

Quetico Provincial Park Acoustic Bat Survey: 2017 Data Summary

Why survey bats?

Bats are an important component of biodiversity, particularly as a voracious insect predator. Five species of bat have been recorded in Quetico Park, including three species of migratory bats - Eastern Red Bat, Hoary Bat and Silver-haired Bat - as well as two non-migratory species that spend winters hibernating in the Quetico area - Big Brown Bat and Little Brown Myotis. Due to the risk of white nose syndrome (WNS), Little Brown Myotis, Northern Myotis and Tri-coloured Bat have been classed as Endangered in Ontario. White nose syndrome (*Pseudogymnoascus destructans*) is a cold and damp-loving fungal disease that causes a skin infection in bats which causes hibernating bats to wake up more frequently during the winter. Waking up at this time of year when food and water is not available, causes bats to dehydrate and use up fat reserves prematurely, often resulting in death.



Work in Quetico Provincial Park.

Starting in 2017, high frequency recorders were to identify and monitor bat species along a paddled route between Pickerel and French Lake in the northeast corner of the park. The purpose was to determine the presence and abundance of Species At Risk bats (i.e. Little Brown Myotis and Northern Myotis) relative to other bat species in Quetico Provincial Park as well as compare distribution of identified bat species.

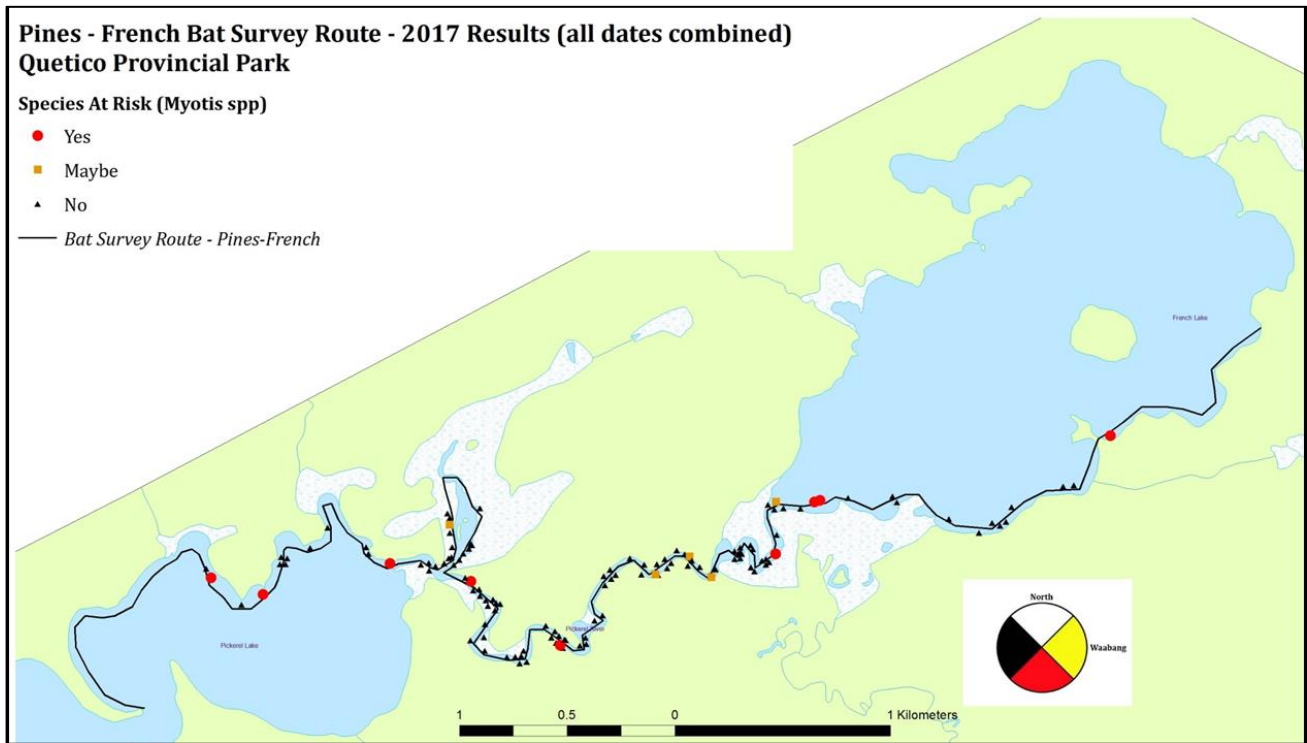
2017 Survey Results

Of the 125 calls recorded on the three survey trips, Hoary Bats were by far the most commonly identified bat species making up 66% of the identified calls with Silver-haired Bats the next most frequently identified call (20% of the total calls). Eastern Red Bats were only identified once as a single confirmed species but were possibly heard 3 other times although each of these times, call signals may have been other species (Tri-coloured Bat or Little Brown Myotis). Big Brown Bat and Tri-coloured Bat were never identified from individual calls.

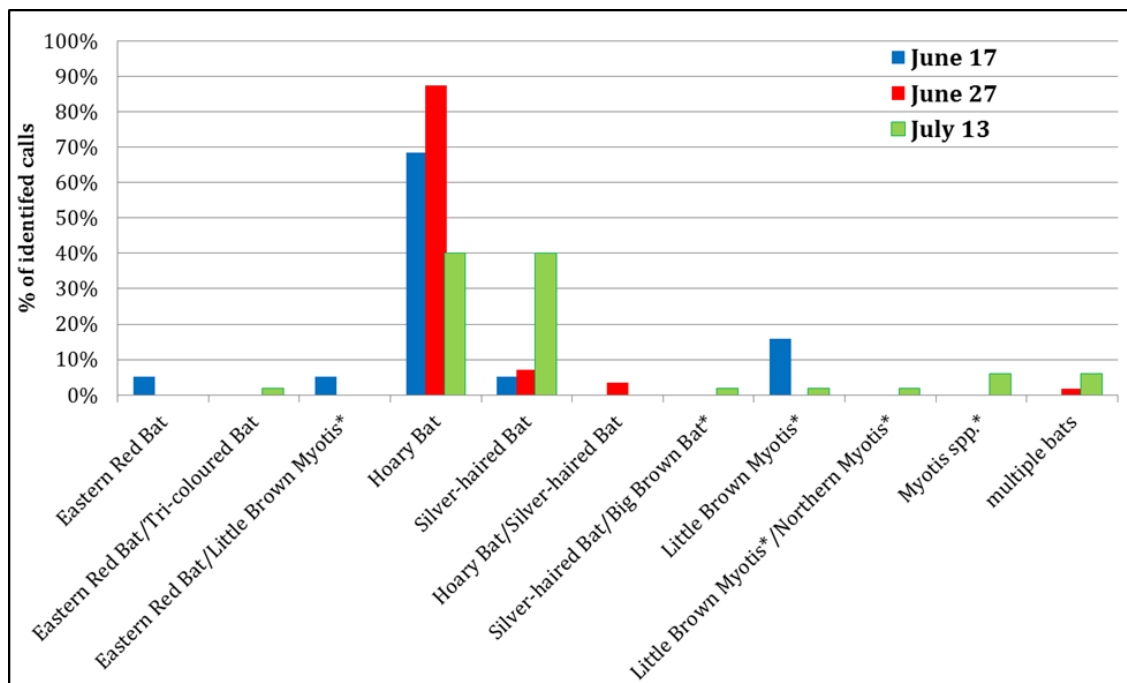
The species identified as Species at Risk, the Myotis species, were only identified from 6% of the calls. All but one of these were identified as Little Brown Myotis. One Northern Myotis was possibly heard although could not be clearly separated from Little Brown Myotis based on the recording.

Bat calls were most frequently recorded in the river section or wetlands that were close to treed shorelines.

These results represent the first year of a multiple year project. Future surveys will focus on tracking any changes in the relative abundance of Myotis species to other bat species to assess impacts of WNS on local bat populations.



Map of the Pickerel – French Bat monitoring route showing location of Species at Risk bats (i.e. Myotis spp) relative to non-species at risk bats.



Bat species identified from acoustic transect surveys in Quetico Park on June 15, June 27 and July 13, 2017

For more information, see the full report "Quetico Provincial Park Acoustic Bat Survey:2017 Data Summary (Jackson and Adair 2018)" available from Quetico Park Biologist Brian Jackson at brian.w.jackson@ontario.ca