



A Bat Friendly Watershed

Why Bats?

With 9 species documented throughout Alberta, bats are invaluable mammals providing ecological and financial benefits. Bats assist in pollination and seed dispersal, but most importantly, these insectivores are important for pest management. In fact, bats are estimated to save the agriculture industry billions of dollars annually with regards to pest control.

Threats

The Little Brown Myotis or Little Brown Bat (*Myotis lucifugus*) is a common and widespread species within Alberta; however, the species is listed as Endangered under the Species at Risk Act due to severely declining populations in the east. This is predominately a result of the spread of a fungus causing White Nose Syndrome (WNS). This fungus attacks the bats during hibernation, rousing them from their sleep and ultimately depleting their valuable fat stores and making them vulnerable to death. With a 90%-100% mortality rate once WNS is detected within populations, this disease can be detrimental to the species.

While WNS has not yet been detected within the Alberta portion of the watershed, it has been detected within the Montana reaches, and is predicted to make its way north within the coming years.

Degradation/loss of foraging habitat, disturbance and loss of roost sites, climate change, wind turbine projects, and predation are other additional threats bats are currently facing.

Bat Houses – What Are They?

Bat houses are structures similar to bird houses, however they include multiple chambers for bats to move about in to find optimal conditions for their needs. Depending on size, these houses can hold hundred of individuals and provide a valuable location for bats to use as roosts. These can be used during daylight hours as a place to sleep, or as night

roosts to rest between foraging. Houses may also serve as maternity important roosts for pregnant and nursing females to raise their pups.

Recommendations & Best Practices

- Best locations for installation include riparian areas, locations 400 m from drinking water, areas of low human traffic, areas with previous bat sightings, and places with an upwind wind break.
- Boxes should be unobstructed for easy access and detection, with lots of sun exposure.
- Check boxes annually for pests or weathering.
- Mount houses a minimum of 3 m from the top of the ground to entrance of the box to allow for flight.
- When mounting to trees:
 - Ensure they are sturdy and will be standing years to come.
 - Free of nearby perches for aerial predators.
 - Consider installing a smooth metal sheet or plastic around the tree below the box to prevent climbing predators.
 - Poplar and Aspen are often good choices for tree selection.
- When mounting to buildings
 - East facing walls are ideal for mounting because this provides optimal sun exposure and avoids the hottest hours.
 - Areas with lots of artificial light should be avoided.
 - Mounting to buildings are typically more successful than to trees.

Citizen Science: Record Your Sightings!

There are significant knowledge gaps for bats within the Milk River Watershed. By recording your sightings, you can aid in valuable data collection regarding bat population dynamics. Sightings can be reported to <https://www.albertabats.ca/citizenscience/>.

