

Big-flowered woolly meadowfoam (*Limnanthes floccosa* ssp. *grandiflora*)



ENDANGERED



Flower (left), habit (center), and habitat (right) of big-flowered woolly meadowfoam. Photos by Melissa Carr (left) and Stephen Meyers (center and right). If downloading images from this website, please credit the photographer.

Family

Limnanthaceae

Plant description

Limnanthes floccosa ssp. *grandiflora* is a low growing annual herb 5-15 cm long. Stems and leaves are sparsely pubescent. Leaves are 1-6 cm long with linear to oblanceolate leaflets 4-8 mm long. Sepals are pubescent without at the base and densely woolly pubescent within, from 8-14 mm long. Petals are white and range from 7-10 mm long. Filaments are 4-5 mm long with anthers less than 1 mm in length. Each flower produces 3-5 obovoid nutlets ranging from 3-4.5 mm long. Depending on the rains and temperature, this taxon can be found flowering from the beginning of March to mid-April.

Distinguishing characteristics

Limnanthes floccosa ssp. *grandiflora* is morphologically similar to two other *Limnanthes* taxa found in the same geographical region, *L. floccosa* ssp. *floccosa* (woolly meadowfoam) and *L. floccosa* ssp. *pumila* (dwarf meadowfoam). *Limnanthes floccosa* ssp. *grandiflora* differs from these taxa in that it has sparsely pubescent stems and leaves. The stems and leaves of *L. floccosa* ssp. *floccosa* are usually densely pubescent while *L. floccosa* ssp. *pumila* is glabrous. In addition, *L. floccosa* ssp. *grandiflora* generally has larger flowers than either *L. floccosa* ssp. *floccosa* or *L. floccosa* ssp. *pumila*. *Limnanthes floccosa* ssp. *grandiflora* is often found growing sympatrically with *L. floccosa* ssp. *floccosa*. On average, *L. floccosa* ssp. *grandiflora* flowers 1-2 weeks later than *L. floccosa* ssp. *floccosa*, although the flowering seasons of both subspecies greatly overlap.

When to survey

Surveys for this species must be completed during its bloom time between the beginning of March and mid-April.

Habitat

Limnanthes floccosa ssp. *grandiflora* is found near the wet inner edges of vernal pools. This is in contrast to *Limnanthes floccosa* ssp. *floccosa*, which usually prefers the drier outer edges of the same vernal pools. *Limnanthes floccosa* ssp. *grandiflora* is often found with other vernal pool species such as few-flowered collinsia (*Collinsia sparsiflora*), slender goldfields (*Lasthenia californica*), and white-flowered navarretia (*Navarretia leucocephala*).

Range

Limnanthes floccosa ssp. *grandiflora* is currently, and historically, only known to exist near vernal pools in the Agate Desert region, north of Medford near White City.

Oregon counties

Jackson

Federal status

Endangered

Threats

Threats to *Limnanthes floccosa* ssp. *grandiflora* include invasive annual grasses and herbs, residential and industrial development of the Agate Desert region (which drain the vernal pools), off-road vehicle damage, and herbicide spraying.

Conservation planning

A [Draft Recovery Plan](#) (pdf document, 5.30 MB) for listed species of the Rogue and Illinois Valleys was released in 2006 by U.S. Fish and Wildlife Service.

Did you know?

A closely related species to *Limnanthes floccosa*, *Limnanthes alba* (white meadowfoam), is currently cultivated as a crop plant in the Willamette Valley. Unlike common seed oils, species of the *Limnanthes* genus produce a very long chain seed oil with novel physical and chemical characteristics, making it extremely stable at high temperatures and pressures. The only other known naturally-occurring oil with similar qualities is sperm whale oil.

Current/Recent ODA projects

Evolutionary studies within the plant family Limnanthaceae

References

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