

Tygh Valley milkvetch (*Astragalus tyghensis*)



THREATENED



Flowers (left), habit (center), and habitat (right) of Tygh Valley milkvetch. Photos by ODA staff (left) and Rebecca Currin (center and right). If downloading images from this website, please credit the photographer.

Family

Fabaceae

Plant description

Tygh Valley milkvetch is a densely villous-tomentose perennial arising from a thick, woody taproot and shortly forking caudex. Stems are several to numerous, usually 15-55 cm long, and prostrate to weakly ascending, forming loose mats or tufted clumps. Leaves are pinnately compound, 5-14 cm long, the uppermost sessile, with (7) 15-25 flat leaflets 0.6-1.7 cm long, ranging from oval-obovate and obtuse or subacute to elliptic and acute in some upper leaves. Peduncles are 5-12 cm long; racemes (10) 20-40 flowered, the flowers crowded into a dense head at anthesis, elongating into a narrowly cylindrical spike. The calyx is densely silky-villous, 6.6-7.8 mm long at anthesis, with narrowly subulate teeth nearly equaling the tube. The corolla is pale yellow, 9-12 mm long, the petals pubescent dorsally above the middle and marcescent. The pod is horizontal or slightly declined, contracted at the base into an obliquely attached stipelike neck 0.4-0.6 mm long, the body obliquely ovoid, 4.5-7 mm long and 3 mm in diameter, and more or less enclosed by the calyx.

Distinguishing characteristics

Tygh Valley milkvetch closely resembles the more common and widespread species *Astragalus spaldingii*. However, the threatened taxon is distinguished by its overall stouter stature; racemes that are more numerous flowered and longer in fruit; thicker, softer, and more tangled pannose vestiture; yellowish, coarsely pubescent petals (versus white or dirty white glabrous petals, often grayish-lavender tinged, in *A. spaldingii*), and a short but obvious stipe that is attached very obliquely to the base of the pod body (versus stipe extremely short and obscure or lacking and attached perpendicularly to the pod in *A. spaldingii*).

When to survey

Surveys for Tygh Valley milkvetch should be completed when the species is in flower, usually from May through early June.

Habitat

Tygh Valley milkvetch occupies dry, sandy, rocky soils overlying basalt bedrock on hillsides and valley floors within sagebrush-bunchgrass communities. Many occurrences are located along roadsides.

Associated plant species include *Alyssum alyssoides*, *Astragalus purshii*, *Bromus tectorum*, and *Sanguisorba occidentalis*.

Range

This taxon is endemic to the Tygh Valley of north-central Oregon in the Columbia Basin ecoregion. The majority of occurrences are located within a 218 square kilometer (84 square mile) area near the confluence of the White River and the Deschutes River.

Oregon counties

Wasco

Federal status

None

Threats

Habitat loss and degradation due to past range and agricultural development has negatively impacted Tygh Valley milkvetch. Current threats to this species include competition from invasive rangeland weeds, grazing by livestock, and road construction and maintenance. Study results indicate that grazing reduces size, reproduction, and survival in Tygh Valley milkvetch. Pesticide application associated with road maintenance may reduce reproductive output, as seed production in this taxon requires insect pollinators.

Did you know?

Although Tygh Valley milkvetch was first collected as early as 1894 by Francis Lloyd, it was overlooked for years as a form of *A. spaldingii*, despite several striking differences between the species. Morton Peck described Tygh Valley milkvetch as a distinct species in 1936.

References

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