



# The Great Backyard Bird Count

*Creating Messaging that Motivates Citizen-Science Engagement*

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# Overview

- What is citizen science?
- What is GBBC?
- Why do people do citizen science?
- What is the goal of this research project?
- Creating messages that motivate engagement.

# Great Backyard Bird Count

23rd Annual • Feb 14–17, 2020

Count birds in your backyard, local park, or wherever you spot a bird, and submit your observations online.

[birdcount.org](http://birdcount.org)



California Quail. Photo: Joanie Christian/Great Backyard Bird Count

# Citizen Science

Intentional collaborations in which members of the public engage in authentic research to generate new science-based knowledge





Clean Annapolis River Project

red map  
REDMAP.ORG.AU



H<sub>2</sub>O CHELSEA



Project FeederWatch



Embrace the winter.  
Count feeder birds  
for science.

The Great Backyard  
Bird Count

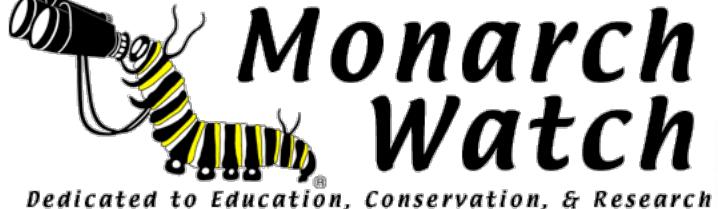


GREAT World Wide STAR COUNT

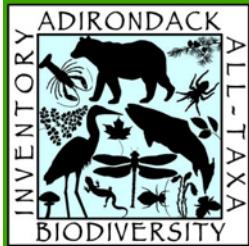


JOURNEY NORTH

The Kansas Biological Survey, University of Kansas



Dedicated to Education, Conservation, & Research



The Lost Ladybug Project



The Cornell Lab NestWatch

Celebrate Urban Birds

eBird

Evolution MegaLab

Project BudBurst  
[www.budburst.org](http://www.budburst.org)



STARDUST  
@ HOME



OAK MAPPER  
Sudden Oak Death



Great Swamp  
Watershed  
Association



THE GLOBE PROGRAM  
CONNECTING THE NEXT GENERATION OF SCIENTISTS



Operation Spider

# Citizen-Science Learning Outcomes



Engage critical thinking



Science learning, bonding



Environmental action; social networks



Social capital



Improved policy

# Citizen-Science Research Outcomes

Documenting range shifts



Identifying potential mismatches



Identifying vulnerable species



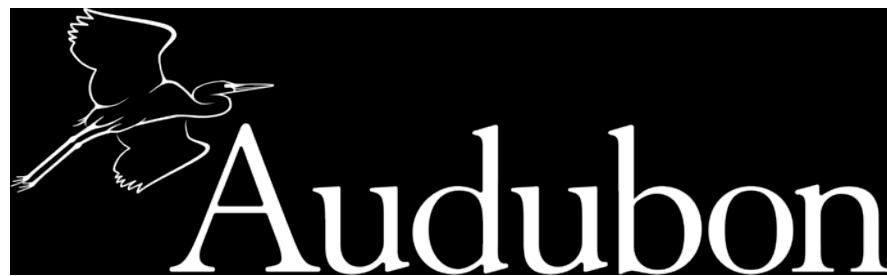
Health planning



Anticipating effects on water sources



# What is GBBC?



- A partnership among the Cornell Lab, Audubon, and Birds Canada
- 20+ year running (1998) International Bird Survey
- Runs in February for 4 days, a long weekend
- Entry level “Gateway” citizen-science Project

# What Do Participants do?

- Count birds anywhere for 15 minutes
- One or many counts
- Estimate of number of individual species
- Record data online



Photo credit top left to bottom, GBBC 2019:

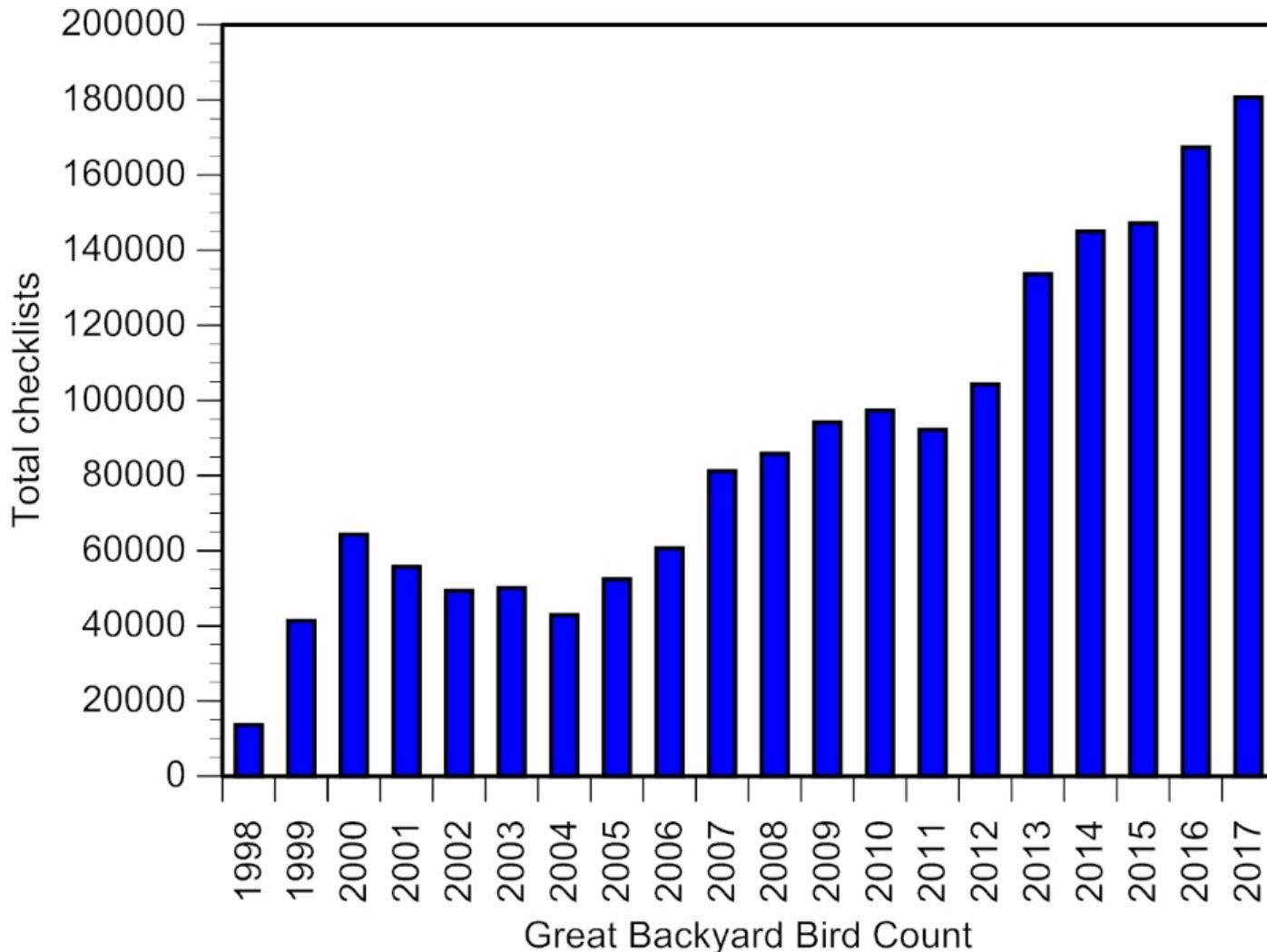
- Kristen Lothspeich, KY, USA
- AnuragVishwakarma, Seijosa, India
- Debayan Gayen WestBengal, India

# Why is it important?



- Big spatial and longitudinal data sets are critical for conservation
- Scientists can't be everywhere all the time
- Document year to year changes over time
- Long-term trends
- Glimpse at migration patterns
- Environmental alarm systems

# Interest is growing...



Almost  
250,000  
participants  
in 2019

# Why do people do citizen science?

- Personal Values (science, conservation)
- Contributing to a greater cause, have time (retired)
- Individual Goals (contributing, local threats)

**Personal**



# How do we transform one GBBC list into longer-term participation in citizen science?

## The Great Backyard Bird Count



Art by Charley Harper

- Project +30 years
- Pay \$18 yr.
- Nov-April
- APP (new)
- Unique protocol
- 20,000-24,000 a year US and Canada



eBird

- Started 2002
- FREE
- Year Round
- APP
- 1 list anywhere
- International
- 100 million bird sightings a year



## The Great Backyard Bird Count



Art by Charley Harper

# Headline

## GBBC eNewsletter

February 17, 2019



Red-breasted Nuthatch by Ruth Blair, Ontario, Canada, 2019 GBBC.

### Count Update

The checklists are pouring in for the Great Backyard Bird Count and as of Sunday morning in the United States, more than 67,000 tallies have been entered. Those lists include more than half the bird species in the world with about 5,500 species reported!

There's a lot to explore. To get started, click on "[Explore](#)

The GBBC is  
February 15-18, 2019  
[BirdCount.org](http://BirdCount.org)



### Participation Certificate

Don't forget to download and print your participation certificate to commemorate your participation in the GBBC this year. The certificates are available in [English](#), [French](#), and [Spanish](#). It's a formal way of recognizing your contribution and another way to say, thank you!

Call to Action

# What types of messages influence successful Headlines and Calls to Action?



**6. Protect Our Planet from Plastic**  
This challenge: About 1,000 species of plastic have accumulated worldwide, harming wildlife including seabirds that mistakenly eat plastic, or become tangled in it.  
**The cause:** Plastic takes over 400 years to degrade, and 99% of plastics are not recycled. At least 80 seabird species have ingested plastic food. By 2050, scientists estimate that 99% of seabird species will have eaten plastic.

**Recommendations:** Avoid single-use plastics. Recycle any plastic to keep it out of landfills and the ocean.

A Lesser Prairie-Chicken with a stomach full of plastic. Photo by Chris Jordan. © 2013 Audubon Society. Used under license.



**7. Watch Birds—Share What You See**

The Cornell Lab of Ornithology works to protect them, but tracking the world's 10,000 bird species is an immense challenge.

**The cause:** Scientists need to report what they see in people's yards and wild places around the world to have enough data to show where and when birds are occurring.

**Enjoy birds while helping conservation.** Join Cornell Lab's eBird or Project FeederWatch to record your bird observations. You'll provide valuable data to show where birds are—and where they need our help.

Photo by Dylan Cochran (GBCS)



Frost Wood Trust © Jane Peterson/Macmillan Library  
Above: Delaware Online © Joe Petrucciani/Macmillan Library

The Cornell Lab uses FSC® Certified Paper. A201



The Cornell Lab of Ornithology works on behalf of birds every day of the year. Take your impact farther by supporting the Cornell Lab with a year-end gift. Go to: [birds.cornell.edu/yearend](http://birds.cornell.edu/yearend) or return the enclosed envelope.



## Simple Ways to Live a Bird-Friendly Life...



### 1. Make Windows Safer

The challenge: Up to 1 billion birds are estimated to die each year after hitting windows in the U.S. and Canada.

The cause: Birds perceive glass as a solid barrier. At night, many birds are drawn by city lights and can collide with buildings.

These simple steps save birds: Install window screens, or break up reflections on windows using film, paint, or string spaced no more than 2 inches apart.

Add native plants, watch birds come in.

Keep your cat indoors and save birds and cats.

### 2. Keep Cats Indoors

The challenge: Each year, outdoor cats kill about 2.4 billion birds in the U.S. and Canada—many of which are songbirds that play a key role in our ecosystem.

The cause: Outdoor cats kill more than 5 times as many birds as indoor cats.

A simple step for cats and birds:

Outdoor cats live longer—on average while indoor cats may live for less than 15. Save birds and keep cats healthy by keeping cats indoors.



Photo by Debbie Staska



### 3. Reduce Lawn, Plant Natives

The challenge: Birds have fewer places to survive their migrations and raise their young.

The cause: Lawns and pavement don't offer enough food or shelter for birds. In fact, lawns cover over 83,000 square miles of land in the U.S. alone; there's huge potential to support wildlife by replacing lawns with native plants.

Add native plants, watch birds come in.

Keep your cat indoors and save birds and cats.

### 4. Avoid Pesticides

The challenge: More than 1 billion pounds of pesticides are used in the U.S. each year. Common weed killers used around homes can be toxic to birds.

The cause: Birds are harmed by pesticides through direct contact, or by eating contaminated seeds or prey. Pesticides also reduce the number of insects that birds depend on for food.

A healthy choice for you, your family, and birds:

Purchase organic food and reduce pesticide use around your home.



Ladybug hunting an insect pest. Photo by Irene Meier via Creative Commons.

### 5. Drink Shade-Grown Coffee

The challenge: Shade-grown coffee farms destroy forest habitat to grow coffee in the sun—forests that birds and other wildlife need for food and shelter.

The cause: Shade-grown coffee preserves a forest canopy for migratory birds to survive the winter, but coffee companies create a big demand for it.

Enjoy shade-grown coffee! Shade-grown coffee helps

more than 40 species of North American migratory songbirds that winter in coffee plantations.



Baird's Towhee in coffee bush. Photo by GertieBairie.

# Information vs. Emotion

## Emotion



Photos from BirdShare  
Bare-throated Tiger Heron Juan D. Canyon Towhee, [Collins Cochran](#)

1 in 4  
Birds Gone  
Since 1970



Graphic by Jillian Ditner/Cornell Lab of Ornithology

Loss  
vs.  
What  
you can  
do?



Photos permissions Habitat



# Personal vs. General





# Thank you!

Looking forward to seeing your creative ideas.

Contact: [rbr75@cornell.edu](mailto:rbr75@cornell.edu)

Photo by Sandy Scott,  
BirdShare