A NEW VARIETY OF DODECATHEON PULCHELLUM
(PRIMULACEAE)

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ABSTRACT

Dodecatheon pulchellum var. distolum is proposed for a sparsely glandular or glandular-puberulent taxon from northeastern Wyoming and extreme west central South Dakota. It is most closely related to the more western, densely glandular-puberulent var. cusickii of British Columbia south to Oregon eastward across Idaho to western Montana and northwestern Wyoming.

KEY WORDS: Dodecatheon, Primulaceae, Flora of North America

While preparing a treatment of Dodecatheon L. (Primulaceae) for a forthcoming volume of Flora of America, the following undescribed variant of the widespread, western North American species, D. pulchellum (Raf.) Merr., was noted.

Dodecatheon pulchellum (Raf.) Merr. var. distolum Reveal, var. nov.
TYPE: UNITED STATES. Wyoming, Weston Co.: Black Hills, Black Hills National Forest, Thomson Canyon, about 8.5 air mi NE of Newcastle, in small opening of Pinus ponderosa on Paha Sapa limestone, 43°55′57″, 104°03′33″, T46N, R60W, sec. 33NENE, 5500 ft elev., 4 Jun 1984, H. Marriott 6448, holotype: RM.

A var. cusickii plantis parce minute glandulosis et glanduloso-puberulis differt.

Plants erect herbaceous perennials, 0.6–3.5(-4) dm tall, sparsely glandular-puberulent and often minutely glandular; caudex not obvious
at anthesis, the roots white, without bulblets; leaves basal, 2–10 (13) cm long, (0.3) 0.5–2 cm wide, decurrent to base or nearly so, the blades tapering gradually to a non-winged (at least basally) petiole, oblanceolate to elliptic, sparsely glandular-puberulent, the margins usually entire; inflorescences 1–10-flowered, the bracts lanceolate, 2–7 mm long, usually minutely glandular at least on margins, the pedicels 0.5–3.5 cm long at anthesis, sparsely and minutely glandular; flowers 5-merous, the calyx 4–8 (9) mm long, mostly green, glabrous or more often minutely glandular at least on margins, the tube 1.5–3 mm long, the lobes 3–6 mm, the reflected petals 0.8–1.5 (1.8) cm long, magenta to lavender or rarely white, tube yellow with a thin, wavy, reddish ring; stamens 5, the filaments fused into a tube 1–2 (2.5) mm long, yellow, smooth or more often longitudinally wrinkled, the anthers 3.5–6 mm, pollen sacs yellow, the connective maroon; stigma not enlarged; capsule cylindric-ovoid, 8–15 mm long, 3–5 mm wide, tan to light brown, often reddish-brown apically, glabrous, valvate.

Syncline shootingstar, var. distolum (distolus Gr., in pairs, as to the Big Horn Mountains and Black Hills at each end of a syncline that forms Powder River Basin of northeastern Wyoming), is found primarily on limestone gravel to rocky slopes and outcrops on the foothills and low to middle elevations of the Big Horn Mountains, the Black Hills, and around Devils Tower of northeastern Wyoming and west central South Dakota. The plant also occurs on sandstone or granite, and rarely on gypsum; it can be found at much higher elevations in the Big Horn Mountains. For the most part it is a plant of dry places on forest floors but occasionally will be found along streams or near the edges of moist meadows. It is associated primarily with ponderosa pine or with juniper, mountain mahogany, and sagebrush. Occasionally it is found with aspen or even birch. The variety occurs mainly from 3800 to 6400 feet, with some populations known from as high as 9100 feet. The var. pulchellum occurs on the Big Horn Mountains mostly above 7000 feet elevation; presently the two varieties have not been found growing in close proximity.

Dodecatheon pulchellum var. distolum is similar to var. cusickii (Greene) Reveal in that both are glandular, with var. cusickii densely so on scapes, pedicels and calyx, whereas the new variety is sparsely glandular with the calyx either glabrous or (more often) with the sparse glands scattered over the abaxial surface or confined just to the margins.
Both varieties tend to have glandular-puberulent leaves and yellow pollen sacs, and therefore differ from occasional populations in southeastern Alaska and adjacent Yukon of var. *pulchellum* with purple pollen sacs that have minute glands on the pedicels. The new variety is known from Big Horn, Crook, Johnson, Sheridan and Weston cos., Wyoming, and Custer, Lawrence and Pennington cos., South Dakota. The var. *cusickii* occurs well to the west being found from northeastern Oregon northward to southeastern British Columbia, hence eastward across central and northern Idaho to western Montana. A disjunct population occurs at Birdseye, Fremont County, Wyoming.

**Other specimens examined** (all at RM unless otherwise indicated):


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