



Sierra National Forest Draft Proposed Species of Conservation Concern

Species of Conservation Concern Identification Process

As part of the process for revising the forest plan for the Sierra National Forest, we have compiled a proposed list of Species of Conservation Concern. The Species of Conservation Concern list is required by the 2012 Planning Rule, and identifies species at risk of being lost from a forest.

We evaluate species for proposed Species of Conservation Concern listing by following a process outlined in a national directive (FSH 1909.12 § 12.52c-d). As species are considered, Forest Service specialists do research using databases, scientific studies, local information, and expert knowledge.

In addition to research conducted by Forest Service specialists, the national directive requires use of threat status rankings, determined in large part through [NatureServe](#), a non-profit organization that provides proprietary wildlife conservation-related data, tools, and services. The conservation status rank of a species is represented by a letter and a number. The letter represents one of two distinct geographic scales: global (G) and state (S). The status rank number is on a scale of one to five, where a ranking of one indicates a species at the highest level of risk and a ranking of five indicates the lowest level of risk (Table 1). The status rank number is preceded by the letter reflecting the appropriate geographic scale of the assessment. For example, a status rank of G5 represents a species that has an extensive range of distribution and has a low risk of extinction.

Intraspecific taxa refer to subspecies, varieties, and other designations below the level of species. The status rank of intraspecific taxa (subspecies or varieties) is indicated by a supplementary T-rank, following the species' global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1.

A description of the process used in evaluating species is provided below and, since it is not a completely linear process, is also displayed in a flowchart (Figure 1). The flowchart visually captures the main steps in the Species of Conservation Concern determination process and demonstrates that the questions asked are at times taxon specific.

Steps in the Species of Conservation Concern Identification Process:

Mandatory criteria that must be met in order for a species to be considered a Species of Conservation Concern:

- The species is native to, and known to occur in, the area covered by the forest plan.

- The best available scientific information about the species indicates substantial concern about the species' capability to persist over the long term in the forest plan area.

Species that must be considered:

- Species with a NatureServe G/T1 or G/T2 status rank (Table 1).
- Species that were removed within the past 5 years from the Federal list of threatened or endangered species, and other delisted species that regulatory agencies (e.g. US Fish & Wildlife Service) still monitor.

Species that should be considered:

- Species with NatureServe status rank of G/T3 or S1 or S2 (Table 1).
- Species listed as threatened or endangered by relevant states or federally recognized Tribes.
- Species identified by Federal, State and federally recognized Tribes as a high priority for conservation.
- Species that have been petitioned for Federal listing and for which a positive “90-day finding” has been made by a regulatory agency (e.g. US Fish & Wildlife Service).
- Species for which the best available scientific information indicates there is local conservation concern about the species' capability to persist over the long-term in the plan area due to:
 - ◆ Significant threats, caused by stressors on and off the plan area, to populations or the ecological conditions they depend upon (habitat), including threats from climate change;
 - ◆ Declining trends in populations or habitat in the plan area;
 - ◆ Restricted ranges (with corresponding narrow endemics, disjunct populations, or species at the edge of their range); and
 - ◆ Low population numbers or restricted ecological conditions (habitat) within the plan area.

Table 1. NatureServe¹ conservation status ranks and definitions.

Status Rank	Status Rank Definition
1	<i>Species is Critically Imperiled:</i> At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
2	<i>Species is Imperiled:</i> At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
3	<i>Species is Vulnerable:</i> At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
4	<i>Species is Apparently Secure:</i> At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
5	<i>Species is Secure:</i> At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.

¹NatureServe is a non-profit organization that provides proprietary wildlife conservation-related data, tools, and services to private and government clients, partner organizations, and the public.

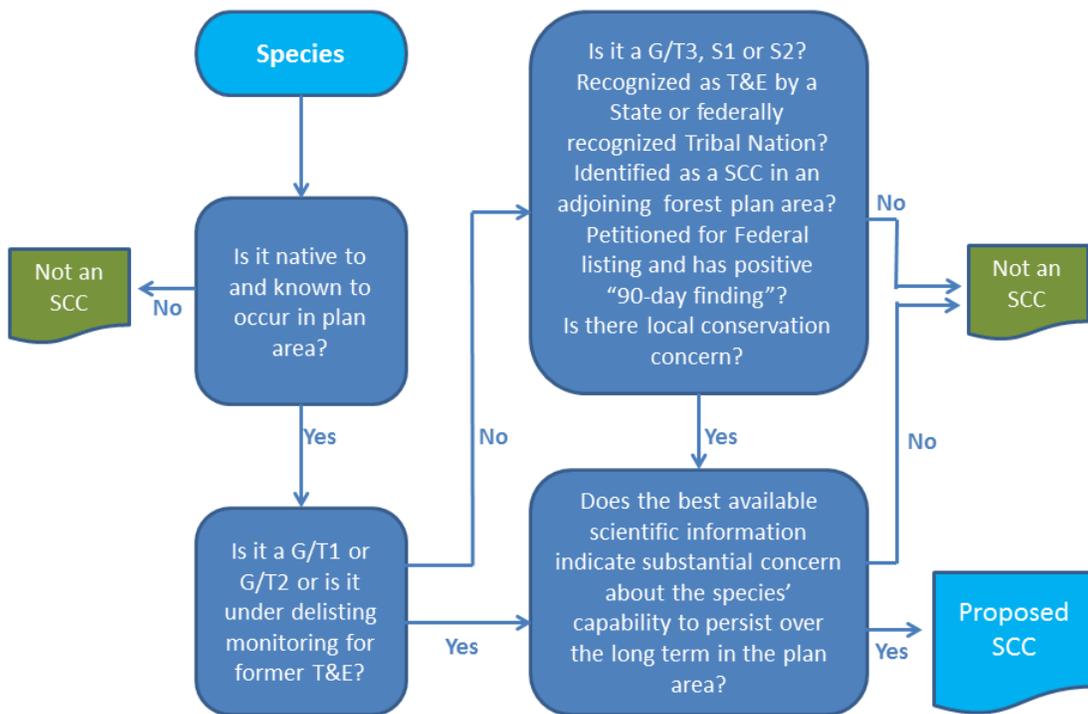


Figure 1. The directive-based process used by the Forest Service for determining species of conservation concern. (Note: The NatureServe rankings that are included here by letters and numbers are explained above).

Proposed Species of Conservation Concern for the Sierra National Forest

The proposed list of Species of Conservation Concern for the Sierra National Forest is shown in Table 2. The proposed list includes species of mammals, birds, amphibians, fish, terrestrial invertebrates, aquatic invertebrates and plants. The proposed species have a high threat rank in NatureServe and there is scientific information to indicate substantial concern about the species' capability to persist over the long term in the plan area. A few terrestrial invertebrate species have been placed in a separate row labeled "potential terrestrial invertebrate." The reason these are considered potential Species of Conservation Concern is that although they have a high threat rank in NatureServe, scientific information is lacking to indicate substantial concern about the species' capability to persist over the long term in the plan area. We are asking the public for their expertise to support or not support their listing.

Table 2. Draft proposed list of Species of Conservation Concern on the Sierra National Forest.

Type	Common Name (<i>Scientific name</i>)
Mammals	Sierra Nevada red fox (<i>Vulpes vulpes necator</i>) Pacific fringe-tailed bat (<i>Myotis thysanodes vespertinus</i>) Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)
Birds	Willow flycatcher (<i>Empidonax traillii</i>) Bald eagle (<i>Haliaeetus leucocephalus</i>) American peregrine falcon (<i>Falco peregrinus anatum</i>) Great gray owl (<i>Strix nebulosa</i>) California spotted owl (<i>Strix occidentalis occidentalis</i>)
Amphibians	Hell Hollow slender salamander (<i>Batrachoseps diabolicus</i>) Gregarious slender salamander (<i>Batrachoseps gregarius</i>) Kings River slender salamander (<i>Batrachoseps regius</i>) Limestone salamander (<i>Hydromantes brunus</i>) Foothill yellow-legged frog (<i>Rana boylei</i>)
Fish	Kern Brook lamprey (<i>Lampetra hubbsi</i>) Central Valley hitch (<i>Lavinia exilicauda exilicauda</i>) Hardhead (<i>Mylopharodon conocephalus</i>)
Terrestrial Invertebrates	Orseis crescent (<i>Phyciodes orseis herlani</i>) Hydaspe fritillary (<i>Speyeria hydaspe viridicornis</i>) Indian Yosemite snail (<i>Monadenia yosemitensis</i>) Merced Canyon shoulderband (<i>Helminthoglypta allynsmithi</i>)
Potential Terrestrial Invertebrates ¹	A grasshopper (<i>Hebardacris mono</i>) A grasshopper (<i>Hypsaliaonia petasata</i>) Yosemite shoulderband (<i>Helminthoglypta proles</i>)
Aquatic Invertebrates	A caddisfly (<i>Anagapetus chandleri</i>) A caddisfly (<i>Homophylax nevadensis</i>) A mayfly (<i>Ironodes lepidus</i>) An isopod (<i>Calasellus longus</i>)
Plants	Yosemite onion (<i>Allium yosemitense</i>) Tulare rockcress (<i>Boechera tularensis</i>) Upswept moonwort (<i>Botrychium ascendens</i>) Scalloped moonwort (<i>Botrychium crenulatum</i>) Common moonwort (<i>Botrychium lineare</i>)

Type	Common Name (<i>Scientific name</i>)
Plants	Mingan moonwort (<i>Botrychium minganense</i>) Western goblin or mountain moonwort (<i>Botrychium montanum</i>) Bolander's bruchia (<i>Bruchia bolanderi</i>) Pygmy pussypaws (<i>Calyptridium pygmaeum</i>) Mono Hot Springs evening-primrose (<i>Camissonia sierrae</i> ssp. <i>alticola</i>) Muir's tarplant (<i>Carlquistia muirii</i>) Tree-anemone (<i>Carpenteria californica</i>) Mariposa clarkia (<i>Clarkia biloba</i> ssp. <i>australis</i>) Merced clarkia (<i>Clarkia lingulata</i>) Flaming trumpet (<i>Collomia rawsoniana</i>) Mountain lady's slipper (<i>Cypripedium montanum</i>) Tracy's eriastrum (<i>Eriastrum tracyi</i>) King's River buckwheat (<i>Eriogonum nudum</i> var. <i>regirivum</i>) Congdon's eriophyllum, Congdon's woolly sunflower (<i>Eriophyllum congdonii</i>) Shuteye Peak fawn lily, manyflower fawnlily (<i>Erythronium pluriflorum</i>) Fissidens moss (<i>Fissidens aphelotaxifolius</i>) Madera leptosiphon (<i>Leptosiphon serrulatus</i>) Congdon's lewisia (<i>Lewisia congdonii</i>) Yosemite lewisia (<i>Lewisia disepala</i>) Kellogg's lewisia (<i>Lewisia kelloggii</i> ssp. <i>kelloggii</i>) Orange lupine (<i>Lupinus citrinus</i> var. <i>citrinus</i>) Meesia moss (<i>Meesia uliginosa</i>) Shevock's copper moss (<i>Mielichhoferia shevockii</i> (<i>Schizymenium shevockii</i>)) Slender-stalked monkeyflower (<i>Mimulus gracilipes</i>) Kaweah monkeyflower (<i>Mimulus norrisii</i>) Yosemite bog orchid (<i>Platanthera yosemitensis</i>) Tundra pohlia moss (<i>Pohlia tundrae</i>) Tehipite Valley jewel-flower (<i>Streptanthus fenestratus</i>) Howell's tauschia (<i>Tauschia howellii</i>) Bolander's clover (<i>Trifolium bolanderi</i>) Oval-leaved viburnum (<i>Viburnum ellipticum</i>)

¹There are several terrestrial invertebrate species that are considered potential Species of Conservation Concern; they have a high threat rank in NatureServe but we lack scientific information to indicate substantial concern about the species' capability to persist over the long term in the plan area. We are asking the public for their expertise to support or not support their listing.

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