



# Hemispheric forest conservation for impact

CHAD WILSEY, PHD

VP & CHIEF SCIENTIST



*Cerulean Warbler | Matthew Malwitz*

# About Audubon

**1.9M**

members and  
supporters

**800+**

staff

**415**

community  
chapters

**11**

**countries**

where  
Audubon  
works

**15** state and  
regional U.S. offices

**31** conservation  
action centers

**29** sanctuaries





*Hermit Thrush | Ann Kramer*

**Migratory birds**  
**connect us**  
to faraway places  
across the world

**Migration Pathways**

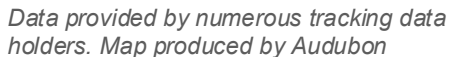
-  Landbirds
-  Raptors
-  Shorebirds
-  Waterbirds
-  Waterfowl

# An unprecedented partnership

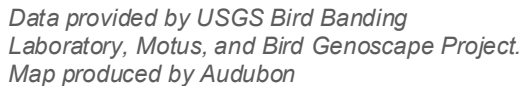




9,300 individuals of  
184 species



4.2 million connections  
386 species



443 species



## Bird Migration Explorer


(English) [birdmigrationexplorer.org](https://birdmigrationexplorer.org)

## ExplorAves

(Spanish) [exploraves.org](https://exploraves.org)

The **Bird Migration Explorer** is your guide to the heroic annual journeys made by over 450 bird species, and the challenges they face along the way.

Learn more about a species, the migratory birds at a specific location, or a conservation challenge birds face.







 Bird Species Locations Conservation Challenges

### Map Layers

#### Migration Journeys

Explore the travels of thousands of individual migratory birds, aggregated here for the first time.

#### Migration Pathways

-  Landbirds ☒
-  Raptors ☒
-  Shorebirds ☒
-  Waterbirds ☒
-  Waterfowl ☒
-  Journey of a Tracked Bird ☐

[Show Descriptions](#)



# Bird Migration Explorer Demo

*Eastern Bluebird | Paul Lesko*



[Explore Locations →](#)

# Minneapolis, MN, USA




[Data for tagged birds of 117 species](#)


**117** Tagged Bird Species



## American Bittern

*Botaurus lentiginosus*



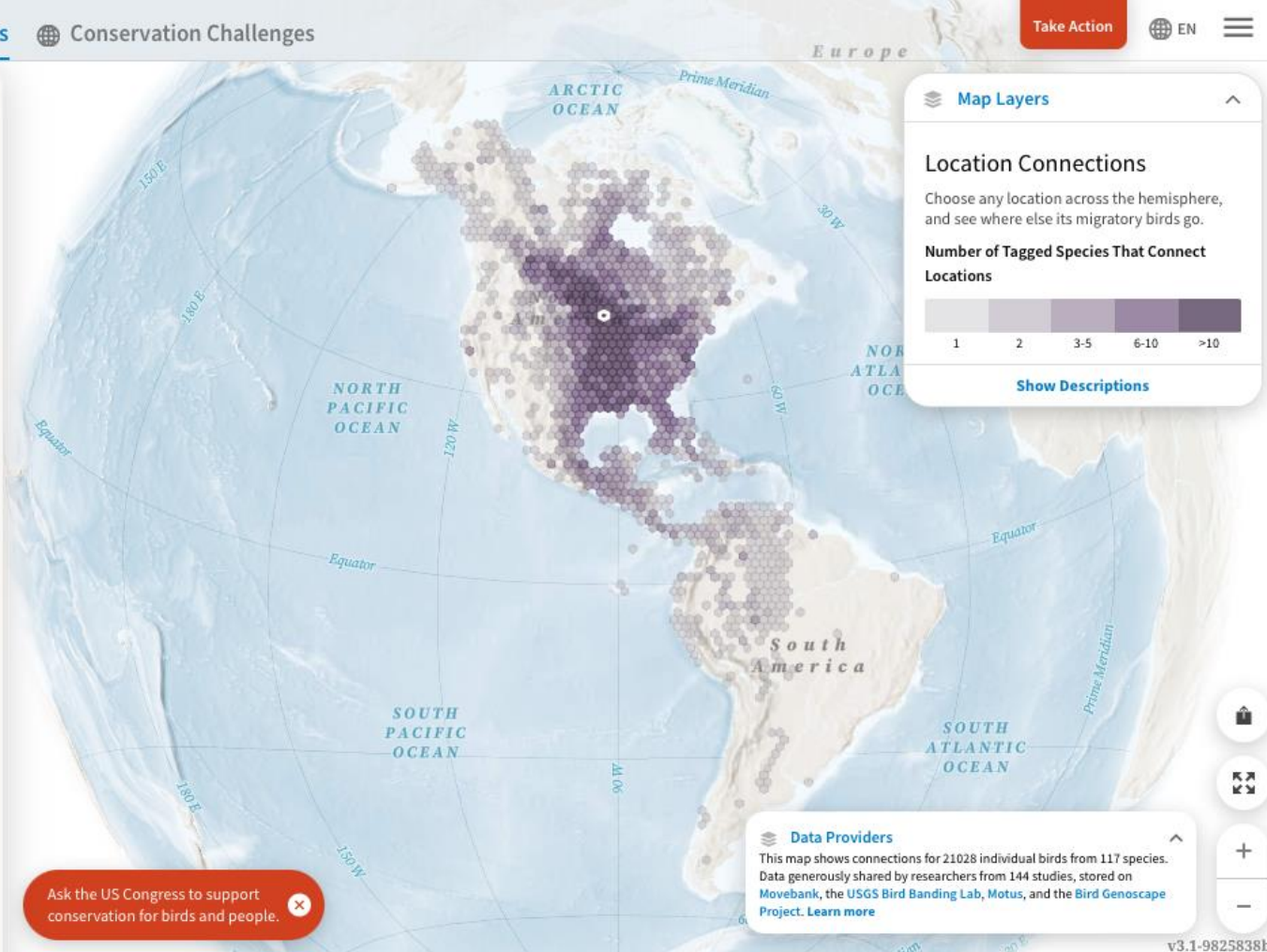
## American Black Duck

*Anas rubripes*



## American Coot

*Fulica americana*


[Load all species](#)


Ask the US Congress to support conservation for birds and people.

# Swainson's Thrush migration

[Explore Bird Species →](#)



## Swainson's Thrush

*Catharus ustulatus*

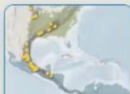
During the peak of migration, Swainson's Thrushes are often very common in woodlots and parks, lurking in the thickets, slipping into...

[Show more](#)

[Conservation Statistics](#)

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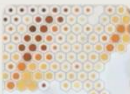
[3 Available Maps](#)



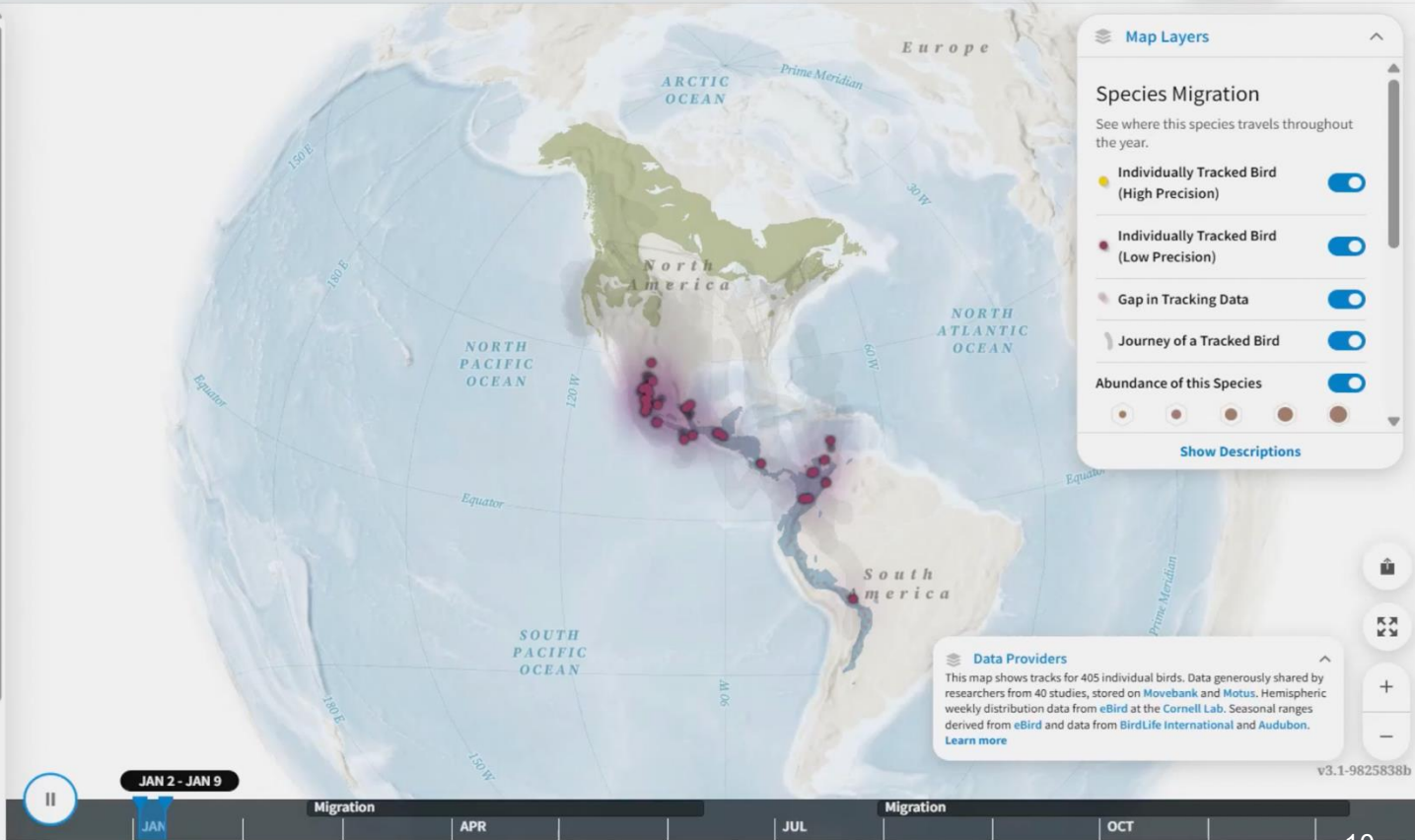
Species  
Migration



Species  
Connections



Conservation  
Challenges



# Swainson's Thrush & forest management

Explore Bird Species →



## Swainson's Thrush

*Catharus ustulatus*

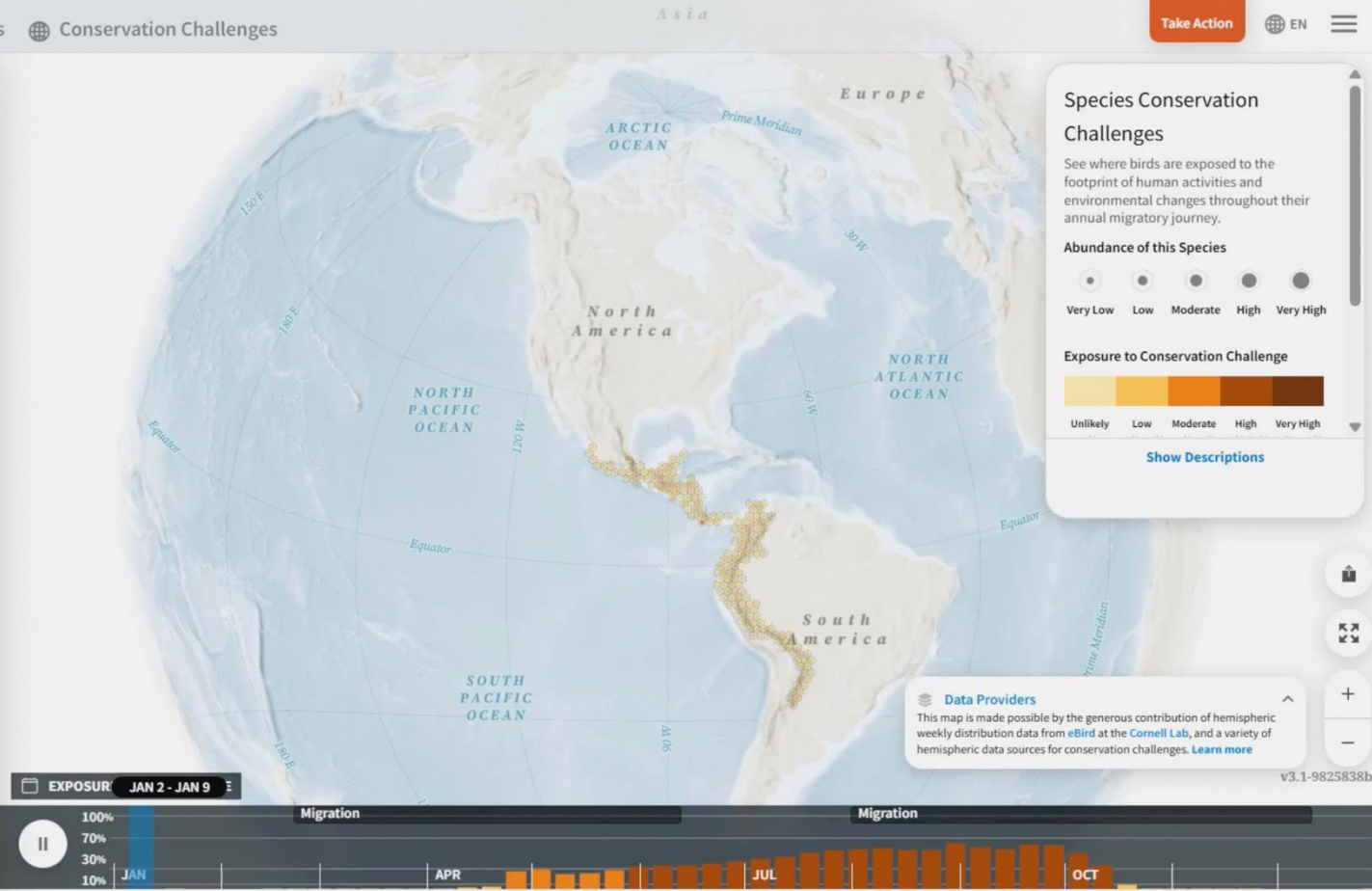
During the peak of migration, Swainson's Thrushes are often very common in woodlots and parks, lurking in the thickets, slipping into... [Show more](#)

- Conservation Statistics >
- 5 Related Stories >
- 3 Available Maps v

Species Migration

Species Connections

Conservation Challenges



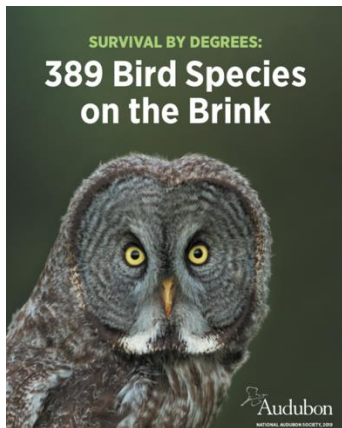




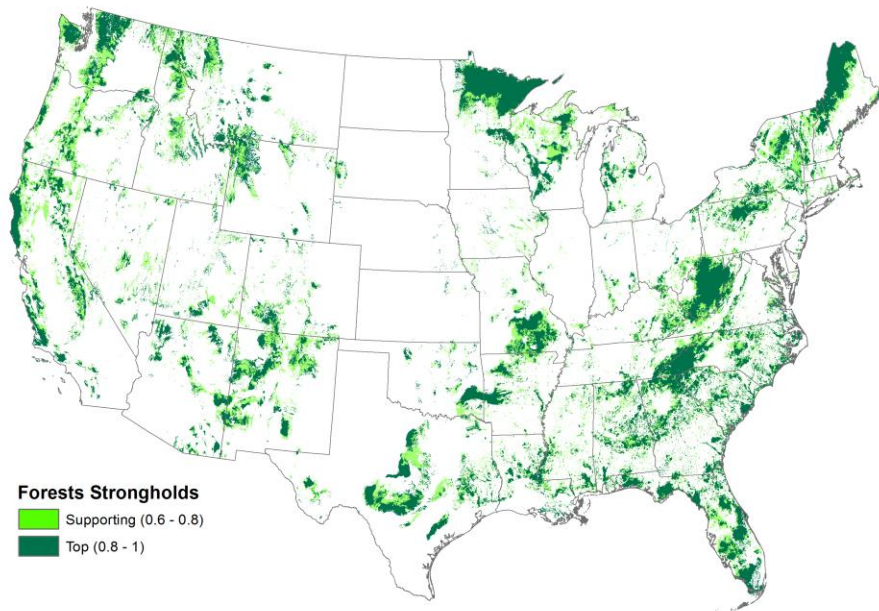
# Mapping nature-based solutions

*Wood Duck | Franklin Abbott*

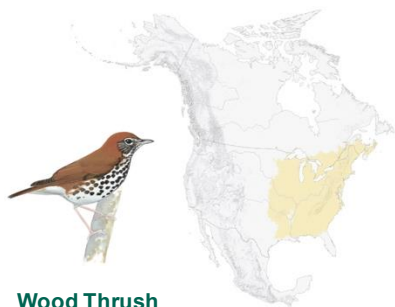
# Climate Strongholds: Mapping Priority Areas for Birds under climate change



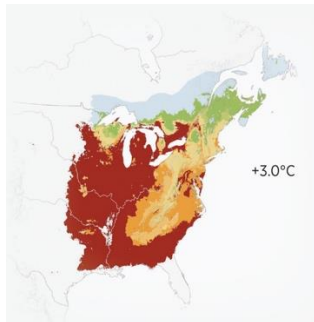
Forest Climate Strongholds: 287 forest bird species



Projections



Wood Thrush

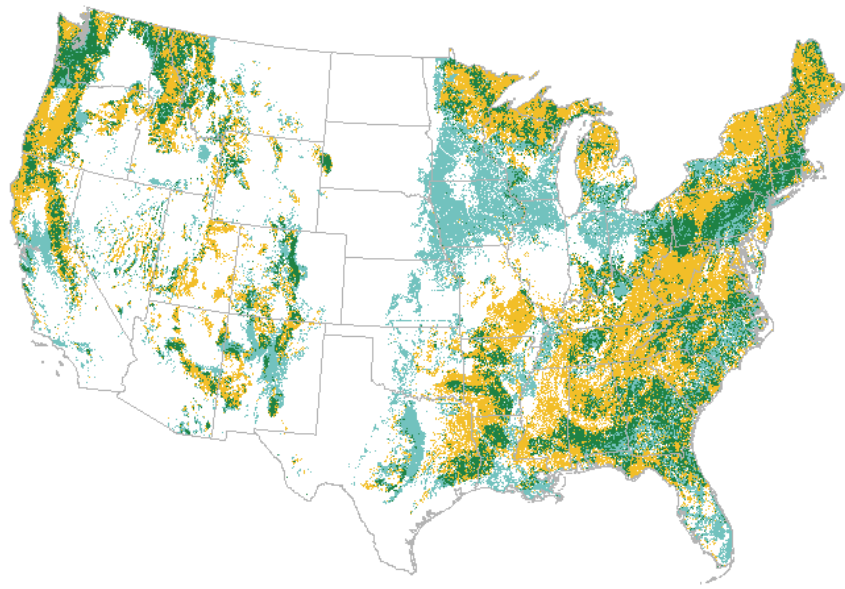
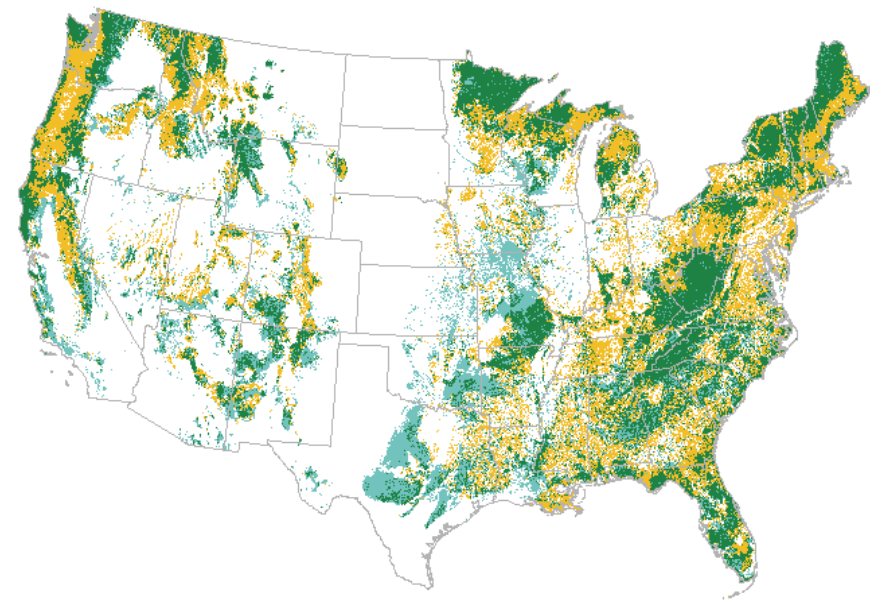




# Mapping priority areas for biodiversity and climate mitigation in forests

**Maintain** existing forests

**Restore** degraded forests



High value for both  
High value for birds  
High value for carbon

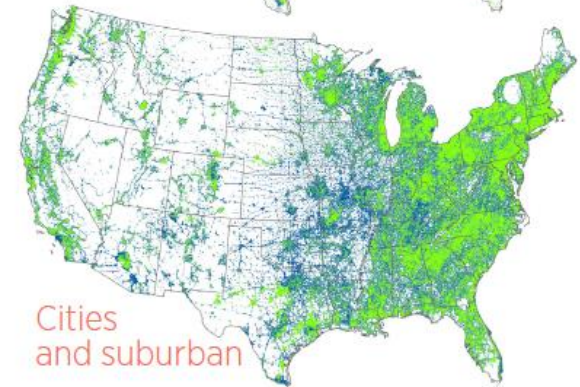


# Mapping priority areas for biodiversity and climate mitigation



- Areas we need to **maintain**
- Areas we need to **restore**

These maps show the places that provide critical habitat for birds while also storing atmospheric carbon, helping mitigate floods, and making our air and water cleaner. By maintaining these existing places and restoring areas that have been lost, the U.S. can go a long way toward meeting its climate commitments to slow the effects of climate change.



Citation: Bateman, BL, J Grand, JX Wu, SP Saunders, C Koseff, and CB Wilsey. 2021. Natural Climate Solutions Report: Maintaining and Restoring Natural Habitats to Help Mitigate Climate Change. National Audubon Society: New York.




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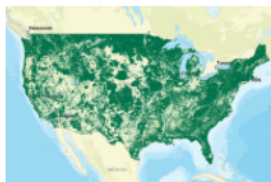
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### USA Audubon Natural Climate Solutions 2021

 Feature Service By [shannon.reault@audubon.org](mailto:shannon.reault@audubon.org) [audubon](#)

The USA Audubon Natural Climate Solutions 2021 includes seven ecosystem types prioritized to maintain and/or restore within the continental US. These areas represent both climate strongholds for birds and high carbon storage or sequestration value. [Learn more and download Audubon's Natural Climate...](#)



1 Results



# Birds as indicators for measuring biodiversity impact

*Western Tanager | Jared Klinger*





**A metric that measures the abundance, diversity, and resilience of a bird community.**

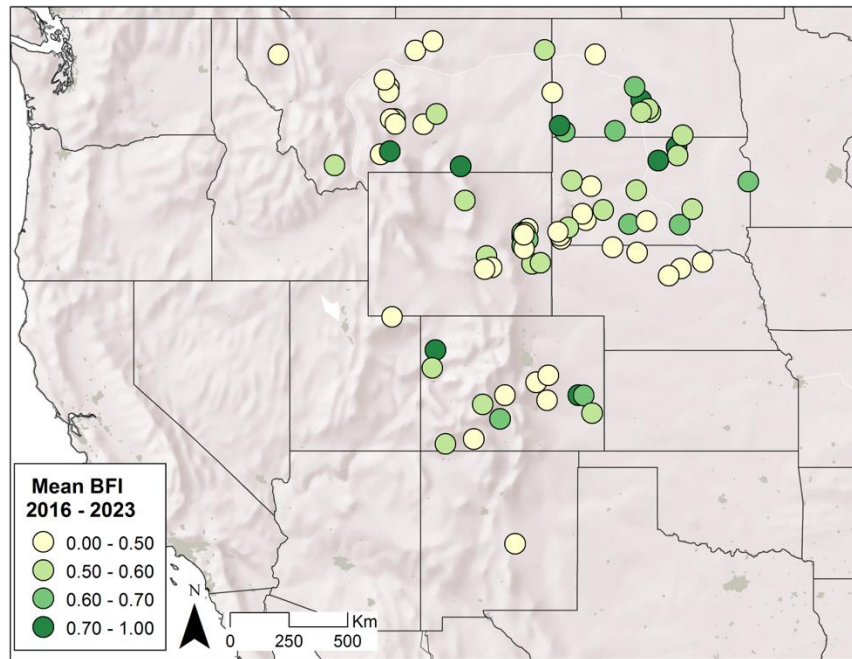
## WHAT DOES THE BFI TELL US?

**Areas with higher abundance and more vulnerable birds support healthy communities. High functional diversity means communities are more stable and resilient.**



**Audubon's Bird-Friendliness Index (BFI) shows that Conservation Ranching is benefitting grassland and aridland birds**

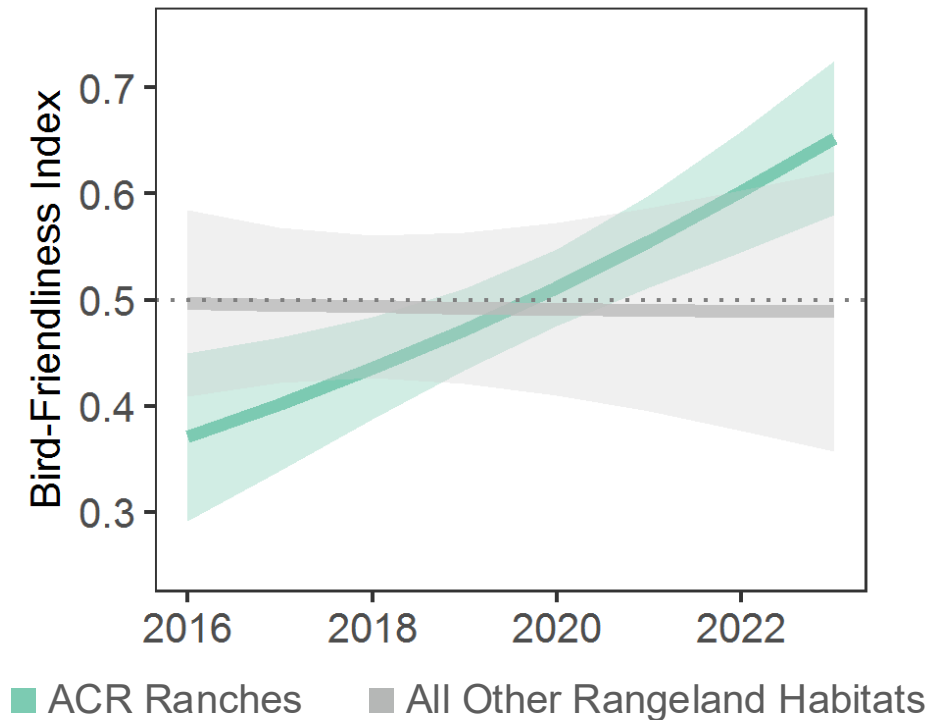
**Mean BFI on  
Conservation  
Ranches:  
0.53 (0.52, 0.55)**



**Audubon's Bird-Friendliness Index (BFI) shows that Conservation Ranching is benefitting grassland and aridland birds**

**8.4% BFI increase**  
on ACR ranches annually

**76% BFI increase**  
on ACR ranches from  
2016-2023





# Bird-friendly forests

*Swainson's Thrush* | Mathew Malwitz



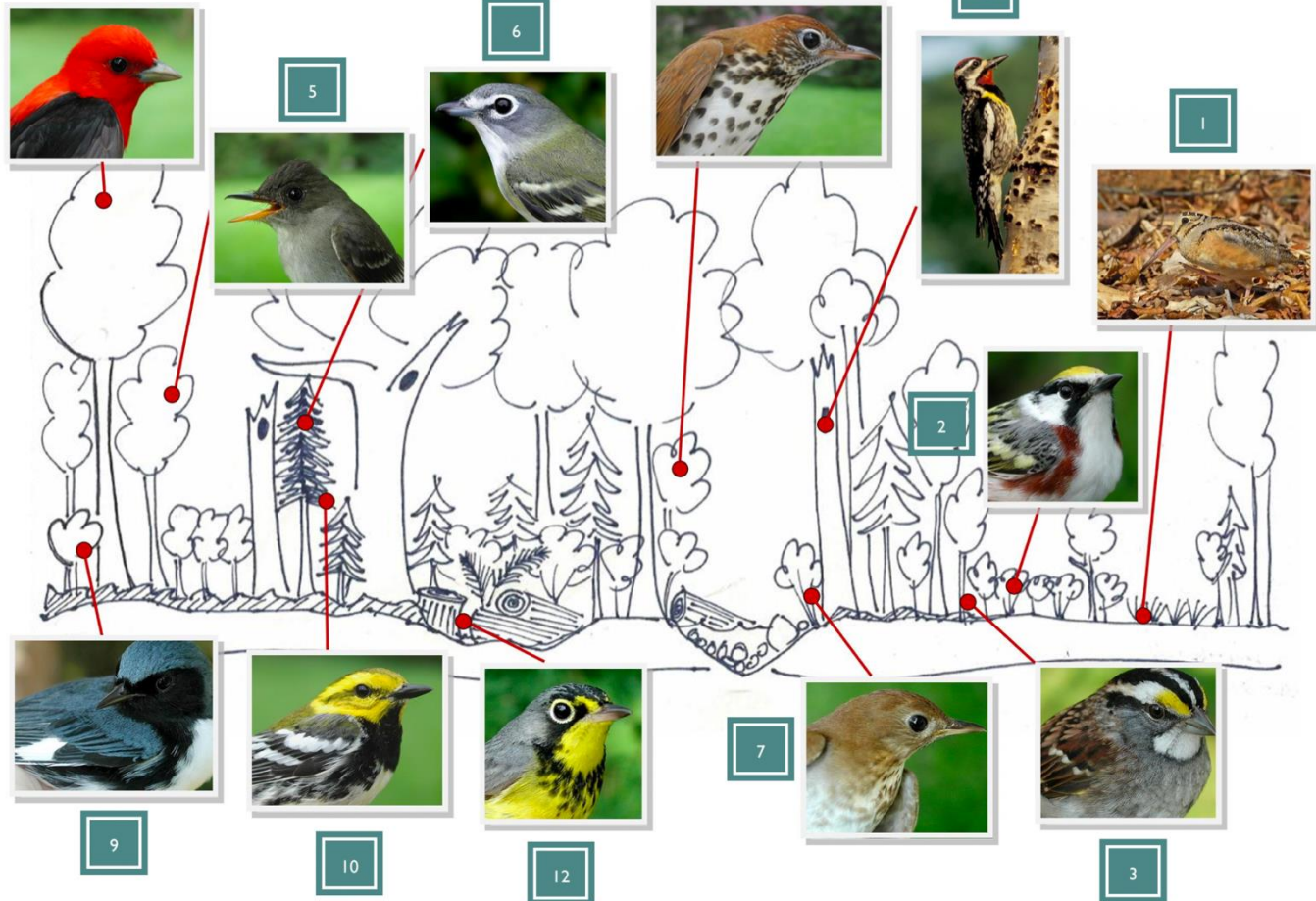
## The Birder's Dozen

The Birder's Dozen is twelve of the 40 forest birds that the Audubon Vermont Forest Bird Initiative is working to protect. These twelve birds:

- Have a high percentage of their global breeding populations in our Northern Atlantic Forest.
- Use a variety of forest types and conditions for feeding and breeding. Most nest in complex, diverse mature forest habitats.
- Show serious, long-term declines in their global populations in the case of some species, including wood thrush and Canada warbler.
- Are simple to identify by sight or sound.

We encourage you to get to know the Birder's Dozen and to explore your woods to find out who is residing there!

*Bird photos provided courtesy of the Powdermill Avian Research Center, US Fish & Wildlife Service, Charley Eisman & Roy Pilcher.*





## States and regions with bird-friendly forestry programs

New York

Connecticut

North Carolina

South Carolina

Delta

Upper Mississippi

WHERE WE WORK > GRASSLANDS, ARIDLANDS AND FORESTS

## Bird-friendly Maple

Supporting maple syrup production that benefits birds.

*Black-throated Blue Warbler. Photo: Sandra Rothenberg/Audubon Photography Awards*

Produced  
in Bird-friendly  
Habitats

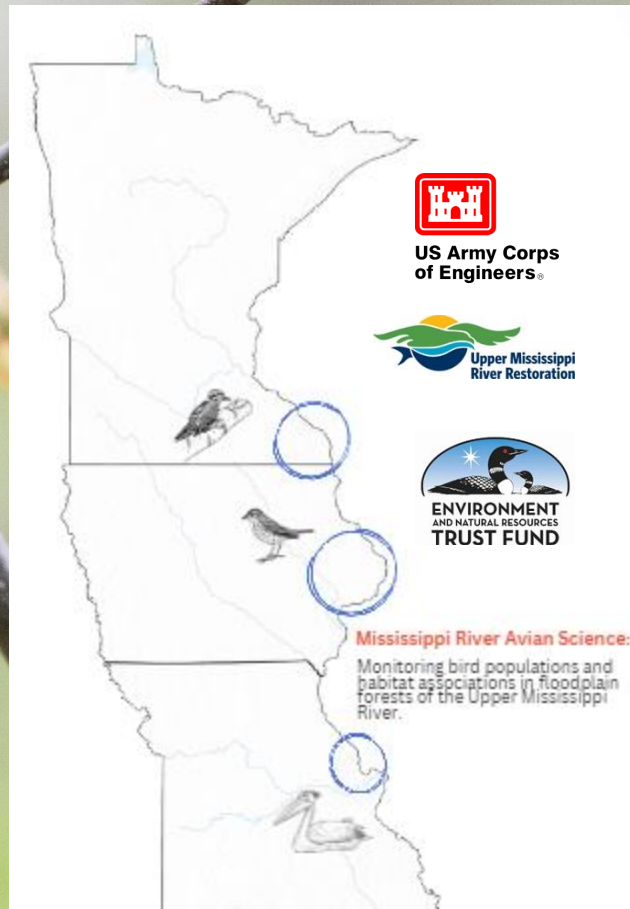




# Studying Bird Habitat Associations – Mississippi River Bottomlands



In Development:  
Bottomlands Forestry-for-Birds Manual



## Key take-aways

Birds and maps are powerful tools for communicating the need for collaborative conservation across the hemisphere

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Bird conservation aligns with nature-based solutions are a tool for climate mitigation

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Birds are responsive indicators of conservation impact through metrics like the Bird Friendliness Index

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Bird-friendly forestry is a mechanism for incorporating biodiversity outcomes into working lands

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# Thank you!

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CHADWILSEY



*Prothonotary Warbler | Donald Wuori*