

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 wing now than there were 50 years ago.

The analysis, published in the

Steep Losses Even for Abundant Species, a Study Shows

bon Society, called the findings "a full-blown crisis."

Experts have long known that

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 thrrobbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices, there was now no sound."

IN DEPTH

CONSERVATION

Billions of North American birds have vanished

Even common birds are in steep decline, spurring hunt for causes



BREAKING NEWS

North America has lost 29% of its birds in 50 years

A sweeping new study says a steep decline in bird abundance, including among common species, amounts to "an overlooked biodiversity crisis."

By Karin Brulliard · 17 minutes ago

FINANCIAL TIMES

Opinion Climate change

The US is losing its birds and must act before it is too late

Since 1970, the avian population in North America has dropped by almost 30 per cent

HENRY PAULSON [+ Add to myFT](#)



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

By Ashley Strickland, CNN

Updated 11:57 PM ET, Thu September 19, 2019

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COMBERKATDAN

Silent Skies: Billions of North American Birds Have Vanished

Though waterfowl and raptor populations have made recoveries, bird populations have declined since 1970 across nearly all habitats

FRIDAY, SEPTEMBER 20, 2019 • THE WASHINGTON POST

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 shrill 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 enormous loss that signals an "overlooked biodiversity crisis," according to a study from top ornithologists and government agencies.

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

"That's really what was so staggering about this," said lead author Eric Rosenburg, a senior

poled and compared.

They then cross-referenced that with data from a very different, nonhuman source: 163 weather radars designed to detect rain but that also capture "anomalous" flying through the skies, as hundreds of migratory bird species do every fall and spring. Birds look "sort of like the big blobs" in radar imagery, said co-author Adrian Doherty, a migration ecologist at the Cornell Lab.

Measurements of the blobs' sizes and movements showed the volume of spring migration dropped 16 percent in the past decade, according to the study, published Thursday in Science.

Grassland species have been hardest hit, probably because of agricultural intensification that has eroded habitats and spread pesticides that kill the insects many birds eat.

Earlier research has documented several threats that could be responsible for the large-scale bird decline. Agriculture and habitat loss are thought to be the primary drivers, with other factors such as light pollution (which disorients birds), pesticides (which destroy birds), pesticides (which destroy birds), pesticides (which destroy birds).



Seagulls fly over North Miami Beach in Florida on Dec. 30, 2005. A study says while the population of wetland birds such as ducks and geese is rising, the number of grassland birds has declined.

THE WALL STREET JOURNAL.

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ENVIRONMENT

Bird Populations Plummet in North America

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



NEWS EYE ON EARTH SHOWS LIVE

North America has lost nearly 3 billion birds since 1970

Opinion

The New York Times

Three Billion Canaries in the Coal Mine

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

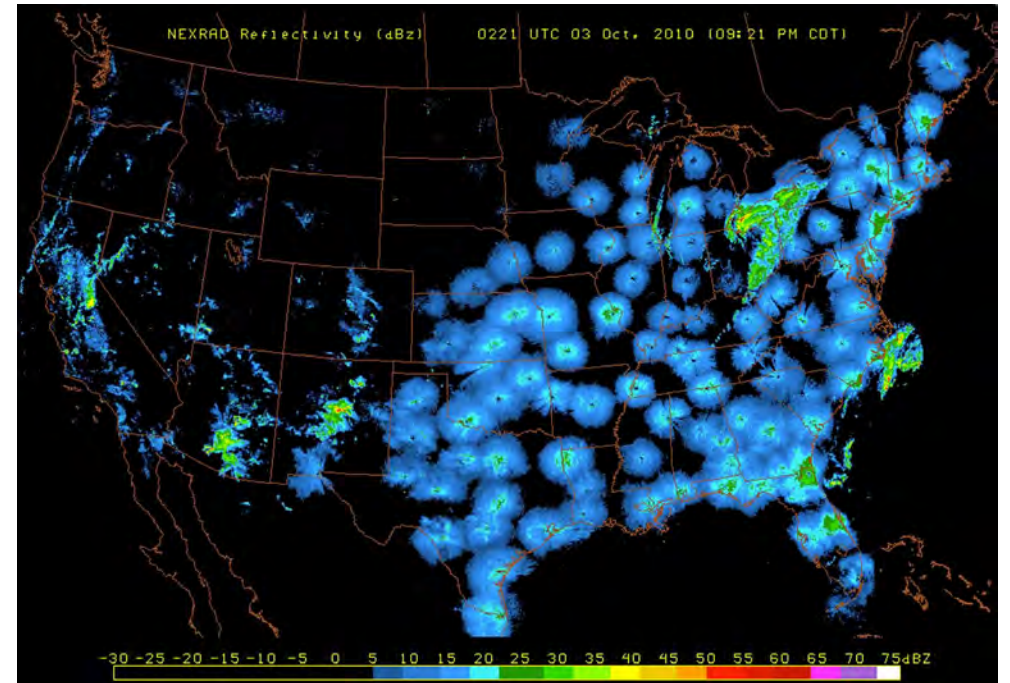
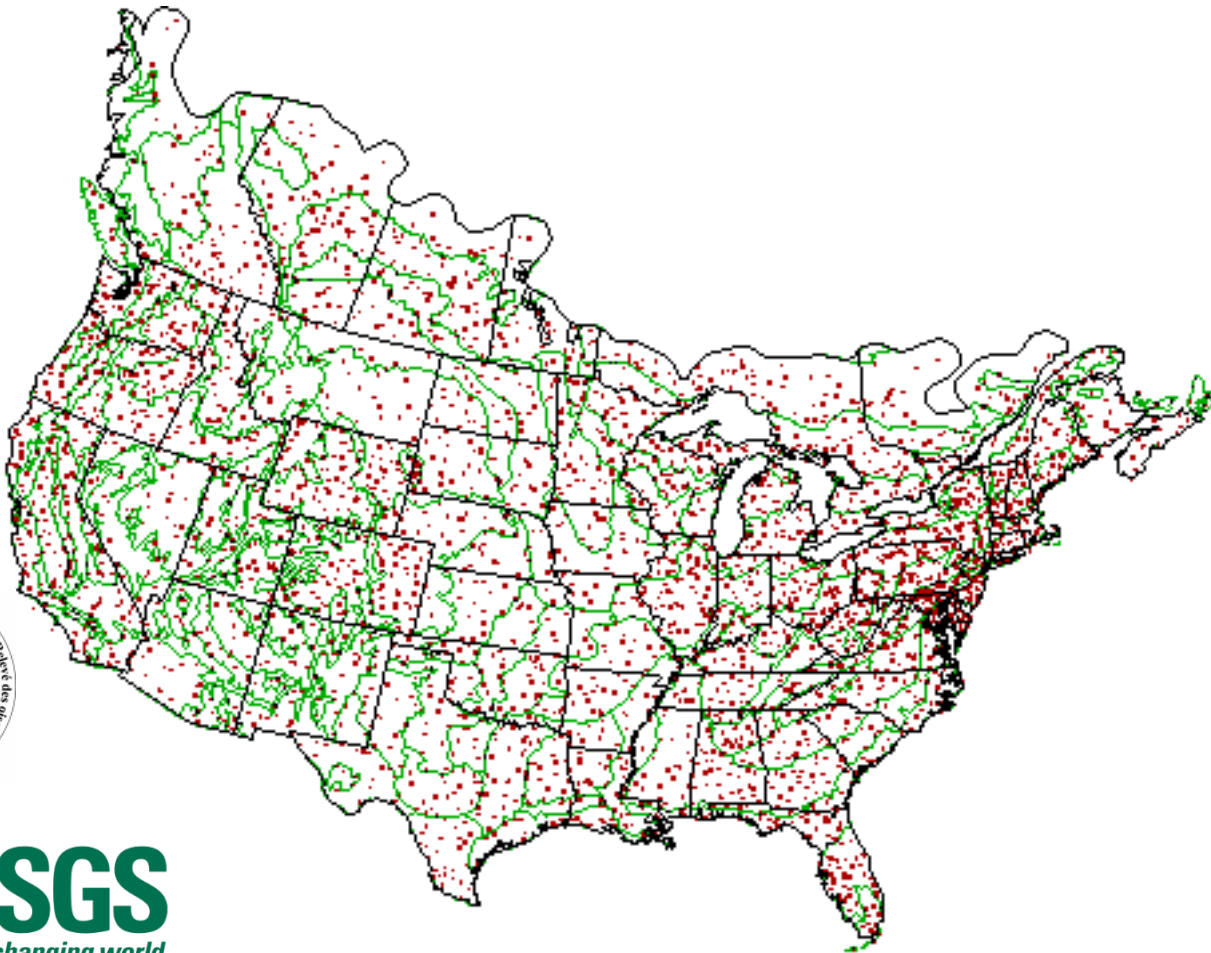


RESEARCH

BIODIVERSITY LOSS

Decline of the North American avifauna

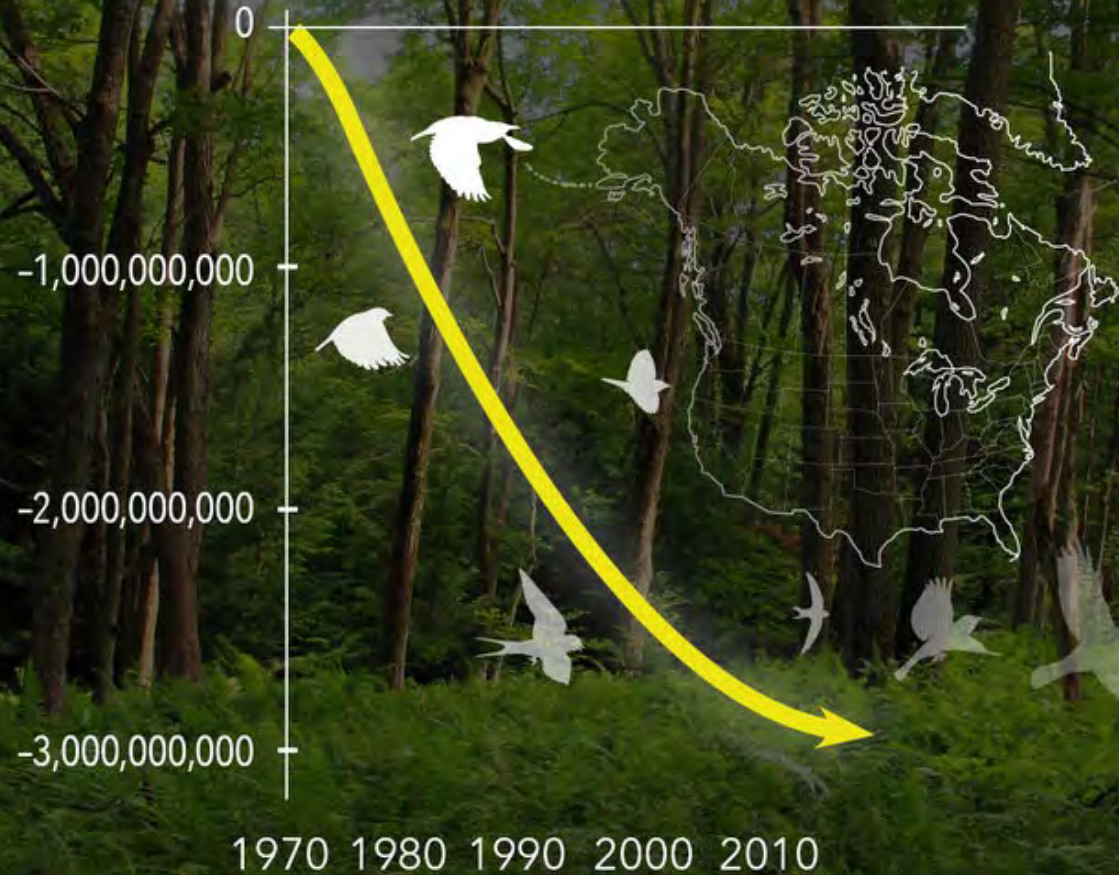
Kenneth V. Rosenberg^{1,2*}, Adriaan M. Dokter¹, Peter J. Blancher³, John R. Sauer⁴, Adam C. Smith⁵, Paul A. Smith³, Jessica C. Stanton⁶, Arvind Panjabi⁷, Laura Helft¹, Michael Parr², Peter P. Marra^{8†}





2.9 billion

birds gone since 1970

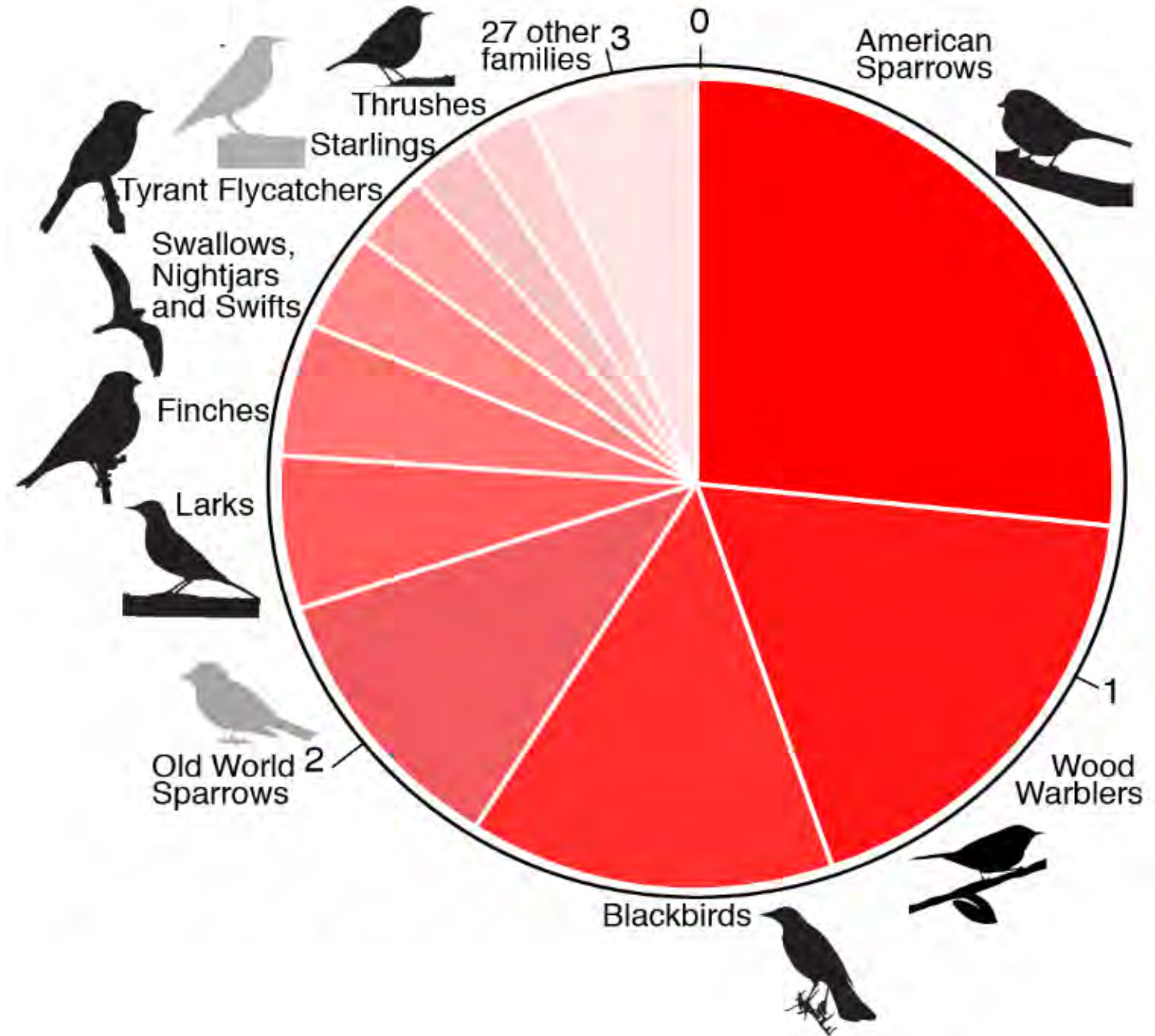


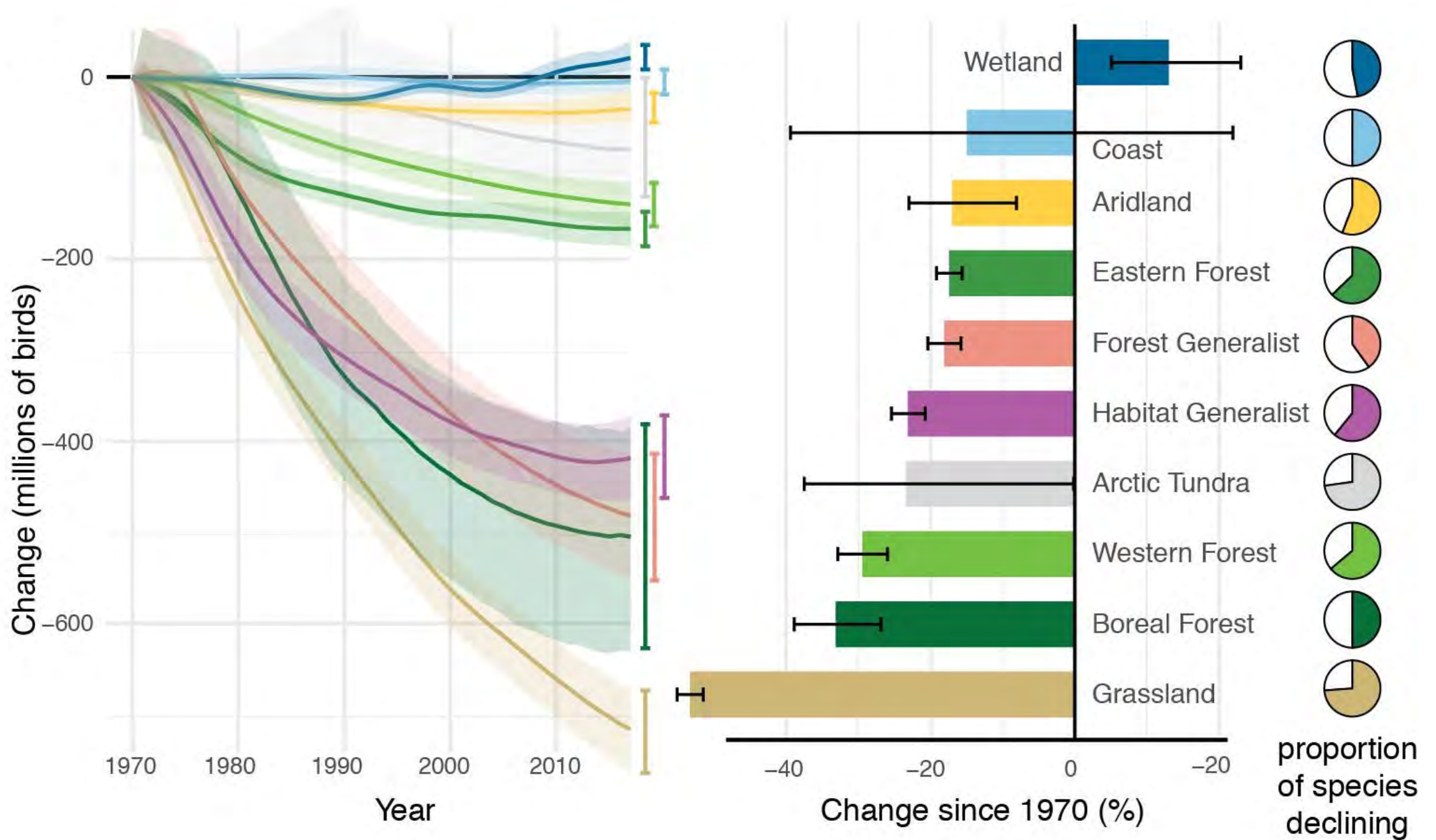
Courtesy of the Cornell Lab of Ornithology. Source: Science, 2019



Forest by Nicholas Tonelli/Creative Commons. Map from Birds of North America birdsna.org

Declines span
most groups
of birds &
include many
common
species





Grassland Birds

720
MILLION
GRASSLAND BIRDS
LOST SINCE 1970

-53%
POPULATION LOSS
IN GRASSLAND
BIRDS SINCE 1970

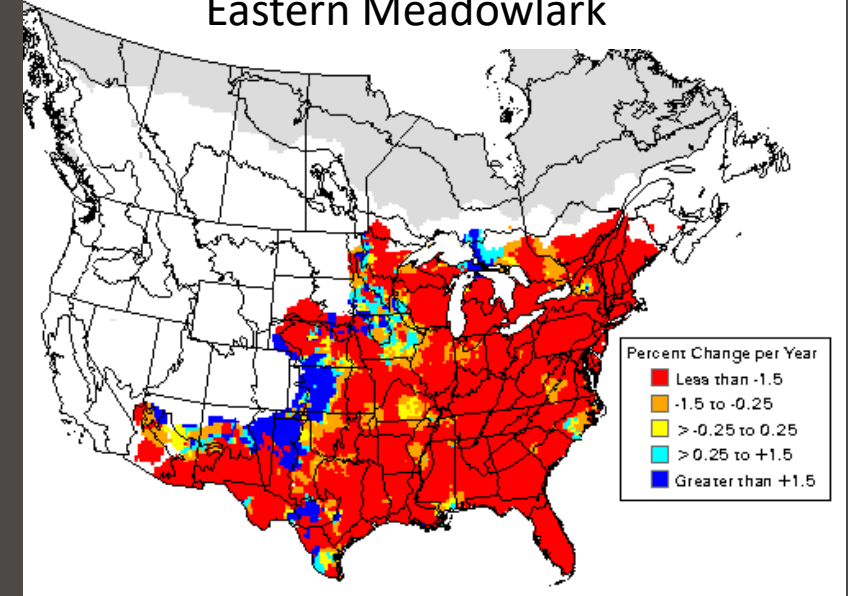
3 IN 4
EASTERN MEADOWLARKS
LOST SINCE 1970



Eastern Meadowlark by S. Queen/Macaulay Library/Prairie Grasslands by Joshua Meyer/Creative Commons

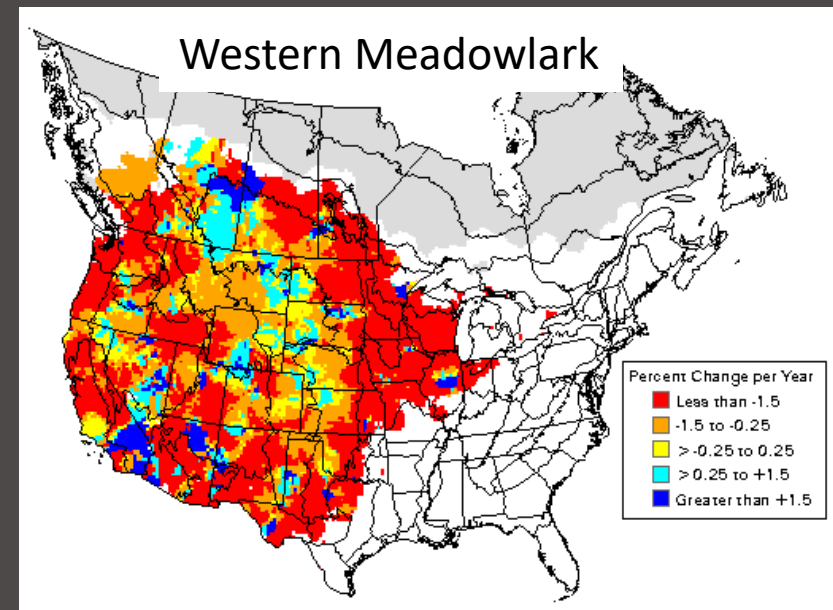
Courtesy of the Cornell Lab of Ornithology. Source: Science, 2019

Eastern Meadowlark



Red and orange indicate declines since 1966

Western Meadowlark



Breeding Bird Survey, USGS

Boreal Forest Birds

MAJOR DECLINES SINCE 1970

Broad declines among these birds may signal concerns with the health of our northern forests. Climate change could heavily impact these birds due to increasing forest fires and insect outbreaks.

500
MILLION

BOREAL BIRDS
LOST SINCE 1970

POPULATION LOSS



BOREAL FOREST BIRDS
HAVE SUFFERED A

-33%

POPULATION LOSS
SINCE 1970



Evening Grosbeak
Coccothraustes vespertinus

9 IN 10

EVENING GROSBEAKS GONE



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

Evening Grosbeak by Wes Darveau/Macaulay Library, Boreal Forest by Kevin V. Creative Commons

Eastern Forest Birds

MAJOR DECLINES SINCE 1970

Ironically, there is more forest in the East today than there was 100 years ago, but many forest stands are unhealthy due to fragmentation and invasive species.

170
MILLION

EASTERN FOREST BIRDS
LOST SINCE 1970

POPULATION LOSS



EASTERN FOREST BIRDS
HAVE SUFFERED A

-17%

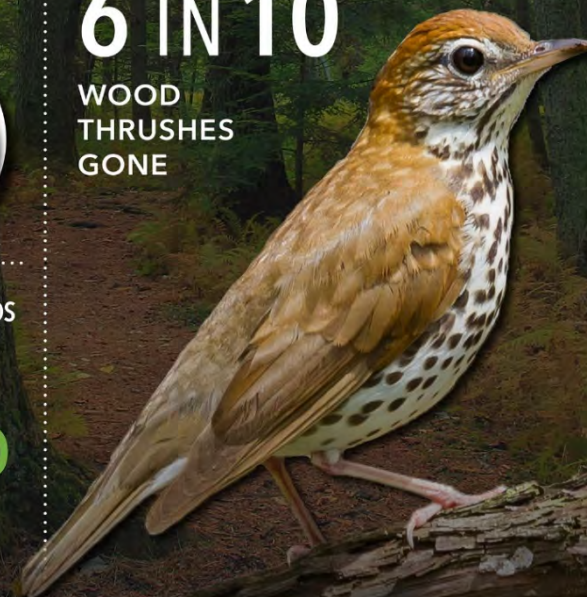
POPULATION LOSS
SINCE 1970

Wood Thrush
Hylocichla mustelina



6 IN 10

WOOD
THRUSHES
GONE



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

Wood Thrush by Peter Kennerley/Macaulay Library, Eastern Forest by Nicholas Tonelli/Creative Commons

Aerial Insectivores

160
MILLION
AERIAL INSECTIVORES
BIRDS LOST
SINCE 1970

-32%
POPULATION
LOSS IN AERIAL
INSECTIVORES
SINCE 1970



2 IN 5

BARN SWALLOWS
LOST SINCE 1970



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

Barn Swallow by Chris Rohrer / Macaulay Library, Western Klamath River by Bob Wick / Bureau of Land Management

Migratory Birds

2.5
BILLION
MIGRATORY BIRDS
LOST SINCE 1970

2 IN 5
BALTIMORE ORIOLES
LOST SINCE 1970



-28%
POPULATION LOSS
IN MIGRATORY
BIRD SPECIES
SINCE 1970



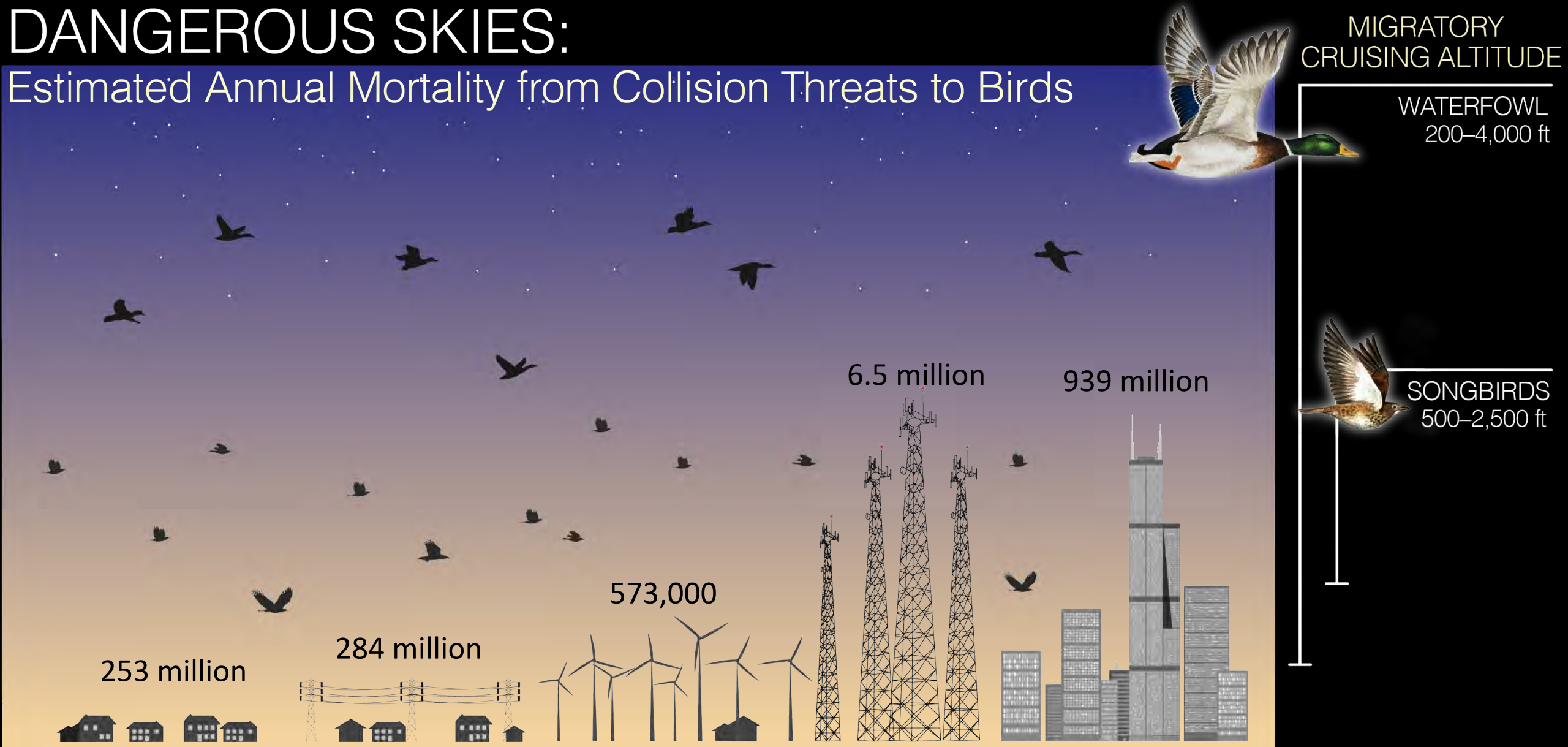
Baltimore Oriole by Gary Mueller/Marcus Library, Forest by Nicholas Tonelli/Creative Commons

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



DANGEROUS SKIES:

Estimated Annual Mortality from Collision Threats to Birds





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 > 950 M birds/year

BIRDS

'I saw more dead birds in that one pit than hunters would poach'

Egged on by industry lobbyists, Interior Department weakens bird protections.

Elizabeth Shogren

Image credit: Courtesy of Gary Mowad

ANALYSIS | March 15, 2018



Oil pits

- 750,000 birds killed annually, representing 172 species
- More than 80 species are in steep population decline, including Northern Bobwhite, Eastern and Western Meadowlarks, Lark Bunting, and Barn Swallow that have lost 75% of their populations since 1970.

'95 9 23

-17%
**EASTERN
FOREST BIRDS**



-23%
**ARCTIC
TUNDRA BIRDS**



-29%
**WESTERN
FOREST BIRDS**



-33%
**BOREAL
FOREST BIRDS**



-37%
SHOREBIRDS



-53%
**GRASSLAND
BIRDS**



The science is clear.
We need to strengthen
protections for our birds

and for us



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