Bradshaw's desert parsley (Lomatium bradshawii)



ENDANGERED







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

Family

Apiaceae

Taxonomic notes

Synonyms: Bradshaw's Iomatium

Plant description

Bradshaw's desert parsley is a low, more or less erect perennial species that grows from a long slender taproot. It is nearly acaulescent and glabrous or slightly puberulent, with leaves 10-15 cm long on petioles as long to much longer. Leaves are ternate then pinnately dissected, the ultimate segments linear and 0.6-1.2 cm long. The peduncles are 15-60 cm high, the small light yellow flowers arranged in umbels with 7-16 rays, generally only 1-4 of the rays fertile. The involucels are comprised of about 10 bracts 0.2-0.6 cm long and ternately or biternately divided. The glabrous fruit is oblong, 1.0-1.3 cm long, the lateral wings corky and thickened.

Distinguishing characteristics

The conspicuously ternately or biternately divided involucel bracts of Bradshaw's desert parsley distinguish it from other members of the genus. *Lomatium utriculatum* closely resembles Bradshaw's desert parsley and the species overlap in range, but *L. utriculatum* involucel bracts are scarious cuneate or broadly spatulate, and its fruit is thinly winged (versus thick-winged).

When to survey

Surveys should be completed when the species is flowering, from mid April through May.

Habitat

Bradshaw's desert parsley occurs in wet prairie habitats in clay soils or substrates having a dense clay layer below the surface. The majority of populations are located in the southern Willamette Valley in seasonally saturated or flooded prairies near creeks and small rivers. Some populations occur near the Santiam River in shallow, well-

drained soils underlain by basalt, usually in vernal wetlands or along stream channels.

Commonly associated species include *Carex* spp., *Danthonia californica, Deschampsia caespitosa, Eryngium petiolatum, Galium cymosum, Grindelia integrifolia, Hordeum brachyantherum, Juncus* spp., *Luzula campestris, Microseris laciniata, Perideridia* sp., and *Poa pratensis.*

Range

Bradshaw's desert parsley occurs in the Willamette Valley of Oregon from the city of Creswell north to Clark County in southwestern Washington. There are over 40 known occurrences in Oregon, though many of these are small, ranging from about 10 to 1,000 individuals. Although there are only two known occurrences of the species in Washington, they contain more plants than all of the Oregon populations combined.

Oregon counties

Benton, Lane, Linn, Marion

Federal status

Endangered

Threats

Habitat loss due to agricultural, commercial, and residential development is a major ongoing threat to Bradshaw's desert parsley. Successional encroachment of shrubs and trees, competition from weedy invasive species, herbivory, and grazing are additional concerns. Many populations of this species occur near roadways and fields where pesticides are sprayed; this could potentially kill pollinators and inhibit reproduction in Bradshaw's desert parsley populations.

Conservation planning

A <u>5-Year Review</u> (pdf document, 623 kB) for Bradshaw's desert parsley was completed in 2009 by U.S. Fish and Wildlife Service.

A U.S. Fish and Wildlife Service Recovery Plan for prairie species of western Oregon and southwestern Washington (pdf document, 9.63 MB) was released in 2010 and addresses conservation needs of Bradshaw's desert parsley.

Did vou know?

This species was first collected in 1916 in Salem, Oregon. It was long thought to be restricted to the Willamette Valley, until two new occurrences were discovered in Clark County, Washington in 1994.

Current/Recent ODA projects

Developing population density estimates for nine rare Willamette Valley prairie species

References

Currin, R., M. Carr, and R. Meinke. 2008. Developing population density estimates for nine rare Willamette Valley prairie species. Report prepared for U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. Oregon Department of Agriculture, Salem, Oregon.

Meinke, R.J. 1982. Threatened and endangered vascular plants of Oregon: An illustrated guide. Unpublished report for the U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. Oregon Department of Agriculture, Salem, Oregon.

OFP (Oregon Flora Project). 2010. Oregon Plant Atlas. http://www.oregonflora.org/atlas.php. Accessed September 23, 2010.

ORBIC (Oregon Biodiversity Information Center). 2010a. Rare, threatened and endangered species of Oregon. Institute for Natural Resources, Portland State University, Portland, Oregon. 105 pp. Available at http://orbic.pdx.edu/documents/2010-rte-book.pdf (pdf document, 971 kB). Accessed December 13, 2010.

ORBIC (Oregon Biodiversity Information Center). 2010b. ORBIC element occurrence database. Portland, Oregon.

Peck, M. E. 1961. A manual of the higher plants of Oregon. Binfords and Mort, Portland, Oregon.

Siddall, J.L. and K.L. Chambers. 1978. Status Report for *Lomatium bradshawii*. On file at the Oregon State University Herberium, Corvallis, Oregon.

USFWS (U.S. Fish and Wildlife Service). 1988. Final endangered status for *Lomatium bradshawii* (Bradshaw's Iomatium). Federal Register 53:38448-38451. Available at http://ecos.fws.gov/docs/federal register/fr1484.pdf (pdf document, 1.26 MB). Accessed September 23, 2010.

USFWS (U.S. Fish and Wildlife Service). 2009. Bradshaw's lomatium (Lomatium bradshawii) 5-Year Review: Summary and evaluation. U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. Available at http://ecos.fws.gov/docs/five_year_review/doc2634.pdf (pdf document, 623 kB). Accessed September 23, 2010.

USFWS (U.S. Fish and Wildlife Service). 2010. Recovery Plan for the prairie species of western Oregon and southwestern Washington. U.S. Fish and Wildlife Service, Portland, Oregon. xi + 241 pp. Available at http://ecos.fws.gov/docs/recovery_plan/100629.pdf (pdf document, 9.63 MB). Accessed September 9, 2010.