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CONTRIBUTIONS FROM THE GRAY HERBARIUM OF HARVARD UNIVERSITY.

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By I. M. Johnston.

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is A. mexicana Mart. & Gal. Bull. Acad. Brux. xi. 339 (1844), which is said to have come from near Morelia, Michoacan. I have seen no specimens of the species nor of any other Amsinckia coming from central or southern Mexico, nor is there, according to Mr. Paul C. Standley, any material of Amsinckia in the United States National Herbarium coming from that region. The plant is described as having corollas plicate in the throat which suggests that it may prove to be a Heliotropium.

23. Selkirkia Hemsley, Bot. Challenger i. pt. 3, 47 (1884).

Selkirkia Berteri (Colla) Hemsley, Bot. Challenger i. pt. 3, 48, t. 57 (1884); Brand, Pflanzenr. iv. Fam. 252, i. 16 and 163 (1921); Skottsberg, Nat. Hist. Juan Fernandez ii. 163 (1921). Cynoglossum Berteri Colla, Mem. Acad. Torino xxxviii. 132, t. 43 (1834).—A shrub endemic to Masatierra of the Juan Fernandez Islands. The genus is monotypic and very distinct, appearing to be most related to Hackelia.

24. Cryptantha Lehm. in F. & M. Ind. Sem. Hort. Petrop. ii. 35 (1835).

Krynitzkia F. & M. I. c. vii. 52 (1841). Piptocalyx Torr. in Wats. Bot. King Exped. 240 (1871), not Oliver (1870); Johnston, Contr. Gray Herb. n. s. lxviii. 55 (1923). Eremocarya Greene, Pittonia i. 58 (1887); Johnston, I. c. 56. Greeneocharis Gürke & Harms in E. & P. Nat. Pflanzenf., Gesamtreg. 462 (1899). Wheelerella Grant, Bull. So. Calif. Acad. v. 28 (1906).—This is the largest and most difficult genus among the American members of the subfamily. It is restricted to America and has two definite centers, one in western United States and the other in middle and northern Chile. A critical descriptive monograph of the North American species is in preparation. The South American species, all different from those north of the Equator, are in distressing need of attention, but their satisfactory elucidation must await the attention of the student who can study them in the field and have access to Philippi's types at Santiago, Chile. Reiche, Fl. Chile v. 217-236 (1910), has given most of the bibliography and a rough classification of the very numerous Chilian species. The treatment while difficult of use is nevertheless very valuable in showing the probable status and relationships of most of Philippi's briefly described species. The following species from Peru appear never to have been properly named under Cryptantha.

Cryptantha limensis (A. DC.), comb. nov., based on Eritrichium limense A. DC., Prodr. x. 133 (1846), had its type collected at Lima, Peru. This has oblong obtuse leaves, leafy spikes, coarsely hirsute calyx-lobes, and inconspicuous tubular corollas. Cryptantha granulosa (R. & P.) Johnston is the only other member of the genus described from Peru, although material recently received from that country seems to contain several additional species, all undescribed.

25. Oreocarya Greene, Pittonia i. 57 (1887).

This group has been recently revised by Macbride, Contr. Gray Herb. xlviii. 20–38 (1916). It may be strongly questioned whether it is generically distinct from *Cryptantha*, particularly so when the South American members of the latter genus are considered. No one has yet pointed out characters for *Oreocarya* which are consistently diagnostic, nor has a rather superficial search on my part resulted in the discovery of any. The group is maintained here as a genus pending detailed studies to be reported on later.

26. Plagiobothrys F. & M. Ind. Sem. Hort. Petrop. ii. 46 (1835).

Echidiocarya Gray, Proc. Am. Acad. xi. 89 (1876). Sonnea Greene, Pittonia i. 22 (1887). Allocarya Greene, Pittonia i. 12 (1887).—For a synopsis of this genus see Johnston, Contr. Gray Herb. n. s. lxviii. 57–80 (1923).

27. Mertensia Roth, Cat. Bot. i. 34 (1797).

Pneumaria Hill, Veg. Syst. vii. 40 (1764).—Macbride, Contr. Gray Herb. n. s. xlviii. 1–20 (1916), has recently revised the true Mertensias of western America. Bibliography and descriptions of the relatively few species left untreated by Macbride may be found by consulting Gray, Synop. Fl. N. Am. ii. pt. 1, 199–201 (1878), and Britton & Brown, Illust. Fl. ed. 2, iii. 82–83 (1913). In the past the genus has been almost always referred to the tribe Lithospermeae, but the attachment of its nutlets and its simple stigma clearly point to a relationship among the Eritrichieae. Suggestive also of this latter relationship is the consistently boreal distribution, the Lithospermeae being a prevailingly austral group.

28. Trigonotis Stev. Bull. Soc. Nat. Moscou xxiv. 603 (1851).

Trigonotis peduncularis (Trev.) Benth. Jour. Linn. Soc. xvii. 384 (1879). Myosotis peduncularis Trev. Mag. Ges. Nat. Fr. Berlin vii. 147, t. 2, fig. 6-9 (1816). Eritrichium pedunculare A. DC. Prodr. x. 128 (1846).—Native from extreme southeastern Europe through middle and northern China to Japan. Although apparently hereto-