
Northern Idaho Ground Squirrel

Spermophilus brunneus brunneus

Mammalia — Rodentia — Sciuridae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Imperiled subspecies (G2T2)
Statewide: Critically imperiled (S1)
ESA: Threatened
USFS: Region 1: No status; Region 4: Sensitive
BLM: Threatened, Endangered, Proposed, and Candidate (Type 1)
IDFG: Threatened

BASIS FOR INCLUSION

Threatened under the U.S. Endangered Species Act; small population size and Idaho endemic.

TAXONOMY

The northern Idaho ground squirrel is 1 of 2 subspecies of the Idaho ground squirrel, which is endemic to Idaho and among the most geographically restricted mammals in North America. Morphological, ecological, and genetic differences suggest that the subspecies may represent a distinct species (Gill and Yensen 1992, Gavin et al. 1999).

DISTRIBUTION AND ABUNDANCE

The northern Idaho ground squirrel is endemic to Adams and Valley counties. Fewer than 40 colonies are extant, and more than half of these colonies contain fewer than 20 individuals. The total population is estimated to be about 850 individuals. (Evans Mack 2004, IDFG, unpublished data).

POPULATION TREND

Populations were at their lowest during the early 2000s. More recently, higher numbers of individuals have been counted, but colonies remain small. The current population size is still far below that of the mid-1980s. More than 12 new sites have been located since 2000, reflecting increased survey effort. Populations have responded favorably to habitat restoration in some areas.

HABITAT AND ECOLOGY

The northern Idaho ground squirrel occupies dry montane meadows at elevations between 1000-1700 m (3280-5600 ft). Meadows of grasses and forbs and, to a lesser extent, sagebrush are surrounded by ponderosa pine or Douglas-fir forest. Most sites have a mixture of shallow and deeper soils to accommodate nest burrows.

Individuals hibernate for about 8 months. Females produce 1 litter per year. The average life span is less than 5 years. Individuals consume a wide variety of forbs and grasses, foraging on green vegetation after emergence and increasing seed intake prior to hibernation (E. Yensen, pers. comm.).

ISSUES

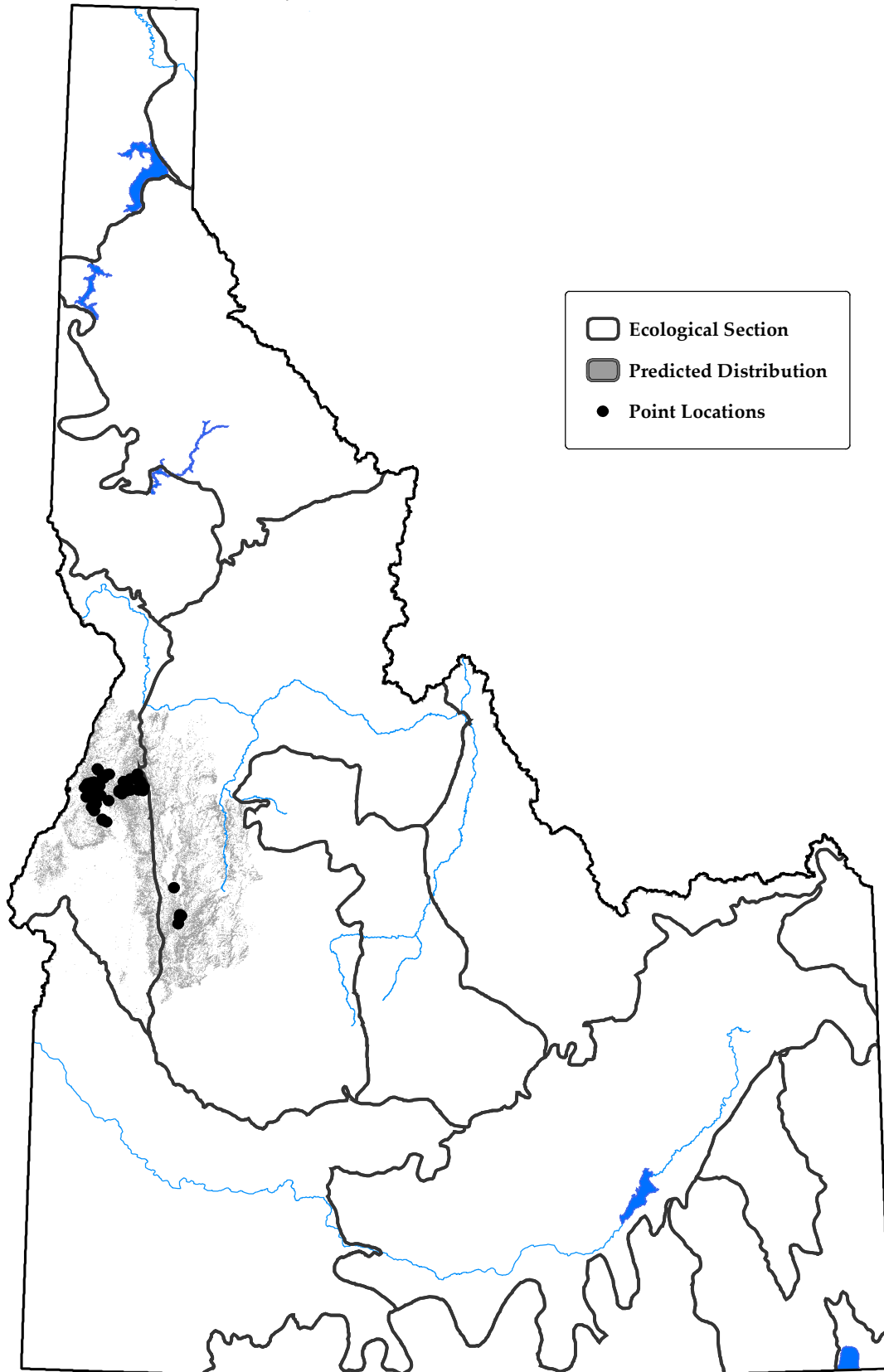
Landscape-level habitat changes are the primary cause of population declines (Sherman and Runge 2002). Fire suppression has allowed forests to encroach into meadow habitat, reducing the amount of habitat available to ground squirrels and closing dispersal corridors. Changes in habitat quality due to fire suppression, changes in grazing regimes, and land conversions have resulted in poorer quality food plants that lack the nutritional value squirrels need to sustain prolonged hibernation. Other threats to populations could include competition with the larger Columbian ground squirrel, poisoning, and shooting. Most recently, unprecedented growth and development in Adams and Valley counties jeopardizes colonies.

RECOMMENDED ACTIONS

Habitat protection and restoration efforts are needed to recreate the forest and meadow mosaics to which this ground squirrel is adapted. Lands managed by the Payette National Forest contain more than 1/3 of the active sites, and habitat restoration on has been underway since 1996. Recovery strategies are outlined in a recovery plan (USFWS 2003c). One colony on private land was protected under a Safe Harbor Agreement during 2000, and additional efforts to achieve comprehensive protection on private lands were initiated during 2004. In 2002 Zoo Boise built a facility and began a pilot study with southern Idaho ground squirrels to develop husbandry and captive breeding techniques should captive breeding of northern Idaho ground squirrels become warranted.

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Map created on September 23, 2005
and prepared by Idaho Conservation Data Center.
Sources: Point data are from Idaho Conservation Data Center,
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).

