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May 8, 2025

***Via Email and LACouncilComment***

Planning and Land Use Management  
Committee (PLUM)  
Councilmember Bob Blumenfield, Chair  
Councilmember Heather Hutt  
Councilmember Adrin Nazarian  
Councilmember John S. Lee  
Councilmember Nithya Raman  
John Ferraro Council Chamber  
200 N. Spring Street, Room 340  
Los Angeles, CA 90012  
c/o Candy Rosales, Legislative Assistant  
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Renata Ooms, City Planner  
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**Re: Comment on Proposed CEQA Infill Exemption for Mission & Lincoln Apartments  
(CPC-2022-6189-CU-DB-ZAA-SPR-HCA)**

Dear Honorable Members of the PLUM Committee:

I am writing on behalf of Supporters Alliance for Environmental Responsibility (“SAFER”), whose members live and work in the City of Los Angeles (“City”), regarding the appeal of the proposed Class 32 Categorical Exemption for the Mission & Lincoln Apartments Project (CPC-2022-6189-CU-DB-ZAA-SPR-HCA), including all actions related or referring to the proposed construction of a new 7-story apartment building with 184 residential units above 2 levels of automobile parking, to be located at 3601-3615 Mission Road/2010-2036 Lincoln Park Avenue, in the City of Los Angeles (the “Project”).

On September 5, 2023, December 4, 2023, and December 3, 2024, SAFER submitted comments providing that the Class 32 Exemption, which exempts the Project from further review pursuant to the California Environmental Quality Act (“CEQA”), does not apply to the Project because (1) the Project will have significant adverse impacts on air quality and health risk impacts; (2) the City failed to present substantial evidence showing the Project will not have significant noise impacts; (3) the City has failed to present substantial evidence in concluding that the Project site will not have habitat value for rare, endangered, or threatened species while SAFER has provided substantial evidence to the contrary; and (4) the unusual circumstances exception to the Categorical Exemption applies. This supplemental comment incorporates all prior SAFER comments. SAFER maintains its appeal that a Class 32 Categorical Exemption is improper and that further CEQA review, either through a Mitigated Negative Declaration (“MND”) or an

Environmental Impact Report (“EIR”) is required to analyze these impacts and propose mitigation measures.

## LEGAL BACKGROUND

The EIR is the very heart of CEQA. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927.) The EIR is an “environmental ‘alarm bell’ whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return.” (*Bakersfield Citizens*, 124 Cal.App.4th at 1220.) The EIR also functions as a “document of accountability,” intended to “demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” (*Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392.) The EIR process “protects not only the environment but also informed self-government.” (*Pocket Protectors*, 124 Cal.App.4th at 927.)

The classes of projects which are exempt from the provisions of CEQA are called categorical exemptions. (14 CCR §§ 15300, 15354.) “Exemptions to CEQA are narrowly construed and ‘[e]xemption categories are not to be expanded beyond the reasonable scope of their statutory language.’ [Citations].” (*Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 125.) The determination as to the appropriate scope of a categorical exemption is a question of law subject to independent, or de novo, review. (*San Lorenzo Valley Community Advocates for Responsible Education v. San Lorenzo Valley Unified School Dist.*, (2006) 139 Cal.App.4th 1356, 1375 [“[Q]uestions of interpretation or application of the requirements of CEQA are matters of law. [Citations.] Thus, for example, interpreting the scope of a CEQA exemption presents ‘a question of law, subject to de novo review by this court.’ [Citations].”].) In addition, there are several exceptions to CEQA’s categorical exemptions. (See, 14 CCR § 15300.2.)

As the California Supreme Court has held, “[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR.” (*Communities for a Better Env’t v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-20.) “Significant environmental effect” is defined very broadly as “a substantial or potentially substantial adverse change in the environment.” (Pub. Res. Code (“PRC”) § 21068; see also, 14 CCR § 15382.) An effect on the environment need not be “momentous” to meet the CEQA test for significance; it is enough that the impacts are “not trivial.” (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.) “The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” (*Communities for a Better Env’t v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109.)

The Class 32 exemption provides:

Class 32 consists of projects characterized as in-fill development meeting the conditions described in this section.

- (a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
- (b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
- (c) *The project site has no value, as habitat for endangered, rare or threatened species.*
- (d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
- (e) The site can be adequately served by all required utilities and public services.

(14 CCR § 15332 [emph. added].)

In order to approve the Project based on the Class 32 Exemption, the City must make the above findings, and support those findings with substantial evidence. (*See, Protect Tustin Ranch v. City of Tustin* (2021) 70 Cal. App. 5th 951, 960.)

## DISCUSSION

### **A. The City's Exemption Determination is Not Supported by Substantial Evidence.**

The City does not rely on substantial evidence to conclude that the Project site does not have habitat value for rare, endangered, or threatened species. Substantial evidence is defined in the CEQA guidelines as “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.” (14 CCR § 15384(a).) Substantial evidence does not include speculation or unsubstantiated opinion. (*Id.*) Substantial evidence includes “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.” (14 CCR § 15384(b).)

The City's reliance on the Categorical Exemption is not supported by substantial evidence. In asserting that the site does not have substantive value as a habitat for endangered, rare or threatened species (Categorical Exemption, p.4), the City relies on a December 23, 2023 report prepared by South Environmental (South Report”). However, South Report's scope of analysis of the Project site was not for rare, endangered, or threatened species pursuant to the CEQA Categorical Exemption. Instead, the South Report that the City relies on narrowly focuses on the Project site's habitat value for special status species. (South Report, p. 3.) As the court in *Nassiri v. Lafayette* (2024) 103 Cal.App.5th 910, 323 Cal.Rptr.3d 168, 178 (“*Nassiri*”) emphasized, the two terms are not interchangeable and each have their own meaning. In *Nassiri*, the applicant's expert testified before the City Council that, due in part to the species' geographic ranges, the identified species on the project site were not “rare.” (*Id.*) Here, there is nothing in the South Report or

expert testimonies that the City can reference to make that conclusion. Therefore, the South Report does not provide or constitute substantial evidence regarding habitat value for rare, endangered, or threatened species. As such, there is no substantial evidence in the record that the City can rely on to reach its conclusion regarding the Project site's habitat value for rare, endangered, or threatened species.

For the foregoing reasons, the City's finding the Site has "no value for endangered, rare or threatened species" is not based on substantial evidence, and thus violates CEQA.

**B. The City Cannot Rely on a Categorical Exemption Because the Project Site has Habitat Value for Endangered, Rare or Threatened Species.**

The City cannot invoke the Categorical Exemption where there is substantial evidence that the Project site has habitat value for rare, endangered, or threatened species. (14 CCR § 15332.) Ms. Smallwood's surveys of the Project site identified species that preclude reliance on the Categorical Exemption. Ms. Smallwood first surveyed the Project site on October 27, 2023, where she identified rare, endangered, or threatened species on and near the Project site at Lincoln Park, which is located just south of the Site. (Ex. A, p. 9.) Then, on the evening of November 7, 2024, on behalf of Dr. Shawn Smallwood, Noriko Smallwood conducted a bat survey of the Project site (Id., p. 3.) Ms. Smallwood detected 2 rare bat species, the Hoary bat (*Lasiurus cinereus*) and Mexican free-tailed bat (*Tadarida brasiliensis*). (Ex. A, p.1.) Notably, these species are listed on the Western Bat Working Group list, with the Hoary Bat as a medium priority. (Ex. A, p. 8.) These species were previously detected by residents of the Lincoln Park neighborhood and included in their previously submitted comments in the record. Altogether, substantial evidence in the record demonstrates the Project's habitat value for rare, endangered, or threatened species, thereby prohibiting the use of the Categorical Exemption.

In response, the South Report disputes the characterization of these species as special status, and that the Project site cannot have habitat value because it is not "native habitat." (South Report, pp. 3-4.) However, as Dr. Smallwood notes, the wildlife identified on the Project site are in fact properly characterized as rare, endangered, or threatened species. For example, the Hoary bat, which was detected on the Site appears on the California Department of Fish and Wildlife's Special Animals List. (Ex. B, p. 83.) Species on this list are those that may be listed as endangered or threatened, but may also be biologically rare, very restricted in distribution, or declining throughout their range, regardless of their legal status. (Ex. B, p. i.) The Hoary bat being on the Special Animals List as well as the Western Bat Working Group list demonstrates that it is a rare species. Thus, its presence on the Site disqualifies the Project from relying on the Categorical Exemption, given the Site provides habitat value to this rare species.

As another example, the BCC list is comprised of rare wildlife because the list was "intended to prevent species from having to be listed as Threatened or Endangered..." (Ex. A, p. 11):

The BCC list includes those species with 1. Documented or apparent population declines; 2. Small or restricted populations, or 3. Dependence on restricted or vulnerable habitats. Note that these three qualifications for inclusion on the BCC list are consistent with the

CEQA Guidelines definitions A and B of Rare species. Under definition B, a species “likely to become endangered within the foreseeable future” implies population decline, which is consistent with qualification 1 for inclusion on the BCC list. Under definition A, “existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens” implies small or restricted populations or dependence on restricted or vulnerable habitats, which are conditions that are consistent with qualifications 2 and 3 for inclusion on the BCC list.

(Ex. A, p. 11.) Furthermore, with regard to Birds of Prey, including those identified by Ms. Smallwood and the South Report, Dr. Smallwood explains that “[t]heir positions in the food chain naturally require large home ranges and relative rarity compared to most other species of birds.” (*Id.*, p. 10.) As such, Dr. Smallwood’s identification and explanation of the identified species as rare, endangered, or threatened demonstrates the proper classification of wildlife on or around the Project site to bar the City from relying on a Categorical Exemption for the Project.

The City further disputes that the Project site has habitat value for rare, endangered, or threatened species because they are not “native habitat.” (South Report, p. 3.) However, such assertion is incorrect and conflicts with existing case law. Not only is the term “native habitat” undefined in the South Report, but it is inconsistent with the CEQA Guidelines’ plain language. Dr. Smallwood notes “it is unclear what South Environmental means by “native habitat.” The term native habitat might apply to a species that has expanded its range, in which case native habitat might refer to the habitat of the species’ original geographic range. Otherwise, habitat is defined as that part of the environment that is used for survival and reproduction by members of a species (Hall et al. 1997).” (Ex. A, p. 2.)

Here, the South Reports’ response to Dr. Smallwood’s findings and conclusions are limited to whether a species’ ideal habitat features are included on the Project site. (South Report, pp. 4-5.) However, the absence of typical habitat features alone does not foreclose the possibility of the area possessing some habitat value for rare, endangered, or threatened species. Uncontested observations of wildlife foraging and socializing lend support to the idea that there is at least some habitat value. (*Nassiri*, 323 Cal.Rptr.3d at 178 [presence of species on a project site means that the parcel is assumed to have some value as habitat for those species].) In fact, even though South Environmental contends that there is no habitat value on the Project site for the Cooper’s hawk because its “typical habitat” are riparian woodlands and forests (South Report, p. 5), South Environmental’s survey also identified the Cooper’s hawk, thereby substantiating Ms. Smallwood’s first site visit and reinforcing Dr. Smallwood’s conclusion of the Project site’s habitat value for rare, endangered, or threatened species.


Since the Site has “value as habitat for endangered, rare or threatened species,” the City may not exempt the Project from CEQA review pursuant to the CEQA infill exemption.

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## **CONCLUSION**

The City cannot rely on a Class 32 exemption because the Project does not meet the terms of the exemption. Accordingly, the City must prepare an initial study to determine the appropriate level of environmental review to undertake pursuant to CEQA.

Sincerely,



Richard Drury  
LOZEAU DRURY LLP

# **Exhibit A**

Shawn Smallwood, PhD  
3108 Finch Street  
Davis, CA 95616

CITY PLANNING COMMISSION  
City of Los Angeles  
200 N. SPRING STREET, ROOM 525  
LOS ANGELES, CA 90012-4801

28 November 2023

RE: ENV-2022-6190-CE (Categorical Exemption - Class 32)

Dear Planning Commissioners,

I write to comment on potential impacts to biological resources that could result from the proposed CEQA Class 32 Categorical Exemption for a 7-story apartment building on 1.163 acres of wooded land adjacent to Lincoln Park. The project site is of considerable value as wildlife habitat. I am concerned that the project would cause significant impacts to wildlife, not just on the project site, but also to the wildlife of Lincoln Park.

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

### **SITE VISIT**

On my behalf, Noriko Smallwood, a wildlife biologist with a Master's Degree from California State University Los Angeles, visited the site of the proposed project for 3.17 hours from 07:10 to 10:20 hours on 27 October 2023. She walked the site's perimeter, stopping to scan for wildlife with use of binoculars. She also surveyed Lincoln Park, which is located just south of the project site for 49 minutes from 10:24 to 11:13 hours on 27 October 2023. Noriko recorded all species of vertebrate wildlife she detected, including those whose members flew over the site or were seen nearby, off the site. Animals of uncertain species identity were recorded to the Genus or higher taxonomic level.

Conditions were cloudy to partly cloudy with 3 mph north wind and 56-66° F. The site was covered by overgrown ornamental trees and a small parking lot (Photos 1–3).





**Photos 1–3.** Views of the project site, 27 October 2023. Photos by Noriko Smallwood.

Noriko detected 25 species of vertebrate wildlife at or adjacent to the project site, including 5 species with special status (Table 1). Noriko saw an additional 14 species at Lincoln Park, including 3 additional species with special status (Table 1). Noriko saw double-crested cormorant (Photos 4 and 21), California gull (Photos 5 and 6), red-tailed hawk (Photo 7), Allen's hummingbird and Anna's hummingbird (Photos 8 and 9), red-breasted nuthatch and black phoebe (Photos 10 and 11), yellow-rumped warbler (Photos 12 and 13), common raven and American crow (Photos 14 and 15), Northern mockingbird and Cassin's kingbird (Photos 16 and 17), fox squirrel (Photo 18), Nuttall's woodpecker and turkey vulture (Photos 19 and 20), among the other species listed in Table 1. Between the project site and the adjacent Lincoln Park, Noriko saw 38 species of vertebrate wildlife and Monarch, which is a candidate for listing under the federal Endangered Species Act.

Noriko Smallwood certifies that the foregoing and following survey results are true and accurately reported.

  
Noriko Smallwood

**Table 1.** Species of wildlife Noriko observed during 3.17 hours of survey at the project site and 49 minutes of survey at Lincoln Park on 27 October 2023.

Common name	Species name	Status <sup>1</sup>	Notes
Monarch	<i>Danaus plexippus</i>	FC	Park only
Red-eared slider	<i>Trachemys scripta elegans</i>	Non-native	Park only
Canada goose	<i>Branta canadensis</i>		Just off site, at park
American wigeon	<i>Mareca americana</i>		Park only
Mallard	<i>Anas platyrhynchos</i>		Park only
Ruddy duck	<i>Oxyura jamaicensis</i>		Park only
Rock pigeon	<i>Columba livia</i>	Non-native	
Eurasian collared-dove	<i>Streptopelia decaocto</i>	Non-native	
Mourning dove	<i>Zenaida macroura</i>		Many flew over
Anna's hummingbird	<i>Calypte anna</i>		Foraged, socialized
Allen's hummingbird	<i>Selasphorus sasin</i>	BCC	Foraged, socialized
American coot	<i>Fulica americana</i>		Park only
California gull	<i>Larus californicus</i>	BCC, TWL	Flew over
Double-crested cormorant	<i>Nannopterum auritum</i>	TWL	Flew over
Turkey vulture	<i>Cathartes aura</i>	BOP	Park only
Cooper's hawk	<i>Accipiter cooperii</i>	TWL, BOP	Flew over
Red-tailed hawk	<i>Buteo jamaicensis</i>	BOP	Flew over
Nuttall's woodpecker	<i>Picoides nuttallii</i>	BCC	Park only
Northern flicker	<i>Colaptes auratus</i>		Park only
Cassin's kingbird	<i>Tyrannus vociferans</i>		
Black phoebe	<i>Sayornis nigricans</i>		
American crow	<i>Corvus brachyrhynchos</i>		
Common raven	<i>Corvus corax</i>		



Common name	Species name	Status <sup>1</sup>	Notes
Bushtit	<i>Psaltiriparus minimus</i>		Just off site calling
Ruby-crowned kinglet	<i>Regulus calendula</i>		Foraged
Cedar waxwing	<i>Bombycilla cedrorum</i>		Park only
Red-breasted nuthatch	<i>Sitta canadensis</i>		
Northern mockingbird	<i>Mimus polyglottos</i>		
European starling	<i>Sturnus vulgaris</i>	Non-native	
House sparrow	<i>Passer domesticus</i>	Non-native	Park only
House finch	<i>Haemorphous mexicanus</i>		Foraged, socialized
Lesser goldfinch	<i>Spinus psaltria</i>		
Dark-eyed junco	<i>Junco hyemalis</i>		Park only
White-crowned sparrow	<i>Zonotrichia leucophrys</i>		Park only
Great-tailed grackle	<i>Quiscalus mexicanus</i>		Just off site, at park
Orange-crowned warbler	<i>Oreothlypis celata</i>		Foraged
Yellow-rumped warbler	<i>Setophaga coronata</i>		Foraged
Fox squirrel	<i>Sciurus niger</i>	Non-native	Ate seeds of trees
Botta's pocket gopher	<i>Thomomys bottae</i>		Park only

<sup>1</sup> Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).



**Photo 4.** Double-crested cormorants flying over the project site, 27 October 2023.  
Photo by Noriko Smallwood.



**Photos 5 and 6.** California gulls flying over the project site, 27 October 2023. Photos by Noriko Smallwood.



**Photo 7.** Red-tailed hawk flying over the project site, 27 October 2023. Photo by Noriko Smallwood.



**Photos 8 and 9.** Allen's hummingbird (left) next to the project site, and Anna's hummingbird (right) on the project site, 27 October 2023. Photos by Noriko Smallwood.



**Photos 10 and 11.** Red-breasted nuthatch (left), and black phoebe (right) on the project site, 27 October 2023. Photos by Noriko Smallwood.



**Photos 12 and 13.** Yellow-rumped warblers on the project site, 27 October 2023. Photos by Noriko Smallwood.

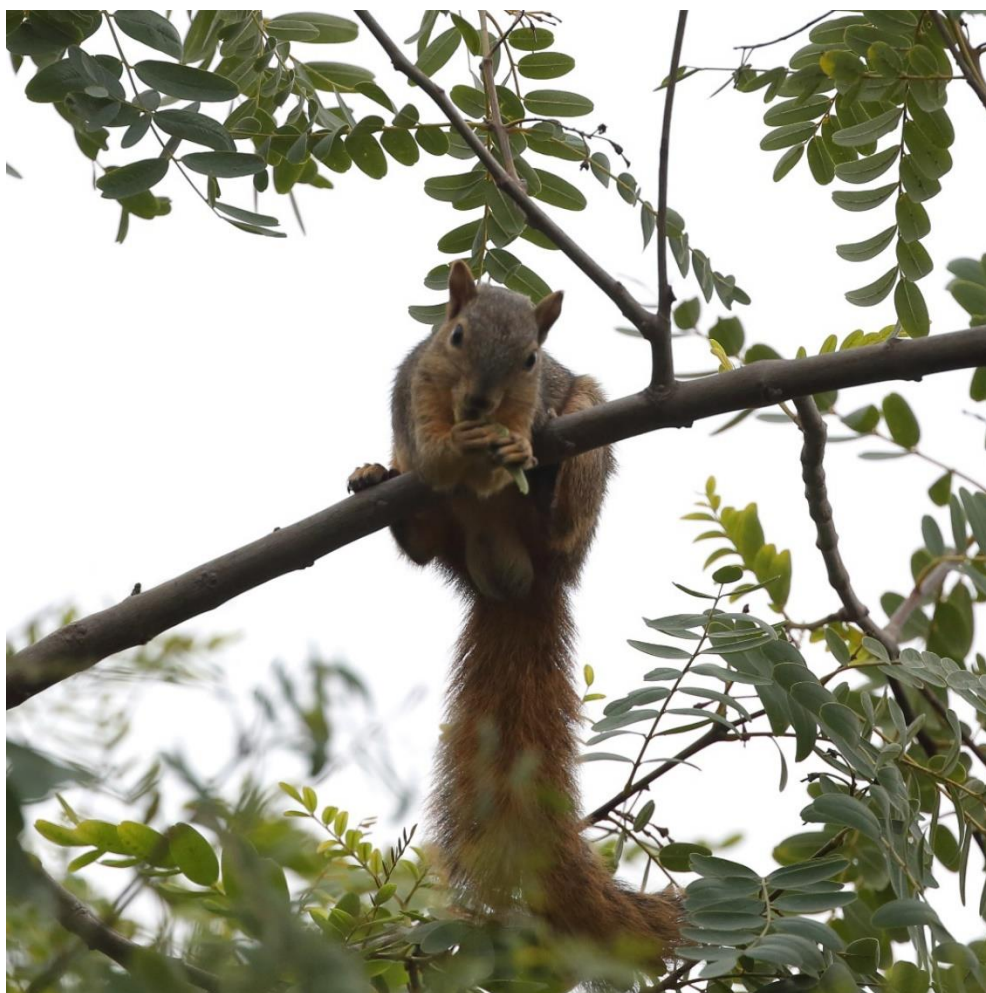


**Photos 14 and 15.** Common raven (left), and American crow (right) flying over the project site, 27 October 2023. Photos by Noriko Smallwood.





**Photos 16 and 17.** Northern mockingbird (left), and Cassin's kingbird (right) on the project site, 27 October 2023. Photos by Noriko Smallwood.



**Photo 18.** Fox squirrel eating seeds from locust tree on the project site, 27 October 2023. Photo by Noriko Smallwood.



**Photos 19 and 20.** Nuttall's woodpecker (left), and turkey vulture (right) at Lincoln Park, 27 October 2023. Photos by Noriko Smallwood.

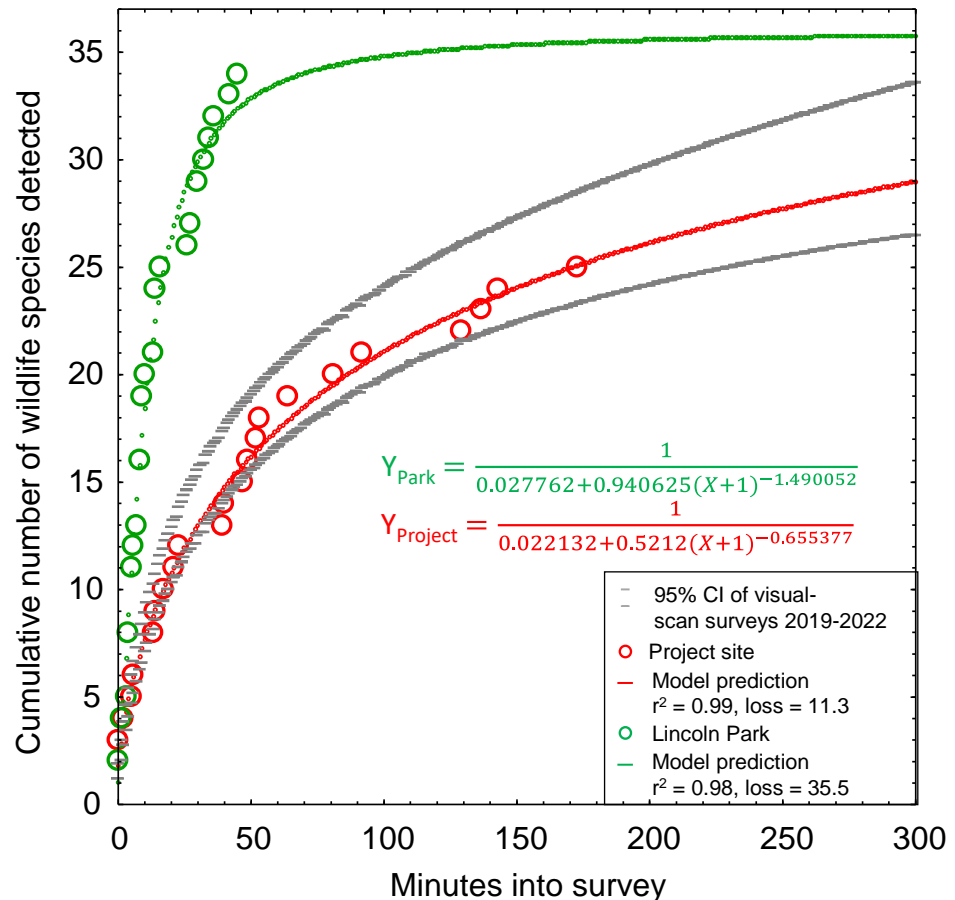


**Photo 21.**  
Double-crested  
cormorant at  
Lincoln Park, 27  
October 2023.  
Photo by Noriko  
Smallwood.



I fit a nonlinear regression model to Noriko's cumulative number of vertebrate species detected with time into her surveys to predict the number of species that she would have detected with a longer survey or perhaps with additional biologists available to assist her. The models are logistic growth models which reach asymptotes that correspond with the maximum numbers of vertebrate wildlife species that likely would have been detected during each of the surveys. In this case, the models predict that on the morning of 27 October 2023, 45 species of vertebrate wildlife were available to be detected on the project site, and 36 species of vertebrate wildlife were available to be detected at Lincoln park, which left 20 and 2 species undetected during her surveys, respectively, at the project site and at Lincoln Park (Figure 1). However, the pattern in the data indicates the survey at Lincoln Park ended too early to accurately estimate the model's asymptote, which likely would have been larger than 36 species. Certainly, the rate of new species detections at Lincoln Park far exceeded the rates measured at other project sites we have surveyed in the region (see the 95% confidence interval). Lincoln Park and the neighboring project site support a relatively high concentration of vertebrate wildlife species, including special-status species.

**Figure 1.** Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on Noriko Smallwood's visual-scan surveys on 27 October 2023. Note that the relationships would differ if the surveys were based on another method or during another season.



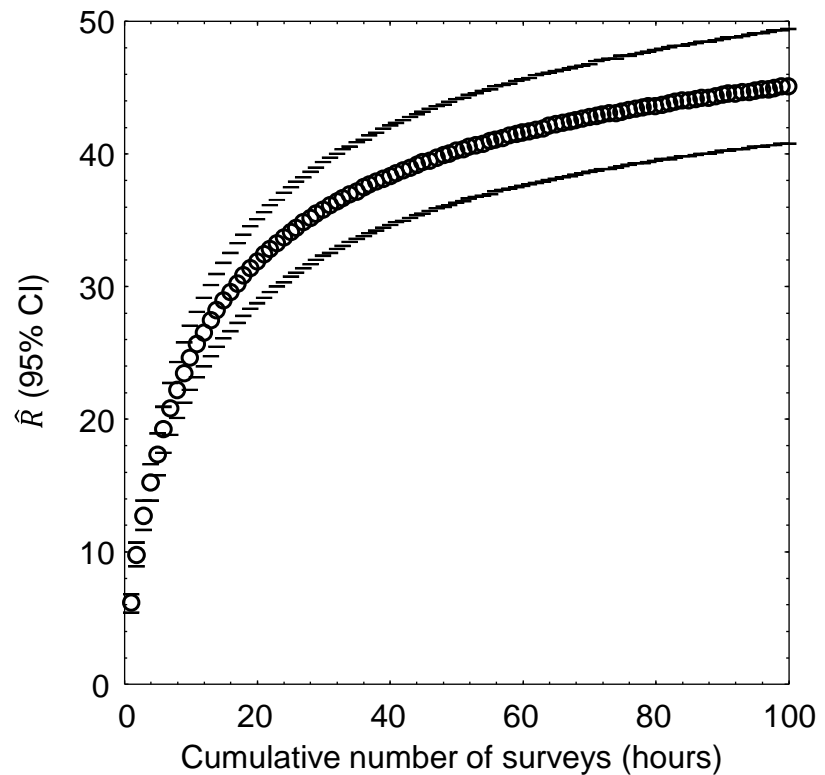
I do not know the identities of the 20 species that the model indicates Noriko missed at the project site. Importantly, however, the species Noriko did and did not detect on 27 October composed only a fraction of the species that would occur at the project site over a year or longer. This is because many species are seasonal in their occurrence.

At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only have Noriko's two surveys. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km<sup>2</sup> of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station:  $\hat{R} = \frac{1}{1/a + b \times (\text{Hours})^c}$ , where  $\hat{R}$  represented cumulative species richness detected. The coefficients of determination,  $r^2$ , of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data.

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average Noriko detected 13.1 species over the first 3.17 hours of surveys at my research site in the Altamont Pass (3.17 hours to match the 3.17 hours Noriko surveyed at the project site), which composed 23% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 25 species Noriko detected after her 3.17 hours of survey at the project site likely represented 23% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, Noriko would likely detect  $25/0.23 = 109$  species of vertebrate wildlife at the site. Assuming Noriko's ratio of special-status to non-special-status species was to hold through the detections of all 109 predicted species, then continued surveys would eventually detect 22 special-status species of vertebrate wildlife.

Because my prediction of 109 species of vertebrate wildlife, including 22 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. A reconnaissance survey should serve only as a starting point toward characterization of a site's wildlife community, but it certainly cannot alone inform of the inventory of species that use the site. More surveys are needed than Noriko's one survey to inventory use of the project site by wildlife. Nevertheless, the large number of species I predict at the project site is indicative of a species-rich wildlife community that warrants a serious survey effort.

**Figure 2.** Mean (95% CI) predicted wildlife species richness,  $\hat{R}$ , as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.



Considering the number of species of wildlife Noriko detected during a brief reconnaissance survey, and considering the number remaining to be detected by a more rigorous survey effort, as inferred from the pattern in Noriko’s data, and considering the presence of special-status species of wildlife on and adjacent to the project site, it is my opinion that the site provides considerable habitat value to wildlife, and that the City has failed to complete the surveys that would be needed to characterize this value. At least a fair argument can be made for the need to prepare an EIR to appropriately characterize the existing environmental setting based on a suitable survey effort and more careful interpretation of survey results.

### EXISTING ENVIRONMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the biological species that use the site, their relative abundances, how they use the site, key ecological relationships, and known and ongoing threats to those species with special status. A reasonably accurate characterization of the environmental setting can provide the basis for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site’s regional setting, is one of CEQA’s essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and

local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps were inadequate.

### **Environmental Setting informed by Field Surveys**

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

No surveys for wildlife were completed on the project site in support of the categorical exemption. Without having completed any surveys for wildlife on the project site, the City cannot possibly know whether or to what degree the project site serves as wildlife habitat.

Results of bat surveys conducted by residents of the neighborhood (Lincoln Heights Preservation Coalition) were documented within the Supplemental to their Appeal. During their surveys, they found six species of bat using an acoustic detector known as Echo Meter. Their acoustic detector identified hoary bat, Underwood's bonneted bat, Florida bonneted bat, pocketed free-tailed bat, Mexican free-tailed bat and big free-tailed bat. I am skeptical of the detections of Underwood's bonneted bat and Florida bonneted bat, as these detections would be far outside the known ranges of the species. However, my skepticism is mitigated by the fact that little is known about bats and their migratory patterns, and so it is conceivable that these species were accurately detected. Anyhow, multiple species of bats were detected by people who looked for them; the City has not looked.

### **Environmental Setting informed by Desktop Review**

The purpose of literature and database review and of consulting with local experts is to inform the reconnaissance survey, to augment interpretation of its outcome, and to help determine which protocol-level detection surveys should be implemented. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and site conditions. This step is important because a reconnaissance survey is not going to detect all of the species of wildlife that make use of the site over a period of a year or longer. This step can identify those species yet to be detected at the site but which have been documented to occur nearby or whose available habitat associations are consistent with site conditions. Some special-status species can be ruled out of further analysis, but only if compelling evidence is available in support of such determinations.

According to the Applicant, in its response to Lincoln Heights Preservation Coalition's Appeal Point 10, "the site does not have reported occurrences of special-status species in the California Natural Diversity Database (CNDDB) maintained by the California

Department of Fish and Wildlife (CDFW).” And according to the Categorical Exemption (page 4), the project site “...does not have substantive value as habitat for engendered, rare, or threatened species. Therefore, the project site has no value as habitat for endangered, rare, or threatened species. However, CNDDDB is not designed to support absence determinations or to screen out species from characterization of a site’s wildlife community. As noted by CNDDDB, *“The CNDDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.”* The Applicant and City of Los Angeles misuse CNDDDB.

CNDDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDDB. Furthermore, CNDDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDDB than were species assigned special status since the inception of CNDDDB. The lack of many CNDDDB records for species recently assigned special status had nothing to do with whether the species’ geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status.

In my assessment based on database reviews and site visits, 117 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 2). Of these 117 species, 9 (8%) were recorded on site, and another 38 (32%) species have been documented within 1.5 miles of the site (‘Very close’), another 31 (26%) within 1.5 and 4 miles (‘Nearby’), and another 30 (26%) within 4 to 30 miles (‘In region’). Two thirds (67%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences.

Considering the number of special-status species Noriko detected on both the project site and Lincoln Park (Table 1) and the number documented in the project area (Table 2), and considering that nearly all of the remaining areas have been developed while the project site is covered by many mature trees, the adjacency of the project site to Lincoln Park makes the project site unique. With respect to the wildlife at Lincoln Park, the project would complete the process of habitat fragmentation, which in my experience is an unusual circumstance. Also qualifying as an unusual circumstance would be the windows of the project serving as lethal traps for any birds attempting to remain or to continue to stop over at Lincoln Park. The categorical exemption improperly uses CNDDDB and otherwise fails to adequately review the potential for special status species to occur on the project site. A fair argument can be made for the need to prepare an EIR to appropriately characterize the existing environmental setting.

**Table 2.** Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (<https://eBird.org>, <https://www.inaturalist.org>) and on-site survey findings, where ‘Very close’ indicates within 1.5 miles of the site, “nearby” indicates within 1.5 and 4 miles, and “in region” indicates within 4 and 30 miles, and ‘in range’ means the species’ geographic range overlaps the site. Entries in bold font identify species seen by Noriko Smallwood.

Common name	Species name	Status <sup>1</sup>	Occurrence potentials
			Data base records, Site visits
Monarch	<i>Danaus plexippus</i>	FC	<b>Very close</b>
Crotch’s bumble bee	<i>Bombus crotchii</i>	CCE	Nearby
Western pond turtle	<i>Emys marmorata</i>	SSC	In region
Blainville’s horned lizard	<i>Phrynosoma blainvillii</i>	SSC	In region
Coastal whiptail	<i>Aspidoscelis tigris stejnegeri</i>	SSC	In region
San Diegan legless lizard	<i>Anniella stebbinsi</i>	SSC	Nearby
Coast patch-nosed snake	<i>Salvadora hexalepis virgultea</i>	SSC	In region
Two-striped gartersnake	<i>Thamnophis hammondi</i>	SSC	Nearby
South coast gartersnake	<i>Thamnophis sirtalis pop. 1</i>	SSC	In range
Fulvous whistling-duck	<i>Dendrocygna bicolor</i>	SSC1	In region
Brant	<i>Branta bernicla</i>	SSC2	In region
Cackling goose (Aleutian)	<i>Branta hutchinsii leucopareia</i>	WL	In region
Redhead	<i>Aythya americana</i>	SSC2	Nearby
Western grebe	<i>Aechmophorus occidentalis</i>	BCC	Nearby
Clark’s grebe	<i>Aechmophorus clarkii</i>	BCC	Nearby
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT, CE, BCC	Nearby
Black swift	<i>Cypseloides niger</i>	SSC3, BCC	Very close
Vaux’s swift	<i>Chaetura vauxi</i>	SSC2, BCC	Very close
Costa’s hummingbird	<i>Calypte costae</i>	BCC	Nearby
Rufous hummingbird	<i>Selasphorus rufus</i>	BCC	Very close
Allen’s hummingbird	<i>Selasphorus sasin</i>	BCC	<b>On site</b>
Snowy plover	<i>Charadrius nivosus</i>	BCC	In region
Whimbrel <sup>2</sup>	<i>Numenius phaeopus</i>	BCC	Very close
Long-billed curlew	<i>Numenius americanus</i>	WL	Nearby

Common name	Species name	Status <sup>1</sup>	Occurrence potentials
			Data base records, Site visits
Marbled godwit	<i>Limosa fedoa</i>	BCC	In region
Short-billed dowitcher	<i>Limnodromus griseus</i>	BCC	In region
Willet	<i>Tringa semipalmata</i>	BCC	Nearby
American avocet <sup>2</sup>	<i>Recurvirostra americana</i>	BCC	Nearby
Laughing gull	<i>Leucophaeus atricilla</i>	WL	In region
Heermann's gull	<i>Larus heermanni</i>	BCC	In region
Western gull	<i>Larus occidentalis</i>	BCC	Very close
California gull	<i>Larus californicus</i>	BCC, WL	<b>On site</b>
California least tern	<i>Sternula antillarum browni</i>	FE, CE, FP	In region
Black tern	<i>Chlidonias niger</i>	SSC2, BCC	In region
Elegant tern	<i>Thalasseus elegans</i>	BCC, WL	Nearby
Common loon	<i>Gavia immer</i>	SSC	Nearby
Double-crested cormorant	<i>Phalacrocorax auritus</i>	WL	<b>On site</b>
American white pelican	<i>Pelicanus erythrorhynchos</i>	SSC1, BCC	Very close
California brown pelican	<i>Pelecanus occidentalis californicus</i>	FP	Nearby
Least bittern	<i>Ixobrychus exilis</i>	SSC2	In region
White-faced ibis	<i>Plegadis chihi</i>	WL	Very close
Turkey vulture	<i>Cathartes aura</i>	BOP	<b>Very close</b>
Osprey	<i>Pandion haliaetus</i>	WL, BOP	Very close
White-tailed kite	<i>Elanus leucurus</i>	CFP, BOP	Very close
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, CFP, BOP, WL	Nearby
Northern harrier	<i>Circus cyaneus</i>	BCC, SSC3, BOP	Very close
Sharp-shinned hawk	<i>Accipiter striatus</i>	WL, BOP	Very close
Cooper's hawk	<i>Accipiter cooperii</i>	WL, BOP	<b>On site</b>
Bald eagle	<i>Haliaeetus leucocephalus</i>	CE, BGEPA, CFP	Nearby
Red-shouldered hawk	<i>Buteo lineatus</i>	BOP	Very close
Swainson's hawk	<i>Buteo swainsoni</i>	CT, BOP	Very close
Red-tailed hawk	<i>Buteo jamaicensis</i>	BOP	<b>On site</b>

Common name	Species name	Status <sup>1</sup>	Occurrence potentials
			Data base records, Site visits
Ferruginous hawk	<i>Buteo regalis</i>	WL, BOP	Very close
Zone-tailed hawk	<i>Buteo albonotatus</i>	BOP	Nearby
Harris' hawk	<i>Parabuteo unicinctus</i>	WL, BOP	In region
Rough-legged hawk	<i>Buteo lagopus</i>	BOP	In region
Barn owl	<i>Tyto alba</i>	BOP	Very close
Western screech-owl	<i>Megascops kennicotti</i>	BOP	Nearby
Great horned owl	<i>Bubo virginianus</i>	BOP	Very close
Burrowing owl	<i>Athene cunicularia</i>	BCC, SSC <sub>2</sub> , BOP	Very close
Long-eared owl	<i>Asio otus</i>	BCC, SSC <sub>3</sub> , BOP	In region
Short-eared owl	<i>Asia flammeus</i>	BCC, SSC <sub>3</sub> , BOP	Nearby
Lewis's woodpecker	<i>Melanerpes lewis</i>	BCC	Nearby
Nuttall's woodpecker	<i>Picoides nuttallii</i>	BCC	<b>Very close</b>
American kestrel	<i>Falco sparverius</i>	BOP	Very close
Merlin	<i>Falco columbarius</i>	WL, BOP	Very close
Peregrine falcon	<i>Falco peregrinus</i>	BOP	Very close
Prairie falcon	<i>Falco mexicanus</i>	WL, BOP	Nearby
Olive-sided flycatcher	<i>Contopus cooperi</i>	BCC, SSC <sub>2</sub>	Very close
Willow flycatcher	<i>Empidonax traillii</i>	CE	Very close
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE, CE	In region
Vermilion flycatcher	<i>Pyrocephalus rubinus</i>	SSC <sub>2</sub>	Very close
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE, CE	Nearby
Loggerhead shrike	<i>Lanius ludovicianus</i>	SSC <sub>2</sub>	Very close
Oak titmouse	<i>Baeolophus inornatus</i>	BCC	Very close
California horned lark	<i>Eremophila alpestris actia</i>	WL	Very close
Bank swallow	<i>Riparia riparia</i>	CT	Very close
Purple martin	<i>Progne subis</i>	SSC <sub>2</sub>	Nearby
Wrentit	<i>Chamaea fasciata</i>	BCC	Very close
California gnatcatcher	<i>Polioptila c. californica</i>	FT, SSC <sub>2</sub>	In region



Common name	Species name	Status <sup>1</sup>	Occurrence potentials
			Data base records, Site visits
California thrasher	<i>Toxostoma redivivum</i>	BCC	Very close
Cassin's finch	<i>Haemorhous cassinii</i>	BCC	In region
Lawrence's goldfinch	<i>Spinus lawrencei</i>	BCC	Very close
Grasshopper sparrow	<i>Ammodramus savannarum</i>	SSC2	In region
Black-chinned sparrow	<i>Spizella atrogularis</i>	BCC	In region
Gray-headed junco	<i>Junco hyemalis caniceps</i>	WL	Nearby
Bell's sparrow	<i>Amphispiza b. belli</i>	WL	In region
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	WL	Very close
Yellow-breasted chat	<i>Icteria virens</i>	SSC3	Very close
Yellow-headed blackbird	<i>Xanthocephalus xanthocephalus</i>	SSC3	Nearby
Bullock's oriole	<i>Icterus bullockii</i>	BCC	Very close
Tricolored blackbird	<i>Agelaius tricolor</i>	CT, BCC, SSC1	Nearby
Lucy's warbler	<i>Leiothlypis luciae</i>	SSC3, BCC	Nearby
Virginia's warbler	<i>Leiothlypis virginiae</i>	WL, BCC	Nearby
Yellow warbler	<i>Setophaga petechia</i>	SSC2	Very close
Summer tanager	<i>Piranga rubra</i>	SSC1	Very close
Pallid bat	<i>Antrozous pallidus</i>	SSC, WBWG:H	In region
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	SSC, WBWG:H	In range
Canyon bat	<i>Parastrellus hesperus</i>	WBWG:L	In region
Big brown bat	<i>Episticus fuscus</i>	WBWG:L	In region
Silver-haired bat	<i>Lasionycteris noctivagans</i>	WBWG:M	Nearby
Spotted bat	<i>Euderma maculatum</i>	SSC, WBWG:H	In range
Hoary bat	<i>Lasiurus cinereus</i>	WBWG:M	On site
Western yellow bat	<i>Lasiurus xanthinus</i>	SSC, WBWG:H	In range
Western small-footed myotis	<i>Myotis cililabrum</i>	WBWG:M	In range
Miller's myotis	<i>Myotis evotis</i>	WBWG:M	In region
Little brown myotis	<i>Myotis lucifugus</i>	WBWG:M	In region

Common name	Species name	Status <sup>1</sup>	Occurrence potentials
			Data base records, Site visits
Fringed myotis	<i>Myotis thysanodes</i>	WBWG:H	In range
Long-legged myotis	<i>Myotis volans</i>	WBWG:H	In range
Yuma myotis	<i>Myotis yumanensis</i>	WBWG:LM	Nearby
California myotis	<i>Myotis californicus</i>	WBWG:L	In region
Western mastiff bat	<i>Eumops perotis</i>	SSC, WBWG:H	Nearby
Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	WBWG:L	On site
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	SSC, WBWG:M	On site
Big free-tailed bat	<i>Nyctinomops macrotis</i>	SSC, WBWG:MH	On site
Los Angeles pocket mouse	<i>Perognathus longimembris brevinasus</i>	SSC	In range
Southern grasshopper mouse	<i>Onychomys torridus ramona</i>	SSC	In range

S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

<sup>2</sup> Uncertain if BCC based on 2021 Bird of Conservation Concern list.

## POTENTIAL BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, and interference with wildlife movement.

### HABITAT LOSS

Habitat loss results in a reduced productive capacity of affected wildlife species, but the categorical exemption makes no attempt to estimate this lost capacity for any of the wildlife species potentially affected. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Because the Project is located within an area that has undergone severe habitat fragmentation, the habitat that remains in fragmented patches probably no longer supports its original productive capacity of wildlife (Smallwood 2015). On the other hand, the project site and the adjacent Lincoln Park provide the only open space with woodland nest substrate in the area. Several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, I surveyed a 12.74-acre site in Rancho Cordova 30 times from March through the first half of August. The Rancho Cordova site was surrounded on three sides by residential developments, so was also a habitat fragment. Total nest density of birds on this site was 14.38 nests per acre on the portion of the study area that was composed of annual grassland with a scattering of trees. Applying this total nest density to the 1.163 acres of the project site, I predict the project site supports 16.7 bird nests.

The loss of 16.7 nest sites of birds would qualify as a significant project impact that has not been quantitatively addressed in the Addendum. But the impact would not end with the immediate loss of nest sites as nest substrate is removed and foraging grounds graded in preparation for impervious surfaces. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 48 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022):  $\{(nests/year \times chicks/nest \times number\ of\ years) + (2\ adults/nest \times nests/year) \times (number\ of\ years \div years/generation)\} \div (number\ of\ years) = 55\ birds\ per\ year\ denied\ to\ California.$  This

level of loss would be significant, and every subsequent year following project construction would add to the impact.

At least a fair argument can be made for the need to prepare an EIR to appropriately analyze the project's impacts to wildlife caused by habitat loss and habitat fragmentation.

## **INTERFERENCE WITH WILDLIFE MOVEMENT**

One of CEQA's principal concerns regarding potential project impacts is whether a proposed project would interfere with wildlife movement in the region (CEQA Guidelines Appendix G, § IV.d). Unfortunately, the Categorical Exemption fails to analyze whether and to what degree the project would interfere with wildlife movement in the region.

A site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of at least 1.163 acres of vegetation cover and due to its insertion of a 7-story building into the aerospace used by birds, bats and butterflies, would cut wildlife off from one of the last remaining stopover and staging opportunities in the project area, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated.

## **BIRD-WINDOW COLLISIONS**

Considering the project would add a 7-story building, along with ample glass on its facades, the Categorical Exemption largely neglects a portion of habitat that is essential to many species. To understand this part of their habitat, one must consider the definition of habitat, which is a species' use of the environment (Hall et al. 1997, Smallwood 2002). The gaseous atmosphere, or aerosphere, is a principal medium of life to volant animals such as birds (Davy et al. 2017, Diehl et al. 2017). The aerosphere is where birds and bats and other volant animals with wings migrate, disperse, forage, perform courtship and where some of them mate. Birds are some of the many types of animals that evolved wings as a morphological adaptation to thrive by moving through the medium of the aerosphere. The aerosphere is habitat. Indeed, an entire discipline of ecology has emerged to study this essential aspect of habitat – the discipline of aeroecology (Kunz et al. 2008).

Many special-status species of birds have been recorded at or near the aerosphere of the project site. My database review and site visit indicate there are 87 special-status species of birds with potential to use the site's aerosphere (Table 2). Of these, 5 have been recorded on or over the project site, 37 within 1.5 miles of the site ('Very close'), 25 within 1.5 and 4 miles ('Nearby'), and another 20 within 4 to 30 miles ('In region'). The birds reported within all these distance domains from the project site can quickly fly

those distances, so they would all be within short flights of the proposed project's windows. In addition to all these special-status species that would be put at risk of collision with the project's building, hundreds more species that migrate through the project area and are protected by the federal Migratory Bird Treaty Act and California's Migratory Bird Protection Act would be put at risk.

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently by Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively. The proposed project would impose windows in the airspace normally used by birds.

Glass-façades of buildings intercept and kill many birds, but these façades are differentially hazardous to birds based on spatial extent, contiguity, orientation, and other factors. At Washington State University, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a three-story glass walkway (no fatality adjustments attempted). Prior to marking the windows to warn birds of the collision hazard, the collision rate was 84.7 per year. At that rate, and not attempting to adjust the fatality estimate for the proportion of fatalities not found, 4,574 birds were likely killed over the 54 years since the start of their study, and that's at a relatively small building façade. Accounting for the proportion of fatalities not found, the number of birds killed by this walkway over the last 54 years would have been about 14,270. And this is just for one 3-story, glass-sided walkway between two college campus buildings.

Klem's (1990) estimate was based on speculation that 1 to 10 birds are killed per building per year, and this speculated range was extended to the number of buildings estimated by the US Census Bureau in 1986. Klem's speculation was supported by fatality monitoring at only two houses, one in Illinois and the other in New York. Also, the basis of his fatality rate extension has changed greatly since 1986. Whereas his estimate served the need to alert the public of the possible magnitude of the bird-window collision issue, it was highly uncertain at the time and undoubtedly outdated more than three decades hence. Indeed, by 2010 Klem (2010) characterized the upper end of his estimated range – 1 billion bird fatalities – as conservative. Furthermore, the estimate lumped species together as if all birds are the same and the loss of all birds to windows has the same level of impact.

By the time Loss et al. (2014) performed their effort to estimate annual USA bird-window fatalities, many more fatality monitoring studies had been reported or were underway. Loss et al. (2014) incorporated many more fatality rates based on scientific monitoring, and they were more careful about which fatality rates to include. However, they included estimates based on fatality monitoring by homeowners, which in one study were found to detect only 38% of the available window fatalities (Bracey et al. 2016). Loss et al. (2014) excluded all fatality records lacking a dead bird in hand, such as injured birds or feathers or blood spots on windows. Loss et al.'s (2014) fatality metric

was the number of fatalities per building (where in this context a building can include a house, low-rise, or high-rise structure), but they assumed that this metric was based on window collisions. Because most of the bird-window collision studies were limited to migration seasons, Loss et al. (2014) developed an admittedly assumption-laden correction factor for making annual estimates. Also, only 2 of the studies included adjustments for carcass persistence and searcher detection error, and it was unclear how and to what degree fatality rates were adjusted for these factors. Although Loss et al. (2014) attempted to account for some biases as well as for large sources of uncertainty mostly resulting from an opportunistic rather than systematic sampling data source, their estimated annual fatality rate across the USA was highly uncertain and vulnerable to multiple biases, most of which would have resulted in fatality estimates biased low.

In my review of bird-window collision monitoring, I found that the search radius around homes and buildings was very narrow, usually 2 meters. Based on my experience with bird collisions in other contexts, I would expect that a large portion of bird-window collision victims would end up farther than 2 m from the windows, especially when the windows are higher up on tall buildings. In my experience, searcher detection rates tend to be low for small birds deposited on ground with vegetation cover or woodchips or other types of organic matter. Also, vertebrate scavengers entrain on anthropogenic sources of mortality and quickly remove many of the carcasses, thereby preventing the fatality searcher from detecting these fatalities. Adjusting fatality rates for these factors – search radius bias, searcher detection error, and carcass persistence rates – would greatly increase nationwide estimates of bird-window collision fatalities.

Buildings can intercept many nocturnal migrants as well as birds flying in daylight. As mentioned above, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a four-story glass walkway at Washington State University (no adjustments attempted for undetected fatalities). Somerlot (2003) found 21 bird fatalities among 13 buildings on a university campus within only 61 days. Monitoring twice per week, Hager et al. (2008) found 215 bird fatalities of 48 species, or 55 birds/building/year, and at another site they found 142 bird fatalities of 37 species for 24 birds/building/year. Gelb and Delacretaz (2009) recorded 5,400 bird fatalities under buildings in New York City, based on a decade of monitoring only during migration periods, and some of the high-rises were associated with hundreds of fatalities each. Klem et al. (2009) monitored 73 building façades in New York City during 114 days of two migratory periods, tallying 549 collision victims, nearly 5 birds per day. Borden et al. (2010) surveyed a 1.8 km route 3 times per week during 12-month period and found 271 bird fatalities of 50 species. Parkins et al. (2015) found 35 bird fatalities of 16 species within only 45 days of monitoring under 4 building façades. From 24 days of survey over a 48-day span, Porter and Huang (2015) found 47 fatalities under 8 buildings on a university campus. Sabo et al. (2016) found 27 bird fatalities over 61 days of searches under 31 windows. In San Francisco, Kahle et al. (2016) found 355 collision victims within 1,762 days under a 5-story building. Ocampo-Peñuela et al. (2016) searched the perimeters of 6 buildings on a university campus, finding 86 fatalities after 63 days of surveys. One of these buildings produced 61 of the 86 fatalities, and another building with collision-deterrent glass caused only 2 of the fatalities, thereby indicating a wide range in impacts likely influenced by various factors. There is

ample evidence available to support my prediction that the proposed project would result in many collision fatalities of birds.

### Project Impact Prediction

By the time of these comments, I had reviewed and processed results of bird collision monitoring at 213 buildings and façades for which bird collisions per m<sup>2</sup> of glass per year could be calculated and averaged (Johnson and Hudson 1976, O’Connell 2001, Somerlot 2003, Hager et al. 2008, Borden et al. 2010, Hager et al. 2013, Porter and Huang 2015, Parkins et al. 2015, Kahle et al. 2016, Ocampo-Peñuela et al. 2016, Sabo et al. 2016, Barton et al. 2017, Gomez-Moreno et al. 2018, Schneider et al. 2018, Loss et al. 2019, Brown et al. 2020, City of Portland Bureau of Environmental Services and Portland Audubon 2020, Riding et al. 2020). These study results averaged 0.073 bird deaths per m<sup>2</sup> of glass per year (95% CI: 0.042–0.102). This average and its 95% confidence interval provide a robust basis for predicting fatality rates at a proposed new project.

The Categorical Exemption does not disclose the extent of glass windows on the proposed new buildings. Fortunately, I have maintained a database of the extent of glass windows relative to the extents of floor space among other projects for which I have prepared expert testimony. For 13 recently proposed California apartment projects, the ratio of m<sup>2</sup> of windows to ft<sup>2</sup> of floor space was 0.0128 (95% CI: 0.0071–0.0187). I estimate the project would add a total of about 1,976.87 m<sup>2</sup> of new glass windows.

Applying the mean fatality rate (above) to my estimate of 1,976.87 m<sup>2</sup> of glass in the project, I predict annual bird deaths of 145 (95% CI: 86–203). The vast majority of these deaths would be of birds protected under the Migratory Bird Treaty Act and under the recently revised California Fish and Game Code 3513, thus causing significant unmitigated impacts. Given the predicted level of bird-window collision mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts.

Given the predicted level of bird-window collision mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts to biological resources. A fair argument can be made for the need to prepare an EIR to analyze the project’s potential impacts to wildlife caused by bird-window collisions. An EIR is also needed to formulate effective mitigation measures.

### **MITIGATION**

The Staff Report and Categorical Exemption propose no mitigation to avoid, minimize, reduce, rectify or offset project impacts to wildlife. An EIR is needed, and it needs to include mitigation measures to minimize and offset project-caused impacts to wildlife.

### **RECOMMENDED MEASURES**

**Guidelines on Building Design to Minimize Bird-Window Collisions:** If the project goes forward, it should at a minimum adhere to available Bird-Safe Guidelines, such as those prepared by American Bird Conservancy and New York and San Francisco. The American Bird Conservancy (ABC) produced an excellent set of guidelines recommending actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced.

New research results inform of the efficacy of marking windows. Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Brown et al. (2020) reported an 84% lower collision probability among fritted glass windows and windows treated with ORNILUX R UV. City of Portland Bureau of Environmental Services and Portland Audubon (2020) reduced bird collision fatalities 94% by affixing marked Solyx window film to existing glass panels of Portland's Columbia Building. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015).

Van Doren et al. (2021) found that nocturnal migrants contributed most of the collision fatalities in their study, and the largest predictors of fatalities were peak migration and lit windows. Van Doren et al. (2021) predicted that a light-out mitigation measure could reduce bird-window collision mortality by 60%.

Monitoring and the use of compensatory mitigation should be incorporated at any new building project because the measures recommended in the available guidelines remain of uncertain efficacy, and even if these measures are effective, they will not reduce collision fatalities to zero. The only way to assess mitigation efficacy and to quantify post-construction mortality is to monitor the project for fatalities.



**Habitat Loss:** If the project goes forward, compensatory mitigation is warranted for the area of habitat loss. At minimum, an equal area of open space should be protected in perpetuity close to the project site.

**Fund Wildlife Rehabilitation Facilities:** Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with windows.

**Pest Control:** The project should commit to no use of rodenticides and avicides. It should commit to no placement of poison bait stations outside the building.

**Landscaping:** If the project goes forward, California native plant landscaping (i.e., chaparral, grassland, and locally appropriate scrub plants) should be considered to be used as opposed to landscaping with lawn and exotic shrubs. Native plants offer more structure, cover, food resources, and nesting substrate for wildlife than landscaping with lawn. Native plant landscaping has been shown to increase the abundance of arthropods which act as importance sources of food for wildlife and are crucial for pollination and plant reproduction (Narango et al. 2017, Adams et al. 2020, Smallwood and Wood 2022.). Further, many endangered and threatened insects require native host plants for reproduction and migration, e.g., monarch butterfly. Around the world, landscaping with native plants over exotic plants increases the abundance and diversity of birds, and is particularly valuable to native birds (Lerman and Warren 2011, Burghardt et al. 2008, Berthon et al. 2021, Smallwood and Wood 2022). Landscaping with native plants is a way to maintain or to bring back some of the natural habitat and lessen the footprint of urbanization by acting as interconnected patches of habitat for wildlife (Goddard et al. 2009, Tallamy 2020). Lastly, not only does native plant landscaping benefit wildlife, it requires less water and maintenance than traditional landscaping with lawn and hedges.

Thank you for your consideration,



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Shawn Smallwood, Ph.D.

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## **Exhibit B**

# **SPECIAL ANIMALS LIST**

April 2025

State of California

Natural Resources Agency

Department of Fish and Wildlife

Biogeographic Data Branch

California Natural Diversity Database (CNDDB)



Recommended Citation:

California Natural Diversity Database (CNDDB). April 2025. Special Animals List.  
California Department of Fish and Wildlife. Sacramento, CA.

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## Special Animals

“Special Animals” is a broad term used to refer to all the animal taxa tracked by the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB), regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” The Special Animals List includes species, subspecies, Distinct Population Segments (DPS), or Evolutionarily Significant Units (ESU) where at least one of the following conditions applies:

- Officially listed or proposed for listing under state and/or federal endangered species acts
- Taxa considered by the Department of Fish and Wildlife to be a Species of Special Concern (SSC)
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the [California Environmental Quality Act Guidelines](#)
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range, but not currently threatened with extirpation
- Population(s) in California that may be peripheral to the major portion of a taxon’s range but are threatened with extirpation in California
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.)
- Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or a non-governmental organization (NGO), and determined by the CNDDDB to be rare, restricted, declining, or threatened across their range in California

**The Special Animals List contains taxa that are actively inventoried, tracked, and mapped by the CNDDDB, as well as taxa for which mapped data may not yet be incorporated into CNDDDB user products.** For the latter taxa, information at the county

and 7.5-minute USGS quadrangle level can be accessed via the [CNDDB QuickView Tool](#).

**Taxa with a “Yes” in the “End Notes?” column have additional information in the End Notes section at the back of the list.**

Additional information about the California Natural Diversity Database is available on the [CNDDB website](#).

Information on other CDFW resource management programs is available on the Department’s [Conservation and Management of Wildlife and Habitat website](#).

The CDFW [Wildlife Diversity Program](#) provides additional information on wildlife habitat, threats, and survey guidelines.

## NatureServe Element Ranking

The California Natural Diversity Database program is a member of the [NatureServe Network](#) of natural heritage programs and uses the same conservation status methodology as other network programs. The ranking system was originally developed by The Nature Conservancy and is now maintained and recently revised by NatureServe. It includes a **Global rank** (G-rank), describing the status for a given taxon over its entire distribution, and a **State rank** (S-rank), describing the status for the taxon over its state distribution. For subspecies and varieties, there is also a “T” rank describing the global rank for the infraspecific taxon. The next page of this document details the criteria used to assign element ranks, from G1 to G5 for the Global rank and from S1 to S5 for the State rank. Procedurally, state programs such as the CNDDB develop the State ranks. The Global ranks are determined collaboratively among the Heritage Programs for the states/provinces containing the species. NatureServe then checks for consistency and logical errors at the national level. Because the units of conservation may include non-taxonomic biological entities such as populations or ecological communities, NatureServe refers to the targets of biological conservation as “elements” rather than taxa.

An element rank is assigned using standard criteria and rank definitions. This standardization makes the ranks comparable between organisms and across political boundaries. NatureServe has developed a “rank calculator” to help increase repeatability and transparency of the ranking process. The three main categories that are taken into consideration when assigning an element rank are rarity, threats, and trends. Within these three categories, various factors are considered, including:

- Range extent, area of occupancy, population size, total number of occurrences, and number of good occurrences (ranked A or B). Environmental specificity can also be used if other information is lacking.
- Overall threat impact as well as intrinsic vulnerability (if threats are unknown).
- Long-term and short-term trends.

Detailed information on this element ranking methodology can be found on the [NatureServe Conservation Status Assessment website](#).

Listed below are definitions for interpreting global and state conservation status ranks. An element's ranking status may be adjusted up or down depending upon the considerations above.

## Global Ranking

The global rank (G-rank) is a reflection of the overall status of an element throughout its global range.

- **GX: Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
- **GH: Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery. Examples of evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is extinct throughout its range.
- **G1: Critically Imperiled** – At very high risk of extinction due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- **G2: Imperiled** – At high risk of extinction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- **G3: Vulnerable** – At moderate risk of extinction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- **G4: Apparently Secure** – At fairly low risk of extinction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

- **G5: Secure** – At very low risk of extinction due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
- **GNR: Unranked** – Global rank not yet assessed.

## State Ranking

The state rank (S-rank) is assigned in much the same way as the global rank, but state ranks refer to the imperilment status only within California's state boundaries.

- **SX: Presumed Extirpated** – Species is believed to be extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
- **SH: Possibly Extirpated** – Known from only historical records but still some hope of rediscovery. There is evidence that the species may no longer be present in the state, but not enough to state this with certainty. Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.
- **S1: Critically Imperiled** – At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- **S2: Imperiled** – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- **S3: Vulnerable** – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- **S4: Apparently Secure** – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

- **S5: Secure** – At very low or no risk of extirpation in the state due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
- **SNR: Unranked** – State rank not yet assessed.

## Additional Notes on NatureServe Ranks

- Rank Qualifiers
  1. Taxa which are subspecies receive a taxon rank (**T-rank**) in addition to the G-rank. Whereas the G-rank reflects the condition of the entire species, the T-rank reflects the global status of just the subspecies. For example, the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea*, is ranked G5T2. The G-rank refers to the whole species, i.e., *Aplodontia rufa*; the T-rank refers only to the global condition of ssp. *phaea*.
  2. **C = Captive or Cultivated Only** — taxon at present is presumed or possibly extinct or eliminated in the wild across their entire native range but is extant in cultivation, in captivity, as a naturalized population (or populations) outside their native range, or as a reintroduced population not yet established. The “C” modifier is only used at a global level and not at a state level. Possible ranks are GXC or GHC.
  3. **Q = Questionable taxonomy** that may reduce conservation priority — Distinctiveness of this entity as a taxon at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The “Q” modifier is only used at the global level, not at the state level.
- Uncertainty about the status of an element is expressed in two major ways:
  1. By expressing the ranks as a **range** of values: e.g., S2S3 indicates the rank is somewhere between S2 and S3.
  2. By adding a “?” to the rank: e.g., S2?; this represents more certainty than S2S3, but less certainty than S2.



- Other considerations used when ranking a species include the pattern of distribution of the element on the landscape, fragmentation of the population, and historical extent as compared to its modern range. It is important to take an overall view when ranking sensitive elements rather than simply counting element occurrences.

# Animal Element Occurrences and Mapping

## What is an Element Occurrence?

An Element Occurrence (EO) is a location where a given element has been documented to occur. It is a concept developed and applied within the NatureServe natural heritage network. An EO is not a population, but may indicate that a population is present in that area; likewise, a single population may be represented by more than one EO. An EO is based upon the source documents available at the time of mapping. Both the mapped feature and the text portion of EOs are updated as new information becomes available.

## Element Occurrence Definitions Vary by Taxa

The EO definition refers to the types of information mapped. For most animal taxa, the CNDDDB is interested in information that indicates the presence of a resident population. However, for many migratory birds, the CNDDDB only tracks detections of nest sites or behaviors indicating reproduction is occurring at the site. Details about avian detections are available in the [Submitting Avian Detections](#) document. For other taxa where CNDDDB tracks only a certain part of the range or life history, the area or life stage is indicated on the list under the “Comment” column.

## Mapping Conventions

Information in CNDDDB is mapped to balance precision and uncertainty, based upon the source materials used to determine the location of the Element Occurrence. Data with precise location information are mapped with 80m-radius circles or specific polygons. Data with vague location information are mapped with non-specific circular features or non-specific polygons. Non-specific features indicate that the species was found somewhere within the mapped area, but the exact location was unknown. Generally, observations/collections within ¼ mile and/or within continuous habitat are combined into a single EO.

# Taxonomic Standards

## Taxonomic References and Sources of Additional Information

The CNDDDB follows current published taxonomy for animals as recognized by the scientific organizations listed below. The CNDDDB reviews publications that propose new taxonomy and nomenclature for CNDDDB-tracked species and evaluates whether these proposals are recognized by the larger scientific community. The CNDDDB makes every effort to use the best available science in the taxonomy used, but different experts may recognize different names for some time after a taxonomic change is proposed. In these cases, the CNDDDB will generally use the preexisting nomenclature until a change is formally recognized beyond the initial publication. In addition, the CNDDDB recognizes some taxa identified by experts on the California fauna where these taxa may not be recognized by national biological societies. Generally, the taxonomy used by NatureServe is followed, with additional evaluation of taxonomy from the following sources:

- Reptiles and amphibians:
  - [The Center for North American Herpetology](#)
  - [The Society for the Study of Amphibians and Reptiles](#)
- Fishes:
  - Fricke, R., Eschmeyer, W. N. & R. van der Laan (eds) 2022. [Eschmeyer's catalog of fishes: genera, species, references](#). Electronic version.
  - Jelks, H.L., S.J. Walsh, N.M. Burkhead, S. Contreras-Balderas, E. Díaz-Pardo, D.A. Hendrickson, J. Lyons, N.E. Mandrak, F. McCormick, J.S. Nelson, S.P. Platania, B.A. Porter, C.B. Renaud, J.J. Schmitter-Soto, E.B. Taylor, and M.L. Warren, Jr. 2008. Conservation status of imperiled North American freshwater and diadromous fishes. *Fisheries* 33(8):372-407.
  - Lawrence M. Page, Héctor Espinosa-Pérez, Lloyd T. Findley, Carter R. Gilbert, Robert N. Lea, Nicholas E. Mandrak, Richard L. Mayden, and Joseph S. Nelson. 2013. [Common and scientific names of fishes from the](#)

[United States, Canada, and Mexico, 7<sup>th</sup> edition](#). American Fisheries Society, Special Publication 34. 243 pp.

- Moyle, P. B. 2002. Inland fishes of California. University of California Press.
- Birds:
  - The [checklist of the American Ornithologists' Union](#)
- Mammals:
  - [The American Society of Mammalogists](#)
  - Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A. Cook, R.C. Dowler, C. Jones, D.J. Schimdlly, F.B. Stangl Jr., R.A. Van Den Bussche, and B. Wursig. 2014. [Revised checklist of North American mammals north of Mexico, 2014](#). Museum of Texas Tech University Occasional Papers 327:1-28.

## Listing and Special Status Information

**CALIFORNIA ENDANGERED SPECIES ACT (CESA) LISTING CODES:** The listing status of each species is current as of the date of this list. The most current changes in listing status will be found in the “[Endangered and Threatened Animals List](#),” which the CNDDDB updates and issues quarterly. Additional information can be found on the [California Fish and Game Commission CESA web page](#).

- SE State listed as endangered
- ST State listed as threatened
- SC State candidate for listing as endangered or threatened

**FEDERAL ENDANGERED SPECIES ACT (ESA) LISTING CODES:** The listing status is current as of the date of this list. The most current changes in listing status will be found in the “Endangered and Threatened Animals List,” which the CNDDDB updates and issues quarterly. Federal listing actions are published in the [Federal Register](#).

- FE Federally listed as endangered
- FT Federally listed as threatened
- FPE Federally proposed for listing as endangered
- FPT Federally proposed for listing as threatened
- FC Federal candidate species (former Category 1 candidates)

Section 4(c)(2)(A) of the Act requires the U.S. Fish and Wildlife Service and the National Marine Fisheries Service to conduct a review of listed species at least once every five years. Five year reviews are made available by the [U.S. Fish and Wildlife Service](#) and the [National Marine Fisheries Service](#).

**OTHER STATUS CODES:** The status of species on the Special Animals List according to other conservation organizations is provided below. Taxa on these lists are reviewed for inclusion in the CNDDDB Special Animals List, but are not automatically included. For example, taxa that are regionally rare within a portion of California may not be included, because they may be of lesser conservation concern across their full range in California.

- **American Fisheries Society (AFS):**
  1. Designations for freshwater and diadromous species were taken from the paper:
    - Jelks, H.L., S.J. Walsh, N.M. Burkhead, S. Contreras-Balderas, E. Díaz-Pardo, D.A. Hendrickson, J. Lyons, N.E. Mandrak, F. McCormick, J.S. Nelson, S.P. Platania, B.A. Porter, C.B. Renaud, J.J. Schmitter-Soto, E.B. Taylor, and M.L. Warren, Jr. 2008. [Conservation status of imperiled North American freshwater and diadromous fishes](#). Fisheries 33(8):372-407.
  2. Designations for marine and estuarine species were taken from the paper:
    - Musick, J.A. et al. 2000. [Marine, Estuarine, and Diadromous Fish Stocks at Risk of Extinction in North America \(Exclusive of Pacific Salmonids\)](#). Fisheries 25(11):6-30.
- **Bureau of Land Management (BLM) Sensitive:** Bureau of Land Management Manual §6840 states that “BLM sensitive species are: (1) species listed or proposed for listing under the Endangered Species Act (ESA), and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as Bureau sensitive by the State Director(s). All Federal candidate species, proposed species, and delisted species in the 5 years following delisting will be conserved as Bureau sensitive species.” Downloadable copies of the [California-BLM Special Status Animals and Sensitive Species Lists](#) are available.
- **California Department of Forestry and Fire Protection (CDF) Sensitive:** California Department of Forestry and Fire Protection classifies “sensitive species” as those species that warrant special protection during timber operations. The list of “sensitive species” is given in §895.1 (Definitions) of the [California Forest Practice Rules](#).
- **CDFW Fully Protected:** The classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have

subsequently been listed under the California and/or federal endangered species acts; the exceptions are white-tailed kite, golden eagle, trumpeter swan, northern elephant seal, and ringtail cat. The white-tailed kite, golden eagle, and ringtail cat are tracked in the CNDDDB. The trumpeter swan and northern elephant seal are not tracked by the CNDDDB. The Fish and Game Code sections dealing with Fully Protected species state that these species "...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "Fully Protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, code sections dealing with Fully Protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species. More information on Fully Protected species and the take provisions can be found in the [Fish and Game Code](#): birds at [§3511](#), mammals at [§4700](#), reptiles and amphibians at [§5050](#), and fish at [§5515](#)). Additional information on Fully Protected fish can be found in the [California Code of Regulations, Title 14, Division 1, Subdivision 1, Chapter 2, Article 4, §5.93](#). The category of Protected Amphibians and Reptiles in Title 14 has been repealed. [Senate Bill no. 147](#) (July 2023) removed American peregrine falcon, brown pelican, and thicktail chub as fully protected species under the Fish & Game Code because they have been delisted-recovered under CESA or are considered extinct.

- **CDFW Species of Special Concern (SSC):** It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "[Species of Special Concern](#)" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating SSCs is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability. Not all SSCs have declined equally; some species may be just starting to decline, while others may have already reached the point where they

meet the criteria for listing as a threatened or endangered under state and/or federal endangered species acts.

- **CDFW Watch List Species:** Watch list species are taxa that were previously SSCs but do not currently meet SSC criteria, and for which there is concern and a need for additional information to clarify status.
- **International Union for Conservation of Nature (IUCN) Red List of Threatened Species:** The IUCN assesses, on a global scale, the conservation status of species, subspecies, varieties, and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation. Detailed information is available from the [IUCN Red List Online](#). When the CNDDDB tracks a subunit (such as subspecies, DPS, or ESU) that does not have an IUCN status, the CNDDDB either:
  1. Applies the IUCN status of the parent entity to the CNDDDB element if the IUCN status is Critical (CR), Endangered, (EN), or Vulnerable (VU)
  2. Does not apply the IUCN status of the parent entity to the CNDDDB element if the IUCN status is Near Threatened (NT), Least Concern (LC), or Data Deficient (DD).
- **Marine Mammal Commission (MMC) Marine Mammal Species of Special Concern:** Section 202 of the [Marine Mammal Protection Act](#) (MMPA) directs the MMC, in consultation with its Committee of Scientific Advisors, to make recommendations to the Department of Commerce, the Department of the Interior, and other federal agencies on research and management actions needed to conserve species of marine mammals. To meet this charge, the Commission devotes special attention to particular species and populations that are vulnerable to various types of human-related activities, impacts, and contaminants. Such species may include marine mammals listed as endangered or threatened under the federal ESA or as depleted under the MMPA. In addition, the Commission often directs special attention to other species or populations of marine mammals not so listed whenever special conservation challenges arise that may affect them. More information on the MMPA and the list of species is



available from the [MMC Marine Mammal Species and Populations of Concern website](#).

- **United States Forest Service (USFS) Sensitive:** The USDA Forest Service defines sensitive species as plant and animal species identified by a regional forester that are not listed or proposed for listing under the federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Regional Foresters shall identify sensitive species occurring within the region. More information on California species can be found on the [Pacific Southwest Region \(Region 5\) Plants and Animals site](#), including links to download the [Regional Forester's Sensitive Animal Species List](#).
- **U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern:** The goal of the [Birds of Conservation Concern 2021 report](#) is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent highest conservation priorities and draw attention to species in need of conservation action.

## Table of Special Status Code Abbreviations

<b>Organization</b>	<b>Abbreviation</b>
American Fisheries Society - Endangered	AFS_EN
American Fisheries Society - Threatened	AFS_TH
American Fisheries Society - Vulnerable	AFS_VU
Bureau of Land Management - Sensitive	BLM_S
Calif Dept of Forestry & Fire Protection - Sensitive	CDF_S
Calif Dept of Fish & Wildlife - Fully Protected	CDFW_FP
Calif Dept of Fish & Wildlife - Species of Special Concern	CDFW_SSC
Calif Dept of Fish & Wildlife - Watch List	CDFW_WL
IUCN - Critically Endangered	IUCN_CR
IUCN - Endangered	IUCN_EN
IUCN - Vulnerable	IUCN_VU
IUCN - Near Threatened	IUCN_NT
IUCN - Least Concern	IUCN_LC
IUCN - Data Deficient	IUCN_DD
Marine Mammal Commission - Species of Special Concern	MMC_SSC
U.S. Forest Service - Sensitive	USFS_S
U.S. Fish & Wildlife Service Birds of Conservation Concern	USFWS_BCC

# Special Animals List

(929 taxa)

Last updated April 2, 2025

The remainder of this document contains the CNDDDB's Special Animals List, current as of the date on the title page of this document.

## Invertebrates

### PELECYPODA (clams and mussels)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Anodonta californiensis</i>	California floater		G3	S2?	None	None	USFS:S	Yes	
<i>Anodonta oregonensis</i>	Oregon floater		G5	S2?	None	None	IUCN:LC	Yes	
<i>Gonidea angulata</i>	western ridged mussel		G3	S2	None	None	IUCN:VU	Yes	
<i>Margaritifera falcata</i>	western pearlshell		G3G4	S1S2	None	None	IUCN:NT	Yes	
<i>Pisidium ultramontanum</i>	montane peaclam		G1	S1	None	None	IUCN:VU USFS:S	Yes	

### GASTROPODA (snails, slugs, and abalones)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ammonitella yatesii</i>	tight coin (=Yates' snail)		G1	S1	None	None	IUCN:VU	Yes	
<i>Ancotrema voyanum</i>	hooded lancetooth		G1G2	S1S2	None	None		Yes	
<i>Assiminea infima</i>	Badwater snail		G1	S1	None	None	IUCN:VU	Yes	
<i>Binneya notabilis</i>	Santa Barbara shelled slug		G1	S1	None	None	IUCN:DD	Yes	
<i>Colligyrus convexus</i>	canary duskysnail		G2	S2	None	None		Yes	
<i>Eremarionta immaculata</i>	white desert snail		G1	S1	None	None	IUCN:VU	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Eremarionta millepalmarum</i>	Thousand Palms desertsnailed		G1	S1	None	None	IUCN:VU	No	
<i>Eremarionta morongoana</i>	Morongo (=Colorado) desertsnailed		G1G3	S1	None	None	IUCN:NT	Yes	
<i>Eremarionta rowelli bakerensis</i>	Baker's desertsnailed		G3G4T1	S1	None	None	IUCN:DD	Yes	
<i>Eremarionta rowelli mccoiana</i>	California McCoy snail		G3G4T1	S1	None	None	IUCN:DD	Yes	
<i>Fluminicola seminalis</i>	nugget pebblesnailed		G2	S3	None	None	IUCN:DD USFS:S	Yes	
<i>Glyptostoma gabrielense</i>	San Gabriel chestnut		G2	S3	None	None		Yes	
<i>Haliotis corrugata</i>	pink abalone		G3?	S2?	None	None	IUCN:CR	No	
<i>Haliotis cracherodii</i>	black abalone		G3	S2	Endangered	None	IUCN:CR	Yes	
<i>Haliotis fulgens</i>	green abalone		G3G4	S2	None	None	IUCN:CR	No	
<i>Haliotis kamtschatkana</i>	pinto abalone		G4	S2	None	None	IUCN:EN	No	
<i>Haliotis sorenseni</i>	white abalone		G1	S2	Endangered	None	IUCN:CR	No	
<i>Haplotrema catalinense</i>	Santa Catalina lancetooth		G1	S1	None	None		Yes	
<i>Haplotrema duranti</i>	ribbed lancetooth		G1G2	S1S2	None	None		Yes	
<i>Helisoma newberryi</i>	Great Basin rams-horn		G1	S1S2	None	None	USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Helminthoglypta allynsmithi</i>	Merced Canyon shoulderband		G1	S1	None	None	IUCN:VU	Yes	
<i>Helminthoglypta arrosa monticola</i>	mountain shoulderband		G2G3T1	S1	None	None		Yes	
<i>Helminthoglypta arrosa pomoensis</i>	Pomo bronze shoulderband		G2G3T1	S1	None	None	IUCN:DD	Yes	
<i>Helminthoglypta ayresiana sanctaecrucis</i>	Ayer's snail		G1G2T1T2	S1S2	None	None		Yes	
<i>Helminthoglypta callistoderma</i>	Kern shoulderband		G1	S1	None	None	IUCN:EN	Yes	
<i>Helminthoglypta coelata</i>	mesa shoulderband		G1	S1	None	None	IUCN:VU	Yes	
<i>Helminthoglypta concolor</i>	whitefir shoulderband		G1G2	S1S2	None	None		Yes	
<i>Helminthoglypta fontiphila</i>	Soledad shoulderband		G1	S1	None	None		Yes	
<i>Helminthoglypta greggi</i>	Mohave shoulderband		G2	S2	None	None		Yes	
<i>Helminthoglypta hertleini</i>	Oregon shoulderband		G3Q	S1S2	None	None		Yes	
<i>Helminthoglypta milleri</i>	peak shoulderband		G1	S1	None	None		Yes	
<i>Helminthoglypta mohaveana</i>	Victorville shoulderband		G1	S1	None	None	IUCN:NT	Yes	
<i>Helminthoglypta nickliniana awania</i>	Peninsula coast range shoulderband		G3T1	S1	None	None	IUCN:DD	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Helminthoglypta nickliniana bridgesi</i>	Bridges' coast range shoulderband		G3T1	S1S2	None	None	IUCN:DD	Yes	
<i>Helminthoglypta sequoicola consors</i>	redwood shoulderband		G2T1	S1	None	None	IUCN:DD	Yes	
<i>Helminthoglypta stiversiana williamsi</i>	Williams' bronze shoulderband		G1G2T1	S1	None	None	IUCN:DD	Yes	
<i>Helminthoglypta talmadgei</i>	Trinity shoulderband		G2	S2	None	None		Yes	
<i>Helminthoglypta taylori</i>	westfork shoulderband		G1	S1	None	None		Yes	
<i>Helminthoglypta traskii pacoimensis</i>	Pacoima shoulderband		G1G2T1	S1	None	None		Yes	
<i>Helminthoglypta traskii traskii</i>	Trask shoulderband		G1G2T1	S2S3	None	None		Yes	
<i>Helminthoglypta uvasana</i>	Grapevine shoulderband		G1	S1	None	None		Yes	
<i>Helminthoglypta vasquezi</i>	Vasquez shoulderband		G1	S1	None	None		Yes	
<i>Helminthoglypta walkeriana</i>	Morro shoulderband		G2	S2	Threatened	None	IUCN:CR	Yes	
<i>Herpeteros angelus</i>	Soledad desert snail		G1	S1	None	None		No	
<i>Hesperarion plumbeus</i>	leaden slug		G2	S1S2	None	None		Yes	
<i>Ipnobius robustus</i>	robust tryonia		G1G2	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Juga acutifilosa</i>	topaz juga		G2?	S2	None	None	IUCN:NT USFS:S	Yes	
<i>Juga chacei</i>	Chace juga		G1	S1	None	None	USFS:S	Yes	
<i>Juga occata</i>	scalloped juga		G1	S1	None	None	IUCN:EN USFS:S	Yes	
<i>Juga orickensis</i>	redwood juga		G2	S1S3	None	None		Yes	
<i>Lanx alta</i>	highcap lanx		G2G3	S3	None	None		Yes	
<i>Lanx patelloides</i>	kneecap lanx		G2?	S2	None	None	USFS:S	Yes	
<i>Littorina subrotundata</i>	Newcomb's littorine snail		G5	S1S2	None	None		No	
<i>Megomphix californicus</i>	Natural Bridge megomphix		G3	S3	None	None		Yes	
<i>Micrarionta facta</i>	Santa Barbara islandsnail		G1G2	S1S2	None	None	IUCN:VU	Yes	
<i>Micrarionta feralis</i>	San Nicolas islandsnail		G1	S1	None	None	IUCN:CR	Yes	
<i>Micrarionta gabbii</i>	San Clemente islandsnail		G1	S1	None	None	IUCN:VU	Yes	
<i>Micrarionta opuntia</i>	pricklypear islandsnail		G1	S1	None	None	IUCN:VU	Yes	
<i>Monadenia callipeplus</i>	downy sideband		G1?	S1S2	None	None		Yes	
<i>Monadenia chaceana</i>	Siskiyou shoulderband		G2G3	S2	None	None		Yes	
<i>Monadenia churchi</i>	Klamath sideband		G3	S3	None	None		Yes	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Monadenia circumcarinata</i>	keeled sideband		G3	S3	None	None	BLM:S IUCN:VU	Yes	
<i>Monadenia cristulata</i>	crested sideband		G1?	S1S2	None	None		Yes	
<i>Monadenia fidelis leonina</i>	A terrestrial snail		G4G5T1T2	S1S2	None	None		Yes	
<i>Monadenia fidelis pronotis</i>	rocky coast Pacific sideband		G4G5T1	S1	None	None	IUCN:DD	Yes	
<i>Monadenia infumata ochromphalus</i>	yellow-based sideband		G2T1T2	S1S2	None	None		Yes	
<i>Monadenia infumata setosa</i>	Trinity bristle snail		G2T2	S2	None	Threatened	IUCN:VU	Yes	
<i>Monadenia marmarotis</i>	marble sideband		G1	S1	None	None		Yes	
<i>Monadenia mormonum buttoni</i>	Button's Sierra sideband		G2T1T2	S1S2	None	None	IUCN:DD	Yes	
<i>Monadenia mormonum hirsuta</i>	hirsute Sierra sideband		G2T1	S1	None	None	BLM:S IUCN:DD	Yes	
<i>Monadenia troglodytes troglodytes</i>	Shasta sideband		G2T2	S2	None	None	USFS:S	Yes	
<i>Monadenia troglodytes wintu</i>	Wintu sideband		G2T2	S2	None	None	USFS:S	Yes	
<i>Monadenia tuolumneana</i>	Tuolumne sideband		G1	S1	None	None	BLM:S	Yes	

## Special Animals List – April 2025

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Monadenia yosemitensis</i>	Yosemite sideband		G1	S1S2	None	None		Yes	
<i>Noyo intersessa</i>	Ten Mile shoulderband		G2	S1S2	None	None		Yes	
<i>Pomatiopsis binneyi</i>	robust walker		G1	S1	None	None		Yes	
<i>Pomatiopsis californica</i>	Pacific walker		G1	S1	None	None	IUCN:DD	Yes	
<i>Pomatiopsis chacei</i>	marsh walker		G1	S2	None	None		Yes	
<i>Pristiloma shepardae</i>	Shepard's snail		G1	S1	None	None		Yes	
<i>Pristinicola hemphilli</i>	pristine pyrg		G3	S1	None	None	IUCN:DD USFS:S	Yes	
<i>Prophysaon sp. 1</i>	Klamath taildropper		G3	S3	None	None		Yes	Yes
<i>Punctum hannai</i>	Trinity Spot		G1G2	S1S2	None	None		Yes	
<i>Pyrgulopsis aardahli</i>	Benton Valley (=Aahrdahl's) springsnail		G1	S1	None	None		Yes	
<i>Pyrgulopsis archimedis</i>	Archimedes pyrg		G1G2	S1S2	None	None		Yes	
<i>Pyrgulopsis cinerana</i>	Ash Valley pyrg		G1G2	S1S2	None	None		Yes	
<i>Pyrgulopsis diablensis</i>	Diablo Range pyrg		G1	S1	None	None	IUCN:VU	Yes	
<i>Pyrgulopsis eremica</i>	Smoke Creek pyrg		G2	S2	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Pyrgulopsis falciglans</i>	Likely pyrg		G1	S1	None	None		Yes	
<i>Pyrgulopsis gibba</i>	Surprise Valley pyrg		G3	S1S2	None	None		Yes	
<i>Pyrgulopsis greggi</i>	Kern River pyrg		G1	S1	None	None	IUCN:VU	Yes	
<i>Pyrgulopsis lasseni</i>	Willow Creek pyrg		G1G2	S1S2	None	None	USFS:S	Yes	
<i>Pyrgulopsis longae</i>	Long Valley pyrg		G1	S1	None	None		Yes	
<i>Pyrgulopsis owensensis</i>	Owens Valley springsnail		G1G2	S1S2	None	None	USFS:S	Yes	
<i>Pyrgulopsis perturbata</i>	Fish Slough springsnail		G1	S1	None	None		Yes	
<i>Pyrgulopsis rupinicola</i>	Sucker Springs pyrg		G1	S1	None	None		Yes	
<i>Pyrgulopsis taylori</i>	San Luis Obispo pyrg		G1	S1	None	None		Yes	
<i>Pyrgulopsis ventricosa</i>	Clear Lake pyrg		G1	S1	None	None	IUCN:CR	Yes	
<i>Pyrgulopsis wongi</i>	Wong's springsnail		G3	S2	None	None	IUCN:LC USFS:S	Yes	
<i>Radiocentrum avalonense</i>	Catalina mountainsnail		G1	S1	None	None	IUCN:CR	Yes	
<i>Rothelix warnerfontis</i>	Warner Springs shoulderband		G1	S1	None	None	USFS:S	Yes	
<i>Sterkia clementina</i>	San Clemente Island blunt-top snail		G2G3	S1S2	None	None	IUCN:NT	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Trilobopsis roperi</i>	Shasta chaparral		G2	S1	None	None	USFS:S	Yes	
<i>Trilobopsis tehamana</i>	Tehama chaparral		G2	S1	None	None	USFS:S	Yes	
<i>Tryonia imitator</i>	mimic tryonia (=California brackishwater snail)		G2	S2	None	None	IUCN:DD	Yes	
<i>Tryonia margae</i>	Grapevine Springs elongate tryonia		G1	S1	None	None		Yes	
<i>Tryonia rowlandsi</i>	Grapevine Springs squat tryonia		G1	S1	None	None		Yes	
<i>Vespericola karokorum</i>	Karok hesperian		G2	S2	None	None	IUCN:DD	Yes	
<i>Vespericola marinensis</i>	Marin hesperian		G2	S2	None	None		Yes	
<i>Vespericola pressleyi</i>	Big Bar hesperian		G1	S1	None	None	USFS:S	Yes	
<i>Vespericola scotti</i>	Benson Gulch hesperian		G1	S1	None	None		Yes	
<i>Vespericola shasta</i>	Shasta hesperian		G3	S3	None	None	USFS:S	Yes	
<i>Vespericola sierranus</i>	Siskiyou hesperian		G3	S1S2	None	None		Yes	
<i>Xerarionta intercisa</i>	horseshoe snail		G1	S1	None	None	IUCN:VU	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Xerarionta redimita</i>	wreathed cactusnail		G1G2	S1	None	None	IUCN:VU	Yes	
<i>Xerarionta tryoni</i>	Bicolor cactusnail		G1	S1	None	None	IUCN:VU	Yes	

**ARACHNIDA (spiders and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Aphrastochthonius grubbsi</i>	Grubbs' Cave pseudoscorpion		G1	S1	None	None		Yes	
<i>Aphrastochthonius similis</i>	Carlow's Cave pseudoscorpion		G1	S1	None	None		Yes	
<i>Archeolarca aalbui</i>	Aalbu's Cave pseudoscorpion		G1	S1	None	None		Yes	
<i>Banksula californica</i>	Alabaster Cave harvestman		GH	SH	None	None		Yes	
<i>Banksula galilei</i>	Galile's cave harvestman		G1	S1	None	None		Yes	
<i>Banksula grubbsi</i>	Grubbs' cave harvestman		G1	S1	None	None		Yes	
<i>Banksula incredula</i>	incredible harvestman		G1	S1	None	None		Yes	
<i>Banksula martinorum</i>	Martins' cave harvestman		G1	S1	None	None		Yes	
<i>Banksula melones</i>	Melones Cave harvestman		G1	S1	None	None	IUCN:VU	Yes	
<i>Banksula rudolphi</i>	Rudolph's cave harvestman		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Banksula tuolumne</i>	Tuolumne cave harvestman		G2	S1	None	None		Yes	
<i>Banksula tutankhamen</i>	King Tut Cave harvestman		G1	S1	None	None		Yes	
<i>Calicina arida</i>	San Benito harvestman		G1	S1	None	None		Yes	
<i>Calicina breva</i>	Stanislaus harvestman		G1	S1	None	None		Yes	
<i>Calicina cloughensis</i>	Clough Cave harvestman		G1	S1	None	None		Yes	
<i>Calicina conifera</i>	Crane Flat harvestman		G1	S1	None	None		Yes	
<i>Calicina diminua</i>	Marin blind harvestman		G1	S1	None	None		Yes	
<i>Calicina dimorphica</i>	Watts Valley harvestman		G1	S1	None	None		Yes	
<i>Calicina macula</i>	marbled harvestman		G1	S1	None	None		Yes	
<i>Calicina mesaensis</i>	Table Mountain harvestman		G1	S1	None	None		Yes	
<i>Calicina minor</i>	Edgewood blind harvestman		G1	S1	None	None		Yes	
<i>Calicina piedra</i>	Piedra harvestman		G1	S1	None	None		Yes	
<i>Calileptoneta briggsi</i>	Briggs' leptonetid spider		G1	S1	None	None		Yes	
<i>Calileptoneta oasa</i>	Andreas Canyon leptonetid spider		G1	S1	None	None		Yes	
<i>Calileptoneta ubicki</i>	Ubick's leptonetid spider		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Calileptoneta wapiti</i>	Mendocino leptonetid spider		G1	S1	None	None		Yes	
<i>Fissilicreagris imperialis</i>	Empire Cave pseudoscorpion		G1	S1	None	None	IUCN:VU	Yes	
<i>Hubbardia idria</i>	Idria short-tailed whipscorpion		G1	S1	None	None		Yes	
<i>Hubbardia secoensis</i>	Arroyo Seco short-tailed whipscorpion		G1	S1	None	None		Yes	
<i>Hubbardia shoshonensis</i>	Shoshone Cave whip-scorpion		G1	S1	None	None	BLM:S	Yes	Yes
<i>Larca laceyi</i>	Lacey's Cave pseudoscorpion		G1	S1	None	None		Yes	
<i>Meta dolloff</i>	Dolloff Cave spider		G3	S3	None	None	IUCN:VU	Yes	
<i>Microcina edgewoodensis</i>	Edgewood Park micro-blind harvestman		G1	S1	None	None		Yes	
<i>Microcina homi</i>	Hom's micro-blind harvestman		G1	S2	None	None		Yes	
<i>Microcina jungi</i>	Jung's micro-blind harvestman		G1	S1	None	None		Yes	
<i>Microcina leei</i>	Lee's micro-blind harvestman		G1	S1	None	None		Yes	
<i>Microcina lumi</i>	Lum's micro-blind harvestman		G1	S1	None	None		Yes	
<i>Microcina tiburona</i>	Tiburona micro-blind harvestman		G2	S2	None	None		Yes	
<i>Neochthonius imperialis</i>	Empire Cave pseudoscorpion		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Pseudogarypus orpheus</i>	Music Hall Cave pseudoscorpion		G1	S1	None	None		Yes	
<i>Socalchemmis gertschi</i>	Gertsch's socalchemmis spider		G1	S1	None	None		Yes	
<i>Socalchemmis icenoglei</i>	Icenogle's socalchemmis spider		G1	S1	None	None		Yes	
<i>Socalchemmis monterey</i>	Monterey socalchemmis spider		G1	S1	None	None		Yes	
<i>Talanites moodyae</i>	Moody's gnaphosid spider		G2G3	S2S3	None	None		Yes	
<i>Talanites ubicki</i>	Ubick's gnaphosid spider		G1	S1	None	None		Yes	
<i>Texella deserticola</i>	Whitewater Canyon harvestman		G1	S1	None	None		Yes	
<i>Texella kokoweef</i>	Kokoweef Crystal Cave harvestman		G1	S1	None	None		Yes	
<i>Texella shoshone</i>	Shoshone Cave harvestman		G1	S1	None	None		Yes	

**CRUSTACEA, Order Anostraca (fairy shrimp)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Artemia monica</i>	Mono Lake brine shrimp		G3	S3	None	None		Yes	
<i>Branchinecta campestris</i>	pocket pouch fairy shrimp		G2	S1	None	None		Yes	
<i>Branchinecta conservatio</i>	Conservancy fairy shrimp		G2	S2	Endangered	None	IUCN:EN	Yes	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Branchinecta longiantenna</i>	longhorn fairy shrimp		G2	S2	Endangered	None	IUCN:EN	Yes	
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp		G3	S3	Threatened	None	IUCN:VU	Yes	
<i>Branchinecta mesoavallensis</i>	midvalley fairy shrimp		G2	S2S3	None	None		Yes	
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp		G2	S1	Endangered	None	IUCN:EN	Yes	
<i>Linderiella occidentalis</i>	California linderiella		G2G3	S2S3	None	None	IUCN:NT	Yes	
<i>Linderiella santarosae</i>	Santa Rosa Plateau fairy shrimp		G1G2	S1	None	None		Yes	
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp		G1G2	S2	Endangered	None	IUCN:EN	Yes	

**CRUSTACEA, Order Notostraca (tadpole shrimp)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp		G3	S3	Endangered	None	IUCN:EN	Yes	

**CRUSTACEA, Order Diplostraca (water fleas)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Dumontia oregonensis</i>	hairy water flea		G1G3	S1	None	None		Yes	

**CRUSTACEA, Order Isopoda (isopods)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Bowmanasellus sequoiae</i>	Sequoia cave isopod		G2	S2	None	None		Yes	
<i>Caecidotea tomalensis</i>	Tomales isopod		G2	S2S3	None	None		Yes	
<i>Calasellus californicus</i>	An isopod		G2	S3	None	None		Yes	
<i>Calasellus longus</i>	An isopod		G1	S1	None	None		Yes	

**CRUSTACEA, Order Amphipoda (amphipods)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Hyalella muerta</i>	Texas Spring amphipod		G1	S1	None	None		Yes	Yes
<i>Hyalella sandra</i>	Death Valley amphipod		G1	S1	None	None		Yes	Yes
<i>Stygobromus cherylae</i>	Barr's amphipod		G1	S1	None	None		Yes	
<i>Stygobromus cowani</i>	Cowan's amphipod		G1	S1	None	None		Yes	
<i>Stygobromus gallawayae</i>	Gallaway's amphipod		G1	S1	None	None		Yes	
<i>Stygobromus gradyi</i>	Grady's Cave amphipod		G1	S1	None	None	IUCN:VU	Yes	
<i>Stygobromus grahami</i>	Graham's Cave amphipod		G2	S2	None	None		Yes	
<i>Stygobromus harai</i>	Hara's Cave amphipod		G1	S1	None	None	IUCN:VU	Yes	
<i>Stygobromus hyporheicus</i>	hyporheic amphipod		G1	SX	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Stygobromus imperialis</i>	Empire Cave amphipod		G1	S1	None	None		Yes	
<i>Stygobromus lacicolus</i>	Lake Tahoe amphipod		G1	S1	None	None		Yes	
<i>Stygobromus mackenziei</i>	Mackenzie's Cave amphipod		G1	S1	None	None	IUCN:VU	Yes	
<i>Stygobromus myersae</i>	Myer's amphipod		G1G2	S1S2	None	None		Yes	
<i>Stygobromus mysticus</i>	Secret Cave amphipod		G1	S1	None	None		Yes	
<i>Stygobromus rudolphi</i>	Rudolph's amphipod		G1	S1	None	None		Yes	
<i>Stygobromus sheldoni</i>	Sheldon's amphipod		G1	S1	None	None		Yes	
<i>Stygobromus sierrensis</i>	Sierra amphipod		G1	S1	None	None		Yes	
<i>Stygobromus tahoensis</i>	Lake Tahoe stygobromid		G1	S1	None	None		Yes	
<i>Stygobromus trinus</i>	Trinity County amphipod		G1	S1	None	None		Yes	
<i>Stygobromus wengerorum</i>	Wengerors' Cave amphipod		G1	S1	None	None	IUCN:VU	Yes	

**CRUSTACEA, Order Decapoda (crayfish and shrimp)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Pacifastacus fortis</i>	Shasta crayfish		G1	S1	Endangered	Endangered	IUCN:CR	Yes	
<i>Pacifastacus leniusculus klamathensis</i>	Klamath crayfish		G5T5	S4	None	None		No	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Syncaris pacifica</i>	California freshwater shrimp		G2	S2	Endangered	Endangered	IUCN:EN	Yes	

**INSECTA, Order Odonata (dragonflies and damselflies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ischnura gemina</i>	San Francisco forktail damselfly		G2	S2	None	None	IUCN:EN	Yes	

**INSECTA, Order Plecoptera (stoneflies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Capnia lacustra</i>	Lake Tahoe benthic stonefly		G1	S1	None	None		Yes	
<i>Cosumnoperla hypocrena</i>	Cosumnes stripetail		G2	S2	None	None		Yes	

**INSECTA, Order Orthoptera (grasshoppers, katydids, and crickets)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Aglaothorax longipennis</i>	Santa Monica shieldback katydid		G1G2	S1S2	None	None	IUCN:CR	Yes	
<i>Ammopelmatus kelsoensis</i>	Kelso jerusalem cricket		G1G2	S1S2	None	None	IUCN:VU	Yes	
<i>Ammopelmatus muwu</i>	Point Conception jerusalem cricket		G1	S1	None	None	IUCN:VU	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Idiostatus kathleenae</i>	Pinnacles shieldback katydid		G1G2	S1S2	None	None		Yes	
<i>Idiostatus middlekauffi</i>	Middlekauff's shieldback katydid		G1G2	S1	None	None	IUCN:CR	Yes	
<i>Macrobaenetes algodonensis</i>	Algodones sand treader cricket		G1G2	S2	None	None		No	
<i>Macrobaenetes kelsoensis</i>	Kelso giant sand treader cricket		G2	S2	None	None	IUCN:VU	Yes	
<i>Macrobaenetes valgum</i>	Coachella giant sand treader cricket		G1G2	S2	None	None	IUCN:VU	Yes	
<i>Pristoceuthophilus sp. 1</i>	Samwell Cave cricket		G1G3	S1	None	None	IUCN:VU	Yes	
<i>Psychomastax deserticola</i>	desert monkey grasshopper		G2G3	S1	None	None	IUCN:VU	Yes	
<i>Stenopelmatus cahuilaensis</i>	Coachella Valley jerusalem cricket		G1G2	S2	None	None	IUCN:VU	Yes	
<i>Tetrix sierrana</i>	Sierra pygmy grasshopper		G1G2	S1	None	None	IUCN:VU	Yes	
<i>Trimerotropis infantilis</i>	Zayante band-winged grasshopper		G1	S1	Endangered	None	IUCN:EN	Yes	
<i>Trimerotropis occidentiloides</i>	Santa Monica grasshopper		G2	S2	None	None	IUCN:EN	Yes	
<i>Trimerotropis occulens</i>	Lompoc grasshopper		G1G2	S1S2	None	None	IUCN:EN	Yes	

**INSECTA, Order Hemiptera (true bugs)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Ambrysus funebris</i>	Nevares Spring naucorid bug		G1	S1	None	None		Yes	
<i>Belostoma saratogae</i>	Saratoga Springs belostoman bug		G1	S1	None	None		Yes	
<i>Oravelia pege</i>	Dry Creek cliff strider bug		G1	S1	None	None		Yes	
<i>Pelocoris biimpressus</i>	Amargosa naucorid bug		G1G3	S1S2	None	None		Yes	
<i>Saldula usingeri</i>	Wilbur Springs shorebug		G2	S2	None	None		Yes	

**INSECTA, Order Neuroptera (lacewings)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Oliarces clara</i>	cheeseweed owlfly (cheeseweed moth lacewing)		G1G3	S2	None	None		Yes	

**INSECTA, Order Coleoptera (beetles)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Aegialia concinna</i>	Ciervo aegilian scarab beetle		G1	S1	None	None	BLM:S IUCN:VU	Yes	
<i>Agabus rumpfi</i>	Death Valley agabus diving beetle		G1G3	S1S2	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Agrilus harenus</i>	Harenus jewel beetle		G1	S1	None	None		Yes	
<i>Anomala carlsoni</i>	Carlson's dune beetle		G1	S1	None	None		Yes	
<i>Anomala hardyorum</i>	Hardy's dune beetle		G1	S1	None	None		Yes	
<i>Anthicus antiochensis</i>	Antioch Dunes anthicid beetle		G3	S3	None	None		Yes	
<i>Anthicus sacramento</i>	Sacramento anthicid beetle		G4	S4	None	None	IUCN:EN	Yes	
<i>Atractelmis wawona</i>	Wawona riffle beetle		G3	S1S2	None	None		Yes	
<i>Chaetarthria leechi</i>	Leech's chaetarthrian water scavenger beetle		G1?	S1	None	None		Yes	
<i>Cicindela hirticollis abrupta</i>	Sacramento Valley tiger beetle		G5TH	SH	None	None		Yes	
<i>Cicindela hirticollis gravida</i>	sandy beach tiger beetle		G5T2	S2	None	None		Yes	
<i>Cicindela latesignata</i>	western beach tiger beetle		G2G3	S1	None	None		Yes	
<i>Cicindela ohlone</i>	Ohlone tiger beetle		G1	S1	Endangered	None		Yes	
<i>Cicindela senilis frosti</i>	senile tiger beetle		G2G3T1T3	S1	None	None		Yes	
<i>Cicindela tranquebarica joaquinensis</i>	San Joaquin tiger beetle		G5T1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cicindela tranquebarica viridissima</i>	greenest tiger beetle		G5T1	S1	None	None		Yes	
<i>Coelus globosus</i>	globose dune beetle		G1G2	S1S2	None	None	IUCN:VU	Yes	
<i>Coelus gracilis</i>	San Joaquin dune beetle		G1	S1	None	None	BLM:S IUCN:VU	Yes	
<i>Coenonycha clementina</i>	San Clemente Island coenonycha beetle		G1G2	S1S2	None	None		Yes	
<i>Cyclocephala wandae</i>	Wandae dune beetle		G1G2	S1	None	None		Yes	
<i>Deltaspis ivae</i>	marsh-elder long-horned beetle		G1	S1	None	None		Yes	
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle		G3T3	S3	Threatened	None		Yes	
<i>Dinacoma caseyi</i>	Casey's June beetle		G1	S1	Endangered	None		Yes	
<i>Dubiraphia brunnescens</i>	brownish dubiraphian riffle beetle		G1	S1	None	None		Yes	
<i>Dubiraphia giulianii</i>	Giuliani's dubiraphian riffle beetle		G1G3	S1S3	None	None		Yes	
<i>Elaphrus viridis</i>	Delta green ground beetle		G1	S1	Threatened	None	IUCN:CR	Yes	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Glaresis arenata</i>	Kelso Dunes scarab glaresis beetle		G2	S2	None	None		Yes	
<i>Habroscelimorpha gabbii</i>	western tidal-flat tiger beetle		G2G4	S1	None	None		Yes	
<i>Hydrochara rickseckeri</i>	Ricksecker's water scavenger beetle		G2?	S2?	None	None		Yes	
<i>Hydroporus leechi</i>	Leech's skyline diving beetle		G3	S2S3	None	None		Yes	
<i>Hydroporus simplex</i>	simple hydroporus diving beetle		G3G4	S3S4	None	None		Yes	
<i>Hygrotus curvipes</i>	curved-foot hygrotus diving beetle		G2	S2	None	None		Yes	
<i>Hygrotus fontinalis</i>	travertine band-thigh diving beetle		G1	S1	None	None		Yes	
<i>Juniperella mirabilis</i>	juniper metallic wood-boring beetle		G2	S1	None	None		Yes	
<i>Lepismadora algodones</i>	Algodones sand jewel beetle		G1G2	S1S2	None	None		Yes	
<i>Lichnanthe albipilosa</i>	white sand bear scarab beetle		G1	S1	None	None		Yes	
<i>Lichnanthe ursina</i>	bumblebee scarab beetle		G2	S2	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lytta hoppingi</i>	Hopping's blister beetle		G1G2	S2	None	None		Yes	
<i>Lytta insperata</i>	Mojave Desert blister beetle		G1G2	S1S2	None	None		No	
<i>Lytta moesta</i>	moestan blister beetle		G2	S2	None	None		Yes	
<i>Lytta molesta</i>	molestan blister beetle		G2	S2	None	None		Yes	
<i>Lytta morrisoni</i>	Morrison's blister beetle		G1G2	S2	None	None		Yes	
<i>Microcylloepus formicoideus</i>	Furnace Creek riffle beetle		G1	S1	None	None		Yes	
<i>Miloderes nelsoni</i>	Nelson's miloderes weevil		G2	S2	None	None		Yes	
<i>Nebria darlingtoni</i>	South Forks ground beetle		G1	S1	None	None		Yes	
<i>Nebria gebleri siskiyouensis</i>	Siskiyou ground beetle		G4G5T4	S1S2	None	None		Yes	
<i>Nebria sahlbergii triad</i>	Trinity Alps ground beetle		G5T1	S1	None	None		Yes	
<i>Ochthebius crassalus</i>	wing shoulder minute moss beetle		G1G3	S1S3	None	None		No	
<i>Ochthebius recticulus</i>	Wilbur Springs minute moss beetle		G1	S1	None	None		Yes	
<i>Onychobaris langei</i>	Lange's El Segundo Dune weevil		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Optioservus canus</i>	Pinnacles optioservus riffle beetle		G2	S1	None	None		Yes	
<i>Palaeoxenus dohrni</i>	Dohrn's elegant eucnemid beetle		G3?	S1S2	None	None		Yes	
<i>Polyphylla anteronivea</i>	Saline Valley snow-front June beetle		G2	S2	None	None		Yes	
<i>Polyphylla barbata</i>	Mount Hermon (=barbate) June beetle		G1	S2	Endangered	None		Yes	
<i>Polyphylla erratica</i>	Death Valley June beetle		G1G2	S1S2	None	None		Yes	
<i>Polyphylla morroensis</i>	Morro Bay June beetle		G1	S1	None	None		Yes	
<i>Polyphylla nubila</i>	Atascadero June beetle		G1	S1	None	None		Yes	
<i>Prasinalia imperialis</i>	Algodones white wax jewel beetle		G2	S2	None	None		No	
<i>Pseudocotalpa andrewsi</i>	Andrew's dune scarab beetle		G1	S1	None	None		Yes	
<i>Scaphinotus behrensi</i>	Behrens' snail-eating beetle		G2G4	S2S4	None	None		Yes	
<i>Trachykele hartmani</i>	serpentine cypress wood-boring beetle		G1	S1	None	None		Yes	
<i>Trichinorhipis knulli</i>	Knull's metallic wood-boring beetle		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Trigonoscuta brunnotesselata</i>	brown tassel trigonoscuta weevil		G1G2	S1	None	None		Yes	
<i>Trigonoscuta dorothea dorothea</i>	Dorothy's El Segundo Dune weevil		G1T1	S1	None	None		Yes	
<i>Trigonoscuta rothi algodones</i>	Algodones dune weevil		G1G2T1	S1	None	None		No	
<i>Trigonoscuta rothi imperialis</i>	Imperial dune weevil		G1G2T1	S1	None	None		No	
<i>Trigonoscuta rothi punctata</i>	Punctate dune weevil		G1G2T1	S1	None	None		No	
<i>Trigonoscuta rothi rothi</i>	Roth's dune weevil		G1G2T1	S1	None	None		No	
<i>Trigonoscuta sp.</i>	Doyen's trigonoscuta dune weevil		G1Q	S1	None	None		Yes	Yes
<i>Trigonoscuta stantoni</i>	Santa Cruz Island shore weevil		G1	S1	None	None		Yes	
<i>Vandykea tuberculata</i>	serpentine cypress long-horned beetle		G1	S2	None	None		Yes	

**INSECTA, Order Mecoptera (scorpionflies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Orobittacus obscurus</i>	gold rush hanging scorpionfly		G1	S1	None	None		Yes	

**INSECTA, Order Diptera (flies)**

<b>Scientific Name</b>	<b>Common Name</b>	<b>Comments</b>	<b>Global Rank</b>	<b>State Rank</b>	<b>ESA</b>	<b>CESA</b>	<b>Other Status</b>	<b>Records in CNDDDB?</b>	<b>End Notes?</b>
<i>Ablautus schlingeri</i>	Oso Flaco robber fly		G2	S2	None	None		Yes	
<i>Apiocera warneri</i>	Glamis sand fly		G1G2	S1	None	None		Yes	
<i>Brennania belkini</i>	Belkin's dune tabanid fly		G1G2	S1S2	None	None	IUCN:VU	Yes	
<i>Cophura hurdi</i>	Antioch cophuran robberfly		GX	SX	None	None		Yes	
<i>Efferia antiochi</i>	Antioch efferian robberfly		G1G2	S1S2	None	None		Yes	
<i>Efferia macroxipha</i>	Glamis robberfly		G1G2	S2S3	None	None		Yes	
<i>Metapogon hurdi</i>	Hurd's metapogon robberfly		G1G2	S1S2	None	None		Yes	
<i>Paracoenia calida</i>	Wilbur Springs shore fly		G1	S1	None	None		Yes	
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi Sands flower-loving fly		G1T1	S1	Endangered	None		Yes	
<i>Rhaphiomidas terminatus terminatus</i>	El Segundo flower-loving fly		G1T1	S1	None	None		Yes	
<i>Rhaphiomidas trochilus</i>	San Joaquin Valley giant flower-loving fly		G1	S1	None	None		Yes	

**INSECTA, Order Lepidoptera (butterflies and moths)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Adela oplerella</i>	Opler's longhorn moth		G2	S2	None	None		Yes	
<i>Apodemia mormo langei</i>	Lange's metalmark butterfly		G5T1	S1	Endangered	None		Yes	
<i>Areniscythis brachypteris</i>	Oso Flaco flightless moth		G2	S2	None	None		Yes	
<i>Callophrys mossii bayensis</i>	San Bruno elfin butterfly		G4T2	S2	Endangered	None		Yes	
<i>Callophrys mossii hidakupa</i>	San Gabriel Mountains elfin butterfly		G4T1T2	S1S2	None	None	USFS:S	Yes	
<i>Callophrys mossii marinensis</i>	Marin elfin butterfly		G4T1	S2	None	None		Yes	
<i>Callophrys sheridanii comstocki</i>	desert green hairstreak		G5T3T4	S1S2	None	None		No	
<i>Callophrys thornei</i>	Thorne's hairstreak		G3G4T2	S2	None	None	BLM:S	Yes	Yes
<i>Carterocephalus palaemon magnus</i>	Sonoma arctic skipper		G5T5	S1S3	None	None		Yes	
<i>Cercyonis pegala carsonensis</i>	Carson Valley wood nymph		G5T1T2	S1S2	None	None		No	
<i>Chlosyne leanira elegans</i>	Oso Flaco patch butterfly		G4G5T1T2	S1S2	None	None		Yes	
<i>Coenonympha tullia yontockett</i>	Yontocket satyr		G5T1T2	S1S2	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Danaus plexippus plexippus pop. 1</i>	monarch - California overwintering population		G4T1T2Q	S2	Proposed Threatened	None	IUCN:EN USFS:S	Yes	
<i>Euchloe hyantis andrewsi</i>	Andrew's marble butterfly		G3G4T2	S2	None	None		Yes	
<i>Eugnosta busckana</i>	Busck's gallmoth		G1G3	S2S3	None	None		Yes	
<i>Euphilotes allyni</i>	El Segundo blue butterfly		G1?	S1	Endangered	None		Yes	
<i>Euphilotes baueri</i>	Bauer's dotted-blue		G2	S1S2	None	None	USFS:S	No	
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly		G5T2	S2	Endangered	None		Yes	
<i>Euphilotes glaucon comstocki</i>	Comstock's blue butterfly		G5T2	S2	None	None		Yes	
<i>Euphilotes mojave</i>	Mojave dotted-blue		G3	S3	None	None		No	
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly		G4G5T1	S3	Threatened	None		Yes	
<i>Euphydryas editha monoensis</i>	Mono checkerspot butterfly		G4G5T2	S1S2	None	None	USFS:S	Yes	
<i>Euphydryas editha quino</i>	quino checkerspot butterfly		G4G5T1T2	S1S2	Endangered	None		Yes	
<i>Euphyes vestris harbisoni</i>	dun skipper		G5T1	S1S2	None	None		No	
<i>Euproserpinus euterpe</i>	Kern primrose sphinx moth		G1G2	S1	Threatened	None		Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Glaucopsyche lygdamus palosverdesensis</i>	Palos Verdes blue butterfly		G5T1	S1	Endangered	None		Yes	
<i>Hesperia miriamae longaevicola</i>	White Mountains skipper		G2G3T1T2	S1	None	None		Yes	
<i>Hesperopsis graciellae</i>	MacNeill's sootywing		G2?	S1S2	None	None		No	
<i>Icaricia icarioides albihalos</i>	White Mountains icarioides blue butterfly		G5T2T3	S1	None	None		Yes	
<i>Icaricia icarioides missionensis</i>	Mission blue butterfly		G5T2	S2	Endangered	None		Yes	
<i>Icaricia icarioides moroensis</i>	Morro Bay blue butterfly		G5T2	S2	None	None		Yes	
<i>Icaricia icarioides parapheres</i>	Point Reyes blue butterfly		G5T1T2	S1	None	None		Yes	
<i>Icaricia icarioides pheres</i>	Pheres blue butterfly		G5TX	SX	None	None		Yes	
<i>Icaricia saepiolus albomontanus</i>	White Mountains saepiolus blue butterfly		G5T2	S1	None	None		Yes	
<i>Icaricia saepiolus aureolus</i>	San Gabriel Mountains blue butterfly		G5T1	S1	None	None	USFS:S	Yes	
<i>Lycaena hermes</i>	Hermes copper butterfly		G1	S1	Threatened	None	IUCN:VU USFS:S	Yes	
<i>Lycaena rubidus incana</i>	White Mountains copper		G4?T2T3	S1	None	None		No	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Panoquina errans</i>	wandering (=saltmarsh) skipper		G4	S2	None	None	IUCN:NT	Yes	
<i>Pelochrista hennei</i>	Henne's eucosman moth		G1	S1	None	None		Yes	
<i>Philotiella speciosa bohartorum</i>	Boharts' blue butterfly		G3T1	S1	None	None		Yes	
<i>Plebejus anna lotis</i>	lotis blue butterfly		G4TH	SH	Endangered	None		Yes	
<i>Plebulina emigdionis</i>	San Emigdio blue butterfly		G1G2	S1S2	None	None	USFS:S	Yes	
<i>Polites mardon</i>	mardon skipper		G2	S1	None	None	USFS:S	Yes	
<i>Polites sabuleti albamontana</i>	White Mountains sandhill skipper		G4T2	S1S2	None	None		No	
<i>Pseudocopaeodes eunus eunus</i>	alkali skipper		G3T2	S2	None	None		No	
<i>Pseudocopaeodes eunus obscurus</i>	Carson wandering skipper		G3T1	S2	Endangered	None		Yes	
<i>Pyrgus ruralis lagunae</i>	Laguna Mountains skipper		G4G5T1	S1	Endangered	None		Yes	
<i>Speyeria adiastrae adiastrae</i>	unsilvered fritillary		G1G2T1	S1S2	None	None		Yes	
<i>Speyeria callippe callippe</i>	callippe silverspot butterfly		G5T1	S1	Endangered	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Speyeria egleis tehachapina</i>	Tehachapi Mountain silverspot butterfly		G5T2	S2	None	None	USFS:S	Yes	
<i>Speyeria nokomis carsonensis</i>	Carson Valley silverspot		G3T1T2	S1	None	None		Yes	
<i>Speyeria zerene behrensii</i>	Behren's silverspot butterfly		G5T1	S1	Endangered	None		Yes	
<i>Speyeria zerene hippolyta</i>	Oregon silverspot butterfly		G5T1	S1	Threatened	None		Yes	
<i>Speyeria zerene myrtleae</i>	Myrtle's silverspot butterfly		G5T1	S1	Endangered	None		Yes	Yes
<i>Speyeria zerene sonomensis</i>	Sonoma zerene fritillary		G5T1	S1	None	None		Yes	

**INSECTA, Order Trichoptera (caddisflies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cryptochia denningi</i>	Denning's cryptic caddisfly		G1G2	S1S2	None	None		Yes	
<i>Cryptochia excella</i>	Kings Canyon cryptochian caddisfly		G1G2	S2S3	None	None		Yes	
<i>Cryptochia shasta</i>	confusion caddisfly		G1G2	S1	None	None		Yes	
<i>Desmona bethula</i>	amphibious caddisfly		G2G3	S2S3	None	None		Yes	
<i>Diplectrona californica</i>	California diplectronan caddisfly		G1G2	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ecclisomyia bilera</i>	Kings Creek ecclisomyian caddisfly		G2	S2	None	None		Yes	
<i>Farula praelonga</i>	long-tailed caddisfly		G1G2	S1S2	None	None		Yes	
<i>Goeracea oregona</i>	Sagehen Creek goeracean caddisfly		G3	S1S2	None	None		Yes	
<i>Lepidostoma ermanae</i>	Cold Spring caddisfly		G1	S1	None	None		Yes	
<i>Limnephilus atercus</i>	Fort Dick limnephilus caddisfly		G3G4	S1S2	None	None		Yes	
<i>Neothremma genella</i>	golden-horned caddisfly		G1G2	S2S3	None	None		Yes	
<i>Neothremma siskiyou</i>	Siskiyou caddisfly		G1G2	S1	None	None		No	
<i>Parapsyche extensa</i>	King's Creek parapsyche caddisfly		G1	S1	None	None		Yes	
<i>Rhyacophila lineata</i>	Castle Crags rhyacophilan caddisfly		G1	S1	None	None		Yes	
<i>Rhyacophila mosana</i>	bilobed rhyacophilan caddisfly		G1Q	S1	None	None		Yes	
<i>Rhyacophila spinata</i>	spiny rhyacophilan caddisfly		G1G2	S3	None	None		Yes	

**INSECTA, Order Hymenoptera (ants, bees, and wasps)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Andrena blennospermatis</i>	Blennosperma vernal pool andrenid bee		G2	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Andrena macswaini</i>	An andrenid bee		G2	S2	None	None		Yes	
<i>Andrena subapasta</i>	An andrenid bee		G1G2	S1S2	None	None		Yes	
<i>Argochrysis lassenae</i>	Lassen cuckoo wasp		G2	S2	None	None		Yes	
<i>Ashmeadiella chumashae</i>	Channel Islands leaf-cutter bee		G2?	S3	None	None		Yes	
<i>Bombus caliginosus</i>	obscure bumble bee		G2G3	S1S2	None	None	IUCN:VU	Yes	
<i>Bombus crotchii</i>	Crotch's bumble bee		G2	S2	None	Candidate Endangered	IUCN:EN	Yes	Yes
<i>Bombus franklini</i>	Franklin's bumble bee		G1	SH	Endangered	Candidate Endangered	IUCN:CR	Yes	Yes
<i>Bombus morrisoni</i>	Morrison bumble bee		G3	S1S2	None	None	IUCN:VU	Yes	
<i>Bombus occidentalis</i>	western bumble bee		G3	S1	None	Candidate Endangered	IUCN:VU USFS:S	Yes	Yes
<i>Bombus pensylvanicus</i>	American bumble bee		G3G4	S2	None	None	IUCN:VU	Yes	
<i>Bombus suckleyi</i>	Suckley's cuckoo bumble bee		G2G3	S1	Proposed Endangered	Candidate Endangered	IUCN:CR	Yes	Yes
<i>Ceratochrysis bradleyi</i>	Bradley's cuckoo wasp		G1	S1	None	None		Yes	
<i>Ceratochrysis gracilis</i>	Piute Mountains cuckoo wasp		G1	S1	None	None		Yes	
<i>Ceratochrysis longimala</i>	Desert cuckoo wasp		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ceratochrysis menkei</i>	Menke's cuckoo wasp		G2	S2	None	None		Yes	
<i>Chrysis tularensis</i>	Tulare cuckoo wasp		G1G2	S2	None	None		Yes	
<i>Cleptes humboldti</i>	Humboldt cuckoo wasp		G1G2	S1S2	None	None		Yes	
<i>Dufourea stagei</i>	Stage's dufourine bee		G1G2	S1	None	None		Yes	
<i>Eucerceris ruficeps</i>	redheaded sphecoid wasp		G1G3	S2	None	None		Yes	
<i>Euparagia unidentata</i>	Algodones euparagia		G1G2	S1S2	None	None		Yes	
<i>Habropoda pallida</i>	white faced bee		G3	S3	None	None		No	
<i>Halictus harmonius</i>	haromonius halictid bee		G3	S3	None	None		Yes	
<i>Hedychridium argenteum</i>	Riverside cuckoo wasp		G1G2	S1S2	None	None		Yes	
<i>Hedychridium milleri</i>	Borax Lake cuckoo wasp		G1	S1	None	None		Yes	
<i>Lasioglossum channelense</i>	Channel Island sweat bee		G3	S3	None	None		Yes	
<i>Melitta californica</i>	California mellitid bee		G4?	S2?	None	None		Yes	
<i>Microbembex elegans</i>	Algodones elegant sand wasp		G1G2	S1	None	None		Yes	
<i>Minymischa ventura</i>	Ventura cuckoo wasp		GU	SU	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Myrmosula pacifica</i>	Antioch multilid wasp		GH	SH	None	None		Yes	
<i>Neolarra alba</i>	white cuckoo bee		GH	SH	None	None		Yes	
<i>Paranomada californica</i>	California cuckoo bee		G1	S1	None	None		Yes	
<i>Parnopes borregoensis</i>	Borrego parnopes cuckoo wasp		G1G2	S1S2	None	None		Yes	
<i>Perdita algodones</i>	Algodones perdita		G1	S1	None	None		Yes	
<i>Perdita frontalis</i>	Imperial Perdita		G1G2	S1S2	None	None		Yes	
<i>Perdita hirticeps luteocincta</i>	yellow-banded andrenid bee		GNRTX	SX	None	None		Yes	
<i>Perdita scitula antiochensis</i>	Antioch andrenid bee		G1T1	S2	None	None		Yes	
<i>Perdita stephanomeriae</i>	a miner bee		G2	S1S2	None	None		Yes	
<i>Philanthus nasalis</i>	Antioch specid wasp		G2	S2	None	None		Yes	
<i>Protodufourea wasbaueri</i>	Wasbauer's protodufourea bee		G1	S1	None	None		Yes	
<i>Protodufourea zavortinki</i>	Zavortink's protodufourea bee		G1	S1	None	None		Yes	
<i>Rhopalolemma robertsi</i>	Roberts' rhopalolemma bee		G1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Sedomaya glamisensis</i>	Glamis night tiphid		G1	S1	None	None		No	
<i>Sphaerophthalma ecarinata</i>	Glamis night mutillid		G1	S1	None	None		No	
<i>Sphecodogastra antiochensis</i>	Antioch Dunes halcetid bee		G1	S1	None	None		Yes	
<i>Stictiella villegasi</i>	Algodones sand wasp		G1	S1	None	None		No	
<i>Trachusa gummifera</i>	San Francisco Bay Area leaf-cutter bee		G1	S1	None	None		Yes	

## Fishes

## PETROMYZONTIDAE (lampreys)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Entosphenus folletti</i>	northern California brook lamprey		G1G2	S1S2	None	None	CDFW:SSC	Yes	
<i>Entosphenus lethophagus</i>	Pit-Klamath brook lamprey		G3G4	S3	None	None	AFS:VU CDFW:SSC IUCN:LC	Yes	
<i>Entosphenus similis</i>	Klamath River lamprey		G3G4Q	S3	None	None	AFS:TH CDFW:SSC IUCN:NT USFS:S	Yes	
<i>Entosphenus tridentatus</i>	Pacific lamprey		G4	S3	None	None	AFS:VU BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Entosphenus tridentatus ssp. 1</i>	Goose Lake lamprey		G4T1	S1	None	None	AFS:VU CDFW:SSC USFS:S	Yes	
<i>Lampetra ayresii</i>	western river lamprey		G5	S3	None	None	AFS:VU CDFW:SSC IUCN:LC	No	
<i>Lampetra hubbsi</i>	Kern brook lamprey		G1G2	S1S2	None	None	AFS:TH CDFW:SSC IUCN:VU USFS:S	Yes	
<i>Lampetra richardsoni</i>	western brook lamprey		G4G5	S3S4	None	None	CDFW:SSC IUCN:LC USFS:S	Yes	



**ACIPENSERIDAE (sturgeon)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Acipenser medirostris pop. 1</i>	green sturgeon - southern DPS		G2T1	S1	Threatened	None	AFS:VU CDFW:SSC IUCN:EN	Yes	
<i>Acipenser medirostris pop. 2</i>	green sturgeon - northern DPS		G2T1	S1	None	None	AFS:VU CDFW:SSC IUCN:VU	Yes	
<i>Acipenser transmontanus</i>	white sturgeon		G3	S2	None	Candidate Threatened	AFS:EN CDFW:SSC IUCN:VU	No	

**SALMONIDAE (trout and salmon)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Oncorhynchus clarkii clarkii</i>	coast cutthroat trout		G5T4	S3	None	None	AFS:VU CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus clarkii henshawi</i>	Lahontan cutthroat trout		G5T3	S2	Threatened	None	AFS:TH CDFW:SSC	Yes	
<i>Oncorhynchus clarkii seleniris</i>	Paiute cutthroat trout		G5T1	S1	Threatened	None	AFS:EN CDFW:SSC	Yes	
<i>Oncorhynchus gorbuscha</i>	pink salmon		G5	S1	None	None		Yes	
<i>Oncorhynchus keta</i>	chum salmon		G5	S1	None	None		No	
<i>Oncorhynchus kisutch pop. 2</i>	coho salmon - southern Oregon / northern California ESU		G5T2Q	S2	Threatened	Threatened	AFS:TH	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Oncorhynchus kisutch</i> pop. 4	coho salmon - central California coast ESU		G5T2Q	S2	Endangered	Endangered	AFS:EN	Yes	Yes
<i>Oncorhynchus mykiss aguabonita</i>	California golden trout		G5T1	S1	None	None	AFS:TH CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus mykiss aquilarum</i>	Eagle Lake rainbow trout		G5T1	S1	None	None	AFS:TH CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus mykiss gilberti</i>	Kern River rainbow trout		G5T1Q	S1	None	None	AFS:TH CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus mykiss irideus</i> pop. 1	steelhead - Klamath Mountains Province DPS		G5T3Q	S2	None	None	CDFW:SSC USFS:S	No	Yes
<i>Oncorhynchus mykiss irideus</i> pop. 10	steelhead - southern California DPS		G5T1Q	S1	Endangered	Candidate Endangered	AFS:EN	Yes	Yes
<i>Oncorhynchus mykiss irideus</i> pop. 11	steelhead - Central Valley DPS		G5T2Q	S2	Threatened	None	AFS:TH CDFW:SSC	Yes	Yes
<i>Oncorhynchus mykiss irideus</i> pop. 48	steelhead - northern California DPS summer-run		G5T2Q	S2	Threatened	Endangered	AFS:TH	Yes	
<i>Oncorhynchus mykiss irideus</i> pop. 49	steelhead - northern California DPS winter-run		G5T3Q	S3	Threatened	None	AFS:TH CDFW:SSC	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Oncorhynchus mykiss irideus</i> pop. 8	steelhead - central California coast DPS		G5T3Q	S3	Threatened	None	AFS:TH CDFW:SSC	Yes	Yes
<i>Oncorhynchus mykiss irideus</i> pop. 9	steelhead - south-central California coast DPS		G5T2Q	S2	Threatened	None	AFS:TH CDFW:SSC	Yes	Yes
<i>Oncorhynchus mykiss</i> ssp. 1	Goose Lake redband trout		G5T2Q	S2	None	None	AFS:VU CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus mykiss</i> ssp. 2	McCloud River redband trout		G5T1T2	S1S2	None	None	AFS:VU CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus mykiss</i> ssp. 3	Warner Valley redband trout		G5T2Q	S1?	None	None	AFS:VU USFS:S	No	
<i>Oncorhynchus mykiss whitei</i>	Little Kern golden trout		G5T2	S3	Threatened	None	AFS:EN CDFW:SSC	Yes	
<i>Oncorhynchus tshawytscha</i> pop. 11	chinook salmon - Central Valley spring-run ESU		G5T2Q	S2	Threatened	Threatened	AFS:TH	Yes	Yes
<i>Oncorhynchus tshawytscha</i> pop. 13	chinook salmon - Central Valley fall / late fall-run ESU		G5T3Q	S3	None	None	AFS:VU CDFW:SSC USFS:S	No	Yes
<i>Oncorhynchus tshawytscha</i> pop. 14	chinook salmon - southern Oregon/northern California coastal		G5T3Q	S2	Candidate	None	CDFW:SSC	No	
<i>Oncorhynchus tshawytscha</i> pop. 17	chinook salmon - California coastal ESU		G5T2Q	S2	Threatened	None	AFS:TH CDFW:SSC	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Oncorhynchus tshawytscha</i> pop. 30	chinook salmon - upper Klamath and Trinity Rivers ESU		G5T2Q	S2	Candidate	Threatened	CDFW:SSC USFS:S	Yes	
<i>Oncorhynchus tshawytscha</i> pop. 7	chinook salmon - Sacramento River winter-run ESU		G5T1Q	S2	Endangered	Endangered	AFS:EN	Yes	
<i>Prosopium williamsoni</i>	mountain whitefish		G5	S3	None	None	CDFW:SSC	Yes	
<i>Salvelinus confluentus</i>	bull trout		G3	SX	Threatened	Endangered	IUCN:VU	Yes	

**OSMERIDAE (smelt)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Hypomesus transpacificus</i>	Delta smelt		G1	S1	Threatened	Endangered	AFS:TH IUCN:CR	Yes	
<i>Spirinchus thaleichthys</i>	longfin smelt		G5	S1	None	Threatened	IUCN:LC	Yes	
<i>Spirinchus thaleichthys</i> pop. 2	longfin smelt - San Francisco Bay-Delta DPS		G5TNRQ	S1	Endangered	Threatened	IUCN:LC	Yes	
<i>Thaleichthys pacificus</i>	eulachon		G5	S1	Threatened	None	CDFW:SSC IUCN:LC	Yes	Yes

**CYPRINIDAE (minnows and carp)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Gila coerulea</i>	blue chub		G3G4	S2S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Gila elegans</i>	bonytail		G1	S1	Endangered	Endangered	AFS:EN IUCN:CR	Yes	
<i>Gila orcuttii</i>	arroyo chub		G1	S2	None	None	AFS:VU CDFW:SSC IUCN:VU USFS:S	Yes	
<i>Hesperoleucus mitrulus</i>	northern roach		G2	S2	None	None	AFS:VU CDFW:SSC	Yes	
<i>Hesperoleucus parvipinnis</i>	Gualala roach		G3	S3	None	None	CDFW:SSC	Yes	
<i>Hesperoleucus symmetricus serpentinus</i>	Red Hills roach		GNRT1	S1	None	None	AFS:VU BLM:S CDFW:SSC	Yes	
<i>Hesperoleucus symmetricus symmetricus</i>	central California roach		GNRT3	S3	None	None	CDFW:SSC	Yes	
<i>Hesperoleucus venustus navarroensis</i>	northern coastal roach		GNRT3	S3	None	None	CDFW:SSC	Yes	
<i>Hesperoleucus venustus subditus</i>	southern coastal roach		GNRT2	S2	None	None	CDFW:SSC	Yes	
<i>Hesperoleucus venustus x H. symmetricus</i>	Clear Lake roach		G3	S3	None	None	CDFW:SSC	No	
<i>Lavinia exilicauda chi</i>	Clear Lake hitch		G4T1	S1	Proposed Threatened	Threatened	AFS:VU USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lavinia exilicauda exilicauda</i>	Sacramento hitch		G4T3	S3	None	None	CDFW:SSC	No	
<i>Lavinia exilicauda harengus</i>	Monterey hitch		G4T3	S3	None	None	CDFW:SSC	Yes	
<i>Mylopharodon conocephalus</i>	hardhead		G3	S3	None	None	CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail		G3	S3	None	None	AFS:VU CDFW:SSC IUCN:LC	Yes	
<i>Ptychocheilus lucius</i>	Colorado pikeminnow		G1	SX	Endangered	Endangered	CDFW:FP IUCN:VU	Yes	
<i>Rhinichthys gabrielino</i>	Santa Ana speckled dace		G5T1	S1	Proposed Threatened	None	AFS:TH CDFW:SSC USFS:S	Yes	
<i>Rhinichthys nevadensis caldera</i>	Long Valley speckled dace		G5T1	S1	Proposed Endangered	None	AFS:EN CDFW:SSC	Yes	
<i>Rhinichthys nevadensis nevadensis</i>	Amargosa speckled dace		GNRTNR	S2S3	None	None	AFS:TH BLM:S CDFW:SSC	Yes	Yes
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub		G4T1	S1	Endangered	Endangered	AFS:EN CDFW:FP	Yes	
<i>Siphateles bicolor pectinifer</i>	Lahontan Lake tui chub		G4T3	S1S2	None	None	CDFW:SSC	Yes	
<i>Siphateles bicolor snyderi</i>	Owens tui chub		G4T1	S1	Endangered	Endangered	AFS:EN	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Siphateles bicolor ssp. 11</i>	High Rock Springs tui chub		G4TX	SX	None	None		Yes	Yes
<i>Siphateles bicolor ssp. 12</i>	Eagle Lake tui chub		G4T1T2	S1S2	None	None	CDFW:SSC	Yes	Yes
<i>Siphateles bicolor ssp. 14</i>	Pit River tui chub		G4T1T3	S1S3	None	None		No	Yes
<i>Siphateles bicolor thalassinus</i>	Goose Lake tui chub		G4T2T3	S2	None	None	AFS:TH CDFW:SSC	Yes	
<i>Siphateles bicolor vaccaceps</i>	Cow Head tui chub		G4T1	S1	None	None	AFS:EN BLM:S CDFW:SSC	Yes	

**CATOSTOMIDAE (suckers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Catostomus fumeiventris</i>	Owens sucker		G3	S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Catostomus lahontan</i>	Lahontan mountain sucker		GNR	S2	None	None	CDFW:SSC	Yes	
<i>Catostomus latipinnis</i>	flannelmouth sucker		G3G4	S1	None	None	IUCN:LC	Yes	
<i>Catostomus microps</i>	Modoc sucker		G2G3	S2	Delisted	Endangered	AFS:EN CDFW:FP IUCN:NT	Yes	
<i>Catostomus occidentalis lacusanserinus</i>	Goose Lake sucker		G5T2Q	S1	None	None	AFS:VU CDFW:SSC USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Catostomus rimiculus ssp. 1</i>	Jenny Creek sucker		G5T2Q	S1	None	None	AFS:VU	No	
<i>Catostomus santaanae</i>	Santa Ana sucker		G1	S1	Threatened	None	AFS:TH CDFW:SSC IUCN:EN	Yes	
<i>Catostomus snyderi</i>	Klamath largescale sucker		G3	S3	None	None	AFS:TH CDFW:SSC IUCN:NT	Yes	
<i>Chasmistes brevirostris</i>	shortnose sucker		G1G2	S1	Endangered	Endangered	AFS:EN CDFW:FP IUCN:EN	Yes	
<i>Deltistes luxatus</i>	Lost River sucker		G2?	S2	Endangered	Endangered	AFS:EN CDFW:FP IUCN:EN	Yes	
<i>Xyrauchen texanus</i>	razorback sucker		G1	S2	Endangered	Endangered	AFS:EN CDFW:FP IUCN:CR	Yes	

**CYPRINODONTIDAE (killifishes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cyprinodon macularius</i>	desert pupfish		G1	S1	Endangered	Endangered	AFS:EN IUCN:VU	Yes	
<i>Cyprinodon nevadensis amargosae</i>	Amargosa pupfish		G2T1T2	S1S2	None	None	AFS:VU BLM:S CDFW:SSC IUCN:VU	Yes	
<i>Cyprinodon nevadensis nevadensis</i>	Saratoga Springs pupfish		G2T1	S1	None	None	AFS:TH CDFW:SSC IUCN:VU	Yes	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Cyprinodon nevadensis shoshone</i>	Shoshone pupfish		G2T1	S1	None	None	AFS:EN CDFW:SSC IUCN:VU	Yes	
<i>Cyprinodon radiosus</i>	Owens pupfish		G1	S2	Endangered	Endangered	AFS:EN CDFW:FP IUCN:EN	Yes	
<i>Cyprinodon salinus milleri</i>	Cottonball Marsh pupfish		G1T1Q	S1	None	Threatened	AFS:TH IUCN:EN	Yes	
<i>Cyprinodon salinus salinus</i>	Salt Creek pupfish		G1T1	S1	None	None	AFS:VU CDFW:SSC IUCN:EN	Yes	

**GASTEROSTEIDAE (sticklebacks)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Gasterosteus aculeatus microcephalus</i>	resident threespine stickleback	South of Pt. Conception only	G5T2T3	S2S3	None	None		No	
<i>Gasterosteus aculeatus williamsoni</i>	unarmored threespine stickleback		G5T1	S1	Endangered	Endangered	AFS:EN CDFW:FP	Yes	

**CENTRARCHIDAE (sunfishes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Archoplites interruptus</i>	Sacramento perch	Within native range only	G1	S1	None	None	AFS:TH CDFW:SSC IUCN:EN	Yes	

**EMBIOTOCIDAE (surfperches)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Hysterothorax traskii lagunae</i>	Clear Lake tule perch		G5T3	S3	None	None	CDFW:SSC	Yes	
<i>Hysterothorax traskii pomo</i>	Russian River tule perch		G5T4	S4	None	None	AFS:VU CDFW:SSC	Yes	
<i>Hysterothorax traskii traskii</i>	Sacramento-San Joaquin tule perch		G5T2T3	S2S3	None	None		No	

**GOBIIDAE (gobies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Eucyclogobius newberryi</i>	tidewater goby		G3	S3	Endangered	None	AFS:EN CDFW:SSC IUCN:NT	Yes	

**COTTIDAE (sculpins)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cottus asper ssp.</i>	Clear Lake prickly sculpin		G5T1	SNR	None	None	CDFW:SSC	No	
<i>Cottus asperimus</i>	rough sculpin		G2	S2	None	Threatened	AFS:VU BLM:S CDFW:FP IUCN:NT	Yes	
<i>Cottus gulosus</i>	rifle sculpin		G5	S4	None	None	CDFW:SSC IUCN:LC	No	
<i>Cottus klamathensis klamathensis</i>	Upper Klamath marbled sculpin		G4T2	S1S2	None	None	CDFW:SSC	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cottus klamathensis macrops</i>	bigeye marbled sculpin		G4T2T3	S2S3	None	None	AFS:VU CDFW:SSC	Yes	
<i>Cottus klamathensis polyporus</i>	Lower Klamath marbled sculpin		G4T2T4	S2S4	None	None	CDFW:SSC	Yes	
<i>Cottus perplexus</i>	reticulate sculpin		G4	S2S3	None	None	IUCN:LC	No	

## Amphibians

### AMBYSTOMATIDAE (mole salamanders)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ambystoma californiense</i> pop. 1	California tiger salamander - central California DPS		G2G3T3	S3	Threatened	Threatened	CDFW:WL IUCN:VU	Yes	
<i>Ambystoma californiense</i> pop. 2	California tiger salamander - Santa Barbara County DPS		G2G3T2	S2	Endangered	Threatened	CDFW:WL IUCN:VU	Yes	
<i>Ambystoma californiense</i> pop. 3	California tiger salamander - Sonoma County DPS		G2G3T2	S2	Endangered	Threatened	CDFW:WL IUCN:VU	Yes	
<i>Ambystoma macrodactylum croceum</i>	Santa Cruz long-toed salamander		G5T1T2	S2	Endangered	Endangered	CDFW:FP	Yes	
<i>Ambystoma macrodactylum sigillatum</i>	southern long-toed salamander		G5T4	S2	None	None	CDFW:SSC	Yes	

### DICAMPTODONTIDAE (giant salamanders)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Dicamptodon ensatus</i>	California giant salamander		G2G3	S2S3	None	None	CDFW:SSC IUCN:NT	Yes	

**RHYACOTRITONIDAE (Olympic salamanders)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Rhyacotriton variegatus</i>	southern torrent salamander		G3?	S2S3	None	None	CDFW:SSC IUCN:LC USFS:S	Yes	

**SALAMANDRIDAE (newts)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Taricha rivularis</i>	red-bellied newt		G2	S2	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Taricha torosa</i>	Coast Range newt	Monterey Co. & south only	G4	S4	None	None	CDFW:SSC	Yes	

**PLETHODONTIDAE (lungless salamanders)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Aneides niger</i>	Santa Cruz black salamander		G3	S3	None	None	CDFW:SSC	Yes	Yes
<i>Batrachoseps altasierrae</i>	Greenhorn Mountains slender salamander		G2	S2	None	None		Yes	
<i>Batrachoseps bramei</i>	Fairview slender salamander		G3	S3	None	None	USFS:S	Yes	
<i>Batrachoseps campi</i>	Inyo Mountains slender salamander		G3	S3	None	None	BLM:S CDFW:SSC IUCN:EN USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Batrachoseps diabolicus</i>	Hell Hollow slender salamander		G3	S3	None	None	IUCN:DD	No	
<i>Batrachoseps gabrieli</i>	San Gabriel slender salamander		G2G3	S2S3	None	None	IUCN:DD USFS:S	Yes	
<i>Batrachoseps incognitus</i>	San Simeon slender salamander		G2	S2	None	None	IUCN:DD USFS:S	No	
<i>Batrachoseps kawia</i>	Sequoia slender salamander		G2	S2	None	None	IUCN:DD	No	
<i>Batrachoseps luciae</i>	Santa Lucia slender salamander		G3	S3	None	None	IUCN:LC	No	
<i>Batrachoseps major aridus</i>	desert slender salamander		G4T1	S1	Endangered	Endangered		Yes	
<i>Batrachoseps minor</i>	lesser slender salamander		G1	S1	None	None	CDFW:SSC IUCN:DD USFS:S	Yes	
<i>Batrachoseps pacificus</i>	Channel Islands slender salamander		G3G4	S3S4	None	None	IUCN:LC	Yes	
<i>Batrachoseps regius</i>	Kings River slender salamander		G2G3	S2S3	None	None	IUCN:VU USFS:S	Yes	
<i>Batrachoseps relictus</i>	relictual slender salamander		G1	S1	Proposed Endangered	None	CDFW:SSC IUCN:DD USFS:S	Yes	Yes
<i>Batrachoseps robustus</i>	Kern Plateau salamander		G3	S3	None	None	IUCN:NT	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Batrachoseps simatus</i>	Kern Canyon slender salamander		G2G3	S2S3	Proposed Threatened	Threatened	IUCN:VU USFS:S	Yes	
<i>Batrachoseps stebbinsi</i>	Tehachapi slender salamander		G2G3	S2	None	Threatened	BLM:S IUCN:VU	Yes	
<i>Batrachoseps wakei</i>	Arguello slender salamander		G1	S1	None	None		Yes	
<i>Ensatina eschscholtzii croceater</i>	yellow-blotched salamander		G5T3	S3	None	None	BLM:S CDFW:WL USFS:S	Yes	
<i>Ensatina eschscholtzii klauberi</i>	large-blotched salamander		G5T2?	S3	None	None	CDFW:WL USFS:S	Yes	
<i>Hydromantes brunus</i>	limestone salamander		G2G3	S2S3	None	Threatened	BLM:S CDFW:FP IUCN:VU USFS:S	Yes	
<i>Hydromantes platycephalus</i>	Mount Lyell salamander		G4	S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Hydromantes shastae</i>	Shasta salamander		G3	S3	None	Threatened	BLM:S IUCN:VU USFS:S	Yes	Yes
<i>Plethodon asupak</i>	Scott Bar salamander		G2G3	S3	None	Threatened	IUCN:VU	Yes	Yes
<i>Plethodon elongatus</i>	Del Norte salamander		G4	S3	None	None	CDFW:WL IUCN:NT	Yes	
<i>Plethodon stormi</i>	Siskiyou Mountains salamander		G3?	S3	None	Threatened	IUCN:EN USFS:S	Yes	

**ASCAPHIDAE (tailed frogs)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Ascaphus truei</i>	Pacific tailed frog		G4	S3S4	None	None	CDFW:SSC IUCN:LC	Yes	

**SCAPHIOPODIDAE (spadefoot toads)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Scaphiopus couchii</i>	Couch's spadefoot		G5	S2	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Spea hammondi</i>	western spadefoot		G2G3	S3S4	Proposed Threatened	None	BLM:S CDFW:SSC IUCN:NT	Yes	

**BUFONIDAE (true toads)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Anaxyrus californicus</i>	arroyo toad		G2G3	S2	Endangered	None	CDFW:SSC IUCN:EN	Yes	Yes
<i>Anaxyrus canorus</i>	Yosemite toad		G2	S2	Threatened	None	CDFW:SSC IUCN:EN USFS:S	Yes	Yes
<i>Anaxyrus exsul</i>	black toad		G1	S1	None	Threatened	BLM:S CDFW:FP IUCN:VU USFS:S	Yes	Yes
<i>Incilius alvarius</i>	Sonoran Desert toad		G5	SH	None	None	CDFW:SSC IUCN:LC	Yes	Yes



**RANIDAE (true frogs)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lithobates pipiens</i>	northern leopard frog	Native populations only	G5	S2	None	None	CDFW:SSC IUCN:LC	Yes	Yes
<i>Lithobates yavapaiensis</i>	lowland leopard frog		G4	SX	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	Yes
<i>Rana aurora</i>	northern red-legged frog		G4	S3	None	None	CDFW:SSC IUCN:LC USFS:S	Yes	Yes
<i>Rana boylei</i> pop. 1	foothill yellow-legged frog - north coast DPS		G3T4	S4	None	None	BLM:S CDFW:SSC USFS:S	Yes	
<i>Rana boylei</i> pop. 2	foothill yellow-legged frog - Feather River DPS		G3T2	S2	Threatened	Threatened	BLM:S USFS:S	Yes	
<i>Rana boylei</i> pop. 3	foothill yellow-legged frog - north Sierra DPS		G3T2	S2	None	Threatened	BLM:S USFS:S	Yes	
<i>Rana boylei</i> pop. 4	foothill yellow-legged frog - central coast DPS		G3T2	S2	Threatened	Endangered	BLM:S USFS:S	Yes	
<i>Rana boylei</i> pop. 5	foothill yellow-legged frog - south Sierra DPS		G3T2	S2	Endangered	Endangered	BLM:S USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Rana boylei</i> pop. 6	foothill yellow-legged frog - south coast DPS		G3T1	S1	Endangered	Endangered	BLM:S USFS:S	Yes	
<i>Rana cascadae</i>	Cascades frog		G3	S3	None	Candidate Endangered	CDFW:SSC IUCN:NT USFS:S	Yes	
<i>Rana draytonii</i>	California red-legged frog		G2G3	S2S3	Threatened	None	CDFW:SSC IUCN:VU	Yes	Yes
<i>Rana muscosa</i>	southern mountain yellow-legged frog		G1	S2	Endangered	Endangered	CDFW:WL IUCN:EN USFS:S	Yes	Yes
<i>Rana pretiosa</i>	Oregon spotted frog		G2	SH	Threatened	None	BLM:S CDFW:SSC IUCN:VU	Yes	
<i>Rana sierrae</i>	Sierra Nevada yellow-legged frog		G2	S2	Endangered	Threatened	CDFW:WL IUCN:EN USFS:S	Yes	Yes

## Reptiles

### CHELONIIDAE (sea turtles)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Chelonia mydas</i>	green turtle		G3	S1	Threatened	None	IUCN:EN	Yes	

### KINOSTERNIDAE (musk and mud turtles)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Kinosternon sonoriense</i>	Sonoran mud turtle		G3	SH	None	None	CDFW:SSC IUCN:NT	Yes	

### EMYDIDAE (box and water turtles)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Actinemys marmorata</i>	northwestern pond turtle		G2	SNR	Proposed Threatened	None	BLM:S CDFW:SSC IUCN:VU USFS:S	Yes	
<i>Actinemys pallida</i>	southwestern pond turtle		G2G3	SNR	Proposed Threatened	None	BLM:S CDFW:SSC IUCN:VU USFS:S	Yes	

### TESTUDINIDAE (land tortoises)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Gopherus agassizii</i>	desert tortoise		G3	S2S3	Threatened	Threatened	IUCN:CR	Yes	

**GEKKONIDAE (geckos)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Coleonyx switaki</i>	barefoot banded gecko		G4	S3	None	Threatened	BLM:S IUCN:LC	Yes	
<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko		G5T5	S1S2	None	None	CDFW:SSC	Yes	

**CROTAPHYTIDAE (collared and leopard lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Gambelia copeii</i>	Cope's leopard lizard		G5	S1S2	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Gambelia sila</i>	blunt-nosed leopard lizard		G1	S2	Endangered	Endangered	CDFW:FP IUCN:EN	Yes	

**PHRYNOSOMATIDAE (spiny lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Phrynosoma blainvillii</i>	coast horned lizard		G4	S4	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Phrynosoma mcallii</i>	flat-tailed horned lizard		G3	S3	None	None	BLM:S CDFW:SSC IUCN:NT	Yes	
<i>Sceloporus graciosus graciosus</i>	northern sagebrush lizard		G5T5	S3	None	None	BLM:S	Yes	
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard		G1Q	S1	Threatened	Endangered	IUCN:EN	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Uma notata</i>	Colorado Desert fringe-toed lizard		G3	S2	None	None	BLM:S CDFW:SSC IUCN:NT	Yes	
<i>Uma scoparia</i>	Mojave fringe-toed lizard		G3G4	S3S4	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	

**XANTUSIIDAE (night lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Xantusia gracilis</i>	sandstone night lizard		G1	S2	None	None	CDFW:SSC IUCN:VU	Yes	
<i>Xantusia riversiana</i>	island night lizard		G3	S3	Delisted	None	IUCN:LC	Yes	
<i>Xantusia vigilis sierrae</i>	Sierra night lizard		G5T1	S1	None	None	CDFW:SSC USFS:S	Yes	Yes

**SCINCIDAE (skinks)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink		G5T5	S2S3	None	None	BLM:S CDFW:WL	Yes	

**TEIIDAE (whiptails and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail		G5	S2S3	None	None	CDFW:WL IUCN:LC USFS:S	Yes	
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail		G5T5	S3	None	None	CDFW:SSC	Yes	

**ANGUIDAE (alligator lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Elgaria panamintina</i>	Panamint alligator lizard		G3	S3	None	None	BLM:S CDFW:SSC IUCN:VU USFS:S	Yes	

**ANNIELLIDAE (legless lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Anniella alexanderae</i>	Temblor legless lizard		G1	S1	None	Candidate Endangered	CDFW:SSC	Yes	Yes
<i>Anniella campi</i>	Southern Sierra legless lizard		G1G2	S2	None	None	CDFW:SSC USFS:S	Yes	Yes
<i>Anniella grinnelli</i>	Bakersfield legless lizard		G2G3	S2S3	None	None	CDFW:SSC	Yes	Yes
<i>Anniella pulchra</i>	Northern California legless lizard		G3	S2S3	None	None	CDFW:SSC USFS:S	Yes	Yes
<i>Anniella spp.</i>	California legless lizard		G3G4	S3S4	None	None	CDFW:SSC	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Anniella stebbinsi</i>	Southern California legless lizard		G3	S3	None	None	CDFW:SSC USFS:S	Yes	Yes

**HELODERMATIDAE (venomous lizards)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Heloderma suspectum cinctum</i>	banded Gila monster		G4T3	S1	None	None	BLM:S CDFW:SSC	Yes	Yes

**BOIDAE (boas)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Charina umbratica</i>	southern rubber boa		G2G3	S2	None	Threatened	IUCN:VU USFS:S	Yes	

**COLUBRIDAE (egg-laying snakes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Arizona elegans occidentalis</i>	California glossy snake		G5T2	S2	None	None	CDFW:SSC	Yes	
<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake		G5T2T3	S2?	None	None	USFS:S	Yes	
<i>Diadophis punctatus regalis</i>	regal ringneck snake		G5TNR	S2	None	None	CDFW:SSC	Yes	
<i>Diadophis punctatus similis</i>	San Diego ringneck snake		G5T4	S2?	None	None	USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Masticophis flagellum ruddocki</i>	San Joaquin coachwhip		G5T2T3	S3	None	None	CDFW:SSC	Yes	
<i>Masticophis fuliginosus</i>	Baja California coachwhip		G5	S1S2	None	None	CDFW:SSC	Yes	
<i>Masticophis lateralis euryxanthus</i>	Alameda whipsnake		G4T2	S2	Threatened	Threatened		Yes	
<i>Pituophis catenifer pumilus</i>	Santa Cruz Island gophersnake		G5T1T2	S1?	None	None	CDFW:WL	No	
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake		G5T4	S3	None	None	CDFW:SSC	Yes	

**NATRICIDAE (live-bearing snakes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Thamnophis gigas</i>	giant gartersnake		G2	S2	Threatened	Threatened	IUCN:VU	Yes	
<i>Thamnophis hammondi</i>	two-striped gartersnake		G4	S3S4	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Thamnophis hammondi</i> pop. 1	Santa Catalina gartersnake		G4T1?	S1	None	None		No	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Thamnophis sirtalis pop. 1</i>	south coast gartersnake	Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.	G5T1T2	S1S2	None	None	CDFW:SSC	Yes	Yes
<i>Thamnophis sirtalis tetrataenia</i>	San Francisco gartersnake		G5T2Q	S2	Endangered	Endangered	CDFW:FP	Yes	

**VIPERIIDAE (vipers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Crotalus ruber</i>	red-diamond rattlesnake		G4	S3	None	None	CDFW:SSC IUCN:LC USFS:S	Yes	

## Birds

### ANATIDAE (ducks, geese, and swans)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Anser albifrons elgasi</i>	tule greater white-fronted goose	Wintering	G5T3	S3	None	None	CDFW:SSC	No	
<i>Aythya americana</i>	redhead	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC	No	
<i>Aythya valisineria</i>	canvasback	Nesting	G5	S2	None	None	IUCN:LC	No	
<i>Branta bernicla</i>	brant	Wintering & staging	G5	S2	None	None	CDFW:SSC IUCN:LC	No	
<i>Branta hutchinsii leucopareia</i>	cackling (=Aleutian Canada) goose	Wintering	G5T3	S3	Delisted	None	CDFW:WL	Yes	
<i>Bucephala islandica</i>	Barrow's goldeneye	Nesting	G5	S1	None	None	CDFW:SSC IUCN:LC	No	
<i>Dendrocygna bicolor</i>	fulvous whistling-duck	Nesting	G5	S1	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Histrionicus histrionicus</i>	harlequin duck	Nesting	G4	S2	None	None	CDFW:SSC IUCN:LC	Yes	

### PHASIANIDAE (grouse and ptarmigan)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Bonasa umbellus</i>	ruffed grouse		G5	S3S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Centrocercus urophasianus</i>	greater sage-grouse	Nesting & leks	G3G4	S2S3	Proposed Threatened	Candidate Endangered	BLM:S CDFW:SSC IUCN:NT USFS:S	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Dendragapus fuliginosus howardi</i>	Mount Pinos sooty grouse		G5T2T3	S3	None	None	CDFW:SSC	Yes	Yes
<i>Tympanuchus phasianellus columbianus</i>	Columbian sharp-tailed grouse		G5T3	SX	None	None	CDFW:SSC	No	

**ODONTOPHORIDAE (partridge and quail)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Callipepla californica catalinensis</i>	Catalina California quail		G5T2	S2	None	None	CDFW:SSC	No	

**GAVIIDAE (loons)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Gavia immer</i>	common loon	Nesting	G5	S1	None	None	CDFW:SSC IUCN:LC	No	

**DIOMEDEIDAE (albatrosses)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Phoebastria albatrus</i>	short-tailed albatross		G1	S1	Endangered	None	CDFW:SSC IUCN:VU	No	

**HYDROBATIDAE (storm petrels)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Hydrobates furcatus</i>	fork-tailed storm-petrel	Nesting colony	G5	S1	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Hydrobates homochroa</i>	ashy storm-petrel	Nesting colony	G2	S2	None	None	BLM:S CDFW:SSC IUCN:EN USFWS:BCC	Yes	
<i>Hydrobates melania</i>	black storm-petrel	Nesting colony	G3	S1	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	

**PELECANIIDAE (pelicans)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Pelecanus erythrorhynchos</i>	American white pelican	Nesting colony	G4	S1S2	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Nesting colony & communal roosts	G4T3T4	S3	Delisted	Delisted	BLM:S USFS:S	Yes	Yes

**PHALACROCORACIDAE (cormorants)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Nannopterum auritum</i>	double-crested cormorant	Nesting colony	G5	S4	None	None	CDFW:WL IUCN:LC	Yes	

**ARDEIDAE (herons, egrets, and bitterns)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Ardea alba</i>	great egret	Nesting colony	G5	S4	None	None	CDF:S IUCN:LC	Yes	
<i>Ardea herodias</i>	great blue heron	Nesting colony	G5	S4	None	None	CDF:S IUCN:LC	Yes	
<i>Botaurus lentiginosus</i>	American bittern		G5	S3S4	None	None	IUCN:LC	No	
<i>Egretta thula</i>	snowy egret	Nesting colony	G5	S4	None	None	IUCN:LC	Yes	
<i>Ixobrychus exilis</i>	least bittern	Nesting	G4	S2	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Nycticorax nycticorax</i>	black-crowned night heron	Nesting colony	G5	S4	None	None	IUCN:LC	Yes	

**THRESKIORNITHIDAE (ibises and spoonbills)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Plegadis chihi</i>	white-faced ibis	Nesting colony	G5	S3S4	None	None	CDFW:WL IUCN:LC	Yes	

**CICONIIDAE (storks)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Mycteria americana</i>	wood stork		G4	S1	None	None	CDFW:SSC IUCN:LC	No	

**CATHARTIDAE (New World vultures)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Gymnogyps californianus</i>	California condor		G1	S2	Endangered	Endangered	CDF:S CDFW:FP IUCN:CR	Yes	

**PANDIONIDAE (ospreys)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Pandion haliaetus</i>	osprey	Nesting	G5	S4	None	None	CDF:S CDFW:WL IUCN:LC	Yes	

**ACCIPITRIDAE (hawks, kites, harriers, and eagles)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Accipiter atricapillus</i>	American goshawk	Nesting	G5	S3	None	None	BLM:S CDF:S CDFW:SSC USFS:S	Yes	
<i>Accipiter cooperii</i>	Cooper's hawk	Nesting	G5	S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Accipiter striatus</i>	sharp-shinned hawk	Nesting	G5	S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Aquila chrysaetos</i>	golden eagle	Nesting and wintering	G5	S3	None	None	BLM:S CDF:S CDFW:FP CDFW:WL IUCN:LC	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Buteo regalis</i>	ferruginous hawk	Wintering	G4	S3S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Buteo swainsoni</i>	Swainson's hawk	Nesting	G5	S4	None	Threatened	BLM:S IUCN:LC	Yes	
<i>Circus hudsonius</i>	northern harrier	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	Yes
<i>Elanus leucurus</i>	white-tailed kite	Nesting	G5	S3S4	None	None	BLM:S CDFW:FP IUCN:LC	Yes	
<i>Haliaeetus leucocephalus</i>	bald eagle	Nesting and wintering	G5	S3	Delisted	Endangered	BLM:S CDF:S CDFW:FP IUCN:LC USFS:S	Yes	
<i>Parabuteo unicinctus</i>	Harris' hawk	Nesting	G5	S1	None	None	CDFW:WL IUCN:LC	No	

**FALCONIDAE (falcons)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Falco columbarius</i>	merlin	Wintering	G5	S3S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Falco mexicanus</i>	prairie falcon	Nesting	G5	S4	None	None	CDFW:WL IUCN:LC	Yes	
<i>Falco peregrinus anatum</i>	American peregrine falcon	Nesting	G4T4	S3S4	Delisted	Delisted	CDF:S	Yes	Yes

**RALLIDAE (rails, coots, and gallinules)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Coturnicops noveboracensis</i>	yellow rail		G4	S2	None	None	CDFW:SSC IUCN:LC USFS:S USFWS:BCC	Yes	
<i>Laterallus jamaicensis coturniculus</i>	California black rail		G3T1	S2	None	Threatened	BLM:S CDFW:FP IUCN:EN	Yes	Yes
<i>Rallus obsoletus levipes</i>	light-footed Ridgway's rail		G3T1T2	S1	Endangered	Endangered	CDFW:FP	Yes	
<i>Rallus obsoletus obsoletus</i>	California Ridgway's rail		G3T1	S2	Endangered	Endangered	CDFW:FP	Yes	
<i>Rallus obsoletus yumanensis</i>	Yuma Ridgway's rail		G3T3	S1	Endangered	Threatened	CDFW:FP	Yes	

**GRUIDAE (cranes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Antigone canadensis canadensis</i>	lesser sandhill crane	Wintering	G5T4	S4	None	None	CDFW:SSC	No	
<i>Antigone canadensis tabida</i>	greater sandhill crane	Nesting & wintering	G5T5	S2	None	Threatened	BLM:S CDFW:FP USFS:S	Yes	



**CHARADRIIDAE (plovers and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Charadrius montanus</i>	mountain plover	Wintering	G3	S2	None	None	BLM:S CDFW:SSC IUCN:NT USFWS:BCC	Yes	Yes
<i>Charadrius nivosus nivosus</i>	western snowy plover	Nesting	G3T3	S3	Threatened	None	CDFW:SSC	Yes	Yes

**SCOLOPACIDAE (sandpipers and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Numenius americanus</i>	long-billed curlew	Nesting	G4	S2	None	None	CDFW:WL IUCN:LC	No	

**LARIDAE (gulls and terns)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Chlidonias niger</i>	black tern	Nesting colony	G4G5	S2	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Gelochelidon nilotica</i>	gull-billed tern	Nesting colony	G5	S1	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	Yes
<i>Hydroprogne caspia</i>	Caspian tern	Nesting colony	G5	S4	None	None	IUCN:LC	Yes	Yes
<i>Larus californicus</i>	California gull	Nesting colony	G5	S4	None	None	CDFW:WL IUCN:LC USFWS:BCC	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Leucophaeus atricilla</i>	laughing gull	Nesting colony	G5	S1	None	None	CDFW:WL IUCN:LC	No	
<i>Rynchops niger</i>	black skimmer	Nesting colony	G5	S2	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Sternula antillarum browni</i>	California least tern	Nesting colony	G4T2T3Q	S2	Endangered	Endangered	CDFW:FP	Yes	Yes
<i>Thalasseus elegans</i>	elegant tern	Nesting colony	G4	S3	None	None	CDFW:WL IUCN:NT USFWS:BCC	No	Yes

**ALCIDAE (auklets, puffins, and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Brachyramphus marmoratus</i>	marbled murrelet	Nesting	G3	S2	Threatened	Endangered	CDF:S IUCN:EN	Yes	
<i>Cerorhinca monocerata</i>	rhinoceros auklet	Nesting colony	G5	S3	None	None	CDFW:WL IUCN:LC	Yes	
<i>Fratercula cirrhata</i>	tufted puffin	Nesting colony	G5	S1S2	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Ptychoramphus aleuticus</i>	Cassin's auklet	Nesting colony	G4	S3	None	None	CDFW:SSC IUCN:NT USFWS:BCC	No	
<i>Synthliboramphus scrippsi</i>	Scripps's murrelet	Nesting colony	G2	S2	None	Threatened	BLM:S IUCN:VU USFWS:BCC	Yes	Yes

**CUCULIDAE (cuckoos and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	Nesting	G5T2T3	S1	Threatened	Endangered	BLM:S USFS:S	Yes	

**STRIGIDAE (owls)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Asio flammeus</i>	short-eared owl	Nesting	G5	S2	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Asio otus</i>	long-eared owl	Nesting	G5	S3?	None	None	CDFW:SSC IUCN:LC USFWS:BCC	Yes	
<i>Athene cunicularia</i>	burrowing owl	Burrow sites & some wintering sites	G4	S2	None	Candidate Endangered	BLM:S CDFW:SSC IUCN:LC USFWS:BCC	Yes	Yes
<i>Micrathene whitneyi</i>	elf owl	Nesting	G4	S1	None	Endangered	BLM:S IUCN:LC	Yes	
<i>Psilosops flammeolus</i>	flammulated owl	Nesting	G4	S2S4	None	None	IUCN:LC USFWS:BCC	Yes	
<i>Strix nebulosa</i>	great gray owl	Nesting	G5	S1	None	Endangered	CDF:S IUCN:LC USFS:S	Yes	
<i>Strix occidentalis caurina</i>	northern spotted owl		G3G4T3	S2	Threatened	Threatened	CDF:S	No	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Strix occidentalis occidentalis</i>	California spotted owl		G3G4T2T3	S2	None	None	BLM:S CDFW:SSC USFS:S USFWS:BCC	No	Yes

**APODIDAE (swifts)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Chaetura vauxi</i>	Vaux's swift	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC USFWS:BCC	No	
<i>Cypseloides niger</i>	black swift	Nesting	G4	S3	None	None	CDFW:SSC IUCN:VU USFWS:BCC	Yes	

**TROCHILIDAE (hummingbirds)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Calypte costae</i>	Costa's hummingbird	Nesting	G5	S4	None	None	IUCN:LC USFWS:BCC	No	
<i>Selasphorus rufus</i>	rufous hummingbird	Nesting	G4	S1S2	None	None	IUCN:NT USFWS:BCC	No	

**PICIDAE (woodpeckers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Colaptes chrysoides</i>	gilded flicker		G4	S2	None	Endangered	BLM:S IUCN:LC USFWS:BCC	Yes	
<i>Melanerpes lewis</i>	Lewis' woodpecker	Nesting	G4	S4	None	None	IUCN:LC USFWS:BCC	Yes	
<i>Melanerpes uropygialis</i>	Gila woodpecker		G5	S2	None	Endangered	BLM:S IUCN:LC USFWS:BCC	Yes	
<i>Picoides arcticus</i>	black-backed woodpecker		G5	S2	None	None	IUCN:LC	Yes	

**TYRANNIDAE (tyrant flycatchers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Contopus cooperi</i>	olive-sided flycatcher	Nesting	G4	S3	None	None	CDFW:SSC IUCN:NT USFWS:BCC	Yes	
<i>Empidonax traillii</i>	willow flycatcher	Nesting	G5	S3	None	Endangered	IUCN:LC USFS:S	Yes	Yes
<i>Empidonax traillii brewsteri</i>	little willow flycatcher	Nesting	G5T3T4	S3	None	Endangered		Yes	Yes
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Nesting	G5T2	S3	Endangered	Endangered		Yes	Yes
<i>Myiarchus tyrannulus</i>	brown-crested flycatcher	Nesting	G5	S3	None	None	CDFW:WL IUCN:LC	Yes	
<i>Pyrocephalus rubinus</i>	vermillion flycatcher	Nesting	G5	S2S3	None	None	CDFW:SSC IUCN:LC	Yes	

**LANIIDAE (shrikes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lanius ludovicianus</i>	loggerhead shrike	Nesting	G4	S4	None	None	CDFW:SSC IUCN:NT	Yes	
<i>Lanius ludovicianus anthonyi</i>	Island loggerhead shrike		G4T1	S1	None	None	CDFW:SSC	No	
<i>Lanius ludovicianus mearnsi</i>	San Clemente loggerhead shrike		G4T1Q	S2	Endangered	None	CDFW:SSC	Yes	Yes

**VIREONIDAE (vireos)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Vireo bellii arizonae</i>	Arizona Bell's vireo	Nesting	G5T4	S3	None	Endangered	BLM:S	Yes	Yes
<i>Vireo bellii pusillus</i>	least Bell's vireo	Nesting	G5T2	S3	Endangered	Endangered		Yes	Yes
<i>Vireo huttoni unitti</i>	Catalina Hutton's vireo		G5T2?	S2	None	None	CDFW:SSC	No	
<i>Vireo vicinior</i>	gray vireo	Nesting	G5	S2	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	

**CORVIDAE (jays, crows, and magpies)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Aphelocoma californica cana</i>	Eagle Mountain scrub-jay		G5T3	S3	None	None	CDFW:WL	No	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Aphelocoma insularis</i>	Island scrub-jay		G1	S1	None	None	IUCN:NT USFWS:BCC	No	
<i>Pica nuttalli</i>	yellow-billed magpie	Nesting & communal roosts	G3G4	S3S4	None	None	IUCN:VU USFWS:BCC	No	

**ALAUDIDAE (larks)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Eremophila alpestris actia</i>	California horned lark		G5T4Q	S4	None	None	CDFW:WL IUCN:LC	Yes	

**HIRUNDINIDAE (swallows)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Progne subis</i>	purple martin	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Riparia riparia</i>	bank swallow	Nesting	G5	S3	None	Threatened	BLM:S IUCN:LC	Yes	

**PARIDAE (titmice and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Poecile atricapillus</i>	black-capped chickadee		G5	S3	None	None	CDFW:WL IUCN:LC	No	

**TROGLODYTIDAE (wrens)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	San Diego & Orange Counties only	G5T3Q	S2	None	None	CDFW:SSC USFS:S USFWS:BCC	Yes	Yes
<i>Cistothorus palustris clarkae</i>	Clark's marsh wren		G5T2	S2	None	None	CDFW:SSC	No	
<i>Thryomanes bewickii leucophrys</i>	San Clemente Bewick's wren		G5TX	SX	None	None	CDFW:SSC	No	

**POLIOPTILIDAE (gnatcatchers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Poliioptila californica californica</i>	coastal California gnatcatcher		G4G5T3Q	S2	Threatened	None	CDFW:SSC	Yes	Yes
<i>Poliioptila melanura</i>	black-tailed gnatcatcher		G5	S3S4	None	None	CDFW:WL IUCN:LC	Yes	

**MIMIDAE (mockingbirds and thrashers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Toxostoma bendirei</i>	Bendire's thrasher		G4	S2	None	None	BLM:S CDFW:SSC IUCN:VU USFWS:BCC	Yes	
<i>Toxostoma crissale</i>	Crissal thrasher		G5	S2	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Toxostoma lecontei</i>	Le Conte's thrasher		G4	S3	None	None	BLM:S CDFW:SSC IUCN:LC USFWS:BCC	Yes	Yes

**PASSERELLIDAE (sparrows)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow		G5T3	S4	None	None	CDFW:WL	Yes	
<i>Aimophila ruficeps obscura</i>	Santa Cruz Island rufous-crowned sparrow		G5T2	S2	None	None	CDFW:SSC	No	
<i>Ammodramus savannarum</i>	grasshopper sparrow	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Artemisiospiza belli belli</i>	Bell's sparrow		G5T2T3	S3	None	None	CDFW:WL	Yes	
<i>Artemisiospiza belli clementeae</i>	San Clemente Bell's sparrow		G5T2Q	S2	Delisted	None	CDFW:SSC	Yes	Yes
<i>Junco hyemalis caniceps</i>	gray-headed junco	Nesting	G5T5	S1	None	None	CDFW:WL	Yes	
<i>Melospiza melodia graminea</i>	Channel Island song sparrow		G5T1	S1	None	None	CDFW:SSC USFWS:BCC	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Melospiza melodia maxillaris</i>	Suisun song sparrow		G5T3	S2	None	None	CDFW:SSC	Yes	
<i>Melospiza melodia pop. 1</i>	song sparrow ("Modesto" population)		G5T3?Q	S3?	None	None	CDFW:SSC	Yes	
<i>Melospiza melodia pusillula</i>	Alameda song sparrow		G5T2T3	S2	None	None	CDFW:SSC USFWS:BCC	Yes	
<i>Melospiza melodia samuelis</i>	San Pablo song sparrow		G5T2	S2	None	None	CDFW:SSC USFWS:BCC	Yes	
<i>Melozona aberti</i>	Abert's towhee		G4	S4	None	None	IUCN:LC	No	
<i>Melozona crissalis eremophilus</i>	Inyo California towhee		G4G5T2	S2	Threatened	Endangered		Yes	Yes
<i>Passerculus sandwichensis alaudinus</i>	Bryant's savannah sparrow		G5T3	S3	None	None	CDFW:SSC	No	
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow		G5T3	S3	None	Endangered	USFWS:BCC	Yes	
<i>Passerculus sandwichensis rostratus</i>	large-billed savannah sparrow	Wintering	G5T2T3Q	S2	None	None	CDFW:SSC	No	
<i>Pipilo maculatus clementae</i>	San Clemente spotted towhee		G5T1T2	S3	None	None	CDFW:SSC	No	
<i>Pooecetes gramineus affinis</i>	Oregon vesper sparrow	Wintering	G5T2	S2	None	None	CDFW:SSC USFWS:BCC	No	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Spizella breweri</i>	Brewer's sparrow	Nesting	G5	S4	None	None	IUCN:LC	Yes	

**ICTERIIDAE (yellow-breasted chats)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Icteria virens</i>	yellow-breasted chat	Nesting	G5	S4	None	None	CDFW:SSC IUCN:LC	Yes	

**ICTERIDAE (blackbirds)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Agelaius phoeniceus aciculatus</i>	Kern red-winged blackbird		G5T1	S1	None	None	CDFW:SSC	No	
<i>Agelaius tricolor</i>	tricolored blackbird	Nesting colony	G1G2	S2	None	Threatened	BLM:S CDFW:SSC IUCN:EN USFWS:BCC	Yes	
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	

**PARULIDAE (wood-warblers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Geothlypis trichas sinuosa</i>	saltmarsh common yellowthroat		G5T3	S3	None	None	CDFW:SSC USFWS:BCC	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Leiothlypis luciae</i>	Lucy's warbler	Nesting	G5	S3	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Leiothlypis virginiae</i>	Virginia's warbler	Nesting	G5	S2	None	None	CDFW:WL IUCN:LC USFWS:BCC	Yes	
<i>Setophaga petechia</i>	yellow warbler	Nesting	G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	Yes
<i>Setophaga petechia sonorana</i>	Sonoran yellow warbler	Nesting	G5T2T3	S2	None	None	CDFW:SSC	Yes	Yes

**CARDINALIDAE (cardinals)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Cardinalis cardinalis</i>	northern cardinal		G5	S1	None	None	CDFW:WL IUCN:LC	Yes	
<i>Piranga flava</i>	hepatic tanager	Nesting	G5	S1	None	None	CDFW:WL IUCN:LC	Yes	
<i>Piranga rubra</i>	summer tanager	Nesting	G5	S1	None	None	CDFW:SSC IUCN:LC	Yes	

**FRINGILLIDAE (finches and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Spinus lawrencei</i>	Lawrence's goldfinch	Nesting	G3G4	S4	None	None	IUCN:LC USFWS:BCC	Yes	

## Mammals

### SORICIDAE (shrews)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Sorex lyelli</i>	Mount Lyell shrew		G3G4	S3S4	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Sorex ornatus relictus</i>	Buena Vista Lake ornate shrew		G5T1	S1	Endangered	None	CDFW:SSC	Yes	
<i>Sorex ornatus salarius</i>	Monterey shrew		G5T1T2	S1S2	None	None	CDFW:SSC	Yes	
<i>Sorex ornatus salicornicus</i>	southern California saltmarsh shrew		G5T1?	S1	None	None	CDFW:SSC	Yes	
<i>Sorex ornatus sinuosus</i>	Suisun shrew		G5T1T2Q	S1S2	None	None	CDFW:SSC	Yes	
<i>Sorex ornatus willetti</i>	Santa Catalina shrew		G5T1	S1	None	None	CDFW:SSC	Yes	
<i>Sorex vagrans halicoetes</i>	salt-marsh wandering shrew		G5T1	S1	None	None	CDFW:SSC	Yes	
<i>Sorex vagrans paludivagus</i>	Monterey vagrant shrew		G5T1	S2	None	None		Yes	

### TALPIDAE (moles)

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Scapanus latimanus insularis</i>	Angel Island mole		G5T1	S2?	None	None		Yes	
<i>Scapanus latimanus parvus</i>	Alameda Island mole		G5T1Q	SH	None	None	CDFW:SSC	Yes	

**PHYLLOSTOMIDAE (leaf-nosed bats)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat		G3G4	S1	None	None	CDFW:SSC IUCN:NT	Yes	
<i>Leptonycteris yerbabuenae</i>	lesser long-nosed bat		G3	S1	Delisted	None	CDFW:SSC IUCN:NT	Yes	Yes
<i>Macrotus californicus</i>	California leaf-nosed bat		G3G4	S3	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	

**VESPERTILIONIDAE (evening bats)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Antrozous pallidus</i>	pallid bat		G4	S3	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat		G4	S2	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Euderma maculatum</i>	spotted bat		G4	S3	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Lasionycteris noctivagans</i>	silver-haired bat		G3G4	S3S4	None	None	IUCN:LC	Yes	
<i>Lasiurus cinereus</i>	hoary bat		G3G4	S4	None	None	IUCN:LC	Yes	
<i>Lasiurus frantzii</i>	western red bat		G4	S3	None	None	CDFW:SSC IUCN:LC	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lasiurus xanthinus</i>	western yellow bat		G4G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Myotis ciliolabrum</i>	western small-footed myotis		G5	S3	None	None	BLM:S IUCN:LC	Yes	
<i>Myotis evotis</i>	long-eared myotis		G5	S3	None	None	BLM:S IUCN:LC	Yes	
<i>Myotis occultus</i>	Arizona Myotis		G4G5	S1	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Myotis thysanodes</i>	fringed myotis		G4	S3	None	None	BLM:S IUCN:LC USFS:S	Yes	
<i>Myotis velifer</i>	cave myotis		G4G5	S1	None	None	BLM:S CDFW:SSC IUCN:LC	Yes	
<i>Myotis volans</i>	long-legged myotis		G4G5	S3	None	None	IUCN:LC	Yes	
<i>Myotis yumanensis</i>	Yuma myotis		G5	S4	None	None	BLM:S IUCN:LC	Yes	

**MOLOSSIDAE (free-tailed bats)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Eumops perotis californicus</i>	western mastiff bat		G4G5T4	S3S4	None	None	BLM:S CDFW:SSC	Yes	
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat		G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Nyctinomops macrotis</i>	big free-tailed bat		G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	

**OCHOTONIDAE (pikas)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ochotona princeps schisticeps</i>	gray-headed pika		G5T4	S2S4	None	None		Yes	

**LEPORIDAE (rabbits and hares)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Brachylagus idahoensis</i>	pygmy rabbit		G4	S3	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	
<i>Lepus americanus klamathensis</i>	Oregon snowshoe hare		G5T3T4Q	S2	None	None	CDFW:SSC	Yes	
<i>Lepus americanus tahoensis</i>	Sierra Nevada snowshoe hare		G5T3T4Q	S2	None	None	CDFW:SSC	Yes	
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit		G5T3T4	S3S4	None	None		Yes	
<i>Lepus townsendii townsendii</i>	western white-tailed jackrabbit		G5T5	S3?	None	None	CDFW:SSC	Yes	
<i>Sylvilagus bachmani riparius</i>	riparian brush rabbit		G5T1	S2	Endangered	Endangered		Yes	



**APLODONTIIDAE (mountain beavers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Aplodontia rufa californica</i>	Sierra Nevada mountain beaver		G5T3T4	S2S3	None	None	CDFW:SSC IUCN:LC	Yes	Yes
<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver		G5TNR	SNR	None	None		Yes	
<i>Aplodontia rufa nigra</i>	Point Arena mountain beaver		G5T1	S1	Endangered	None	CDFW:SSC IUCN:LC	Yes	Yes
<i>Aplodontia rufa phaea</i>	Point Reyes mountain beaver		G5T2	S2	None	None	CDFW:SSC IUCN:LC	Yes	Yes

**SCIURIDAE (squirrels and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Ammospermophilus nelsoni</i>	Nelson's (=San Joaquin) antelope squirrel		G2G3	S3	None	Threatened	BLM:S IUCN:EN	Yes	
<i>Callospermophilus lateralis bernardinus</i>	San Bernardino golden-mantled ground squirrel		G5T1	S1	None	None		Yes	
<i>Glaucomys oregonensis californicus</i>	San Bernardino flying squirrel		G5T1T2	S1S2	None	None	CDFW:SSC USFS:S	Yes	
<i>Neotamias alpinus</i>	Alpine chipmunk		G4	S3	None	None	IUCN:LC	Yes	
<i>Neotamias panamintinus acrus</i>	Kingston Mountain chipmunk		G4T1T2	S1S2	None	None		Yes	
<i>Neotamias speciosus callipeplus</i>	Mount Pinos chipmunk		G4T2	S2	None	None	USFS:S	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Neotamias speciosus speciosus</i>	lodgepole chipmunk		G4T3T4	S2	None	None		Yes	
<i>Urocitellus mollis</i>	Piute ground squirrel		G5	S3	None	None	IUCN:LC	Yes	
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel		G3	S2	None	Threatened	BLM:S IUCN:NT	Yes	
<i>Xerospermophilus tereticaudus chlorus</i>	Palm Springs round-tailed ground squirrel		G5T2	S2	None	None	BLM:S CDFW:SSC	Yes	

**GEOMYIDAE (pocket gophers)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Thomomys bottae operarius</i>	Owens Lake pocket gopher		G5T1?	S1?	None	None		No	

**HETEROMYIDAE (kangaroo rats, pocket mice, and kangaroo mice)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse		G5T3	S3	None	None		Yes	
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse		G5T3T4	S3S4	None	None		Yes	
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse		G5T3T4	S3S4	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Dipodomys californicus eximius</i>	Marysville California kangaroo rat		G4T1	S1	None	None	CDFW:SSC	Yes	
<i>Dipodomys heermanni arenae</i>	Lompoc kangaroo rat		G4T1T2	S1S2	None	None		No	
<i>Dipodomys heermanni berkeleyensis</i>	Berkeley kangaroo rat		G4T1	S2	None	None		Yes	
<i>Dipodomys heermanni dixonii</i>	Merced kangaroo rat		G4T2	S2	None	None		Yes	
<i>Dipodomys heermanni goldmani</i>	Salinas kangaroo rat		G4T2T3	S2S3	None	None		Yes	
<i>Dipodomys heermanni heermanni</i>	Heermann's kangaroo rat		G4T2	S2	None	None		No	
<i>Dipodomys heermanni morroensis</i>	Morro Bay kangaroo rat		G4TH	SH	Endangered	Endangered	CDFW:FP	Yes	
<i>Dipodomys ingens</i>	giant kangaroo rat		G1G2	S2	Endangered	Endangered	IUCN:EN	Yes	
<i>Dipodomys merriami collinus</i>	Earthquake Merriam's kangaroo rat		G5T2?	S2	None	None		Yes	
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat		G5T1	S1	Endangered	Endangered	CDFW:SSC	Yes	
<i>Dipodomys merriami trinidadensis</i>	Valle de la Trinidad kangaroo rat		G5T2T3Q	S2	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Dipodomys nitratoide brevinasus</i>	short-nosed kangaroo rat		G2T1T2	S1S2	None	None	BLM:S CDFW:SSC IUCN:VU	Yes	
<i>Dipodomys nitratoide exilis</i>	Fresno kangaroo rat		G2TH	SH	Endangered	Endangered	IUCN:VU	Yes	
<i>Dipodomys nitratoide nitratoide</i>	Tipton kangaroo rat		G2T1T2	S2	Endangered	Endangered	IUCN:VU	Yes	
<i>Dipodomys panamintinus argusensis</i>	Argus Mountains kangaroo rat		G5T1T3	S1S3	None	None		Yes	
<i>Dipodomys panamintinus panamintinus</i>	Panamint kangaroo rat		G5T3	S3	None	None		Yes	
<i>Dipodomys simulans</i>	Dulzura kangaroo rat		G4	S3	None	None	IUCN:LC	Yes	
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat		G2	S3	Threatened	Threatened	IUCN:VU	Yes	
<i>Dipodomys venustus elephantinus</i>	big-eared kangaroo rat		G4T2	S3	None	None		Yes	
<i>Dipodomys venustus sanctiluciae</i>	Santa Lucia Mountain kangaroo rat		G4T3	S3	None	None		Yes	
<i>Dipodomys venustus venustus</i>	Santa Cruz kangaroo rat		G4T1	S1	None	None		Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Perognathus alticola alticola</i>	white-eared pocket mouse		G2TH	SH	None	None	BLM:S CDFW:SSC IUCN:VU USFS:S	Yes	Yes
<i>Perognathus alticola inexpectatus</i>	Tehachapi pocket mouse		G2T1T2	S1S2	None	None	CDFW:SSC IUCN:VU USFS:S	Yes	Yes
<i>Perognathus inornatus</i>	San Joaquin pocket mouse		G2G3	S2S3	None	None	BLM:S IUCN:LC	Yes	Yes
<i>Perognathus inornatus psammophilus</i>	Salinas pocket mouse		G2G3T2?	S1	None	None	CDFW:SSC	Yes	
<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse		G5T2	S1	None	None	BLM:S CDFW:SSC	Yes	
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse		G5T2	S1S2	None	None	CDFW:SSC	Yes	
<i>Perognathus longimembris internationalis</i>	Jacumba pocket mouse		G5T2T3	S2	None	None	CDFW:SSC	Yes	
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse		G5T2	S2	Endangered	None	CDFW:SSC	Yes	
<i>Perognathus longimembris salinensis</i>	Saline Valley pocket mouse		G5T1	S1	None	None		No	
<i>Perognathus longimembris tularensis</i>	Tulare pocket mouse		G5T1	S1	None	None		No	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Perognathus mollipilosus xanthonotus</i>	yellow-eared pocket mouse		GNRT2	S2	None	None	BLM:S	Yes	

**CRICETIDAE (mice, rats, and voles)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDB?	End Notes?
<i>Arborimus albipes</i>	white-footed vole		G3G4	S2	None	None	CDFW:SSC IUCN:LC	Yes	
<i>Arborimus pomo</i>	Sonoma tree vole		G3	S3	None	None	CDFW:SSC IUCN:NT	Yes	
<i>Microtus californicus halophilus</i>	Monterey vole		G5T1	S2	None	None		Yes	
<i>Microtus californicus mohavensis</i>	Mohave river vole		G5T1	S1	None	None	CDFW:SSC	Yes	
<i>Microtus californicus sanpabloensis</i>	San Pablo vole		G5T1T2	S1S2	None	None	CDFW:SSC	Yes	
<i>Microtus californicus scirpensis</i>	Amargosa vole		G5T1	S1	Endangered	Endangered		Yes	
<i>Microtus californicus stephensi</i>	south coast marsh vole		G5T2T3	S2	None	None	CDFW:SSC	Yes	
<i>Microtus californicus vallicola</i>	Owens Valley vole		G5T3	S3	None	None	BLM:S CDFW:SSC	Yes	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Neotoma albigula venusta</i>	Colorado Valley woodrat		G5T3T4	S1S2	None	None		Yes	
<i>Neotoma fuscipes annectens</i>	San Francisco dusky-footed woodrat		G5T2T3	S2S3	None	None	CDFW:SSC	Yes	
<i>Neotoma fuscipes riparia</i>	riparian (=San Joaquin Valley) woodrat		G5T1	S1	Endangered	None	CDFW:SSC	Yes	Yes
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat		G5T3T4	S3S4	None	None	CDFW:SSC	Yes	
<i>Neotoma macrotis luciana</i>	Monterey dusky-footed woodrat		G5T3	S3	None	None	BLM:S CDFW:SSC	Yes	
<i>Onychomys torridus ramona</i>	southern grasshopper mouse		G5T3	S3	None	None	CDFW:SSC	Yes	
<i>Onychomys torridus tularensis</i>	Tulare grasshopper mouse		G5T1T2	S1S2	None	None	BLM:S CDFW:SSC	Yes	
<i>Peromyscus maniculatus anacapae</i>	Anacapa Island deer mouse		G5T1T2	S1S2	None	None	CDFW:SSC	Yes	
<i>Peromyscus maniculatus clementis</i>	San Clemente deer mouse		G5T1T2	S1S2	None	None		No	
<i>Reithrodontomys megalotis distichlis</i>	Salinas harvest mouse		G5T1	S2	None	None		Yes	
<i>Reithrodontomys megalotis santacruzae</i>	Santa Cruz harvest mouse		G5T1Q	S1	None	None		Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Reithrodontomys raviventris</i>	salt-marsh harvest mouse		G1G2	S3	Endangered	Endangered	CDFW:FP IUCN:EN	Yes	
<i>Sigmodon arizonae plenus</i>	Colorado River cotton rat		G5T2T3	S1S2	None	None	CDFW:SSC	Yes	
<i>Sigmodon hispidus eremicus</i>	Yuma hispid cotton rat		G5T2T3	S2	None	None	CDFW:SSC	Yes	

**DIPODIDAE (jumping mice)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Zapus trinotatus orarius</i>	Point Reyes jumping mouse		G5T2	S2	None	None	CDFW:SSC	Yes	

**ERETHIZONTIDAE (New World porcupines)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Erethizon dorsatum</i>	North American porcupine		G5	S3	None	None	IUCN:LC	Yes	

**CANIDAE (foxes, wolves, and coyotes)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Canis lupus</i>	gray wolf		G5	S1	Endangered	Endangered	IUCN:LC	Yes	
<i>Urocyon littoralis catalinae</i>	Santa Catalina Island fox		G3T1	S2	Threatened	Threatened		Yes	Yes
<i>Urocyon littoralis clementae</i>	San Clemente Island fox		G3T1	S2	None	Threatened		Yes	Yes



Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Urocyon littoralis dickeyi</i>	San Nicolas Island fox		G3T1	S1	None	Threatened		Yes	Yes
<i>Urocyon littoralis littoralis</i>	San Miguel Island fox		G3T1	S1	Delisted	Threatened		Yes	Yes
<i>Urocyon littoralis santacruzae</i>	Santa Cruz Island fox		G3T1	S2	Delisted	Threatened		Yes	Yes
<i>Urocyon littoralis santarosae</i>	Santa Rosa Island fox		G3T1	S2	Delisted	Threatened		Yes	Yes
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox		G4T2	S3	Endangered	Threatened		Yes	
<i>Vulpes vulpes necator pop. 1</i>	Sierra Nevada red fox - southern Cascades DPS		G5TNR	S1	None	Threatened	USFS:S	Yes	
<i>Vulpes vulpes necator pop. 2</i>	Sierra Nevada red fox - Sierra Nevada DPS		G5TNR	S1	Endangered	Threatened	USFS:S	Yes	
<i>Vulpes vulpes patwin</i>	Sacramento Valley red fox		G5T2	S2	None	None		No	

**OTARIIDAE (sea lions and fur seals)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Arctocephalus townsendi</i>	Guadalupe fur-seal		G1	S1	Threatened	Threatened	CDFW:FP IUCN:LC	Yes	
<i>Callorhinus ursinus</i>	northern fur-seal		G3	S1	None	None	IUCN:VU	Yes	
<i>Eumetopias jubatus</i>	Steller sea lion		G3	S2	Delisted	None	IUCN:NT MMC:SSC	Yes	

**PROCYONIDAE (raccoons and ringtails)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Bassariscus astutus nevadensis</i>	Nevada ringtail		G5TNR	SNR	None	None	CDFW:FP	No	
<i>Bassariscus astutus octavus</i>	southern California ringtail		G5T3	S3	None	None	CDFW:FP	No	
<i>Bassariscus astutus raptor</i>	northern California ringtail		G5TNR	SNR	None	None	CDFW:FP	No	
<i>Bassariscus astutus willetti</i>	Palo Verde Mountains ringtail		G5T2	S2	None	None	CDFW:FP	No	
<i>Bassariscus astutus yumanensis</i>	Yuma ringtail		G5TU	S2	None	None	CDFW:FP	No	

**MUSTELIDAE (weasels and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Enhydra lutris nereis</i>	southern sea otter		G4T2	S3	Threatened	None	CDFW:FP IUCN:EN MMC:SSC	Yes	Yes
<i>Gulo gulo</i>	wolverine		G4	S1	Threatened	Threatened	CDFW:FP IUCN:LC USFS:S	Yes	
<i>Lontra canadensis sonora</i>	southwestern river otter		G5T1	SH	None	None	CDFW:SSC	Yes	Yes
<i>Martes caurina</i>	Pacific marten		G4G5	S3	None	None	IUCN:LC USFS:S	Yes	
<i>Martes caurina humboldtensis</i>	Humboldt marten		G4G5T1	S1	Threatened	Endangered	CDFW:SSC USFS:S	Yes	Yes

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Martes caurina sierrae</i>	Sierra marten		G4G5T3	S3	None	None	USFS:S	Yes	
<i>Mustela frenata inyoensis</i>	Inyo long-tailed weasel		G5T2Q	S2	None	None		No	
<i>Mustela frenata xanthogenys</i>	San Joaquin long-tailed weasel		G5T2T3	S3	None	None		No	
<i>Pekania pennanti</i>	Fisher		G5	S2S3	None	None	BLM:S CDFW:SSC IUCN:LC USFS:S	Yes	Yes
<i>Pekania pennanti</i> pop. 2	Fisher - southern Sierra Nevada ESU		G5T1	S1	Endangered	Threatened	BLM:S CDFW:SSC USFS:S	Yes	
<i>Taxidea taxus</i>	American badger		G5	S3	None	None	CDFW:SSC IUCN:LC	Yes	

**MEPHITIDAE (skunks)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Spilogale gracilis amphiala</i>	Channel Islands spotted skunk		G5T3	S3	None	None	CDFW:SSC	Yes	

**FELIDAE (cats and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Lynx rufus pallescens</i>	pallid bobcat		G5T3?	S3?	None	None		No	

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Puma concolor browni</i>	Yuma mountain lion		G5T1T2Q	S1	None	None	CDFW:SSC	Yes	

**CERVIDAE (deer, elk, and moose)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Cervus canadensis nannodes</i>	tule elk		G5T3	S3	None	None		No	

**ANTILOCAPRIDAE (pronghorn)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Antilocapra americana</i>	pronghorn		G5	S3	None	None	IUCN:LC	No	

**BOVIDAE (sheep and relatives)**

Scientific Name	Common Name	Comments	Global Rank	State Rank	ESA	CESA	Other Status	Records in CNDDDB?	End Notes?
<i>Ovis canadensis nelsoni</i>	desert bighorn sheep		G4T3	S3	None	None	BLM:S CDFW:FP USFS:S	Yes	Yes
<i>Ovis canadensis nelsoni pop. 2</i>	Peninsular bighorn sheep DPS		G4T3Q	S2	Endangered	Threatened	CDFW:FP	Yes	Yes
<i>Ovis canadensis sierrae</i>	Sierra Nevada bighorn sheep		G4T2	S2	Endangered	Endangered	CDFW:FP	Yes	

## End Notes

### Invertebrates

#### **GASTROPODA (snails, slugs, and abalones)**

*Prophysaon* sp. 1

Klamath tailedrop

- 1) This entity is known to be unique morphologically and genetically (Frest & Johannes 2000, Wilke & Duncan 2004, Roth & Sadeghian 2006), but has not been formally described and some may reference it as part of the *Prophysaon coeruleum* species complex.

#### **ARACHNIDA (spiders and relatives)**

*Hubbardia shoshonensis*

Shoshone Cave whip-scorpion

- 1) BLM Sensitive list uses the scientific name *Trithyreus shoshonensis*.

#### **CRUSTACEA, Order Amphipoda (amphipods)**

*Hyaella muerta*

Texas Spring amphipod

- 1) First North American hypogean hyalellid.

*Hyaella sandra*

Death Valley amphipod

- 1) Population in Texas Springs is an accidental introduction. Population in Nevares Springs may be a new species.

#### **INSECTA, Order Coleoptera (beetles)**

*Trigonoscuta* sp.

Doyen's trigonoscuta dune weevil

- 1) Sometimes referred to as *Trigonoscuta doyenii*, which is an unpublished manuscript name.

#### **INSECTA, Order Lepidoptera (butterflies and moths)**

*Callophrys thornei*

Thorne's hairstreak

- 1) Formerly *Mitoura thornei*.

*Euproserpinus euterpe*

Kern primrose sphinx moth

- 1) Until its rediscovery in Kern County in 1974, this moth had been thought to be extinct. A second population was later found in San Luis Obispo County (Xerces Society 2005).

*Speyeria zerene myrtleae*

Myrtle's silverspot butterfly

- 1) The USFWS and others have not yet determined if the taxonomic expansion by Emmel and Emmel (1998) into *S. z. myrtleae* and *S. z. puntareyes* is warranted. The *Speyeria zerene* along the coast of Marin and Sonoma Counties are federally endangered under the subspecies concept in the 1992 listing.

**INSECTA, Order Hymenoptera (ants, bees, and wasps)**

*Bombus crotchii*

Crotch's bumble bee

- 1) Originally advanced to candidacy by the Fish and Game Commission in June 2019. The candidacy determination was challenged in court. Candidacy was temporarily stayed beginning February 2021 following an adverse trial court judgment. The Third District Court of Appeal reversed the trial court judgment. Candidacy was reinstated on September 30, 2022.

*Bombus franklini*

Franklin's bumble bee

- 1) Originally advanced to candidacy by the Fish and Game Commission in June 2019. The candidacy determination was challenged in court. Candidacy was temporarily stayed beginning February 2021 following an adverse trial court judgment. The Third District Court of Appeal reversed the trial court judgment. Candidacy was reinstated on September 30, 2022.

*Bombus occidentalis*

western bumble bee

- 1) Originally advanced to candidacy by the Fish and Game Commission in June 2019. The candidacy determination was challenged in court. Candidacy was temporarily stayed beginning February 2021 following an adverse trial court judgment. The Third District Court of Appeal reversed the trial court judgment. Candidacy was reinstated on September 30, 2022.

*Bombus suckleyi*

Suckley's cuckoo bumble bee

- 1) Originally advanced to candidacy by the Fish and Game Commission in June 2019. The candidacy determination was challenged in court. Candidacy was temporarily stayed beginning February 2021 following an adverse trial court judgment. The Third District Court of Appeal reversed the trial court judgment. Candidacy was reinstated on September 30, 2022.

## Fishes

### **SALMONIDAE (trout and salmon)**

#### *Oncorhynchus kisutch pop. 2*

coho salmon - southern Oregon / northern California ESU

- 1) Federal listing refers to populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California.
- 2) State listing refers to populations between the Oregon border and Punta Gorda, Humboldt County, California.

#### *Oncorhynchus kisutch pop. 4*

coho salmon - central California coast ESU

- 1) Federal listing is limited to naturally spawning populations in streams between Punta Gorda, Humboldt County and the San Lorenzo River, Santa Cruz County.
- 2) State listing is limited to populations south of Punta Gorda, Humboldt County.

#### *Oncorhynchus mykiss irideus pop. 1*

steelhead - Klamath Mountains Province DPS

- 1) This ESU includes all naturally spawned populations residing in streams between the Elk River in Oregon and the Klamath River in California, inclusive.
- 2) CDFW SSC designation refers only to the California portion of the ESU and refers only to the summer-run.

#### *Oncorhynchus mykiss irideus pop. 10*

steelhead - southern California DPS

- 1) The federal designation refers to fish in the coastal basins from the Santa Maria River (inclusive), south to the U.S. - Mexico Border.

#### *Oncorhynchus mykiss irideus pop. 11*

steelhead - Central Valley DPS

- 1) Federal listing includes all runs in the Sacramento and San Joaquin rivers and their tributaries.

#### *Oncorhynchus mykiss irideus pop. 8*

steelhead - central California coast DPS

- 1) Federal listing includes all runs in coastal basins from the Russian River in Sonoma County, south to Soquel Creek in Santa Cruz County, inclusive. It includes the San Francisco and San Pablo Bay basins, but excludes the Sacramento-San Joaquin River basins.

#### *Oncorhynchus mykiss irideus pop. 9*

steelhead - south-central California coast DPS

- 1) Federal listing includes all runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.
- 2) CDFW SSC designation refers to southern steelhead trout.

*Oncorhynchus tshawytscha* pop. 11

chinook salmon - Central Valley spring-run ESU

- 1) Federal listing refers to the Central Valley spring-run ESU. It includes populations spawning in the Sacramento River and its tributaries.

*Oncorhynchus tshawytscha* pop. 13

chinook salmon - Central Valley fall / late fall-run ESU

- 1) The Central Valley fall/late fall-run ESU refers to populations spawning in the Sacramento and San Joaquin rivers and their tributaries.
- 2) CDFW SSC designation refers only to the fall-run.

*Oncorhynchus tshawytscha* pop. 17

chinook salmon - California coastal ESU

- 1) Originally proposed as part of a larger Southern Oregon and California Coastal ESU. This new ESU was revised to include only naturally spawned coastal spring- and fall-run chinook salmon between Redwood Creek in Humboldt County and the Russian River in Sonoma County.

## **OSMERIDAE (smelt)**

*Thaleichthys pacificus*

eulachon

- 1) The Federal Threatened status pertains to the "southern DPS" of eulachon that range from central British Columbia, Washington, Oregon, and northern California.

## **CYPRINIDAE (minnows and carp)**

*Rhinichthys nevadensis nevadensis*

Amargosa speckled dace

- 1) Moyle et al. 2023 formally named/described the *Rhinichthys* complex in California and Nevada, and former Amargosa Canyon speckled dace (*R. osculus* ssp. 1) and Owens speckled dace (*R. osculus* ssp. 2) are combined as newly described Amargosa speckled dace (*R. nevadensis nevadensis*).

*Siphateles bicolor* ssp. 11

High Rock Springs tui chub



- 1) Formerly *Siphateles bicolor* ssp. 2, which did not account for other undescribed subspecies outside of CA.

*Siphateles bicolor* ssp. 12

Eagle Lake tui chub

- 1) Formerly *Siphateles bicolor* ssp. 1, which did not account for other undescribed subspecies outside of CA.

*Siphateles bicolor* ssp. 14

Pit River tui chub

- 1) Formerly *Siphateles bicolor* ssp. 3, which did not account for other undescribed subspecies outside of CA.

## Amphibians

### PLETHODONTIDAE (lungless salamanders)

*Aneides niger*

Santa Cruz black salamander

- 1) CDFW SSC status uses former subspecies concept of *Aneides flavipunctatus niger*.

*Batrachoseps relictus*

relictual slender salamander

- 1) Taxonomy follows Jockusch et al. 2012. Morphological and molecular diversification of slender salamanders (Caudata: Plethodontidae: *Batrachoseps*) in the southern Sierra Nevada of California with descriptions of two new species. Zootaxa 3190:1-30, which synonymized *Batrachoseps* sp. 1, Breckenridge Mountain slender salamander, with *B. relictus*.

*Hydromantes shastae*

Shasta salamander

- 1) *Hydromantes shastae* has been proposed to consist of cryptic genetic structuring that may warrant recognition of additional species named as *Hydromantes samweli* and *Hydromantes wintu* (Bingham et al. 2018, Bull. Mus. Comp. Zool. 161(10):403-427). Until formally reviewed by the Fish and Game Commission, all populations in the Shasta salamander complex are legally state threatened.

*Plethodon asupak*

Scott Bar salamander

- 1) Since this newly described species was formerly considered to be a subpopulation of *Plethodon stormi* (Mead et al. 2005), and since *Plethodon stormi* is listed as threatened under CESA, *Plethodon asupak* retains the designation as a threatened species under CESA (Calif. Regulatory Notice Register, No. 21-Z, p.916, 25 May 2007).

### BUFONIDAE (true toads)

*Anaxyrus californicus*

arroyo toad

- 1) At the time of listing, arroyo toad was known as *Bufo microscaphus californicus*, a subspecies of southwestern toad. In 2001, it was determined to be its own species, *Bufo californicus*. Since then, many species in the genus *Bufo* were changed to the genus *Anaxyrus*, and now arroyo toad is known as *Anaxyrus californicus* (Frost et al. 2006).

*Anaxyrus canorus*

Yosemite toad

- 1) Formerly *Bufo canorus*; Frost et al. (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus *Anaxyrus* (Tschudi 1845).

*Anaxyrus exsul*

black toad

- 1) Formerly *Bufo canorus*; Frost et al. (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus *Anaxyrus* (Tschudi 1845).

*Incilius alvarius*

Sonoran Desert toad

- 1) Formerly *Bufo alvarius*. Between 2006-2009, the scientific name has been changed to *Cranopsis alvaria*, *Ollotis alvaria*, *Incilius alvarius*, back to *Ollotis alvarius*, and then back to *Incilius alvarius*. The common name has changed from Colorado River toad to Sonoran Desert toad.

**RANIDAE (true frogs)**

*Lithobates pipiens*

northern leopard frog

- 1) Formerly *Rana pipiens*; Frost et al. (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus *Lithobates* (Fitzinger 1843).

*Lithobates yavapaiensis*

lowland leopard frog

- 1) Formerly *Rana yavapaiensis*; Frost et al. (2006. The Amphibian Tree of Life. Bulletin of the American Museum of Natural History 297: 1-370) placed this species in the genus *Lithobates* (Fitzinger 1843).

*Rana aurora*

northern red-legged frog

- 1) An mtDNA study (Shaffer et al. 2004) concluded that *Rana aurora aurora* and *Rana aurora draytonii* should be recognized as separate species with a narrow zone of overlap

*Rana draytonii*

California red-legged frog

- 1) An mtDNA study (Shaffer et al. 2004) concluded that *Rana aurora aurora* and *Rana aurora draytonii* should be recognized as separate species with a narrow zone of overlap, and that the range of *draytonii* extends about 100 km further north in coastal California than previously thought.

*Rana muscosa*

southern mountain yellow-legged frog

- 1) Both federally recognized Distinct Population Segments (DPS) of the mountain yellow-legged frog (*Rana muscosa*) are currently Endangered (2021). The mountain yellow-legged frog – northern DPS is known from the southern Sierra Nevada; the mountain yellow-legged frog – southern DPS is known from the Transverse Ranges.

*Rana sierrae*

Sierra Nevada yellow-legged frog

- 1) Formerly *Rana muscosa*. *Rana muscosa* was split into *Rana sierrae*, the Sierra Nevada yellow-legged frog, found in the northern and central Sierra Nevada, and *Rana muscosa*, the southern mountain yellow-legged frog, found in the southern Sierra Nevada and southern California.

## Reptiles

### **XANTUSIIDAE (night lizards)**

*Xantusia vigilis sierrae*

Sierra night lizard

- 1) Formerly *Xantusia sierrae*; scientific name changed to reflect currently accepted subspecies concept.

### **ANNIELLIDAE (legless lizards)**

*Anniella alexanderae*

Temblor legless lizard

- 1) Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). The prior (Jennings and Hayes, 1994) and current (Thompson et al. 2016) Species of Special Concern (SSC) projects evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further SSC evaluation.

*Anniella campi*

Southern Sierra legless lizard

- 1) Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). The prior (Jennings and Hayes, 1994) and current (Thompson et al. 2016) Species of Special Concern (SSC) projects evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further SSC evaluation.

*Anniella grinnelli*

Bakersfield legless lizard

- 1) Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). The prior (Jennings and Hayes, 1994) and current (Thompson et al. 2016) Species of Special Concern (SSC) projects evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further SSC evaluation.

*Anniella pulchra*

Northern California legless lizard

- 1) Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). The prior (Jennings and Hayes, 1994) and current (Thompson et al. 2016) Species of Special Concern (SSC) projects evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further SSC evaluation.

*Anniella* spp.

California legless lizard

- 1) This element represents California records of *Anniella* not yet assigned to new species within the *Anniella pulchra* complex. Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). CNDDDB has assigned new species concepts to most, but not all, previously known and extant legless lizard occurrences. Where an occurrence of a legless lizard is not known to the species level, the general concept California legless lizard (*Anniella* spp.) will be applied until further evidence is available. All legless lizards in California are a Species of Special Concern (Thomson et al., 2016).

*Anniella stebbinsi*

Southern California legless lizard

- 1) Legless lizards (*Anniella* spp.) in California were traditionally considered one species, but are now considered five species (Pappenfuss and Parham, 2013). The prior (Jennings and Hayes, 1994) and current (Thompson et al. 2016) Species of Special Concern (SSC) projects evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further SSC evaluation.

**HELODERMATIDAE (venomous lizards)**

*Heloderma suspectum cinctum*

banded Gila monster

- 1) BLM Sensitive designation refers to the full species.

### **NATRICIDAE (live-bearing snakes)**

*Thamnophis sirtalis pop. 1*

south coast gartersnake

- 1) CDFW Species of Special Concern treats this population as a distinct taxon, though it is more commonly treated as a subpopulation of *Thamnophis sirtalis infernalis*, the California red-sided gartersnake.

## **Birds**

### **PHASIANIDAE (grouse and ptarmigan)**

*Centrocercus urophasianus*

greater sage-grouse

- 1) The federal proposal applies to the Bi-State DPS (Mono Basin of CA and NV; Mono, Alpine, and Inyo counties in California).

*Dendragapus fuliginosus howardi*

Mount Pinos sooty grouse

- 1) Formerly merged with *D. obscurus* as blue grouse, but separated on the basis of genetic evidence and differences in voice, behavior, and plumage.

### **PELECANIIDAE (pelicans)**

*Pelecanus occidentalis californicus*

California brown pelican

- 1) Removed from Fully Protected list (Fish & Game Code §3511) in July 2023 by Senate Bill no. 147

### **ACCIPITRIDAE (hawks, kites, harriers, and eagles)**

*Circus hudsonius*

northern harrier

- 1) Formerly considered conspecific with *Circus cyaneus*, but treated as separate on the basis of differences in morphology, plumage, and breeding habitat.

### **FALCONIDAE (falcons)**

*Falco peregrinus anatum*

American peregrine falcon

- 1) Removed from Fully Protected list (Fish & Game Code §3511) in July 2023 by Senate Bill no. 147

**RALLIDAE (rails, coots, and gallinules)**

*Laterallus jamaicensis coturniculus*

California black rail

- 1) The IUCN designation of Near Threatened refers to the full species.

**CHARADRIIDAE (plovers and relatives)**

*Charadrius montanus*

mountain plover

- 1) Proposed rule to federally list the mountain plover as threatened was withdrawn 20110512.

*Charadrius nivosus nivosus*

western snowy plover

- 1) Federal listing applies only to the Pacific coastal population.
- 2) CDFW SSC designation refers to both the coastal and interior populations.

**LARIDAE (gulls and terns)**

*Gelochelidon nilotica*

gull-billed tern

- 1) Taxonomy recently changed from *Sterna nilotica*.

*Hydroprogne caspia*

Caspian tern

- 1) Taxonomy recently changed from *Sterna caspia*.

*Sternula antillarum browni*

California least tern

- 1) Taxonomy recently changed from *Sterna antillarum browni*.

*Thalasseus elegans*

elegant tern

- 1) Taxonomy recently changed from *Sterna elegans*.

### **ALCIDAE (auklets, puffins, and relatives)**

*Synthliboramphus scrippsi*

Scripps's murrelet

- 1) Formerly included in Xantus's murrelet as *Synthliboramphus hypoleucus scrippsi*. Now considered a full species.

### **STRIGIDAE (owls)**

*Athene cunicularia*

burrowing owl

- 1) A burrow site = an observation of one or more owls at a burrow or evidence of recent occupation such as whitewash and feathers. Winter observations at a burrow are mapped. Winter observations with or without a burrow in San Francisco, Ventura, Sonoma, Marin, Napa, and Santa Cruz Counties are mapped.

*Strix occidentalis caurina*

northern spotted owl

- 1) There are no spotted owl EOs in the CNDDDB. All spotted owl location information is maintained in a separate database (<https://wildlife.ca.gov/Data/CNDDDB/Spotted-Owl-Info>). CNDDDB subscribers can access these datasets from the same bookmark as the CNDDDB layer in BIOS (<https://www.wildlife.ca.gov/Data/BIOS>).

*Strix occidentalis occidentalis*

California spotted owl

- 1) There are no spotted owl EOs in the CNDDDB. All spotted owl location information is maintained in a separate database (<https://wildlife.ca.gov/Data/CNDDDB/Spotted-Owl-Info>). CNDDDB subscribers can access these datasets from the same bookmark as the CNDDDB layer in BIOS (<https://www.wildlife.ca.gov/Data/BIOS>).
- 2) On 20230223, coastal-southern California DPS was federally proposed Endangered, and Sierra Nevada DPS was federally proposed Threatened.

### **TYRANNIDAE (tyrant flycatchers)**

*Empidonax traillii*

willow flycatcher

- 1) State listing of the full species includes all subspecies.

*Empidonax traillii brewsteri*

little willow flycatcher

- 1) State listing of the full species includes all subspecies.

*Empidonax traillii extimus*

southwestern willow flycatcher

- 1) State listing of the full species includes all subspecies.

**LANIIDAE (shrikes)**

*Lanius ludovicianus mearnsi*

San Clemente loggerhead shrike

- 1) Subspecific identity of shrikes currently on San Clemente is uncertain. Mundy et al. (1997a, b) provided evidence *L. l. mearnsi* is genetically distinct from *L. l. gambeli* and *L. l. anthonyi*, whereas Patten and Campbell (2000) concluded, based on morphology, that the birds now on San Clemente are intergrades between *L. l. mearnsi* and *L. l. anthonyi*.

**VIREONIDAE (vireos)**

*Vireo bellii arizonae*

Arizona Bell's vireo

- 1) The IUCN designation of Near Threatened refers to the full species.

*Vireo bellii pusillus*

least Bell's vireo

- 1) The IUCN designation of Near Threatened refers to the full species.

**TROGLODYTIDAE (wrens)**

*Campylorhynchus brunneicapillus sandiegensis*

coastal cactus wren

- 1) CDFW Bird Species of Special Concern report uses the common name San Diego cactus wren.

**POLIOPTILIDAE (gnatcatchers)**

*Poliioptila californica californica*

coastal California gnatcatcher

- 1) CDFW Bird Species of Special Concern report uses the common name Alta California gnatcatcher.

**MIMIDAE (mockingbirds and thrashers)**

*Toxostoma lecontei*

Le Conte's thrasher

- 1) CDFW SSC designation refers only to the San Joaquin population.



- 2) The BLM Sensitive designation refers to the San Joaquin Le Conte's thrasher, *Toxostoma lecontei macmillanorum*, although the subspecies concept is not universally recognized.

### **PASSERELLIDAE (sparrows)**

*Artemisiospiza belli clementeae*

San Clemente Bell's sparrow

- 1) Subspecific validity uncertain. Recognized by AOU (1957), but not by Patten and Unitt (2002).

*Melospiza melodia graminea*

Channel Island song sparrow

- 1) Subspecific validity is uncertain. This subspecies when referred to as Santa Barbara song sparrow is extinct. However, the subspecies was merged by Patten (2001) with the San Miguel (*M. m. micronyx*), and San Clemente (*M. m. clementae*) song sparrows as the Channel Island song sparrow with the subspecific name *M. m. graminea*.

*Melozona crissalis eremophilus*

Inyo California towhee

- 1) Previously in the genus *Pipilo*.

### **PARULIDAE (wood-warblers)**

*Geothlypis trichas sinuosa*

saltmarsh common yellowthroat

- 1) CDFW Bird Species of Special Concern report uses the common name San Francisco common yellowthroat

*Setophaga petechia*

yellow warbler

- 1) This element includes the subspecies *S. p. morcormi* and *S. p. brewsteri*, which are tracked under the full species, *S. petechia*, due to difficulty distinguishing them. *S. p. sonorana*, which nests in California only along the Colorado River, is tracked separately.

*Setophaga petechia sonorana*

Sonoran yellow warbler

- 1) Nests in California only along the Colorado River. Observations of yellow warblers from other regions are tracked as the full species, *S. petechia*.

## **Mammals**

### **PHYLLOSTOMIDAE (leaf-nosed bats)**

*Leptonycteris yerbabuenae*

lesser long-nosed bat

- 1) Federal listing uses the scientific name *Leptonycteris curasoae yerbabuenae*.

**VESPERTILIONIDAE (evening bats)**

*Lasiurus frantzii*

western red bat

- 1) Nomenclature changed from *Lasiurus blossevillii* to *Lasiurus frantzii* based on Baird et al. 2015, J. of Mammalogy 96(6):1255-1274.

**APLODONTIIDAE (mountain beavers)**

*Aplodontia rufa californica*

Sierra Nevada mountain beaver

- 1) The IUCN Least Concern designation refers to the full species.

*Aplodontia rufa nigra*

Point Arena mountain beaver

- 1) The IUCN Least Concern designation refers to the full species.

*Aplodontia rufa phaea*

Point Reyes mountain beaver

- 1) The IUCN Least Concern designation refers to the full species.

**HETEROMYIDAE (kangaroo rats, pocket mice, and kangaroo mice)**

*Perognathus alticola alticola*

white-eared pocket mouse

- 1) CDFW SSC, BLM Sensitive, and IUCN Endangered designations refer to the full species.

*Perognathus alticola inexpectatus*

Tehachapi pocket mouse

- 1) CDFW SSC and IUCN Endangered designations refer to the full species.

*Perognathus inornatus*

San Joaquin pocket mouse

- 1) This element includes the subspecies *P. i. inornatus* and *P. i. neglectus*, which are tracked under the full species, *P. inornatus*, due to difficulty distinguishing them. *P. i. inornatus* generally occurs on the eastern side of the San Joaquin Valley, while *P. i. neglectus* generally occurs on the western side. *P. i. psammophilus*, which occurs only in the Salinas Valley, is tracked separately.

### **CRICETIDAE (mice, rats, and voles)**

*Neotoma fuscipes riparia*

riparian (=San Joaquin Valley) woodrat

- 1) This species is currently undergoing taxonomic revision

*Reithrodontomys megalotis santacruzae*

Santa Cruz harvest mouse

- 1) Synonymous with *Reithrodontomys megalotis longicaudus*, Santa Cruz Island population.

### **CANIDAE (foxes, wolves, and coyotes)**

*Urocyon littoralis catalinae*

Santa Catalina Island fox

- 1) The IUCN Near Threatened status refers to the full species.

*Urocyon littoralis clementae*

San Clemente Island fox

- 1) The IUCN Near Threatened status refers to the full species.

*Urocyon littoralis dickeyi*

San Nicolas Island fox

- 1) The IUCN Near Threatened status refers to the full species.

*Urocyon littoralis littoralis*

San Miguel Island fox

- 1) The IUCN Near Threatened status refers to the full species.

*Urocyon littoralis santacruzae*

Santa Cruz Island fox

- 1) The IUCN Near Threatened status refers to the full species.

*Urocyon littoralis santarosae*

Santa Rosa Island fox

- 1) The IUCN Near Threatened status refers to the full species.

**MUSTELIDAE (weasels and relatives)**

*Enhydra lutris nereis*

southern sea otter

- 1) The IUCN Endangered designation refers to the full species.

*Lontra canadensis sonora*

southwestern river otter

- 1) CDFW SSC status refers only to the subspecies *L. canadensis sonora*, which is known in California only from the Colorado River.

*Martes caurina humboldtensis*

Humboldt marten

- 1) Federal status refers to the coastal DPS of Pacific marten (*Martes caurina*)

*Pekania pennanti*

Fisher

- 1) In 2004, the West Coast DPS of fisher became a candidate for federal listing, and underwent numerous evaluations, proposed rules, and revisions in subsequent years. In 2020, the West Coast DPS was further divided into the Southern Sierra Nevada DPS and the Northern California/Southern Oregon DPS (which also includes Northern Sierra Nevada and Southern Oregon Cascades subpopulations which arose from reintroductions). State threatened and federal endangered statuses apply only to the Southern Sierra Nevada ESU/DPS. State listing defines the northern limit of the SSN ESU as the Merced River, while federal listing uses the Tuolumne River.

**BOVIDAE (sheep and relatives)**

*Ovis canadensis nelsoni*

desert bighorn sheep

- 1) Desert bighorn sheep (*O. c. nelsoni*) in the Peninsular Ranges are tracked as a metapopulation of the subspecies, Peninsular bighorn sheep DPS (*O. c. nelsoni* pop. 2)
- 2) Fully Protected with the exception of legal hunting conducted in compliance with California Code of Regulations 14 CCR 362.

*Ovis canadensis nelsoni* pop. 2

Peninsular bighorn sheep DPS

- 1) The subspecies peninsular bighorn sheep (*O. c. cremnobates*) has been synonymized with *O. c. nelsoni* (Wehausen & Ramey 1993). Peninsular bighorn sheep are now considered to be a metapopulation and are recognized as a federal Distinct Population Segment (DPS).