



# **2024 Beaver Creek Reserve Bat Program**

**Beaver Creek Reserve  
Citizen Science Center**

*Sponsored by Xcel Energy Foundation*



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## Introduction

The Beaver Creek Reserve's Citizen Science Center (CSC) serves as the regional coordinator for the Bat Monitoring of Wisconsin Project, a statewide citizen science initiative that engages volunteers in collecting data on bat species through acoustic monitoring. As the coordinator, the CSC manages volunteer participation, assigns monitoring routes, provides necessary equipment, and ensures accurate data collection. At the end of each season, the CSC uploads and analyzes the data, sharing the results with the Wisconsin Bat Program. Additionally, the CSC communicates findings to volunteers, members, and the local community, improving public awareness and involvement in bat conservation efforts.

## Acoustic Monitoring Results

The bat species of Wisconsin use echolocation to capture, pursue, and detect prey and navigate. These echolocation sounds are above the range for human hearing, requiring the use of specialized equipment to detect and record these high frequency calls. This equipment detects and records the bat calls, location, date, and time of each encounter.

Acoustic monitoring takes place during active months for bats, April-September following Wisconsin Department of Natural Resources Bat Program requirements. Each location is surveyed 3-4 times per season and begins about 30 minutes after sunset. All of the acoustic monitoring data was collected by citizen scientists that volunteered through the Beaver Creek Reserve Citizen Science Center.

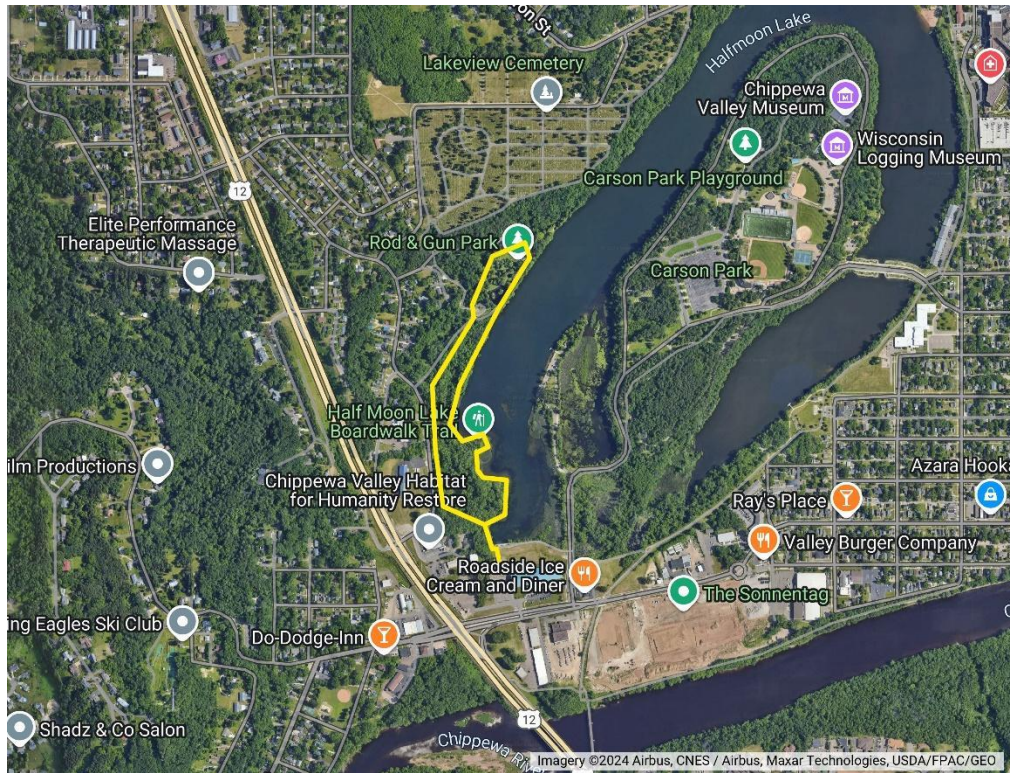
The numbers of calls during the surveys represents the number of calls, and not individual bat species. Categories with multiple species listed means that there is not enough information to differentiate between the listed species. High and low frequencies determine that there was a bat species present in the area, but it cannot be definitively identified as one of the species. The bat species within the high frequency grouping are the Little Brown, Northern long-eared, Tricolored, Eastern red, and Evening bats. Low frequency calls include the Big brown, Silver-haired and Hoary bats.

In 2024, dedicated volunteers surveyed each location listed below as part of Beaver Creek Reserve's Citizen Science Center. For each site, you'll find a detailed map of the walking route along with the data gathered from each monitoring session.

**Table 1:** Bat Species vs Monitoring Location. The data from this table was collected by citizen scientists during the 2024 season through acoustic bat monitoring.

Bat Species	Lake Menomin Park	Half Moon Lake	Augusta Wildlife Area	Private Residence	LWSP	LWSP - Campground
Big Brown	45	91	31	83	137	38
Silver-Haired Bat	18	2	4	3	4	1
Little Brown Bat	4	7	5	2	3	10
Eastern Red Bat	3	1	19	4	5	2
Hoary Bat	41	51	17	15	24	31
Eastern Red Bat/Tricolored/Evening Bat	0	0	4	1	1	1
Big Brown/Silver-Haired Bat	10	20	2	9	16	12
Little Brown/Northern Long-Eared Bat	0	0	0	0	0	4
Low Frequency Call	27	7	9	16	27	16
High Frequency Call	4	0	2	5	2	4
<b>Total</b>	<b>152</b>	<b>179</b>	<b>93</b>	<b>138</b>	<b>219</b>	<b>119</b>

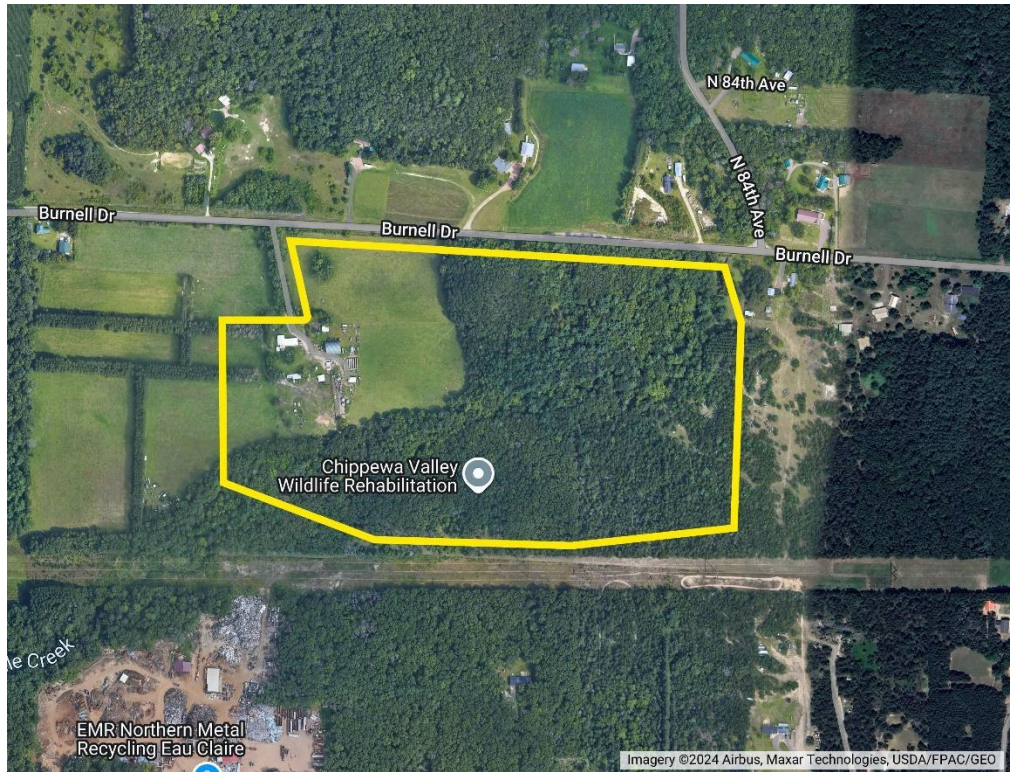
## Half Moon Lake



## Eau Claire, Wisconsin

Half Moon Lake				
Bat Species	5/3/2024	5/30/2024	7/11/2024	9/23/2024
Big Brown	8	56	27	0
Silver-Haired Bat	0	0	1	1
Little Brown Bat	0	6	1	0
Eastern Red Bat	0	0	1	0
Hoary Bat	0	7	43	1
Eastern Red Bat/Tricolored/Evening Bat	0	0	0	0
Big Brown/Silver-Haired Bat	0	14	5	1
Little Brown/Northern Long-Eared Bat	0	0	0	0
Low Frequency Call	1	4	2	0
High Frequency Call	0	0	0	0
<b>Total</b>	<b>9</b>	<b>87</b>	<b>80</b>	<b>3</b>

## Private Residence

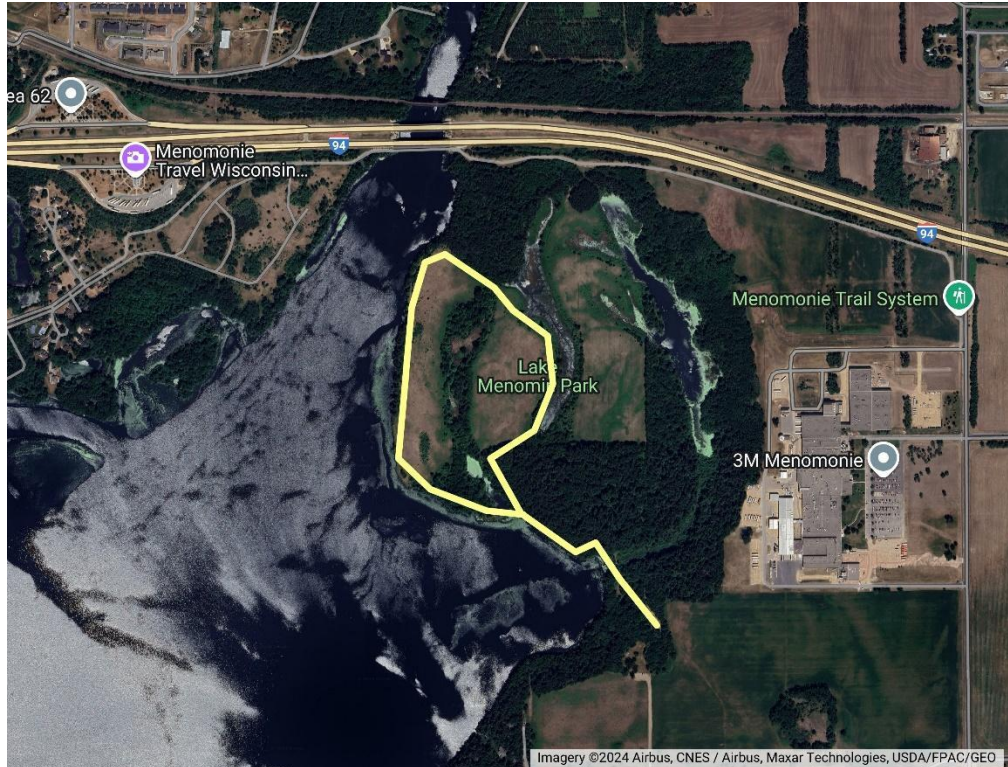


## Eau Claire, Wisconsin

Private Residence			
Bat Species	5/13/2024	7/29/2024	8/19/2024*
Big Brown	2	81	-
Silver-Haired Bat	2	1	-
Little Brown Bat	2	0	-
Eastern Red Bat	0	4	-
Hoary Bat	0	15	-
Eastern Red Bat/Tricolored/Evening Bat	0	1	-
Big Brown/Silver-Haired Bat	0	9	-
Little Brown/Northern Long-Eared Bat	0	0	-
Low Frequency Call	2	14	-
High Frequency Call	0	5	-
<b>Total</b>	<b>8</b>	<b>130</b>	<b>-</b>

*\*Monitoring date 8/19/24 was unable to record any bat calls due to equipment issues\**

## Lake Menomin Park



## Menomonie, Wisconsin

Lake Menomin Park			
Bat Species	5/26/2024	7/24/2024	8/18/2024
Big Brown	2	20	23
Silver-Haired Bat	0	17	1
Little Brown Bat	1	2	1
Eastern Red Bat	0	1	2
Hoary Bat	0	34	7
Eastern Red Bat/Tricolored/Evening Bat	0	0	0
Big Brown/Silver-Haired Bat	0	6	4
Little Brown/Northern Long-Eared Bat	0	0	0
Low Frequency Call	1	19	7
High Frequency Call	0	4	0
<b>Total</b>	<b>4</b>	<b>103</b>	<b>45</b>

## Lake Wissota State Park Campground

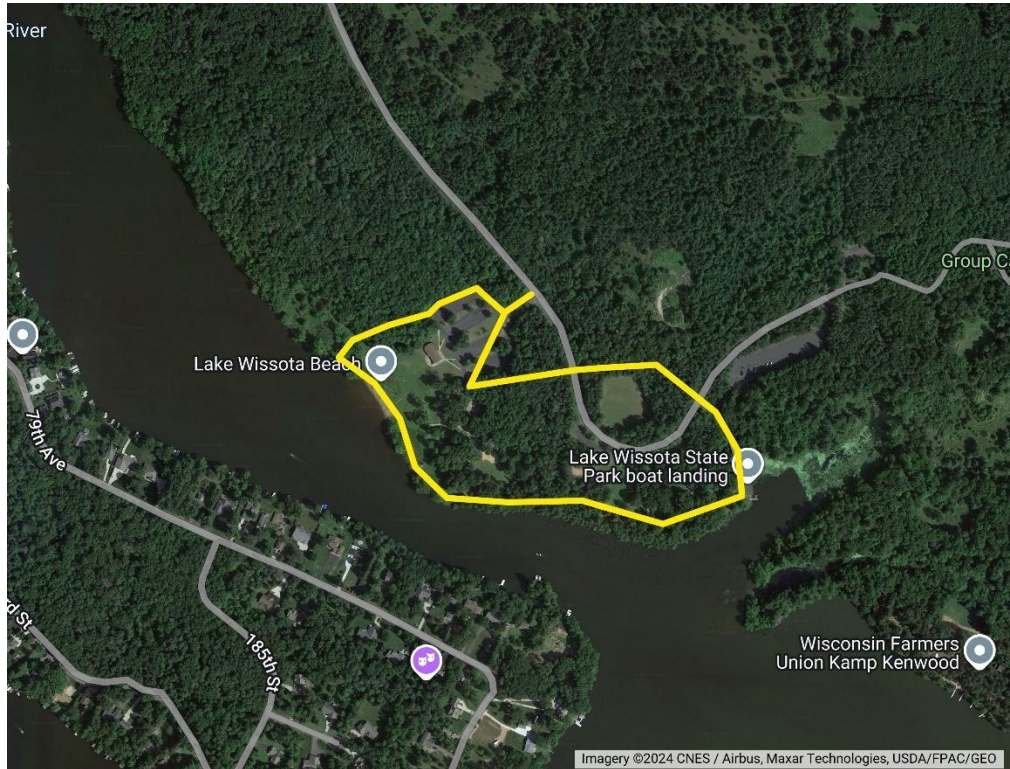


## Chippewa Falls, Wisconsin

Lake Wissota State Park - Campground			
Bat Species	6/6/2024	8/1/2024	9/3/24
Big Brown	1	8	29
Silver-Haired Bat	0	0	1
Little Brown Bat	0	9	1
Eastern Red Bat	1	0	1
Hoary Bat	0	23	8
Eastern Red Bat/Tricolored/Evening Bat	0	0	1
Big Brown/Silver-Haired Bat	1	3	8
Little Brown/Northern Long-Eared Bat	0	3	1
Low Frequency Call	0	1	15
High Frequency Call	0	3	1
<b>Total</b>	<b>3</b>	<b>50</b>	<b>66</b>



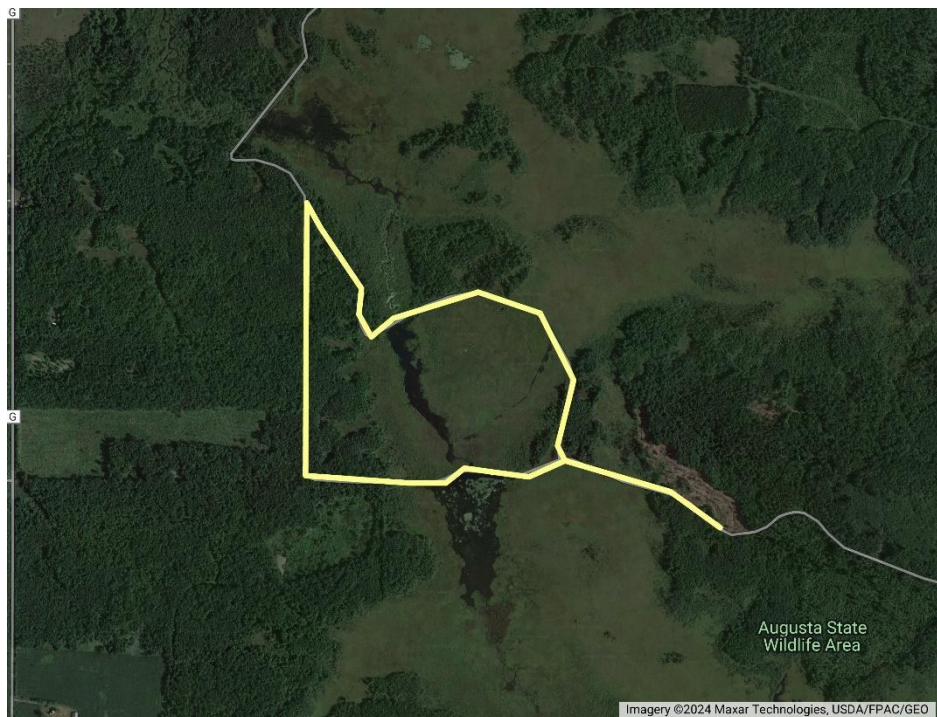
## Lake Wissota State Park - Recreation Area



## Chippewa Falls, Wisconsin

Lake Wissota State Park - Recreation Area			
Bat Species	6/7/2024	8/2/2024	9/4/24
Big Brown	6	21	110
Silver-Haired Bat	0	2	2
Little Brown Bat	0	2	1
Eastern Red Bat	0	1	4
Hoary Bat	0	13	11
Eastern Red Bat/Tricolored/Evening Bat	0	0	1
Big Brown/Silver-Haired Bat	0	5	11
Little Brown/Northern Long-Eared Bat	0	0	0
Low Frequency Call	0	5	22
High Frequency Call	0	1	1
<b>Total</b>	<b>6</b>	<b>50</b>	<b>163</b>

## Augusta Wildlife Area



## Augusta, Wisconsin

Augusta Wildlife Area				
Bat Species	5/27/2024	6/14/24	7/5/2024	9/13/2024
Big Brown	12	0	3	16
Silver-Haired Bat	0	0	2	2
Little Brown Bat	4	0	1	0
Eastern Red Bat	7	0	11	1
Hoary Bat	1	0	4	12
Eastern Red Bat/Tricolored/Evening Bat	2	0	1	1
Big Brown/Silver-Haired Bat	1	0	0	1
Little Brown/Northern Long-Eared Bat	0	0	0	0
Low Frequency Call	1	0	3	5
High Frequency Call	0	0	2	0
<b>Total</b>	<b>28</b>	<b>0</b>	<b>27</b>	<b>38</b>

## Outreach & Events

### Overview

in 2024, Beaver Creek Reserve's Citizen Science Center organized 11 educational programs aimed at raising public awareness about the importance of bats. These included bat walks, presentations, craft activities for children, and a bat house building event. The bat walks engaged the community in bat conservation through acoustic monitoring, while the Bat 101 series covered topics such as reproduction, Wisconsin bat species, global bat conservation and the threats facing bats. These programs collectively reached over 100 community members. In addition to the core programs, staff participated in tabling events to promote the initiative and raise awareness of citizen science opportunities.

Events & Programs		
Program	Attendance	Description
Bat Walk (Half Moon)	2	Held in early May, this bat walk was located around Half Moon Lake in Eau Claire. During this survey volunteers learned about the bats of Wisconsin, threats and conservation, and acoustic monitoring techniques. Volunteers were able to use the acoustic monitoring equipment.
Bats 101	14	During this virtual presentation, participants learned the basics of bats, with a focus on bats in Wisconsin.
Bats 102	5	During this presentation, participants learned about the lifestyle and reproduction of bats.
Bats 103	7	During this presentation, participants learned about the threats against bats and the conservation efforts currently taking place.
Bats 104	5	During this presentation, participants learned about fascinating bats around the world, and how diverse they can be.
Bats & Crafts	4	During this program, we crafted bat ornaments for kids to take home while teaching them about bats!
Bat Detectives (Half Moon)	5	Held in July, this bat walk was located around Half Moon Lake in Eau Claire. During this survey volunteers learned about the bats of Wisconsin, threats and conservation, and acoustic monitoring techniques. Volunteers were able to use the acoustic monitoring equipment.
Presentation & Acoustic Monitoring	17	During our Master Naturalist program at Beaver Creek, participants and staff were given a presentation on bats and taken for a walk to learn about the monitoring equipment. Afterwards a few students borrowed the equipment to do their own acoustic monitoring!
Bat Detectives (Putnam)	4	Held in August, this bat walk was located around Putnam Park in Eau Claire. During this survey volunteers learned about the bats of Wisconsin, threats and conservation, and

		acoustic monitoring techniques. Volunteers were able to use the acoustic monitoring equipment.
Bat Story time & Crafts	21	Held at the Eau Claire Library, this program featured a presentation, videos, a story, and plenty of crafts for families to create and take home.
Batty Builds	17	Bat House building took place in October to help support bat conservation in Wisconsin. During this program we focused on educating participants on why bat houses are important and got started building. Participants were able to take these houses home for use in the next season!

## Volunteer Hours

The data collected by Beaver Creek Reserve's Citizen Science Center was made possible through a generous grant from the Xcel Energy Foundation, along with the dedication of eight remarkable acoustic monitoring volunteers, six more than previous years. Throughout the acoustic monitoring season, these volunteers contributed a total of 43 hours conducting bat surveys in Eau Claire and Chippewa County.

In addition to acoustic monitoring, Beaver Creek hosted a bat house building event aimed at promoting bat conservation by helping the community members construct bat houses. For this event, nine volunteers dedicated 32 hours to cutting and preparing the wood needed for the event.

# Photos

