

# CAPE BRETON PRIVATELAND PARTNERSHIP

*Nova Scotia At-Risk Bats*

## Little Brown Myotis (*Myotis Lucifugus*)

### Status

- Endangered (NS)

### Species Description

- Small brown bat at 7-9g in weight
- Black ears, wings and tail
- 22-27cm wingspan
- Females are slightly larger than males
- Long lifespan; some have lived for more than 30 years
- Produces similar echolocation calls to the Northern Myotis



### Threats

- Agricultural and forestry practices
- Renewable energy sources (windmills)
- Invasive non-native species

### Habitat Characteristics

#### ***Overwintering and Swarming Habitat***

- Hibernate in clusters in underground openings
  - Caves
  - Abandoned mines
  - Wells
  - Tunnels
- Prefer temperature ranges of 2°C-10°C
- Relative humidity levels >80%
- The same hibernacula are typically used every year
- Congregate in swarming areas in the late summer and early fall
  - Typically in and around entrances or openings of hibernacula
- Swarming sites may also be used for mating, stopovers during migration, social sites, and/or to assess potential overwintering sites
- Swarming sites in NS have more exposed entrances, long rivers, creeks and streams within a 2km radius and deeper/longer chamber lengths than other areas with less bat activity

#### ***Summering Habitat***

- Males and females both use a variety of locations to roost
  - Buildings and other man-made structures
  - Tree cavities
  - Foliage

- Tree bark
- Cliff crevices
- Roosting areas can be used annually with some being used for 10 years or more
- Man-made sites and structures can be used to roost annually for as long as 50 years

### ***Foraging Habitat***

- Open habitats
  - Ponds
  - Roads
  - Open canopy forests
- Feed nocturnally on insects and spiders

### ***Resources***

- General Info: [Species at risk - Government of Nova Scotia, Canada](#)
- Recovery Plan: [RECOVERY PLAN Little Brown Myotis 27Sept21.pdf \(novascotia.ca\)](#)

## Northern Myotis (*Myotis Septentrionalis*)

### Status

- Endangered (NS)

### Species Description

- Small bat at 5-8g in weight
- Similar in size and colouration to the Little Brown Myotis
- Longer ears and tail and larger wingspan than the Little Brown Myotis
- Distinguishable by its long, thin and pointed tragus (inner side of the external ear)
- Long lifespan; 18.5 years

### Threats

- Invasive non-native species
- Agricultural and forestry practices
- Renewable energy sources (windmills)



### Habitat Description

#### ***Overwintering and Swarming Habitat***

- Hibernate individually in underground openings
  - Caves
  - Abandoned mines
  - Wells
  - Tunnels
- Prefer temperature slightly cooler than the Little Brown Myotis
- Will use the same hibernacula however not always in consecutive years
  - Loyal to a group of hibernacula rather than just a specific one
- Congregate in swarming areas in the late summer and early fall
  - Typically in and around entrances or openings of hibernacula
- Swarming sites may also be used for mating, stopovers during migration, social sites, and/or to assess potential overwintering sites
- Swarming sites in NS have more exposed entrances, long rivers, creeks and streams within a 2km radius and deeper/longer chamber lengths than other areas with less bat activity

#### ***Summering Habitat***

- Roost singly or in small groups
- Prefer trees for roosting
  - Under raised bark
  - Tree cavities
  - Crevices

- Females prefer to roost in tall trees with a large diameter and are in early to mid-stages of decay
  - They tend to switch roost trees every 1-5 days
  - Roosts are commonly clustered in roosting areas
- The largest roosting area in Canada was recorded to be 300 ha in Alberta

### ***Foraging Habitat***

- Feed primarily on terrestrial insects and spiders
- Forage along and within forests
  - Forest-covered creeks

### ***Resources***

- General Info: [Species at risk - Government of Nova Scotia, Canada](#)
- Recovery Plan: [RECOVERY PLAN Northern Myotis 27Sept21.pdf \(novascotia.ca\)](#)[RECOVERY PLAN Northern Myotis 27Sept21.pdf \(novascotia.ca\)](#)

## **Tri-coloured Bat (*Perimyotis Subflavus*)**

### **Status**

- Endangered (NS)

### **Species Description**

- Distinct colouration; hairs are black at the base, yellow in the middle and brown at the tip
- Overall reddish-brown to yellowish-brown colour
- Brown ears and face
- Orange-red or pinkish forearms
- Blackish wings and flight membranes
- Similar in size and weight to the Northern and Little Brown Myotis at 5-9g in weight



### **Threats**

- Renewable energy
- Invasive non-native species
- Agricultural and forestry practices

### **Habitat Description**

#### ***Overwintering and Swarming Habitat***

- Hibernate individually in underground openings
  - Caves
  - Abandoned mines
  - Wells
  - Tunnels
- Prefer deepest parts of hibernacula where temperature is least variable
- Strong humidity level preferences
- Use warmer walls when hibernating than other species
- The same hibernacula are typically used every year
- Congregate in swarming areas in the late summer and early fall
  - Typically in and around entrances or openings of hibernacula
- Swarming sites may also be used for mating, stopovers during migration, social sites, and/or to assess potential overwintering sites
- High site fidelity; return to the same hibernacula year after year
- Swarming sites in NS have more exposed entrances, long rivers, creeks and streams within a 2km radius and deeper/longer chamber lengths than other areas with less bat activity

#### ***Summering Habitat***

- Most roost sites are within forested habitats

- May roost in clumps of dead foliage and lichens
- In NS they have been found to roost in large clumps of arboreal lichen (lichen growing on trees) relatively close to water
- Females roost alone or in small groups
- Sometimes roost in barns or similar structures
- Males roost alone
- A male in NS was tracked and found to have roosted alone in arboreal lichen

### ***Foraging Habitat***

- Similar to Little Brown Myotis, Tri-coloured bats feed on insects using echolocation after dusk and before dawn
- Forage in forested riparian areas
  - Ponds
  - Rivers

### ***Resources***

- General Info: [Species at risk - Government of Nova Scotia, Canada](#)
- Recovery Plan: [RECOVERY PLAN Tri colored Bat 27Sept21.pdf \(novascotia.ca\)](#)