

ARSSC versus CNDDDB nomenclature for amphibian and reptiles

This is a crosswalk comparison of the California Amphibian and Reptile Species of Special Concern (ARSSC) nomenclature used in Thomson et al. 2016 and the nomenclature used in the California Natural Diversity Database (CNDDDB) as of April 2017 (sorted by CNDDDB Element Code). Though there are differences in name (noted with an asterisk*), the entity concepts are the same.

| Amphibian & Reptile Species of Special Concern (Thomson et al. 2016) | | | California Natural Diversity Database | | | | | |
|--|-----------------------------------|-----------------------|---|-----------------------------------|--------------|--------------------|------------------|-------------------------|
| Scientific Name | Common Name | Priority ¹ | Scientific Name | Common Name | Element Code | Federal ESA Status | State ESA Status | State Rank ² |
| Amphibians | | | | | | | | |
| Caudata - Salamanders | | | | | | | | |
| <i>Ambystoma macrodactylum sigillatum</i> | southern long-toed salamander | 2 | <i>Ambystoma macrodactylum sigillatum</i> | southern long-toed salamander | AAAAA01085 | None | None | S3 |
| * <i>Aneides flavipunctatus niger</i> | Santa Cruz black salamander | 3 | <i>Aneides niger</i> | Santa Cruz black salamander | AAAAD01070 | None | None | S3 |
| <i>Batrachoseps campi</i> | Inyo Mountains slender salamander | 3 | <i>Batrachoseps campi</i> | Inyo Mountains slender salamander | AAAAD02030 | None | None | S3 |
| <i>Batrachoseps relictus</i> | relictual slender salamander | 1 | <i>Batrachoseps relictus</i> | relictual slender salamander | AAAAD02070 | None | None | S1 |
| <i>Batrachoseps minor</i> | lesser slender salamander | 1 | <i>Batrachoseps minor</i> | lesser slender salamander | AAAAD02170 | None | None | S1 |
| <i>Taricha rivularis</i> | red-bellied newt | 2 | <i>Taricha rivularis</i> | red-bellied newt | AAAAF02020 | None | None | S2 |
| <i>Taricha torosa</i> , southern population | Coast Range newt | 2 | <i>Taricha torosa</i> , Monterey Co & south | Coast Range newt | AAAAF02032 | None | None | S4 |
| <i>Dicamptodon ensatus</i> | California giant salamander | 3 | <i>Dicamptodon ensatus</i> | California giant salamander | AAAAH01020 | None | None | S2S3 |
| <i>Rhyacotriton variegatus</i> | southern torrent salamander | 1 | <i>Rhyacotriton variegatus</i> | southern torrent salamander | AAAAJ01020 | None | None | S2S3 |
| Anura – Frogs | | | | | | | | |
| <i>Ascaphus truei</i> | Pacific tailed frog | 2 | <i>Ascaphus truei</i> | Pacific tailed frog | AAABA01010 | None | None | S3S4 |
| * <i>Bufo alvarius</i> | Sonoran desert toad | 1 | <i>Incilius alvarius</i> | Sonoran desert toad | AAABB01010 | None | None | SH |
| * <i>Bufo canorus</i> | Yosemite toad | 1 | <i>Anaxyrus canorus</i> | Yosemite toad | AAABB01040 | Threatened | None | S2S3 |
| * <i>Bufo californicus</i> | arroyo toad | 1 | <i>Anaxyrus californicus</i> | arroyo toad | AAABB01230 | Endangered | None | S2S3 |
| <i>Scaphiopus couchii</i> | Couch's spadefoot | 1 | <i>Scaphiopus couchii</i> | Couch's spadefoot | AAABF01020 | None | None | S2 |
| <i>Spea hammondi</i> | western spadefoot | 1 | <i>Spea hammondi</i> | western spadefoot | AAABF02020 | None | None | S3 |
| <i>Rana aurora</i> | northern red-legged frog | 2 | <i>Rana aurora</i> | northern red-legged frog | AAABH01021 | None | None | S3 |
| <i>Rana draytonii</i> | California red-legged frog | 1 | <i>Rana draytonii</i> | California red-legged frog | AAABH01022 | Threatened | None | S2S3 |
| <i>Rana boylei</i> | foothill yellow-legged frog | 1 | <i>Rana boylei</i> | foothill yellow-legged frog | AAABH01050 | None | None | S3 |
| <i>Rana cascadae</i> | Cascades frog | 2 | <i>Rana cascadae</i> | Cascades frog | AAABH01060 | None | None | S3 |
| * <i>Rana pipiens</i> | northern leopard frog | 1 | <i>Lithobates pipiens</i> | northern leopard frog | AAABH01170 | None | None | S2 |
| <i>Rana pretiosa</i> | Oregon spotted frog | 1 | <i>Rana pretiosa</i> | Oregon spotted frog | AAABH01180 | Threatened | None | SH |
| * <i>Rana yavapaiensis</i> | lowland leopard frog | 1 | <i>Lithobates yavapaiensis</i> | lowland leopard frog | AAABH01250 | None | None | SX |

| Amphibian & Reptile Species of Special Concern (Thomson et al. 2016) | | | California Natural Diversity Database | | | | | |
|--|------------------------------------|-----------------------|---------------------------------------|------------------------------------|--------------|--------------------|------------------|-------------------------|
| Scientific Name | Common Name | Priority ¹ | Scientific Name | Common Name | Element Code | Federal ESA Status | State ESA Status | State Rank ² |
| Reptiles | | | | | | | | |
| Testudines - Turtles | | | | | | | | |
| * <i>Emys marmorata marmorata</i> | northern western pond turtle | 3 | <i>Emys marmorata</i> ³ | western pond turtle | ARAAD02030 | None | None | S3 |
| * <i>Emys marmorata pallida</i> | southern western pond turtle | 1 | [<i>Emys marmorata</i>] | [western pond turtle] | | | | |
| <i>Kinosternon sonoriense</i> | Sonoran mud turtle | 1 | <i>Kinosternon sonoriense</i> | Sonoran mud turtle | ARAAE01040 | None | None | SH |
| Squamata - Lizards | | | | | | | | |
| <i>Elgaria panamintina</i> | Panamint alligator lizard | 3 | <i>Elgaria panamintina</i> | Panamint alligator lizard | ARACB01050 | None | None | S3 |
| * <i>Anniella pulchra</i> ⁴ | California legless lizard | 2 | <i>Anniella pulchra nigra</i> | black legless lizard | ARACC01011 | None | None | S2 |
| [<i>Anniella pulchra</i>] | [California legless lizard] | | <i>Anniella pulchra pulchra</i> | silvery legless lizard | ARACC01012 | None | None | S3 |
| <i>Coleonyx variegatus abbotti</i> | San Diego banded gecko | 3 | <i>Coleonyx variegatus abbotti</i> | San Diego banded gecko | ARACD01031 | None | None | S1S2 |
| * <i>Heloderma suspectum</i> | Gila monster | Undefined | <i>Heloderma suspectum cinctum</i> | banded Gila monster | ARACE01011 | None | None | S1 |
| <i>Gambelia copeii</i> | Cope's leopard lizard | Undefined | <i>Gambelia copeii</i> | Cope's leopard lizard | ARACF07030 | None | None | S1S2 |
| <i>Phrynosoma mcallii</i> | flat-tailed horned lizard | 2 | <i>Phrynosoma mcallii</i> | flat-tailed horned lizard | ARACF12040 | None | None | S2 |
| <i>Phrynosoma blainvillii</i> | coast horned lizard | 2 | <i>Phrynosoma blainvillii</i> | coast horned lizard | ARACF12100 | None | None | S3S4 |
| <i>Uma notata</i> | Colorado Desert fringe-toed lizard | 2 | <i>Uma notata</i> | Colorado Desert fringe-toed lizard | ARACF15020 | None | None | S2 |
| <i>Uma scoparia</i> | Mojave fringe-toed lizard | 3 | <i>Uma scoparia</i> | Mojave fringe-toed lizard | ARACF15030 | None | None | S3S4 |
| Squamata - Snakes | | | | | | | | |
| <i>Aspidoscelis tigris stejnegeri</i> | coastal whiptail | 2 | <i>Aspidoscelis tigris stejnegeri</i> | coastal whiptail | ARACJ02143 | None | None | S3 |
| * <i>Xantusia vigilis sierrae</i> | Sierra night lizard | 3 | <i>Xantusia sierrae</i> | Sierra night lizard | ARACK01032 | None | None | S1 |
| <i>Xantusia gracilis</i> | sandstone night lizard | 3 | <i>Xantusia gracilis</i> | sandstone night lizard | ARACK01040 | None | None | S1 |
| <i>Arizona elegans occidentalis</i> | California glossy snake | 1 | <i>Arizona elegans occidentalis</i> | California glossy snake | ARADB01017 | None | None | S2 |
| <i>Diadophis punctatus regalis</i> | regal ringneck snake | Undefined | <i>Diadophis punctatus regalis</i> | regal ringneck snake | ARADB1001D | None | None | S2S3 |
| <i>Masticophis flagellum ruddocki</i> | San Joaquin coachwhip | 2 | <i>Masticophis flagellum ruddocki</i> | San Joaquin coachwhip | ARADB21021 | None | None | S2? |
| * <i>Masticophis fuliginosus</i> | Baja California coachwhip | 3 | <i>Coluber fuliginosus</i> | Baja California coachwhip | ARADB21026 | None | None | S1S2 |
| <i>Salvadora hexalepis virgultea</i> | coast patch-nosed snake | 2 | <i>Salvadora hexalepis virgultea</i> | coast patch-nosed snake | ARADB30033 | None | None | S2S3 |
| * <i>Thamnophis sirtalis</i> , southern population | common gartersnake | 1 | <i>Thamnophis sirtalis ssp.</i> | south coast gartersnake | ARADB3613F | None | None | S1S2 |
| <i>Thamnophis hammondi</i> | two-striped gartersnake | 2 | <i>Thamnophis hammondi</i> | two-striped gartersnake | ARADB36160 | None | None | S3S4 |
| <i>Crotalus ruber</i> | red-diamond rattlesnake | 3 | <i>Crotalus ruber</i> | red-diamond rattlesnake | ARADE02090 | None | None | S3 |

Table footnotes

- ¹ The ARSSC project ranked SSCs into three **priority categories** based on the severity and immediacy of threats affecting each taxon, with 1 most imperiled and 3 least imperiled: Priority 1 taxa “are likely to experience severe future declines and/or extirpation without immediate conservation actions;” Priority 2 taxa “require substantial conservation and management actions, although the threats facing them are less immediate and severe;” Priority 3 taxa are clearly at risk but likely are not experiencing a substantial and immediate threat of extirpation, although the potential for this threat to develop exists if no management actions are undertaken” (Thomson et al. 2016). Three species qualified as SSCs, but were not prioritized due to a lack of data (i.e. undefined).
- ² As the state Natural Heritage Program, CNDDDB assigns the NatureServe **state conservation ranks**. Most imperiled elements (=species) are ranked S1 and least imperiled elements are ranked S5. Uncertainty in specific rank is represented with a rank range, such as S1S2. Elements considered historically occurring in the state are rank SH, whereas elements considered extirpated are ranked SX. Further information on NatureServe conservation ranks are available in the CNDDDB Special Animals List (<https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>) and from NatureServe (<http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning>).
- ³ The ARSSC project chose to recognize the subspecies of pond turtles in California since they have different conservation concern and priority across the state. CNDDDB formerly tracked the subspecies separately, but decided to track at the species level. Recent studies suggest that the two subspecies should each be elevated to species: northern western pond turtle (*Emys marmorata*) & southern western pond turtle (*Emys pallida*) (Spinks et al. 2014). The genus for pond turtles in California has fluctuated between *Clemmys*, *Actinemys*, and *Emys*.
- ⁴ The ARSSC project recognizes all legless lizards in California as an SSC as *Anniella pulchra*. Recent genetic research suggests that legless lizards in California are comprised of 5 species: California legless lizard (*A. pulchra*), Temblor legless lizard (*A. alexanderae*), southern legless lizard (*A. campi*), Bakersfield legless lizard (*A. grinnelli*), and southern California legless lizard (*A. stebbinsi*) (Parham & Papenfuss 2009, Papenfuss & Parham 2013).

About

Amphibians and Reptiles Species of Special Concern:

The California Amphibian and Reptile Species of Special Concern (2016) is a collaborative project among the California Department of Fish and Wildlife (CDFW), the University of California, Davis, and University of California Press, and is now available in both print and electronic versions. The book synthesizes current knowledge about the biology and conservation risks faced by 45 of California’s most sensitive amphibian and reptile taxa. More information is available at the Department’s ARSSC website, <https://www.wildlife.ca.gov/Conservation/SSC/Amphibians-Reptiles>.

California Natural Diversity Database:

The California Natural Diversity Database is a project within the Department’s Biogeographic Data Branch that maintains a spatial database (GIS) of rare and sensitive plant and animal species found throughout the state, and provides mapping and query tools to access this data through the Biological Observation & Information System (BIOS) and RareFind. CNDDDB is the State’s Natural Heritage Program, part of the NatureServe network of NHPs across North America cataloging biodiversity using standard methods. More information is available at Department’s CNDDDB website, <https://www.wildlife.ca.gov/Data/CNDDDB>.

References

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