

Cook's desert parsley

(*Lomatium cookii*)



ENDANGERED



Flowers (left), habit (center), and habitat (right) of Cook's desert parsley. Photos by Ian Silvernail. If downloading images from this website, please credit the photographer.

Family

Apiaceae (Umbelliferae)

Plant description

Lomatium cookii is a small, perennial plant that is rarely taller than 30 cm. Unless it is in flower, it is generally quite inconspicuous. The plant has a simple to branched taproot and thin, oblong leaves that are ternately divided into many narrow leaflets. Flowers are generally pale yellow in color and are produced in compound umbels on leafless stems. Fruits are oblong with lateral, corky wings.

Distinguishing characteristics

There are approximately 80 species in the genus *Lomatium*, all occurring in Western North America. *Lomatium utriculatum* occurs commonly with *Lomatium cookii* near Medford, but differs in several characteristics, most notably the involucre bracklets, the small leaf-like structures below the flowers on the umbellets. On *L. cookii*, such structures are thin and linear, with the flowers clearly visible through the bracklets when viewed from the underside. On *L. utriculatum*, the bracklets are much wider, not linear in shape, and often overlap to obscure the view of the flowers when observed from the underside. The flowers of *L. utriculatum* are also more intensely yellow and plants of this species generally occur on the mounds between vernal pools, as opposed to the flanks or pool bottoms where *L. cookii* occurs.

The most physically similar species to *Lomatium cookii* is *Lomatium bradshawii*. Ranges of the two plants do not overlap since *L. bradshawii* is restricted to wet meadow habitat in the Willamette Valley.

When to survey

Plants emerge from early February to early March. However, plants of the two co-occurring *Lomatium* species are difficult to differentiate until flowering begins, thus, surveys for *L. cookii* must be completed during its bloom time. This differs somewhat between populations, with the Illinois Valley populations blooming early April to mid-May, and those in the Rogue Valley from late March to late April.

Habitat

Habitat differs between the two major population centers. In Josephine County, *L. cookii* is found in ephemeral wet meadow habitat, often on Brockman clay loam soils weathered from colluvial deposits of serpentine outcrops. Such meadows are often dominated by the grasses *Danthonia californica* and *Deschampsia caespitosa*. In Jackson County, *L. cookii* is usually found along the edges of vernal pools in poorly drained Agate-Winlo silty-clay loam soils weathered from Rogue River alluvial deposits. Such vernal pool systems are often dominated on the mounds by the introduced grasses *Taeniatherum caput-medusae* and *Poa bulbosa* and the native grasses *Achnatherum lemmonii* and *Festuca roemerii*. Pools often contain *Deschampsia danthonioides*, *Navarretia leucocephala*, *Lasthenia californica*, multiple *Plagiobothrys* species, *Downingia yina*, and *Limnanthes floccosa* ssp. *grandiflora* (another endangered species).

Range

Two major population centers exist. One is located in the Illinois River Valley near Cave Junction and the other in the Rogue River Valley on the NE side of Medford. There are no known populations in between these two population centers and due to the plant's fairly recent discovery in 1981, little is known about the historic range.

Oregon counties

Jackson, Josephine

Federal status

Endangered

Threats

Major threats to the persistence of *Lomatium cookii* include development, off-road vehicle use, mining, grazing, invasive species, fire suppression and the resulting woody plant encroachment, road construction, logging in adjacent forest lands, and herbicide use. Much of the former habitat has been developed for private and/or agriculture and grazing use. The effects of off-road vehicle use are clearly visible at multiple locations, where tires create ruts and alter the hydrologic regime that is important to the survival of *L. cookii*.

Conservation planning

A Draft Recovery Plan for listed species of the Rogue and Illinois Valleys was released in 2006 by U.S. Fish and Wildlife Service.

Did you know?

The genus *Lomatium* has many culinary and medical uses. Some species have been utilized for upper respiratory infections, including influenza and tuberculosis. A few species in the genus demonstrate strong overall antibacterial and antiviral activity. Several species in the genus, commonly known as biscuitroot, have edible roots that formed an important part of the diet of many Native American tribes.

Current/Recent ODA projects

Creating a new population of Cook's desert parsley: first steps toward recovery

References

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