Mentzelia tricuspis var. brevicornuta var. nov.

Lobis lateralibus antherarum oblongis, rotundatis, minus 0.5 mm. latis.

Type.—Barstow, San Bernardino County, California, May 14, 1903, K. Brandegee. Sheet no. 108381 in Herb. Univ. Calif.

The species is unique in the section Bicuspidaria because of its pedicellate flowers and petiolate leaves and bracts. It ranges from Utah and Arizona into the eastern part of the Mohave Desert in California. The variety brevicornuta is the form which the species assumes near its western limit in the vicinity of Barstow. In typical tricuspis the lobes of the filaments are linear and 2 mm. long at least; but in the new variety the lobes are short oblong and only about 0.5 mm. long. Mentzelia tricuspis has been frequently misidentified as M. reflexa Cov., no doubt because its fruits are reflexed and appear much as those illustrated in Coville's (Contr. U. S. Nat. Herb., 4:108, t. 9. 1893) plate of reflexa. Mentzelia reflexa is not even closely related to M. tricuspis and can be recognized by its smaller corollas and unlobed filaments.

The species and varieties of Mentzelia which make up the section Bicuspidaria may be distinguished by the following key.

Flowers, upper leaves, and floral bracts sessile

Floral bracts white and scarious, with green midrib and margin

Floral bracts green, not at all scarious

Middle lobe of anthers equalling or shorter than lateral ones

Corolla pale yellow; leaves 7-12 mm. wide, thickish, deeply lobed......

M. hirsutissima

Corolla orange-yellow, leaves 10-20 mm. wide, thinner, coarsely toothed

M. h. nesiotes

Middle lobe of anthers twice the length of lateral ones...M. h. stenophylla

Cryptantha inaequata sp. nov.

3–4 dm. alta, caulibus ramis laxe ramosis; foliis planis, lineari-oblanceolatis, 2–4 cm. longis; inflorescentia laxe racemosa, 4–12 cm. longa; calyce fructifero 2.5–3.0 mm. longo, lobo abaxillari maximo hispidissimoque; pedicellis brevibus denum 0.1 mm. longis; nuculis 4, heteromorphis, subtrigono-ovatis, acute marginatis; nuce larga quam gynobasi longiore, 1.7 mm. longa, sulco supra medium clauso inferne dilatato areolam triangulam formante.

Type.—Pleasant Cañon, Panamint Mountains, California, May 10, 1906, Hall & Chandler 6925. Sheet no. 100917 in Herb. Univ. Calif.

This is a species most nearly related to *C. racemosa*, but differing from it in its sessile or very short pedicellate calyx, and in the shorter lived herbaceous stems. Excluding *C. pterocarya*, it differs with *C. racemosa* from all other winged fruited species in having heteromorphous nutlets. The plant is known only from two collections in the eastern part of the Mohave Desert of California.

Cryptantha maritima var. pilosa var. nov.

Speciei similis sed calyce pilis longe patentibus praedito.

Type.—On stony ridges at Los Angeles Bay, Baja California, 1887, Palmer 551.

This well marked variant, characterized by its pilose calyx lobes, is frequent in the deserts of southeastern California. From Logan, Nevada, where collected by Kennedy, it ranges south to Santa Agueda (*Palmer 2142*) in Baja California.

Cryptantha racemosa var. lignosa var. nov.

Fruticosa, laxe ramosa, 2–4 dm. alta; ramulis floriferissimis; inflorescentia laxe racemoso-paniculata, per omnes partes plus minus aequaliter distributa.

Type.—Panamint Cañon, Inyo County, California, May 15, 1906, Hall & Chandler 7034. Sheet no. 100892 in Herb. Univ. Calif.

Typical *C. racemosa*, which ranges south into Baja California from the southern part of the Colorado Desert, is replaced in the Mohave Desert and in the northern part of the Colorado Desert by a slender diffusely branched very floriferous form, which I am here naming variety *lignosa*. The new variety differs from the species in its loosely racemose-paniculate, instead of racemose, inflorescence, and in having its flowers distributed more or less completely through the plant and not confined to a terminal cluster or a peripheral belt. Piper apparently recognized the two forms of *C. racemosa*, but in attempting to name them described the wrong plant; his *C. suffruticosa* (Proc. Biol. Soc. Wash., 32:42. 1919) being typical *C. racemosa*.