

# Forestry for Michigan Birds!

Ontonagon Conservation District Annual  
Meeting

November 3<sup>rd</sup>, 2022

Emily Locke, Private Lands Forester



Golden-winged Warbler by Ray Hennessy, Shutterstock

# What is it?



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



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





# Planning \* and Steering Committee!



Kayla Knoll, American Bird Conservancy\*

Sherry MacKinnon, Michigan Department of Natural Resources\*

Misa Cady, USDA Natural Resources Conservation Service\*

Dave Fehringer, The Forestland Group\*

Katie O'Brien, US Fish and Wildlife Service\*

Michael Paling, American Bird Conservancy\*

Jim Ferris, Caretaker Forestry\*

Joyanne Mittig, American Bird Conservancy\*

Emily Locke, American Bird Conservancy

John Bowers, USDA Forest Service

David Flaspohler, Michigan Technological University

Shawn Graff, American Bird Conservancy

Stephen Handler, USDA Forest Service and Northern Institute of Applied Climate Science

Andy Henriksen, USDA Natural Resources Conservation Service

Gib King, US Fish and Wildlife Service

Keith Kintigh, Michigan Department of Natural Resources

Pamela Nankervis, USDA Forest Service

Joshua Shields, Manistee and Mason-Lake County Conservation Districts

Warren Suchovsky, Suchovsky Logging LLC

Nicholas Sanchez, Land Conservancy of West Michigan

James Gray, Natural Capital Forestry

Matt Watkeys, Alger Conservation District



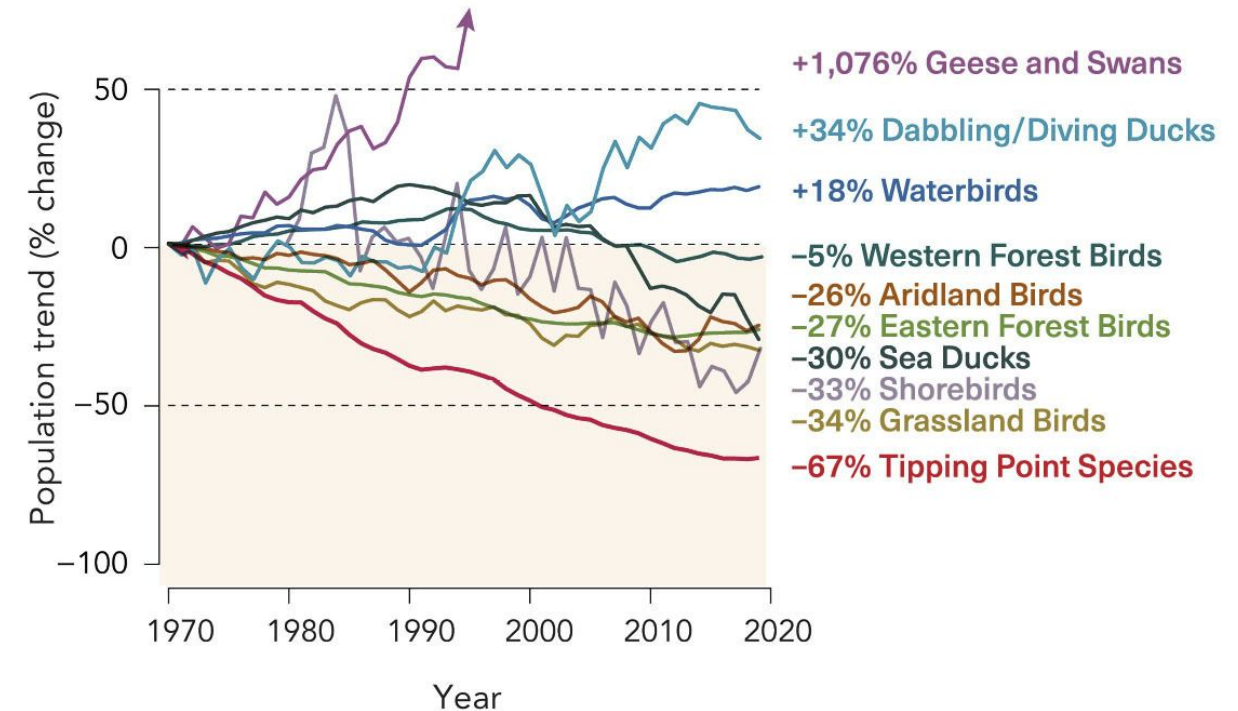


# The Problem

- 3 billion birds lost since 1970
- Birds are declining in every habitat except wetlands
- State of the Birds report identifies 70 “tipping point” species



© State of the Birds Report, 2022



Trends for U.S. breeding bird species by group or habitat during 1970–2019, except for the shorebird trend, which begins in 1980.



# Wetland Birds

- North American Wetlands Conservation Act
- U.S. Farm Bill Programs
- North American Waterfowl Management Plan
  - Coordination between public and private entities





# Kirtland's Warbler



Peter Tamas

Birds of North America



# Tipping Point Species

**On Alert: All of these bird species have lost half of their populations in the past 50 years**

Baird's Sparrow	Allen's Hummingbird	Buff-breasted Sandpiper	King Rail	Rufous Hummingbird
Black-billed Cuckoo	American Golden-Plover	Cassia Crossbill*	Kittlitz's Murrelet*	Saltmarsh Sparrow*
Black Skimmer	Ashy Storm-Petrel*	Chestnut-collared Longspur	Laysan Albatross*	Scripps's Murrelet*
Black Swift	Audubon's Shearwater*	Chimney Swift	Least Tern	Seaside Sparrow*
Canada Warbler	Bachman's Sparrow	Craveri's Murrelet*	LeConte's Sparrow	Semipalmated Sandpiper
Cerulean Warbler	Band-rumped Storm-Petrel*	Elegant Tern*	LeConte's Thrasher	Short-billed Dowitcher
Clark's Grebe	Bendire's Thrasher	Evening Grosbeak	Lesser Prairie-Chicken*	Sprague's Pipit
Eastern Whip-poor-will	Bicknell's Thrush*	Fea's Petrel*	Lesser Yellowlegs	Stilt Sandpiper
Grace's Warbler	Black-capped Petrel*	Golden-winged Warbler	Mottled Duck	Townsend's Storm-Petrel*
Long-billed Dowitcher	Black-chinned Sparrow	Great Black-backed Gull	Mountain Plover	Tricolored Blackbird*
Mourning Warbler	Black-footed Albatross*	Greater Sage-Grouse	Murphy's Petrel*	Wandering Tattler
Olive-sided Flycatcher	Black-vented Shearwater*	Guadalupe Murrelet*	Parkinson's Petrel*	Whimbrel
Red-headed Woodpecker	Black Rail*	Harris's Sparrow	Pectoral Sandpiper	Whiskered Auklet*
Rock Sandpiper	Black Rosy-Finch*	Heermann's Gull*	Pinyon Jay	Yellow-billed Loon
Snowy Owl	Black Scoter	Henslow's Sparrow	Prairie Warbler	Yellow-billed Magpie
Surfbird	Bobolink	Hudsonian Godwit	Red-faced Cormorant	Yellow Rail*
Thick-billed Longspur	Bristle-thighed Curlew*	Ivory Gull*	Red-legged Kittiwake*	
Western Grebe	Brown-capped Rosy-Finch*	King Eider	Ruddy Turnstone	
Wilson's Plover				
Wood Thrush				

**These Tipping Point species are on a trajectory to lose another 50% of their remnant populations in the next 50 years if nothing changes.**



# Tipping Point Species

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Black-billed Cuckoo  
Black Skimmer  
Black Swift  
Canada Warbler  
Cerulean Warbler  
Clark's Grebe  
Eastern Whip-poor-will  
Grace's Warbler  
Long-billed Dowitcher  
Mourning Warbler  
Olive-sided Flycatcher  
Red-headed Woodpecker  
Rock Sandpiper  
Snowy Owl  
Surfbird  
Thick-billed Longspur  
Western Grebe  
Wilson's Plover  
Wood Thrush

Allen's Hummingbird  
American Golden-Plover  
Ashy Storm-Petrel\*  
Audubon's Shearwater\*  
Bachman's Sparrow  
Band-rumped Storm-Petrel\*  
Bendire's Thrasher  
Bicknell's Thrush\*  
Black-capped Petrel\*  
Black-chinned Sparrow  
Black-footed Albatross\*  
Black-vented Shearwater\*  
Black Rail\*  
Black Rosy-Finch\*  
Black Scoter  
Bobolink  
Bristle-thighed Curlew\*  
Brown-capped Rosy-Finch\*

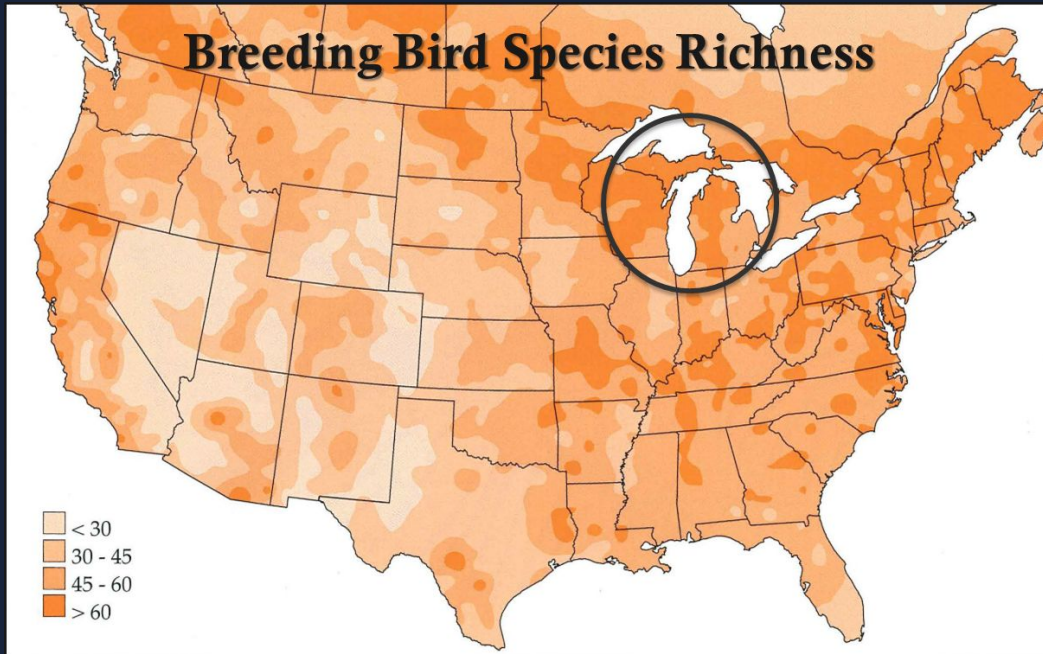
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Elegant Tern\*  
Evening Grosbeak  
Fea's Petrel\*  
Golden-winged Warbler  
Great Black-backed Gull  
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Guadalupe Murrelet\*  
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King Rail  
Kittlitz's Murrelet\*  
Laysan Albatross\*  
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Rufous Hummingbird  
Saltmarsh Sparrow\*  
Scripps's Murrelet\*  
Seaside Sparrow\*  
Semipalmated Sandpiper  
Short-billed Dowitcher  
Sprague's Pipit  
Stilt Sandpiper  
Townsend's Storm-Petrel\*  
Tricolored Blackbird\*  
Wandering Tattler  
Whimbrel  
Whiskered Auklet\*  
Yellow-billed Loon  
Yellow-billed Magpie  
Yellow Rail\*

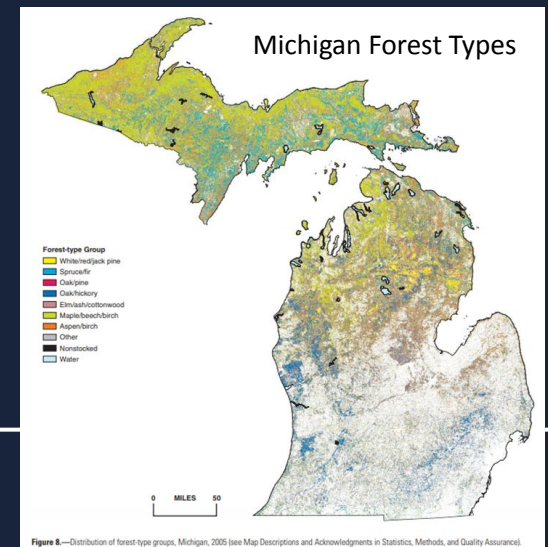
**These Tipping Point species are on a trajectory to lose another 50% of their remnant populations in the next 50 years if nothing changes.**

# MI Forests



- 450 bird species documented in Michigan
- 221 confirmed breeding species
- > 50% forested - over 20 mil ac
- 62% of Michigan's forests are privately owned

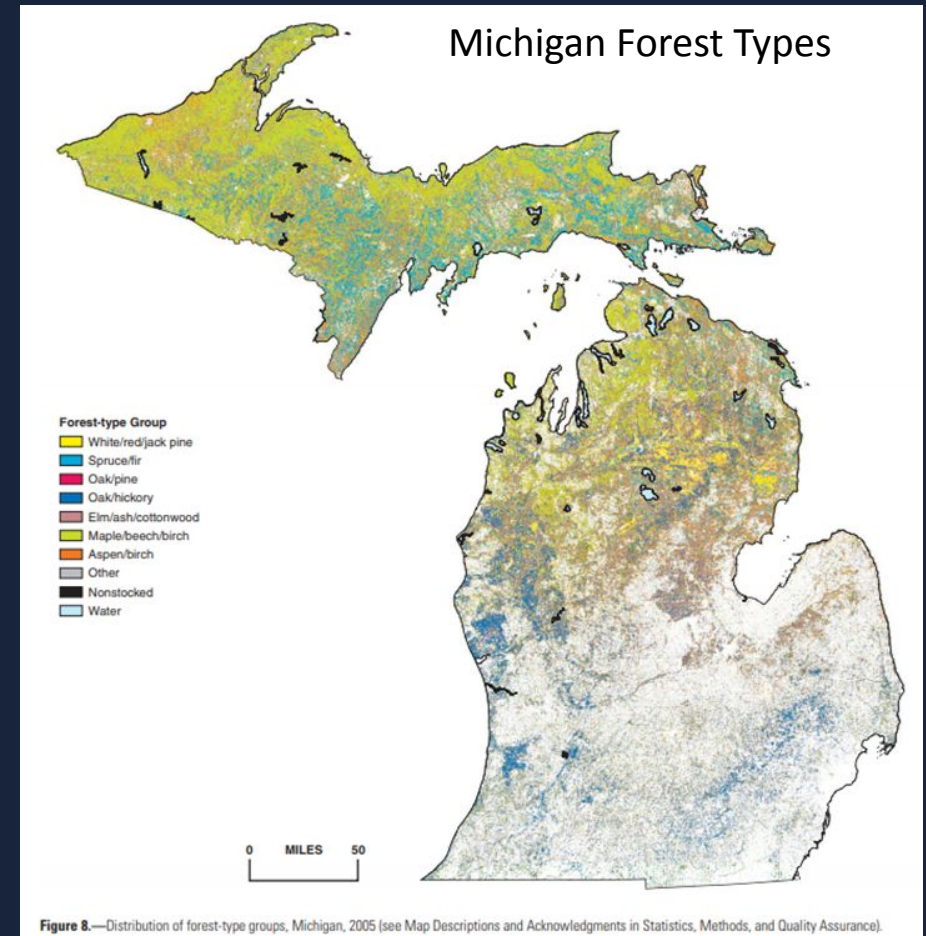
Forest management plays a critical role in helping birds maintain resilience to threats



# Threats to Michigan Birds

## Threats to MI birds

- Human population increase
  - Parcelization and fragmentation of forests
- Habitat loss and alteration
  - Lack of disturbances (fire, beavers), lack of cutting = fewer young forests
- Decreased plant diversity and structural complexity
  - Invasive species
- Climate change





# FMB Goals

1. Define conservation needs
2. Provide education & outreach on forestry “with birds in mind”
3. Improve and create habitat for priority bird & other wildlife species





# Strategy

## Phase 1: Forest Categories



What forest stand types are most managed?

## Phase 2: Silviculture Options



What silvicultural options are commonly implemented in these stands? What's economically viable?

## Phase 3: Priority Species



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



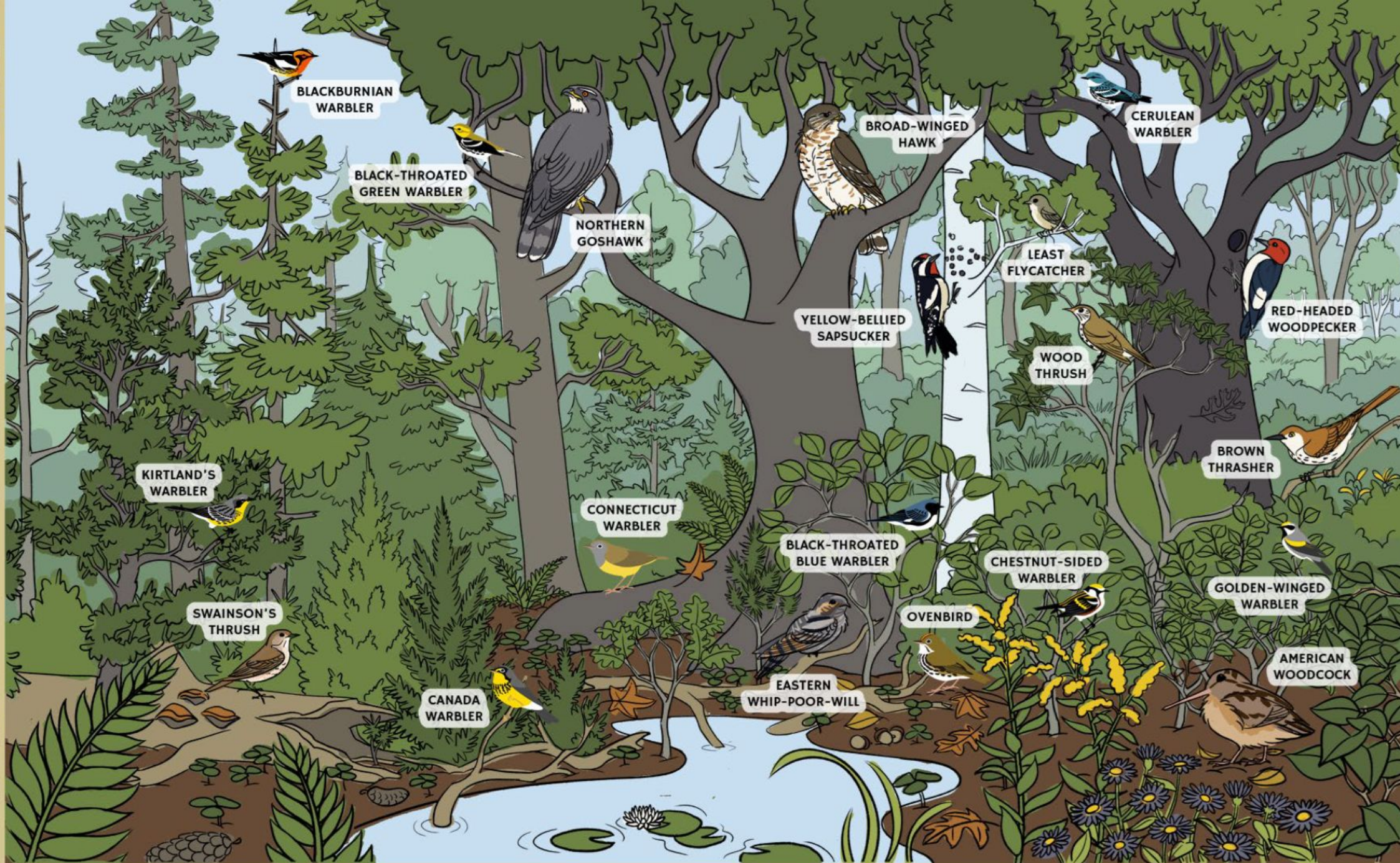
OVERSTORY



MIDSTORY



UNDERSTORY



CONIFERS



MIXED



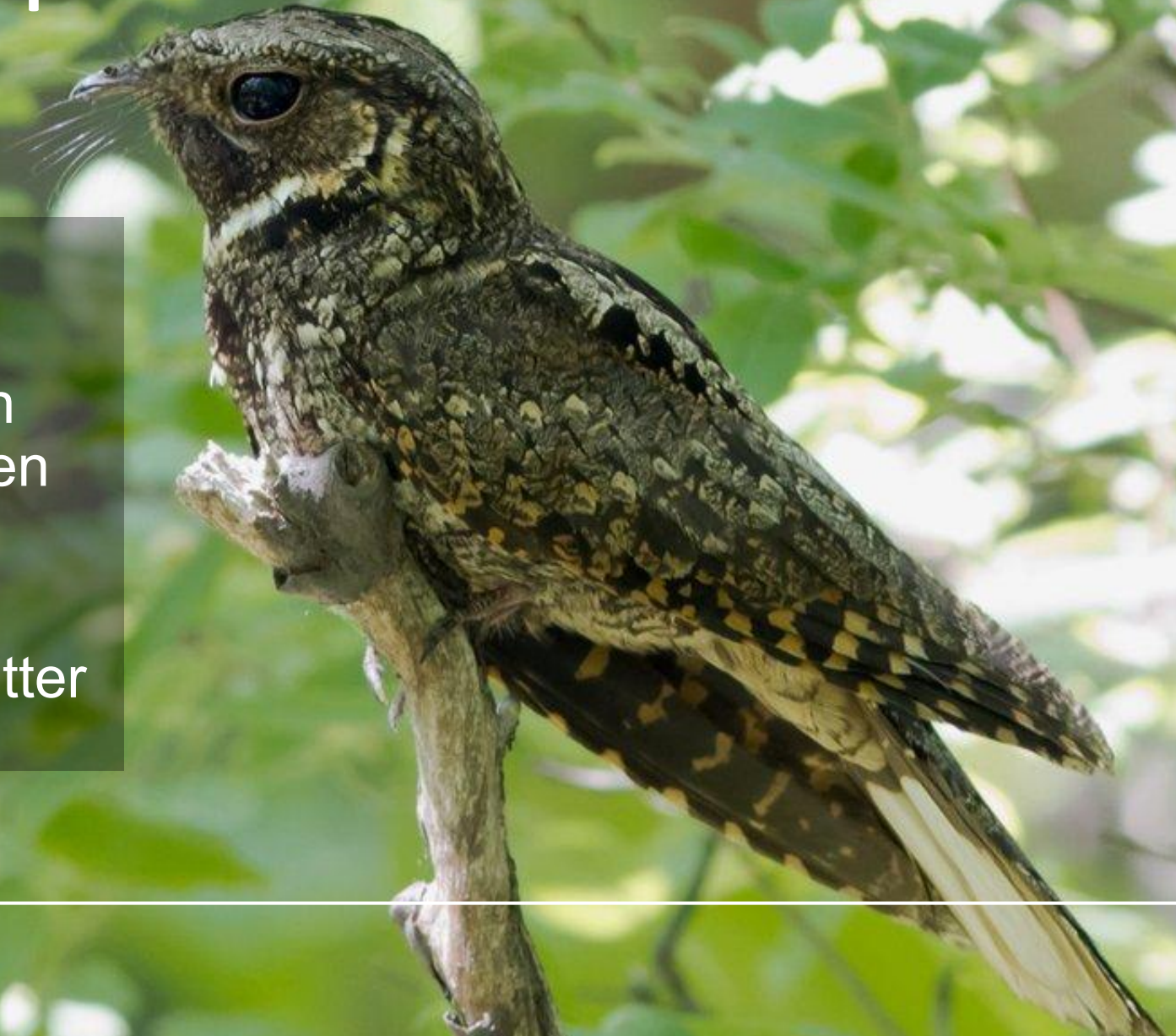
HARDWOODS



# Eastern Whip-poor-will



- Young to intermediate forests
- Dry open woodlands with little understory, near open areas.
- Eggs laid directly on the ground on soil with leaf litter near a clearing edge
- *whip-poor-will* chant







# Golden-winged Warbler



- Dense young deciduous forest adjacent to mature forest
- Aspen stands, tag alder
- Cup nest built on the ground at the base of a shrub
- *Bee-bz-bz-bz*



Female, Paul Rossi





Kevin Sheppard  
Rene Corado,  
Ray Hennessy





Amanda Guercio



# American Woodcock

- Young to intermediate forests
- Old fields, shrublands, wetlands
- Nasal *peent*

Image: Lev Frid  
Audio: Joseph Fell





# Wood Thrush

- Older forests, moist woods with structural diversity
- Understory of saplings and shrubs, unfragmented forest
- Nests 10-15 ft off the ground
- *Do-do-eee-oh-lay-\$%^&\*^^\$#!@*



Image: Luis Cesar Tejo  
Audio: Matt Wistrand



# Canada Warbler

- Intermediate forest, moderately closed canopy, dense mid- and under-story
- Moist riparian conditions
- Nests on ground or on root masses, mossy hummocks or down logs
- Clear loud song with a chip and warbly noises (I'm IN here but you CANT SEE ME)



Image: Ray Hennessy  
Audio: Christopher McPherson



# How do I help ALL the birds?!?!



Climate change response network

- Healthy = diverse forest landscapes
  - Vertical structural diversity
  - Species diversity
  - Large diameter trees
  - Softwood inclusion
  - Woody debris
- Food, cover, nesting area



# Vertical Structural Diversity



Not great



Better! (??)



# Species Diversity



Not great



Better!



Brent Barnes



# Other Things

- Food sources
- Dead retention
- Large trees



Ryan Dorgan



Paul Reeves



Steve Byland



Paul Sparks



# How to use the guide

- What forest type do you already have?
- What habitat features might be missing?
  - Openings, standing dead trees, young forest?
  - Use habitat worksheet to help!
- What silvicultural strategies are you willing to implement to improve habitat? Which species may benefit?

Forestry for Michigan Birds  
Michigan Habitat Assessment Scorecard

Date: 6/1/2022  
Plot ID: 1

North East South West  
Direction Facing (Circle One)

Gaps: 1 # at least 1,000 ft<sup>2</sup> 0 # > 1,000 ft<sup>2</sup>

Snags: 3 # 6-12 inch diameter 1 # > 12 inch diameter

Tree size/age: 30 % younger, smaller trees (<5 inch diameter) 50 % intermediate, pole sized trees (5-10 inch diameter) 20 % older, larger trees (>10 inch diameter)

Large woody debris (6" diameter, 4' long): Abundant Sparse

Small woody debris (<6" diameter): Abundant Sparse 2 # of Piles

Leaf litter depth: > 1.5 inches Suitable < 1.5 inches Unsuitable

Water: Present Absent Permanent water Present Absent Seasonal water

Cover	Common tree, shrub, and herbaceous species	% Cover
Overstory	sugar maple, American beech, yellow birch, black cherry, eastern hemlock	75%
Midstory	sugar maple, balsam fir, white pine	25%
Understory	sugar maple, American beech, eastern hemlock, balsam fir	25%
Herbaceous Vegetation	grasses and sedge, raspberries, large-leaf aster	25%

Forest Habitat Association (circle one): Hardwood Softwood Mixedwood Oak - Pine



# NRCS programs that can help



## Regional Conservation Partnership Program (RCPP)

- Golden-winged Warblers

## Environmental Quality Incentives Program (EQIP)

- General practices, shorter-term

## Conservation Stewardship Program (CSP)

- General practices, 5 year minimum



# Future of FMB?



- Birding workshops
- Permanent demonstration sites
- Expanding habitat for bird guides!





FotoRequest



Paul Rossi



Double Brow Imagery



Ogemaw County



Betty Rizzotti



Frode Jacobsen



Dan Behm



Agami Photo Agency



Tony Campbell



Jacob Spendelow



Ed Schneider



Ray Hennessy



Agami Photo Agency



C. Hamilton

Thank you!!!

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