
Pygmy Rabbit

Brachylagus idahoensis

Mammalia — Lagomorpha — Leporidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Apparently secure (G4)
Statewide: Imperiled (S2)
ESA: No status
USFS: Region 1: No status; Region 4: Sensitive
BLM: Rangewide/Globally imperiled (Type 2)
IDFG: Upland game animal

BASIS FOR INCLUSION

Regional population abundance and trend data are lacking; habitat threats.

TAXONOMY

The pygmy rabbit is within the monotypic genus *Brachylagus*.

DISTRIBUTION AND ABUNDANCE

This species occurs in the Great Basin and adjoining intermountain regions. Populations are widely scattered across this landscape in association with tall, dense sagebrush aggregations with deep, loose soils of alluvial origin that allow burrowing. In Idaho, pygmy rabbits occur across the southern half of the state.

The species is considered rare in Idaho, though data on abundance and population trends are generally lacking. Recent surveys for presence of pygmy rabbits have augmented statewide distribution data and documented relatively abundant populations in localized areas (Waterbury, *in prep*; Roberts 2001).

POPULATION TREND

There are no trend data for Idaho populations.

HABITAT AND ECOLOGY

The pygmy rabbit is a sagebrush obligate inhabiting areas characterized by cold winters, warm summers, scant precipitation. Elevations range from 900-2380 m (2800-7800 ft). Habitat comprises dense, tall stands of big sagebrush growing on deep, friable soils that allow the rabbits to dig rather extensive burrow systems (Janson 2002). Landscape features includes alluvial fans and hillsides, swales within rolling topography, floodplains, brushy draws, riparian channels, edges of rock and lava outcroppings, and mima mounds (low, circular mounds of loose, unstratified soils that support distinctly taller patches of sagebrush). Big sagebrush is the primary food item of pygmy rabbits and may comprise up to 99% of the winter diet (Green and Flinders 1980). Native forbs and grasses comprise a larger proportion of the diet (30-40%) in spring and summer. Under deep snow conditions, dense and structurally diverse stands of big sagebrush

facilitate subnivean burrowing, providing access to forage and protection from predators and thermal extremes (Katzner and Parker 1997).

ISSUES

Loss, alteration, and fragmentation of sagebrush-steppe habitat and apparent declines in pygmy rabbit populations have elevated concern for this species range-wide (Whisenant 1990; Knick and Rotenberry 1995, 1997). Since settlement by Europeans, sagebrush-steppe landscapes in Idaho and across the sagebrush biome have been greatly altered, resulting in loss and fragmentation of habitat for many sagebrush-obligate species, including the pygmy rabbit. Agents of habitat loss and degradation include agricultural conversion, urbanization (and related infrastructure networks), prescribed and wildland fire, invasive plants (e.g., cheatgrass), conifer encroachment, vegetation treatments that remove sagebrush, and unsustainable livestock grazing (Connelly et al. 2004). Fragmentation of pygmy rabbit habitat has implications for this small mammal with presumably low dispersal capabilities, including reducing overall population size, isolating disjunct populations, increasing susceptibility to disease and other localized threats, and reducing gene flow among populations (Gilpin 1991).

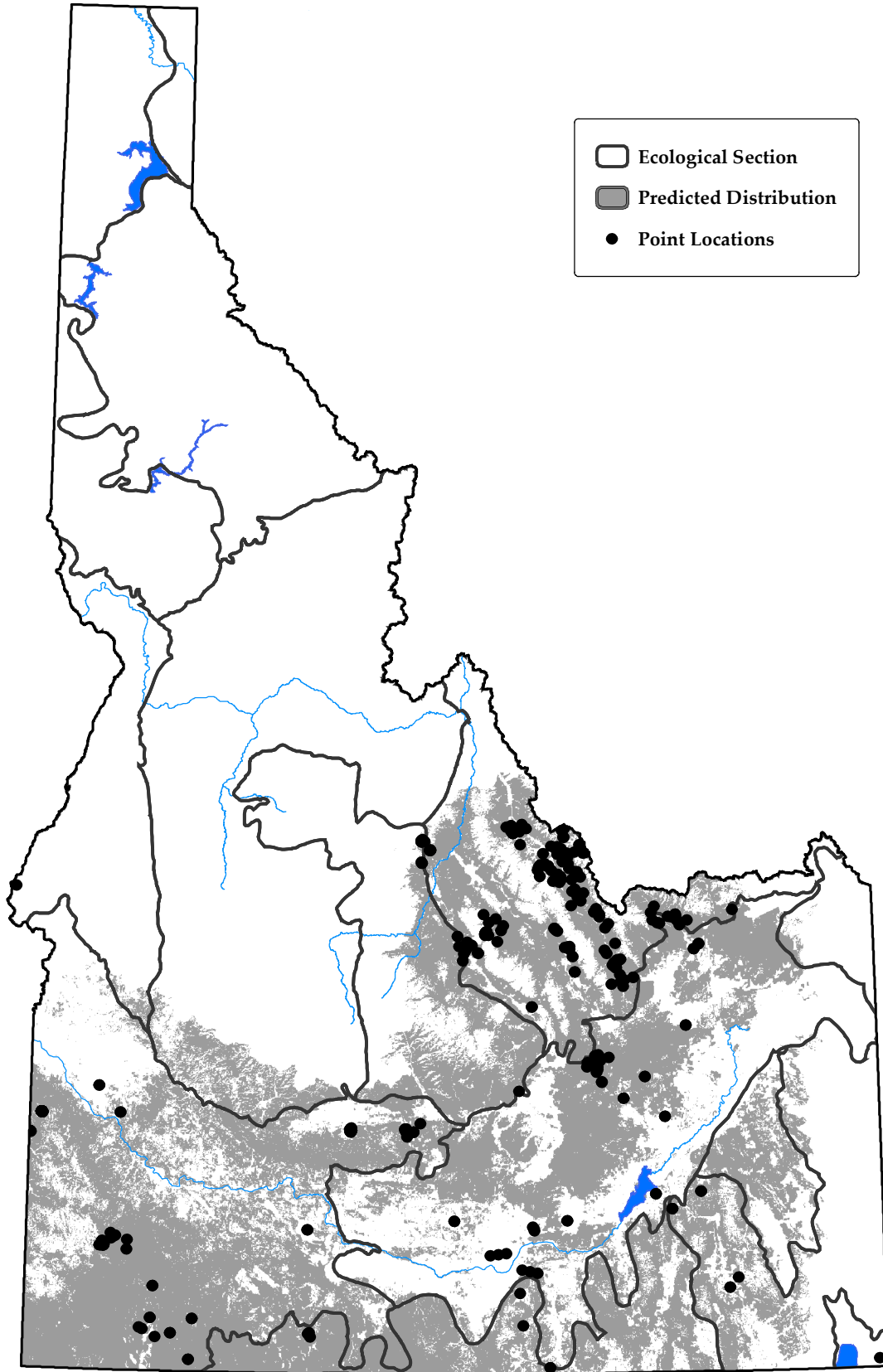
RECOMMENDED ACTIONS

Many aspects of the distribution, current status, and trend of populations remain poorly understood. Efforts are needed to evaluate spatial connectivity among populations of pygmy rabbits at local, regional, and ecosystem scales.

Specialized habitat needs of this species should be considered in the development and implementation of land use plans, range restoration projects, and other resource management activities. Minimizing disturbance to occupied habitat and retaining stands of mature sagebrush should be considered. Several recent initiatives focusing on the conservation of greater sage-grouse (i.e., BLM National Sage-Grouse Habitat Conservation Strategy, Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats, SageMap) may provide general guidance for conserving sagebrush habitats and associated species.

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Map created on September 21, 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).

