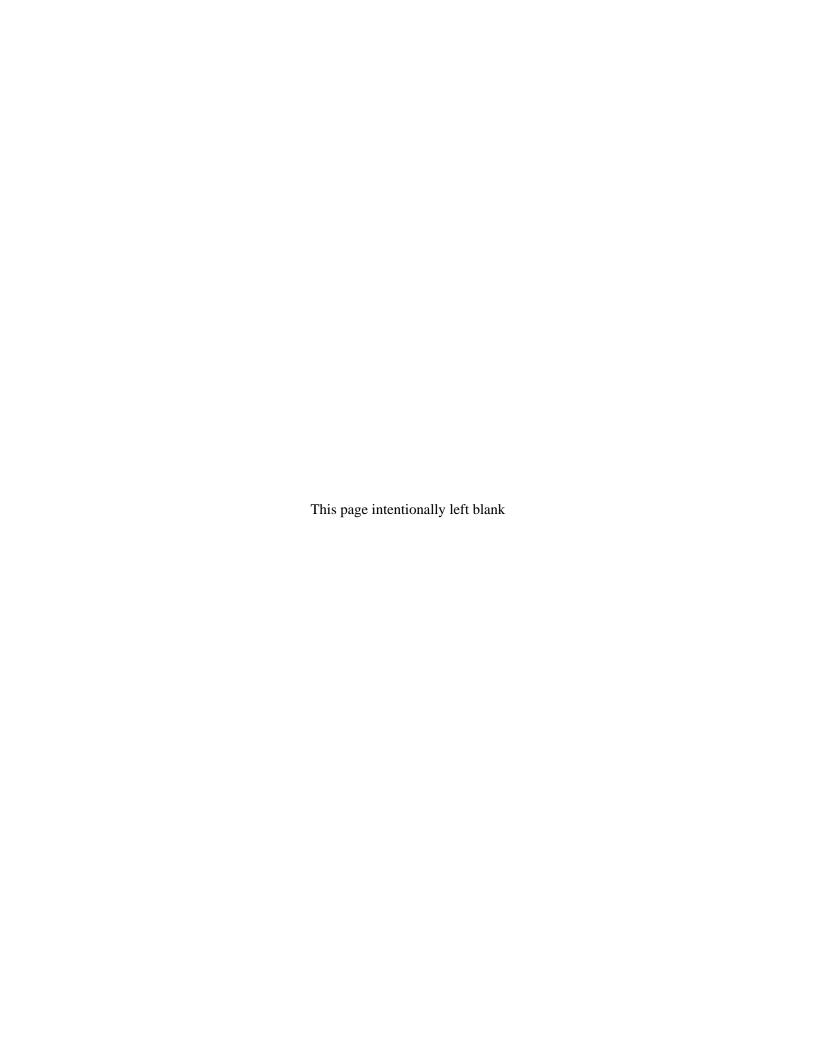
APPENDIX E

Biological Resources: Special-status Species Documented or with Potential to Occur on the Project Site



U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 130122125239
Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Invertebrates

Euphydryas editha bayensis

bay checkerspot butterfly (T)

Critical habitat, bay checkerspot butterfly (X)

Haliotes cracherodii

black abalone (E) (NMFS)

Haliotes sorenseni

white abalone (E) (NMFS)

Icaricia icarioides missionensis

mission blue butterfly (E)

Speyeria callippe callippe

callippe silverspot butterfly (E)

Speyeria zerene myrtleae

Myrtle's silverspot butterfly (E)

Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Eucyclogobius newberryi

tidewater goby (E)

Hypomesus transpacificus

delta smelt (T)

Oncorhynchus kisutch

coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss

Central California Coastal steelhead (T) (NMFS)

Central Valley steelhead (T) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

```
Reptiles
     Caretta caretta
           loggerhead turtle (T) (NMFS)
     Chelonia mydas (incl. agassizi)
           green turtle (T) (NMFS)
     Dermochelys coriacea
           leatherback turtle (E) (NMFS)
     Lepidochelys olivacea
           olive (=Pacific) ridley sea turtle (T) (NMFS)
      Thamnophis sirtalis tetrataenia
           San Francisco garter snake (E)
Birds
     Brachyramphus marmoratus
           marbled murrelet (T)
     Charadrius alexandrinus nivosus
           western snowy plover (T)
     Diomedea albatrus
           short-tailed albatross (E)
     Pelecanus occidentalis californicus
           California brown pelican (E)
     Rallus longirostris obsoletus
           California clapper rail (E)
     Sternula antillarum (=Sterna, =albifrons) browni
           California least tern (E)
Mammals
     Arctocephalus townsendi
           Guadalupe fur seal (T) (NMFS)
     Balaenoptera borealis
           sei whale (E) (NMFS)
     Balaenoptera musculus
           blue whale (E) (NMFS)
     Balaenoptera physalus
           finback (=fin) whale (E) (NMFS)
     Enhydra lutris nereis
           southern sea otter (T)
     Eubalaena (=Balaena) glacialis
           right whale (E) (NMFS)
     Eumetopias jubatus
           Steller (=northern) sea-lion (T) (NMFS)
     Physeter catodon (=macrocephalus)
           sperm whale (E) (NMFS)
     Reithrodontomys raviventris
           salt marsh harvest mouse (E)
```

Plants

Arctostaphylos hookeri ssp. ravenii

Presidio (=Raven's) manzanita (E)

Chorizanthe robusta var. robusta

robust spineflower (E)

Layia carnosa

beach layia (E)

Lessingia germanorum

San Francisco lessingia (E)

Pentachaeta bellidiflora

white-rayed pentachaeta (E)

Trifolium amoenum

showy Indian clover (E)

Proposed Species

Plants

Arctostaphylos Franciscana

Critical Habitat, Franciscan Manzanita (X)

Quads Containing Listed, Proposed or Candidate Species:

SAN FRANCISCO SOUTH (448B)

County Lists

No county species lists requested.

Key:

- (E) Endangered Listed as being in danger of extinction.
- (T) Threatened Listed as likely to become endangered within the foreseeable future.
- (P) Proposed Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the <u>National Oceanic & Atmospheric Administration Fisheries Service</u>. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

- (PX) Proposed Critical Habitat The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey $7\frac{1}{2}$ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

• Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.

- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the <u>Guidelines for Conducting and Reporting</u>
<u>Botanical Inventories</u>. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
 - During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.
 - Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential

to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

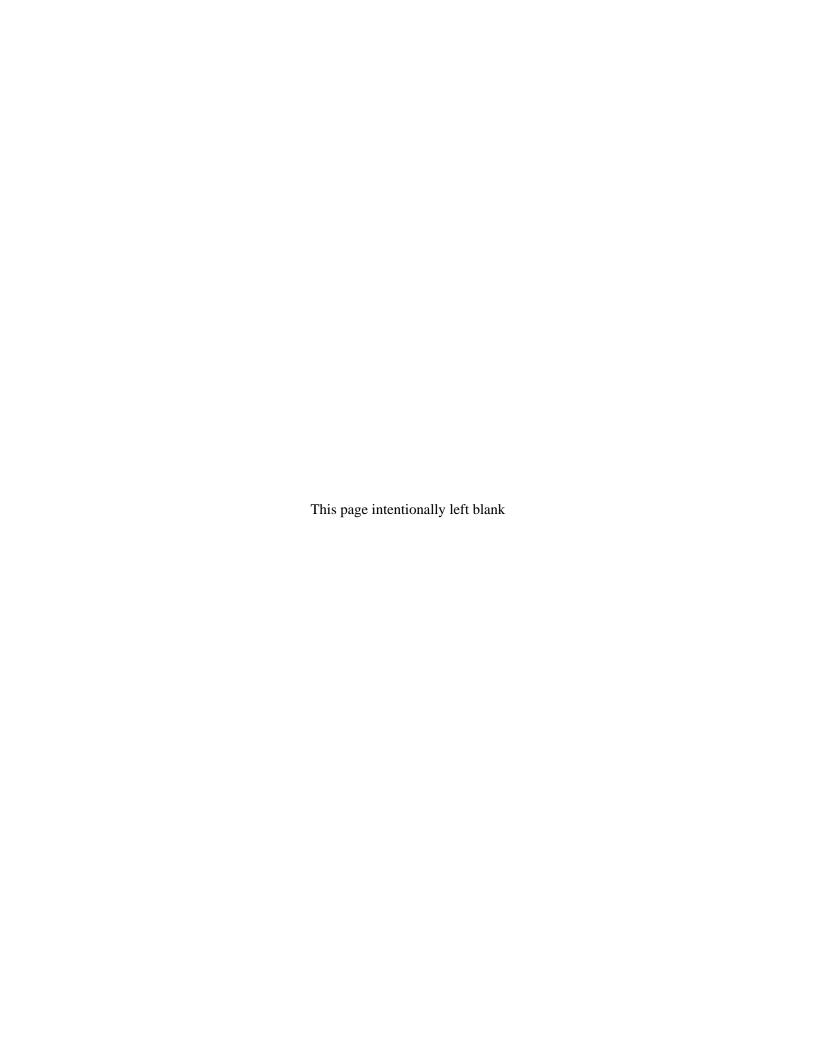
The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be April 22, 2013.





Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Adela oplerella	IILEE0G040	None	None	G2G3	S2S3	
Opler's longhorn moth						
Amsinckia lunaris	PDBOR01070	None	None	G2?	S2?	1B.2
bent-flowered fiddleneck						
Arctostaphylos franciscana	PDERI040J3	None	None	G1	S1	1B.1
Franciscan manzanita						
Arctostaphylos imbricata	PDERI040L0	None	Endangered	G1	S1	1B.1
San Bruno Mountain manzanita						
Arctostaphylos montana ssp. ravenii Presidio manzanita	PDERI040J2	Endangered	Endangered	G3T1	S1	1B.1
Arctostaphylos montaraensis	PDERI042W0	None	None	G2	S2.2	1B.2
Montara manzanita	. 52.40.240			0-	<u></u>	
Arctostaphylos pacifica	PDERI040Z0	None	Endangered	G1	S1	1B.2
Pacific manzanita			J			
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T2	S2	1B.2
Banksula incredula	ILARA14100	None	None	G1	S1	
incredible harvestman						
Caecidotea tomalensis	ICMAL01220	None	None	G2	S2	
Tomales isopod						
Callophrys mossii bayensis San Bruno elfin butterfly	IILEPE2202	Endangered	None	G4T1	S1	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2.1
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	PDPGN04081	None	None	G2T2	S2.2	1B.2
Chorizanthe robusta var. robusta	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
robust spineflower		-				
Cicindela hirticollis gravida	IICOL02101	None	None	G5T2	S1	
sandy beach tiger beetle						
Cirsium andrewsii	PDAST2E050	None	None	G2	S2.2	1B.2
Franciscan thistle						
Cirsium occidentale var. compactum compact cobwebby thistle	PDAST2E1Z1	None	None	G3G4T2	S2.1	1B.2
Collinsia multicolor	PDSCR0H0B0	None	None	G2	S2.2	1B.2
San Francisco collinsia						
Dufourea stagei	IIHYM22010	None	None	G1?	S1?	
Stage's dufourine bee						
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle						
Eucyclogobius newberryi	AFCQN04010	Endangered	None	G3	S2S3	SSC



Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



		Rare Plant Rank/CDFW
pecies	Element Code	Federal Status	State Status	Global Rank	State Rank	SSC or FP
iuphydryas editha bayensis	IILEPK4055	Threatened	None	G5T1	S1	
Bay checkerspot butterfly	DM II 0) /000	Mana	Maria	00	00	40.0
ritillaria liliacea	PMLIL0V0C0	None	None	G2	S2	1B.2
fragrant fritillary	A D D D V 4 0 0 4 A	Mana	Mana	OFTO	00	000
Geothlypis trichas sinuosa	ABPBX1201A	None	None	G5T2	S2	SSC
saltmarsh common yellowthroat	DDDI M040D0	Mana	Mana	OFTO	00.4	40.4
ilia capitata ssp. chamissonis	PDPLM040B3	None	None	G5T2	S2.1	1B.1
blue coast gilia	DD 4 0T 470D0	Mana	Mana	05740	04	0.0
rindelia hirsutula var. maritima	PDAST470D3	None	None	G5T1Q	S1	3.2
San Francisco gumplant	DD 4 07 41 4000			00	00	45.0
lelianthella castanea	PDAST4M020	None	None	G2	S2	1B.2
Diablo helianthella						
lemizonia congesta ssp. congesta	PDAST4R065	None	None	G5T2T3	S2S3	1B.2
white seaside tarplant				0.17070	0000	
lesperevax sparsiflora var. brevifolia	PDASTE5011	None	None	G4T2T3	S2S3	1B.2
short-leaved evax	DDD 0.0014/0.40			0.170		
lorkelia cuneata var. sericea	PDROS0W043	None	None	G4T2	S2?	1B.1
Kellogg's horkelia	11001 55040			0.10	040	
lydroporus leechi	IICOL55040	None	None	G1?	S1?	
Leech's skyline diving beetle						
schnura gemina	IIODO72010	None	None	G2	S2	
San Francisco forktail damselfly						
asiurus cinereus	AMACC05030	None	None	G5	S4?	
hoary bat				o .=.	•	
aterallus jamaicensis coturniculus	ABNME03041	None	Threatened	G4T1	S1	FP
California black rail	DD 4 07-11040					
ayia carnosa	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
beach layia				_		
eptosiphon rosaceus	PDPLM09180	None	None	G1	S1	1B.1
rose leptosiphon						
essingia germanorum	PDAST5S010	Endangered	Endangered	G1	S1	1B.1
San Francisco lessingia						
ichnanthe ursina	IICOL67020	None	None	G2	S2	
bumblebee scarab beetle						
lalacothamnus arcuatus	PDMAL0Q0E0	None	None	G2Q	S2.2	1B.2
arcuate bush-mallow						
lelospiza melodia pusillula	ABPBXA301S	None	None	G5T2?	S2?	SSC
Alameda song sparrow						
lylopharodon conocephalus	AFCJB25010	None	None	G3	S3	SSC
hardhead						
entachaeta bellidiflora	PDAST6X030	Endangered	Endangered	G1	S1	1B.1
white-rayed pentachaeta						



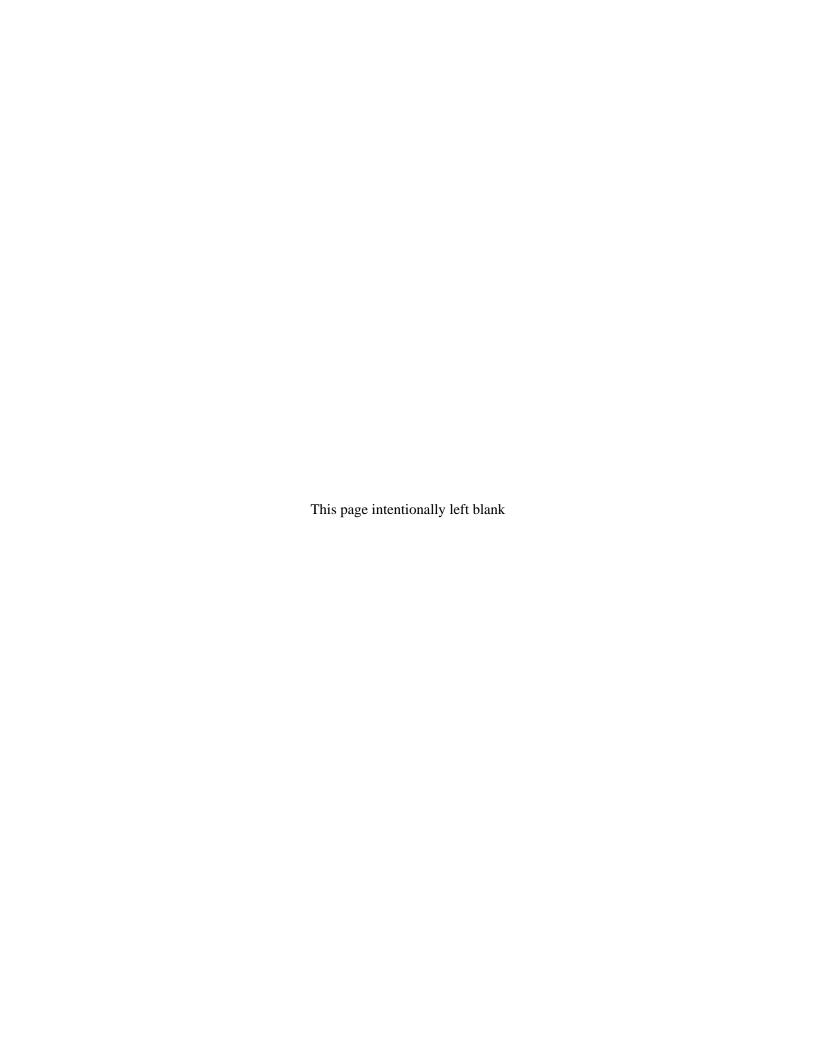
Selected Elements by Scientific Name

California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Phalacrocorax auritus	ABNFD01020	None	None	G5	S3	WL
double-crested cormorant						
Plebejus icarioides missionensis	IILEPG801A	Endangered	None	G5T1	S1	
Mission blue butterfly						
Rallus longirostris obsoletus	ABNME05016	Endangered	Endangered	G5T1	S1	FP
California clapper rail						
Rana draytonii	AAABH01022	Threatened	None	G4T2T3	S2S3	SSC
California red-legged frog						
Riparia riparia	ABPAU08010	None	Threatened	G5	S2S3	
bank swallow						
Sanicula maritima	PDAPI1Z0D0	None	Rare	G2	S2.2	1B.1
adobe sanicle						
Silene verecunda ssp. verecunda	PDCAR0U213	None	None	G5T2	S2.2	1B.2
San Francisco campion						
Speyeria callippe callippe	IILEPJ6091	Endangered	None	G5T1	S1	
callippe silverspot butterfly						
Thamnophis sirtalis tetrataenia	ARADB3613B	Endangered	Endangered	G5T2	S2	FP
San Francisco garter snake						
Trachusa gummifera	IIHYM80010	None	None	G1	S1	
San Francisco Bay Area leaf-cutter bee						
Trifolium amoenum	PDFAB40040	Endangered	None	G1	S1	1B.1
showy rancheria clover						
Triphysaria floribunda	PDSCR2T010	None	None	G2	S2.2	1B.2
San Francisco owl's-clover						
Triquetrella californica	NBMUS7S010	None	None	G1	S1	1B.2
coastal triquetrella						

Record Count: 55



CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 27 items - Tue, Jan. 22, 2013 15:09 $\ensuremath{\text{c}}$

Standard List - with Plant Press controls

ECO		$I \cap AI$	DED	ODT
	LUG	IUAL	KEF	URI

ECOLOGICAL REPOR	K I					
scientific	family	life form	blooming	communities	elevation	CNPS
Amsinckia lunaris	Boraginaceae	annual herb	Mar-Jun	Coastal bluff scrub (CBScr) Cismontane woodland (CmWld) Valley and foothill grassland (VFGrs)	3 - 500 meters	List 1B.2
Arctostaphylos franciscana	Ericaceae	perennial evergreen shrub	Feb-Apr	•Coastal scrub (CoScr)(serpentinite)	60 - 300 meters	List 1B.1
Arctostaphylos imbricata	Ericaceae	perennial evergreen shrub	Feb-May	Chaparral (Chprl) Coastal scrub (CoScr)/rocky	275 - 370 meters	List 1B.1
Arctostaphylos montana ssp. ravenii	Ericaceae	perennial evergreen shrub	Feb-Mar	Chaparral (Chprl) Coastal prairie (CoPrr) Coastal scrub (CoScr)/serpentinite outcrop	45 - 215 meters	List 1B.1
Arctostaphylos montaraensis	Ericaceae	perennial evergreen shrub	Jan-Mar	•Chaparral (Chprl)(maritime) •Coastal scrub (CoScr)	150 - 500 meters	List 1B.2
Arctostaphylos pacifica	Ericaceae	evergreen shrub	Feb-Apr	•Chaparral (Chprl) •Coastal scrub (CoScr)	330 - 330 meters	List 1B.2
Astragalus tener var. tener	Fabaceae	annual herb	Mar-Jun	Playas (Plyas) Valley and foothill grassland (VFGrs)(adobe clay) Vernal pools (VnPls)/alkaline	1 - 60 meters	List 1B.2
<u>Centromadia</u> parryi ssp. parryi	Asteraceae	annual herb	May-Nov	Chaparral (Chprl) Coastal prairie (CoPrr) Meadows and seeps (Medws) Marshes and swamps (MshSw)(coastal salt) Valley and foothill grassland (VFGrs)(vernally mesic)/often alkaline	2 - 420 meters	List 1B.2
Chorizanthe cuspidata var. cuspidata	Polygonaceae	annual herb	Apr- Jul(Aug), Months in parentheses are uncommon.	Coastal bluff scrub (CBScr) Coastal dunes (CoDns) Coastal prairie (CoPrr) Coastal scrub (CoScr)/sandy	3 - 215 meters	List 1B.2
				•Chaparral (Chprl)(maritime)		

Chorizanthe robusta var. robusta	Polygonaceae	annual herb	Apr-Sep	Cismontane woodland (CmWld)(openings) Coastal dunes (CoDns) Coastal scrub (CoScr)/sandy or gravelly	3 - 300 meters	List 1B.1
Cirsium andrewsii	Asteraceae	perennial herb	Mar-Jul	Broadleafed upland forest (BUFrs) Coastal bluff scrub (CBScr) Coastal prairie (CoPrr) Coastal scrub (CoScr)/mesic, sometimes serpentinite	0 - 150 meters	List 1B.2
Cirsium occidentale var. compactum	Asteraceae	perennial herb	Apr-Jun	Chaparral (Chprl) Coastal dunes (CoDns) Coastal prairie (CoPrr) Coastal scrub (CoScr)	5 - 150 meters	List 1B.2
Collinsia multicolor	Plantaginaceae	annual herb	Mar-May	Closed-cone coniferous forest (CCFrs) Coastal scrub (CoScr)/sometimes serpentinite	30 - 250 meters	List 1B.2
Equisetum palustre	Equisetaceae	perennial rhizomatous herb	unk	•Marshes and swamps (MshSw)	45 - 1000 meters	List 3
Fritillaria liliacea	Liliaceae	perennial bulbiferous herb	Feb-Apr	Cismontane woodland (CmWld) Coastal prairie (CoPrr) Coastal scrub (CoScr) Valley and foothill grassland (VFGrs)/Often serpentinite	3 - 410 meters	List 1B.2
Gilia capitata ssp. chamissonis	Polemoniaceae	annual herb	Apr-Jul	Coastal dunes (CoDns) Coastal scrub (CoScr)	2 - 200 meters	List 1B.1
Grindelia hirsutula var. maritima	Asteraceae	perennial herb	Jun-Sep	Coastal bluff scrub (CBScr) Coastal scrub (CoScr) Valley and foothill grassland (VFGrs)/sandy or serpentinite	15 - 400 meters	List 3.2
Helianthella castanea	Asteraceae	perennial herb	Mar-Jun	Broadleafed upland forest (BUFrs) Chaparral (Chprl) Cismontane woodland (CmWld) Coastal scrub (CoScr) Riparian woodland (RpWld)	60 - 1300 meters	List 1B.2

				•Valley and foothill grassland (VFGrs)		
Hemizonia congesta ssp. congesta	Asteraceae	annual herb	Apr-Nov	Valley and foothill grassland (VFGrs)/sometimes roadsides	20 - 560 meters	List 1B.2
<u>Hesperevax</u> <u>sparsiflora</u> var. <u>brevifolia</u>	Asteraceae	annual herb	Mar-Jun	Coastal bluff scrub (CBScr)(sandy) Coastal dunes (CoDns) Coastal prairie (CoPrr)	0 - 215 meters	List 1B.2
<u>Horkelia cuneata</u> var. <u>sericea</u>	Rosaceae	perennial herb	Apr-Sep	Closed-cone coniferous forest (CCFrs) Chaparral (Chprl)(maritime) Coastal dunes (CoDns) Coastal scrub (CoScr)/sandy or gravelly, openings	10 - 200 meters	List 1B.1
<u>Lessingia</u> germanorum	Asteraceae	annual herb	(Jun),Jul- Nov Months in parentheses are uncommon.	•Coastal scrub (CoScr)(remnant dunes)	25 - 110 meters	List 1B.1
Malacothamnus arcuatus	Malvaceae	perennial evergreen shrub	Apr-Sep	Chaparral (Chprl) Cismontane woodland (CmWld)	15 - 355 meters	List 1B.2
Pentachaeta bellidiflora	Asteraceae	annual herb	Mar-May	Cismontane woodland (CmWld) Valley and foothill grassland (VFGrs)(often serpentinite)	35 - 620 meters	List 1B.1
Plagiobothrys chorisianus var. chorisianus	Boraginaceae	annual herb	Mar-Jun	Chaparral (Chprl) Coastal prairie (CoPrr) Coastal scrub (CoScr)/mesic	15 - 160 meters	List 1B.2
Silene verecunda ssp. verecunda	Caryophyllaceae	perennial herb	Mar- Jun(Aug), Months in parentheses are uncommon.	Coastal bluff scrub (CBScr) Chaparral (Chprl) Coastal prairie (CoPrr) Coastal scrub (CoScr) Valley and foothill grassland (VFGrs)/sandy	30 - 645 meters	List 1B.2
Trifolium amoenum	Fabaceae	annual herb	Apr-Jun	Coastal bluff scrub (CBScr) Valley and foothill grassland (VFGrs)(sometimes serpentinite)	5 - 415 meters	List 1B.1