

STUDIES IN THE EUPATORIEAE (ASTERACEAE). XXXVI.

A NEW GENUS, NEOBARTLETTIA.

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Among the Critonioid genera of the Eupatorieae, there are three that are notable for often having hairs on the surface of the receptacle. Two of these, Hebeclinium (King & Robinson, 1971) and Decachaeta (King & Robinson, 1969) have been recognized in part since Decandolle (1836). The third genus, Neobartlettia, occurring primarily in the lowlands of Central America, is named as new here.

The new genus shows a number of trends which help in the recognition of most of the species. These include the usually long slender petioles of the leaves, the usually numerous hairs on the backs of the corolla lobes, the usually more papillose style branches, and the usually slender inornate anther collars. The characters that prove most diagnostic in the accurate delimitation of the genus are the full sized anther appendages without recurved margins, the convex or short conical receptacle, the short broad lobes of the corolla and the distinctive slightly swollen carpodium. Though the carpodia show differences between the various species, there is a basic uniformity of design. In its most frequent form the lower tapering part is made up of shorter rather thin-walled, sometimes enlarged cells which are only slightly differentiated from the upper more elongate cells, and the upper cells form a swollen area around the base of the achene and upward along the bases of the ribs. In a few species such as N. ehrenbergii, N. pinabetensis and N. paezense the carpodium is a narrower rim but with cells still not differentiated from those at the bases of the ribs.

Neobartlettia proves to include most of the species that have been placed in the genus Hebeclinium during the second half of the 19th century. The genera are rather closely related though they can be told very easily by the shape of the receptacle. The receptacle of Hebeclinium is distinctly hemispherical.

We have placed another group of related species in a separate genus, Guayania. This latter genus is distinguished primarily by its very asymmetric carpodia and its usually cymose inflorescences.

Neobartlettia R.M.King and H.Robinson, genus novum Asteracearum (Eupatorieae). Plantae frutescentes vel subarborescentes laxae ramosae. Folia opposita plerumque longe petiolata, laminis ellipticis vel late ovatis. Inflorescentiae plerumque laxae

corymbosae. Involucri squamae 20-50 inaequilongae 3-4-seriatae anguste lanceolatae vel oblongae; receptacula plana vel convexa pauce vel dense pubescentia. Flores 20-150 in capitulo, corollae violaceae vel albae infundibulares, cellulis plerumque angustis, parietibus sinuosis, lobis aequilateraliter triangularibus, intus glabris extus plerumque dense setiferis saepe glanduliferis; filamenta antherarum in parte superiore longissima, cellulis quadratis vel rectangularibus, parietibus inornatis, cellulis exothecialibus plerumque subquadratis vel brevioribus, appendicibus antherarum longe triangularibus vel late ovatis; styli inferne non-nodulosi glabri, appendicibus tenuibus vel anguste clavatis sublaevibus vel breviter papillois; achaenia prismatica 5-costata glabra vel pauce setifera raro glandulifera, costae in parte inferiore et carpopodia pauce vel valde inflata, cellulis carpopodiorum inferne quadratis superne elongatis, parietibus tenuibus; pappus setiformi uniseriatus, setis 30-40 gracilibus scabris persistentibus, cellulis apicalibus acutis.

Species typica: Eupatorium tuerckheimii Klatt.

Chromosome number determined as $2n = 20$ (Holmgren, 1919; N. sordida, reported as Eupatorium ianthinum).

We take great pleasure in naming this new genus of very showy plants in honor of Harley Harris Bartlett. The senior author was fortunate to have known this great botanist personally for a brief period. The life and works of Bartlett have been summarized by Voss (1961).

Our studies indicate that the genus contains the following nineteen species.

Neobartlettia brevipetiolata (Schultz-Bip. ex Klatt) R.M.King & H.Robinson, comb. nov. Hebeclinium brevipetiolatum Schultz-Bip. ex Klatt, Leopoldina 20: 90. 1884. Mexico.

Neobartlettia constipatiflora (Klatt) R.M.King & H.Robinson, comb. nov. Eupatorium constipatiflorum Klatt, Ann. Naturh. Hofmus. Wien 9: 355. 1894. Mexico.

Neobartlettia ehrenbergii (Hemsl.) R.M.King & H.Robinson, comb. nov. Eupatorium ehrenbergii Hemsl., Biol. Centr. Am. Bot. 2: 94. 1881. Guatemala, Mexico.

Neobartlettia hastifera (Standl. & Steyerl.) R.M.King & H.Robinson, comb. nov. Eupatorium hastiferum Standl. & Steyerl., Field Mus. Publ. Bot. 22: 303. 1940. Guatemala.

Neobartlettia hylobia (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium hylobium B.L.Robinson, Proc. Bost. Soc. Nat. Hist. 31: 249. 1904. Mexico.

- Neobartlettia karwinskiana (A.P.Decandolle) R.M.King & H.Robinson, comb. nov. Eupatorium karwinkianum A.P.Decandolle, Prodr. 5: 163. 1836. Mexico.
- Neobartlettia luxii (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium luxii B.L.Robinson, Proc. Amer. Acad. 36: 480. 1901. Guatemala.
- Neobartlettia maxonii (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium maxonii B.L.Robinson, Proc. Amer. Acad. 54: 251. 1918. Panama.
- Neobartlettia mexiae (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium mexiae B.L.Robinson, Contr. Gray Herb. 104: 20. 1934. Brazil.
- Neobartlettia oresbia (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium oresbium B.L.Robinson, Proc. Amer. Acad. 35: 337. 1900. Mexico.
- Neobartlettia oresbioides (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium oresbioides B.L.Robinson, Proc. Amer. Acad. 44: 618. 1909. Guatemala, Mexico.
- Neobartlettia paezense (Hieron.) R.M.King & H.Robinson, comb. nov. Eupatorium paezense Hieron., Engl. Bot. Jahrb. 28: 574. 1901. Colombia.
- Neobartlettia pansamalensis (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium pansamalense B.L.Robinson, Proc. Amer. Acad. 36: 482. 1901. Guatemala, Mexico.
- Neobartlettia pinabetensis (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium pinabetense B.L.Robinson, Proc. Amer. Acad. 36: 482. 1901. Guatemala, Mexico.
- Neobartlettia platyphylla (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium platyphyllum B.L.Robinson, Proc. Amer. Acad. 35: 339. 1900. Costa Rica, Guatemala, Mexico, Panama.
- Neobartlettia prionophylla (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium prionophyllum B.L.Robinson, Proc. Amer. Acad. 36: 484. 1901. Costa Rica, Guatemala.
- Neobartlettia ruae (Standl.) R.M.King & H.Robinson, comb. nov. Eupatorium ruae Standl., Ceiba 1: 49. 1950. Honduras.
- Neobartlettia sordida (Less.) R.M.King & H.Robinson, comb. nov. Eupatorium sordidum Less., Linnaea 4: 403. 1831. Mexico.

Neobartlettia tuerckheimii (Klatt) R.M.King & H.Robinson, comb.
nov. Eupatorium tuerckheimii Klatt, Leopoldina 20: 95. 1884.
Guatemala, Honduras, Mexico.

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