

## Spalding's campion (*Silene spaldingii*)



### ENDANGERED



Flowers (left), habit (center), and habitat (right) of Spalding's campion. Photos by Ryan Woolverton (left) and Rebecca Currin (center and right). If downloading images from this website, please credit the photographer.

### Family

Caryophyllaceae

### Plant description

Spalding's campion is a perennial with one to many shoots growing from a branched, woody caudex. It is viscid-tomentose throughout, with erect leafy stems, simple or strictly branched, 20-60 cm tall. The nodes are large, with 2 sessile, proximally connate leaves per node. Leaf blades are ovate to lanceolate with an acute apex, 3-7 cm long by 0.5-1.5 cm wide, and largest at mid stem. The narrow, strict inflorescence is usually leafy with many crowded flowers. The calyx is tubular-campanulate, obscurely 10-veined, and about 1.5 cm long at anthesis, with narrowly lanceolate lobes 0.3-0.6 cm long. The petals are greenish to white, with a shallow terminal notch and 4 (-6) appendages. The petal claws equal the calyx, the petals not exceeding or barely exceeding the calyx lobes. Capsules are ellipsoid, slightly longer than the calyx, and borne on a short stipe. The yellowish brown seeds are reniform, wrinkled with alternating ridges and furrows, inflated, and approximately 0.2 cm long.

### Distinguishing characteristics

Several other *Silene* species occur in bunchgrass communities within the range of Spalding's campion, including *S. scouleri*, *S. oregana*, *S. douglasii*, *S. csereii*, and *S. scaposa* var. *scaposa*. The unique combination of long calyx lobes, short petal blades which barely exceed the calyx lobes, relatively large inflated seeds, and viscid pubescence throughout leaves, stems, and calyces distinguishes Spalding's campion from these congeners.

### When to survey

Surveys should be completed when the species is flowering, typically from July through August. In some years flowering continues into September, depending on conditions.

**Habitat**

Spalding's campion primarily occurs within open, moist bunchgrass grassland communities or sagebrush-steppe communities, and occasionally within open pine forests. It is usually found in deep, rich loess soils in swales or on north facing slopes where soil moisture is higher. Occupied sites range from 365-1615 m (1200-5300 ft) in elevation.

Associated species include *Festuca idahoensis*, *F. scabrella*, *Pseudoroegneria spicata*, *Artemisia tridentata*, *A. tripartita*, *Pinus ponderosa*, *Crataegus douglasii*, and *Symphoricarpos albus*.

**Range**

Spalding's campion is known from northeastern Oregon and adjacent eastern Washington and western Idaho, and from northwestern Montana, with the northernmost population barely reaching into British Columbia, Canada. It inhabits five physiographic regions over its range: the Blue Mountain Basins in northeastern Oregon; the Canyon Grasslands associated with the Snake River and its tributaries in Oregon, Idaho, and Washington; the Palouse Grasslands in west-central Idaho and southeastern Washington; the Channeled Scablands in eastern Washington; and the Intermontane Valleys of northwestern Montana and southern British Columbia.

**Oregon counties**

Wallowa

**Federal status**

Threatened

**Threats**

Habitat loss due to human development and weedy non-native plant invasions are the primary threats facing Spalding's campion. Other threats to the species include habitat degradation related to adverse grazing and trampling by livestock and wildlife, loss of genetic fitness associated with small, fragmented populations, changes in fire regimes, off-road vehicle use, and herbicide spraying.

**Conservation planning**

A U.S. Fish and Wildlife Service [Recovery Plan](#) (pdf document, 3.52 MB) was released for Spalding's campion in 2007.

A [5-Year Review](#) (pdf document, 93.7 kB) for Spalding's campion was completed in 2009 by U.S. Fish and Wildlife Service.

**Did you know?**

Spalding's campion exhibits prolonged dormancy, a failure to produce above-ground shoots during the growing season. Long term demographic study indicates that bouts of prolonged dormancy in the species can last up to six years, although bouts of one or two years are far more common. Typically, Spalding's campion plants only form rosettes in their first and second years. All rosettes enter dormancy before transitioning to a larger stage, either a non-reproductive plant with one or two sterile stems 1-10 cm high, or a larger flowering plant. Research shows dormant plants are significantly more likely than vegetative plants to flower in the following year. Thus, prolonged dormancy appears to serve an important life history function for Spalding's campion, with data indicating that dormant plants can sometimes gain or conserve needed resources better than plants producing above-ground shoots.

## References

- Lesica, P. and E. E. Crone. 2007. Causes and consequences of prolonged dormancy for an iteroparous geophyte, *Silene spaldingii*. *Journal of Ecology* 95:1360-1369.
- 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.
- Morton, J. K. 2005. *Silene*. In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 16+ vols. New York and Oxford. Vol. 5, pp. 166-214. Available at [http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=130349](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=130349). Accessed October 13, 2010.
- OFP (Oregon Flora Project). 2010. Oregon Plant Atlas. <http://www.oregonflora.org/atlas.php>. Accessed November 12, 2010.
- ORNHIC (Oregon Natural Heritage Information Center). 2007. Rare, threatened and endangered species of Oregon. Oregon Natural Heritage Information Center, Oregon State University, Portland, Oregon.
- ORNHIC (Oregon Natural Heritage Information Center). 2010. ORNHIC element occurrence database. Portland, Oregon.
- Peck, M. E. 1961. A manual of the higher plants of Oregon. Binford and Mort, Portland, Oregon.
- USFWS (U.S. Fish and Wildlife Service). 2001. Final rule to list *Silene spaldingii* (Spalding's catchfly) as threatened. Federal Register 66:51598-51606. Available at [http://ecos.fws.gov/docs/federal\\_register/fr3808.pdf](http://ecos.fws.gov/docs/federal_register/fr3808.pdf) (pdf document, 77.6 kB). Accessed October 13, 2010.
- USFWS (U.S. Fish and Wildlife Service). 2007. Recovery plan for *Silene spaldingii* (Spalding's catchfly). U.S. Fish and Wildlife Service, Portland, Oregon. Xiii + 187 pp. Available at [http://ecos.fws.gov/docs/recovery\\_plan/071012.pdf](http://ecos.fws.gov/docs/recovery_plan/071012.pdf) (pdf document, 3.52 MB). Accessed October 13, 2010.
- USFWS (U.S. Fish and Wildlife Service). 2009. *Silene spaldingii* (Spalding's catchfly) 5-Year Review: Short form summary. U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office, Boise, Idaho. Available at [http://ecos.fws.gov/docs/five\\_year\\_review/doc2612.pdf](http://ecos.fws.gov/docs/five_year_review/doc2612.pdf) (pdf document, 93.7 kB). Accessed October 13, 2010.