

Peck's milkvetch (*Astragalus peckii*)



THREATENED



Flowers (left), habit (center), and habitat (right) of Peck's milkvetch. Photos by Melissa Carr (left), ODA staff (center), and Stephen Meyers (right). If downloading images from this website, please credit the photographer.

Family

Fabaceae

Plant description

Peck's milkvetch is a prostrate perennial with a deep taproot. The reddish stems reach 1-3 dm long, and leaves are pinnately compound with 8-14 leaflets per leaf. Leaf petioles persist from year to year, giving plants a skeletal look during winter dormancy. (Interestingly, Peck's milkvetch is the only North American milkvetch to have persistent petioles.) Mature plants produce small, cream or pale yellow flowers in numerous axillary racemes of 5-9 flowers. As is typical of plants in this family, flowers are papilionaceous (shaped like butterflies), and fruits resemble very small pea pods. Fruits are 5-8 mm in length at maturity, and typically contain one or a few seeds, although many fruits produce no seeds at all. Plants begin to produce new leaves in March, and flowers begin to open in late May or early June and can continue blooming through July.

Distinguishing characteristics

Astragalus purshii (woollypod milkvetch) frequently co-occurs with *A. peckii*. As the name of this more common associate implies, plants of *A. purshii* produce densely hairy or woolly pods (and dark purple flowers), making distinguishing between the two species relatively easy. *Astragalus lemmonii* is similar in appearance to *A. peckii* and occurs within the same general area. However, Lemmon's milkvetch typically prefers moister soils in wet meadows and the riparian areas around streams and lakes, and is not known to inhabit any of the dry, barren pumice sites that support its rarer cousin. *Astragalus lemmonii* is characterized by a terminal leaflet that is generally much broader than the rachis, while the terminal leaflet of Peck's milkvetch is not noticeably different than the rachis and appears to be a continuation of it.

When to survey

Peck's milkvetch is recognizable throughout the growing season (March-September). However, because fruit and flowers are required to identify species of *Astragalus* using

a technical key, surveys for *A. peckii* should take place when plants are in flower and fruit (June-July).

Habitat

Peck's milkvetch grows in natural openings of sagebrush-juniper woodlands, lodgepole pine forests, and ponderosa pine forests. Soils in preferred sites are sandy with little organic matter and varying amounts of pumice deposition from the eruption of Mt. Mazama. Vegetation is characteristically sparse and associated species include *Artemisia tridentata*, *Purshia tridentata*, *Festuca idahoensis*, *Stipa occidentalis*, *Eriogonum umbellatum*, and *Eriophyllum lanatum*.

Range

Peck's milkvetch occurs east of the Cascades from Cline Buttes south to a few miles south of Chiloquin. Populations can be broadly grouped into three population centers, with the largest concentration occurring along Highway 97 between Sisters and Bend. A second grouping inhabits the barren pumice flats near Chemult, and a southern group occurs in openings in ponderosa pine stands east of Chiloquin.

Oregon counties

Deschutes and Klamath

Federal status

Species of Concern

Threats

Urbanization and agricultural development near the towns of Bend and Sisters have historically threatened populations of *A. peckii*. Currently, disturbance due to off-road vehicle use is probably the greatest threat to persistence of this species, although weed infestations and rapid urban development continue to concern conservation planners.

Did you know?

Astragalus peckii is one of eight Oregon taxa named to honor Morton E. Peck. Dr. Peck, Professor of Biology at Willamette University from 1908–1941, contributed 21,515 collections to the Willamette Herbarium (now part of Oregon State University Herbarium), and authored the popular *Manual of the Higher Plants of Oregon*, which is still widely used today.

Current/Recent ODA projects

Astragalus peckii disturbance ecology study

Demography, reproductive ecology, and community analysis of Peck's milkvetch

References

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