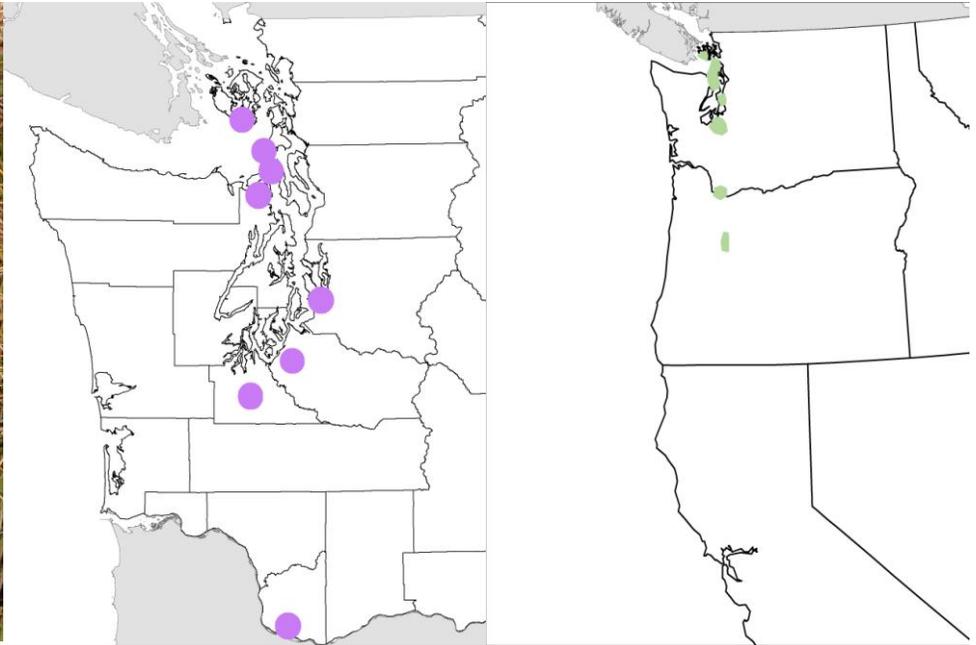


Species Fact Sheet

Golden Paintbrush

Castilleja levisecta



STATUS:
THREATENED
CRITICAL HABITAT:
NONE

Golden paintbrush potentially occurs in Thurston, Island, and San Juan counties, Washington. Historically, it was known to occur in Clark, King, Pierce, and Clallam counties.

(Map may reflect historical as well as recent sightings)

Golden paintbrush, *Castilleja levisecta*, was listed as threatened, without critical habitat, in 1997. A recovery plan for this species was completed in 2000 and a 5 year review in 2007.

Historical and Current Status

Historically, *Castilleja levisecta* has been reported from more than 30 sites in the Puget Trough of Washington, British Columbia, and as far south as the Willamette Valley of Oregon. Many populations have been extirpated due to agricultural, residential, and commercial development. In

Oregon, *Castilleja levisecta* historically occurred in the grasslands and prairies of the Willamette Valley in Linn, Marion and Multnomah Counties. The species has been extirpated from all of these sites. The last sighting in Oregon occurred in 1938 in Linn County. Recent surveys have failed to re-locate this species.

Two populations of *Castilleja levisecta* occur on small islands near Victoria, British Columbia, Canada. Historically, *C. levisecta* was documented from nine sites on southeastern Vancouver Island, and on two adjacent islands. All but the two extant populations are extirpated or are of unknown status.

Currently, nine populations are known to exist in Washington; more than half of these occur on Whidbey and the San Juan Island. The two largest populations occur on the Rocky Prairie Natural Reserve Area in Thurston County and on private land in the San Juan Valley, San Juan Island.

Description and Life History

Golden paintbrush is a perennial herb in the figwort or snapdragon family (Scrophulariaceae). It often has from 5-to-15 unbranched stems. Plants are up to 30 cm (12 inches) tall and are covered with soft, somewhat sticky hairs. The lower leaves are broader, with 1-to-3 pairs of short lateral lobes near the terminal third. The showy bracts are about the same width as the upper leaves, softly hairy and sticky, and are golden yellow.

Golden paintbrush are short-lived and generally do not survive longer than 5-to-6 years. This species reproduces exclusively by seed. Plants begin to emerge as early as February and are observed into summer. Flowering is usually completed by mid-summer; fruits form and mature in August and disperse seed in fall until the plant becomes senescent with the onset of winter.

Habitat

Habitat descriptions for golden paintbrush are based on known populations in Washington and British Columbia. Golden paintbrush occurs primarily in upland prairies, on generally flat grasslands. Low deciduous shrubs are commonly present as small to large thickets. In the absence of fire, grasslands are readily colonized by trees, primarily Douglas-fir, and shrubs, including wild rose and Scot's broom, an aggressive nonnative shrub.

In Washington, *Castilleja levisecta* occurs in the Puget Trough Physiographic Province. All of the known populations are found on soils derived from glacial origins. The single mainland population occurs in a gravelly, glacial outwash prairie. In the northern end of the species' historic range, populations occur on clayey soils derived from either glacial drift or glacio-lacustrine sediments.

Reasons for Decline

The primary cause for extirpation and population declines is loss of habitat. Native prairies have been virtually eliminated as a result of conversion to agriculture, urbanization, and other development. Grassland habitat was historically maintained by periodic fires that prevented

encroachment by woody plants. As a result of fire suppression, competition from nonnative and native woody plants, like Douglas-fir, seriously threatens *Castilleja levisecta*. Trampling, collection at public sites, and herbivory also threaten the recovery of this species.

Conservation Efforts

The loss of suitable habitat for *Castilleja levisecta* from development is anticipated to continue or increase with regional population growth. However, this threat has been somewhat mitigated through land acquisition, protection of suitable prairie lands, and active management. The purchase and conservation of land has increased the amount of potential habitat available for the species.

Research has been conducted on the population biology, fire ecology, propagation and restoration of golden paintbrush. The results of these studies have been used to direct management of upland prairies and to guide the recovery of the species.

A reintroduction plan for *Castilleja levisecta* was completed in 2004. Recovery of this species throughout its historic range will only be accomplished through reintroduction. Experimental outplantings and augmentation plantings have been successful. In south Puget Sound, plantings occurred on Glacial Heritage, Scatter Creek Wildlife Area, and Morgan prairies. *Castilleja* was augmented or reintroduced to north Puget Sound prairies on Naas Preserve, Smith Prairie at Pacific Rim Institute, Ebey's Landing, Waldron Island, American Camp and False Bay on San Juan Island. Seeds from local sources are collected annually for grow out at local nurseries. In addition, *Castilleja levisecta* seeds have been banked at the Berry Botanic Garden in Portland, Oregon and the University of Washington Botanic Garden.

The augmentation of existing populations have improved the status of some populations and initiated the recovery of the species at many locations. We still have much to learn about how best to recover the species by introductions of new populations.

References and Links

[Listing Status](#)

[Recovery Plan 2000](#)

[5 Year Review 2007](#)

[Reintroduction Plan 2004](#)

[Recovering the Gem of the Pacific Northwest Grasslands](#)

[Golden Paintbrush Wanted Poster](#)

[USFWS Threatened and Endangered Species Profile](#)

[WTU Herbarium](#)

[WA DNR Natural Heritage Program](#)

[TNC South Sound Prairies](#)