

# An Ecological 'Crisis' as 2.9 Billion Birds Vanish

**By CARL ZIMMER**  
The skies are emptying out. The number of birds in the United States and Canada has fallen by 29 percent since 1970, scientists reported on Thursday. There are 2.9 billion fewer birds taking

**Steep Losses Even for Abundant Species, a Study Shows**

clude habitat loss and wider use of pesticides. "Silent Spring," Rachel Carson's prophetic book in 1962 about the harms caused by pesticides, takes its title from the unnatural quiet settling on a world that has lost its birds: "On the mornings that had once throbbed with the dawn chorus of



**IN DEPTH**

**CONSERVATION**

## Billions of North American birds have vanished

Even common birds are in steep decline,

**CBS NEWS** NEWS EYE ON EARTH SHOWS LIVE

# North America has lost nearly 3 billion birds since 1970

# Bird Populations Plummet in North America

Continent's bird population has dropped by about 3 billion since 1970, says new study, a grim sign of environmental health

# Future looms dark for 48% of bird species

The State of the World's Birds says 13.5% of 10,994, recognised extant species are currently threatened with extinction

May 09, 2022 03:01 am | Updated 08:11 am IST - GUWAHATI

# Half of world's bird species in decline as destruction of avian life intensifies

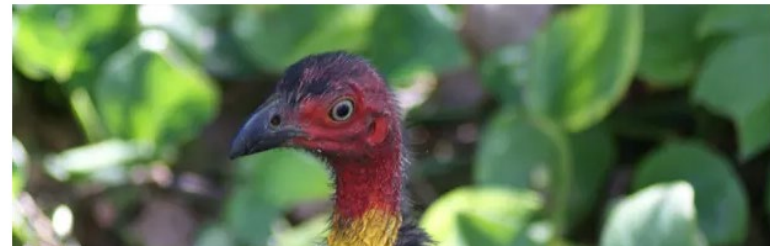
State of the World's Birds report warns human actions and climate crisis putting 49% in decline, with one in eight bird species under threat of extinction

**State of the World's Birds 2022**

Insights and solutions for the biodiversity crisis

# 'Canaries in the coalmine': loss of birds signals changing planet

Billions of birds are disappearing because of humanity's impact on Earth, global review finds



# Three Billion Canaries in the Coal Mine

What does it mean for us that birds are dying? And what can we do about it?

SEPTEMBER 28, 2022

# Half world's birds in decline, species moving 'ever faster' to extinction

# US and Canada have lost 2.9 billion birds since 1970, study says

By Ashley Strickland, CNN  
Updated 11:57 AM ET Thu September 10, 2019  
Home // Radio // Here & Now

**Almost half of bird species are in decline due to human-made threats, report finds**

05:44

# POLITICS & THE NATION

# North America has lost nearly 3 billion birds over the past five decades

29 percent loss signals 'overlooked biodiversity crisis,' study says

**BY KARIN BRULLIARD**

Slowly, steadily and almost imperceptibly, North America's bird population is dwindling. The sparrows and finches that visit backyard feeders number fewer each year. The satellite song of the western meadowlark — the official bird of six U.S. states — is growing more rare. The continent has lost nearly 3 billion birds representing hundreds of species over the past five decades, a 29 percent reduction, in an "overlooked biodiversity crisis," according to a study from top ornithologists and government agencies.

The victims include warblers, thrashers, swallows and other familiar birds.

"That's really what was so staggering about this," said lead au-



Seagulls fly over South Miami Beach in Florida on Dec. 20, 2005. A study says while the population of wetland birds such as ducks and geese is rising, the number of grassland birds has declined.

spots. On the rise are wetland birds such as ducks and geese, which have benefited from conservation efforts by hunting groups. Also increasing are raptors such as bald eagles, which were close to extinction before the prohibition of the insecticide DDT. Endangered species protections helped them rebound, and they remain protected under either federal laws.

Those examples show conservation policies and protections can work, the authors say. Sparrows and meadowlarks, however, may be trickier. There's no hunting constituency to rally behind them, and their numbers aren't low enough to warrant federal protection.

Still, Rosenberg said, these birds can be helped. Sustainable agricultural practices that depend less on pesticides and programs that offer farmers incentives to set aside land for wildlife should expand, he said.

"We're seeing this steady intensification of agriculture and pastureland being converted to pure corn ... squeezing out every last bit of that habitat, getting rid of

# 3 Billion Birds Lost

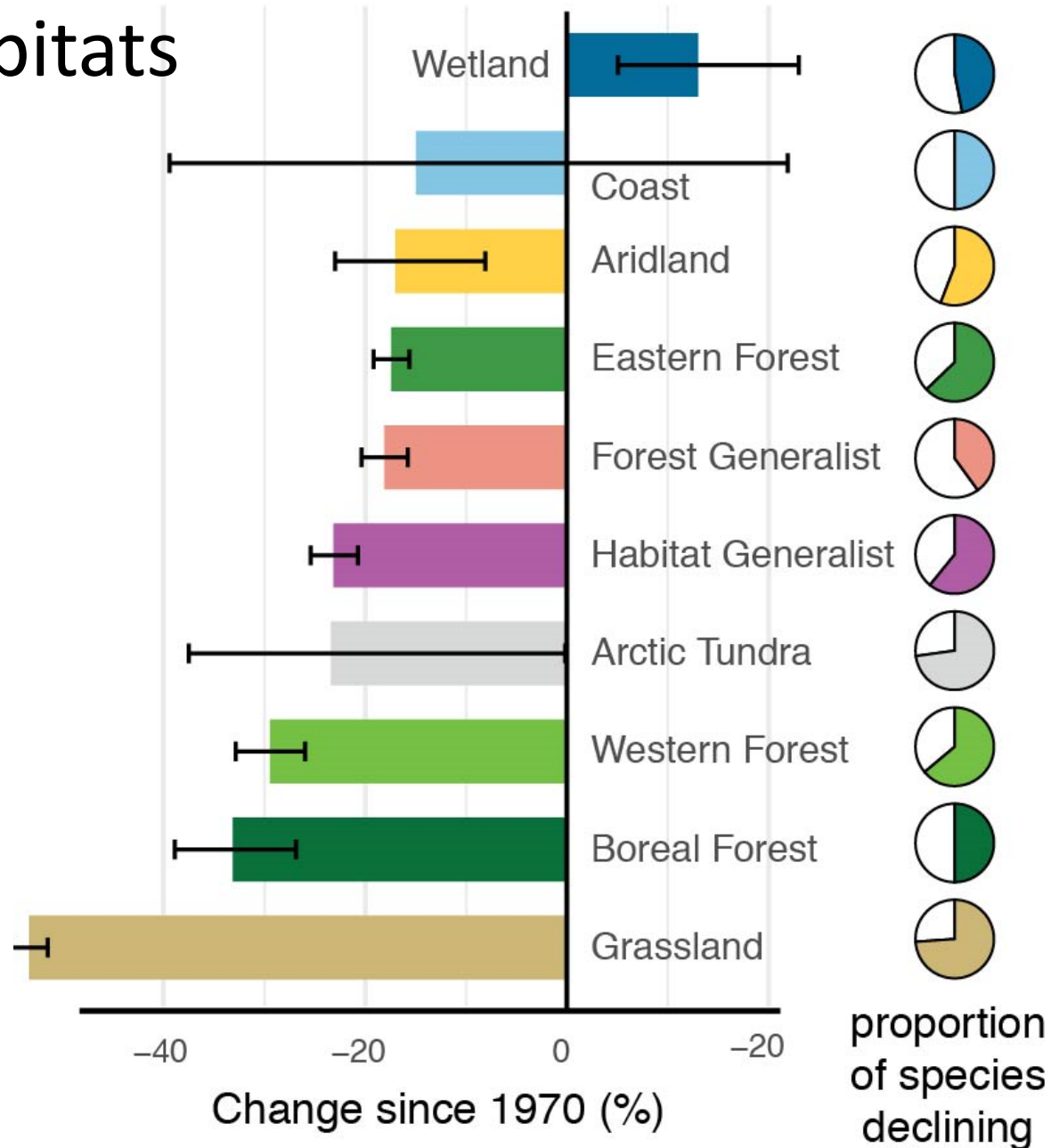
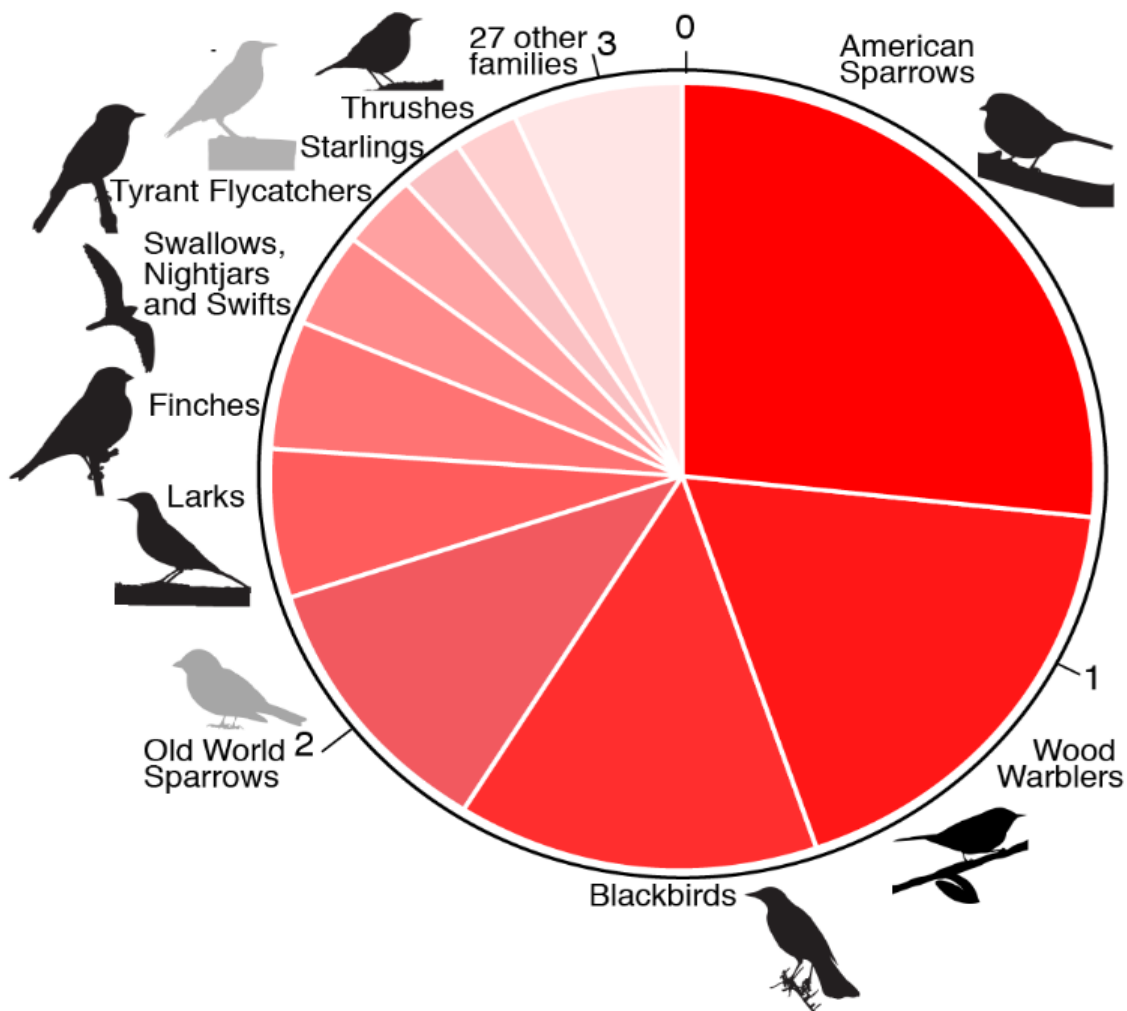


1970

Half of all North American bird species – and nearly half of Maryland's – are declining.

2020

# Declines span most taxa & habitats





# Migratory Birds

**2.5**  
BILLION  
MIGRATORY BIRDS  
LOST SINCE 1970

**-28%**  
POPULATION LOSS  
IN MIGRATORY  
BIRD SPECIES  
SINCE 1970

**2 IN 5**  
BALTIMORE ORIOLES  
LOST SINCE 1970



Baltimore Oriole by Gary Mueller/Marcus & Liberty, Forest by Nicolás Tonelli/Creative Commons

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





# Common species in decline since 1970



Chimney Swift  
(-71%)



Horned Lark (-69%)



Bobolink (-63%)



Field Sparrow  
(-64%)



Wood Thrush  
(-60%)



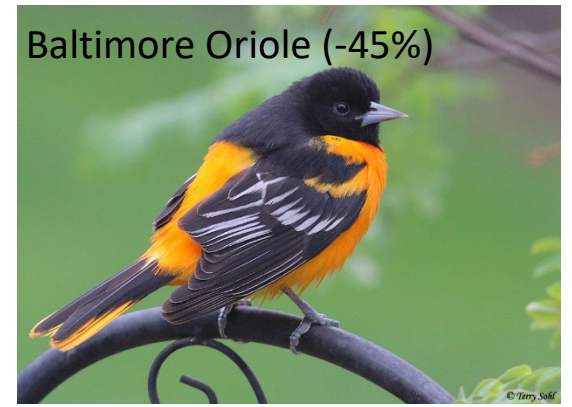
Northern Flicker (-44%)



Eastern Towhee  
(-44%)



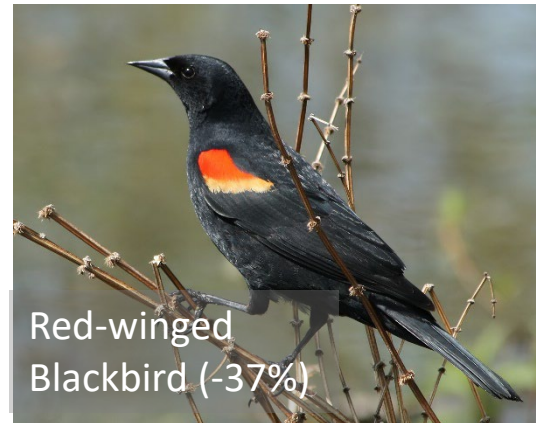
Tree Swallow (-42%)



Baltimore Oriole (-45%)



Barn Swallow (-40%)



Red-winged  
Blackbird (-37%)

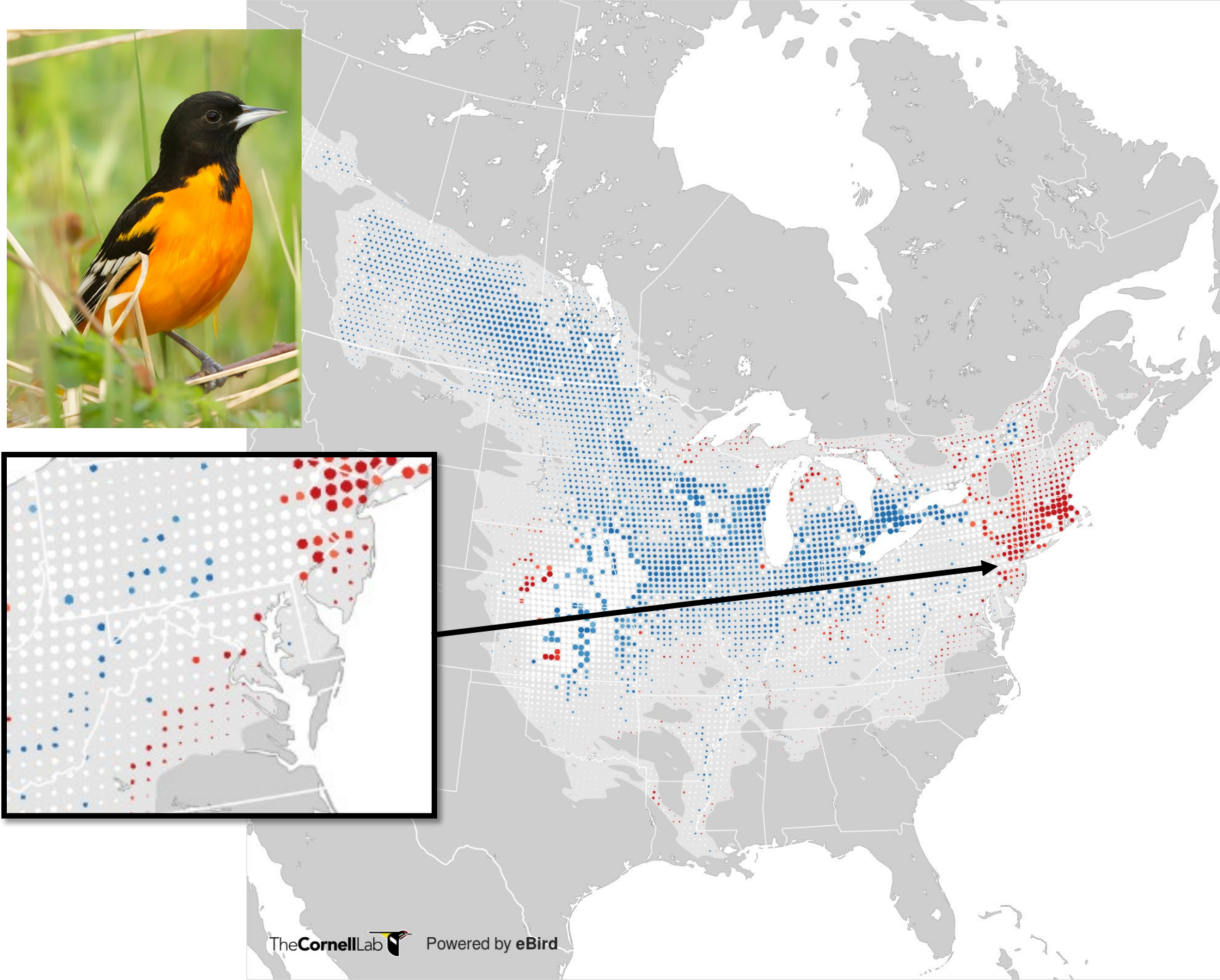
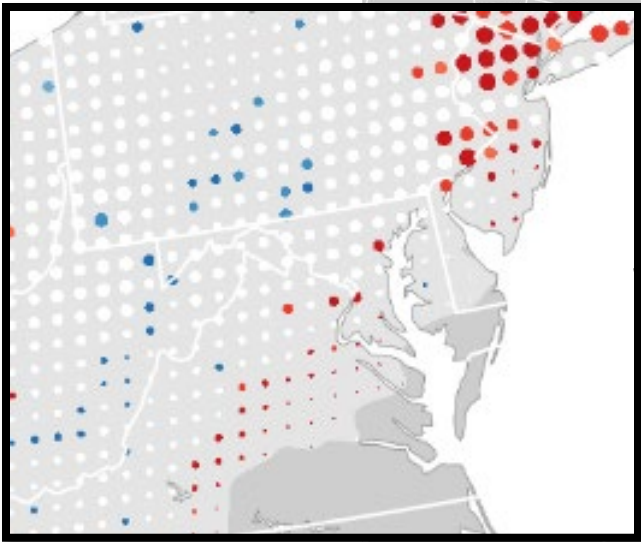


Killdeer (-37%)



Eastern Screech Owl (-35%)





# Baltimore Oriole *Icterus galbula*

## Trends 2007-2021

Breeding season, 14 Jun - 20 Jul

This map depicts the cumulative change in estimated relative abundance from 2007 through 2021 with circles representing 27km x 27km regions. Red indicates decline and blue indicates increase. The darker the color, the stronger the trend. White circles represent locations where the trend estimate is not significantly different from zero (i.e., the 80% confidence interval contains zero). Circle sizes are scaled by the estimated relative abundance at the middle of the time period.

Abundance trend Pct. change, 2007-2021



Relative abundance Middle year of range, 2014



Inside modeled seasonal range  
Outside modeled seasonal range

eBird data from 2007-2021. Estimated for 2021.

Fink, D., T. Auer, A. Johnston, M. Strimas-Mackey, S. Ligocki, O. Robinson, W. Hochachka, L. Jaromczyk, A. Rodewald, C. Wood, I. Davies, A. Spencer. 2022. eBird Status and Trends, Data Version: 2021; Released: 2022. Cornell Lab of Ornithology, Ithaca, New York. <https://doi.org/10.2173/ebirdst.2021>



## State-listed endangered



Black Rail

Black Skimmer

Common Tern

Gull-billed Tern



Loggerhead Shrike

Mourning Warbler

Northern Goshawk

Piping Plover



Royal Tern

Sedge Wren

Short-eared Owl

Swainson's Warbler



Upland Sandpiper

Wilson's Plover

## State-listed threatened



American Bittern

Least Tern

Nashville Warbler

Red Knot

### MD Species in Need of Conservation

Barn Owl

Common Gallinule

Golden-winged Warbler

Henslow's Sparrow

Least Bittern

American Peregrine Falcon

Common Moorhen

Alder Flycatcher

Forster's Tern

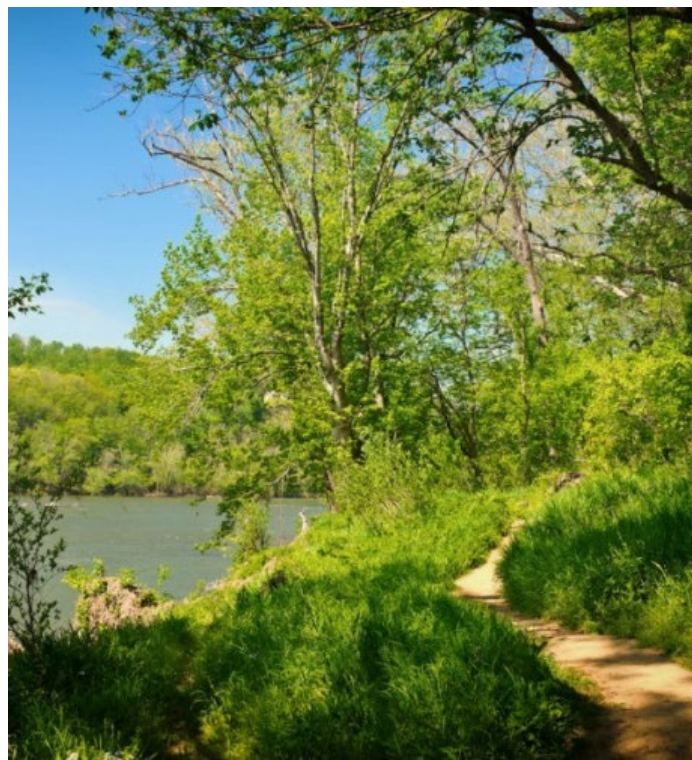
Coastal Plain Swamp Sparrow

Northern Harrier

Northern Waterthrush

Saltmarsh Sparrow





# Maryland the Beautiful Act

SB 470 / HB 631

Bolstering Maryland's  
**climate change resiliency!**

Urge your legislator to vote for  
the *Maryland the Beautiful Act!*

#30x30 #MarylandTheBeautiful





## MARYLAND STATE WILDLIFE ACTION PLAN

2015-2025

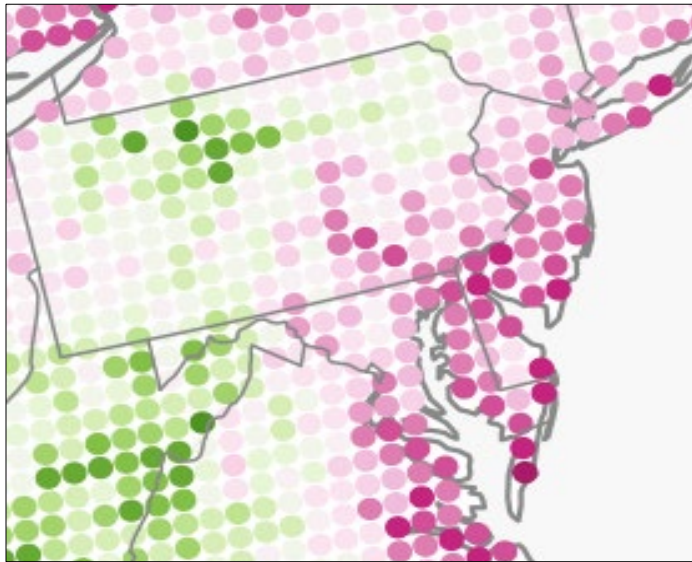
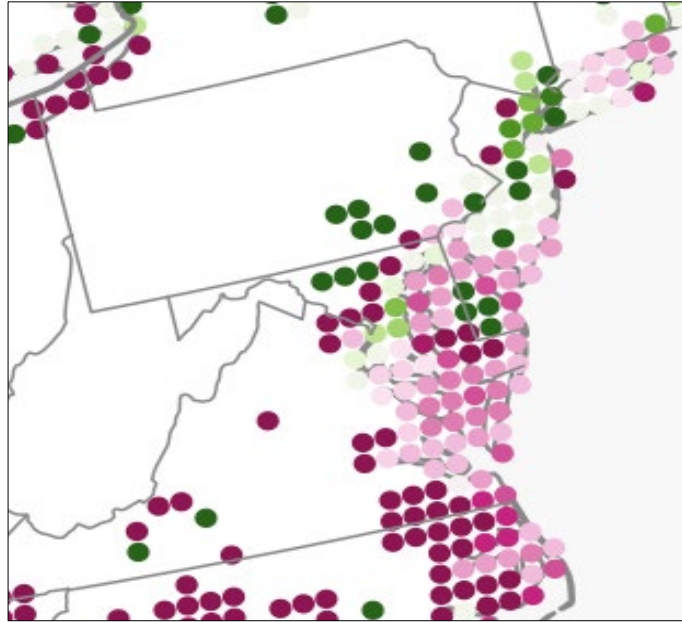
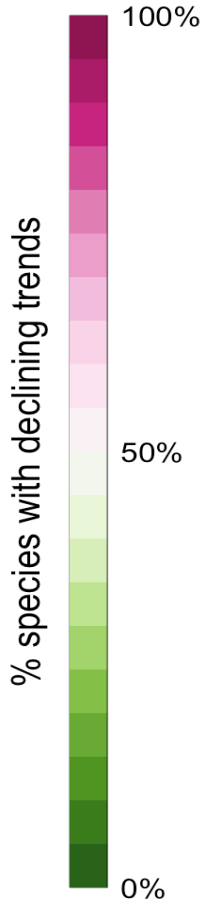


# Ecosystems that disproportionately support birds of high conservation concern

- Coastal
  - Breeding, migratory, non-breeding
- Montane
  - Breeding & migratory
- Grassland
- Early successional shrublands



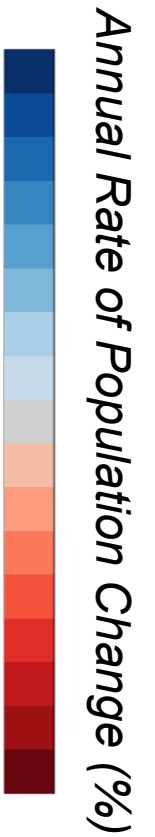
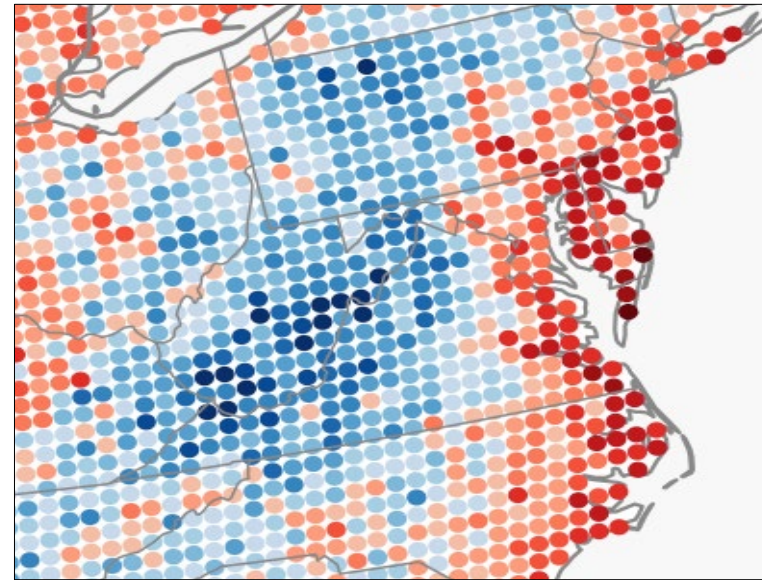
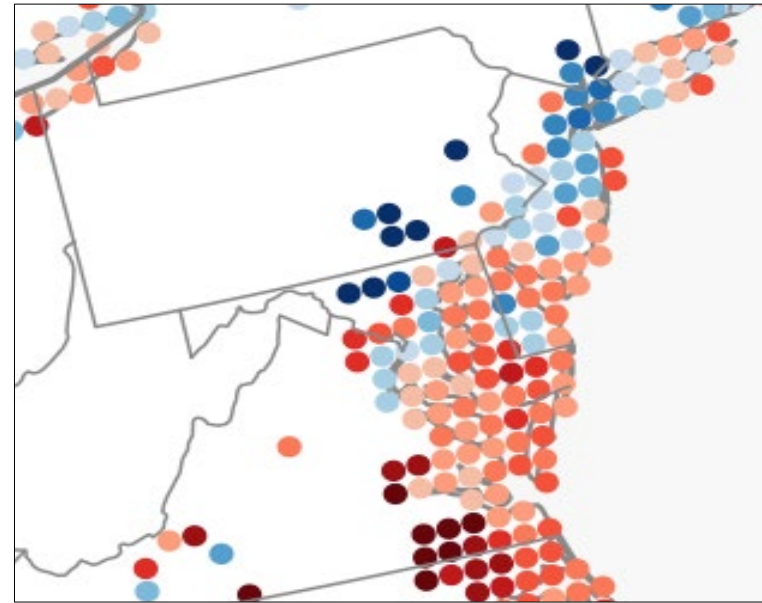
Most species associated with coasts or wetlands have declined since 2007



**Coasts**

**Wetlands**

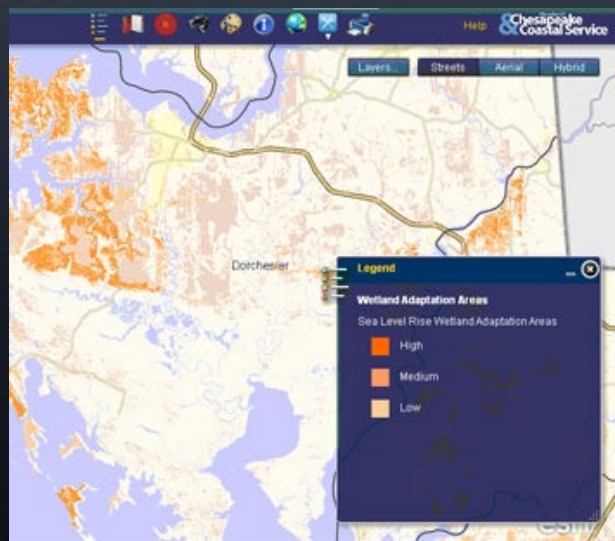
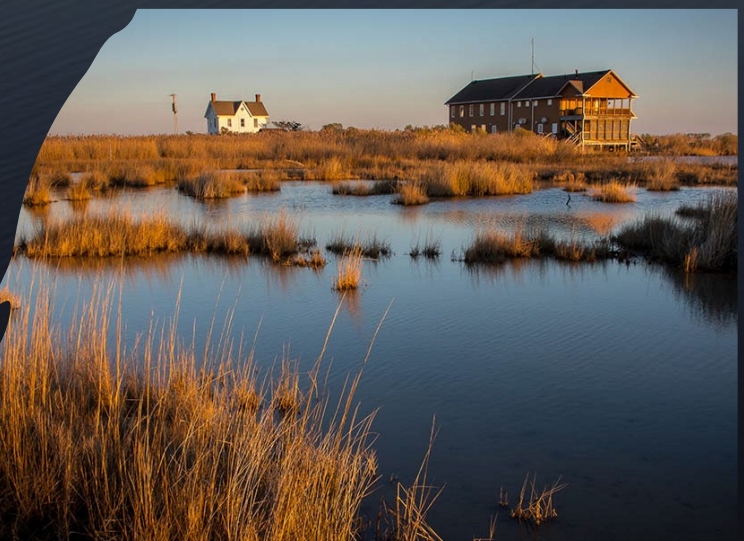
Average declines are moderately negative



eBird Trends,  
2007-2021



# Leverage co-benefits for coastal resilience





# Find ways to make working landscapes work for birds

## Grasslands (86% declining)

- Ring-necked pheasant
- Vesper Sparrow
- Grasshopper Sparrow
- Eastern Meadowlark
- Savannah Sparrow
- Horned Lark

## Successional (58% declining)

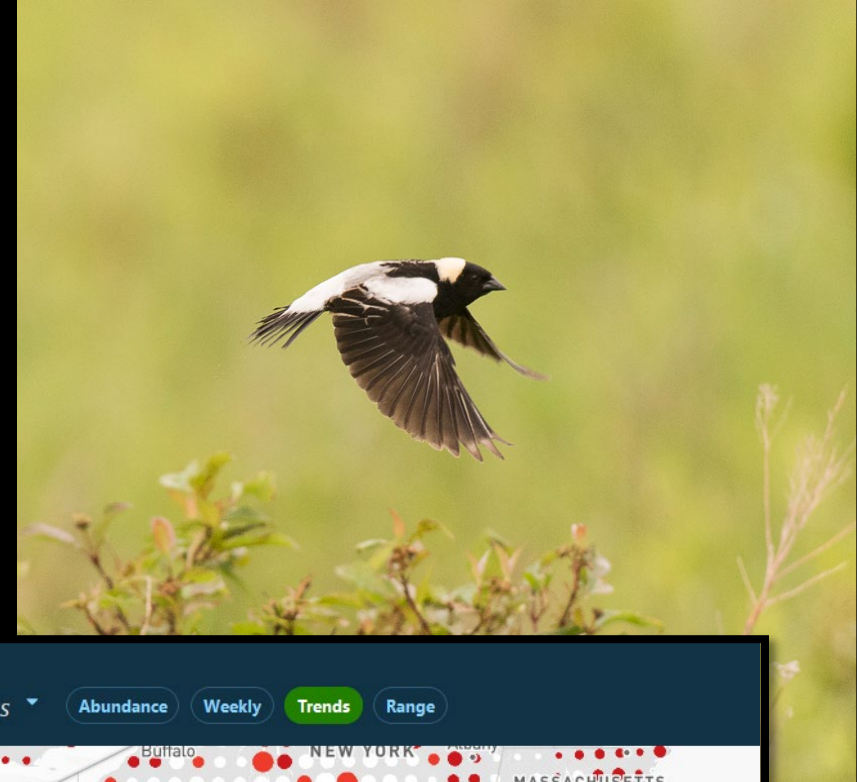
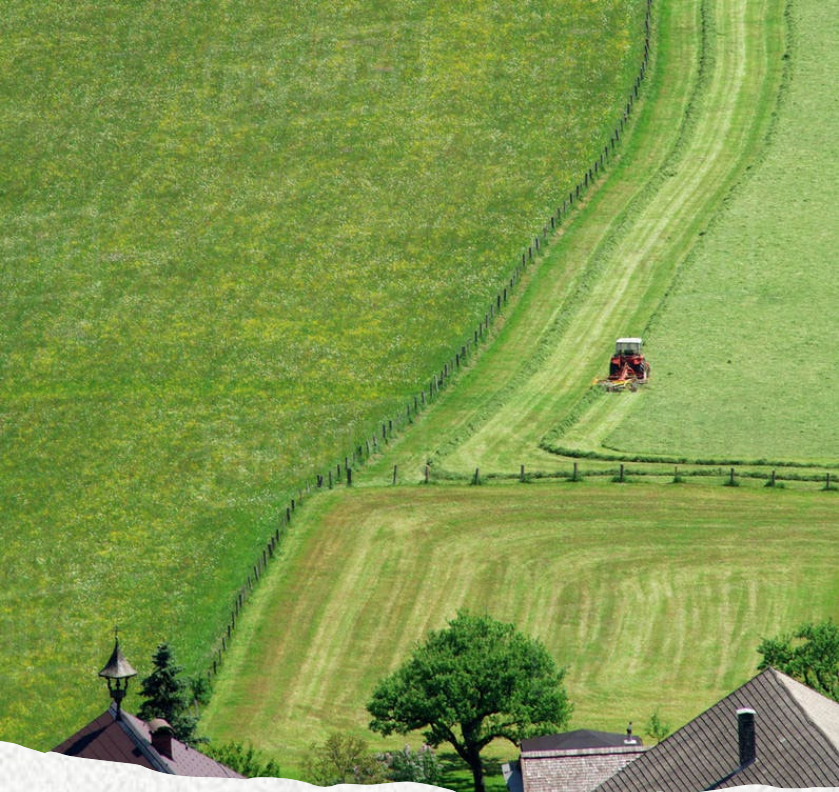
- Northern Bobwhite
- Prairie Warbler
- Field Sparrow
- American Woodcock
- Yellow-breasted Chat
- Eastern Towhee

(BBS, 1966-2019)

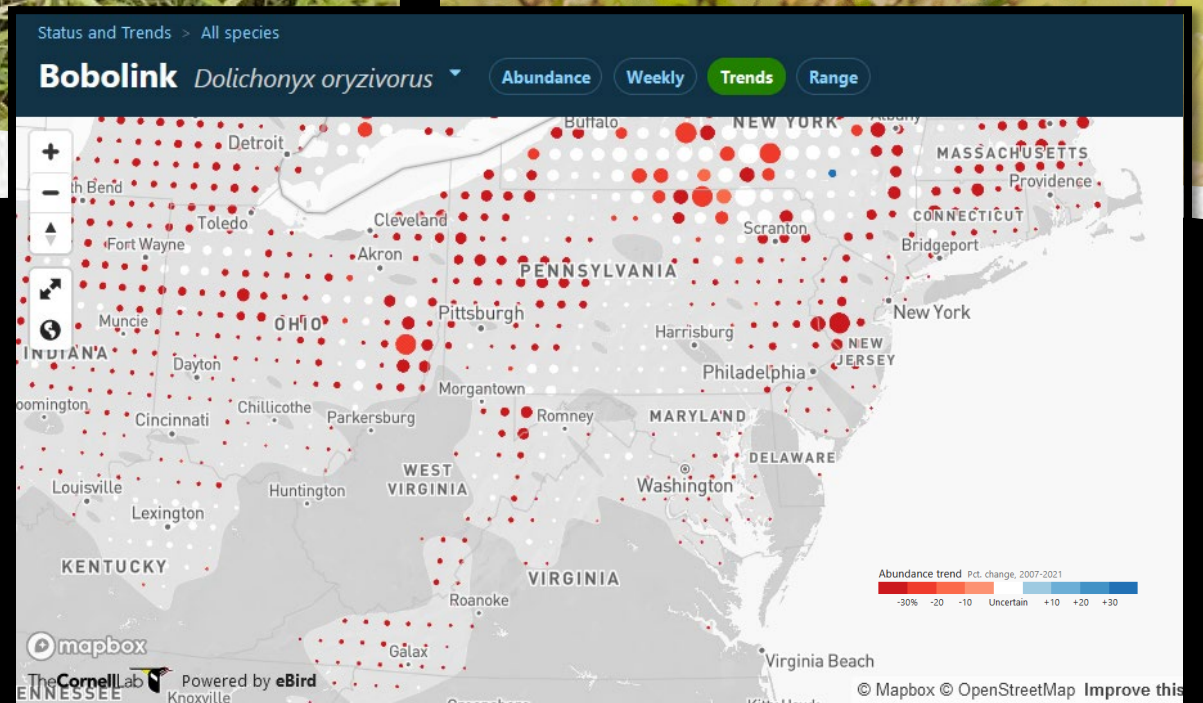








Precision conservation to accommodate human activities





# 75% of Maryland's urban birds have declined

- Common Grackle
- Chimney Swift
- Chipping Sparrow
- Northern Mockingbird
- Blue Jay
- American Robin

*Plus House Sparrow, European Starling, & Rock Pigeon*

Efforts to conserve birds also return co-benefits to people



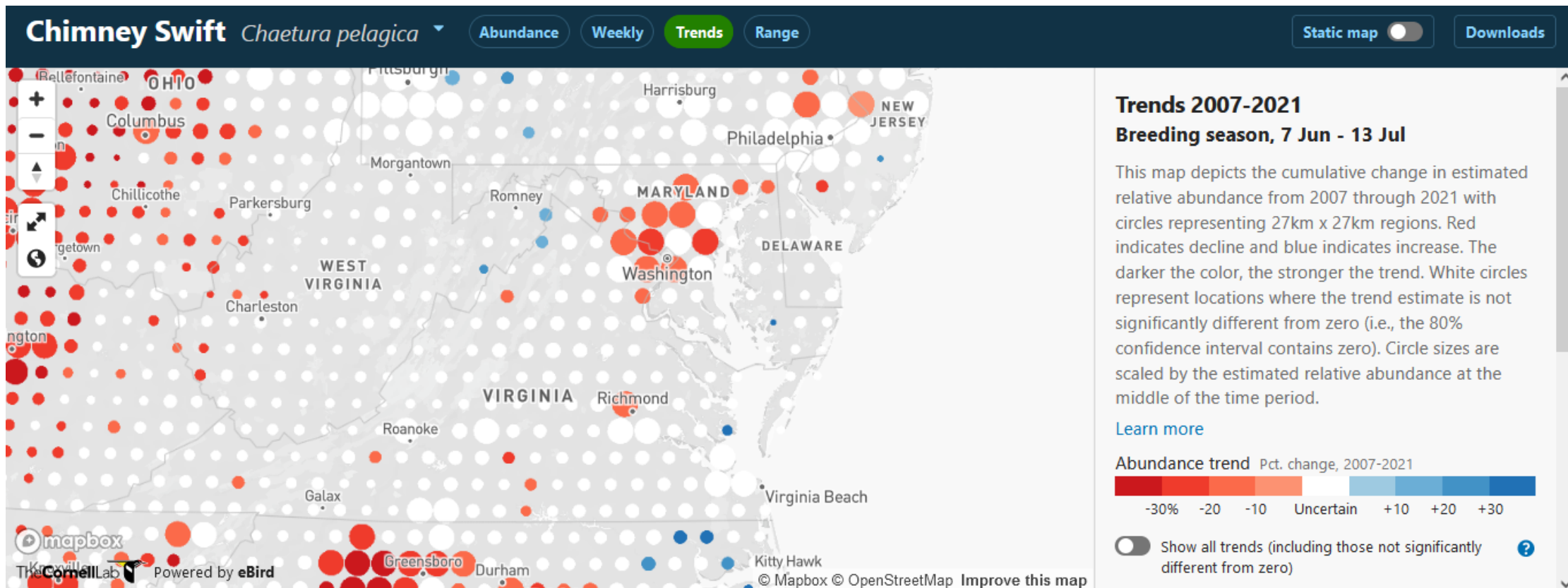


Maryland Bird  
Conservation  
Partnership



HOME ABOUT BIRD CITY MARYLAND INITIATIVES MONITORING RESOURCES

# Chimney Swift Conservation Program







- Do Citizen Science** (Icon: Binoculars)
- Make Windows Safer** (Icon: Bird flying near a window)
- Keep Cats Indoors** (Icon: Cat silhouette)
- Use Native Plants** (Icon: Plant with leaves)
- Avoid Pesticides** (Icon: Pesticide spray bottle with a slash through it)
- Drink Shade-Grown Coffee** (Icon: Bird perched on a branch with coffee beans)
- Reduce Plastic Use** (Icon: Person with a slash through them)

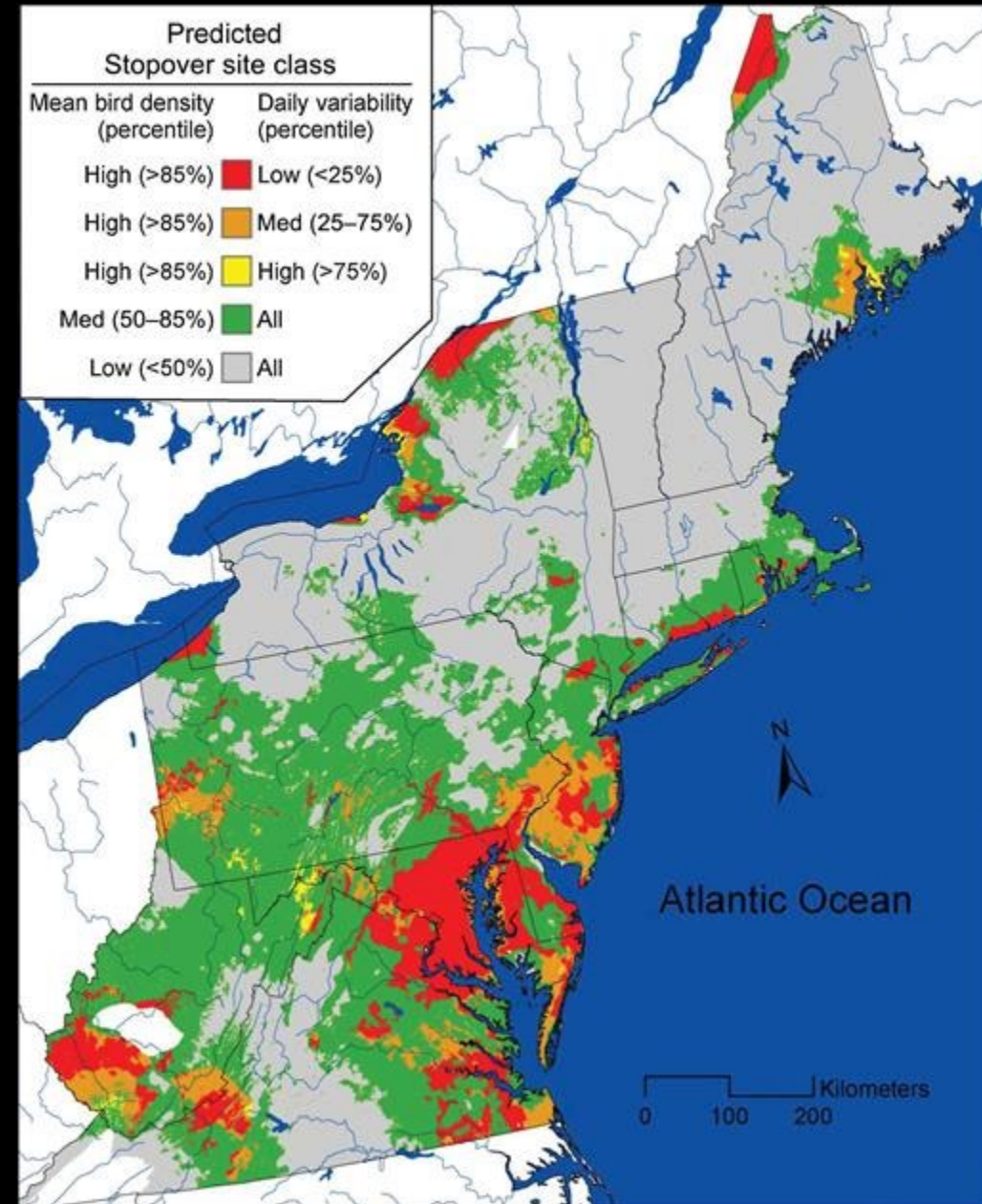
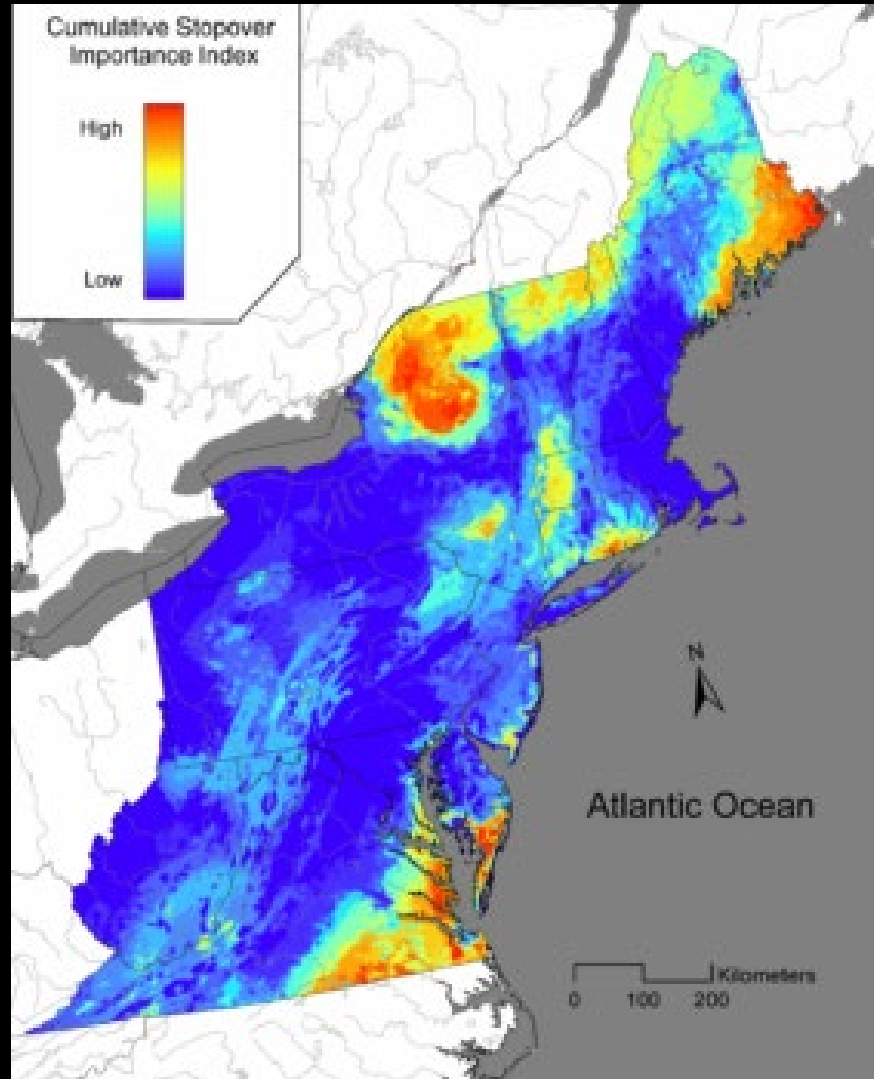
**7 SIMPLE ACTIONS TO HELP BIRDS**







# Stopover habitat

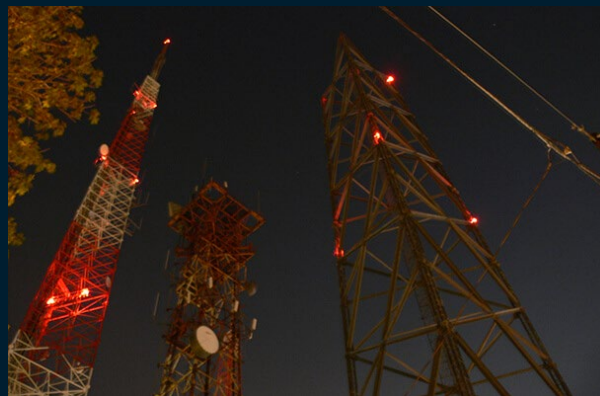






Over 50 species of songbirds known to be vulnerable to collision are strongly declining

*(e.g., American Kestrel, Wood Thrush, Purple Finch, Horned Lark, and Golden-winged & Canada Warblers).*



Tall structures kill ~1B birds/year





## Night of September 14, 2020



## Birds forecast over city area

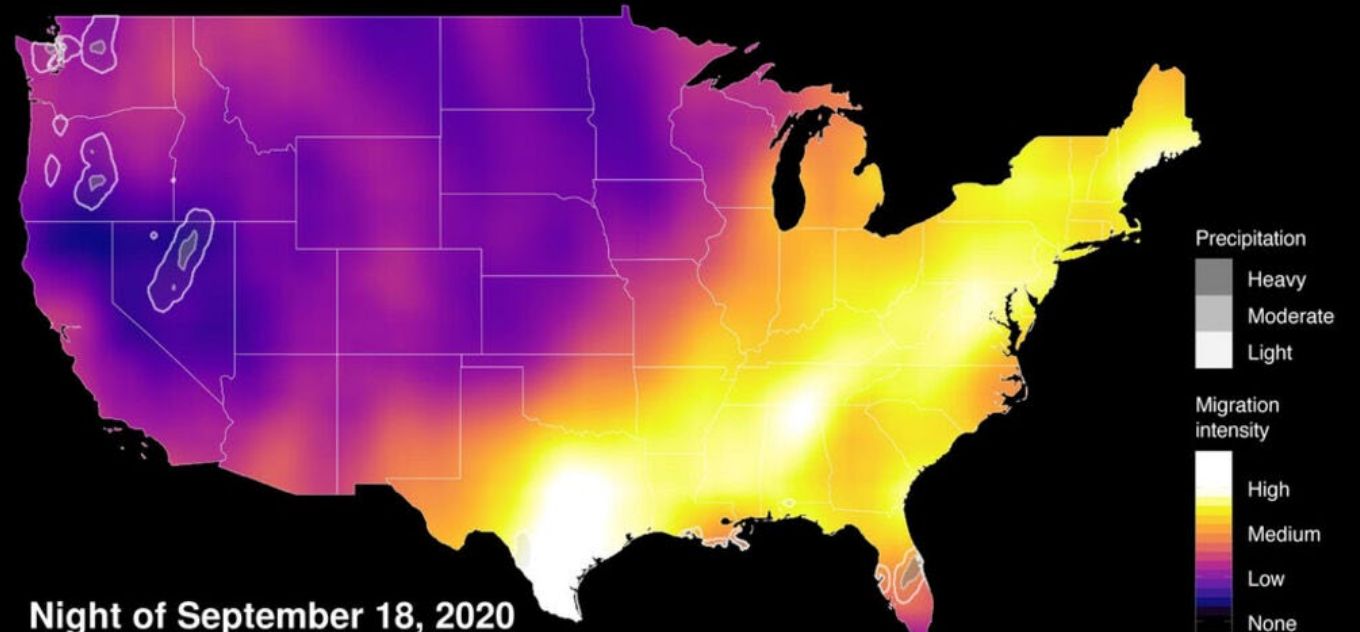
33.5 K Baltimore

14 K Columbia

3.7 K Silver Spring



4.1 M birds flying over Maryland



## Night of September 18, 2020

Generated 16 Sep 2020 at 06:00 UTC (16 Sep at 02:00 ET)

Lights Out Alerts BETA BirdCast

Atlanta, GA, USA Change location

**Tonight's migration forecast** ⓘ  
Night of Thursday, October 21

**Medium** 6,000-16,000 birds/km/night

**No lights out alert**

No Lights Out Alert has been issued for this region. However, a low/medium amount of birds are forecast to migrate over this area overnight. Bright lights attract and disorient nocturnally migrating birds, potentially causing fatal collisions with buildings or exposure to additional day time hazards. You can still help protect any birds that pass through your region tonight by turning off all non-essential lighting from 11:00PM tonight until 6:00AM tomorrow morning. [Learn more](#)

[Subscribe to alerts](#)

**3-night migration forecast** ⓘ

<b>Thu, Oct 21</b> <b>Medium</b> 6,000-16,000 birds/km/night	<b>Fri, Oct 22</b> <b>High</b> >16,000 birds/km/night	<b>Sat, Oct 23</b> <b>Medium</b> 6,000-16,000 birds/km/night
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Lights Out Alerts ALPHA BirdCast

Houston, TX Change location

**Tonight's migration forecast** ⓘ  
Night of Friday, April 24

**High** >21,000 birds/km/night

**Lights Out Alert**  
Turn off your lights tonight to save migrating birds.

A Lights Out Alert has been issued for this region. Large numbers of birds are forecast to migrate over this area overnight. Bright lights attract and disorient nocturnally migrating birds, potentially causing fatal building collisions or exhaustion that leaves birds vulnerable to threats on the ground. Help protect birds as they pass through your region by turning off all non-essential lighting from 7:00PM - 7:00AM tonight.

[Learn more about Lights Out Alerts](#)

**3-night migration forecast** ⓘ

<b>Fri, Apr 24</b> <b>High</b> >21,000 birds/km/night	<b>Sat, Apr 25</b> <b>Low</b> 0-13,000 birds/km/night	<b>Sun, Apr 26</b> <b>Medium</b> 13,000-21,000 birds/km/night
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