

## Smooth mentzelia (*Mentzelia mollis*)



### ENDANGERED



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

### Family

Loasaceae

### Plant description

Smooth mentzelia is a low annual, 5-12 cm tall. The dark stem is stout, erect, branching, and puberulent but not scabrous, at least when young, the hairs barbed at the tips. The leaves are crowded below, oblong-lanceolate or oblanceolate, obtuse, sessile or subsessile, and less puberulent than the stem. Leaf margins are entire, slightly wavy, or with one or two low teeth. Flowers are borne in small terminal clusters, nearly sessile and subtended by 2-3 reduced leaves. The calyx segments are broadly lanceolate and 0.4-0.6 cm long, the bright yellow petals narrowly ovate and 1.0-1.2 cm long. Stamens number 40-50 and are shorter than the petals, with filiform-subulate filaments. The style is much longer than the stamens, the stigma capitate. The capsule is 4-sided and about 2.5 cm long.

### Distinguishing characteristics

The entire floral bracts of smooth mentzelia and its lack of an obvious basal rosette help distinguish this species from the more common and widespread *Mentzelia albicaulis*, which overlaps its range. The rare *M. packardiae* is slender, upright, less profusely branched, has narrower leaves, and occurs slightly west of the range of smooth mentzelia.

### When to survey

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

### Habitat

Smooth mentzelia is restricted to green or gray montmorillonite substrates derived from the Sucker Creek formation, with extremely high levels of potassium. It occurs at elevations from 760-1350 m (2500-4420 ft). Associated plant species that share this barren habitat include *Cleomella macbrideana*, *Phacelia lutea*, *Monolepis pusilla*, *Cleome platycarpa*, and *Camissonia claviformis*.

**Range**

Smooth mentzelia is an edaphic endemic known from Malheur County in southeastern Oregon, Owyhee County in adjacent Idaho, and from two occurrences in Humboldt County, Nevada.

**Oregon counties**

Malheur

**Federal status**

Species of Concern

**Threats**

Habitat destruction due to mining activities is a major threat to smooth mentzelia. Trampling by livestock, ORV use, and exotic weed invasions also negatively impact this species. Smooth mentzelia populations appear to be extremely influenced by climatic fluctuation, with drastic reductions in population sizes observed during drought years.

**Did you know?**

This species was described by Morton Peck, who collected the type specimen near Rockville, Malheur County, Oregon in 1940.

**References**

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