



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
PRESIDIO CLARKIA
Clarkia franciscana



CLASSIFICATION: Endangered

Federal Register Notice 60:6671; February 3, 1995

http://ecos.fws.gov/docs/federal_register/fr2779.pdf (125 KB)

This species was listed as endangered by the California Department of Fish and Game in November 1978. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

CRITICAL HABITAT: Not designated

RECOVERY PLAN: Final

Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area; September 30, 1998.

http://ecos.fws.gov/docs/recovery_plan/980930c_v2.pdf (22 MB)

5-YEAR REVIEW: Started March 25, 2009

<http://www.fws.gov/policy/library/E8-4258.html>

DESCRIPTION



Presidio Clarkia
Presidio Park Stewards:
National Park Service
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Presidio clarkia (*Clarkia franciscana*) is a slender, erect, herbaceous annual of the evening-primrose family (Onagraceae). It grows to 40 cm (16 inches) tall with few, very small and narrow leaves. The lavender-pink petals have a lighter basal portion and a reddish-purple basal spot. The slender capsule is 2-4 cm (1-2 inches) long.

Presidio clarkia can be distinguished from reddened clarkia (*C. rubicunda*), also known as ruby chalice clarkia, a related species that may occur in the same area, by the fact that its petals have irregular teeth on their apex margin (reddened clarkia has petals rounded at the apex).

See Hickman (1993) in General Information about California Plants, below, for a detailed description of these species.

Presidio clarkia flowers from May to July. At the Presidio, the species is visited by small halictid bees (sweat bees), which may be pollinators of the species. However, plants can self-pollinate by shedding pollen directly on the stigma (female reproductive part). The species is thought to be predominantly self-pollinated in natural populations.



Presidio Clarkia
Jo-Ann Ordano
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SERPENTINE SOIL PLANTS:

Serpentine soils are formed from weathered volcanic (ultramafic) rocks such as serpentinite, dunite, and peridotite. These soils provide a harsh environment for plant growth. Several factors contribute to the inhospitability of serpentine soils to plant growth

- 1) Low calcium-magnesium ratio;
- 2) Lack of essential nutrients such as nitrogen, potassium, and phosphorous; and
- 3) High concentrations of heavy metals (mineral toxicity).

However, serpentine plant species have adapted to serpentine soils and require them to survive.

See the [recovery plan](#) (above) for more information about serpentine soil species.

Contact the Coastal Branch of our office (formerly the Coast-Bay-Delta Branch) at 916-414-6625 for consultations concerning serpentine soil species.

The Bay Checkerspot Butterfly [PDF](#) | [RTF](#) is an insect that depends on serpentine soil plants, primarily dwarf plantain (*Plantago erecta*).

DISTRIBUTION

Presidio clarkia is restricted to grassland communities on serpentine soils in San Francisco and Alameda counties. Two populations are known from the San Francisco Presidio. Three are known from the Oakland Hills in Alameda County, all from within 0.5 mile of each other. Total plant numbers fluctuate greatly.

Known locations span elevations between approximately 23 and 335 meters (75 to 1,100 feet).

U.S.G.S. 7 ½ Minute Quads: Oakland East (465C) 3712272, San Francisco North (466C) 3712274.

THREATS

Presidio clarkia is threatened by potential development, roadside maintenance, foot traffic, mowing, competition from non-native plants, and shade from native and introduced shrubs and trees.

REFERENCES FOR ADDITIONAL INFORMATION

[General references about California plants](#)

www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

Gottlieb, L.D., and S.W. Edwards. 1992. An electrophoretic test of the genetic independence of a newly discovered population of *Clarkia franciscana*. Madroño 39(1):1-7.

Kruckeberg, A.R. 1984a. California serpentines: Flora, vegetation, geology, soils, and management problems. University of California Press, Berkeley, California. 180 pp.

_____. 1984b. The flora on California's serpentine. Fremontia 11(5): 3-10.

Lewis, H., and P.H. Raven. 1958. *Clarkia franciscana*, a new species from central California. Brittonia 10(1):7-13.

Roof, J.B. 1971. Summer wildflowers: the clarkias. Four Seasons 4(1):2-6.11

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