RESEARCH ARTICLE

Patterns of Freshwater Species Richness, Endemism, and Vulnerability in California

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Abstract

The ranges and abundances of species that depend on freshwater habitats are declining worldwide. Efforts to counteract those trends are often hampered by a lack of information about species distribution and conservation status and are often strongly biased toward a few well-studied groups. We identified the 3,906 vascular plants, macroinvertebrates, and vertebrates native to California, USA, that depend on fresh water for at least one stage of their life history. We evaluated the conservation status for these taxa using existing government and non-governmental organization assessments (e.g., endangered species act, NatureServe), created a spatial database of locality observations or distribution information from ~400 data sources, and mapped patterns of richness, endemism, and vulnerability. Although nearly half of all taxa with conservation status (n = 1,939) are vulnerable to extinction, only 114 (6%) of those vulnerable taxa have a legal mandate for protection in the form of formal inclusion on a state or federal endangered species list. Endemic taxa are at greater risk than non-endemics, with 90% of the 927 endemic taxa vulnerable to extinction. Records with spatial data were available for a total of 2,276 species (61%). The patterns of species richness differ depending on the taxonomic group analyzed, but are similar across taxonomic level. No particular taxonomic group represents an umbrella for all species, but hotspots of high richness for listed species cover 40% of the hotspots for all other species and 58% of the hotspots for vulnerable freshwater species. By mapping freshwater species hotspots we show locations that represent the top priority for conservation action in the state. This study identifies opportunities to fill gaps in the evaluation of conservation status for freshwater taxa in California, to address the lack of occurrence information for nearly
40% of freshwater taxa and nearly 40% of watersheds in the state, and to implement adequate protections for freshwater taxa where they are currently lacking.

Introduction

Freshwater habitats cover less than 1% of the earth’s surface (about the size of the European Union) but support roughly 125,000 described species, or 10% of the described species on the planet [1]. Species dependent on freshwater habitats are in decline globally [2, 3]; between 10,000 and 20,000 freshwater species are thought to be extinct or imperiled by human activities [1, 3], with freshwater species at higher risk of extinction than their terrestrial counterparts [4]. In North America, extinction rates for freshwater species are four to five times greater than those for terrestrial species [5–7], and increasing human population and climate change are predicted to exacerbate extinctions in the future [7–10]. Estimates of known extinctions however, are likely gross underestimates because most groups of freshwater organisms are understudied [11]. The insular and fragmented nature of freshwater habitats, which often results in high levels of endemism, makes freshwater populations highly vulnerable to extirpation [1].

Although great strides are being made in the methods to adapt conservation planning principals and conservation strategies to the particularities of freshwater systems [12–13], conservation action is hampered by a lack of basic information about the definition and location of these species. The first stage of systematic conservation planning is compiling information about the location of threatened and rare species in a region [14], but for freshwater species, this information tends to be lacking, dispersed, or focused on limited taxonomic groups even in data rich areas.

Because data is lacking, conservation groups often focus on focal species or taxonomic groups that have better distribution data. Recent studies have attempted to systematically address broad-scale patterns of freshwater species distribution, and spatial congruence among taxonomic groups [4, 15]. These studies show that congruence between taxonomic groups at global and continental scales are low, suggesting that focusing on a single species or taxonomic group may not benefit all freshwater species [4, 15].

California (USA) encompasses an exceptionally diverse array of freshwater ecosystem types, from rivers flowing through temperate rainforests to desert springs where ancient aquifers come to the surface [16]. In addition, demands on California’s freshwater resources to meet human needs are intensifying as its population grows, and climate change further strains an already over-allocated water supply system [17–18]. Water allocations are currently five times the state’s mean annual runoff and, in many of the state’s major river basins, rights to divert water lay claim to up to 1,000% of natural surface water supplies [19].

Recent studies have highlighted dramatic declines of California native fishes with 80% either extinct or threatened with extinction within 100 years [10, 20]. Yet, the composition, distribution, and status of the broader suite of freshwater taxa in the state are not well understood. To address this need, we assembled the first comprehensive database of spatial observations for freshwater vascular plants, macroinvertebrates, and vertebrates in California. Here, we use this new and now publicly available database [21] to evaluate the patterns of freshwater species richness, endemism, and vulnerability, identify hotspots of freshwater richness, and to evaluate the spatial congruence of species richness across taxonomic groups.
Materials and Methods

Study Area

The spatial unit of analysis for this assessment was the smallest-size watershed (12-digit hydrologic unit code, or HUC12, watershed) available in the nested national dataset compiled by the US Department of Agriculture Natural Resource Conservation Service [22]. Our study area included those watersheds (n = 4,450) within the administrative boundary of the state of California, totaling 410,515 km² (Fig 1). For reporting results, we nested the HUC12 watersheds within 10 major hydrologic management regions defined by California’s Department of Water Resources corresponding to the state’s major drainage basins [23] (Fig 1)(S1 Table).

Taxa List

The taxonomic units of analysis for this assessment were drawn from an initial list of species and sub-species known to utilize freshwater habitats within California from NatureServe (http://natureserve.org) (n = 1,903)[24]. Because NatureServe collects and manages information for only a subset of species throughout the U.S., Canada, Latin America, and the Caribbean we assessed regional and specific taxonomic reviews and checklists to identify missing taxa (S2 Table). For example, we relied on the PISCES for all fish data because the software and database is comprehensive and quality-controlled [25–26]. Comprehensive taxonomic reviews are not available in California for non-vascular plants, such as benthic algae and mosses, planktonic microcrustacea, segmented worms, and water
mites; consequently, these groups are excluded from our effort. The authors, selected for their taxonomic expertise in the state, compiled and reviewed lists of freshwater dependent species and subspecies that occur within California (S1 Table). The experts removed redundancies due to changes in taxonomy or nomenclature, and assembled a definitive list of freshwater taxa (S3 Table). Our final database augmented the freshwater taxa included in the NatureServe list by 105% (n = 2,003), for a total of 3,906 taxa (S3 Table). Species, subspecies, Evolutionary Significant Units, and Distinct Population Segments are hereafter referred to as “taxa” for convenience.

Criteria for categorizing taxa as “freshwater dependent” varied by taxonomic group (S1 File). For example, freshwater fishes were defined as those that spawn in freshwater habitats. Herpetofauna, were included if: 1) they rely on fresh water to complete one or more life stage (e.g., all anurans and many caudates); or, 2) forage within fresh water as obligates (e.g., western pond turtle, *Actinemys marmorata marmorata* or non-obligates (e.g., western terrestrial garter snake, *Thamnophis elegans elegans*) at some stage of development; or, 3) they would not persist without freshwater microhabitats (e.g., Inyo mountain salamander, *Batrachoseps campi*); or, 4) they are found within splash zones of freshwater springs and creeks (e.g., Dunn’s salamander, *Plethodon dunni*). Plant species were included if: 1) they occur exclusively in fresh water and have special adaptations for living submerged in water, or at the water’s surface; or, 2) occur primarily in freshwater wetland habitats but are not strictly aquatic; or, 3) require freshwater inundation to complete their life-cycle, such as plants occurring in long-inundated portions of vernal pools (e.g., *Orcuttia californica*); or, 4) were identified in the Jepson Manual of Vascular Plants of California [27] as associated with wetland habitats such as marshes, lakes, vernal pools, fens, springs, and bogs, and dependent on wetland habitat; or, 5) were included as wetland obligates or as facultative wetland plants in the U.S. Army Corps of Engineers list of wetland plant species [28]. See S1 File for criteria used for birds, mammals, vascular plants and invertebrates. We limited our list to taxa native to California.

Taxa were classified as endemic if they are known to be restricted to California based on available data sources (S2 Table).

Conservation Status
We evaluated the conservation status for all taxa on our final list (S3 Table) by reviewing the scientific literature, NatureServe, state and federal Endangered Species Act lists, management agency designations, and taxonomic group reviews (S1 Table). We attempted to be as complete as possible, and use available conservation status sources for the taxonomic groups considered in this study. Table 1 provides sources and criteria for classifying taxon as listed, vulnerable or apparently secure. Note that taxa were not classified as “apparently secure” if they fell under any criteria listed under “vulnerable” in Table 1.

Spatial Data and Summaries
We collected spatial data related to the occurrence or distribution of the freshwater taxa included on our final list (S3 Table), and assembled a geographic database using Esri ArcGIS version 10.1 software. Due to taxonomic changes and differences among data sources, we were not always able to attribute spatial records at the subspecies level. As a result, all spatial data summaries and analyses are conducted at the species level. Data were collected from a variety of sources (S2 Table). The subsequent database includes available spatial data for each taxon categorized by observation type (Table 2), data format (i.e. point, line, and polygon), origin (i.e. native range vs. translocation), conservation status, and habitat usage (e.g. seasonal or migratory use).
While this effort represents the most comprehensive compilation of freshwater species occurrence in the state, we acknowledge that data quality may vary among sources. With the exception of PISCES, which has been expert reviewed for data quality, other data sources have

A taxon was classified as listed, vulnerable or apparently secure if one of the criteria conditions were met. For example, if a taxon is classified as endangered on the federal ESA list, we designated the taxon as “listed” in our database. Alternatively, if a taxon was classified as EN (endangered) in Moyle et al. 2011, we classified the taxon as “vulnerable” in our database.

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| Table 1. Sources and criteria used to rank taxa. |
|-----------------------------------------------|
| **Source** | **Criteria for “listed ranking”** | **Criteria for “Vulnerable” ranking** | **Criteria for “Apparently Secure” ranking** |
| ESA federal or state lists [29–30] | • Endangered OR | • Under Review in the Candidate or Petition Process OR |  |
| | • Threatened | • Proposed Threatened OR |  |
| | | • Species of Special Concern OR |  |
| | | • Candidate OR |  |
| | | • Bird of Conservation Concern OR |  |
| | | • Special Concern OR |  |
| | | • Special |  |
| NatureServe [24] | Ranked at either the global (G) or state (S) scales as: | Ranked at either the global (G) or state (S) scales as: |  |
| | • Vulnerable (NatureServe ranking of 3) OR | • Apparently Secure (NatureServe ranking of 4) OR |  |
| Status assessment of California’s native inland fishes [20] | • EN (endangered) OR | • NT (near-threatened) OR |  |
| Conservation Status of Freshwater Gastropods of Canada and the United States [31] | • VU (vulnerable)(following IUCN definitions) OR | • LC (least concern) OR |  |
| | • Endangered OR | • Currently Stable (CS) |  |
| California Native Plant Society – Rare Plant Inventory [32] | • Threatened OR |  |
| | • Vulnerable |  |
| | • 1A (Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere) OR |  |
| | • 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere) OR |  |
| | • 2A (Plants Presumed Extirpated in California, But Common Elsewhere) OR |  |
| | • 2B (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere |  |
| Amphibian and Reptile Species of Special Concern (ARSSC) [33] | Appears on list |  |
| California Department of Fish and Wildlife (CDFW) Species of Special Concern [34] | Appears on list |  |
| USFWS Species of Concern [35] | Appears on list |  |
| USFWS Birds of Conservation Concern [36] | Appears on list |  |
| US Forest Service National Threatened, Endangered and Sensitive Species (TES) Program [37] | Appears on list |  |
| US Bureau of Land Management Special Status Species [38] | Appears on list |  |

A taxon was classified as listed, vulnerable or apparently secure if one of the criteria conditions were met. For example, if a taxon is classified as endangered on the federal ESA list, we designated the taxon as “listed” in our database. Alternatively, if a taxon was classified as EN (endangered) in Moyle et al. 2011, we classified the taxon as “vulnerable” in our database.

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not undergone such review, and therefore may not accurately represent species ranges. For example, most invertebrate data come from bioassessment monitoring efforts which are known to under sample certain habitats such as non-perennial streams, large rivers, springs, high altitude streams, and wet meadows.

To examine and compare patterns of freshwater species richness, endemism, and vulnerability, we summed and mapped unique species by HUC12 watershed, and calculated the percentage of species that are endemic, vulnerable, and listed in each watershed. We also mapped richness by eight taxonomic groups (fish, herpeofauna, mollusks, birds, crustaceans, plants, mammals, insects and other invertebrates) by summing the number of species in each taxonomic group within the HUC12s. We identified hotspots as the top 5% richest watersheds [39].

We recognize that spatial data for freshwater species is often lacking, so we tested how each taxonomic group serves as a proxy for the full suite of freshwater species. First we calculated the pairwise Pearson’s correlation coefficient of species richness counts in HUC12 watersheds by taxonomic group to evaluate the relationship between taxonomic groups. Next, we calculated the Pearson’s correlation coefficient for each taxonomic group compared to all other freshwater species not in that taxonomic group. For example, we calculated the correlation coefficient for fish richness compared to all other freshwater species (excluding fish) by HUC12 watershed. In addition, we calculated the correlation of all listed species in each HUC12 compared to all other non-listed species.

We also tested whether geographical patterns of richness in one group act as a surrogate for those in other groups by comparing the overlap of hotspots for one group with corresponding hotspots for other groups [39]. Finally, we compared the hotspots for each group with vulnerable freshwater species to test how well each group acts as a surrogate for vulnerable freshwater biodiversity in most need of conservation action.

Results
Richness, Endemism, and Vulnerability

We identified 3,906 freshwater taxa in California (S3 Table) which included 336 subspecies, evolutionary significant units, or distinct population segments. Insects, arachnids,
branchiopods, and polychaetes (referred to henceforth as “insects and other invertebrates”) comprise over two-thirds (63%) of the freshwater taxa in the study, with 2,496 taxa (Fig 2). The next largest group is vascular plants (n = 826), followed by mollusks (n = 165), crustaceans (n = 116) birds (n = 105), herpetofauna (n = 62), and mammals (n = 6) (Table 3). Eleven freshwater taxa that were once found in the study area are now considered extinct, including one plant (Potentilla multijuga), two crustaceans (Pacifastacus nigrescens and Syncarid is pasadenae), one mollusk (Planorbella traski), one frog (Rana lithobates yavapaiensis), and six fishes (Cyprinodon nevadensis calidae, Siphatales bicolor ssp. 11, Gila crassicauda, Pogonichthys ciscoide, Ptychocheilus lucius, and Salvelinus confluentus). An additional 14 species considered possibly extinct include eight insects (Farula davisi, Hygrotus artus, Mesocapnia bakeri, Paraleptophlebia californica, Paraleptophlebia clara, Paraleptophlebia rufivenosa, Parapsych e extensa, Rhyacophila amabilis), two amphibians (Rana pretiosa, and Incilius alvarius), one mollusk (Valvata virens), two plants (Plagiobothrys glaber and Potentilla uliginosa), and one turtle (Kinosternon sonoriense).

To date, conservation status has been assessed for only 50% (N = 1,939) of the state’s freshwater taxa (Table 3). Moreover, the conservation status of some taxonomic groups is

Table 3. Number of taxa included in each taxonomic group along with the number and percentage of species by conservation status.

| Group               | All     | Extinct | Listed | Vulnerable (but not listed) | Apparently Secure | Not Evaluated |
|---------------------|---------|---------|--------|-----------------------------|-------------------|---------------|
| Insects and Other Inverts* | 2,496   | 0       | 0      | 309 (12%)                   | 460 (18%)         | 1,727 (70%)   |
| Plants¹             | 826     | 1 (0%)  | 47 (5%)| 220 (27%)                   | 387 (47%)         | 171 (21%)     |
| Mollusks            | 165     | 1 (0.5%)| 0      | 105 (63.5%)                 | 38 (23%)          | 21 (13%)      |
| Fishes              | 130     | 6 (5%)  | 31 (24%)| 73 (56%)                    | 20 (15%)          | 0             |
| Crustaceans         | 116     | 2 (2%)  | 8 (7%) | 42 (36%)                    | 25 (21%)          | 39 (34%)      |
| Birds               | 105     | 0       | 15 (14%)| 35 (34%)                    | 55 (52%)          | 0             |
| Herpetofauna        | 62      | 1 (2%)  | 12 (19%)| 29 (46%)                    | 11 (18%)          | 9 (15%)       |
| Mammals             | 6       | 0       | 0      | 1 (17%)                     | 5 (83%)           | 0             |
| Total               | 3,906   | 11 (0.3%)| 113 (3%)| 814 (21%)                   | 1,001 (26%)       | 1,967 (50%)   |

* Includes Arachnida, Branchiopoda, Insecta and Polychaeta.

¹All California plants are evaluated for rarity. Due to the lack of a ‘secure’ category in the CNPS ranking system, common taxa may not appear to have been evaluated.
disproportionally understudied. For example, the conservation status of all fish and bird taxa have been evaluated, but only 31% (n = 769) of insects and other invertebrates (Table 3). Of the freshwater taxa evaluated, 51.5% are considered secure (n = 1,001), 48% are ranked as vulnerable (n = 927), and 0.5% (n = 11) are now considered extinct. Although nearly half of the freshwater taxa were classified as vulnerable, only 113 (6%) are listed as endangered or threatened under the federal or state ESA.

Some taxonomic groups contain considerably more vulnerable taxa than others (Fig 2). For example, 104 of the 130 (80%) fishes, 66% of herpetofauna (n = 41) and 64% (n = 105) of mollusks are considered vulnerable. On the other hand, 83% of the mammals, 52% of the birds, and 47% of the plants are considered secure. However, as noted above, the comprehensiveness of data varies by taxonomic group such that the true level of imperilment could be much greater for taxonomic groups such as insects, other invertebrates and crustaceans where the majority of known taxa have not been evaluated for conservation state (Fig 2 and Table 3).

Nearly a quarter of the 3,906 native freshwater taxa found in California are endemic (n = 927), including 536 insects and other non-molluscan invertebrates, 176 plants, 74 fishes, 63 mollusks, 48 crustaceans, 24 herpetofauna, and 6 birds (Fig 3). Of the 560 endemic taxa that were evaluated for conservation status, nearly 90% (n = 498) are considered vulnerable (Fig 3). All 6 endemic birds are considered vulnerable, as are 98% of the endemic mollusk taxa. In addition, 85% of endemic fishes are considered vulnerable (Fig 3). Eight endemic taxa are considered extinct including four fishes (Cyprinodon nevadensis calidae, Siphatales bicolor sp. 11, Gila crassicauda, and Pogonichthys ciscoides), two crustaceans (Pacifastacus nigrescens and Sycarita pasadenae), one plant (Potentilla multijuga) and one mollusk (Planorbella traski). Only 76 (14%) of vulnerable endemic taxa are formally listed on state or federal endangered species lists.

Spatial Data and Summaries

To map spatial patterns of freshwater diversity in the state, we compiled spatial data from 408 different sources (S2 Table) and assembled a database with over 9,000 polygon, 23,000 line, and 3,484,000 point records. As noted in the above Methods, we compiled spatial data only at the species level. Therefore, although our final species list contains information on 3,906 taxa, we compiled spatial data for the 3,727 species in the database. It should be noted that although
there are 336 subspecies, ESUs, or DPSs in the database, 179 species are comprised of at least two subspecies.

We obtained spatial data (see Table 2 for data types) for 2,276 (61%) of the 3,727 total freshwater species, including 588 (68%) of the 862 endemic species, 752 (90%) of the 838 vulnerable species, and all 94 species listed under state or federal Endangered Species Acts [29–30]. We were unable to find any spatially explicit data for 1,451 (39%) of the species.

Hydrologic regions with the greatest species richness include portions of the San Francisco Bay (average species richness by HUC12 = 111 species), South Coast (average species richness by HUC12 = 91) and Sacramento River (average species richness by HUC12 = 74) (Fig 4A). The average richness of vulnerable taxa per HUC12 by hydrologic regions was greatest in the San Francisco Bay (n = 31), South Coast and San Joaquin (n = 22), Sacramento (n = 21), and North Coast (n = 19). However, the regions with the highest percentage of vulnerable species per HUC12 are the South Lahontan, Tulare Lake, South Coast, Colorado, and Central Coast regions (Fig 4B). Listed species are found across the study area with at least one being as either currently or historically found in watersheds that cover 76% of the state (Fig 4C). However, in contrast to vulnerable species (Fig 4B), the proportion of listed species per HUC12 watershed is relatively low (Fig 4C).

The average richness of endemic taxa per HUC12 by hydrologic regions was greatest in the San Francisco Bay (n = 19), San Joaquin (n = 15), South Coast (n = 14), Sacramento (n = 12), and the Central Coast (n = 11) (Fig 5A). Regions with hydrological connections outside of California–North Coast, North and South Lahontan, and Colorado River–have a lower percentage of California endemic species (n = 7, 5, 3, 4 on average, respectively). More than half of the study area (61%) is comprised of HUC12 watersheds in which over 60% of the endemic species found in those watersheds are considered vulnerable (Fig 5B). As with all native freshwater species, the proportion of endemic species that are listed under state or federal ESA lists is considerably less than the proportion of those considered vulnerable in most HUC12 watersheds (Fig 5C).

Spatial patterns of richness vary by taxonomic group and appear to correspond with distribution of freshwater habitat (Fig 6). For example, fish richness is highest in major rivers in the state including the Sacramento and Klamath river watersheds located in the Sacramento and North Coast hydrologic regions (Fig 6A)(S1 Table). Herpetofauna richness is highest in
mountain foothill and coastal areas (Fig 6B), with bird richness being highest in wetland, coastal, and compatible agriculture (e.g., flooded rice) regions of the state (Fig 6C). Richness of mollusks/crustaceans, insects and other invertebrates is concentrated in headwater, spring systems and more isolated pockets of habitat (Fig 6D and 6E). Plant richness appears distributed throughout the state with pockets of high richness even in desert regions which are underrepresented by other taxonomic groups (Fig 6F).

Geographies noted for high species richness are consistent regardless of observation type (Table 2). The San Francisco Bay, Sacramento River, and portions of the South Coast hydrologic regions are consistently identified as biodiversity hotspots whether observational, range, or modeled data are considered (Fig 7). Patterns of diversity for historical observations and
extirpated populations appear similar to current observations (Fig 7A and 7B). Modeled and
generalized data such as range maps completely cover the study area and provide perhaps the
 clearest pattern of diversity of freshwater taxa (Fig 7C); however, these patterns are only predic-
tions of taxa presence. Nearly 40% of the study area does not contain a recent (post-1980)
observation for any of the freshwater taxa considered in this study (Fig 7A).

The correlation coefficients of species richness at the HUC12 watershed scale between
the various taxonomic groups are relatively low (Table 4), with the highest being between mollusks
and mammals (0.52); fishes and mammals (0.52); and fishes and herps (0.51). The lowest cor-
relations coefficients are between insects and other inverts and birds (0.03); crustaceans (0.06)
and fishes (0.07).

We tested how the richness of various groups of species (taxonomic groups and listed spe-
cies) serve as a proxy for the richness of all other freshwater species using correlation and hot-
spot overlap analysis. Listed species were the most correlated at the HUC12 watershed scale
with the richness of all other freshwater species (0.63), followed by herpetofauna (0.51) and
mollusks and plants (0.45) (Fig 8). Insects and other invertebrates had the lowest correlation to
all other species (0.23). With the hotspot overlap analysis, we found again that listed species
serve as the best proxy for all other species, with a 40% overlap in hotspots, followed by plants
(29%), mollusks (27%) and crustaceans (25%) (Fig 9). We also compared hotspots for each
group with hotspots of vulnerable freshwater species, since these are in the highest need of con-
servation action. Hotspots for listed species overlapped with 58% of the hotspots for vulnerable

Table 4. Correlation matrix of the richness within each HUC12 watershed summarized by taxonomic groups.

|       | Fishes | Crustaceans | Herps | Insects & Other Inverts | Mollusks | Plants | Birds | Mammals |
|-------|--------|-------------|-------|-------------------------|----------|--------|-------|---------|
| Fishes| 1.00   | 0.33        | 0.51  | 0.07                    | 0.35     | 0.22   | 0.42  | 0.52    |
| Crustaceans| 0.33 | 1.00        | 0.09  | 0.06                    | 0.14     | 0.20   | 0.26  | 0.11    |
| Herps | 0.51   | 0.09        | 1.00  | 0.32                    | 0.32     | 0.34   | 0.32  | 0.32    |
| Insects & Other Inverts| 0.07 | 0.06        | 0.32  | 1.00                    | 0.44     | 0.26   | 0.03  | 0.28    |
| Mollusks| 0.35 | 0.14        | 0.32  | 0.44                    | 1.00     | 0.23   | 0.17  | 0.52    |
| Plants | 0.22   | 0.20        | 0.34  | 0.26                    | 0.23     | 1.00   | 0.38  | 0.15    |
| Birds | 0.42   | 0.26        | 0.32  | 0.03                    | 0.17     | 0.38   | 1.00  | 0.09    |
| Mammals| 0.52  | 0.26        | 0.32  | 0.28                    | 0.52     | 0.15   | 0.09  | 1.00    |

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freshwater species (excluding listed species). Mapping the hotspots shows that hotspots for listed species overlap with hotspots for all other species in the Sacramento River, San Francisco Bay, and South Coast hydrologic regions (Fig 10). However, hotspots congruence is lower in the North Coast and San Joaquin hydrologic regions.

Discussion

We compiled the most comprehensive database of freshwater species richness and distribution for the state of California to date. Using that database, we provide the first multi-taxon analysis of richness, endemism, and vulnerability for the majority of freshwater diversity in the state. Our study finds that the plight of freshwater species in California mirrors global trends [1–3]. We found that nearly half of freshwater taxa native to California are considered vulnerable to extinction, however only 6% of those taxa are currently listed under state or federal ESA. Even more disconcerting is that 90% of the freshwater taxa endemic to California—and so wholly reliant on conservation actions within the state—are vulnerable to extinction. However, only 14% of these endemic taxa are listed under state or federal ESAs (Fig 3). Therefore, legal listing does not appear to accurately reflect the state of vulnerability of freshwater taxa in the state.

We found that freshwater fishes, amphibians, reptiles, and mollusks are the most vulnerable taxonomic groups, a finding that is consistent with other studies [5, 10, 40–42]. However, this
finding could be biased by the general lack of information about vulnerability of other taxonomic groups (Fig 3). These results provide evidence that some taxonomic groups are much better evaluated for conservation status than others (Table 3). For example, all fish and bird taxa have been evaluated as have most of the reptiles, amphibians, plants, and mollusks. In contrast, only 31% of the insects and other invertebrates have been evaluated for conservation status. Furthermore, we still lack spatially-explicit information for 1,448 freshwater species, including many known or suspected to be vulnerable to extinction. Evaluating the conservation status and locations of understudied freshwater species is priority for future research. Given that data acquisition is costly and time intensive, a recent study has shown that concentrating survey efforts on species with the highest uncertainty, such as rare species, provides an effective way to enhance the accuracy of conservation planning [43].

While there are some significant data gaps in our knowledge about the locations of many freshwater species, we were able to compile spatial data for 90% of the vulnerable species in the state, and all of the listed species. With this rich dataset, we were able to test how well a conservation focus on a particular subset of species would benefit other freshwater species. We found that a conservation focus on hotspots for a single taxonomic group such as fishes would provide poor overlap with hotspots for all other freshwater species. Our results are similar to a recent study on global patterns of freshwater species distribution [4]. Interestingly, we found that listed species do provide a reasonable proxy for other freshwater species, since hotspots for listed species cover 40% of the hotspots for non-listed species and 58% of the hotspots for non-listed vulnerable species (Figs 9 and 10). In our study area, focusing conservation action on the hotspots for listed species will likely benefit other freshwater species that need conservation action but have not yet been listed. If these patterns hold for other locations, this finding has implications for conservation strategies outside of our study area because there is generally more spatially explicit information about the distribution of listed species.

The publicly-available dataset [21] we have produced provides a means to place a wide range of freshwater management actions, including water rights administration and water use permitting within the larger context of freshwater-dependent species conservation. Furthermore, the dataset supports conservation planning initiatives by federal and state agencies and non-governmental organizations at the landscape scale, including efforts to delineate priority watershed networks which, if protected or restored, can most efficiently encompass freshwater biodiversity in the state for multiple species groups.
Conclusions

Human population growth, increasing demands for freshwater resources, and climate change are projected to exacerbate strains on freshwater resources and lead to further imperilment and extinction of freshwater taxa [1, 8–10, 44–45]. Fundamental to addressing this conservation challenge is information to elucidate what taxa are at risk and where best to focus efforts to improve conservation of freshwater species diversity. This study provides a foundation for freshwater conservation planning in California and highlights key hotspots of freshwater species which serve as priorities for conservation action. Yet, major gaps remain in our understanding of freshwater species distribution and status, as well as in the conservation protections afforded that diversity. Filling these knowledge gaps—e.g., with targeted surveys for understudied taxa, especially the listed, vulnerable, and endemic forms—is essential to inform current and future water management decisions. Addressing the gaps and inadequacies in conservation protections will be critical if we are to reverse the alarming declines of freshwater diversity seen in California as around the world.

Supporting Information

S1 File. Criteria used to define freshwater species by taxonomic group. (DOCX)

S1 Table. Summary of stream characteristics for regions. Values from National Hydrography Dataset Plus, version 1 (EPA and USGS). (DOCX)

S2 Table. List of sources for freshwater taxa included in our freshwater species list. (DOCX)

S3 Table. List of sources that supplied spatial data for freshwater species occurrence. (DOCX)

S4 Table. List of freshwater taxa included in study. (DOCX)

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Author Contributions

Conceived and designed the experiments: JKH KRK KAF JF T. Gardali T. Grantham JVEK SK PM PBMPRO RP RMQ ACR NS SS LS JDS JS JHV AW SAM. Performed the experiments: JKH KRK KAF JF T. Gardali T. Grantham JVEK SK PM PBMPRO RP RMQ ACR NS SS LS JDS JS JHV AW SAM. Analyzed the data: JKH KRK KAF JF T. Gardali T. Grantham JVEK SK PM PBMPRO RP RMQ ACR NS SS LS JDS JS JHV AW SAM. Contributed reagents/materials/analysis tools: JKH KRK KAF JF T. Gardali T. Grantham JVEK SK PM PBMPRO RP RMQ ACR NS SS LS JDS JS JHV AW SAM. Wrote the paper: JKH KRK KAF JF T. Gardali T. Grantham JVEK SK PM PBMPRO RP RMQ ACR NS SS LS JDS JS JHV AW SAM.
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Criteria used to define freshwater species

1. FISH

- Freshwater fishes are defined as those that spawn in freshwater. Catadromous species wouldn't qualify, however, we do not have any catadromous species in California. This also precludes several estuarine species commonly found in brackish water such as starry flounder, striped mullet and staghorn sculpin.

2. PLANTS

- Plant species that occur exclusively in freshwater and have special adaptations for living submerged in water, or at the water’s surface. Includes free-floating aquatic plants and emergent wetland plants rooted beneath the water surface (e.g., *Nuphar polysepala*).
- Plant species that occur primarily in freshwater wetland habitats but are not strictly aquatic (e.g. *Typha angustifolia*).
- Plant species requiring freshwater inundation to complete their life-cycle, such as plants occurring in long-inundated portions of vernal pools (e.g., *Orcuttia californica*).
- Plant species associated with freshwater and aquatic habitats over much of their range or life-cycle as identified by expert botanists.
- Plant species identified in the Jepson Manual of Vascular Plants of California as associated with wetland habitats such as marshes, lakes, vernal pools, fens, springs, and bogs, and dependent on wetland habitat.
- Plant species identified as Wetland Obligates in the U.S. Army Corps of Engineers list of wetland plant species.
- Plant species identified as Facultative Wetland plants in the U.S. Army Corps of Engineers list of wetland plant species, and identified by expert botanists as dependent on freshwater wetland or aquatic habitats.

3. HERPETOFAUNA

- Species that exclusively rely on freshwater or freshwater-dependent vegetation communities in California in order to complete one or more stages of a reproductive cycle.
- Species that forage within freshwater, either as obligates (e.g., *Actinemys marmorata* and *Thamnophis gigas*), non-obligates (e.g., *T. elegans* and *T. ordinoides*), or as obligates and non-obligates depending on point of ontogeny (i.e., larval and adult amphibian of a single species).
- Relict species occurring within mesic microhabitats within xeric landscapes that would not persist in such regions without freshwater springs, such as *Batrachoseps campi* (a plethodontid salamander that exhibits direct development and does not have a larval stage).
- Species that do not require freshwater for foraging or any part of their reproductive cycle, but are typically found in California occurring within the splash zone of freshwater springs and creeks, such as *Plethodon dunni* (a plethodontid salamander with direct development).

4. BIRDS

A) Criteria for Inclusion
• Species that exclusively rely on freshwater or freshwater-dependent vegetation communities in California, including taxa strongly associated with riparian vegetation.
• Species that breed widely across western North America in freshwater habitats and migrate to California where a substantial portion, but not all, of their wintering habitat consists of freshwater habitats.
• Species that use coastal waters during winter and migration but rely completely on freshwater for breeding in California (e.g., Harlequin Duck, American White Pelican, Western Grebe).
• Species that require freshwater inputs into saline systems where reductions in freshwater inputs could result in complete habitat loss or substantial changes in vegetation and habitat suitability (e.g., species that are only found at the Salton Sea, Saltmarsh Common Yellowthroat).
• Species that winter or breed in both freshwater and saline wetlands, but have large portions of their California population dependent on inland freshwater habitats, including flooded agriculture.

B) Criteria for Exclusion

• Species not dependent on the regular presence of freshwater or freshwater-dependent habitats.
• Species that no longer occur in or are not native to the region.
• Species were omitted if they are rare and do not contribute in a meaningful way to the avifauna of the region – i.e., primarily lost “vagrants,” even if the occur every year (e.g., Swamp Sparrow, American Redstart).

5. INVERTEBRATES

• Benthic macroinvertebrates (BMIs) are those included on the Southwest Association of Freshwater Invertebrate Taxonomists (SAFIT) Standard Taxonomic Effort (STE) list collected as part of freshwater bioassessment in the southwestern United States. The list contains BMI species known to occur in streams, lakes, or wetlands, including vernal pools, but special emphasis was placed on stream taxa since freshwater bioassessment is most frequently conducted in that habitat type. The list was compiled from published literature sources and from records in the State Water Board’s bioassessment database, the latter being derived from surveys of thousands of stream sites throughout California.
• All species in the SAFIT list are benthic in one or more life stages and utilize freshwater habitats in one or more of the following critical life functions: feeding, mating, egg deposition/development, and larval development to maturity.
• The species list is more comprehensive for some taxonomic groups than others, reflecting the knowledge base and interests of the authors and other taxonomists at California’s Aquatic Bioassessment Lab, availability and regional synoptic coverage of primary taxonomic literature, and likelihood of obtaining properly preserved specimens in typical benthic samples. For example, the list is comprehensive for most aquatic insect groups such as mayflies, stoneflies, dragonflies, caddisflies, beetles, the dipteran suborder Nematocera, etc. The dipteran suborder Brachycera is a notable exception, with most taxa being listed at genus level. The species lists also include surface-dwelling groups like Gerridae (water striders, order Hemiptera) and Gyrinidae (whirligig beetles, order Coleoptera), but exclude taxa associated with riparian zones,
shore-dwelling species, and plant tissue inhabitants in taxonomic groups such as Collembola, Staphylinidae, Heteroceridae, Chrysomelidae, Curculionidae, Saldidae, Isopoda and Amphipoda.

- The list is comprehensive for benthic crustaceans except Ostracoda. The list does not include planktonic microcrustacea (Copepoda and Cladocera). No attempt has been made to provide comprehensive species lists for freshwater Annelida (segmented worms) as preservation is typically poor in benthic samples, but generic lists are provided for leeches and polychaetes. Similarly, generic listings are included for Acari (water mites). An extensive taxonomic literature is available for these groups and could support compilation of species lists by appropriate experts in future versions. The list also excludes freshwater parasites such as Branchiura and mermithid Nematoda, the Branchiobdella, which are commensals on crayfish, and the Nematomorpha which are parasitic on terrestrial insects but are found in freshwater for part of their life cycle.

- Phylum Mollusca is variably treated: species lists are generally comprehensive for taxa that occur in larger streams and rivers, despite improper preservation that prevents species-level identifications in typical benthic samples that are collected for bioassessment purposes. Pebblesnails (Families Hydrobiidae and Lithoglyphidae) are a diverse group in springs of the southwestern US, but a species list has not been included.
**S1 Table.** Summary of stream characteristics for regions. Values from National Hydrography Dataset Plus, version 1 (EPA and USGS).

| Region                | Area (km²) | Streams (km) | Ratio of perennial to intermittent stream km | Canals & pipelines (km) | Ave. stream slope (%) | Ave. mean annual flow (m³/sec.) | Ave. annual temp. (°C) | Ave. annual total ppt (cm) | Hydrological connections outside CA | Major features                                           |
|-----------------------|------------|--------------|-----------------------------------------------|-------------------------|-----------------------|-------------------------------|------------------------|------------------------------|------------------------------------|----------------------------------------------------------|
| Central Coast         | 29,313     | 27,830       | 0.15                                          | 228                     | 0.07                  | 0.13                          | 14.0                   | 52                           | Salinas River                                      | Colorado River, Salton Sea                          |
| Colorado River        | 51,431     | 31,668       | 0.04                                          | 3,859                   | 0.04                  | 18.20                         | 18.8                   | 21                           | Colorado basin (WY, CO, UT, AZ, NM, NV) Klamath basin (OR) | Klamath, Trinity, Mad, Russian rivers, Lake Tahoe, terminal basins |
| North Coast           | 50,662     | 34,915       | 2.14                                          | 796                     | 0.18                  | 8.42                          | 11.5                   | 145                          | Drains to closed basins in NV                        |                                             |
| North Lahontan        | 15,863     | 8,917        | 0.75                                          | 391                     | 0.07                  | 0.85                          | 6.4                    | 74                           | Drains to closed basins in NV                        |                                             |
| Sacramento River      | 70,684     | 49,773       | 0.72                                          | 11,306                  | 0.06                  | 6.23                          | 12.2                   | 98                           | -                                                  | Sacramento and Pit rivers, springs                 |
| San Francisco Bay     | 11,718     | 7,984        | 0.58                                          | 1,531                   | 0.04                  | 1.61                          | 14.7                   | 66                           | -                                                  | San Francisco Bay, vernal pools                    |
| San Joaquin River     | 39,686     | 29,145       | 0.57                                          | 9,559                   | 0.06                  | 4.03                          | 12.5                   | 77                           | -                                                  | San Joaquin River                                  |
| South Coast           | 28,295     | 22,400       | 0.10                                          | 1,694                   | 0.07                  | 0.08                          | 14.9                   | 51                           | -                                                  | Santa Clara River                                  |
| South Lahontan        | 69,063     | 43,867       | 0.07                                          | 1,179                   | 0.06                  | 0.41                          | 14.1                   | 27                           | Drains to closed basins in NV                        | Owens River, isolated springs Kern River             |
| Tulare Lake           | 43,592     | 25,412       | 0.30                                          | 9,591                   | 0.09                  | 1.41                          | 12.2                   | 50                           | -                                                  |                                             |
**S4 Table.** List of taxa included in the database.

| Scientific Name                  | Common Name                  | Group                        |
|----------------------------------|------------------------------|------------------------------|
| Abedus breviceps                 |                              | Insects & other              |
| Abedus herberti                  |                              | Insects & other              |
| Abedus indentatus                |                              | Insects & other              |
| Abedus ovatus                    |                              | Insects & other              |
| Abedus parkeri                   |                              | Insects & other              |
| Abedus vicinus                   |                              | Insects & other              |
| Ablabesmyia annulata             |                              | Insects & other              |
| Ablabesmyia aspera               |                              | Insects & other              |
| Ablabesmyia cinctipes            |                              | Insects & other              |
| Ablabesmyia mallochi             |                              | Insects & other              |
| Ablabesmyia monilis              |                              | Insects & other              |
| Ablabesmyia peleensis            |                              | Insects & other              |
| Acalyptonotus pacificus          |                              | Insects & other              |
| Acanthomysis aspera              |                              | Crustaceans                  |
| Acanthomysis hwanhainiens        |                              | Crustaceans                  |
| Acentrella insignificans         | A Mayfly                     | Insects & other              |
| Acentrella turbida               | A Mayfly                     | Insects & other              |
| Acerpenna pygmaea                |                              | Insects & other              |
| Acilius abbreviatus              |                              | Insects & other              |
| Acipenser medirostris ssp. 1     | Southern green sturgeon      | Fishes                       |
| Acipenser medirostris ssp. 2     | Northern green sturgeon      | Fishes                       |
| Acipenser transmontanus          | White sturgeon               | Fishes                       |
| Acneus beeri                     |                              | Insects & other              |
| Acneus burnelli                  |                              | Insects & other              |
| Acneus oregonensis               |                              | Insects & other              |
| Acneus quadrimaculatus           |                              | Insects & other              |
| Actinemys marmorata marmorata    | Western Pond Turtle          | Herps                        |
| Actinemys marmorata pallida      | Southern Pacific Pond Turtle  | Herps                        |
| Actitis macularius               | Spotted Sandpiper            | Birds                        |
| Aechmophorus clarkii             | Clark's Grebe                | Birds                        |
| Aechmophorus occidentalis        | Western Grebe                | Birds                        |
| Aedes aegypti                    |                              | Insects & other              |
| Aedes cinereus                   |                              | Insects & other              |
| Aedes vexans                     |                              | Insects & other              |
| Aeshna canadensis                | Canada Darner                | Insects & other              |
| Aeshna interrupta interna        |                              | Insects & other              |
| Aeshna juncea                    |                              | Insects & other              |
| Aeshna palmata                   | Paddle-tailed Darner         | Insects & other              |
| Insects & other |
|----------------|
| Aeshna persephone | Insects & other |
| Aeshna subarctica | Insects & other |
| Aeshna umbrosa occidentalis | Shadow Darner |
| Aeshna walkeri | Walker's Darner |
| Agabinus glabrellus | Insects & other |
| Agabinus sculpturellus | Insects & other |
| Agabus ancillus | Insects & other |
| Agabus anthracinus | Insects & other |
| Agabus apache | Insects & other |
| Agabus approximatus | Insects & other |
| Agabus austini | Insects & other |
| Agabus austrodiscors | Insects & other |
| Agabus bjorkmanae | Insects & other |
| Agabus brevicollis | Insects & other |
| Agabus confertus | Insects & other |
| Agabus cordatus | Insects & other |
| Agabus discors | Insects & other |
| Agabus disintegratus | Insects & other |
| Agabus erichsoni | Insects & other |
| Agabus euryomus | Insects & other |
| Agabus griseipennis | Insects & other |
| Agabus hoppingi | Insects & other |
| Agabus hypomelas | Insects & other |
| Agabus ilybiiformis | Insects & other |
| Agabus jimzim | Insects & other |
| Agabus klamathensis | Insects & other |
| Agabus kootenai | Insects & other |
| Agabus lineelus | Insects & other |
| Agabus lugens | Insects & other |
| Agabus lutosus | Insects & other |
| Agabus minnesotensis | Insects & other |
| Agabus morosus | Insects & other |
| Agabus obliteratus nectris | Insects & other |
| Agabus obliteratus obliteratus | Insects & other |
| Agabus oblongulus | Insects & other |
| Agabus obsoletus | Insects & other |
| Agabus pandurus | Insects & other |
| Agabus perplexus | Insects & other |
| Agabus punctulatus | Insects & other |
| Agabus regularis | Insects & other |
| Agabus roguus | Insects & other |
| Agabus rumppi | Death Valley Agabus Diving Beetle | Insects & other |
| Species                        | Category                      |
|-------------------------------|-------------------------------|
| Agabus sasquatch              | Insects & other               |
| Agabus semivittatus           | Insects & other               |
| Agabus seriatus               | Insects & other               |
| Agabus smithi                 | Insects & other               |
| Agabus strigulosus            | Insects & other               |
| Agabus tristis                | Insects & other               |
| Agabus vandykei               | Insects & other               |
| Agabus versimilis             | Insects & other               |
| Agabus walsinghami            | Insects & other               |
| Agapetus arcita               | A Caddisfly                   |
| Agapetus bifidus              | Insects & other               |
| Agapetus boulderensis         | Insects & other               |
| Agapetus celatus              | A Caddisfly                   |
| Agapetus denningi             | Insects & other               |
| Agapetus joannia              | A Caddisfly                   |
| Agapetus malleatus            | Insects & other               |
| Agapetus marlo                | A Caddisfly                   |
| Agapetus occidentis           | Insects & other               |
| Agapetus orosus               | A Caddisfly                   |
| Agapetus taho                 | Insects & other               |
| Agathon arizonica             | Insects & other               |
| Agathon aylmeri               | Insects & other               |
| Agathon comstocki             | Insects & other               |
| Agathon dismalea              | Insects & other               |
| Agathon doanei                | A Net-winged Midge            |
| Agathon elegans              | Insects & other               |
| Agathon markii                | Insects & other               |
| Agathon sequoia              | Insects & other               |
| Agelaius phoeniceus aciculatus| Kern Red-winged Blackbird    |
| Agelaius tricolor             | Tricolored Blackbird          |
| Agraylea multipunctata        | Insects & other               |
| Agraylea saltsea              | A Caddisfly                   |
| Agrostis oregonensis          | Oregon Bentgrass              |
| Agrynia dextra                | Insects & other               |
| Agrynia glacialis             | A Caddisfly                   |
| Agrynia improba               | Insects & other               |
| Agrynia vestita               | Insects & other               |
| Aix sponsa                    | Wood Duck                     |
| Alienacanthomysis macropsis   | Crustaceans                   |
| Alisma gramineum              | Narrowleaf Water-plantain     |
| Alisma triviale               | Northern Water-plantain       |
| Scientific Name                  | Common Name                     | Category          |
|--------------------------------|---------------------------------|-------------------|
| Alisotrichia arizonica          |                                | Insects & other   |
| Allium validum                 | Tall Swamp Onion               | Plants            |
| Allocosmoecus partitus         | A Caddisfly                    | Insects & other   |
| Allomyia acanthis              |                                | Insects & other   |
| Allomyia cascadis              |                                | Insects & other   |
| Allomyia cidoipes              | A Caddisfly                    | Insects & other   |
| Allomyia renoa                 |                                | Insects & other   |
| Alloperla chandleri            | Mariposa Sallfly               | Insects & other   |
| Alloperla delicata             | Delicate Sallfly               | Insects & other   |
| Alloperla elevata              | A Stonefly                     | Insects & other   |
| Alloperla fraterna             | Cascades Sallfly               | Insects & other   |
| Alloperla thalia               |                                | Insects & other   |
| Alnus rhombifolia              | White Alder                    | Plants            |
| Alnus rubra                    | Red Alder                      | Plants            |
| Alnus viridis fruticosa        | Siberian Alder                 | Plants            |
| Alnus viridis sinuata          | Sitka Alder                    | Plants            |
| Alnus viridis virdis           | Green Alder                    | Plants            |
| Alopecurus aequalis aequalis    | Short-awn Foxtail              | Plants            |
| Alopecurus aequalis sonomensis | Sonoma Shortawn Foxtail        | Plants            |
| Alopecurus carolinianus        | Tufted Foxtail                 | Plants            |
| Alopecurus geniculatus         | Meadow Foxtail                 | Plants            |
| Alopecurus myosuroides         | NA                              | Plants            |
| Alopecurus pratensis           | NA                              | Plants            |
| Alopecurus saccatus            | Pacific Foxtail                | Plants            |
| Alotanypus venustus            |                                | Insects & other   |
| Ambrysus amargosus             | Ash Meadows Naucorid           | Insects & other   |
| Ambrysus arizonus              |                                | Insects & other   |
| Ambrysus californicus          |                                | Insects & other   |
| Ambrysus circumcinctus         |                                | Insects & other   |
| Ambrysus funebris              | Nevares Spring Naucorid Bug    | Insects & other   |
| Ambrysus melanopterus          |                                | Insects & other   |
| Ambrysus mormon                |                                | Insects & other   |
| Ambrysus occidentalis          |                                | Insects & other   |
| Ambrysus pulchellus            |                                | Insects & other   |
| Ambrysus puncticollis          |                                | Insects & other   |
| Ambrysus relictus              |                                | Insects & other   |
| Ambrysus thermarum             |                                | Insects & other   |
| Ambrysus woodburyi             |                                | Insects & other   |
| Ambystoma californiense "Santa Barbara" | Santa Barbara Tiger Salamander | Herps            |
| Ambystoma californiense        | Sonoma Tiger Salamander        | Herps             |
| Species                        | Common Name                        | Category       |
|-------------------------------|------------------------------------|----------------|
| *Ambystoma californiense*      | California Tiger Salamander        | Herps          |
| *Ambystoma gracile*           | Northwestern Salamander            | Herps          |
| *Ambystoma macrodactylum*     |                                    | Herps          |
| *Ambystoma macrodactylum*     | Santa Cruz Long-toed Salamander    | Herps          |
| *Ambystoma macrodactylum*     | Southern Long-toed Salamander      | Herps          |
| *Ameletus amador*             | A Mayfly                           | Insects & other|
| *Ameletus andersoni*          | A Mayfly                           | Insects & other|
| *Ameletus bellulus*           | A Mayfly                           | Insects & other|
| *Ameletus celer*              | A Mayfly                           | Insects & other|
| *Ameletus cooki*              | A Mayfly                           | Insects & other|
| *Ameletus dissitus*           | A Mayfly                           | Insects & other|
| *Ameletus doddsianus*         |                                    | Insects & other|
| *Ameletus edmundsi*           |                                    | Insects & other|
| *Ameletus exquisitus*         |                                    | Insects & other|
| *Ameletus falsus*             |                                    | Insects & other|
| *Ameletus imbellis*           | A Mayfly                           | Insects & other|
| *Ameletus majusculus*         | A Mayfly                           | Insects & other|
| *Ameletus minimus*            | A Mayfly                           | Insects & other|
| *Ameletus oregonensis*        |                                    | Insects & other|
| *Ameletus pritchardi*         | A Mayfly                           | Insects & other|
| *Ameletus quadratus*          |                                    | Insects & other|
| *Ameletus shepherdi*          | A Mayfly                           | Insects & other|
| *Ameletus similior*           | A Mayfly                           | Insects & other|
| *Ameletus sparsatus*          | A Mayfly                           | Insects & other|
| *Ameletus subnotatus*         | A Mayfly                           | Insects & other|
| *Ameletus suffusus*           | A Mayfly                           | Insects & other|
| *Ameletus tolae*              |                                    | Insects & other|
| *Ameletus validus*            | A Mayfly                           | Insects & other|
| *Ameletus vancouverensis*     | A Mayfly                           | Insects & other|
| *Ameletus velox*              | A Mayfly                           | Insects & other|
| *Ameletus vernalis*           | A Mayfly                           | Insects & other|
| *Americorophium salmonis*     |                                    | Crustaceans    |
| *Americorophium spinicorne*   |                                    | Crustaceans    |
| *Americorophium stimpsoni*    |                                    | Crustaceans    |
| *Ametor latus*                |                                    | Insects & other|
| *Ametor scabrosus*            |                                    | Insects & other|
| *Ametropus ammophilus*        | A Mayfly                           | Insects & other|
| *Amiocentrus aspilus*         | A Caddisfly                        | Insects & other|
| Species                          | Common Name                  | Category         |
|---------------------------------|------------------------------|------------------|
| Ammannia coccinea               | Scarlet Ammannia             | Plants           |
| Ammannia robusta                | Grand Redstem                | Plants           |
| Amnicola limosa                 |                              | Mollusks         |
| Amphiagrion abbreviatum         | Western Red Damsel           | Insects & other  |
| Amphicosmoecus canax            | A Caddisfly                  | Insects & other  |
| Amphinemura apache              |                              | Insects & other  |
| Amphinemura mogollonica        |                              | Insects & other  |
| Amphinemura venusta             |                              | Insects & other  |
| Amphiscirus nevadensis          |                              | Plants           |
| Amphizoia insolens              |                              | Insects & other  |
| Amphizoia lecontei              |                              | Insects & other  |
| Amphizoia striata               |                              | Insects & other  |
| Ampumixis dispar                |                              | Insects & other  |
| Anabolia bimaculata             |                              | Insects & other  |
| Anacaena limbata                |                              | Insects & other  |
| Anacaena signaticollis          |                              | Insects & other  |
| Anacroneuria wipukupa           |                              | Insects & other  |
| Anagapetus aisha                | A Caddisfly                  | Insects & other  |
| Anagapetus bernea               | A Caddisfly                  | Insects & other  |
| Anagapetus chandleri            | A Caddisfly                  | Insects & other  |
| Anagapetus debilis              |                              | Insects & other  |
| Anagapetus hoodi                |                              | Insects & other  |
| Anas acuta                      | Northern Pintail             | Birds            |
| Anas americana                  | American Wigeon              | Birds            |
| Anas clypeata                   | Northern Shoveler            | Birds            |
| Anas crecca                     | Green-winged Teal            | Birds            |
| Anas cyanoptera                 | Cinnamon Teal                | Birds            |
| Anas discors                    | Blue-winged Teal             | Birds            |
| Anas platyrhynchos              | Mallard                      | Birds            |
| Anas strepera                   | Gadwall                      | Birds            |
| Anax junius                     | Common Green Darner          | Insects & other  |
| Anax walsinghami                | Giant Green Darner           | Insects & other  |
| Anaxyrus boreas boreas          | Boreal Toad                  | Herps            |
| Anaxyrus boreas halophilus      | California Toad              | Herps            |
| Anaxyrus californicus           | Arroyo Toad                  | Herps            |
| Anaxyrus canorus                | Yosemite Toad                | Herps            |
| Anaxyrus cognatus               | Great Plains Toad            | Herps            |
| Anaxyrus exsul                  | Black Toad                   | Herps            |
| Anaxyrus punctatus              | Red-spotted Toad             | Herps            |
| Anaxyrus woodhousii woodhousii  | Rocky Mountain Toad          | Herps            |
| Species                                      | Category                      | Classification          |
|----------------------------------------------|-------------------------------|-------------------------|
| Anchyceteis velutina                         |                               | Insects & other         |
| Anemopsis californica                        |                               | Plants                  |
| Anodonta californiensis                      |                               | Mollusks                |
| Anodonta dejecta                             |                               | Mollusks                |
| Anodonta oregonensis                         |                               | Mollusks                |
| Anopheles franciscanus                       |                               | Insects & other         |
| Anopheles freeborni                         |                               | Insects & other         |
| Anopheles hermsi                             |                               | Insects & other         |
| Anopheles judithae                           |                               | Insects & other         |
| Anopheles occidentalis                       |                               | Insects & other         |
| Anopheles punctipennis                       |                               | Insects & other         |
| Anser albinfrontis                           | Greater White-fronted Goose   | Birds                   |
| Anser albinfrontis elgasi                    | Tule White-fronted Goose      | Birds                   |
| Anthopotamus verticis                        | Walker's Tusked Sprawler      | Insects & other         |
| Antocha monticola                            |                               | Insects & other         |
| Apanisagrion lais                            |                               | Insects & other         |
| Apatania arizona                             |                               | Insects & other         |
| Apatania chasica                             |                               | Insects & other         |
| Apatania sere                              | A Caddisfly                   | Insects & other         |
| Apatania tavala                              | Cascades Apatanian Caddisfly  | Insects & other         |
| Apedilum elachistum                          |                               | Insects & other         |
| Apedilum subcinctum                          |                               | Insects & other         |
| Aphodius alternatus                          |                               | Insects & other         |
| Apobaetis etowah                             | A Mayfly                      | Insects & other         |
| Aponogeton distachyos                        | NA                            | Plants                  |
| Aphroditotanypus florenius                   |                               | Insects & other         |
| Apteralia parvulus                           |                               | Insects & other         |
| Aquarius amplus arizonensis                  |                               | Insects & other         |
| Aquarius remigis                             |                               | Insects & other         |
| Aquilegia eximia                             | Van Houtte's Columbine        | Plants                  |
| Aquilegia shockleyi                          | NA                            | Plants                  |
| Aetropidius monochus                          |                               | Insects & other         |
| Archilestes californica                      | California Spreadwing         | Insects & other         |
| Archilestes grandis                          | Great Spreadwing              | Insects & other         |
| Archoplites interruptus                      | Sacramento perch              | Fishes                  |
| Arctitalitus sylvaticus                      |                               | Crustaceans             |
| Arctocorisa sutilis                          |                               | Insects & other         |
| Arctopsyche californica                      | A Caddisfly                   | Insects & other         |
| Arctopsyche grandis                          | A Caddisfly                   | Insects & other         |
| Ardea alba                                   | Great Egret                   | Birds                   |
| Ardea herodias                               | Great Blue Heron              | Birds                   |
| Scientific Name       | Common Name                      | Classification   |
|-----------------------|----------------------------------|------------------|
| Arenaria paludicola   | Marsh Sandwort                   | Plants           |
| Argia agrioides       | California Dancer                | Insects & other  |
| Argia alberta         | Paiute Dancer                    | Insects & other  |
| Argia emma            | Emma's Dancer                    | Insects & other  |
| Argia fumipennis      |                                  | Insects & other  |
| Argia hinei           | Lavender Dancer                  | Insects & other  |
| Argia immunda         | Kiowa Dancer                     | Insects & other  |
| Argia lacrimans       |                                  | Insects & other  |
| Argia lugens          | Sooty Dancer                     | Insects & other  |
| Argia moesta          | Powdered Dancer                  | Insects & other  |
| Argia munda           |                                  | Insects & other  |
| Argia nahuana         | Aztec Dancer                     | Insects & other  |
| Argia oenea           |                                  | Insects & other  |
| Argia pallens         |                                  | Insects & other  |
| Argia pima            |                                  | Insects & other  |
| Argia plana           |                                  | Insects & other  |
| Argia sabino          |                                  | Insects & other  |
| Argia sedula          | Blue-ring Dancer                 | Insects & other  |
| Argia tarascana       |                                  | Insects & other  |
| Argia tezpi           |                                  | Insects & other  |
| Argia tonto           |                                  | Insects & other  |
| Argia translata       |                                  | Insects & other  |
| Argia vivida          | Vivid Dancer                     | Insects & other  |
| Artemia franciscana   | San Francisco Brine Shrimp       | Crustaceans      |
| Artemia monica        | Mono Lake Brine Shrimp           | Crustaceans      |
| Arundo donax          | NA                               | Plants           |
| Asarum lemmonii       | Lemmon's Wild Ginger             | Plants           |
| Asciaphus truei       | Coastal Tailed Frog              | Herps            |
| Asioiplax edmundsi    | A Mayfly                         | Insects & other  |
| Assiminea californica |                                  | Mollusks         |
| Assiminea infima      | Badwater Snail                   | Mollusks         |
| Asynarchus aldinus     |                                  | Insects & other  |
| Asynarchus cinnamoneus|                                  | Insects & other  |
| Asynarchus montanus    |                                  | Insects & other  |
| Asynarchus pacificus   |                                  | Insects & other  |
| Atherix pachypus      |                                  | Insects & other  |
| Atopsyche sperryi     |                                  | Insects & other  |
| Atopsyche tripunctata |                                  | Insects & other  |
| Atractelmis wawona    | Wawona Riffle Beetle             | Insects & other  |
| Attenella attenuata   |                                  | Insects & other  |
| Attenella delantala   | A Mayfly                         | Insects & other  |
| Scientific Name | Common Name                   | Category          |
|-----------------|-------------------------------|-------------------|
| Attenella margarita | A Mayfly                      | Insects & other  |
| Attenella soquele   | A Mayfly                      | Insects & other  |
| Axonopsis californica |                              | Insects & other  |
| Aythya affinis     | Lesser Scaup                  | Birds             |
| Aythya americana   | Redhead                       | Birds             |
| Aythya collaris    | Ring-necked Duck              | Birds             |
| Aythya marila      | Greater Scaup                 | Birds             |
| Aythya valisineria | Canvasback                    | Birds             |
| Azolla filiculoides| NA                            | Plants            |
| Azolla microphylla | Mexican mosquito fern         | Plants            |
| Baccharis glutinosa| NA                            | Plants            |
| Baccharis salicina |                               | Plants            |
| Bacopa eisenii     | Gila River Water-hyssop       | Plants            |
| Bacopa monnierii   | NA                            | Plants            |
| Bacopa rotundifolia| NA                            | Plants            |
| Baetis adonis      | A Mayfly                      | Insects & other  |
| Baetis alius       | A Mayfly                      | Insects & other  |
| Baetis bicaudatus  | A Mayfly                      | Insects & other  |
| Baetis diabulus    | A Mayfly                      | Insects & other  |
| Baetis flavistriga | A Mayfly                      | Insects & other  |
| Baetis magnus      | A Mayfly                      | Insects & other  |
| Baetis notos       | A Mayfly                      | Insects & other  |
| Baetis palisadi    | A Mayfly                      | Insects & other  |
| Baetis piscatoris  | A Mayfly                      | Insects & other  |
| Baetis tricaudatus | A Mayfly                      | Insects & other  |
| Baetisca lacustris |                               |                   |
| Baetodes alleni    |                               | Insects & other  |
| Baetodes arizonensis|                             | Insects & other  |
| Baetodes bibranchius|                             | Insects & other  |
| Baetodes edmundsi  |                               | Insects & other  |
| Bandakia fragilis  |                               | Insects & other  |
| Bandakia longipalpis|                             | Insects & other  |
| Bandakia oregonensis|                             | Insects & other  |
| Banksiola crotchi  | A Caddisfly                   | Insects & other  |
| Batis maritima     | Saltwort                      | Plants            |
| Batrachoseps campi | Inyo Mountains Salamander     | Herps             |
| Baumannella alameda| Alameda Springfly             | Insects & other  |
| Beckmannia syzigachne| American Sloughgrass         | Plants            |
| Belostoma bakeri   |                               | Insects & other  |
| Belostoma confusum |                               | Insects & other  |
| Name                        | Category                     |
|-----------------------------|------------------------------|
| Belostoma flumineum         | Insects & other              |
| Belostoma saratogae         | Saratoga Springs Belostoman Bug | Insects & other |
| Belostoma subspinosum       | Insects & other              |
| Bergia texana               | Texas Bergia                 | Plants          |
| Berosus fraternus           | Insects & other              |
| Berosus hatchi              | Insects & other              |
| Berosus infuscatus          | Insects & other              |
| Berosus ingeminatus         | Insects & other              |
| Berosus maculosus           | Insects & other              |
| Berosus metalliceps         | Insects & other              |
| Berosus notapeltatus        | Insects & other              |
| Berosus oregonensis         | Insects & other              |
| Berosus punctatissimus      | Insects & other              |
| Berosus sayi                | Insects & other              |
| Berosus stylifera           | Insects & other              |
| Berula erecta               | Wild Parsnip                 | Plants          |
| Betula glandulosa           | Resin Birch                  | Plants          |
| Bibiocephala grandis        | Insects & other              |
| Bidens cernua               | Nodding Beggarticks          | Plants          |
| Bidens laevis               | Smooth Bur-marigold          | Plants          |
| Bidens tripartita           | NA                           | Plants          |
| Bidens vulgata              | NA                           | Plants          |
| Bilyjomyia algens           | Insects & other              |
| Biomphalaria havanensis     | Ghost Rams-horn              | Mollusks        |
| Bisancora pastina           | Antelope Sallfly             | Insects & other |
| Bisancora rutriformis       | Scooped Sallfly              | Insects & other |
| Bistorta bistortoides       | Plants                       |                |
| Bittacomorpha clavipes      | Insects & other              |
| Bittacomorpha occidentalis  | Insects & other              |
| Bittacomorphella ostenii    | Insects & other              |
| Bittacomorphella pacifica   | Insects & other              |
| Blennosperma bakeri         | Baker's Blennosperma         | Plants          |
| Blepharicera jordani        | Insects & other              |
| Blepharicera kalmiopsis     | Insects & other              |
| Blepharicera micheneri      | A Net-winged Midge           | Insects & other |
| Blepharicera ostensackeni   | Insects & other              |
| Blepharicera zionensis      | Insects & other              |
| Boehmeria cylindrica        | NA                           | Plants          |
| Bolboschoenus fluviatilis   | Plants                       |                |
| Bolboschoenus glaucus       | NA                           | Plants          |
| Bolboschoenus maritimus     | NA                           | Plants          |
| Wildlife       | Scientific Name      | Common Name            | Category             |
|---------------|----------------------|------------------------|----------------------|
| Plants        | Paludosus            |                        |                      |
| Plants        | Bolboschoenus robustus |                       |                      |
| Insects & other | Bolshecapnia maculata    | Spotted Snowfly      |                      |
| Insects & other | Boreoecclus persimilis   |                        |                      |
| Insects & other | Boreoecclus sinuaticornis |                        |                      |
| Insects & other | Boreoheptagyia lurida |                        |                      |
| Insects & other | Botaurus lentiginosus | American Bittern     | Birds                |
| Crustaceans   | Bowmaniasellus sequoiae | Sequoia cave isopod |                      |
| Insects & other | Brachycrurus americanus | A Caddisfly         |                      |
| Insects & other | Brachycrurus echo | A Caddisfly          |                      |
| Insects & other | Brachycrurus occidentalis |                    |                      |
| Insects & other | Brachymesia furcata | Red-tailed Pennant   |                      |
| Insects & other | Brachymesia graveda |                        |                      |
| Insects & other | Branchinecta campestris | Pocket Pouch Fairy Shrimp | Crustaceans         |
| Insects & other | Branchinecta coloradensis | Colorado Fairy Shrimp | Crustaceans          |
| Insects & other | Branchinecta conservatio | Conservancy Fairy Shrimp | Crustaceans         |
| Crustaceans   | Branchinecta cornigera |                        |                      |
| Crustaceans   | Branchinecta dissimilis | Dissimilar Fairy Shrimp | Crustaceans         |
| Crustaceans   | Branchinecta gas | Giant Fairy Shrimp   | Crustaceans          |
| Crustaceans   | Branchinecta hiberna | Winter Fairy Shrimp   | Crustaceans          |
| Crustaceans   | Branchinecta kaiabensis |                        |                      |
| Crustaceans   | Branchinecta lindahlil | Versatile Fairy Shrimp | Crustaceans         |
| Crustaceans   | Branchinecta longiantenna | Longhorn Fairy Shrimp | Crustaceans          |
| Crustaceans   | Branchinecta lynchi | Vernal Pool Fairy Shrimp | Crustaceans         |
| Crustaceans   | Branchinecta mackini | Alkali Fairy Shrimp   | Crustaceans          |
| Crustaceans   | Branchinecta mesovallensis | Midvalley Fairy Shrimp | Crustaceans         |
| Crustaceans   | Branchinecta oriena | A Fairy Shrimp        | Crustaceans          |
| Crustaceans   | Branchinecta packardi |                        |                      |
| Crustaceans   | Branchinecta sandiegonensis | San Diego Fairy Shrimp | Crustaceans         |
| Plants        | Brasenia schreberi | Watershield           |                      |
| Insects & other | Brechmorhoga mendax | Pale-faced Clubskimmer |                      |
| Insects & other | Brechmorhoga pertinax |                        |                      |
| Insects & other | Brillia flavifrons |                        |                      |
| Insects & other | Brillia laculata |                        |                      |
| Insects & other | Brillia parva |                        |                      |
| Insects & other | Brillia retifinis |                        |                      |
| Plants        | Brodiaea nana |                        |                      |
| Plants        | Brodiaea orcuttii | Orcutt's Brodiaea    |                      |
| Plants        | Brodiaea pallida | Chinese Camp Brodiaea |                      |
| Insects & other | Brundiniella eumorpha |                        |                      |
| Insects & other | Brychius hornii |                        |                      |
| Species Name                  | Common Name                  | Category             |
|-------------------------------|------------------------------|----------------------|
| Brychius pacificus            |                              | Insects & other      |
| Bucephala albeola             | Bufflehead                   | Birds                |
| Bucephala clangula            | Common Goldeneye             | Birds                |
| Buenoa arida                  |                              | Insects & other      |
| Buenoa arizonis               |                              | Insects & other      |
| Buenoa hungerfordi            |                              | Insects & other      |
| Buenoa margaritacea           |                              | Insects & other      |
| Buenoa omani                  |                              | Insects & other      |
| Buenoa scimitra               |                              | Insects & other      |
| Buenoa uhleri                 |                              | Insects & other      |
| Butorides virescens           | Green Heron                  | Birds                |
| Caecidotea sequoiae           | An Isopod                    | Crustaceans          |
| Caecidotea tomalensis         | Tomales Isopod               | Crustaceans          |
| Caenis amica                  | A Mayfly                     | Insects & other      |
| Caenis bajaensis              | A Mayfly                     | Insects & other      |
| Caenis latipennis             | A Mayfly                     | Insects & other      |
| Caenis punctata               | A Mayfly                     | Insects & other      |
| Caenis youngi                 | A Mayfly                     | Insects & other      |
| Caladomyia pista              |                              | Insects & other      |
| Calamagrostis nutkaensis      | Pacific Small-reedgrass      | Plants               |
| Calasellus californicus       | An Isopod                    | Crustaceans          |
| Calasellus longus             | An Isopod                    | Crustaceans          |
| Calidris alpina               | Dunlin                       | Birds                |
| Calidris mauri                | Western Sandpiper            | Birds                |
| Calidris minutilla            | Least Sandpiper              | Birds                |
| Calileuctra dobryi            | Elsmere Needlefly            | Insects & other      |
| Calileuctra ephemera          | Napa Needlefly               | Insects & other      |
| Calineuria californica        | Western Stone                | Insects & other      |
| Callibaetis californicus      | A Mayfly                     | Insects & other      |
| Callibaetis ferrugineus       | A Mayfly                     | Insects & other      |
| Callibaetis fluctuans         | A Mayfly                     | Insects & other      |
| Callibaetis montanus          |                              | Insects & other      |
| Callibaetis pallidus          | A Mayfly                     | Insects & other      |
| Callibaetis pictus            | A Mayfly                     | Insects & other      |
| Callicorixa audeni            |                              | Insects & other      |
| Callicorixa scudderi          |                              | Insects & other      |
| Callicorixa vulnerata         |                              | Insects & other      |
| Calliperla luctuosa           | Coast Stripetail             | Insects & other      |
| Callitrice fassettii          | NA                           | Plants               |
| Callitrice heterophylla bolanderi |               | Large Water-starwort | Plants               |
| Common Name                       | Scientific Name        | Category             |
|----------------------------------|------------------------|----------------------|
| Northern Water-starwort          | Callitriche heterophylla heterophylla | Plants              |
| Longstock Water-starwort         | Callitriche longipedunculata | Plants              |
| Winged Water-starwort            | Callitriche marginata   | Plants              |
| Vernal Water-starwort            | Callitriche palustris   | Plants              |
| Waste-water Water-starwort       | Callitriche trochlearis | Plants              |
| Shortstem Mariposa Lily          | Calochnorts uniflorus   | Plants              |
| River Jewelwing                  | Calopteryx aequabilis   | Insects & other     |
| Slender-sepal Marsh-marigold     | Caltha leptosepala      | Plants              |
| NA                               | Caltha palustris        | Plants              |
| Maidu Mayfly                     | Camelobaetidius maidu   | Insects & other     |
| Insects & other                  | Camelobaetidius mexicanus | Insects & other     |
| Insects & other                  | Camelobaetidius musseri | Insects & other     |
| A Mayfly                         | Camelobaetidius warreni | Insects & other     |
| Swamp Harebell                   | Campanula californica   | Plants              |
| Plumas Snowfly                   | Capnia barberi          | Insects & other     |
| California Snowfly               | Capnia californica      | Insects & other     |
| Insects & other                  | Capnia caryi            | Insects & other     |
| Insects & other                  | Capnia confusa          | Insects & other     |
| Coyote Snowfly                   | Capnia coyote           | Insects & other     |
| Insects & other                  | Capnia decepa           | Insects & other     |
| Insects & other                  | Capnia elongata         | Insects & other     |
| Insects & other                  | Capnia erecta           | Insects & other     |
| Saddleback Snowfly               | Capnia excavata         | Insects & other     |
| Humboldt Snowfly                 | Capnia fialai           | Insects & other     |
| Whitney Snowfly                  | Capnia giulianii        | Insects & other     |
| Smooth Snowfly                   | Capnia glabra           | Insects & other     |
| Slender Snowfly                  | Capnia gracilaria       | Insects & other     |
| Arroyo Snowfly                   | Capnia hitchcocki       | Insects & other     |
| Insects & other                  | Capnia hornigi          | Insects & other     |
| Inyo Snowfly                     | Capnia inyo             | Insects & other     |
| Insects & other                  | Capnia jewetti          | Insects & other     |
| Insects & other                  | Capnia kersti           | Insects & other     |
| Lake Snowfly                     | Capnia lacustra         | Insects & other     |
| Insects & other                  | Capnia licina           | Insects & other     |
| Straight Snowfly                 | Capnia lineata          | Insects & other     |
| Mariposa Snowfly                 | Capnia mariposa         | Insects & other     |
| Northwest Snowfly                | Capnia melia            | Insects & other     |
| Mono Snowfly                     | Capnia melo             | Insects & other     |
| Insects & other                  | Capnia nana             | Insects & other     |
| Species                    | Common Name                  | Category          |
|----------------------------|------------------------------|-------------------|
| Capnia nedia               |                              | Insects & other   |
| Capnia ophiona             | Snakehead Snowfly            | Insects & other   |
| Capnia oregona             |                              | Insects & other   |
| Capnia palomar             | Palomar Snowfly              | Insects & other   |
| Capnia petila              |                              | Insects & other   |
| Capnia pileata             | Birdhead Snowfly             | Insects & other   |
| Capnia promota             | Pacific Snowfly              | Insects & other   |
| Capnia quadrituberosa      | Four-knobbed Snowfly         | Insects & other   |
| Capnia regilla             | Royal Snowfly                | Insects & other   |
| Capnia saratoga            | Saratoga Snowfly             | Insects & other   |
| Capnia scobina             | Rasp Snowfly                 | Insects & other   |
| Capnia sequoia             | Sequoia Snowfly              | Insects & other   |
| Capnia sextuberculata      |                              | Insects & other   |
| Capnia shasta              |                              | Insects & other   |
| Capnia shepardi            | Yuba Snowfly                 | Insects & other   |
| Capnia spinulosa           | San Gabriel Snowfly          | Insects & other   |
| Capnia teresa              | Bernardino Snowfly           | Insects & other   |
| Capnia tumida              | Swollen Snowfly              | Insects & other   |
| Capnia uintahi             |                              | Insects & other   |
| Capnia umpqua              | Umpqua Snowfly               | Insects & other   |
| Capnia utahensis           | Utah Snowfly                 | Insects & other   |
| Capnia valhalla            | Viking Snowfly               | Insects & other   |
| Capnia ventura             | Ventura Snowfly              | Insects & other   |
| Capnia willametta          |                              | Insects & other   |
| Capnia yosemite            | Yosemite Snowfly             | Insects & other   |
| Capnura anas               |                              | Insects & other   |
| Capnura elevata            |                              | Insects & other   |
| Capnura fibula             |                              | Insects & other   |
| Capnura intermontana       |                              | Insects & other   |
| Capnura venosa             |                              | Insects & other   |
| Capnura wanica             |                              | Insects & other   |
| Cardiocladius platypus     |                              | Insects & other   |
| Carex alma                 | Sturdy Sedge                 | Plants            |
| Carex amplifolia           | Bigleaf Sedge                | Plants            |
| Carex aquatilis aquatilis  | Water Sedge                  | Plants            |
| Carex aquatilis dives      | Sitka Sedge                  | Plants            |
| Carex arcta                | Northern Clustered Sedge     | Plants            |
| Carex atherodes            | Awned Sedge                  | Plants            |
| Carex aurea                | Golden-fruit Sedge           | Plants            |
| Carex buxbaumii            | Buxbaum's Sedge              | Plants            |
| Carex canescens canescens  | Hoary Sedge                  | Plants            |
| Species                          | Common Name                      | Category |
|---------------------------------|----------------------------------|----------|
| Carex comosa                    | Bristly Sedge                   | Plants   |
| Carex cusickii                  | Cusick's Sedge                  | Plants   |
| Carex densa                     | Dense Sedge                     | Plants   |
| Carex diandra                   | Lesser Paniced Sedge            | Plants   |
| Carex disperma                  | Softleaf Sedge                  | Plants   |
| Carex echinata echinata         | Little Prickly Sedge            | Plants   |
| Carex echinata phyllomanica     | Star Sedge                      | Plants   |
| Carex exsiccata                 | Beaked Sedge                    | Plants   |
| Carex feta                      | Green-sheath Sedge              | Plants   |
| Carex fissuricola               | Cleft Sedge                     | Plants   |
| Carex harfordii                 | Harford's Sedge                 | Plants   |
| Carex hendersonii               | Henderson's Sedge               | Plants   |
| Carex hirtissima                | Fuzzy Sedge                     | Plants   |
| Carex hystericina               | Porcupine Sedge                 | Plants   |
| Carex integra                   | Smooth-beak Sedge               | Plants   |
| Carex interior                  | Inland Sedge                    | Plants   |
| Carex jonesii                   | Jones' Sedge                    | Plants   |
| Carex klamathensis              |                                  | Plants   |
| Carex lasiocarpa                | Slender Sedge                   | Plants   |
| Carex lemmomii                  | Lemmon's Sedge                  | Plants   |
| Carex lenticularis              | Shore Sedge                     | Plants   |
| Carex leporina                  |                                  | Plants   |
| Carex leporinella               | Sierra Hare Sedge               | Plants   |
| Carex leptalea                  | NA                               | Plants   |
| Carex limosa                    | Mud Sedge                       | Plants   |
| Carex livida                    | Livid Sedge                     | Plants   |
| Carex longii                    | NA                               | Plants   |
| Carex luzulina luzulina         | Woodrush Sedge                  | Plants   |
| Carex lyngbyei                  | Lyngbye's Sedge                 | Plants   |
| Carex mertensii                 | Mertens' Sedge                  | Plants   |
| Carex nebrascensis              | Nebraska Sedge                  | Plants   |
| Carex nervina                   | Sierra Sedge                    | Plants   |
| Carex neurophora                | Alpine-nerved Sedge             | Plants   |
| Carex nigricans                 | Black Alpine Sedge              | Plants   |
| Carex nudata                    | Torrent Sedge                   | Plants   |
| Carex obnupta                   | Slough Sedge                    | Plants   |
| Carex pellita                   | Woolly Sedge                    | Plants   |
| Carex praecceptorum             | Teacher's Sedge                 | Plants   |
| Carex praticola                 | Northern Meadow Sedge           | Plants   |
| Carex saliniformis              | Santa Cruz Sedge                | Plants   |
| Carex sartwelliana              | Yosemite Sedge                  | Plants   |
| Scientific Name          | Common Name                        | Category   |
|--------------------------|------------------------------------|------------|
| Carex scabriuscula       | Cascade Sedge                      | Plants     |
| Carex schottii           | Schott's Sedge                     | Plants     |
| Carex scoparia scoparia  | Broom Sedge                        | Plants     |
| Carex scopulorum bracteosa | Holm's Rocky Mountain Sedge       | Plants     |
| Carex senta              | Western Rough Sedge                | Plants     |
| Carex sheldonii          | Sheldon's Sedge                    | Plants     |
| Carex simulata           | Copycat Sedge                      | Plants     |
| Carex spectabilis        | Northwestern Showy Sedge            | Plants     |
| Carex stipata stipata    | Stalk-grain Sedge                  | Plants     |
| Carex utriculata         | Beaked Sedge                       | Plants     |
| Carex vesicaria vesicaria| Inflated Sedge                     | Plants     |
| Carex viridula viridula  | Little Green Sedge                 | Plants     |
| Carex vulpinoidea        | NA                                 | Plants     |
| Cascadia nuttallii       | NA                                 | Plants     |
| Cascadoperla trictura    | Cascades Stripetail                | Insects & other |
| Castilleja campestris succulenta | Fleshy Owl's-clover             | Plants     |
| Castilleja miniata elata | Siskiyou Indian-paintbrush        | Plants     |
| Castilleja miniata miniata | Greater Red Indian-paintbrush    | Plants     |
| Castilleja minor minor   | Alkali Indian-paintbrush           | Plants     |
| Castilleja minor spiralis| Large-flower Annual Indian-paintbrush | Plants |
| Castor canadensis        | American Beaver                    | Mammals    |
| Catostomus fumeiventris  | Owens sucker                       | Fishes     |
| Catostomus latipinnis    | Flannelmouth sucker                | Fishes     |
| Catostomus luxatus       | Lost River sucker                  | Fishes     |
| Catostomus microps       | Modoc sucker                       | Fishes     |
| Catostomus occidentalis humboldtianus | Humboldt sucker             | Fishes     |
| Catostomus occidentalis lacusanserinus | Goose Lake sucker          | Fishes     |
| Catostomus occidentalis mnioltitus | Monterey sucker              | Fishes     |
| Catostomus occidentalis occidentalis | Sacramento sucker           | Fishes     |
| Catostomus platyrhynchus | Lahontan mountain sucker          | Fishes     |
| Catostomus rriminator   | Klamath smallscale sucker          | Fishes     |
| Catostomus santaanae    | Santa Ana sucker                   | Fishes     |
| Catostomus snyderi      | Klamath largescale sucker          | Fishes     |
| Catostomus tahoensis    | Tahoe sucker                       | Fishes     |
| Caudatella columbiella  |                                     | Insects & other |
| Caudatella edmundsi     | A Mayfly                           | Insects & other |
| Caudatella heterocaudata| A Mayfly                           | Insects & other |
| Caudatella hystrix      | A Mayfly                           | Insects & other |
| Species                        | Common Name                       | Category          |
|--------------------------------|-----------------------------------|-------------------|
| Caudatella jacobi             | A Mayfly                          | Insects & other   |
| Celina occidentalis           |                                   | Insects & other   |
| Cenocorixa andersoni          |                                   | Insects & other   |
| Cenocorixa blaisdelli         |                                   | Insects & other   |
| Cenocorixa kuiterti           | A Water Boatman                    | Insects & other   |
| Cenocorixa utahensis          |                                   | Insects & other   |
| Cenocorixa wileyae            |                                   | Insects & other   |
| Centroptilum album            | A Mayfly                          | Insects & other   |
| Centroptilum asperatum        | A Mayfly                          | Insects & other   |
| Centroptilum bifurcatum       | A Mayfly                          | Insects & other   |
| Centroptilum conturbatum      | A Mayfly                          | Insects & other   |
| Centroptilum elsa             |                                   | Insects & other   |
| Centroptilum oreophilum       |                                   | Insects & other   |
| Centroptilum selanderorum     |                                   | Insects & other   |
| Cephalanthus occidentalis     | Common Buttonbush                 | Plants            |
| Ceraclea annulicornis         | A Caddisfly                       | Insects & other   |
| Ceraclea latahensis           | A Caddisfly                       | Insects & other   |
| Ceraclea maculata             | A Caddisfly                       | Insects & other   |
| Ceraclea resurgens            |                                   | Insects & other   |
| Ceraclea tarsipunctata        | A Caddisfly                       | Insects & other   |
| Ceraclea vertreesi            |                                   | Insects & other   |
| Ceratophyllum demersum        | Common Hornwort                    | Plants            |
| Chaetarthria bicolor          |                                   | Insects & other   |
| Chaetarthria hespera          |                                   | Insects & other   |
| Chaetarthria leechi           | Leech's Chaetarthrian Water Scavenger Beetle | Insects & other   |
| Chaetarthria magna            |                                   | Insects & other   |
| Chaetarthria nigrella         |                                   | Insects & other   |
| Chaetarthria ochra             |                                   | Insects & other   |
| Chaetarthria pallida          |                                   | Insects & other   |
| Chaetarthria punctulata       |                                   | Insects & other   |
| Chaetarthria pusilla          |                                   | Insects & other   |
| Chaetarthria spinata          |                                   | Insects & other   |
| Chaetarthria truncata         |                                   | Insects & other   |
| Chaetocladius ligni           |                                   | Insects & other   |
| Chamaecyparis lawsoniana      |                                   | Plants            |
| Chasmatonotus hyalinus        |                                   | Insects & other   |
| Chasmatonotus maculipennis    |                                   | Insects & other   |
| Chasmatonotus univittatus     |                                   | Insects & other   |
| Chasmistes brevirostris       | Shortnose sucker                  | Fishes            |
| Chelomideopsis brunsoni       |                                   | Insects & other   |
| Scientific Name                      | Class              |
|-------------------------------------|--------------------|
| Chelomideopsis minuta               | Insects & other    |
| Chelomideopsis occidentalis         | Insects & other    |
| Chelomideopsis siskiyouensis        | Insects & other    |
| Chen caerulescens                   | Snow Goose         |
| Chen rossii                         | Ross's Goose       |
| Chernokrilus misnomus               | Oregon Springfly   |
| Chernovskiiia orbicus               | Insects & other    |
| Cheumatopsyche analis               | Insects & other    |
| Cheumatopsyche arizonensis          | A Caddisfly        |
| Cheumatopsyche campyla              | A Caddisfly        |
| Cheumatopsyche enonis               | Insects & other    |
| Cheumatopsyche gelita               | Insects & other    |
| Cheumatopsyche lasia                | Insects & other    |
| Cheumatopsyche mickeli              | A Caddisfly        |
| Cheumatopsyche mollala              | A Caddisfly        |
| Cheumatopsyche pasella              | Insects & other    |
| Cheumatopsyche pinula               | Insects & other    |
| Cheumatopsyche wabasha              | Insects & other    |
| Chimarra adella                     | Insects & other    |
| Chimarra angustipennis              | A Caddisfly        |
| Chimarra butleri                    | Insects & other    |
| Chimarra elia                       | A Caddisfly        |
| Chimarra lara                       | Insects & other    |
| Chimarra primula                    | Insects & other    |
| Chimarra ridleyi                    | Insects & other    |
| Chimarra schiza                     | Insects & other    |
| Chimarra siva                       | Insects & other    |
| Chimarra texana                     | Insects & other    |
| Chimarra utahensis                  | A Caddisfly        |
| Chironomus anonymus                 | Insects & other    |
| Chironomus anthracinus              | Insects & other    |
| Chironomus atrella                  | Insects & other    |
| Chironomus calligraphus             | Insects & other    |
| Chironomus cucini                   | Insects & other    |
| Chironomus decorus                  | Insects & other    |
| Chironomus frommeri                 | Insects & other    |
| Chironomus longipes                 | Insects & other    |
| Chironomus maturus                  | Insects & other    |
| Chironomus mendax                   | Insects & other    |
| Chironomus plumosus                 | Insects & other    |
| Chironomus riparius                 | Insects & other    |
| Species                          | Category          |
|---------------------------------|-------------------|
| Chironomus staegeri             | Insects & other   |
| Chironomus stigmaterus          | Insects & other   |
| Chironomus tuxis                | Insects & other   |
| Chironomus utahensis            | Insects & other   |
| Chironomus whitseli             | Insects & other   |
| Chlidonias niger                | Black Tern        |
| Chloropyron maritimum canescens | Plants            |
| Chloropyron maritimum maritimum | Plants            |
| Chloropyron maritimum palustre  | Plants            |
| Chloropyron molle hispidum      | Plants            |
| Chloropyron molle molle         | Plants            |
| Chloropyron palmatum            | NA                |
| Chloropyron tecopense           | Plants            |
| Choroterpes albiannulata        | A Mayfly          |
| Choroterpes inornata            | A Mayfly          |
| Choroterpes terratoma           | A Mayfly          |
| Chroicocephalus philadelphia    | Bonaparte's Gull  |
| Chrysosplenium glechomifolium   | Pacific Golden-saxifrage |
| Chyundra centralis              | A Caddisfly       |
| Cicendia quadrangularis         | Oregon Microcala  |
| Cicuta douglasii                | Western Water-hemlock |
| Cicuta maculata angustifolia    | Spotted Water-hemlock |
| Cicuta maculata bolanderi       | Bolander's Water-hemlock |
| Cicuta maculata maculata        | Spotted Water-hemlock |
| Cinclus mexicanus               | American Dipper   |
| Cinygma dimicki                 | A Mayfly          |
| Cinygma integrum                | A Mayfly          |
| Cinygma lyriforme               | A Mayfly          |
| Cinygmula gartrelli             | A Mayfly          |
| Cinygmula mimus                 | A Mayfly          |
| Cinygmula par                   | A Mayfly          |
| Cinygmula ramaleyi              | A Mayfly          |
| Cinygmula reticulata            | A Mayfly          |
| Cinygmula tarda                 | A Mayfly          |
| Cinygmula tioga                 | A Mayfly          |
| Cinygmula uniformis             | A Mayfly          |
| Cirsium crassicaule             | Slough Thistle    |
| Cirsium douglasii breweri       | Plants            |
| Cirsium douglasii breweri       | Plants            |
| Scientific Name                        | Common Name                        | Category     |
|---------------------------------------|------------------------------------|--------------|
| Cirsium douglasii douglasii           | Douglas' Thistle                   | Plants       |
| Cirsium fontinale campylon            | Mt. Hamilton Thistle               | Plants       |
| Cirsium fontinale fontinale           | Fountain Thistle                   | Plants       |
| Cirsium fontinale obispoense          | Chorro Creek Bog Thistle           | Plants       |
| Cirsium hydrophilum hydrophilum       | Suisun Thistle                     | Plants       |
| Cirsium hydrophilum vaseyi            | Mt. Tamalpais Thistle              | Plants       |
| Cirsium scariosum loncholepis         |                                    | Plants       |
| Cirsium scariosum robustum            |                                    | Plants       |
| Cirsium scariosum scariosum           | Drummond's Thistle                 | Plants       |
| Cistothorus palustris clarkae         | Clark's Marsh Wren                 | Birds        |
| Cistothorus palustris palustris       | Marsh Wren                         | Birds        |
| Claassenia sabulosa                  | Shortwing Stone                    | Insects & other |
| Cladium californicum                 | California Sawgrass                | Plants       |
| Cladopelma amachaerum                |                                    | Insects & other |
| Cladopelma edwardsi                  |                                    | Insects & other |
| Cladopelma forcipis                  |                                    | Insects & other |
| Cladopelma viridulum                 |                                    | Insects & other |
| Cladotanytarsus marki                |                                    | Insects & other |
| Cladotanytarsus viridiventris        |                                    | Insects & other |
| Cleptelmis addenda                   |                                    | Insects & other |
| Climacia californica                 |                                    | Insects & other |
| Clinopodium mimuloides               | Monkey-flower Savory               | Plants       |
| Clinotanytus pinguis                 |                                    | Insects & other |
| Clistoronia formosa                  |                                    | Insects & other |
| Clistoronia maculata                 |                                    | Insects & other |
| Clistoronia magnifica                | A Caddisfly                        | Insects & other |
| Cloeodes excogitatus                 | A Mayfly                           | Insects & other |
| Cloeodes macrolamellus               |                                    | Insects & other |
| Cloeodes peninsulus                  |                                    | Insects & other |
| Clostoeca disjuncta                  | A Caddisfly                        | Insects & other |
| Clunio californiensis                |                                    | Insects & other |
| Cnodozentron yavapai                 |                                    | Insects & other |
| Coccyzus americanus occidentalis      | Western Yellow-billed Cuckoo       | Birds        |
| Coenagrin resolutum                  | Taiga Bluet                        | Insects & other |
| Colligyrus convexus                  | Canary Duskysnail                  | Mollusks      |
| Colligyrus greggi                    |                                    | Mollusks      |
| Colymbetes crotchi                   |                                    | Insects & other |
| Colymbetes densus                    |                                    | Insects & other |
| Colymbetes incognitus                |                                    | Insects & other |
| Colymbetes strigatus                 |                                    | Insects & other |
| Scientific Name                  | Common Name                  | Category          |
|---------------------------------|------------------------------|-------------------|
| Comarum palustre                | Marsh Cinquefoil             | Plants            |
| Conchapelopia mera              |                              | Insects & other   |
| Conchapelopia pallens           |                              | Insects & other   |
| Copelatus chevrolati            |                              | Insects & other   |
| Copelatus glyphicus             |                              | Insects & other   |
| Coptotomus longulus longulus    |                              | Insects & other   |
| Coquillettidia peturbans        |                              | Insects & other   |
| Cordulegaster diadema           |                              | Insects & other   |
| Cordulegaster dorsalis          | Pacific Spiketail            | Insects & other   |
| Cordulia shurtleffii            | American Emerald             | Insects & other   |
| Corisella decolor              |                              | Insects & other   |
| Corisella edulis                |                              | Insects & other   |
| Corisella inscripta             |                              | Insects & other   |
| Corisella tarsalis             |                              | Insects & other   |
| Corydalus bidenticulatus        |                              | Insects & other   |
| Corydalus texanus               |                              | Insects & other   |
| Cosumoperla hypocrena           | Cosumnes Stripetail          | Insects & other   |
| Cosumoperla sequoia             | A Stonefly                   | Insects & other   |
| Cottus aleuticus                | Coastrange sculpin           | Fishes            |
| Cottus asper ssp. 1             | Prickly sculpin              | Fishes            |
| Cottus asper ssp. 2             | Clear Lake prickly sculpin   | Fishes            |
| Cottus asperrimus              | Rough sculpin                | Fishes            |
| Cottus beldingi                | Paiute sculpin               | Fishes            |
| Cottus gulosus                 | Riffle sculpin               | Fishes            |
| Cottus klamathensis klamathensis| Upper Klamath marbled sculpin| Fishes            |
| Cottus klamathensis macrops     | Bigeye marbled sculpin       | Fishes            |
| Cottus klamathensis polyporus   | Lower Klamath marbled sculpin| Fishes            |
| Cottus perplexus                | Reticulate sculpin           | Fishes            |
| Cottus pitensis                | Pit sculpin                  | Fishes            |
| Cotula coronopifolia            | NA                           | Plants            |
| Coturnicops noveboracensis      | Yellow Rail                  | Birds             |
| Crangonyx richmondensis        | Ellis Bog Crangonyctid       | Crustaceans       |
| Crassula aquatica              | Water Pygmyweed              | Plants            |
| Crassula solieri               | NA                           | Plants            |
| Crenitis alticola              |                              | Insects & other   |
| Crenitis dissimilis             |                              | Insects & other   |
| Crenitis malkini                |                              | Insects & other   |
| Crenitis morata                |                              | Insects & other   |
| Crenitis palpalis              |                              | Insects & other   |
| Crenitis paradigma             |                              | Insects & other   |
| Species                  | Category               |
|-------------------------|------------------------|
| Crenitis rufiventris    | Insects & other        |
| Crenitis seriellus      | Insects & other        |
| Crenitis snoqualmie     | Insects & other        |
| Crenophylax sperryi     | Insects & other        |
| Cricotopus annulatrix   | Insects & other        |
| Cricotopus bicinctus    | Insects & other        |
| Cricotopus blinni       | Insects & other        |
| Cricotopus edurus       | Insects & other        |
| Cricotopus furtivus     | Insects & other        |
| Cricotopus fuscatius    | Insects & other        |
| Cricotopus globistylus  | Insects & other        |
| Cricotopus herrmanni    | Insects & other        |
| Cricotopus infuscatus   | Insects & other        |
| Cricotopus nostocicola  | Insects & other        |
| Cricotopus obscurifuscus| Insects & other        |
| Cricotopus ornatus      | Insects & other        |
| Cricotopus parafuscatus | Insects & other        |
| Cricotopus subfuscus    | Insects & other        |
| Cricotopus subletteorum| Insects & other        |
| Cricotopus sylvestris   | Insects & other        |
| Cricotopus tremulus     | Insects & other        |
| Cricotopus trifascia    | Insects & other        |
| Crypsis vaginiflora     | NA                     |
| Cryptochia califca      | A Caddisfly            |
| Cryptochia denningi     | Denning’s Cryptic Caddisfly |
| Cryptochia excella      | Kings Canyon Cryptochian Caddisfly |
| Cryptochia neosa        | Insects & other        |
| Cryptochia pilosa       | Insects & other        |
| Cryptochia shasta       | Confusion Caddisfly    |
| Cryptochironomus curryi | Insects & other        |
| Cryptochironomus digitatus | Insects & other     |
| Cryptochironomus fulvus | Insects & other        |
| Cryptochironomus ponderosus | Insects & other |
| Cryptochironomus psittacinus | Insects & other |
| Cryptotendipes ariel    | Insects & other        |
| Cryptotendipes darbyi   | Insects & other        |
| Culex anips             | Insects & other        |
| Culex apicalis          | Insects & other        |
| Culex arizonensis       | Insects & other        |
| Culex boharti           | Insects & other        |
| Culex coronator         | Insects & other        |
| Cryptochira              | NA                     |
| Cryptogenicus            | NA                     |
| Cryptotendipes           | NA                     |
| Insect or Bird Name                  | Category          |
|-------------------------------------|-------------------|
| Culex erythrothorax                 | Insects & other   |
| Culex interrogator                 | Insects & other   |
| Culex pipiens                       | Insects & other   |
| Culex quinquefasciatus              | Insects & other   |
| Culex reevesi                       | Insects & other   |
| Culex restuans                      | Insects & other   |
| Culex salinarius                   | Insects & other   |
| Culex stigmatosoma                 | Insects & other   |
| Culex tarsalis                      | Insects & other   |
| Culex territans                     | Insects & other   |
| Culex thriambus                     | Insects & other   |
| Culiseta impatiens                 | Insects & other   |
| Culiseta incidens                  | Insects & other   |
| Culiseta inornata                  | Insects & other   |
| Culiseta minnesotae                | Insects & other   |
| Culiseta morsitans                 | Insects & other   |
| Culiseta particeps                 | Insects & other   |
| Culoptila cantha                   | Insects & other   |
| Culoptila kimminsi                  | Insects & other   |
| Culoptila moselyi                   | Insects & other   |
| Culoptila thoracica                 | Insects & other   |
| Cultus aestivalis                   | Insects & other   |
| Cultus pilatus                      | Insects & other   |
| Cultus tostonus Toston Springfly    | Insects & other   |
| Curicta pronotata                  | Insects & other   |
| Cybister ellipticus                | Insects & other   |
| Cybister explanatus                | Insects & other   |
| Cyclothyas siskiyouensis           | Insects & other   |
| Cygnus buccinatar Trumpeter Swan    | Birds             |
| Cygnus columbianus Tundra Swan     | Birds             |
| Cyloloeps abnormis                 | Insects & other   |
| Cyloloeps parkeri                  | Insects & other   |
| Cymbiodyta arizonica               | Insects & other   |
| Cymbiodyta columbiana              | Insects & other   |
| Cymbiodyta dorsalis                | Insects & other   |
| Cymbiodyta fraterculus             | Insects & other   |
| Cymbiodyta howdeni                 | Insects & other   |
| Cymbiodyta imbellis                | Insects & other   |
| Cymbiodyta leechi                  | Insects & other   |
| Cymbiodyta minima                  | Insects & other   |
| Cymbiodyta occidentalis            | Insects & other   |
| Common Name                          | Scientific Name                      | Classification        |
|-------------------------------------|--------------------------------------|-----------------------|
| Cymbiodyta pacifica                 | Insects & other                      |
| Cymbiodyta pseudopacifica           | Insects & other                      |
| Cymbiodyta puella                   | Insects & other                      |
| Cymbiodyta punctatostrata           | Insects & other                      |
| Cymbiodyta seriata                  | Insects & other                      |
| Cyperus acuminatus                  | Short-point Flatsedge                | Plants                |
| Cyperus bipartitus                  | Shining Flatsedge                    | Plants                |
| Cyperus erythrorhizos               | Red-root Flatsedge                   | Plants                |
| Cyperus flavescens                  | NA                                   | Plants                |
| Cyperus fuscus                      | NA                                   | Plants                |
| Cyperus involucratus                | NA                                   | Plants                |
| Cyperus iria                        | NA                                   | Plants                |
| Cyperus squarrosus                  | Awned Cyperus                        | Plants                |
| Cyphomella gibbera                  | Insects & other                      |
| Cyphon arcuatus                     | Insects & other                      |
| Cyphon brevicollis                  | Insects & other                      |
| Cyphon exiguus                      | Insects & other                      |
| Cyphon johni                        | Insects & other                      |
| Cyphon spinulosus                   | Insects & other                      |
| Cyphon variabilis                   | Insects & other                      |
| Cyprinodon macularius               | Desert pupfish                       | Fishes                |
| Cyprinodon nevadensis amargosae     | Amargosa River pupfish               | Fishes                |
| Cyprinodon nevadensis calidae       | Tecopa Pupfish                       | Fishes                |
| Cyprinodon nevadensis nevadensis    | Saratoga Springs pupfish             | Fishes                |
| Cyprinodon nevadensis shoshone      | Shoshone pupfish                     | Fishes                |
| Cyprinodon radiosus                 | Owens pupfish                        | Fishes                |
| Cyprinodon salinus milleri          | Cottonball Marsh pupfish             | Fishes                |
| Cyprinodon salinus salinus          | Salt Creek pupfish                   | Fishes                |
| Cyripedium californicum             | California Lady's-slipper            | Plants                |
| Cypseloides niger                   | Black Swift                          | Birds                 |
| Cyzicus californicus                | California Clam Shrimp               | Crustaceans           |
| Cyzicus elongatus                   | Elongate Clam Shrimp                 | Crustaceans           |
| Cyzicus mexicanus                   | Mexican Clam Shrimp                  | Crustaceans           |
| Cyzicus setosa                      | Bristletail Clam Shrimp              | Crustaceans           |
| Damasonium californicum             |                                      | Plants                |
| Darlingtonia californica            | California Pitcherplant              | Plants                |
| Darmera peltata                     | Umbrella Plant                       | Plants                |
| Datisca glomerata                   | Durango Root                         | Plants                |
| Delphinium uliginosum               | Swamp Larkspur                       | Plants                |
| Species                                      | Category                        |
|----------------------------------------------|---------------------------------|
| Deltamysis homquistae                        | Crustaceans                     |
| Demeijerea brachialis                        | Insects & other                 |
| Dendrocygna bicolor                         | Fulvous Whistling-Duck          |
| Derotanypus aclines                          | Birds                           |
| Desmona bethula                              | Amphibious Caddisfly            |
| Desmona mono                                 | A Caddisfly                     |
| Desmopachria dispersa                        | Insects & other                 |
| Desmopachria latissima                       | Insects & other                 |
| Desmopachria mexicana                        | Insects & other                 |
| Desmopachria portmanni                       | Insects & other                 |
| Despaxia augusta                             | Smooth Needlefly                |
| Deuterophlebia coloradensis                  | Insects & other                 |
| Deuterophlebia inyoensis                     | Insects & other                 |
| Deuterophlebia nielsoni                      | Insects & other                 |
| Deuterophlebia personata                     | Insects & other                 |
| Deuterophlebia shasta                        | A Mountain Midge                |
| Diamesa aberrata                             | Insects & other                 |
| Diamesa ancysta                              | Insects & other                 |
| Diamesa chorea                               | Insects & other                 |
| Diamesa davisi                               | Insects & other                 |
| Diamesa haydaki                              | Insects & other                 |
| Diamesa heteropus                            | Insects & other                 |
| Diamesa japonica                             | Insects & other                 |
| Diamesa sonorae                              | Insects & other                 |
| Diamesa spinacies                            | Insects & other                 |
| Dicamptodon ensatus                           | California Giant Salamander     |
| Dicamptodon tenebrosus                        | Pacific Giant Salamander        |
| Dicosmoecus atripes                           | A Caddisfly                     |
| Dicosmoecus gilvipes                          | A Caddisfly                     |
| Dicosmoecus pallicornis                       | A Caddisfly                     |
| Dicrotendipes adnilus                         | Insects & other                 |
| Dicrotendipes aethiops                        | Insects & other                 |
| Dicrotendipes californicus                   | Insects & other                 |
| Dicrotendipes crypticus                      | Insects & other                 |
| Dicrotendipes fumidus                         | Insects & other                 |
| Dicrotendipes milleri                         | Insects & other                 |
| Dicrotendipes modestus                        | Insects & other                 |
| Dicrotendipes nervosus                        | Insects & other                 |
| Dicrotendipes tritomus                        | Insects & other                 |
| Dineutus solitarius                           | Insects & other                 |
| Dineutus sublineatus                          | Insects & other                 |
| Latin Name                  | English Name                                      | Category               |
|-----------------------------|---------------------------------------------------|------------------------|
| Diphetor hageni             | Hagen's Small Minnow Mayfly                       | Insects & other        |
| Diplectrona californica     | California Diplectronan Caddisfly                 | Insects & other        |
| Distichlis littoralis       | NA                                                | Plants                 |
| Diura knowltoni             | Nearctic Springfly                                | Insects & other        |
| Doodssia occidentalis       | Western Willowfly                                 | Insects & other        |
| Doithrix barberi            |                                                   | Insects & other        |
| Doithrix ensifer            |                                                   | Insects & other        |
| Dolophilodes aequalis       | A Caddisfly                                       | Insects & other        |
| Dolophilodes andora        | A Caddisfly                                       | Insects & other        |
| Dolophilodes dorcus        | A Caddisfly                                       | Insects & other        |
| Dolophilodes novusamericanus | A Caddisfly                                     | Insects & other        |
| Dolophilodes pallidipes    | A Caddisfly                                       | Insects & other        |
| Doroneuria baumanni         | Cascades Stone                                    | Insects & other        |
| Downingia bacigalupii      | Bacigalup's Downingia                             | Plants                 |
| Downingia bella            | Hoover's Downingia                                | Plants                 |
| Downingia bicornuta        | NA                                                | Plants                 |
| Downingia concolor         | NA                                                | Plants                 |
| Downingia cuspidata        | Toothed Calicoflower                              | Plants                 |
| Downingia elegans          | NA                                                | Plants                 |
| Downingia insignis          | Parti-color Downingia                             | Plants                 |
| Downingia laeta            | Great Basin Downingia                             | Plants                 |
| Downingia montana          | Sierra Downingia                                  | Plants                 |
| Downingia ornatissima      | NA                                                | Plants                 |
| Downingia pulchella        | Flat-face Downingia                               | Plants                 |
| Downingia pulcherrima       |                                                   | Plants                 |
| Downingia pusilla          | Dwarf Downingia                                   | Plants                 |
| Downingia willamettensis   |                                                   | Plants                 |
| Downingia yina             | NA                                                | Plants                 |
| Drosera anglica            | English Sundew                                    | Plants                 |
| Drosera rotundifolia       | NA                                                | Plants                 |
| Drunella coloradensis      | A Mayfly                                          | Insects & other        |
| Drunella doddssii          | A Mayfly                                          | Insects & other        |
| Drunella flavilinea        | A Mayfly                                          | Insects & other        |
| Drunella grandis           | A Mayfly                                          | Insects & other        |
| Drunella pelosa            | A Mayfly                                          | Insects & other        |
| Drunella spinifera         | A Mayfly                                          | Insects & other        |
| Drymocallis cuneifolia ewanii |                                               | Plants                 |
| Dryops arizonensis         |                                                   | Insects & other        |
| Dubiraphia brunnescens     | Brownish Dubiraphian Riffle Beetle                | Insects & other        |
| Dubiraphia giulianii       | Giuliani's Dubiraphian Riffle Beetle              | Insects & other        |
| Dulichium arundinaceum     | NA                                                | Plants                 |
| Common Name                      | Scientific Name          | Kingdom         |
|---------------------------------|--------------------------|-----------------|
| Dumontia oregonensis            | A Water Flea             | Crustaceans     |
| Dysmicothermes disjunctus       |                          | Insects & other |
| Dysmicothermes ingens           |                          | Insects & other |
| Dythemis fugax                  |                          | Insects & other |
| Dythemis nigrescens             |                          | Insects & other |
| Dythemis velox                  |                          | Insects & other |
| Dytiscus cordieri               |                          | Insects & other |
| Dytiscus dauricus               |                          | Insects & other |
| Dytiscus habilis                |                          | Insects & other |
| Dytiscus hatchi                 |                          | Insects & other |
| Dytiscus hybridus               |                          | Insects & other |
| Dytiscus marginicollis          |                          | Insects & other |
| Ecclisocosmoecus scylla         |                          | Insects & other |
| Ecclisomyia bilera              | King's Creek Ecclisomyian Caddisfly | Insects & other |
| Ecclisomyia conspersa           | A Caddisfly              | Insects & other |
| Ecclisomyia maculosa            | A Caddisfly              | Insects & other |
| Ecdyonurus criddlei             | A Mayfly                 | Insects & other |
| Ecdyonurus simplicoides         |                          | Insects & other |
| Echinochloro oryzoides          | NA                       | Plants          |
| Echinodorus berteroi            | Upright Burhead          | Plants          |
| Edmundsiius agilis              | A Mayfly                 | Insects & other |
| Egretta thula                   | Snowy Egret              | Birds           |
| Elatine brachysperma            | Shortseed Waterwort      | Plants          |
| Elatine californica             | California Waterwort     | Plants          |
| Elatine heterandra              | Mosquito Waterwort       | Plants          |
| Elatine rubella                 | Southwestern Waterwort   | Plants          |
| Eleocharis acicularis acicularis| Least SPIKERUSH          | Plants          |
| Eleocharis acicularis gracilescens | Least SPIKERUSH        | Plants          |
| Eleocharis acicularis occidentalis |                      | Plants          |
| Eleocharis atropurpurea         | Purple SPIKERUSH         | Plants          |
| Eleocharis bella                | Delicate SPIKERUSH       | Plants          |
| Eleocharis bernardina           |                          | Plants          |
| Eleocharis bolanderi            | Bolander's SPIKERUSH     | Plants          |
| Eleocharis coloradoensis        |                          | Plants          |
| Eleocharis decumbens            | Decumbent SPIKERUSH      | Plants          |
| Eleocharis engelmannii detonsa  |                          | Plants          |
| Eleocharis engelmannii engelmannii | Engelman's SPIKERUSH  | Plants          |
| Eleocharis flavescens flavescens| Pale SPIKERUSH           | Plants          |
| Eleocharis geniculata           | Capitate SPIKERUSH       | Plants          |
| Scientific Name                  | Common Name                  | Category   |
|---------------------------------|------------------------------|------------|
| Eleocharis macrostachya          | Creeping Spikerush           | Plants     |
| Eleocharis montevidensis        | Sand Spikerush               | Plants     |
| Eleocharis obtusa               | Blunt Spikerush              | Plants     |
| Eleocharis ovata                |                              | Plants     |
| Eleocharis palustris             | Creeping Spikerush           | Plants     |
| Eleocharis parishii             | Parish's Spikerush           | Plants     |
| Eleocharis parvula              | Small Spikerush              | Plants     |
| Eleocharis quadrangulata        | NA                           | Plants     |
| Eleocharis quinqueflora         | Few-flower Spikerush         | Plants     |
| Eleocharis radicans             | Rooted Spikerush             | Plants     |
| Eleocharis rostellata           | Beaked Spikerush             | Plants     |
| Eleocharis suksdorfiana         | NA                           | Plants     |
| Eleocharis torticulmis          | Twisted Spikerush            | Plants     |
| Elodea bifoliata                |                              | Plants     |
| Elodea canadensis               | Broad Waterweed              | Plants     |
| Elodea nuttallii                | Nuttall's Waterweed          | Plants     |
| Elodes angusta                  |                              | Insects    |
| Elodes apicalis                 |                              | Insects    |
| Elodes aquatica                 |                              | Insects    |
| Elodes emarginata               |                              | Insects    |
| Elodes impressa                 |                              | Insects    |
| Elodes nunenmacheri             |                              | Insects    |
| Empidonax traillii              | Willow Flycatcher            | Birds      |
| Empidonax traillii adastus      | A Willow Flycatcher          | Birds      |
| Empidonax traillii brewsteri    | Willow Flycatcher            | Birds      |
| Empidonax traillii extimus      | Southwestern Willow Flycatcher| Birds      |
| Enallagma anna                  | River Bluet                  | Insects    |
| Enallagma basidens              | Double-striped Bluet         | Insects    |
| Enallagma boreale               | Boreal Bluet                 | Insects    |
| Enallagma carunculatum          | Tule Bluet                   | Insects    |
| Enallagma civile                | Familiar Bluet               | Insects    |
| Enallagma clausum               | Alkali Bluet                 | Insects    |
| Enallagma cyathigerum           |                              | Insects    |
| Enallagma praevarum             | Arroyo Bluet                 | Insects    |
| Enallagma semicirculare         |                              | Insects    |
| Endochironomus nigricans        |                              | Insects    |
| Endotribelos hesperium          |                              | Insects    |
| Enochrhus aridus                |                              | Insects    |
| Enochrhus carinatus             |                              | Insects    |
| Enochrhus cristatus             |                              | Insects    |
| Scientific Name                        | Common Name                                      |
|---------------------------------------|--------------------------------------------------|
| Enochrus cuspidatus                   | Insects & other                                  |
| Enochrus diffusus                     | Insects & other                                  |
| Enochrus fimbriatus                   | Insects & other                                  |
| Enochrus hamiltoni                    | Insects & other                                  |
| Enochrus ochraceus                    | Insects & other                                  |
| Enochrus piceus                       | Insects & other                                  |
| Enochrus pygmaeus                     | Insects & other                                  |
| Entosphenus folletti                  | Northern California brook lamprey                |
| Entosphenus similis                   | Klamath River lamprey                            |
| Entosphenus tridentata ssp. 1         | Pacific lamprey                                  |
| Entosphenus tridentata ssp. 2         | Goose Lake lamprey                               |
| Entosphenus folletii                  | Northern California brook lamprey                |
| Entosphenus similis                   | Klamath River lamprey                            |
| Entosphenus tridentata ssp. 1         | Pacific lamprey                                  |
| Entosphenus tridentata ssp. 2         | Goose Lake lamprey                               |
| Entosphenus folletii                  | Northern California brook lamprey                |
| Entosphenus similis                   | Klamath River lamprey                            |
| Entosphenus tridentata ssp. 1         | Pacific lamprey                                  |
| Entosphenus tridentata ssp. 2         | Goose Lake lamprey                               |
| Entosphenus folletii                  | Northern California brook lamprey                |
| Entosphenus similis                   | Klamath River lamprey                            |
| Entosphenus tridentata ssp. 1         | Pacific lamprey                                  |
| Entosphenus tridentata ssp. 2         | Goose Lake lamprey                               |
| Eocyanus digueti                      | Straightbacked Clam Shrimp                       | Crustaceans                                      |
| Epeorus albertae                      | A Mayfly                                         |
| Epeorus deceptivus                    | A Mayfly                                         |
| Epeorus dulciana                      | A Mayfly                                         |
| Epeorus grandis                       | A Mayfly                                         |
| Epeorus hesperus                      | A Mayfly                                         |
| Epeorus lagunitas                     | A Mayfly                                         |
| Epeorus longimanus                    | A Mayfly                                         |
| Epeorus margarita                     | A Mayfly                                         |
| Epeorus permagnus                     | A Mayfly                                         |
| Ephemera albovittata                 | A Mayfly                                         |
| Ephemella aurivillii                  | A Mayfly                                         |
| Ephemella dorothea dorothea           | A Mayfly                                         |
| Ephemera excrucians                  | A Mayfly                                         |
| Ephemera maculata                    | A Mayfly                                         |
| Ephemera tibialis                    | A Mayfly                                         |
| Ephemera velmae                      | A Mayfly                                         |
| Ephoron album                         | A Mayfly                                         |
| Epilobium campestre                   | NA                                               |
| Epilobium cleistogamum                | Cleistogamous Spike-primrose                     |
| Epilobium hallianum                   | Oregon Willowherb                                |
| Epilobium oreganum                    | Oregon Willowherb                                |
| Epilobium oregonense                  | Oregon Willowherb                                |
| Epilobium palustre                    | Marsh Willowherb                                 |
| Epipactis gigantea                    | Giant Helleborine                                |
| Epitheca canis                        | Beaverpond Baskettail                            | Insects & other                                  |
| Species                             | Common Name                | Category          |
|------------------------------------|----------------------------|-------------------|
| Epitheca spinigera                 | Spiny Baskettail          | Insects & other   |
| Equisetum palustre                 | NA                        | Plants            |
| Eragrostis hypnoides               | Teal Lovegrass            | Plants            |
| Erebxanonopsis nearctica           |                           | Insects & other   |
| Eremopyrgus eganensis              |                           | Mollusks          |
| Eretes sticticus                   |                           | Insects & other   |
| Eretmoptera browni                 |                           | Insects & other   |
| Erigeron coulteri                  | Coulter's Fleabane        | Plants            |
| Eriophorum crinigerum              | Fringed Cotton-grass      | Plants            |
| Eriophorum gracile gracile         | Slender Cotton-grass      | Plants            |
| Erpetogomphus compositus           | White-belted Ringtail     | Insects & other   |
| Erpetogomphus crotalinus           |                           | Insects & other   |
| Erpetogomphus designatus           |                           | Insects & other   |
| Erpetogomphus lampropeltis         | Serpent Ringtail          | Insects & other   |
| Eryngium alismifolium              | Inland Coyote-thistle     | Plants            |
| Eryngium aristulatum               | California Eryngo         | Plants            |
| Eryngium aristulatum              hooveri | Hoover's Coyote-thistle  | Plants            |
| Eryngium aristulatum parishii      | San Diego Button Celery   | Plants            |
| Eryngium articulatum              | Jointed Coyote-thistle    | Plants            |
| Eryngium castrense                 | Great Valley Eryngo       | Plants            |
| Eryngium constancei               | Loch Lomond Button-celery | Plants            |
| Eryngium jepsonii                  | NA                        | Plants            |
| Eryngium mathiasiae                | Mathias’ Coyote-thistle   | Plants            |
| Eryngium pinnatisectum             | Tuolumne Coyote-thistle   | Plants            |
| Eryngium racemosum                 | Delta Coyote-thistle      | Plants            |
| Eryngium spinosepalum              | Spiny Sepaled Coyote-thistle | Plants       |
| Eryngium vaseyi vallicola          |                           | Plants            |
| Eryngium vaseyi vaseyi             | Vasey's Coyote-thistle    | Plants            |
| Erythemos collocata                | Western Pondhawk          | Insects & other   |
| Erythemos simplicicollis           |                           | Insects & other   |
| Erythemos vesiculosa               |                           | Insects & other   |
| Erythrodiplax basifusca            |                           | Insects & other   |
| Erythrodiplax funerea              |                           | Insects & other   |
| Eubranchipus bundyi                | Knobbedlip Fairy Shrimp   | Crustaceans       |
| Eubranchipus oregonus              | Oregon Fairy Shrimp       | Crustaceans       |
| Eubranchipus serratus              | Ethologist Fairy Shrimp   | Crustaceans       |
| Eubrianax edwardsii                |                           | Insects & other   |
| Eucapnopsis brevicauda             | Shorttailed Snowfly       | Insects & other   |
| Eucorethra underwoodi              |                           | Insects & other   |
| Eucyclogobius newberryi            | Tidewater goby            | Fishes            |
| Scientific Name               | Common Name                                      | Category         |
|------------------------------|--------------------------------------------------|------------------|
| Eukiefferiella claripennis  |                                                  | Insects & other  |
| Eukiefferiella coerulescens  |                                                  | Insects & other  |
| Eukiefferiella cyanea        |                                                  | Insects & other  |
| Eukiefferiella devonica      |                                                  | Insects & other  |
| Eukiefferiella ilkleyensis   |                                                  | Insects & other  |
| Eulimnadia diversa           | Diversity Clam Shrimp                            | Crustaceans      |
| Eulimnadia texana            | Texan Clam Shrimp                                | Crustaceans      |
| Eulimnichus analis           |                                                  | Insects & other  |
| Eulimnichus californicus     |                                                  | Insects & other  |
| Eulimnichus evanescens       |                                                  | Insects & other  |
| Eulimnichus montanus         |                                                  | Insects & other  |
| Eulimnichus perpolitus       |                                                  | Insects & other  |
| Euphorbia hooveri            | NA                                               | Plants           |
| Euryhopsis annuliventris     |                                                  | Insects & other  |
| Euryhopsis illoba            |                                                  | Insects & other  |
| Eurylophella lodi            | A Mayfly                                         | Insects & other  |
| Eustoma exaltatum            | NA                                               | Plants           |
| Euthamia occidentalis        | Western Fragrant Goldenrod                       | Plants           |
| Exopalaemon carinicauda      |                                                  | Crustaceans      |
| Fallceon eatoni              | A Mayfly                                         | Insects & other  |
| Fallceon quilleri            | A Mayfly                                         | Insects & other  |
| Fallceon sonora              | A Mayfly                                         | Insects & other  |
| Fallceon thermophilos        | A Mayfly                                         | Insects & other  |
| Farula davisi                | Green Springs Mountain Farulan Caddisfly         | Insects & other  |
| Farula geyseri               | A Farulan Caddisfly                              | Insects & other  |
| Farula honeyi                | A Farulan Caddisfly                              | Insects & other  |
| Farula jewetti               |                                                  | Insects & other  |
| Farula malkini               |                                                  | Insects & other  |
| Farula moweri                | A Caddisfly                                      | Insects & other  |
| Farula petersoni             | A Farulan Caddisfly                              | Insects & other  |
| Farula praelonga             | Long-tailed Caddisfly                            | Insects & other  |
| Farula raineri               |                                                  | Insects & other  |
| Farula reapiri               |                                                  | Insects & other  |
| Farula wigginsi              |                                                  | Insects & other  |
| Ferrissia fragilis           | Fragile Ancylid                                  | Mollusks         |
| Ferrissia rivularis          | Creeping Ancylid                                 | Mollusks         |
| Ferrissia walkeri            | Cloche Ancylid                                   | Mollusks         |
| Ficopotamus enigmaticus      |                                                  | Insects & other  |
| Fimbristylis autumnalis      | NA                                               | Plants           |
| Fimbristylis thermalis       | Hot Springs Fimbry                               | Plants           |
| Floerkea proserpinacoides    | False Mermaidweed                                | Plants           |
| Species Name                  | Common Name                          | Category         |
|------------------------------|--------------------------------------|------------------|
| Fluminicola ahjumawi         | Ahjumawi pebblesnail                 | Mollusks         |
| Fluminicola anserinus        | Goose Valley pebblesnail             | Mollusks         |
| Fluminicola caballensis      | Horse Creek pebblesnail              | Mollusks         |
| Fluminicola erosus           | Smokey Charley pebblesnail           | Mollusks         |
| Fluminicola favillaceus      | Ash Valley pebblesnail               | Mollusks         |
| Fluminicola fremonti         | Fremont pebblesnail                  | Mollusks         |
| Fluminicola lunsfordensis    | Lunsford pebblesnail                 | Mollusks         |
| Fluminicola modoci           | Modoc Pebblesnail                    | Mollusks         |
| Fluminicola multifarius      | Shasta pebblesnail                   | Mollusks         |
| Fluminicola neritoides       | Willow Creek pebblesnail             | Mollusks         |
| Fluminicola scopulinus       | Castle Creek pebblesnail             | Mollusks         |
| Fluminicola seminalis        | Nugget Pebblesnail                   | Mollusks         |
| Fluminicola turbiniformis    | Turban Pebblesnail                   | Mollusks         |
| Fluminicola umbilicatus      | Hat Creek pebblesnail                | Mollusks         |
| Fluminicola warnerensis      | Warner pebblesnail                   | Mollusks         |
| Frankenia palmeri            | Palmer's Frankenlia                  | Plants           |
| Frisonia picticeps           | Painted Springfly                    | Insects & other  |
| Fulica americana             | American Coot                        | Birds            |
| Fundulus parvipinnis         | California killifish                 | Fishes           |
| Galba bulimoides             | Prairie Fossaria                     | Mollusks         |
| Galba cubensis               | Carib Fossaria                       | Mollusks         |
| Galba modicella              | Rock Fossaria                        | Mollusks         |
| Galba obrussa                | Golden Fossaria                      | Mollusks         |
| Galba perplexa               | A Freshwater Snail                   | Mollusks         |
| Galba sonomaensis            | Sonoma Fossaria                      | Mollusks         |
| Galba techella               | A Freshwater Snail                   | Mollusks         |
| Galium trifidum              | Small Bedstraw                       | Plants           |
| Gallinago delicata           | Wilson's Snipe                       | Birds            |
| Gallinula chloropus          | Common Moorhen                      | Birds            |
| Gammarus lacustris           |                                      | Crustaceans      |
| Gasterosteus aculeatus       | Coastal threespine stickleback       | Fishes           |
| Gasterosteus aculeatus       | Inland threespine stickleback        | Fishes           |
| Gasterosteus aculeatus       | Shay Creek stickleback               | Fishes           |
| Gasterosteus aculeatus       | Unarmored threespine stickleback     | Fishes           |
| Gelastracoris oculatus       |                                      | Insects & other  |
| Gelastracoris rotundatus     |                                      | Insects & other  |
| Gelochelidion nilotica       | Gull-billed Tern                     | Birds            |
| Gentiana calycosa            | Explorer's Gentian                  | Plants           |
| Scientific Name | Common Name | Category |
|-----------------|-------------|----------|
| Gentiana sceptrum | Pacific Gentian | Plants |
| Gentiana setigera | Elegant Gentian | Plants |
| Gentianella amarella acuta | Autumn Dwarf Gentian | Plants |
| Gentianopsis holopetala | Sierra Gentian | Plants |
| Gentianopsis simplex | One-flower Gentian | Plants |
| Georissus californicus | | Insects & other |
| Georthocladius platystylus | | Insects & other |
| Georthocladius wirthi | | Insects & other |
| Geothelpusa dehaani | | Crustaceans |
| Geothlypis trichas sinuosa | Saltmarsh Common Yellowthroat | Birds |
| Geothlypis trichas trichas | Common Yellowthroat | Birds |
| Gerris comatus | | Insects & other |
| Gerris gillettei | | Insects & other |
| Gerris incognitus | | Insects & other |
| Gerris incurvatus | | Insects & other |
| Gerris insperatus | | Insects & other |
| Gigantodax adleri | | Insects & other |
| Gila coerulea | Blue chub | Fishes |
| Gila crassicauda | Thicktail Chub | Fishes |
| Gila elegans | Bonytail | Fishes |
| Gila orcutti | Arroyo chub | Fishes |
| Glinus radiatus | NA | Plants |
| Glossosoma alascense | A Caddisfly | Insects & other |
| Glossosoma bruna | A Caddisfly | Insects & other |
| Glossosoma califica | A Caddisfly | Insects & other |
| Glossosoma excitum | | Insects & other |
| Glossosoma mereca | A Caddisfly | Insects & other |
| Glossosoma montanum | | Insects & other |
| Glossosoma oregonense | A Caddisfly | Insects & other |
| Glossosoma penitum | A Caddisfly | Insects & other |
| Glossosoma pternum | A Caddisfly | Insects & other |
| Glossosoma pyroxum | | Insects & other |
| Glossosoma schuhi | | Insects & other |
| Glossosoma sequoia | A Caddisfly | Insects & other |
| Glossosoma traviatum | | Insects & other |
| Glossosoma velonum | | Insects & other |
| Glossosoma ventrale | | Insects & other |
| Glossosoma verdonum | A Caddisfly | Insects & other |
| Glossosoma wenatchee | | Insects & other |
| Glyceria borealis | Small Floating Mannagrass | Plants |
| Glyceria elata | Tall Mannagrass | Plants |
| Scientific Name                  | Common Name                                      | Category      |
|---------------------------------|--------------------------------------------------|---------------|
| Glyceria fluitans               | NA                                               | Plants        |
| Glyceria grandis                | American Mannagrass                              | Plants        |
| Glyceria leptostachya           | Slim-head Mannagrass                             | Plants        |
| Glyceria striata var. stricta   | Fowl Mannagrass                                  | Plants        |
| Glyphopsyche irrorata           | A Caddisfly                                      | Insects & other |
| Glyptotendipes barbipes         |                                                  | Insects & other |
| Glyptotendipes lobiferus        |                                                  | Insects & other |
| Glyptotendipes paripes          |                                                  | Insects & other |
| Gnorimosphaeroma insulare       | An Isopod                                        | Crustaceans   |
| Gnorimosphaeroma noblei         | An Isopod                                        | Crustaceans   |
| Goeldichironomus amazonicus     |                                                  | Insects & other |
| Goeldichironomus holoprasinus   |                                                  | Insects & other |
| Goera archaon                   | A Caddisfly                                      | Insects & other |
| Goeracea genota                 |                                                  | Insects & other |
| Goeracea oregona                | Sagehen Creek Goeracean Caddisfly                | Insects & other |
| Gomphus kurilis                 | Pacific Clubtail                                 | Insects & other |
| Gomphus lynnae                  |                                                  | Insects & other |
| Gonidea angulata                | Western Ridged Mussel                            | Mollusks      |
| Grammotaulius betteni           |                                                  | Insects & other |
| Graphoderus liberus             |                                                  | Insects & other |
| Graphoderus occidentalis        |                                                  | Insects & other |
| Graphoderus perplexus           |                                                  | Insects & other |
| Graptocorixa abdominalis        |                                                  | Insects & other |
| Graptocorixa californica        |                                                  | Insects & other |
| Graptocorixa gerhardi           |                                                  | Insects & other |
| Graptocorixa serrulata          |                                                  | Insects & other |
| Graptocorixa uhleri             |                                                  | Insects & other |
| Graptocorixa uhleroidea         | A Water Boatman                                  | Insects & other |
| Gratiola ebracteata             | Bractless Hedge-hyssop                           | Plants        |
| Gratiola heterosepala           | Boggs Lake Hedge-hyssop                          | Plants        |
| Gratiola neglecta               | Clammy Hedge-hyssop                              | Plants        |
| Greneria humeralis              |                                                  | Insects & other |
| Grus canadensis                 | Sandhill Crane                                   | Birds         |
| Grus canadensis canadensis      | Lesser Sandhill Crane                             | Birds         |
| Grus canadensis tabida          | Greater Sandhill Crane                            | Birds         |
| Gumaga griseola                 | A Bushtailed Caddisfly                           | Insects & other |
| Gumaga nigricula                | A Bushtailed Caddisfly                           | Insects & other |
| Gymnochthebius falli            |                                                  | Insects & other |
| Gymnochthebius fossatus         |                                                  | Insects & other |
| Gymnochthebius laevipennis      |                                                  | Insects & other |
| Gyraulus circumstriatus         | Disc Gyro                                        | Mollusks      |
| Species                          | Common Name                          | Category          |
|---------------------------------|--------------------------------------|-------------------|
| Gyraulus crista                 | Star Gyro                            | Mollusks          |
| Gyraulus deflectus              |                                      | Mollusks          |
| Gyraulus parvus                 | Ash Gyro                             | Mollusks          |
| Gyraulus vermicularis           | Pacific Coast Gyraulus               | Mollusks          |
| Gyretes sinuatus                |                                      | Insects & other   |
| Gyretes torosus                 |                                      | Insects & other   |
| Gyринus affinis                 |                                      | Insects & other   |
| Gyринus bifarius                |                                      | Insects & other   |
| Gyринus confinis                |                                      | Insects & other   |
| Gyринus consobrinus             |                                      | Insects & other   |
| Gyринus latilimbus              |                                      | Insects & other   |
| Gyринus maculiventris           |                                      | Insects & other   |
| Gyринus parcus                  |                                      | Insects & other   |
| Gyринus picipes                 |                                      | Insects & other   |
| Gyринus pleuralis               |                                      | Insects & other   |
| Gyринus plicifer                |                                      | Insects & other   |
| Gyринus rugosus                 |                                      | Insects & other   |
| Halesochila taylori             |                                      | Insects & other   |
| Haliaeetus leucocephalus        | Bald Eagle                           | Birds             |
| Haliaeetus leucocephalus pop. 4 | Bald Eagle - Wintering Population    | Birds             |
| Haliiplus concolor              |                                      | Insects & other   |
| Haliiplus cylindricus           |                                      | Insects & other   |
| Haliiplus distinctus            |                                      | Insects & other   |
| Haliiplus dorsomaculatus        |                                      | Insects & other   |
| Haliiplus eremicus              |                                      | Insects & other   |
| Haliiplus gracilis              |                                      | Insects & other   |
| Haliiplus leechi                |                                      | Insects & other   |
| Haliiplus longulus              |                                      | Insects & other   |
| Haliiplus mimeticus             |                                      | Insects & other   |
| Haliiplus robertsi              |                                      | Insects & other   |
| Haliiplus rugosus               |                                      | Insects & other   |
| Haliiplus subguttatus           |                                      | Insects & other   |
| Haliiplus tumidus               |                                      | Insects & other   |
| Halobates sericeus              |                                      | Insects & other   |
| Haploperla chilnualna           | Yosemite Sallfly                     | Insects & other   |
| Harnischia curtilamellata       |                                      | Insects & other   |
| Hastingsia alba                 | White Rushlily                       | Plants            |
| Hayesomyia senata               |                                      | Insects & other   |
| Hebrus buenoi                   |                                      | Insects & other   |
| Hebrus hubbardi                 |                                      | Insects & other   |
| Hebrus longivillus              |                                      | Insects & other   |
| Common Name                | Scientific Name          | Category   |
|---------------------------|--------------------------|------------|
| Hebrus major              | Hebrus major             | Insects & other |
| Hebrus obscurus           | Hebrus obscurus          | Insects & other |
| Hebrus sobrinus           | Hebrus sobrinus          | Insects & other |
| Helenium autumnale        | Helenium autumnale       | Plants     |
| Helenium bigelovii        | Helenium bigelovii       | Plants     |
| Helenium bolanderi        | Helenium bolanderi       | Plants     |
| Helenium puberulum        | Helenium puberulum       | Plants     |
| Helichus columbianus      | Helichus columbianus     | Insects & other |
| Helichus striatus         | Helichus striatus        | Insects & other |
| Helichus suturalis        | Helichus suturalis       | Insects & other |
| Helichus triangularis     | Helichus triangularis    | Insects & other |
| Helicopsyche borealis     | Helicopsyche borealis    | Insects & other |
| Helicopsyche mexicana     | Helicopsyche mexicana    | Insects & other |
| Helicopsyche pietia       | Helicopsyche pietia      | Insects & other |
| Helicopsyche sinuata      | Helicopsyche sinuata     | Insects & other |
| Helisoma aniceps          | Helisoma aniceps         | Mollusks   |
| Helisoma minus            | Helisoma minus           | Mollusks   |
| Helisoma newberryi newberryi | Helisoma newberryi newberryi | Mollusks |
| Helisoma subcrenatum      | Helisoma subcrenatum     | Mollusks   |
| Helocharis normatus       | Helocharis normatus      | Insects & other |
| Helodon beardi            | Helodon beardi           | Insects & other |
| Helodon chaos             | Helodon chaos            | Insects & other |
| Helodon diadelphus        | Helodon diadelphus       | Insects & other |
| Helodon mccreadiei        | Helodon mccreadiei       | Insects & other |
| Helodon newmani           | Helodon newmani          | Insects & other |
| Helodon onchyodactylus    | Helodon onchyodactylus   | Insects & other |
| Helodon protus            | Helodon protus           | Insects & other |
| Helodon susanae           | Helodon susanae          | Insects & other |
| Helodon trochus           | Helodon trochus          | Insects & other |
| Helophorus alternatus     | Helophorus alternatus    | Insects & other |
| Helophorus auricollis     | Helophorus auricollis    | Insects & other |
| Helophorus californicus   | Helophorus californicus  | Insects & other |
| Helophorus columbianus    | Helophorus columbianus   | Insects & other |
| Helophorus cuspifer       | Helophorus cuspifer      | Insects & other |
| Helophorus eclectus       | Helophorus eclectus      | Insects & other |
| Helophorus fenderi        | Helophorus fenderi       | Insects & other |
| Helophorus fortis         | Helophorus fortis        | Insects & other |
| Helophorus hatchi          | Helophorus hatchi         | Insects & other |
| Helophorus lacustris      | Helophorus lacustris     | Insects & other |
| Helophorus lecontei       | Helophorus lecontei      | Insects & other |
| Helophorus ledatus         | Helophorus ledatus       | Insects & other |
| Common Name                          | Scientific Name           | Category          |
|-------------------------------------|---------------------------|-------------------|
| Helophorus leechi                   | Insects & other           |
| Helophorus linearis                 | Insects & other           |
| Helophorus linearoides              | Insects & other           |
| Helophorus nitiduloides             | Insects & other           |
| Helophorus nitidulus                | Insects & other           |
| Helophorus oblongus                 | Insects & other           |
| Helophorus oregonus                 | Insects & other           |
| Helophorus orientalis               | Insects & other           |
| Helophorus parasplendidus           | Insects & other           |
| Helophorus robertsi                 | Insects & other           |
| Helophorus schuhi                   | Insects & other           |
| Helophorus tuberculatus             | Insects & other           |
| Hemiosus exilis                     | Insects & other           |
| Heptagenia adaequata                | Insects & other           |
| Heptagenia elegantula               | A Mayfly                  |
| Heptagenia solitaria                | A Mayfly                  |
| Herthania compta                    | Insects & other           |
| Herthania concinna                  | Insects & other           |
| Hesperagrion heterodoxum            | Insects & other           |
| Hesperocorixa atopodonta            | Insects & other           |
| Hesperocorixa laevigata             | Insects & other           |
| Hesperocorixa vulgaris              | Insects & other           |
| Hesperoperla hoguei                 | Banded Stone              |
| Hesperoperla pacifica               | Golden Stone              |
| Hesperophylax alaskensis            | A Caddisfly               |
| Hesperophylax consimilis            | Insects & other           |
| Hesperophylax designatus            | A Caddisfly               |
| Hesperophylax magnus                | A Caddisfly               |
| Hesperophylax minutus               | A Caddisfly               |
| Hesperophylax occidentalis          | A Caddisfly               |
| Hetaerina americana                 | American Rubyspot         |
| Hetaerina vulnerata                 | Insects & other           |
| Heteranthera limosa                 | NA                        |
| Heterelmis glabra                   | Insects & other           |
| Heterelmis obesa                    | Insects & other           |
| Heterelmis stephani                 | Insects & other           |
| Heterelimnius corpulentus           | Insects & other           |
| Heterelimnius koebelei              | Insects & other           |
| Heterocerus brunneus                | Insects & other           |
| Heterocerus gemmatus                | Insects & other           |
| Heterocerus gnatho                  | Insects & other           |
| Species                              | Category               |
|-------------------------------------|------------------------|
| Heterocerus mexicanus               | Insects & other        |
| Heterocerus mollinus                | Insects & other        |
| Heterocerus parrotus                | Insects & other        |
| Heterocerus sinuosus                | Insects & other        |
| Heterocerus tristis                | Insects & other        |
| Heterocerus unicus                  | Insects & other        |
| Heterocloeon anoka                 | Insects & other        |
| Heterotrisocladius oliveri         | Insects & other        |
| Hexagenia limbata                  | Insects & other        |
| Hibiscus lasiocarpos occidentalis   | Plants                 |
| Himalalopsycha phryganea           | Insects & other        |
| Himantaropus mexicanus              | Black-necked Stilt     |
| Hippuris vulgaris                  | Common Mare's-tail     |
| Histrionicus histrionicus           | Harlequin Duck         |
| Holorusia hespera                  | Insects & other        |
| Homoleptohyphes dimorphus          | A Mayfly               |
| Homoleptohyphes mirus              | Insects & other        |
| Homoleptohyphes quercus            | Insects & other        |
| Homophylax adriana                 | Insects & other        |
| Homophylax andax                   | Insects & other        |
| Homophylax flavipennis             | Insects & other        |
| Homophylax insulas                 | A Caddisfly            |
| Homophylax nevadensis              | A Caddisfly            |
| Homophylax rentzi                  | A Caddisfly            |
| Homoplectra alseae                 | A Caddisfly            |
| Homoplectra luchia                 | Insects & other        |
| Homoplectra nigripennis            | A Caddisfly            |
| Homoplectra norada                 | A Caddisfly            |
| Homoplectra oaklandensis           | A Caddisfly            |
| Homoplectra schuhi                 | Schuh's Homoplectran Caddisfly |
| Homoplectra shasta                 | A Caddisfly            |
| Homoplectra sierra                 | A Caddisfly            |
| Homoplectra spora                  | A Caddisfly            |
| Hosackia oblongifolia              | NA                     |
| Howellia aquatilis                 | Water Howellia         |
| Hyalella azteca                    | An Amphipod            |
| Hyalella muerta                    | An Amphipod            |
| Hyalella sandra                    | An Amphipod            |
| Hydaticus aruspex                  | Insects & other        |
| Scientific Name         | Common Name                          | Category         |
|------------------------|--------------------------------------|------------------|
| Hydatophylax hesperus  | A Caddisfly                          | Insects & other |
| Hydraena alternata     |                                      | Insects & other  |
| Hydraena arenicola     |                                      | Insects & other  |
| Hydraena arizonica     |                                      | Insects & other  |
| Hydraena bituberculata |                                      | Insects & other  |
| Hydraena californica   |                                      | Insects & other  |
| Hydraena circulata     |                                      | Insects & other  |
| Hydraena leechi        |                                      | Insects & other  |
| Hydraena mignymixys    |                                      | Insects & other  |
| Hydraena nigra         |                                      | Insects & other  |
| Hydraena occidentalis  |                                      | Insects & other  |
| Hydraena pacifica      |                                      | Insects & other  |
| Hydraena petila        |                                      | Insects & other  |
| Hydraena sierra        |                                      | Insects & other  |
| Hydraena tuolumne      |                                      | Insects & other  |
| Hydraena vandykei      |                                      | Insects & other  |
| Hydraena yosemitensis  |                                      | Insects & other  |
| Hydrobaenus pilipes    |                                      | Insects & other  |
| Hydrobaenus saetheri   |                                      | Insects & other  |
| Hydrobius fuscipes     |                                      | Insects & other  |
| Hydrochara lineata     |                                      | Insects & other  |
| Hydrochara ricksekeri  | Ricksecker's Water Scavenger Beetle  | Insects & other  |
| Hydrochus pseudosquamifer |                                | Insects & other  |
| Hydrochus squamifer    |                                      | Insects & other  |
| Hydrochus vagus        |                                      | Insects & other  |
| Hydrochus variolatus   |                                      | Insects & other  |
| Hydrocotyle ranunculoides |                  Floating Marsh-pennywort | Plants          |
| Hydrocotyle umbellata  | Many-flower Marsh-pennywort          | Plants           |
| Hydrocotyle verticillata | Whorled Marsh-pennywort             | Plants           |
| Hydrometra aemula      |                                      | Insects & other  |
| Hydrometra australis   |                                      | Insects & other  |
| Hydrometra lillianis   |                                      | Insects & other  |
| Hydrometra martini     |                                      | Insects & other  |
| Hydrophilus insularis  |                                      | Insects & other  |
| Hydrophilus triangularis |                                  | Insects & other  |
| Hydroporus axillaris   |                                      | Insects & other  |
| Hydroporus carri       |                                      | Insects & other  |
| Hydroporus despectus   |                                      | Insects & other  |
| Hydroporus fortis      |                                      | Insects & other  |
| Hydroporus klamathensis|                                      | Insects & other  |
| Genus            | Species Name                      | Common Name                                | Category          |
|------------------|-----------------------------------|--------------------------------------------|-------------------|
| Hydroporus       | Leechi                            | Leech's Skyline Diving Beetle              | Insects & other   |
|                  | longiusculus                      |                                             |                   |
|                  | mannerheimi                       |                                             |                   |
|                  | notabilis                         |                                             |                   |
|                  | occidentalis                      |                                             |                   |
|                  | pervicinus                        | Wooly Hydroporus Diving Beetle             | Insects & other   |
|                  | simplex                           | Simple Hydroporus Diving Beetle            | Insects & other   |
|                  | subpubescens                      |                                             |                   |
|                  | tademus                           |                                             |                   |
|                  | tenebrosus                        |                                             |                   |
|                  | transpunctatus                    |                                             |                   |
|                  | tristis                           |                                             |                   |
|                  | zackii                            |                                             |                   |
|                  | sinuatipes                        |                                             |                   |
|                  | subpubescens                      |                                             |                   |
|                  | tademus                           |                                             |                   |
|                  | tenebrosus                        |                                             |                   |
|                  | transpunctatus                    |                                             |                   |
|                  | tristis                           |                                             |                   |
|                  | zackii                            |                                             |                   |
|                  | auricolor                         | A Caddisfly                                | Insects & other   |
|                  | alternans                         |                                             |                   |
|                  | andersoni                         |                                             |                   |
|                  | californica                       | A Caddisfly                                | Insects & other   |
|                  | centra                            |                                             |                   |
|                  | cockerelli                        | A Caddisfly                                | Insects & other   |
|                  | cora                              | A Caddisfly                                | Insects & other   |
|                  | dorata                            |                                             |                   |
|                  | intrica                           | A Caddisfly                                | Insects & other   |
|                  | occidentalis                      | A Caddisfly                                | Insects & other   |
|                  | oslari                            | A Caddisfly                                | Insects & other   |
|                  | philo                             | A Caddisfly                                | Insects & other   |
|                  | protis                            |                                             |                   |
|                  | tana                              | A Caddisfly                                | Insects & other   |
|                  | venada                            |                                             |                   |
|                  | winema                            |                                             |                   |
| Hydroptila       | ajax                              | A Caddisfly                                | Insects & other   |
|                  | arctica                           | A Caddisfly                                | Insects & other   |
|                  | argosa                            | A Caddisfly                                | Insects & other   |
|                  | consimilis                        |                                             |                   |
|                  | hamata                            | A Caddisfly                                | Insects & other   |
|                  | icona                             | A Caddisfly                                | Insects & other   |
|                  | lenora                            |                                             |                   |
|                  | modica                            |                                             |                   |
|                  | pecos                             |                                             |                   |
|                  | rono                              | A Caddisfly                                | Insects & other   |

Insects & other
| Species                                      | Description                                      | Category      |
|----------------------------------------------|--------------------------------------------------|---------------|
| Hydroptila xera                              | A Caddisfly                                      | Insects & other |
| Hydroscapha natans                          |                                                  | Insects & other |
| Hydrotrupes palpalis                         |                                                  | Insects & other |
| Hydrovatus brevipes                          |                                                  | Insects & other |
| Hydrovatus davidis                           |                                                  | Insects & other |
| Hygrotus acaroides                           |                                                  | Insects & other |
| Hygrotus artus                               | Mono Lake Hygrotus Diving Beetle                 | Insects & other |
| Hygrotus bruesi                              |                                                  | Insects & other |
| Hygrotus collatus                            |                                                  | Insects & other |
| Hygrotus curvipes                            | Curved-foot Hygrotus Diving Beetle               | Insects & other |
| Hygrotus dissimilis                          |                                                  | Insects & other |
| Hygrotus femoratus                           |                                                  | Insects & other |
| Hygrotus fontinalis                          | Travertine Band-thigh Diving Beetle              | Insects & other |
| Hygrotus fraternus                           |                                                  | Insects & other |
| Hygrotus hydropicus                          |                                                  | Insects & other |
| Hygrotus impressopunctatus                   |                                                  | Insects & other |
| Hygrotus infuscatus                          |                                                  | Insects & other |
| Hygrotus intermedius                         |                                                  | Insects & other |
| Hygrotus lutescens                           |                                                  | Insects & other |
| Hygrotus marklini                            |                                                  | Insects & other |
| Hygrotus masculinus                          |                                                  | Insects & other |
| Hygrotus nigrescens                          |                                                  | Insects & other |
| Hygrotus nubilis                             |                                                  | Insects & other |
| Hygrotus obscureplagiatus                    |                                                  | Insects & other |
| Hygrotus patruelis                           |                                                  | Insects & other |
| Hygrotus pedalis                             |                                                  | Insects & other |
| Hygrotus sayi                                |                                                  | Insects & other |
| Hygrotus semivittatus                        |                                                  | Insects & other |
| Hygrotus sharpi                              |                                                  | Insects & other |
| Hygrotus thermarum                           |                                                  | Insects & other |
| Hygrotus tumidiventris                       |                                                  | Insects & other |
| Hygrotus turbidus                             |                                                  | Insects & other |
| Hygrotus unguicularis                        |                                                  | Insects & other |
| Hygrotus wardii                              |                                                  | Insects & other |
| Hyperacanthomysis longirostris               |                                                  | Crustaceans    |
| Hypericum anagalloides                       | Tinker's-penny                                  | Plants         |
| Hypomesus pacificus                          | Delta smelt                                      | Fishes         |
| Hysterocarpus traskii lagunae                | Clear Lake tule perch                           | Fishes         |
| Hysterocarpus traskii pomo                   | Russian River tule perch                        | Fishes         |
| Hysterocarpus traskii traskii                | Sacramento tule perch                           | Fishes         |
| Icteria virens                               | Yellow-breasted Chat                            | Birds          |
| Scientific Name | Common Name                  | Category         |
|-----------------|------------------------------|------------------|
| Iliamna rivularis |                              | Plants           |
| Ilybius angustior |                              | Insects & other  |
| Ilybius fraterculus |                          | Insects & other  |
| Ilybius quadrimaculatus |                      | Insects & other  |
| Incilius alvarius | Colorado River Toad        | Herps            |
| Isocytus cobbeni |                              | Insects & other  |
| Isocytus franciscanus |                          | Insects & other  |
| Isocytus nasti |                              | Insects & other  |
| Isocytus politus |                              | Insects & other  |
| Isocytus tepidarius |                           | Insects & other  |
| Ipnobius robustus | Robust Tryonia               | Mollusks         |
| Iris missouriensis | Western Blue Iris          | Plants           |
| Ironodes arcticus |                              | Insects & other  |
| Ironodes californicus |                        | Insects & other  |
| Ironodes lepidus | A Mayfly                    | Insects & other  |
| Ironodes nitidus | A Mayfly                    | Insects & other  |
| Ischnura barberi | Desert Forktail            | Insects & other  |
| Ischnura cervula | Pacific Forktail           | Insects & other  |
| Ischnura damula |                              | Insects & other  |
| Ischnura demorsa |                              | Insects & other  |
| Ischnura denticollis | Black-fronted Forktail     | Insects & other  |
| Ischnura erratica | Swift Forktail              | Insects & other  |
| Ischnura gemina | San Francisco Forktail      | Insects & other  |
| Ischnura hastata | Citrine Forktail           | Insects & other  |
| Ischnura perparva | Western Forktail           | Insects & other  |
| Ischnura ramburii |                              | Insects & other  |
| Isocapnia abbreviata | Shortlimb Snowfly         | Insects & other  |
| Isocapnia agassizi |                              | Insects & other  |
| Isocapnia eichlini | A Stonefly                  | Insects & other  |
| Isocapnia grandis | Giant Snowfly               | Insects & other  |
| Isocapnia mogila | Irregular Snowfly           | Insects & other  |
| Isocapnia palousa |                              | Insects & other  |
| Isocapnia rickeri |                              | Insects & other  |
| Isocapnia spenceri | Chilliwack Snowfly         | Insects & other  |
| Isocapnia vedderensis |                          | Insects & other  |
| Isoetes bolanderi | NA                          | Plants           |
| Isoetes echinospora | NA                        | Plants           |
| Isoetes howellii  | NA                          | Plants           |
| Isoetes nuttallii | NA                          | Plants           |
| Isoetes occidentalis | NA                      | Plants           |
| Isoetes orcuttii  | NA                          | Plants           |
| Common Name                     | Scientific Name | Classification     |
|--------------------------------|-----------------|--------------------|
| Blackfoot Springfly            | Isogenoides colubrinus | Insects & other    |
| Isolepis cernua                | Isolepis cernua  | Plants             |
| NA                             | Isolepis setacea | Plants             |
| Insects & other                | Isonychia intermedia | Insects & other    |
| A Mayfly                       | Isonychia velma  | Insects & other    |
| Fresno Stipetial               | Isoperla acula   | Insects & other    |
| Arroyo Stripetial              | Isoperla adunca  | Insects & other    |
| California Stripetial          | Isoperla baumannii | Insects & other    |
| Forked Stripetial              | Isoperla bifurcata | Insects & other    |
| Angeles Stripetial             | Isoperla denningi | Insects & other    |
| Western Stripetial             | Isoperla fulva   | Insects & other    |
| Klamath Stripetial             | Isoperla karuk   | Insects & other    |
| Humboldt Stripetial            | Isoperla laucki  | Insects & other    |
| Red Stripetial                 | Isoperla marmorata | Insects & other    |
| Miwok Stripetial               | Isoperla miwok   | Insects & other    |
| Mormon Stripetial              | Isoperla mormona | Insects & other    |
| Humboldt Stripetial            | Isoperla muir    | Insects & other    |
| Notched Stripetial             | Isoperla pinta   | Insects & other    |
| Fivespot Stripetial            | Isoperla quinquepunctata | Insects & other    |
| Rogue Stripetial               | Isoperla raineri | Insects & other    |
| Colorado Stripetial            | Isoperla roguensis | Insects & other    |
| Notched Stripetial             | Isoperla sordida | Insects & other    |
| Insects & other                | Isoperla tilasqua | Insects & other    |
| A Caddisfly                    | Ithytrichia clavata | Insects & other    |
| Birds                          | Ithytrichia mexicana | Insects & other    |
| Western Least Bittern          | Ixobrychus exilis hesperis |           |
| Fleshy Jaumea                  | Jaumea carnosha   | Plants             |
| Topaz Juga                     | Juga acutifilosa  | Mollusks           |
| Chace Juga                     | Juga chacei       | Mollusks           |
| Black Juga                     | Juga nigrina      | Mollusks           |
| Scalloped Juga                 | Juga occata       | Mollusks           |
| Redwood Juga                   | Juga orickensis   | Mollusks           |
| Sharp-fruit Rush               | Juncus acuminatus | Plants            |
| NA                             | Juncus acutus leopoldii | Plants         |
| Spiny Rush                     | Juncus anethelatus | Plants            |
| NA                             | Juncus articulatus articulatus | Plants   |
| Common Name                        | Scientific Name                  | Category   |
|-----------------------------------|----------------------------------|------------|
| Bolander's Rush                   | Juncus bolanderi                 | Plants     |
| Moss Rush                         | Juncus bryoides                  | Plants     |
| Green-head Rush                   | Juncus chlorocephalus            | Plants     |
| NA                                | Juncus diffusissimus             | Plants     |
| Finger Rush                       | Juncus digitatus                 | Plants     |
| Mariposa Rush                     | Juncus dubius                    | Plants     |
| Duran's Rush                      | Juncus duranii                   | Plants     |
| Plants                            | Juncus effusus                   | Plants     |
| Plants                            | Juncus effusus austrocalifornicus| Plants     |
| NA                                | Juncus effusus effusus           | Plants     |
| Plants                            | Juncus effusus pacificus         | Plants     |
| Plants                            | Juncus exiguus                   | Plants     |
| Sickle-leaf Rush                  | Juncus falcatus falcatus         | Plants     |
| Plants                            | Juncus falcatus sitchensis       | Plants     |
| Dwarf Rush                        | Juncus hemiendytus abjectus      | Plants     |
| Dwarf Rush                        | Juncus hemiendytus hemiendytus   | Plants     |
| Plants                            | Juncus hesperius                 | Plants     |
| Plants                            | Juncus leiospermus               | Plants     |
| Plants                            | Juncus lescuri                   | Plants     |
| Santa Lucia Dwarf Rush            | Juncus luciensis                 | Plants     |
| Long-anther Rush                  | Juncus macrandrus                | Plants     |
| Longleaf Rush                     | Juncus macrophyllus              | Plants     |
| NA                                | Juncus marginatus                | Plants     |
| Mertens’ Rush                     | Juncus mertensianus              | Plants     |
| Sierra Rush                       | Juncus nevadensis inventus       | Plants     |
| Plants                            | Juncus nodosus                   | Plants     |
| Brownhead Rush                    | Juncus phaeocephalus paniculatus| Plants     |
| Plants                            | Juncus phaeocephalus phaeocephalus| Plants     |
| Brown-head Rush                   | Juncus planifolius               | Plants     |
| NA                                | Juncus regelii                   | Plants     |
| Regel's Rush                      | Juncus rugulosus                 | Plants     |
| Wrinkled Rush                     | Juncus saximontanus              | Plants     |
| Rocky Mountain Rush               | Juncus supiniformis              | Plants     |
| Hairyleaf Rush                    | Juncus textilis                  | Plants     |
| Basket Rush                       | Juncus uncialis                  | Plants     |
| Inch-high Rush                    | Juncus usitatus                  | Plants     |
| NA                                | Juncus xiphioides                | Plants     |
| Iris-leaf Rush                    | Kathroperla perdita              | Insects & other |
| Plants                            | Kathroperla takhoma              | Insects & other |
| Common Name                              | Scientific Name          | Category       |
|------------------------------------------|--------------------------|----------------|
| Kiefferulus dux                           |                          | Insects & other|
| Kiefferulus modocensis                   |                          | Insects & other|
| Kinosternon sonoriense                   | Sonoran Mud Turtle       | Herps          |
| Kobresia myosuroides                     | Pacific Kobresia         | Plants         |
| Kogotus nonus                            | Smooth Springfly         | Insects & other|
| Konikea expansipalpis                    |                          | Insects & other|
| Krenopelopia narda                       |                          | Insects & other|
| Kyhosia bolanderi                       |                          | Plants         |
| Labrundinia maculata                     |                          | Insects & other|
| Labrundinia pilosella                    |                          | Insects & other|
| Laccobius acutipenis                     |                          | Insects & other|
| Laccobius agilis                         |                          | Insects & other|
| Laccobius borealis                       |                          | Insects & other|
| Laccobius bruesi                         |                          | Insects & other|
| Laccobius californicus                   |                          | Insects & other|
| Laccobius carri                          |                          | Insects & other|
| Laccobius ellipticus                     |                          | Insects & other|
| Laccobius hardyi                         |                          | Insects & other|
| Laccobius insolitus                      |                          | Insects & other|
| Laccobius leechi                         |                          | Insects & other|
| Laccobius mexicanus                      |                          | Insects & other|
| Laccobius nevadensis                     |                          | Insects & other|
| Laccobius occidentalis                   |                          | Insects & other|
| Laccobius oregonensis                    |                          | Insects & other|
| Laccobius pacificus                      |                          | Insects & other|
| Laccobius piceus                         |                          | Insects & other|
| Laccobius tridentipenis                  |                          | Insects & other|
| Laccobius truncatipenis                  |                          | Insects & other|
| Laccophilus biguttatus                   |                          | Insects & other|
| Laccophilus fasciatus terminalis         |                          | Insects & other|
| Laccophilus horni                        |                          | Insects & other|
| Laccophilus maculosus                   |                          | Insects & other|
| Laccophilus maculosus decipiens         |                          | Insects & other|
| Laccophilus maculosus shermani          |                          | Insects & other|
| Laccophilus mexicanus atristernalis      |                          | Insects & other|
| Laccophilus mexicanus mexicanus          |                          | Insects & other|
| Laccophilus oscillator                   |                          | Insects & other|
| Laccophilus pictus                       |                          | Insects & other|
| Scientific Name                          | Common Name                           | Category          |
|-----------------------------------------|---------------------------------------|-------------------|
| Laccophilus quadrilineatus quadrilineatus | Insects & other                       |                   |
| Laccophilus salvini                     | Insects & other                       |                   |
| Laccophilus sonorensis                  | Insects & other                       |                   |
| Laccophilus vacaensis                   | Insects & other                       |                   |
| Laccornis pacificus                     | Insects & other                       |                   |
| Lachlania saskatchewananensis           | Insects & other                       |                   |
| Ladona julia                            | Chalk-fronted Corporal                | Insects & other   |
| Lampetra ayersi                         | River lamprey                         | Fishes            |
| Lampetra hubbsi                         | Kern brook lamprey                    | Fishes            |
| Lampetra lethophaga                     | Pit-Klamath brook lamprey             | Fishes            |
| Lampetra richardsoni                    | Western brook lamprey                 | Fishes            |
| Landoltia punctata                      | NA                                    | Plants            |
| Lanx alta                               | Highcap Lanx                          | Mollusks          |
| Lanx hannai                             |                                       | Mollusks          |
| Lanx klamathensis                       | Scale Lanx                            | Mollusks          |
| Lanx patelloides                        | Kneecap Lanx                          | Mollusks          |
| Lanx subrotundatus                      |                                       | Mollusks          |
| Lara avara                              |                                       | Insects & other   |
| Lara gehringi                           |                                       | Insects & other   |
| Larsia decolorata                       |                                       | Insects & other   |
| Larsia lyra                             |                                       | Insects & other   |
| Larsia marginella                       |                                       | Insects & other   |
| Larsia planensis                        |                                       | Insects & other   |
| Larsia sequoiaensis                     |                                       | Insects & other   |
| Larus livens                            | Yellow-footed Gull                    | Birds             |
| Lasthenia burkei                        | Burke's Goldfields                   | Plants            |
| Lasthenia conjugens                     | Contra Costa Goldfields               | Plants            |
| Lasthenia ferrisiae                     | Ferris' Goldfields                   | Plants            |
| Lasthenia fremontii                     | Fremont's Goldfields                  | Plants            |
| Lasthenia glabrata coulteri             | Coulter's Goldfields                  | Plants            |
| Laterallus jamaicensis coturniculus     | California Black Rail                 | Birds             |
| Lathyrus jepsonii                       | NA                                    | Plants            |
| Lathyrus palustris                      | Vetchling Peavine                     | Plants            |
| Lauterniella agrayloides                |                                       | Insects & other   |
| Lavinia exilicauda chi                  | Clear Lake hitch                      | Fishes            |
| Lavinia exilicauda exilicauda           | Sacramento hitch                      | Fishes            |
| Lavinia exilicauda harengeus            | Monterey hitch                        | Fishes            |
| Lavinia mitrulus                        | Northern (Pit) roach                  | Fishes            |
| Lavinia parvipinnus                     | Gualala roach                         | Fishes            |
| Lavinia symmetricus navarroensis        | Navarro roach                         | Fishes            |
| Lavinia symmetricus ssp. 1 | Russian River roach | Fishes  |
|-----------------------------|---------------------|---------|
| Lavinia symmetricus ssp. 2 | Red Hills roach     | Fishes  |
| Lavinia symmetricus ssp. 3 | Clear Lake roach    | Fishes  |
| Lavinia symmetricus ssp. 4 | Tomales roach       | Fishes  |
| Lavinia symmetricus subditus| Monterey roach      | Fishes  |
| Lavinia symmetricus symmetricus | Central California | Fishes  |
| Lednia sierra              | A Stonefly          | Insects & other |
| Leersia oryzoides          | Rice Cutgrass       | Plants  |
| Legenere limosa            | False Venus'-looking-glass | Plants |
| Lemna aequinoctialis       | Lesser Duckweed     | Plants  |
| Lemna gibba                | Inflated Duckweed   | Plants  |
| Lemna minor                | Lesser Duckweed     | Plants  |
| Lemna minuta               | Least Duckweed      | Plants  |
| Lemna trisulca             | Star Duckweed       | Plants  |
| Lemna turionifera          | Turion Duckweed     | Plants  |
| Lemna valdiviana           | Pale Duckweed       | Plants  |
| Lenarchus brevipennis      |                      | Insects & other |
| Lenarchus gravidus         | A Caddisfly         | Insects & other |
| Lenarchus rho              |                      | Insects & other |
| Lenarchus rillus           | A Caddisfly         | Insects & other |
| Lenarchus vastus           | A Caddisfly         | Insects & other |
| Lepania cascada            |                      | Insects & other |
| Lepidium jaredii jaredii   | Jared's Pepper-grass| Plants  |
| Lepidium oxycarpum         | Sharp-pod Pepper-grass| Plants |
| Lepidostoma acarolum      |                      | Insects & other |
| Lepidostoma apache         |                      | Insects & other |
| Lepidostoma apornum        |                      | Insects & other |
| Lepidostoma astaneum      | A Caddisfly         | Insects & other |
| Lepidostoma bakeri         |                      | Insects & other |
| Lepidostoma baxea          | A Caddisfly         | Insects & other |
| Lepidostoma canthum        | A Caddisfly         | Insects & other |
| Lepidostoma cascadense     | A Caddisfly         | Insects & other |
| Lepidostoma castalianum    | A Caddisfly         | Insects & other |
| Lepidostoma cinereum      | A Caddisfly         | Insects & other |
| Lepidostoma ermanae       | Cold Spring Caddisfly| Insects & other |
| Lepidostoma errigenum      | A Caddisfly         | Insects & other |
| Lepidostoma hoodi          |                      | Insects & other |
| Lepidostoma jewetti        | A Caddisfly         | Insects & other |
| Lepidostoma knulli         |                      | Insects & other |
| Lepidostoma lacinatum      |                      | Insects & other |
| Scientific Name         | Common Name                  | Category                   |
|------------------------|------------------------------|----------------------------|
| Lepidostoma licolum    | A Caddisfly                  | Insects & other            |
| Lepidostoma lotor      | A Caddisfly                  | Insects & other            |
| Lepidostoma mexicanum  | A Caddisfly                  | Insects & other            |
| Lepidostoma ojanum     | A Caddisfly                  | Insects & other            |
| Lepidostoma ormeum     | A Caddisfly                  | Insects & other            |
| Lepidostoma pluviale   | A Caddisfly                  | Insects & other            |
| Lepidostoma podagrum   | A Caddisfly                  | Insects & other            |
| Lepidostoma quericinum |                             | Insects & other            |
| Lepidostoma rayneri    | A Caddisfly                  | Insects & other            |
| Lepidostoma recinum    | A Caddisfly                  | Insects & other            |
| Lepidostoma roafi      | A Caddisfly                  | Insects & other            |
| Lepidostoma stigma     |                             | Insects & other            |
| Lepidostoma unicolor   | A Caddisfly                  | Insects & other            |
| Lepidostoma verodum    | A Caddisfly                  | Insects & other            |
| Lepidurus bilobatus    |                             | Crustaceans                |
| Lepidurus cryptus      | Cryptic Tadpole Shrimp       | Crustaceans                |
| Lepidurus lemmoni      | Lynch Tadpole Shrimp         | Crustaceans                |
| Lepidurus packardi     | Vernal Pool Tadpole Shrimp   | Crustaceans                |
| Leptestheria compleximanus | Spineynose Clam Shrimp   | Crustaceans                |
| Leptohyphes apache     |                             | Insects & other            |
| Leptohyphes ferruginus |                             | Insects & other            |
| Leptohyphes lestes     |                             | Insects & other            |
| Leptohyphes zalope     |                             | Insects & other            |
| Leptophlebia cupida    | A Mayfly                     | Insects & other            |
| Leptophlebia pacifica  | A Mayfly                     | Insects & other            |
| Lestes alacer          |                             | Insects & other            |
| Lestes congener        | Spotted Spreadwing           | Insects & other            |
| Lestes disjunctus      | Northern Spreadwing          | Insects & other            |
| Lestes dryas           | Emerald Spreadwing           | Insects & other            |
| Lestes stultus         | Black Spreadwing             | Insects & other            |
| Lestes unguiculatus    | Lyre-tipped Spreadwing       | Insects & other            |
| Lethocerus americanus  |                             | Insects & other            |
| Lethocerus angustipes  |                             | Insects & other            |
| Lethocerus medius      |                             | Insects & other            |
| Leucorrhinia glacialis | Crimson-ringed Whiteface     | Insects & other            |
| Leucorrhinia hudsonica | Hudsonian Whiteface          | Insects & other            |
| Leucorrhinia intacta   | Dot-tailed Whiteface         | Insects & other            |
| Leucorrhinia proxima   | Belted Whiteface             | Insects & other            |
| Leucothoe davisiæ      | Western Doghobble            | Plants                     |
| Leucotrachia limpia    |                             | Insects & other            |
| Leucotrachia pictipes  | A Micro Caddisfly            | Insects & other            |
| **Leucotrichia sarita** | **Insects & other** |
| **Leucrocuta jewetti** | **Insects & other** |
| **Lewisia cantelovii** | **Cantelow's Lewisia** |
| **Libellula comanche** | **Comanche Skimmer** |
| **Libellula composita** | **Bleached Skimmer** |
| **Libellula croceipennis** | **Neon Skimmer** |
| **Libellula forensis** | **Eight-spotted Skimmer** |
| **Libellula lucuiosa** | **Widow Skimmer** |
| **Libellula nodisticta** | **Hoary Skimmer** |
| **Libellula pulchella** | **Twelve-spotted Skimmer** |
| **Libellula quadrimaculata** | **Four-spotted Skimmer** |
| **Libellula saturata** | **Flame Skimmer** |
| **Lichminus tenuicornis** | **Insects & other** |
| **Ligida kofoidi** | **A Cave Obligate Isopod** |
| **Lilaeopsis masonii** | **Mason's Lilaeopsis** |
| **Lilaeopsis occidentalis** | **Western Lilaeopsis** |
| **Lilium kelleyanum** | **Kelley's Lily** |
| **Lilium pardalinum pardalinum** | **Leopard Lily** |
| **Lilium pardalinum pitkinense** | **Pitkin Marsh Lily** |
| **Lilium pardalinum shastense** | **Leopard Lily** |
| **Lilium pardalinum vollmeri** | **Vollmer's Lily** |
| **Lilium pardalinum wigginsii** | **Wiggin's Lily** |
| **Lilium parryi** | **Lemon Lily** |
| **Lilium parvum** | **Small Tiger Lily** |
| **Limnanthes alba alba** | **White Meadowfoam** |
| **Limnanthes alba parishii** | **NA** |
| **Limnanthes alba versicolor** | **White Meadowfoam** |
| **Limnanthes bakeri** | **Baker's Meadowfoam** |
| **Limnanthes douglasii douglasii** | **Douglas' Meadowfoam** |
| **Limnanthes douglasii nivea** | **Douglas' Meadowfoam** |
| **Limnanthes douglasii rosea** | **Douglas' Meadowfoam** |
| **Limnanthes douglasii striata** | **Plants** |
| **Limnanthes douglasii sulphurea** | **Pt. Reyes Meadowfoam** |
| **Limnanthes floccosa bellinggeriana** | **Bellinger's Meadowfoam** |
| **Limnanthes floccosa californica** | **Shippee Meadowfoam** |
| **Limnanthes floccosa floccosa** | **Woolly Meadowfoam** |
| **Limnanthes montana** | **Mountain Meadowfoam** |
| **Limnanthes vinculans** | **Sebastopol Meadowfoam** |
| **Limnebius alutaceous** | **Insects & other** |
| **Limnebius arenicolus** | **Insects & other** |
| Limnebius leechi       | Insects & other               |
|------------------------|-------------------------------|
| Limnebius piceus       | Insects & other               |
| Limnebius sinuatus     | Insects & other               |
| Limnephilus abbreviatus| Insects & other               |
| Limnephilus acnestus   | A Caddisfly                   |
| Limnephilus acula      | A Caddisfly                   |
| Limnephilus alconura   | Klamath Limnephilan Caddisfly |
| Limnephilus apache     | Insects & other               |
| Limnephilus aretto     | A Caddisfly                   |
| Limnephilus arizona    | Insects & other               |
| Limnephilus assimilis  | A Caddisfly                   |
| Limnephilus atercus    | Fort Dick Limnephilus Caddisfly|
| Limnephilus bucketti   | A Caddisfly                   |
| Limnephilus canadensis | Insects & other               |
| Limnephilus catula     | A Caddisfly                   |
| Limnephilus coloradensis| A Caddisfly                |
| Limnephilus concolor   | A Caddisfly                   |
| Limnephilus diversus   | Insects & other               |
| Limnephilus euctus     | Insects & other               |
| Limnephilus elongatus  | Insects & other               |
| Limnephilus externus   | A Caddisfly                   |
| Limnephilus fagus      | Insects & other               |
| Limnephilus frijole    | A Caddisfly                   |
| Limnephilus granti     | Insects & other               |
| Limnephilus hyalinus   | Insects & other               |
| Limnephilus insularis  | Insects & other               |
| Limnephilus kalama     | Insects & other               |
| Limnephilus kennisotti| Insects & other               |
| Limnephilus lithus     | Insects & other               |
| Limnephilus lopho      | Insects & other               |
| Limnephilus lunonous   | Insects & other               |
| Limnephilus moestus    | Insects & other               |
| Limnephilus morrisoni  | A Caddisfly                   |
| Limnephilus neoacula   | Insects & other               |
| Limnephilus nogus      | A Caddisfly                   |
| Limnephilus occidentalis| A Caddisfly                |
| Limnephilus peltus     | A Caddisfly                   |
| Limnephilus productus  | A Caddisfly                   |
| Limnephilus rothi      | Insects & other               |
| Limnephilus santanus   | Insects & other               |
| Limnephilus secludens  | A Caddisfly                   |
| Species Name                  | Category         |
|------------------------------|------------------|
| Limnephilus sericeus         | Insects & other  |
| Limnephilus sierrata         | A Caddisfly      |
| Limnephilus silviae          | Insects & other  |
| Limnephilus sitchensis       | Insects & other  |
| Limnephilus spinatus         | A Caddisfly      |
| Limnephilus tulatus          | Insects & other  |
| Limnichites foraminosus      | Insects & other  |
| Limnichites nebulosus        | Insects & other  |
| Limnichites perforatus       | Insects & other  |
| Limnichoderus lutrochinus    | Insects & other  |
| Limnichoderus naviculatus    | Insects & other  |
| Limnobia spongia             | NA               |
| Limnocharis anomala          | Insects & other  |
| Limnocoris moapensis         | Insects & other  |
| Limnodromus scolopaceus      | Long-billed Dowitcher |
| Limnophyes asquamatus        | Insects & other  |
| Limnophyes doughmani         | Insects & other  |
| Limnophyes hamiltoni         | Insects & other  |
| Limnophyes natalensis        | Insects & other  |
| Limnophyes pilicistulus      | Insects & other  |
| Limnopus notabilis           | Insects & other  |
| Limonium californicum        | California Sea-lavender |
| Limosella acaulis            | Southern Mudwort |
| Limosella aquatica           | Northern Mudwort |
| Limosella australis          | NA               |
| Linderiella occidentalis     | California Fairy Shrimp |
| Linderiella santarosae       | Santa Rosa Plateau Fairy Shrimp |
| Lindernia dubia              | Yellowseed False Pimpernel |
| Liodessus obscurellus        | Insects & other  |
| Liodessus saratoga            | Insects & other |
| Lipocarpha micrantha         | Dwarf Bulrush    |
| Lithobates pipiens           | Northern Leopard Frog |
| Lithobates yavapaiensis      | Yavapai Leopard Frog |
| Lobelia cardinalis cardinalis| NA               |
| Lobelia cardinalis pseudosplendens | Plants |
| Lobelia dunnii serrata       | Dunn's Lobelia   |
| Lontra canadensis canadensis | North American River Otter |
| Lontra canadensis sonora     | Southwestern River Otter |
| Lophodytes cucullatus        | Hooded Merganser |
| Ludwigia grandiflora         | NA               |
| Limonosella californica      | California Sea-lavender |
| Limosella acaulis            | Southern Mudwort |
| Limosella aquatica           | Northern Mudwort |
| Limosella australis          | NA               |
| Linderiella occidentalis     | California Fairy Shrimp |
| Linderiella santarosae       | Santa Rosa Plateau Fairy Shrimp |
| Lindernia dubia              | Yellowseed False Pimpernel |
| Liodessus obscurellus        | Insects & other  |
| Liodessus saratoga            | Insects & other |
| Lipocarpha micrantha         | Dwarf Bulrush    |
| Lithobates pipiens           | Northern Leopard Frog |
| Lithobates yavapaiensis      | Yavapai Leopard Frog |
| Lobelia cardinalis cardinalis| NA               |
| Lobelia cardinalis pseudosplendens | Plants |
| Lobelia dunnii serrata       | Dunn's Lobelia   |
| Lontra canadensis canadensis | North American River Otter |
| Lontra canadensis sonora     | Southwestern River Otter |
| Lophodytes cucullatus        | Hooded Merganser |
| Ludwigia grandiflora         | NA               |
| Limonosella californica      | California Sea-lavender |
| Limosella acaulis            | Southern Mudwort |
| Limosella aquatica           | Northern Mudwort |
| Limosella australis          | NA               |
| Linderiella occidentalis     | California Fairy Shrimp |
| Linderiella santarosae       | Santa Rosa Plateau Fairy Shrimp |
| Lindernia dubia              | Yellowseed False Pimpernel |
| Liodessus obscurellus        | Insects & other  |
| Liodessus saratoga            | Insects & other |
| Lipocarpha micrantha         | Dwarf Bulrush    |
| Lithobates pipiens           | Northern Leopard Frog |
| Lithobates yavapaiensis      | Yavapai Leopard Frog |
| Lobelia cardinalis cardinalis| NA               |
| Lobelia cardinalis pseudosplendens | Plants |
| Lobelia dunnii serrata       | Dunn's Lobelia   |
| Lontra canadensis canadensis | North American River Otter |
| Lontra canadensis sonora     | Southwestern River Otter |
| Lophodytes cucullatus        | Hooded Merganser |
| Ludwigia grandiflora         | NA               |
| Limonosella californica      | California Sea-lavender |
| Limosella acaulis            | Southern Mudwort |
| Limosella aquatica           | Northern Mudwort |
| Limosella australis          | NA               |
| Linderiella occidentalis     | California Fairy Shrimp |
| Linderiella santarosae       | Santa Rosa Plateau Fairy Shrimp |
| Lindernia dubia              | Yellowseed False Pimpernel |
| Liodessus obscurellus        | Insects & other  |
| Liodessus saratoga            | Insects & other |
| Lipocarpha micrantha         | Dwarf Bulrush    |
| Lithobates pipiens           | Northern Leopard Frog |
| Lithobates yavapaiensis      | Yavapai Leopard Frog |
| Lobelia cardinalis cardinalis| NA               |
| Lobelia cardinalis pseudosplendens | Plants |
| Lobelia dunnii serrata       | Dunn's Lobelia   |
| Lontra canadensis canadensis | North American River Otter |
| Lontra canadensis sonora     | Southwestern River Otter |
| Lophodytes cucullatus        | Hooded Merganser |
| Ludwigia grandiflora         | NA               |
| Scientific Name                         | Common Name                          | Category               |
|----------------------------------------|--------------------------------------|------------------------|
| Ludwigia hexapetala                    | NA                                   | Plants                 |
| Ludwigia palustris                     | Marsh Seedbox                        | Plants                 |
| Ludwigia peploides montevidensis      | NA                                   | Plants                 |
| Ludwigia peploides peploides montevid | NA                                   | Plants                 |
| Ludwigia repens                        | Creeping Seedbox                     | Plants                 |
| Lupinus polyphyllus burkei             |                                      | Plants                 |
| Lupinus polyphyllus pallidipes         | Largeleaf Lupine                     | Plants                 |
| Lupinus polyphyllus polyphyllus        | Bigleaf Lupine                       | Plants                 |
| Lutrochus arizonensis                  |                                      | Insects & other        |
| Lycastoides alticola                   |                                      | Insects & other        |
| Lycopodiella inundata                  | NA                                   | Plants                 |
| Lycopus americanus                     | American Bugleweed                   | Plants                 |
| Lycopus uniflorus uniflorus            | Northern Bugleweed                   | Plants                 |
| Lymnaea stagnalis                      | Swamp Lymnaea                         | Mollusks               |
| Lynceus brachyurus                     | Holarctic Clam Shrimp                 | Crustaceans            |
| Lynceus brevifrons                     |                                      | Crustaceans            |
| Lysichiton americanus                  | Yellow Skunk-cabbage                  | Plants                 |
| Lysimachia thyrsiflora                 | Water Loosestrife                    | Plants                 |
| Lythrum californicum                   | California Loosestrife                | Plants                 |
| Lythrum portula                        | NA                                   | Plants                 |
| Maccaffertium terminatum               | A Mayfly                             | Insects & other        |
| Macrelmis moestus                      |                                      | Insects & other        |
| Macrodiplax balteata                   | Marl Pennant                         | Insects & other        |
| Macromia magnifica                     | Western River Cruiser                 | Insects & other        |
| Macrothemis inacuta                    |                                      | Insects & other        |
| Macrolelia hornii                      |                                      | Insects & other        |
| Malenka bifurcata                      |                                      | Insects & other        |
| Malenka biloba                         | Two-lobed Forestfly                  | Insects & other        |
| Malenka californica                    | California Forestfly                 | Insects & other        |
| Malenka coloradensis                   |                                      | Insects & other        |
| Malenka cornuta                        | Horned Forestfly                     | Insects & other        |
| Malenka depressa                       | Bluntlobe Forestfly                  | Insects & other        |
| Malenka flexura                        |                                      | Insects & other        |
| Malenka marionae                       | Sagehen Forestfly                    | Insects & other        |
| Malenka murvoshi                       |                                      | Insects & other        |
| Malenka perplexa                       |                                      | Insects & other        |
| Malenka tina                           |                                      | Insects & other        |
| Margaritifera falcata                  | Western Pearlshell                    | Mollusks               |
| Marilia flexuosa                       | A Caddisfly                          | Insects & other        |
| Marilia nobsca                         |                                      | Insects & other        |
| Common Name                          | Scientific Name         | Category          |
|-------------------------------------|-------------------------|-------------------|
| Marsilea oligospora                 | NA                      | Plants            |
| Marsilea vestita vestita            | NA                      | Plants            |
| Martarega mexicana                  |                         | Insects & other   |
| Maruina lanceolata                  |                         | Insects & other   |
| Matriella teresa                    | A Mayfly                | Insects & other   |
| Mayatrichia acuna                   |                         | Insects & other   |
| Mayatrichia ayama                   |                         | Insects & other   |
| Mayatrichia ponta                   |                         | Insects & other   |
| Megaceryle alcyon                   | Belted Kingfisher       | Birds             |
| Megaleuctra complicata              |                         | Insects & other   |
| Megaleuctra kincaidi                |                         | Insects & other   |
| Megaleuctra sierra                  | Sierra Needlefly        | Insects & other   |
| Megarcys signata                    |                         | Insects & other   |
| Megarcys subtruncata                |                         | Insects & other   |
| Megarcys yosemite                   | Yosemite Springfly      | Insects & other   |
| Menetus opercularis                 | Button Sprite           | Mollusks          |
| Menyanthes trifoliata               | Bog Buckbean            | Plants            |
| Mergus merganser                    | Common Merganser        | Birds             |
| Mergus serrator                     | Red-breasted Merganser  | Birds             |
| Meringodixa chalonensis             |                         | Insects & other   |
| Meropelopia flavifrons              |                         | Insects & other   |
| Merragata hebroides                 |                         | Insects & other   |
| Mesocapnia arizonensis              |                         | Insects & other   |
| Mesocapnia autumna                  |                         | Insects & other   |
| Mesocapnia bakeri                   | Pomona Snowfly          | Insects & other   |
| Mesocapnia bulbosa                  | Bulbous Snowfly         | Insects & other   |
| Mesocapnia frisoni                  |                         | Insects & other   |
| Mesocapnia lapwae                   |                         | Insects & other   |
| Mesocapnia oenone                   |                         | Insects & other   |
| Mesocapnia porrecta                 | Stretched Snowfly       | Insects & other   |
| Mesocapnia projecta                 | Spined Snowfly          | Insects & other   |
| Mesocapnia werneri                  | Sabino Snowfly          | Insects & other   |
| Mesocapnia yoloensis                | Yolo Snowfly            | Insects & other   |
| Mesovelia amoena                    |                         | Insects & other   |
| Mesovelia mulsanti                  |                         | Insects & other   |
| Metacnephia coloradensis            |                         | Insects & other   |
| Metacnephia jeanae                  |                         | Insects & other   |
| Metacnephia villosa                 |                         | Insects & other   |
| Metrichia arizonensis               |                         | Insects & other   |
| Metrichia nigritta                  |                         | Insects & other   |
| Metriocnemus edwardsi               |                         | Insects & other   |
| Species                          | Category                      |
|---------------------------------|-------------------------------|
| Metriocnemus stevensi           | Insects & other               |
| Metriocnemus yaquina            | Insects & other               |
| Metrobates denticornis          | Insects & other               |
| Metrobates trux                 | Insects & other               |
| Micracanthia fennica            | Insects & other               |
| Micracanthia humilis            | Insects & other               |
| Micracanthia quadrimaculata     | Insects & other               |
| Micracanthia schuhi             | Insects & other               |
| Micracanthia utahensis          | Insects & other               |
| Micranthes aprica               | Plants                        |
| Micranthes marshallii           | NA                            |
| Micranthes odontoloma           | Plants                        |
| Micranthes oregana              | Plants                        |
| Micrasema arizonica             | Insects & other               |
| Micrasema bactro                | Insects & other               |
| Micrasema dimicki               | Insects & other               |
| Micrasema diteris               | A Caddisfly                   |
| Micrasema onisca                | Insects & other               |
| Micrasema oregona               | Insects & other               |
| Microchironomus nigrovittatus   | Insects & other               |
| Microcylloepus formicoideus     | Furnace Creek Riffle Beetle   |
| Microcylloepus moapus           | Insects & other               |
| Microcylloepus similis          | Insects & other               |
| Microcylloepus thermarum        | Insects & other               |
| Micromenetus dilatatus          | Bugle Sprite                  |
| Micropsectra nigrripila         | Insects & other               |
| Micropsectra polita             | Insects & other               |
| Microtendipes caducus           | Insects & other               |
| Microtendipes pedellus          | Insects & other               |
| Microvelia beameri              | Insects & other               |
| Microvelia buenoi               | Insects & other               |
| Microvelia californiensis       | Insects & other               |
| Microvelia cerifera             | Insects & other               |
| Microvelia fasculifera          | Insects & other               |
| Microvelia gerhardi             | Insects & other               |
| Microvelia glabrosulcata        | Insects & other               |
| Microvelia hinei                | Insects & other               |
| Microvelia paludicola           | Insects & other               |
| Microvelia pulchella            | Insects & other               |
| Microvelia rasilis              | Insects & other               |
| Microvelia rufescens            | Insects & other               |
| Plant Name | Common Name |
|------------|-------------|
| **Microvelia signata** | Insects & other |
| **Microvelia torquata** | Insects & other |
| **Mideopsis pumila** | Insects & other |
| **Mimulus alsinoides** | Chickweed Monkeyflower |
| **Mimulus angustatus** | Narrowleaf Pansy Monkeyflower |
| **Mimulus breviflorus** | Short-flower Monkeyflower |
| **Mimulus cardinalis** | Scarlet Monkeyflower |
| **Mimulus dentatus** | Tooth-leaf Monkeyflower |
| **Mimulus evanescens** | Disappearing Monkeyflower |
| **Mimulus glaucescens** | Shield-bract Monkeyflower |
| **Mimulus guttatus** | Common Large Monkeyflower |
| **Mimulus lacinatus** | Cutleaf Monkeyflower |
| **Mimulus latidens** | Broad-tooth Monkeyflower |
| **Mimulus lewisii** | Lewis' Monkeyflower |
| **Mimulus nudatus** | Bare Monkeyflower |
| **Mimulus parishii** | Parish's Monkeyflower |
| **Mimulus pilosus** | Plants |
| **Mimulus primuloides linearifolius** | Primrose Monkeyflower |
| **Mimulus primuloides primuloides** | Primrose Monkeyflower |
| **Mimulus pulchellus** | Pansy Monkeyflower |
| **Mimulus ringens** | Square-stem Monkeyflower |
| **Mimulus tilingii tilingii** | Subalpine Monkeyflower |
| **Mimulus tricolor** | Tricolor Monkeyflower |
| **Mitellastra caulescens** | Plants |
| **Momonia projecta** | Insects & other |
| **Monopelopia tenuicalcar** | Insects & other |
| **Montia chamissoi** | Chamisso's Miner's-lettuce |
| **Montia fontana fontana** | Fountain Miner's-lettuce |
| **Montia howellii** | Howell's Miner's-lettuce |
| **Moribaetis mimbresaurus** | Insects & other |
| **Morphocorixa lundbladi** | Insects & other |
| **Moselia infuscata** | Hairy Needlefly |
| **Moselyana comosa** | Insects & other |
| **Muhlenbergia utilis** | Aparejo Grass |
| **Musulium partumeium** | Plants |
| **Musulium secuirs** | Mollusks |
| **Mycteria americana** | Wood Stork |
| **Mylopharodon conocephalus** | Hardhead |
| **Myosotis laxa** | Small Forget-me-not |
| **Myosotis scorpioides** | Plants |
| Name                              | Common Name                   | Category    |
|-----------------------------------|-------------------------------|-------------|
| Myosurus apetalus                 | Bristly Mousetail            | Plants      |
| Myosurus minimus                  | NA                            | Plants      |
| Myosurus sessilis                 | Sessile Mousetail            | Plants      |
| Myriophyllum aquaticum            | NA                            | Plants      |
| Myriophyllum hippuroides          | Western Water-milfoil         | Plants      |
| Myriophyllum quitense             | Andean Water-milfoil         | Plants      |
| Myriophyllum sibiricum            | Common Water-milfoil         | Plants      |
| Myriophyllum verticillatum        | Whorled Water-milfoil        | Plants      |
| Mysis diluviana                   | NA                            | Crustaceans |
| Mystacides alafimbriatus          | A Caddisfly                  | Insects & other |
| Mystacides interjecta            | NA                            | Insects & other |
| Mystacides sepulchralis           | A Caddisfly                  | Insects & other |
| Najas flexilis                    | Slender Naiad                | Plants      |
| Najas gracillima                  | NA                            | Plants      |
| Najas guadalupensis               | Southern Naiad               | Plants      |
| Namamyia plutonis                 | A Caddisfly                  | Insects & other |
| Namanereis hawaiensis             | NA                            | Insects & other |
| Nanocladius anderseni             | NA                            | Insects & other |
| Nanonemoura wahkeena              | NA                            | Insects & other |
| Narpus angustus                   | NA                            | Insects & other |
| Narpus arizonicus                 | NA                            | Insects & other |
| Narpus concolor                   | NA                            | Insects & other |
| Narthecium californicum           | California Bog Asphodel      | Plants      |
| Nasturtium gambelii               | NA                            | Plants      |
| Natarsia miripes                  | NA                            | Insects & other |
| Navarretia cotulifolia            | Cotula Navarretia             | Plants      |
| Navarretia fossalis               | Spreading Navarretia          | Plants      |
| Navarretia heterandra             | Tehama Navarretia             | Plants      |
| Navarretia intertexta             | Needleleaf Navarretia         | Plants      |
| Navarretia leucocephala bakeri    | Baker’s Navarretia            | Plants      |
| Navarretia leucocephala           | White-flower Navarretia       | Plants      |
| Navarretia leucocephala minima    | Least Navarretia              | Plants      |
| Navarretia leucocephala pauciflora| Few-flower Navarretia         | Plants      |
| Navarretia leucocephala plieantha | Many-flower Navarretia        | Plants      |
| Navarretia myersii deminuta       | Small Pincushion Navarretia   | Plants      |
| Navarretia myersii myersii        | Pincushion Navarretia         | Plants      |
| Navarretia prostrata              | Prostrate Navarretia          | Plants      |
| Neanthes limnicola                | NA                            | Insects & other |
| Species                        | Category              | Order               |
|-------------------------------|-----------------------|---------------------|
| Nectopsyche dorsalis          | A Caddisfly           | Insects & other     |
| Nectopsyche gracilis          | A Caddisfly           | Insects & other     |
| Nectopsyche lahontanensis     | A Caddisfly           | Insects & other     |
| Nectopsyche minuta            | A Caddisfly           | Insects & other     |
| Nectopsyche stigmatica        | A Caddisfly           | Insects & other     |
| Nehalennia irene              | Sedge Sprite          | Insects & other     |
| Nemotaullius hostilis         |                      | Insects & other     |
| Nemoura spiniloba             | Spiny Forestfly       | Insects & other     |
| Neochthoeptorpes kossi        |                      | Insects & other     |
| Neochthoeptorpes vandykei     |                      | Insects & other     |
| Neoclypeodytes amybethae      |                      | Insects & other     |
| Neoclypeodytes cinctellus     |                      | Insects & other     |
| Neoclypeodytes fryii          |                      | Insects & other     |
| Neoclypeodytes haroldi        |                      | Insects & other     |
| Neoclypeodytes leachi         |                      | Insects & other     |
| Neoclypeodytes ornatellus     |                      | Insects & other     |
| Neoclypeodytes pictodes       |                      | Insects & other     |
| Neoclypeodytes plicipennis    |                      | Insects & other     |
| Neoclypeodytes quadripustulatus|                      | Insects & other     |
| Neoclypeodytes roughleyi      |                      | Insects & other     |
| Neocorixia snowi              |                      | Insects & other     |
| Neohermes californicus        |                      | Insects & other     |
| Neohermes filicornis          |                      | Insects & other     |
| Neomideopsis siuslawensis     |                      | Insects & other     |
| Neomysis kadiakensis          | A Mysid Shrimp        | Crustaceans         |
| Neomysis mercedis             |                      | Crustaceans         |
| Neophylax occidentis          | A Caddisfly           | Insects & other     |
| Neophylax rickeri             | A Caddisfly           | Insects & other     |
| Neophylax splendens           | A Caddisfly           | Insects & other     |
| Neoplea striola               |                      | Insects & other     |
| Neoporus arizonicus           |                      | Insects & other     |
| Neoporus dimidiatus           |                      | Insects & other     |
| Neoporus undulatus            |                      | Insects & other     |
| Neostapfia colusana           | Colusa Grass          | Plants              |
| Neothremma alicia             | A Caddisfly           | Insects & other     |
| Neothremma andersoni          |                      | Insects & other     |
| Neothremma didactyla          |                      | Insects & other     |
| Neothremma genella            | Golden-horned Caddisfly| Insects & other |
| Neothremma macronata          | A Caddisfly           | Insects & other     |
| Neothremma siskiyou           | Siskiyou Caddisfly    | Insects & other     |
| Species                   | Common Name                  | Category      |
|---------------------------|------------------------------|---------------|
| Neotrichia blinni         |                               | Insects & other|
| Neotrichia halia          | A Caddisfly                  | Insects & other|
| Neotrichia okopa          | A Caddisfly                  | Insects & other|
| Neotrichialorino          |                               | Insects & other|
| Neotrichia osmena         |                               | Insects & other|
| Neotrichia sandyae        |                               | Insects & other|
| Neotrichia sonoroa        |                               | Insects & other|
| Neovison vison            | American Mink                | Mammals       |
| Nereis succinea           |                               | Insects & other|
| Nerophilus californicus   | A Caddisfly                  | Insects & other|
| Nerthra manni             |                               | Insects & other|
| Nerthra martini           |                               | Insects & other|
| Nerthra mexicana          |                               | Insects & other|
| Nilotanypus fimbriatus    |                               | Insects & other|
| Nilothauma babiyi         |                               | Insects & other|
| Nilothauma mirabile       |                               | Insects & other|
| Nitrophila mohavensis     | Amargosa Niterwort           | Plants        |
| Nixe kennedyi             | A Mayfly                     | Insects & other|
| Nothotrichia shasta       |                               | Insects & other|
| Notonecta hoffmani        |                               | Insects & other|
| Notonecta indica          |                               | Insects & other|
| Notonecta irrorata        |                               | Insects & other|
| Notonecta kirbyi          |                               | Insects & other|
| Notonecta lobata          |                               | Insects & other|
| Notonecta repanda         |                               | Insects & other|
| Notonecta shooteri        |                               | Insects & other|
| Notonecta spinosa         |                               | Insects & other|
| Notonecta undulata        |                               | Insects & other|
| Notonecta unifasciata     |                               | Insects & other|
| Numenius americanus       | Long-billed Curlew           | Birds         |
| Numenius phaeopus         | Whimbrel                     | Birds         |
| Nuphar polysepalal        |                               | Plants        |
| Nycticorax nycticorax     | Black-crowned Night-Heron    | Birds         |
| Nyctiophylax moestus      |                               | Insects & other|
| Nymphaea mexicana         | NA                           | Plants        |
| Ochlerotatus aboriginis   |                               | Insects & other|
| Ochlerotatus aloponotum   |                               | Insects & other|
| Ochlerotatus bicristatus  |                               | Insects & other|
| Ochlerotatus burgeri      |                               | Insects & other|
| Ochlerotatus campestris   |                               | Insects & other|
| Ochlerotatus cataphylla   |                               | Insects & other|
| Ochlerotatus clivis        | Insects & other |
|---------------------------|-----------------|
| Ochlerotatus communis     | Insects & other |
| Ochlerotatus deserticola  | Insects & other |
| Ochlerotatus dorsalis     | Insects & other |
| Ochlerotatus epactius     | Insects & other |
| Ochlerotatus excrucians   | Insects & other |
| Ochlerotatus fitchii      | Insects & other |
| Ochlerotatus flavescens   | Insects & other |
| Ochlerotatus hendersoni   | Insects & other |
| Ochlerotatus hexodontus   | Insects & other |
| Ochlerotatus impiger      | Insects & other |
| Ochlerotatus implicatus   | Insects & other |
| Ochlerotatus increpitus   | Insects & other |
| Ochlerotatus intrudens    | Insects & other |
| Ochlerotatus melanimon    | Insects & other |
| Ochlerotatus monticola    | Insects & other |
| Ochlerotatus muelleri     | Insects & other |
| Ochlerotatus nevadensis   | Insects & other |
| Ochlerotatus nigromaculatus| Insects & other |
| Ochlerotatus niphadopsis  | Insects & other |
| Ochlerotatus papago       | Insects & other |
| Ochlerotatus provocans    | Insects & other |
| Ochlerotatus pullatus     | Insects & other |
| Ochlerotatus purpureipes  | Insects & other |
| Ochlerotatus schizopinax  | Insects & other |
| Ochlerotatus sierrensis   | Insects & other |
| Ochlerotatus sollicitans  | Insects & other |
| Ochlerotatus squamiger    | Insects & other |
| Ochlerotatus sticticus    | Insects & other |
| Ochlerotatus taeniorhynchus| Insects & other |
| Ochlerotatus tahoensis    | Insects & other |
| Ochlerotatus thelcter     | Insects & other |
| Ochlerotatus trivittatus  | Insects & other |
| Ochlerotatus varipalpus   | Insects & other |
| Ochlerotatus ventrovittus | Insects & other |
| Ochlerotatus washinoi     | Insects & other |
| Ochrotrichia alexanderi   | A Caddisfly     |
| Ochrotrichia alsea        | Alsea Ochrotrichian Micro Caddisfly |
| Ochrotrichia argentea     | Insects & other |
| Ochrotrichia arizonica    | A Caddisfly     |
| Ochrotrichia buccata      | A Caddisfly     |
| Species                        | Description                              | Category                  |
|-------------------------------|------------------------------------------|---------------------------|
| Ochrotrichia burdicki         | A Caddisfly                              | Insects & other           |
| Ochrotrichia dactylophora     |                                          | Insects & other           |
| Ochrotrichia hadria           | A Caddisfly                              | Insects & other           |
| Ochrotrichia honeyi           | A Caddisfly                              | Insects & other           |
| Ochrotrichia ildria           |                                          | Insects & other           |
| Ochrotrichia logana           | A Caddisfly                              | Insects & other           |
| Ochrotrichia lometa           | A Caddisfly                              | Insects & other           |
| Ochrotrichia lucia            | A Caddisfly                              | Insects & other           |
| Ochrotrichia mono             | A Caddisfly                              | Insects & other           |
| Ochrotrichia nacora           | A Caddisfly                              | Insects & other           |
| Ochrotrichia okanoganensis    |                                          | Insects & other           |
| Ochrotrichia oregona          |                                          | Insects & other           |
| Ochrotrichia phenosa          | Deschutes Ochrotrichian Micro Caddisfly  | Insects & other           |
| Ochrotrichia quadrispina      | A Caddisfly                              | Insects & other           |
| Ochrotrichia rothi            |                                          | Insects & other           |
| Ochrotrichia salaris          | A Caddisfly                              | Insects & other           |
| Ochrotrichia spinulata        |                                          | Insects & other           |
| Ochrotrichia stylata          | A Caddisfly                              | Insects & other           |
| Ochrotrichia tarsalis         |                                          | Insects & other           |
| Ochrotrichia tenuata          | A Caddisfly                              | Insects & other           |
| Ochrotrichia trapoiza         | A Caddisfly                              | Insects & other           |
| Ochrotrichia vertreesi        | Vertrees's Ochrotrichian Micro Caddisfly | Insects & other           |
| Ochterus barberi              |                                          | Insects & other           |
| Ochterus perbosci             |                                          | Insects & other           |
| Ochterus rotundus             |                                          | Insects & other           |
| Ochthebius apache             |                                          | Insects & other           |
| Ochthebius arenicolus         |                                          | Insects & other           |
| Ochthebius arizonicus         |                                          | Insects & other           |
| Ochthebius aztecs            |                                          | Insects & other           |
| Ochthebius bisinuatus         |                                          | Insects & other           |
| Ochthebius borealis           |                                          | Insects & other           |
| Ochthebius brevipennis        |                                          | Insects & other           |
| Ochthebius californicus       |                                          | Insects & other           |
| Ochthebius costipennis        |                                          | Insects & other           |
| Ochthebius crassalus          | Wing-shoulder Minute Moss Beetle         | Insects & other           |
| Ochthebius crenatus           |                                          | Insects & other           |
| Ochthebius cribricollis       |                                          | Insects & other           |
| Ochthebius discretus          |                                          | Insects & other           |
| Ochthebius gruwelli           |                                          | Insects & other           |
| Ochthebius interruptus        |                                          | Insects & other           |
| Species                          | Category                      |
|---------------------------------|-------------------------------|
| Ochthebius lecontei             | Insects & other               |
| Ochthebius leechi               | Insects & other               |
| Ochthebius lineatus             | Insects & other               |
| Ochthebius madrensis            | Insects & other               |
| Ochthebius marinus              | Insects & other               |
| Ochthebius martini              | Insects & other               |
| Ochthebius mimicus              | Insects & other               |
| Ochthebius orbis                | Insects & other               |
| Ochthebius pacificus            | Insects & other               |
| Ochthebius puncticollis         | Insects & other               |
| Ochthebius reticulus            | Wilbur Springs Minute Moss Beetle | Insects & other |
| Ochthebius rectus               | Insects & other               |
| Ochthebius rectusalus           | Insects & other               |
| Ochthebius richmondi            | Insects & other               |
| Ochthebius sculptoides          | Insects & other               |
| Ochthebius sculptus             | Insects & other               |
| Ochthebius sierrensis           | Insects & other               |
| Ochthebius similis              | Insects & other               |
| Ochthebius tubus                | Insects & other               |
| Ochthebius uniformis            | Insects & other               |
| Octogomphus specularis          | Grapptail                     |
| Oecetis arizonica               | Insects & other               |
| Oecetis avara                   | A Caddisfly                   |
| Oecetis disjuncta               | A Caddisfly                   |
| Oecetis inconspicua             | A Caddisfly                   |
| Oecetis metlacensis             | Insects & other               |
| Oecetis ochracea                | A Caddisfly                   |
| Oemopteryx leei                 | A Stonefly                    |
| Oemopteryx vanduzeea            | Alpine Willowfly              |
| Oenanthe sarmentosa             | Water-parsley                 |
| Oenothera longissima            | Long-stem Evening-primrose    |
| Oligophlebodes minutus          | Insects & other               |
| Oligophlebodes mostbento        | Insects & other               |
| Oligophlebodes rathae           | Insects & other               |
| Oligophlebodes sierra           | A Caddisfly                   |
| Oligophlebodes sigma            | Insects & other               |
| Onconeura semifimbriata         | Insects & other               |
| Oncorhynchus clarki clarki      | Coastal cutthroat trout       |
| Oncorhynchus clarki henshawi    | Lahontan cutthroat trout      |
| Oncorhynchus clarki seleneris   | Paiute cutthroat trout        |
| Oncorhynchus goruscha           | Pink salmon                   |
|                               |                               |
| Scientific Name | Common Name | Category |
|-----------------|-------------|----------|
| Oncorhynchus keta | Chum salmon | Fishes |
| Oncorhynchus kisutch - CCC | Central Coast coho salmon | Fishes |
| Oncorhynchus kisutch - SONCC | Southern Oregon Northern California coast coho salmon | Fishes |
| Oncorhynchus mykiss - CCC winter | Central California coast winter steelhead | Fishes |
| Oncorhynchus mykiss - CV | Central Valley steelhead | Fishes |
| Oncorhynchus mykiss - KMP summer | Klamath Mountains Province summer steelhead | Fishes |
| Oncorhynchus mykiss - KMP winter | Klamath Mountains Province winter steelhead | Fishes |
| Oncorhynchus mykiss - NC summer | Northern California coast summer steelhead | Fishes |
| Oncorhynchus mykiss - NC winter | Northern California coast winter steelhead | Fishes |
| Oncorhynchus mykiss - SCCC | South Central California coast steelhead | Fishes |
| Oncorhynchus mykiss - Southern CA | Southern California steelhead | Fishes |
| Oncorhynchus mykiss aquabonita | California golden trout | Fishes |
| Oncorhynchus mykiss aquilarum | Eagle Lake rainbow trout | Fishes |
| Oncorhynchus mykiss gilberti | Kern River rainbow trout | Fishes |
| Oncorhynchus mykiss irideus | Coastal rainbow trout | Fishes |
| Oncorhynchus mykiss ssp. 1 | Goose Lake redband trout | Fishes |
| Oncorhynchus mykiss stonei | McCloud River redband trout | Fishes |
| Oncorhynchus mykiss whitei | Little Kern golden trout | Fishes |
| Oncorhynchus tshawytscha - CCC fall | California Coast fall Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - CV fall | Central Valley fall Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - CV late fall | Central Valley late fall Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - CV spring | Central Valley spring Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - CV winter | Central Valley winter Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - SONCC fall | Southern Oregon Northern California coast fall Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - UKT fall | Upper Klamath-Trinity fall Chinook salmon | Fishes |
| Oncorhynchus tshawytscha - UKT spring | Upper Klamath-Trinity spring Chinook salmon | Fishes |
| Ondatra zibethicus | Common Muskrat | Mammals |
| Scientific Name | Common Name | Category      |
|-----------------|-------------|---------------|
| Onocosmoecus sequoiae | A Caddisfly | Insects & other |
| Onocosmoecus unicolor | A Caddisfly | Insects & other |
| Ophiogomphus arizonicus |  | Insects & other |
| Ophiogomphus bison | Bison Snaketail | Insects & other |
| Ophiogomphus morrisoni | Great Basin Snaketail | Insects & other |
| Ophiogomphus occidentis | Sinuous Snaketail | Insects & other |
| Ophiogomphus severus | Pale Snaketail | Insects & other |
| Oplonaeschna armata |  | Insects & other |
| Optioservus canus | Pinnacles Optioservus Riffle Beetle | Insects & other |
| Optioservus divergens |  | Insects & other |
| Optioservus heteroclitus |  | Insects & other |
| Optioservus quadrimaculatus |  | Insects & other |
| Optioservus seriatus |  | Insects & other |
| Oravelia pege | Dry Creek Cliff Strider Bug | Insects & other |
| Orconectes neglectus neglectus |  | Crustaceans |
| Orcuttia californica | California Orcutt Grass | Plants |
| Orcuttia inaequalis | San Joaquin Valley Orcutt Grass | Plants |
| Orcuttia pilosa | Hairy Orcutt Grass | Plants |
| Orcuttia tenuis | Slender Orcutt Grass | Plants |
| Orcuttia viscosa | Sacramento Orcutt Grass | Plants |
| Ordobrevia nubifera |  | Insects & other |
| Oregonasellus elliottti |  | Crustaceans |
| Oreodytes abbreviatus |  | Insects & other |
| Oreodytes angustior |  | Insects & other |
| Oreodytes congruus |  | Insects & other |
| Oreodytes crassulus |  | Insects & other |
| Oreodytes humboldtensis |  | Insects & other |
| Oreodytes obesus cordillerensis |  | Insects & other |
| Oreodytes obesus obesus |  | Insects & other |
| Oreodytes picturatus |  | Insects & other |
| Oreodytes quadriracematus |  | Insects & other |
| Oreodytes rhyacophilus |  | Insects & other |
| Oreodytes scitulus bisulcatus |  | Insects & other |
| Oreodytes scitulus scitulus |  | Insects & other |
| Oreodytes sierra scitulus |  | Insects & other |
| Oreoleptis torrenticola |  | Insects & other |
| Oreostemma alpigenum andersonii | Anderson's Tundra Aster | Plants |
| Oreostemma elatum | Plumas Mountaintcrown | Plants |
| Oreostemma peirsonii | Peirson's Aster | Plants |
| Scientific Name                  | Common Name                      | Category         |
|---------------------------------|----------------------------------|------------------|
| Oreothlypis luciae              | Lucy's Warbler                   | Birds            |
| Orohernes crepusculus           |                                  | Insects & other  |
| Oroperla barbara                | Gilltail Springfly               | Insects & other  |
| Orthemis discolor               |                                  | Insects & other  |
| Orthemis ferruginea             | Roseate Skimmer                  | Insects & other  |
| Orthilia secunda                | One-side Wintergreen             | Plants           |
| Orthocladius appersoni          |                                  | Insects & other  |
| Orthocladius carlatus           |                                  | Insects & other  |
| Orthocladius dentifer           |                                  | Insects & other  |
| Orthocladius dorenus            |                                  | Insects & other  |
| Orthocladius dubitatus          |                                  | Insects & other  |
| Orthocladius frigidus           |                                  | Insects & other  |
| Orthocladius hellenthali        |                                  | Insects & other  |
| Orthocladius lignicola          |                                  | Insects & other  |
| Orthocladius luteipes           |                                  | Insects & other  |
| Orthocladius mallochi           |                                  | Insects & other  |
| Orthocladius obumbratus         |                                  | Insects & other  |
| Orthocladius oliveri            |                                  | Insects & other  |
| Orthocladius rivicola           |                                  | Insects & other  |
| Orthocladius rubicundus         |                                  | Insects & other  |
| Orthocladius subletti           |                                  | Insects & other  |
| Orthodon microlepidotus         | Sacramento blackfish             | Fishes           |
| Orthopodomyia kummi             |                                  | Insects & other  |
| Orthopodomyia signifera         |                                  | Insects & other  |
| Osobenus yakimae                | Yakima Springfly                 | Insects & other  |
| Ostrocerca dimicki              |                                  | Insects & other  |
| Ostrocerca foersteri            |                                  | Insects & other  |
| Oxyethira aculea                |                                  | Insects & other  |
| Oxyethira aequula               |                                  | Insects & other  |
| Oxyethira arizona               | A Caddisfly                      | Insects & other  |
| Oxyethira dualis                | A Caddisfly                      | Insects & other  |
| Oxyethira pallida               | A Caddisfly                      | Insects & other  |
| Oxypolis occidentalis           | Western Cowbane                  | Plants           |
| Oxyura jamaicensis              | Ruddy Duck                       | Birds            |
| Pacifastacus connectens         |                                  | Crustaceans      |
| Pacifastacus fortextis          | Shasta Crayfish                  | Crustaceans      |
| Pacifastacus gambelii           | Pilose Crayfish                  | Crustaceans      |
| Pacifastacus leniusculus klamathensis | Klamath Signal Crayfish | Crustaceans      |
| Pacifastacus leniusculus leniusculus | Signal Crayfish              | Crustaceans      |
| Scientific Name                          | Common Name                                   | Category       |
|----------------------------------------|-----------------------------------------------|----------------|
| Pacifastacus leniusculus trowbridgii   | Columbia River Signal Crayfish                | Crustaceans    |
| Pacifastacus nigrescens                | Sooty Crayfish                                | Crustaceans    |
| Palaeagapetus guppyi                   |                                               | Insects & other|
| Palaeagapetus nearcticus               | A Caddisfly                                   | Insects & other|
| Palaemnema domina                     |                                               | Insects & other|
| Palaemon macrodactylus                |                                               | Insects & other|
| Palmacorixa buenoi                    |                                               | Insects & other|
| Paltothemis lineatipes                | Red Rock Skimmer                              | Insects & other|
| Pandion haliaetus                     | Osprey                                        | Birds          |
| Panicum acuminatum acuminatum         |                                               | Plants         |
| Panicum acuminatum fasciculatum       |                                               | Plants         |
| Panicum acuminatum lindheimeri        |                                               | Plants         |
| Panicum acuminatum thermale           |                                               | Plants         |
| Panicum dichotomiflorum               | NA                                            | Plants         |
| Pantala flavescens                    | Wandering Glider                              | Insects & other|
| Pantala hymenaea                      | Spot-winged Glider                            | Insects & other|
| Paracapnia baumanni                   | A Stonefly                                    | Insects & other|
| Paracapnia boris                      | A Stonefly                                    | Insects & other|
| Paracapnia disala                     | Dirty Snowfly                                 | Insects & other|
| Paracapnia ensicaula                  |                                               | Insects & other|
| Paracapnia humboldta                  | A Stonefly                                    | Insects & other|
| Paracladopelma alphei                 |                                               | Insects & other|
| Parachironomus abortivus              |                                               | Insects & other|
| Parachironomus chaetaolus             |                                               | Insects & other|
| Parachironomus directus               |                                               | Insects & other|
| Parachironomus frequens               |                                               | Insects & other|
| Parachironomus hazelriggi             |                                               | Insects & other|
| Parachironomus hirtalatus             |                                               | Insects & other|
| Parachironomus tenuicaudatus          |                                               | Insects & other|
| Paracladius conversus                 |                                               | Insects & other|
| Paracloeodes minutus                  | A Small Minnow Mayfly                         | Insects & other|
| Paracoenia calida                     | Wilber Springs Shore Fly                      | Insects & other|
| Paracymus communis                    |                                               | Insects & other|
| Paracymus confusus                    |                                               | Insects & other|
| Paracymus elegans                     |                                               | Insects & other|
| Paracymus ellipsis                    |                                               | Insects & other|
| Paracymus restrictus                  |                                               | Insects & other|
| Species                              | Category                  |
|--------------------------------------|---------------------------|
| Paracyamus subcupreus                | Insects & other           |
| Paracyamus tarsalis                  | Insects & other           |
| Parakiefferiella subaterrima        | Insects & other           |
| Paralauterborniella nigrohalteris    | Insects & other           |
| Paraleptophlebia altana              | A Mayfly                  |
| Paraleptophlebia aquilina            | Insects & other           |
| Paraleptophlebia associata           | A Mayfly                  |
| Paraleptophlebia bicornuta           | Insects & other           |
| Paraleptophlebia brunneipennis      | Insects & other           |
| Paraleptophlebia cachea              | A Mayfly                  |
| Paraleptophlebia californica         | A Mayfly                  |
| Paraleptophlebia clara               | Insects & other           |
| Paraleptophlebia debilis             | A Mayfly                  |
| Paraleptophlebia falcula             | Insects & other           |
| Paraleptophlebia gregalis            | A Mayfly                  |
| Paraleptophlebia helena              | A Mayfly                  |
| Paraleptophlebia heteronea           | A Mayfly                  |
| Paraleptophlebia memorialis          | A Mayfly                  |
| Paraleptophlebia packii              | A Mayfly                  |
| Paraleptophlebia placeri             | A Mayfly                  |
| Paraleptophlebia quisquilia          | A Mayfly                  |
| Paraleptophlebia rufivenosa          | A Mayfly                  |
| Paraleptophlebia sculleni            | Insects & other           |
| Paraleptophlebia temporalis          | A Mayfly                  |
| Paraleptophlebia vaciva              | A Mayfly                  |
| Paraleptophlebia zayante             | A Mayfly                  |
| Paraleucrta divisa                   | California Needlefly      |
| Paraleucrta forcipata                | Bullshorn Needlefly       |
| Paraleucrta occidentalis             | Western Needlefly         |
| Paraleucrta projecta                 | Insects & other           |
| Paraleucrta vershina                 | Summit Needlefly          |
| Paramerina fragilis                  | Insects & other           |
| Paramerina smithae                   | Insects & other           |
| Parametriocnemus lundbeckii          | Insects & other           |
| Paraperla frontalis                  | Hyporheic Sallfly         |
| Paraperla wilsoni                    | Chilliwack Sallfly        |
| Paraphaenocladius exagitans          | Insects & other           |
| Paraphaenocladius innasus            | Insects & other           |
| Parapholis strigosa                  | NA                        |
| Parapsyche almota                    | A Caddisfly               |
| Parapsyche elsis                     | A Caddisfly               |
| Species                        | Notes                           | Category     |
|-------------------------------|---------------------------------|--------------|
| Parapsyche extensa           | King's Creek Parapsyche Caddisfly | Insects & other |
| Parapsyche spinata           | A Caddisfly                     | Insects & other |
| Parapsyche turbinata         | A Caddisfly                     | Insects & other |
| Parasimulium crosskeyi       |                                 | Insects & other |
| Parasimulium furcatum        |                                 | Insects & other |
| Parasimulium species         |                                 | Insects & other |
| Parasimulium stonei          |                                 | Insects & other |
| Paratanytarsus grimmii       |                                 | Insects & other |
| Paratendipes albimanus       |                                 | Insects & other |
| Paratendipes basidens        |                                 | Insects & other |
| Paratendipes fuscitibia      |                                 | Insects & other |
| Paratendipes subaequalis     |                                 | Insects & other |
| Paratendipes thermophilus    |                                 | Insects & other |
| Paratrichocladius rufiventris|                                 | Insects & other |
| Parnassia cirrata cirrata    | Fringed Grass-of-Parnassus      | Plants       |
| Parnassia cirrata intermedia |                                 | Plants       |
| Parnassia fimbriata fimbriata| Fringed Grass-of-Parnassus      | Plants       |
| Parnassia palustris          | Marsh Grass-of-Parnassus        | Plants       |
| Parnassia parviflora         | Small-flower Grass-of-parnassus | Plants       |
| Parochlus kiefferi           |                                 | Insects & other |
| Parthina linea               | A Caddisfly                     | Insects & other |
| Parthina vierra              | A Caddisfly                     | Insects & other |
| Paspalum distichum           | Joint Paspalum                  | Plants       |
| Patapius spinosus            |                                 | Insects & other |
| Pectiantia ovalis            | NA                              | Plants       |
| Pectiantia pentandra         |                                 | Plants       |
| Pedicularis attollens        | NA                              | Plants       |
| Pedicularis groenlandica     | NA                              | Plants       |
| Pedomoecus sierra            | A Caddisfly                     | Insects & other |
| Pelecanus erythrorhynchos    | American White Pelican          | Birds        |
| Pelocoris biimpressus        |                                 | Insects & other |
| Peltodytes callosus          |                                 | Insects & other |
| Peltodytes dispersus         |                                 | Insects & other |
| Peltodytes mexicanus         |                                 | Insects & other |
| Peltodytes simplex           |                                 | Insects & other |
| Pentacora saratogae          |                                 | Insects & other |
| Pentacora signoreti          |                                 | Insects & other |
| Pentacora sphaelata          |                                 | Insects & other |
| Pentaneura inconspicua       |                                 | Insects & other |
| Pentaneura inyoensis         |                                 | Insects & other |
| Perideridium bacicalupii     | Bacicalupi's Perideridium       | Plants       |
| Common Name  | Scientific Name           | Category     |
|-------------|---------------------------|--------------|
| Perideridia bolanderi | Perideridia bolanderi | Plants       |
| Perideridia bolanderi involucrata | Perideridia involucrata | Plants       |
| Perideridia californica | Perideridia californica | Plants       |
| Perideridia gairdneri borealis | Perideridia gairdneri borealis | Plants       |
| Perideridia gairdneri gairdneri | Perideridia gairdneri gairdneri | Plants       |
| Perideridia howellii | Perideridia howellii | Plants       |
| Perideridia kelloggii | Perideridia kelloggii | Plants       |
| Perideridia leptomannii | Perideridia leptonnii | Plants       |
| Perideridia leptocarpa | Perideridia leptocarpa | Plants       |
| Perideridia parishii latifolia | Perideridia parishii latifolia | Plants       |
| Perideridia parishii parishii | Perideridia parishii parishii | Plants       |
| Perideridia pringlei | Perideridia pringlei | Plants       |
| Perithemis domitia | Perithemis domitia | Insects & other |
| Perithemis intensa | Perithemis intensa | Insects & other |
| Perithemis tenera | Perithemis tenera | Insects & other |
| Perlinodes aurea | Perlinodes aurea | Insects & other |
| Perlomia collaris | Perlomia collaris | Insects & other |
| Perlomia utahensis | Perlomia utahensis | Insects & other |
| Persicaria amphibia | Persicaria amphibia | Plants       |
| Persicaria hydropiper | Persicaria hydropiper | Plants       |
| Persicaria hydropiperoides | Persicaria hydropiperoides | Plants       |
| Persicaria lapathifolia | Persicaria lapathifolia | Plants       |
| Persicaria maculosa | Persicaria maculosa | Plants       |
| Persicaria orientalis | Persicaria orientalis | Plants       |
| Persicaria pensylvanica | Persicaria pensylvanica | Plants       |
| Persicaria punctata | Persicaria punctata | Plants       |
| Persicaria wallichii | Persicaria wallichii | Plants       |
| Petrophila confusalis | Petrophila confusalis | Insects & other |
| Petrophila jaliscalis | Petrophila jaliscalis | Insects & other |
| Petrophila kearfottalis | Petrophila kearfottalis | Insects & other |
| Phacelia distans | Phacelia distans | Plants       |
| Phaenopsectra dyari | Phaenopsectra dyari | Insects & other |
| Phaenopsectra flavipes | Phaenopsectra flavipes | Insects & other |
| Phaenopsectra mortensoni | Phaenopsectra mortensoni | Insects & other |
| Phaenopsectra pilicellata | Phaenopsectra pilicellata | Insects & other |
| Phaenopsectra profusa | Phaenopsectra profusa | Insects & other |
| Phalacrocorax auritus | Phalacrocorax auritus | Birds        |
| Phalarosiseris bolanderi | Phalarosiseris bolanderi | Plants       |
| Phalaris arundinacea | Phalaris arundinacea | Plants       |
| Phalaropus tricolor | Phalaropus tricolor | Birds        |
| Name                          | Category          |
|-------------------------------|-------------------|
| Philarctus bergrothi          | Insects & other   |
| Philocasca demita             | Insects & other   |
| Philocasca oron               | Insects & other   |
| Philocasca rivularis          | A Caddisfly       |
| Philorus californica          | A Net-winged Midge|
| Philorus jacinto              | A Net-winged Midge|
| Philorus vanduzeei            | A Net-winged Midge|
| Philorus yosemita             | A Net-winged Midge|
| Phragmites australis australis| Common Reed       |
| Phreatobrachypoda robusta     | Insects & other   |
| Phryganea cinerea             | A Caddisfly       |
| Phyla lanceolata              | Fog-fruit         |
| Phyla nodiflora               | Common Frog-fruit |
| Phylloicus aeneus             | Insects & other   |
| Phylloicus mexicanus          | Insects & other   |
| Phyllospadix scouleri         | Scouler's Surf-grass|
| Phyllospadix torreyi          | Torrey's Surf-grass|
| Physa acuta                   | Pewter Physa      |
| Physa gyrina                  | Tadpole Physa     |
| Physella boucardi             | Desert Physa      |
| Physella cooperi              | Olive Physa       |
| Physella costata              | Ornate Physa      |
| Physella humerosa             | Corkscrew Physa   |
| Physella lordin               | Twisted Physa     |
| Physella osculans             | Cayuse Physa      |
| Physella propinqua            | Rocky Mountain Physa|
| Physella traski               | Sculpted Physa    |
| Physella virgata              | Protean Physa     |
| Physella virginea             | Sunset Physa      |
| Physella minutus              | Insects & other   |
| Pilularia americana           | NA                |
| Pinguicula macrorceras        | NA                |
| Pipilo aberti                 | Abert's Towhee    |
| Pipilo crissalis eremophilus  | Inyo California Towhee|
| Piranga rubra                 | Summer Tanager    |
| Pisidium casertanum           | Mollusks          |
| Pisidium compressum           | Mollusks          |
| Pisidium idahoense            | Mollusks          |
| Pisidium lilljeborgi          | Mollusks          |
| Pisidium nitidum              | Mollusks          |
| Pisidium subtruncatum         | Mollusks          |
| Common Name                  | Scientific Name       | Kingdom          |
|-----------------------------|-----------------------|------------------|
| Montane Peaclam             | Pisidium ultramontanum| Mollusks         |
| Montane's Popcorn-flower    | Plagiobothrys austiniae| Plants          |
| NA                          | Plagiobothrys chorisianus| Plants          |
| California Popcorn-flower   | Plagiobothrys distantiflorus| Plants       |
| Hairless Allocarya          | Plagiobothrys glaber| Plants          |
| Greene's Popcorn-flower     | Plagiobothrys greenei| Plants          |
| Dwarf Popcorn-flower        | Plagiobothrys humistratus| Plants         |
| Alkali Popcorn-flower       | Plagiobothrys leptocladus| Plants        |
| NA                          | Plagiobothrys nitens| Plants          |
| Parish's Popcorn-flower     | Plagiobothrys parishii| Plants         |
| Plants                      | Plagiobothrys reticulatus reticulatus| Plants |
| Plants                      | Plagiobothrys reticulatus rossianorum| Plants |
| NA                          | Plagiobothrys tener| Plants          |
| NA                          | Plagiobothrys undulatus| Plants         |
| Coarse Rams-horn            | Planorbella binneyi| Mollusks        |
| Fine-lined Rams-horn        | Planorbella occidentalis| Mollusks     |
| Rough Rams-horn             | Planorbella subcrenata| Mollusks      |
| Mexican Rams-horn           | Planorbella tenuis| Mollusks        |
| Keeled Rams-horn            | Planorbella traski| Mollusks        |
| Marsh Rams-horn             | Planorbella trivolvis| Mollusks     |
| Slender Plantain            | Plantago elongata elongata| Plants      |
| Plants                      | Platanthera dilatata leucostachys| Plants |
| Canyon Bog Orchid           | Platanthera sparsiflora sparsiflora| Plants |
| Slender Bog Orchid          | Platanthera stricta| Plants          |
| NA                          | Platanthera tescamnis| Plants         |
| Yosemite Bog-Orchid         | Platanthera yosemitensis| Plants    |
| California Sycamore         | Platanus racemosa| Plants          |
| Common Whitetail            | Plathemis lydia| Insects & other|
| Desert Whitetail            | Plathemis subornata| Insects & other|
| Insects & other             | Platyvelia beameri| Insects & other|
| Insects & other             | Platyvelia brachialis| Insects & other|
| Insects & other             | Platyvelia summersi| Insects & other|
| Insects & other             | Plauditus punctiventris| Insects & other|
| White-faced Ibis            | Plegadis chihi| Birds           |
| Scientific Name                        | Common Name                        | Category  |
|---------------------------------------|------------------------------------|-----------|
| Plethodon dunni                       | Dunn's Salamander                  | Herps     |
| Pleuro pogon californicus californicus |                                    | Plants    |
| Pleuro pogon californicus davyi        |                                    | Plants    |
| Pleuro pogon hooverianus              | North Coast False Semaphore Grass  | Plants    |
| Pleuro pogon refractus                | Nodding False Semaphore Grass      | Plants    |
| Plu chea odorata odorata              | Scented Conyza                     | Plants    |
| Plu chea sericea                      | Arrow-weed                         | Plants    |
| Plumiperla diversa                    | Margined Sallfly                   | Insects & other |
| Plumiperla spinosa                    | Spiny Sallfly                      | Insects & other |
| Pluvialis squatarola                  | Black-bellied Plover               | Birds     |
| Podiceps nigricollis                  | Eared Grebe                        | Birds     |
| Podilymbus podiceps                   | Pied-billed Grebe                  | Birds     |
| Podmosta decepta                     |                                    | Insects & other |
| Podmosta delicatula                  | Delicate Forestfly                 | Insects & other |
| Podmosta obscura                      |                                    | Insects & other |
| Pogogyne abramsii                    | San Diego Mesamint                 | Plants    |
| Pogogyne douglasii                    | NA                                 | Plants    |
| Pogogyne floribunda                   | Profuse-flowered Pogogyne          | Plants    |
| Pogogyne nudiuscula                   | Otay Mesamint                      | Plants    |
| Pogogyne zizyphoroides                |                                    | Plants    |
| Pogonichthys ciscoides                | Clear Lake Splittail               | Fishes    |
| Pogonichthys macrolepidotus           | Sacramento splittail               | Fishes    |
| Polycentropus arizonensis             |                                    | Insects & other |
| Polycentropus aztecs                  |                                    | Insects & other |
| Polycentropus cinereus                |                                    | Insects & other |
| Polycentropus denningi                |                                    | Insects & other |
| Polycentropus flavus                  | A Caddisfly                        | Insects & other |
| Polycentropus gertschi                |                                    | Insects & other |
| Polycentropus halidus                 | A Caddisfly                        | Insects & other |
| Polycentropus variegatus              | A Caddisfly                        | Insects & other |
| Polygonum marinense                   | Marin Knotweed                     | Plants    |
| Polypedilum albicorne                 |                                    | Insects & other |
| Polypedilum albinodus                 |                                    | Insects & other |
| Polypedilum angustum                  |                                    | Insects & other |
| Polypedilum apicatum                  |                                    | Insects & other |
| Polypedilum artifer                   |                                    | Insects & other |
| Polypedilum aviceps                   |                                    | Insects & other |
| Polypedilum braseniae                 |                                    | Insects & other |
| Polypedilum californicum              |                                    | Insects & other |
| Polypedilum cinctum                   |                                    | Insects & other |
| Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other | Insects & other |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Polypedilum culpellatum | Polypedilum digitifer | Polypedilum halterale | Polypedilum illinoense | Polypedilum isocerus | Polypedilum labeculosum | Polypedilum laetum | Polypedilum obelos | Polypedilum ophioides | Polypedilum parvum | Polypedilum pedatum | Polypedilum pterospilus | Polypedilum scalaenum | Polypedilum sulaceps | Polypedilum trigonus | Polypedilum tritum |
| Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex |
| Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex |
| Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex |
| Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex | Polypedilum vibex |
| Pomacea bridgesii | Pomacea paludosa | Pomatiopsis binneyi | Pomatiopsis californica | Pomatiopsis chacei | Pomoleuctra andersoni | Pomoleuctra purcellana | Populus trichocarpa | Porterella carnosula | Porzana carolina | Postelichus confluens | Postelichus immsi | Postelichus productus | Potamogeton alpinus | Potamogeton amplifolius | Potamogeton berchtoldii |
| Potamogeton diversifolius | Potamogeton epihydrus | Potamogeton foliosus fibrillosus | Potamogeton foliosus foliosus | Potamogeton gramineus | Potamogeton illinoensis | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans |
| Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans |
| Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans |
| Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans | Potamogeton natans |
| Scientific Name                        | Common Name                        | Category       |
|---------------------------------------|------------------------------------|----------------|
| Potamogeton nodosus                   | Longleaf Pondweed                  | Plants         |
| Potamogeton praelongus                | White-stem Pondweed                | Plants         |
| Potamogeton pusillus pusillus         | Slender Pondweed                   | Plants         |
| Potamogeton richardsonii              | Richardson's Pondweed              | Plants         |
| Potamogeton robbinsii                 | Flatleaf Pondweed                  | Plants         |
| Potamogeton zosteriformis             | Flatstem Pondweed                  | Plants         |
| Potentilla anserina anserina          |                                    | Plants         |
| Potentilla anserina pacifica          |                                    | Plants         |
| Potentilla multijuga                  | Ballona Cinquefoil                 | Plants         |
| Potentilla newberryi                  | Newberry's Cinquefoil              | Plants         |
| Potentilla uliginosa                  | Cunningham Marsh cinquefoil        | Plants         |
| Primula jeffreyi                      |                                    | Plants         |
| Primula pauciflora                    |                                    | Plants         |
| Primula subalpina                     |                                    | Plants         |
| Primula tetrandra                     | NA                                 | Plants         |
| Priononcera oregonica                 |                                    | Insects & other|
| Pristinocola hemphilli                | Pristine Pyrg                      | Mollusks       |
| Procladius barbatulus                 |                                    | Insects & other|
| Procladius bellus                     |                                    | Insects & other|
| Procladius culiciformis               |                                    | Insects & other|
| Procladius denticulatus               |                                    | Insects & other|
| Procladius freemani                   |                                    | Insects & other|
| Procladius sublettei                  |                                    | Insects & other|
| Procloeon pennulatum                  | A Mayfly                           | Insects & other|
| Procloeon rivulare                    | A Mayfly                           | Insects & other|
| Procloeon venosum                    | A Mayfly                           | Insects & other|
| Progomphus borealis                   | Gray Sanddragon                    | Insects & other|
| Promenetus exacuous                   | Sharp Sprite                       | Mollusks       |
| Promenetus umbilicatellus             | Umbilicate Sprite                  | Mollusks       |
| Prosimulium caudatum                  |                                    | Insects & other|
| Prosimulium constrictistylum          |                                    | Insects & other|
| Prosimulium davesi                    |                                    | Insects & other|
| Prosimulium dicentum                  |                                    | Insects & other|
| Prosimulium dicum                     |                                    | Insects & other|
| Prosimulium esselbaughi               |                                    | Insects & other|
| Prosimulium exigens                   |                                    | Insects & other|
| Prosimulium flaviantennus             |                                    | Insects & other|
| Prosimulium formosum                  |                                    | Insects & other|
| Prosimulium frohnei                   |                                    | Insects & other|
| Prosimulium fulvithorax               |                                    | Insects & other|
| Prosimulium fulvum                    |                                    | Insects & other|
| Species Name                  | Common Name                      | Category  |
|------------------------------|----------------------------------|-----------|
| Prosimulium idemai           | Insects & other                  |           |
| Prosimulium imposter         | Insects & other                  |           |
| Prosimulium longirostrum     | Insects & other                  |           |
| Prosimulium minifulvum       | Insects & other                  |           |
| Prosimulium rusticum         | Insects & other                  |           |
| Prosimulium secretum         | Insects & other                  |           |
| Prosimulium shewelli         | Insects & other                  |           |
| Prosimulium travisi          | Insects & other                  |           |
| Prosimulium uinta            | Insects & other                  |           |
| Prosimulium unicum           | Insects & other                  |           |
| Prosopium williamsoni        | Mountain whitefish               | Fishes    |
| Prostoia besametsa           | Bended Forestfly                 | Insects & other |
| Protanyderus margarita       | Insects & other                  |           |
| Protanyderus vanduzeei       | Insects & other                  |           |
| Protanyderus vipio           | Insects & other                  |           |
| Protochauliodes aridus       | Insects & other                  |           |
| Protochauliodes cascadius    | Insects & other                  |           |
| Protochauliodes minimus      | Insects & other                  |           |
| Protochauliodes montivagus   | Insects & other                  |           |
| Protochauliodes simplus      | Insects & other                  |           |
| Protochauliodes spenceri     | Insects & other                  |           |
| Protoptila balmorhea         | Insects & other                  |           |
| Protoptila coloma            | A Caddisfly                      | Insects & other |
| Protoptila erotica           | Insects & other                  |           |
| Psectrocladius barbimanus    | Insects & other                  |           |
| Psectrocladius spinifer      | Insects & other                  |           |
| Psectrocladius vernalis      | Insects & other                  |           |
| Psectrotanypus dyari         | Insects & other                  |           |
| Psephenus arizonensis        | Insects & other                  |           |
| Psephenus falli              | Insects & other                  |           |
| Psephenus minckleyi          | Insects & other                  |           |
| Psephenus montanus           | Insects & other                  |           |
| Psephenus murvoshi           | Insects & other                  |           |
| Pseudacris cadaverina        | California Treefrog              | Herps     |
| Pseudacris hypochondriaca    | Baja California Treefrog         | Herps     |
| Pseudacris regilla           | Northern Pacific Chorus Frog     | Herps     |
| Pseudacris sierra            | Sierran Treefrog                 | Herps     |
| Pseudidron centralis         | White Sand-river Mayfly          | Insects & other |
| Pseudochironomus richardsoni | Insects & other                  |           |
| Pseudocloeon apache          | Insects & other                  |           |
| Pseudocloeon propinquum      | A Mayfly                         | Insects & other |
| Common Name                      | Scientific Name                      | Category                  |
|---------------------------------|--------------------------------------|---------------------------|
| Pseudocorixa beameri            | Insects & other                      |
| Pseudodiamesa branickii         | Insects & other                      |
| Pseudoleon superbus             | Insects & other                      |
| Pseudorthocladius dumicauibus   | Insects & other                      |
| Pseudorthocladius uniserratus   | Insects & other                      |
| Pseudosmittia forcipata         | Insects & other                      |
| Pseudosmittia nanseni           | Insects & other                      |
| Pseudostenophylax edwardsi      | Insects & other                      |
| Psilocarphus brevissimus        | Dwarf Woolly-heads                   |
| Psilocarphus brevissimus        | Delta Woolly Marbles                 |
| Psilocarphus oregonus           | Oregon Woolly-heads                  |
| Psilocarphus tenellus           | NA                                   |
| Psorophora columbae             | Insects & other                      |
| Psorophora discolor             | Insects & other                      |
| Psorophora howardii             | Insects & other                      |
| Psorophora signipennis          | Insects & other                      |
| Psychoglypha alascensis         | Insects & other                      |
| Psychoglypha avigo              | A Caddisfly                          |
| Psychoglypha bella              | A Caddisfly                          |
| Psychoglypha browni             | A Caddisfly                          |
| Psychoglypha klamathi           | A Caddisfly                          |
| Psychoglypha leechi             | A Caddisfly                          |
| Psychoglypha mazamae            | A Caddisfly                          |
| Psychoglypha orniae             | A Caddisfly                          |
| Psychoglypha prita              | Insects & other                      |
| Psychoglypha schuhi             | Insects & other                      |
| Psychoglypha subborealis        | A Caddisfly                          |
| Psychomyia flavida              | A Caddisfly                          |
| Psychomyia lumina               | A Caddisfly                          |
| Psychomyia nomada               | Insects & other                      |
| Pteronarcella badia             | Insects & other                      |
| Pteronarcella regularis         | Dwarf Salmonfly                      |
| Pteronarcys californica         | Giant Salmonfly                      |
| Pteronarcys princeps            | Ebony Salmonfly                      |
| Ptychocheilus grandis           | Sacramento pikeminnow                |
| Ptychocheilus lucius            | Colorado Pikeminnow                  |
| Ptychoptera byersi              | Insects & other                      |
| Ptychoptera lenis               | Insects & other                      |
| Ptychoptera minor               | Insects & other                      |
| Ptychoptera monoensis           | Insects & other                      |
| Scientific Name                        | Common Name                          | Category     |
|---------------------------------------|--------------------------------------|--------------|
| Ptychoptera pendula                   | Insects & other                      |              |
| Ptychoptera sculleni                  | Insects & other                      |              |
| Ptychoptera townesi                   | Insects & other                      |              |
| Puccinellia howellii                  | Trinity Mountains Alkali Grass       | Plants       |
| Puccinellia nutkaensis                | Alaska Alkaligrass                   | Plants       |
| Puccinellia nuttalliana               | Nuttall's Alkali Grass               | Plants       |
| Puccinellia parishii                  | Parish's Alkali Grass                | Plants       |
| Puccinellia pumila                    | Plants                               |              |
| Puccinellia simplex                   | Little Alkali Grass                  | Plants       |
| Pyrgulopsis aardahli                  | Benton Valley Springsnail            | Mollusks     |
| Pyrgulopsis amargosae                 | Amargosa Springsnail                 | Mollusks     |
| Pyrgulopsis archimedis                | Archimedes Pyrg                      | Mollusks     |
| Pyrgulopsis californiensis            | Laguna Mountain Springsnail          | Mollusks     |
| Pyrgulopsis castaicensis              | A Freshwater Snail                   | Mollusks     |
| Pyrgulopsis cinerana                  | Ash Valley Pyrg                      | Mollusks     |
| Pyrgulopsis diablensis                | Diablo Range Pyrg                    | Mollusks     |
| Pyrgulopsis eremica                   | Smoke Creek Pyrg                     | Mollusks     |
| Pyrgulopsis falciglans                | Likely Pyrg                          | Mollusks     |
| Pyrgulopsis gibba                     | Surprise Valley Pyrg                  | Mollusks     |
| Pyrgulopsis giuliani                  | Southern Sierra Nevada Springsnail   | Mollusks     |
| Pyrgulopsis greggi                    | Kern River Pyrg                      | Mollusks     |
| Pyrgulopsis intermedia                | Crooked Creek Springsnail            | Mollusks     |
| Pyrgulopsis lasseni                   | Willow Creek Pyrg                    | Mollusks     |
| Pyrgulopsis licina                    | Mollusks                             |              |
| Pyrgulopsis longae                    | Long Valley Pyrg                     | Mollusks     |
| Pyrgulopsis longinqua                 | Salton Sea Springsnail               | Mollusks     |
| Pyrgulopsis micrococcus               | Oasis Valley Springsnail             | Mollusks     |
| Pyrgulopsis milleri                   | A Freshwater Snail                   | Mollusks     |
| Pyrgulopsis owensensis                | Owens Valley Springsnail             | Mollusks     |
| Pyrgulopsis perforata                 | Mollusks                             |              |
| Pyrgulopsis perturbata                | Fish Slough Springsnail              | Mollusks     |
| Pyrgulopsis rupinicola                | Sucker Springs Pyrg                  | Mollusks     |
| Pyrgulopsis sanchezi                  | Mollusks                             |              |
| Pyrgulopsis stearnsiana               | Yaqui Springsnail                    | Mollusks     |
| Pyrgulopsis taylori                   | San Luis Obispo Pyrg                 | Mollusks     |
| Pyrgulopsis turbatrix                 | Southeast Nevada Pyrg                 | Mollusks     |
| Pyrgulopsis ventricosa                | Clear Lake Pyrg                      | Mollusks     |
| Pyrgulopsis wongi                     | Wong's Springsnail                   | Mollusks     |
| Radotanypus submarginella             | Insects & other                      |              |
| Rallus limicola                       | Virginia Rail                        | Birds        |
| Rallus longirostris yumanensis        | Yuma Clapper Rail                    | Birds        |
| Common Name               | Scientific Name               | Kingdom | Phylum | Class         | Order      | Family                |
|--------------------------|-------------------------------|---------|--------|---------------|------------|-----------------------|
| Ramellogammarus californicus | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus campestris  | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus columbiaus | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus littoralis  | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus oregonensis | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus ramellus    | Crustaceans                  |         |        |               |            |                       |
| Ramellogammarus similimanus | Crustaceans                  |         |        |               |            |                       |
| Ramphocorixa rotundoccephala | Insects & other              |         |        |               |            |                       |
| Rana aurora               | Northern Red-legged Frog     | Herps   |        |               |            |                       |
| Rana boylii                | Foothill Yellow-legged Frog  | Herps   |        |               |            |                       |
| Rana cascadae             | Cascades Frog                | Herps   |        |               |            |                       |
| Rana draytonii            | California Red-legged Frog   | Herps   |        |               |            |                       |
| Rana muscosa              | Southern Mountain Yellow-legged Frog | Herps |            |               |            |                       |
| Rana pretiosa             | Oregon Spotted Frog          | Herps   |        |               |            |                       |
| Rana sierrae              | Sierra Nevada Yellow-legged Frog | Herps |            |               |            |                       |
| Ranatrap brevicollis      | A Water Scorpion             | Insects & other |        |               |            |                       |
| Ranatrap fusca            | Insects & other              |         |        |               |            |                       |
| Ranatrap montezuma        | Insects & other              |         |        |               |            |                       |
| Ranatrap quadridentata    | Insects & other              |         |        |               |            |                       |
| Ranunculus alismifolius alismellus | Water-plantain Buttercup | Plants   |        |               |            |                       |
| Ranunculus alismifolius alismifolius | Water-plantain Buttercup | Plants   |        |               |            |                       |
| Ranunculus alismifolius hartwegii | Water-plantain Buttercup | Plants   |        |               |            |                       |
| Ranunculus alismifolius lemmontii | Water-plantain Buttercup | Plants   |        |               |            |                       |
| Ranunculus andersonii andersonii | Anderson's Buttercup | Plants   |        |               |            |                       |
| Ranunculus aquatis aquatis | White Water Buttercup        | Plants   |        |               |            |                       |
| Ranunculus aquatis diffusus | White Water Buttercup        | Plants   |        |               |            |                       |
| Ranunculus bonariensis    | NA                           | Plants   |        |               |            |                       |
| Ranunculus flabellaris    | Yellow Water-crowfoot        | Plants   |        |               |            |                       |
| Ranunculus flammula flammula | Lesser Spearwort            | Plants   |        |               |            |                       |
| Ranunculus flammula ovalis | Lesser Spearwort             | Plants   |        |               |            |                       |
| Ranunculus hydrocharoides | NA                           | Plants   |        |               |            |                       |
| Ranunculus hystriculus    | NA                           | Plants   |        |               |            |                       |
| Ranunculus lobbii         | Lobb's Water Buttercup       | Plants   |        |               |            |                       |
| Ranunculus macounii       | Macoun's Buttercup           | Plants   |        |               |            |                       |
| Ranunculus populago       | Mountain Buttercup           | Plants   |        |               |            |                       |
| Ranunculus pusillus pusillus | Pursh's Buttercup           | Plants   |        |               |            |                       |
| Ranunculus repens         | NA                           | Plants   |        |               |            |                       |
| Common Name                      | Scientific Name            | Category             |
|---------------------------------|----------------------------|----------------------|
| Ranunculus sardous              | NA                         | Plants               |
| Ranunculus sceleratus           | NA                         | Plants               |
| Recurvirostra americana         | American Avocet            | Birds                |
| Remartinia luteipennis          |                            | Insects & other      |
| Reomyia wartinbei               |                            | Insects & other      |
| Rhagovelia becki                |                            | Insects & other      |
| Rhagovelia choreutes            |                            | Insects & other      |
| Rhagovelia distincta            |                            | Insects & other      |
| Rhagovelia varipes              |                            | Insects & other      |
| Rhamnus alnifolia               | Alderleaf Buckthorn        | Plants               |
| Rhantus anisonychus             |                            | Insects & other      |
| Rhantus atricolor               |                            | Insects & other      |
| Rhantus binotatus               |                            | Insects & other      |
| Rhantus consimilis              |                            | Insects & other      |
| Rhantus gutticollis             |                            | Insects & other      |
| Rhantus sericans                |                            | Insects & other      |
| Rhantus wallisi                 |                            | Insects & other      |
| Rheotanytarsus hamatus          |                            | Insects & other      |
| Rheumatobates hungerfordi       |                            | Insects & other      |
| Rhinchthys osculus klamathensis | Klamath speckled dace      | Fishes               |
| Rhinchthys osculus nevadensis   | Amargosa Canyon speckled dace | Fishes             |
| Rhinchthys osculus robustus     | Lahontan speckled dace     | Fishes               |
| Rhinchthys osculus ssp. 1       | Sacramento speckled dace   | Fishes               |
| Rhinchthys osculus ssp. 2       | Owens speckled dace        | Fishes               |
| Rhinchthys osculus ssp. 3       | Long Valley speckled dace  | Fishes               |
| Rhinchthys osculus ssp. 4       | Santa Ana speckled dace    | Fishes               |
| Rhionaeschna californica        | California Darner          | Insects & other      |
| Rhionaeschna multicolor         | Blue-eyed Darner           | Insects & other      |
| Rhionaeschna dugesi             |                            | Insects & other      |
| Rhionaeschna psillus            |                            | Insects & other      |
| Rhithrogena decora              | A Mayfly                   | Insects & other      |
| Rhithrogena flavianula          | A Mayfly                   | Insects & other      |
| Rhithrogena hageni              | A Mayfly                   | Insects & other      |
| Rhithrogena morrisoni           | A Mayfly                   | Insects & other      |
| Rhithrogena plana               | A Mayfly                   | Insects & other      |
| Rhithrogena robusta             | A Mayfly                   | Insects & other      |
| Rhithrogena undulata            | A Mayfly                   | Insects & other      |
| Rhithrogena virilis             |                            | Insects & other      |
| Rhizelmis nigra                 |                            | Insects & other      |
| Rhododendron columbianum        |                            | Plants               |
| Rhododendron occidentale | Western Azalea | Plants |
|--------------------------|---------------|--------|
| Rhyacophila acuminata    | A Caddisfly   | Insects & other |
| Rhyacophila alberta      |               | Insects & other |
| Rhyacophila amabilis     | Castle Lake Rhyacophilan Caddisfly | Insects & other |
| Rhyacophila angelita     | A Caddisfly   | Insects & other |
| Rhyacophila arcella      | A Caddisfly   | Insects & other |
| Rhyacophila ardala       | A Caddisfly   | Insects & other |
| Rhyacophila arnaudi      | A Caddisfly   | Insects & other |
| Rhyacophila balosa       | A Caddisfly   | Insects & other |
| Rhyacophila basalis      | A Caddisfly   | Insects & other |
| Rhyacophila betteni      | A Caddisfly   | Insects & other |
| Rhyacophila bifila       | A Caddisfly   | Insects & other |
| Rhyacophila clarina      |               | Insects & other |
| Rhyacophila californica  | A Caddisfly   | Insects & other |
| Rhyacophila cerita       | A Caddisfly   | Insects & other |
| Rhyacophila chandleri    | A Caddisfly   | Insects & other |
| Rhyacophila chilsia      |               | Insects & other |
| Rhyacophila chordata     | A Caddisfly   | Insects & other |
| Rhyacophila colonus      | Obrien Rhyacophilan Caddisfly | Insects & other |
| Rhyacophila coloradensis | A Caddisfly   | Insects & other |
| Rhyacophila darbyi       | A Caddisfly   | Insects & other |
| Rhyacophila eberia       |               | Insects & other |
| Rhyacophila eosa         | A Caddisfly   | Insects & other |
| Rhyacophila fenderi      | Fender’s Rhyacophilan Caddisfly | Insects & other |
| Rhyacophila grandis      | A Caddisfly   | Insects & other |
| Rhyacophila haddocki     |               | Insects & other |
| Rhyacophila harmstoni    | A Caddisfly   | Insects & other |
| Rhyacophila hyalinata    | A Caddisfly   | Insects & other |
| Rhyacophila insularis    | A Caddisfly   | Insects & other |
| Rhyacophila iranda       |               | Insects & other |
| Rhyacophila jennerae     | A Caddisfly   | Insects & other |
| Rhyacophila jewetti      | A Caddisfly   | Insects & other |
| Rhyacophila karila       | A Caddisfly   | Insects & other |
| Rhyacophila kernada      | A Caddisfly   | Insects & other |
| Rhyacophila kincaidi     |               | Insects & other |
| Rhyacophila leechi       | A Caddisfly   | Insects & other |
| Rhyacophila lineata      | Castle Crags Rhyacophilan Caddisfly | Insects & other |
| Rhyacophila lurella      | A Caddisfly   | Insects & other |
| Rhyacophila malkini      |               | Insects & other |
| Species                  | Description                                | Category       |
|--------------------------|--------------------------------------------|----------------|
| Rhyacophila mosana       | Bilobed Rhyacophilan Caddisfly             | Insects & other|
| Rhyacophila narvae       | A Caddisfly                                | Insects & other|
| Rhyacophila neograndis   | A Caddisfly                                | Insects & other|
| Rhyacophila nevadensis   | A Caddisfly                                | Insects & other|
| Rhyacophila norcuta      | A Caddisfly                                | Insects & other|
| Rhyacophila oreta        | A Caddisfly                                | Insects & other|
| Rhyacophila pellisa      | A Caddisfly                                | Insects & other|
| Rhyacophila perda        |                                           | Insects & other|
| Rhyacophila perplana     |                                           | Insects & other|
| Rhyacophila pichaca      |                                           | Insects & other|
| Rhyacophila rayneri      | A Caddisfly                                | Insects & other|
| Rhyacophila reyesi       | A Caddisfly                                | Insects & other|
| Rhyacophila rotunda      | A Caddisfly                                | Insects & other|
| Rhyacophila sequoia      | A Caddisfly                                | Insects & other|
| Rhyacophila sierra       | A Caddisfly                                | Insects & other|
| Rhyacophila siskiyou     | A Caddisfly                                | Insects & other|
| Rhyacophila spinata      | Spiny Rhyacophilan Caddisfly               | Insects & other|
| Rhyacophila starki       | A Caddisfly                                | Insects & other|
| Rhyacophila tamalpaisi   | A Caddisfly                                | Insects & other|
| Rhyacophila tehama       | A Caddisfly                                | Insects & other|
| Rhyacophila tralala      |                                           | Insects & other|
| Rhyacophila tucula       | A Caddisfly                                | Insects & other|
| Rhyacophila unipunctata  |                                           | Insects & other|
| Rhyacophila vaccua       | A Caddisfly                                | Insects & other|
| Rhyacophila vaefes       | A Caddisfly                                | Insects & other|
| Rhyacophila vagrita      |                                           | Insects & other|
| Rhyacophila valuma       | A Caddisfly                                | Insects & other|
| Rhyacophila vao          | A Caddisfly                                | Insects & other|
| Rhyacophila vedra        | A Caddisfly                                | Insects & other|
| Rhyacophila velora       | A Caddisfly                                | Insects & other|
| Rhyacophila vemna        |                                           | Insects & other|
| Rhyacophila verrula      | A Caddisfly                                | Insects & other|
| Rhyacophila vetina       |                                           | Insects & other|
| Rhyacophila viquaeae     |                                           | Insects & other|
| Rhyacophila visor        |                                           | Insects & other|
| Rhyacophila vobara       |                                           | Insects & other|
| Rhyacophila vocala       | A Caddisfly                                | Insects & other|
| Rhyacophila vuzana       | A Caddisfly                                | Insects & other|
| Rhyacophila willametta   |                                           | Insects & other|
| Rhacotriton variegatus   | Southern Torrent Salamander                | Herps          |
| Rhynchospora alba        | White Beakrush                             | Plants         |
| Species                          | Common Name                      | Category   |
|---------------------------------|----------------------------------|------------|
| Rhynchospora californica        | California Beakrush              | Plants     |
| Rhynchospora capitellata        | Brownish Beakrush                | Plants     |
| Rhynchospora globularis         | NA                               | Plants     |
| Richardsonius egregius          | Lahontan redside                 | Fishes     |
| Rickera sorpta                  | Palestripe Springfly             | Insects & other |
| Riparia riparia                 | Bank Swallow                     | Birds      |
| Robackia demeijeri              |                                  | Insects & other |
| Rorippa columbiae               | Columbia Yellowcress             | Plants     |
| Rorippa curvipes                | Rocky Mountain Yellowcress       | Plants     |
| Rorippa curvisiliqua curvisiliqua | Curve-pod Yellowcress          | Plants     |
| Rorippa palustris palustris     | Bog Yellowcress                  | Plants     |
| Rorippa sphaerocarpa            | Round-fruit Yellowcress          | Plants     |
| Rorippa subumbellata            | Tahoe Yellowcress                | Plants     |
| Rotala ramosior                 | Toothcup                         | Plants     |
| Rudbeckia klamathensis         |                                  | Plants     |
| Rumex britannica                | NA                               | Plants     |
| Rumex californicus              |                                  | Plants     |
| Rumex conglomeratus             | NA                               | Plants     |
| Rumex crassus                   |                                  | Plants     |
| Rumex fueginus                  |                                  | Plants     |
| Rumex kerneri                   | NA                               | Plants     |
| Rumex lacustris                 |                                  | Plants     |
| Rumex occidentalis              |                                  | Plants     |
| Rumex persicarioides            |                                  | Plants     |
| Rumex salicifolius salicifolius | Willow Dock                      | Plants     |
| Rumex stenophyllus              | NA                               | Plants     |
| Rumex transitorius              |                                  | Plants     |
| Rumex triangulivalvis           |                                  | Plants     |
| Rumex utahensis                 |                                  | Plants     |
| Rumex violascens                | Violet Dock                      | Plants     |
| Rupisalda dewsi                 |                                  | Insects & other |
| Rupisalda saxicola              |                                  | Insects & other |
| Rupisalda teretis               |                                  | Insects & other |
| Ruppia cirrhosa                 | Widgeon-grass                    | Plants     |
| Ruppia maritima                 | Ditch-grass                      | Plants     |
| Rynchosps niger                 | Black Skimmer                    | Birds      |
| Sagina saginoides               | Arctic Pearlwort                 | Plants     |
| Sagittaria cuneata              | Wapatum Arrowhead                | Plants     |
| Sagittaria latifolia latifolia  | Broadleaf Arrowhead              | Plants     |
| Sagittaria longiloba            | Longbarb Arrowhead               | Plants     |
| Sagittaria montevidensis        |                                  | Plants     |
| Name                        | Common Name                        | Category       |
|-----------------------------|------------------------------------|----------------|
| calycina                    |                                    |                |
| Sagittaria sanfordii        | Sanford's Arrowhead                | Plants         |
| Salda buenoi                |                                    | Insects & other|
| Salda littoralis            |                                    | Insects & other|
| Salda lugubris              |                                    | Insects & other|
| Salda obscura               |                                    | Insects & other|
| Salda provancheri           |                                    | Insects & other|
| Saldula andrei              |                                    | Insects & other|
| Saldula balli               |                                    | Insects & other|
| Saldula basingerini         |                                    | Insects & other|
| Saldula comatula            |                                    | Insects & other|
| Saldula dispersa            |                                    | Insects & other|
| Saldula explanata           |                                    | Insects & other|
| Saldula latticollis         |                                    | Insects & other|
| Saldula lattini             |                                    | Insects & other|
| Saldula luctuosa            |                                    | Insects & other|
| Saldula nigrita             |                                    | Insects & other|
| Saldula opacula             |                                    | Insects & other|
| Saldula opiparia            |                                    | Insects & other|
| Saldula orbiculata          |                                    | Insects & other|
| Saldula pallipes            |                                    | Insects & other|
| Saldula palustris           |                                    | Insects & other|
| Saldula pexa                |                                    | Insects & other|
| Saldula saltatoria          |                                    | Insects & other|
| Saldula severini            |                                    | Insects & other|
| Saldula sulcicollis         |                                    | Insects & other|
| Saldula usingeri            | Wilbur Springs Shorebug            | Insects & other|
| Saldula villosa             |                                    | Insects & other|
| Salicornia bigelovii        | Dwarf Glasswort                    | Plants         |
| Salicornia rubra            | Western Glasswort                  | Plants         |
| Salix babylonica            | NA                                 | Plants         |
| Salix boothii               | Booth's Willow                     | Plants         |
| Salix breweri               | Brewer's Willow                    | Plants         |
| Salix delnortensis          | Del Norte Willow                   | Plants         |
| Salix drummondiana          | Satiny Salix                       | Plants         |
| Salix eastwoodiae           | Eastwood's Willow                  | Plants         |
| Salix exigua exigua         | Narrowleaf Willow                  | Plants         |
| Salix exigua hindsiana      |                                    | Plants         |
| Salix geyeriana             | Geyer's Willow                     | Plants         |
| Salix gooddingii            | Goodding's Willow                  | Plants         |
| Salix hookeriana            | Hooker's Willow                    | Plants         |
| Species                        | Common Name                  | Category       |
|-------------------------------|------------------------------|----------------|
| Salix jepsonii                | Jepson's Willow              | Plants         |
| Salix laevigata               | Polished Willow              | Plants         |
| Salix lasiandra caudata       |                              | Plants         |
| Salix lasiandra lasiandra     |                              | Plants         |
| Salix lasiolepis lasiolepis   | Arroyo Willow                | Plants         |
| Salix lemmontii               | Lemmon's Willow              | Plants         |
| Salix lutea                   | Yellow Willow                | Plants         |
| Salix melanopsis              | Dusky Willow                 | Plants         |
| Salix planifolia              | NA                           | Plants         |
| Salix prolixa                 | Mackenzie's Willow           | Plants         |
| Salix purpurea                | NA                           | Plants         |
| Salix sitchensis              | Sitka Willow                 | Plants         |
| Salix tracyi                  |                              | Plants         |
| Salmasellus howarthi          |                              | Crustaceans    |
| Salmoperla sylvanica          | Bighead Springfly            | Insects & other|
| Salvelinus confluentus        | Bull Trout                   | Fishes         |
| Salvinia minima               | NA                           | Plants         |
| Salvinia oblongifolia         | NA                           | Plants         |
| Samolus parviflorus           | NA                           | Plants         |
| Sanfilippodytes adelardi      | A Predaceous Diving Beetle   | Insects & other|
| Sanfilippodytes barbaraee     |                              | Insects & other|
| Sanfilippodytes barbarensis   |                              | Insects & other|
| Sanfilippodytes belfragei     |                              | Insects & other|
| Sanfilippodytes bidessoides   | A Predaceous Diving Beetle   | Insects & other|
| Sanfilippodytes corvallis     |                              | Insects & other|
| Sanfilippodytes hardyi        |                              | Insects & other|
| Sanfilippodytes kingi         |                              | Insects & other|
| Sanfilippodytes latebrosus    |                              | Insects & other|
| Sanfilippodytes malkini       |                              | Insects & other|
| Sanfilippodytes palliatus     |                              | Insects & other|
| Sanfilippodytes rossi         |                              | Insects & other|
| Sanfilippodytes setifer       | A Predaceous Diving Beetle   | Insects & other|
| Sanfilippodytes terminalis    |                              | Insects & other|
| Sanfilippodytes veronicae     |                              | Insects & other|
| Sanfilippodytes vilis         |                              | Insects & other|
| Sanfilippodytes williami      |                              | Insects & other|
| Sarracenia purpurea           | NA                           | Plants         |
| Sasquaperla hoopa             | A Stonefly                   | Insects & other|
| Scaphiopus couchii            | Couch's Spadefoot            | Herps          |
| Scheuchzeria palustris        | Pod Grass                    | Plants         |
| Schoenoplectus acutus acutus  | NA                           | Plants         |
| **Schoenoplectus acutus occidentalis** | Hardstem Bulrush | Plants |
| **Schoenoplectus americanus** | Three-square Bulrush | Plants |
| **Schoenoplectus californicus** | California Bulrush | Plants |
| **Schoenoplectus heterochaetus** | Slender Bulrush | Plants |
| **Schoenoplectus mucronatus** | NA | Plants |
| **Schoenoplectus pungens longispicatus** | Three-square Bulrush | Plants |
| **Schoenoplectus pungens pungens** | NA | Plants |
| **Schoenoplectus saximontanus** | Rocky Mountain Bulrush | Plants |
| **Schoenoplectus subterminalis** | Water Bulrush | Plants |
| **Schoenoplectus tabernaemontani** | Softstem Bulrush | Plants |
| **Schoenoplectus triqueter** | NA | Plants |
| **Schoenus nigricans** | Blackedge | Plants |
| **Scirpus congonii** | Congdon's Bulrush | Plants |
| **Scirpus cyperinus** | NA | Plants |
| **Scirpus diffusus** | Umbrella Bulrush | Plants |
| **Scirpus microcarpus** | Small-fruit Bulrush | Plants |
| **Scirpus pendulus** | Pendulous Bulrush | Plants |
| **Scirtes californicus** | Insects & other |
| **Scirtes orbiculatus** | Insects & other |
| **Scirtes plagiatus** | Insects & other |
| **Scutellaria galericulata** | Hooded Skullcap | Plants |
| **Sedella leiocarpa** | Lake County Mock Stonecrop | Plants |
| **Senecio hydrophiloides** | Sweet Marsh Ragwort | Plants |
| **Senecio hydrophilus** | Great Swamp Ragwort | Plants |
| **Senecio triangularis** | Arrow-leaf Groundsel | Plants |
| **Sequoia sempervirens** | Plants |
| **Sergentia albescens** | Insects & other |
| **Serratella levis** | A Mayfly | Insects & other |
| **Serratella micheneri** | A Mayfly | Insects & other |
| **Sesbania herbacea** | Plants |
| **Setophaga petechia** | Yellow Warbler | Birds |
| **Setophaga petechia brewsteri** | A Yellow Warbler | Birds |
| **Setophaga petechia sonorana** | Sonoran Yellow Warbler | Birds |
| **Setvena tibialis** | Insects & other |
| **Setvena wahkeena** | Insects & other |
| **Sialis arvalis** | Insects & other |
| **Sialis bilobata** | Insects & other |
| **Sialis californica** | Insects & other |
| **Sialis cornuta** | Insects & other |
| **Sialis hamata** | Insects & other |
| **Sialis nevadensis** | Insects & other |
| **Sialis occidens** | Insects & other |
| **Sialis rotunda** | Insects & other |
| **Sidalcea calycosa calycosa** | Annual Checker-mallow |
| **Sidalcea calycosa rhizomata** | Point Reyes Checkerbloom |
| **Sidalcea gigantea** | Plants |
| **Sidalcea hirsuta** | Hairy Checker-mallow |
| **Sidalcea neomexicana** | Water Mountain Checker-mallow |
| **Sidalcea oregana hydrophila** | Plants |
| **Sidalcea oregana valida** | Kenwood Marsh Checker-mallow |
| **Sidalcea pedata** | Pedate Checker-mallow |
| **Sidalcea ranunculacea** | Plants |
| **Sidalcea reptans** | Creeping Checker-mallow |
| **Sierraperla cora** | Giant Roachfly |
| **Sigara alternata** | Insects & other |
| **Sigara grossolineata** | Insects & other |
| **Sigara krafti** | Insects & other |
| **Sigara mckinstryi** | A Water Boatman |
| **Sigara nevadensis** | Insects & other |
| **Sigara omani** | Insects & other |
| **Sigara vallis** | A Water Boatman |
| **Sigara vandykei** | Insects & other |
| **Sigara washingtonensis** | Insects & other |
| **Simulium anduzei** | Insects & other |
| **Simulium apricarium** | Insects & other |
| **Simulium argus** | Insects & other |
| **Simulium balteatum** | Insects & other |
| **Simulium bivittatum** | Insects & other |
| **Simulium brevicercum** | Insects & other |
| **Simulium bricenoi** | Insects & other |
| **Simulium canadensis** | Insects & other |
| **Simulium canonicolum** | Insects & other |
| **Simulium carbunculum** | Insects & other |
| **Simulium chromatinum** | Insects & other |
| **Simulium chromocentrum** | Insects & other |
| **Simulium clarum** | Insects & other |
| **Simulium conicum** | Insects & other |
| **Simulium craigi** | Insects & other |
| Simulium curiei       | Insects & other |
|----------------------|----------------|
| Simulium decorum     | Insects & other |
| Simulium defoliarti  | Insects & other |
| Simulium donovani    | Insects & other |
| Simulium encisoi     | Insects & other |
| Simulium exculatum   | Insects & other |
| Simulium freemani    | Insects & other |
| Simulium griseum     | Insects & other |
| Simulium hechti      | Insects & other |
| Simulium hippovorum  | Insects & other |
| Simulium hunteri     | Insects & other |
| Simulium infernale   | Insects & other |
| Simulium iriartei    | Insects & other |
| Simulium jacumbae    | Insects & other |
| Simulium joculator   | Insects & other |
| Simulium longithallum| Insects & other |
| Simulium meridionale | Insects & other |
| Simulium modicum     | Insects & other |
| Simulium mysterium   | Insects & other |
| Simulium nebulosum   | Insects & other |
| Simulium negativum   | Insects & other |
| Simulium notatum     | Insects & other |
| Simulium paynei      | Insects & other |
| Simulium petersoni   | Insects & other |
| Simulium pilosum     | Insects & other |
| Simulium piperi      | Insects & other |
| Simulium pugetense   | Insects & other |
| Simulium quadratum   | Insects & other |
| Simulium rostratum   | Insects & other |
| Simulium saxosum     | Insects & other |
| Simulium silvestre   | Insects & other |
| Simulium tescorum    | Insects & other |
| Simulium tribulatum  | Insects & other |
| Simulium twinni      | Insects & other |
| Simulium vandalicum  | Insects & other |
| Simulium venator     | Insects & other |
| Simulium venustum    | Insects & other |
| Simulium virgatum    | Insects & other |
| Simulium vittatum    | Insects & other |
| Simulium wyomingense  | Insects & other |
| Simulium zephyrus    | Insects & other |
| Taxonomy | Scientific Name | English Name | Category |
|----------|-----------------|--------------|----------|
| Sinapis alba | NA | Plants |
| Siphatales bicolor bicolor | Klamath tui chub | Fishes |
| Siphatales bicolor obsesus | Lahontan stream tui chub | Fishes |
| Siphatales bicolor pectinifer | Lahontan lake tui chub | Fishes |
| Siphatales bicolor snyderi | Owens tui chub | Fishes |
| Siphatales bicolor ssp. 1 | Eagle Lake tui chub | Fishes |
| Siphatales bicolor ssp. 11 | High Rock Spring Tui Chub | Fishes |
| Siphatales mohavensis | Mojave tui chub | Fishes |
| Siphatales thalassinus ssp. 1 | Pit River tui chub | Fishes |
| Siphatales thalassinus | Goose Lake tui chub | Fishes |
| Siphatales thalassinus vaccaceps | Cow Head tui chub | Fishes |
| Siphlonurus columbianus | A Mayfly | Insects & other |
| Siphlonurus occidentalis | A Mayfly | Insects & other |
| Siphlonurus spectabilis | A Mayfly | Insects & other |
| Sisko oregona | Insects & other |
| Sisko sisko | Insects & other |
| Sisyra vicaria | Insects & other |
| Sisyrinchium californicum | Golden Blue-eyed-grass | Plants |
| Sisyrinchium elmeri | Elmer's Blue-eyed-grass | Plants |
| Sisyrinchium longipes | Timberland Blue-eyed-grass | Plants |
| Sium suave | Hemlock Water-parsnip | Plants |
| Skwala americana | American Springfly | Insects & other |
| Skwala curvata | Curved Springfly | Insects & other |
| Smicridea arizonensis | A Caddisfly | Insects & other |
| Smicridea dispar | A Caddisfly | Insects & other |
| Smicridea fasciatella | A Caddisfly | Insects & other |
| Smicridea signata | Insects & other |
| Solidago elongata | Plants |
| Solidago guiradonis | Guirado's Goldenrod | Plants |
| Solidago lepida salebrosa | Plants |
| Solidago spectabilis | Nevada Goldenrod | Plants |
| Soliperla campanula | Insects & other |
| Soliperla quadrispinula | Four-spined Roachfly | Insects & other |
| Soliperla sierra | Sierra Roachfly | Insects & other |
| Soliperla thyra | California Roachfly | Insects & other |
| Soliperla tillamook | Insects & other |
| Somatochlora albicincta | Ringed Emerald | Insects & other |
| Somatochlora minor | Insects & other |
| Somatochlora semicircularis | Mountain Emerald | Insects & other |
| Sorex palustris | American Water Shrew | Mammals |
| Common Name                        | Scientific Name       | Category               |
|-----------------------------------|-----------------------|------------------------|
| Soyedina interrupta              | Soyedina interrupta  | Insects & other        |
| Soyedina nevadensis              | Soyedina nevadensis   | Insects & other        |
| Soyedina producta                | Soyedina producta     | Insects & other        |
| Sparganium angustifolium         | Sparganium angustifolium | Plants               |
| Sparganium emersum               | Sparganium emersum    | Plants                 |
| Sparganium eurycarpum            | Sparganium eurycarpum | Plants                 |
| Sparganium eurycarpum greenei    | Sparganium eurycarpum greenei | Plants |
| Sparganium natans                | Sparganium natans     | Plants                 |
| Spartina densiflora              | Spartina densiflora   | Plants                 |
| Spartina foliosa                 | Spartina foliosa      | Plants                 |
| Spartina gracilis                | Spartina gracilis     | Plants                 |
| Spea hammondii                   | Spea hammondii        | Herps                  |
| Spea intermontana                | Spea intermontana     | Herps                  |
| Sperchon stellata                | Sperchon stellata     | Insects & other        |
| Sphaerium occidentale            | Sphaerium occidentale | Mollusks               |
| Sphaerium patella                | Sphaerium patella     | Mollusks               |
| Sphaerium striatum               | Sphaerium striatum    | Mollusks               |
| Sphenosciadium capitellatum      | Sphenosciadium capitellatum | Plants |
| Spiranthes romanzoffiana         | Spiranthes romanzoffiana | Plants |
| Spirinchus thaleichthys          | Spirinchus thaleichthys | Fishes           |
| Spirodela polyrhiza              | Spirodela polyrhiza   | Plants                 |
| Stachys ajugoides                | Stachys ajugoides     | Plants                 |
| Stachys albens                   | Stachys albens        | Plants                 |
| Stachys chamissonis chamissonis  | Stachys chamissonis chamissonis | Plants |
| Stachys pycnantha                | Stachys pycnantha     | Plants                 |
| Stachys rigida quercetorum       | Stachys rigida quercetorum | Plants |
| Stachys stricta                  | Stachys stricta       | Plants                 |
| Stactobiella brustia              | Stactobiella brustia  | Insects & other        |
| Stactobiella delira              | Stactobiella delira   | Insects & other        |
| Stactobiella palmata             | Stactobiella palmata  | Insects & other        |
| Stagnicola caperata              | Stagnicola caperata   | Mollusks               |
| Stagnicola elodes                | Stagnicola elodes     | Mollusks               |
| Stagnicola gabbi                 | Stagnicola gabbi      | Mollusks               |
| Stagnicola traski                | Stagnicola traski     | Mollusks               |
| Stegopterna acra                 | Stegopterna acra      | Insects & other        |
| Stegopterna permutata            | Stegopterna permutata | Insects & other        |
| Stegopterna xantha               | Stegopterna xantha    | Insects & other        |
| Stellaria littoralis             | Stellaria littoralis  | Plants                 |
| Stemodia durantifolia            | Stemodia durantifolia | Plants                 |
| Stenelmis calida calida          | Stenelmis calida calida | Plants |


| Species                                | Category                      |
|----------------------------------------|-------------------------------|
| Stenelmis lariversi                    | Insects & other               |
| Stenelmis moapa                        | Insects & other               |
| Stenelmis occidentalis                 | Insects & other               |
| Stenochironomus colei                  | Insects & other               |
| Stenochironomus fuscipatellus          | Insects & other               |
| Stenochironomus hilaris                | Insects & other               |
| Stenochironomus totifuscus             | Insects & other               |
| Stenocolus scutellaris                 | Insects & other               |
| Stenocypris archoplites                | An Ostracod                   |
| Stenochironomus naevus                 | Insects & other               |
| Stenochironomus quagga                 | Insects & other               |
| Stictotarsus aequinoctialis            | Insects & other               |
| Stictotarsus coelamboides              | Insects & other               |
| Stictotarsus corvinus                  | Insects & other               |
| Stictotarsus decemsignatus             | Insects & other               |
| Stictotarsus deceptus                  | Insects & other               |
| Stictotarsus dolerosus                 | Insects & other               |
| Stictotarsus eximius                   | Insects & other               |
| Stictotarsus expositus                 | Insects & other               |
| Stictotarsus funereus                  | Insects & other               |
| Stictotarsus griseostriatus            | Insects & other               |
| Stictotarsus panaminti                 | Insects & other               |
| Stictotarsus roffi                     | Insects & other               |
| Stictotarsus spectabilis               | Insects & other               |
| Stictotarsus striatellus               | Insects & other               |
| Stretocephalus dorotheae               | New Mexico Fairy Shrimp       |
| Stretocephalus mackini                 | Crustaceans                   |
| Stretocephalus sealii                  | Spinytail Fairy Shrimp        |
| Stretocephalus texanus                 | Greater Plains Fairy Shrimp   |
| Stretocephalus woottoni                | Riverside Fairy Shrimp        |
| Stretopus amplexifolius americanus      | Plants                        |
| Strix nebulosa                         | Great Gray Owl                |
| Stuckenia filiformis alpina            | Plants                        |
| Stuckenia pectinata                    | Plants                        |
| Stuckenia striata                      | Plants                        |
| Stygalbiella affinis                   | Insects & other               |
| Stygalbiella arizonica                 | Insects & other               |
| Stygobromus cherylae                   | Barr's Amphipod               |
| Stygobromus cowani                     | Cowan's Amphipod              |
| Stygobromus gallawayae                 | Gallaway's Amphipod           |
| Stygobromus gallawayae                 | Crustaceans                   |
| Scientific Name                  | Common Name                                      | Category         |
|---------------------------------|--------------------------------------------------|------------------|
| Stygobromus gradyi              | Grady's Cave Amphipod                           | Crustaceans      |
| Stygobromus grahami             | A Cave Obligate Amphipod                        | Crustaceans      |
| Stygobromus harai               | Hara's Cave Amphipod                            | Crustaceans      |
| Stygobromus hyporheicus         | Hypoheic Amphipod                               | Crustaceans      |
| Stygobromus imperialis          | Imperial Amphipod                               | Crustaceans      |
| Stygobromus lacicolas           | Lake Tahoe Amphipod                             | Crustaceans      |
| Stygobromus mackenziei          | Mackenzie's Cave Amphipod                       | Crustaceans      |
| Stygobromus myersae             | Myers' Amphipod                                 | Crustaceans      |
| Stygobromus mysticus            | A Cave Obligate Amphipod                        | Crustaceans      |
| Stygobromus rudolphi            | Rudolph's Amphipod                              | Crustaceans      |
| Stygobromus sheldoni            | Sheldon Stygobromid                            | Crustaceans      |
| Stygobromus sierrensis          | A Cave Obligate Amphipod                        | Crustaceans      |
| Stygobromus tahoensis           | Lake Tahoe Stygobromid                         | Crustaceans      |
| Stygobromus trinus              | Trinity County Amphipod                         | Crustaceans      |
| Stygobromus wengerorum          | Wenger Cave Stygobromid                        | Crustaceans      |
| Stygonyx courtneyi              |                                                 |                  |
| Stygoporus oreonensis           |                                                 |                  |
| Stylurus intricatus             | Brimstone Clubtail                              | Insects & other  |
| Stylurus olivaceus              | Olive Clubtail                                  | Insects & other  |
| Stylurus plagiatus              | Russet-tipped Clubtail                         | Insects & other  |
| Suaeda calceoliformis           | American Sea-blite                              | Plants           |
| Suaeda californica              | California Sea-blite                            | Plants           |
| Suaeda esteroa                  | Estuary Suaeda                                  | Plants           |
| Sublettia coffmani              |                                                 | Insects & other  |
| Subularia aquatica americana    | Water Awlwort                                   | Plants           |
| Suhisellus bicolor              |                                                 | Insects & other  |
| Susulus venustus                | Beautiful Springfly                             | Insects & other  |
| Suwallia amoenacolens           |                                                 | Insects & other  |
| Suwallia autumna                |                                                 | Insects & other  |
| Suwallia dubia                  | Pale Sallfly                                    | Insects & other  |
| Suwallia lineosa                |                                                 | Insects & other  |
| Suwallia pallidula              | Yellow Sallfly                                  | Insects & other  |
| Suwallia shepardii              | A Stonefly                                      | Insects & other  |
| Suwallia sierra                 | Sierra Sallfly                                  | Insects & other  |
| Suwallia starki                 |                                                 | Insects & other  |
| Suwallia sublimis               | A Stonefly                                      | Insects & other  |
| Sweltsa adamantea               |                                                 | Insects & other  |
| Sweltsa borealis                | Boreal Sallfly                                  | Insects & other  |
| Sweltsa californica             | Chico Sallfly                                   | Insects & other  |
| Sweltsa coloradensis            | Colorado Sallfly                                | Insects & other  |
| Sweltsa continua                | Gabriel Sallfly                                 | Insects & other  |
| Taxonomy                  | Common Name                  | Taxonomy                  | Common Name                  |
|--------------------------|------------------------------|--------------------------|------------------------------|
| Sweltsa exquisita        | Insects & other              | Sweltsa fidelis           | Mountain Sallfly             |
| Sweltsa lamba             | Insects & other              | Sweltsa occidens          | Insects & other              |
| Sweltsa oregonensis       | Insects & other              | Sweltsa pacifica          | Pacific Sallfly              |
| Sweltsa pisteri           | Coastal Sallfly              | Sweltsa resima            | California Sallfly           |
| Sweltsa revelstoka        | Insects & other              | Sweltsa salix             | A Stonefly                   |
| Sweltsa tamalpa           | Sierra Sallfly               | Sweltsa townesi           | Insects & other              |
| Sweltsa umbonata          | Shasta Sallfly               | Sweltsa yurok             | A Stonefly                   |
| Symbiocladius equitans    | Insects & other              | Sympetrum corruptum      | Variegated Meadowhawk        |
| Sympetrum costiferum      | Insects & other              | Sympetrum danae           | Black Meadowhawk             |
| Sympetrum illotum         | Insects & other              | Sympetrum internum        | Cherry-faced Meadowhawk      |
| Sympetrum madidum         | Insects & other              | Sympetrum obtrusum        | White-faced Meadowhawk       |
| Sympetrum pallipes        | Insects & other              | Sympetrum signiferum      | Insects & other              |
| Sympetrum vicinum         | Insects & other              | Symphyotrichum bracteolatum | Plants                      |
| Symphyotrichum frondosum  | Plants                       | Symphyotrichum lanceolatum hesperium | Siskiyou Aster |
| Symphyotrichum lanceolatum | Plants                      | Symphyotrichum lanceolatum | NA                          |
| Symphyotrichum lentum     | Suisun Marsh Aster           | Sympotthastia diastena    | Insects & other              |
| Syncaris pacifica         | California Freshwater Shrimp | Syncaris pasadenae        | Pasadena Freshwater Shrimp    |
| Syncaris pasadenae        | Crustaceans                  | Synendotendipes luski     | Insects & other              |
| Taenionema californicum   | California Willowfly        | Taenionema grinnelli      | Angeles Willowfly            |
| Taenionema jacobii        | Insects & other              | Taenionema jeanae         | A Stonefly                   |
| Taenionema jeanae         | Insects & other              | Taenionema jeanae         | Insects & other              |
| Taenionema jewetti | Insects & other |
|------------------|-----------------|
| Taenionema kincaidi | Pale Willowfly |
| Taenionema oregonense | Insects & other |
| Taenionema pacificum | Pacific Willowfly |
| Taenionema pallidum | Common Willowfly |
| Taenionema raynorium | Yosemite Willowfly |
| Taenionema uinta | Insects & other |
| Taenionema umatilla | Insects & other |
| Taeniopteryx nivalis | Boreal Willowfly |
| Talitroides alluaudi | Crustaceans |
| Talitroides topitotum | Crustaceans |
| Tanypteryx hageni | Black Petaltail |
| Tanypus carinatus | Insects & other |
| Tanypus grodhausi | Insects & other |
| Tanypus imperialis | Insects & other |
| Tanypus neopunctipennis | Insects & other |
| Tanypus nubifer | Insects & other |
| Tanypus parastellatus | Insects & other |
| Tanypus punctipennis | Insects & other |
| Tanypus stellatus | Insects & other |
| Tanytarsus angulatus | Insects & other |
| Tanytarsus challeti | Insects & other |
| Tanytarsus dendyi | Insects & other |
| Tanytarsus hastatus | Insects & other |
| Tanytarsus limneticus | Insects & other |
| Tanytarsus mendax | Insects & other |
| Tanytarsus neoflavellus | Insects & other |
| Tanytarsus pelsuei | Insects & other |
| Taricha granulosa | Rough-skinned Newt |
| Taricha rivularis | Red-bellied Newt |
| Taricha sierrae | Sierra Newt |
| Taricha torosa | Coast Range Newt |
| Taxus brevifolia | Plants |
| Telebasis salva | Desert Firetail |
| Telmatogoton alaskensis | Insects & other |
| Telmatogoton japonicus | Insects & other |
| Telmatogoton macswaini | Insects & other |
| Telmatogoton spinosus | Insects & other |
| Telmatogoton trilobatus | Insects & other |
| Teloleuca bifasciata | Insects & other |
| Teloleuca pellucens | Insects & other |
| Species                                                   | Category                     |
|-----------------------------------------------------------|------------------------------|
| Tempisquitoneura merrillorum                              | Insects & other              |
| Tethymyia aptena                                          | Insects & other              |
| Thalassosmittia clavicornis                              | Insects & other              |
| Thalassosmittia marina                                    | Insects & other              |
| Thalassosmittia pacifica                                  | Insects & other              |
| Thalassotrechus barbarae                                  | Insects & other              |
| Thaleichthys pacificus                                    | Eulachon                      |
| Thamnocephalus mexicanus                                  | Crustaceans                  |
| Thamnocephalus platyurus                                  | Beavertail Fairy Shrimp      |
| Thamnophis atratus atratus hydrophilius                   | Oregon Gartersnake           |
| Thamnophis atratus zaxanthus                              | Diablo Range Gartersnake     |
| Thamnophis couchii                                        | Sierra Gartersnake           |
| Thamnophis elegans elegans                               | Mountain Gartersnake         |
| Thamnophis elegans terrestris                             | Coast Gartersnake            |
| Thamnophis elegans vagrans                               | Wandering Gartersnake        |
| Thamnophis gigas                                          | Giant Gartersnake            |
| Thamnophis hammondii hammondii                            | Two-striped Gartersnake      |
| Thamnophis hammondii ssp. 1                               | Santa Catalina Gartersnake   |
| Thamnophis marcianus marcianus                            | Marcy's Checkered Gartersnake|
| Thamnophis ordinoides                                     | Northwestern Gartersnake     |
| Thamnophis sirtalis fitchi                               | Valley Gartersnake           |
| Thamnophis sirtalis infernalis                            | California Red-sided Gartersnake|
| Thamnophis sirtalis sirtalis                             | Common Gartersnake           |
| Thamnophis sirtalis ssp. 1                                | South Coast Gartersnake      |
| Thamnophis sirtalis tetrataenia                           | San Francisco Gartersnake    |
| Thelypteris puberula sonorensis                           | NA                           |
| Thermonectus intermedius                                  | Insects & other              |
| Thermonectus marmoratus                                   | Insects & other              |
| Thermonectus nigrofasciatus nigrofasciatus                | Insects & other              |
| Thermonectus sibleyi                                     | Insects & other              |
| Thienemannimyia barberi                                   | Insects & other              |
| Thienemannimyia fusciceps                                 | Insects & other              |
| Thienemannimyia norena                                    | Insects & other              |
| Thraulodes brunneus                                       | Insects & other              |
| Thraulodes gonzalesi                                      | Insects & other              |
| Thraulodes tenulineus                                     | Insects & other              |
| Throscinus crotchi                                        | Insects & other              |
| Timpanoga hecuba                                          | A Mayfly                     |

The table represents a list of species with their respective categories.
| Species               | Order            | Category               |
|----------------------|------------------|------------------------|
| Tinodes belisus      | A Caddisfly      | Insects & other        |
| Tinodes cascadius    | A Caddisfly      | Insects & other        |
| Tinodes consuetus    | A Caddisfly      | Insects & other        |
| Tinodes gabriella    | A Caddisfly      | Insects & other        |
| Tinodes parvulus     | A Caddisfly      | Insects & other        |
| Tinodes powelli      | A Caddisfly      | Insects & other        |
| Tinodes provo        | A Caddisfly      | Insects & other        |
| Tinodes schusteri    | A Caddisfly      | Insects & other        |
| Tinodes sigodanus    | A Caddisfly      | Insects & other        |
| Tinodes siskiyou     | A Caddisfly      | Insects & other        |
| Tinodes twilus       | A Caddisfly      | Insects & other        |
| Tinodes usillus      | A Caddisfly      | Insects & other        |
| Tlalocomyia andersoni|                 | Insects & other        |
| Tlalocomyia osbornii |                 | Insects & other        |
| Tlalocomyia ramifera |                 | Insects & other        |
| Tlalocomyia stewarti |                 | Insects & other        |
| Torreyochloa pallida | NA               | Plants                 |
| Toxicoscordion fontanum | NA            | Plants                 |
| Toxicoscordion micranthum | NA      | Plants                 |
| Toxicoscordion venenosum venenosum | NA | Plants |
| Toxorhynchites moctezuma |           | Insects & other        |
| Tramea calverti      |                 | Insects & other        |
| Tramea lacerata      | Black Saddlebags | Insects & other        |
| Tramea onusta        | Red Saddlebags   | Insects & other        |
| Traverella albertana |                 | Insects & other        |
| Trepobates becki      |                 | Insects & other        |
| Trepobates pictus    |                 | Insects & other        |
| Trepobates taylori    |                 | Insects & other        |
| Trepobates trepidus   |                 | Insects & other        |
| Triaenodes frontalis |                 | Insects & other        |
| Triaenodes injustus   |                 | Insects & other        |
| Triaenodes reuteri    |                 | Insects & other        |
| Triaenodes tardus     | A Caddisfly      | Insects & other        |
| Tribelos jucundum    |                 | Insects & other        |
| Tribelos subatrum    |                 | Insects & other        |
| Tribelos subletteorum|                 | Insects & other        |
| Trichocorixa arizonensis |           | Insects & other        |
| Trichocorixa calva   |                 | Insects & other        |
| Trichocorixa reticulata |             | Insects & other        |
| Trichocorixa uhleri  |                 | Insects & other        |
| Scientific Name                  | Common Name                           | Category            |
|---------------------------------|---------------------------------------|---------------------|
| Trichocorixa verticalis         |                                       | Insects & other     |
| Tricorythodes condylus          |                                       | Insects & other     |
| Tricorythodes explicatus        | A Mayfly                              | Insects & other     |
| Tricorythodes fictus            | A Mayfly                              | Insects & other     |
| Triglochin maritima             | Common Bog Arrow-grass                | Plants              |
| Triglochin palustris            | Slender Bog Arrow-grass               | Plants              |
| Triglochin scilloides           | NA                                    | Plants              |
| Triglochin striata              | Three-ribbed Arrow-grass              | Plants              |
| Tringa melanoleuca              | Greater Yellowlegs                    | Birds               |
| Tringa semipalmata              | Willet                                | Birds               |
| Tringa solitaria                | Solitary Sandpiper                    | Birds               |
| Triops longicaudatus            | Summer tadpole shrimps                | Crustaceans         |
| Triznaka pintada                | Rough Sallfly                         | Insects & other     |
| Triznaka sheldoni               |                                       | Insects & other     |
| Triznaka signata                |                                       | Insects & other     |
| Tropicus pusillus               |                                       | Insects & other     |
| Tropisternus californicus       |                                       | Insects & other     |
| Tropisternus columbianus        |                                       | Insects & other     |
| Tropisternus ellipticus         |                                       | Insects & other     |
| Tropisternus lateralis          |                                       | Insects & other     |
| Tropisternus orvus              |                                       | Insects & other     |
| Tropisternus salsamentus        |                                       | Insects & other     |
| Tropisternus sublaevis          |                                       | Insects & other     |
| Tryonia margae                  | Grapevine Springs Elongate Tryonia    | Mollusks            |
| Tryonia porrecta                | Desert Tryonia                        | Mollusks            |
| Tryonia rowlandsi               | Grapevine Springs Squat Tryonia       | Mollusks            |
| Tryonia salina                  | Cottonball Marsh Tryonia              | Mollusks            |
| Tryonia variegata               | Amargosa Tryonia                      | Mollusks            |
| Tuctoria greenei                | Green's Awnless Orcutt Grass          | Plants              |
| Tuctoria mucronata              | Mucronate Orcutt Grass                | Plants              |
| Tvetenia vitraces               |                                       | Insects & other     |
| Twinnia hirticornis             |                                       | Insects & other     |
| Typha domingensis               | Southern Cattail                      | Plants              |
| Typha latifolia                 | Broadleaf Cattail                     | Plants              |
| Uca crenulata                   |                                       | Crustaceans         |
| Uranotaenia anhydor             |                                       | Insects & other     |
| Utacapnia columbianus           | Columbian Snowfly                     | Insects & other     |
| Utacapnia imbera                |                                       | Insects & other     |
| Utacapnia lemoniana             |                                       | Insects & other     |
| Utacapnia sierra                | Sierra Snowfly                        | Insects & other     |
| Utacapnia tahoensis             | Tahoe Snowfly                         | Insects & other     |
| Species                        | Common Name                          | Category   |
|-------------------------------|--------------------------------------|------------|
| Utaperla sopladora            |                                      | Insects & other |
| Utaxatax californiensis       |                                      | Insects & other |
| Utaxatax newelli              |                                      | Insects & other |
| Utaxatax ovalis               |                                      | Insects & other |
| Utricularia gibba             | Humped Bladderwort                   | Plants     |
| Utricularia intermedia        | Flatleaf Bladderwort                 | Plants     |
| Utricularia macrorhiza        | Greater Bladderwort                  | Plants     |
| Utricularia minor             | Lesser Bladderwort                   | Plants     |
| Utricularia ochroleuca        | Northern Bladderwort                 | Plants     |
| Utricularia subulata          | NA                                   | Plants     |
| Uvarus amandus                |                                      | Insects & other |
| Uvarus subtilis               |                                      | Insects & other |
| Vaccinium macrocarpon         | NA                                   | Plants     |
| Vaccinium uliginosum occidentale |                                 | Plants     |
| Vaccupernius packeri          |                                      | Insects & other |
| Valvata humerals              | Glossy Valvata                       | Mollusks   |
| Valvata tricarinata           |                                      | Mollusks   |
| Valvata utahensis             |                                      | Mollusks   |
| Valvata virens                | Emerald Valvata                      | Mollusks   |
| Veratrum fimbriatum           | Fringed False Hellebore              | Plants     |
| Verbena scabra                | Sandpaper Vervain                   | Plants     |
| Veronica americana            | American Speedwell                   | Plants     |
| Veronica anagallis-aquatica   | NA                                   | Plants     |
| Veronica catenata             | NA                                   | Plants     |
| Veronica peregrina            | NA                                   | Plants     |
| Veronica scutellata           | Marsh-speedwell                      | Plants     |
| Vertigo ovata                 | Ovate Vertigo                       | Mollusks   |
| Vespericola armiger           | Santa Cruz Hesperian                 | Mollusks   |
| Vespericola embertoni         | Reeves Canyon Hesperian Snail        | Mollusks   |
| Vespericola eritrichius       | Velvet Hesperian                     | Mollusks   |
| Vespericola euthales          | A Terrestrial Snail                  | Mollusks   |
| Vespericola haplus            | Butte Creek Hesperian                | Mollusks   |
| Vespericola karokorum         | Karok Hesperian                      | Mollusks   |
| Vespericola klamathicus       | Klamath Hesperian                    | Mollusks   |
| Vespericola marinensis        | Marin Hesperian                      | Mollusks   |
| Vespericola megasoma          | Redwood Hesperian                    | Mollusks   |
| Vespericola orius             | El Dorado Hesperian                  | Mollusks   |
| Vespericola pilosus           | Brushfield Hesperian                 | Mollusks   |
| Vespericola pinnicola         | Monterey Hesperian                   | Mollusks   |
| Vespericola pressleyi         | Big Bar Hesperian                    | Mollusks   |
| Common Name                   | Scientific Name         | Class          |
|-------------------------------|-------------------------|----------------|
| Vespericola rhodophila        | Azalea Hesperian Snail  | Mollusks       |
| Vespericola rothi             | Ellery Creek Hesperian  | Mollusks       |
| Vespericola sasquatch         | Sasquatch Hesperian Snail | Mollusks     |
| Vespericola scotti            | Benson Gulch Hesperian  | Mollusks       |
| Vespericola shasta            | Shasta Hesperian        | Mollusks       |
| Vespericola sierranus         | Siskiyou Hesperian      | Mollusks       |
| Viola langsdorffii            | NA                      | Plants         |
| Viola maclloskeyi             | NA                      | Plants         |
| Vireo bellii                  | Bell's Vireo            | Birds          |
| Vireo bellii arizonae         | Arizona Bell's Vireo    | Birds          |
| Vireo bellii pusillus         | Least Bell's Vireo      | Birds          |
| Visoka cataractae             | Cataract Forestfly      | Insects & other|
| Vorticifex effusa effusa     | Artemesian Rams-horn    | Mollusks       |
| Vorticifex solida             | A Freshwater Snail      | Mollusks       |
| Wolffia arrhiza               | NA                      | Plants         |
| Wolffia borealis              | Dotted Watermeal        | Plants         |
| Wolffia brasiensis            | Pointed Watermeal       | Plants         |
| Wolffia columbia               | Columbian Watermeal     | Plants         |
| Wolffia globosa               | Asian Watermeal         | Plants         |
| Wolffiella lingulata          | Tongue Bogmat           | Plants         |
| Wolffiella oblonga            | Saber-shape Bogmat      | Plants         |
| Wormaldia anilla              | A Caddisfly             | Insects & other|
| Wormaldia arizonensis         |                         | Insects & other|
| Wormaldia birneyi             | A Caddisfly             | Insects & other|
| Wormaldia gabiella            | A Caddisfly             | Insects & other|
| Wormaldia gesugta             | A Caddisfly             | Insects & other|
| Wormaldia hamata              | A Caddisfly             | Insects & other|
| Wormaldia laona               | A Caddisfly             | Insects & other|
| Wormaldia occidea             | A Caddisfly             | Insects & other|
| Wormaldia pachita             | A Caddisfly             | Insects & other|
| Xanthocephalus xanthocephalus | Yellow-headed Blackbird  | Birds          |
| Xenelmis sandersoni           |                         | Insects & other|
| Xenochironomus xenolabis      |                         | Insects & other|
| Xenopelopia tincta            |                         | Insects & other|
| Xyrauchen texanus             | Razorback sucker        | Fishes         |
| Yoraperla brevis              | Least Roachfly          | Insects & other|
| Yoraperla mariana             |                         | Insects & other|
| Yoraperla nigrisoma           | Black Roachfly          | Insects & other|
| Yoraperla siletz              | Coastal Roachfly        | Insects & other|
| Yphria californica            | A Caddisfly             | Insects & other|
| Zaitzevia parvula             |                         | Insects & other|
| Species                                | Common Name                      | Category        |
|----------------------------------------|----------------------------------|-----------------|
| Zaitzevia posthonia                    |                                 | Insects & other |
| Zannichellia palustris                 | Horned Pondweed                  | Plants          |
| Zapada cinctipes                       | Common Forestfly                 | Insects & other |
| Zapada columbiana                      | Columbian Forestfly              | Insects & other |
| Zapada cordillera                      | Cordilleran Forestfly            | Insects & other |
| Zapada frigida                         | Frigid Forestfly                 | Insects & other |
| Zapada haysi                           | Intermountain Forestfly          | Insects & other |
| Zapada oregonensis                     | Oregon Forestfly                 | Insects & other |
| Zavrelimyia sinuosa                    |                                 | Insects & other |
| Zavrelimyia thryptica                  |                                 | Insects & other |
| Zizania palustris interior             | NA                               | Plants          |
| Zizania palustris palustris            | NA                               | Plants          |
| Zoniagrion exclamationis               | Exclamation Damsel               | Insects & other |
| Zumatrichia notosa                     |                                 | Insects & other |
S3 Table. Sources used to compile spatial data occurrences.

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| Cornell University Museum of Vertebrates                                   | Reptile Collection                       | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| University of Kansas Herpetology Collection                                |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| Natural History Museum of Los Angeles County Herpetology Collection         |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| Harvard University Museum of Comparative Zoology Herpetology Collection     |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| Museum of Southwestern Biology Herpetology Collection                      |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| Michigan State University Museum Herpetology Collection                    |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| University of California Berkeley Museum of Vertebrate Zoology Herpetology Collection |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
| University of California Berkeley Museum of Vertebrate Zoology Hildebrand Collection |                                          | 2014 | May 21, 2014                | http://www.herpnet.org/                                              |
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| Institution                                      | Collection Type          | Year       | Records Type   | Access URL                                      |
|-------------------------------------------------|--------------------------|------------|----------------|-----------------------------------------------|
| James R. Slater Museum of Natural History       | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| Royal Ontario Museum                            | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| Santa Barbara Museum of Natural History         | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| Santa Barbara Museum of Natural History         | Osteological Collection  | 2014       | Species Records | http://www.herpnet.org/                        |
| San Diego Natural History Museum                | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| Staatliches Museum für Naturkunde Stuttgart     | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| University of Alberta Museum of Zoology         | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| University of British Columbia Beaty Biodiversity Museum | Cowan Tetrapod Collection - Herpetology | 2014 | Species Records | http://www.herpnet.org/                        |
| University of Colorado Museum of Natural History | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| University of Nevada, Reno                      | Herpetology Collection   | 2014       | Species Records | http://www.herpnet.org/                        |
| Smithsonian Institution National Museum of Natural History | Amphibian & Reptile Collection | 2014 | Species Records | http://www.herpnet.org/                        |
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| Institution | Herbarium Details | URL |
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| California Polytechnic State University, San Luis Obispo. Herbarium.      | Accessed via Consortium of California Herbaria at http://ucjeps.berkeley.edu/consortium/ on May 30, 2014. |
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| Pomona College. Herbarium.                                                 | Accessed via Consortium of California Herbaria at http://ucjeps.berkeley.edu/consortium/ on May 30, 2014. |
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| Rancho Santa Ana Botanic Garden. Herbarium                                | 30 May 2014                                                                   |
| California State University, Sacramento. Herbarium                        | 30 May 2014                                                                   |
| Santa Barbara Botanic Garden. Herbarium                                    | 30 May 2014                                                                   |
| San Diego Natural History Museum. Herbarium                                | 30 May 2014                                                                   |
| Southwest Environmental Information Network. Herbarium                     | 30 May 2014                                                                   |
| California State University, Northridge. Herbarium                        | 30 May 2014                                                                   |
| San Jose State University. Herbarium                                       | 30 May 2014                                                                   |
| University of California, Berkeley. University Herbarium                  | 30 May 2014                                                                   |
| University of California, Davis. Herbarium                                 | 30 May 2014                                                                   |
| Institution                                    | Access Details                                                                 |
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| University of California, Santa Barbara.      | Herbarium. Accessed via Consortium of California Herbaria at                      |
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| Victor Valley College.                        | Herbarium. Accessed via Consortium of California Herbaria at                      |
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| Academy of Natural Sciences. Ocean Biogeographic Information System Mollusc Database. | Accessed via Global Biodiversity Information Facility at                         |
|                                               | http://www.gbif.org/dataset/83a09216-f762-11e1-a439-00145eb45e9a on May 14, 2014.|
| Academy of Natural Sciences. Malacology      | Philadelphia. Accessed via Global Biodiversity Information Facility at           |
|                                               | http://www.gbif.org/dataset/86b50d88-f762-11e1-a439-00145eb45e9a on May 14, 2014.|


| Institution                                                      | Dataset Link                                                                 |
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| Ohio State University Museum of Biological Diversity. Borror Laboratory of Bioacoustics Birds Collection. | http://www.gbif.org/dataset/85fd399c-f762-11e1-a439-00145eb45e9a           |
| Ohio State University Museum of Biological Diversity. Charles A. Triplehorn Insect Collection. | http://www.gbif.org/dataset/84ab7b76-f762-11e1-a439-00145eb45e9a           |
| Ohio State University Museum of Biological Diversity. Recordings. | http://www.gbif.org/dataset/f11db245-3f9f-4fc6-a0cc-12b4124d081b           |
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| Australian National Herbarium.                                  | http://www.gbif.org/dataset/82cd8df8-f762-11e1-a439-00145eb45e9a           |
| Australian National Herbarium.                                  | http://www.gbif.org/dataset/82cd8df8-f762-11e1-a439-00145eb45e9a           |
| Australian National Herbarium.                                  | http://www.gbif.org/dataset/82cd8df8-f762-11e1-a439-00145eb45e9a           |
| Australian National Herbarium.                                  | http://www.gbif.org/dataset/82cd8df8-f762-11e1-a439-00145eb45e9a           |
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| Information Facility at http://www.gbif.org/dataset/82cd8df8-f762-      |               |
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| http://www.gbif.org/dataset/44bcde48-ac71-46f2-bf73-24fc3c008b6c        |               |
| Dataset Link | Description |
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| Santa Barbara Museum of Natural History. California Beetle Project         | http://www.gbif.org/dataset/84b130ac-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Sternberg Museum of Natural History. Herpetology Collection               | http://www.gbif.org/dataset/84e823d2-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
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| Institution                                                                 | Collection Type                  | Access URL                                                                 |
|----------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------|
| North Carolina Museum of Natural Sciences.                                | Invertebrates Collection          | http://www.gbif.org/dataset/d7ce3688-e91d-4f26-b2bb-333357c6da9f          |
| Centre for Genetic Resources, the Netherlands.                           | Plant Genetic Resources Passport Data. | http://www.gbif.org/dataset/85796928-f762-11e1-a439-00145eb45e9a         |
| Natural History Museum Rotterdam.                                         | Insecta collection                | http://www.gbif.org/dataset/d5e61920-9863-4fc3-8e5a-80f0c7bfe640          |
| Ocean Biogeographic Information System. San Francisco Bay Data.           |                                  | http://www.gbif.org/dataset/8399a5be-f762-11e1-a439-00145eb45e9a         |
| National Herbarium of New South Wales.                                   | Herbarium Collection              | http://www.gbif.org/dataset/853006c0-f762-11e1-a439-00145eb45e9a         |
| Consortium of California Herbarium.                                       | New York Botanical Garden         | http://www.gbif.org/dataset/7133ff0a-f762-11e1-a439-00145eb45e9a         |
| Consortium of California Herbaria. California Polytechnic State University, San Luis Obispo. |                       | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106         |
| Ohio State University Museum of Biological Diversity Tetrapod Division.   | Amphibian Collection              | http://www.gbif.org/dataset/3d84f407-8a76-473a-b8c8-54a58d5f581b          |
| Ohio State University Museum of Biological Diversity Tetrapod Division.   | Reptile Collection                | http://www.gbif.org/dataset/51fa0155-a545-4154-ac20-b89dbb2c312b          |
| Institution                                                                 | Dataset URL                                                                 |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Ohio State University Museum of Biological Diversity Acarology Laboratory. Mites Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/51fa0155-a545-4154-ac20-b89dbb2c312b on May 14, 2014. | http://www.gbif.org/dataset/96b54e8c-f762-11e1-a439-00145eb45e9a            |
| University of California, Berkeley - Essig Museum. California Terrestrial Arthropod Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3            |
| Sam Noble Oklahoma Museum of Natural History. Amphibian Specimens. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/2e64dedd-0996-4cd6-b6cd-4f055a46c38c on May 14, 2014. | http://www.gbif.org/dataset/2e64dedd-0996-4cd6-b6cd-4f055a46c38c            |
| Sam Noble Oklahoma Museum of Natural History. Reptile Specimens. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/ad0d4b56-c620-45a5-9152-7a0da3bd48e8 on May 14, 2014. | http://www.gbif.org/dataset/ad0d4b56-c620-45a5-9152-7a0da3bd48e8            |
| Sam Noble Oklahoma Museum of Natural History. Recent Invertebrates Specimens. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/5378e1cf-522d-4469-8776-b709579b4a3e on May 14, 2014. | http://www.gbif.org/dataset/5378e1cf-522d-4469-8776-b709579b4a3e            |
| Ohio State University Museum of Biological Diversity Acarology Laboratory. Mites Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/96b54e8c-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/96b54e8c-f762-11e1-a439-00145eb45e9a            |
| Oregon State University. Vascular Plant Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84aa5ee4-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84aa5ee4-f762-11e1-a439-00145eb45e9a            |
| Oregon State University. Vascular Plant Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84aa5ee4-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84aa5ee4-f762-11e1-a439-00145eb45e9a            |
| Ohio State University Museum of Biological Diversity Acarology Laboratory. Insect Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84ab7b76-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84ab7b76-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a |
| Facility                                                                                          | Date                           |
|--------------------------------------------------------------------------------------------------|--------------------------------|
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database.         | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| University of California, Santa Barbara Marine Science Institute. Paleobiology Database.         | http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84806e86-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| Consortium of California Herbarium. Pacific Grove Museum of Natural History.                    | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |                                |
| Consortium of California Herbarium. Pomona College Herbarium.                                   | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |                                |
| James R. Slater Museum of Natural History. Herpetology Collection.                               | http://www.gbif.org/dataset/8eddc200-f535-4c65-9b4d-f723eafe607e on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/8eddc200-f535-4c65-9b4d-f723eafe607e on May 14, 2014. |                                |
| McGill University Redpath Museum. Herpetological specimens.                                     | http://www.gbif.org/dataset/7132ed22-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/7132ed22-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| Royal Ontario Museum. Herpetology Collection.                                                    | http://www.gbif.org/dataset/84bd4658-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84bd4658-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| Royal Belgian Institute of Natural Sciences. Amphibian Collection.                               | http://www.gbif.org/dataset/8138eb72-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/8138eb72-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| Royal Belgian Institute of Natural Sciences.                                                     | http://www.gbif.org/dataset/8138eb72-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/8138eb72-f762-11e1-a439-00145eb45e9a on May 14, 2014. |                                |
| Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/8138eb72-f762-11e1-a439-00145eb45e9a on May 14, 2014. | 11e1-a439-00145eb45e9a |
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| Royal Ontario Museum. Herpetology Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/8c201186-d997-4b65-aac9-2fcf442a93f6 on May 14, 2014. | http://www.gbif.org/dataset/8c201186-d997-4b65-aac9-2fcf442a93f6 |
| Consortium of California Herbarium. Rancho Santa Ana Botanic Garden Herbarium. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 |
| Consortium of California Herbaria. California State University, Sacramento. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 |
| Consortium of California Herbaria. Santa Barbara Botanic Garden. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 |
| Santa Barbara Museum of Natural History. Entomology Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84b130ac-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84b130ac-f762-11e1-a439-00145eb45e9a |
| Santa Barbara Museum of Natural History. Herpetology Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/75018539-6328-41de-b875-7c2e61dc1635 on May 14, 2014. | http://www.gbif.org/dataset/75018539-6328-41de-b875-7c2e61dc1635 |
| Santa Barbara Museum of Natural History. Osteological Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/75018539-6328-41de-b875-7c2e61dc1635 on May 14, 2014. | http://www.gbif.org/dataset/75018539-6328-41de-b875-7c2e61dc1635 |
| Santa Barbara Museum of Natural History. Entomology Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84b130ac-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84b130ac-f762-11e1-a439-00145eb45e9a |
| Santa Barbara Museum of Natural History. | http://www.gbif.org/dataset/5d283bb6-64dd-
| Collection                                                                 | Date of Access                                                                 | URI                                                                 |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Arthropods Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. | 4626-8b3b-a4e8db5415c3                                                      | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. |
| Consortium of California Herbaria. San Diego Natural History Museum. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106             | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. |
| University of California, Berkeley - Essig Museum. California Terrestrial Arthropod Database. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3             | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. |
| San Diego Natural History Museum. Herpetological specimens. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/84b4d6e4-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/84b4d6e4-f762-11e1-a439-00145eb45e9a             | http://www.gbif.org/dataset/84b4d6e4-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Consortium of California Herbaria. San Diego State University. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106             | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Consortium of California Herbaria. California State University, Northridge. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106             | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Consortium of California Herbaria. San Jose State University. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106             | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Senckenberg Nature Research Society. Crustacean Collection. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/9668b676-f762-11e1-a439-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/9668b676-f762-11e1-a439-00145eb45e9a             | http://www.gbif.org/dataset/9668b676-f762-11e1-a439-00145eb45e9a on May 14, 2014. |
| Staatliche Naturwissenschaftliche Sammlungen Bayerns. Fungus Collections. Accessed via Global Biodiversity Information Facility at http://www.gbif.org/dataset/61a9ca38-b62f-11e2-aefcb-00145eb45e9a on May 14, 2014. | http://www.gbif.org/dataset/61a9ca38-b62f-11e2-aefcb-00145eb45e9a             | http://www.gbif.org/dataset/61a9ca38-b62f-11e2-aefcb-00145eb45e9a on May 14, 2014. |
| Institution | Collection | Access URL |
|-------------|------------|------------|
| Staatliches Museum für Naturkunde Stuttgart | Herpetology Collection | [http://www.gbif.org/dataset/9cd0014c-b7b1-4ed1-bef7-0225acfa4ef2](http://www.gbif.org/dataset/9cd0014c-b7b1-4ed1-bef7-0225acfa4ef2) on May 14, 2014. |
| Texas A&M University | Insect Collection | [http://www.gbif.org/dataset/96193ea2-f762-11e1-a439-00145eb45e9a](http://www.gbif.org/dataset/96193ea2-f762-11e1-a439-00145eb45e9a) on May 14, 2014. |
| The University of Texas at Austin | Herpetology Collection | [http://www.gbif.org/dataset/852628c6-f762-11e1-a439-00145eb45e9a](http://www.gbif.org/dataset/852628c6-f762-11e1-a439-00145eb45e9a) on May 14, 2014. |
| University of Alberta Museums | Vascular Plant Herbarium | [http://www.gbif.org/dataset/7b3e4870-f762-11e1-a439-00145eb45e9a](http://www.gbif.org/dataset/7b3e4870-f762-11e1-a439-00145eb45e9a) on May 14, 2014. |
| University of Alberta Museums | Amphibian and Reptile Collection | [http://www.gbif.org/dataset/88d7437e-f762-11e1-a439-00145eb45e9a](http://www.gbif.org/dataset/88d7437e-f762-11e1-a439-00145eb45e9a) on May 14, 2014. |
| University of Alabama Biodiversity and Systematics | Herbarium | [http://www.gbif.org/dataset/84f9770e-f762-11e1-a439-00145eb45e9a](http://www.gbif.org/dataset/84f9770e-f762-11e1-a439-00145eb45e9a) on May 14, 2014. |
| University of British Columbia | Cowan Tetrapod Collection - Herpetology | [http://www.gbif.org/dataset/df9c8b86-9d36-4e29-91b3-4274dff053e5](http://www.gbif.org/dataset/df9c8b86-9d36-4e29-91b3-4274dff053e5) on May 14, 2014. |
| Consortium of California Herbaria | University of California, Berkeley - University Herbarium | [http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106](http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106) on May 14, 2014. |
| University of California, Berkeley Natural History Museums | TAPIR Provider | [http://www.gbif.org/dataset/51b92d4e-556f-4a05-bc5c-bfe982ee1156](http://www.gbif.org/dataset/51b92d4e-556f-4a05-bc5c-bfe982ee1156) on May 14, 2014. |
| Institution                                                                 | Dataset URL                                                                 |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------|
| University of California, Berkeley Natural History Museums. TAPIR Provider. | http://www.gbif.org/dataset/51b92d4e-556f-4a05-bc5c-bfe982ee1156 on May 14, 2014. |
| University of California, Berkeley Natural History Museums. Mather Redwood Grove. | http://www.gbif.org/dataset/51b92d4e-556f-4a05-bc5c-bfe982ee1156 on May 14, 2014. |
| University of California, Berkeley Natural History Museums. Unspecified.       | http://www.gbif.org/dataset/51b92d4e-556f-4a05-bc5c-bfe982ee1156 on May 14, 2014. |
| University of California, Berkeley - Essig Museum. California Terrestrial Arthropod Database. | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3 on May 14, 2014. |
| Consortium of California Herbaria. University of California, Davis.          | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| Consortium of California Herbaria. University of California, Berkeley - Jepson Herbarium. | http://www.gbif.org/dataset/5729fd1d-04af-46bd-9da7-0ff79977c6f8 on May 14, 2014. |
| Consortium of California Herbaria. University of California, Berkeley - University Herbarium. | http://www.gbif.org/dataset/5729fd1d-04af-46bd-9da7-0ff79977c6f8 on May 14, 2014. |
| Consortium of California Herbaria. University of California, Los Angeles.    | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106 on May 14, 2014. |
| University of Colorado Museum of Natural History.                           | http://www.gbif.org/dataset/8935e64a-f762-46c0-ba00-9bb03b3ca106 on May 14, 2014. |
| Organization                                      | Accession URL                                                                 | Date Accessed           |
|--------------------------------------------------|-------------------------------------------------------------------------------|-------------------------|
| History. Amphibian and Reptile Collection.        | http://www.gbif.org/dataset/8935e64a-f762-11e1-a439-00145eb45e9a             | May 14, 2014            |
| University of Connecticut. George Safford Torrey Herbarium. | http://www.gbif.org/dataset/5288946d-5fcf-4b53-8fd3-74f4cc6b53fc             | May 14, 2014            |
| Consortium of California Herbaria. University of California, Riverside. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106            | May 14, 2014            |
| University of California, Berkeley - Essig Museum. California Terrestrial Arthropod Database. | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3            | May 14, 2014            |
| Consortium of California Herbaria. University of California, Santa Barbara. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106            | May 14, 2014            |
| Consortium of California Herbaria. University of California, Santa Cruz. | http://www.gbif.org/dataset/4fa894f4-b6c6-4ec0-b816-9bb03b3ca106            | May 14, 2014            |
| University of California, Berkeley - Essig Museum. California Terrestrial Arthropod Database. | http://www.gbif.org/dataset/5d283bb6-64dd-4626-8b3b-a4e8db5415c3            | May 14, 2014            |
| University of Alberta Museums. Vascular Plant Herbarium. | http://www.gbif.org/dataset/2429287b-ef65-4cfd-afcc-11cc3ba95cca             | May 14, 2014            |
| University of Alberta Museums. Entomology Collection. | http://www.gbif.org/dataset/8971dfba-f762-11e1-a439-00145eb45e9a           | May 14, 2014            |
| Institution                                                                 | Database Access Information                                                                 |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| University of British Columbia Herbarium                                    | [Link](http://www.gbif.org/dataset/07fd0d79-4883-435f-bba1-58fef110cd13) on May 14, 2014. |
| University of Nevada, Reno. Herpetology Collection.                         | [Link](http://www.gbif.org/dataset/c62f7574-d65a-4018-87a2-b96d6df5231b) on May 14, 2014.    |
| University of Puerto Rico. Invertebrate Collection.                         | [Link](http://www.gbif.org/dataset/1162234d-4e06-4d63-8a49-034184a38c7e) on May 14, 2014.    |
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