

leaves linear-oblanccolate or lanceolate, obtuse or acute, 2-4 cm. long, 2-4(-6) mm. broad, appressed-hispid, rather finely pustulate beneath; cleistogene in crowded whorls at collar of plant and a few in the lower axils, the unribbed calyx densely hispid-villous, the 2 nutlets tuberculate or rugose; spikes geminate or solitary, bractless, capitate-congested, 6-10 mm. long; fruiting calyx globose, 3-4 mm. tall, subsessile, pubescence straw-colored; mature calyx-lobes spathulate-oblong, obtuse, spreading, appressed short-hispid, with midrib; corollas 2-3 mm. broad, white with a small yellow eye; fruit 2-ovulate; nutlets 2 or rarely only the axillary one developing, ovate, 2-3 mm. long, densely and minutely tuberculate-granulate and coarsely tuberculate or tuberculate-rugose as well, apex acute, base obtuse, sides acute, back obtuse with a medial ridge; gynobase $\frac{2}{3}$ - $\frac{3}{4}$ height of nutlets; style just surpassed by nutlets or equalling them.—*Pittonia* i. 112 (1887); Reiche, Anal. Univ. Chile cxxi. 815 (1908) and Fl. Chile v. 220 (1910). *Eritrichum dimorphum* Ph. Linnaea xxix. 16 (1857). *E. himorddo* Ph. Anal. Univ. Chile xviii. 55 (1861), a printer's slip for *E. dimorphum*.

CHILE. SANTIAGO: Las Condes, Jan. 1880, *Navarro* (MS; G, photo.); Arañas, Jan. 1861, *Philippi* (MS; G, photo.); Cordillera de Santiago, Feb. 1857, *Philippi* (MS, TYPE; G, photo.); Las Arañas, Cordillera de Santiago, Nov. 1861, *Philippi* (MS; G, photo.). ACONCAGUA: San Felipe, Dec. 1925, *Claude-Joseph 3857* (US).

Closely related to *C. cynoglossoides*, but a more southern species with a much less trim or erect habit, much paler more spreading pubescence, and smaller corollas.

35. *C. cynoglossoides* (Ph.), comb. nov. Annual, 1-1.5 dm. tall, with a fleshy spindleform root 2-5 mm. thick; stems erect, solitary or tufted, simple or with short (1-3 cm. long) ascending floriferous branches above, finely appressed short villous-hispid; leaves lanceolate to linear-oblong or oblong-lanceolate, 2-4 cm. long, 2.5-5 mm. broad, usually recurved just below the obtuse or rounded apex, appressed-hispid, little reduced up the stem; cleistogenes in crowded whorls at crown of plant, a few in the lower axils, with the membranous unribbed calyx surpassed by the nutlets, the two densely tuberculate nutlets ca. 5 mm. long; spikes solitary or geminate, bractless, very densely capitate-congested, ca. 1 cm. long; fruiting calyx globose, 3-4 mm. long, the hairs bright yellow or darkly tawny; mature calyx-lobes oblong, obtuse, ascending, densely short-hispid, midrib not prominent; corolla 4-5 mm. broad, white with orange-colored tube and appendages; flowers 2-ovulate; nutlets 2 or rarely with only the axillary one developing, 2.5-3 mm. long, finely and densely tuber-

culate-granulate and also commonly tuberculate or tuberculate-rugose as well, apex acute, base obtuse, back obtuse with a weak medial ridge, edges angled, groove usually closed with a small areola at the broad forking; gynobase about $\frac{2}{3}$ height of nutlets; style surpassing the nutlets.—*Eritrichum cynoglossoides* Ph. Linnaea xxix. 16 (1857). *E. uspallatense* Ph. Anal. Univ. Chile xc. 521 (1895).

ARGENTINA. MENDOZA: Baños del Inca, Jan. 1886, *Borchers* (MS, TYPE of *E. uspallatense*; G, photo.). SAN JUAN: Arroyo Tambillo below Paso de Valeriano, 4000 m. alt., Jan. 1926, *Johnston 6099* (G).

(?) CHILE: "Arqueros, Oct. 1836, *Gay*" (MS, TYPE of *E. cynoglossoides*; G, photo.).

The source of the type specimens of *E. cynoglossoides* is uncertain. It was found by Philippi mixed with specimens of *C. capituliflora* on a sheet in the Museo Nacional at Santiago. The accompanying label bears Gay's number 1620 and gives the collection-locality as Arqueros, a small mining district at relatively low altitudes in the hills back from the coast in the northwestern part of the Province of Coquimbo, Chile. The flora of this region is very different from that in which both *C. cynoglossoides* and *C. capituliflora* are with certainty known. I suspect that the specimens in question really came from the cordilleras east of Coquimbo and were attributed to Arqueros through mislabeling. Perhaps pertinent in this connection is the fact that the type of *C. capituliflora* at Paris presents a mixture similar to that described. A photograph of Clos's type of *C. capituliflora* shows that a single plant of *C. cynoglossoides*, or at least of some closely related species, is associated with the plants of *C. capituliflora*. It is significant that the single plant is remarkably similar in size, habit and degree of maturity to the type of *C. cynoglossoides* at Santiago, in short they might be part of the same collection. The sheet at Paris bears Gay's number 533 and is labeled as from Los Patos, a high Andean valley just within Argentina (Prov. San Juan) and southeasterly from Coquimbo. I am inclined to believe that the type of *C. cynoglossoides* really came from Los Patos and I should not be surprised if future collecting shows that species to be strictly Argentinian.

36. *C. linearis* (Colla) Greene. Annual, 1-3 dm. tall, stiffly erect, with a firm slender root 1-2.5 mm. thick; stems solitary or few, slender, producing short ascending branches above, strigose or loosely appressed short hispid-villous; leaves spatulate-linear or narrowly lance-linear, acutish, 2-5(-7) cm. long, 2-3(-4) mm. broad, scarcely reduced up the stem, somewhat hispid, silky-strigose; cleistogenes few, borne at collar of plant or occasionally in lower axils, with an apparently indehiscent calyx that is pubescent and rather evidently reticulate-