

Point Reyes bird's-beak (*Cordylanthus maritimus* ssp. *palustris*)



Oregon
Department
of Agriculture

ENDANGERED



Flowers (left), habit (center), and habitat (right) of Point Reyes bird's-beak. Photos by Melissa Carr. If downloading images from this website, please credit the photographer.

Family

Orobanchaceae

Taxonomic notes

Synonym: *Chloropyron maritimum* ssp. *palustre**

*Revised classification by Tank et al. (2009) based on recent molecular research of subtribe Castillejinae (Orobanchaceae).

This taxon was formerly included within the Scrophulariaceae.

Plant description

Point Reyes bird's-beak is a halophytic annual 10-20 (-30) cm tall, simple or sparingly branched with ascending lateral branches equal to or shorter than the central spike. The herbage is grayish green to glaucous, often purplish tinged, and villous to glabrescent. Leaves are oblong to oblong-lanceolate, 1-2.5 cm long and 0.3-0.7 cm wide, with a blunt to pointed apex. Flowers are arranged in dense spikes with oblong floral bracts bearing a pair of short teeth near the apex. The corolla is 1.8-2.5 cm long, the lower lip and pouch suffused with pinkish to purplish red, the galea pale cream to white. Capsules produce 10-20 seeds that are 0.2-0.3 cm long.

Distinguishing characteristics

Point Reyes bird's-beak shares the same coastal salt marsh habitat as *Cordylanthus maritimus* ssp. *maritimus* (*Chloropyron maritimum* ssp. *maritimum*), but the two taxa are geographically separated by over 100 air miles (160 km), with the latter species restricted to southern California. Point Reyes bird's beak is distinguished from *C. m.* ssp. *maritimus* by its simple or few-branched stem with branches equal to or shorter than the central spike, by its larger, broader leaves, denser and somewhat broader spikes, and larger bracts and flowers. Another subspecies, ssp. *canescens*, is a widespread species of the Great Basin associated with alkaline lakes and hot springs.

When to survey

Surveys for Point Reyes bird's-beak should be conducted when the species is flowering, from June to October.

Habitat

Point Reyes bird's-beak inhabits the upper end of maritime salt marshes at approximately 2.3-2.6 m (7.5-8.5 ft) above Mean Lower Low Water (MLLW, the mean height of water at the lowest of the daily low tides), in sandy substrates with soil salinity 34-55 ppt, and less than 30% bare soil in summer.

Point Reyes bird's-beak is a hemiparasite, forming root connections with host plants from which it derives some of its resources. Point Reyes bird's-beak is not host-specific, but standard hosts for the species probably include *Salicornia virginica*, *Jaumea carnosa*, *Distichlis spicata*, *Limonium californicum*, and *Deschampsia cespitosa*. Other associated species are *Cuscuta salina*, *Plantago maritima*, *Hordeum jubatum*, *Juncus gerardii*, *Castilleja ambigua* var. *ambigua*, *Spergularia macrotheca*, *S. canadensis*, *Atriplex patula*, *Carex lyngbyei*, and *Glaux maritima*.

Range

Point Reyes bird's-beak occurs along the Pacific Coast from Tillamook County in Oregon, south to Santa Clara County, California. In Oregon, the species is restricted to Netarts Bay, Yaquina Bay, and Coos Bay, with the majority of known occurrences located in Coos Bay.

Oregon counties

Coos, Lincoln, Tillamook

Federal status

Species of Concern

Threats

The primary threat to Point Reyes bird's-beak is habitat loss due to development. The species is also threatened by off-road vehicle use, water pollution, and habitat alteration due to invasion by non-native *Spartina densiflora*.

Did you know?

Research indicates that Point Reyes bird's-beak and other hemiparasites help reduce the abundance of competitive dominant plants, promote plant species diversity, and reduce root zone salinity stress in salt marsh communities.

References

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