

Keen's myotis

Myotis keenii

Class: Mammalia

Order: Chiroptera

Conservation Status

Heritage

Agency

G Rank: G2G3

USFWS/NOAA:

BLM:

AA:

S Rank: S1S2

SOA: Species of Greatest Conservation Need

USFS:

IUCN: Least Concern

Final Rank		
Conservation category: IV. Orange		
IV = unknown status and high biological vulnerability and action need		
<u>Category</u>	<u>Range</u>	<u>Score</u>
Status:	-20 to 20	0
Biological:	-50 to 50	0
Action:	-40 to 40	32
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
<i>Population Trend (-10 to 10)</i>	0
Unknown (Boland, OSU, personal communication).	
<i>Distribution Trend (-10 to 10)</i>	0
Unknown. Scant information on this species. However, prior to 2005, only three specimens had been collected for this species. Now there are 11 known locations where this species has been collected, and several of these were both further north and south than the published distribution.	
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
<i>Population Size (-10 to 10)</i>	6
Unknown, but suspected rare.	
<i>Range Size (-10 to 10)</i>	-2
Based on recent collection in northern SE Alaska, range is calculated on entire SE panhandle = 62,000 km sq.	
<i>Population Concentration (-10 to 10)</i>	2
Current documentation for 12 sites of occurrence. Species known to concentrate in roosting sites and maternity colonies.	
<i>Reproductive Potential</i>	
<u>Age of First Reproduction (-5 to 5)</u>	-5
Limited evidence suggests that <i>M. keenii</i> mates in autumn and gives birth the following June or July (Nagorsen and Brigham 1993).	
<u>Number of Young (-5 to 5)</u>	3
Only one litter, usually a single pup, is produced per year.	

Ecological Specialization

Dietary (-5 to 5) -5

Insectivore. Food habits have not been investigated, but diet probably consists of moths and other insects.

Habitat (-5 to 5) 1

Distribution suggests association with coastal forest habitats (van Zyll de Jong 1985; Nagorsen and Brigham 1993). It likely uses tree cavities, rock crevices and small caves as roosting sites (Nagorsen and Brigham 1993). Over 1,769 km² of cave and crevice-containing karst occurs throughout southeastern Alaska (Parker 1996).

Biological Total: 0

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 Needs (-10 to 10) 10

No direct management.

Monitoring Needs (-10 to 10) 10

Not monitored.

Research Needs (-10 to 10) 2

The distribution of this species is associated with coastal rainforests in the Pacific Northwest (van Zyll de Jong 1985, van Zyll de Jong and Nagorsen 1994). Forty-two percent of the most productive forests in southeastern Alaska were harvested by 1990, including over 70% of the karstland forests on Prince of Wales and neighboring islands (U.S. Forest Service 1991, 1993b). Current levels of timber harvest could have a detrimental effect on the Alaska population by altering forest structure important to bats (Thomas 1988, Parker 1996, Parker et al. 1996). Bat activity is rare in clearcuts and second-growth forests of Southeast Alaska (Parker et al. 1996). Destruction of karst by recreationalists or mineral extraction may be a threat, as these areas are critical hibernacula. Little is known about biology and ecology. Research is needed on various life history parameters such as reproductive cycle, food habits, roost sites, habitat preferences, migration habits, and hibernation ecology. Measure species home range. Measure bat use in forest types and in karst caves to identify important habitats (e.g. roosting, breeding, foraging). Resolve questions concerning the taxonomic status of this species. According to Boland et al. (unpublished), day roost sites primarily in large-diameter trees or snags and in heavily managed areas are likely limiting.

Survey Needs (-10 to 10) 10

Distribution poorly understood.

Action Total: 32

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

Harvest: None or Prohibited

Seasonal Occurrence: Year-round

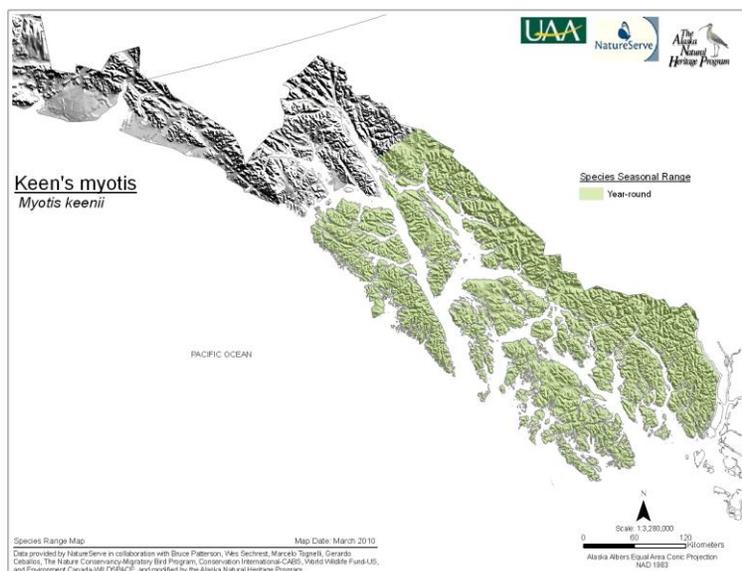
Taxonomic Significance: Monotypic species

% Global Range in Alaska: >10%

% Global Population in Alaska: >25%

Peripheral: No

Range Map



References

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For details on the development of the ASRS and criteria, please see: Gotthardt, T. A., K. M. Walton, and T. L. Fields. 2012. Setting Conservation Priorities for Alaska's Wildlife Action Plan. Alaska Natural Heritage Program, University of Alaska Anchorage, AK.