

*Maryland Bird Conservation Partnership's*

# FARMLAND RAPTOR PROGRAM

Alex Pellegrini





# The Big Year

*Maryland Bird Conservation  
Partnership's*  
**Farmland Raptor Program**

Alex  
Pellegrini  
Coordinator



Andy  
Brown  
Manager



Create partnerships to help address priority actions for species of greatest conservation need

**American Barn Owl**

*Tyto furcata*



**Short-eared Owl**

*Asio flammeus*



**MARYLAND  
FARMLAND**

RAPTOR PROGRAM



**American Kestrel**

*Falco sparverius*



**Northern Harrier**

*Circus hudsonius*

# Strigiformes

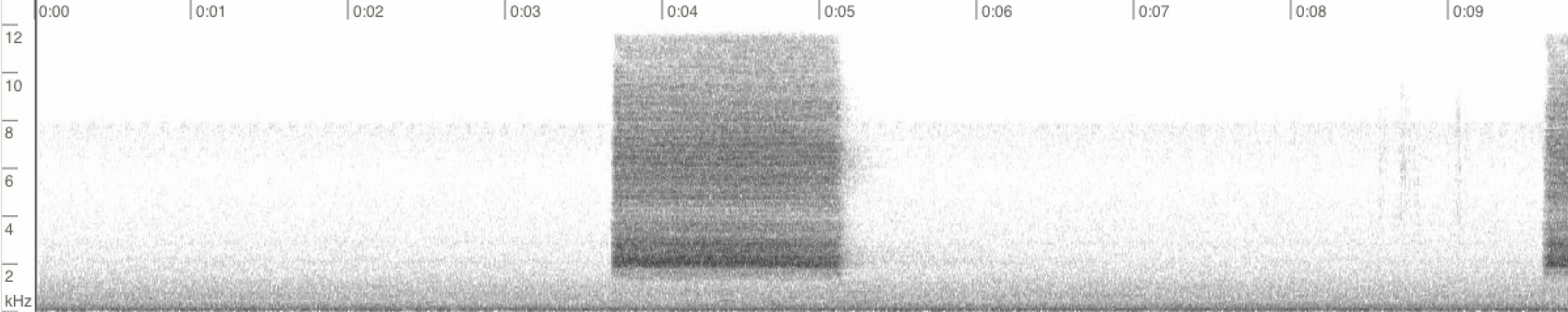


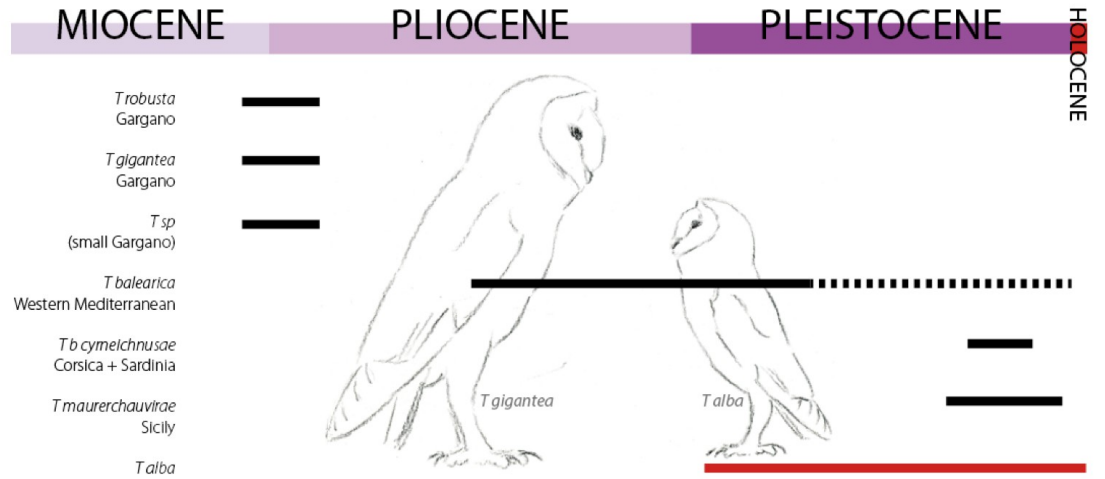
# Strigiformes







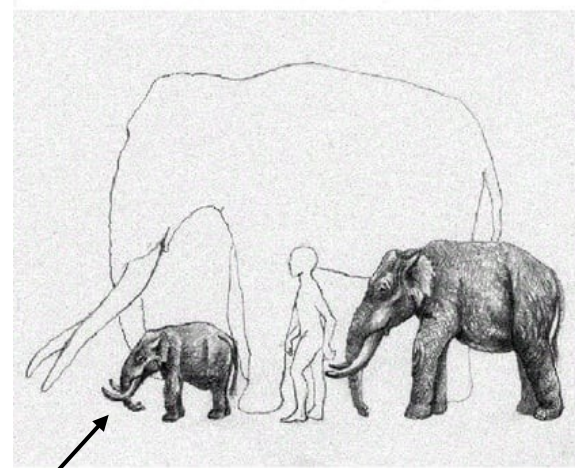






**Giant Gliridae (*Leithia melitensis*)**

Image credit: James Sadler, University of York.



**Dwarf elephant sp. (*Elephas falconeri*)**

<http://palaeo.gly.bris.ac.uk/macro/landrule/MaltaandSicily.html>

Figure 1: Artistic impression of *E. antiquus* (behind), *E. mnaidriensis* (far right) and *E. falconeri* (far left) suggesting the relative sizes of these three species of elephant and humans. Drawing by Cristina Andreani. Sourced from Benton *et al*, 2010).



**Lesser White-fronted Goose (*Anser erythropus*)**

This Photo by Unknown Author is licensed under CC BY



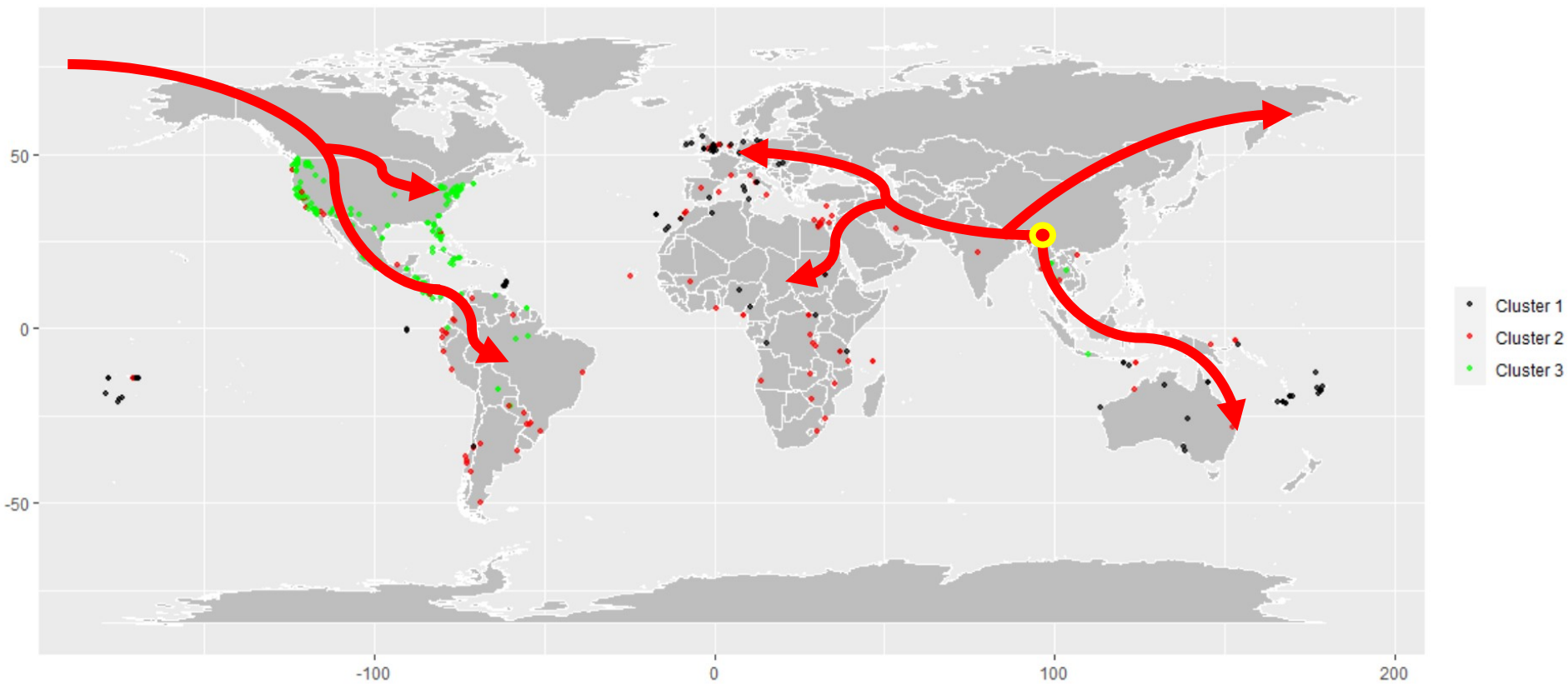
**Pied Avocet (*Recurvirostra avosetta*)**

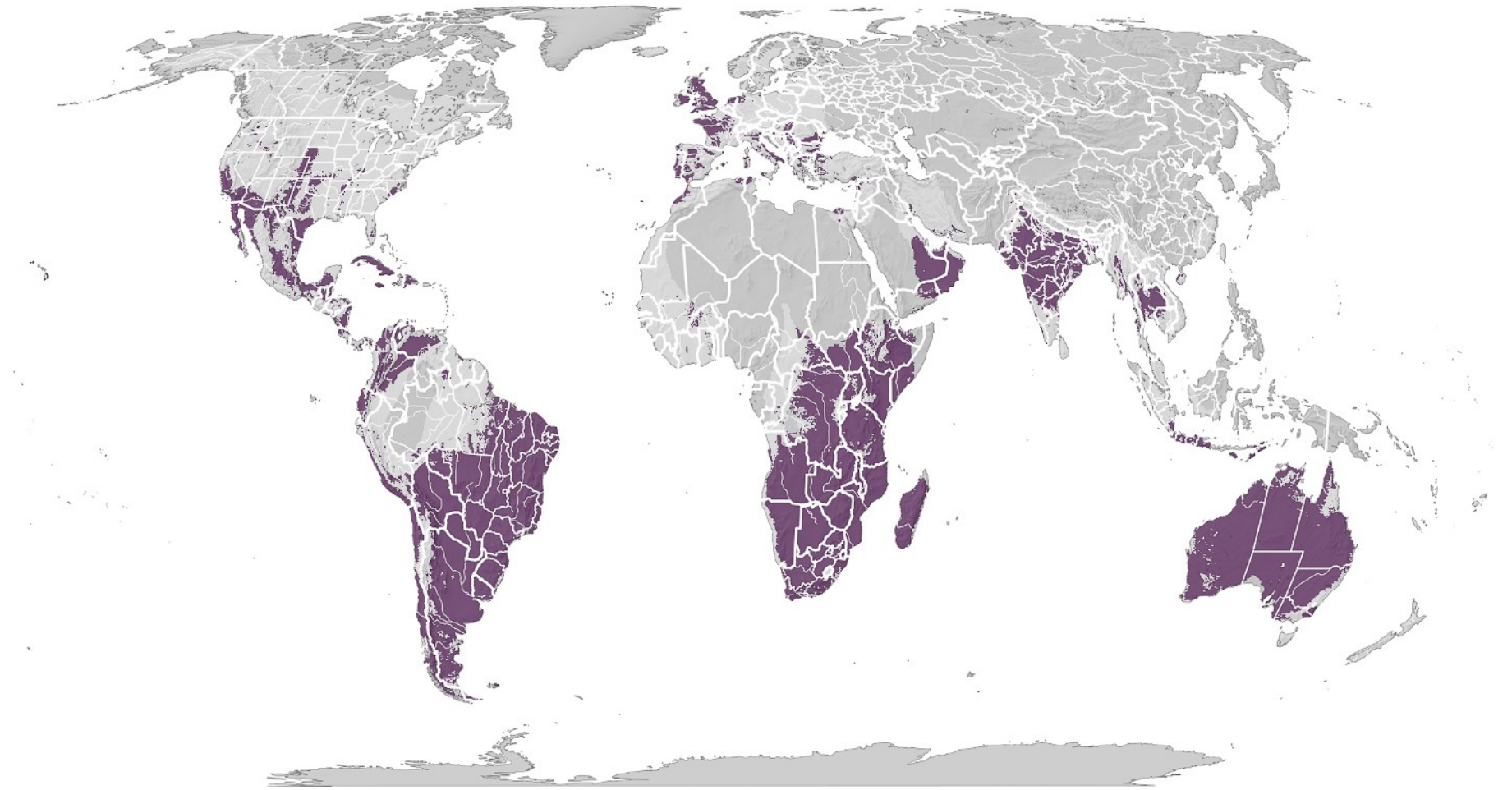
This Photo by Unknown Author is licensed under CC BY-SA



**Hutia (*Capromys* sp.)**

Image credit: Martina Nacháčková (<https://www.artstation.com/artwork/1smc61>)





## American Barn Owl

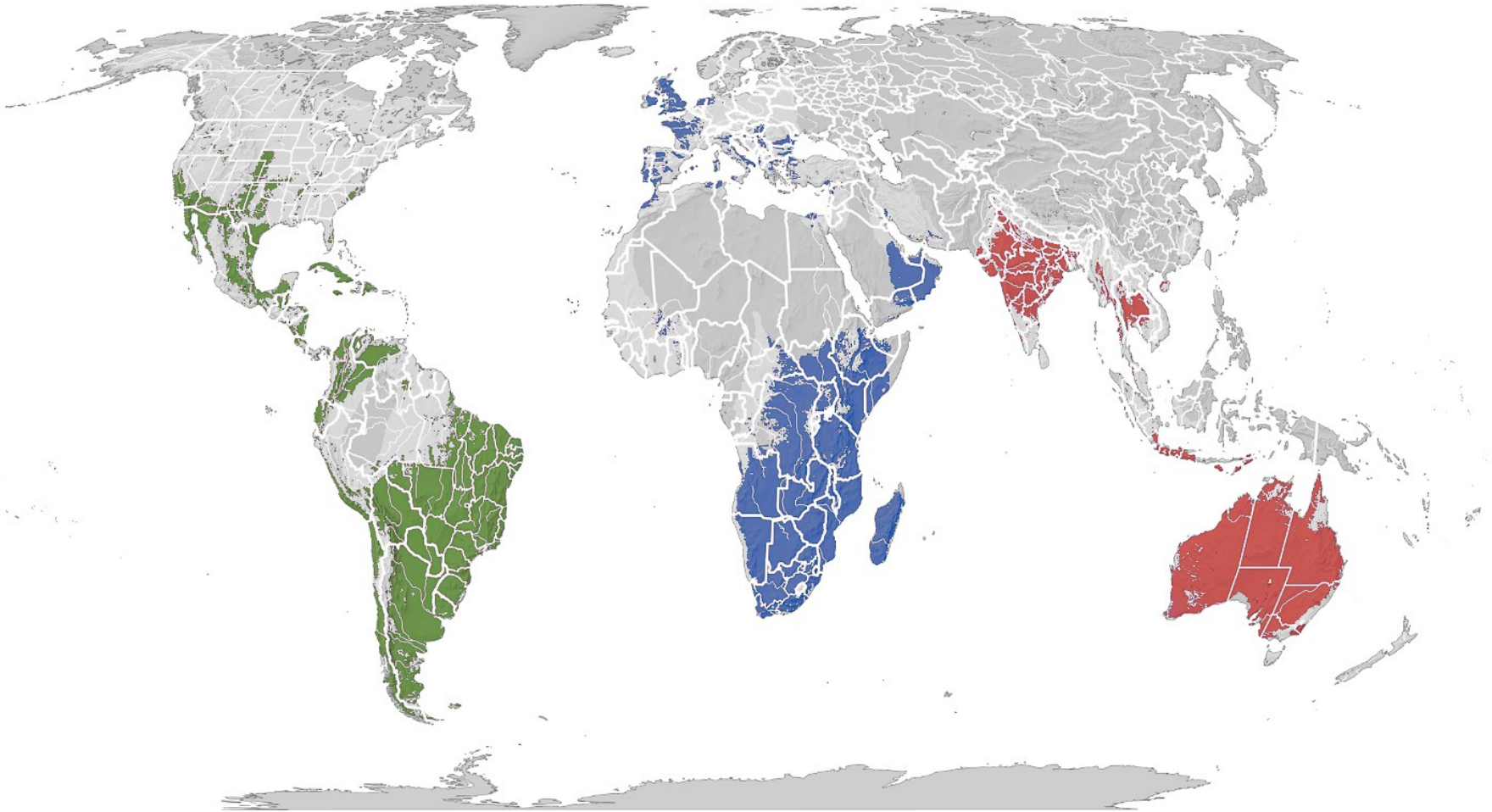
*Tyto furcata*

## Western Barn Owl

*Tyto alba*

## Eastern Barn Owl

*Tyto javanica*



## Western Barn Owl

*Tyto alba*

## Eastern Barn Owl

*Tyto javanica*

## American Barn Owl

*Tyto furcata*






# Common Barn-owl

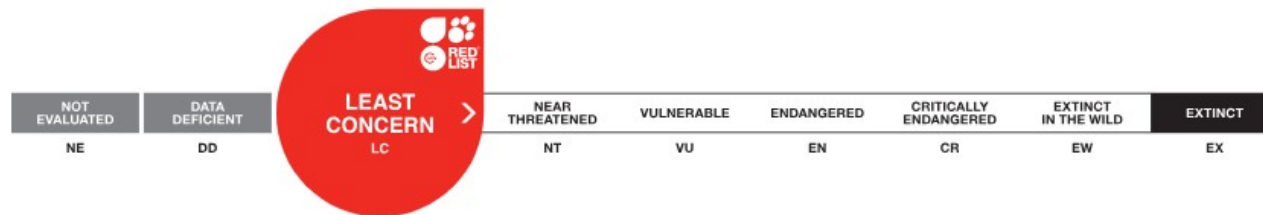
*Tyto alba*

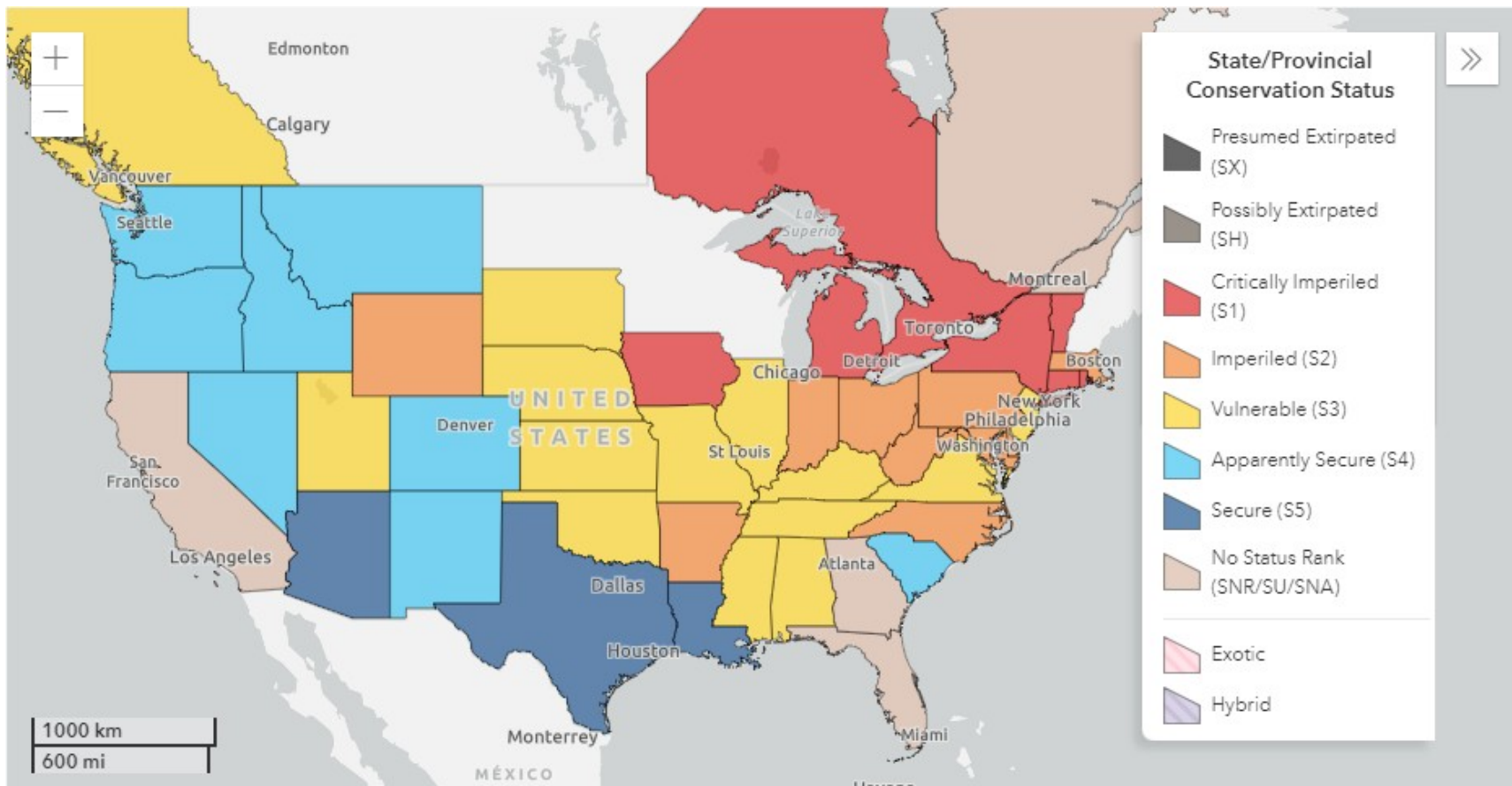
## ABSTRACT

Common Barn-owl *Tyto alba* has most recently been assessed for *The IUCN Red List of Threatened Species* in 2016. *Tyto alba* is listed as Least Concern.

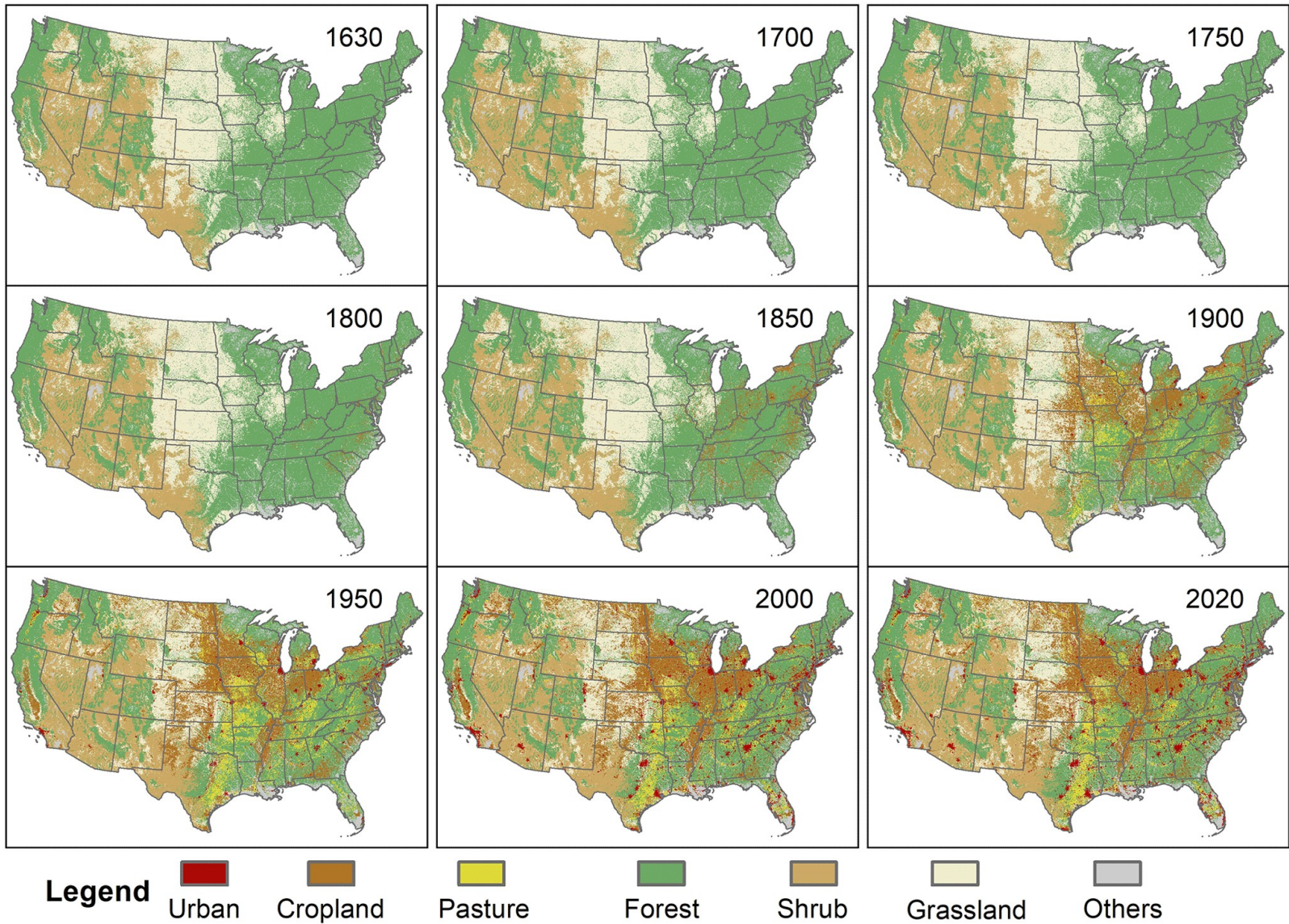
## THE RED LIST ASSESSMENT i

►  BirdLife International. 2019. *Tyto alba* (amended version of 2016 assessment). *The IUCN Red List of Threatened Specie...*

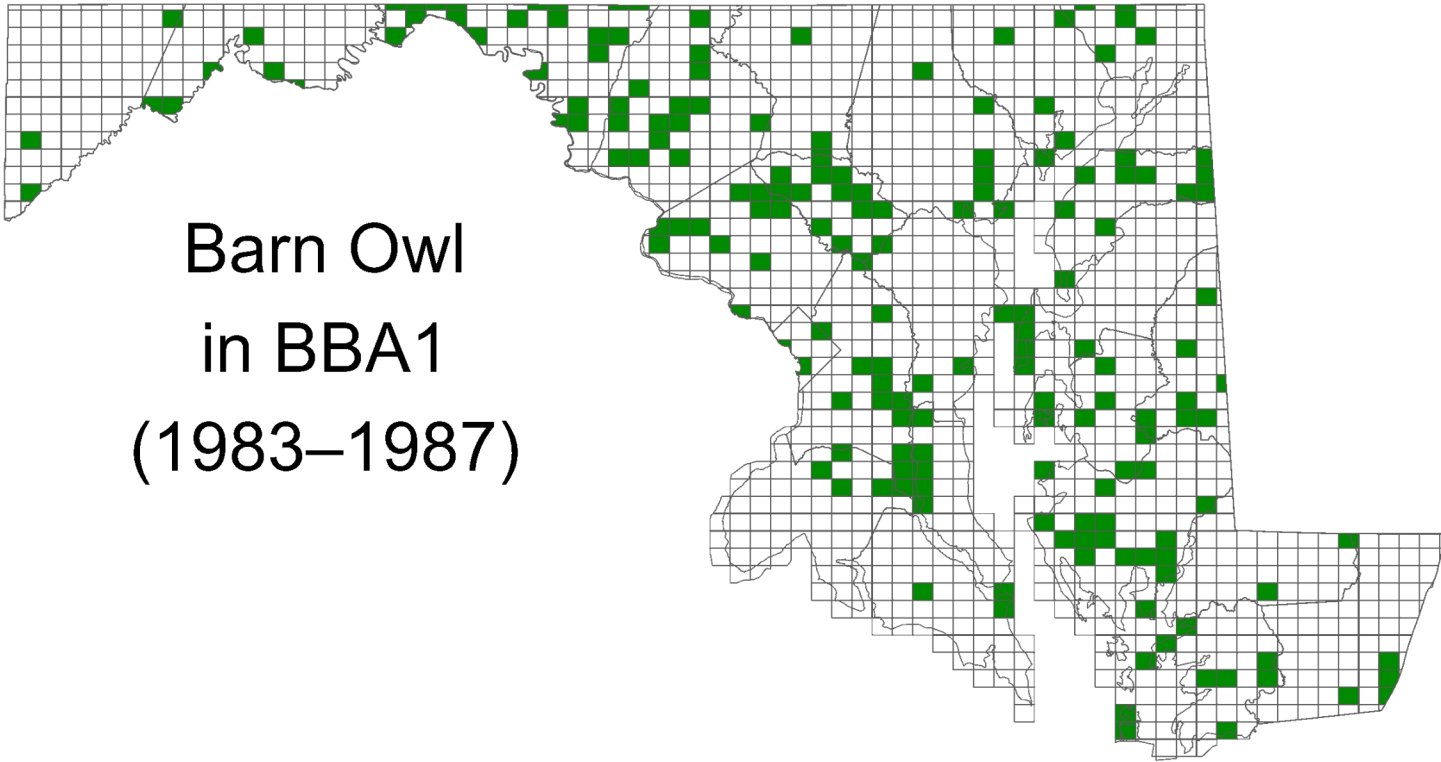




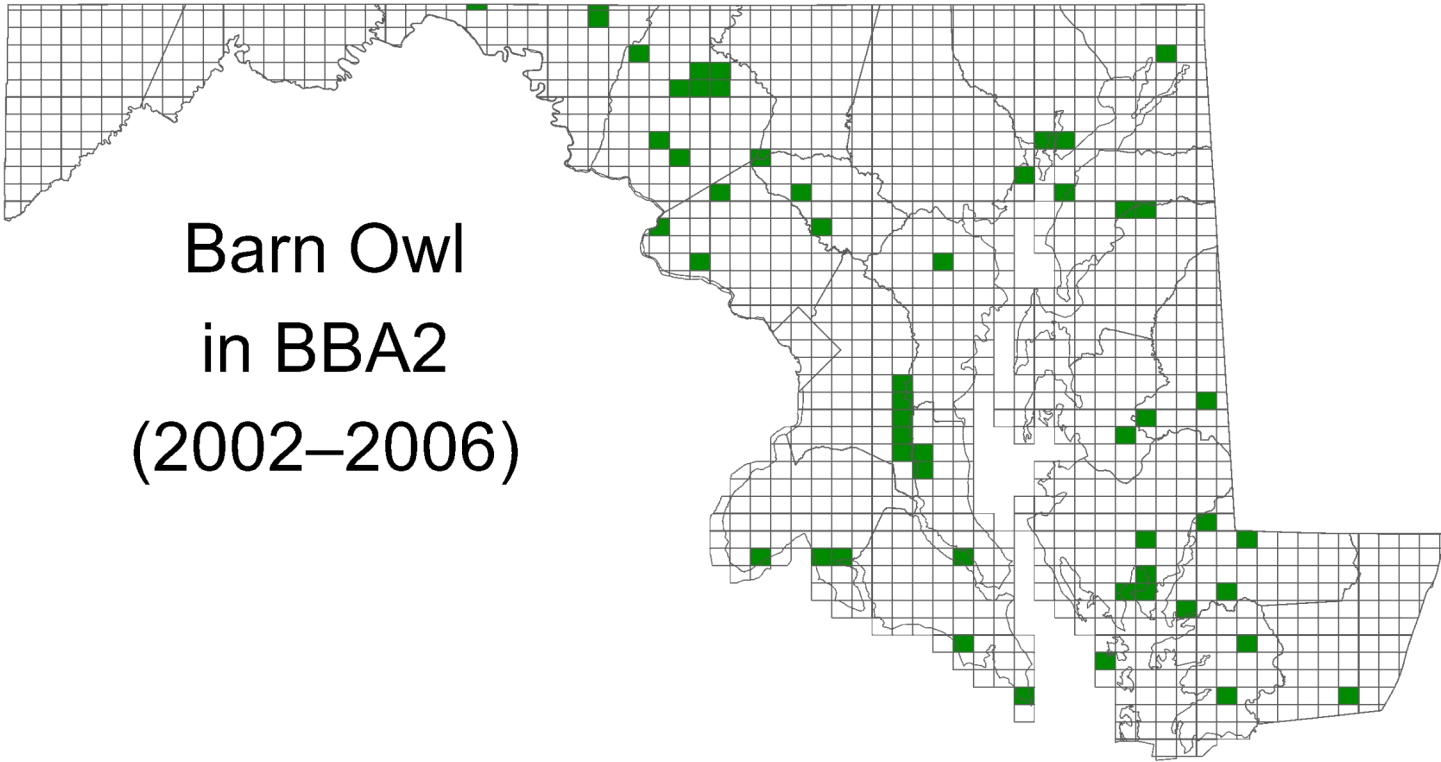
State/Province	Conservation Status
Alabama	Imperiled (S2)
Alaska	Vulnerable (S3)
Arizona	Apparently Secure (S4)
Arkansas	Imperiled (S2)
California	No Status Rank (SNR/SU/SNA)
Colorado	Apparently Secure (S4)
Connecticut	Imperiled (S2)
Delaware	Imperiled (S2)
District of Columbia	Apparently Secure (S4)
Florida	No Status Rank (SNR/SU/SNA)
Georgia	Vulnerable (S3)
Idaho	Vulnerable (S3)
Illinois	Vulnerable (S3)
Indiana	Imperiled (S2)
Iowa	Vulnerable (S3)
Kansas	Vulnerable (S3)
Kentucky	Vulnerable (S3)
Louisiana	Secure (S5)
Maine	Imperiled (S2)
Maryland	Imperiled (S2)
Massachusetts	Imperiled (S2)
Michigan	Critically Imperiled (S1)
Minnesota	Critically Imperiled (S1)
Mississippi	Vulnerable (S3)
Missouri	Vulnerable (S3)
Montana	Vulnerable (S3)
Nebraska	Vulnerable (S3)
Nevada	Apparently Secure (S4)
New Hampshire	Imperiled (S2)
New Jersey	Imperiled (S2)
New Mexico	Apparently Secure (S4)
New York	Critically Imperiled (S1)
North Carolina	Imperiled (S2)
North Dakota	Vulnerable (S3)
Ohio	Imperiled (S2)
Oklahoma	Vulnerable (S3)
Oregon	Apparently Secure (S4)
Pennsylvania	Imperiled (S2)
Rhode Island	Imperiled (S2)
South Carolina	Imperiled (S2)
South Dakota	Vulnerable (S3)
Tennessee	Vulnerable (S3)
Texas	Secure (S5)
Utah	Vulnerable (S3)
Vermont	Imperiled (S2)
Virginia	Imperiled (S2)
Washington	Apparently Secure (S4)
West Virginia	Imperiled (S2)
Wisconsin	Critically Imperiled (S1)
Wyoming	Vulnerable (S3)



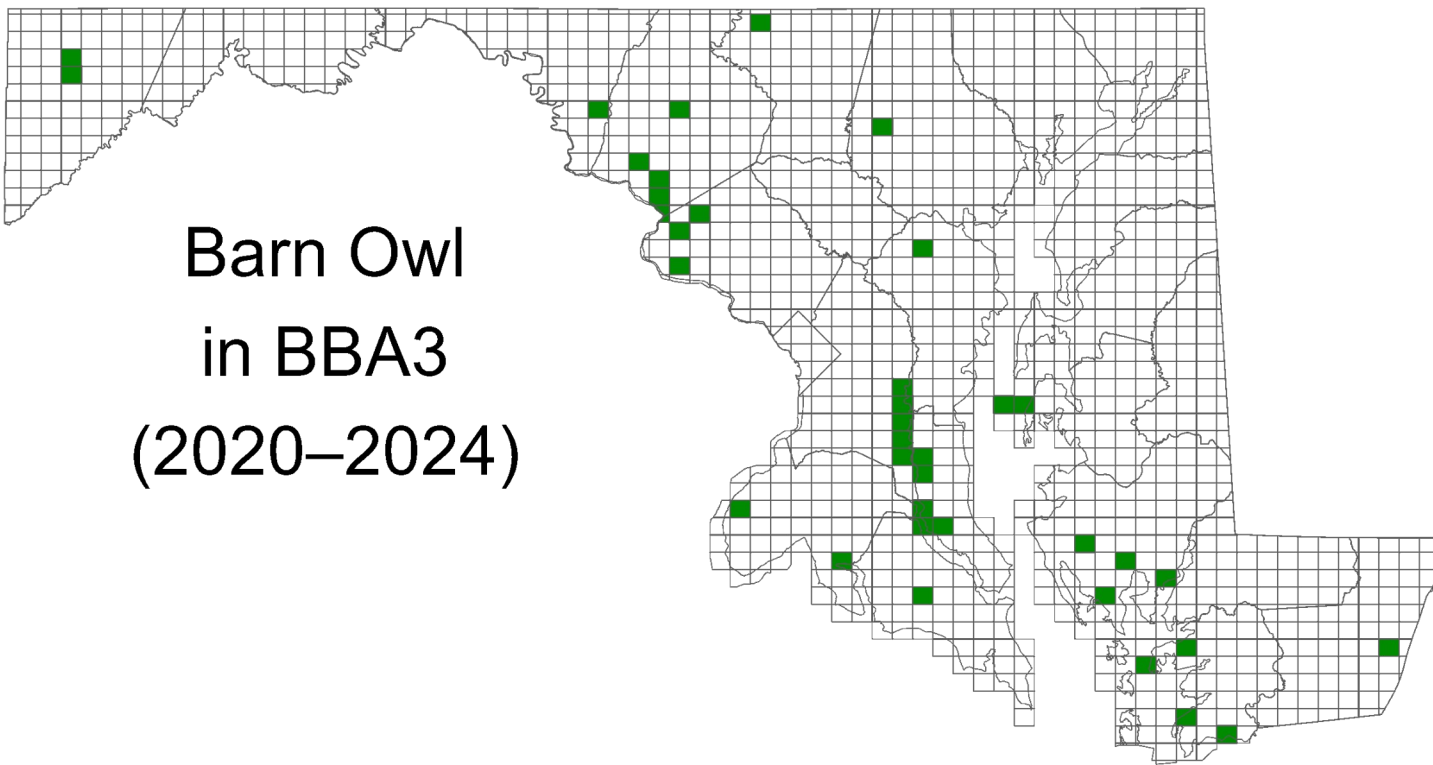
Barn Owl  
in BBA1  
(1983–1987)



Barn Owl  
in BBA2  
(2002–2006)

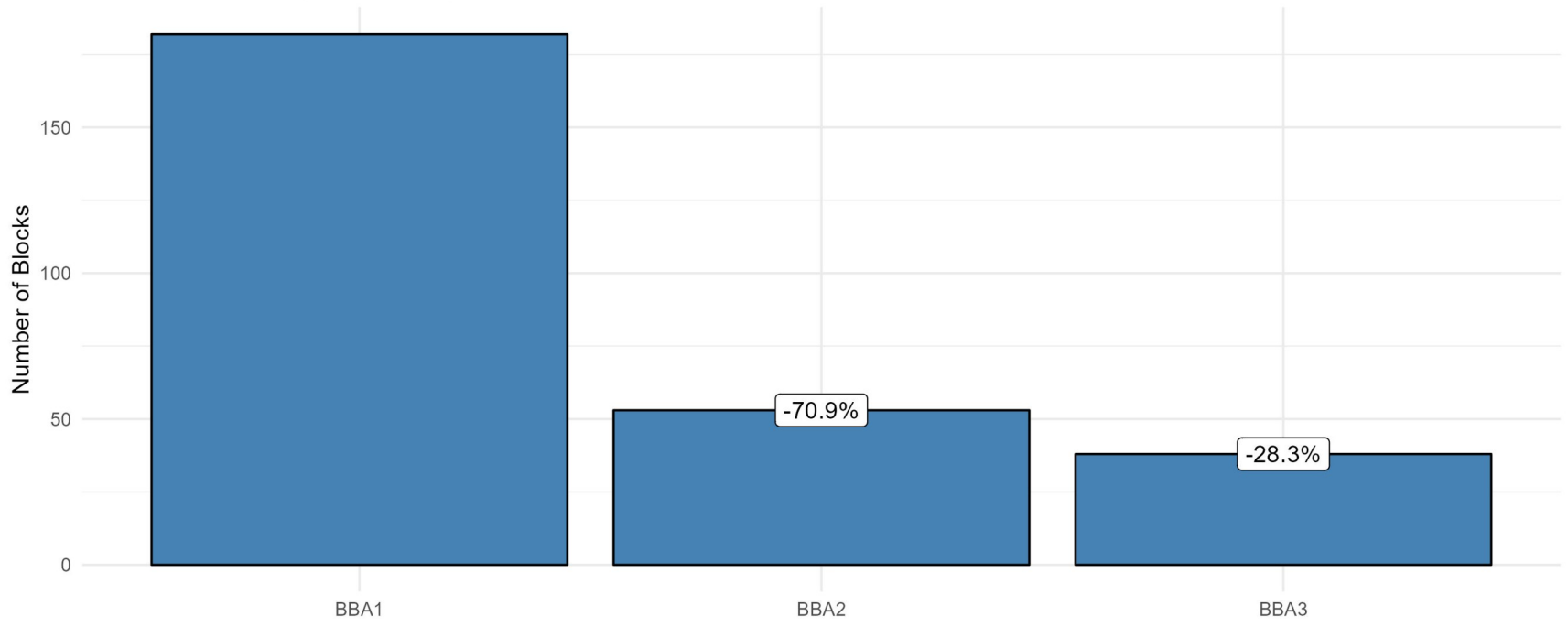


Barn Owl  
in BBA3  
(2020–2024)



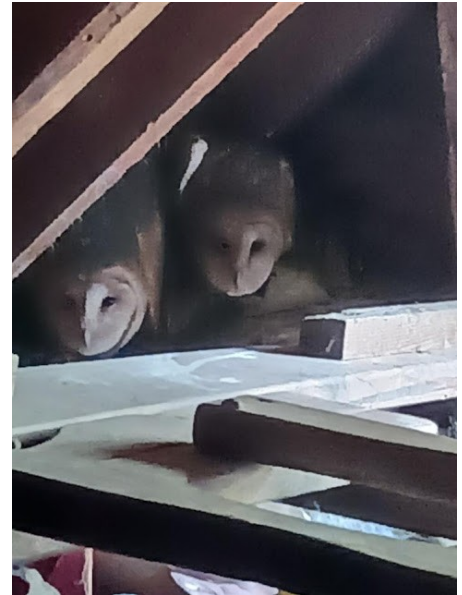
### Number of blocks with Barn Owl detected during each MD-DC atlas

Column labels show percent change between atlases





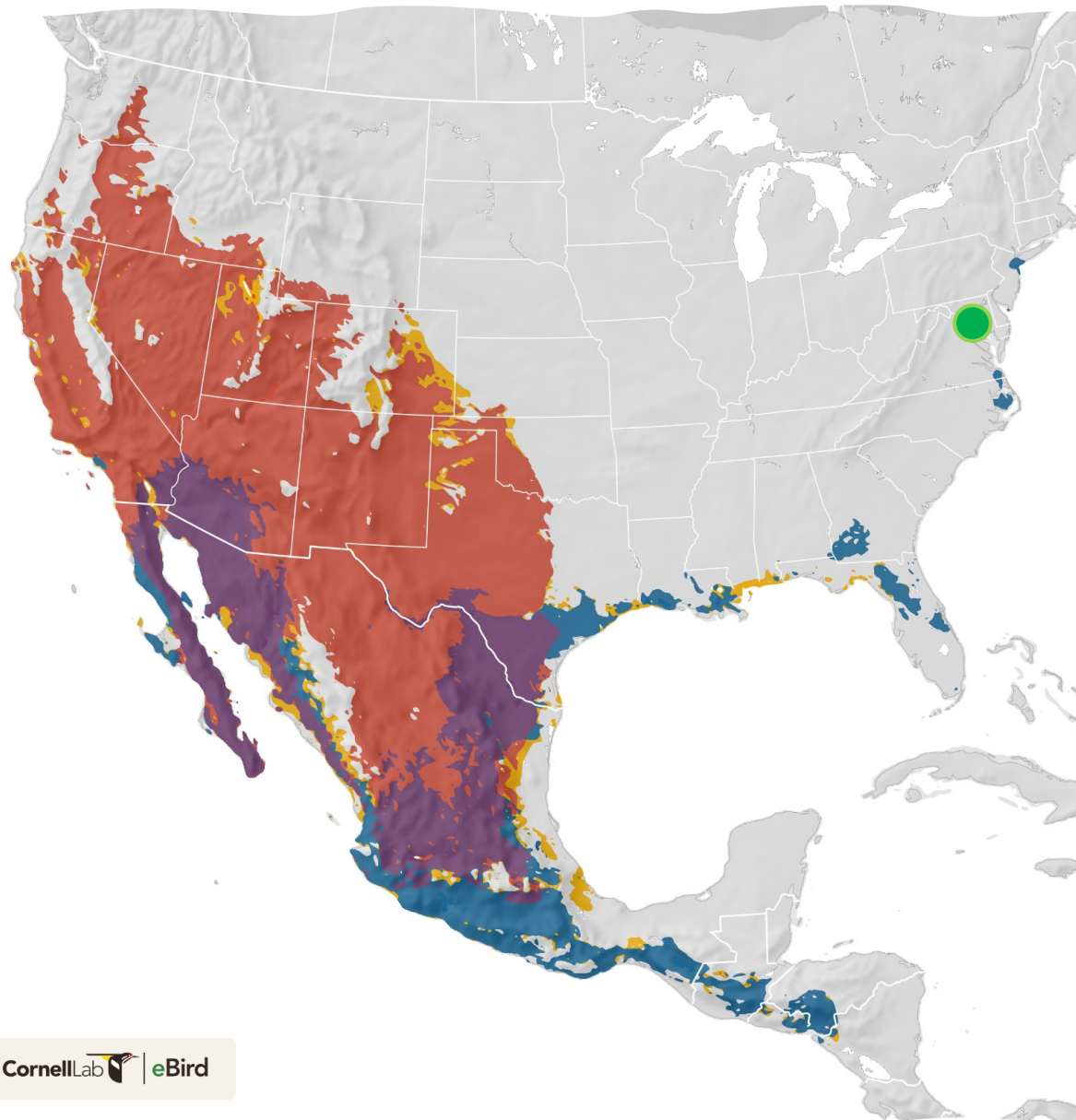
Kim  
Tomko











# Ash-throated Flycatcher

*Myiarchus cinerascens*

## Range

The range map depicts the boundary of the species' range defined as the areas where the species is estimated to be within at least one week within each season.

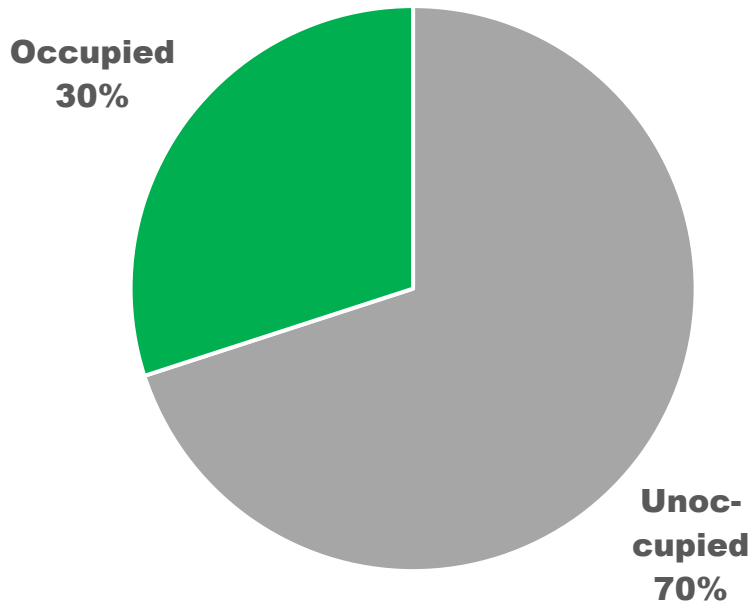
- Year-round
- Breeding Season 17 May - 19 Jul
- Non-breeding Season 22 Nov - 15 Feb
- Pre-breeding Migratory Season 22 Feb - 10 May
- Post-breeding Migratory Season 26 Jul - 15 Nov

Modeled Area (0 abundance)  
 No Prediction

eBird Data from 2009-2023. Estimated for 2023.  
 Fink, D., T. Auer, A. Johnston, M. Strimas-Mackey, S. Lig Robinson, W. Hochachka, L. Jaromczyk, C. Crowley, K. Dunham, A. Stillman, C. Davis, M. Stokowski, P. Sharma Pantoja, D. Burgin, P. Crowe, M. Bell, S. Ray, I. Davies, V. Gutierrez, C. Wood, A. Rodewald. 2024. eBird Status and Trends, Data Version: 2023; Released: 2025. Cornell Lab Ornithology, Ithaca, New York.  
<https://doi.org/10.2173/WZTW8903>

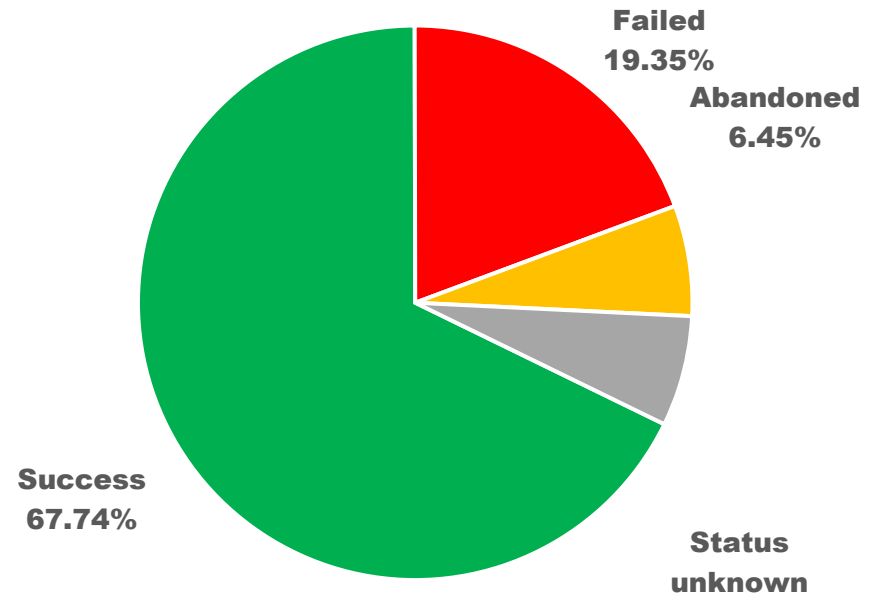
# American Barn Owl Nest Box Program

## 2025 Nest Box Occupancy



Occupancy of American Barn Owl (*Tyto furcata*) nest boxes in Maryland during 2025. Of 110 boxes that were checked, 30% (n = 33) were occupied by Barn Owls, while 70% (n = 77) were not occupied. Boxes marked as “UNK” (not accessible) were excluded from this analysis. The overall occupancy rate represents the proportion of occupied boxes among all checked boxes.

## 2025 Occupied Nest Box Outcomes



Proportional outcomes of American Barn Owl (*Tyto furcata*) nesting attempts in Maryland during 2025 (n = 31). The majority of nests (67.74%) were successful, while 19.35% failed for unknown reasons. Abandonment and unknown outcomes each accounted for 6.45% of records. Categories represent all monitored nests with an assigned outcome.



90/40%



40  
%



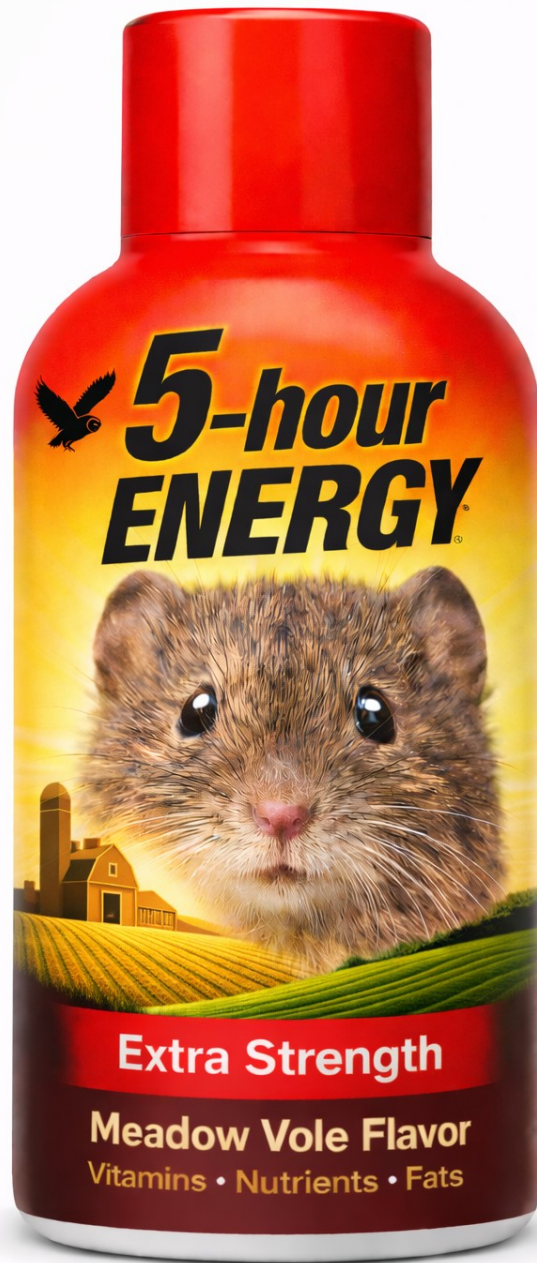
19%




1







 **5-hour**  
**ENERGY**



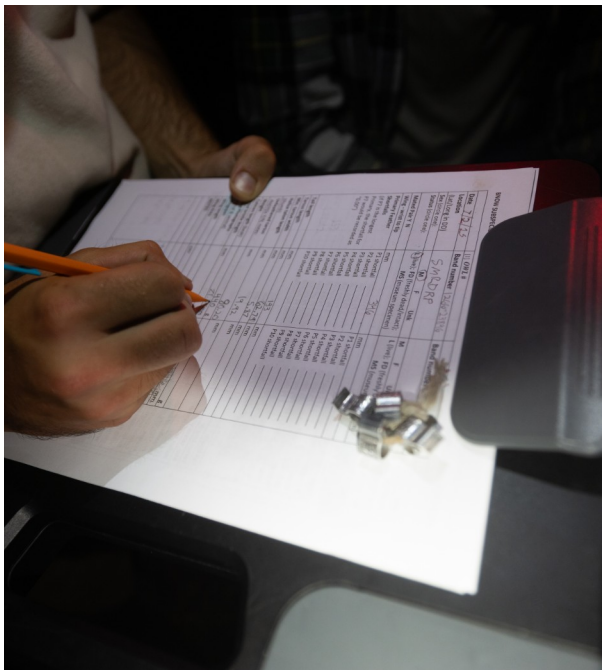
**Extra Strength**

**Meadow Vole Flavor**

Vitamins • Nutrients • Fats







# Recoveries

1960-2019 – 63

2020-2025 – 27



# Population Ecology

## Site/Mate Fidelity

- 4% Same Mate
- 19% Same location





# Recruitment

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**55% Immigration**

**Age**  
**Structure**

**SY – 28%**

**TY – 10%**

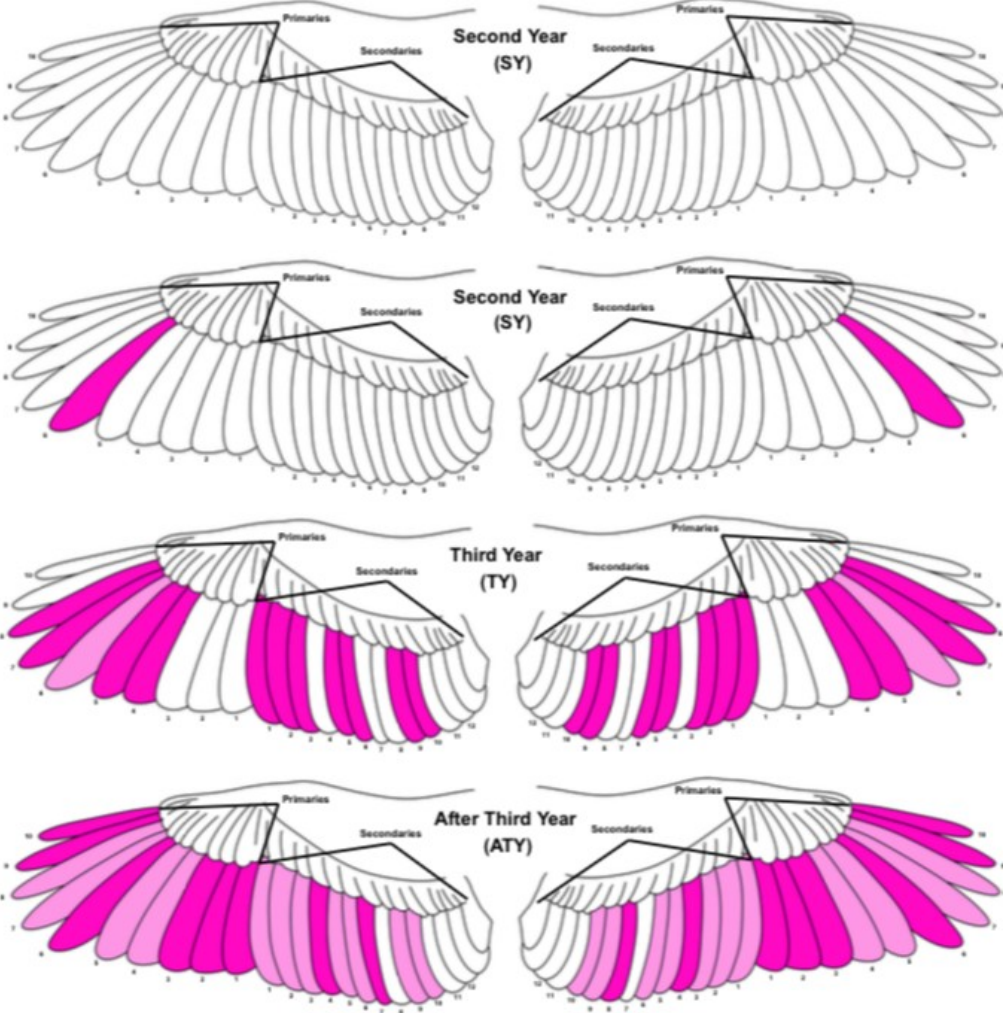
**ATY –  
62%**





# Barn Owl Aging Guide

## UV Molt Limit

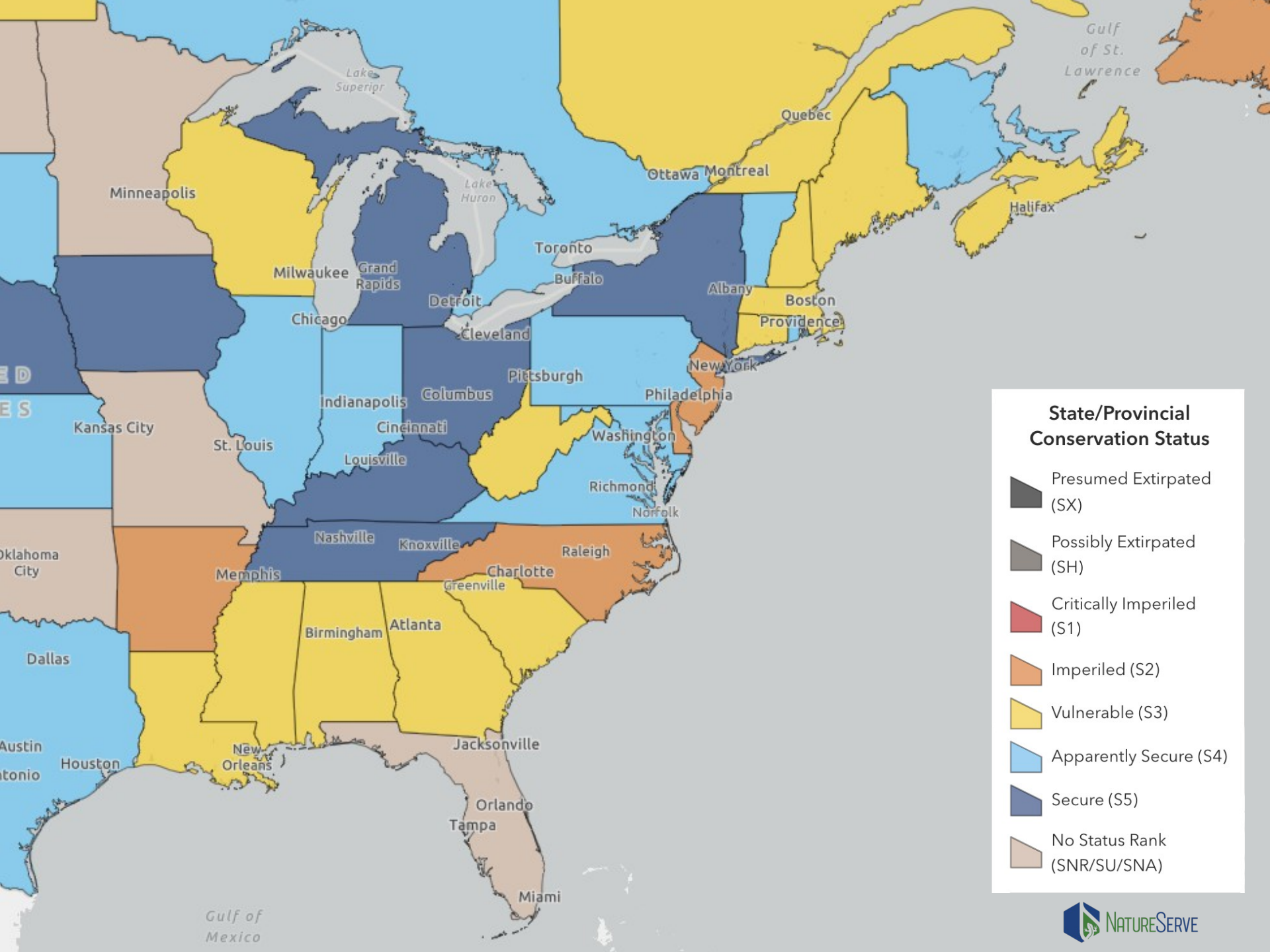


MB Box 6





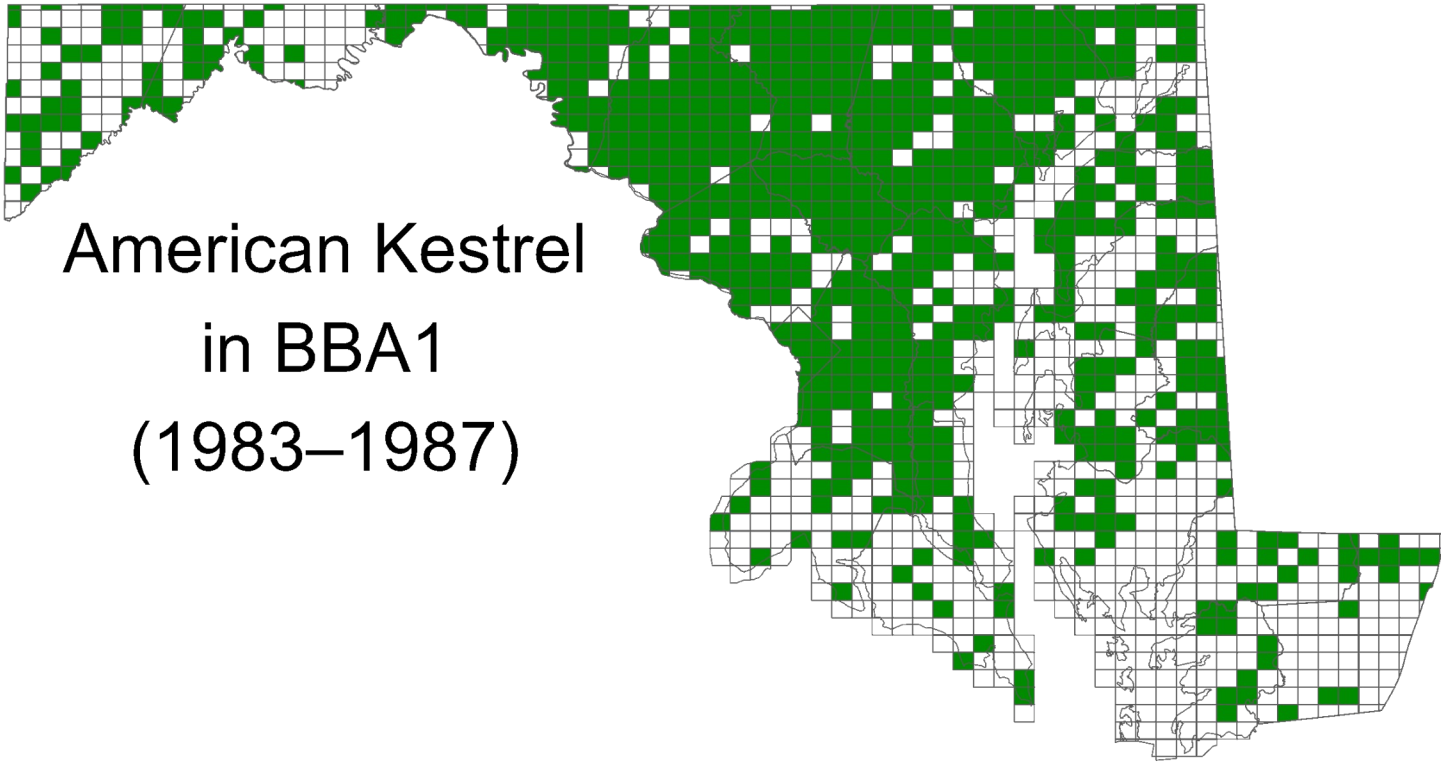




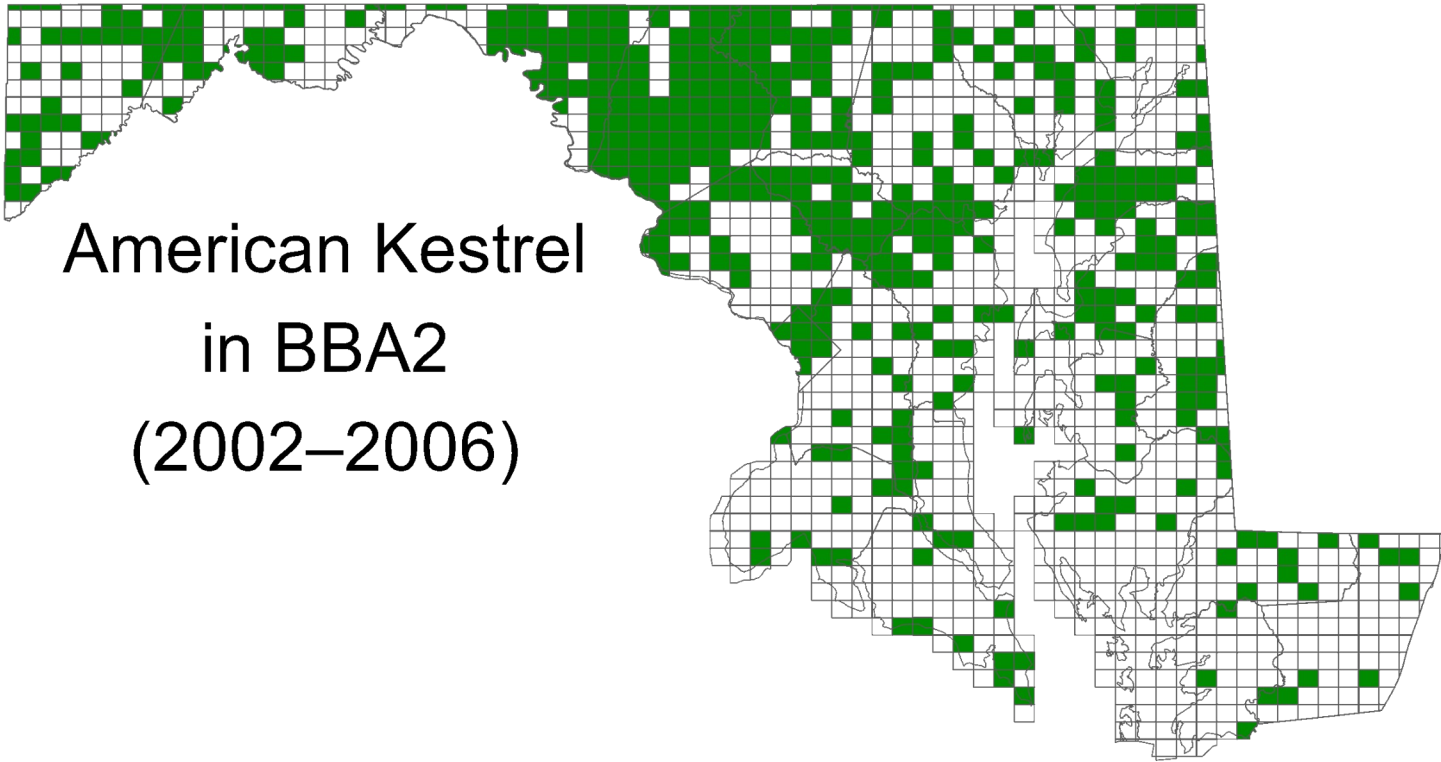
Gulf of St. Lawrence

Lake Superior

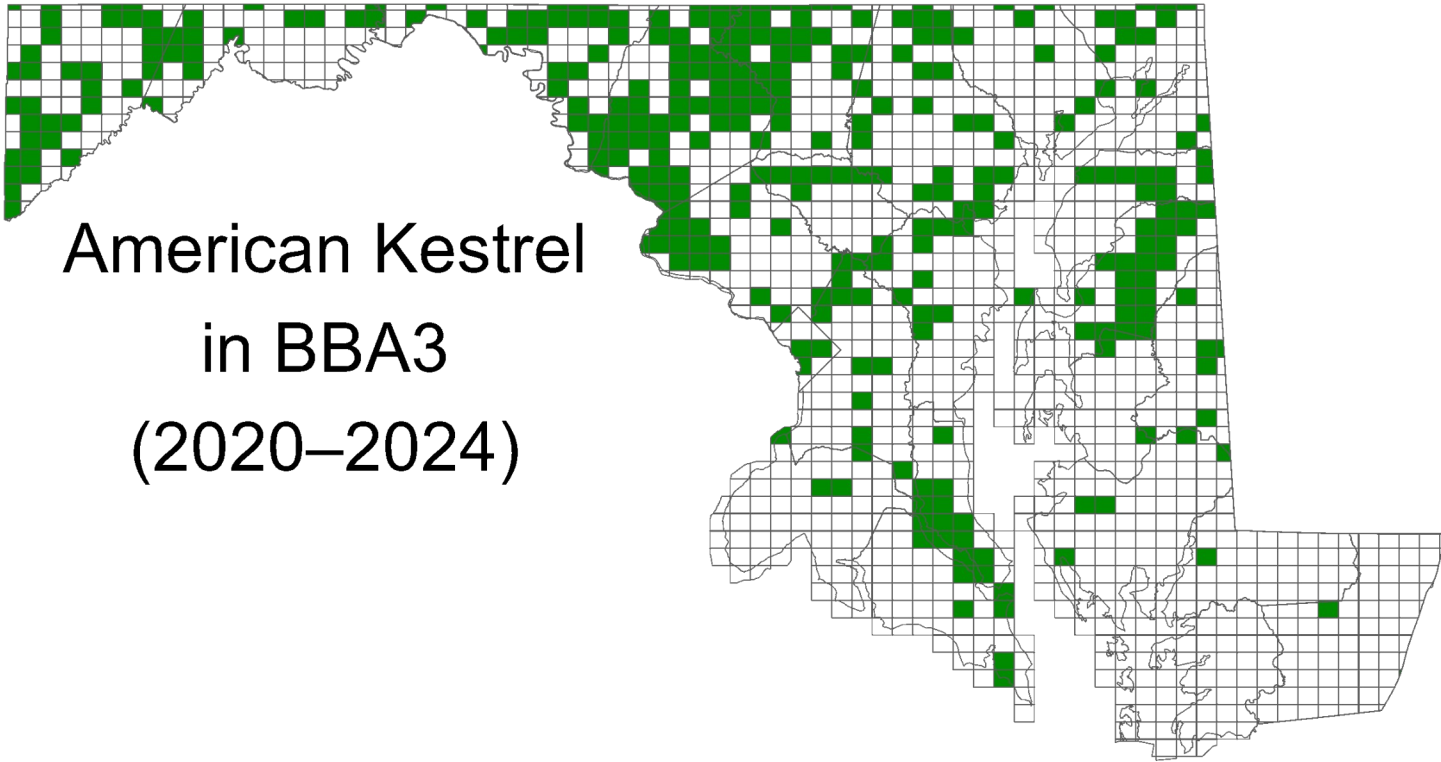
Lake Huron



American Kestrel  
in BBA1  
(1983–1987)



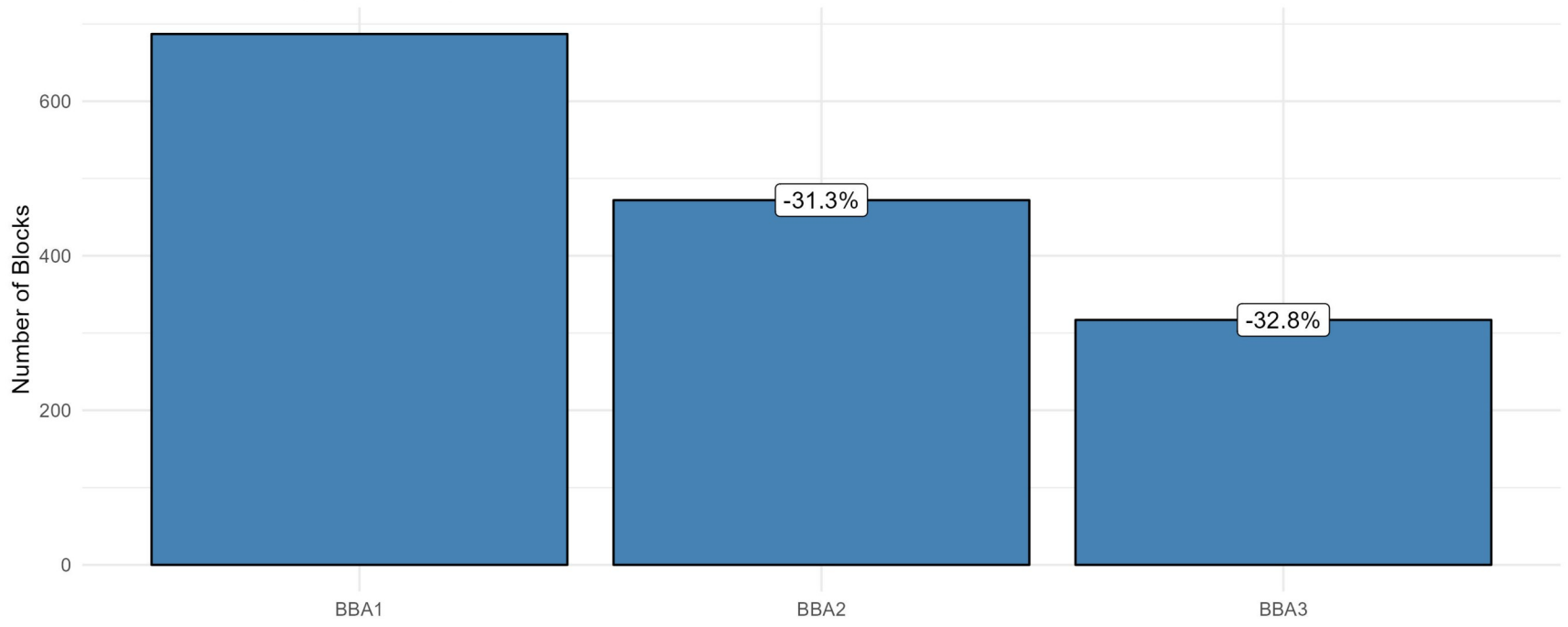
American Kestrel  
in BBA2  
(2002–2006)



American Kestrel  
in BBA3  
(2020–2024)

### Number of blocks with American Kestrel detected during each MD-DC atlas

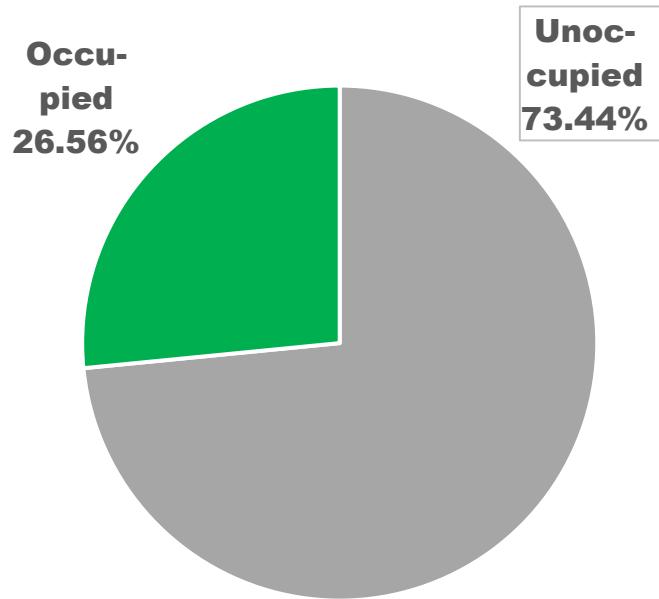
Column labels show percent change between atlases



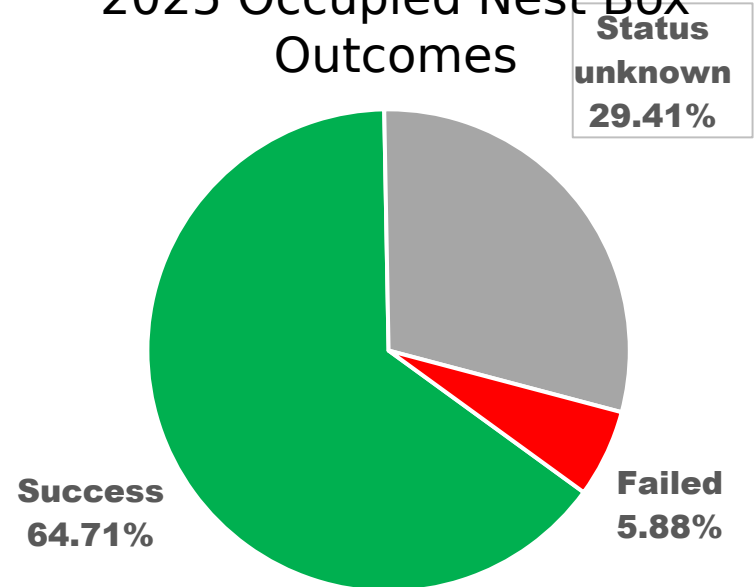


# American Kestrel Nest Box Program

## 2025 Nest Box Occupancy



## 2025 Occupied Nest Box Outcomes



*Outcomes of American Kestrel (*Falco sparverius*) nesting attempts in Maryland during 2025 (n = 17). Most nests (64.71%) were successful, while 5.88% failed for unknown reasons. Nearly one-third of monitored nests (29.41%) had outcomes that could not be determined.*

*Occupancy of American Kestrel (*Falco sparverius*) nest boxes in Maryland during 2025. Of 64 boxes that were checked, 26.56% (n = 17) were occupied by kestrels, while 73.44% (n = 47) were not occupied. The overall occupancy rate represents the proportion of occupied boxes among all checked boxes.*



# Short-eared Owl

## MBCP FRP

### Action Plan

- Genotyping
- Morphology
- Age and sex structure
- Wintering site Fidelity
- Migratory Connectivity
- Effective Trapping Techniques









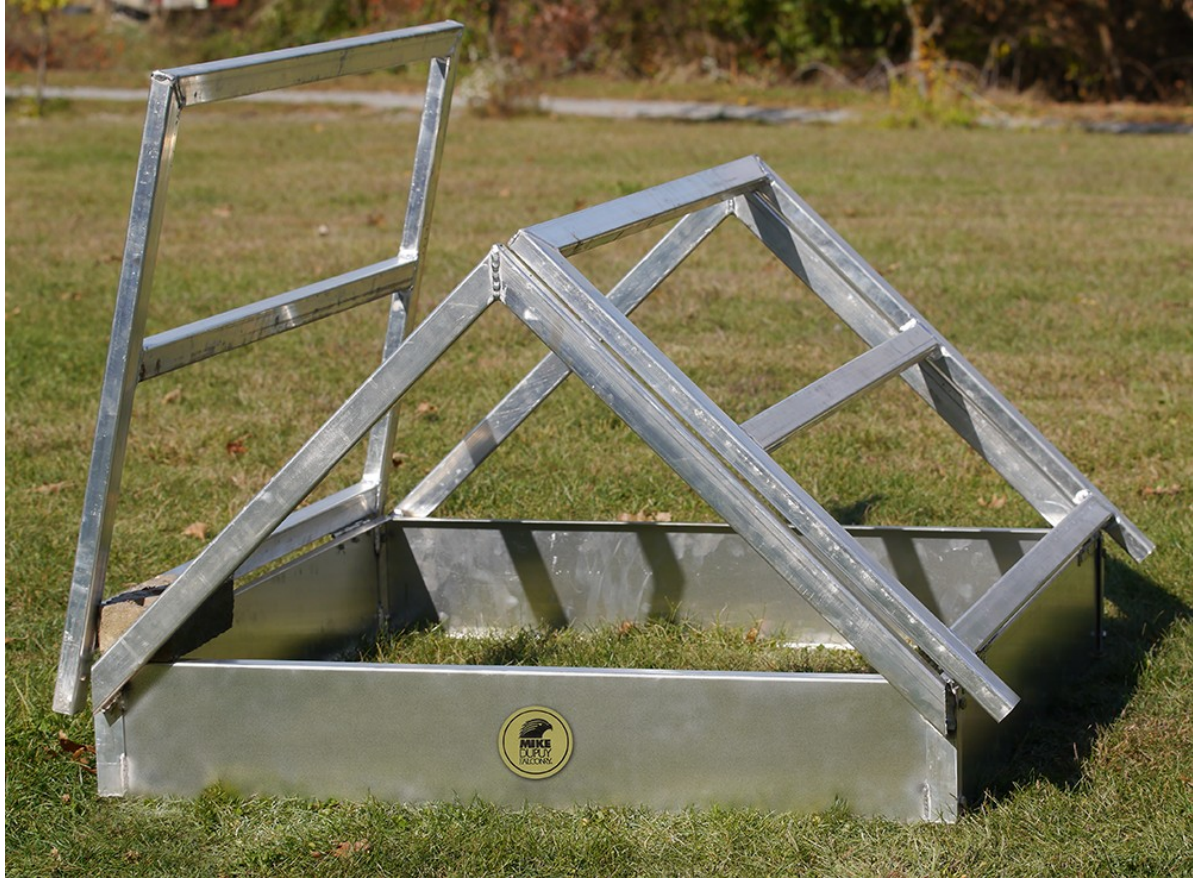






Courtesy of Ashish Kotian





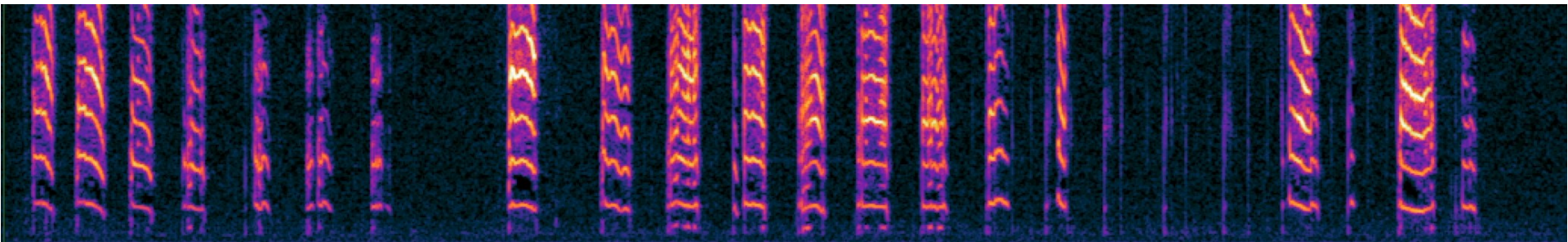
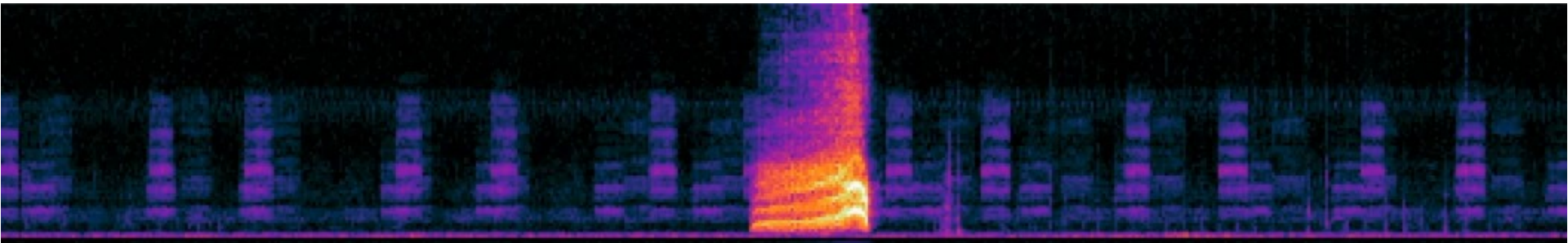
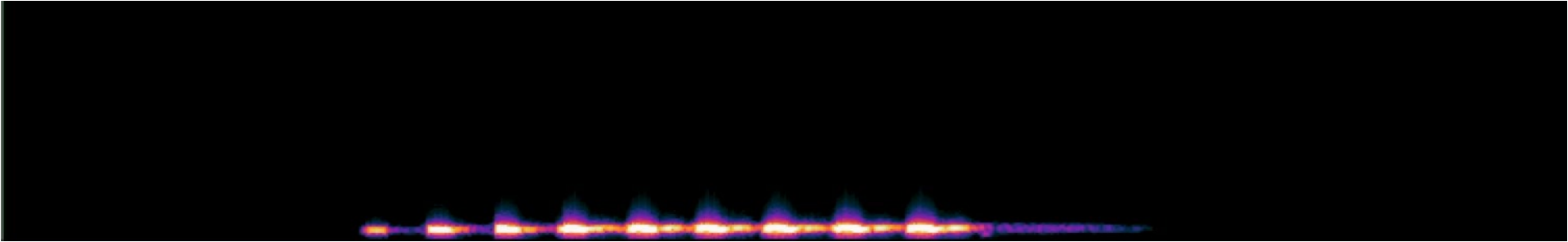






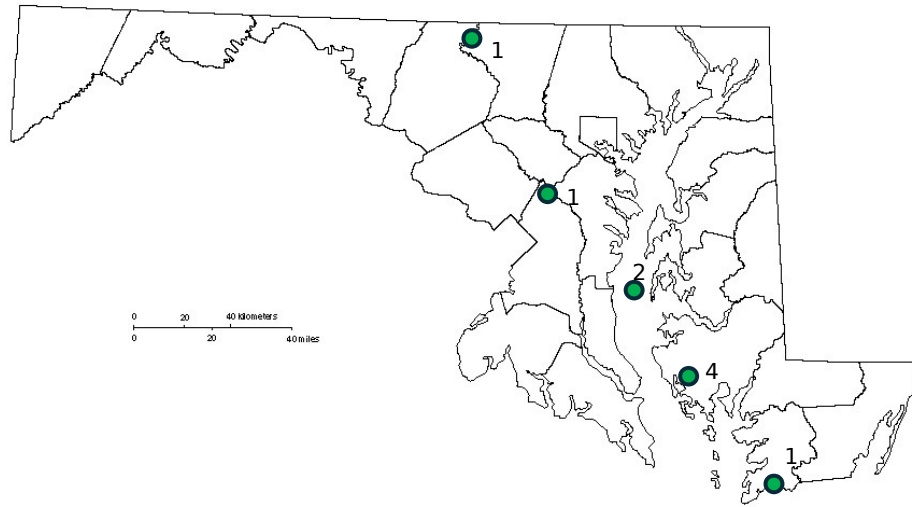








# MARYLAND









—Banding Locations—

A HENDERSON, MD.	D HERDON, VA
B INGLETSIDE, MD.	E CAPE MAY POINT, NJ
C BURKE, VA	F DULLES AIRPORT, VA

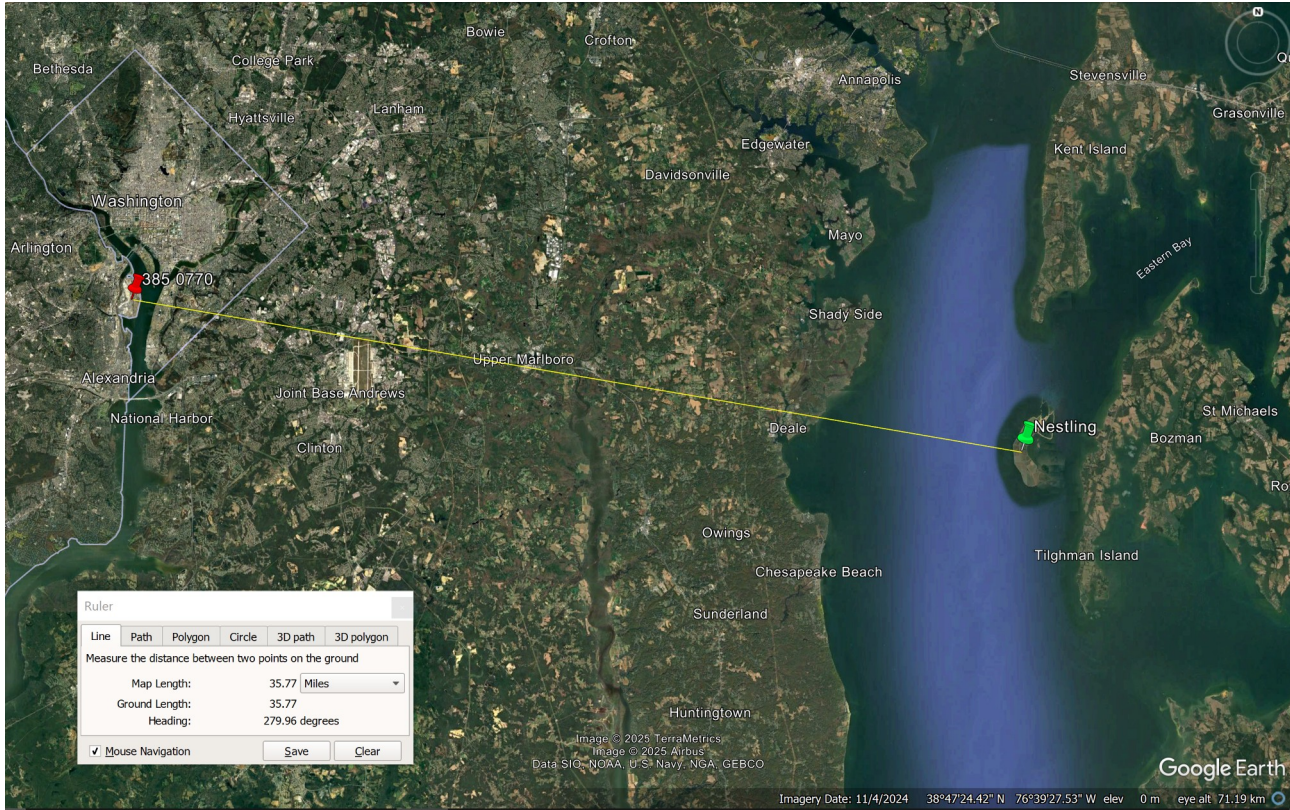
CLUSTER BAND NOS.  
 987-  
 05511  
 UGH 987-  
 05523  
 RI ONLY CONTIGUOUS  
 BAND NUMBERS

BAND PREFIX:	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
987 ←								
01								
02								
03								
04								
05								
06								
07								
08								
09								
05511	OWL shorteared	367	300	ANY	U	MD-146	390-0754	A 01-05-75
12	Hawk, Redtailed	337		ANY			390-0755	B 02-15-75
13	OWL, BARRED	368		L		VA-188	384-0771	C 04-22-75
14								
15	OWL, BARN	365	300				385-0772	D 08-03-75
16								
17								
18								
19								
20								
21	LEGGT, GREAT	196	300	U		NJ-159	385-0745	E 11-14-75
22	HAWK, REDTAILED	337		HY				11-16-75
23				ANY		VA-188	385-0772	F 12-21-75
24								
25								

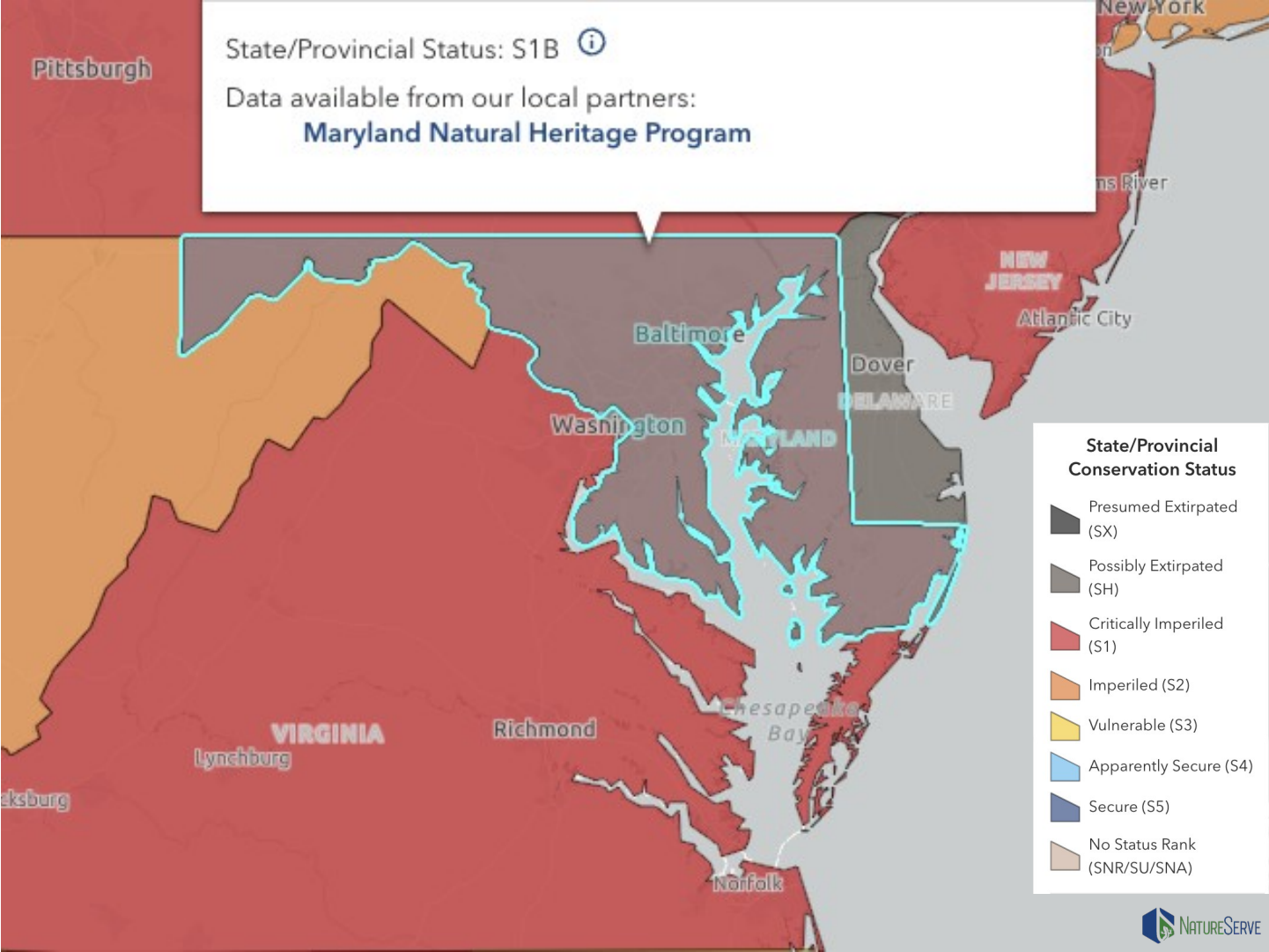
RETIRED 8/79

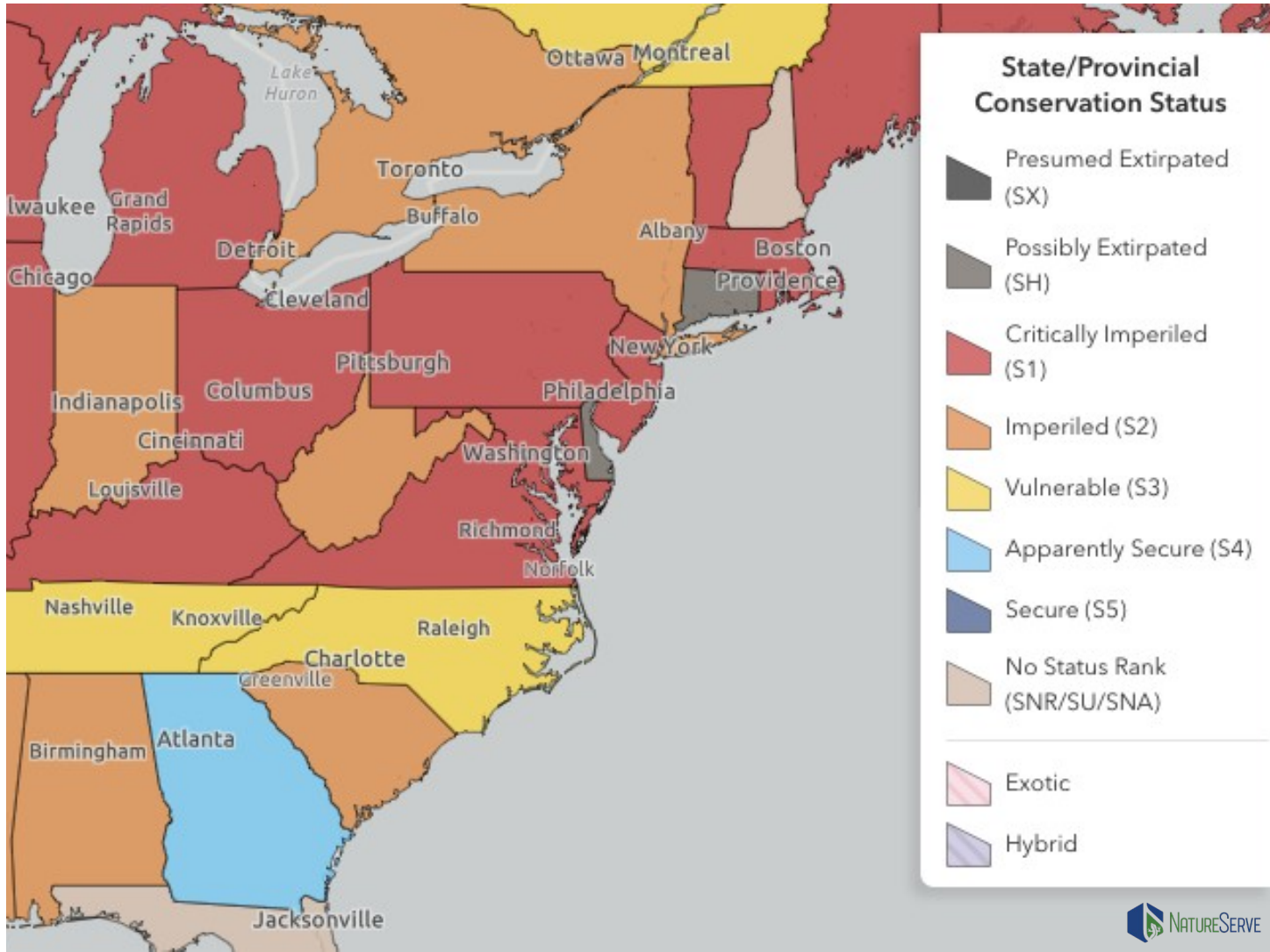


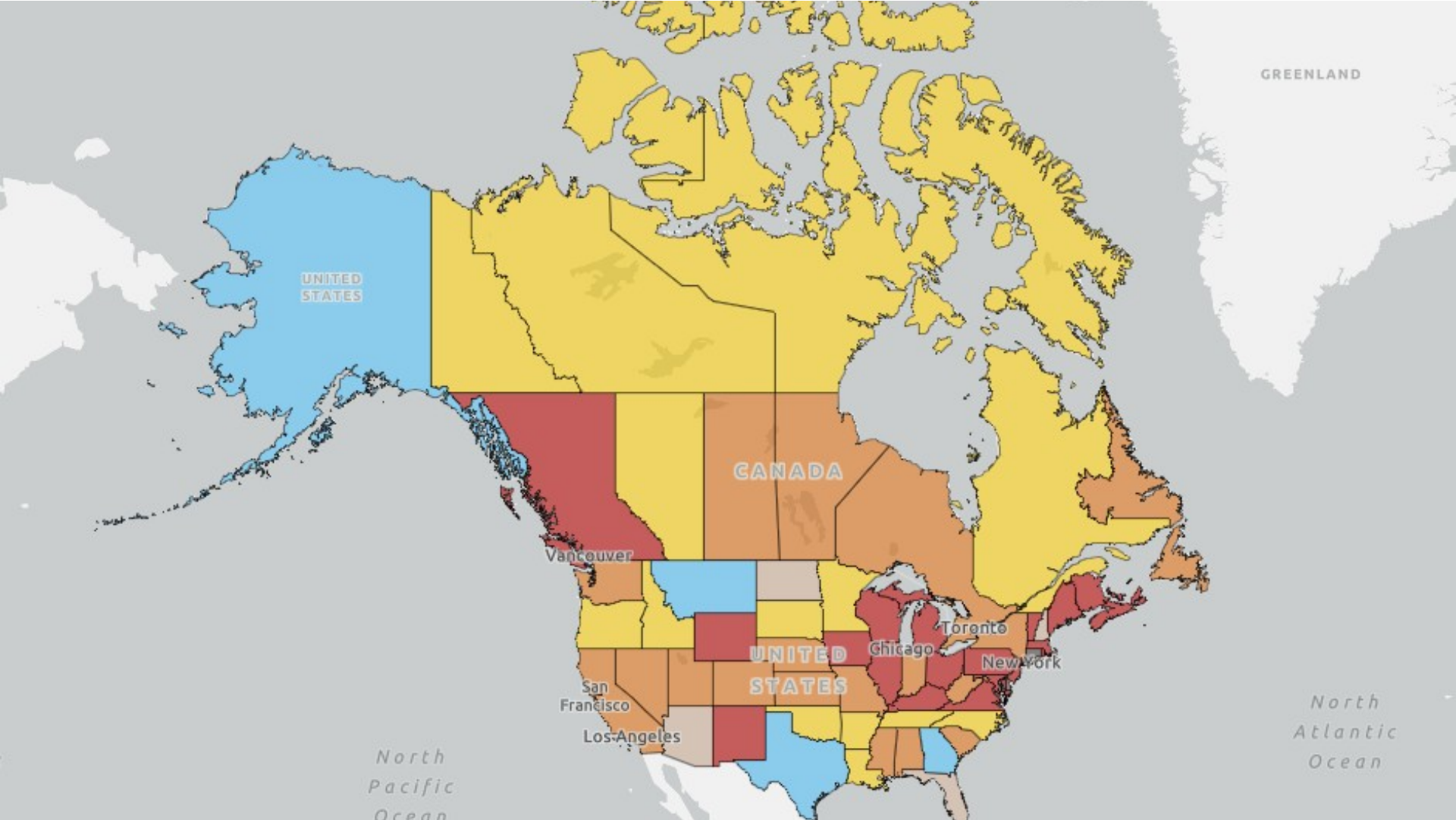


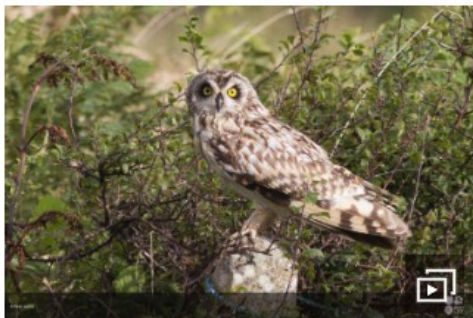












# Short-eared Owl

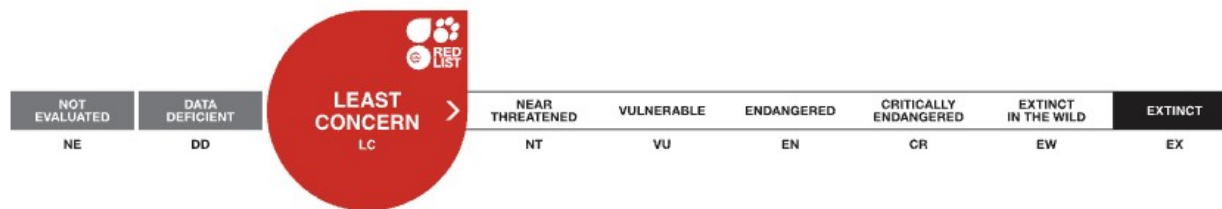
*Asio flammeus*

## ABSTRACT

Short-eared Owl *Asio flammeus* has most recently been assessed for *The IUCN Red List of Threatened Species* in 2021. *Asio flammeus* is listed as Least Concern.

## THE RED LIST ASSESSMENT i

► [BirdLife International. 2021. \*Asio flammeus\*. \*The IUCN Red List of Threatened Species\* 2021: e.T22689531A202226582...](#)



**Northern  
Harrier**  
*Circus hudsonius*



## NatureServe Conservation Status for Maryland



State/Provincial Status: S2B ⓘ

Data available from our local partners:

- Maryland Natural Heritage Program

## State/Provincial Conservation Status

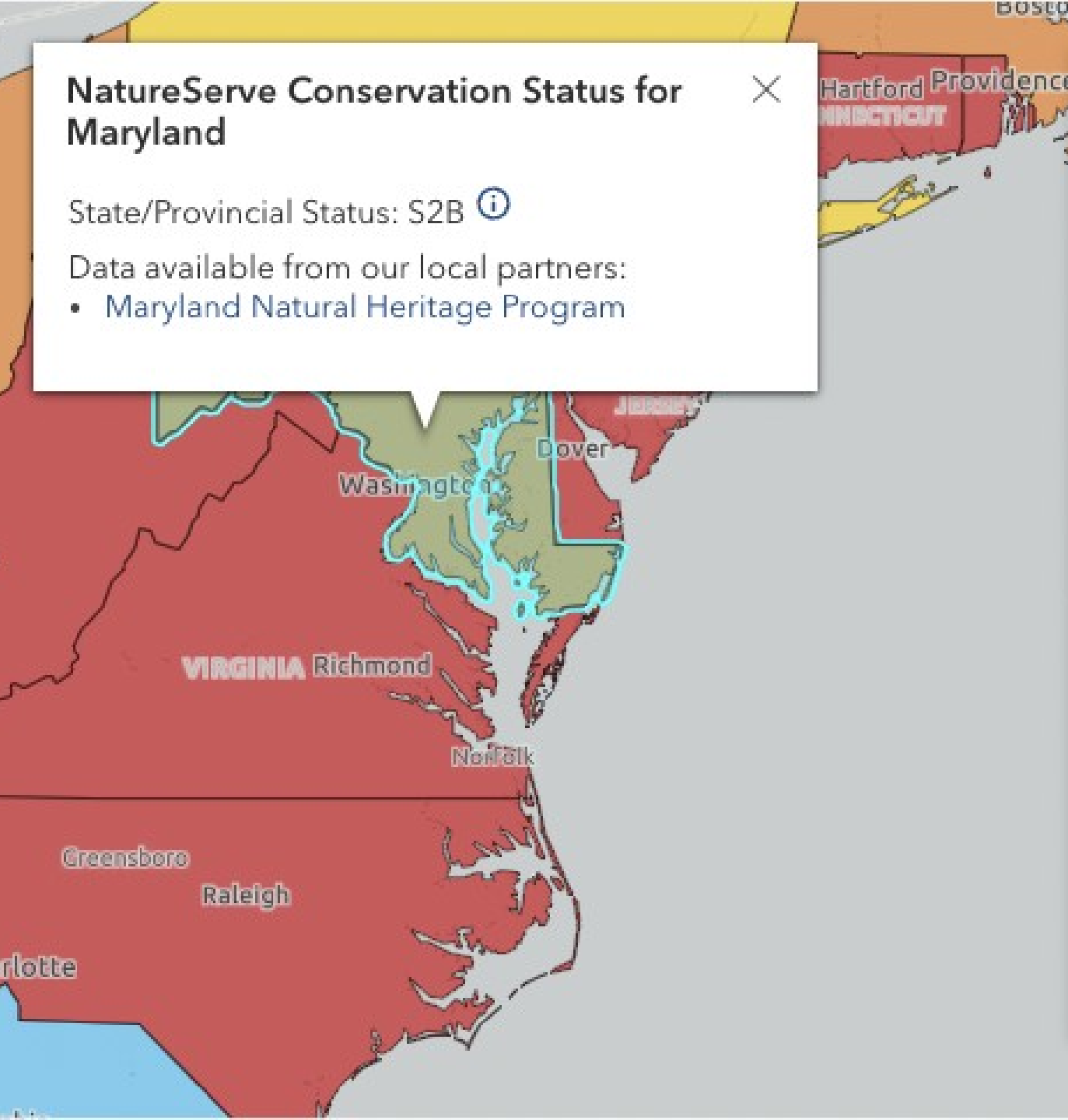
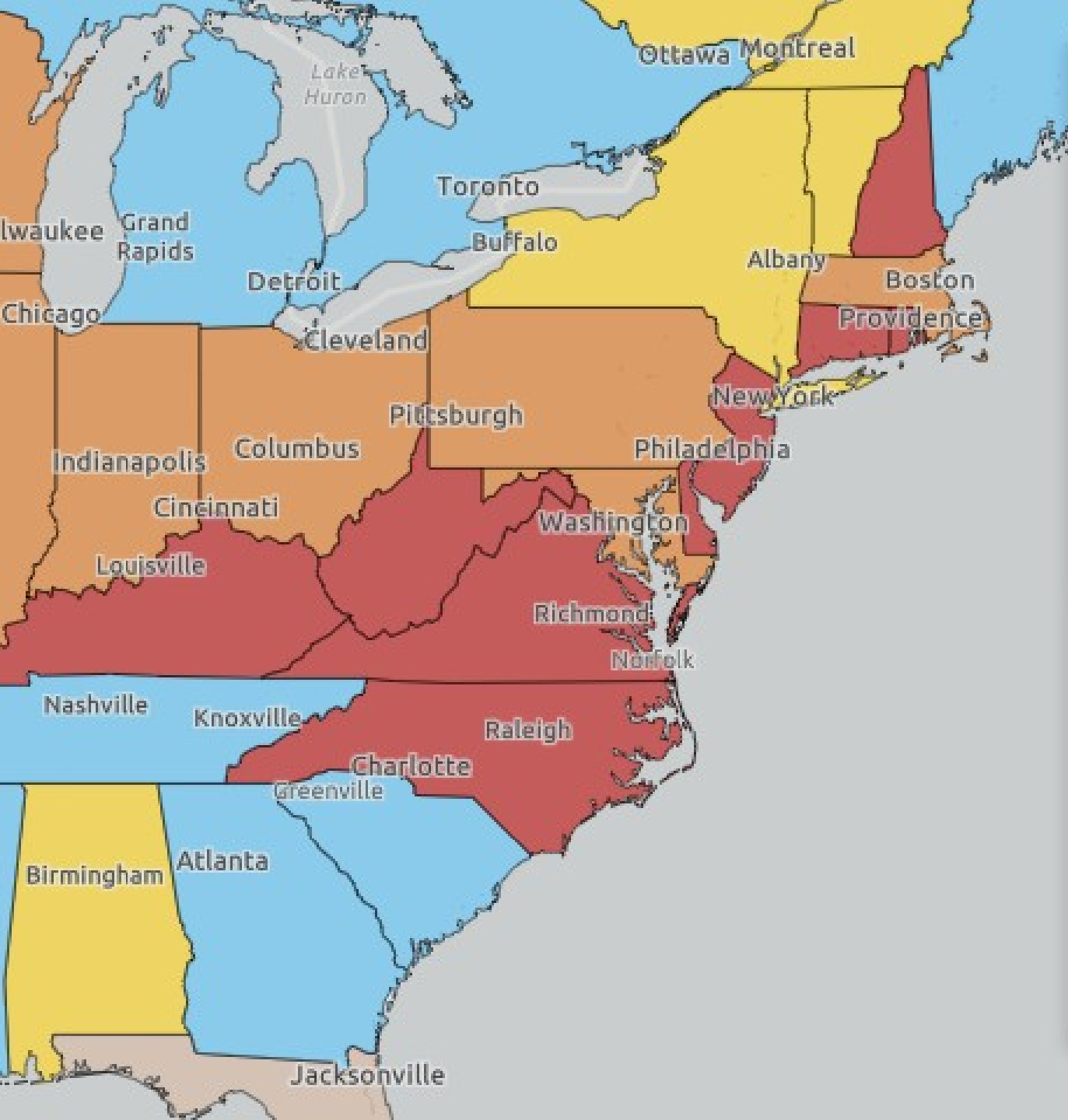




Photo by Jeff Shenot



## State/Provincial Conservation Status

-  Presumed Extirpated (SX)
  -  Possibly Extirpated (SH)
  -  Critically Imperiled (S1)
  -  Imperiled (S2)
  -  Vulnerable (S3)
  -  Apparently Secure (S4)
  -  Secure (S5)
  -  No Status Rank (SNR/SU/SNA)
- 
-  Exotic
  -  Hybrid







# GET INVOLVED!

“Birding, after all, is  
just a game. Going  
beyond that is what is  
important.”

Farmland Raptor Project:  
- Roger Tory Peterson

[frp\\_coordinator@marylandbirds.org](mailto:frp_coordinator@marylandbirds.org)

MBCP website:  
<https://marylandbirds.org/>

<http://marylandbirds.org/farmland-raptors>

# THANK



NFWF

