

NEW OR NOTEWORTHY SPECIES OF PACIFIC COAST PLANTS.

BY CHARLES V. PIPER.

The identity of many of the older described species of northwestern plants can only be settled by an examination of the original specimens. The conclusions reached from an examination of some of these are presented herewith, together with descriptions of several new species sent to me from time to time by various correspondents.

Luzula arcuata major Hook. Fl. Bor. Amer. 2: 189. 1840.

The type specimens of this collected by Tolmie on Mount Rainier is at Kew. It is identical with *Juncooides piperi* Coville.

Alsine viridula sp. nov.

Perennial, forming dense, prostrate, circular mats, 10 to 20 cm. broad; herbage entirely glabrous except for a few ciliate hairs at the bases of the leaves; stems 5 to 10 cm. long, green, scarcely shining, branched; leaves ovate, plane, short-acuminate, dull, rather thin, but the veins obscure, 5 to 15 mm. long, nearly as long as the internodes, each abruptly narrowed into a short petiole, this bearing a few long hairs; flowers solitary in the axils, the pedicels mostly shorter than the leaves; sepals oblong-ovate, acutish, green, with a narrow, white, scarious margin, thin, 3-nerved, 2 to 2.5 mm. long; petals none; pods green, ovoid, not longer than the calyx; seeds dark brown, 0.5 mm. long.

Type in the U. S. National Herbarium, no. 249940, collected on ridges south from Wiessners Peak, Idaho, July 28, 1895, by J. B. Leiberger (no. 1396). Growing in springy places in canyons, altitude 1,700 meters. Also collected along rivulets in woods, altitude 1,400 meters, in the Blue Mountains, Columbia County, Washington, July, 1896, by C. V. Piper (no. 2328).

This species is a close ally of *Alsine crispa* (Cham. & Schlecht.) Holzinger,¹ but that has a much looser habit, with internodes much exceeding the leaves, shining stems, less distinctly petioled leaves lacking the basal hairs, pedicels mostly exceeding the leaves, and thick, lanceolate sepals which are shorter than the capsule and when mature 3-ribbed. The seeds, too, are larger and paler.

Alsine crispa also occurs in Idaho and in the Blue Mountains, but it remains perfectly true in its characters.

Oreobroma longipetala sp. nov.

Root stout, simple or branched, about 6 cm. long; leaves linear, 2 to 3 cm. long, about 2 mm. wide; flowering stems simple or bearing 1 to 3 erect branches,

¹ *Alsine crispa* (Cham. & Schlecht.) Holzinger, Contr. U. S. Nat. Herb. 3: 216. 1895.

Stellaria crispa Cham. & Schlecht. Linnaea 1: 51. 1826.

much exceeding the leaves; bracts opposite or the upper alternate, sessile, ovate, mostly glandular-denticulate; flowers rose colored (?), long-pediceled; sepals truncate or slightly rounded, 4 to 5 mm. long, with very short, blunt, glandular teeth; petals 12 to 18 mm. long,

Type in the U. S. National Herbarium, no. 10881, collected in the Sierra Nevada, California, in 1875, by J. G. Lemmon.

Intermediate between *O. pygmaea* and *O. oppositifolia*.

***Arabis olympica* sp. nov.**

Perennial from a stout, slightly branched caudex; stems erect, simple, 6 to 10 cm. high, sparsely pubescent with branched hairs; basal leaves obovate to oblanceolate, obscurely crenate, obtuse, thickish, sparsely pubescent on the midrib and margins with simple hairs, the blade 5 mm. long on a shorter margined petiole; cauline leaves 3 to 8 mm. long, sessile, oblong to lanceolate, obtuse, entire or nearly so, the margins and midribs pubescent with mostly simple hairs; flowers corymbose, somewhat nodding, short-pediceled; sepals oblong, acutish, purple-tinged, 2 mm. long; petals white, as long as the sepals; pods erect, narrowly linear, obtuse, glabrous, 18 to 23 mm. long on stout, glabrous pedicels one-fourth as long; style stout, about 0.5 mm. long.

Type in the U. S. National Herbarium, no. 690787, collected near Humes Glacier, Mount Olympus, Washington, August 12, 1907, by J. B. Flett.

A near ally of *A. furcata* S. Wats., but distinguished by its much smaller flowers and the branched pubescence of the stem.

***Cheiranthus capitatus* Hook. Fl. Bor. Amer. 1: 38. 1829.**

The type of this, collected by Douglas "on rocky places of the Columbia near the sea," is in the Kew Herbarium, and a duplicate is in the British Museum. The plant is identical with *Erysimum elatum* Nutt. and has nothing to do with *Erysimum grandiflorum* Nutt., to which it has commonly been referred.

***Astragalus glareosus* Dougl.; Hook. Fl. Bor. Amer. 1: 52. 1830.**

Wholly on the basis of the description the writer identified this species somewhat hesitatingly with *Astragalus allanaris* Sheldon. In Hooker's description it was said to be "plentiful on dry gravelly banks of rivers, from the confluence of Lewis and Clark's Rivers with the Columbia to the mountains." At Kew there are two sheets of Douglas's collecting, one labeled "On barren sandy grounds, common, a fine plant," and the other "Abundantly on sandy dry grounds in the interior of the Columbia, 1826." A duplicate of the second sheet is in the British Museum. All are flowering specimens of the plant later called *Astragalus allanaris* Sheldon. The plant of Colorado and Wyoming, heretofore referred to *Astragalus glareosus*, is quite different and is properly named *Astragalus argophyllus* Nutt.

***Lysimachia terrestris* (L.) B. S. P. Prel. Cat. N. Y. 34. 1888.**

Viscum terrestre L. Sp. Pl. 1023. 1753.

This species, not before recorded from west of the Rocky Mountains, has been collected at Shoalwater Bay, Washington, in ditches along a cranberry bog by Dr. Cora B. Eaton, July 1, 1910.

***Ligusticum scoticum* L. Sp. Pl. 250. 1753.**

According to Hooker¹ this plant was collected by Douglas at the mouth of the Columbia, and Gray² later identified one of Cooper's plants as this species—"not rare along the coast at Shoalwater Bay." What the Cooper

¹ Fl. Bor. Amer. 1: 265. 1834.

² U. S. Rep. Expl. Miss. Pacif. 12²: 62. 1860.

plant may be is uncertain, as the specimens have not been found either at Washington or in the Gray Herbarium. No Douglas specimens could be found either at Kew or in the British Museum, but in both herbaria are undoubted specimens of *Ligusticum scoticum* labeled "Fort Vancouver, ex Herb. Greville." While it would not be strange to find this plant on the Washington coast, inasmuch as it is common on the shores of Alaska, it has been collected by no recent botanist. It is quite certain that the plant does not grow at Fort Vancouver, and that the label is erroneous, as many other plants have been recorded from this place which do not occur there.

***Pentstemon cinereus* sp. nov.**

Cespitose, with several to many slender erect stems from a much-branched woody base, the whole herbage densely and minutely canescent-puberulent and the inflorescence glandular; leaves all entire, subcoriaceous, the basal ones numerous, spatulate-lanceolate, acute, the blades 10 to 20 mm. long, usually a little shorter than the petioles; cauline leaves about 6 pairs, lanceolate, broadest at the sessile base, 2 to 3 mm. long, gradually reduced upwards, the margins somewhat involute; inflorescence narrow and strict, 10 to 20 cm. long, the puberulence becoming glandular especially on the peduncles and flowers; peduncles erect, 3 to 7-flowered; pedicels very short; calyx 2 mm. long, the broadly ovate sepals abruptly acute, not margined; corolla dark blue, tubular, 10 to 12 mm. long, slightly bilabiate, puberulent on the outside, slightly hairy within; sterile filament bearded at the top; anthers splitting their whole length.

Type in the U. S. National Herbarium, no. 690798, collected in dry rocky ground at Bend, Crook County, Oregon, July 4, 1907, by Kirk Whited (no. 3055a).

The species is perhaps most closely allied to *P. collinus* A. Nels.

***Plectritis congesta minor* Hook. Fl. Bor. Amer. 1: 291. 1834.**

The original specimens of Douglas were said to be from "near the mouth of the Columbia." The specimens at Kew, apparently the originals, are labeled "near the ocean." They are merely small plants of *Plectritis congesta*, and have nothing to do with *Plectritis macrocera* Torr. & Gray, under which *P. congesta minor* Hook. was cited as a synonym in the Synoptical Flora. *Plectritis macrocera* is not known to occur west of the Cascade Mountains.

***Erigeron filifolius* (Hook.) Nutt. Trans. Amer. Phil. Soc. n. ser. 7: 308. 1841.**

Diplopappus filifolius Hook Fl. Bor. Amer. 2: 21. 1834.

In the original description this plant, collected by Douglas, was said to be "Common on the Great Falls of the Columbia, and barren grounds of the interior." There has been doubt as to whether this name properly applies to the plant with yellow flowers named *Erigeron peucephyllus* by Gray,¹ or to a closely related species with violet or purple flowers. The doubt is probably traceable to Hooker's original description, where the rays are described as "flavescentibus." In the British Museum there are three sheets of Douglas's specimens labeled *Diplopappus filifolius*. One of these is inscribed "Sandy ground near the Great Falls of the Columbia, 1825." This plant is the species described as *Erigeron filifolius* in the Synoptical Flora of North America, and the sheet is doubtless the type or a duplicate type. The other two sheets are labeled "Dry grassy plains of the Columbia, 1826." Both are *Erigeron peucephyllus* Gray. In the Kew Herbarium are also three Douglasian sheets of *Diplopappus filifolius* Hook., but all represent the same species as the "Great Falls" plant in the British Museum. Thus it appears that Doctor Gray's treatment in the Synoptical Flora is correct and that Hooker was misled as

¹ Proc. Amer. Acad. 16: 89. 1810.

to the color of the rays either by their being faded, or, more likely, by the two sheets of *Erigeron peucephyllus* that he associated with the "Great Falls" plant. The question still remains open as to the identity of *Diplopappus linearis* Hook.¹ Search for the original specimens of this, both at Kew and at the British Museum, was unsuccessful. Doctor Gray cited the name with doubt as a synonym of *Erigeron ochroleucus* Nutt.

Aster columbianus sp. nov.

Stems slender, erect, 40 to 70 cm. high, somewhat puberulent, much branched above and bearing numerous crowded small heads; leaves linear, entire, acute, sessile by a broad base, 3 to 8 cm. long, glabrous, or nearly so, except the scabrous-ciliate margin; reduced leaves of the branches very numerous and more strongly ciliate; involucre turbinate, 5 mm. high; bracts linear, in about 3 series, somewhat squarrose, the outer cuspidate and ciliate, the inner acute and not ciliate, all green at the tips; rays violet, 4 to 5 mm. long; pappus sordid; achenes canescent.

Type in the U. S. National Herbarium, collected at Waitsburg Washington, by R. M. Horner.

In Contributions from the U. S. National Herbarium, volume 11,² this was referred to *A. amethystinus* Nutt., but that species has the leaves scabrous on both surfaces. The whole aspect is that of *Aster campestris* Nutt., but that has the inflorescence glandular.

The species has been collected as follows:

WASHINGTON: Wawawai, Piper 1602; Waitsburg, Horner 559 (type), 627; Okanogan River, Sereno Watson 191.

OREGON: Wallowa Mountains, Piper 2513.

Aster delectus sp. nov.

Stems puberulent, 10 to 30 cm. high; leaves entire, lanceolate or oblanceolate, acute, puberulent especially beneath, sessile by a narrowed base or the lower with margined petioles; inflorescence corymbiform, of 3 to 15 rather crowded small heads; involucre rather hemispheric, 5 mm. high; bracts pubescent but not ciliate, mostly obtuse, in about 3 series; rays violet, 5 mm. long; pappus sordid.

Type in U. S. National Herbarium, no. 411493, collected in a moist meadow near the Sycan River, Klamath County, Oregon, August 15, 1901, by W. C. Cusick (no. 2761).

A close ally of *A. occidentalis* Nutt.

Aster paludicola sp. nov.

Glabrous throughout, the rather slender stems 60 to 80 cm. high; leaves linear-lanceolate, sessile by a slightly narrowed base, entire, acute, 8 to 12 cm. long, 5 to 7 mm. wide, only the midnerve evident; inflorescence loosely cymose, the medium-sized heads few; involucre 6 to 8 mm. high, of 20 to 25 loose bracts in about three indistinct series; bracts glabrous, acute, green at tip, chartaceous below the middle; rays violet, 8 mm. long; pappus sordid achenes canescent.

Type in the U. S. National Herbarium, no. 620391, collected in Darlingtonia swamps, at Eight Dollar Mountain, Josephine County, Oregon, August 15, 1907, by C. V. Piper.

The species is remarkable for the few bracts to the involucre. Its alliance is apparently with *Aster occidentalis* Nutt.

¹ Fl. Bor. Amer. 2: 21. 1834.

² Page 572.