

Approach and Criteria for Selecting Idaho Species of Greatest Conservation Need

Congressional Guidance

In the Congressional language that describes State Wildlife Grants and State Wildlife Action Plans, Congress explicitly stated that this program provides funds for the States to develop and implement wildlife management and habitat restoration for the “most critical wildlife needs” (H.R. Doc. No. 108–542 . . . 2004). Congress intended the priority for these funds to be placed on those species with the greatest conservation need and to address the life needs and habitat requirements of such species to preclude the need to list them as threatened or endangered under the Endangered Species Act of 1973, as amended (16 USC 1531 et seq.; ESA). For the purpose of selecting Idaho species of greatest conservation need (SGCN), we interpret this to include species (or habitats) that are experiencing known threats that without intervention are likely to continue to decline or to become increasingly vulnerable. Accordingly, we present an updated list of animal species native to Idaho that we regard as SGCN—those species most in need of conservation action. In some cases, the criteria used for development of the updated SGCN resulted in changes in SGCN status (either tier or exclusion) from the 2005 plan. Importantly, omission of a previously designated SGCN such as cutthroat trout is **not** reflective of lack of conservation commitment. Changes reflect the result of new information about (or change in) distribution and abundance, existing implementation of species-specific conservation management plans with access to a wider range of funding mechanisms for conservation actions, or a combination of factors.

Species Selection Process

To address the full array of wildlife, we first compiled an updated checklist of all known vertebrate and invertebrate species that have been documented in Idaho using multiple sources. In addition to using the IDFG's Idaho Fish and Wildlife Information System database, occurrence data were gathered from several sources including online databases (e.g., Global Biodiversity Information Facility, Integrated Digitized Biocollections), museums (e.g., Essig Museum of Entomology, University of Idaho William F Barr Entomological Museum, The College of Idaho Orma J Smith Museum of Natural History), state and private databases (e.g., Idaho Department of Environmental Quality BURP Data Viewer, Pacific Northwest Moths, The Lepidopterists' Society, OdonataCentral, Xerces Society), and numerous research efforts (published manuscripts as well as theses and dissertations). This resulted in documented occurrence data for >670 vertebrates and 4198 invertebrates (including nonnatives and transients) (see Appendix A for an annotated checklist of Idaho vertebrates and Appendix B for a summary checklist of Idaho invertebrates).

Next, we developed a suite of criteria for selecting a subset of these species that warranted inclusion in the State Wildlife Action Plan. We derived these criteria from multiple sources (e.g., Joseph et al. 2009; Marsh et al. 2007; Rosenberg et al. 2014). We then followed a series of steps to derive our species of greatest conservation need list.

First, we filtered the overall list of taxa to include only those species that were native, confirmed, regularly occurring, and currently present in Idaho. To conserve the full diversity of wildlife, we also considered subspecies, distinct population segments, and ESUs of high conservation concern. Next, we selected those species ranked SH, S1, S2, or S3 in Idaho; G1, G2, or G3 globally; or with status under ESA in Idaho (e.g., proposed or petitioned for listing, under status review, threatened, endangered, candidate). We then evaluated species through a fine-scale, local analysis (e.g., is species genetically unique [i.e., species comprises an evolutionarily significant unit within Idaho] or globally taxonomically distinct). Finally, to assess Idaho's conservation responsibility for the species, we considered whether a species was endemic to Idaho or regionally endemic, range restricted (i.e., >5% of species' known range in the contiguous US is within Idaho), or geographically disjunct (i.e., Idaho population disjunct from other populations). We applied additional criteria to invertebrates in restricting SGCN to those species endemic to Idaho or the region (where "region" is defined as Idaho and adjacent states), or where substantial rangewide declines had been documented or other compelling reasons existed to justify the species' inclusion. Species that met these criteria were selected as SGCN.

Some species that met these criteria were not included in the list. For example, species currently listed under ESA but secure in Idaho and no longer ranked G1, G2, or G3 globally, were excluded (e.g., Bull Trout). In addition, we excluded species with no evidence of historical or potential continued presence and/or regular occurrence in Idaho at a given location, e.g., Canada Lynx, American Bison. In the case of Canada Lynx, the extreme northeast corner of Idaho (Canada–Idaho–Montana border) contains approximately 117 km² (45 mi²) of federally-designated critical habitat for the ESA-listed Canada Lynx distinct population segment, and individual animals are occasionally present in Idaho. However, based on various surveys and trapping records, Idaho does not have a persistent Canada Lynx population.

For species that didn't meet the above criteria, we further evaluated the species through fine-scale, local analysis (e.g., is species threatened rangewide, does species have critical conservation needs, is species found only in particular concentration areas within Idaho where the species might warrant conservation attention [e.g., migratory species that regularly occur at particular staging areas or concentration spots, bats that congregate in hibernacula during the winter]).

SGCN Tiers

We further prioritized SGCN by subdividing the list into 3 tiers, based on relative conservation priority in Idaho as follows:

Tier 1

We consider Tier 1 SGCN to be our highest priority for the SWAP and to represent species with the most critical conservation needs, i.e., an early-warning list of taxa that may be heading toward extirpation. These include species that meet one or more of the following criteria:

- high profile and/or exceptionally vulnerable to extinction
- species listed as endangered (E), threatened (T), or candidate (C) under ESA
- species proposed for listing as endangered or threatened under ESA (on a case-by-case basis)
- former ESA-listed or candidate species that remain management priorities
- non-ESA species that need urgent conservation attention to keep them from becoming threatened or endangered
- species with IUCN Red List Categories (Version 3.1) of Endangered (EN), Critically Endangered (CR), or Vulnerable (VU)
- species with NatureServe global conservation status rank (G-rank) of G1 or G2 and for which reasonable survey efforts, distribution data, or conservation threats are known from Idaho
- species with extremely high vulnerability to extinction due to small population, small range, high threats, and rangewide declines
- distinct populations of high conservation concern (including but not restricted to distinct population segments of vertebrate species [DPS] under ESA)
- Idaho endemics with high vulnerability
- species with distribution or viability restricted from past or ongoing declines
- Bird species listed on *The State of the Birds 2014 Red Watch List* (Rosenberg et al. 2014)

Tier 2

Tier 2 SGCN are secondary in priority and represent species with high conservation needs—that is, species with longer-term vulnerabilities or patterns suggesting management intervention is needed but not necessarily facing imminent extinction or having the highest management profile. This tier includes species that meet one or more of the following criteria:

- species under evaluation of its status on FWS initiative
- species that are either range restricted (small range and population), or are more widespread but with troubling declines and high threats (e.g., certain shorebirds because of their small global populations and tendency to concentrate in small, threatened habitats during their long-distance migrations)
- species with NatureServe G-rank of G3 (Vulnerable)
- species with biogeographically restricted distributions or thresholds (e.g., habitat specialist, limited vagility, etc.) w/ declining trend and/or recognized threats
- habitat specialists with important range in Idaho

- species meeting SGCN criteria but historically extirpated from any of the 14 ecological sections in Idaho are also included and may possibly be considered for reintroduction; some species may not be considered for restoration within the planning window (i.e., 2015–2025), but initiation of habitat work may be important now
- Bird species listed on *The State of the Birds 2014 Yellow Watch List* (Rosenberg et al. 2014)
- endemics
- species with severe declines

Tier 3

Tier 3 SGCN include a suite of species that do not meet the above tier criteria, yet still have conservation needs. In general, these species are relatively more common, but commonness is not the sole criterion and often these species have either declining trends rangewide or are lacking in information. This tier includes species that meet one or more of the following criteria:

- Relatively common, yet long-term monitoring surveys indicate they are rapidly declining throughout the species' range
- Species with emerging threats
- Regionally endemic that are associated with at-risk habitats
- Species for which current status is not fully understood (i.e., species that meet the IUCN Red List criteria for Data Deficient [DD])
- Bird species listed as *Common Birds in Steep Decline* in *The State of the Birds 2014* (Rosenberg et al. 2014)

The resulting list can be found in Appendix C. Idaho Species of Greatest Conservation Need, 2015.