

## Bats in Manitoba

There are six species of bats found in Manitoba:



Little brown bat  
(*Myotis lucifugus*)

### Hibernating



Northern long-eared bat  
(*Myotis septentrionalis*),



Big brown bat  
(*Eptesicus fuscus*)

### Migrating



Silver haired bat  
(*Lasionycteris noctivagans*),



Red bat  
(*Lasiurus borealis*)



Hoary bat  
(*Lasiurus cinereus*),

Three species are migratory and spend their winters in the southern States, South Carolina, Mexico or the Caribbean.

Three species are hibernating, which means they overwinter in Manitoba.



Figure: Northern Long eared bat in hibernacula

Resident bats spend the winter hibernating in a hibernacula. These sites may be found in abandoned mines or natural caves. Consequently, these species of bats may also be called “cave-dwelling bats.” During the winter, these bats reduce their body temperature to around 3°C to 6°C in order to minimize energy costs, given the lack of food during this period. A site only makes a good hibernacula if it provides an environment in which this temperature can be maintained.

The three cave-dwelling bat species are affected by a fungal infection. This disease is called white-nose syndrome (WNS). This infection develops exclusively in hibernacula during winter and affects bats by increasing the number of times they wake up.

During the summer, some cave-dwelling species use buildings to give birth and raise their young. They can also roost inside holes in live or dead trees, or under tree bark.

Three bat species are found on Tolko’s Defined Forest Area: the little brown bat, the Northern long eared bat and the hoary bat.

The hoary bat will migrate in the fall to the southern United States and the Caribbean. The body of hoary bats is about the size of a fat mouse. Hoary bats weigh 20 to 35 g. The length from the tip of the nose to the end of the tail vertebrae is 13 to 15 cm. The wingspan is 43 cm. Its body fur is long, dense and largely grey-brown, with white tips to the hairs that give this species the frosted or ‘hoary’ appearance for which it is named (2) (3). There is a distinct patch of yellow fur on the throat, and white patches on the wrists and shoulders (2). The ears of the hoary bat are short and rounded, and are edged in black. The tail membrane of this species is heavily furred.



Figure: Hoary Bat

Two species, the little brown bat and the Northern long eared bat, will spend their winters in caves on the DFA. Both species are listed as endangered in the Species at Risk Act because of white-nose

syndrome (WNS). This disease can be carried into the hibernacula by humans.



Figure: Little Brown Bat

Little brown bats weigh only seven to fourteen grams and have a wingspan of 22-27 centimetres. This species of bat is the one most closely associated with humans, as it is the most likely to take up residence in buildings.

Even though Little Brown Bats do not usually migrate to destinations outside of Canada, individuals can move up to 1000 km from summer roosts to winter roosts where they hibernate. These winter roosts are called hibernacula. Hibernacula are generally in caves or abandoned mines, and are chosen for their high humidity and stable, above-freezing temperatures. The Little Brown Bat is a true hibernator (it slows down its metabolism, heart rate, and breathing).

Summer roosts can be a building for their maternity colonies but they also use tree cavities or other places that stay dark and warm during the day, like bat boxes.

Little Brown Bats feed on a great variety of small, flying insects. They locate these insects using echolocation. These are typically moths, flies, mosquitoes, mayflies, beetles, and midges, but they are opportunistic feeders, meaning that they feed on whatever insect species is available.



Figure: Northern long-eared bat

Northern long-eared bats have dull yellow-brown fur with pale grey bellies. They are typically about eight centimetres long, with a wingspan of about 25 centimetres. Northern long-eared bats usually weigh between six and nine grams – a little more than a Canadian loonie or toonie. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, *Myotis*.

They are found primarily in forested habitats, especially boreal forests, since they typically roost in hardwood trees during the summer. Like most bats, northern long-eared bats emerge at dusk to feed. They primarily fly through the understory of forested areas feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation or by gleaning motionless insects from vegetation.

Tolko's role in conservation of bats starts with educating its staff and contractors and their employees on identifying the species and their endangered status. The company conducts pre-harvest surveys which include identification of potential bat hibernacula so that the areas can be protected. The company is also engaging in aerial infra-red surveys to identify these hibernacula. These surveys are still in the pilot stage. See the 2015 WOODWORKS for details (<http://www.tolkomanitoba.com/Awareness.htm>). Once the hibernacula have been located, they are buffered.

The general public can contribute to conservation as well, by not disturbing bats to protect their habitat and don't even go in a hibernacula. You can also leave dead and dying trees standing, where possible and not a safety hazard on your property for roosting for the northern long-eared bats. Also, you could install a Bat Box as they may provide additional roost sites. Bat boxes are especially needed from April to August when females look for safe and quiet places to give birth and raise their pups. And lastly, spread the word, understanding the important ecological role that bats play is a key to conserving these bats.