

Lemmon's milkvetch

(*Astragalus lemmonii*)



THREATENED



Flower (left), habit (center), and habitat (right) of Lemmon's milkvetch. Photos by Steve Sheehy (left and center; Courtesy of OregonFlora), and Gail Lynch (right; Lynch 2011). If downloading images from this website, please credit the photographer.

Family

Fabaceae

Plant description

Lemmon's milkvetch is a perennial plant with numerous, widely branched and sparsely strigose prostrate stems that are loosely matted and 10-50 cm long. The leaves are 1-4.5 cm with 7-15 leaflets that are narrowly elliptic to oblanceolate, 2-11 by 1-2 mm, with obtuse to sub-acute tips. The leaf surface is abaxially strigillose and adaxially glabrate to glabrous. Leaf stipules are 2-5 mm and free. Inflorescences are subcapitate racemes with 2-13 flowers, peduncles 0.6-1.7 cm, bracts 0.8-2 mm, and pedicels 0.7-2.5 mm. Flowers are loosely ascending at anthesis with calyces 3-4 mm, strigillose and white sometimes with a few black hairs. The calyx tubes are 1.7-2.2 mm long with teeth subulate and 1.1-1.7 mm long. Corollas are whitish or tinged with lilac and 4.8-6.1 mm long, and banners are sometimes purple veined. Flowers have 4-8 ovules. Fruits are biocular and spreading or somewhat declined, elliptic or oblong-elliptic, compressed trigonous, straight, or somewhat incurved, ventrally carinate, 4-7 by 1.5-2.5 mm, strigillose, and with papery valves.

Distinguishing characteristics

Astragalus lemmonii can resemble *A. caricinus* and *A. lentiformis* with its tiny flowers and pods, but differs in its free stipules and thinly strigillose, green herbage. The mode of branching is also distinct among its close relatives in that lower branches are paired with a peduncle while upper inflorescences are disposed in pairs or threes. *Astragalus lemmonii*'s can generally be distinguished by its racemes of tiny flowers borne on two or three short peduncles per node and the moist alkaline habitat along streams and lake shores help that it occupies.

When to survey

Surveys of Lemmon's milkvetch should be completed from June to August when the species is flowering but fruits are also present.

Habitat

Soil type can be a key identifier of suitable habitat for *Astragalus lemmonii* as they grow in very deep, coarse textured soil from pumiceous material in old lake beds. This soil allows for well to moderate drainage, rapid permeability in the surface and subsoil, high water storage capacity, and a seasonably high water table which may extend the growing periods. Plants occur in elevation from 4,800-5,000 feet with a slope of 0-5 percent. *Astragalus lemmonii* grows in meadows and flats along streams in or on the margins of ponderosa pine forest, and the shore of small ephemeral lakes. It also occurs with big sage brush and bunchgrasses but hasn't been found in densely vegetated areas with tall perennial understory grasses.

Range

Lemmon's milkvetch occurs in Oregon, California, and Nevada, and ranges from the northwestern edge of the Northern Basin and Range in Oregon down to the Central Basin and Range of California. Populations in Oregon are in Lake County with one presumed extirpated population in Klamath County. There are old herbarium specimens collected from Deschutes County, but the original population locations have not been verified and no populations have been relocated.

Oregon counties

Lake, presumed extirpated in Deschutes and Klamath

Federal status

Species of Concern

Threats

Astragalus lemmonii faces many threats, but cattle grazing is the most significant. Every Lemmon's milkvetch site in Oregon has documented signs of cattle use which can cause soil compaction, introduction of invasive species, and damage to native plants. ATV and other recreational uses have been noted as disturbances in some sites, and habitat loss from development and invasion of exotic plant species also threaten *A. lemmonii*. Lemmon's milkvetch is reliant on the unique hydrology of its habitat making altered precipitation cycles related to climate change a potentially significant threat, along with small population sizes.

References

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