

PENTSTEMON CEPHALOPHORUS. Subspecific to *P. procerus*; low and stout, herbaceous save as to the horizontally superficially seated subligneous rootstock, the strongly decumbent flowering stems 4 to 8 inches high, glabrous below, as are also the obovate or spatulate subcoriaceous basal leaves, but upper part of stem and the inflorescence, even to the corollas, sparsely and slenderly glandular-hairy: cauline leaves in 3 pairs, all of oblong outline, rather larger than the basal ones, all entire, the middle pair usually with a few flowers in the axils, the summit of the stem crowned with a dense globose and capitate cluster: sepals thin lance-linear: corollas less than $\frac{1}{2}$ inch long, straight and narrowly tubular, with a small limb of short subequal rounded segments; color purplish.

Summit Lakes, at 11,000 feet, Culbertson, 19 Aug., 1904. Bakers' n. 4551.

APOCYNUM CARDIOPHYLLUM. Small and rather slender, only 8 or 10 inches high, very erect, branching from near the base, stem and lower face of leaves very glaucous, the whole plant glabrous; leaves short-petioled and all deflexed, mostly about 1 inch long, at base subcordate or occasionally only truncate, at apex very obtuse, mucronate, dark-green and pale-veiny above; flowers rather many, terminal and from the axils of the upper leaves, of large size but in small clusters: sepals short, ovate, acuminate, of about one-fourth the length of the large, deeply flesh-colored corollas, these broad-cylindric, about $\frac{1}{2}$ inch long, their at length spreading lobes very short and obtuse; fruit not seen.

Hackett's Meadows, at 9,000 feet, Culbertson, 18 July, 1904. Baker's n. 4472. Very near that more northerly dwarf with decumbent stems, broader leaves, and more deeply cleft corolla, now called *A. pumilum*.

CRYPTANTHE INCANA. Annual, freely branched from near the base, the branches ascending, a foot long or less; whole plant cinerous-hispidulous and with a different minute strigose hairiness underneath the more copious hispid indument: flowering branches loosely spicate, bractless except at base: calyx small, the sepals short, narrow throughout, not with attenuate or pro-

longed apex: nutlets apparently 4, or sometimes 2 only, a half-line long, elongated-ovate above a truncate base, rather abruptly and obtusely pointed, the ventral groove forked at base and closed throughout, the whole surface greyish mottled with dark-brown, smooth and polished.

On Nine-Mile Creek, at 5,800 feet, Culbertson, 30 Aug., 1904; Baker's n. 4537.

GALIUM CULBERTSONII. Rigid herbaceous perennial, with nearly simple stems about a foot high from horizontal subligneous rootstocks at least partly subterranean angles: of the stem, as well as margin and midvein of the leaves, minutely villous-hispid, a more minute and partly appressed pubescence between the angles of the stem: leaves in fours, of firm texture, less than $\frac{1}{2}$ inch long, oval, but ending in a very prominent cusp: flowers few, minute, greenish: fruits (immature) apparently baccate, on deflexed pedicels of $\frac{1}{4}$ to $\frac{1}{2}$ inch long, to the unaided eye appearing glabrous, but under a lens seen to be sparsely and minutely hispidulous-hairy.

South fork the Kaweah River, 20 June, 1904, J. D. Culbertson. The near affinities of this *Galium* are not obvious to me.

CHRYSOTHAMNUS VULCANICUS. Shrub allied to *C. Parryi* of Colorado, more slender, the leaves very narrowly linear and very acute, indistinctly 3-nerved throughout, glabrous, or when young obscurely glandular and viscid; heads forming a narrow thyriform panicle, the head little more than $\frac{1}{2}$ inch high, narrow, mostly 5-flowered, its bracts about 10, thin, lanceolate-subulate, slender-pointed, the outermost more herbaceous, and woolly on the margin at the base: corollas rather deeply cleft, the teeth always erect: pappus copious, achenes silky-villous.

On Volcano Creek, above Volcano Falls, at 8,000 feet 9 Aug. *C. Parryi* has much broader foliage, a more leafy thyrus, and broader involucre with flowers twice as numerous.

CHRYSOTHAMNUS ASPER. Resembling the last, though stouter, the woolliness of the stems more loose and white; leaves as narrow but firmer, rather strongly glandular-scabrous under a lens, this indument extending to the outer bracts of the involucre: heads sessile, forming a more strictly thyrusoid in-