

Howell's spectacular thelypody (*Thelypodium howellii* ssp. *spectabilis*)



ENDANGERED



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

Family

Brassicaceae

Plant description

Howell's spectacular thelypody is an herbaceous biennial that grows 3-7 dm tall. During the first growing season, this species typically forms a rosette, with wavy-margined leaves growing 2-5 cm in length. As with many biennials, Howell's spectacular thelypody usually reproduces in its second year. The flowering stalk's auriculate cauline leaves have smooth edges and are shorter and narrower than the basal leaves. The slender, elongate racemes hold numerous pinkish-purple to purple flowers on short (2-5 mm long) pedicels. Each flower has four ribbon-like petals that range from 1.6-2 cm in length. Sepals are purplish and 8-9 mm long. Stamens are much shorter than the petals, and filaments are paired. Fruits are long, slender pods (siliques), typically 3-6.5 cm long. Howell's spectacular thelypody starts flowering in late May and continues through July. Fruits start to mature by mid-July.

Distinguishing characteristics

Thelypodium howellii ssp. *spectabilis* may be distinguished from the closely related *Thelypodium howellii* ssp. *howellii* (Howell's thelypody) by the former species' larger, more showy flowers. Those of the more widespread Howell's thelypody are a lighter shade of purple, with petals only 0.8-1.2 cm long and sepals only 4-5 mm in length. The paired filaments of *T. h.* ssp. *howellii* are united, while those of *T. h.* ssp. *spectabilis* are not. In addition, although *T. h.* ssp. *howellii* ranges from eastern Washington south to northern California, it is not known to occur in the counties where Howell's spectacular thelypody is found.

Three additional species of thelypody potentially could occur within Baker, Union, or Malheur Counties. However, these three species are easily distinguishable from Howell's spectacular thelypody. *Thelypodium flexuosum* is a taprooted perennial having a caudex with the dried petioles of previous years attached. The cauline leaves of both *Thelypodium laciniatum* and *Thelypodium milleflorum* are petiolate, rather than clasping. In addition, the petals and sepals of *T. milleflorum* are white.

Finally, *Chorispora tenella*, a purple-flowered, weedy mustard found in disturbed agricultural areas, might superficially be confused with Howell's spectacular thelypody. The minute gland-tipped hairs on its leaves and stems, its broader toothed cauline leaves, its paler purple flowers, and the fact that its fruits break apart transversely into numerous 2-seeded sections (instead of splitting longitudinally) make this weed easy to tell apart from the rare thelypody.

When to survey

June-July (when in flower)

Habitat

Howell's spectacular thelypody is found in moist alkaline meadow habitats, within the fairly narrow elevation range of 1,000 m to 1,100 m (3,000-3,500 ft). Soils are typically fine pluvial-deposited alkaline clay mixed with recent alluvial silts. Populations of this species are frequently located adjacent to streams that experience springtime flooding. Associated species include *Elymus cinereus* (Great Basin wildrye), *Distichlis stricta* (saltgrass), *Sarcobatus vermiculatus* (greasewood), *Ericameria viscidiflora* (green rabbitbrush), *Ericameria nauseosa* (gray rabbitbrush), and *Poa juncifolia* (alkali bluegrass).

Range

Howell's spectacular thelypody is restricted to the Baker-Powder River Valley in Union and Baker Counties, and the Willow Creek Valley in Malheur County.

Oregon counties

Baker, Malheur, and Union

Federal status

Threatened

Threats

Much of Howell's spectacular thelypody habitat has been lost due to the agricultural conversion of valley meadows to pasture or crop fields. Additional threats include urban development, human disturbance (such as trampling and off-road vehicle use), and road construction and maintenance (including mowing, grading, and herbicide spraying). Competition with non-native invasive weeds also threatens this species. Of the 11 currently known, locatable sites of this rare thelypody, only two are administratively protected.

Conservation planning

A U.S. Fish and Wildlife Service [Recovery Plan](#) (pdf, 450 kB) was released for Howell's spectacular thelypody in 2002. A management plan was created for the Haines Rodeo Thelypody Mitigation Site in November of 2002.

Did you know?

This species was thought to be extinct from 1969 until its rediscovery by botanist Jimmy Kagan in 1980.

Current/Recent ODA projects

Creating new populations of Howell's spectacular thelypody

References

Al-Shehbaz, H.A. 1973. Biosystematics of *Thelypodium*. Contributions to Gray Herbarium No. 204, 93:116-117.

Currin, R., M. Carr and R. Meinke. 2007. Recovery work for the threatened mustard Howell's spectacular thelypody (*Thelypodium howellii* ssp. *spectabilis*): summary of 2006 field work. Report prepared for U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. Oregon Department of Agriculture, Salem, Oregon.

Hitchcock, C.L., A. Cronquist, M. Ownbey and J.W. Thompson. 1955. Vascular plants of the Pacific Northwest. University of Washington Press, Seattle.

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

U.S. Fish and Wildlife Service. 1999. Endangered and threatened wildlife and plants; threatened status for the plant *Thelypodium howellii* ssp. *spectabilis* (Howell's spectacular thelypody). Federal Register 64 (101):28393-28402.

U.S. Fish and Wildlife Service. 2002. Recovery plan for Howell's spectacular thelypody (*Thelypodium howellii* ssp. *spectabilis*). U.S. Fish and Wildlife Service, Portland, Oregon.

Widener and Associates. 2002. Haines thelypody mitigation site management plan. Prepared for the Western Federal Lands Highway Division, Vancouver, Washington. Widener and Associates, Snohomish, Washington.