

# Long-legged myotis

Class: Mammalia  
Order: Chiroptera

*Myotis volans*

**Review Status:** Peer-reviewed

**Version Date:** 19 December 2017

## Conservation Status

*NatureServe:*      *Agency:*

G Rank: G4G5      ADF&G: Species of Greatest Conservation Need      IUCN: Least Concern      Audubon AK:

S Rank: S3S4      USFWS:      BLM:

<b>Final Rank</b>		
Conservation category: <b>IV. Orange</b>		
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	3
Action	-40 to 40	32
<b>Higher numerical scores denote greater concern</b>		

**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).

	<b>Score</b>
<i>Population Trend in Alaska (-10 to 10)</i> Unknown.	0
<i>Distribution Trend in Alaska (-10 to 10)</i> Unknown. Additional research is needed to determine the impacts of deforestation on distribution and habitat availability (Parker 1996).	0
<b>Status Total:</b>	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).

	<b>Score</b>
<i>Population Size in Alaska (-10 to 10)</i> Unknown. This species is infrequently captured (Parker et al. 1997; Boland et al. 2009a; Olson and Fiely 2014) and acoustic calls are difficult to distinguish from other species (Slough et al. 2014).	0
<i>Range Size in Alaska (-10 to 10)</i> Found on islands and mainland of southeast Alaska, including Prince of Wales, Wrangell, and Admiralty Islands (Parker et al. 1997; MacDonald and Cook 2009). The northern-most records for the state are in Skagway and near Haines (Olson and Fiely 2014). Estimated range size is between 10,001 and 100,000 sq. km.	-2

<i>Population Concentration in Alaska (-10 to 10)</i>	0
Unknown. Occurrence records in the state are limited and very little information is available on maternity colonies or hibernacula. Elsewhere in North America, reproductive females congregate at maternity colonies, which may include up to several hundred individuals (Baker and Lacki 2006; Hayes and Wiles 2013).	
<i>Reproductive Potential in Alaska</i>	
<u>Age of First Reproduction (-5 to 5)</u>	-5
Can potentially give birth within their first year if they are in good enough body condition, but reproduction may be delayed until their second year in colder climates (Warner and Czaplewski 1984; Nagorsen and Brigham 1993; Frick et al. 2010b).	
<u>Number of Young (-5 to 5)</u>	4
Females give birth to a single pup, but may not reproduce every year if resources are scarce or if they are in poor body condition (Nagorsen and Brigham 1993; Frick et al. 2010b). The proportion of females that forego reproduction in a given year is unknown. To reflect this uncertainty, we rank this question as $0.5 * A + 0.5 * B$ .	
<i>Ecological Specialization in Alaska</i>	
<u>Dietary (-5 to 5)</u>	1
No data available for Alaska. Elsewhere in their range, moths are an important part of their diet, though other invertebrate groups such termites, flies, beetles, and spiders are also consumed (Warner 1985; Saunders and Barclay 1992; Johnson et al. 2007b; Ober and Hayes 2008). Because invertebrates are an ephemeral and potentially unpredictable food source, we rank this question as B- Moderately adaptable with key requirements common.	
<u>Habitat (-5 to 5)</u>	5
Few data available for Alaska. The availability of appropriate roosting habitat likely restricts them to old-growth forests or other forests with medium- to large-diameter trees and large snags (Johnson et al. 2007b; Hayes and Wiles 2013; Olson and Fiely 2014). Day roosts and maternity colonies are typically found in crevices and under bark of trees and snags and in rock crevices (Vonhof and Barclay 1996; Baker and Lacki 2006; Johnson et al. 2007b). At night, they forage over open habitats such as creeks, ponds, and along cliffs (Saunders and Barclay 1992; Boland et al. 2009a). To our knowledge, hibernacula have not been discovered in Alaska, though they have been found hibernating in caves elsewhere (Hayes and Wiles 2013).	
<b>Biological Total:</b>	3

**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**

<i>Management Plans and Regulations in Alaska (-10 to 10)</i>	2
Bats may be intentionally killed by humans when they are perceived as nuisance or disease-carrying species. In Alaska, state laws prohibit the killing of nuisance animals unless a permit is obtained (5 AAC 92.420. Taking nuisance wildlife).	
<i>Knowledge of Distribution and Habitat in Alaska (-10 to 10)</i>	10
The distribution and habitat use of the long-legged myotis in Alaska is poorly understood (Parker et al. 1997). This species is infrequently captured during mist-net surveys (Boland et al. 2009a; Olson and Fiely 2014) and acoustic calls are difficult to differentiate from other species (Slough et al. 2014).	

<i>Knowledge of Population Trends in Alaska (-10 to 10)</i>	10
Bats in southeast Alaska are currently being monitored by ADF&G using road surveys and acoustic monitoring stations. However, this species is rarely detected and acoustic calls are difficult to differentiate from other species (Slough et al. 2014). Available data are so limited that we rank this question as A- Not currently monitored.	
<i>Knowledge of Factors Limiting Populations in Alaska (-10 to 10)</i>	10
Little is known about this species' biology and ecology in Alaska. Research is needed to assess ecological requirements, demographic parameters, winter ecology, and vulnerability to white-nose syndrome. Because this species is closely associated with large-diameter trees and snags, timber harvest may affect habitat availability and behavior (Parker 1996).	
<b>Action Total:</b>	32

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

<b>Harvest:</b>	None or Prohibited
<b>Seasonal Occurrence:</b>	Year-round
<b>Taxonomic Significance:</b>	Monotypic species
<b>% Global Range in Alaska:</b>	<10%
<b>% Global Population in Alaska:</b>	<25%
<b>Peripheral:</b>	Yes

## References

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