

Northwestern deermouse*Peromyscus keeni*

Class: Mammalia

Order: Rodentia

Review Status: Reviewed (general)**Version Date:** 21 September 2020**Conservation Status***NatureServe:**Agency:*

G Rank: G5

ADF&G: Species of Greatest Conservation Need

IUCN: Least Concern

Audubon AK:

S Rank: S5

USFWS:

BLM:

Final RankConservation category: **V. Orange**

unknown status and either high biological vulnerability or high action need

<u>Category</u>	<u>Range</u>	<u>Score</u>
Status	-20 to 20	0
Biological	-50 to 50	-36
Action	-40 to 40	20

Higher numerical scores denote greater concern**Status** - variables measure the trend in a taxon's population status or distribution. Higher status scores denote taxa with known declining trends. Status scores range from -20 (increasing) to 20 (decreasing).**Score***Population Trend in Alaska (-10 to 10)*

0

Unknown.

Distribution Trend in Alaska (-10 to 10)

0

Unknown.

Status Total: 0

Biological - variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggest greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).**Score***Population Size in Alaska (-10 to 10)*

-6

Unknown, but suspected large. *P. keeni* is widespread in southeast Alaska (MacDonald and Cook 2009) and more than 2000 specimens have been collected in the last twenty years (ARCTOS 2016).*Range Size in Alaska (-10 to 10)*

-2

Year-round resident in southeast Alaska. Occurs on the mainland and on several islands of the Alexander Archipelago (Lucid and Cook 2004; MacDonald and Cook 2009). Estimated range size is ~71,450 sq. km based on range map from ACCS (2017a).

Population Concentration in Alaska (-10 to 10)

-10

Does not concentrate.

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5) -5

Breeds in its first year of life (Kenagy and Barnes 1988).

Number of Young (-5 to 5) -3

Unknown for Alaska, but other populations and closely related *Peromyscus* species produce 2-3 litters per year with a mean litter size of 4.6 (Gashwiler 1979; Kenagy and Barnes 1988).

Ecological Specialization in Alaska

Dietary (-5 to 5) -5

At the population level, *P. keeni* is omnivorous and a dietary generalist (O'Brien et al. 2018). Consumes fruits, seeds, and small amounts of arthropods in proportion to their availability (Reese et al. 1997; Hanley and Barnard 1999b; Drever et al. 2000; Shaner et al. 2007).

Habitat (-5 to 5) -5

Habitats are varied and include old-growth and young-growth forests, floodplains, human structures, and forest-beach edges (Hanley and Barnard 1999a; Smith and Nichols 2004; Smith et al. 2005; MacDonald and Cook 2009; Smith and Fox 2017).

Biological Total: -36

Action - variables measure current state of knowledge or extent of conservation efforts directed toward a given taxon. Higher action scores denote greater information needs due of lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

Score

Management Plans and Regulations in Alaska (-10 to 10) 10

Considered unclassified game in Alaska with no closed season and no bag limits (ADFG 2018c).

Knowledge of Distribution and Habitat in Alaska (-10 to 10) -10

Distribution and habitat associations are well-known at the species level (Lucid and Cook 2004; MacDonald and Cook 2009; references in Habitat section). Additional research is needed to assess the taxonomic validity and delineate ranges of the various subspecies that have been described (Lucid and Cook 2004; Sawyer et al. 2017).

Knowledge of Population Trends in Alaska (-10 to 10) 10

Not currently monitored.

Knowledge of Factors Limiting Populations in Alaska (-10 to 10) 10

Limiting factors are speculative and many facets of this species' ecology have not been studied. Eckrich et al. (2018) suggested that predation, facilitated by snow accumulation, may lead to the dramatic population crashes that have been observed in some years. However, additional data are needed to confirm this idea. At high densities, *P. keeni* may compete with other small mammals such as voles and shrews, but the effects on population dynamics are unknown (Smith and Fox 2017; Eckrich et al. 2018).

Action Total: 20

Supplemental Information - variables do not receive numerical scores. Instead, they are used to sort taxa to answer specific biological or management questions.

Harvest: Not substantial
Seasonal Occurrence: Year-round
Taxonomic Significance: Monotypic species

% Global Range in Alaska:	>10%
% Global Population in Alaska:	25-74%
Peripheral:	No

References

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