

BAT HOUSE INFORMATION



Métis Nation
Saskatchewan



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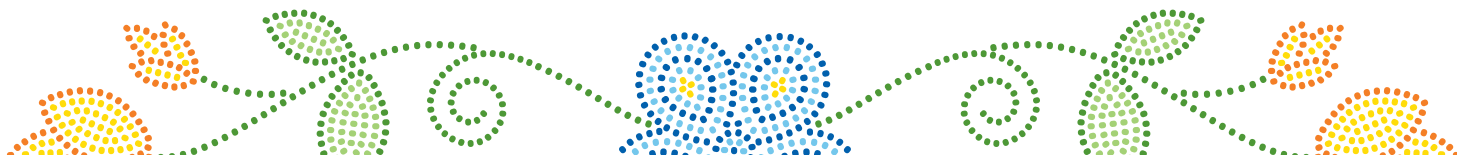


What are Bat Houses?

A bat house is a ready-built structure that bats can roost in. It's recommended to install multiple bat houses within a 100m area.

Installing a bat house is a big commitment, you need to make sure:

- You have the right kind of bat house.
- You can supply two bat houses within 100 meters of each other, with one in a sunny area and one in a shaded area.
- Your area exists within a zone that the bats can properly utilize, some areas in the environment aren't able to support bat colonies.
- When establishing your bat house location, make sure there aren't a huge amount of unnecessarily unfriendly things for the bats to harm themselves on.
- **Look out for:** suspended wires or barbed wire fences, large chutes/chimneys, a definite lack of cats.



Where and When to Install a Bat House

Avoid areas where the bat guano (bat droppings) will cause a problem, and where a falling bat would die. Try to make sure there's short grass or other short vegetation below the bat house to help speed up guano (droppings) decomposition and facilitate safe bat crashing procedures.

Solar Exposure

Bats need to have a warm place to stay. Try to set up the bat house in an area that has ample sunlight, either an east or south facing side. But you should also install a bat house in a shaded area so that the bats are able to move and regulate their temperature.

Deterring Predators

Avoid installing the bat house near areas where predators will have easy access to the bats. If the bat house is to be pole mounted, use some sheet metal or smooth plastic on the pole below the bat house to help deter predators from climbing the pole.

Mounting

Bat houses need to be mounted at least 3 to 4 meters above the ground. There are three ways to mount a bat house: Attach to a pole/post, mount on the side of a building, or install on the trunk of an open tree.

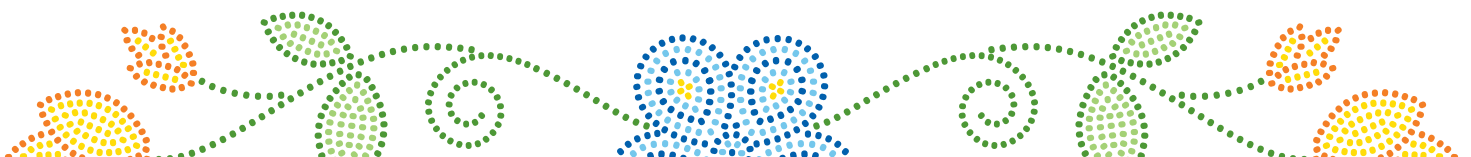
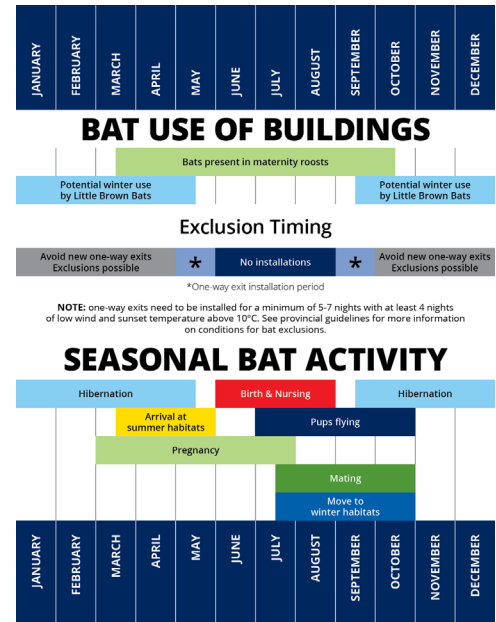
Trees might be suitable, but they need to fit certain criteria:

- The tree has an unobstructed trunk that allows sunlight to get in and bats to be able to exit safely.
- The tree is sound, it won't fall over in the future.
- There aren't any nearby perches that predators can use to get to the bats.

Bat houses attached to the sides of buildings often have more success than pole-mounted bat houses. You should also try to avoid as much artificial light as possible.

Maintenance

Maintenance isn't required on the houses, but you should inspect them to make sure they're still structurally sound and safe for the bats. Check to see if there are leaks where the heat can escape, or water can get in.



Types of Bats

About The Little Brown Bat

Little Brown Bat (*Myotis lucifugus*) lives up to its name at 5.5-11.0 grams, with black ears, black wings, and a black tail membrane. Very small in size (6-10 cm or 2.5-4 in long). Females tend to be slightly larger than males. Compared to other mammals, Little Brown *Myotis* has a long lifespan, some individuals living past 30 years.

Where do They Live?

These bats have quite the geographical plot, ranging widely across Canada, and is believed to inhabit all areas of Saskatchewan.

Habitat and Behavior

Little Brown Bats are nocturnal, typically roosting in buildings, trees and caves during the day. Throughout the summer, females raise offspring in attics, abandoned buildings, barns and tree cavities. In late summer and fall, bats migrate from their summer roosts to caves and mines, where they hibernate from October or November to March or April. Caves are chosen as the prime spot for hibernation as high humidity with above-freezing temperatures are the preferred conditions. Males tend to emerge later than females, as late as early June.

Reproduction

Reproduction for this species is random and polygynandrous, meaning that both males and females tend to have multiple partners. Breeding usually occurs during fall and fertilization takes place after hibernation in the spring. Pregnancy lasts 50-60 days, and pups are born between May and July. Mothers tend to give birth to only one pup, which is usually weaned early on, and showing some adult sized dimensions by three weeks old.

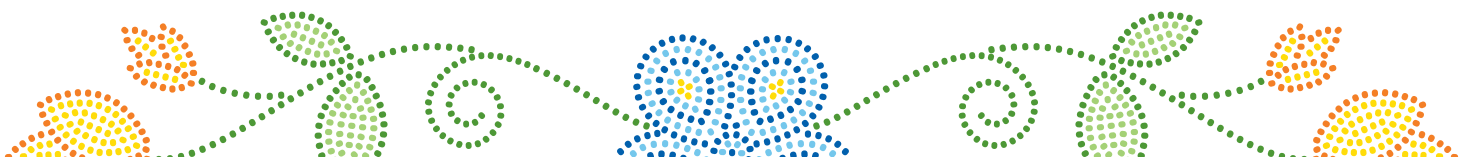
Diet and Hunting

The Little Brown Bat emerges 2-3 hours after dark and shortly before dawn to feed. They feed on a variety of insects including hoppers, mosquitos, moths, small beetles, and more. They eat so much that they tend to increase their body weight by over 30% before hibernation. To navigate and find food they use echolocation, which works like sonar by emitting high frequency sounds that bounce off objects back to the bats. These sounds allow the bat to produce an accurate, highly detailed 3D map of their surroundings



Fun Facts

- This species cares about keeping moderately clean as most of their time during the day is spent grooming their fur and wings.
- In order to preserve energy, they sleep for up to 20 hours a day on average.
- When cruising, they give out up to 20 calls per second in order to locate prey and objects.



About The Northern Long-Eared Bat

Northern Long-eared Bats (*Myotis septentrionalis*) are usually brown to light brown in color and weigh between 5-8 grams. Their ears are longer than other similar sized *Myotis* species, reaching past the nose when pushed forward. They also have a longer tail and broader wings than related species, allowing them to be more maneuverable during flight.

Where do They Live?

This species is geographically dispersed throughout the Nearctic region, namely Canada and the United States. In Saskatchewan, this species is common in Northern areas around La Ronge, Buffalo Narrows, Waskesiu, and Nipawin.

Habitat and Behavior

Roosts are usually made in tree cavities, crevices, and under exfoliating bark. During the summer, females use roosting networks, frequently switching between a collection of tree roosts. Northern Long-eared Bats hibernate during winter, usually in caves and abandoned mines. They generally return to the same hibernacula with other hibernating species such as the Little Brown Bat and Tri-colored Bat.

Reproduction

This species also has a polygynandrous mating system in which each bat has multiple partners. Mating occurs in autumn and a method called delayed fertilization is used. This means that females store male sperm in uteri before and during hibernation. Ovulation and fertilization then both occur once hibernation is over. Female pregnancy lasts 50-60 days and results in a single pup born during late June to early July. The pups are born helpless and completely dependent on their mothers.

Diet and Hunting

This species, like The Little Brown *Myotis*, emerges to feed and is most active at pre-dawn and dusk. Using their shorter, quieter, and higher pitched echolocation calls, which have classic frequency-modulated structure, they can easily navigate through cluttered environments. While flying through these highly dense forested areas, they hunt for insects that hang out on leaf surfaces and tree branches. Some of their favorite bug species include a variety of moths, beetles, flies, ants, and spiders.

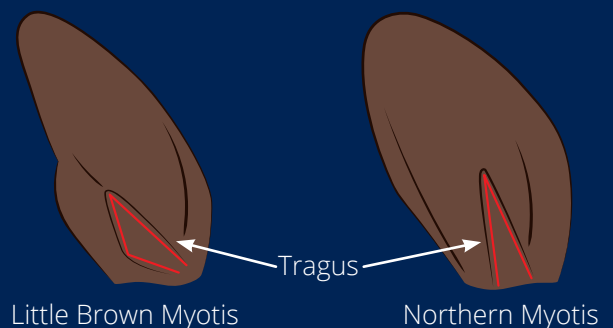
Fun Facts

- They are called “whispering bats” because of their quiet echolocation calls used to sneak up on unsuspecting insects
- Their wings are shaped differently than other bats, making them slow flyers but very good navigators through dense environments.



How to Tell The Difference Between The Two

- The ears of the Northern *Myotis* extend beyond the nose when pushed forward, which is not possible for the Little Brown *Myotis*.
- The tragus on the Northern *Myotis* is also longer, slender, and more pointed.
- The Little Brown *Myotis* is slightly bigger in size.



Bat Reporting

Why Reporting Sightings is Important

Due to the conservation status of the little brown bat, it is essential to report sightings. It's important because they play a large role in the environment. Sighting data can then be used by researchers to find solutions for endangerment, habitat loss, pollution, and more.

Saskatchewan Conservation Data Centre (SKCDC)

The SKCDC is an organization that collects information on wild species from observations across Saskatchewan. This data is used to inform biodiversity conservation efforts.

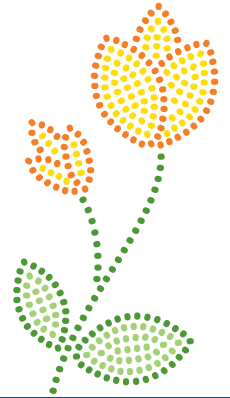
Reporting Directly to SKCDC

If you would prefer not to use iNaturalist you can report directly to SKCDC. To do so you will need an excel file and a computer to fill it out. Email or call MN-S to be sent this excel file via email.

Required Fields for SKCDC

You will need to either fill out the animal or plant worksheets on the excel sheet. This requires (at a minimum):

- Date
- Sensitive Data - True or False (some data might be sensitive for publication reasons or landowner confidentiality)
- Observer Name(s)
- Location (Latitude/Longitude [decimal degrees], UTM [including zone], or Dominion Land Survey)
- Scientific or Common name (see about sections for Little Brown Bat and Northern Long-Eared Bat)

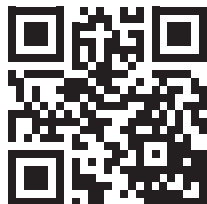


iNaturalist

If you're using the app you will need to tap the observe button first. Once there you can add photos, choose what you saw, when you saw it, and where you saw it. After this is all complete save your observation and sync to share with the community.

If you're using the website to report your sightings, you will first need to login on the page. Then click the green upload button and provide important information: photos, what, when, and where. Finally, submit your observations and it will automatically post.

Website QR Code:



App QR Code:



HABISask

HABI Sask is a client-oriented government online mapping system for rare and endangered species. It integrates new information into existing applications to assist viewers in obtaining information on species at risk, and making plans for hunting, biodiversity, and angling.

Website link: <https://gisapp.saskatchewan.ca/Html5Ext/?viewer=habisask>

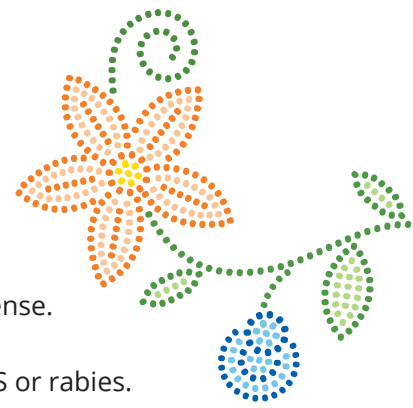
Bat Safety and Handling

What to do if a Bat is Spotted on The Ground

If you come across a bat on the ground, keep children and pets away.

Do not touch or spook the creature. They are fragile, shy, and will likely bite in self-defense.

It is essential to take every preventative measure to keep from being bitten. Bat bites can be life threatening in a lot of cases as most bats carry dangerous diseases like SARS or rabies.



- Put on strong leather gloves and make sure you have a container that the bat can't escape from (For example: A cardboard box, a pillowcase, a plastic bucket)
- Approach the bat slowly and carefully, open the container, and use another object to gently push the bat into the container
- Place the bat safely on a high surface such as a tree or a pole and leave it there.
- If after a while the bat still hasn't moved and seems to be weak, call an animal rehabilitator such as Wildlife Rehabilitation Society of Saskatchewan **306-242-7177** or the City of Saskatoon, Parks Division **306-975-3300**.

Dangers of Rabies

Rabies is a highly dangerous and infectious pathogen transmitted via bite or scratch.

Prevalence of rabies in wild bats varies by species and region across Canada but is generally less than 1% in any given population. Regardless of behaviour, stay away from handling bats without gloves or the proper materials needed to safely transport.

What to do if a Bat is in Your House

Leave Them Alone

- You can essentially ignore the bats in your house. Try to remove as many dangers to the bats as you can, such as: burdock, wires, barbed wire fences, large open chutes/chimneys, etc.

Block all entrances and exits of bat roosts

- Find all their entrances and exits and determine if it's safe to remove them, sometimes it's better to just block them off from where you live and not from the entire house.

Increase the number of bat roosts outside of your home

- Contact us to determine if it's viable for you

