CALIFORNIA MISCELLANY VI

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Several new finds in California botany seem worth recording and are herewith presented. The preceding paper in this series, California Miscellany V, appeared in 1960 (Aliso 4: 503-504).

That discriminating collector Mr. Al Hobart of Takilma, Oregon, is responsible for the first two species named:

**Scirpus subterminalis** Torr., Fl. U. S. 1: 47. 1824

An aquatic perennial, with slender terete nodulose culms 3-10 dm long and slender channeled leaves 2-5 dm long and 0.5-1 mm wide, it bears solitary terminal oblong-cylindric spikelets 6-10 mm long. Each spikelet is subtended by an erect subulate involucral leaf 1-3 cm long and so appears lateral; it produces 6-10 flowers and lance-ovate, acute, membranous, light brown scales with green midveins. The bristles are about 6, downwardly barbed, and up to as long as the achene. Stamens are 3; style 3-cleft to about the middle; achene obovoid, 3-angled, smooth, dark brown, obtuse, slightly over 2 mm long, beaked. Known previously in and about ponds and streams from central Oregon and British Columbia to Newfoundland and South Carolina, the species was found July 25, 1962, in a small shallow lake in northern Del Norte County, California, about ten miles south of Waldo, Oregon. Mr. Hobart writes that it formed rather a dense colony in water about 18 inches deep and that the culms projected 6-8 inches above the water, the tangled foliage being entirely submerged.

In Munz and Keck, *A California Flora*, page 1415, it would key out with species number 8, *Scirpus nevadensis*, as having the culms subterete and the scales not awned, but it differs from that plant by its more aquatic habit, narrower leaves, one instead of 2-8 spikelets, and 3-cleft instead of 2-cleft style.

**Rubus nivalis** Dougl. ex. Hook., Fl. Bor. Am. 1: 181. 1832

Perennial, with slightly woody creeping stems which are sparingly provided with curved prickles. The leaves are mostly simple, ovate, cordate, more or less 3-lobed, toothed, glabrous or sparingly hispid, commonly 2-5 cm long, about as wide, and on short petioles with recurved prickles. Flowers are usually solitary; the sepals 7-9 mm long, the outer foliaceous and reflexed at anthesis. Petals are dull purple, lance-linear; drupelets few, purple, pubescent.

Commonly inhabiting coniferous woods, *Rubus nivalis* was found on Dec. 9, 1961, by Mr. Hobart one-fourth mile south of the Oregon line at 4,100 feet elevation on a south slope leading to Little Grayback Mountain on the upper east fork of Illinois River, Del Norte County, California.

In Munz and Keck, *A California Flora*, page 783, this *Rubus* keys out with *R. lasiococcus* in being almost herbaceous, but it differs in being armed. From the woodier species it is easily distinguished by its broader stipules that are almost or quite free and not adnate to the petioles. It ranges north to British Columbia and east to Idaho.
PSORALEA BITUMINOSA L., Sp. Pl. 763. 1753

A half shrub to about 2 m tall, growing from an underground rootstock and forming some almost entirely herbaceous clumps, this Psoralea has the slender ultimate branches mostly strigose and is quite ashy toward its tips, but with occasional black hairs. The leaves are pinnately trifoliolate, short-petioled, the leaflets lanceolate, somewhat acuminate, mostly 2–5 cm long, scarcely 1 cm wide. Stipules are lance-subulate, 5–7 mm long, white-strigose and with some darker hairs. Peduncles are slender, elongating in age to about 1 dm, each bearing a subumbellate head of several flowers; calyx about 9–10 mm long, the lobes almost as long as the tube and subulate. Corolla slender, about 10–12 mm long, lilac with an almost white keel, the banner somewhat red in age.

Psoralea bituminosa was first discovered in California by Dr. Wesley O. Griese! of Los Angeles State College, in the summer of 1961, growing with Spartium junceum in a mixed Chaparral-Southern Oak Woodland on a steep slope in Millard Canyon, south base of San Gabriel Mountains, Los Angeles County, California at 2,000 feet elevation. In May, 1962, I visited this area with Dr. Griese and I have deposited specimens with Dr. Tom C. Fuller of the California State Department of Agriculture, at the California Academy of Sciences, at the Jepson Herbarium, Dudley Herbarium, Herbarium of Harvard University, and the United States National Herbarium. At Harvard I found no specimens from North America of this Mediterranean species and Dr. Velva E. Rudd of the National Herbarium has kindly informed me that there were none there.

In Munz and Keck, A California Flora, page 850, Psoralea bituminosa runs to near P. rigida, from which it is readily separable by its long calyx-lobes, its smaller flowers, much smaller glands, fewer flowers in subcapitate or subumbellate rather than recemose clusters, and by its conspicuously white-hairy calyx.

Phacelia hardhamae Munz sp. nov.

Slender-stemmed erect annual, 2–12 cm tall, simple or branched from near the base, hirsutulous throughout with rather slender stiff spreading hairs and also glandular-pubescent; stems somewhat reddish, to about 1.5 mm thick; leaves alternate, scattered, simple, the blades round-ovate, 0.4–2 cm. long, coarsely subcrenate with few, broad, blunt, rounded teeth, the blade rounded or slightly notched at the base, one-half to one-third as long as the slender petiole; leaves gradually reduced upward and in the lax, few-flowered, scorpioid cyme passing into broad bracts; pedicels slender, 1–10 mm long; calyx campanulate, 2–3.5 mm long, the lobes subequal, spatulate to oblanceolate; corolla pelviform, deciduous, pale lavender, 5–7 mm long, the rounded lobes about as long as the broad united portion; stamens exerted, the filaments free for almost 2 mm, pubescent below and with a pair of minute oblong scales near the base; anthers about 1 mm long; pollen yellow; style persistent, surpassing the stamens, about 6–7 mm long above the ovary, deeply cleft; immature capsule equaling the calyx, about 4 mm long; ovules apparently rather many.

Planta annua, erecta, 2–12 cm alta, simplex vel base ramosa, patente glandulosopubescent; caulibus tenuibus; foliis alternis, simplicibus, rotundato-ovatis, laminis 4–20 mm longis, late rotundato-que dentatis; petiolis tenuibus, 1–5 cm longis; cynis scorpioideis, floribus paucis; pedicelis tenuibus, 2–10 mm longis; calyce campanulato, 2–3.5 mm longo, lobis spathulatis vel oblongis; corolla late pelviforme, decidua, lavandulacea, 5–7 mm longa, lobis rotundatis; staminibus erectis; filamentis base adnatis, pubescentibusque; stylo bifido, 6–7 mm longo; capsula immatura, multiovulata.

Type, Clare B. Hardham 5738, May 13, 1960 (Rancho Santa Ana Botanic Garden Her-
barium no. 157,868), from damp gravel on north slopes, Rose Lake, Ventura County, California, at 3,600 feet elevation. It is a pleasure to name this proposed species for Mrs. Hardham whose collecting, particularly in the South Coast Ranges of California, during the past few years has produced such notable results.

Among California species of *Phacelia*, *P. hardhamae* is near to *P. grisea* Gray and *P. purposii* Brandegee in its small, promptly deciduous, pelviform corolla, deeply parted style, glandular pubescence, lax scorpioid inflorescence, dentate rather than pinnatifid leaves, and annual duration. It differs from *P. purposii* in its generally smaller, more delicate habit, rounder leaves with more shallow, less pointed teeth, and more coastal geographic range. From *P. grisea* it is separable by its smaller stature, more consistently crenate leaves, longer petioles with reference to blade-length, more lax, fewer-flowered cymes, lavender rather than white corolla, subequal rather than unequal calyx-lobes, and more southern occurrence. Superficially it somewhat resembles *P. lemmonii* Gray of the Mojave Desert, but the leaves are less oblong than in that species, the pedicels longer, and the corolla not nearly so tubular.