



Forestry for Birds Soars Over Michigan

Michael Paling

Northern Forest Birds Network

October 2023





A Forest Owner's Guide to
**Forestry for
Michigan Birds**



A Forest Manager's Guide to
**Forestry for
Michigan Birds**



Background

- Discussions started in 2018
- Stakeholder input April 2019
- Secured funding in March 2020
- Guide outline developed by Steering Committee in 2020
- Guides developed 2021



Background

- Guides finished in 2022
- Outreach Began July 2022
 - Day long workshops
 - Short presentations
 - News articles



Stakeholders Meeting

Forestry for Michigan Birds – Stakeholder Workshop

April 10, 2019 – 10:00 AM - 2:30 PM

McArthur Room, Ramada Plaza, Sault Ste Marie, MI

240 W Portage Ave, Sault Ste. Marie, MI 49783

RSVP: Kayla Knoll, kknoll@abcbirds.org

Summary: Forestry for Michigan Birds (FMB) is a new initiative that aims to pair silviculture, the art and science of forest management, with the habitat needs of Michigan’s forest birds. This workshop is for woodland owners, foresters, and loggers to provide feedback on a proposed project to develop a Forestry “with Birds in Mind” Toolkit. Stakeholders will learn about priority forest birds as well as participate in discussions regarding Toolkit development, real-world applications, and possible limitations.

Agenda:

10:00 AM – 10:30 AM: Welcome & Introduction to Forestry “With Birds in Mind” Toolkit Concept – *Kayla Knoll*

10:30 AM – 11:00 AM: Priority Birds in Michigan’s Northern Forest – *Katie Koch*

11:00 AM – 11:30 AM: Managing Forests for Trees and Birds in Michigan – *Forestry Panel*

11:30 AM – 12:00 PM: Lunch in dining room (provided)

12:00 PM – 1:00 PM: Small Group Activity: Pairing silviculture with habitat needs of MI’s priority birds

1:00 PM – 1:30 PM: Share Results of Small Group Activity

1:30 PM – 2:30 PM: Group Discussion: Toolkit development, real-world applications, and possible limitations

Speakers:

Katie Koch, Migratory Bird Biologist, US Fish and Wildlife Service

Kayla Knoll, Partner Biologist, American Bird Conservancy

Forestry Panel, consisting of 3 members of FMB Steering Committee:

Matt Watkeys, SAF Certified Forester, Alger and Marquette County Conservation Districts

Keith Kintigh, Forest Conservation and Certification Specialist, MI DNR

Dave Fehringer, Associate Regional Director, Forestland Group



Steering Committee Formed

• **Planning Committee**

- Kayla Knoll, ABC (coordinator 2018 – Spring 2021)
- Michael Paling, ABC (coordinator 2021 – present)
- Misa Cady, NRCS
- David Fehringer, The Forestland Group
- Jim Ferris, Caretaker Forestry
- Sherry MacKinnon, MDNR
- Joyanne Mittig, ABC
- Katie O'Brien, USFWS (advisor/guru)

- Linnea Rowse, MI Audubon (coauthor)
- Julie Crick, MSU Extension (coauthor)

Steering Committee

- John Bowers, USFS
- David Flaspohler, Michigan Tech University
- Shawn Graff, ABC
- Stephen Handler, NIACS
- Andy Henriksen, NRCS
- Gib King, USFWS
- Keith Kintigh, MDNR
- Pam Nankervis, USFS
- Josh Shields, Forestry Assistance Program
- Warren Suchovsky, Suchovsky Logging
- Matt Watkeys, Forestry Assistance Program

Forestry for Michigan Birds Project Timeline		2019		2020				2021				2022				2023			
LSR Period of Performance (4.30.2020 - 3.31.2023)		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Capacity Building	Explore/pursue funding opps	X	X	X															
Concept Development	Finalize committees	X	X																
	Research & select author/editor		X	X															
	Finalize packaging strategy			X	X														
	Finalize Forest Categories			X	X	X													
Literature Review	Review other guidebooks			X	X	X													
	Finalize priority species list				X	X													
	Assimilate species information					X	X												
	Gather stakeholder input				X	X	X	X											
Toolkit Development	Toolkit outline			X	X	X	X												
	Forester Guidebook						X	X	X	X	X	X							
	Landowner Guidebook						X	X	X	X	X								
	Forester Datasheet						X	X	X	X									
Peer Review	Technical Committee							X	X	X	X								
	Field testing						X	X	X	X	X								
	Citing & Sourcing								X	X	X								
Graphic Design	Select graphic designer							X	X	X									
	Design development								X	X	X	X	X						
	Field testing design & comms										X	X	X						
	Final review and quality control										X	X	X						
Printing & Distr	Printing												X						
	Distribution												X	X	X	X	X	X	
Education/Outreach	Host Educational Workshops													X	X	X	X	X	X
	Newspaper articles / press												X	X	X	X	X	X	

Funding Details

- Funded by the USFS Landscape Scale Restoration Grant Program.
- \$260,628 total project cost
 - \$130,241 Federal Funds
 - \$130,387 Matching Funds
 - Coordinator salary (25% of time)
 - Toolkit author(s)
 - Workshops
 - Design + Printing

Funding Details

- Lessons learned:
 - Budget for illustration costs!
 - Include enough funding to cover printing enough materials
 - Consider if funding for mailing would help with distributing materials
 - Make sure the funder approves of all match sources
 - Don't over promise

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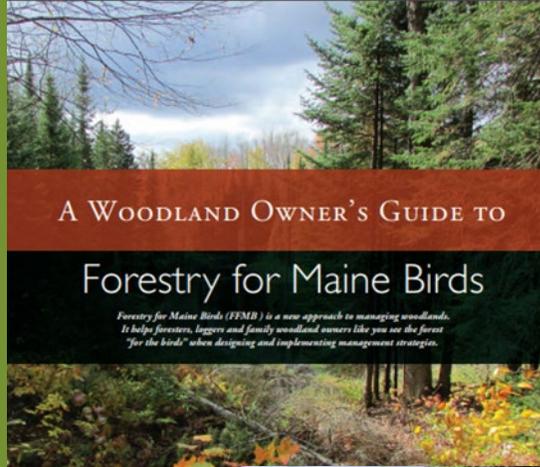
FOREST MANAGEMENT FOR NEW YORK BIRDS

A Forester's Guide



MANAGING FORESTS FOR BIRDS

A Landowner's Guide



Forestry for Maine Birds

A GUIDEBOOK FOR FORESTERS MANAGING WOODLOTS "WITH BIRDS IN MIND"



MAINE
AUDUBON



Managing Forests for Trees and Birds in Massachusetts

A Guide to Habitat Assessments and Silvicultural Practices



Adapted from Vermont's *Foresters for the Birds* Project

What to start with?

Phase 1:
Forest
Categories



What forest stand types
are most managed?

MI SAF Categories



Phase 2:
Silviculture
Options



What silviculture options are
commonly implemented in these
stands?

Economically viable!



Phase 3:
Priority
Species

Which at-risk bird species cover these
forest stand types and would benefit
from tweaking silviculture that is
already happening?

Forest Habitat Association	Common Forest Types <small>(modified from Michigan SAF)</small>
Hardwoods Association <i>(May include up to 25% softwoods)</i>	Maple-Mixed Hardwood Aspen-paper birch (early successional) Southern Deciduous Swamps & Floodplain
Mixedwood Association <i>(Transitional btw hard and softwoods - neither hdwd or sfwd exceed 75% stocking)</i>	Hardwood / Conifer Uplands Hardwood / Conifer Swamps
Softwoods Association <i>(May include up to 25% hardwoods)</i>	Northern Cedar Swamps / Tamarack Spruce-Fir Hemlock Dominated
Oak-Pine <i>(May range from pure oak-dominated hardwoods to mixed hardwoods and softwood stands)</i>	Southern Oak-Mixed Hardwood Softwood Plantations Northern Oak Natural Red & White Pine Jack Pine

FMB: Choosing priority species

Northern Forest Bird Network's BCR12 Species List

- Species most in need of conservation action
- Common birds in steep decline
- Regional Stewardship species
- Hunted species

+

BCR 23 species

+

Forest Types – modified from MI SAF

=

Matrix of 24 priority species, common forest types, and structural characteristics



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Outline

- How long did we want these to be?
- How did we want these organized?
 - One guide? Two guides?
- What additional info needed to be included?

Authors



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Least Flycatcher (*Empidonax minimus*)



© David O. Hill



FOREST AGE CLASS: Older Forest

IDENTIFICATION: Very difficult to distinguish from other *Empidonax* flycatchers except by voice. Grayish olive head and back, a bold white eyering, dusky breast, very faint yellow wash to the belly, and 2 white wing bars.

SONG: Very short and distinctive, dry *chebec* that sounds more like a call. Song is repeated, sometimes as frequently as 60 *chebecs* per minute.

NEST: Nests typically placed 12-25 feet high in a small deciduous sapling or tree. May nest in loose colonies: multiple breeding pairs may hold very small territories in one general location.

FOOD: Insectivorous; also eats spiders and occasionally berries.

TERRITORY SIZE: Averages 0.2-0.5 acres; multiple breeding pairs may nest close together. Prefers to nest in maples or white oak. Found throughout Michigan.

CLIMATE VULNERABILITY: Moderate. Predicted to lose all of current Michigan range, but will maintain or gain range elsewhere in North America.

HABITAT FEATURES & MANAGEMENT RECOMMENDATIONS:

Diverse forest with a well-developed canopy and structural complexity in all layers. Sensitive to forest fragmentation and disturbances; harvests will be less impactful to grouped breeding territories if forest openings are clustered together rather than spread throughout a forest tract. Maintain contiguous, mid-successional forest blocks across the landscape, with diverse vertical structure.

H

M

OP

S

STAND-LEVEL CONSIDERATIONS

Wildlife habitat elements can be created over time through natural disturbance or planned management activity. Prior to implementing management activities, use the “Bird Habitat Assessment,” found in the appendix, to qualitatively assess the wildlife habitat elements within the stand. Continue to perform assessments through time, comparing the data to provide a summary of how species and structure have changed and to guide next steps in the long-term plan for management.

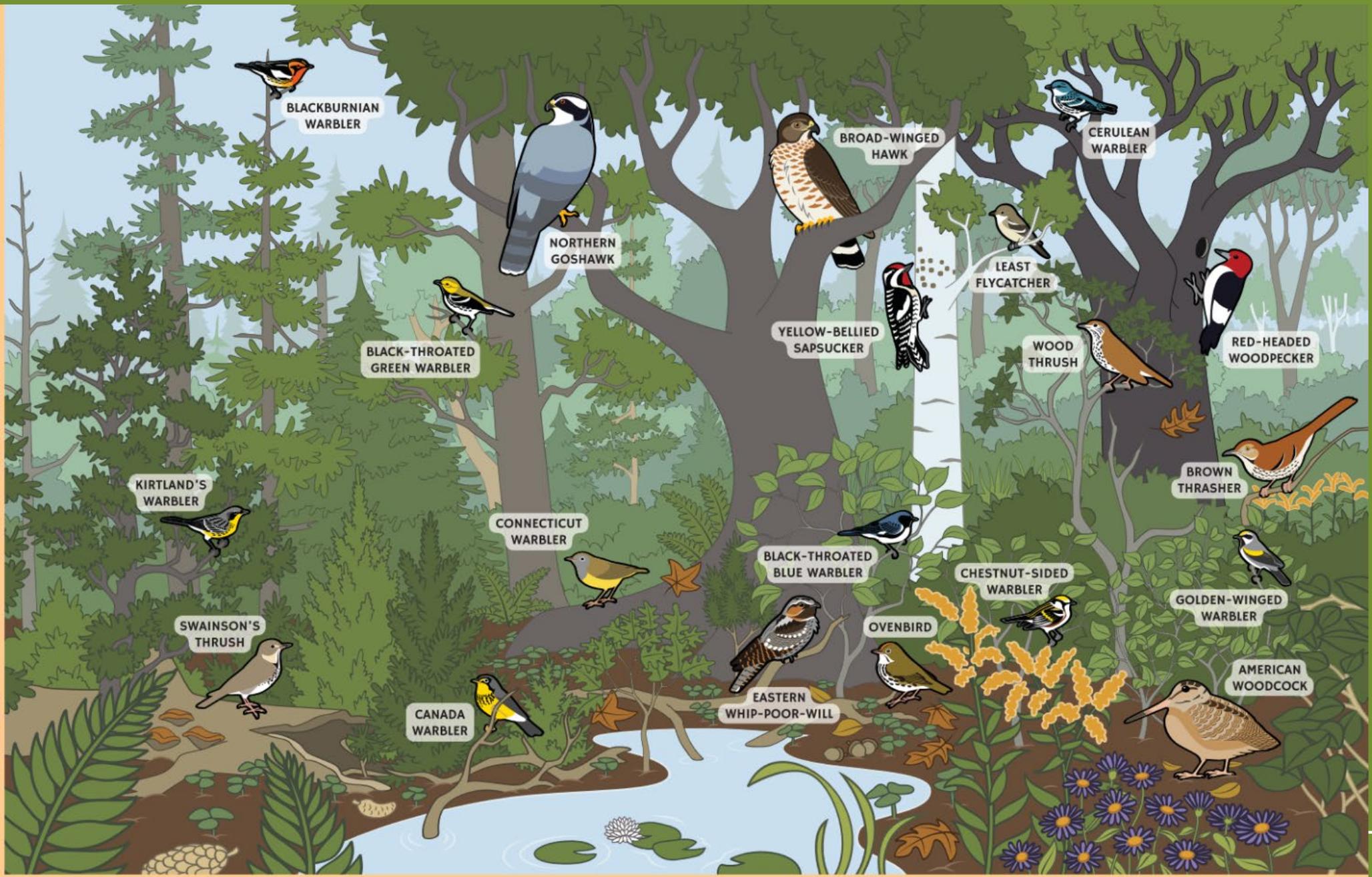
Table: Overview of key habitat structures for FMB priority forest bird species¹⁰

Vertical structure diversity/canopy cover	Vertical structure diversity, or differing levels of canopy cover in the over-, mid-, and understory, provides habitat to many forest breeding birds.
Horizontal structure diversity	Diversity in horizontal structure, or the arrangement of species and woody structure on a plane parallel to the ground, provides habitat to many forest breeding birds.
Gaps	Create gaps, or openings, to regenerate desired tree species and to diversity habitat for forest breeding birds.
Native biodiversity/invasive species	Manage to create a diversity of native forest plants to ensure that birds have available food sources, including insects and mast. Eliminate invasive plants that may interfere with tree and shrub regeneration.
Large diameter trees	Provides structural elements for nesting, roosting, perching, and feeding habitat for many forest breeding birds.
Softwood inclusions	Retain or create clusters of softwood, or conifer trees, for habitat and to increase forest resilience to climate change and other stressors.
Snags or cavity trees	Provides structural elements for nesting, roosting, perching, and feeding habitat for many forest breeding birds.
Downed woody material	Provides structural elements for ground nesting birds as well as habitat for invertebrate food sources.
Leaf litter and duff	An adequate layer of duff is essential to ground nesting birds and invertebrate populations. In oak dominated hardwood forests, it may hinder natural oak regeneration.
Riparian and wetland forests	Water features and the surrounding vegetation provide beneficial habitat elements for forest bird breeding and migration.

OVERSTORY

MIDSTORY

UNDERSTORY



BLACKBURNIAN WARBLER

NORTHERN GOSHAWK

BROAD-WINGED HAWK

CERULEAN WARBLER

BLACK-THROATED GREEN WARBLER

YELLOW-BELLIED SAPSUCKER

LEAST FLYCATCHER

WOOD THRUSH

RED-HEADED WOODPECKER

KIRTLAND'S WARBLER

CONNECTICUT WARBLER

BLACK-THROATED BLUE WARBLER

CHESTNUT-SIDED WARBLER

BROWN THRASHER

SWAINSON'S THRUSH

OVENBIRD

GOLDEN-WINGED WARBLER

CANADA WARBLER

EASTERN WHIP-POOR-WILL

AMERICAN WOODCOCK

CONIFERS

MIXED

HARDWOODS



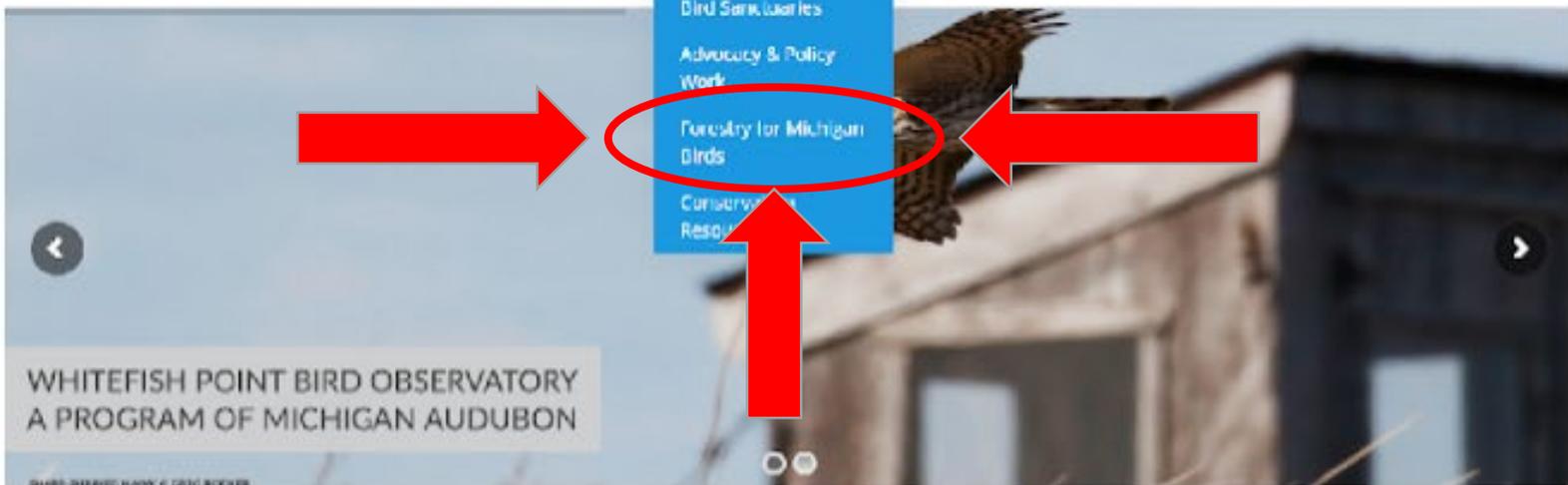
Bird Research

Bird Sanctuaries

Advocacy & Policy Work

Forestry for Michigan Birds

Conservation Resources



WHITEFISH POINT BIRD OBSERVATORY
A PROGRAM OF MICHIGAN AUDUBON



From the Interim CEO —
Summer 2022



Chris Hendra Gains Top
Honor in 2022 Michigan
Audubon Photography

Why?

“Use birds to tell the story of sustainable forest management”

1. The best part about this project is the cooperation and communication between different environmentally-oriented groups and making wildlife managers out of foresters and foresters out of wildlife biologists.

– Foresters for the Birds workshop participant

2. I was out with a landowner in his new woodlot, 45 acres on a nasty cold day... it was sleeting. I heard a winter wren. I was telling him all bout the little birds and how much I like them.

We went towards the sound and eventually got to a place where we could see it. We talked about its habitat and migration. On that walk, we also saw an Eastern Wood-peewee in a small gap. Birds were not at all on his list of objectives or interest before, but you can bet they were after the walk. They are on his radar screen now and definitely an interest.

– Alan Calfee, consulting forester, Calfee Woodland Management, Vermont

3. We have the Stokes guide birdsongs; my business partner, Kathy, has them on her iPod. When we sit down for lunch or a snack in the woods, we are always listening to the songs and talking about what birds might be here or should be here. It helps to know the birds and connect the birds to the habitat. It’s cool to see birds that have been around you your whole life that you’ve never noticed before.

- Frank Hudson, consulting forester, Not Just Trees, Inc., Vermont



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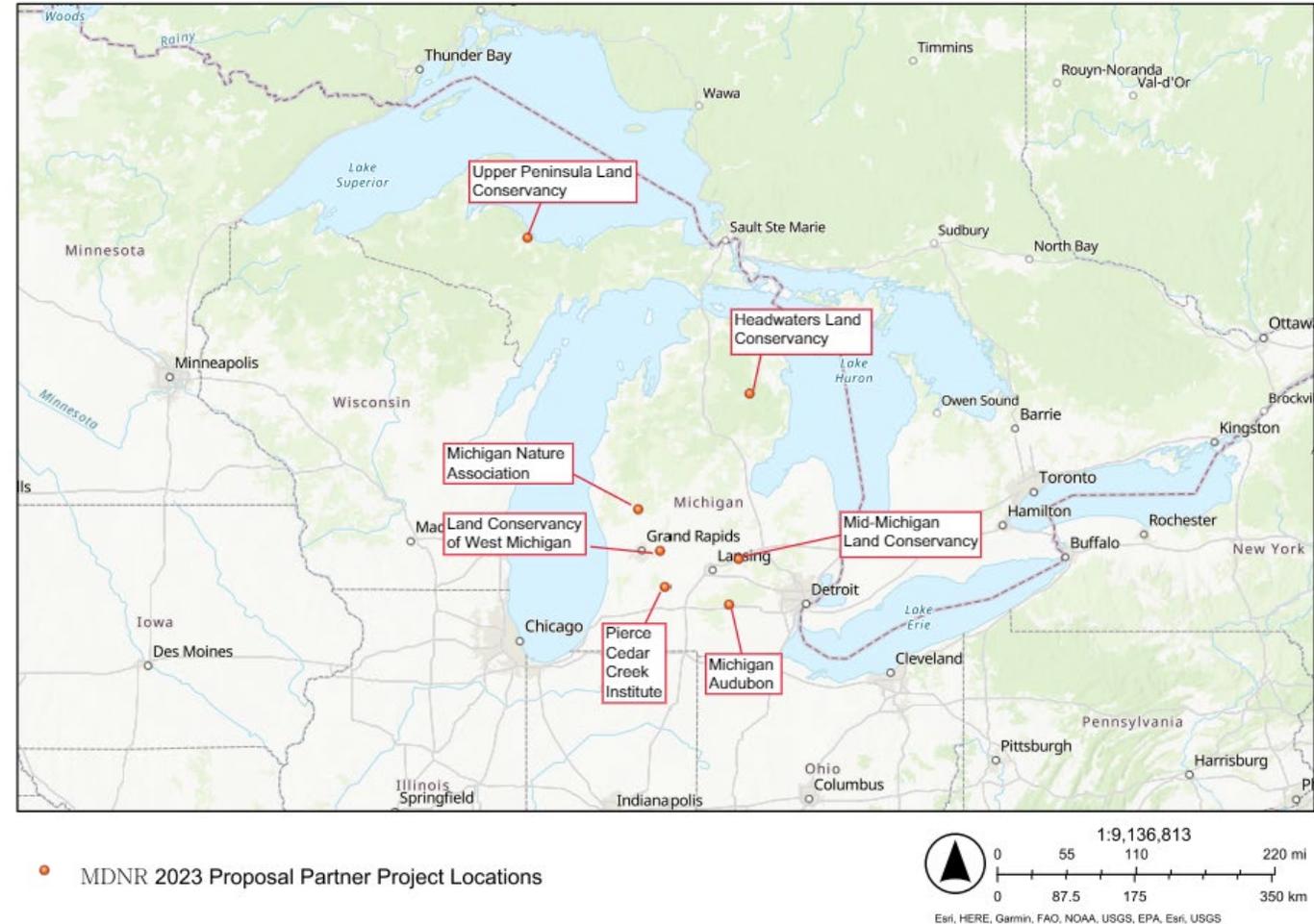
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Phase 2!

- Additional funding from the Michigan DNR Wildlife Habitat Grant Program
 - Approximately \$294k
 - On-the-ground projects to benefit birds and wildlife habitat
- Demonstration Sites
- Possible in the future: Certification/endorsement efforts

Integrating Forest Management and Bird Habitat in Michigan: Phase II



As ABC's president, Mike Parr,
always says.....



The birds
would thank
you if they
could!

Except this one. It's just a
little suspicious of you....

Michael Paling

906-251-3065