



# Inyo National Forest Draft Proposed Species of Conservation Concern

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## Species of Conservation Concern Identification Process

As part of the process for revising the forest plan for the Inyo 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.

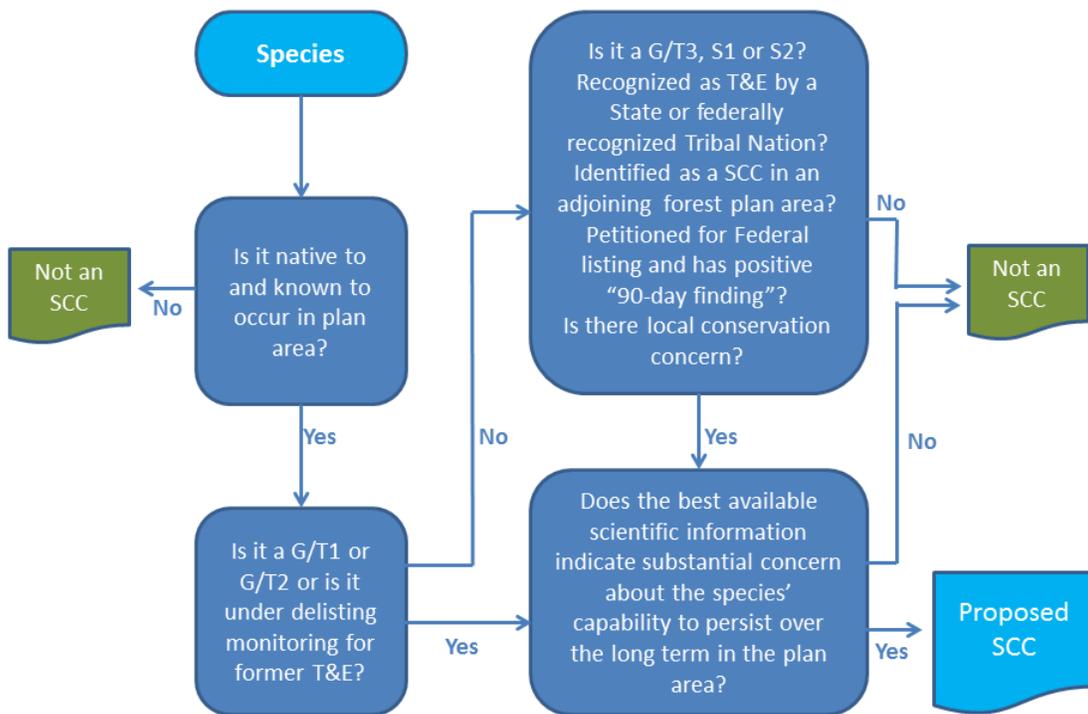
*Species that should be considered:*

- 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.** NatureServe<sup>1</sup> conservation status ranks and definitions.

<b>Status Rank</b>	<b>Status Rank Definition</b>
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.

<sup>1</sup>NatureServe 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 Inyo National Forest

The proposed list of Species of Conservation Concern for the Inyo 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 Inyo 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> )
Amphibians	Inyo Mountains salamander ( <i>Batrachoseps campii</i> ) Black toad ( <i>Anaxyrus exsul</i> ) Kern Plateau salamander ( <i>Batrachoseps robustus</i> )
Fish	California golden trout ( <i>Oncorhynchus mykiss aguabonita</i> )
Terrestrial Invertebrates	Ringlet ( <i>Coenonympha tullia mono</i> ) Sierra sulphur ( <i>Colias behrii</i> ) Square dotted blue ( <i>Euphilotes battoides hadrochilus</i> ) Square dotted blue ( <i>Euphilotes battoides mazourka</i> ) Mono Lake checkerspot ( <i>Euphydryas editha monoensis</i> ) Sierra skipper ( <i>Hesperia miriamae</i> ) White Mountains skipper ( <i>Hesperia miriamae longaevicola</i> ) Gorgon copper ( <i>Lycaena gorgon micropunctata</i> ) White Mountains icarioides blue ( <i>Plebejus icarioides albihalos</i> ) Boisduval's blue ( <i>Plebejus icarioides inyo</i> ) Arrowhead arctic blue ( <i>Plebejus podarce cilla</i> ) White Mountains saepiolus blue butterfly ( <i>Plebejus saepiolus albomontanus</i> ) San Emigdio blue ( <i>Plebulina emigdionis</i> ) White Mountain skipper ( <i>Polites sabuleti albamontana</i> ) Atrionis fritillary ( <i>Speyeria mormonia obsidiana</i> ) Apache fritillary ( <i>Speyeria nokomis apacheana</i> ) Mexican cloudy wing ( <i>Thorybes mexicana blanca</i> ) A cave obligate pseudoscorpion ( <i>Tuberochernes aalbei</i> )

Type	Common Name (Scientific name)
Potential Terrestrial Invertebrates <sup>1</sup>	A grasshopper ( <i>Agnostokasia sublima</i> ) Mount Whitney grasshopper ( <i>Hebardacris albida</i> ) A grasshopper ( <i>Trimerotropis leucophaea</i> )
Aquatic Invertebrates	Western pearlshell mussel ( <i>Margaritifera falcata</i> ) Denning's cryptic caddisfly ( <i>Cryptochia denningi</i> ) A caddisfly ( <i>Lepidostoma castalianum</i> ) A caddisfly ( <i>Lepidostoma ojanum</i> ) A mayfly ( <i>Ironodes lepidus</i> ) A mayfly ( <i>Cinygmula tioga</i> ) California stonefly ( <i>Sweltsa resima</i> ) Wong's springsnail ( <i>Pyrgulopsis wongi</i> ) Owens Valley springsnail ( <i>Pyrgulopsis owensensis</i> )
Plants	Alpine bentgrass ( <i>Agrostis humilis</i> ) Coyote gilia ( <i>Aliciella triodon</i> ) Great Basin onion ( <i>Allium atrorubens</i> var. <i>atorubens</i> ) Inflated Cima milk-vetch ( <i>Astragalus cimae</i> var. <i>sufflatus</i> ) Inyo milk-vetch ( <i>Astragalus inyoensis</i> ) Long Valley milk-vetch ( <i>Astragalus johannis-howellii</i> ) Spiny-leaved milk-vetch ( <i>Astragalus kentrophyta</i> var. <i>elatus</i> ) Lemmon's milk-vetch ( <i>Astragalus lemmonii</i> ) Kern Plateau milk-vetch ( <i>Astragalus lentiginosus</i> var. <i>kernensis</i> ) Mono milk-vetch ( <i>Astragalus monoensis</i> ) Raven's milk-vetch ( <i>Astragalus ravenii</i> ) Shockley's milk-vetch ( <i>Astragalus serenoii</i> var. <i>shockleyi</i> ) Kern County milk-vetch ( <i>Astragalus subvestitus</i> ) Bodie Hills rockcress ( <i>Boechera bodiensis</i> ( <i>Arabis</i> b.)) Hidden rockcress ( <i>Boechera evadens</i> ) Pinzl's rockcress ( <i>Boechera pinzliae</i> ) Shockley's rockcress ( <i>Boechera shockleyi</i> ( <i>Arabis</i> s.)) Tiehm's rockcress ( <i>Boechera tiehmii</i> ( <i>Arabis</i> t.)) Tulare rockcress ( <i>Boechera tularensis</i> ) Upswept moonwort ( <i>Botrychium ascendens</i> ) Scalloped moonwort ( <i>Botrychium crenulatum</i> ) Common moonwort ( <i>Botrychium lineare</i> ) Mingan moonwort ( <i>Botrychium minganense</i> ) Bolander's bruchia ( <i>Bruchia bolanderi</i> ) Inyo County star-tulip ( <i>Calochortus excavatus</i> ) Pygmy pussypaws ( <i>Calyptidium pygmaeum</i> ) Davy's sedge ( <i>Carex davyi</i> ) Spikerush sedge ( <i>Carex duriuscula</i> ) Idaho sedge ( <i>Carex idahoensis</i> ) Liddon's sedge ( <i>Carex petasata</i> ) Northern meadow sedge ( <i>Carex praticola</i> ) Western single-spiked sedge ( <i>Carex scirpoidea</i> ssp. <i>pseudoscirpoidea</i> ) Steven's sedge ( <i>Carex stevenii</i> ) Tioga Pass sedge ( <i>Carex tiogana</i> )

Type	Common Name (Scientific name)
Plants	<p>Western valley sedge (<i>Carex vallicola</i>)  Wheeler's dune-broom (<i>Chaetadelpa wheeleri</i>)  Fell-fields claytonia (<i>Claytonia megarhiza</i>)  Kern Plateau bird's-beak (<i>Cordylanthus eremicus</i> ssp. <i>kernensis</i>)  Hall's meadow hawksbeard (<i>Crepis runcinata</i> ssp. <i>hallii</i>)  Rosette cushion cryptantha (<i>Cryptantha circumscissa</i> var. <i>rosulata</i>)  Bristlecone cryptantha (<i>Cryptantha roosiorum</i>)  Panamint Rock-goldenrod (<i>Cuniculotinus gramineus</i> (<i>Chrysothamnus g.</i>))  Globose cymopterus (<i>Cymopterus globosus</i>)  July gold (<i>Dedeckera eurekaensis</i>)  California draba (<i>Draba californica</i>)  White Mountains draba (<i>Draba monoensis</i>)  Mt. Whitney draba (<i>Draba sharsmithii</i>)  Male fern (<i>Dryopteris filix-mas</i>)  Gilman's goldenbush (<i>Ericameria gilmanii</i>)  Compact daisy (<i>Erigeron compactus</i>)  Limestone daisy (<i>Erigeron uncialis</i> var. <i>uncialis</i>)  Pinyon Mesa buckwheat (<i>Eriogonum mensicola</i>)  Alpine slender buckwheat (<i>Eriogonum microthecum</i> var. <i>alpinum</i>)  Olancha Peak buckwheat (<i>Eriogonum wrightii</i> var. <i>olanchense</i>)  Yellow spinecape (<i>Goodmania luteola</i>)  Beautiful cholla (<i>Grusonia pulchella</i>)  Poison Canyon stickseed (<i>Hackelia brevicula</i>)  Sharsmith's stickseed (<i>Hackelia sharsmithii</i>)  Blandow's bog moss (<i>Helodium blandowii</i>)  Jaeger's hesperidanthus (<i>Hesperidanthus jaegeri</i>)  White Mountains horkelia (<i>Horkelia hispidula</i>)  Short-leaved hulsea (<i>Hulsea brevifolia</i>)  Inyo hulsea (<i>Hulsea vestita</i> ssp. <i>inyoensis</i>)  Field ivesia (<i>Ivesia campestris</i>)  Alkali ivesia (<i>Ivesia kingii</i> var. <i>kingii</i>)  Fivepetal cliffbush (<i>Jamesia americana</i> var. <i>rosea</i>)  Seep kobresia (<i>Kobresia myosuroides</i> (<i>K. bellardii</i>))  Lance-leaved scurf-pea (<i>Ladeania lanceolata</i> (<i>Psoralidium lanceolatum</i>))</p>
Plants	<p>Inyo biscuitroot (<i>Lomatium foeniculaceum</i> ssp. <i>inyoense</i>)  Mono Lake lupine (<i>Lupinus duranii</i>)  Father Crowley's lupine (<i>Lupinus padre-crowleyi</i>)  Inyo blazing star (<i>Mentzelia inyoensis</i>)  Sweet-smelling monardella (<i>Monardella beneolens</i>)  Blue pendant-pod oxytrope (<i>Oxytropis deflexa</i> var. <i>sericea</i>)  Limestone beardtongue (<i>Penstemon calcareus</i>)  Marble rockmat (<i>Petrophyton acuminatum</i>)  Inyo phacelia (<i>Phacelia inyoensis</i>)  Mono phacelia (<i>Phacelia monoensis</i>)</p>

Type	Common Name ( <i>Scientific name</i> )
Plants	Charlotte's phacelia ( <i>Phacelia nashiana</i> ) Silver bladderpod ( <i>Physaria ludoviciana</i> ) Nevada ninebark ( <i>Physocarpus alternans</i> ) Parish's popcornflower ( <i>Plagiobothrys parishii</i> ) Mason's sky pilot ( <i>Polemonium chartaceum</i> ) Williams' combleaf ( <i>Polycytenium fremontii (williamsiae)</i> ) Narrow-leaved cottonwood ( <i>Populus angustifolia</i> ) Morefield's cinquefoil ( <i>Potentilla morefieldii</i> ) Beautiful cinquefoil ( <i>Potentilla pulcherrima</i> ) Frog's-bit buttercup ( <i>Ranunculus hydrocharoides</i> ) Redspined fishhook cactus ( <i>Sclerocactus polyancistrus</i> ) Fringed chocolate chip lichen ( <i>Solarina spongiosa</i> ) Fivefinger chickensage ( <i>Sphaeromeria potentilloides var. nitrophila</i> ) Prairie wedge grass ( <i>Sphenopholis obtusata</i> ) Small-flowered rice grass ( <i>Stipa divaricata</i> ) Alpine jewelflower ( <i>Streptanthus gracilis</i> ) Masonic Mountain jewelflower ( <i>Streptanthus oliganthus</i> ) Horned dandelion ( <i>Taraxacum ceratophorum</i> ) Foxtail thelypodium ( <i>Thelypodium integrifolium ssp. complanatum</i> ) Lake Tahoe serpentweed ( <i>Tonestus eximius</i> ) Slender townsendia ( <i>Townsendia leptotes</i> ) Little bulrush ( <i>Trichophorum pumilum</i> ) Dedecker's clover ( <i>Trifolium kingii ssp. dedeckerae (T. dedeckerae)</i> ) Golden violet ( <i>Viola purpurea ssp. aurea</i> )

<sup>1</sup>There 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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