According to Greene, Pittonia i. 56 (1887), "*Eremocarya* is most excellently marked in a three-fold way by its racemes" which are biserial and very dense, conspicuously bracteate, and repeatedly dichotomous. Neither singly nor in combination do these characters distinguish *Eremocarya* from *Cryptantha.* Almost every species of *Cryptantha* has its flowers somewhat biserial. In *Cryptantha Grayi, C. albida, C. pusilla, C. maritima,* etc., particularly dense biserial racemes may be found. Dichotomy is also frequently present in *Cryptantha* and is quite unmistakable in *C. albida.* Bracteate racemes are well developed in *C. maritima, C. leiocarpa, C. albida,* etc. Also emphasized by Greene was the dye-secreting tissue of *Eremocarya.* Following him most recent authors have dignified that development by treating it as the crucial generic character. In *Plagiobothrys,* even as limited by Greene, there are species with dye-secreting tissue and those without. This example would give precedent for including dye-secreting and non-dye-secreting species within the same genus, even were there no recognized case of dye-secretion among the indubitable species of *Cryptantha.* Dye-secretions in the roots are not uncommon in *Cryptantha* and in the Gray Herbarium are found present in specimens of such distinct species as *C. Fendleri* (*Osterhout 3425, Patterson 112, Baker 780*) and *C. muricata* (*Parish 929*). During 1921 I collected on the islands of the Gulf of California a yet unpublished variety of *C. Grayi* which has its roots as heavily charged with purple dye as do the most characteristic specimens of *Eremocarya.* In addition to the above characters, which are evidently insufficient to justify generic segregation, Greene gave *Eremocarya* as having "a persistent open calyx and an enlarged persistent style." The persistent open calyx of *Eremocarya* is well matched in *C. holoptera* and in *C. albida,* while in what Greene calls an "enlarged persistent style" *Eremocarya* is indistinguishable from the several species allied to true *C. muricata.* A careful study of *Eremocarya* has failed to reveal characters other than those unsatisfactory ones enumerated by its author and I am consequently forced to the conviction that Greene's genus is unworthy of recognition even as a section. Accordingly the following species and variety are referred to *Cryptantha* where they fit naturally into the same group of species as *C. Grayi* and and *C. angustifolia.*

Cryptantha micrantha (Torr.), comb. nov. *Eritrichium micranthum* Torr. Bot. Mex. Bound. 141 (1859). *Krynitzkia micrantha* Gray, Proc. Am. Acad. xx. 275 (1885). *Eremocarya micrantha* Greene, Pittonia i. 59 (1887). *Eremocarya muricata* Rydb. Bull. Torr. Cl. xxxvi. 677 (1909).

Cryptantha micrantha, var. **lepida** (Gray), comb. nov. *Eritrichium micranthum*, var. *lepidum* Gray, Synop. Fl. N. A. ii. pt. 1, 193 (1878). *Krynitzkia micrantha*, var. *lepida* Gray, Proc. Am. Acad. xx. 275 (1885). *Eremocarya lepida* Greene, Pittonia i. 59 (1887). *Eremocarya micrantha*, var. *lepida* Macbr. Proc. Am. Acad. li. 545 (1916).

4. A Synopsis and Redefinition of the Genus Plagiobothrys.

In 1835 the name *Plagiobothrys* was originally used by Fischer and Meyer for what then appeared to be a monotypic Chilean genus. The first species, *P. fulvus*, was separated from *Eritrichium* because of the peculiar annular scar on its nutlets. In 1874 Gray, Proc. Am. Acad. x. 57, reduced *Plagiobothrys* to a section under *Eritrichium* and placed in the section besides the original species five others which lacked annular scars on the nutlets. *Plagiobothrys* was reëstablished by Gray, Proc. Am. Acad. xx. 281, in 1885 when he amplified it to include fourteen species, five of which were placed in a newly erected section, and nine of which were put in his section *Genuini*, a group coëxtensive with his *Eritrichium* § *Plagiobothrys* of 1874.

Gray, Proc. Am. Acad. xi. 89, founded the genus *Echidiocarya* in 1876, and at that time included in it only the anomalous *E. arizonica* (*P. Pringlei* Greene). The character for the genus was found in the long-stiped nutlets. In 1877, Proc. Am. Acad. xii. 163, the genus was enlarged so as to include the newly described and obviously related *E. californica*. A third member of the group was added in 1883, Proc. Am. Acad. xix. 90, when Gray described *P. ursinus* and noted that, "The comparatively recent discovery of the preceding species [*P. ursinus*] of this section has made it clear that both of them should fall into *Plagiobothrys*, . . ." As a result of the transfer *Echidiocarya* was reduced to its original species and characterized by its "conspicuously stipitate" nutlets. In 1887 Greene, Pittonia i. 9 & 21, argued the artificiality of this latter concept and transferred to *Plagiobothrys* the remaining and type species of *Echidiocarya* saying that it had "every aspect and every character of *Plagiobothrys*, except that there is a stipe between the scar, or point of attachment to the gynobase, and the body of the nutlet." Greene's disposal of *Echidiocarya* has remained unchallenged.

Anyone who will study Gray's *Echidiocarya arizonica*, *E. californica*, and *Plagiobothrys ursinus* can not help appreciating the close relations between those species and the naturalness of *Echidiocarya* in its broadest sense, for the species agree not only in gross aspect, but in