
Bighorn Sheep (populations south of Snake River)

Ovis canadensis

Mammalia — Artiodactyla — Bovidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: G4T1
Statewide: Critically imperiled (S1)
ESA:
USFS: Region 1: No status; Region 4: No status
BLM: Type 3
IDFG: Big Game Animal

BASIS FOR INCLUSION

Restricted and isolated populations; disease and habitat threats.

TAXONOMY

Traditionally 2 subspecies of bighorn sheep have been considered to occur in Idaho: the Rocky Mountain bighorn sheep (*O. canadensis canadensis*) and the California bighorn sheep (*O. canadensis californiana*). Populations historically occurring south of the Snake River have been considered to represent the latter, and animals translocated to this area from British Columbia would also represent this subspecies. Recent studies have presented an alternative arrangement based on molecular and morphological characters whereby populations that historically occurred south of the Snake River are considered to represent the desert bighorn sheep (*O. canadensis nelsoni*) (Wehausen and Ramey 2000). Under this arrangement, reintroduced populations from British Columbia would represent *O. canadensis canadensis*.

DISTRIBUTION AND ABUNDANCE

The bighorn sheep occurs in scattered localities in mountainous terrain across the western U. S., southwestern Canada, and northwestern Mexico, including scattered localities in southern and central Idaho. Populations historically present in Idaho south of the Snake River were extirpated during the first half of the 20th century (Toweill and Geist 1999). Extant populations in Owyhee and Cassia counties are the result of reintroductions conducted since the early 1960s. The source of animals for translocations has been central British Columbia (Toweill 1999). In 2005, populations were estimated to be 1200 individuals.

POPULATION TREND

The bighorn sheep was apparently common throughout its range prior to western settlement. However, populations declined dramatically following introduction of domestic livestock (particularly domestic sheep) in the mid-to-late 1800s (Geist 1971). Populations south of the Snake River were extirpated in Idaho by 1940 (Cowan 1940); populations were reintroduced south of the Snake River in Idaho beginning in 1963 (Hanna and Rath 1976) and numbered nearly 1500 individuals by 1997 (Toweill and Geist 1999). The most recent estimates are slightly below this level.

HABITAT AND ECOLOGY

Populations occupy rugged canyons, foothills, and mountainous terrain at elevations ranging from 450-3300 m (1450-10,500 ft). Key habitat features include steep, rugged “escape” terrain, grasses and forbs for forage, and a limited amount of tall vegetation. Populations in dry areas require perennial water sources, such as streams and springs, during the summer. Native bunchgrasses and forbs are important components of forage.

Bighorn sheep mate during the fall, and ewes typically produce one lamb following a 6-month gestation period. Ewes with lambs are particularly dependent on the availability of “escape” terrain to avoid predators.

ISSUES

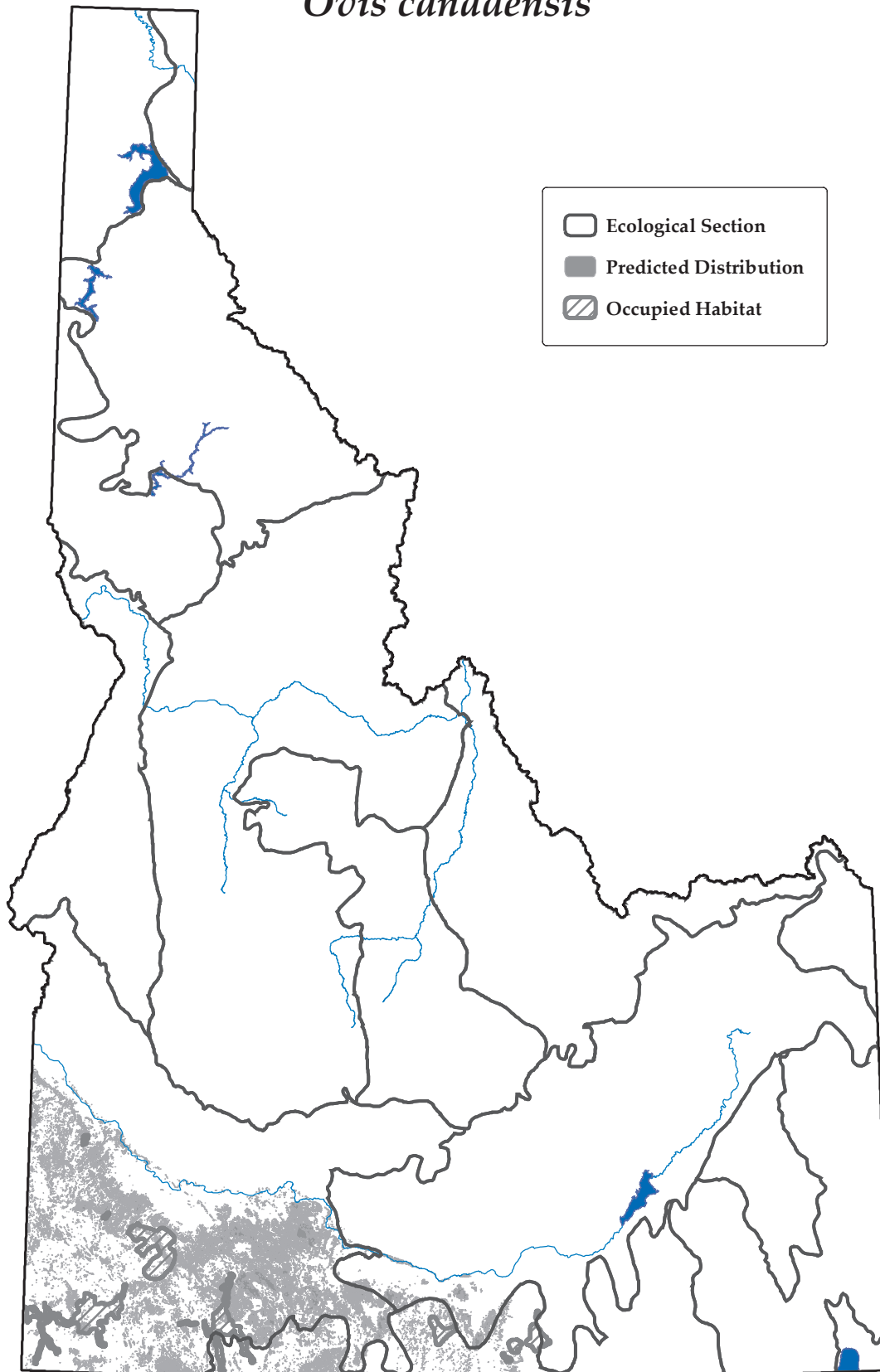
Bighorn sheep are susceptible to diseases contracted from domestic sheep. Although pneumonia-induced die-offs have occurred elsewhere (most commonly following contact with domestic sheep), few disease-caused losses have been documented in southern Idaho. Population size appears to be primarily dependent on habitat condition. Of particular importance is the establishment of invasive plants, which reduce forage quality and increase fire frequency. The altered fire regime modifies habitat structure by removing woody plants. Predation can negatively impact individual sheep populations, particularly small populations, but is rarely the sole cause for significant declines over a large area.

RECOMMENDED ACTIONS

Population monitoring currently includes periodic collection of population and distribution data and periodic captures to assess physical condition and exposure to pathogens. Landscape-scale habitat protection and restoration is needed, particularly with respect to weed and fire management. Efforts to manage livestock to minimize interactions with bighorn sheep herds and to maximize availability of forage are also important.

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Map created on September 22, 2005
and prepared by Idaho Conservation Data Center.
Sources: Known distribution is from Idaho Department
of Fish and Game (2005). Predicted distribution
is from the Wildlife Habitat Relationships Models (WHR),
A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish
and Wildlife Research Unit, Moscow, ID (Scott et al. 2002).
Predicted distribution is approximate (for more information, go to
http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

