Willamette daisy (Erigeron decumbens)



ENDANGERED







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

Family

Asteraceae

Taxonomic notes

Synonyms: Erigeron decumbens var. decumbens*

*This taxon was formerly recognized as variety *decumbens*. Recent treatment of the genus in *Flora of North America North of Mexico* elevated the other variety of *E. decumbens* (var. *robustior*) to species rank, and consequently, there is no longer need to recognize Willamette daisy at the varietal level.

Plant description

Willamette daisy is a tap-rooted perennial species growing from a crown or slightly branched caudex. Stems are decumbent, moderately strigose, 15-70 cm tall, and often purplish at the base. The leaves are numerous, sparsely to moderately strigose, linear or linear-lanceolate, the basal leaves and most of the cauline leaves triple-nerved. Basal leaves are up to 25 cm long, including the long petiole, and 1 cm wide, with cauline leaves becoming gradually reduced above. Flowering heads number from 1-20, the disk 0.8-1.5 cm wide, the involucre 0.35-0.6 cm high, and the 20-50 blue-purple to pale pink ray flowers 0.6-1.2 cm long by 0.1-0.2 cm wide. The pappus consists of 12-16 fragile bristles.

Distinguishing characteristics

Willamette daisy is the only species of *Erigeron* with pink-purple rays that occurs in Willamette Valley prairies. It is further distinguished by its gradually reduced cauline leaves, triple-nerved basal leaves, and decumbent, spreading habit. *Erigeron eatonii* is morphologically similar, but occurs east of the Cascade Mountains. *Symphyotrichum hallii* co-occurs with Willamette daisy at many sites, but its rays are usually white (although sometimes pale violet), it flowers later in the summer (July to August), and it is more branched than Willamette daisy. Small vegetative individuals of these two species are very similar, but are distinguishable based on stem color: *S. hallii* typically

has reddish stems, while Willamette daisy has green stems.

When to survey

Surveys for this species should be conducted when the plants are flowering, from June through early July.

Habitat

Willamette daisy inhabits both seasonally flooded bottomland prairies and well-drained upland prairies at elevations ranging from 70-290 m (240-950 ft).

Commonly associated species include Achillea millefolium, Allium amplectens, Anthoxanthum odoratum, Brodiaea hyacinthina, Bromus carinatus, B. japonicus, Carex spp., Camassia leichtlinii, Crataegus douglasii, Danthonia californica, Deschampsia caespitosa, Elymus glaucus, Eriophyllum lanatum, Festuca arundinacea, F. roemeri, Fragaria virginiana, Fraxinus latifolia, Grindelia integrifolia, Holcus lanatus, Juncus spp., Lomatium bradshawii, Panicum occidentale, Poa nevadensis, Potentilla gracilis, Prunella vulgaris, Quercus garryana, Ranunculus occidentalis, Rosa spp., Saxifraga integrifolia, Sericocarpus rigidus, Sidalcea campestris, Spiraea douglasii, and Symphyotrichum hallii.

Range

Willamette daisy is known only from the Willamette Valley in northwestern Oregon. Though once found throughout the valley, the species is now restricted to scattered habitat remnants. Historic populations in Clackamas, Washington, and Yamhill Counties have not been relocated, and the species may no longer occur in these counties. The majority of extant populations are located on private lands vulnerable to development.

Oregon counties

Benton, Clackamas, Lane, Linn, Marion, Polk, Washington, Yamhill

Federal status

Endangered

Threats

Habitat loss due to urban and agricultural development is the primary threat to this species. Successional encroachment by trees and shrubs, competition from invasive weeds, and possible inbreeding depression due to small population sizes also pose serious threats to Willamette daisy. Road construction and maintenance and grazing pose additional risks.

Conservation planning

A <u>Critical Habitat Designation</u> (pdf document, 2.60 MB) for Willamette Daisy was issued by the U.S. Fish and Wildlife Service in 2006.

A U.S. Fish and Wildlife Service <u>Recovery Plan for prairie species of western Oregon and southwestern Washington</u> (pdf document, 9.63 MB) was released in 2010 and addresses conservation needs of Willamette daisy.

Did you know?

From 1840 (when Willamette daisy was first described) to 1934, this species was collected from throughout the Willamette Valley. However, it was not observed for decades after this period and was thought to be extinct until its rediscovery in 1980 at two locations in Lane and Benton counties.

Current/Recent ODA projects

Developing population density estimates for nine rare Willamette Valley prairie species

References

Clark, D. L., K. K. Finley, and C. A. Ingersoll. 1993. Status report for *Erigeron decumbens* var. *decumbens*. Unpublished report prepared for the Conservation Biology Program, Oregon Department of Agriculture, Salem, Oregon.

Cronquist, A. 1947. Revision of the North American species of Erigeron, north of Mexico. Brittonia 6:173-174.

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.

Nesom, G. L. 2006. *Erigeron*. In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 16+ vols. New York and Oxford. Vol. 20, pp. 256-348. Available at

http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=112000. Accessed September 20, 2010.

OFP (Oregon Flora Project). 2010. Oregon Plant Atlas. http://www.oregonflora.org/atlas.php. Accessed September 20, 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.

USFWS (U.S. Fish and Wildlife Service). 2000. Endangered Status for *Erigeron decumbens* var. *decumbens* (Willamette daisy) and Fender's blue butterfly (*Icaricia icarioides fenderi*) and Threatened Status for *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine). Federal Register 65:3875-3890. Available at http://ecos.fws.gov/docs/federal register/fr3502.pdf (pdf document, 192 kB). Accessed September 19, 2010.

USFWS (U.S. Fish and Wildlife Service). 2006. Designation of critical habitat of the Fender's blue butterfly (*Icaricia icarioides fenderi*), *Lupinus sulphureus* ssp. *kincaidii* (Kincaid's lupine), *and Erigeron decumbens* var. *decumbens* (Willamette daisy); Final Rule. Federal Register 71:63861-63910. Available at http://www.fws.gov/oregonfwo/Species/PrairieSpecies/Documents/FR2006Oct31WVCHFinal.pdf (pdf document, 2.60 MB). Accessed September 19, 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.