Kalamazoo Nature Center

Kalamazoo Valley Bird Observatory

Annual Report 2024

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Kalamazoo Valley Bird Observatory

The Kalamazoo Nature Center's (KNC) mission is to create relationships and experiences that welcome and inspire people to discover, enjoy, value, and care for nature. As anyone who has been a part of KNC's work over the years knows well, many of those crucial experiences have focused on birds.

Across the decades, KNC researchers have monitored the populations, health, and survival of birds that live in and move through our region. Working under the name of the Kalamazoo Valley Bird Observatory (KVBO), this team's efforts extend beyond the Kalamazoo Nature Center's own properties to include regular surveys at the Pitsfield Banding Station, Kleinstuck Preserve, Fort Custer Training Center, and other partnering locations. Very few communities are fortunate enough to have the depth and history of observations and data that is available in Kalamazoo.

Each year, we offer this Kalamazoo Valley Bird Observatory Annual Report to provide highlights from our last year's work and to share a snapshot of the scientific quality that is possible when a community invests in conservation and research. We welcome you to learn more about this work and to consider joining our efforts. We remain grateful for your continued support.

All banding, marking, and sampling is being conducted under a federally authorized Bird Banding Permit issued by the U.S. Geological Survey's Bird Banding Lab.

Table of Contents

About Us

KVBO Spotlight

Migration Report

Research & Special Programs

Thanks

Land Acknowledgment

The Kalamazoo Nature Center holds responsibility for over 1,500 acres of land. These properties embody a history of deep historical injustices that have produced inequity in access to nature that continues today. KNC occupies the traditional, ancestral, and contemporary lands of the first peoples, the Anishinaabek. Also known as the Council of the Three Fires, the Odawa, Ojibwe, and Bodewadmi people ceded land in the 1821 Treaty of Chicago and lost lands through forced removal in 1833.

Additionally, we acknowledge the complex racial inequity contributing to steep disparities in land access and ownership for Black, Indigenous, and people of color communities. This gives weight to KNC's charge to our community. We are committed to becoming a KNC led by and in service to all of our community and to honoring our complex history in all we do. We are committed to healing these relationships between people and land in our work.

2024 Year in Review

Greetings from KVBO! It's been another exciting year for our birding adventures, filled with reminders of how long, slow changes in habitat can create unexpected birding opportunities. Nearly two decades ago, unusually high water levels in Lake Michigan led to rising water tables that killed many mature black oak trees at Pitsfield Banding Station. Over time, these dead trees became valuable woodpecker habitat, and the wetter conditions proved perfect for Michigan holly (winterberry), an important food source for a variety of birds. As a result, some historically rare species are starting to make more of an appearance. Historically, Red-headed Woodpeckers have been very rare at Pitsfield, with only one previously on record as banded in 1992. In 2024, FIVE were banded at Pitsfield! We're looking forward to seeing if this trend continues next year.

The Michigan Motus Array also continues to grow, extending our coverage for detecting radio-tagged migratory birds. Two new receiving towers were added in the Upper Peninsula in 2024, bringing Hiawatha National Forest into the monitoring network. Looking ahead, we'll be completing another receiving station soon on Mackinac Island and hope to install another six across Michigan in 2025.

We've been doing Motus work long enough now that the technology on our earliest receivers was already out of date. Thanks to the generosity of our friends at the Audubon Society of Kalamazoo, we were able to upgrade the Omni antennas at our Pitsfield and KNC Motus stations to now have live cellular connection. This allows us to monitor the observations at each tower in real time and track daily movements of birds, including those tagged at our own stations. For example, a Gray-cheeked Thrush (#59205) tagged at Pitsfield on September 12, 2024 was detected at Cienaga Lorica in Colombia less than a month later, all to the benefit of our international research partnerships with groups like the research team at SELVA Colombia who are studying how the use of stopover sites affects migratory success.

Surprisingly, our KVBO team's impact reached even farther than Colombia this year. John Brenneman's family birding expedition also made the news in Queensland, Australia as the Cairns Post reported on the visit from our very own local birding experts.

Finally, we want to offer our thanks to this year's exceptionally talented and hardworking fall banding interns – Olivia DeMarchi and Connor Jordan. Their commitment and enthusiasm made the fall banding season a rewarding and enjoyable experience for all!

We hope that reading about our experiences in 2024 will encourage you to become involved in our work in 2025. Whether by joining a birding program, volunteering with our banding team, taking part in the Winter Feeder Count, or providing other generous support, we look forward to having you join us!

Happy Birding,

Richard S. Keith

RICH KEITH
Director, Kalamazoo Valley Bird Observatory

KVBO Spotlight

Motus Operandi: Nanotags Chart New Course for KVBO

By Tom Springer
Vice President of Development, Kalamazoo Nature Center
Author of "Looking for Hickories" and "The Star in the Sycamore"

A Motus tower hardly looks like the kind of edgy tech whose prowess can help save birds in peril across the Western Hemisphere. It resembles a 1960s TV antenna, topped with an array of x- or y-shaped vanes that could've channeled the Jetsons into Hula Hoop suburbia. You half suspect that it's powered by glassy vacuum tubes, the retro brainchild of some skinny-tied, Gemini-era rocket engineer from Houston Control.

Which isn't far from the truth, as Motus towers do deftly combine the old with the new. The towers use radio telemetry, first developed in the 1920s, to track birds equipped with the latest nanotag transmitters. This allows Motus towers to track individual birds on their migratory journeys. Since 2017, the KVBO staff has achieved with Motus what no other nature center has done: built a line of 22 towers whose coverage spans the entire Lower Peninsula from Lake Michigan to Lake Erie. In theory, no tagged bird should fly through this electronic picket line undetected.

When the towers detect a bird outfitted with a nanotag, they send a signal to the Motus wildlife tracking system. The on-line Motus dashboard will then display the transcontinental routes that tagged birds take on their seasonal travels. (Basically, a traffic control screen made for small, feathered aircraft.) Recently, KVBO staff have made upgrades to the towers that greatly enhance their data reporting abilities. They've also joined the largest ever Motus project, a sprawling effort that monitors Wood Thrush migrations between North America and Latin America. For the first time, KNC isn't just tracking birds with nanotags, but affixing them to birds themselves.

Humans or A.I. to the rescue?

In the age of A.I., it's fair to ask if Motus towers and nanotags will put bird banders such as KVBO's Rich and Brenda Keith and John Brenneman out of work. It's certainly true that banding has built-in limits in terms of data collection. Notably, avian researchers can only track a banded bird from point to point. If a Wood Thrush that's banded in Vicksburg, Michigan, shows up in San Pedro, Belize, researchers will know that it survived the trip. But they won't know the precise route it took to get there, what habitats it sought out for rest and feeding, or how long it spent over the ocean. It's here that nanotag signals sent to Motus towers can fill in the gaps.

Yet for all their potential, Motus systems still require plenty of human attention. For starters, Rich and John expend considerable sweat and elbow grease to install them. Once the towers are up, high winds and rain, blazing sun, endless freeze and thaw cycles and cable-chewing rodents all take their toll. And while the towers look retro, the on-board computers that run them are anything but. Here, John and Rich – lifelong birders who readily admit that tech isn't their forte – rely on volunteer Hannah Fisher. Her motus operandi, so to speak, is exactly what KVBO needs to keep Motus humming.

"I started as an animal volunteer at KNC in 2024, caring for the birds, turtles and possum," said Hannah, a biomedical engineer at Stryker and Michigan Tech engineering graduate. "Then

>> KVBO Research Biologist Brenda Keith fashions a figure eight-shaped harness for the nanotag that fits around the bird's legs and back, similar to a backpack strap.

I realized there were so many gaps in my knowledge. I wanted to know all about trees and birds, and I fell in love with ornithology. I wish I could've told myself four years ago this would be my path after moving downstate. I'm just so happy for it."

After "digging a little bit into the tech," Hannah has become KNC's Motus troubleshooter.

Here, she finds cross-over between her engineering work on Stryker medical devices and Motus towers. Take her knowledge of Raspberry Pi. It's not a dessert, but a small, powerful computer built on a single circuit board. Motus towers and Stryker biomedical devices alike use the versatile Raspberry Pi technology. One recent upgrade to the Motus tower's Raspberry Pi hardware will save KNC hundreds of hours in staff time. Originally, the Motus computers stored bird data on SD cards, such as those used in digital cameras. But as with a digital camera, Motus SD cards had to be removed by hand in far-flung places like Berrien Springs or the Erie Marsh.

With the new upgrade, Motus towers can connect with cell phone towers to upload their data in real-time. The upgrades were funded partly through a grant from the Audubon Society of Kalamazoo (ASK).

Making Motus towers web-enabled allows us to look at the whole lifecycle of the Wood Thrush. This project brings together the U.S. Fish and Wildlife Service, some 24 states and a half-dozen countries for the largest Motus collaboration effort ever.

HEATHER RATLIFF
VOLUNTEER
AUDUBON SOCIETY OF KALAMAZOO

"By learning more about where and when Wood thrush migrate we can find out what habitat they need and use this data to guide land management decisions," said ASK volunteer Heather Ratliff. "We know they're shrub nesters, so around here that could mean protecting forest underbrush like spicebush that's important to Wood Thrush."

Even with web-enabled hardware, towers can conk out for sundry reasons that require on-site attention. And as someone who proudly

geeks out on avian tech, Hannah Fisher's voice brightens at the thought of it.

"We look for bad connections, maybe a cable isn't plugged or there's an environmental obstruction. Or maybe the antenna arrays aren't pointed in the right direction. In Ann Arbor, the cell phone bill for the tower had been really high for a few months. When I talked with our equipment rep, he said our 166 MHz receiver was susceptible to picking up 'noise' (other electric signals), which used lots of data. For now, we've remotely turned off the station until we can fix it in person. We'll replace any noisy (faulty) equipment and test to see if the noise comes from the environment or if we need to move the antennas."

As part of her troubleshooting, Hannah also updates the Raspberry Pi software. "Rich makes it sound so complicated," she laughs, "but it's basically just me clicking a button." Although as Rich points out, it takes an engineer to know which button(s) to push.

Nano Backpacks for Birds

Before 2024 there was no direct tie between KVBO's Motus towers and its well-respected bird banding program. (Some 600,000 birds banded since the early 1970s and counting.) Now, by both banding birds and installing nanotags, KVBO staff have greatly expanded their research repertoire.

"Motus give us tremendous listening power, but we've never tagged the birds we track with our transmitters," said Jessica Simons, KNC's vice president of Conservation Stewardship. "This is our first year as part of this international research partnership with the Wood Thrush and it's very exciting."

> *Because birds are migratory, they're not confined to national borders, and this project connects to people along their path and where they over-winter. Collecting data through this project will inform real world conservation problems. It leads to change in management priorities for bird species that can make a difference.*
>
> **JESSICA SIMONS**
> VICE PRESIDENT, CONSERVATION STEWARDSHIP
> KALAMAZOO NATURE CENTER

Rich sees how bird banding (little-changed since the 1800s) combined with nanotags can provide a data gold mine for avian researchers. Instead of an either/or competition between Motus and banding, he sees how each complements the other.

For instance, as KVBO staff band birds they gather statistics on their sex, age, wingspan, weight and body fat. This gives them a picture of the bird's overall health to include its nutritional status and stress level. Yet to gain a fuller picture of how these factors affect migration, the banded birds must be caught elsewhere. Which is far from a sure thing.

"Banded migrant birds have a very low recapture rate, with one in 10,000 birds being recaptured by researchers," said Rich, as quoted in a recent Michigan Department Natural Resources news bulletin. "We tagged 46 thrushes last year through the Motus system in Kalamazoo. We detected 13 of the 46 birds throughout their migration, with some of them flying as far south as Panama. That's a significant increase, and the birds will keep telling us more as time goes on."

But don't expect nanotags to supplant banding anytime soon. Bird bands, distributed by the U.S. Geological Survey (USGS) cost pennies apiece. Their low cost makes them widely available, and banders email data for each banded bird to USGS. Meanwhile, nanotags cost KNC $270 apiece. Their steep price tag makes them best-suited for use on targeted species, such as the Wood Thrush Motus Tagging-Project led by the U.S. Fish and Wildlife Service.

This is the largest Motus project ever, with 1,000 individual birds tagged. People have published papers with much smaller data sets, so findings from this many tagged birds will definitely be statistically significant.

RICH KEITH
DIRECTOR
KALAMAZOO VALLEY BIRD OBSERVATORY

Rich sees Wood Thrush as an ideal candidate to test Motus on an intercontinental scale. Wood Thrush were partly chosen for the study because of their larger size. This allows them to wear a heavier nanotag equipped with an 18-month battery. As a rule of thumb, a nanotag should not exceed 3 percent of the bird's body weight. (The last thing they need on a 2,000-mile flight to Mexico is excess baggage.) Once the nanotags have been attached, KVBO staff use an infrared device to activate them. Then, with a handheld police scanner, they listen for the beep that tells them the nanotag is working.

No Wardrobe Malfunctions Here

When KBVO staff capture a bird for nano-tagging, they also place a band on its leg and record the usual measurements. This means that, on a flight to Belize or Battle Creek, any Motus tower that detects the bird will have access to this information. The bird's signal is as individual as a cell-phone number. There's no need to physically catch the bird and look up the serial number on its leg band.

While KVBO staff have decades of banding experience, to attach nanotags requires another skill altogether. For that Rich and John turn to Brenda Keith. She's an apt choice. With her virtuoso dexterity, Brenda's one of the few birders nationwide with a license to place tiny bands on the gossamer legs of hummingbirds.

With nanotags, however, there's no clamping, glueing or tattooing allowed. Instead, Brenda fashions a figure eight-shaped harness for the nanotag that fits around the bird's legs and back, similar to a backpack strap. It's made of Stretch Magic, a thin plastic line used to make jewelry such as bracelets.

"I hold the bird in the usual bander's grip," she said. "It takes about 10 minutes to install, but the bird stays calm. I center the nanotag on the bird's back. It's loose enough so that it won't impede flight, but tight enough s o that it won't fall off." This, to avoid any $270 wardrobe malfunctions over the Yucatan Peninsula. "I've recaptured some birds (with nanotags) and everything still looks good," Brenda said.

As more Motus data rolls in, Rich looks forward to the fuller picture it can provide. Consider the case of the Gray-cheeked Thrushes that migrated north from Venezuela. "We could locate what birds came from shade-grown and sun-grown habitat," Rich said. "We found that the shade-grown birds had more fat. The fastest one flew to Indiana in 29 hours! But it took the skinnier, sun-grown birds two to three weeks to cover that same route. Without Motus, we wouldn't know any of that."

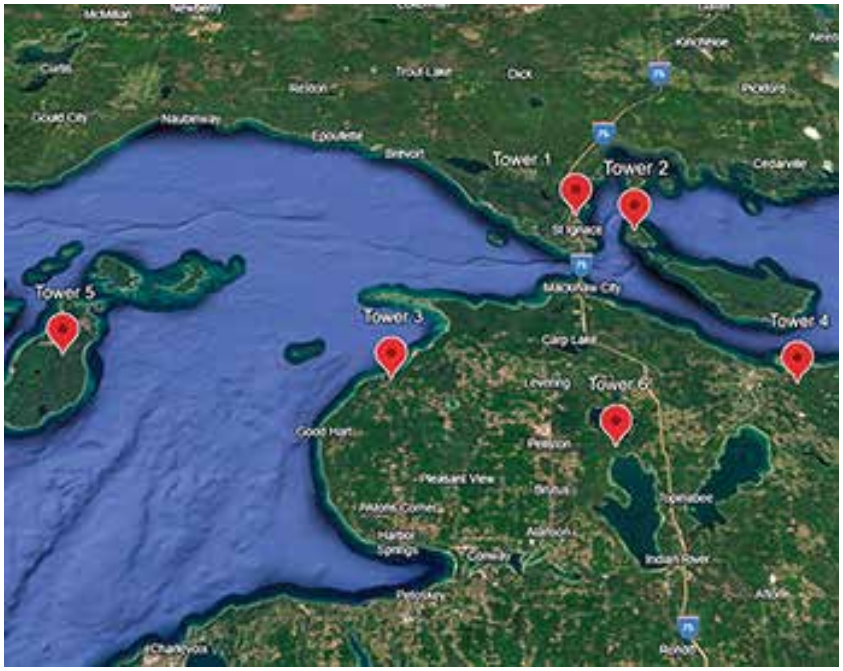
Motus Across Michigan: A DNR Perspective

By Aileen Kemme
Communications Coordinator, Marketing and Outreach Division Michigan Department of Natural Resources

To date, 40 Motus towers are scattered across Michigan. Because of their small size, the antennas can be built almost anywhere that allows them to receive a clear signal, with some being built on military bases and college campuses, in remote wildlife areas and even at farmer's markets. Most of the antennas in the Lower Peninsula of Michigan were built through the support of Audubon Great Lakes, Kalamazoo Nature Center, the Smithsonian Institute and Detroit Zoo. They form a line from Detroit west to Kalamazoo, with an outlying cluster built near the Grayling area to specifically study the once-endangered Kirtland's warbler. Currently, four of the state's antennas are on properties managed by the Michigan DNR, with three more being built at Cheboygan State Park, Wilderness State Park and the DNR's property on Mackinac Island.

Spearheading the building effort in this area is Mackinac Straits Raptor Watch, a nonprofit organization that has monitored the migration of raptors, songbirds and waterfowl in the Straits region since the 1980s. Watch partners on the project include the DNR, the U.S. Forest Service, the University of Michigan and Central Michigan University, with funding provided from grants and private donors.

Each partner is allowing Raptor Watch to build an antenna on its property, with the DNR allowing antennas at three separate locations. Once completed, the series of six towers will offer the clearest picture to date of how wildlife migrates throughout the Straits region. Because of the region's unique geography, birds funnel through the Mackinac Straits to avoid the need to cross wider expanses of Great Lakes water.



^ *Installation of a Motus Tower.*

< *A map shows the locations of Motus antennas in the Mackinac Straits area.*

Excerpt from full article
See more at:
https://content.govdelivery.com/accounts/MIDNR/bulletins/3c3623d

Raptor Watch's migration count sites have set nationwide records for the number of red-tailed hawks and the most golden eagles seen east of the Mississippi. Birds typically not seen in Michigan, like black vultures, Swainson's hawks and American white pelicans, have even been detected at the Straits.

"Our research has demonstrated that species like red-tailed hawks consistently use the Straits to move between their breeding grounds in Canada and overwintering sites in the lower Midwest," said Scott Davis, Mackinac Straits Raptor Watch's executive director. "However, it is unclear how many other species of birds or even mammals, like bats, might be using this natural migratory choke point to move through the Great Lakes region. That's why adding additional Motus towers in the Straits is so important."

Helping Raptor Watch build the towers is Rich Keith, who has worked on the majority of the Motus towers in the state since 2017. When he is not building the antennas across the state, Keith works at the Kalamazoo Nature Center as part of its Kalamazoo Valley Bird Observatory program and leads the program's bird research efforts.

"Banded migrant birds have a very low recapture rate, with one in 10,000 birds being recaptured by researchers," Keith said. "We tagged 46 thrushes last year through the Motus system in Kalamazoo. We detected 13 of the 46 birds throughout their migration, with some of them flying as far south as Panama. That's a significant increase, and the birds will keep telling us more as time goes on."

What happens next

What might the new towers pick up next year? We have some ideas, thanks to initial research from groups like Mackinac Straits Raptor Watch, Kalamazoo Nature Center and Audubon Great Lakes, which have spearheaded Motus research in Michigan. Each year new migration research projects begin and new Motus tags are deployed, giving us new, exciting data. All we know for sure is that the DNR won't be alone in looking at the findings this spring.

The beautiful thing about this is that it is an open technology. There is no pay-to-play, and the data is free and available to everyone. We all care about the conservation of these species. Because of this technology, we're able to partner as a global community to protect them. This is the way that conservation work should be done.

SCOTT DAVIS
EXECUTIVE DIRECTOR
MACKINAC STRAITS RAPTOR WATCH

Wood Thrush Nest Surveys

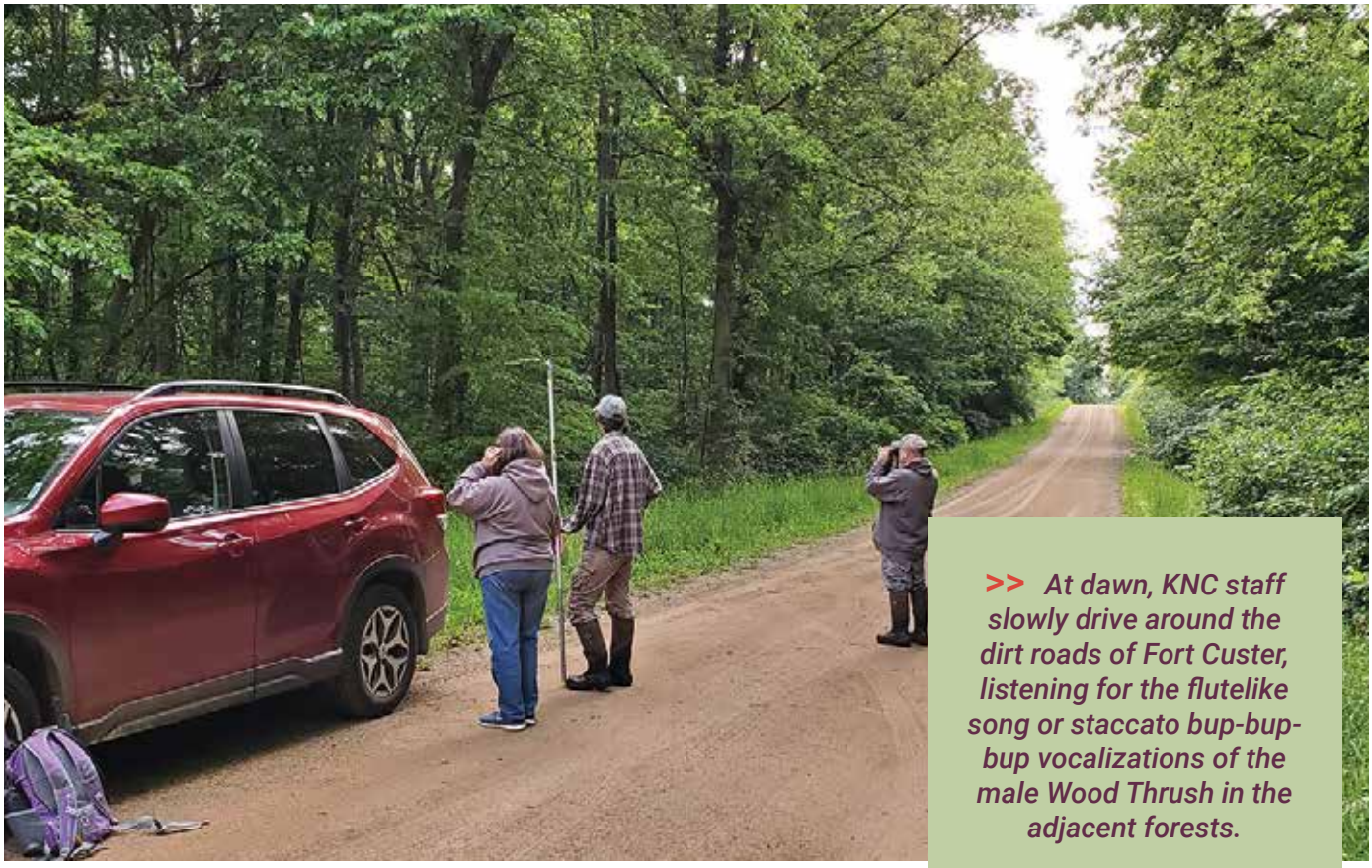
By Lindsey Dolinski
Research Biologist, Kalamazoo Nature Center

In 2021, Wood Thrush (*Hylocichla mustelina*) were listed as a bird of conservation concern with the U.S. Fish and Wildlife Service. Based on Breeding Bird Survey data, the species has declined across its range since the 1960's. Habitat fragmentation is considered a major threat to Wood Thrush populations, as they prefer large contiguous forests.

From 2000 to 2009, the Kalamazoo Nature Center (KNC) conducted a nest success study at Fort Custer Training Center on a variety of imperiled bird species including Wood Thrush. This study was reimplemented in 2023 and has been ongoing since. Starting in May, KNC staff begin to identify Wood Thrush nests at Fort Custer. At dawn, they slowly drive around the dirt roads of the Fort, listening for the flutelike song or staccato bup-bup-bup vocalizations of the male Wood Thrush in the adjacent forests.

Once a Wood Thrush is identified by sound, staff enter into the forest to search for the nest. They walk in large circles around the singing bird, paying close attention to the crooks of trees like spicebush and honeysuckle where nests are commonly found. Where there is a singing male, there is usually a nesting female nearby (or a pair preparing to nest). If a nest is found, staff will record its status, the number of eggs or chicks inside, the behavior of the adults, and the presence of Cowbirds (*Molothrus ater*) or other predators. The nest is checked again every two to four days until it becomes empty – either from predation or a successful fledging. Additionally, KVBO staff will band and deploy Motus tags onto adult Wood Thrushes identified by these nest surveys. Once the nest becomes empty, vegetative data is collected, including nest height, concealment, and vegetation cover at differing canopy levels.

Data collected from Wood Thrush nest surveys can be used in tandem with banding and Motus data to inform avian researchers and conservationists about the life history of these birds – ultimately helping us to better address conservation needs and improve habitat management actions for this imperiled species.



>> At dawn, KNC staff slowly drive around the dirt roads of Fort Custer, listening for the flutelike song or staccato bup-bup-bup vocalizations of the male Wood Thrush in the adjacent forests.

Migration Report

< Hooded Warbler
(*Setophaga citrina*)

Kleinstuck Surveys

The Kalamazoo Nature Center's daily spring migration surveys at Western Michigan University's Kleinstuck Preserve have continued since 1973. Using the same survey method every day allows researchers to track the movements of migrating birds as they make small and large pushes northward. The 2024 season lasted from March 19 – May 29. Most of this spring can be wrapped up in one word: WARM! The vegetation was early with full leaf out happening by the end of April instead of mid-May.

April was a month of above-average temperatures with good flights of birds. The two best days in April were the 14th and 27th. Also, in April a Summer Tanager was found and remained at Kleinstuck for almost 12 days and was seen by KVBO staffer John Brenneman and a few other lucky birders who happened to stumble upon it. Summer Tanagers are more commonly found farther south but are one of the species predicted to move northward with warming temperatures and climate change.

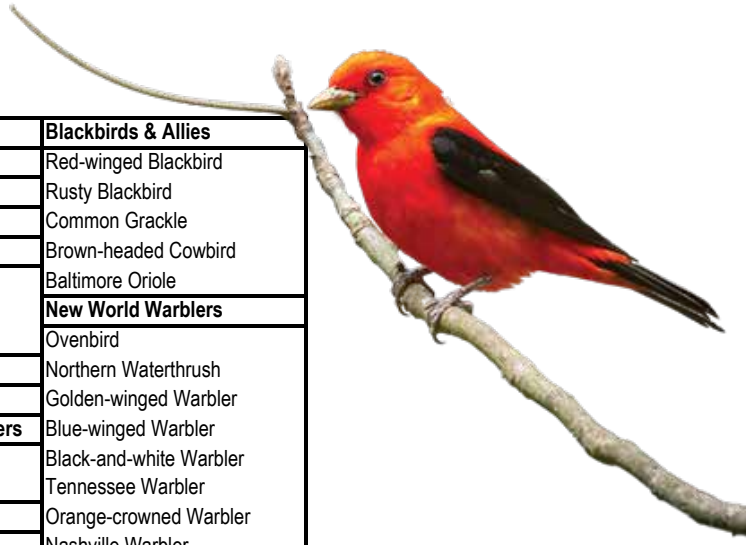
The best day of the season was May 13, when John finished his survey with over 70 species!

May was also marked with many warm days and lots of southerly winds at night making for good migration movements almost every day. Some of the highlights this month were the Hooded Warbler and Olive-sided Flycatcher, both of which only stayed for one day. The Hooded Warbler was very vocally singing for most of the morning, while the Olive-sided Flycatcher was silently perched in a dead snag frequently making short flights out to capture flying insects. The most unusual species recorded this year was an American Bittern that was found on May 3rd by some other birders, but John missed seeing it by a few minutes. The American Bittern is a secretive bird that is not usually visible for very long and, before John could get there to see it, the bird flew to a better hiding place and was not observed again. American Bitterns breed in Northern Michigan, so that bird was just moving through.

The season finished with 126 species, which is close to the annual average. A personal highlight for John was seeing a Broad-winged Hawk pair set up a nest, which is the first time they have been documented doing so at Kleinstuck. John was able to see them most days in late April and all of May. This species more commonly nests in Northern Michigan and is a rare nester in Kalamazoo County, being usually found in larger tracts of land so it was quite a treat to see them here.

Also, the Great Horned Owls nested and raised one young that fledged and hung out in a tree above the trail for a few days. Most of the warbler species during this spring were below or at average numbers except the Northern Parula for a second year in a row, which doubled its normal average yet again.

Total Species 2024



Ducks, Geese, & Waterfowl	**Woodpeckers**	**Treecreepers**	**Blackbirds & Allies**
Canada Goose	Red-bellied Woodpecker	Brown Creeper	Red-winged Blackbird
Wood Duck	Yellow-bellied Sapsucker	**Gnatcatchers**	Rusty Blackbird
American Black Duck	Downy Woodpecker	Blue-gray Gnatcatcher	Common Grackle
Mallard	Hairy Woodpecker	**Wrens**	Brown-headed Cowbird
Blue-winged Teal	Northern Flicker	House Wren	Baltimore Oriole
Pheasants, Grouse, & Allies	Pileated Woodpecker	Winter Wren	**New World Warblers**
Wild Turkey	**Tyrant Flycatchers**	Carolina Wren	Ovenbird
Pigeons & Doves	Olive-sided Flycatcher	**Starlings**	Northern Waterthrush
Mourning Dove	Eastern Wood-Pewee	European Starling	Golden-winged Warbler
Cuckoos	Yellow-bellied Flycatcher	**Mockingbirds & Thrashers**	Blue-winged Warbler
Yellow-billed Cuckoo	Acadian Flycatcher	Gray Catbird	Black-and-white Warbler
Black-billed Cuckoo	Alder Flycatcher	Brown Thrasher	Tennessee Warbler
Swifts	Willow Flycatcher	**Thrushes & Allies**	Orange-crowned Warbler
Chimney Swift	Least Flycatcher	Eastern Bluebird	Nashville Warbler
Hummingbirds	Eastern Phoebe	Veery	Mourning Warbler
Ruby-throated Hummingbird	Great Crested Flycatcher	Gray-cheeked Thrush	Kentucky Warbler
Cranes	Eastern Kingbird	Swainson's Thrush	Common Yellowthroat
Sandhill Crane	**Vireos**	Hermit Thrush	Hooded Warbler
Plovers	Yellow-throated Vireo	Wood Thrush	American Redstart
Killdeer	Blue-headed Vireo	American Robin	Cape May Warbler
Herons, Egrets & Bitterns	Warbling Vireo	**Waxwings**	Northern Parula
American Bittern	Red-eyed Vireo	Cedar Waxwing	Magnolia Warbler
Great Blue Heron	**Crows & Jays**	**Old World Sparrows**	Bay-breasted Warbler
Green Heron	Blue Jay	House Sparrow	Blackburnian Warbler
New World Vultures	American Crow	**Finches & Allies**	Yellow Warbler
Turkey Vulture	**Chickadees & Titmice**	House Finch	Chestnut-sided Warbler
Osprey	Black-capped Chickadee	Purple Finch	Blackpoll Warbler
Osprey	Tufted Titmouse	Pine Siskin	Black-throated Blue Warbler
Hawks, Eagles, Kites	**Swallows**	American Goldfinch	Palm Warbler
Bald Eagle	Tree Swallow	**New World Sparrows**	Pine Warbler
Cooper's Hawk	Northern Rough-winged Swallow	Eastern Towhee	Yellow-rumped Warbler
Sharp-shinned Hawk	Barn Swallow	Chipping Sparrow	Black-throated Green Warbler
Broad-winged Hawk	**Kinglets**	Field Sparrow	Canada Warbler
Red-shouldered Hawk	Golden-crowned Kinglet	Fox Sparrow	Wilson's Warbler
Red-tailed Hawk	Ruby-crowned Kinglet	Song Sparrow	**Cardinals & Allies**
Owls	**Nuthatches**	Lincoln's Sparrow	Scarlet Tanager
Great Horned Owl	Red-breasted Nuthatch	Swamp Sparrow	Summer Tanager
Kingfishers	White-breasted Nuthatch	White-throated Sparrow	Northern Cardinal
Belted Kingfisher		White-crowned Sparrow	Rose-breasted Grosbeak
		Dark-eyed Junco	Indigo Bunting

> Follow along with the annual Kleinstuck Surveys each spring at NatureCenter.org/Kleinstuck.

Kleinstuck birds in 2024, from left: Wood Thrush, Broad-winged Hawk, Great Horned Owlet, and Chickadee.

2024 Fall Banding Highlights

Combined, the KNC and Pitsfield Banding Stations captured 4,587 new birds and recorded 791 recaptures. Perhaps the highlight of 2024 was KVBO's first Motus tagging. Having tagged 28 breeding Wood Thrush, we continued into fall with 12 more Wood Thrush, three Gray-cheeked Thrush and three Veery.

In addition to a great deal of stopover activity sixteen of these birds have been detected at sites as distant as Panama. While no rarities were captured this fall, a few highlights were 1,456 warblers of 27 species. White-throated Sparrows were well-represented at 667 individuals, which is close to average. Our sixth-most numerous capture was Ruby-throated Hummingbird at 115, all from nets.

With just six days missed due to weather, it was an average effort this fall.

KNC Banding Station

Ten Most Commonly Banded Species Fall 2024

1.	American Goldfinch	209
2.	White-throated Sparrow	162
3.	Myrtle Warbler	136
4.	Tennessee Warbler	126
5.	Ruby-crowned Kinglet	104
6.	Swainson's Thrush	101
7.	Golden-crowned Kinglet	90
8.	Magnolia Warbler	82
9.	Nashville Warbler	75
10.	Gray Catbird	71

KNC Banding Station

First Date of Banding: 8/25/2024
Last Date of Banding: 10/29/2024

Total Days in Operation: 54
Number of birds banded: 1,938

Number of species banded: 84

Largest Daily Catch:
78 on 9/22/2024

Most species on any day:
26 on 9/25/2024

Pitsfield Banding Station

First Date of Banding: 8/25/2024
Last Date of Banding: 10/28/2024

Total Days in Operation: 62
Number of birds banded: 2,649

Number of species banded: 76

Largest Daily Catch:
134 on 10/10/2024

Most species on any day:
26 on 9/23/2024

Pitsfield Banding Station

Ten Most Commonly Banded Species Fall 2024

1.	White-throated Sparrow	505
2.	Myrtle Warbler	229
3.	Gray Catbird	186
4.	Cedar Waxwing	157
5.	Tennessee Warbler	138
6.	Ruby-throated Hummingbird	115
7.	Swainson's Thrush	112
8.	American Goldfinch	95
9.	Magnolia Warbler	83
10.	Nashville Warbler	71

Volunteer Highlight: Stacy Burton

We interviewed long-time KVBO volunteer Stacy Burton to find out a bit about why giving back to the bird observatory is important to her.

Here's a Q&A with Stacy!

Do you have a favorite bird?

I like to joke that whoever I'm holding is my favorite! But really, it would probably be the Eastern Bluebird. My mom and dad always talked about seeing them in Wisconsin where they grew up. And then Dean Foods, where Dan (my husband) and I met, had a little bluebird on a mailbox as their logo. It seems like there have always been bluebirds around my family. Last year, after years of fighting the house sparrows, we finally had bluebirds nesting in a box at our house!

How did you connect with KNC in the first place?

I think that I first came to a volunteer recruitment event. Kyle Bibby, who was KNC's citizen science coordinator at the time, gave me the opportunity to help with data entry for their nestbox surveys. Soon after, John Brenneman asked me to help with data for fall bird banding.

My husband Dan has been an active volunteer with KNC's River Guardians program for probably 10 years. And, my daughter Jessica was deeply involved in KNC's butterfly programming, first as a volunteer with the Michigan Butterfly Network surveys and then later as a helper with the Mitchell's satyr butterfly conservation efforts.

How long have you been a KNC volunteer?

It all started back in March of 2015 with the nestbox data, all as an indoor, desk-based volunteer role. And then I started helping with fall banding data entry about a year later. I also began doing the butterfly surveys in 2019. In 2021, I was surprised to be invited to help out with hummingbird banding. I didn't know that there would be opportunities to actually take part in the banding days directly. Rich had asked for more helpers to join a hummingbird banding event at the Summers' property, and I volunteered to be a scribe. This led to helping out with summer banding at Fort Custer later that year and then joining the team to assist with fall banding.

What volunteer work is most interesting to you?

All of the people are so nice and make our family feel welcome. If I didn't enjoy the people so much, it wouldn't be as much fun to do the projects. I don't even consider myself a serious birder; I'm still learning. But holding the birds is just the best. You see birds up in the sky, but when you pull them out of the net, seeing them up close is so beautiful. It's incredible to think that many of these little birds fly thousands of miles.

What is your funniest memory of working with Brenda, John, and Rich?

You find funny things when you visit year after year. Once, a huge, probably two-feet-in-diameter tree fell down across one of the trails at Fort Custer. John chopped it down and made a path for us. When we returned the next year, the ground had dried out and shifted so much that the stump had

popped back up and was again standing in place where the tree was originally.

Do you have a standout memory from your time with KNC?

I'm always amazed at how Brenda can place bands on little hummingbirds. It's awe-inspiring. Their expertise has such depth, and they keep up with the current best practices. They are always trying to align themselves with the big programs at MAPS and the Bird Banding Lab. They are part of so many studies – ticks, the genome project, Motus (both towers and GPS tagging) – it's impressive how much research they are aligned with. It's astounding how many researchers find them and want to work with them. They work so hard and are always excited to take part in new research. I'll be in good shape if I can be like Rich and Brenda when I grow up!

What keeps you coming back?

The people. The birds. It's everything. It's good to know that you're making a contribution, and I love feeling like I'm doing my part. And honestly, it's just fun.

And now, a question for the research team...

What makes Stacy such a special volunteer?

Stacy is a very good volunteer because of her ability to grow and help out in many different projects. She first started coming out to KNC and entered banding data and then started helping with Winter Feeder Count Data entry. She then started helping with the Butterfly Count and now helps with extracting and banding birds year-round. She is fun to talk with and is super excited about all we do here. Stacy is curious, enthusiastic, and always has a smile on her face.

We appreciate all that you do, Stacy. Thank you for sharing your time and energy with us!

^ Stacy's favorite bird is an Eastern Bluebird.

< Volunteers Pam Woodruff and Stacy Burton with members of the banding team in the field.

You can get involved, too! Learn more about programs or how to become a volunteer at NatureCenter.org/KVBO.

2024 Banding Assistants

Connor Jordan

"I had an amazing experience as one of the bird banding interns at KVBO this fall! It was a great learning opportunity that helped sharpen my bird identification and banding skills, while serving as a huge step forward for me towards pursuing a career in ornithology.

One of my highlights of the season was banding a Cooper's Hawk in early September. This was my first time seeing a hawk in the hand, and having the opportunity to band such a beautiful bird was harrowing!

I would like to thank Rich, Brenda, John, and all of the devoted volunteers for sharing all of their support and knowledge throughout the season. Whether it was through working with volunteers, hosting school groups, or writing an occasional blog, I was delighted to engage with a passionate bird-loving community at KVBO!"

Olivia DeMarchi

"Working with KVBO was an extremely rewarding learning experience for me, and I am grateful for Rich, Brenda, and John for sharing their wealth of knowledge. A few highlights of the season for me were capturing an adult female Cooper's Hawk, seeing all of the beautiful migrating warblers, and watching the Nature's Way Preschool kids get excited about birds.

I also enjoyed working with all of the wonderful volunteers who help the banding station run. I would recommend working with KVBO for anyone interested in banding who would like to improve their skills and learn from some very passionate people!"

Field Note from Pitsfield Banding Station: Week of September 9-13, 2024

Activity at Pitsfield has remained steady through most of the week, with bird totals ranging from 30 to 40 birds. Still, the nets have reluctantly closed early due to sun or wind most days of the season so far. A healthy heaping of Gray Catbirds and Swainson's Thrushes have kept the nets populated, and a decent movement of warblers brought Tennessee, Magnolia, Bay-Breasted and Nashville Warblers. Occasional visits from Black-throated Green and Black-throated Blue Warblers as well as a Blue-winged Warbler earlier this week have provided a nice splash of color.

Without a doubt the highlight of this week was a surprise young male Cooper's Hawk in one of our nets. In most raptor species, the males are typically smaller than females; this hatch year hawk was brown and streaky overall, lacking the gray back feathers and red eye that we would see in adults. This was my first time handling and banding any species of hawk - a humbling experience! Rich and Brenda, who banded raptors at Whitefish Point for decades, shared a sliver of their knowledge on banding and safely handling hawks. I learned to use the "popsicle grip" to safely holds their legs, tail and wings in place while the banders take measurements. Keeping their legs secured to avoid any scratches or bloodshed from the hawk's talons is key, but thankfully they tend not to bite with their razor-sharp beaks!

Field Note from KNC Banding Station: Week of September 22-28, 2024

We had the busiest day of the season thus far on September 22, with 78 newly banded birds and nine recaptures. The three most abundant species were the Nashville Warbler, Tennessee Warbler, and American Goldfinch. We also captured our first Blackpoll Warbler of the season, a species that looks nearly identical to the Bay-breasted Warbler when both are in their drab fall plumage. We were able to distinguish the Blackpoll Warbler by its bright yellow-orange feet, compared to grayish feet of the Bay-breasted Warbler. We also captured a first-of-season American Robin, Blue Jay, Hermit Thrush, White-throated Sparrow, Dark-eyed Junco, Yellow-rumped Warbler, Connecticut Warbler, Orange-crowned Warbler, Blue-headed Vireo, Winter Wren, and Sharp-shinned Hawk at the Nature Center.

Banding the Sharp-shinned Hawk was a great comparison to the young male Cooper's Hawk from a few weeks ago; the Cooper's Hawk was roughly crow-sized, whereas our hatch-year male Sharp-shinned is roughly Blue Jay-sized. His needle-like talons were certainly still capable of drawing blood, but were hardly the dangerous blades that our Cooper's Hawk was sporting. Our other new species for the season, especially the Yellow-rumped Warbler and White-throated Sparrow, will be some of our most abundant birds through the rest of the season. Their late September arrival signifies that migration is well underway as we transition from warblers to sparrows and other later-season migrants! September 26 delivered us our thousandth bird at KNC, an unsuspecting Nashville Warbler! We also banded our first Golden-crowned Kinglet and Brown Creeper, another sign that we are creeping further into fall.

Fall Banding Photo Album

Research & Special Programs

National Military Fish and Wildlife Association Conference Comes to Michigan

The Kalamazoo Valley Bird Observatory has a longstanding relationship with Fort Custer Training Center in Augusta, MI. For nearly three decades, the Kalamazoo Nature Center has worked closely with Fort Custer to perform research and land management on the property's 7,500 acres in alignment with their military training mission. KNC's work has aided efforts to conserve and restore native habitats, support populations of threatened and endangered species, and foster climate resilience. This relationship came into special focus in 2024 as the National Military Fish and Wildlife Association (NMFWA) came to West Michigan. From March 25-29, 2024, NMFWA's annual meeting and training workshop brought together partners in Grand Rapids to fulfill the organization's goal to "connect, educate, support, and advocate for natural resources professionals across the Department of Defense to protect and enhance the military mission through sustainable resource conservation."

Among the variety of conservation topics covered at the event, KNC staff took part in a Department of Defense program focused on the Avian Knowledge Network (AKN). The AKN is "a powerful and secure cloud computing system that government agencies, NGO's and others are using to enter, manage, analyze and share their avian observation data." KNC joined Fort Custer's Natural Resource and Wildland Fire Program Manager, Michele Richards, and managers from the US Army, Marine Corps, Air Force, Navy, and US Army Corps of Engineers to participate in a panel discussion about how the branches of US military are following the Office the Secretary of Defense mandates to use the AKN to report, share, and analyze avian data. Other presentations in that session reviewed how to incorporate DoD avian data into AKN projects and how to use AKN data models to predict priority bird species habitat on military installations, better monitor for mission-sensitive species, and assess the where military installations may have the greatest responsibility and potential benefit for conservation.

Later in the same conference, Rich and Brenda Keith attended the NMFWA meeting as field trip leaders to the Saugatuck Dunes State Park, along with Michele Richards from Fort Custer and Chris Hoving from the Michigan DNR. Many attendees were out of state and had never before visited Lake Michigan. The lake was a hit, but spring migration had not really yet started for the year. Given the national draw for the conference, several overwintering resident birds were new to some of the attendees. Participants had the opportunity to learn about dune ecosystems and geology, as well as the military's Readiness and Environmental Protection (REPI) initiative.

The Avian Knowledge Network:

An important emerging partner for bird conservation

What is the Avian Knowledge Network and how is KVBO involved?

The Avian Knowledge Network (AKN) is a partnership of 100+ governmental agencies and non-governmental organizations who recognize the benefits of shared data storage and analysis as they advance bird conservation and management. KVBO researchers first became involved in the program via our partnership with the Michigan Army National Guard and Fort Custer Training Center. Thanks to this partnership, decades of local avian point count data from Fort Custer is now available for and informing conservation research initiatives across the country.

What is the AKN mission?

To support a network of partnerships, data, and technology to improve bird conservation, management, and research across organizational boundaries and spatial scales. AKN envisions a world where bird populations thrive through conservation and management informed by a network of avian knowledge.

What do AKN tools help scientists do?

- **Get data in:** AKN helps scientists and project managers enter large datasets and manage data within the AKN system.
- **Discover:** AKN maintains data catalogs and downloader tools to help users discover and access data sources across the network.
- **Explore data:** Tools like the Rapid Avian Information Locator (RAIL) help users explore, query, and analyze AKN data for target species and geographic areas.
- **Make decisions:** Observation maps and analytical tools leverage AKN data for specific users, research teams, or habitat managers to use in decision-making.

Why does this matter?

While decades of birding data exist at agencies and organizations, that data is often inconsistently managed, vulnerable to loss, and unavailable for sharing across the broader scientific community. AKN aims to address gaps through data management and decision-support tools that improve efficient data sharing, aid species-based and geographic analysis, and improve data security. The research team at KVBO is proud to be a part of this innovative, data-driven, and technological approach to avian conservation.

Source:

https://staging.avianknowledge.net/wp-content/uploads/AKN_Flyer_0324_FINAL.pdf

Passerine Banding Workshop: Klamath Bird Observatory & DoD Collaboration

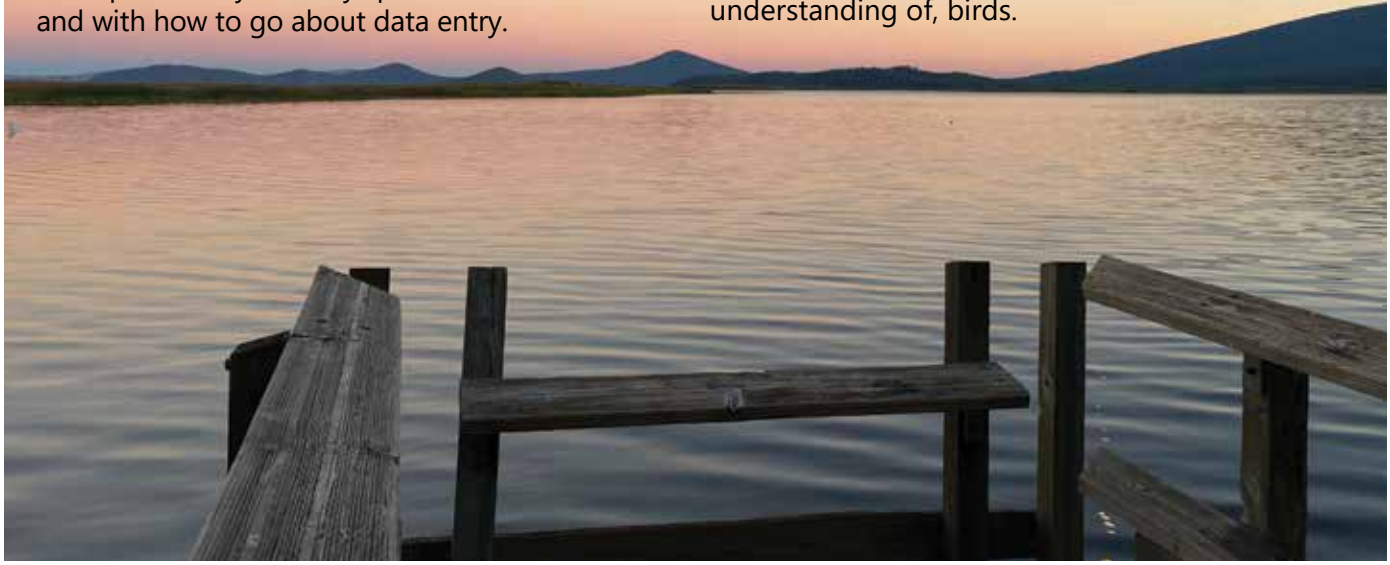
From September 9-13, 2024, KNC Conservation Technician Matt Gelbaugh participated in a select Klamath Bird Observatory - U.S. Department of Defense (DoD) training thanks to KVBO's partnership with the Michigan Army National Guard and Fort Custer Training Center. The DoD Legacy Resource Management Program, Klamath Bird Observatory, DoD Partners in Flight, and DoD Avian Knowledge Network partnered to offer this passerine-focused banding workshop for people who conduct avian research on DoD installations. The training ensured that researchers have access to guidelines and curricula aligned with the North American Banding Council. The event, held in Rocky Point, Oregon, involved seminars, demonstrations, and hands-on instruction on songbird aging and sexing techniques, bander safety, bird safety and first aid, public interaction and education at banding stations, and equipment maintenance.

Note from Matt Gelbaugh:

The Klamath Falls area of Oregon is a birder's paradise. During my recent trip to the Klamath Bird Observatory, I attended their DoD Bird Banding 101 training workshop. During this training, I was taught the introductory basics to banding passerine birds (birds belonging to the order passeriformes). The course covered the set up and tear down of mist nets, the "body grasp" technique for safely extracting birds from the nets, identifying molt strategies (how and when birds shed their feathers), as well as molt limits. The training has greatly improved my current birding skills, particularly with my species identification and with how to go about data entry.

Outside of the workshop I got to explore and enjoy the natural beauty of Oregon, as well as watch for new and exciting species native to the west coast. The birds that call Oregon home are quite different to that of southwest Michigan, and some of my favorite new species are the American White Pelican, the Steller's Jay, and the Macgillivray's Warbler.

I look forward to applying and improving my skills with the KNC banding team, and I am grateful to have had the opportunity to learn so much and to further expand my interest in, and understanding of, birds.



An Eagle's Eye View on Research

In the spring of 2024, from atop a 100-foot sycamore tree, Dr. Michael Wierda looked over to see how many Bald Eagle chicks called the massive Bald Eagle nest home. "There are three!" he called down to the research team and volunteers at ground level.

This was exciting news for the group, who traveled to KNC property in May to gather data on the approximately five-week-old eaglet trio. Typically found in pairs, three young are rare, said Dr. William Bowerman, professor in the Department of Environmental Science and Technology at the University of Maryland. Dr. Bowerman, an expert in eagle research and raptor conservation, has studied Bald Eagle ecology in the Great Lakes region and around the globe for over 40 years.

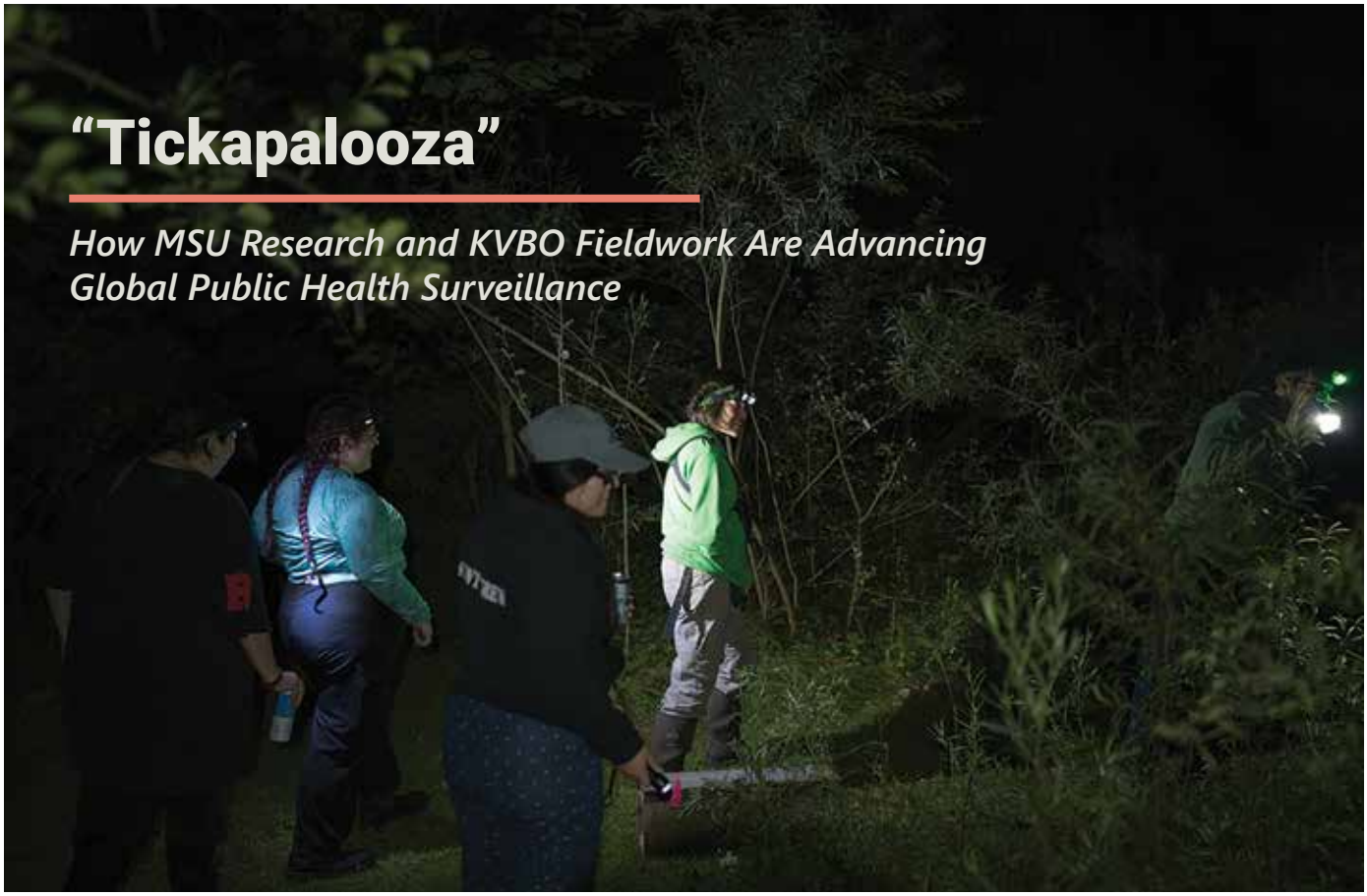
Dr. Wierda, an Assistant Professor in Extension at Utah State University and Pesticide Safety Education Program Director, climbed the tree and carefully sent down two of the three eaglets in special bags. Once safely on the ground, Dr. Bowerman weighed the birds and, with the help of an assistant, collected a small blood sample and determined the sex and age of the eaglets through measurements of the foot pad, talon, and beak. After measuring, the birds are fitted with a numbered US Fish and Wildlife Service leg band and lifted back to the nest. Wierda remained in the nest, where he banded the third of the eaglets.

Bald Eagles are native to the Great Lakes, and, as a tertiary – or apex – predator, are important indicators of a watershed's health. By studying these magnificent birds, researchers can track the effects of chemicals, including PCBs, DDT, and mercury in the region. Although removed from the Endangered Species List in 2007, Bald Eagles are protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

The Kalamazoo Nature Center takes great pride in caring for the land and all who inhabit it. To have Bald Eagles return regularly to lay their eggs and rear their young along the Kalamazoo River is a good indicator that our stewardship efforts and research partnerships are more than worth it.

> To learn more about Dr. Bowerman and his research visit: agnr.umd.edu/about/directory/william-bowerman

> Top left: Dr. Michael Wierda climbing to the top of the sycamore.
> Middle right: Dr. Michael Wierda took photos via helmet camera of the nest and eaglets.
> Bottom right: Dr. William Bowerman with a female Bald Eaglet.
> Left: Measuring the talon and foot pad.



"Tickapalooza"

How MSU Research and KVBO Fieldwork Are Advancing Global Public Health Surveillance

Ten Michigan State University students from Dr. Jean Tsao's class camped at the Pitsfield Banding Station in Vicksburg as part of their coursework from July 17 – 19, 2024. Surprisingly, while visiting the bird research station, the students were on site to set 100 small mammal traps with the intention of catching mice to check for ticks. Working in teams, traps were set in the evenings and checked the next morning. The first morning, the teams carefully checked each of the 21 captured mice and then collected any found ticks for later study. A blood sample and ear biopsy were taken from each mouse, and their ears were tagged for later identification. The mice were released back to the location where they were trapped. The second morning, over 40 mice and one shrew were found.

Two months later, two more students came for a follow-up visit with Dr. Tsao from September 27-29. Once again, small mammal traps were set around the property, along with specialized traps for rabbits. A similar number of mice were trapped during this time, as well as three young opossums, two older opossums, and one rabbit. Most of the mice had larva or nymph ticks which, given the time of year, would most likely have been black-legged ticks.

So, why is the KVBO research team working in partnership with tick surveys of mammals? Dr. Tsao is a tenured professor at Michigan State University with over two decades of experience researching black-legged ticks and the bacteria that causes Lyme disease. She leads courses in medical entomology and field ecology of disease vectors and also regularly trains veterinary students to better understand zoonotic and non-zoonotic diseases in wildlife. While her 2024 students primarily focused on sampling mammal vectors of ticks, the KVBO has maintained a longstanding research partnership with Dr. Tsao's lab for many years by collecting and submitting avian tick samples throughout each bird banding season.

This type of research has international implications for public health. A 2024 publication in Frontiers of Microbiology shared how Dr. Tsao, Dr. Jen Owens (another colleague at MSU), and an interdisciplinary international research team studied the impact of migratory birds as vectors for highly pathogenic avian influenzas (HPAIs) and other significant worldwide disease outbreaks. The paper clearly articulated the need for infectious disease specialists to build trusted relationships with field ornithologists – like the team at KVBO – to secure quality field sampling and testing as a part of international surveillance programs for tracking and responding to pathogens. The KVBO team is honored to play a role in these important scientific advances by hosting students and regularly contributing samples for Dr. Tsao's research at MSU.

>> Learn more: Fair, J. M., et al. (2024). Transboundary determinants of avian zoonotic infectious diseases: challenges for strengthening research capacity and connecting surveillance networks. Frontiers in microbiology, 15, 1341842. https://doi.org/10.3389/fmicb.2024.1341842

Winter Banding at Pitsfield

No season is a bad season for birding. For our team, the two most intense banding seasons are typically in the summer breeding season at Fort Custer as part of the Institute for Bird Populations' Monitoring Avian Productivity and Survivorship (MAPS) program and the fall migratory season at both the KNC and Pitsfield Banding Stations, where data is submitted to the US Geological Survey's Bird Banding Laboratory. Data from both of these efforts is collected and shared with the broader avian research community where it can inform and support conservation efforts.

Did you know that banding happens in the colder months as well? In 2024, the team spent seven days in November and December focused on winter banding at Pitsfield Banding Station. Year-round data collection is increasingly important as we recognize the impacts of global climate change on the movement and survival of local bird populations. Within this relatively short survey window, the team banded 66 Fox Sparrows (*Passerella iliaca*), which are usually uncommon in Michigan at this time of year, and a surprising number (11) of White-throated Sparrows (*Zonotrichia albicollis*).

Winter banding also presents unique opportunities for research partnerships, including one that KVBO has built with Dr. Ellen Ketterson's laboratory at Indiana University. Dr. Ketterson's team studies how Dark-eyed Juncos (*Junco hyemalis*) – a common winter sight at Michigan bird feeders – process environmental cues, change migratory behaviors, adapt to changing environments, and form new species. One recent report from the Ketterson lab detailed how a changing climate might be affecting this species, noting a steady northward change in winter distribution of Dark-eyed Juncos since 1960.

Winter Feeder Count

The 48th annual count took place from November 1, 2023 – April 30, 2024. A total of 216 participants conducted 1,053 feeder counts, and together they identified 61,792 birds and 119 species in the feeder count areas.

During the 2023/2024 season, three new species were added: the Common Redpoll, Red-headed Woodpecker and Wood Duck, while observations of the Chipping Sparrow, Common Raven, and Pine Grosbeak were lost.

The top ten species this year included the Black-capped Chickadee at number one, followed by Downy Woodpecker, Blue Jay, American Goldfinch, White-breasted Nuthatch, Dark-eyed Junco, Mourning Dove, Cardinal, Red-bellied and Hairy Woodpecker.

> Note from John Brenneman, KVBO Senior Avian Biologist:

> This last winter season (2023/2024) was a mild winter with very few cold snaps, and I had numerous people mention the lack of birds at their feeders during those unusually warm spells. Spring also came early over much of the state, which accounted for both Rose-breasted Grosbeak and Baltimore Orioles being reported at rates two times higher than their normal average. Pines Siskins also returned to more normal numbers after very low numbers the year before. Red-breasted Nuthatches were predicted to stay up in Canada last year due to a good cone crop in the Balsam Firs, so after three years of record high numbers (with 65-70% of feeders reporting them), they dropped to only 35% of feeders reporting them. There were also higher than normal numbers of both White-crowned Sparrows and Eastern Bluebirds last year.

Birdathon

The Catbirders Team had another successful year at the Southwest Michigan Team Birdathon on May 18, 2024. The annual Birdathon event is a challenge to identify as many birds in a single day as possible within Berrien County. The KVBO team this year was made up of Rich and Brenda Keith, Todd Alfes, and Seth Chapman. (John Brenneman was sorely missed.) The Catbirders observed 107 different bird species, winning the team award for Most Birds Seen Under 100 Miles. They also won the Diurnal Birders Award by demonstrating a feat of remarkable endurance – birding nonstop from 7:00 am to 7:00 pm!

The survey day was one of the warmest in memory for the team. It was held a little later than usual, with local trees fully leafed out and most migratory birds having already passed through the area. Despite these challenges, the team experienced some fun surprises this year. Seth Chapman added quite a few life birds to his own list: Ruddy Turnstone, Fish Crow, Yellow-throated Warbler, and Brewers Blackbird. They heard a Connecticut Warbler singing and were delighted to discover a flock of over 30 Common Nighthawks at the event's finish line.

TOP TEN WINTER FEEDER COUNT SPECIES

1 

2 

3 

4 

5 

6 

7 

8 

9 

10 

Christmas Bird Counts

Every year, thousands of volunteers get outside to count birds as part of the National Audubon Society's annual Christmas Bird Counts. These counts are held between December 14 and January 5 each year. Each of these counts takes place inside a 15-mile diameter circle where the observers identify and count all the bird species they can find in one day. The Kalamazoo Valley Bird Observatory team helps with six of these area counts each year: Allegan, Battle Creek, Dowagiac, Gobles, Kalamazoo, and South Kalamazoo.

Christmas Bird Counts first began in 1900, as an alternative to popular American Christmas "side hunts" where participants would compete to see how many birds they could kill. A concerned U.S. ornithologist, Frank Chapman, proposed counting the birds instead of killing them, and 25 counts by 27 individuals were performed that first year. Since then, that tradition has grown to include over 2,600 counts across 17 countries involving over 75,000 people annually.

This year, the six area counts that KVBO participated in resulted in just over 38,000 individual birds of 101 species observed by 77 participating birders who hiked over 100 miles and drove 1,800 miles to observe as many birds as possible. Highlights from the 2024 events included a Golden Eagle, Killdeer, Lesser Black-backed Gull, Northern Saw-whet Owl, Virginia Rail, and White-winged Scoter.

Audubon

Above left: A golden eagle was spotted flying overhead during one of the 2024 Christmas Bird Count events.

2024 Christmas Bird Count Species List

2024/2025 Christmas Bird Count Totals							
American Black Duck	67	Dark-eyed Junco	2114	Lesser Black-backed Gull	1	Rock Pigeon	1077
American Coot	4	Downy Woodpecker	308	Lesser Scaup	24	Rough-legged Hawk	25
American Crow	1246	Eastern Bluebird	298	Mallard	5047	Ruddy Duck	51
American Goldfinch	413	Eastern Phoebe	1	Merlin	2	Sandhill Crane	4269
American Kestrel	31	Eastern Screech-Owl	14	Mourning Dove	961	Sharp-shinned Hawk	2
American Robin	676	Eastern Towhee	2	Mute Swan	485	Short-eared Owl	3
American Tree Sparrow	1197	European Starling	5106	Northern Cardinal	961	Snow Bunting	225
American Wigeon	4	Field Sparrow	1	Northern Flicker	169	Song Sparrow	91
Bald Eagle	40	Fox Sparrow	2	Northern Harrier	6	Swamp Sparrow	11
Barred Owl	10	Gadwall	261	Northern Pintail	17	Trumpeter Swan	264
Belted Kingfisher	34	Golden Eagle	3	Northern Saw-whet Owl	7	Tufted Titmouse	480
Black-capped Chickadee	894	Golden-crowned Kinglet	155	Northern Shoveler	1	Tundra Swan	46
Blue Jay	1044	Great Blue Heron	38	Peregrine Falcon	2	Turkey Vulture	21
Blue-winged Teal	1	Great Horned Owl	10	Pileated Woodpecker	48	Virginia Rail	4
Brown Creeper	35	Greater Scaup	4	Pine Siskin	1	White-breasted Nuthatch	509
Bufflehead	182	Green-winged Teal	17	Purple Finch	13	White-crowned Sparrow	9
Cackling Goose	7	Hairy Woodpecker	105	Red-bellied Woodpecker	296	White-throated Sparrow	45
Canada Goose	10604	Hermit Thrush	4	Red-breasted Merganser	1	White-winged Scoter	3
Canvasback	1	Herring Gull	37	Red-breasted Nuthatch	15	Wild Turkey	144
Carolina Wren	80	Hooded Merganser	331	Red-headed Woodpecker	16	Winter Wren	20
Cedar Waxwing	207	Horned Grebe	4	Red-shouldered Hawk	33	Wood Duck	14
Common Goldeneye	432	Horned Lark	97	Red-tailed Hawk	115	Yellow-bellied Sapsucker	12
Common Loon	3	House Finch	471	Red-winged Blackbird	9	Yellow-rumped Warbler	7
Common Merganser	147	House Sparrow	879	Ring-billed Gull	969		
Common Raven	5	Killdeer	2	Ring-necked Duck	6		
Cooper's Hawk	19	Lapland Longspur	5	Ring-necked Pheasant	3		

You Can Help Protect KVBO's Future

The Kalamazoo Valley Bird Observatory relies on the generosity of supporters to sustain the long-term work of our research program. As one of the oldest continuously operating bird observatories in the country, the ongoing collection of data from KVBO programs provides important information about the health of bird populations across decades. Your support makes a critical difference. Every gift matters to help meet KVBO's annual operating needs:

Seasonal bird banding assistant	$4,000
Printing & postage for annual mailings	$2,400
Annual Motus cellular service	$2,000
Zeiss 10x40 binoculars	$1,500
Annual replacement banding nets	$500
End-of-season dinner for banding team	$300
Banding pliers	$100
OptiVisor headband magnifier	$60
Bird identification guidebook	$55
KVBO sweatshirt for staff	$25
KVBO t-shirt for staff	$15
Bag to hold 1 bird	$7
Staff time to band 1 bird	$2

KALAMAZOO VALLEY BIRD OBSERVATORY
KALAMAZOO NATURE CENTER

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Many thanks to our donors

The names listed represent gifts of both general support and special areas of donor interest. As always, we have made every attempt at accuracy. If you see an error or omission, please contact Jen Meilinger: jmeilinger@naturecenter.org.

GREAT EGRET ($500+)

Raymond J. Adams Jr. Avian Research Endowment Fund
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Linda Cox
Alex Ellingsen
Ellen D. Ketterson
Cynthia and Verne Mills
Colleen D. Traylor
Donald Trout
Jack N. Wykoff

RED-TAILED HAWK ($51-150)

Anonymous (1)
Beryl Tarrant
Conrad Rattay
Doris Fredenburg-Tefft
John E. Gannon
Dorienne Adams

Jim Bronson
Matt Clysdale
Ilse Gebhard
Charles Hansen
Patricia Huiskamp
Tom Litteral
Arthur L. Riley
Shelly Kehrle-Sulser
Nancy E. Summers
Richard Taylor
George Whitaker
Jan White
Pamela L. Woodruff
Larry J. Feldpausch
Deborah J. Remer
James M. Frey
Cindy & Verne Mills
Judith A. Weyhmiller

INDIGO BUNTING ($26-50)

Anonymous (1)
Ronald B. Annelin
Carol Brand
Constance H. Ferguson
Kayne L. Ferrier
Ethel Hall
Judith Holloway
Kathy L. Koets
Judi Manning
Mary E. Novrocki
Janice E. Wick
Jacquelynn C. Williams

AMERICAN GOLDFINCH ($11-25)

Bernard E. Adams
Joy Anderton
Rebecca Argue
Nancy Bailey
Lee Burton
Kimery Anne Campbell
Phyllis Carlson
Michael L. Covey
Donna J. Cox
Georgia E. Curry
Shannon Daniels
Irene Day
J. Anne Farmer
Robin C. Fritz
Frederick G. Guyor
Carol Hollenbeck
Colleen J. Huntsman
Kathleen J. Huston
Nancy Kelso
Christina Kionka
Terilyn Koretsky
Lucille Lercel
Mary Ellen Lezon
John R. Lowes
Tracey Mersfelder
Nancy S. Miller
Richard Murley
Carol Overton
Kathleen M. Ploss
Barbara Rateick
Rosanne I. Rynerson
Douglas L. Scharp
Mary Ann Schmitz
Michelle Schultz
Gary Siegrist
Henry Spenski
Thomas R. Springer
Deb and Jack Taylor
Mary Trout
Barbara J. VanDyken
Kim M. Winchell
Roberta Woodruff

SCARLET TANAGER ($1-10)

Anonymous (1)
Richard H. Chamberlin
Brenda Coleman

Richard G. Dubridge
Carol S. Griffith
Cathleen Kender
Patricia Krautmann
Chris Magson
Mary K. Martin
Joanne Parker
Larry D. Poynter
Lisa Rossland
Carol Schaus
Jacqueline Terpstra
Patrick Tobin
Carolyn A. Tropp
Marilyn K. Zmudzinski
Allyn G. Acheson
Hannah Anderson
Susan Babcock
Karen A. Baker
Mary T. Baker
Sally Barnett
Barbara Bishoff
John Brenneman
Barbara Brockway
Kathryn H. Campbell
Carol B. Carra
Kelly Cichy
Shannon Conger
Tim A. Elbert
Elizabeth A. Fox
Susan Howes
Richard E. Joyce
Beverley Kirby
Elizabeth Lockwood
Marci J. and Katie S. Neel
Annis Pratt
William K. Purdy
Susan Putnam
Lorettine Rosatti
Ronald J. Spenski
Susie Steffler
Michael Stoner
Elinor M. Sweet
Emily Tabuteau
Jim and Mary Taylor
Suzanne Zimmerman
Nancy Zinger

Volunteers

Todd Alfes, Steve Allen, Mary Benjamin, Kathryn Blair, Mairin Boshoven, Liam Brenneman, Stacy Burton, Seth Chapman, Mary Cook, Connie Ferguson, Hannah Fischer, Margaret Hahn, Lily Hendershot, Bruce Huston, Karen Kolbasa, Jane Krone, Liz Kuras, Bree Leighton, Jean Lundberg, Bob Nixon, Laurel Ridgway, Rebecca Robinson, Pamela Rups, Talus Rutgers, Daniel Sullivan, Amy Vida, Pam Woodruff, and our hundreds of Winter Feeder Count volunteers.

Partners

City of Ann Arbor, Audubon Society of Kalamazoo, Bay City Armory, Birds Canada, Penny & Rick Briscoe, Camp Grayling, Allen Chartier of Great Lakes HummerNet, Rhonda & Terry Dunithan, Todd & Penny Engels, Fort Custer Training Center, Gladstone National Guard Armory, Dr. Sarah Hammer and Texas A&M University, Hiawatha National Forest - St. Ignace HQ, Institute for Bird Populations, Jackson College, John Ball Zoo, Kensington Metroparks, Lowe Foundation, Marquette National Guard Armory, Michigan Army National Guard, Michigan Department of Natural Resources, Missouri Department of Conservation, Motus Wildlife Tracking System, Ott Biological Preserve, Sarett Nature Center, Sault Ste. Marie National Guard Armory, Nancy & Jim Summers, Taylor National Guard Armory, Thomashefsky family, Dr. Jean Tsao and Michigan State University, USFWS Competitive State Wildlife Grant Program, USGS Bird Banding Laboratory, Waterloo State Recreation Area, Western Michigan University and the Stewards of Kleinstuck, Whitehouse Nature Center

Research Team

Rich Keith
KVBO Director

Brenda Keith
Senior Avian Biologist

John Brenneman
Senior Avian Biologist

Lindsey Dolinski
Research Biologist

Matt Gelbaugh
Conservation Technician

Kalamazoo Nature Center

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NatureCenter.org/Birding

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KALAMAZOO NATURE CENTER

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