

relations are with *C. granulosa* and *C. filiformis* though it is quite distinct from both.

11. *C. filiformis* (Ph.) Reiche. Annual, 5-30 cm. tall, usually loosely and ascendingly branched from the base, finely hispid and frequently appressedly so; leaves not numerous, lanceolate to lance-linear or oblanceolate, 1-3 cm. long, 1-5(-9) mm. broad, obtuse or acutish, sessile, pustulate and hirsute; spikes solitary or geminate, 1-10 cm. long, bractless, becoming loosely flowered; fruiting calyces ovate or oblong-ovate, 3-5 mm. long, subsessile; mature calyx-lobes linear or lance-linear, obtusish, hirsute below the middle, above the middle usually herbaceous sparsely appressed short-hispid and spreading; corolla conspicuous, 4-7 mm. broad, white; fruit 4-ovulate; nutlets usually 4, heteromorphous, ovate or ovate-oblong, back obscurely obtuse, base truncate, sides angled, groove opened or closed and broadly forked near base; odd nutlet axial, evidently the largest, 1.5-2 mm. long, most firmly affixed, palest, tuberculate or muriculate or papillate, more or less stipitate-glandular; homomorphous nutlets 1.3-1.5(-1.7) mm. long, tuberculate, brownish; gynobase about $\frac{2}{3}$ length of nutlets; style much surpassing nutlets, about twice length of gynobase.—Anal. Univ. Chile cxxi. 829 (1908) and Fl. Chile v. 234 (1910). *Eritrichum filiforme* Ph. Fl. Atac. 39 (1860) and Viage Des. Atac. 213 (1860). *E. mite* Ph. Anal. Univ. Chile xc. 539 (1895). *C. mitis* Reiche, l. c.

CHILE. ANTOFAGASTA: Hueso Parado, Taltal, 1853, *Philippi* (MS, TYPE of *E. filiforme*; G, photo.); coastal hills, Tocopilla, Sept. 1889, *Vidal* (MS, TYPE of *E. mite*; G, photo.); Tocopilla, no collector given, no. 13 (MS); gravelly fog-bathed slope, Tocopilla, Oct. 1925, *Johnston* 3578 (G). TARAPACÁ: Quebrada Huantaca, Iquique, Sept. 1904, *Martens* (MS); Quebrada Huantajaya, Iquique, 700 m. alt., Sept. 1925, *Werdermann* 764 (G).

The type of *C. filiformis* is a very small slender plant given as from Hueso Parado at Taltal. Although with a different gross aspect, it has the fruit-characters, the calyx and pubescence of the Tocopilla and Iquique plants. I made very many collections of *Cryptanthas* in the region about Taltal but did not discover any plants there that could be mistaken for *C. filiformis*. If the plant actually came from the Taltal region it must be rare or very local. The known range of the species is very disrupted. The material at hand shows variation in size and shape of the calyx-lobes and to some extent in the outline of the nutlets also. However, these variations are unimportant since they are all present among the large suite of specimens I collected on a single hillside at Tocopilla.

12. *C. granulosa* (R. & P.) Johnston. Annual, 5-30 cm. tall; stems erect, becoming loosely and ascendingly branched, finely hispid

with the hairs appressed or somewhat spreading; leaves linear, 2-3.5 cm. long, 2-4 mm. broad (rarely, in *C. latifolia*, somewhat oblong and 5-10 mm. broad), obtuse, rounded to a sessile base, sparsely pustulose-setose; spikes solitary or geminate, bracted, 3-12 cm. long, becoming loosely flowered; bracts few to many, linear or oblong, 3-5(-10) mm. long; fruiting calyx ovate, 2-4 mm. long, subsessile; mature calyx-lobes linear or lance-linear, obtuse, sparsely appressed-hispid, below middle sparsely short-hirsute on the weakly prominent midrib, above middle more or less herbaceous and spreading; corolla evident, white, 2-4 mm. broad; ovules 4; nutlets 4, homomorphous or heteromorphous with the axial one (always subpersistent) slightly the largest, ovate-oblong, 1.3-1.8 mm. long, tuberculate or papillate and somewhat glandular, apex acute, base rounded or obtuse, edges angled, back convex, groove closed or gradually dilated towards the base; gynobase $\frac{2}{3}$ - $\frac{3}{4}$ height of nutlets; style surpassing the nutlets, about equalling the gynobase.—Contr. Gray Herb. lxxviii. 54 (1923). *Myosotis granulosa* R. & P. Fl. Peruv. ii. 5 (1799). *C. latifolia* Johnston, Contr. Gray Herb. lxxiii. 73 (1924).

PERU. LIMA: mountains near Chosica, 1400 m. alt., *Weberbauer 5340* (FM); Mount San Augustin near Lima, 250 m. alt., *Weberbauer 5695* (FM); loose stony upper slopes of seaside hills, Chorrillos near Lima, 150 m. alt., *Macbride 5861* (FM, TYPE OF *C. latifolia*; G, ISOTYPE). AREQUIPA: sandy hills, Mollendo, *Hitchcock 22357* (US, G); lower edge of fertile belt in hills back of Mollendo, *Johnston 3532* (G).

I have concluded that *C. latifolia* is merely the luxuriant phase of *C. granulosa*. Mounted on the sheet with the type is a small plant, which is apparently typical of Ruiz & Pavon's species. The plant from Mollendo seems to belong to the present species, but appears to be very much more abundantly bracted than is the typical form about Lima.

13. *C. taltalensis*, sp. nov. Annuæ 1-3 dm. alta laxè basaliter ramosa; ramis sæpe gracilibus minute strigosis et plus minusve breviter hispidis; foliis linearibus vel rariter anguste lanceolatis paucis 1-2 cm. longis 1-2(-3) mm. latis pustulatis breviter hispidis, superioribus paullo reductis; spicis solitariis vel geminatis 3-5 cm. longis bracteatis; bracteis linearibus caducis 3-5 mm. longis; calycibus fructiferis congestis ascendentibus oblongis 3-4.5 mm. longis asymmetricis sessilibus faciliter deciduis basi conicis; lobis calycis linearibus erectis ascenderè hispidis cum costa prominenti; corolla evidenti 3-4 mm. lata alba; fructu 4-ovulato; nuculis 1-3 sæpissime plures abortis heteromorphis ovatis apice acutis dorsi convexis margine angulatis, sulcis clausis vel anguste apertis basi in areolam deltoideam dilatatis; nucula axillari ca. 1.8 mm. longa subpersistenti semper maturanti