

## *Myotis lucifugus* (Little Brown Bat)

### Priority 1 Species of Greatest Conservation Need (SGCN)

**Class:** *Mammalia* (Mammals)

**Order:** *Chiroptera* (Bats)

**Family:** *Vespertilionidae* (Common Bats)

#### General comments:

This species hibernates in large groups in caves and mines during the winter. Since the discovery of White-nose Syndrome (WNS) in 2006 in northeastern United States little brown bat populations have experienced die-offs of greater than 90 percent. Specific population decline information for little brown bats in Maine is lacking however, WNS is present in neighboring states. It is predicted that WNS could extirpate cave/ mine hibernating bats from the northeastern United States. Population monitoring should be considered in Maine.

#### Species Conservation Range Maps for Little Brown Bat:

Town Map: [Myotis lucifugus Towns.pdf](#)

Subwatershed Map: [Myotis lucifugus HUC12.pdf](#)

#### SGCN Priority Ranking - Designation Criteria:

##### Risk of Extirpation:

Maine Status: Endangered

##### State Special Concern or NMFS Species of Concern: NA

##### Recent Significant Declines:

Little Brown Bat is currently undergoing steep population declines, which has already led to, or if unchecked is likely to lead to, local extinction and/or range contraction.

Notes:

95% decline in winter hibernating bats from pre-WNS counts in Maine

##### Regional Endemic: NA

##### High Regional Conservation Priority: NA

##### High Climate Change Vulnerability: NA

##### Understudied rare taxa: NA

##### Historical: NA

##### Culturally Significant: NA

#### Habitats Assigned to Little Brown Bat:

Formation Name	Boreal Upland Forest
Macrogroup Name	Boreal Upland Forest
Habitat System Name:	Acadian Low Elevation Spruce-Fir-Hardwood Forest <b>Notes:</b> "secondary habitat" for this (formerly) widespread bat present in a variety of Maine habitats: documented occurrence
Habitat System Name:	Acadian Sub-boreal Spruce Flat <b>Notes:</b> "secondary habitat" for this (formerly) widespread bat present in a variety of Maine habitats: documented occurrence
Formation Name	Developed
Macrogroup Name	Extractive
Habitat System Name:	Subsurface Mines & Caves <b>**Primary Habitat**</b> <b>Notes:</b> "primary habitat" for hibernacula within its range: documented occurrence
Macrogroup Name	Urban-Suburban Built
Habitat System Name:	Residential - Low Intensity
Habitat System Name:	Residential - Rural-Sparse

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**Formation Name**      **Northeastern Upland Forest**

**Macrogroup Name**      **Northern Hardwood & Conifer**

**Habitat System Name:** Appalachian (Hemlock)-Northern Hardwood Forest    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Habitat System Name:** Laurentian-Acadian Northern Hardwoods Forest    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Habitat System Name:** Laurentian-Acadian Pine-Hemlock-Hardwood Forest    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Habitat System Name:** Northeastern Coastal and Interior Pine-Oak Forest    **Notes:** "secondary habitat" for upland forests within its range: presumed occurrence

**Formation Name**      **Northeastern Wetland Forest**

**Macrogroup Name**      **Northeastern Floodplain Forest**

**Habitat System Name:** Laurentian-Acadian Floodplain Systems    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Macrogroup Name**      **Northern Swamp**

**Habitat System Name:** Laurentian-Acadian Alkaline Conifer-Hardwood Swamp    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Habitat System Name:** Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp    **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

### Stressors Assigned to Little Brown Bat:

		Moderate Severity	High Severity
<b>Stressor Priority Level based on Severity and Actionability</b>	Highly Actionable	Medium-High	High
	Moderately Actionable	Medium	Medium-High
	Actionable with Difficulty	Low	Low

**IUCN Level 1 Threat**      **Energy Production and Mining**

**IUCN Level 2 Threat:**      Renewable Energy

**Severity:** Severe      **Actionability:** Highly actionable

**Notes:** There is a high probability that the cummltve effects of wind turbine mortalities would have a population level effect on this bat species in Maine.

**IUCN Level 1 Threat**      **Human Intrusions and Disturbance**

**IUCN Level 2 Threat:**      Recreational Activities

**Severity:** Moderate Severity      **Actionability:** Highly actionable

**Notes:** Caving w/o following disinfection procedures can spread WNS or introduce other variants of the fungus.

**IUCN Level 1 Threat**      **Other Options**

**IUCN Level 2 Threat:**      Lack of knowledge

**Severity:** Moderate Severity      **Actionability:** Highly actionable

**Notes:** Monitoring efforts for this species are currently insufficient, making it difficult to identify areas where they still occur or areas where they are at greatest risk.

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**IUCN Level 1 Threat**      **Invasive and Other Problematic Species, Genes and Diseases**

**IUCN Level 2 Threat:**      Invasive Non-native-Alien Species-Diseases

**Severity:** Severe

**Actionability:** Actionable with difficulty

**Notes:** WNS may extirpate the LBB in the east; there is some evidence that a disinfectant may work in hibernacula; there is also some indication that some LBB may not be as susceptible to WNS as other individuals.

#### Species Level Conservation Actions Assigned to Little Brown Bat:

None. *Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.*

#### Guild Level Conservation Actions:

This Species is currently not attributed to a guild.

#### Broad Taxonomic Group Conservation Actions:

Relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

#### Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

*The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.*