

Packard's mentzelia (*Mentzelia packardiae*)



THREATENED



Flowers (left), habit (center), and habitat (right) of Packard's mentzelia. Photos by ODA staff. If downloading images from this website, please credit the photographer.

Family

Loasaceae

Plant description

Packard's mentzelia is an erect, sparsely branched annual 10-40 cm tall, with white to pale green stout stems. The basal leaves are linear and entire or with shallow narrow lobes; the upper leaves are linear to ovate-lanceolate, entire, sessile, occasionally somewhat clasping, and densely pubescent. Flowers are either solitary in the stem axils or arranged in terminal clusters subtended by sessile, oblanceolate, entire, and somewhat clasping bracts. Sepals are five in number, triangular, and recurved and persistent on mature capsules. Petals are five in number, yellow, with or without an orange spot at the base, ovate to round, mucronate or slightly retuse, and 8-15 mm long. Stamens number 15-30 and are 4-10 mm long; the style is 4-10 mm long and equal to or shorter than the stamens. Capsules are erect and cylindrical, tapering to the base, the axillary capsules 1.5-3 cm long, the terminal capsules 0.8-2.5 cm long. The brownish seeds number 10-20 per capsule, and are irregularly angled to slightly prismatic, the angles sometimes shallowly grooved.

Distinguishing characteristics

Packard's mentzelia is distinguished from other annual species of *Mentzelia* located within or near its range by its combination of a sparsely branching habit, dense leaf pubescence, relatively large flowers, and irregularly angled seeds. The rare *M. mollis* occurs slightly east of the range of Packard's mentzelia in Oregon, is low growing (5-12 cm tall versus 10-40 cm tall), is more profusely branched, has wider leaves, and has 40-50 stamens (versus 15-30), with the style much exceeding the stamens (versus equal to or shorter than the stamens).

When to survey

Surveys should be completed when this species is flowering, from mid May through June.

Habitat

Packard's mentzelia occurs at the base of talus slopes along canyon walls in rocky, volcanic ash substrates. The species is found at elevations from 823-1600 m (2700-5250 ft).

Although this harsh habitat is devoid of most woody vegetation, there are a few herbaceous associates, including *Astragalus cusickii* var. *sterilis*, *Camissonia claviformis* ssp. *cruciformis*, *Eriophyllum* sp., *Lathyrus* sp., *Monardella* sp., *Phacelia lutea*, *Senecio ertterae*, *Thelypodium* sp., and *Trifolium owyheense*. The ash deposits on which these species occur are surrounded by *Artemisia-Atriplex* dominated plant communities.

Range

Packard's mentzelia is endemic to the Owyhee Desert, with five known occurrences in the vicinity of Leslie Gulch in east central Malheur County, Oregon, and one disjunct occurrence in Elko County, Nevada.

Oregon counties

Malheur

Federal status

Species of Concern

Threats

Threats to this species include habitat loss and direct destruction of plants due to mining activities, road construction activities, and recreational land uses, including off-road vehicle use. Exotic weed invasions and prolonged drought conditions may pose additional threats to Packard's mentzelia.

Did you know?

Packard's mentzelia was first described in 1976 by graduate student Judith Glad, who studied this and other species of *Mentzelia* for her Master's degree in botany.

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