

Between Water & Wing: Conserving Great Lakes Wetlands for Birds

**NENITA LAPITAN, SENIOR CONSERVATION
MANAGER-OHIO CENTERS**



 Audubon

Least Bittern. Photo by Hannah Meddaugh

What the World Needs Now



Mission

Audubon protects birds and the places they need, today and tomorrow.

Guiding Star

Bending the Bird Curve: halting, and ultimately reversing, the precipitous decline of birds across the Americas.

Purpose

When we create conditions for birds to thrive, we create conditions for people and the planet to thrive, too.

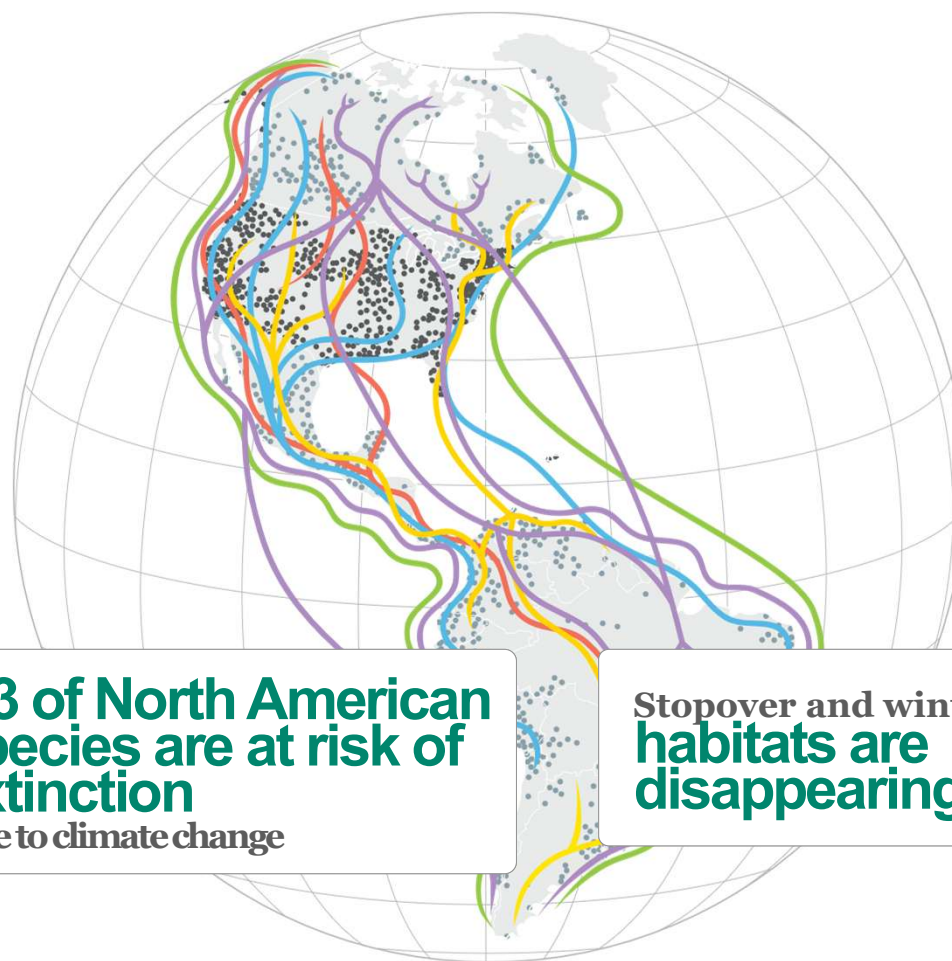
The Challenge

Half of the birds that breed in the U.S. and Canada spend more than 50% of their lives in Latin America and the Caribbean.

3 Billion birds lost
Since 1970

2/3 of North American species are at risk of extinction
Due to climate change

Stopover and winter habitats are disappearing



● U.S. Important Bird Areas (IBAs)
● International IBAs



Shorebirds



Land Birds



Seabirds



Raptors



Waterfowl

We Will Bend the Bird Curve



Cedar Forest. Photo: Justin Meissen/Flickr CC-BY-SA

A Hemispheric Approach

11
countries

800 staff

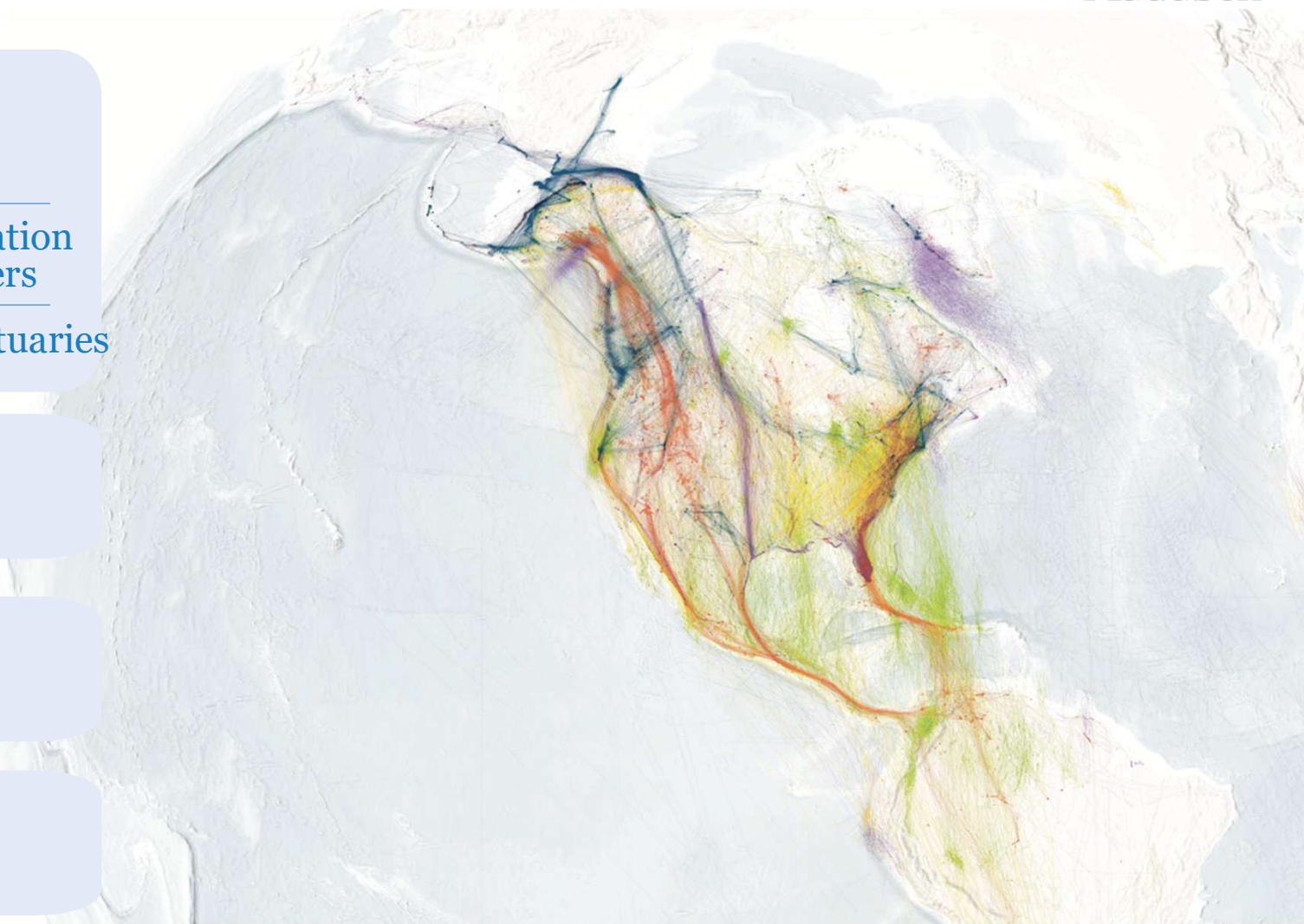
31 conservation
action centers

1,100 sanctuaries

415
community chapters

92
campus chapters

1.9M
supporters



Flight Plan Conservation Milestones

To move towards a future where birds are thriving, by 2028 Audubon will...



HABITAT CONSERVATION

Conserve 300 million acres of quality, connected, and climate-resilient bird habitat across the Americas flyway



CLIMATE ACTION

100 gigawatts of new renewable generation and transmission responsibly sited
30 billion tons of carbon sequestered in forests, wetlands, and grasslands



POLICY

Pass Healthy Birds, Healthy Planet Policy Agenda, securing government action and funding for birds and the planet

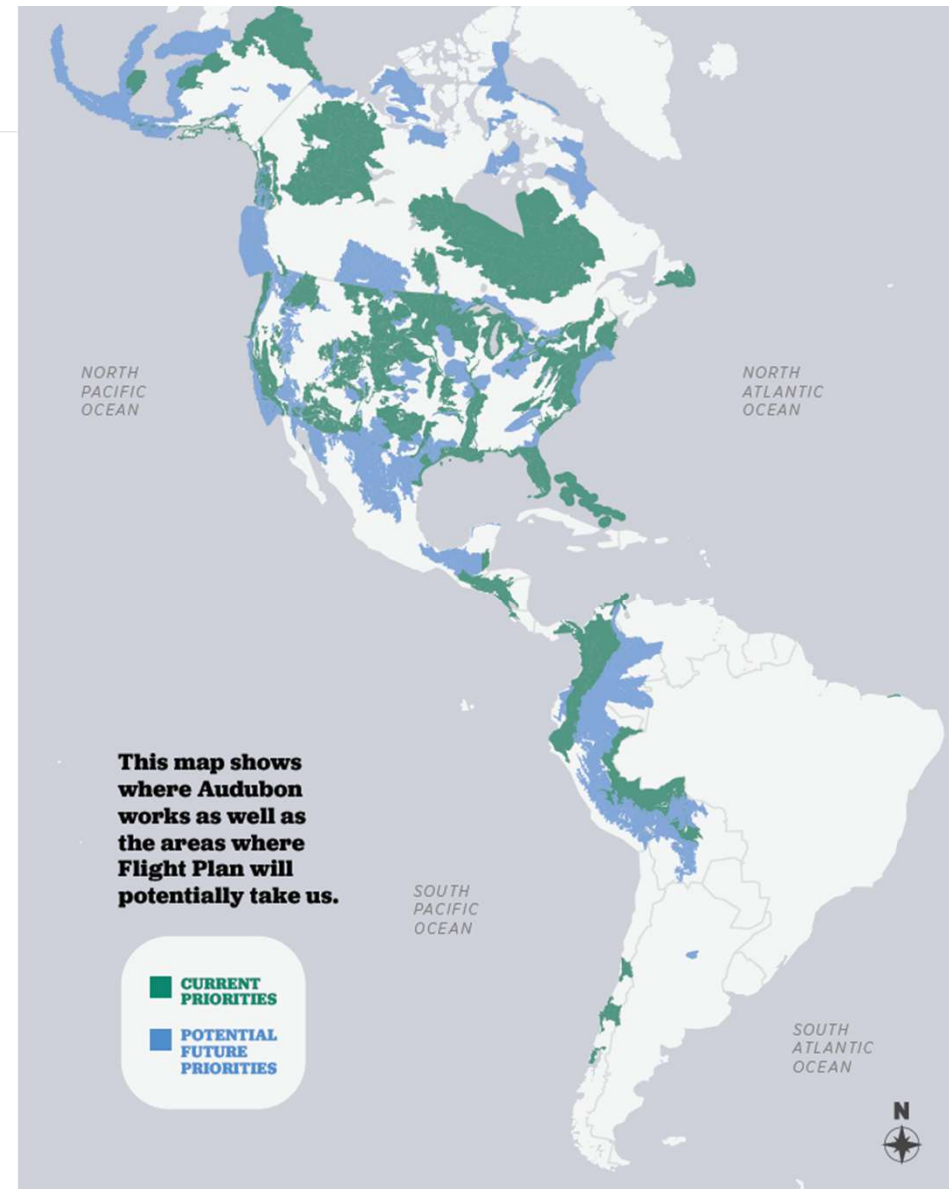


COMMUNITY BUILDING

Double Audubon membership
Influence high-level decision-makers
Inspire a broad, diverse movement of people to change the world for birds

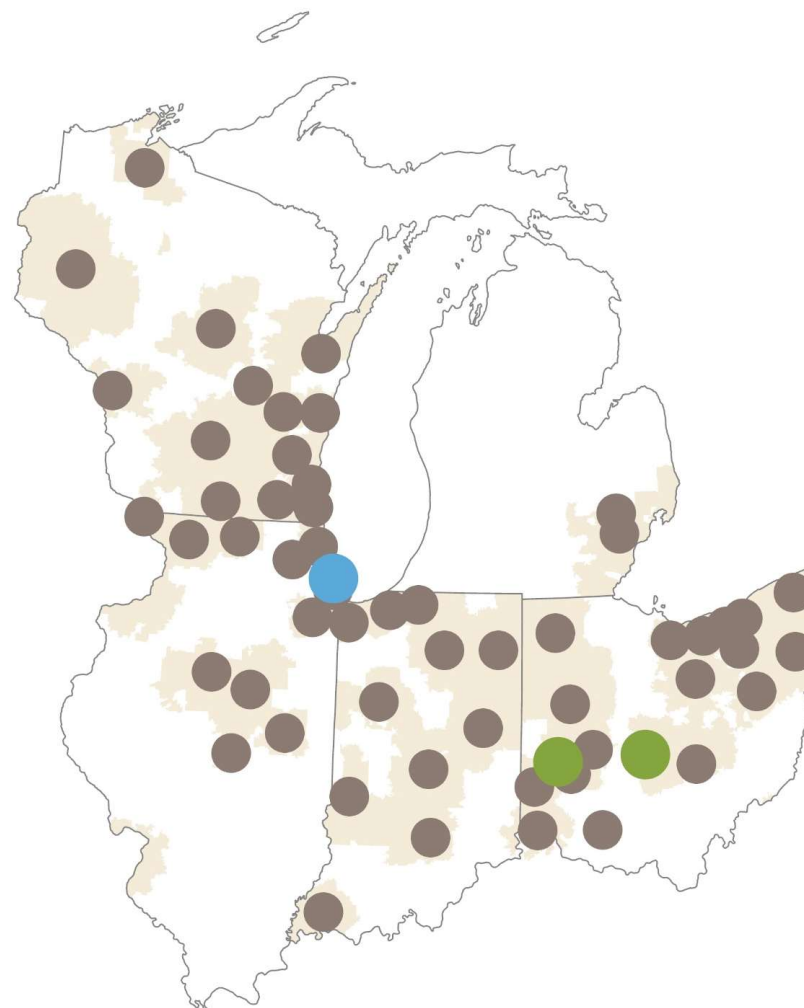
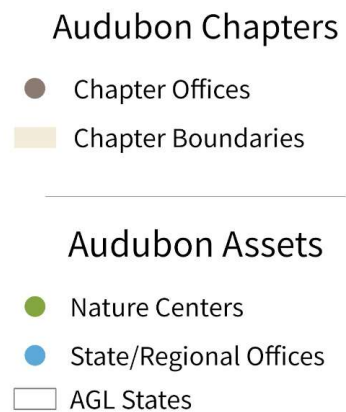
Hemispheric network of connected and climate-resilient bird habitat

- Full annual cycle priorities
- Climate change strongholds
- Endemic and range-restricted species priorities from 11 Audubon Americas countries
- Marine priorities



Great Lakes Region Network

- 50+ chapters
- Over 150,000 active members
- 2 nature centers in Ohio
- 1 regional office in Chicago





Audubon Great Lakes: Our Mission

Protecting critical habitat for birds and people via:

- Science-informed Conservation
- Community engagement
- Our chapter network
- Ohio Conservation Action Centers (Dayton & Columbus)
- Environmental advocacy

GOAL: Improve water quality and stabilize declining bird populations

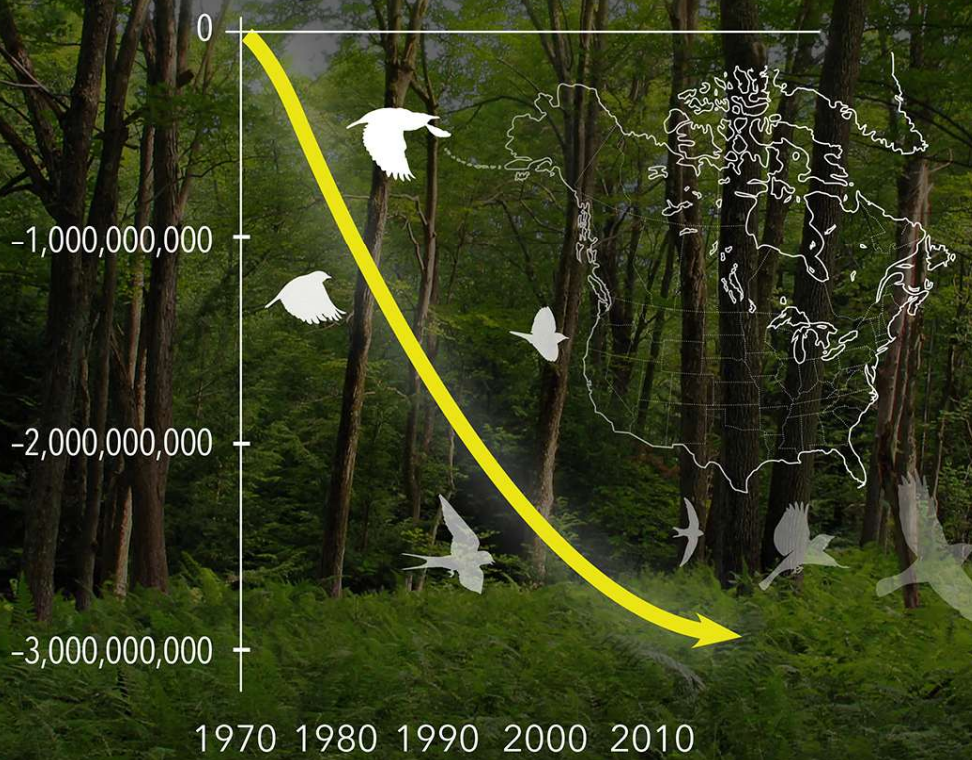
Restore nearly 300,000 acres of high priority wetlands



Bird Emergency
Its time to act.



2.9 billion birds gone since 1970



Courtesy of the Cornell Lab of Ornithology. Source: Science, 2019

Fore



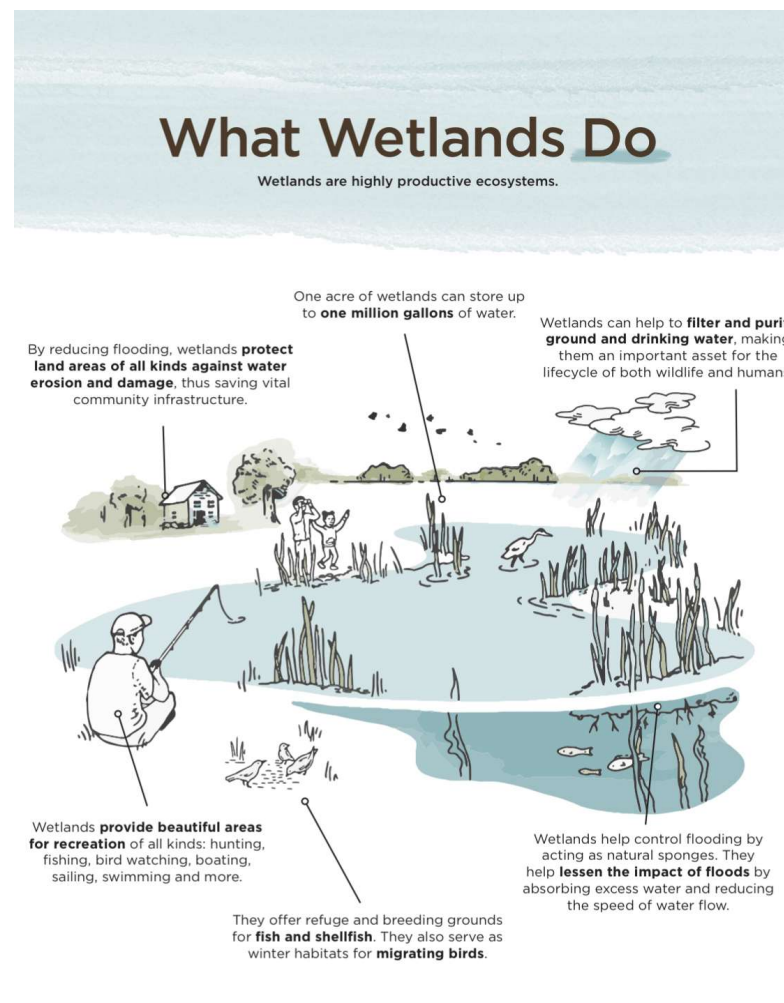
Great Gray Owl

SURVIVAL BY DEGREES:
**389 Bird Species
on the Brink**

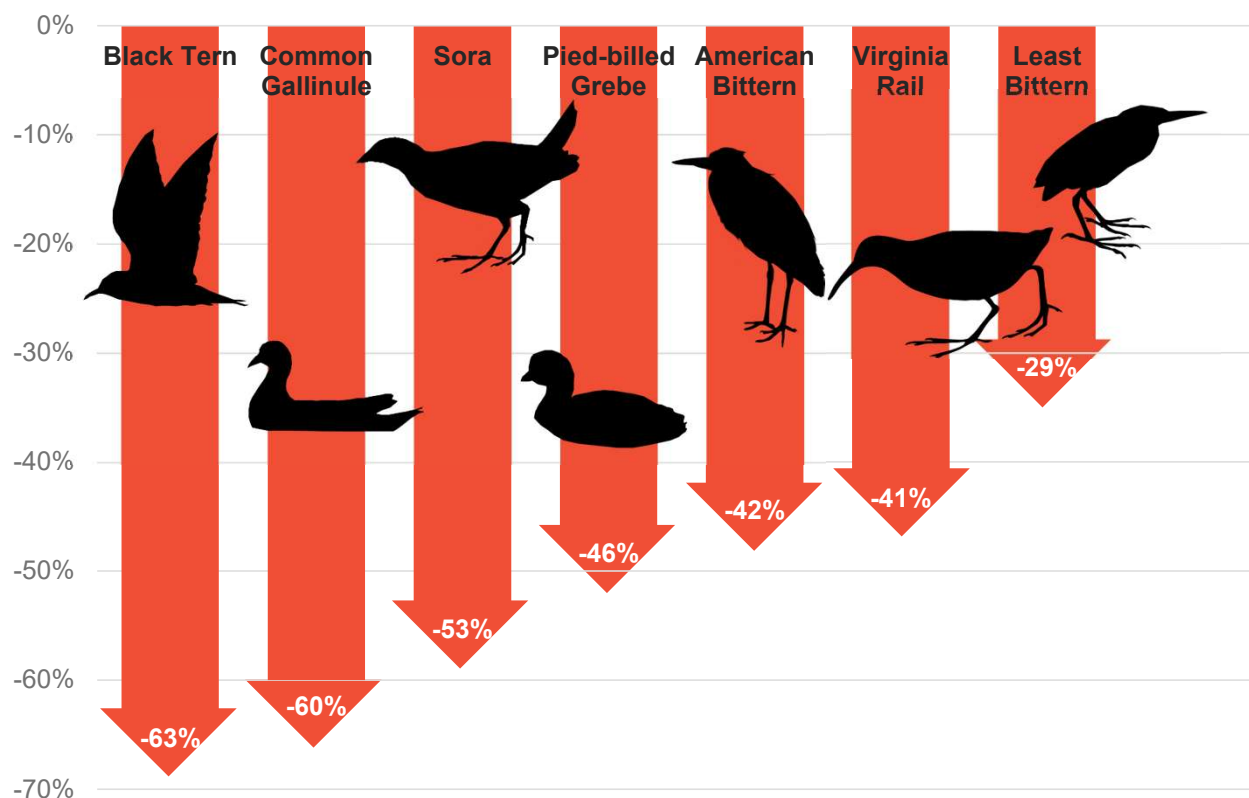
 Audubon

Wetlands

- Can hold approximately one million gallons of water per acre, reducing flooding.
- Provide habitat for the birds, fish and wildlife that depend on wetlands for their survival.
- Clean our water and store carbon from being released into the atmosphere



20-year Population Declines in Great Lakes Marsh Birds



Source: *Birds Canada Marsh Monitoring Program Trend Data: Southern Great Lakes, 1995-2015*

Why have marsh birds declined in the Great Lakes?

- Loss of habitat
- Loss of wetland quality due to:
 - Invasive species
 - Contaminants
 - Changes to how water bodies are connected
 - Exacerbation of issues related to climate change

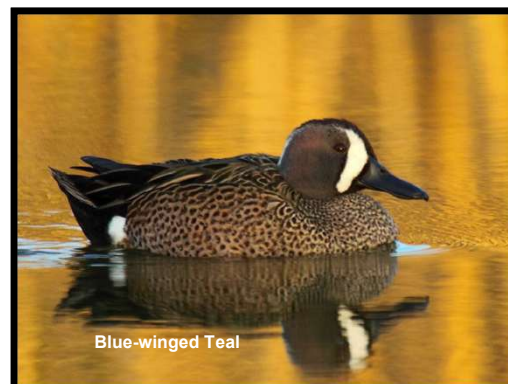
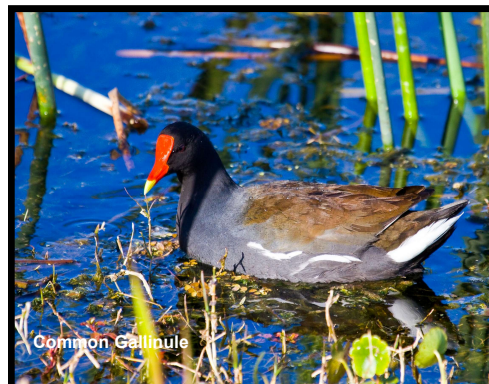
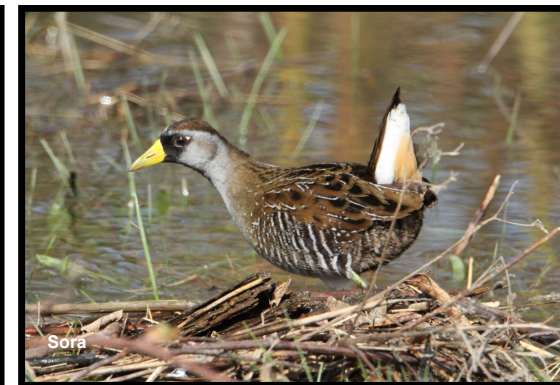
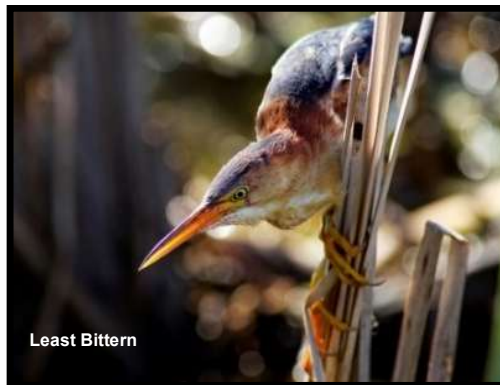


Why marsh birds make good environmental indicators

- Sensitive to habitat conditions (e.g., water level, vegetation density)
- Different species reflect variety of sub-habitats within the wetland
- Are relatively easy to detect



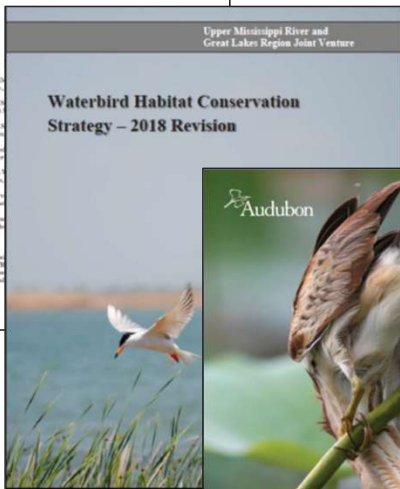
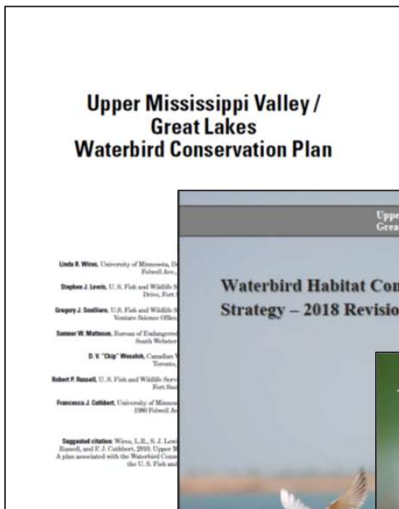
Protecting Key Marsh Bird Species



What we are doing: Improving wetland health through invasive plant control, native planting, and water level management.



Greater focus on marsh birds as conservation targets



Increased Concern about Marshbirds

Species	JV Focal Species ¹	Waterbird Plan Priority ²	State T & E						WAP SGCN ³					
			IL	IN	MI	MN	OH	WI	IL	IN	MI	MN	OH	WI
Pied-billed Grebe		High							X				X	
American Bittern	X	High	E	E	SC		E		X	X	X	X	X	X
Least Bittern		High	T	E	T		T		X	X	X	X	X	X
Yellow Rail	X	High			T			T	X		X	X		X
King Rail	X	Highest	E	E	E	E	E		X	X	X	X	X	X
Virginia Rail*		Moderate		E			SC			X		X	X	
Sora*	X	High					SC						X	
Common Gallinule*		Moderate	E	E	T	SC			X	X	X	X	X	
American Coot*		Low											X	
Wilson's Snipe*	X								X		X			

¹Upper Mississippi / Great Lakes Joint Venture, Waterbird Habitat Conservation Strategy

²Upper Mississippi Valley / Great Lakes Waterbird Conservation Plan

³Species of greatest conservation need (SGCN) in individual state 2015 Wildlife Action Plans.

*Hunted species in the Midwest.

Bold = R2R Species on the Brink

Marshbirds & Wetlands in Decline

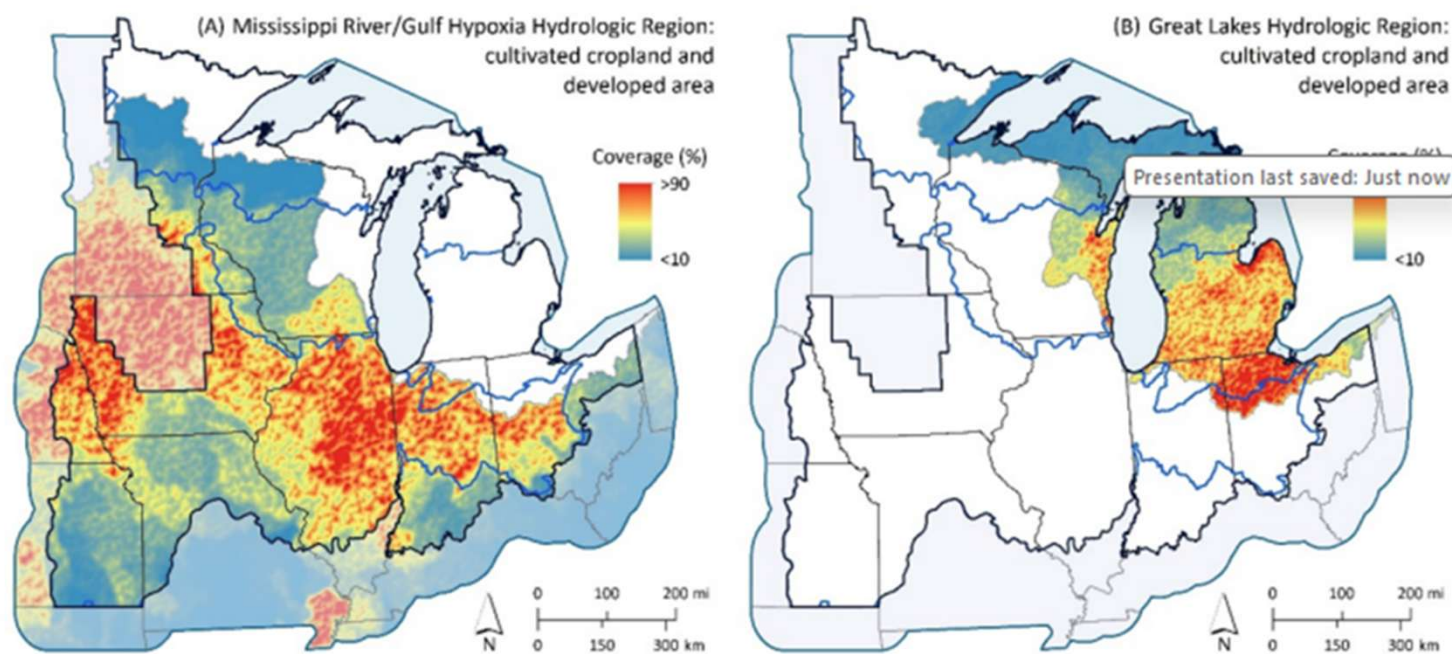
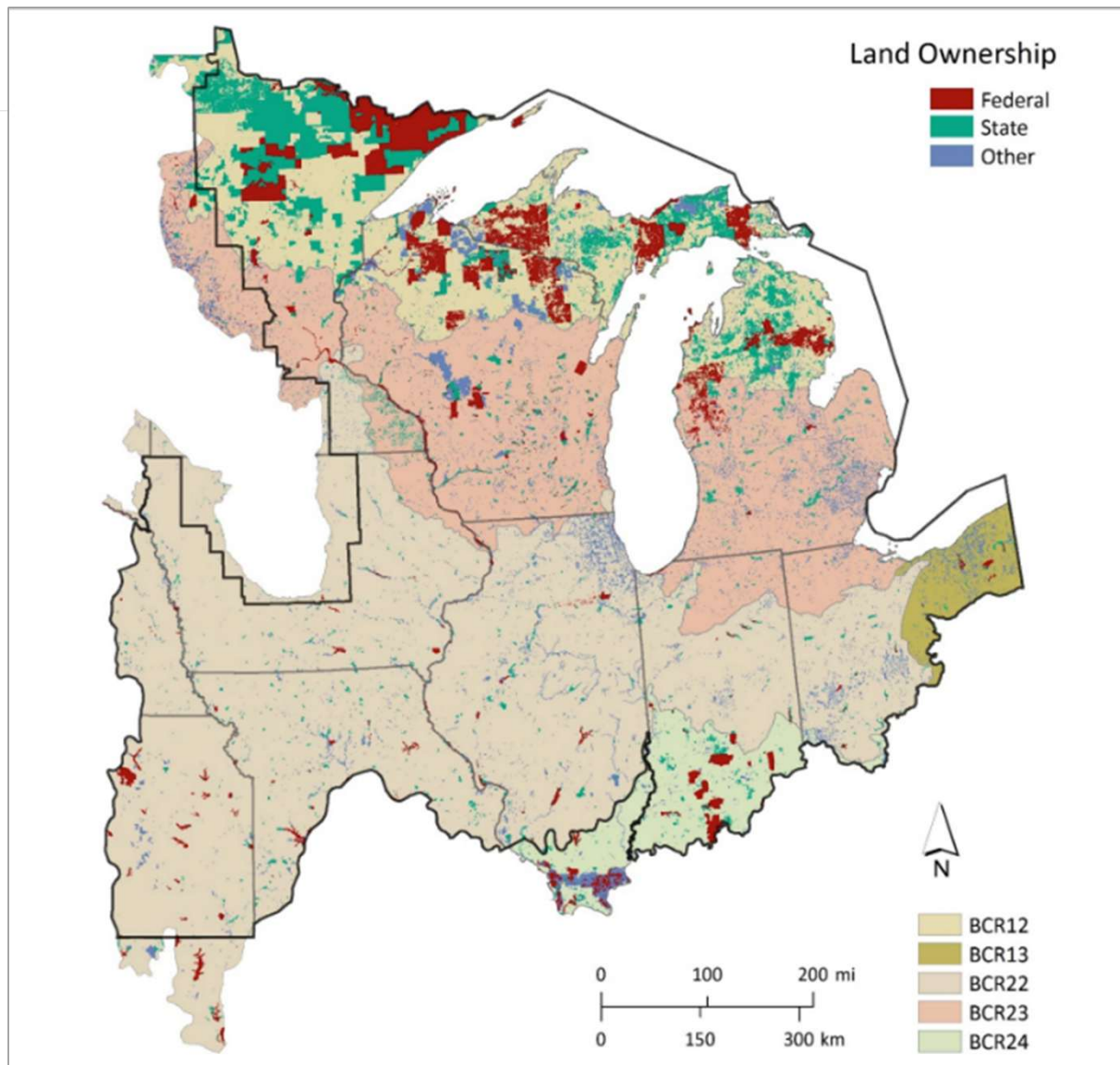


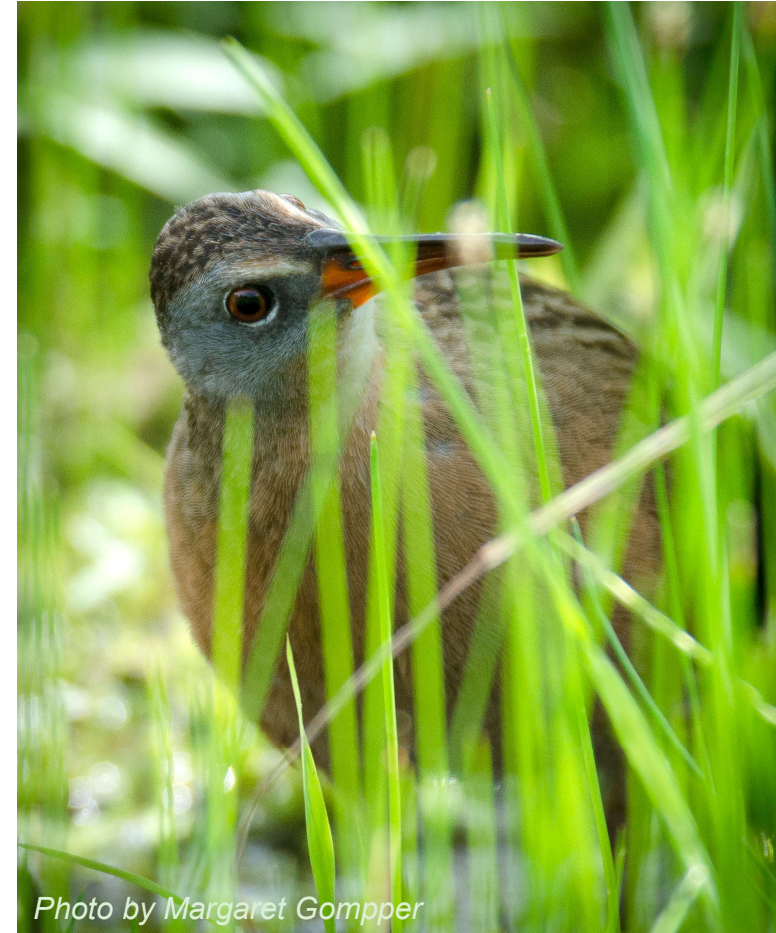
Figure 12. Sub-basins ranked by greatest coverage of cultivated cropland and development, contributing to Gulf hypoxia (A) and impairments to coastal areas of the Great Lakes (B).



Despite the interest, conservation efforts remain limited

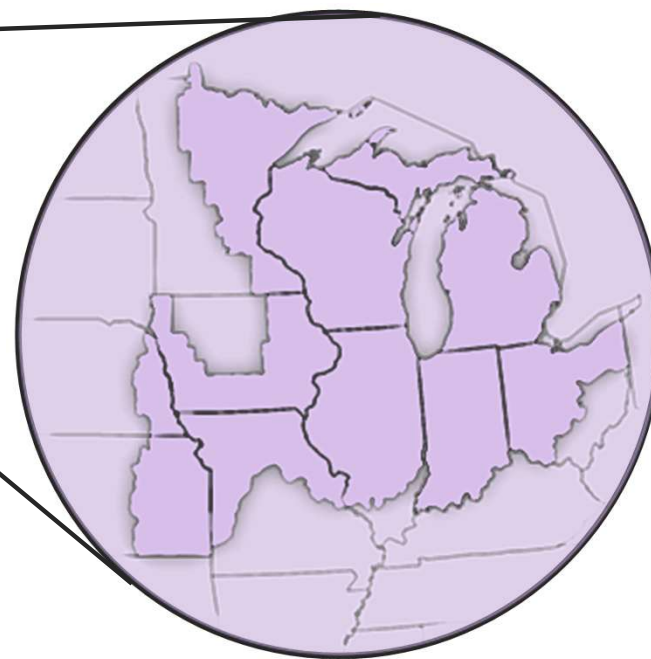
How do we use what we have learned to encourage increased conservation for these species?

- Increase implementation through strategic collective efforts.
- Build a platform for increased communication and collaboration.
- Identify priority delivery needs and opportunities.
- Increase resources (\$\$) dedicated to conservation priorities.
- Develop a defensible plan that provides a unified voice to funders.



Migratory Bird Joint Ventures

“Migratory Bird Joint Ventures are cooperative, regional partnerships that work to conserve habitat for the benefit of birds, other wildlife, and people.”



Upper Mississippi / Great Lakes Joint Venture

A Need for Collective Impact and Dedicated Staff

Nate Michaels
Marshbird Conservation
Manager

- Joint Appointed Role:
Audubon Great Lakes
/ UMGLJV
- Coordinate and
leading the Midwest
Marsh Bird Technical
Team and Working
Group



A Framework for Conserving Marsh Birds in the Midwest and Great Lakes Regions



Prepared By:

Upper Mississippi / Great Lakes Joint Venture
Marsh Bird Technical Team

July 15, 2024



UPPER MISSISSIPPI / GREAT LAKES
JOINT VENTURE



Winous Point
Marsh Conservancy



UPPER MISSISSIPPI / GREAT LAKES
JOINT VENTURE

Michigan Natural
Features Inventory
Discover. Define. Deliver.



Audubon



DUCKS
UNLIMITED

GREAT LAKES



Marshbird Framework – Identified Goals

Goal 1: Synthesize existing knowledge about marsh birds to identify conservation needs, management recommendations, and knowledge gaps.

Goal 2: Provide spatially explicit resources that facilitate conservation action.

Goal 3: Implement research and monitoring to fill information gaps.

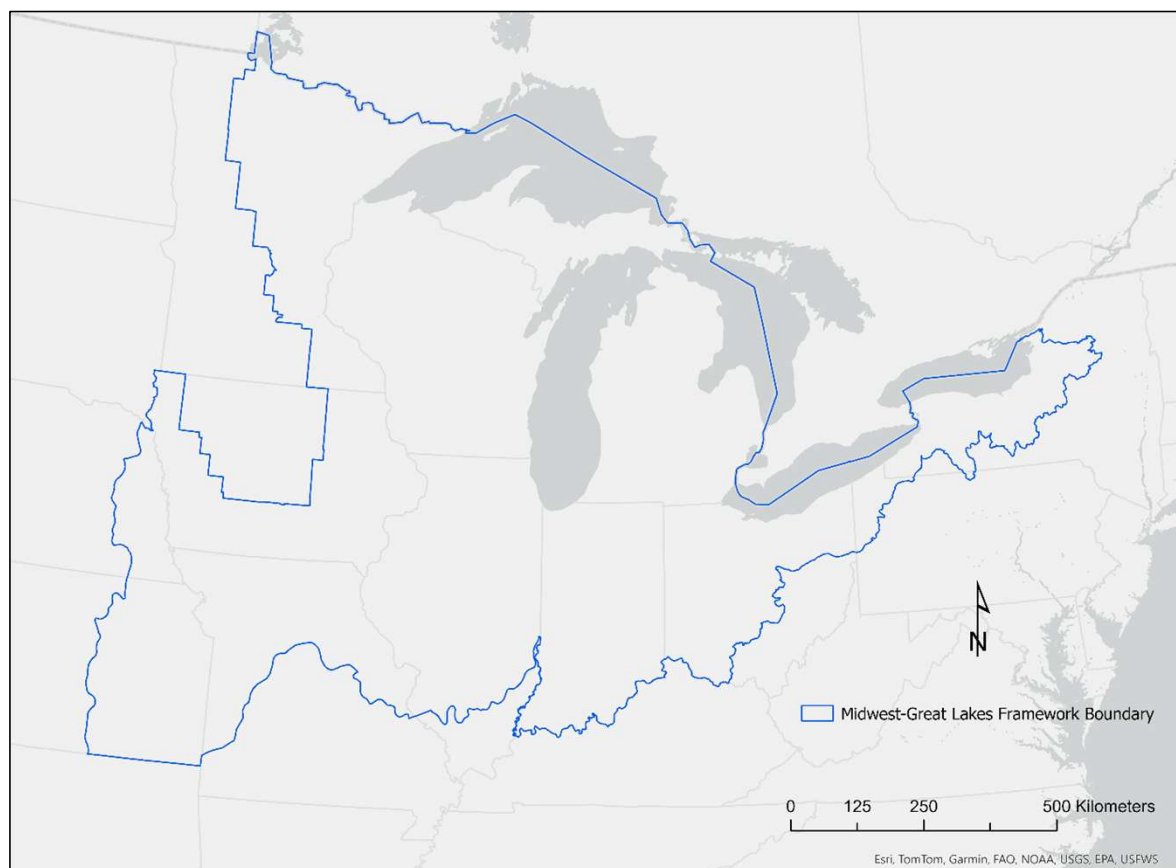
Goal 4: Build broader engagement with stakeholders influencing marsh bird conservation.



Framework components: *target species and focus area*

Target species:

- Pied-billed grebe
- American bittern
- Least bittern
- Yellow rail
- King rail
- Virginia rail
- Sora
- Common gallinule
- American coot



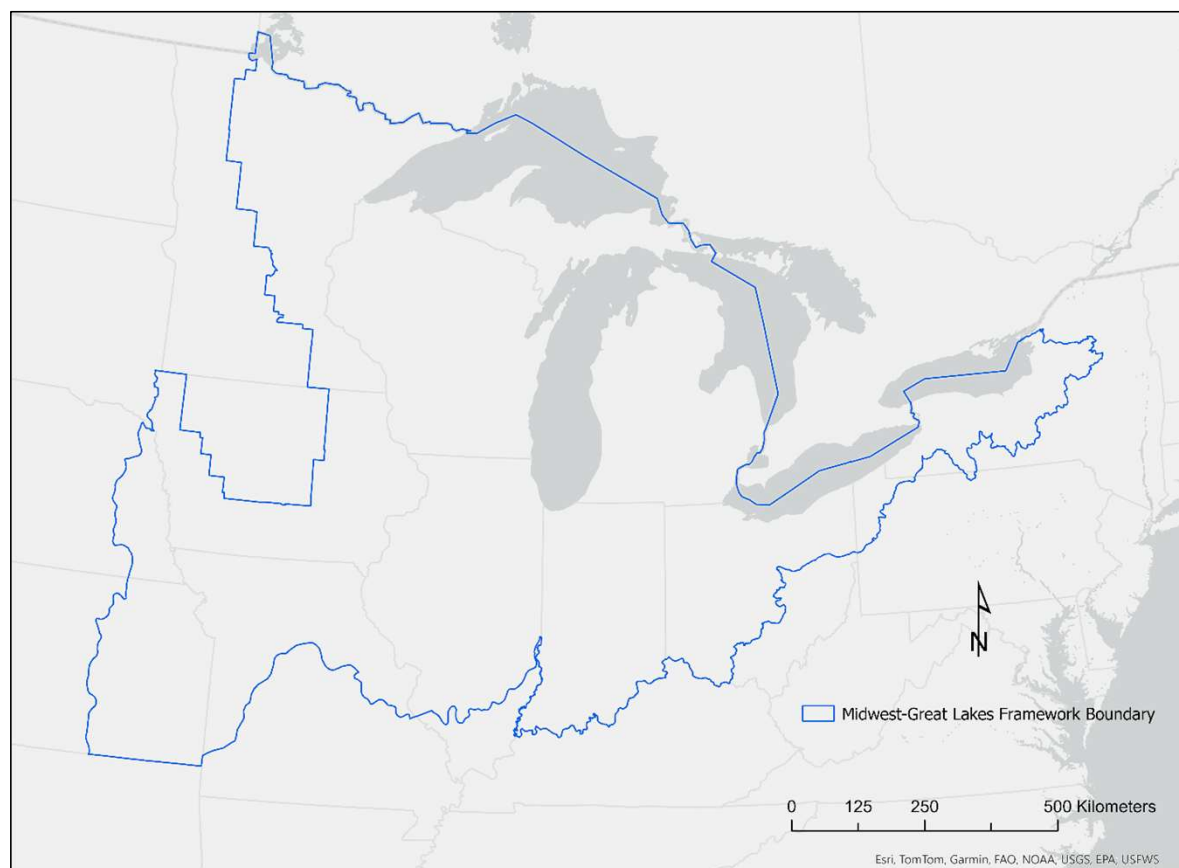
Focus Groups: Priority Areas

Primary States

- Illinois
- Indiana
- Michigan
- Ohio
- Minnesota
- Wisconsin

Secondary States

- Iowa
- Missouri
- Kansas
- Nebraska
- Pennsylvania
- New York



Goal 1: Synthesize existing knowledge about marsh birds to identify conservation needs, management recommendations, and knowledge gaps.

Goal 1 Implementation

Literature Synthesis

Led by Dr. Kristen Malone and her master's student, AJ Lashaway (SUNY Brockport).

Review and synthesize existing knowledge about marsh birds to identify conservation needs, management recommendations, and knowledge gaps

Progress:

- Data extraction has been completed (200+ sources!)
- Gap analysis and synthesis of habitat associations, threats, and conservation recommendations currently underway.

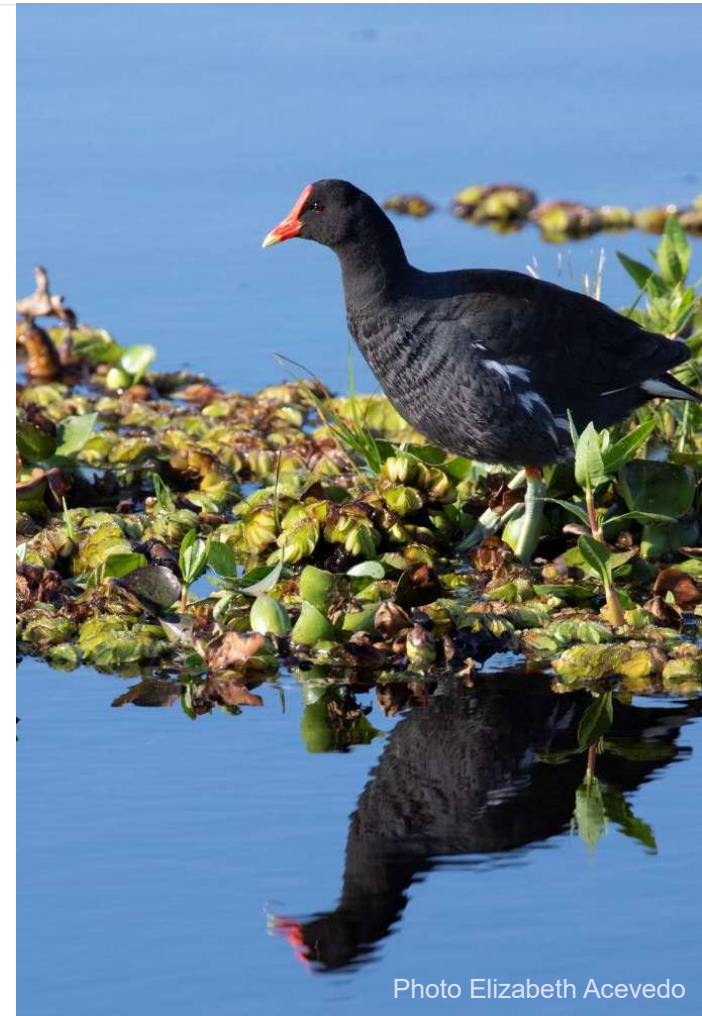


Photo Elizabeth Acevedo

Goal 2: Provide spatially explicit resources that facilitate conservation action.



Photo by Robert Gundy

Goal 2 Implementation

- An inventory of tools available to land managers related to wetland and marsh bird conservation is in progress
- Conduct focus groups to identify the barriers and potential solutions for increased implementation of marshbird conservation
- 4 Focus groups: 7-8 people each
- Focus on state agency Policy/decision makers who can influence direction of management but are still connected to managers and their needs

Goal 3: Implement research and monitoring to fill information gaps.



Photo by Claudio Contreras-Koob

Goal 3 Implementation

Tracking Projects

King Rail Satellite Transmitter
Collaboration:

- Multi-state effort to capture and tag King Rails
- Habitat Associations & Migration Phenology

Motus Tagging

- Funding from ILDNR to purchase Motus tags and to organize a training in IL
 - Deploy 25 tags across 2 years
- First step in implementing a JV region wide deployment of Motus tags on secretive marshbirds

Goal 3: Implement research and monitoring to fill information gaps.



Photo by Claudio Contreras-Koob

Goal 3 Implementation

IR Drone Surveys

Iowa State Collaboration (Adam Janke & Jayden Jech), waterbird surveys on CREP Wetlands

Monitoring

- Statewide survey of Marshbirds in Minnesota in planning (Audubon Upper Mississippi River)
- Ohio Monitoring
 - Assessment of H2Ohio water quality restoration on waterbirds (OSU, Winous Point, OH DNR Division of Wildlife)
 - ARU surveys (Wright State, Winous Point, AGL)

Goal 4: Build broader engagement with stakeholders influencing marsh bird conservation.

Goal 4 Implementation

Strategic Communication Plan

Internal Communications

- Identification of Audiences/Partners
- Schedule of interactions

External Communications

- Web content
- Project Announcements
- Uplifting partner projects and accomplishments

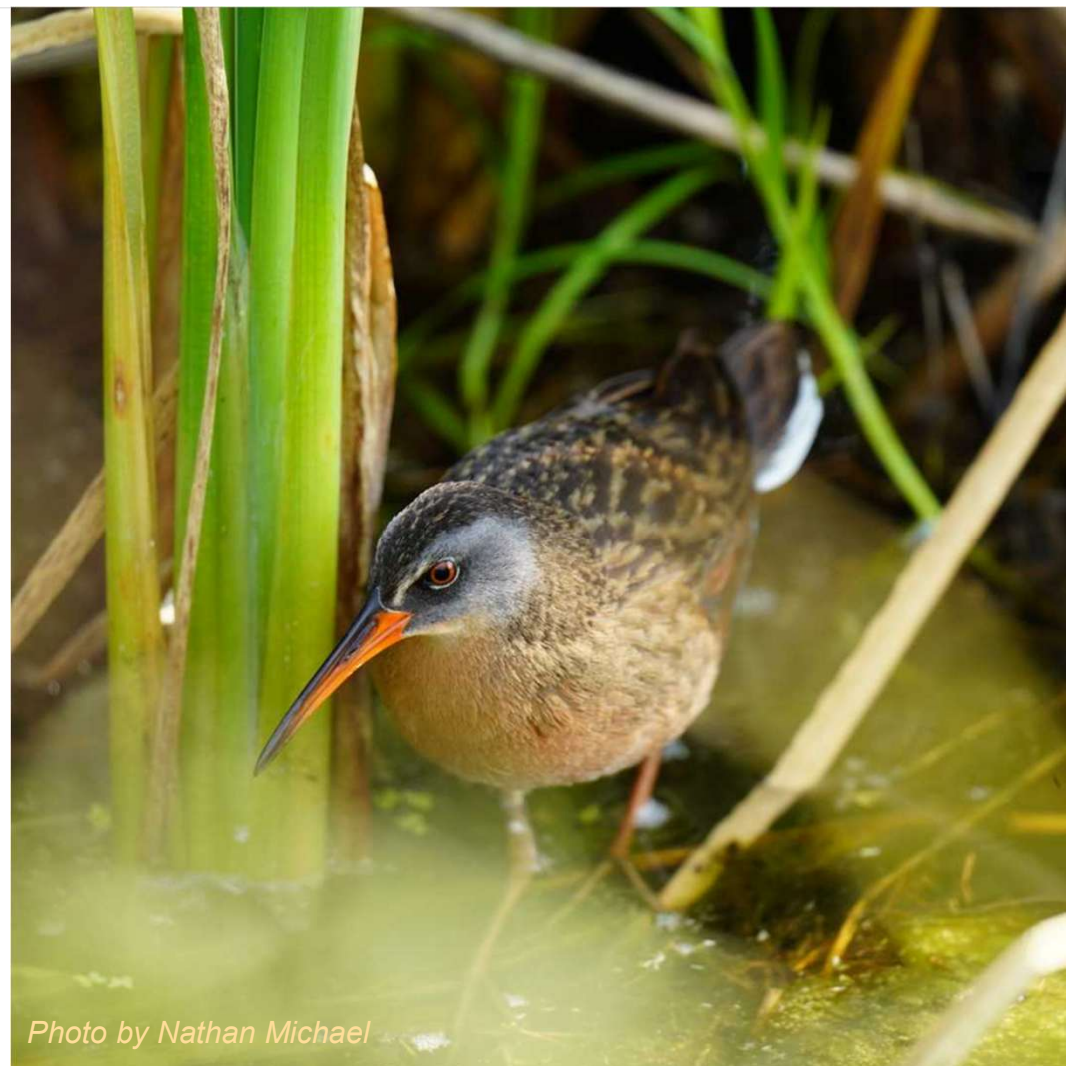


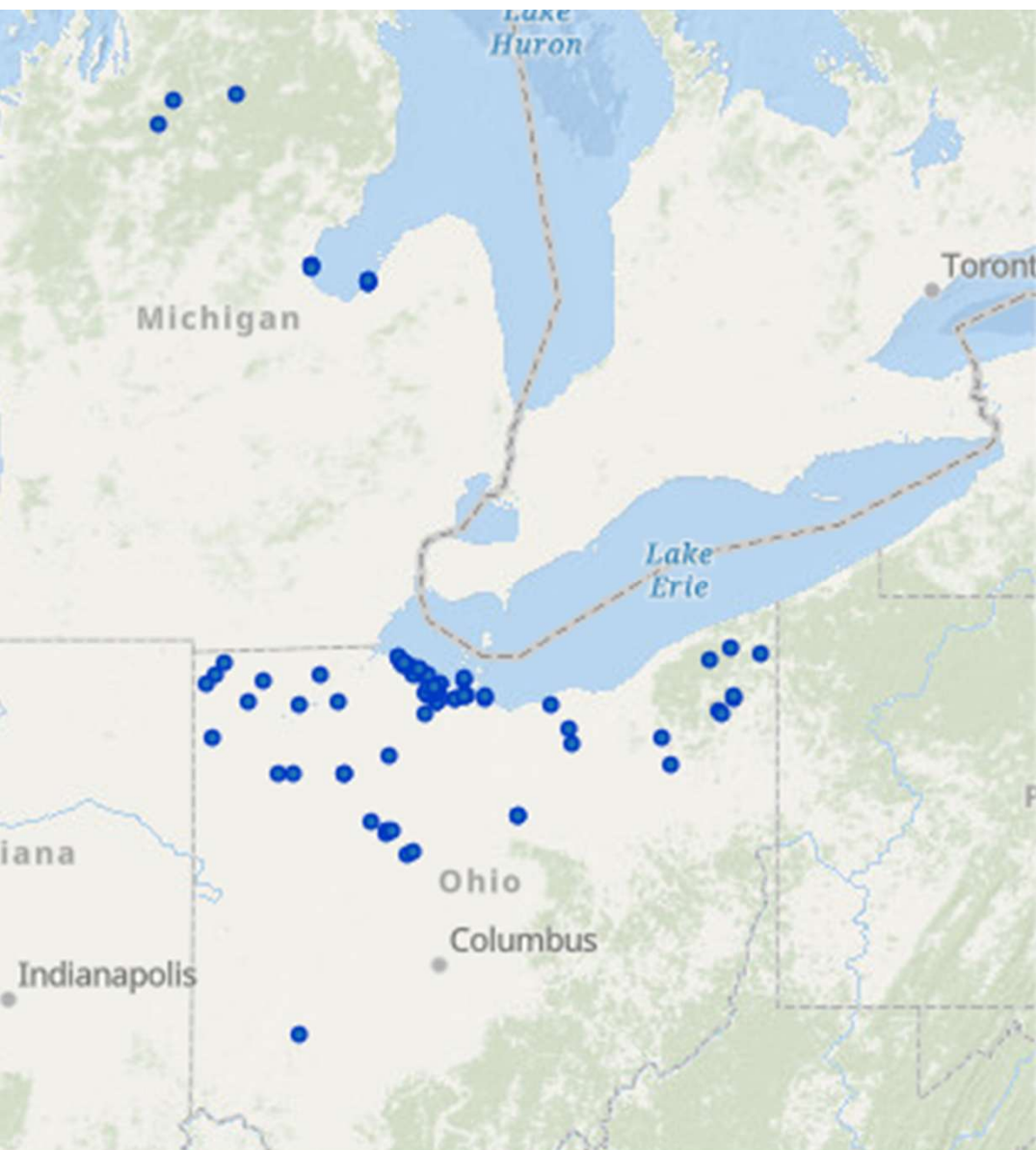
Photo by Nathan Michael

JV Marshbird Next Steps

Upcoming projects and objectives

- Reassessment of regional monitoring needs
- Prioritization of Research and Management/Restoration needs
- Development of Best Conservation Practices
- Managing growth of the partnership
 - Restructuring and recruitment





H2Ohio Wetland Monitoring Project

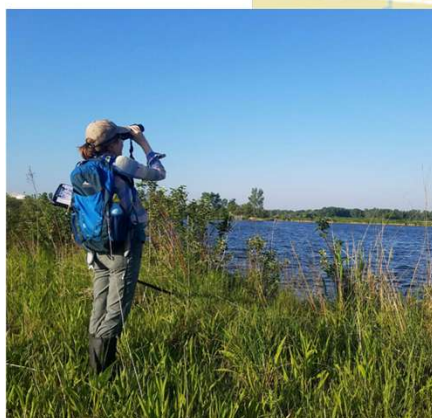
Partnership With Audubon, OSU, ODNR, Wright State & Winous Point

- Total of 95 ARUs deployed across Ohio (79) and Michigan (16)
- All sites have human-conducted marsh bird surveys occurring collaboratively
- 50 core sites on H2Ohio restorations



Monitoring Secretive Marsh Birds in Illinois & Indiana

- Audubon Great Lakes initiated the Calumet Marsh Bird Monitoring Program in 2015
- Conservation partnership with 15 land managers, stakeholders and non-profits in IN & IL
- >30 wetland sites
- >30 community science bird monitors engaged
- Monitoring is critical to conservation efforts



Conservation Work in Action through Community Building

Wetland restoration along the West
Branch of the Little Calumet River near
Gary, Indiana

- Bird hikes with state and federal legislators





Stewardship

- Connecting the local community to the sites we conserve and monitor
- Focus on stewardship work; i.e. plug planting, seed collecting, invasive brush clearing, clean-ups
- Collaborative partnerships with land owners

Audubon's Habitat Restoration Internship

- Annual program for 6-8 individuals interested in pursuing a career in habitat restoration
- Focus on hiring a diverse crew local to region
- Extensive training and certification schedule
- Work completed at IL Calumet sites including Big Marsh Park and Powderhorn Marsh!





What can we do to help wetland birds?

- Advocate for birds
- Support local natural areas
- Participate in community science
- Support issues that protect wetlands!

Takeaways

- Birds tell us how to manage wetlands for many species, not just birds
- Wetland birds can respond quickly to management and can thrive even in urban wetlands
- Protecting and conserving Great Lakes wetlands is critical for wildlife and people





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American Bittern. Photo by Nathan Michael

Become a Great Lakes Bird Advocate

