

Sterile milkvetch (*Astragalus cusickii* var. *sterilis*)



THREATENED



Flowers and pods (left), habit (center), and habitat (right) of sterile milkvetch. Photos by ODA staff (left and center) and Thomas Kaye (right). If downloading images from this website, please credit the photographer.

Family

Fabaceae

Taxonomic Notes

Synonym: *Astragalus sterilis*

Plant description

Sterile milkvetch is a perennial species 7-15 cm tall, with stiff, wiry stems arising singly or two or three together from creeping rhizomes. Stems are short-strigose and branched, the branches often incurved. Leaves are 2-9 cm long, the rachis elongated well beyond the leaflets. Leaflets are arranged in scattered pairs of 3-5, are linear to linear-elliptic, 1-5 mm long, and strigose on both faces. Racemes are loosely 1-5 flowered, borne on very slender, curved racemes. The calyx is campanulate, 2.5-4 mm long, with very short deltoid teeth. The corolla is pale yellowish white to pink and 8-10 mm long. The pendulous, obliquely obovoid pods are inflated and papery, glabrous, translucent, purple mottled, and 2-2.5 cm long.

Distinguishing characteristics

Sterile milkvetch resembles the closely related *Astragalus cusickii* var. *cusickii* and the two taxa nearly overlap in range, with the latter primarily occurring farther north in canyons of the Snake River. Sterile milkvetch is distinguished by its low, freely branching growth from creeping rhizomes (versus the single stout vertical taproot and multicapital caudex of *A. c.* var. *cusickii*), fewer-flowered racemes, uniformly very short leaflets (the longest leaflets 1-5 mm long versus 5-18 mm long in var. *cusickii*), and bright mottling on the pods (versus absent / faint mottling in var. *cusickii*).

When to survey

Surveys for sterile milkvetch should be completed when the species is flowering, typically from May to late June.

Habitat

Sterile milkvetch inhabits dry, barren ashy areas on gravelly and sandy clay bluffs and knolls at elevations ranging from 823-1460 m (2700-4800 ft). Although the immediate habitat is nearly devoid of other vegetation, sterile milkvetch occurs locally within sagebrush scrub communities.

Commonly associated plant species include *Artemisia arbuscula*, *A. tridentata*, *Bromus tectorum*, *Camissonia claviformis*, *Eriogonum novonudum*, *E. microthecum*, *Eriophyllum lanatum*, *Galium multiflorum*, *Linum lewisii*, *Mentzelia packardiae*, *Minuartia nuttallii*, *Monardella odoratissima*, *Pascopyrum smithii*, *Penstemon miser*, *Poa secunda* ssp. *secunda*, *Salvia dorrii*, *Senecio ertterae*, *Stephanomeria tenuifolia*, and *Trifolium owyheense*.

Range

Sterile milkvetch is endemic to the Owyhee Uplands, occurring along the Owyhee River in southeastern Oregon and adjacent Idaho, within the Northern Basin and Range ecoregion.

Oregon counties

Malheur

Federal status

None

Threats

Primary threats to sterile milkvetch include habitat loss and direct destruction of plants due to mining activities, invasions by exotic weeds including *Bromus tectorum*, prolonged drought conditions, off-road vehicle use, grazing by wildlife and livestock, and seed predation by insects.

Did you know?

As its name suggests, sterility frequently occurs in this taxon, with few or no flowers and pods produced by individual plants, even under seemingly favorable conditions. Pod production can vary by population, ranging from negligible production to pod production in almost all members of a population. Results from a reproductive ecology and cultivation study of sterile milkvetch indicate that the species may partially compensate for its low rates of fruit production with relatively high seed set per pod and high germination rates. In addition, the species can reproduce vegetatively via creeping rhizomes. A single genet can consist of stems scattered over an area up to several square yards, all connected by subterranean woody cords.

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