

tion is included among a list of plants collected by Dr. Palmer at Lagoon Head. Our specimen, however, which purports to be a part of the type material, is *Palmer* no. 801 from San Quentin.

*Cryptantha holoptera* (Gray), comb. nov. *Eritrichium holopterum* Gray, Proc. Am. Acad. xii. 81 (1877). *Krynitzkia holopterum* Gray, l. c. xx. 276 (1885). *Oreocarya holoptera* Greene, Pitt. i. 58 (1887).

When Dr. Gray described this species he compared it with *C. muricata* and *C. leiocarpa*, both typical *Cryptanthas*. Later (l. c.) he placed it between *C. pterocarya* and *O. setosissima*, and it is in *C. pterocarya* that it finds its nearest relative. Just why Dr. Greene made it a part of *Oreocarya* is not apparent. It is true that its nutlets are winged after the manner of those of *O. setosissima* but in that plant the pedicels are firmly persistent, in perfect accord with the generic character. Moreover, the plant is an *Oreocarya* in aspect, as noticed by Dr. Gray. These facts are not true of *C. holoptera*. Its pedicels are rather readily deciduous and its aspect is exactly that of a *Cryptantha*. The proper disposition of this plant must strengthen *Oreocarya* immeasurably because *Oreocarya* has very little besides aspect to keep it out of *Cryptantha* (a fact realized by its author, l. c. 115). Nevertheless, these genera are always so readily recognized in the field that no one who knows them there would think of uniting them.

CRYPTANTHA PTEROCARYA (Torr.) Greene, var. *cycloptera* (Greene), comb. nov. *Cryptantha cycloptera* Greene, Pitt. i. 120 (1887). COLORADO: Grand Junction, May, 1892, *Alice Eastwood*. UTAH: southern Utah, 1874, *Parry*. NEW MEXICO: 1851-1852, *Wright*, no. 1570; rocky hillside, Nutt Mt., Sierra Co., May 11, 1905, *Metcalf*, no. 1573. ARIZONA: Lowell, May, 1884, *W. F. Parish*, no. 167; near Camp Lowell, April, 1881, *Pringle*, no. 366; Verde River, April 6, 1867, *Dr. Smart*, no. 132; hills near Tucson, April 15, 1884. CALIFORNIA: Surprise Canyon, Panamint Mts., April 21, 1891, *Coville & Funston*, no. 720.

When Dr. Greene described this plant, Bull. Calif. Acad. i. 207 (1885), he accredited it with three characteristics, "nutlets all winged; wings . . . continuous across the base [of the nutlet]; ventral face not muricate." Dr. Gray, commenting in the Synoptical Flora upon these characters, wrote that they "do not hold out." But more recently Mr. Coville, after collecting both species in the Death Valley, wrote (Contrib. Nat. Herb. iv. 165), that he "had not found a satisfactory series of intergrades" and accord-

ingly he considered *C. cycloptera* a good species. However, a study of the ample material in the Gray Herbarium seems to prove conclusively that it is, at best, only a geographical variety of *C. pterocarya*. In the first place, the ventral face of the nutlets may or may not be smooth in either of the proposed species. Secondly, all of the nutlets may be winged and yet the wings not extend across the base, as for example in the plants collected at Grand Junction, Colorado, by Alice Eastwood. When one considers the fact that the ventral faces of these winged nutlets are rough, one is puzzled as to whether the plants are more nearly related to *C. pterocarya* or to *C. cycloptera*. However, it must be noted that it is only the southwestern material that can be referred to *C. cycloptera*. It seems advisable, therefore, to consider *C. cycloptera* as a variety of *C. pterocarya* and to include in this variety all specimens that have four winged nutlets, irrespective of whether the wing extends across the base. Although the species ranges from Washington to Utah and southern California, the variety apparently largely replaces it, in the interior of the Southwest.

*Cryptantha filiformifolia*, spec. nov., humilis, 5-10 cm. alta, non vel vix ramosa cum pilis patentibus hispida; foliis fere filiformibus 0.5-3 cm. longis raro 1 mm. latis; cymis brevibus circa 1.5 cm. longis 2-3-radiatis, spicis fructiferis densifloris; floribus minimis; calycis fructiferi laciniis 1 mm. longis; nuculis (4) ovato-trigonis circa 5 mm. longis dorso muriculatis, sulco ventrali albido fere ad apicem dilatato et excavato. — MEXICO: Alamos, Sonora, March 26-April 8, 1890, *Palmer*, no. 397 (TYPE, Gray Herb.), and Feb. 2, 1899, *Goldman*, no. 308 (U. S. Nat. Herb.); Cape St. Lucas, etc., Lower California, Aug. 1859-Jan. 1860, *L. J. Xantus*, no. 76; Guaymas, 1890, *Palmer*, no. 169 ? (immature).

Vasey and Rose, in their report on Palmer's collections from La Paz, Lower California, Contrib. U. S. Nat. Herb. i. 73 (1890), refer his no. 111 from that station to *Krynitzkia micromeres* Gray, with the remark "This differs somewhat from the northern forms of this species but it seems to be the same as Xantus's no. 76, made a part of this species by Gray." I have not seen Dr. Palmer's specimen but it is evidently *C. filiformifolia*. Xantus's specimen is only a scrap and it is not surprising that Dr. Gray referred it to his species; but he based his description on the Californian material. In 1891 Dr. Rose (l. c. 107) listed what I have taken as the type of my species as *K. micromeres* Gray without other comment than,