

TYPIFICATION OF NAMES IN MEXICAN SPECIES OF POOIDEAE (POACEAE)

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ABSTRACT

As part of several taxonomic studies of Mexican species of Pooideae (Poaceae), 11 names are lectotypified herein: *Agrostis chinantlae*, *A. diegoensis*, *A. durangensis*, *A. scabra*, *A. schaffneri*, *A. thyrsgera*, *A. virletii*, *Festuca amplissima*, *F. fratercula*, *Trisetum bambusiforme*, and *T. virletii*.

RESUMEN

Como parte de varios estudios taxonómicos de especies mexicanas de Pooideae (Poaceae), se lectotifican aquí 11 nombres: *Agrostis chinantlae*, *A. diegoensis*, *A. durangensis*, *A. scabra*, *A. schaffneri*, *A. thyrsgera*, *A. virletii*, *Festuca amplissima*, *F. fratercula*, *Trisetum bambusiforme*, y *T. virletii*.

The subfamily Pooideae (Poaceae) is the most diverse of the grasses, with ca. 219 genera and 4126 species (Soreng et al. 2022). The species are principally distributed in cold and temperate regions of the world and in the high mountains of the tropics (GPWG 2007). The Pooideae are the third richest subfamily in Mexico, where at least 60 genera and 260–292 species are recorded (Dávila et al. 2018; Sánchez-Ken 2019). Eleven names of Pooideae are lectotypified here in order to include them in upcoming taxonomic publications. Available photographs of the types were seen in the online databases of the herbaria mentioned below and the acronyms are cited according Index Herbariorum (Thiers 2022).

AGROSTIS BOURGAEI E. Fourn., Mexic. Pl. 2: 95. 1886. *Agrostis bourgaei* E. Fourn. ex Hemsl., Biol. Centr.-Amer., Bot. 3: 550. 1885 [nom. nud.]. **TYPE: MEXICO. State of Mexico.** Pedregal près Tizapan, vallée de Mexic, 2 Aug 1865, *E. Bourgeau* 682 (holotype: P00740531!; isotype: US00156379!).

=*Agrostis thyrsgera* Mez, Repert. Spec. Nov. Regni Veg. 17(19–30): 301. 1921. **LECTOTYPE** (designated here): **MEXICO. State of Mexico.** Wet banks, Sierra de las Cruces, 12 Aug 1893, *C.G. Pringle* 4485 (lectotype: BR0000006863616!; isolectotypes: BR0000006864217!, KFTA0002213!, K000308369!, MSC0129859!, NDG07467!, NY00688876! NY00688877!, S12-16472!, W18940003052!).

Notes. In the protologue of *Agrostis thyrsgera* (Mez 1921) three syntypes are cited (*Pringle* 4251, 4485, 11209). The specimen *Pringle* 4485 at BR is chosen as lectotype.

AGROSTIS EXARATA Trin., Gram. Unifl. Sesquifl. 207. 1824. **TYPE: USA. Alaska.** Unalaska, 1829, *J.F. Eschscholtz* s.n. (holotype: LE00009316!; isotype: LE).

=*Agrostis durangensis* Mez, Repert. Spec. Nov. Regni Veg. 17(19–30): 301. 1921. **LECTOTYPE** (designated here): **MEXICO. Durango.** City of Durango and vicinity, 1896, *E. Palmer* 190 (lectotype: MO-128909!; isolectotypes F0046563F!, FCME! [fragm. ex US], GH00022993!, NY00327644!, US00151844!, US00151845!, US00151846!, US00156413!, US00486604!).

Notes. In the protologue of *Agrostis durangensis* (Mez 1921) the specimen *Palmer 190* is cited, but no herbarium is specified. This specimen has duplicates at MO, F, GH, NY, US, and one fragment at FCME. The duplicate at MO is chosen as lectotype.

AGROSTIS GIGANTEA Roth, Tent. Fl. Germ. 1: 31. 1788. *Triticum giganteum* (Roth) Roth, Catal. Bot. 3: 22. 1806. *Vilfa gigantea* (Roth) P. Beauv., Ess. Agrostogr. 16: 147. 1812. *Agrostis alba* L. var. *aristata* Spenn., Fl. Friburg. 1: 94. 1825 [nom. illeg. superfl.]. *Agrostis stolonifera* subsp. *gigantea* (Roth) Schübl. & Martens, Fl. Württemberg 64. 1834. *Agrostis stolonifera* var. *gigantea* (Roth) Bréb., Fl. Normandie 390. 1835. *Agrostis alba* var. *gigantea* (Roth) G. Mey., Chloris Han. 655. 1836 [non Spenner 1825]. *Agrostis alba* subsp. *gigantea* (Roth) Arcang., Comp. Fl. Ital. 768. 1882. *Agrostis stolonifera* subsp. *gigantea* (Roth) Maire & Weiller, Fl. Afrique N. 2(XLV): 120. 1953. *Agrostis stolonifera* subsp. *gigantea* (Roth) Beldie, Fl. Republ. Socialiste Romania 12: 152. 1972 [nom. illeg. hom.]. **LECTOTYPE** (designated by Widén 1971): **GERMANY**: Herb. Albrecht de Haller, A.W. Roth s.n. (lectotype: G00195254!).

=*Agrostis virletii* E. Fourn., Mexic. Pl. 2: 96. 1886. *Agrostis virletii* E. Fourn. ex Hemsl., Biol. Cent.-Amer., Bot. 3: 552. 1885 [nom. nud.]. **LECTOTYPE** (designated here): **MEXICO**. **San Luis Potosí**. Prov. de San Luis, 1851, *M. Virlet d'Aoust 1345* (P00740442!; isolectotypes: P00740440!, P00740441!, US00156515! [fragm. ex P]).

Notes. In the protologue of *Agrostis virletii* (Fournier 1886) the specimen *Virlet d'Aoust 1345* is cited, but no herbarium where it was deposited is indicated. This specimen has duplicates at P and a fragment at US. One of the duplicates at P has a handwritten label indicating “lectotype,” but this is not an effective publication according to the Art. 30.1 of the International Code of Nomenclature for Plants (Turland et al. 2018). This duplicate is effectively designated herein as lectotype.

AGROSTIS PALLENS Trin., Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 6, 4(3–4): 328. 1841. **TYPE**: *America borealis*, *J.D. Hooker 243* (holotype: LE-TRIN-1634.01; isotype: US00156470! [fragm. ex LE-TRIN]).

=*Agrostis diegoensis* Vasey, Bull. Torrey Bot. Club 13: 55. 1886. *Agrostis multiculmis* Vasey ex Beal, Grass. N. Amer. 328. 1896 [pro syn.]. **LECTOTYPE** (designated here): **USA**. **California**. San Diego, 1884, *C. Orcutt s.n.* (lectotype: US00131740!; isolectotypes: GH00022962!, K000838209!, NY00327625!, OSC0001812!, W19160036561!).

Notes. In the protologue of *Agrostis diegoensis* (Vasey 1886) the specimen *Orcutt s.n.* is cited, but no herbarium where it was deposited is indicated. This specimen has duplicates at GH, K, NY, OSC, and US. The duplicate at US has a handwritten label indicating “lectotype,” but this is not an effective publication according to the Art. 30.1 of the International Code of Nomenclature for Plants (Turland et al. 2018). This duplicate is effectively designated here as lectotype.

AGROSTIS PERENNANS (Walt.) Tuck., Amer. J. Sci. Arts 45: 44. 1843. *Cornucopiae perennans* Walt., Fl. Carol. 74. 1788. *Agrostis cornucopiae* Sm., Gent. Mag. 59: 873. 1789 [nom. illeg. superfl.]. *Agrostis elegans* (Walt.) Salisb., Prodr. Stirp. Chap. Allerton 25. 1796 [nom. illeg. superfl.]. *Agrostis anomala* Willd., Sp. Pl., 1(1): 370. 1797 [nom. illeg. superfl.]. *Trichodium perennans* (Walt.) Elliott, Sketch Bot. S. Carolina 1(2): 99. 1816. *Agrostis scabra* var. *perennans* (Walt.) Alph. Wood, Class Book Bot. (ed. 3) 774. 1861. **NEOTYPE** (designated by Ward 2007): **USA**. **South Carolina**. At the intersection of cutoff road and Fire Break 49 on Ft. Jackson Military Reservation, 11 Jul 1995, *K.B. Kelly & J.B. Nelson 254* (neotype: GH00247994!).

=*Agrostis chinantlae* E. Fourn., Mexic. Pl. 2: 96. 1886. *Agrostis chinantlae* E. Fourn. ex Hemsl., Biol. Centr.-Amer., Bot. 3: 550. 1885 [nom. nud.]. **LECTOTYPE** (designated here): **MEXICO**.

Chinantla, May 1841, *F.M. Liebmann 709* (lectotype: C10016725!; isolectotypes: C10016726!, K000308372!, US00131733).

Notes. In the protologue of *Agrostis chinantlae* (Fournier 1886) only the specimen *F.M. Liebmann 709* is cited, but no herbarium where it was deposited is indicated. This specimen has duplicates at C, K and US. One of the duplicates at C is chosen as lectotype, because it is the most complete.

AGROSTIS SCABRA Willd., Sp. Pl. 1(1): 370. 1797. *Trichodium scabrum* (Willd.) Muhl., Cat. Pl. Amer. Sept. 10. 1813. *Agrostis laxiflora* var. *scabra* (Willd.) Torr., Fl. New York 2: 442. 1843. *Agrostis hyemalis* var. *scabra* (Willd.) Blomq., Grass. N. Carolina 82. 1948. **LECTOTYPE** (designated here): America borealis, *Anonymous s.n.* (lectotype: BW01732020!; isolectotype: BW01732010!).

Notes. In the protologue of *A. scabra* (Willdenow 1797) a specimen is not cited, only the locality “America borealis” is mentioned. In the Willdenow herbarium at B there is a folder (BW01732) with a handwritten note that reads “America borealis.” This folder contains two specimens (BW01732010, BW01732020) that are probably original material. One of the specimens is chosen as lectotype, because it is the most complete. This specimen consists of a culm fragment, with several flattened and narrow leaf blades, and a large panicle, with ascending branches, branching distally, and appressed spikelets. These characteristics undoubtedly correspond to *A. scabra*.

AGROSTIS SCHAFFNERI E. Fourn., Mexic. Pl. 2: 94. 1886. *Agrostis schaffneri* E. Fourn. ex Hemsl., Biol. Centr.-Amer., Bot. 3: 551. 1885 [nom. nud.]. **LECTOTYPE** (designated here): **MEXICO. Mexico City.** Tacubaya, *J.G. Schaffner 86* (lectotype: P00740418!).

Notes. In the protologue of *Agrostis schaffneri* (Fournier 1886) two syntypes are cited (*Schaffner 86, 308*). The specimen *Schaffner 308* at P is chosen as lectotype.

FESTUCA AMPLISSIMA Rupr., Bull. Acad. Roy. Sci. Bruxelles 9(2): 236. 1842. *Festuca amplissima* Rupr. ex E. Fourn., Mexic. Pl. 2: 125. 1886 [nom. illeg. hom.]. **LECTOTYPE** (designated here): **MEXICO. Veracruz.** Vaquería del Jacal, 1840, *H.G. Galeotti 5766* (lectotype: BR 0000006863524!).

=*Festuca fratercula* Rupr. ex E. Fourn., Mexic. Pl. 2: 124. 1886. *Festuca fratercula* Rupr., Bull. Acad. Roy. Sci. Bruxelles 9(2): 236. 1842 [nom. nud.]. **LECTOTYPE** (designated here): **MEXICO. Oaxaca.** Cumbre de Estepa, Sep 1841, *F.M. Liebmann 575* (lectotype: C10016958!).

Notes. In the protologue of *Festuca amplissima* (Ruprecht in Martens and Galeotti 1842) the specimen *Galeotti 5766* is cited and two localities of Veracruz, Mexico, are mentioned, “Pic d’Orizaba” and “Vaquería del Jacal.” That specimen has duplicates at BR, LE, W and one fragment at US (ex W). The duplicate at BR was collected at “Vaquería del Jacal” and the other ones at “Pic d’Orizaba”. According to González-Ledesma (1986) only the duplicate at BR corresponds to *F. amplissima*, while the other ones are *F. orizabensis*. In this case it is necessary to designate a lectotype to preserve the current usage of this name, according with the Art. 9.11 (also see Rec. 9A.4) of the International Code of Nomenclature of Plants (Turland et al. 2018). González-Ledesma designated the duplicate at BR as lectotype in his B. Sc. thesis, but that is not an effective publication according with the Art. 30.9 of the Code. This duplicate is effectively designated here as lectotype.

In the protologue of *Festuca fratercula* (Fournier 1886) two syntypes are cited (*Galeotti 5778* and *F.M. Liebmann 575*). The specimen *Liebmann 575* at C is chosen as lectotype because it is the most complete.

PEYRITSCHIA VIRLETII (E. Fourn.) Peterson, Soreng, Romasch., & Barberá, *Phytoneuron* 2019-39: 20. 2019. *Trisetum virletii* E. Fourn., *Mexic. Pl.* 2: 108. 1886. **LECTOYPE** (designated here): **MEXICO. San Luis Potosí.** Prov. de San Luis, 1851, *M. Virlet d'Aoust 1384* (lectotype: P00740307!; isolectotypes: P00740306!, P00740309!, P00740308!).

=*Trisetum bambusiforme* E. Fourn., *Mexic. Pl.* 2: 108. 1886. **LECTOTYPE** (designated here): **MEXICO.** Forêt del Desierto viejo, vallée de Mexico, 3 Nov 1865, *E. Bourgeau 1304* (lectotype: P00740313!; isolectotype: P00740312!).

Notes. In the protologues of *Trisetum virletii* and *T. bambusiforme* (Fournier 1886) the specimens *Virlet d'Aoust 1384* and *Bourgeau 1304*, are cited respectively, but no herbarium where they were deposited is indicated. These specimens have several duplicates at P, from among which a lectotype is chosen.

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