlenb.; *Arundinaria tecta* var. *colorata* Rupr.; *Arundinaria tecta* (Walter) Muhlenb. var. *decidua* Beadle; *Arundinaria tecta* var. *distachya* Rupr.; *Arundinaria tecta* var. *pumila* (Nutt.) Rupr.; *Arundo gigantea* Walter; *Arundo tecta* Walter; *Bambusa hermannii* E.G. Camus; *Festuca grandiflora* Lam.; *Ludolfia macrosperma* (Michx.) Willd.; *Miegia arundinacea* Torr. ex Munro; *Miegia arundinaria* Raf.; *Miegia gigantea* (Walter) Nutt.; *Miegia macrosperma* (Michx.) Pers.; *Miegia pumila* Nutt.; *Nastus macrospermus* (Michx.) Raspail; *Triglossum bambusinum* Fisch.)

Northern America, southeast U.S. Perennial, subshrub, shrub, woody, cane, forming large extensive colonies, flowering culms slender, forage, ornamental, used for arrow shafts and baskets, grazed, joints used for making flutes, along the edge of floodplain forest, low alluvial soils, along streams and rivers, along roadside ditch, moist woodlands, along creek, see *Synopsis Plantarum* 1: 101, 102. Paris et Tubingae 1805, *Cat. Pl. Amer. Sept.* 14. 1813, *The Genera of North American Plants, and Catalogue of the Species, to the Year 1817.* 1: 39. Philadelphia 1818, *Western Review and Miscellaneous Magazine* 1: 93. Lexington, Kentucky 1819, *Annales des Sciences Naturelles (Paris)* 5: 442, 458, t. 8, f. 1. 1825, *Transactions of the American Philosophical Society, new series*, 5: 149. 1837, *Transactions of the Linnean Society of London* 26(1): 15. 1868, *Bulletin of the Torrey Botanical Club* 20: 478. 1893 and *Smithsonian Contr. Bot.* 9: 21-40. 1973, Gregory A. Carter and Alan K. Knapp, "Leaf optical properties in higher plants: linking spectral characteristics to stress and chlorophyll concentration." *Am. J. Bot.* 88: 677-684. 2001.

in English: giant cane, switch cane, cane reed, southern cane, canebreak

**A. gigantea** (Walt.) Muhl. subsp. *gigantea* (*Arundinaria gigantea* (Walt.) Muhl. subsp. *macrosperma* (Michx.) McClure; *Arundinaria gigantea* var. *gigantea*; *Arundinaria*

*macrosperma* Michx.; *Bambusa hermannii* E.G. Camus; *Ludolfia macrosperma* (Michx.) Willd.; *Miegia macrosperma* (Michx.) Pers.; *Nastus macrospermus* (Michx.) Raspail)

Northern America, U.S. Perennial, subshrub or shrub, forage, see *Western Review and Miscellaneous Magazine* 1: 93. Lexington, Kentucky 1819, *Annales des Sciences Naturelles (Paris)* 5: 442, 458, t. 8, f. 1. 1825, *Transactions of the American Philosophical Society, new series*, 5: 149. 1837, *Transactions of the Linnean Society of London* 26(1): 15. 1868, *Bulletin of the Torrey Botanical Club* 20: 478. 1893 and *Smithsonian Contr. Bot.* 9: 28. 1973.

in English: giant cane

**A. gigantea** (Walt.) Muhl. subsp. **macrosperma** (Michx.) McClure (*Arundinaria macrosperma* Michx.; *Bambusa hermannii* E.G. Camus; *Ludolfia macrosperma* (Michx.) Willd.; *Miegia macrosperma* (Michx.) Pers.; *Nastus macrospermus* (Michx.) Raspail)

North America. See *Fl. Bor.-Amer.* 1: 74. 1803, *Synopsis Plantarum* 1: 101, 102. Paris et Tubingae 1805, *Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der gesammten Naturkunde.* 2: 320. Berlin 1808 and *Smithsonian Contributions to Botany* 9: 28. 1973.

**A. gigantea** (Walt.) Muhl. subsp. **tecta** (Walt.) McClure (*Arundinaria gigantea* var. **tecta** (Walter) Scribn.; *Arundinaria macrosperma* var. **tecta** (Walter) Alph. Wood; *Arundinaria tecta* (Walt.) Muhl.; *Arundo gigantea* Walt.; *Arundo tecta* Walter; *Ludolfia tecta* (Walter) A. Dietr.)

Northern America, U.S. Perennial, subshrub, shrub, see *Sp. Pl.* 2: 24. 1833, *Bulletin of the Torrey Botanical Club* 20: 478. 1893 and *Smithsonian Contributions to Botany* 9: 26. 1973.

in English: switch cane, small cane

**A. gracilis** Camus

India. Caespitose, green at first turning yellow with age, numerous fasciculate branchlets, inflorescence a divaricate panicle, 2 empty glumes, 3 small lodicules, 3 stamens, 2 stigmas plumose.

**A. graminea** (Bean) Makino (*Arundinaria hindsii* McClure var. **graminea** Bean; *Pleioblastus gramineus* (Bean) Nakai; *Thamnocalamus hindsii* var. **graminea** (Bean) E.G. Camus)

Japan, Asia temperate. Perennial, erect, slender stems, very narrow leaves, sheath blades triangular, forming thickets, rhizomes running, cultivated, hardy, see *Botanical Magazine* (Tokyo) 26(300): 18. 1912, *Journal of the Arnold Arboretum* 6(3): 146. 1925.

**A. hindsii** Munro (*Pleioblastus hindsii* (Munro) Nakai; *Pseudosasa hindsii* (Munro) C.D. Chu & C.S. Chao; *Pseudosasa hindsii* (Munro) S.L. Chen & G.Y. Sheng ex T.G. Liang; *Pseudosasa hindsii* (Munro) C.D. Chu & C.S. Chao) (named for the British naval surgeon Richard Brinsley

Hinds, circa 1812-1847 (d. Perth, Western Australia), plant collector, 1836-1842 attached as surgeon and naturalist to HMS *Sulphur*. See George Bentham, *The Botany of the Voyage of H.M.S. Sulphur, under the Command of Captain Sir Edward Belcher ... during the Years 1836-1842*. [Edited by R.B. Hinds] London 1844[-1846]; *The Zoology of the Voyage of H.M.S. Sulphur, under the Command of Captain Sir Edward Belcher ... during the years 1836-1842*. (Shells, by R.B. Hinds.) [edited by R.B. Hinds] London 1843[-1845]; F.N. Hepper and Fiona Neate, *Plant Collectors in West Africa*. 38. 1971; A. Lasègue, *Musée botanique de Benjamin Delessert*. 329, 386. Paris 1845; J.H. Barnhart, *Biographical notes upon botanists*. 2: 178. 1965; J. Ewan, editor, *A Short History of Botany in the United States*. 116. New York and London 1969; Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker*. 1: 438. London 1918; G.A.C. Herklots, *The Hong Kong Countryside*. 163. Hong Kong 1965)

East Asia, Hong Kong, Japan. Erect, cultivated, dark green at first and later yellow, forming dense thickets, rhizomes running extensively, culm sheath greenish to brownish, sheath auricles tiny, sheath ligule arcuate, sheath blade green, branches more or less erect forming dense clusters, leaves linear-lanceolate, see *Transactions of the Linnean Society of London* 26(1): 31. 1868 and *Journal of the Arnold Arboretum* 6(3): 146. 1925, *Journal of Japanese Botany* 9(4): 236. 1933.

in Japan: kanzan-chiku

**A. humilis** Mitford (*Nipponocalamus humilis* (Mitford) Nakai; *Pleioblastus humilis* (Mitford) Nakai; *Pseudosasa humilis* (Mitford) T.Q. Nguyen; *Sasa humilis* (Mitford) E.G. Camus; *Yushania humilis* (Mitford) W.C. Lin)

Eastern Asia, Japan. See *The Bamboo Garden* 103. 1896 and *Journal of Japanese Botany* 11(1): 2. 1935, *Journal of Japanese Botany* 18: 356. 1942, *Bulletin of the Taiwan Forest Research Institute* 248: 13. 1974.

**A. kokantsik** Kurz

Asia, Indonesia, Java. See *Catalogus Horti Bogoriensis* 1866: 19. 1865.

**A. kumasasa** Kurz

Asia, Indonesia, Java. See *Catalogus Horti Bogoriensis* 1866: 19. 1865.

**A. laydekeri** (Mitford) Hook.f. (*Bambusa laydekeri* Mitford)

Asia. See *Bulletin de la Société Dendrologique de France* 12: 80. 1909.

**A. lima** (McClure) C.D. Chu & C.S. Chao (*Arundinaria nuspacula* (McClure) C.D. Chu & C.S. Chao; *Oligostachyum nuspiculum* (McClure) Z.P. Wang & G.H. Ye; *Semiarundinaria lima* McClure; *Semiarundinaria nuspacula* McClure)

China. See *Lingnan University Science Bulletin* 9: 50. 1940, *Acta Phytotaxonomica Sinica* 18(1): 29. 1980, *Journal Nanjing University. Natural Sciences Edition* 1: 98. 1982.

in English: Hainan bamboo cane

in Chinese: Hai nan qing li zhu

**A. linearis** Hack. (*Arundinaria gozadakensis* (Nakai) Masam.; *Nipponocalamus gozadakensis* (Nakai) Honda; *Pleioblastus gozadakensis* Nakai; *Pleioblastus linearis* (Hack.) Nakai)

Japan. See *Bulletin de l'Herbier Boissier* 7(9): 721. 1899 and *Journal of the Arnold Arboretum* 6(3): 146. 1925, *Journal of Japanese Botany* 11: 4. 1935, *Science Reports of Kanazawa University* 2: 255. 1956.

in Japan: Ryūkyū-chiku

in Okinawa: yanbaru-chiku

**A. maling** Gamble (*Fargesia maling* (Gamble) H. Simon ex D. McClintock; *Sinarundinaria maling* (Gamble) C.S. Chao & Renvoize; *Yushania maling* (Gamble) R.B. Majumdar; *Yushania maling* (Gamble) D.C. McClint. & Stapleton, nom. illeg., non *Yushania maling* (Gamble) R.B. Majumdar; *Yushania maling* (Gamble) Demoly, nom. illeg., non *Yushania maling* (Gamble) R.B. Majumdar)

Asia, India. See *Bulletin of Miscellaneous Information Kew* 1912: 139. 1912, *Kew Bull.* 44: 356. 1989, *Bamboo Soc. Newsl.* 12: 10. 1991.

**A. nagashima** (Lat.-Marl. ex Mitford) Asch. & Graebn. (*Arundinaria nagashima* Mitf.; *Bambusa nagashima* Lat.-Marl. ex Mitford; *Nipponocalamus nagashima* (Marliac ex Mitford) Nakai; *Pleioblastus nagashima* (Lat.-Marl. ex Mitford) Nakai)

Asia temperate, Japan. See *The Bamboo Garden* 46: 547. 1894 and *Journal of Japanese Botany* 9: 215. 1933, *Journal of Japanese Botany* 18: 360. 1942.

**A. oleosa** (T.H. Wen) Demoly (*Pleioblastus oleosus* T.H. Wen)

Asia temperate, China. Perennial, see *Journal of Bamboo Research* 1(1): 24-25, f. 3. 1982.

**A. pumila** Mitford (*Chimonobambusa pumila* (Mitford) Nakai; *Nipponocalamus pumilis* (Mitford) Nakai; *Pleioblastus chino* f. *pumilis* (Mitford) S. Suzuki; *Pleioblastus humilis* var. *pumilus* (Mitford) D.C. McClint., also spelled *humilus*; *Pleioblastus pumilus* (Mitford) Nakai; *Sasa pumila* (Mitford) E.G. Camus)

Asia temperate, Japan. See *The Bamboo Garden* 98. 1896 and *Journal of the Arnold Arboretum* 6: 151. 1925, *Journal of Japanese Botany* 9: 223. 1933, *Journal of Japanese Botany* 18: 361. 1942, *Hikobia* 8(1-2): 66. Hiroshima 1977, *Kew Bulletin* 38(3): 485. 1983.

in English: dwarf bamboo

**A. pygmaea** (Miq.) Asch. & Graebn. (*Arundinaria pygmaea* (Miq.) Mitford; *Arundinaria pygmaea* (Mitford) J. Houz.,

nom. illeg., non *Arundinaria pygmaea* (Miq.) Asch. & Graebn.; *Arundinaria pygmaea* Kurz ex Teijsm. & Binn., nom. illeg., non *Arundinaria pygmaea* (Miq.) Asch. & Graebn.; *Arundinaria pygmaeus* (Miq.) Mitf.; *Bambusa pygmaea* Miq.; *Pleioblastus pygmaeus* (Miq.) Nakai; *Sasa pygmaea* (Miq.) E.G. Camus ex Rehder; *Sasa pygmaea* (Miq.) E.G. Camus; *Sasa pygmaea* (Miq.) Rehder; *Sasa pygmaea* var. *pygmaea*)

Asia temperate, Japan. Perennial, solid, branching culms, dense foliage bright green and whitish pubescent, leaves rounded at the base, ornamental, useful for erosion control, see *The Bamboo Garden* 49. 1896.

in English: pygmy bamboo

**A. pygmaea** (Miq.) Asch. & Graebn. var. **disticha** (Mitford) C.S. Chao & Renvoize (*Arundinaria argenteostriata* var. *disticha* (Mitford) Honda; *Arundinaria argenteostriata* var. *distichus* (Mitford) Ohwi, nom. illeg., non *Arundinaria argenteostriata* var. *disticha* (Mitford) Honda; *Arundinaria disticha* (Mitford) Bean; *Arundinaria variabilis* var. *disticha* (Mitford) Houz.; *Bambusa disticha* Mitford; *Bambusa nana* hort.; *Pleioblastus distichus* (Mitford) Nakai; *Pleioblastus distichus* (Mitford) Muroi & H. Okamura; *Pleioblastus pygmaeus* var. *distichus* (Mitford) Nakai; *Pseudosasa disticha* (Mitford) Nakai; *Sasa disticha* (Mitford) E.G. Camus; *Sasa pygmaea* var. *disticha* (Mitford) C.S. Chao & G.G. Tang)

Asia temperate. Perennial, cultivated, ornamental, see *The Bamboo Garden* 46: 547. 1894 and *Journal of the Arnold Arboretum* 6: 150. 1925, *Science Education* 15(6): 69. Tokyo 1932, *Journal of Japanese Botany* 9: 236. 1933 Aug, *Journal of Japanese Botany* 10(4): 207, f. 37. 1934, *Journal of Nanjing Institute of Forestry* 1985(4): 15. 1985, *Kew Bulletin* 44(2): 368. 1989.

**A. racemosa** Munro (*Arundinaria fangiana* Hand.-Mazz.; *Arundinaria fangiana* A. Camus; *Arundinaria racemosa* subsp. *fangiana* A. Camus; *Bashania faberi* (Rendle) T.P. Yi; *Bashania fangiana* (A. Camus) Keng f. & T.H. Wen; *Fargesia racemosa* (Munro) T.P. Yi; *Yushania racemosa* (Munro) R.B. Majumdar (for W.P. Fang)

Asia tropical, India, Sikkim, Himalaya, Bhutan, Nepal. Erect, shrubby, nodding, gregarious, stems slender and clustered, culm sheaths glabrous, internodes smooth to scabrous, branches at the nodes, long rhizomes, leaf blades linear-lanceolate, raceme or simple panicle, long sheathing bracts, spikelets distichous, uppermost floret sometimes empty, 2 small empty glumes, 3 lodicules ciliate, 3 stamens, ovary glabrous, 3 stigmas plumose, flowering sporadically, used for matting and basketry, roofing and fencing, leaves good fodder for animals, young shoots edible, may form dense thickets or dense undergrowth, in mountain forests, see *Transactions of the Linnean Society of London* 26(1): 17. 1868 and *Journal of the Linnean Society, Botany* 36(254): 435. 1904, *Journal of the Arnold Arboretum* 11:

192-193. 1930, *Symbolae Sinicae* 7(5): 1273. 1936, *Journal of Bamboo Research* 2(1): 39. 1983, *Journal of Bamboo Research* 4(2): 17-18. 1985, *Kew Bull.* 44: 352. 1989, *Journal of Bamboo Research* 12(2): 52-53. 1993.

Common names: miknu, maxilla

in India: mheem, mheen, mikner, miknu, pat-hioo, pum-moon, sanu maling, sanu

**A. scandens** Söderstrom & Ellis (*Sinarundinaria scandens* (Soderstr. & R.P. Ellis) H.B. Naithani)

Sri Lanka. Scandent, vinelike, clambering, robust, dense clumps, erect, sympodial pachymorph rhizomes, culm leaves persistent, culms hollow, leaves narrowly oblong, 2 glumes persistent, 3 stamens, ovary with 2 stigmas, see *Smithsonian Contributions to Botany* 72: 20. 1988, *Indian Forester* 116(12): 990. Allahbad 1990.

**A. schomburgkii** Benn. (*Arthrostylidium schomburgkii* (Benn.) Munro; *Arundinaria schomburgkii* Jardine et al.)

South America, Venezuela, Amazonas. See *Proceedings of the Linnean Society of London* 1: 51. 1840, *Transactions of the Linnean Society of London* 18(4): 562. 1841, *Transactions of the Linnean Society of London* 26(1): 41. 1868 and *Annals and Magazine of Natural History* 30(1): 15. London 1981.

**A. simonii** (Carrière) Rivière & C. Rivière (*Arundinaria simonii* var. *heterophylla* Makino; *Arundinaria simonii* var. *variegata* Hook.f.; *Arundinaria vaginata* Hack.; *Bambusa simonii* Carr.; *Nipponocalamus simonii* (Carrière) Nakai; *Pleioblastus simonii* (Carr.) Nakai; *Pleioblastus simonii* f. *variegatus* (Hook.f.) Muroi; *Pleioblastus simonii* var. *heterophyllus* (Makino) Nakai) (named for Gabriel E. Simon, b. 1829, Consul in Shanghai, botanical collector, see Emil Bretschneider (1833-1901), *History of European Botanical Discoveries in China*. 827-833. Leipzig 1981)

Asia temperate, Japan, China. Perennial, stems hollow, arching outward, stem sheaths rather persistent and purplish, leaves narrow-oblong with long tapered points, ornamental, cultivated, see *Bulletin de la Société Nationale d'Acclimatation de France*, sér. 3, 5: 774, f. 43-50. 1878, *Bulletin de l'Herbier Boissier* 7(10): 717. 1899 and *Journal of the Arnold Arboretum* 6(3): 147. 1925, *Journal of Japanese Botany* 18(7): 364. 1942.

in English: Simon bamboo

in Japan: me-dake, kawa-take, medake

**A. variabilis** Makino ex M. Vilm.

Asia. See *Bulletin de la Société Dendrologique de France* 12: 81. 1909.

**A. variegata** (Siebold ex Miq.) Makino (*Arundarbor fortunei* (Van Houtte) Kuntze; *Arundinaria fortunei* (Van Houtte) Rivière & C. Rivière; *Arundinaria variabilis* var. *fortunei* (Van Houtte) Houz.; *Bambusa fortunei* Van Houtte; *Bambusa picta* Siebold & Zucc. ex Munro; *Bambusa variegata*

Siebold ex Miq.; *Nipponocalamus fortunei* (Van Houtte) Nakai; *Pleioblastus fortunei* (Van Houtte) Nakai; *Pleioblastus variegatus* (Siebold ex Miq.) Makino; *Sasa fortunei* (Van Houtte) Fiori; *Sasa variegata* (Siebold ex Miq.) E.G. Camus) (named for the Scottish botanist and gardener Robert Fortune, 1812-1880 (d. Brompton, London), botanical explorer, traveler, on different journeys between 1843 to 1861 plant collector in China (for the Royal Horticultural Society) and Japan, horticulturist, 1846-1848 Curator of the Chelsea Physic Garden, collected for East India Company, introduced the tea plant from China into India, his writings include *Three Years Wanderings in the Northern Provinces of China*. London 1847, *Report upon the Tea Plantation in the North Western Provinces*. [London 1851], *A Journey to the Tea Countries of China*. London 1852, *Two Visits to the Tea Countries of China and the British Tea Plantation in the Himalaya*. London 1853, *A Residence among the Chinese*. London 1857 and *Yedo and Peking*. London 1863. See [Robert Fortune], *Catalogue of a Very Choice and Important Collection of Ancient Chinese Porcelain*, formed by R.F., Esquire, which will be sold by auction, by Messrs Christie and Manson, on Thursday, June 23, 1859. London [1859]; Alice Margaret Coats, *The Quest for Plants. A History of the Horticultural Explorers*. 71-75, 101-110. London 1969; E.H.M. Cox, *Plant-hunting in China. A History of Botanical Exploration in China and the Tibetan Marches*. 76-92. London 1945; J.H. Barnhart, *Biographical notes upon botanists*. 1: 561. Boston 1965; J. Lanjou & F.A. Stafleu, *Index Herbariorum*. Part II (2), *Collectors E-H*. *Regnum Vegetabile* vol. 9. 1957; Harry A. Franck, *Wandering in Northern China*. New York [c. 1923]; F.D. Drewitt, *The Romance of the Apothecaries' Garden at Chelsea*. London 1924; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 711. Stuttgart 1993; Emil Bretschneider, *History of European Botanical Discoveries in China*. Leipzig 1981; A. Lasègue, *Musée botanique de Benjamin Delessert*. Paris 1845; M. Hadfield et al., *British Gardeners: A Biographical Dictionary*. London 1980; Charles Lyte, *The Plant Hunters*. London 1983)

Asia, Japan. Green, very slender, internode cylindrical, slender running rhizomes, culm sheaths green, branched or unbranched, leaf sheath glabrous, ligule small or tiny, 4-7 leaves on each twig, leaf blade acuminate to small lanceolate, cultivated, ornamental, see *Transactions of the Linnean Society of London* 26: 111. 1868, *Bulletin de la Société Nationale d'Acclimatation de France*, sér. 3, 5: 797. 1878 and *Botanical Magazine* (Tokyo) 26(300): 15. 1912, *Bollettino della Reale Società Toscana d'Orticoltura*, ser. 4, 2: 42. 1917, *Journal of Japanese Botany* 3(6): 23. 1926, *Journal of Japanese Botany* 9(4): 232, 234, f. 30. 1933, *Journal of Japanese Botany* 18: 355. 1942.

in English: dwarf white-stripe bamboo

**A. viridistriata** (Siebold ex André) Makino ex Nakai (*Arundinaria auricoma* Mitford; *Arundinaria variegata* var. *viridistriata* (Siebold ex André) Makino; *Arundinaria viridistriata* (André) Makino; *Arundinaria viridistriata* (Regel) Makino ex Nakai; *Arundinaria viridistriata* (Siebold ex André) Nakai; *Bambusa viridistriata* Regel; *Bambusa viridistriata* Siebold ex André; *Pleioblastus auricomus* (Mitford) D.C. McClint., also spelled *auricoma*; *Pleioblastus viridi-striata* (André) Makino; *Pleioblastus viridi-striatus* (André) Makino; *Pleioblastus viridistriatus* (André) Makino; *Pleioblastus viridistriatus* (Regel) Makino; *Pleioblastus viridistriatus* (Siebold ex André) Makino; *Pseudosasa auricoma* (Mitford) Bergmans; *Sasa auricoma* (Mitford) E.G. Camus; *Sasa auricoma* E.G. Camus; *Sasaella viridistriata* (Siebold ex André) Nakai)

Asia, Japan. Perennial, slender to very slender, dark purplish green tufted stems, green and golden yellow striped leaves, forming dense stands, rhizomes running, internodes pubescent, cultivated and naturalized, ornamental, useful for erosion control, see *The Bamboo Garden* 101. 1896 and *Botanical Magazine* (Tokyo) 26: 15. 1912, *Journal of Japanese Botany* 3(3): 11. 1926, *Science Education [Rika Kyô-iku]* 15: 76. Tokyo 1932, *Journal of Japanese Botany* 10(9): 568. 1934, *Bamboo Society Newsletter* 12: 11. 1991, *Taxon* 50: 911-912. 2001.

**A. walkeriana** Munro (*Arundinaria wightiana* Thw.; *Indocalamus walkerianus* (Munro) Nakai; *Sinarundinaria walkeriana* (Munro) C.S. Chao & Renvoize; *Yushania walkeriana* (Munro) R.B. Majumdar) (presumably named for Mrs. A.W. Walker (née Paton), wife of General George Warren Walker (d. 1844), plant collectors in Ceylon, she illustrated the *Flora of Ceylon*. See *Companion to the Botanical Magazine*. 2: 194-200. 1837; Robert Wight, *Icones plantarum Indiae orientalis*, or figures of Indian plants. Madras [1838-] 1840-1853; Isaac Henry Burkill, *Chapters on the History of Botany in India*. 50. Delhi 1965; Ray Desmond, *Dictionary of British & Irish Botanists and Horticulturists*. 710. London 1994)

Sri Lanka. Shrubby, montane, densely placed clumps, sympodial pachymorph rhizomes, hollow culms, internodes smooth, nodes thick, culm leaves deciduous, 2 glumes, 3 stamens, ovary with 2-3 plumose stigmas, see *Enum. Pl. Zeyl.* 444. 1864, *Transactions of the Linnean Society of London* 26(1): 21. 1868, *For. Man.* 230. 1873, *Ann. Roy. Bot. Gard. (Calcutta)* 7(1): 34, pl. 1. 1896 and *Handb. Fl. Ceylon* 5: 309. 1900, *Journal of the Arnold Arboretum* 6: 148. 1925, *Handb. Fl. Ceylon* 6: 342. 1931, *Bull. Misc. Inform.* 1938: 126. 1938, *Grasses of Ceylon* 29-30, pl. 1. 1956, *Smithsonian Contr. Bot.* 72: 27. 1988, *Kew Bulletin* 44(2): 354. 1989.

**A. wightiana** Nees (*Indocalamus wightianus* (Nees) Nakai; *Sinarundinaria wightiana* (Nees) C.S. Chao & Renvoize; *Yushania wightiana* (Nees) R.B. Majumdar)

India. Culms used for mats and baskets, see *Linnaea* 9(4): 482. 1834 and *Journal of the Arnold Arboretum* 6: 149. 1925, *Kew Bulletin* 44(2): 356. 1989.

**Arundinella Raddi** = *Acratherum* Link,  
*Brandtia* Kunth, *Calamochloe* Rchb.,  
*Goldbachia* Trin., *Riedelia* Kunth,  
*Thysanachne* Presl

Diminutive from the Latin *arundo*, *dinis* (*harundo*) "a reed, cane."

About 47-55 species, pantropical and warm regions, tropics and subtropics, mainly in Asia. Panicoideae, Panicodae, Arundinelleae, annual or perennial, erect and tough, simple or branched, tufted, spreading, herbaceous, rhizomatous or stoloniferous, short and branched rhizomes, glabrous nodes, solid or hollow internodes, leaves nonauriculate, ligule a very short fringed membrane, leaf blades linear and narrow, plants bisexual, inflorescence variable, an oblong panicle open or contracted, spikelets mostly in pairs or in triads, 2 florets, upper floret bisexual and early deciduous, lower floret sterile or male and more or less persistent, 2 glumes very unequal and membranous, lower lemma ovate-elliptic, upper lemma coriaceous and awned, 2 fleshy and glabrous lodicules, 3 stamens, ovary glabrous, 2 stigmas, native pasture species, weed species of open habitats, common on riverbanks, marshes and marshy places, rainforest, pampas, rocky slopes, related to *Melinis*, type *Arundinella brasiliensis* Raddi, see *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 81. 1820, *Agrostografia Brasiliensis* 36-37, t. 1, f. 3. 1823, *Hortus Regius Botanicus Berolinensis* 1: 230. 1827, *Thysanachne, Novum Plantarum Genus* 12, t. 6. 1829, *Linnaea* 7: 240 (or 224). 1832, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 515. 1833, *Flora Brasiliensis* 7: 171-172. 1863, *Hooker's Icones Plantarum* 15: 15. 1883 and *Kew Bull. Misc. Inform.* 317-322. 1936, *Kirkia* 5: 235-258. 1966, *Canad. J. Bot.* 45: 1047-1057. 1967, *Kew Bulletin* 21(1): 119-124. 1967, *Brittonia* 23(3): 293-324. 1971, *Kew Bulletin* 26(1): 111-113. 1971, *Taxon* 34: 159-164. 1985, *Journal of Cytology and Genetics* 20: 205-206. 1985, *Bot. Zhurn. (Moscow & Leningrad)* 75: 1783-1786. 1990, *Journal of Cytology and Genetics* 25: 140-143. 1990, *Flora Mesoamericana* 6: 377-378. 1994, *Annals of the Missouri Botanical Garden* 81(4): 768-774. 1994, J.F. Veldkamp, "Name changes in *Agrostis*, *Arundinella*, *Deyeuxia*, *Helictotrichon*, *Tripogon* (Gramineae)." *Blumea* 41: 407-411. 1996, *The Plant Journal* 14(5): 565-572. June 1998, *Journal of Biogeography* 25(5): 901-912. Sep 1998 [The savannization of moist forests in the Sierra Nevada de Santa Marta, Colombia.], *Plant, Cell and Environment* 22(12): 1569-1577. Dec 1999 [Assessing photosystem I and II distribution in leaves from C4 plants using confocal laser scanning microscopy.], *Am. J. Bot.* 87: 96-



107. 2000, *Ecological Research* 15(1): 13-20. Mar 2000, S. McIntyre & Sandra Lavorel, "Livestock grazing in subtropical pastures: steps in the analysis of attribute response and plant functional types." *Journal of Ecology* 89(2): 209-226. Apr 2001, *Am. J. Bot.* 88: 1988-1992, 1993-2012. 2001, *Journal of Applied Ecology* 39(4): 584-594. Aug 2002, *Ecological Research* 17: 6: 705-716. Nov 2002, *Contributions from the United States National Herbarium* 46: 111-113, 242, 545-546, 616-617. 2003, *Am. J. Bot.* 90: 796-821. 2003, *Diversity & Distributions* 9(1): 73-87. Jan 2003, Jennifer J. Beard, David Evans Walter and Peter G. Allsopp, "Spider mites of sugarcane in Australia: a review of grass-feeding *Oligonychus* Berlese (Acari: Prostigmata: Tetranychidae)." *Australian Journal of Entomology* 42(1): 51-78. Mar 2003, *Austral. Ecology* 28(5): 471-479. Oct 2003, *Restoration Ecology* 11(4): 483-488. Dec 2003 [Factors affecting the early survival and growth of native tree seedlings planted on a degraded hillside grassland in Hong Kong, China.].

### Species

***A. agrostoides*** Trin. (*Arundinella agrostoides* Hook.f., nom. illeg., non *Arundinella agrostoides* Trin.; *Arundinella holcoides* (Kunth) Trin.)

Warm regions. See *Species Graminum* 3: t. 265. 1829-1830, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 107. 1836, *The Flora of British India* 7(21): 71. 1897 [1896].

***A. bengalensis*** (Spreng.) Druce (*Arundinella stricta* (Roxb.) Janowski, nom. illeg., non *Arundinella stricta* Nees; *Arundinella wallichii* Nees ex Steudel; *Panicum bengalense* Spreng.; *Panicum strictum* Roxb., nom. illeg., non *Panicum strictum* R. Br.) (dedicated to the Danish (b. Copenhagen) physician Nathaniel Wallich (originally Nathan Wulff or Wolff), 1786-1854 (d. London), botanist and botanical collector (India, Malaya, Cape, Nepal), pupil of Vahl at Copenhagen, in 1807 went out to India as surgeon, 1809 with William Roxburgh (1751-1815) at Calcutta, 1813 with the Hon. East India Company, 1815-1846 Superintendent of the Calcutta Botanic Garden (like his predecessor W. Roxburgh), 1818 Fellow of the Linnean Society, 1820-1822 plant collector in Nepal, 1829 Fellow of the Royal Society, 1833 visited Assam, correspondent of the naturalist and plant collector John Reeves (1774-1856), among his most valuable writings are *Tentamen Florae Nepalensis*. Calcutta and Serampore 1824-1826, *Descriptions of Some Rare Indian Plants*. [Asiatic Researches 1820] 1820 and *Plantae Asiaticae rariores*. London [1829-] 1830-1832, father of George Charles Wallich (b. Calcutta 1815-d. Marylebone, London 1899); see J.H. Barnhart, *Biographical notes upon botanists*. 3: 454. 1965; I.H. Vegter, *Index Herbariorum*. Part II (7), *Collectors T-Z*. Regnum Vegetabile vol. 117.

1988; R. Zander, F. Encke, G. Buchheim and S. Seybold, *Handwörterbuch der Pflanzennamen*. 14. Aufl. 796. 1993; C.F.A. Christensen, *Den danske Botaniks Historie med tilhørende Bibliografi*. Copenhagen 1924-1926; I.H. Vegter, *Index Herbariorum*. Part II (5), *Collectors N-R*. Regnum Vegetabile vol. 109. 1983; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. 369-370. 1981; K. Biswas, editor, *The Original Correspondence of Sir Joseph Banks Relating to the Foundation of the Royal Botanic Garden, Calcutta and The Summary of the 150th Anniversary Volume of the Royal Botanic Garden, Calcutta*. Calcutta 1950; Isaac Henry Burkill, *Chapters on the History of Botany in India*. Delhi 1965; Andrew Thomas Gage, *A History of the Linnean Society of London*. London 1938; K. Lemmon, *Golden Age of Plant Hunters*. London 1968; D.G. Crawford, *A History of the Indian Medical Service, 1600-1913*. London 1914; E.M. Tucker, *Catalogue of the library of the Arnold Arboretum of Harvard University*. Cambridge, Mass. 1917-1933; Antoine Lasègue, *Musée botanique de M. Benjamin Delessert*. 1845; E. Bretschneider, *History of European Botanical Discoveries in China*. Leipzig 1981; R. Desmond, *The European Discovery of the Indian Flora*. Oxford 1992; T.W. Bossert, *Biographical dictionary of botanists represented in the Hunt Institute portrait collection*. 425. Boston, Mass. 1972; Daniel Merriman, in *D.S.B.* 14: 145-146. 1981; Leonard Huxley, *Life and Letters of Sir Joseph Dalton Hooker*. London 1918; J.D. Milner, *Catalogue of Portraits of Botanists Exhibited in the Museums of the Royal Botanic Gardens*. Royal Botanic Gardens, Kew, London 1906; [Sir J.E. Smith], *Memoir and Correspondence of ... Sir J.E. Smith ...* Edited by Lady Pleasance Smith. London 1832; M. Archer, *Natural History Drawings in the India Office Library*. London 1962; James Britten and George E. Simonds Boulger, *A Biographical Index of Deceased British and Irish Botanists*. London 1931)

Subtropics, Southeast Asia, India. Perennial, creeping, leaves lanceolate, panicle cylindrical, weed species of tea, along roadsides, open places, sandy soil, under pine forests, see *Systema Vegetabilium, editio decima sexta* 1: 311. 1825, *Flora Indica; or, Descriptions of Indian Plants* 1: 306. 1832, *Synopsis Plantarum Glumacearum* 1: 114. 1854 and *Botanical Society and Exchange Club of the British Isles* 4: 605. 1916 [1917], *Repertorium Specierum Novarum Regni Vegetabilis* 17: 84. 1921.

in Bhutan: phurki, darkharey

in Ladakhi: berka (for cane)

***A. berteroniana*** (Schult.) Hitchc. & Chase (*Arundinella berteroniana* (Schult.) Mez, nom. illeg., non *Arundinella berteroniana* (Schult.) Hitchc. & Chase; *Arundinella convoluta* Pilg.; *Arundinella crinita* Trin.; *Arundinella cubensis* Griseb.; *Arundinella peruviana* (J. Presl) Steud.; *Ischaemum peruvianum* (J. Presl) Kunth; *Muhlenbergia berteroniana*

(Schult.) Kunth; *Thysanachne peruviana* J. Presl; *Trichochloa berteroniana* Schult.)

Central America to northern Argentina, Brazil, Mexico. Herbaceous, caespitose, erect to arching, internodes glabrous, nodes hairy, panicle branches loose, forage, medicinal, terrestrial, riparian habitat, growing in small clumps, withstands seasonal flooding, found on rocks at river edge, riverbanks, slopes, silty beaches, see *Mantissa* 2: 209. 1824, *Révision des Graminées* 1: 64. 1829, *Reliquiae Haenkeanae* 1(4-5): 253. 1830, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 515. 1833, *Linnaea* 10(3): 299. 1836, *Synopsis Plantarum Glumacearum* 1: 115. 1854, *Memoirs of the American Academy of Arts and Science, new series* 8: 533. 1862, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 27(1-2): 25. 1899 and *Contributions from the United States National Herbarium* 18(7): 290. 1917, *Repertorium Specierum Novarum Regni Vegetabilis* 17(4-7): 85. 1921.

in Mexico: carricillo papachote, itsé toom ethem, privilegio

**A. birmanica** Hook.f. (*Arundinella setosa* Trin.)

Asia, Myanmar. See *De Graminibus Paniceis* 63. 1826, *The Flora of British India* 7(21): 73. 1897 [1896].

**A. blephariphylla** (Trimen) Hook.f. (*Arundinella blephariphylla* (Trimen) Trimen ex Hook.f.; *Panicum blephariphyllum* Trimen)

Asia, Sri Lanka. Perennial, leaf sheaths ciliate, ligule absent or membranous, inflorescence an open panicle, lower floret staminate, upper glume acuminate, upper lemma awnless, along marshy places, see *Journ. Bot. Brit. & For.* 23: 272. 1885, *Fl. Br. India* 7(21): 77. 1896 and *Handb. Fl. Ceylon* 5: 180. 1900, *Grasses of Ceylon* 100. 1956, *Grasses of Burma* ... 421. 1960.

**A. kannanorica** V.J. Nair, Sreek. & N.C. Nair

India, Kerala. See *Journal of the Bombay Natural History Society* 80(2): 396. 1984.

**A. ciliata** Nees ex Miq. (*Arundinella agrostoides* Hook.f., nom. illeg., non *Arundinella agrostoides* Trin.; *Arundinella ciliata* Nees; *Arundinella ciliata* (Roxb.) Miq.; *Arundinella ciliata* Thunb., nom. illeg., non *Arundinella ciliata* Nees ex Miq.; *Arundinella hirsuta* Nees ex Steud.; *Arundinella pilosa* Hochst.; *Holcus ciliatus* Roxb.)

India. Panicle congested, glumes subequal, along roadsides, evergreen forests, see *Flora Japonica*, ... 49. 1784, *Flora Indica; or Descriptions* ... 1: 321. 1820, *Cat. Indian Plants* no. 1666. 1833, *Synopsis Plantarum Glumacearum* 1: 115. 1854, *The Flora of British India* 7(21): 71. 1897 [1896].

in the Philippine Islands: salai-salai

**A. decempedalis** (Kuntze) Janowski (*Arundinella clarkei* Hook.f.; *Panicum decempedale* Kuntze)

India, Sikkim, Assam, Arunachal Pradesh. Perennial or annual, stout, large panicle, see *Revisio Generum Plan-*

*tarum* 2: 783. 1891, *The Flora of British India* 7(21): 75-76. 1897 [1896] and *Repertorium Specierum Novarum Regni Vegetabilis* 17(477-480): 84. 1921.

**A. deppeana** Nees ex Steud. (*Arundinella auletica* Rupr. ex E. Fourn.; *Arundinella auletica* Rupr.; *Arundinella latifolia* E. Fourn.; *Arundinella phragmitoides* Griseb.; *Arundinella robusta* E. Fourn.; *Arundinella scoparia* (J. Presl) E. Fourn.) (for Ferdinand Deppe, 1794-1861, gardener, traveler and botanical collector in Mexico and Guatemala, together with Schiede. See *Flora Telluriana* 2: 51. 1836 [1837], *Bonplandia* 9: 157. 1861, *Bot. Zeitung* 19: 104. 1861, *Zandera* 3: 39-42. 1984)

South America, Mexico. Coarse, more or less erect, simple or branched, tall, forage, found in disturbed sites at roadside, on open and disturbed slopes above river, white to green with purple shading flowers, yellowish to red anthers, see *Bulletin de l'Académie Royale des Sciences et Belles-lettres de Bruxelles* 9(2): 242. 1842, *Synopsis Plantarum Glumacearum* 1: 115. 1854, *Catalogus plantarum cubensium* ... 234. 1866, *Mexicanas Plantas* 2: 54-55. 1886.

in Spanish: cola de venado

**A. fuscata** Steud. (*Arundinella fuscata* Hook.f., nom. illeg., non *Arundinella fuscata* Steud.; *Arundinella fuscata* Nees ex Büse; *Arundinella fuscata* Nees ex Koord., nom. illeg., non *Arundinella fuscata* Steud.)

Asia, India. See *Synopsis Plantarum Glumacearum* 1: 114. 1854, *Plantae Junghuhnianae, Gramineae* 19. 1854, *The Flora of British India* 7(21): 74. 1897 [1896] and *Exkursionsflora von Java* ... 1: 119. 1911, *Reinwardtia* 2(2): 233. 1953.

**A. grevillensis** B.K. Simon (Mt. Greville, located southwest of Lake Moogerah, Queensland)

Australia, Queensland. Reed grass, rare species, see *Austrobaileya* 1(5): 463. 1982.

**A. hirta** (Thunb.) Tanaka (*Agrostis ciliata* Thunb.; *Agrostis thunbergii* (Kunth) Steud.; *Arundinella anomala* Steud.; *Arundinella hirta* (Thunb.) Koidz.; *Arundinella hirta* var. *ciliata* (Thunb.) Koidz.; *Panicum williamsii* Hance; *Poa hirta* Thunb.)

India, China, Japan, Taiwan, Korea. Herbaceous, rhizomatous, found in alpine grassland, useful for erosion control, see *Flora Japonica*, ... 49. 1784, *Synopsis Plantarum Glumacearum* 1: 116, 163. 1854, *Annales des Sciences Naturelles; Botanique, sér. 5*, 5: 250. 1866 and *Botanical Magazine (Tokyo)* 39: 302. 1925, *Bull. Sci. Hort. Inst. Kyushu Imp. Univ.* 1: 196, 208. 1925.

in Japan: todashiba

**A. hispidia** (Humb. & Bonpl. ex Willd.) Kuntze (*Acratherum miliaceum* Link; *Agrostis beteteriana* Spreng. ex Steud.; *Aira brasiliensis* Spreng., nom. illeg., non *Aira brasiliensis* Raddi; *Andropogon hispidus* Humb. & Bonpl. ex Willd.; *Andropogon virens* Spreng.; *Arundinaria hispidia* var.

*glabrivaginata* Kuntze; *Arundinella brasiliensis* Raddi; *Arundinella confinis* (J.A. Schultes) A.S. Hitchc. & Chase; *Arundinella elata* Pilg.; *Arundinella hispida* (Humb. & Bonpl. ex Willd.) Hack., nom. illeg., non *Arundinella hispida* (Humb. & Bonpl. ex Willd.) Kuntze; *Arundinella hispida* Hack.; *Arundinella hispida* (Willd.) Kuntze; *Arundinella hispida* var. *glabrivaginata* Kuntze; *Arundinella martinicensis* Trin.; *Arundinella mikanii* (Trin. ex Spreng.) Nees; *Arundinella pallida* Nees; *Arundinella palmeri* Vasey ex Beal; *Arundinella scoparia* (J. Presl) E. Fourn.; *Goldbachia mikanii* Trin. ex Spreng.; *Holcus nervosus* Roxb.; *Ischaemum hispidum* (Humb. & Bonpl. ex Willd.) Kunth; *Piptatherum confine* J.A. Schultes; *Riedelia mikanii* Trin. ex Kunth; *Thysanachne scoparia* J. Presl)

Mexico, Argentina, Brazil, Bolivia, Venezuela, Paraguay. Perennial, stout, simple, erect to semidecumbent, internodes glabrous, nodes hairy, stiff panicle stiffly branched, forage, commonly growing in wet ground, savannah marsh, in seasonally inundated savannah, see *Species Plantarum. Editio quarta* 4: 908. 1806, *Nova Genera et Species Plantarum* 1: 194-195. 1815 [1816], *Flora Indica; or Descriptions ...* 1: 320. 1820, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 42. 1820, *Agrostografia Brasiliensis* 37, t. 1, f. 3. 1823, *Mantissa* 2: 184. 1824, *De Graminibus Paniceis* 62. 1826, *Hortus Regius Botanicus Berolinensis* 1: 230. 1827, *Flora Brasiliensis seu Enumeratio Plantarum* 2: 465. 1829, *Thysanachne, Novum Plantarum Genus* 12, t. 6. 1829, *Enumeratio Plantarum Omnium Hucusque Cognitarum* 1: 515. 1830, *Nomenclator Botanicus edition 2* 1: 39, 143. 1840, *Mexicanas Plantas* 2: 55. 1886, *Revisio Generum Plantarum* 2: 761. 1891, *Grasses of North America for Farmers and Students* 2: 67, f. 20A, a. 1896, *Revisio Generum Plantarum* 3(3): 341. 1898, *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 25(5): 710. 1898 and *Bulletin de l'Herbier Boissier, sér. 2*, 4(6): 527. 1904, *Contributions from the United States National Herbarium* 18(7): 290. 1917, *J. Bot. British & Foreign* 62: 166. 1924.

in English: arundinella

in Spanish: rabo de gato

in Mexico: papachota, popote, tlacopopôtl, tepopôtl, (*tlacopopotl ahnôzo tepopotl* = medicinal plant)

in Thailand: yaa khaai luang, yaa khaai yai, ya khai luang, ya khai yai

**A. holcoides** (Kunth) Trin. (*Arundinella agrostoides* Trin.; *Brandtia holcoides* Kunth)

Southeast Asia, India, Thailand, Philippines. Panicle congested, near riverbanks, on rocky slopes, see *Révision des Graminées* 2: 511, t. 170. 1831, *Mémoires de l'Académie Impériale des Sciences de Saint Pétersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 4,2(1): 107. 1836 and *Reinwardtia* 2(2): 231. 1953.

**A. hookeri** Munro ex Keng (*Arundinella hookeri* Munro ex Hook.f.; *Arundinella villosa* Arnott ex Steudel var. *himalayica* Hook.f.)

India, Himalaya. Tufted, shortly rhizomatous, leaves triangular, inflorescences purple, peduncle glabrous below the inflorescence, low forage value, fodder, grows on rocky slopes, see *The Flora of British India* 7(21): 73. 1897 [1896] and *Journ. Ind. Bot. Soc.* 27: 66. 1948.

**A. khaseana** Nees ex Steud. (*Arundinella khaseana* Nees)

India. Perennial, stout, densely hairy at nodes, grows in rice fields, see *Synopsis Plantarum Glumacearum* 1: 115. 1854.

**A. lasiostoma** K. Schum. (*Arundinella setosa* var. *lasiostoma* (K. Schum.) Jansen)

Asia, Pacific. See *Die Flora der deutschen Schutzgebiete in der Südsee* 174. 1901, *Reinwardtia* 2(2): 235. 1953.

**A. laxiflora** Hook.f. (*Arundinella nervosa* Thw.)

Asia, Sri Lanka. Perennial or annual, leaf sheaths glabrous, ligule a short ciliate membrane, inflorescence an open panicle, lower floret staminate, upper lemma awnless or awned, grassland, open areas, open dry soils, along roadsides, see *Enum. Pl. Zeyl.* 362. 1864, *Fl. Br. Ind.* 7(21): 75. 1896 and *Handb. Fl. Ceylon* 5: 180. 1900, *Grasses of Ceylon* 99. 1956, *Grasses of Burma ...* 422. 1960.

**A. leptochloa** (Steud.) Hook.f. (*Arundinella gigantea* Dalz.; *Arundinella lawsonii* Hook.f.; *Arundinella leptochloa* (Nees ex Steud.) Hook.f.; *Arundinella laxiflora* Hook.f.; *Panicum leptochloa* Nees ex Steud.; *Panicum zeylanicum* Arn. ex Hook.f.)

Southern India, Sri Lanka, Tamil Nadu. Perennial, unbranched, leaf sheaths glabrous or villous, ligule a short membrane, inflorescence a narrow panicle, glumes acute, open areas, forests, shadey places, wastelands, open woodlands, along fields margins, often confused with *Arundinella metzii* Hochst. ex Miq., see *Synopsis Plantarum Glumacearum* 1: 62. 1854, *The Bombay Flora ...* 293. 1861, *The Flora of British India* 7(21): 75-76. 1897 [1896] and *Handb. Fl. Ceylon* 5: 178. 1900, *Grasses of Ceylon* 100. 1956, *Grasses of Burma ...* 423. 1960.

**A. mesophylla** Nees ex Steud. (*Arundinella khaseana* Nees)

India. Perennial, slender, in wet river beds, along rock crevices, grasslands, see *Synopsis Plantarum Glumacearum* 1: 115. 1854.

**A. metzii** Hochst. ex Miq. (*Arundinella decomposita* Janowski; *Arundinella lawii* Hook.f.; *Arundinella pygmaea* Hook.f.)

Southern India, Sri Lanka. Perennial, slender, leaf blades sparsely hispid, leaf sheaths hispid or villous, ligule membranous, loosely contracted panicle, lower floret staminate, glumes unequal, forage, common in moist shady places, in open grasslands, see *Nieuwe Verh. Eerste Kl. Kon. Ned. Inst. Wetensch. Amsterdam* ser. 3, 4: 31. 1851 [Verh. Konink.

Nederl. Inst.], *Analecta botanica indica* ... 2: 19. 1851, *Fl. Br. Ind.* 7(21): 72. 1896 and *Handb. Fl. Ceylon* 5: 180. 1900, *Repertorium Specierum Novarum Regni Vegetabilis* 17: 84. 1921, *Grasses of Burma* ... 423. 1960.

**A. montana** S.T. Blake

Australia, Queensland, Mt. Ngungun. Rare species, found in rock crevices, see *University of Queensland Papers: Department of Biology* 1(18): 16. 1941.

in English: mountain reed

**A. nepalensis** Trinius (*Acratherum miliaceum* Link; *Arundinella acratherum* Nees ex Steudel; *Arundinella ecklonii* Nees; *Arundinella glabra* Nees; *Arundinella miliacea* (Link) Nees; *Arundinella miliacea* (Link) Druce, nom. illeg., non *Arundinella miliacea* (Link) Nees; *Arundinella ritchei* Munro ex Lisboa; *Arundinella virgata* Janowski) (after the Danish botanist Christian Friedrich (Frederik) Ecklon, 1795-1868, apothecary and botanical collector, traveler, sent plants to Bentham (1835), author of *Topographisches Verzeichniss der Pflanzensammlung von C.F. Ecklon*. Esslingen 1827 and "A list of plants found in the district of Uitenhage between the months of July 1829 and February 1830." *S. Afr. Quart. J.* 1: 358-380. 1830, with Karl Ludwig Philipp Zeyher wrote *Enumeratio plantarum africae australis extratropicae*. Hamburg [1834-] 1835-1836[-1837]; see J.H. Barnhart, *Biographical notes upon botanists*. 1: 494. 1965; Karl Boriwog Presl, *Botanische Bemerkungen*. Prague 1844; Peter MacOwan, "Personalalia of botanical collectors at the Cape." *Trans. S. Afr. Philos. Soc.* 4(1): xliiii-xlvi. 1884-1886; John Hutchinson, *A Botanist in Southern Africa*. 641-642. London 1946; Gordon Douglas Rowley, *A History of Succulent Plants*. 1997; Mary Gunn & Leslie E. Codd, *Botanical Exploration of Southern Africa*. Cape Town 1981; H.N. Clokie, *Account of the Herbaria of the Department of Botany in the University of Oxford*. Oxford 1964; Günther Schmid, *Chamisso als Naturforscher*. Eine Bibliographie. Leipzig 1942)

Tropical Africa, China, India, South Africa. Perennial, very variable, woody, tough, coarse, tufted, unbranched or branched, erect, shortly rhizomatous with scaly rhizomes, hard rootstock, forming spreading patches, reedlike, ligule short and densely ciliate, leaves usually linear to oblong and glabrous to hirsute, inflorescence a contracted oblong purple panicle with straight ascending racemes, spikelets lanceolate, 2 florets, lower floret male or sterile, female-fertile floret with awned lemma, lower glume ovate and acuminate, lower lemma obtuse, upper lemma hardened and brownish, no bristles at the base of the awn, palea with doorlike germination flaps, eaten by cattle in time of scarcity, little forage value, browsed before anthesis, unpalatable when in seed or dry, ornamental ground cover, useful for erosion control, windbreak and shelter for the wildlife, may become a nuisance, used to make a lotion for washing wounds, sometimes used as thatching grass, grows in dry

woodland and grassland, wet grassland, marshes and margins of marshes, damp places, in vleis, moist areas and along stream banks, ponds and dams, on riverbanks and moist grasslands, savannah, see *De Graminibus Panicis* 62. 1826, *Hortus Regius Botanicus Berolinensis* 1: 230. 1827, *The Botany of Captain Beechey's Voyage* 237. 1837, *Nomenclator Botanicus* edition 2 1: 143. 1840, *Florae Africae Australioris Illustrationes Monographicae* 80. 1841, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 102. 1850, *Journal of the Bombay Natural History Society* 5: 343. 1890 and *Botanical Exchange Club of the British Isles. Report* 1916: 605. 1917, *Repertorium Specierum Novarum Regni Vegetabilis* 17(477-480): 84-85. 1921, *Botanical Magazine* (Tokyo) 56: 4. 1942.

in English: reed grass, river grass

in India: dundi, namza, namsa, tutnalia

in South Africa: riviergras, beesgras, rietgras

in Lesotho: molula, modula, mohlakamane

**A. nervosa** (Roxb.) Nees ex Hook. & Arn. (*Arundinella nervosa* (Roxb.) Nees ex Steud., nom. illeg., non *Arundinella nervosa* (Roxb.) Nees ex Hook. & Arn.; *Holcus nervosus* Roxb.)

India, Tamil Nadu, Kerala. Found in open places, see *Flora Indica; or Descriptions* ... 1: 320. 1820, *The Botany of Captain Beechey's Voyage* 237. 1836, *Synopsis Plantarum Glumacearum* 1: 115. 1854.

**A. pumila** (Hochst. ex A. Rich.) Steud. (*Acratherum pumilum* Hochst. ex A. Rich.; *Anemagrostis tenella* Steud.; *Anemagrostis tenella* Wight ex Steud.; *Arundinella tenella* Nees ex Steud.)

India, Ethiopia, Sri Lanka. Annual, slender, weak, nodes hirsute, open panicle, ornamental grass, used as forage, forest shade, ditches, along roadsides, in rock crevices, hill slopes, near riverbanks, see *Tent. Fl. Abyss.* 2: 414. 1850, *Syn. Pl. Glumac.* 1: 114-115. 1854 and *Grasses of Ceylon* 99. 1956, *Grasses of Burma* ... 423. 1960.

**A. purpurea** Hochst. ex Steud. (*Arundinella fuscata* Hook.f., nom. illeg., non *Arundinella fuscata* Steud.)

India. See *Synopsis Plantarum Glumacearum* 1: 115. 1854, *The Flora of British India* 7(21): 74. 1897 [1896].

**A. purpurea** Hochst. ex Steud. var. **laxa** Bor

India, Tamil Nadu. Lax panicle, pedicel very long, see *Kew Bulletin* 1955: 407. 1955.

**A. purpurea** Hochst. ex Steud. var. **purpurea**

India, Karnataka, Kerala, Tamil Nadu. Panicle congested, pedicel of spikelet short, on hill slopes.

**A. setosa** Trinius (*Arundinella bidentata* Keng; *Arundinella birmanica* Hook.f.; *Arundinella capillaris* Hook.f.; *Arundinella hirsuta* Nees ex Steud.; *Arundinella mutica* Nees ex Steud.; *Arundinella setifera* Steud.; *Arundinella sinensis* Rendle; *Arundinella stricta* Nees; *Arundinella zollingeri*

Steud.; *Berghausia barbulate* (Nees) Endl. ex Miq.; *Danthonia luzoniensis* Steud.; *Danthonia neuroelytrum* Steud.; *Garnotia barbulate* (Nees) Merr.; *Garnotia barbulate* (Nees) Janowski; *Milium cimicipoides* Roxb. ex Hook.f.; *Miquelia barbulate* Nees; *Miquelia barbulate* Nees; *Miquelia setosa* Nees)

Southeast Asia, Vietnam, Indonesia. Perennial, tall, tufted, woody, rather rigid, ascending from a hard rootstock, shortly rhizomatous, rather slender, leaf sheath at first tight and later loosening, leaf blade smooth, ligule membrane-like, leaves acute and oblong, terminal panicle with a smooth axis, spikelets occur in pairs, 1 spikelet short and the other long-stalked, lower glume acuminate and clasping, lemma lanceolate, slender bristles at the base of the terminal awn, native pasture species, grass eaten in time of scarcity, ground cover, used for making brooms, often growing at the edge of woodlands, moist hillsides, steep, savannah, deforested hillsides, rocky ground, Himalayan subtropical pine forests, see *De Graminibus Paniceis* 63. 1826, *Gramineae* 46. 1841, *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 19(Suppl. 1): 178. 1843, *Novorum Actorum Academiae Caesareae Leopoldinae-Carolinae Naturae Curiosorum* 19(Suppl. 1): 46. 1846, *Hooker's Journal of Botany and Kew Garden Miscellany* 2: 102. 1850, F.A.W. Miquel (1811-1871), *Analecta botanica indica* ... 2: 20. Amsterdam 1851, *Synopsis Plantarum Glumacearum* 1: 115-116, 245. 1854, *The Flora of British India* 7(21): 70, 73-74. 1897 [1896] and *Handb. Fl. Ceylon* 5: 177. 1900, *Journal of the Linnean Society, Botany* 36(253): 342-343. 1904, *Philippine Journal of Science* 13(3): 130. 1918, *Bulletin du Muséum d'Histoire Naturelle* 25: 368. 1919, *Repertorium Specierum Novarum Regni Vegetabilis* 17(477-480): 86. 1921, *Journal of the Washington Academy of Sciences* 21(8): 159-160, f. 3. 1931, *Fl. Pres. Madras* 10: 1801. 1934, *Reinwardtia* 2(2): 235. 1953, *Grasses of Ceylon* 98. 1956, *Grasses of Burma* ... 424-425. 1960, *Journal of the Bombay Natural History Society* 72(3): 827. 1975[1976], *Bulletin of the Nanjing Botanical Garden, Mem. Sun Yat Sen* 1988-1989: 2. 1988-1989.

in Cambodia: Ploong grass

in India: hakki vaarji hullu, hakkivarji hullu, kotir thurdia, maraga thattu hullu, marga thattu, murkia puleri, pathi oopagaddi

in the Philippines: salai-salai

**A. sinensis** Rendle (*Arundinella setosa* Trin.)

Southeast Asia, China. Slender, tufted, leaf sheath tightly wrapped and smooth, ligule a shallow rim, linear and arching leaf blade, open panicle, spikelets elongate, see *De Graminibus Paniceis* 63. 1826 and *Journal of the Linnean Society, Botany* 36(253): 342-343. 1904.

**A. spicata** Dalziel

Maharashtra, India. Grassy plains, open places, see *The Bombay Flora* ... 293. 1861.

**A. tuberculata** Munro ex Lisboa

Asia, India. Montane rain forests, on hill slopes, see *Journal of the Bombay Natural History Society* 5: 344. 1890.

**A. thwaitesii** Hook.f.

Asia, Sri Lanka. Perennial or annual, nodes glabrous or villous, similar to *Arundinella laxiflora* Hook.f., see *Fl. Br. Ind.* 7(21): 77. 1896 and *Handb. Fl. Ceylon* 5: 181. 1900, *Grasses of Ceylon* 100. 1956, *Grasses of Burma* ... 425. 1960.

**A. vaginata** Bor (*Arundinella villosa* var. *heyne* Hook.f.)

India, Kerala, Tamil Nadu. See *The Flora of British India* 7(21): 73. 1897 [1896] and *Journal of the Indian Botanical Society* 27: 66. 1948.

**A. villosa** Nees (*Arundinella villosa* var. *wightii* Hook.f.)

Asia, India, Sri Lanka. Perennial, stiff, erect, base bulbous and woolly, narrow panicle, glumes acuminate, along roadsides, see *Syn. Pl. Glumac.* 1: 115. 1854, *The Flora of British India* 7(21): 73. 1897 [1896] and *Handb. Fl. Ceylon* 5: 178. 1900, *Grasses of Ceylon* 98. 1956, *Grasses of Burma* ... 426. 1960.

**Arundo L.** = *Amphidonax* Nees, *Amphidonax* Nees ex Lindl., *Donacium* Fries, *Donax* P. Beauv., *Eudonax* Fries, *Scolochloa* Mert. & Koch

From the Latin *arundo*, *dinis* (*harundo*) "a reed, cane."

About 3-12 species, from Mediterranean region to China. Arundinoideae, Arundineae, perennial, robust, erect, in large tall clumps, sometimes almost woody, persistent, robust, thick and stout, creeping thick and knotty rhizomes, flowering culms leafy, glabrous nodes, hollow internodes, branched, ligule a fringed membrane, sheath ribbed or smooth, leaves alternate and glaucous, leaves linear-lanceolate to lanceolate to oblong-lanceolate, plants bisexual, large inflorescence paniculate and open, feathery plume-like terminal panicle, fascicled lower branches, spikelets pedicellate and solitary, uppermost flower reduced or usually empty or all flowers perfect, 2 large glumes keeled and more or less equal, lemma hairy to villous and awned, female-fertile lemmas densely hairy, callus shortly hairy, 2 free fleshy glabrous lodicules irregularly toothed, 3 stamens, ovary glabrous, 2 stigmas, weed species, native pasture species, invasive, several cultivars cultivated as ornamentals, can be grown as a windbreak screen, highly flammable, leaves made into matting and baskets, occurring in riversides and in ditches, riparian habitats, in poor sandy soil, along riverbanks and wet places, pampas, on sand dunes near seashores, type *Arundo donax* L., see *Species Plantarum* 1: 81-82. 1753, *Genera Plantarum*. edition 5. 35. 1754, *Familles des Plantes* 2: 34, 559. 1763, *Essai d'une Nouvelle Agrostographie* 77-78, 152, 161. 1812, *J. C.*

*Rohlings Deutschlands Flora* 1: 374, 528, 530. 1823, *An Introduction to the Natural System of Botany* 449. 1836, *Botaniska Notiser* 1843: 132. 1843, *Flora Rossica* 4(13): 393-394. 1852, Pietro Bubani, *Flora Virgiliana*, ovvero sulle piante menzionate da Virgilio. 22-24. Bologna 1870 and *Contr. U.S. Natl. Herb.* 24: 184. 1925, H.J. Conert, "Die Systematik und Anatomie der Arundineae." Weinheim 1961, *Journal of Cytology and Genetics* 20: 205-206. 1985, *Kew Bulletin* 41: 323-342. 1986, *Grass Systematics and Evolution* 239-250. 1987, *Pl. Syst. Evol.* 173: 57-70. 1990, *Boletim da Sociedade Broteriana, ser. 2* 64: 35-74. 1991, *Flora Mesoamericana* 6: 252. 1994, *Syst. Bot.* 20: 423-435. 1995, *Restoration Ecology* 5(4s): 43-55, 56-68, 75-84. Dec 1997, *Australian Syst. Bot.* 11: 41-52. 1998, *Syst. Bot.* 23: 327-350. 1998, *Plant, Cell and Environment* 22(11): 1319-1335. Nov 1999, *Global Ecology and Biogeography* 9(1): 93-94. Jan 2000, *Restoration Ecology* 8(3): 268-275. Sep 2000, *Heredity* 86(6): 738-742. June 2001, *Plant, Cell and Environment* 25(3): 441-451. Mar 2002, *Oikos*. vol. 98, issue 2: 284-298. Aug 2002, *New Phytologist* 155(2): 197-199, 284-298. Aug 2002, *Diversity & Distributions* 8(5): 285-295. Sep 2002, *Restoration Ecology* 10(4): 695-702. Dec 2002, *Contributions from the United States National Herbarium* 46: 17, 113-115, 214, 241, 569. 2003, *Diversity & Distributions* 10(5-6): 367-369, 485-492. Sep 2004, *Diversity & Distributions* 10(5-6): 475-484. Sep 2004 [Mapping the potential ranges of major plant invaders in South Africa, Lesotho and Swaziland using climatic suitability.], *Global Change Biology* 11(1): 60-69. Jan 2005.

### Species

**A. donax** L. (*Amphidonax bengalensis* Roxb. ex Nees; *Amphidonax bifaria* (Retz.) Nees ex Steud.; *Arundo aegyptiaca* hort. ex Vilm.; *Arundo bambusifolia* Hook.f.; *Arundo bengalensis* Retz.; *Arundo bifaria* Retz.; *Arundo donax* var. *angustifolia* Döll; *Arundo donax* var. *lanceolata* Döll; *Arundo donax* var. *procerior* Kunth; *Arundo glauca* Bubani, nom. illeg., non *Arundo glauca* M. Bieb.; *Arundo latifolia* Salisb.; *Arundo longifolia* Salisb. ex Hook.f.; *Arundo maxima* Forssk.; *Arundo sativa* Lam.; *Arundo scriptoria* L.; *Arundo versicolor* P. Mill.; *Cynodon donax* (L.) Raspail; *Donax arundinaceus* P. Beauv.; *Donax bifarius* (Retz.) Trin. ex Spreng.; *Donax donax* (L.) Asch. & Graebn.; *Scolochloa arundinacea* (P. Beauv.) Mert. & Koch; *Scolochloa donax* (L.) Gaudin) (Greek *donax*, *donakos* for a kind of reed)

Mediterranean. Perennial, semiaquatic, large, erect, tall, woody, vigorous, thick, quick growing, rhizomatous, stems forming clumps and dense monotypic stands, roots extensive, large root systems, creeping horizontal rhizomes, ligule papery and truncate, leaf sheaths hairy at base, leaves stiff with an auriculate base, glaucous and arching distichous leaves, very large compact inflorescence, feathery plume-like inflorescences, florets in large branched panicles, dense and silky-hairy panicle, spikelets pedicellate and

solitary, glumes subequal and glabrous, long pilose to pubescent lemmas, palea 2-nerved, cultivated, medicinal value, native pasture species, browsed only the young leaves, unpalatable when old, can form dense floating mats in streams and rivers, forming large colonies, strong winds tolerant, invasive and quite aggressive, useful for erosion control, ornamental, stems used for light construction work and for making woodwind reeds, windbreaks, pipe instruments, reed for clarinets, walking sticks and fishing rods, a source of paper pulp, a decoction of rhizomes said to stimulate menstrual discharge, growing in damp places and along riverbanks, riparian habitats, floodplains, hillsides, moist disturbed places, in coastal areas, along roadsides, marshes, on sand dunes near seashores, along irrigation ditches and waste places, open forest, on edge of streams and ponds, along lakeshore, streams, see *Species Plantarum* 1: 81. 1753, *Amoenitates Academicae* ... 4: 450. 1759, *The Gardeners Dictionary: ... eighth edition* 3. 1768, *Flore de France* 3: 616. 1778, *Observationes Botanicae* 4: 21. 1786, *Observationes Botanicae* 5: 20. 1789, *Prodromus stirpium in horto ad Chapel Allerton vigentium*. 24. Londini [London] (Nov-Dec) 1796, *Essai d'une Nouvelle Agrostographie* 78, 152, 161. 1812, *A Botanical Materia Medica* 1: 160. 1812, *Neue Entdeckungen im ganzen Umfang der Pflanzenkunde* 2: 73. 1821, *J. C. Rohlings Deutschlands Flora* 1(2): 530. 1823, *Annales des Sciences Naturelles, Botanique* 5: 302. 1825, *Flora Helvetica* 1: 202. 1828, *Révision des Graminées* 1: 78. 1829, *A Natural System of Botany* 449. 1836, *Synopsis Plantarum Glumacearum* 1: 197. 1855 [1854], *Flora Brasiliensis* 2(3): 48. 1878, *The Flora of British India* 7: 303. 1896, *Flora des Nordostdeutschen Flachlandes* 101. Berlin 1898, *Bulletin de l'Herbier Boissier* 7(9): 724. 1899 and *Flora Pyrenaea per ordine naturales gradatim digesta* 4: 303. Milano 1901, *Bulletin Agricole du Congo Belge* 11: 114. 1920, *Botanical Magazine* 41: 15. 1927, *Acta Phytotaxonomica et Geobotanica* 10: 265. 1941, *Grasses of Burma* ... 413. 1960, *Phytologia* 38(3): 174. 1978, *Bot. Gaz.* 145: 78-82. 1984, *Flora Analítica de la Provincia de Valencia* 368. 1987, *Regnum Veg.* 127: 21. 1993, Olga Speck and Hanns-Christof Spatz, "Damped oscillations of the giant reed *Arundo donax* (Poaceae)." *Am. J. Bot.* 91: 789-796. 2004.

in English: bamboo reed, giant reed, great reed, giantreed, ribbon grass, reed, reed grass, giant reed grass, Spanish reed, Danubian reed, Spanish cane, variegated giant reed grass, arundo grass, river cane, nal grass, wild cane

in France: canne de Provence, roseau géant, grand roseau

in Spain: caña común, caña de Castilla, caña Castilla, canya, garritz

in Bolivia: caña hueca, tacuara

in Brazil: canna do reino

in Colombia: cañabrava de Castilla, lata

in Cuba: caña-guana

in Ecuador: juco, junco, carrizo, carriso

in Mexico: aca-te, acatl, baacam, baca, bacaca, caña, caña de Castilla, caña hueca, cañaveral, canuto, carricillo, carrizo, carrizo de la selva, daxó, falso bambú, gubaguih, gubaguihoguere, haca, halal, ja-sá, jará, junco gigante, ka'tit, katut, ocatl, pacab, pakaab, patamu, shiti, tarro, tek'halal, tekhalal, xitji

in Peru: carrizo

in West Indies: bambou indien, bambou mare, giant reed, panache, roseau, roseau des mares

in Portuguese: cana vieira, cana de roca, cana

in South Africa: riet, Spaans(e)riet, Spaanseriet

in Japan: yoshi-take, danchiku

in Okinawa: deiku

in India: adavikkikasagaddi, ama, bansi, bara nal, dhaman, gaha nal, hulugilu hullu, kaki veduru, korukkachi, korukkai, laalada kaddi, mudam pul, nal, nala, naldhura, naldura, narkat nal, narsal, paatuveduru, potagal, sarah, shoonya madhya, sukna, vaelam

in Laos: khem

in Thailand: o luang, o yai

in Vietnam: say, lau

in Tunisia: ksab

in Morocco: l-gesba, l-gseb, l-qseb, âganim

in Arabic: qasab, 'alal, kasab

**A. donax** L. var. **versicolor** (Mill.) Stokes (*Arundo donax* f. *versicolor* (Mill.) Beetle; *Arundo donax* var. *variegata* Vilm.; *Arundo donax* var. *versicolor* (Mill.) Kunth, nom. illeg., non *Arundo donax* var. *versicolor* (Mill.) Stokes; *Arundo versicolor* Mill.)

Cosmopolitan. Ornamental variety with white-striped leaves, see *The Gardeners Dictionary: ... eighth edition* 3. 1768, J.S. Stokes, *A Botanical Materia Medica* 1: 160. 1812, *Révision des Graminées* 1: 78. 1829 and *Phytologia* 38(3): 174. 1978.

in English: giant reed

in Thailand: o laai, o lai

**A. pliniana** Turra (*Arundo mauritanica* Desf., nom. illeg.; *Arundo plinii* Turra)

Europe. Wetland, pioneer grass, see *Farsetia* 11. 1765.

in Italian: piccola canna del Reno, canna, cannuccia di Plinio, canna del Reno, cannuccia del Reno

**A. poiformis** Labill. (*Poa poiformis* (Labill.) Druce)

Australia. See *Novae Hollandiae Plantarum Specimen* 1: 27. 1804 and *Report. Botanical Exchange Club. London. Suppl.* 2: 640. 1917, J.W. Vickery, "A taxonomic study of the genus *Poa* L. in Australia." in *Contributions from the New South Wales National Herbarium* 4(4): 145-243 (208). 1972.

## Arundoclaytonia Davidse & R.P. Ellis

Named for W.D. Clayton, British agrostologist.

One species, Brazil. Arundinoideae, Steyermarkochloaeae, or Panicoideae, Steyermarkochloaeae, perennial, tufted, plants monoecious, ligule a fringed membrane, 2 glumes very unequal, male florets 2-staminate, palea present, lodicules absent, no stamens, ovary glabrous, 2 stigmas, open habitats, type *Arundoclaytonia dissimilis* Davidse & R.P. Ellis, see *Annals of the Missouri Botanical Garden* 74(3): 479-490. 1987, *Contributions from the United States National Herbarium* 46: 115. 2003.

### Species

#### *A. dissimilis*

Brazil.

#### **Asperella Humb.** = *Asperella* Juss., *Elymus* L., *Hystrix* Moench

Diminutive of the Latin *asper, era, erum* "rough," referring to the leaves.

Pooideae, Triticeae, Hordeinae, type *Asperella hystrix* (L.) Humb., see *Species Plantarum* 1: 83-84. 1753, *Botanisches Magazin (Römer & Usteri)* 7: 5. 1790, *Methodus Plantas Horti Botanici ...* 294-295. 1794, *Dictionnaire des Sciences Naturelles* 3: 214. 1804 [1805] and *Amer. J. Bot.* 21: 133-134. 1934, *Canad. J. Bot.* 42: 554. 1964, *Taxon* 41: 562-563. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 279-307. 2003.

#### **Asperella Juss.** = *Leersia* Sw., *Leersia* Sol. ex Sw.

Ehrhartoideae, Oryzeae, Oryzinae, see *Nova Genera et Species Plantarum seu Prodrum* 1, 21. 1788, *Dictionnaire des Sciences Naturelles* 3: 214. 1804 [1805] and *Contributions from the United States National Herbarium* 39: 64-67. 2000.

#### **Asprella Host** = *Psilurus* Trin.

Latin *asper, era, erum* "rough."

Type *Asprella nardiformis* Host, see *Icones et Descriptiones Graminum Austriacorum* 4: 17. 1809, *Fundamenta Agrostographiae* 93. 1820.

#### **Asprella Schreber** = *Leersia* Sw., *Leersia* Sol. ex Sw.

From the Latin *asper, era, erum* "rough."

Ehrhartoideae, Oryzeae, Oryzinae, see *Nova Genera et Species Plantarum seu Prodromus* 1, 21. 1788, Johann Christian Daniel von Schreber (1739-1810), *Genera Plantarum*. 45. 1789 and *Contributions from the United States National Herbarium* 39: 64-67. 2000.

**Asprella Willd.** = *Elymus* L.

Pooideae, Triticeae, Hordeinae, see *Species Plantarum* 1: 83-84. 1753, *Enumeratio Plantarum Horti Botanici Bero-linensis*, ... 1: 132. 1809 and *Canad. J. Bot.* 42: 554. 1964, *Taxon* 41: 562-563. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 279-307. 2003.

**Aspris Adans.** = *Aira* L.

Latin *asper, era, erum* "rough, bitter, harsh."

Pooideae, Poeae, Airinae, see *Species Plantarum* 1: 63-66. 1753, *Familles des Plantes* 2: 496. 1763, *Icones et Descriptiones Graminum Austriacorum* 4: 20, t. 35. 1809 and *An Illustrated Flora of the Northern United States* 1: 214-215. 1913, *United States Department of Agriculture: Bulletin* 772: 116. 1920, *Amer. J. Bot.* 21: 135. 1934, *Taxon* 41: 556. 1992, *Taxon* 44: 611-612. 1995, *Contributions from the United States National Herbarium* 48: 89-96. 2003.

**Asthenatherum Nevski** = *Centropodia* Rchb., *Centropodia* (R. Br.) Reichenbach

Greek *asthenes* "weak, feeble" and *ather, atheros* "barb, spine," see *Narrative of Travels and Discoveries in Northern and Central Africa* 244. 1826, *Conspectus Regni Vegetabilis* 212a. 1828 and *Senck. Biol.* 43(4): 239-266. 1962, *Kew Bulletin* 37(4): 657-659. 1982, T.A. Cope, "Centropodia: an earlier name for *Asthenatherum* (Gramineae)." *Kew Bulletin* 37(4): 657-659. 1983, *Bothalia* 15(1/2): 153-159. 1984, *Flora of Ethiopia and Eritrea* 7: 73. 1995.

**Asthenochloa Büse** = *Garnotiella* Stapf

From the Greek *asthenes* "weak, feeble" and *chloe, chloa* "grass."

One species, Indonesia, Southeast Asia. Panicoideae, Andropogonodae, Andropogoneae, Andropogoninae, annual or perennial, decumbent, herbaceous, slender, branched, plants bisexual, open inflorescence paniculate, spikelets paired, lower floret suppressed, pedicellate spikelets reduced to barren pedicels, 2 glumes subequal, keeled upper glume, lower glume convex, upper lemma bilobed and awned, palea and lodicules absent, 2 stamens, ovary glabrous, 2 stigmas, in damp ground, type *Asthenochloa*

*tenera* Büse, see *Voyage Autour du Monde* 2(2): 132-133, pl. 21. 1830, *Plantae Junghuhnianae* 3: 367, 368. 1854, *Hooker's Icones Plantarum* 25: t. 2494. 1896 and *Kew Bulletin* 27: 515-562. 1972.

**Species**

*A. tenera* Büse (*Garnotia leptos* (Steudel) Stapf; *Garnotia philippinensis* Stapf)

Indonesia. See *Bulletin of Miscellaneous Information Kew* 1910: 302. 1910.

**Astrebla F. Muell.** = *Astrebla* F. Muell. ex Benth., *Astrebla* Benth.

Straight awned, from the Greek *a* "without, not" and *streblos* "twisted," referring to the straight awns; *Astrebla* spp. were first discovered near Bourke in New South Wales by the explorer, Sir Thomas Livingstone Mitchell, in 1835.

4 species, subtropical areas of Australia. Chloridoideae, perennial or annual, coarse, caespitose and forming a tussock grassland, xerophytic, adapted to a harsh environment, leafy, deep rooted and long-lived grassland, tough rootstock, short stout thick branched and scaly rhizomes, stems jointed and erect, herbaceous and branched above, glabrous nodes, solid internodes, ligule a fringe of hairs or a ciliate rim, leaves narrow, no auricles, plants bisexual, inflorescence a single spike or a spike-like raceme, spikelets sessile or nearly so, bisexual and solitary spikelets, 2-9 florets and the uppermost often reduced, 2 glumes subequal acute and persistent, lemmas silky-hairy and 3-lobed, untwisted awn, palea 2-keeled with keels ciliate, 2 free and fleshy lodicules, 3 stamens, ovary glabrous, 2 stigmas, produce abundant nutritious seeds, cultivated fodder, forage grasses, native pasture species, all species palatable and acceptable to stock, low in nutritive value, loses much of its nutritive value with age, normally continuously grazed, growth responses are determined by rainfall, extraordinary resistance to drought and continuous grazing, tolerant of mild salinity, plants do not break up when dry, no toxicity has been reported, useful for erosion control, common in dry areas, floodplains, alluvial plains, on relatively fertile cracking clay soils, on shallow clays on limestones, subtropical areas of Australia, arid and semiarid inland plains, on the heavy gray clays, on heavy soils, heavy clay soils, downs and coolibah clay soils in drier areas, open habitats, common on the black and red soils in the interior of New South Wales, Queensland and the Northern Territory, nomenclature very confused, see George Benthams (1800-1884), *Flora Australiensis*. 7: 602. 1878, F.M. Bailey (1827-1915), *A Few Queensland Grasses*, with short notes, range of each species, etc., etc. Brisbane 1888 and *Bull. Misc. Inform. Kew* 1928: 257-266. 1928, *Austral. J. Bot.* 17: 359-374. 1969, *Austral. Ecology* 26(4): 338-348. Aug 2001, *Journal*



of *Applied Ecology* 38(5): 897-909. Oct 2001, Ian J. Radford, Mike Nicholas, Fleur Tiver, Joel Brown and Darren Kriticos, "Seedling establishment, mortality, tree growth rates and vigour of *Acacia nilotica* in different *Astrebla* grassland habitats: Implications for invasion." *Austral. Ecology* vol. 27, issue 3: 258-268. June 2002, *Austral. Ecology* vol. 27, issue 6: 706-713. Dec 2002, *Austral. Ecology* 28(3): 227-236. June 2003, *Austral. Ecology* 28(4): 423-443. Aug 2003, *Austral. Ecology* 29(1): 51-58. Feb 2004, *Australian Journal of Entomology* 43(3): 216-234, 293-303. July 2004, *Physiologia Plantarum* 121(3): 409-420. July 2004, Qing Liu, Nan-Xian Zhao, Gang Hao, Xiao-Ying Hu and Yun-Xiao Liu, "Caryopsis morphology of the Chloridoideae (Gramineae) and its systematic implications." *Botanical Journal of the Linnean Society* 148(1): 57-72. May 2005, *Flora of Australia* vol. 44B, Poaceae 3: 452-457. 2005.

### Species

***A. elymoides*** F. Muell. ex F.M. Bailey

Northern Territory, Queensland, New South Wales. Perennial, tufted, erect, tussock grass with a thickened hairless butt, stems branched and bluish green, leaves flat and narrow, leafy tussocks, narrow inflorescences, recurved mature flowering culms, spikelets or racemes slender and curved or drooping to the ground, weeping seed-heads long and narrow, spikelets solitary distant or loosely imbricate, glumes often deciduous, lemmas shortly villous at the base, palea lanceolate, cleistogamy, a decreaser species, moderately palatable and nutritious when young, grazed, growing in alluvial areas, heavy cracking gray clay soils, in wetter or heavily grazed areas, on heavy self-mulching clays, see *A Few Queensland Grasses*, with short notes, range of each species, etc., etc. Brisbane 1888.

in English: hoop Mitchell grass, weeping Mitchell grass, weeping Mitchell, slender Mitchell

***A. lappacea*** (Lindley) Domin (*Astrebla pectinata* var. *curvifolia* F.M. Bailey; *Astrebla triticoides* (Lindley) F. Muell.; *Astrebla triticoides* (Lindl.) F. Muell. ex Benth.; *Danthonia lappacea* Lindley; *Danthonia triticoides* Lindley)

Western Australia, Queensland, Northern Territory, New South Wales. Perennial, densely tufted, with stout rhizomes and a thickened butt, numerous wiry roots, stems jointed, bluish green or glaucous leaves, inflorescence a long narrow spike-like raceme, wavy backed seed heads, spikelets loosely imbricate and alternate, each floret ends in three long and bristle-like lobes, glumes acuminate and unequal, lemma villous on the back, broad lateral lemma lobes, short awn, bristly seeds, cleistogamy, cultivated fodder, very nutritious, drought resistant and very tolerant of grazing, recommended for sowing, growing on heavy clay and clay loam soils of river floodplains, on deep cracking clays in arid zones, arid open areas, degraded pastures, sometimes grows on sandy alluvium, see *Three Expeditions into the*

*Interior of Eastern Australia* 1: 309. 1838, *Journal of an Expedition into the Interior of Tropical Australia* 365. 1848 and *Bibliotheca Botanica* 85: 372, f. 86. 1915, Oula Ghanoum et al., "Nonstomatal limitations are responsible for drought-induced photosynthetic inhibition in four C4 grasses." *New Phytologist* 159(3): 599-608. Sep 2003, K. Siebke et al. "Photosynthetic oxygen exchange in C4 grasses: the role of oxygen as electron acceptor." *Plant, Cell and Environment* vol. 26, issue 12: 1963-1972. Dec 2003. in English: curly Mitchell grass, wheat Mitchell, wheat Mitchell grass

***A. pectinata*** (Lindley) F. Muell. ex Benth. (*Astrebla pectinata* (Lindl.) F. Muell.; *Astrebla pectinata* (Lindl.) Benth.; *Danthonia pectinata* Lindley)

South Australia, Western Australia, Northern Territory, Queensland, New South Wales. Short-lived perennial or annual, vigorous tussock grass, tufted, leafy, bluish green, compact, erect and smooth, short rhizome, butt and rhizome hairless often knotty and covered with reduced and sparsely hairy leaves, stems many branched or unbranched, leaves flat and basal with long tapering points, cleistogamy common, a barley-like seed head short and straight, spikelets closely packed together or densely imbricate along the entire raceme, flower heads compact, glumes acute, lemma villous on the back, straight and conspicuous awn, the relatively large seeds are easily separated from the chaff, ornamental, decreaser species, drought-resistant or tolerant, heavy stocking resistant, useful for erosion control, very palatable when green, pasture grass, good fodder, food for wild budgerigars, dominant in arid and drier areas, on slight cracking clays, red clays, very similar to curly Mitchell *Astrebla lappacea* (Lindley) Domin, see *Three Expeditions into the Interior of Eastern Australia* 2: 26. 1838, *Dept. Agr. Brisbane Bot. Bull.* 13: 15. 1896 [also *Bot. Bull. Dept. Agric., Queensland*] and *The Queensland Flora* 6: 1897, t. 82. 1902 [Printed by H.J. Diddams & co., 1899-1902. Published under the authority of the Queensland government.]. in English: barley Mitchell grass, barley Mitchell, Mitchell grass, common Mitchell

***A. squarrosa*** C.E. Hubbard

Western Australia, Northern Territory, Queensland, New South Wales. Perennial, large, compact, leafy, tufted, butt densely coated with persistent leaf sheaths, culms erect from a short rhizome, stems strong and prominent, spikelet or raceme quite dense to loose, spikelets closely imbricate and 3- to 9-flowered, glumes acuminate, lemma 3-lobed and densely silky-villous, lobes of the lemma with hooked awns, palea elliptic, seed heads dense and large, usually dominant in the wetter northern Mitchell grasslands and is least palatable and nutritious, on water run-on areas, see *Bulletin of Miscellaneous Information Kew* 1928(7): 259-261. 1928.

in English: bull Mitchell grass, wheateared Mitchell grass, tall Mitchell grass