

**Ageratina thyrsiflora** (E. Greene) R. King & H. Robinson, Phytologia 19:227. 1970. *Kyrstenia thyrsiflora* E. Greene, Leafl. Bot. Observ. Crit. 1: 19. 1903. *Eupatorium thyrsiflorum* (E. Greene) B.L. Robinson, Proc. Amer. Acad. Arts 43:36. 1907. TYPE: MEXICO. CHIHUAHUA: Southwestern Chihuahua, Aug 1885, E. Palmer 275 (LECTOTYPE, designated here: US, internet image!).

**Eupatorium arborescens** M.E. Jones, Contr. West. Bot. 12:43. 1908. TYPE: MEXICO. CHIHUAHUA: Sierra Madre Mts., Guayanopa Canon, 3600 ft alt., in the Tropical Life Zone, 24 Sep 1903, M.E. Jones s.n. (LECTOTYPE, designated here: RSA-POM 41799, photocopy!; ISOLECTOTYPE: RSA-POM 41800, photocopy!).

**Koanophyllum palmeri** (A. Gray) R. King & H. Robinson, Phytologia 22:150. 1971. *Eupatorium palmeri* A. Gray, Proc. Amer. Acad. Arts 21: 383. 1886. Gray did not cite a specific collection but noted "type locality, 'shady places high up in mountains above Batopilas.'" TYPE: MEXICO. [CHIHUAHUA]: Southwestern Chihuahua, Aug–Nov 1885, Palmer 144 (LECTOTYPE, designated here: GH!; ISOLECTOTYPE: US, internet image!).

**Eupatorium thyrsiflorum** var. **holoclerum** B.L. Robinson, Proc. Amer. Acad. Arts 43:36. 1907. TYPE: MEXICO. DURANGO: City of Durango and vicinity, Apr–Nov 1896, E. Palmer 755 (HOLOTYPE: GH; ISOTYPES: MO!, US, internet image!).

**Eupatorium solidaginifolium** A. Gray, Smithsonian Contr. Knowl. 3(5) [Pl. Wright. 1]:87. 1852. TYPE: UNITED STATES: "Collected in Expedition from Western Texas to El Paso, New Mexico, May–Oct, 1849, by Charles Wright" [as on label], Wright 256 (HOLOTYPE: GH, photocopy!; ISOTYPE: GH, photocopy!).

**Chromolaena bigelovii** (A. Gray) R. King & H. Robinson, Phytologia 20:208. 1970. *Eupatorium bigelovii* A. Gray in Torrey, Rep. U.S. & Mex. Bound. Survey, Bot. 75. 1859. TYPE: UNITED STATES: [locality uncertain but probably along the Texas-Coahuila boundary, 1848–1855], J.M. Bigelow 12 (probable HOLOTYPE: GH, photocopy!).

**Bellis ciliata** Raf. var. **triflora** Raf., New Fl. N. Amer. 2:25. 1837. *Astranthium integrifolium* (Michx.) Nutt. var. *triflorum* (Raf.) Shinners, Sida 2:348. 1966. TYPE: UNITED STATES. TEXAS. Fannin Co.: 4 mi N of Bonham, sandy ditch bank, 10 Jun 1945, L.H. Shinners 7842 (NEOTYPE, designated here: SMU!).

**Erigeron peregrinus** (Banks ex Pursh) Greene var. **thompsonii** (Blake ex J.W. Thompson) Cronquist, Brittonia 6:144. 1947. *Erigeron thompsonii* Blake ex J.W. Thompson, Rhodora 34:238. 1932. TYPE: UNITED STATES. WASHINGTON: Grays Harbor Co.: open bog near Lake Quinault, 10 Jul 1931, J.W. Thompson 7336 (HOLOTYPE: US!; ISOTYPES: GH!, K, MO!, UC).

**Erigeron glacialis** (Nutt.) A. Nels., Bot. Gaz. 37:270. 1904. *Aster glacialis* Nutt., Trans. Amer. Philos. Soc. n. ser. 7:291. 1840. *Erigeron salsuginosus* (Richards. ex R. Br.) A. Gray var. *glacialis* (Nutt.) A. Gray, Synopt. Fl. N. Amer. 1, pt. 2:209. 1884. TYPE: UNITED STATES: Nuttall's protologue observed that the habitat of *A. glacialis* was "with the preceding" species, *Aster andinus* Nutt. [= *Sympotrichum spathulatum* (Lindl.) Nesom], which was noted to have been collected "on the highest summits of the Rocky Mountains, near the line of perpetual snow, in 42°. About ten thousand feet above the level of the sea. Near summit of Thornberg's Ridge, where we made an ineffectual attempt to cross the Northern Andes, in August, still deeply buried in snow." Gray saw the specimen—"Nutt!" as indicated in Torrey and Gray (1841, p. 155) and later noted (1884, p. 209) "first coll. by Nuttall in Wyoming." According to Graustein (1967), it is likely that Nuttall's group was on or near Hyndman Peak (Blaine Co., Idaho), at the place they called Thornberg's Ridge or Thornberg's Pass on 12–13 August 1834, this confirmed by the expedition narrative reproduced in McKelvey (1955). (HOLOTYPE: PH; holotype fragment: CAS).

**Astranthium ciliatum** (Raf.) G. Nesom, comb. nov. *Bellis ciliata* Raf., New Fl. N. Amer. 2:24. 1837. *Astranthium integrifolium* (Michx.) Nutt. var. *ciliatum* (Raf.) Larsen, Ann. Missouri Bot. Gard. 20:35. 1933. *Astranthium integrifolium* (Michx.) Nutt. subsp. *ciliatum* (Raf.) DeJong, Michigan State Univ. Mus. Publ. Biol. Ser. 2:504. 1965. TYPE: UNITED STATES. TEXAS. Austin Co.: San Felipe de Austin, 1835, T. Drummond II. 221 (LECTOTYPE, designated by De Jong 1965: NY, website photo!, as "*Bellis integrifolia* Michx.;" ISOLECTOTYPES: K, NY, P, PH).

**Arida mattturneri** B.L. Turner & G. Nesom, sp. nov. (**Fig. 1**). TYPE: UNITED STATES. TEXAS. Presidio Co.: ca. 2.2 mi NNW of Ruidosa in "Blumberg Canyon," growing along perennial sulphur streams and around tinajas (ca. 30° 00' 00" N, 104° 44' 00" W), 20 Jul 2003, Matt W. Turner 100 and associates (HOLOTYPE: TEX!; ISOTYPES: NY!, SRSCI).

**Eriogonum riograndis** Nesom, sp. nov. (**Figs. 1, 2**). TYPE: UNITED STATES. Texas. San Patricio Co.: 9 mi E of Sinton, Welder Foundation Research Area, near headquarters buildings, grassy field along swale and in swale, 28 Oct 1958, F.W. Gould 8510 (HOLOTYPE: SMU!; ISOTYPES: TAES!, UC).

**Pluchea odorata** (L.) Cass., Dict. Sci. Nat. 42:3. 1826. *Placus odoratus* (L.) Baill. ex M. Gómez & Jiménez, Anales Soc. Esp. Hist. Nat. 19:273. 1890. *Pluchea odorata* (L.) DC. var. *normalis* Kuntze, Revis. Gen. Pl. 1:357. 1891 (nom. illeg.). *Conyzia odorata* L., Syst. Nat., ed. 10. 1213. 1759. Linnaeus cited "Sloan. jam. t. 152. f. l. Plum. ic. 97." TYPE: JAMAICA: Sloane, Voy. Jamaica 1: plate 152(1). 1707. The plant illustrated is in the Sloane Herbarium – no data regarding collector, locality, or date (LECTOTYPE, designated by Gillis 1977: BM, photo Gillis (1977)!, internet image <<http://intermt.nhm.ac.uk/cgi-bin/botany/sloane/detail.dsml?ID=24>>!).

**Pluchea purpurascens** (Sw.) DC., Prodr. 5:452. 1836. *Placus purpurascens* (Sw.) M. Gómez & Jiménez, Anales Soc. Esp. Hist. Nat. 19:273. 1890. *Conyzia purpurascens* Sw., Prodr. 112. 1788. TYPE: JAMAICA: Swartz cited "Conyzia I. Brown. jam. 318." and "Conyzia major odorata – Sloan. h. I. 258. t. 152. f. l." Browne's citation (1756) was "Conyzia major odorata, &c. Slo. Cat. 124. & H. t. 152. f. l." in reference to the same Sloane illustration, which is the same as the lectotype designated for *Conyzia odorata* L. (above). The Sloane illustration is here designated as the LECTOTYPE of *Conyzia purpurascens*: JAMAICA. Sloane, Voy. Jamaica 1: plate 152(1). 1707. The plant illustrated is in the Sloane Herbarium, as cited above for *Pluchea odorata*.

**Pluchea purpurascens** (Sw.) DC. var. **glabrata** (DC.) DC. ex Griseb., Cat. Pl. Cub. 150. 1866. *Placus purpurascens* (Sw.) M. Gómez & Jiménez var. *glabratus* (DC.) M. Gómez & Jiménez, Anales Soc. Esp. Hist. Nat. 19:273. 1890. *Pluchea glabrata* DC., Prodr. 5:452. 1836. TYPE: GUADELOUPE:

de Candolle cited the following: "in Guadalupa legit olim cl. Badier et recentius Perrottet ad Pointe-à-Pitre." Of specimens identified as *Pluchea glabrata* in the de Candolle herbarium, one is labeled simply "Guadeloupe" and may be the Badier collection; another has more specific data – "Pte. à Pitre, 17 Juin 1824, Perrottet 1825." This plant also was collected on Guadeloupe, and (Urban 1902) indicates that Perrottet was there at least for a period during 1824 (LECTOTYPE, here designated, Perrottet collection: G-DC fiche 905!).

- Pluchea petiolata** Cass., Dict. Sci. Nat. 42:2. 1826. TYPE: Details of the protologue are too abbreviated to establish the identity: "ses calathides sont petites, subglobuleuses, et disposées en corymbe terminal; ... ses squames sont ovales, aiguës, presque membranéuses, parsemées de glandes ... ." The description of small heads with acute, membranous, sparsely glandular phyllaries suggest that it might be *Pluchea camphorata*, but the heads in a terminal corymb and ovate phyllaries are more like *Pluchea odorata*. Cassini noted that "Nous avons observé cette plante dans l'herbier de M. de Jussieu, ou elle étoit innommée," citing no further detail. One of two specimens in the Jussieu herbarium might have been the one observed by Cassini:
- (1) Cat. No. 8646 (P-Jussieu, fiche 634!)—identified as "*Conyzia marylandica* Michx.", with no collection information. The plant has short-petiolate leaves and a terminal capitulecence and is *Pluchea odorata*.
  - (2) Cat. No. 8662 (P-Jussieu, fiche 635!)—identified only as "*Conyzia vulgari accedens fl. purpurasc.*," apparently collected on Hispaniola ("St. Domingo"); this plant also has short-petiolate leaves and a terminal capitulecence and is a representative of *Pluchea odorata* var. *odorata*. This specimen is here designated as the NEOTYPE of *Pluchea petiolata* Cass.

- Pluchea camphorata** (L.) DC. var. **angustifolia** [Nutt.] Torr. & A. Gray, Fl. N. Amer. 2:261. 1842. *Conyzia angustifolia* Nutt., J. Acad. Nat. Sci. Philadelphia 7:109. 1834 (non Roxburgh 1832). TYPE: U.S.A. "In South Carolina, from whence it was received by Mr. Durand" (specimen not located).