# Silvery phacelia (Phacelia argentea)



# **THREATENED**







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

## **Family**

Boraginaceae

## **Taxonomic notes**

Synonym: Phacelia heterophylla var. rotundata

This taxon was formerly included within the Hydrophyllaceae.

Silvery phacelia intergrades with *Phacelia nemoralis* ssp. oregonensis.

#### Plant description

Silvery phacelia is a perennial arising from an often much branched and elongated caudex. Stems are stout, decumbent to ascending, and 10-45 cm long, the stems and petioles white hispid to hispidulous with fine, upward-appressed hairs. Leaves are thick, entire or with a pair of leaflets below the main blade, 5-12 cm long by 2-3 cm wide, elliptic to orbicular or obovate, and densely covered with silky long hairs, the vein pattern outlined by furrows on the upper surface. Robust plants often have lower leaves with well-developed axillary rosettes and occasionally with elongated floral branches bearing multiple cymes. Floral branches are often clustered near the apex. Calyx lobes are densely hispid on the margins and abaxial surfaces and are 3-4 mm long at anthesis. The corolla is white to ivory, campanulate, and 5-7 mm long by 4-6 mm wide.

## **Distinguishing characteristics**

Several other species of *Phacelia* occur within or near the range of silvery phacelia: *P. nemoralis* ssp. *oregonensis*, *P. bolanderi*, *P. corymbosa*, *P. egena*, and *P. malvifolia*. *Phacelia nemoralis* ssp. *oregonensis* is distinguished from silvery phacelia by its erect stems (versus decumbent to ascending stems) and leaves with two or more pairs of leaflets (versus leaves entire or with a single pair of basal leaflets); *P. bolanderi* has corollas lavender to bluish or purplish in color (versus white to ivory corollas) and glandular-hairy stems (versus stems eglandular); *P. corymbosa* has glandular, erect or ascending stems (versus eglandular, decumbent to ascending stems), lanceolate to

oblanceolate leaves (versus elliptic to orbicular or obovate leaves), and is found only on serpentine soils; *P. egena* has lanceolate to oblanceolate leaves 10-25 cm long, the basal leaves dissected with 7-11 (15) segments (versus elliptic to orbicular or obovate leaves, 5-12 cm long, entire or with a pair of basal leaflets); and *P. malvifolia* has erect stems 20-80 cm long (versus decumbent to ascending stems 10-45 cm long), and leaves with dentate lobes (versus leaves entire or with a pair of basal leaflets).

Intergrades between silvery phacelia and *P. nemoralis* ssp. *oregonensis* occur in the ocean bluff habitat of *P. nemoralis*, but differ from the latter taxon by exhibiting a decumbent to procumbent habit, smaller stature, less coarse hairiness with greater silky leaf vestiture, and softer but more dense hairs on the calyx lobes.

# When to survey

Surveys for silvery phacelia should be completed when the species is in flower, from late May to early August.

#### Habitat

Silvery phacelia occurs along the coast, occupying open sand above the high tide line, open and partly stabilized sand dunes further inland, and coastal bluffs.

Associated plant species include Abronia latifolia, Ambrosia chamissonis, Calystegia soldanella, Camissonia cheiranthifolia ssp. cheiranthifolia, Cardionema ramosissimum, Dactylis glomerata, Festuca rubra, Fragaria chiloensis, Glehnia littoralis ssp. leiocarpa, Lupinus littoralis, Poa macrantha, Polygonum paronychia, and the exotic invasive species Ammophila arenaria and Hypochaeris radicata.

# Range

Silvery phacelia occurs near the coast in Coos and Curry counties, Oregon, and neighboring Del Norte County, California, from the vicinity of Bandon, Oregon, south to the vicinity of Crescent City, California. There is one historic collection of the species from Clatsop County, Oregon in 1933, but there have been no reports of silvery phacelia from that area since then. The majority of occurrences are in Oregon.

## **Oregon counties**

Coos, Curry, Clatsop (historic record)

#### Federal status

Species of Concern

#### **Threats**

The primary threat to silvery phacelia is invasion by non-native plant species, particularly European beachgrass (*Ammophila arenaria*) and gorse (*Ulex europaea*). Residential and recreational coastal development is another serious threat, which can cause habitat fragmentation or extirpation of silvery phacelia populations. Off-road vehicle use, equestrian and pedestrian use, grazing and trampling by livestock, collection of the species for horticultural purposes, and loss of pollinators are other factors that may negatively impact this species.

# Did you know?

The genus *Phacelia* is derived from the Greek word for cluster (*phakelos*), based on the dense, congested inflorescence typical of the genus. The species epithet, *argentea*, means silvery, referring to the hairs on the leaves of the plant. Phacelias are also commonly called scorpion weeds, due to the fact that the hairs on some members of

the genus can cause severe dermatitis.

## References

Brian, N. J. 2006. Status report for *Phacelia argentea* A. Nelson & J. F. MacBride (Silvery phacelia). Bureau of Land Management, Coos Bay District, North Bend, Oregon.

California Native Plant Society (CNPS). 2011. Inventory of rare and endangered plants (online edition, v7-11jul). California Native Plant Society. Sacramento, CA. <a href="http://www.cnps.org/inventory">http://www.cnps.org/inventory</a>. Accessed August. 4, 2011.

Cronquist, A. 1959. *Phacelia* in: C. L. Hitchcock, A. Cronquist, M. Owenby and J. W. Thompson, editors. Vascular plants of the Pacific Northwest. Part 4. University of Washington Press, Seattle.

Heckard, L. R. 1960. Taxonomic studies in the *Phacelia magellanica* polyploidy complex. University of California Publications in Botany 32:62-64.

Hickman, J.C., ed. 1993. The Jepson manual: Higher plants of California. University of California Press, Berkeley, California.

Kalt, J. 2008. Status review and field inventory for silvery phacelia: *Phacelia argentea* (Hydrophyllaceae). Unpublished report for the U.S. Fish and Wildlife Service, Arcata, CA.

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. <a href="http://www.oregonflora.org/atlas.php">http://www.oregonflora.org/atlas.php</a>. Accessed August 4, 2011.

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 <a href="http://orbic.pdx.edu/documents/2010-rte-book.pdf">http://orbic.pdx.edu/documents/2010-rte-book.pdf</a> (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.