San Francisco Collinsia (*Collinsia multicolor*)

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Legal Status

State: CNPS List 1B.2[1]
Federal: None
Critical Habitat: None
Recovery Planning: None

Taxonomy

The scientific name currently recognized for San Francisco collinsia is *Collinsia multicolor*. However, for many years, the accepted name was *Collinsia franciscana*. In 1893, F. T. Bioletti proposed the name *C. franciscana* for populations of plants occurring on the San Francisco peninsula (Bioletti 1893). This name was accepted in most subsequent floristic and monographic treatments until the 1960's (Jepson 1925, Newsom 1929, Munz 1959, Thomas 1961). However, Abrams (1951) listed *C. franciscana* as a synonym of *C. multicolor*, a name published in 1851. Bioletti and subsequent authors may have been unaware of the earlier name, which appeared in *Paxton's Flower Garden*, a 3-volume horticultural work published in London. Munz (1968) later accepted *C. multicolor* as the correct name, as did the Jepson Manual (Neese 1993). *C. multicolor* is in the figwort family (Scrophulariaceae).

Description

Descriptions of the species' physical characteristics can be found in Abrams (1951, pg. 776, Fig. 4737), Munz (1959 pg. 644), and Neese (1993, pg. 1027, figure on pg. 1031).

Distribution

General

San Francisco collinsia is endemic to California, where it is found mostly in coastal areas between San Francisco and Monterey Counties (Figure 1). It occurs at elevations between 100 and 800 feet. Twenty-two occurrences are presently known throughout its range (CNDDB 2006). The most inland known location of San Francisco collinsia is on the eastern slope of the Santa Cruz Mountains in Santa Clara County.

[1] 1B means rare, threatened, or endangered in California and elsewhere; .2 means fairly endangered in California.

Occurrences within the Study Area

Historical

San Francisco collinsia is known from two historical collections in Santa Clara County, only one of which was within the HCP/NCCP study area. Thomas (1961) cites Edenvale as an occurrence locality for *Collinsia franciscana* (CNDDB Occurrence #2). However, this location currently developed and it is presumed that this occurrence is likely to be extinct.

Extant

There is one extant occurrence of San Francisco collinsia in the study area in Almaden Quicksilver Park. While this has not yet been submitted to the CNDDB, it has been located by local botanists (K. Bryant, Pers. Comm.) and is believed to be extant. It is also expected that other populations will be found in the Plan area during the permit term.

Natural History

Habitat Requirements

San Francisco collinsia grows in mesic habitats, including coastal prairie and in the understory of coast live oak woodland (CNDDB 2006). It often occurs on decomposed shale where a thick layer of humus is present (CNDDB 2006). The habitat requirements of the species are also described as closed-cone coniferous forest and coastal scrub, sometimes on serpentine (CNPS 2006).

Table 1. Habitat Associations for San Francisco Collinsia

Land Cover Type	Habitat Designation	Habitat Parameters	Percent Suitable	Rationale
Coast Live Oak Forest and Woodland	Primary	100-820 ft. in elevation; mesic habitats, often on decomposed shale with a thick layer of humus present, sometimes on serpentinite	Unknown, but probably high	California Natural Diversity Database 2006;
Closed-Cone Coniferous Forest	Primary	100-820 ft. in elevation,; mesic habitats, often on decomposed shale with a thick layer of humus present, sometimes on serpentinite	Unknown, but probably high	California Natural Diversity Database 2006, California Native Plant Society 2006
Northern Coastal Scrub/Diablan Sage Scrub	Primary	100-820 ft. in elevation; sometimes on serpentinite	Unknown, but probably high	California Natural Diversity Database 2006; California Native Plant Society 2006

Population Ecology

Little has been reported about the demography of San Francisco collinsia. The aerial extent of populations have been estimated at between 1.9 and 9.7 acres, and population estimates for five occurrences were less than a thousand plants in each occurrence (CNDDB 2006). Key seasonal periods for San Francisco collinsia are shown in Table 1.

Table 1. Key Seasonal Periods for San Francisco Collinsia

	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Germination (unknown)	✓	✓	✓							✓	✓	✓
Flowering			✓	✓	✓							
Fruiting (unknown)				✓	✓	✓						
Seed Dispersal (unknown)					✓	✓	✓	✓				

Population Status and Trends

Global: *Stable or Unknown* (CNDDB 2006)
State: *Stable or Unknown* (CNDDB 2006)
Within Study Area: *Unknown* (CNDDB 2006)

Twenty-two occurrences are presently known (CNDDB 2006). The population status of four occurrences are reported to be stable; no information is available for the other 18 occurrences (CNDDB 2006).

Threats

San Francisco collinsia is subject to few known threats. One roadside population has been reported to be subject to disturbance by road maintenance activities, and another occurring along a trail may be subject to disturbance by trail use and trail maintenance (CNDDB 2006). The species may also be threatented by non-native plant invasions and urbanization (CNPS 2006).

Data Characterization

The primary data gap for San Francisco collinsia is whether or not it actually occurs within the study area. Additional data gaps include species' habitat requirements in the study area, which may differ from the majority of populations that occur closer to the coast.

Existing Conservation Actions in the Study Area

There are no known conservation actions occurring in the study area for San Francisco collinsia.

Modeled Habitat Distribution in Study Area

Model Description

Model Assumptions

Suitable habitat for San Francisco collinsia is defined as annual grasslands, coast live oak forest and woodland, mixed oak woodland and forest, knobcone pine forest, and northern coastal scrub/Diablan sage scrub between 100 and 800 ft on slopes with all degrees of steepness, all soil types, and in two ecoregion subsections: the Leeward Hills and Santa Cruz Mountains.

Rationale

The range of San Francisco collinsia in the study area is assumed to be restricted to the Santa Cruz Mountains because the two documented occurrences in the County are located there, and because most of the documented occurrences are along the coast. The habitat requirements of this species suggest that it requires wetter conditions only available in the Santa Cruz Mountains. Northern coastal prairie does not occur in Santa Clara County, so it is also assumed that grasslands in the study area are not suitable due to their relatively dry conditions. Suitable land cover types are consistent with descriptions of the species' habitat types that do occur in the study area (California Natural Diversity Database 2006, California Native Plant Society 2006).

Model Results

Figure 2 shows the modeled potential habitat for San Francisco collinsia. The potential habitat is limited to the eastern side of the Santa Cruz Mountains in the southwest region of the study area. There are no known occurrences of this species within the study area.

Literature Cited

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Adapted from: California Native Plant Society 2006; California Natural Diversity Database 2006

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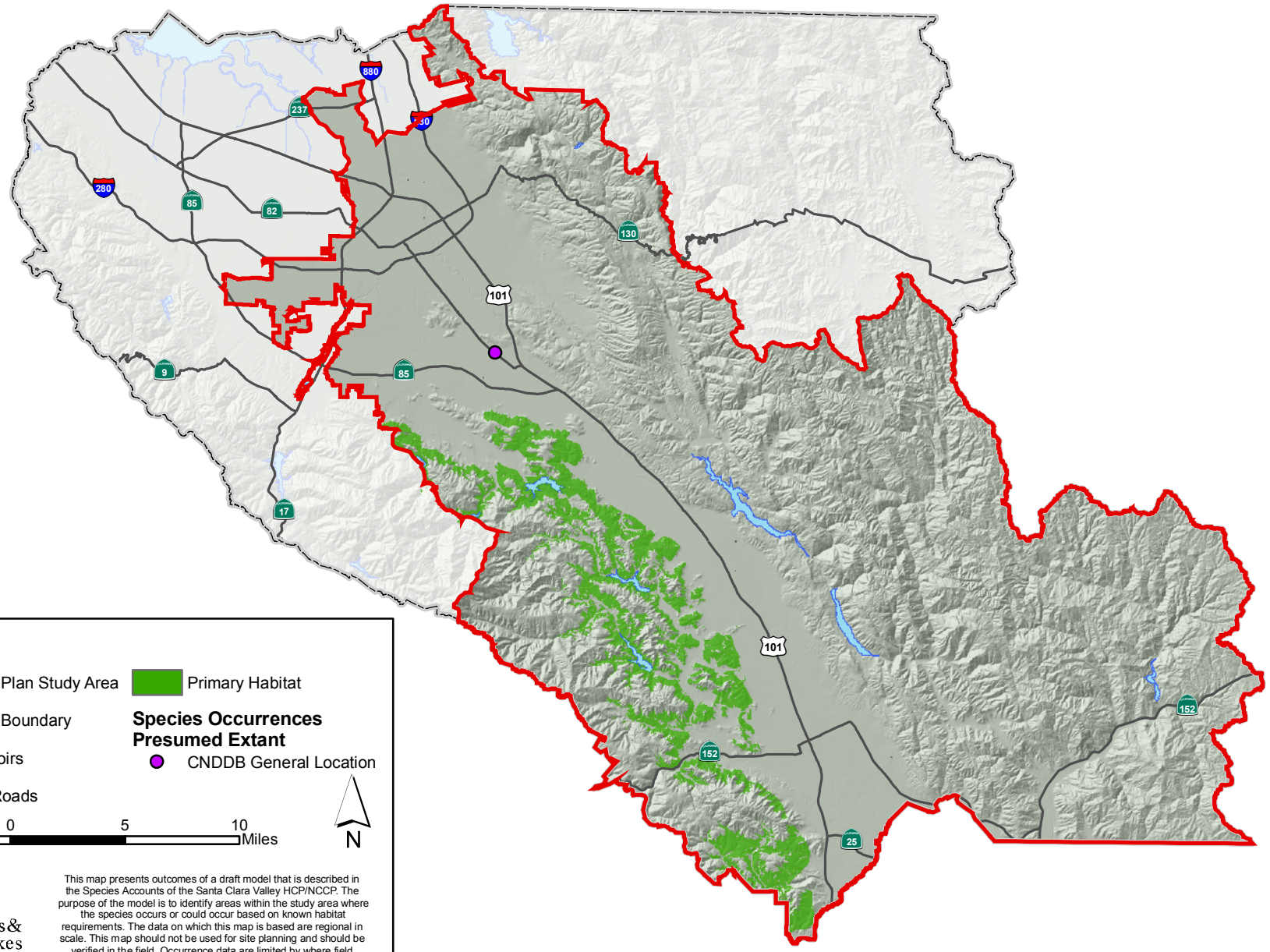
Figure 1
San Francisco Collinsia (*Collinsia multicolor*)
Distribution in California



Legend

- Habitat Plan Study Area
- Primary Habitat
- County Boundary
- **Species Occurrences Presumed Extant**
  - CNDDB General Location
- Reservoirs
- Major Roads

5 2.5 0 5 10 Miles

N

Prepared by:

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This map presents outcomes of a draft model that is described in the Species Accounts of the Santa Clara Valley HCP/NCCP. The purpose of the model is to identify areas within the study area where the species occurs or could occur based on known habitat requirements. The data on which this map is based are regional in scale. This map should not be used for site planning and should be verified in the field. Occurrence data are limited by where field surveys have been conducted; some occurrence points may be geographically inaccurate.

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Figure 2
San Francisco Collinsia Modeled Habitat Distribution - Santa Clara Valley Habitat Plan