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THREE NEW PLANTS FROM ALBERTA¹

By PAUL C. STANDLEY

During the summer of 1911 Mr. N. Hollister and Mr. J. H. Riley made an extended reconnaissance of the animal life of the mountains of eastern British Columbia and western Alberta.¹ At the same time they secured representatives of many of the plants of this little explored region, their collections consisting of over two hundred numbers. Coming from a territory where little or no botanical collecting had been done previously, these have proved to be of more than passing interest. In the course of identifying the plants secured by the two collectors three were found which seem to be undescribed. It is expected later to publish an annotated list of the species represented in the series of specimens, but it seems advisable to publish here the descriptions of the new ones in advance of the complete report.

VAGNERA PUMILA Standley, sp. nov.

Low perennial 10 cm. high or less; leaves few, usually only 2, with one or 2 very small bract-like leaves just below the inflorescence, elliptic or elliptic-oval, 20 to 50 mm. long and 8 to 14 mm. wide, abruptly acute, sessile by a clasping base, finely parallel-veined, glabrous; inflorescence a stout raceme about 5 cm. long, well exserted beyond the leaves, the flowers rather widely spaced; pedicels stout, ascending, 6 to 8 mm. long, glabrous, subtended by minute, scarious, obtuse, purple-dotted bracts; perianth segments 3 mm. long, oblong, obtuse, white conspicuously blotched with purple; filaments stout, slightly thickened towards the base; anthers purple; stigma very short and thick, not longer than wide, the styles often nearly sessile; mature fruit not seen.

Type in the U. S. National Herbarium, no 622636, collected on Prairie Creek, western Alberta, July 3, 1911, by J. H. Riley (no. 100).

¹ Some new species of birds collected by this expedition are described by J. H. Riley in Proc. Biol. Soc. Washington, Vol. 24, pp. 233-236, 1911; and four new mammals are described by N. Hollister in Smithsonian Misc. Coll., Vol. 56, No. 26, December 5, 1911.

This is a distinct species related to *V. trifolia* which occurs farther east in Canada and has been reported from the western mountains. The writer has seen no other western specimens so cannot determine whether the other material referred to *V. trifolia* is of that species or rather belongs here. *Vagnera pumila* is distinguished from the eastern plant by the short leaves, small size of the plant, less spreading pedicels, and especially by the very short style. The raceme, too, is all exserted beyond the leaves while in *V. trifolia* it seldom more than equals them.

ARTEMISIA LAEVIGATA Standley, sp. nov.

Perennial; stems stout, 25 to 30 cm. high, erect from an ascending base, finely striate, reddish, glabrous; basal leaves on slender petioles, twice pinnatifid into oblong-linear acute segments, glabrous, bright green, thick; cauline leaves mostly once, sometimes twice pinnatifid into narrow acute segments, the upper ones sessile, the lower petiolate, those of the inflorescence mostly oblong-linear and entire; heads few, about 5 to 8, large, 8 to 10 mm. in diameter, broadly campanulate, cernuous on slender erect peduncles 7 to 16 mm. long; bracts glabrous, 3 to 4 mm. long, in 2 or 3 series, ovate, obtuse, with scarious erose margins, green with a broad dark brown border; receptacle naked, glabrous; flowers apparently all fertile; corolla trumpet-shaped, slightly constricted at the throat, 2 mm. long, with short-triangular erect or reflexed lobes, glabrous or with a few short white hairs at the base, yellowish or the lobes tinged with reddish purple; mature achenes not seen, the undeveloped ones short, glabrous.

Type in the U. S. National Herbarium, no. 622563, collected at the head of Smoky River in western Alberta, August 5, 1911, by J. H. Riley (no. 30).

This appears to be most closely related to *Artemisia arctica* Less. It differs from that species and its allies in being quite glabrous. Its leaves, too, are less dissected than in other members of the group.

GAILLARDIA BRACTEOSA Standley, sp. nov.

Stems rather slender, tall, about 70 cm. high, ascending or erect, branched from the base and throughout, sparingly and minutely glandular, beset with abundant cobwebby hairs, purplish, striate; basal leaves not seen; cauline ones lanceolate or oblong lanceolate, 35 to 80 mm. long and 10 to 18 mm. wide, entire, acute or nearly obtuse, sessile by a usually clasping base, bright green, minutely

glandular-puberulent and with rather few soft, weak, many-celled hairs on both surfaces; peduncles long and tortuous, 14 to 22 cm., glandular-puberulent and abundantly villous; heads, exclusive of the rays, 2 cm. in diameter, hemispheric or nearly globose; involucre bracts in several series, 1 to 2 cm. long, elliptic or elliptic-lanceolate, the outer much longer and broader than the linear inner ones, purplish at the base and on the margins, elsewhere bright green, most of them abruptly acute, freely arachnoid especially when young; rays bright deep yellow, 25 to 30 mm. long, 3-lobed at the apex, the lobes oblong, obtuse, glabrous on the upper surface but bearing a few short, several-celled hairs beneath; corollas purplish, the tube nearly or quite glabrous, the lobes triangular, acute, glandular-villous; achenes obpyramidal, densely covered with coarse, appressed, bristle-like hairs; pappus of lanceolate, white, hyaline scales with long-attenuate tips; fimbriæ of the receptacle coarse, setiform, not much longer than the achenes.

Type in the U. S. National Herbarium, no. 622536, collected near Henry House, Alberta, September 11, 1911, by J. H. Riley (no. 4).

Our plant, the northernmost representative of the genus apparently, is similar to *G. aristata* Pursh but is at once distinguished by the elongated, broad outer bracts of the involucre as well as by the tall stems, short fimbriæ of the receptacle, entire leaves, and rather different pubescence.

SVIDA PUBESCENS (Nutt.)

Cornus pubescens Nutt. Sylva 3: 54. 1849.

Cornus sericea ? *occidentalis* Torr. & Gr. Fl. N. Amer. 1: 652. 1840.

Cornus occidentalis Coville, Contr. Nat. Herb. 4: 117. 1893.

Among the shrubs collected is one which appears not to have been segregated from the genus with which it has been associated. As has been shown by Dr. J. K. Small and others, the genus *Svida* is a well marked one, and should not be combined with typical *Cornus*.