

California Terrestrial and Vernal Pool Invertebrates of Conservation Priority¹

Species	Federal ESA	CA ESA	G-Rank	S-Rank	Other Statuses
GASTROPODA (Snails and slugs)					
<i>Ammonitella yatesii</i> tight coin (=Yates' snail)	None	None	G1	S1	IUCN - Vulnerable
<i>Ancotrema voyanum</i> hooded lancetooth	None	None	G1G2	S1S2	BLM-Sensitive
<i>Assimineea infima</i> Badwater snail	None	None	G1	S1	IUCN - Vulnerable
<i>Binneya notabilis</i> Santa Barbara shelled slug	None	None	G1	S1	IUCN - Data Deficient
<i>Eremarionta immaculata</i> white desertsnailed	None	None	G1	S1	IUCN - Vulnerable
<i>Eremarionta millepalmarum</i> Thousand Palms desertsnailed	None	None	G1	S1	IUCN - Vulnerable
<i>Eremarionta morongoana</i> Morongo (=Colorado) desertsnailed	None	None	G1G3	S1	IUCN - Near Threatened
<i>Eremarionta rowelli bakerensis</i> Baker's desertsnailed	None	None	G3G4T1	S1	IUCN - Data Deficient
<i>Eremarionta rowelli mccoiana</i> California Mccoysnailed	None	None	G3G4T1	S1	IUCN - Data Deficient
<i>Haplotrema catalinense</i> Santa Catalina lancetooth	None	None	G1	S1	
<i>Haplotrema durantei</i> ribbed lancetooth	None	None	G1G2	S1S2	
<i>Helminthoglypta allynsmithi</i> Merced Canyon shoulderband	None	None	G1	S1	IUCN - Vulnerable
<i>Helminthoglypta arrosa monticola</i> mountain shoulderband	None	None	G2G3T1	S1	
<i>Helminthoglypta arrosa pomoensis</i> Pomo bronze shoulderband	None	None	G2G3T1	S1	IUCN - Data Deficient
<i>Helminthoglypta ayresiana sanctaerucis</i> Ayer's snail	None	None	G1G2T1T2	S1S2	
<i>Helminthoglypta callistoderma</i> Kern shoulderband	None	None	G1	S1	IUCN - Endangered

¹ This list pertains to Scientific Collecting Permit regulations (Title 14, Section 650, California Code of Regulations). The species on this list include vernal pool, terrestrial, and aquatic invertebrates with a terrestrial phase that are listed under the Federal and California Endangered Species Acts, or have a NatureServe rank of G1, G1G2, S1, S1S2, SH or SX. For a full list of invertebrates of conservation concern, see the California Natural Diversity Database *Special Animals List*: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

List generated on June 12, 2017 from a query of the California Natural Diversity Database.

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<i>Helminthoglypta coelata</i> mesa shoulderband	None	None	G1	S1	IUCN - Vulnerable
<i>Helminthoglypta concolor</i> whitefir shoulderband	None	None	G1G2	S1S2	
<i>Helminthoglypta fontiphila</i> Soledad shoulderband	None	None	G1	S1	
<i>Helminthoglypta greggi</i> Mohave shoulderband	None	None	G1	S1	
<i>Helminthoglypta hertleini</i> Oregon shoulderband	None	None	G1	S1S2	BLM-Sensitive
<i>Helminthoglypta milleri</i> peak shoulderband	None	None	G1	S1	
<i>Helminthoglypta mohaveana</i> Victorville shoulderband	None	None	G1	S1	IUCN - Near Threatened
<i>Helminthoglypta nickliniana awania</i> Peninsula coast range shoulderband	None	None	G3T1	S1	IUCN - Data Deficient
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	None	None	G3T1	S1S2	IUCN - Data Deficient
<i>Helminthoglypta sequoicola consors</i> redwood shoulderband	None	None	G2T1	S1	IUCN - Data Deficient
<i>Helminthoglypta stiversiana williamsi</i> Williams' bronze shoulderband	None	None	G2G3T1	S1	IUCN - Data Deficient
<i>Helminthoglypta taylori</i> westfork shoulderband	None	None	G1	S1	
<i>Helminthoglypta traskii pacoimensis</i> Pacoima shoulderband	None	None	G1G2T1	S1	
<i>Helminthoglypta traskii traskii</i> Trask shoulderband	None	None	G1G2T1	S1	
<i>Helminthoglypta uvasana</i> Grapevine shoulderband	None	None	G1	S1	
<i>Helminthoglypta vasquezi</i> Vasquez shoulderband	None	None	G1	S1	
<i>Helminthoglypta walkeriana</i> Morro shoulderband (=banded dune) snail	Endangered	None	G1	S1S2	IUCN - Critically Endangered
<i>Herpeteros angelus</i> Soledad desertsnailed	None	None	G1	S1	
<i>Hesperarion plumbeus</i> leaden slug	None	None	G1	S1	
<i>Megomphix californicus</i> Natural Bridge megomphix	None	None	G1G2	S1S2	
<i>Micrarionta facta</i> Santa Barbara islandsnail	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Micrarionta feralis</i> San Nicolas islandsnail	None	None	G1	S1	IUCN - Critically Endangered
<i>Micrarionta gabbi</i> San Clemente islandsnail	None	None	G1	S1	IUCN - Vulnerable

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<i>Micrarionta opuntia</i> pricklypear islandsnail	None	None	G1	S1	IUCN - Vulnerable
<i>Monadenia callipeplus</i> downy sideband	None	None	G1G2	S1S2	
<i>Monadenia circumcarinata</i> keeled sideband	None	None	G1	S1	BLM-Sensitive IUCN - Vulnerable
<i>Monadenia cristulata</i> crested sideband	None	None	G1G2	S1S2	
<i>Monadenia fidelis leonina</i> A terrestrial snail	None	None	G4G5T1T2	S1S2	
<i>Monadenia fidelis pronotis</i> rocky coast Pacific sideband	None	None	G4G5T1	S1	
<i>Monadenia infumata ochromphalus</i> yellow-based sideband	None	None	G2T1	S1	
<i>Monadenia infumata setosa</i> Trinity bristle snail	None	Threatened	G2T2	S2	IUCN - Vulnerable
<i>Monadenia marmarotis</i> marble sideband	None	None	G1	S1	
<i>Monadenia mormonum buttoni</i> Button's Sierra sideband	None	None	G2T1	S1S2	
<i>Monadenia mormonum hirsuta</i> hirsute Sierra sideband	None	None	G2T1	S1	BLM-Sensitive
<i>Monadenia troglodytes troglodytes</i> Shasta sideband	None	None	G1G2T1T2	S1S2	IUCN - Data Deficient USFS - Sensitive
<i>Monadenia troglodytes wintu</i> Wintu sideband	None	None	G1G2T1T2	S1S2	IUCN - Data Deficient USFS - Sensitive
<i>Monadenia tuolumneana</i> Tuolumne sideband	None	None	G1	S1	BLM-Sensitive
<i>Monadenia yosemitensis</i> Yosemite Mariposa sideband	None	None	G1	S1S2	
<i>Pristiloma shepardae</i> Shepard's snail	None	None	G1	S1	
<i>Prophysaon coeruleum</i> Blue-gray tailedropper slug	None	None	G3G4	S1S2	
<i>Punctum hannai</i> Trinity Spot	None	None	G1G2	S1S2	
<i>Radiocentrum avalonense</i> Catalina mountainsnail	None	None	G1	S1	IUCN - Critically Endangered
<i>Rothelix warnerfontis</i> Warner Springs shoulderband	None	None	G1	S1	USFS - Sensitive
<i>Sterkia clementina</i> San Clemente Island blunt-top snail	None	None	G1	S1S2	IUCN - Near Threatened
<i>Trilobopsis roperi</i> Shasta chaparral	None	None	G1	S1	USFS - Sensitive
<i>Trilobopsis tehamana</i> Tehama chaparral	None	None	G1	S1	BLM-Sensitive USFS - Sensitive

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<i>Vespericola pressleyi</i> Big Bar hesperian	None	None	G1	S1	BLM-Sensitive USFS - Sensitive
<i>Vespericola scotti</i> Benson Gulch hesperian	None	None	G1	S1	
<i>Vespericola shasta</i> Shasta hesperian	None	None	G1	S1	USFS - Sensitive
<i>Vespericola sierranus</i> Siskiyou hesperian	None	None	G2	S1S2	
<i>Xerarionta intercisa</i> horseshoe snail	None	None	G1	S1	IUCN - Vulnerable
<i>Xerarionta redimita</i> wreathed cactusnail	None	None	G1G2	S1	IUCN - Vulnerable
<i>Xerarionta tryoni</i> Bicolor cactusnail	None	None	G1	S1	IUCN - Vulnerable
ARACHNIDA (Spiders and relatives)					
<i>Aphrastochthonius grubbsi</i> Grubbs' Cave pseudoscorpion	None	None	G1G2	S1S2	
<i>Aphrastochthonius similis</i> Carlow's Cave pseudoscorpion	None	None	G1G2	S1S2	
<i>Archeolarca aalbui</i> Aalbu's Cave pseudoscorpion	None	None	G1G2	S1S2	
<i>Banksula californica</i> Alabaster Cave harvestman	None	None	GH	SH	
<i>Banksula galilei</i> Galile's cave harvestman	None	None	G1	S1	
<i>Banksula grubbsi</i> Grubbs' cave harvestman	None	None	G1	S1	
<i>Banksula incredula</i> incredible harvestman	None	None	G1	S1	
<i>Banksula martinorum</i> Martins' cave harvestman	None	None	G1	S1	
<i>Banksula melones</i> Melones Cave harvestman	None	None	G1	S1	IUCN - Vulnerable
<i>Banksula rudolphi</i> Rudolph's cave harvestman	None	None	G1	S1	
<i>Banksula tuolumne</i> Tuolumne cave harvestman	None	None	G1	S1	
<i>Banksula tutankhamen</i> King Tut Cave harvestman	None	None	G1	S1	
<i>Calicina arida</i> San Benito harvestman	None	None	G1	S1	
<i>Calicina breva</i> Stanislaus harvestman	None	None	G1	S1	
<i>Calicina cloughensis</i> Clough Cave harvestman	None	None	G1	S1	

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<i>Calicina conifera</i> Crane Flat harvestman	None	None	G1	S1	
<i>Calicina diminua</i> Marin blind harvestman	None	None	G1	S1	
<i>Calicina dimorphica</i> Watts Valley harvestman	None	None	G1	S1	
<i>Calicina macula</i> marbled harvestman	None	None	G1	S1	
<i>Calicina mesaensis</i> Table Mountain harvestman	None	None	G1	S1	
<i>Calicina minor</i> Edgewood blind harvestman	None	None	G1	S1	
<i>Calicina piedra</i> Piedra harvestman	None	None	G1	S1	
<i>Calileptoneta briggsi</i> Briggs' leptonetid spider	None	None	G1	S1	
<i>Calileptoneta oasa</i> Andreas Canyon leptonetid spider	None	None	G1	S1	
<i>Calileptoneta ubicki</i> Ubick's leptonetid spider	None	None	G1	S1	
<i>Calileptoneta wapiti</i> Mendocino leptonetid spider	None	None	G1	S1	
<i>Fissilicreagris imperialis</i> Empire Cave pseudoscorpion	None	None	G1	S1	IUCN - Vulnerable
<i>Hubbardia idria</i> Idria short-tailed whipscorpion	None	None	G1	S1	
<i>Hubbardia secoensis</i> Arroyo Seco short-tailed whipscorpion	None	None	G1	S1	
<i>Hubbardia shoshonensis</i> Shoshone Cave whip-scorpion	None	None	G1	S1	BLM-Sensitive
<i>Larca laceyi</i> Lacey's Cave pseudoscorpion	None	None	G1G2	S1	
<i>Meta dolloff</i> Dolloff Cave spider	None	None	G1	S1	IUCN - Vulnerable
<i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	None	None	G1	S1	
<i>Microcina homi</i> Hom's micro-blind harvestman	None	None	G1	S1	
<i>Microcina jungi</i> Jung's micro-blind harvestman	None	None	G1	S1	
<i>Microcina leei</i> Lee's micro-blind harvestman	None	None	G1	S1	
<i>Microcina lumi</i> Lum's micro-blind harvestman	None	None	G1	S1	
<i>Microcina tiburona</i> Tiburon micro-blind harvestman	None	None	G1	S1	

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<i>Neochthonius imperialis</i> Empire Cave pseudoscorpion	None	None	G1	S1	
<i>Pseudogarypus orpheus</i> Music Hall Cave pseudoscorpion	None	None	G1G2	S1	
<i>Socalchemmis gertschi</i> Gertsch's socialchemmis spider	None	None	G1	S1	
<i>Socalchemmis icenoglei</i> Icenogle's socialchemmis spider	None	None	G1	S1	
<i>Socalchemmis monterey</i> Monterey socialchemmis spider	None	None	G1	S1	
<i>Talanites moodyae</i> Moody's gnaphosid spider	None	None	G1G2	S1S2	
<i>Talanites ubicki</i> Ubick's gnaphosid spider	None	None	G1	S1	
<i>Telema</i> sp. Santa Cruz telemid spider	None	None	G1G2	S1S2	
<i>Texella deserticola</i> Whitewater Canyon harvestman	None	None	G1	S1	
<i>Texella kokoweef</i> Kokoweef Crystal Cave harvestman	None	None	G1	S1	
<i>Texella shoshone</i> Shoshone Cave harvestman	None	None	G1	S1	
CRUSTACEA, Order Anostraca (fairy shrimp)					
<i>Branchinecta campestris</i> pocket pouch fairy shrimp	None	None	G2	S1	
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	Endangered	None	G2	S2	IUCN - Endangered
<i>Branchinecta longiantenna</i> longhorn fairy shrimp	Endangered	None	G1	S1S2	IUCN - Endangered
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	Threatened	None	G3	S3	IUCN - Vulnerable
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	Endangered	None	G2	S2	IUCN - Endangered
<i>Linderiella santarosae</i> Santa Rosa Plateau fairy shrimp	None	None	G1G2	S1	
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	Endangered	None	G1G2	S1S2	IUCN - Endangered
CRUSTACEA, Order Notostraca (tadpole shrimp)					
<i>Lepidurus packardi</i> vernal pool tadpole shrimp	Endangered	None	G4	S3S4	IUCN - Endangered
CRUSTACEA, Order Anomopoda (water fleas)					
<i>Dumontia oregonensis</i> hairy water flea	None	None	G1G3	S1	
INSECTA, Order Plecoptera (stoneflies)					
<i>Capnia lacustra</i> Lake Tahoe benthic stonefly	None	None	G1	S1	

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INSECTA, Order Orthoptera (grasshoppers, katydids, and crickets)					
<i>Aglaothorax longipennis</i> Santa Monica shieldback katydid	None	None	G1G2	S1S2	IUCN - Critically Endangered
<i>Ammopelmatus kelsoensis</i> Kelso jerusalem cricket	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Ammopelmatus muwu</i> Point Conception jerusalem cricket	None	None	G1	S1	IUCN - Vulnerable
<i>Idiostatus kathleenae</i> Pinnacles shieldback katydid	None	None	G1G2	S1S2	
<i>Idiostatus middlekauffi</i> Middlekauff's shieldback katydid	None	None	G1G2	S1	IUCN - Critically Endangered
<i>Macrobaenetes algodonensis</i> Algodones sand treader cricket	None	None	G1G2	S1S2	
<i>Macrobaenetes valgum</i> Coachella giant sand treader cricket	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Psychomastax deserticola</i> desert monkey grasshopper	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Stenopelmatus cahuilaensis</i> Coachella Valley jerusalem cricket	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Tetrix sierrana</i> Sierra pygmy grasshopper	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Trimerotropis infantilis</i> Zayante band-winged grasshopper	Endangered	None	G1	S1	IUCN - Endangered
<i>Trimerotropis occidentiloides</i> Santa Monica grasshopper	None	None	G1G2	S1S2	IUCN - Endangered
<i>Trimerotropis occulens</i> Lompoc grasshopper	None	None	G1G2	S1S2	IUCN - Endangered
INSECTA, Order Hemiptera (true bugs)					
<i>Oravelia pege</i> Dry Creek cliff strider bug	None	None	G1	S1	
<i>Saldula usingeri</i> Wilbur Springs shorebug	None	None	G1	S1	
INSECTA, Order Coleoptera (beetles)					
<i>Aegialia concinna</i> Ciervo aegilian scarab beetle	None	None	G1	S1	BLM-Sensitive IUCN - Vulnerable
<i>Agrilus harenus</i> Harenus jewel beetle	None	None	G1G2	S1S2	
<i>Anomala carlsoni</i> Carlson's dune beetle	None	None	G1	S1	
<i>Anomala hardyorum</i> Hardy's dune beetle	None	None	G1	S1	
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	None	None	G1	S1	
<i>Anthicus sacramento</i> Sacramento anthicid beetle	None	None	G1	S1	IUCN - Endangered

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<i>Cicindela gabbii</i> western tidal-flat tiger beetle	None	None	G2G4	S1	
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	None	None	G5TH	SH	
<i>Cicindela latesignata latesignata</i> western beach tiger beetle	None	None	G2G4T1T2	S1	
<i>Cicindela ohlone</i> Ohlone tiger beetle	Endangered	None	G1	S1	
<i>Cicindela senilis frosti</i> senile tiger beetle	None	None	G2G3T1T3	S1	
<i>Cicindela tranquebarica ssp.</i> San Joaquin tiger beetle	None	None	G5T1	S1	
<i>Cicindela tranquebarica viridissima</i> greenest tiger beetle	None	None	G5T1	S1	
<i>Coelus globosus</i> globose dune beetle	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Coelus gracilis</i> San Joaquin dune beetle	None	None	G1	S1	BLM-Sensitive IUCN - Vulnerable
<i>Coenonycha clementina</i> San Clemente Island coenonycha beetle	None	None	G1G2	S1S2	
<i>Cyclocephala wandae</i> Wandae dune beetle	None	None	G1G2	S1S2	
<i>Deltaspis ivae</i> marsh-elder long-horned beetle	None	None	G1	S1	
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	Threatened	None	G3T2	S2	
<i>Dinacoma caseyi</i> Casey's June beetle	Endangered	None	G1	S1	
<i>Elaphrus viridis</i> Delta green ground beetle	Threatened	None	G1	S1	IUCN - Critically Endangered
<i>Juniperella mirabilis</i> juniper metallic wood-boring beetle	None	None	G1	S1	
<i>Lepismadora algodones</i> Algodones sand jewel beetle	None	None	G1	S1	
<i>Lichnanthe albipilosa</i> white sand bear scarab beetle	None	None	G1	S1	
<i>Lytta hoppingi</i> Hopping's blister beetle	None	None	G1G2	S1S2	
<i>Lytta insperata</i> Mojave Desert blister beetle	None	None	G1G2	S1S2	
<i>Lytta morrisoni</i> Morrison's blister beetle	None	None	G1G2	S1S2	
<i>Microcylloepus formicoideus</i> Furnace Creek riffle beetle	None	None	G1	S1	
<i>Nebria darlingtoni</i> South Forks ground beetle	None	None	G1	S1	

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<i>Nebria gebleri siskiyouensis</i> Siskiyou ground beetle	None	None	G4G5T4	S1S2	
<i>Nebria sahlbergii triad</i> Trinity Alps ground beetle	None	None	G1T1	S1	
<i>Onychobaris langei</i> Lange's El Segundo Dune weevil	None	None	G1	S1	
<i>Polyphylla anteronivea</i> Saline Valley snow-front June beetle	None	None	G1	S1	
<i>Polyphylla barbata</i> Mount Hermon (=barbate) June beetle	Endangered	None	G1	S1	
<i>Polyphylla erratica</i> Death Valley June beetle	None	None	G1G2	S1S2	
<i>Polyphylla nubila</i> Atascadero June beetle	None	None	G1	S1	
<i>Prasinalia imperialis</i> Algodones white wax jewel beetle	None	None	G1G2	S1S2	
<i>Pseudocotalpa andrewsi</i> Andrew's dune scarab beetle	None	None	G1	S1	
<i>Trachykele hartmani</i> serpentine cypress wood-boring beetle	None	None	G1	S1	
<i>Trichinorhipis knulli</i> Knull's metallic wood-boring beetle	None	None	G1	S1	
<i>Trigonoscuta brunnotesselata</i> brown tassel trigonoscuta weevil	None	None	G1G2	S1S2	
<i>Trigonoscuta dorothea dorothea</i> Dorothy's El Segundo Dune weevil	None	None	G1T1	S1	
<i>Trigonoscuta rothi algodones</i> Algodones dune weevil	None	None	G1G2	S1S2	
<i>Trigonoscuta rothi imperialis</i> Imperial dune weevil	None	None	G1G2	S1S2	
<i>Trigonoscuta rothi punctata</i> Punctate dune weevil	None	None	G1G2	S1S2	
<i>Trigonoscuta rothi rothi</i> Roth's dune weevil	None	None	G1G2	S1S2	
<i>Trigonoscuta</i> sp. Doyen's trigonoscuta dune weevil	None	None	G1Q	S1	
<i>Trigonoscuta stantoni</i> Santa Cruz Island shore weevil	None	None	G1	S1	
<i>Vandykea tuberculata</i> serpentine cypress long-horned beetle	None	None	G1	S1	
INSECTA, Order Mecoptera (scorpionflies)					
<i>Orobittacus obscurus</i> gold rush hanging scorpionfly	None	None	G1	S1	
INSECTA, Order Diptera (flies)					
<i>Ablautus schlingeri</i> Oso Flaco robber fly	None	None	G1	S1	

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<i>Apiocera warneri</i> Glamis sand fly	None	None	G1G2	S1S2	
<i>Brennania belkini</i> Belkin's dune tabanid fly	None	None	G1G2	S1S2	IUCN - Vulnerable
<i>Efferia antiochi</i> Antioch efferian robberfly	None	None	G1G2	S1S2	
<i>Efferia macroxipha</i> Glamis robberfly	None	None	G1G2	S1S2	
<i>Metapogon hurdi</i> Hurd's metapogon robberfly	None	None	G1G2	S1S2	
<i>Paracoenia calida</i> Wilbur Springs shore fly	None	None	G1	S1	
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	Endangered	None	G1T1	S1	
<i>Rhaphiomidas terminatus terminatus</i> El Segundo flower-loving fly	None	None	G1T1	S1	
<i>Rhaphiomidas trochilus</i> Valley mydas fly	None	None	G1	S1	
INSECTA, Order Lepidoptera (butterflies & moths)					
<i>Areniscythris brachypteris</i> Oso Flaco flightless moth	None	None	G1	S1	
<i>Eucosma hennei</i> Henne's eucosman moth	None	None	G1	S1	
<i>Carolella busckana</i> Busck's gallmoth	None	None	G1G3	SH	
<i>Pyrgus ruralis lagunae</i> Laguna Mountains skipper	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Carterocephalus palaemon magnus</i> Sonoma arctic skipper	None	None	G5T5	S1	
<i>Pseudocopaeodes eunus obscurus</i> Carson wandering skipper	Endangered	None	G3G4T1	S1	XERCES - Critically Imperiled
<i>Hesperia miriamae longaevicola</i> White Mountains skipper	None	None	G2G3T1	S1	
<i>Polites mardon</i> mardon skipper	None	None	G2G3	S1	USFS - Sensitive XERCES - Imperiled
<i>Euphyes vestris harbisoni</i> dun skipper	None	None	G5T1T2	S1S2	
<i>Euchloe hyantis andrewsi</i> Andrew's marble butterfly	None	None	G3G4T1	S1	
<i>Lycaena rubidus incana</i> White Mountains copper	None	None	G5T1	S1	
<i>Lycaena hermes</i> Hermes copper butterfly	Candidate	None	G1	S1	IUCN - Vulnerable USFS - Sensitive
<i>Callophrys comstocki</i> desert green hairstreak	None	None	G3G4	S1S2	XERCES - Imperiled
<i>Callophrys thornei</i> Thorne's hairstreak	None	None	G1	S1	BLM-Sensitive

California Terrestrial and Vernal Pool Invertebrates of Conservation Priority

Species	Federal ESA	CA ESA	G-Rank	S-Rank	Other Statuses
<i>Callophrys mossii bayensis</i> San Bruno elfin butterfly	Endangered	None	G4T1	S1	XERCES - Critically Imperiled
<i>Callophrys mossii hidakupa</i> San Gabriel Mountains elfin butterfly	None	None	G4T1T2	S1S2	USFS - Sensitive
<i>Callophrys mossii marinensis</i> Marin elfin butterfly	None	None	G4T1	S1	
<i>Euphilotes battoides allyni</i> El Segundo blue butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	Endangered	None	G5T1T2	S1S2	XERCES - Critically Imperiled
<i>Euphilotes mojave</i> Mojave dotted-blue	None	None	G2G3	S1S2	XERCES - Imperiled
<i>Euphilotes baueri</i> Bauer's dotted-blue	None	None	G2G4	S1S2	USFS - Sensitive XERCES - Imperiled
<i>Philotiella speciosa bohartorum</i> Boharts' blue butterfly	None	None	G3G4T1	S1	
<i>Glaucoopsyche lygdamus palosverdesensis</i> Palos Verdes blue butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Plebejus idas lotis</i> lotis blue butterfly	Endangered	None	G5TH	SH	XERCES - Critically Imperiled
<i>Plebejus saepiolus aureolus</i> San Gabriel Mountains blue butterfly	None	None	G5T1	S1	USFS - Sensitive
<i>Plebejus saepiolus albomontanus</i> White Mountains saepiolus blue butterfly	None	None	G5T2	S1S2	
<i>Plebulina emigdionis</i> San Emigdio blue butterfly	None	None	G1G2	S1S2	USFS - Sensitive
<i>Plebejus icarioides missionensis</i> Mission blue butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Plebejus icarioides parapheres</i> Point Reyes blue butterfly	None	None	G5T1T2	S1S2	
<i>Apodemia mormo langei</i> Lange's metalmark butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Speyeria nokomis carsonensis</i> Carson Valley silverspot	None	None	G3T1	S1	
<i>Speyeria zerene sonomensis</i> Sonoma zerene fritillary	None	None	G5T1	S1	
<i>Speyeria zerene hippolyta</i> Oregon silverspot butterfly	Threatened	None	G5T1	S1	XERCES - Critically Imperiled
<i>Speyeria zerene behrensii</i> Behren's silverspot butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Speyeria callippe callippe</i> callippe silverspot butterfly	Endangered	None	G5T1	S1	XERCES - Critically Imperiled
<i>Speyeria adiaste adiaste</i> unsilvered fritillary	None	None	G1G2T1	S1	

California Terrestrial and Vernal Pool Invertebrates of Conservation Priority

Species	Federal ESA	CA ESA	G-Rank	S-Rank	Other Statuses
<i>Chlosyne leanira elegans</i> Oso Flaco patch butterfly	None	None	G4G5T1T2	S1S2	
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	Threatened	None	G5T1	S1	XERCES - Critically Imperiled
<i>Euphydryas editha monoensis</i> Mono checkerspot butterfly	None	None	G5T2T3	S1S2	USFS - Sensitive
<i>Euphydryas editha quino</i> quino checkerspot butterfly	Endangered	None	G5T1T2	S1S2	XERCES - Critically Imperiled
<i>Coenonympha tullia yontockett</i> Yontocket satyr	None	None	G5T1T2	S1	
<i>Cercyonis pegala carsonensis</i> Carson Valley wood nymph	None	None	G5T1T2	S1S2	
<i>Danaus plexippus</i> monarch	None	None	G4T2T3	S2S3	USFS - Sensitive
<i>Hesperopsis graciellae</i> Macneill's sootywing	None	None	G2G3	S1S2	XERCES - Vulnerable
<i>Euproserpinus euterpe</i> Kern primrose sphinx moth	Threatened	None	G1G2	S1	XERCES - Critically Imperiled
INSECTA, Order Trichoptera (caddisflies)					
<i>Cryptochia denningi</i> Denning's cryptic caddisfly	None	None	G1G2	S1S2	
<i>Cryptochia excella</i> Kings Canyon cryptochian caddisfly	None	None	G1G2	S1S2	
<i>Cryptochia shasta</i> confusion caddisfly	None	None	G1G2	S1S2	
<i>Diplectrona californica</i> California diplectronan caddisfly	None	None	G1G2	S1S2	
<i>Ecclisomyia bilera</i> Kings Creek ecclisomyian caddisfly	None	None	G1G2	S1S2	
<i>Farula praelonga</i> long-tailed caddisfly	None	None	G1G2	S1S2	
<i>Goeracea oregona</i> Sagehen Creek goeracean caddisfly	None	None	G3	S1S2	
<i>Lepidostoma ermanae</i> Cold Spring caddisfly	None	None	G1G2	S1S2	
<i>Limnephilus atercus</i> Fort Dick limnephilus caddisfly	None	None	G3G4	S1	
<i>Neothremma genella</i> golden-horned caddisfly	None	None	G1G2	S1S2	
<i>Neothremma siskiyou</i> Siskiyou caddisfly	None	None	G1G2	S1S2	
<i>Parapsyche extensa</i> King's Creek parapsyche caddisfly	None	None	GH	SH	
<i>Rhyacophila lineata</i> Castle Crags rhyacophilan caddisfly	None	None	G1G3	S1S2	

Species	Federal ESA	CA ESA	G-Rank	S-Rank	Other Statuses
<i>Rhyacophila mosana</i> bilobed rhyacophilan caddisfly	None	None	G1G2Q	S1S2	
<i>Rhyacophila spinata</i> spiny rhyacophilan caddisfly	None	None	G1G2	S1S2	
INSECTA, Order Hymenoptera (ants, bees, & wasps)					
<i>Andrena subapasta</i> an andrenid bee	None	None	G1G2	S1S2	
<i>Argochrysis lassena</i> Lassen cuckoo wasp	None	None	G1	S1	
<i>Bombus caliginosus</i> obscure bumble bee	None	None	G4?	S1S2	IUCN - Vulnerable
<i>Bombus crotchii</i> Crotch bumble bee	None	None	G3G4	S1S2	
<i>Bombus franklini</i> Franklin's bumble bee	None	None	G1	S1	IUCN - Critically Endangered XERCES - Critically Imperiled
<i>Bombus morrisoni</i> Morrison bumble bee	None	None	G4G5	S1S2	IUCN - Vulnerable
<i>Bombus occidentalis</i> western bumble bee	None	None	G2G3	S1	USFS - Sensitive XERCES - Imperiled
<i>Bombus suckleyi</i> Suckley's cuckoo bumble bee	None	None	GU	S1	
<i>Ceratochrysis bradleyi</i> Bradley's cuckoo wasp	None	None	G1	S1	
<i>Ceratochrysis gracilis</i> Piute Mountains cuckoo wasp	None	None	G1	S1	
<i>Ceratochrysis longimala</i> Desert cuckoo wasp	None	None	G1	S1	
<i>Ceratochrysis menkei</i> Menke's cuckoo wasp	None	None	G1	S1	
<i>Chrysis tularensis</i> Tulare cuckoo wasp	None	None	G1G2	S1S2	
<i>Cleptes humboldtii</i> Humboldt cuckoo wasp	None	None	G1G2	S1S2	
<i>Dufourea stagei</i> Stage's dufourine bee	None	None	G1	S1	
<i>Eucerceris ruficeps</i> redheaded sphecid wasp	None	None	G1G3	S1S2	
<i>Euparagia unidentata</i> Algodones euparagia	None	None	G1G2	S1S2	
<i>Habropoda pallida</i> white faced bee	None	None	G1G2	S1S2	
<i>Hedychridium argenteum</i> Riverside cuckoo wasp	None	None	G1G2	S1S2	
<i>Hedychridium milleri</i> Borax Lake cuckoo wasp	None	None	G1	S1	

Species	Federal ESA	CA ESA	G-Rank	S-Rank	Other Statuses
<i>Lasioglossum channelense</i> Channel Island sweat bee	None	None	G1	S1	
<i>Microbembex elegans</i> Algodones elegant sand wasp	None	None	G1G2	S1S2	
<i>Myrmosula pacifica</i> Antioch multilid wasp	None	None	GH	SH	
<i>Neolarra alba</i> white cuckoo bee	None	None	GH	SH	
<i>Paranomada californica</i> California cuckoo bee	None	None	G1	S1	
<i>Parnopes borregoensis</i> Borrego parnopes cuckoo wasp	None	None	G1G2	S1S2	
<i>Perdita algodones</i> Algodones perdita	None	None	G1G2	S1S2	
<i>Perdita frontalis</i> Imperial Perdita	None	None	G1G2	S1S2	
<i>Perdita glamis</i> Glamis perdita	None	None	G1G2	S1S2	
<i>Perdita scitula antiochensis</i> Antioch andrenid bee	None	None	G1T1	S1	
<i>Philanthus nasalis</i> Antioch specid wasp	None	None	G1	S1	
<i>Protodufourea wasbaueri</i> Wasbauer's protodufourea bee	None	None	G1	S1	XERCES_DD-Data Deficient
<i>Protodufourea zavortinki</i> Zavortink's protodufourea bee	None	None	G1	S1	
<i>Rhopalolemma robertsi</i> Roberts' rhopalolemma bee	None	None	G1	S1	
<i>Sedomaya glamisensis</i> Glamis night tiphid	None	None	G1G2	S1S2	
<i>Sphaerophthalma ecarinata</i> Glamis night mutillid	None	None	G1G2	S1S2	
<i>Sphecodogastra antiochensis</i> Antioch Dunes halcetid bee	None	None	G1	S1	XERCES - Critically Imperiled
<i>Stictiella villegasi</i> Algodones sand wasp	None	None	G1G2	S1S2	
<i>Trachusa gummifera</i> San Francisco Bay Area leaf-cutter bee	None	None	G1	S1	

NatureServe Element Ranking

All Heritage Programs, such as the California Natural Diversity Database (CNDDDB) use the same ranking methodology, originally developed by The Nature Conservancy and now maintained and recently revised

by NatureServe. It includes a **Global rank** (G-rank), describing the rank for a given taxon over its entire distribution and a **State rank** (S-rank), describing the rank 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 CNDDDB 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, environmental specificity and number of good occurrences (ranked A or B).
- Overall threat impact as well as intrinsic vulnerability (if threats are unknown).
- Long-term and short-term trends.

Detailed information on the newest element ranking methodology can be found here:

https://connect.natureserve.org/publications/StatusAssess_Methodology

With the above considerations in mind, refer below for the numerical definitions for G1-5 and S1-5. An element’s ranking status may be adjusted up or down depending upon the considerations above.

Element Ranking

GLOBAL RANKING

The *global rank* (G-rank) is a reflection of the overall status of an element throughout its global range. **Both Global and State ranks represent a letter and number score that reflects a combination of Rarity, Threat, and Trend factors, with weighting being heavier on Rarity than the other two.**

SPECIES OR NATURAL COMMUNITY LEVEL

- G1 = Critically Imperiled**—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 = Imperiled**—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3 = Vulnerable**—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4 = Apparently Secure**—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 = Secure**—Common; widespread and abundant.

SUBSPECIES LEVEL

Taxa which are subspecies or varieties receive a taxon rank (**T-rank**) attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation 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 range i.e., *Aplodontia rufa*. The T-rank refers only to the global condition of ssp. *phaea*.

STATE RANKING

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

- S1 = Critically Imperiled**—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2 = Imperiled**—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3 = Vulnerable**—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4 = Apparently Secure**—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
- S5 = Secure**—Common, widespread, and abundant in the state.

Notes:

<p>1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take a bird's eye or aerial view when ranking sensitive elements rather than simply counting element occurrences.</p>	<p>3. Other symbols:</p> <p style="margin-left: 20px;">GH All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists (SH = All California sites are historical).</p> <p style="margin-left: 20px;">GX All sites are extirpated; this element is extinct in the wild (SX = All California sites are extirpated).</p> <p style="margin-left: 20px;">GXC Extinct in the wild; exists in cultivation.</p> <p style="margin-left: 20px;">G1Q The element is very rare, but there are taxonomic questions associated with it.</p> <p style="margin-left: 20px;">T Rank applies to a subspecies or variety.</p>	
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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.

SE	State listed as Endangered
ST	State listed as Threatened
SCE	State candidate for listing as Endangered
SCT	State candidate for listing as Threatened
SCD	State candidate for delisting

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 contained in the Federal Register are also available at: <http://www.regulations.gov>

FE	Federally listed as Endangered
FT	Federally listed as Threatened
FPE	Federally proposed for listing as Endangered
FPT	Federally proposed for listing as Threatened
FPD	Federally proposed for delisting
FC	Federal candidate species (former Category 1 candidates)

Section 4(c)(2)(A) of the Act requires the U.S. Fish and Wildlife Service to conduct a **review** of listed species at least once every **five** years. Five year reviews from the Sacramento Fish and Wildlife Office are available at: https://www.fws.gov/sacramento/es/Five-Year-Reviews/es_five-year.htm

BLM Sensitive: Bureau of Land Management (BLM) 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.” The California-BLM Sensitive Animals list is available at: <https://www.blm.gov/programs/fish-and-wildlife/threatened-and-endangered/state-te-data/california>

IUCN - The International Union for Conservation of Nature (IUCN): 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 on the IUCN and the Red List is available at: <http://www.iucnredlist.org>

Xerces Society Red List: The Xerces Society is an international non-profit organization dedicated to protecting biological diversity through invertebrate conservation. The Society advocates for invertebrates and their habitats by working with scientists, land managers, educators, and citizens on conservation and education projects. Their core programs focus on endangered species, native pollinators, and watershed health. More information on the Red List is available at: <http://www.xerces.org>.