

A NEW FRASERA FROM OREGON.

MORTON E. PECK AND ELMER I. APPLIGATE

Frasera umpquaensis sp. nov. Planta biennialis glaberrima; caulis robustus simplex 6-9 dm. altus; folia omnia verticosa foliis verticis 3-4, vel superioribus oppositis, elliptico-oblongis vel late lanceolato-oblongis 1-2 dm. longis ad petiolum brevissimum indistinctum contractis; inflorescentia interrupta densa 1-3 dm. longa ramis infimis in axillis foliorum superiorum, bracteis parvis pedicellis plerumque brevioribus floribus; lobis calycis linearibus vel lanceolato-linearibus paulum inaequalibus 9-12 mm. longis, quoque ad basin intus cristam setarum brevium ferente; corolla viridescens alba paulo brevior calyce profunde 4-partita cristas setarum longarum inter lobos ferente, lobis ad apicem minute 3-4-dentatis, foviis solitariis magnis profundis suborbiculatis in circuitu membrana profunde fimbriata marginatis; filamentis anguste linearibus; capsulis compressis.

Glabrous biennial; stem solitary from a short caudex, stout, simple, 6-9 dm. high; leaves all in whorls of 3 or 4 or the uppermost opposite, elliptic-oblong or broadly lance-oblong, 1-2 dm. long, narrowed to very short, ill-defined petioles; inflorescence 1-3 dm. long, interrupted, dense, the lowest branches in the axils of the upper leaves, the bracts above much reduced, the pedicels a little longer to much shorter than the flowers; calyx-segments linear to lance-linear, somewhat unequal, 9-12 mm. long, each with a tuft of short setae at base within; corolla greenish white or pale yellowish, a little shorter than the calyx, deeply 4-parted, with a tuft of long hairs just below each sinus, the narrowly ovate-oblong divisions 3- or 4-toothed at tip, the nectariferous pit near the base large and deep, suborbicular, extending nearly across the segment and bordered all round by a narrow membrane bearing a fringe of long setae, the area below the pit bearing similar setae; filaments filiform, about half the length of the corolla-divisions; capsules compressed.

Type. Anderson Camp, Umpqua-Rogue Trail on the summit of the divide, northwest corner of Jackson County, Oregon, at about 6000 feet elevation, July 11, 1929, *Applegate 5930* (Dudley Herb., Stanford Univ.). Additional collection: slopes of Abbott Butte, Rogue River National Forest, July 2, 1936, *Thompson 13067*.

This large robust plant has the general aspect of *Frasera speciosa* Dougl. and *F. fastigiata* (Pursh) Heller but is more closely related to the latter, having quite similar foveae on the corolla, but differing in the setae and in the characters of the calyx. The species is probably confined to the Cascade Mountains along the divide between the upper Rogue and Umpqua rivers.

Willamette University,
Salem, Oregon,
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NEW PLANTS FROM OREGON

MORTON E. PECK.

The plants here described have been known to the writer for many years, but he has been hesitant about naming them, hoping that they might be assigned to species already published. This having been found impossible, they are now described as new.

Sophora Leachiana sp. nov. Caulis erectus ad basin simplex 3-5 dm. altus minute canescenti-tomentosus; foliis compluribus supra confertis 1-2 dm. longis, foliolis 19-33 late oblongis utroque rotundatis 1.5-2.5 cm. longis tenuibus villosi-tomentosis, subter pallidioribus supra parce adpresso-pubescentibus; racemo terminali 7-15 cm. longo floribus 10-25 in pedicellibus 2-5 mm. longis; calyce late tubulari-campanulato supra valde gibboso 7-9 mm. longo lobis brevibus late triangularibus; petalis flavis 9-12 mm. longis; fructu maturo invisio, immaturo valde sursum curvato terete, inter semina constricta, ut videtur, stipite 3-4 mm. longo; seminibus paucis.

Stem erect, simple below, 3-5 dm. high, finely grayish-tomentose; leaves several, somewhat crowded above, 1-2 dm. long, the leaflets 19-33, broadly oblong, rounded at both ends, 1.5-2.5 cm. long; thin, villous tomentose and paler beneath, thinly appressed-pubescent above; racemes solitary or few, terminal, 7-15 cm. long, the flowers 10-25, on pedicels 5 mm. long or less; calyx broadly tubular-campanulate, strongly gibbous above, 7-9 mm. long, the teeth short and broadly triangular; petals yellow, 9-12 mm. long; mature fruit not seen, immature, strongly curved upward on a stipe 3-4 mm. long, few-seeded, apparently constricted between the seeds, gray-tomentose.

Type. Rand Ranger station near Galice, Josephine County, Oregon, June 18, 1933, Mrs. Lilla Leach 4343 (type in private herbarium of Mrs. Leach, Portland, Oregon).

Sterile material of this interesting plant was collected in 1921 by Douglas C. Ingram (1221) of the United States Forest Service "on the trail to Pea-vine Mt.," probably within a mile or two of the type locality. Mr. Ingram's material was doubtfully referred to *Amorpha* by government taxonomists. Since then Mrs. Leach has collected flowering and young fruiting material near the same locality on three occasions, thus making possible a correct diagnosis. The plant blooms freely but apparently fruits very sparingly. Mrs. Leach has collected very extensively in southwestern Oregon, and would probably have come across the plant elsewhere were it not of extremely local distribution. I take pleasure in adding this to the list of Oregon plants that bear her name.

Sidalcea maxima sp. nov. Caules erecti dense caespitosi 8-12 dm. alti robusti ad basin saepe 1 cm. crassi, glauci glaberrimi

usque ad inflorescentiam; foliis supra glabris subter sparse et minute puberulis, foliis caulinis compluribus inferioribus et radicalibus 6-10 cm. latis prope ad medium 7-9-fissis, segmentis plerumque leve 3-lobatis, mediis et superioribus 3-5-partitis segmentis lanceolatis vel linearibus 3-10 cm. longis; racemis usque ad 2.5 dm. longis infra glabris supra minute puberulis; floribus sparsis; pedicellis brevissimis minute puberulis, bracteis linearibus integris subtentis; calyce 8-13 mm. alto sparse et minutissime stellato, lobis angustis triangulari-ovatis; petalis clare roseo-purpureis latis apice prope truncato 2-3 cm. longis; carpellis (immaturis) dorso levibus.

Stems in large dense clusters, 8-12 dm. high, robust, often 1 cm. thick at base, freely branched from near the base, glaucous and completely glabrous to the inflorescence; leaves glabrous above and nearly so beneath, with only a few minute stellate hairs, the cauline leaves rather numerous, the basal and lower 6-10 cm. wide, cleft nearly to the middle into 7-9 mostly shallowly 3-lobed divisions, the middle and upper cauline parted into 3-5 mostly entire lanceolate or linear divisions 5-10 cm. long; racemes up to 2.5 dm. long, sparsely flowered even in anthesis, the rachis glabrous below, minutely puberulent above; lower flowers of the raceme on slender glabrous stalks 1-3 mm. long, the very short and finely puberulent pedicel subtended by an entire linear bract apparently near the summit of the pedicel; calyx 3-11 mm. high, thinly and very minutely stellate, the lobes narrowly triangular-ovate; petals bright rose-purple, broad, nearly truncate at apex, 2-3 cm. long; carpels (immature) apparently smooth on the back.

Type. On moist bank along Dairy Creek, twenty miles northwest of Lakeview, Lake County, Oregon, July 3, 1927, Peck 15435 (Herb. Willamette Univ.).

This tall robust plant is characterized by its almost complete lack of pubescence and its large showy flowers.

SIDALCEA SPICATA (Regel) Greene var. *tonsa* var. nov. Folia subter plerumque sine capillis longis; calyx sine capillis longis patentibus, lobis interdum bracteis adpresso-ciliatis; inflorescentia plerumque patentior pedicellis longioribus.

Leaves rarely with any long hairs beneath; calyx without any long spreading hairs, but the calyx-lobes as well as the bracts often appressed-ciliate; inflorescence usually less dense, often with longer pedicels.

Type. Meadow, Big Summit Prairie, Oehoco National Forest, Oregon, June 30, 1932, Peck 17224 (Herb. Willamette Univ.).

Typical *Sidalcea spicata* is common in the southern counties of Oregon from Curry County to Lake County, reaching its most characteristic development west of the Cascade Mountains. To the north and east of this area it passes gradually into the variety here described. Though numerous intergrades occur along the

indefinite boundary of the ranges, the differences elsewhere are so strongly marked and consistent that it seems advisable to distinguish the two by name. The variety is plentiful throughout most of Oregon east of the Cascades from northern Klamath and Lake counties northward and eastward.

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FIELD CHARACTERS DISTINGUISHING PINUS PONDEROSA AND PINUS JEFFREYI

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Western conifers offer relatively few problems in taxonomic differentiation to the field man, but one frequent source of confusion and controversy lies in the similarity between the common western yellow pine (ponderosa pine), *Pinus ponderosa* Dougl. ex Laws. and its close relative Jeffrey pine, *Pinus Jeffreyi* Grev. and Balf. ex A. Murr. These species may be found occupying separate ecological niches (Jeffrey pine has a higher elevational range and occurs on drier sites than western yellow pine and will replace it on serpentine formations at the lower elevations) or they may be found growing intermixed. While certain typical stands or individual trees may be quite readily identified, others defy identification by the use of a simple key and generalized descriptions of the species in question. The following pages contain a list of comparative external features which should greatly facilitate the separation of the two species in the field. Remarks on segregations based on the internal structural and chemical qualities of the wood and foliage, which are essentially tasks for the laboratory, have not been included. Grateful acknowledgement is made of certain technical assistance given the writer by Mr. Lloyd Austin of the California Forest and Range Experiment Station.

When using these comparisons, it must be remembered that it is seldom adequate to attempt to identify a tree by using one character to the exclusion of the others. Numerous local strains with distinct morphological and physiological differences result in extreme variation. Certain trees have characters of both species, due probably to cases of inter-breeding. At times but one feature, such as characteristic cones beneath an isolated tree, or distinctly brownish inner bark scale surfaces, may be used as a primary distinction which would point to a Jeffrey pine. Certain trees, however, which otherwise resemble western yellow pine have cones similar to those of the Jeffrey pine or the brownish inner bark scale surfaces characteristic of that species. There-

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