

PROJECT PROPOSAL

Background:

White nosed syndrome has devastated the brown bat populations in several eastern states. There are also several other species affected by the fungus known as *Geomyces destructans*. The fungus grows in the winter hibernacula of mines and caves. The syndrome is now found from New York to Washington state.

<https://www.whitenosesyndrome.org/about/bats-affected-wns>

<https://www.whitenosesyndrome.org/about/where-is-it-now>

In Michigan, the majority of the brown bat population winters in the 79 mines found in the Keweenaw Peninsula.

<http://mynorth.com/2012/10/a-northern-michigan-bat-doctor-fights-for-the-hibernaculas-future/>

It is suspected that WNS is now occurring in the Keweenaw based on observations of unusual bat activity in the early spring of 2016. Should the infection spread, the Little Brown Bat population of Michigan could be reduced to the point where recovery is impossible. The National Forest Service is also reporting that WNS is now occurring in other bat species in Michigan as well.

There are currently several efforts underway to study bat populations and educate the public about WNS. There are several agencies involved in these efforts from the National Forest Service to universities.

More Reading

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/tennessee/succes>

<http://www.mnn.com/earth-matters/animals/blogs/new-remedy-helps-bats-survive-white-nose-syndrome>

Proposal: A project to inform and educate Les Cheneaux area residents about bats and the effect of white nose syndrome on the local bat population. As part of the project an estimation of the local bat population, population trend, and resident species would be obtained.

Objective: The objectives of the project are

- 1) Educate the Les Cheneaux area public concerning WNS through distribution of available literature.
- 2) Estimate trends in local bat population over a specific time frame and compare with other available estimations in state of Michigan and surrounding area.

Project Benefit: Increases public awareness of overall environment, presents LCWC in a positive light as an organization actively engaged in the study and preservation of the Les Cheneaux and Great Lakes ecology

Project Details:

Items Needed: Michigan's Brilliant Bats Poster Michigan DNR publication
NFS bat information publications
WNS.org Publications

(The above publications fulfill the first objective. The materials will be made available at Frog Fest, the Antique Wooden Boat Show, and other venues where LCWC has a presence.)

Conduct at least one additional bat population survey using the LCWC web site and Facebook as was done in 2016. The survey will incorporate more questions on the number of bat sightings and the timing. Areas with high concentrations of

sightings will be further investigated using sonic species identification. These areas will be monitored each year for a period of 3 to 5 years for changes in population density and species diversity. This will provide more information concerning the local bat population, population trends, and provide a starting point for any interested professional investigations involving flight patterns and species identification. This data will be compared with available like data for Michigan and/or the surrounding territory. It also will provide initial information concerning which species is surviving WNS in the Les Cheneaux area.

Items needed for the second portion of the project: Web site survey distribution, Bat call monitoring equipment (Echo Meter Touch)

Person Responsible for obtaining published materials and required sonic analysis equipment – S. Myers

Cost	DNR poster 500 copies	DC\$	85.00 (from info on poster)
	NFS handouts	EDC\$	100.00
	WNS.org handouts	EDC\$	100.00
	Echo Meter Touch	EDC\$	450.00
	TOTAL	EDC	\$735.00

Est DLH for survey 160

Estimated Project Duration 3 years

Individuals Involved S. Myers, M. Stoll and M. Clymer (web site survey), others involved in setting up the monitoring of bat calls and signal analysis for species identification.

Fit with LCWC Charter

This project meets the following LCWC stated objectives:

- Establish and promote education/information programs that promote stewardship and low impact recreational enjoyment of aquatic and terrestrial resources
- Preserve the unique nature-based aesthetic character of the Les Cheneaux Islands area
- Identify and protect priority habitat for threatened and endangered species

Equipment Needed Echo Meter Touch supplied by Wildlife Acoustics. Includes software for pattern analysis

Contracts None

Funding Source General fund and donations

SAMPLE QUESTIONS FOR BAT SURVEY:

1. Have you seen bats in the Cheneaux Island area in the last 90 days?
2. If you have seen bats, how many times have you seen them - once or twice, 3 or 4 times, 5 or more times
3. If you have seen bats, were the sightings all at approximately the same location (around the same building or at the same beach)?
4. If you have seen bats, what was (were) the approximate location(s) or address(es) of the sightings (SE tip of Government Island, 123 Main street, Cedarville, etc.)
5. If you have seen bats flying in the Cheneaux Island area before dusk in the last 90 days (approximately 8:30 to 9:30 PM) what was the location and approximate time of the sighting?