



**The State of the World's Birds and What
You Can Do To Help!**

By Derek J. Matthews

VARC Overview

- ❖ Registered Canadian Charity
- ❖ Established in 2009
- ❖ VARC mandate – 2 key components:



1. To provide data and research support to safeguard habitat for birds
2. To provide public outreach and education

www.birdvancouver.com

VARC Research

❖ Large field station – Colony Farm Regional Park

- Bird banding – long-term monitoring
- Species specific studies
- Bird surveys

❖ Partner Programs

- Hummingbird banding – VanDusen Gdns
- Bluebirds – Merritt
- Orphaned Wildlife (O.W.L.) - Delta
- Barn Owls – Lower Mainland
- Flammulated Owls – Osoyoos/Kamloops



VARC Public Outreach

❖ Education

- Bird Monitoring & Banding Workshops
- Bird Identification Workshops
- Schools Programs
- Open Houses
- Youth / University Programs
- SPCA Summer Camps



❖ Public Events

- Speaking & Community Events
- Media Interviews



State of the World's Birds



- ✦ Biodiversity is the world's natural wealth
- ✦ Our social and economic well being depends on it
- ✦ It provides us with vital goods and services
- ✦ It maintains the life sustaining systems of the biosphere
- ✦ Our futures depend on it
- ✦ And yet biodiversity is being lost faster than ever!

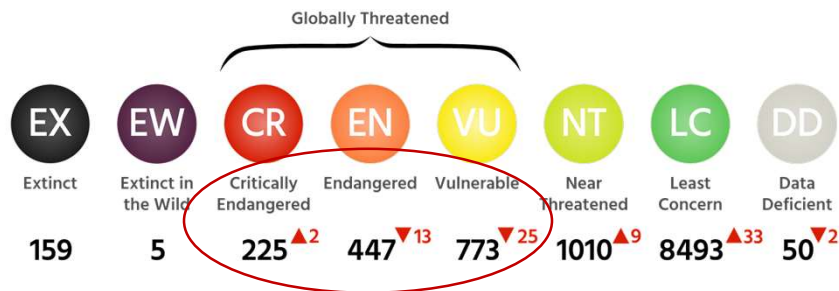


State of the World's Birds



🌍 1,445 species globally threatened with extinction (1 in 8)

🌍 The status of the world's birds deteriorating – species slipping ever faster towards extinction

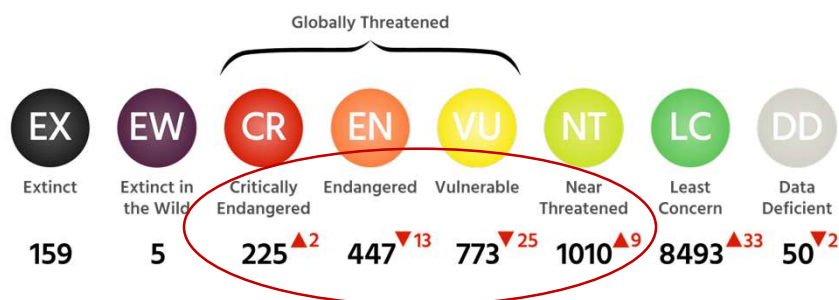


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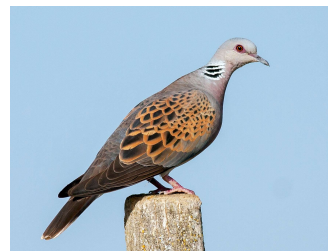


The Changing State of Birds

- ✚ Many bird species including common ones are declining
- ✚ Farmland birds in Europe have shown marked declines – 30 years
- ✚ 71 (57%) of 124 common birds in Europe have declined across 20 European countries



Corn Bunting (90 per cent decline)



Turtle Dove (95 per cent decline)

The Changing State of Birds

- ✚ Waterbirds showing widespread declines – particularly in Asia
- ✚ Studies of resident Australian waders reveal that 81% of their populations disappeared in 25 years
- ✚ More than 50% of all waterbird populations are declining
- ✚ Largely due to widespread loss of wetland habitats



The Changing State of Birds

- ✚ Uplisted to Critically Endangered – fewer than 250 birds remaining



Great Indian Bustard

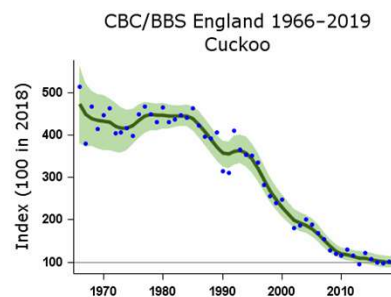
The Changing State of Birds

- ✚ Long-distance migrants between Europe and Africa – 73% decline
- ✚ Long-distance migrants in Europe declined by 23% 1980 - 2010
- ✚ Short-distance migrants combined declined by 7%

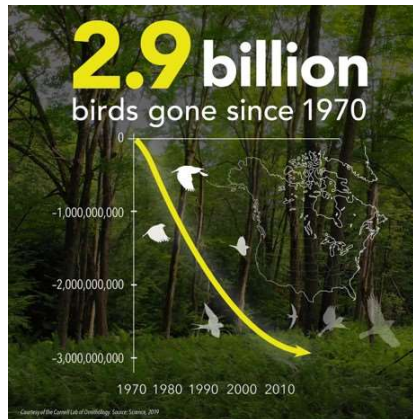


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The Changing State of Birds



The Changing State of Birds



- ✦ More bird species in decline than increasing
- ✦ Dramatic declines in aerial insectivores, grassland birds, shorebirds
- ✦ All attributed to impacts of human activities
- ✦ Waterfowl, raptors increasing thanks to conservation efforts

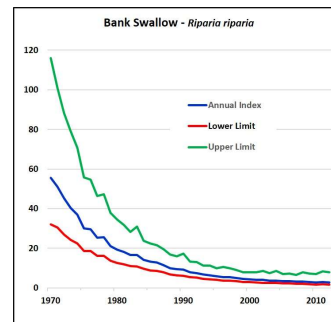


The Changing State of Birds



✦ Aerial insectivores – precipitous declines

✦ Barn Swallow fallen by >80%, Bank Swallow 98%, Cliff Swallow, Northern Rough-winged Swallow, Purple Martin by >60%

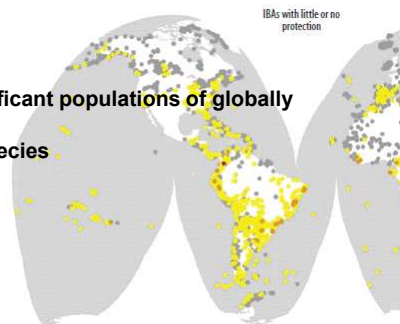


Important Bird Areas

✦ Some sites particularly important for birds and other wildlife

✦ 13,600 IBAs identified

- Many IBAs in unfavorable state
- Nearly half lack legal protection
- 2,400 with no protection have significant populations of globally threatened species
- 10 key sites for 11 or more such species



Why Birds Are Declining

✦ Human actions putting pressure on species, sites & habitats

✦ Range of threats driving declines

- Unsustainable agricultural practices
- 40% of world's ice-free land now devoted to agriculture
- Replacement of traditional farmed land with monocultures



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Why Birds Are Declining

✚ 19 of the 22 species of albatross are threatened with extinction



Chatham Albatross

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- Invasive alien species are spreading
- Infrastructure development, pollution & overexploitation
- Loss of intertidal habitat in Asia
- Contamination of food sources with veterinary drugs

Why Birds Are Declining

✚ 30 years ago, tens of MILLIONS of white-rumped vultures were flying the skies of Asia – the most abundant large bird of prey in the world



White-rumped vulture (99.9 per cent decline since 1992)

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- Unregulated hunting



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- Unregulated hunting



One million illegally killed each year

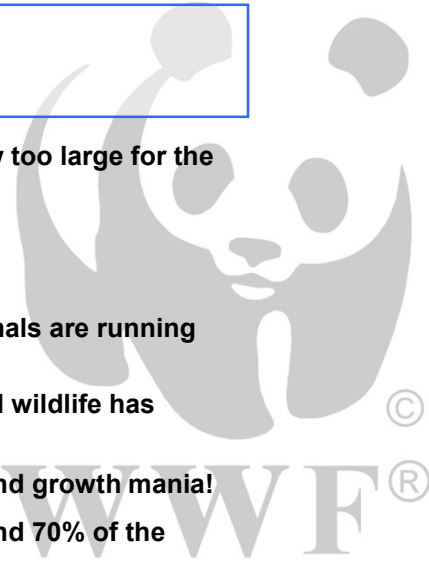
- Human induced climate change



Ivory Gull

Why Birds Are Declining

- ✦ In what year will the human population grow too large for the earth to sustain?
- ✦ About 1970
- ✦ In 1970 - 3.5 billion people were sustainable
- ✦ 2023 - 8 billion people - wild plants and animals are running out of places to live
- ✦ In the past 50 years the abundance of global wildlife has collapsed 69%
- ✦ Too many people, too much consumption and growth mania!
- ✦ We've taken over 70% of the planet's land and 70% of the planet's fresh water!



Waves of humanity - Sprawling Mexico City rolls across the landscape, displacing every scrap of natural habitat



Oil spill fire - Aerial view of an oil fire following the 2010 Deepwater Horizon oil disaster in the Gulf of Mexico



Feedlot - Industrial livestock production in Brazil



South City Mall in Kolkata, India - Consumer culture spreads to the global south



Greenhouses grow greenhouses - As far as the eye can see, greenhouses cover the landscape in Almería, Spain



British Columbia clear-cut - Sometimes called the Brazil of the North, Canada has not been kind to its native forests as seen by clear-cut logging on Vancouver Island



Trash wave -Indonesian surfer catches a wave in a remote but garbage-covered bay on Java, Indonesia, the world's most populated island



Rectangular fields - No room for nature, the entire landscape is devoted to crop production in China



Cows and smoke - Ground zero in the war on nature – cattle graze among the burning Amazon jungle in Brazil



Brazil's Amazon rainforest has suffered the worst fires in a decade



Oil wells - Depleting oil fields are yet another symptom of ecological overshoot as seen at the Kern River Oil Field in California



Dead bird - On Midway Atoll, far from the centres of world commerce, an albatross, dead from ingesting too much plastic, decays on the beach – it is a common sight on the remote island



Hill-side slum - Slum-dwelling residents of Port-au-Prince, Haiti, face bleak living conditions in the western hemisphere's poorest country



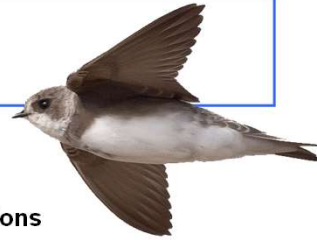
Reservoir development - Former old-growth forest leveled for reservoir development, Willamette National Forest, Oregon



Agricultural expansion and intensification is the greatest threat to the world's birds

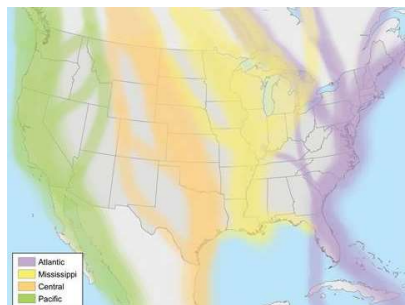


Migration



- ❖ Resident vs. Migratory birds
- ❖ Resident birds do not make seasonal migrations
- ❖ Migratory birds – both short & long distance migrants
- ❖ Within species – not all populations may be migratory (partial migration)
- ❖ Primary advantage of migration is energetic
- ❖ Longer days of northern summers provide greater opportunities for breeding birds to feed young
- ❖ Extended daylight allows for larger clutches
- ❖ Advantages offset high stress, energetic costs, risk of migration

Migration - Flyways



- ❖ Flyways follow mountain ranges & coastlines
- ❖ Avoid barriers – large stretches of open water
- ❖ Routes genetically programmed or learnt from adult birds
- ❖ Routes on forward & return migration often different
- ❖ Many birds migrate in flocks – energy saving
- ❖ Altitude varies – most 500-2000 feet range

Migration - Flyways



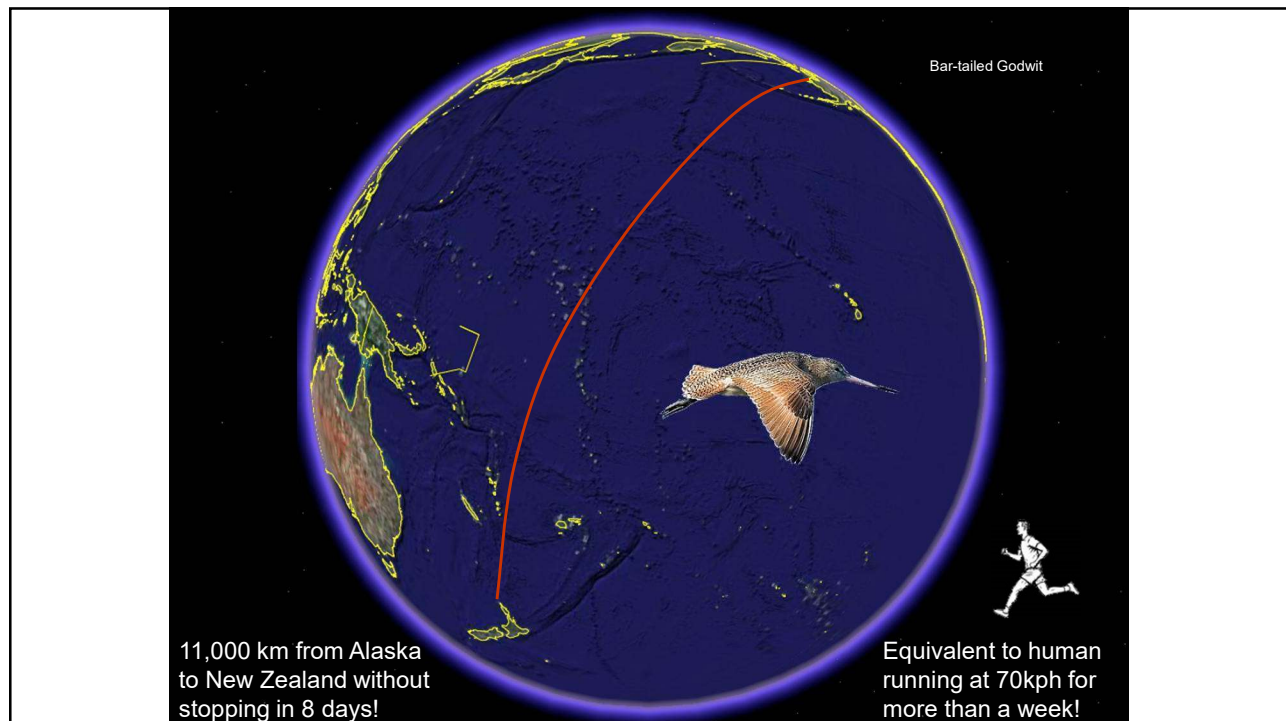
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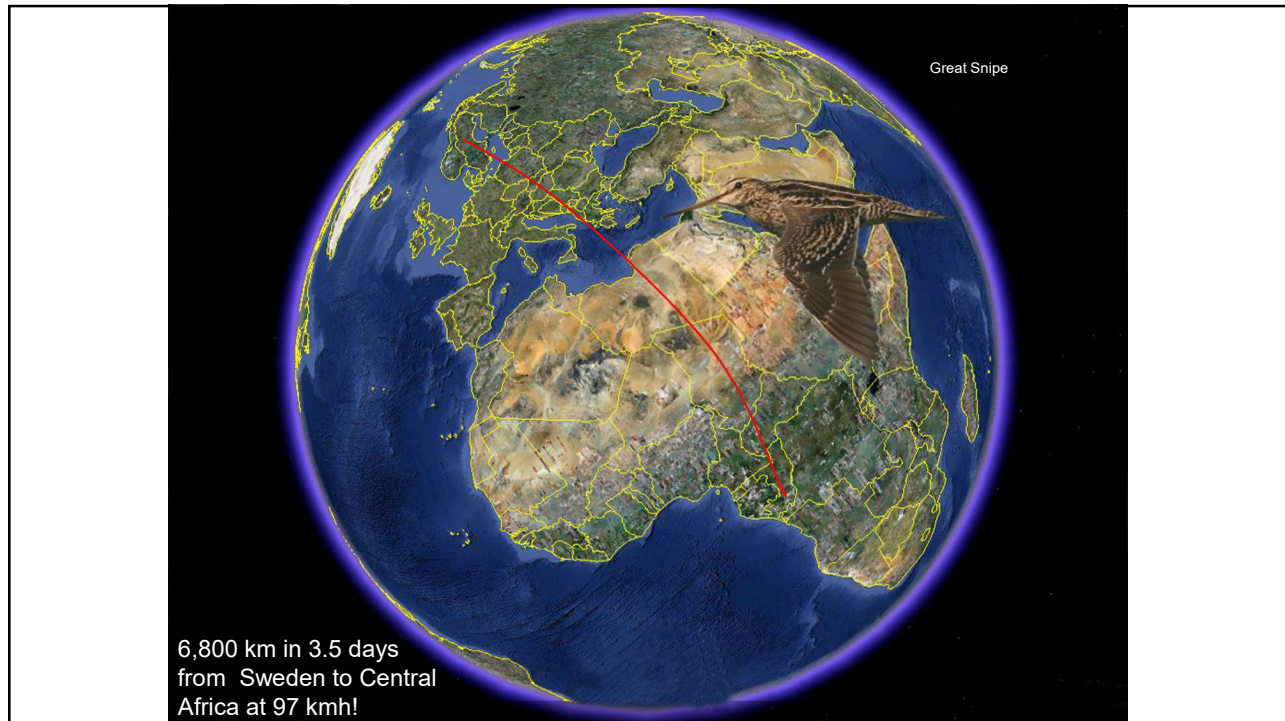


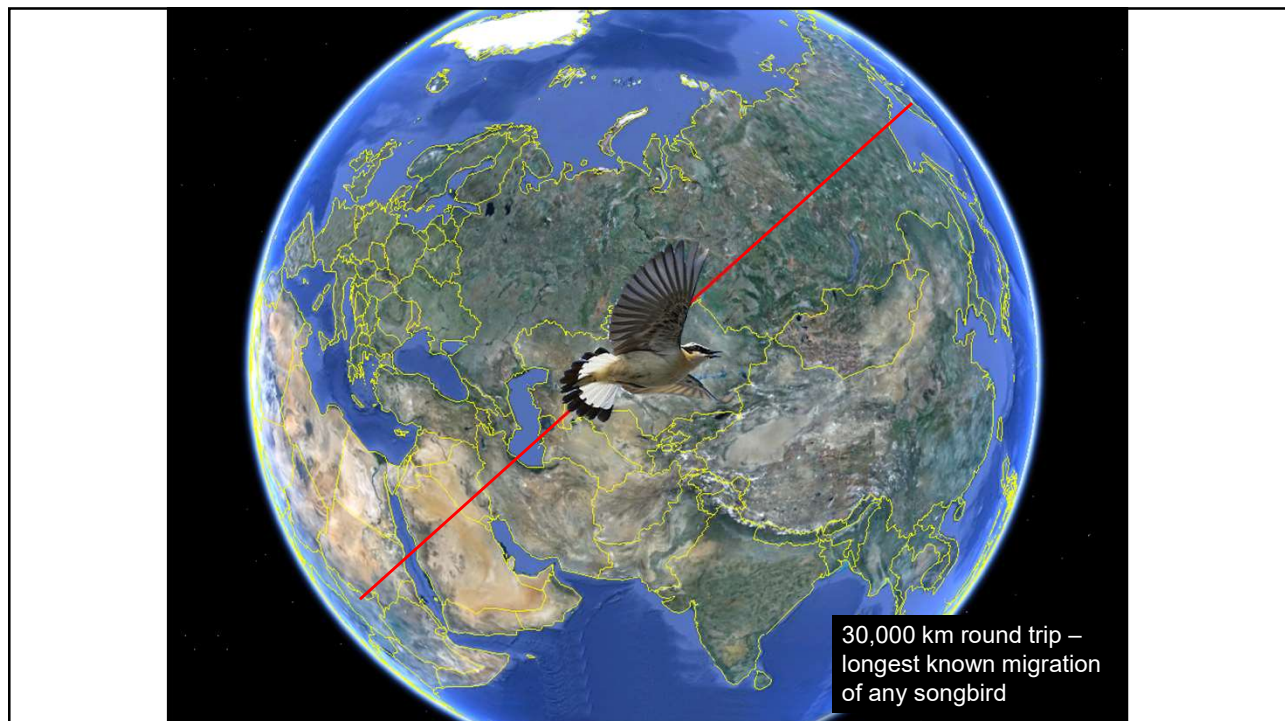
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- ❖ Altitude varies – most 500-2000 feet range
- ❖ Nocturnal migration – minimizes predation / avoids overheating & turbulent air









Migration – How do they do it?

Navigation

How do birds return to precisely the same site they occupied previously?

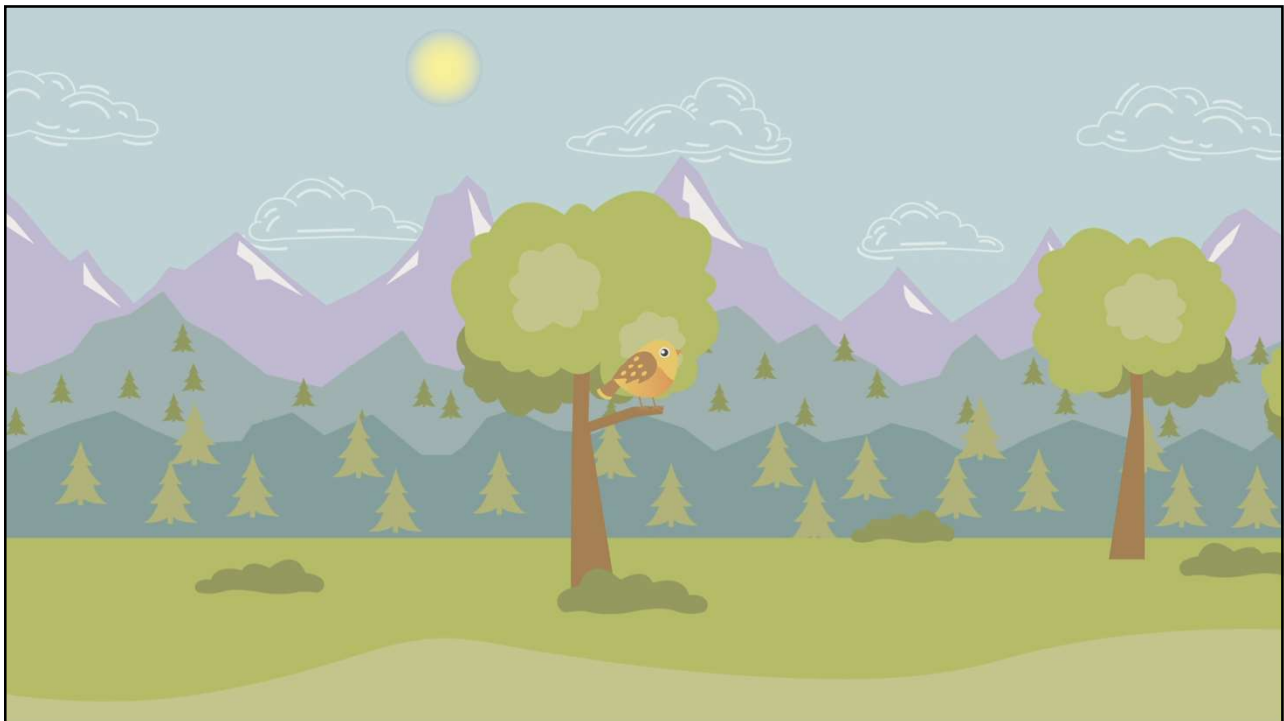
- ✦ Polarized light
- ✦ Constellations
- ✦ Earth's magnetic field
- ✦ Landmarks

Blackpoll Warbler



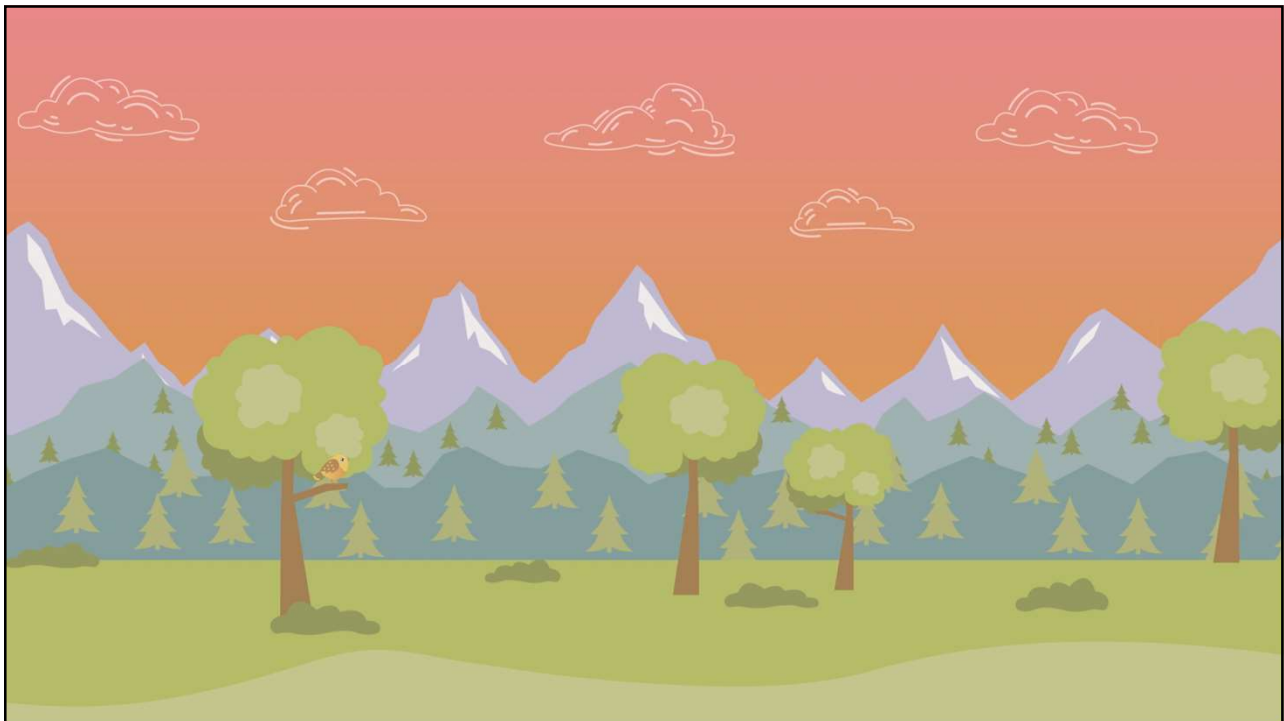
7 Things YOU Can Do

1. Make windows safer day and night



7 Things YOU Can Do

2. Keep Cats Indoors



7 Things YOU Can Do

3. Reduce Lawn By Planting Native Species



What YOU Can Do?

3. Reduce Lawn By Planting Native Species – Don't forget water!



7 Things YOU Can Do

4. Avoid Pesticides



7 Things YOU Can Do

5. Drink Coffee That's Good For Birds



7 Things YOU Can Do

6. Protect Our Planet from Plastics



7 Things YOU Can Do

7. Watch Birds, Share What You See



Summary

Every little DOES help!



When migratory birds cross our paths, they compel us to stop and marvel at their beauty, their fluid lives in four seasons and distant places, and the ecological intricacies they require to survive. As the miracle of migration continues, the arrival of songbirds each spring is a cause for celebration, for summer would not be the same without them. In autumn, though, we cannot keep them; the songbirds grow restless and depart, leaving us with emptier winter days and a quiet reminder that we should not take them for granted.

Songbird Journeys – Miyoko Chu

Photo Gallery















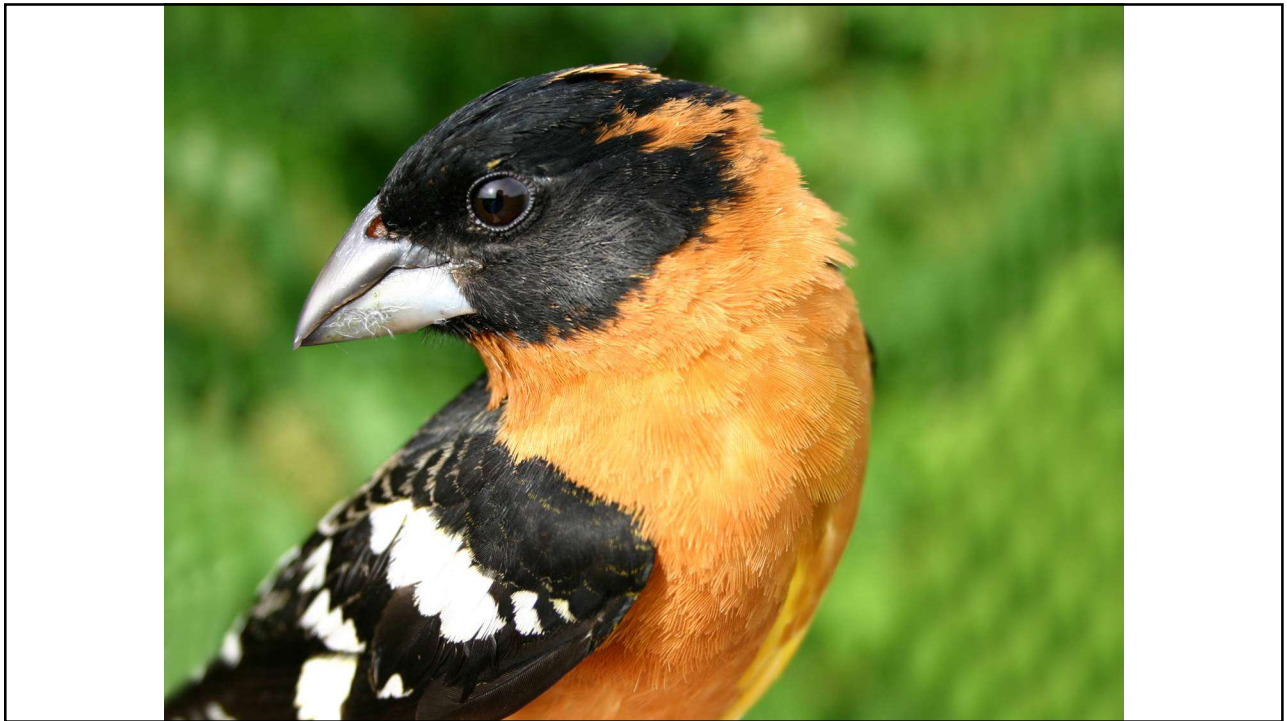


















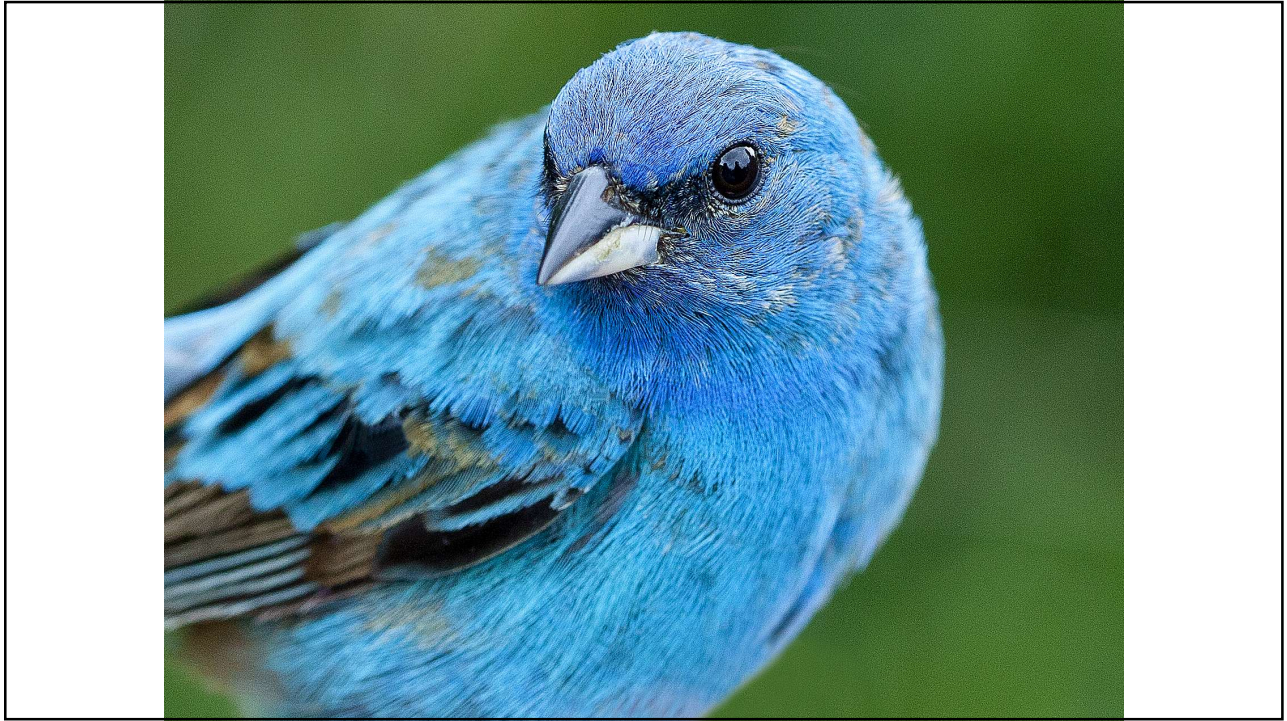


















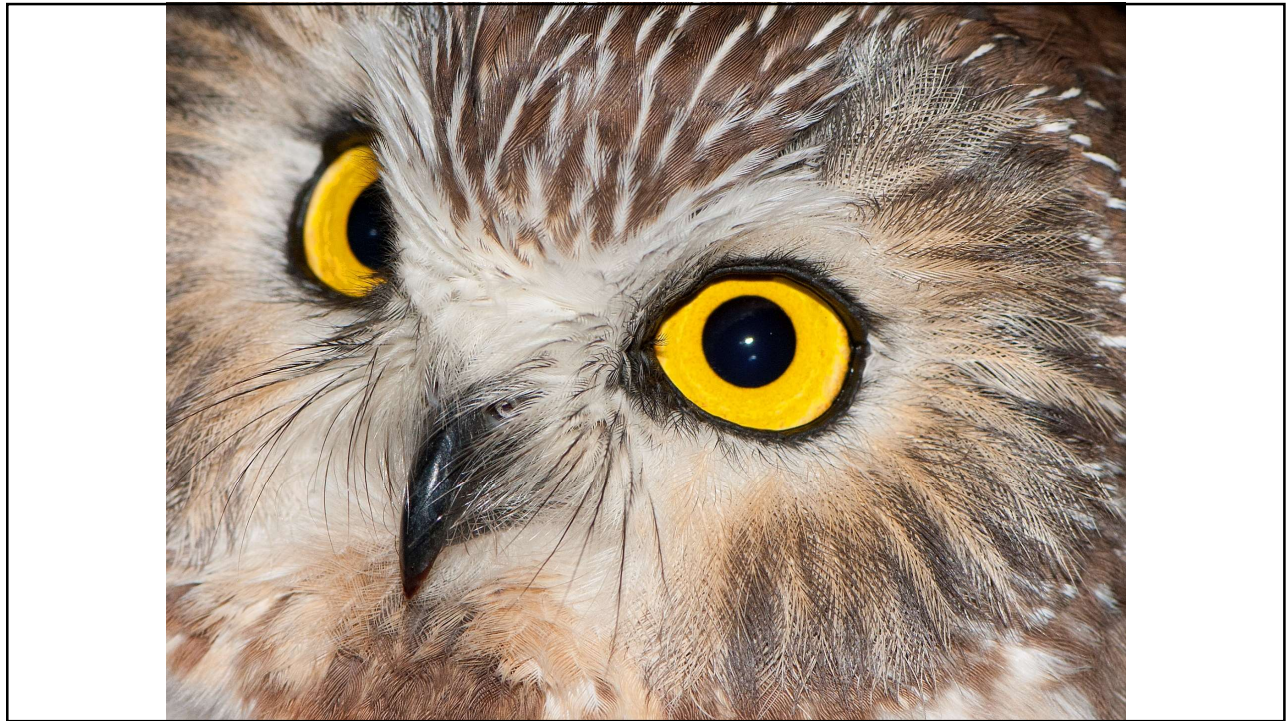














MOTUS.ORG







Vancouver Avian Research Centre

Research - Conservation - Education

Vancouver Avian Research Centre

VARC Events

- Bird Identification Workshop (May)
- Bird Monitoring and Banding Workshop (May)
- Drawing Birds (March)
- Guided Bird walks (Monthly)



🌈 Promoting conservation through research and education

