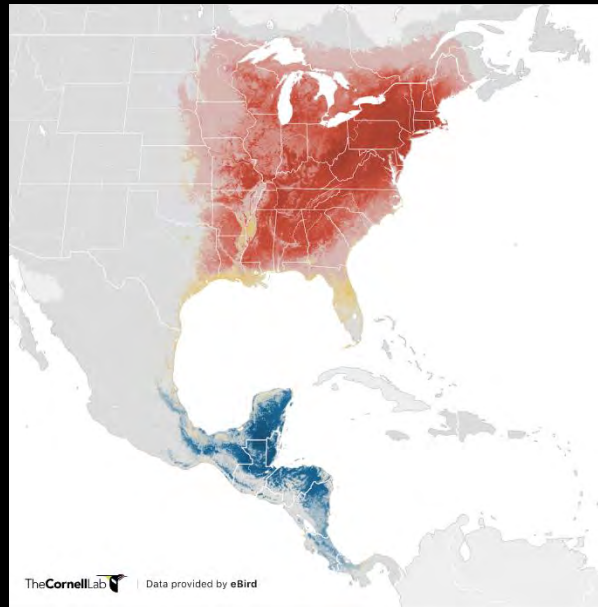


# The Power of eBird:

## Using information on birds to Amplify Conservation, Stewardship, and Community Outreach



*Sara Barker, Cornell Land Trust Bird Conservation Initiative Director*

*Jenna Curtis, eBird Project Leader*

# What will you learn from this Webinar?

- Why birds? Using birds to accelerate and amplify land stewardship, planning, and acquisitions
- What is eBird and how to use it to enhance conservation decision-making, bird monitoring, and diverse community engagement
- Demonstration of eBird features and answers to FAQs
- Showcase case study to inspire involvement and learn to take the first steps



# Why Are Birds Powerful?

- Easy to see, hear, & count
- Dedicated network of birders & citizen scientists
- Free & accessible tools
- Abundant funding
- Sensitive to multiple environmental factors





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Greater Sage-Grouse



Red-headed Woodpecker

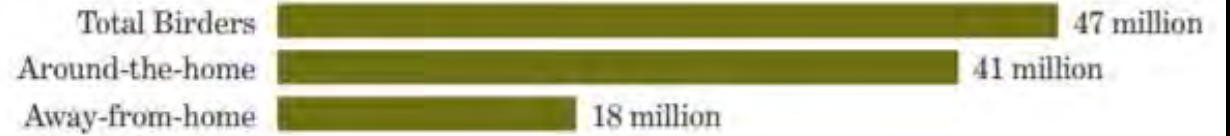


Barn Owl

# Why Are Birds Powerful?

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**Chart 1. Birders in the United States: 2011**  
(16 years of age and older.)



## Active Observers of Wildlife in the US

|                    | 1994-95 | 2000-01 | 2005-06 | 2010-11 | 2015-16 |
|--------------------|---------|---------|---------|---------|---------|
| Millions of people | 54.1    | 70.4    | 71.1    | 71.8    | 86.0    |
| Percent of adults  | 27%     | 33%     | 31%     | 29%     | 33%     |



# Why Are Birds Powerful?

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The Cornell Lab of Ornithology  
**eBird**  
Species Map Tool

January 4  
Wood Thrush

Relative Abundance - Count/(km<sup>2</sup> hr)



# Why Are Birds Powerful?

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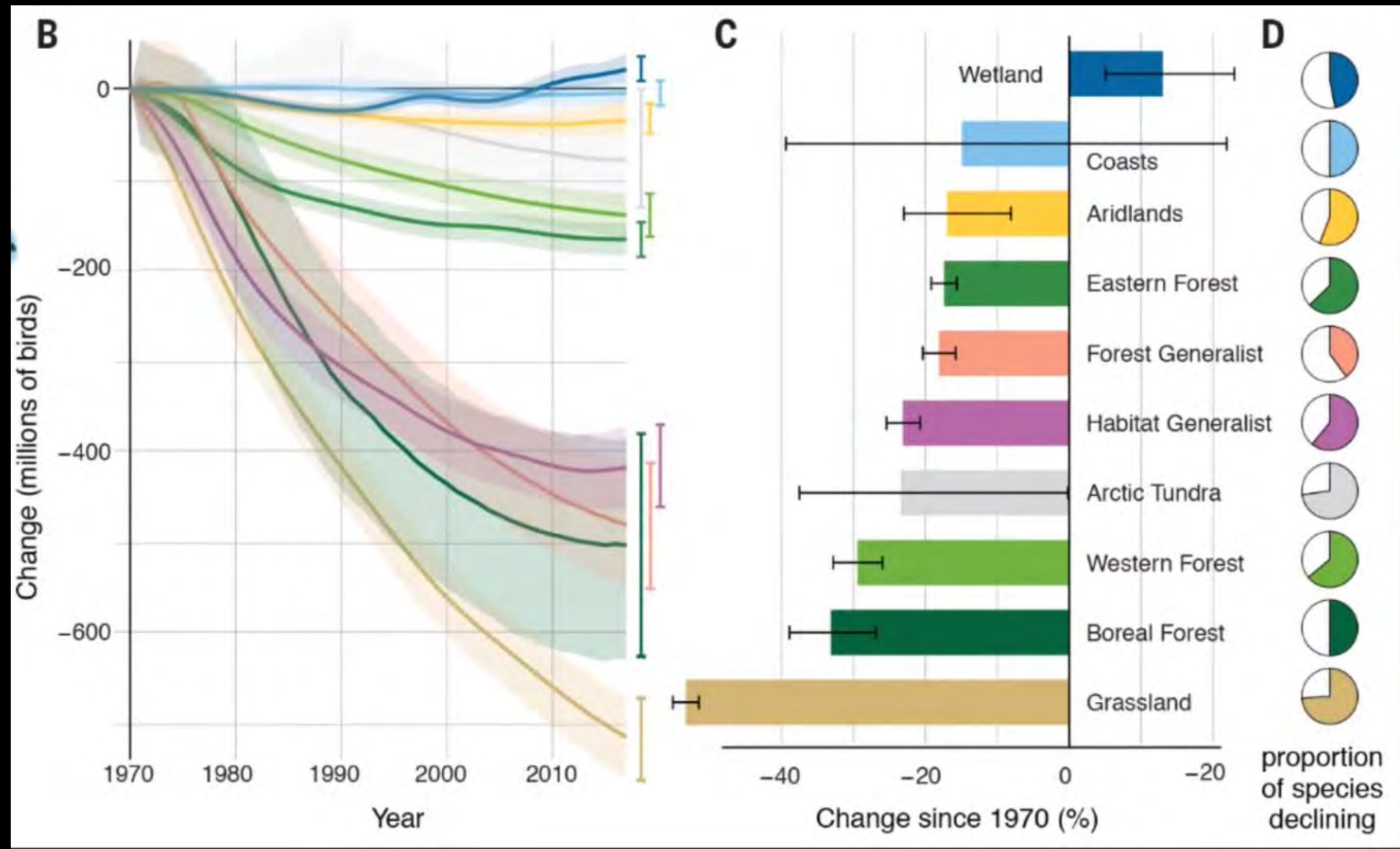


Peregrine Falcon





# Birds Need Our Help!



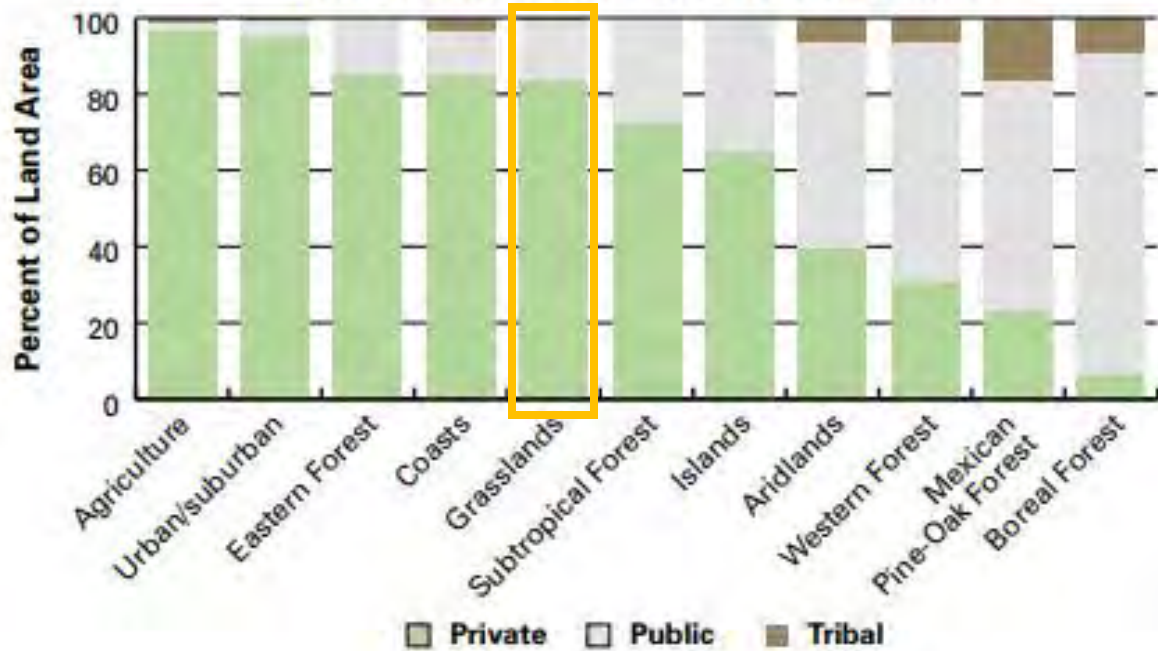
3 BILLION  
BIRDS  
LOST





# Birds Need Our Help on Private Lands

**Bird Habitats on U.S. Private Lands**



More than 100 bird species are  
> 50% reliant on private land

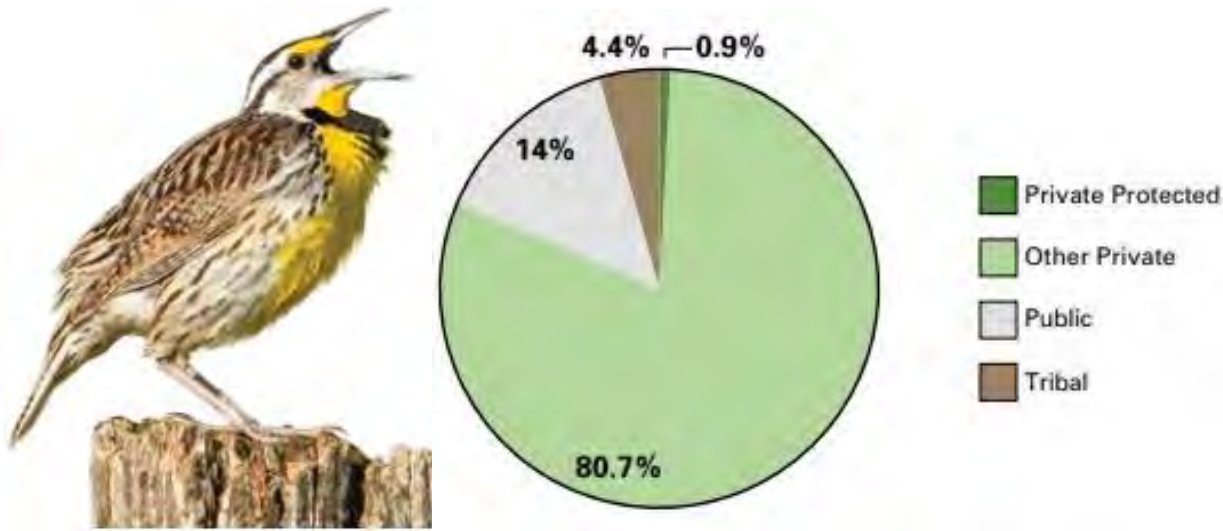
2013 State of the Birds on Private Lands



Bird loss since 1970 in the  
continental U.S. and Canada

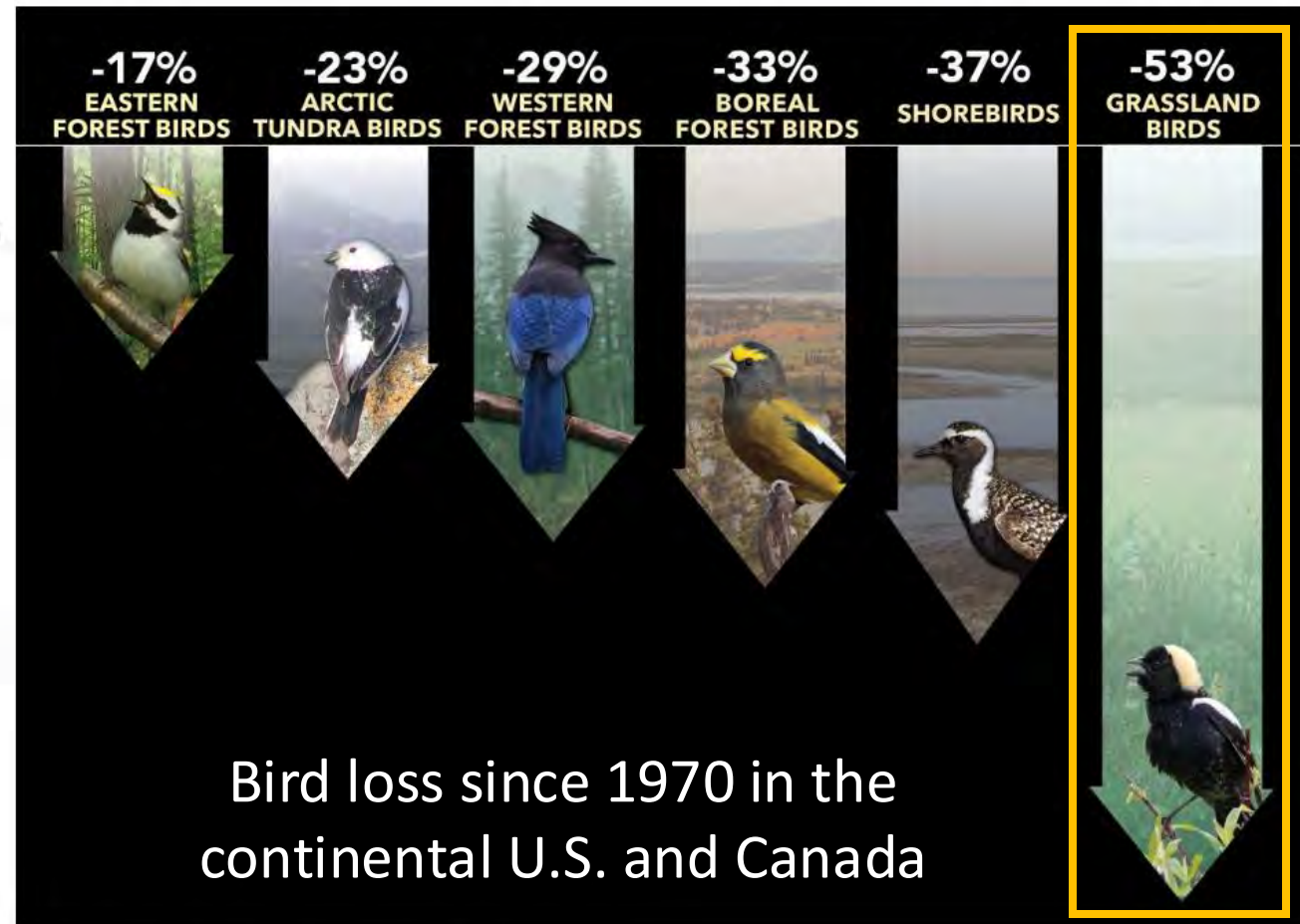
Rosenberg et al. 2019, Science; Graphic by Jillian Ditner

# Birds Need Our Help on Private Lands



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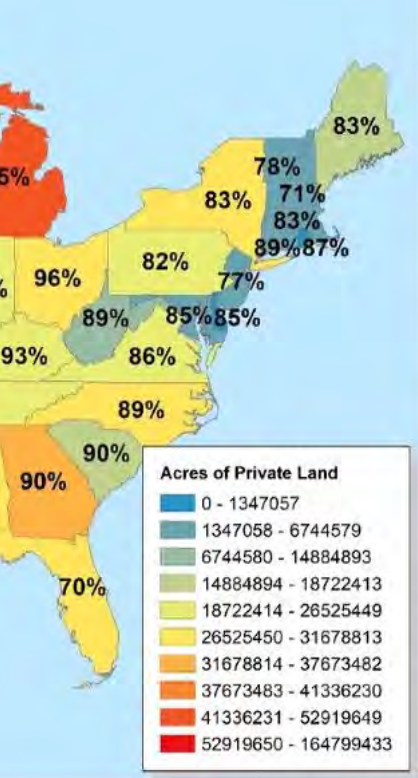
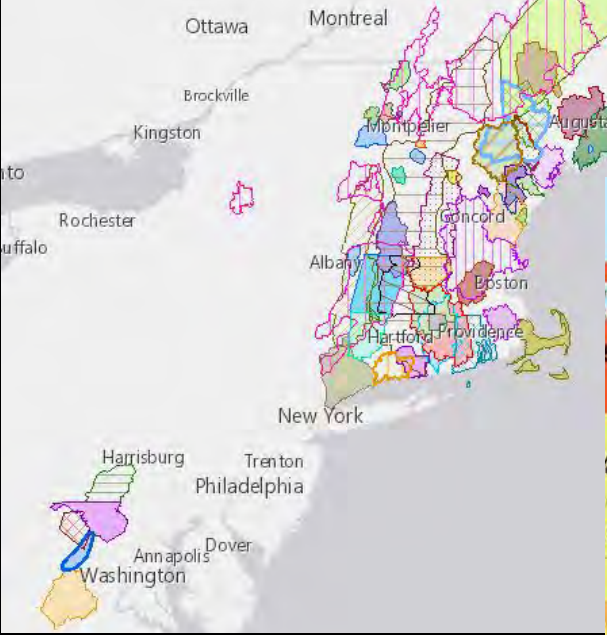
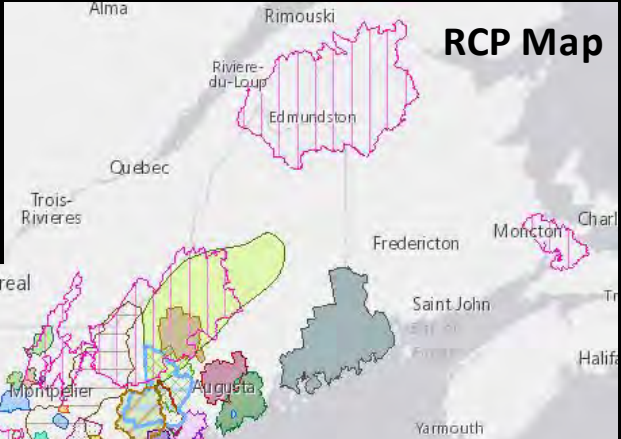
Rosenberg et al. 2019, Science; Graphic by Jillian Ditner



# Land Trust/Bird Conservation Nexus



Land Trusts collectively protect more than 56 million acres of private land nationwide



Worm-eating Warbler

Birds are catalysts for capacity building and conservation strategies

RCPs have permanently protected over 335,000 acres of land throughout New England and eastern New York

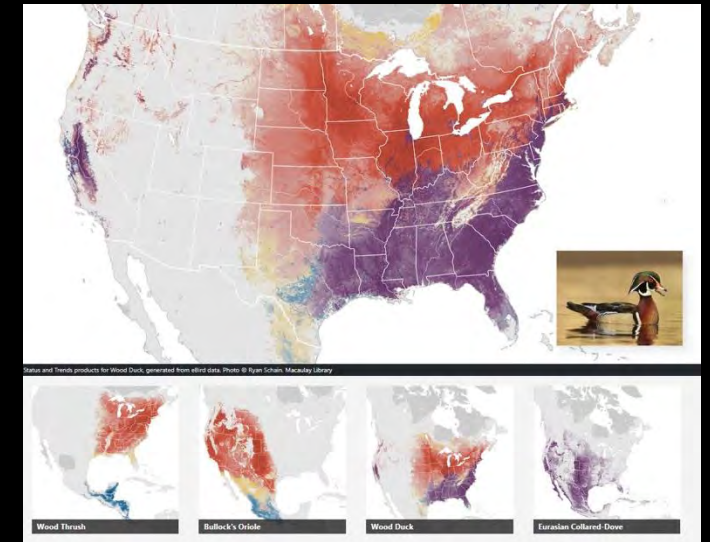
# Land Trust National Needs Assessment (614 land trusts participated)



Funding



Conservation  
Resources



Planning Tools



## Conservation Resource Directory

- landscape-scale plans/BMPs
- citizen science projects
- joint ventures/Partners in Flight

## Fundraising Directory / Land Trust Grants

- bird related funding sources
- \$ for management & capacity building

## Workshops & Webinars / Planning Tools

- conservation collaboratives
- success stories
- eBird

### Save More Land

Use birds to strengthen easements  
and protect threatened habitats

[Learn How](#)



What Birds Can Do



What Land Trusts Can Do



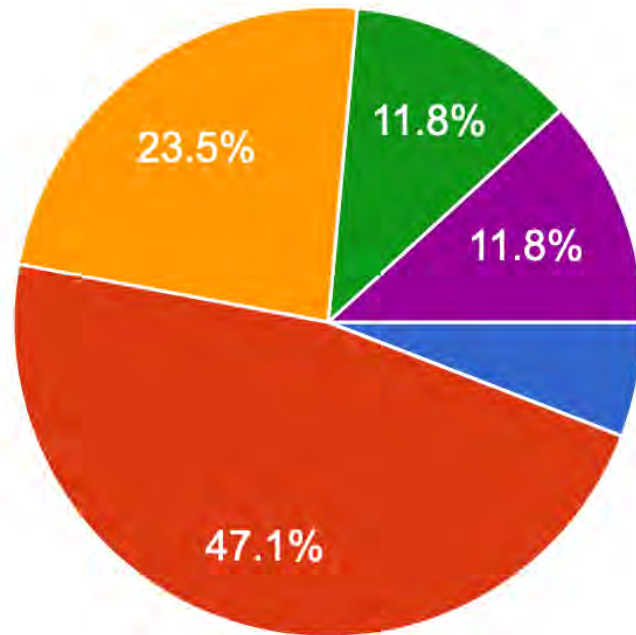
Resources

eBird



## Have you used eBird before?

34 responses



- I have not heard of eBird beyond the advert for this webinar
- I have heard of eBird but have never used it
- I have used eBird to record my bird sightings
- I have used eBird data in my work
- I have both entered bird sightings into eBird and used eBird data

What is eBird?









© North News & Pictures Ltd.



© Francesco Veronesi, Flickr



Climate and Environment

**Amid the pandemic, people are paying more attention to tweets. And not the Twitter kind.**

*The New York Times*

The Birds Are Not on Lockdown,  
and More People Are Watching  
Them





**Scientists**

© North News & Pictures Ltd.



**Scientists**

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**Scientists**

*The New York Times*

The Birds Are Not on Lockdown,  
and More People Are Watching  
Them

Climate and Environment

Amid the pandemic, people are paying more attention to tweets.  
And not the Twitter kind.





| Names of kinds of Birds nests known 1120 | Where found |
|------------------------------------------|-------------|
| Blackbird                                | Canal bank  |
| Chaffinch                                | in Copse    |
| Little Grebe                             | on Canal    |
| Hedge Sparrow                            | in Woods    |
| Coot                                     | in pond     |
| Jackdaw                                  | in Woodery  |
| Mourner                                  | in Woods    |
| Nuthatch                                 | Clozdike    |
| Rook                                     | in Rookery  |
| Pingdove                                 | in Dell     |
| Thrush                                   | Canal bank  |
| Common Wren                              | by School   |
| Robin                                    | in dell     |
| Starling                                 | by Canal    |
| House sparrow                            | by house    |
| Linnet                                   | in garden   |
| Greenfinch                               | Canal bank  |
| Bluetit                                  | in Woods.   |

| Where found               | Where found               |
|---------------------------|---------------------------|
| by canal as well          | by canal as well          |
| by canal as well          | by canal as well          |
| at Cox in park            | at Cox in park            |
| old workery Gaywell       | old workery Gaywell       |
| St. John's Wood court     | St. John's Wood court     |
| at pond in park           | at pond in park           |
| in Cox in lock            | in Cox in lock            |
| in castle                 | in castle                 |
| in bush along Foxham      | in bush along Foxham      |
| West Pond Gaywell         | West Pond Gaywell         |
| on canal Gaywell          | on canal Gaywell          |
| canal bank as lock        | canal bank as lock        |
| the tower as castle       | the tower as castle       |
| in stump pinays lane      | in stump pinays lane      |
| in hedge Upton Gray       | in hedge Upton Gray       |
| in pipe in large Roodgate | in pipe in large Roodgate |
| in coat Cox in lock       | in coat Cox in lock       |

| Names of kinds of birds nests known | Where found          |
|-------------------------------------|----------------------|
| Marsh Warbler                       | in dell              |
| French Blackbird                    | in Woods             |
| Willow Wren                         | in Dell              |
| Yellow Hammer                       | Old Lane             |
| Red Linnet                          | Canal bank           |
| House Martin                        | under eave of school |
| Sand Martin                         | in sand pit          |
| Lesser Whitethroat                  | near school          |
| Goldfinch                           | Woot notes           |
| Great Tit                           | in Woods             |
| Spotted Flycatcher                  | near school          |
| Greater Whitethroat                 | Dell lane            |
| Pheasant                            | in field             |
| Partridge                           | in field             |
| Chicken                             | in farm              |

| Where found | Where found |
|-------------|-------------|
| in hedge    | in hedge    |
| in workery  | in workery  |
| in hedge    | in hedge    |
| in wood     | in wood     |
| in hedge    | in hedge    |
| in wood     | in wood     |
| in wood     | in wood     |
| in wood     | in wood     |
| in pond     | in pond     |
| on canal    | on canal    |
| in woods    | in woods    |
| in wood     | in wood     |
| in hedge    | in hedge    |
| in pipe     | in pipe     |
| in shrub    | in shrub    |
| in tree     | in tree     |
| in tree     | in tree     |
| in castle   | in castle   |



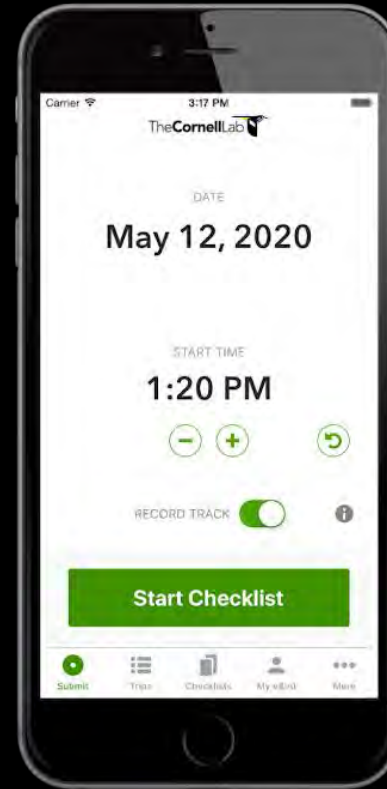


Photo credit Chelan-Douglas Land Trust



# Personal birding tools

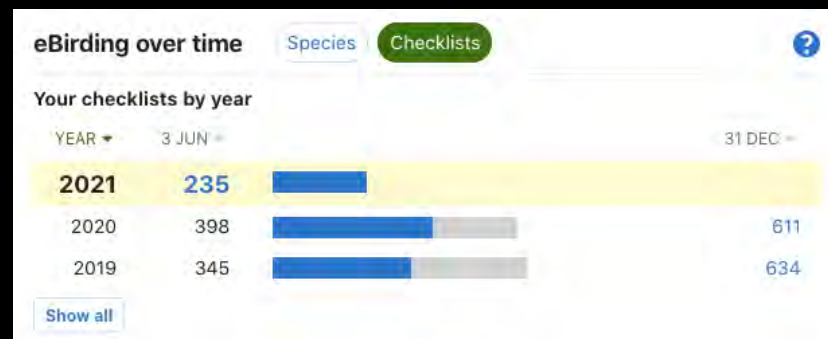
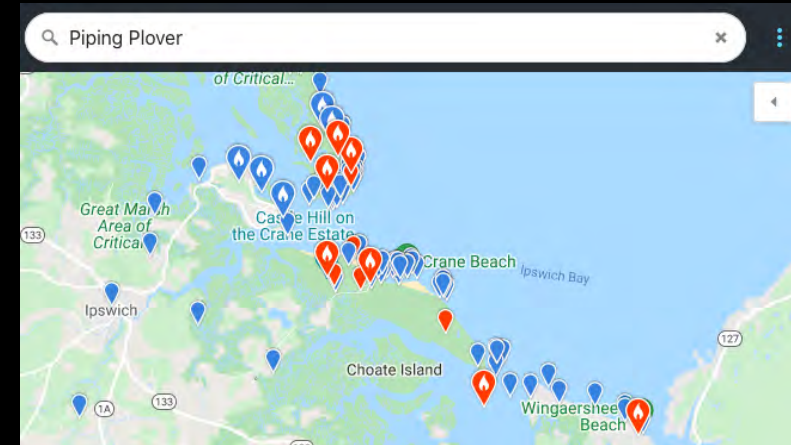
- Enter lists on a computer or smartphone
- Personal birding activity summaries
- Public profiles
- Bird-finding resources (maps, email alerts)



56 species observed in **Maine, US** that you need for your **World Life List** (1087 species) [Print](#)

Sort by ▾

1. **Atlantic Puffin**  
1.89% frequency [Map](#)
2. **Roseate Tern**  
1.42% [Map](#)



Region: **World** [Change Region ▾](#)

1,087 Species observed [5,657 Complete checklists](#) (6,298 Total) [163 Species w/ photos](#) (246 Observations)

**Jenna Curtis**  
Ithaca, New York, United States  
PUBLIC [Edit Profile](#)  
Regional Reviewer for 3 Regions  
Hotspot Editor for World

**eBirder since 18 Nov 2011**  
Oldest checklist: 10 Aug 2003  
Oldest media: 28 Feb 2016

I recently joined the Cornell Lab of Ornithology as a Project Leader for eBird, where my focus is on enhancing engagement and communication among eBird users. I received my MS and PhD from Oregon State University studying long-term changes in temperate and...

Your profile URL: <https://ebird.org/profile/Mjg1MDY0>



# eBird is growing

- One BILLION bird observations
- 684,300 all time data contributors
- 78 million checklists
- 10,500+ species
- 60 million hours in the field



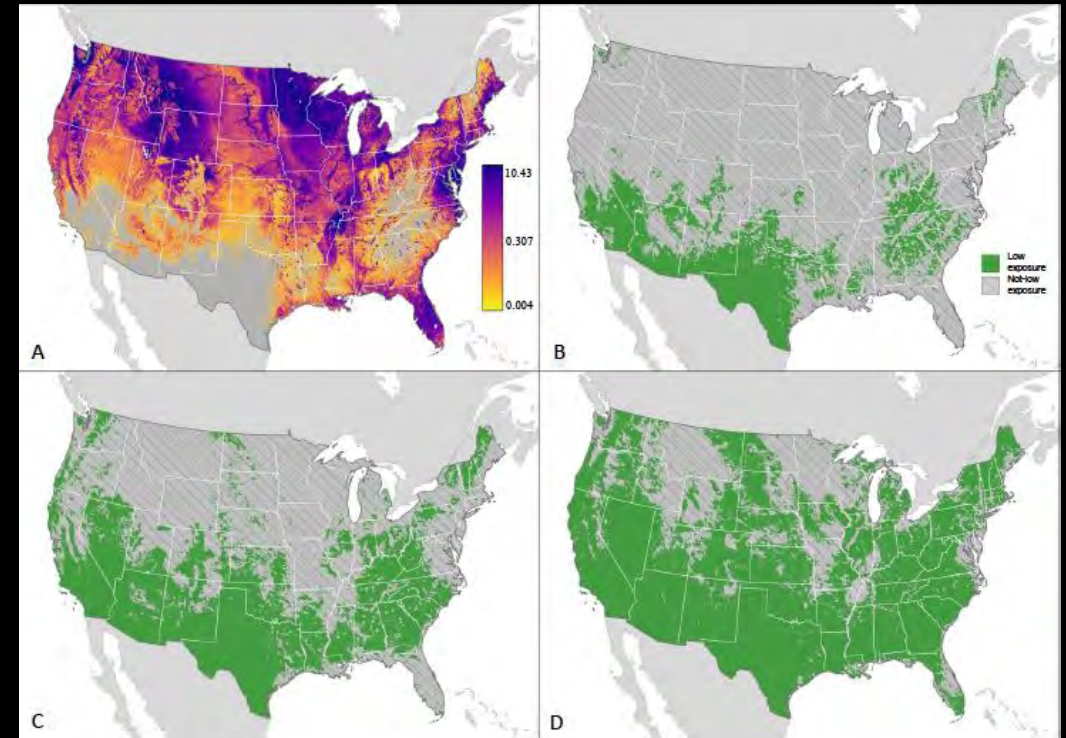






# An amazing scientific resource

- Data is freely available for download and through APIs
- Valuable insights into bird populations
- Trusted for policy and decision making



# Why eBird.

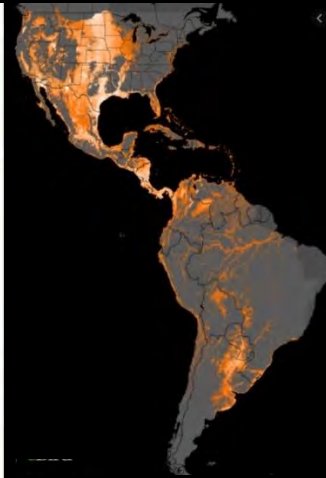
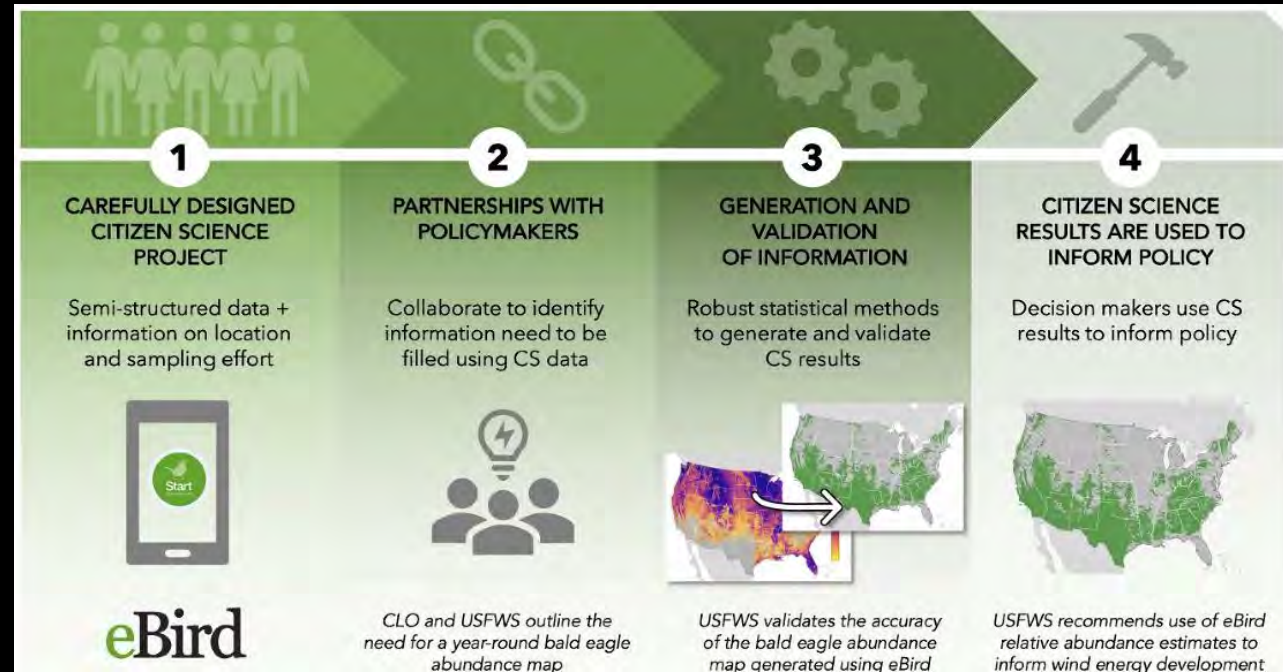
*Workshop tip: give your audience specific examples of how eBird can be useful to them*

**Build capacity**  
**Build community**



# Effective Ways for Conservation Partnerships to use eBird

- Long-term online data storage
- Inform grant applications
- Easy entry to citizen science
- Monitoring /stewardship requirements
- Evaluate management
- Support planning & decision making



October 10  
Barn Swallow

The Cornell Lab of Ornithology | eBird







# Why eBird?

## Community engagement

- Engage volunteers and landowners
- Participation across skill levels
- Track participation through public outputs



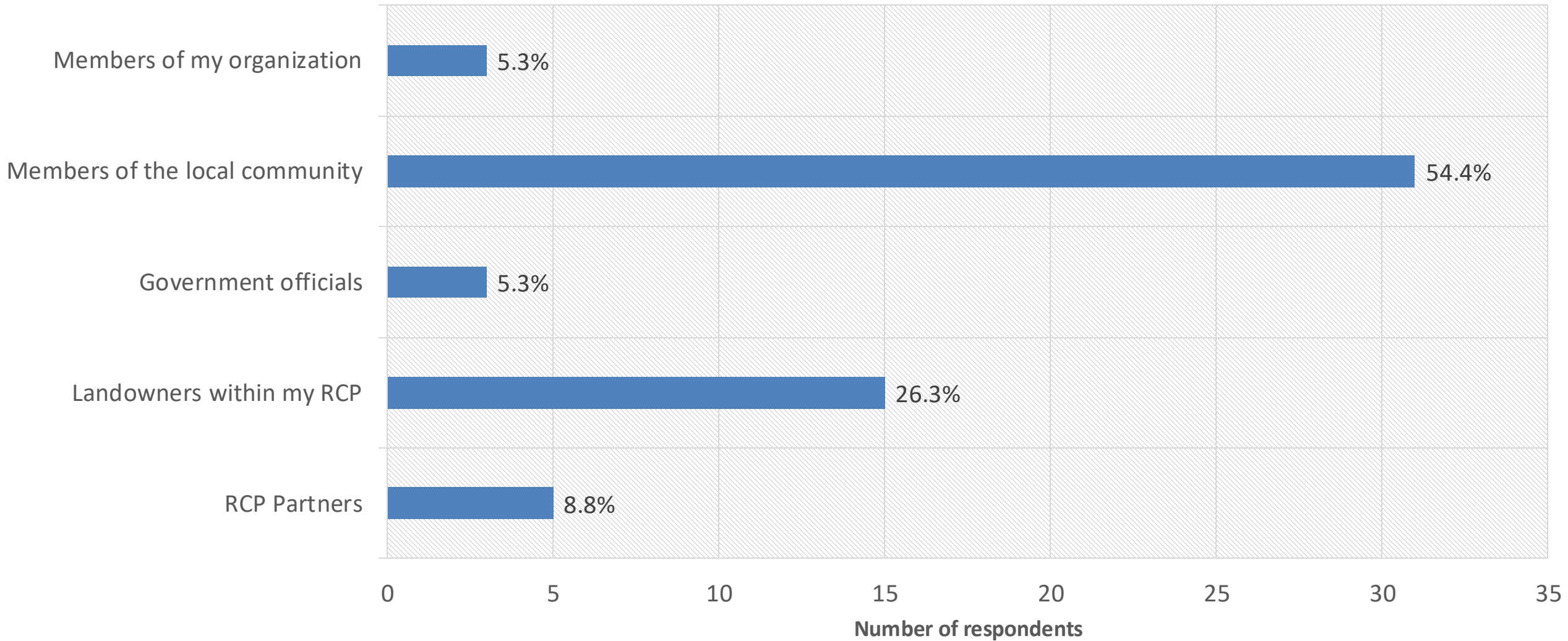








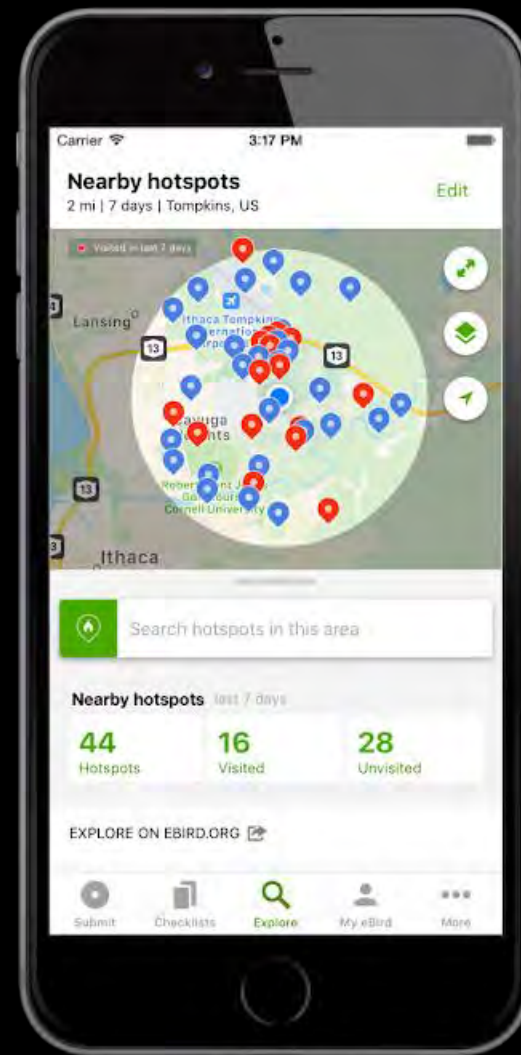
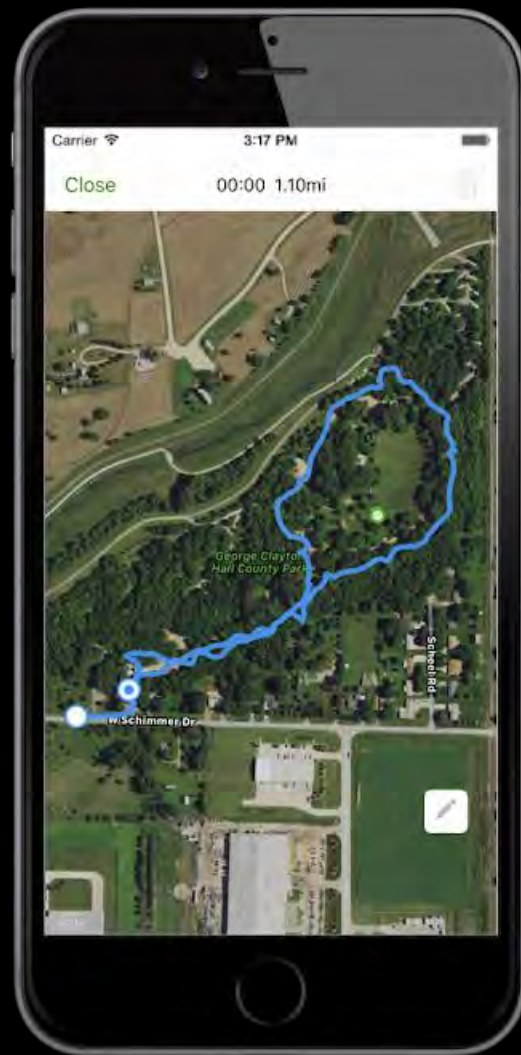
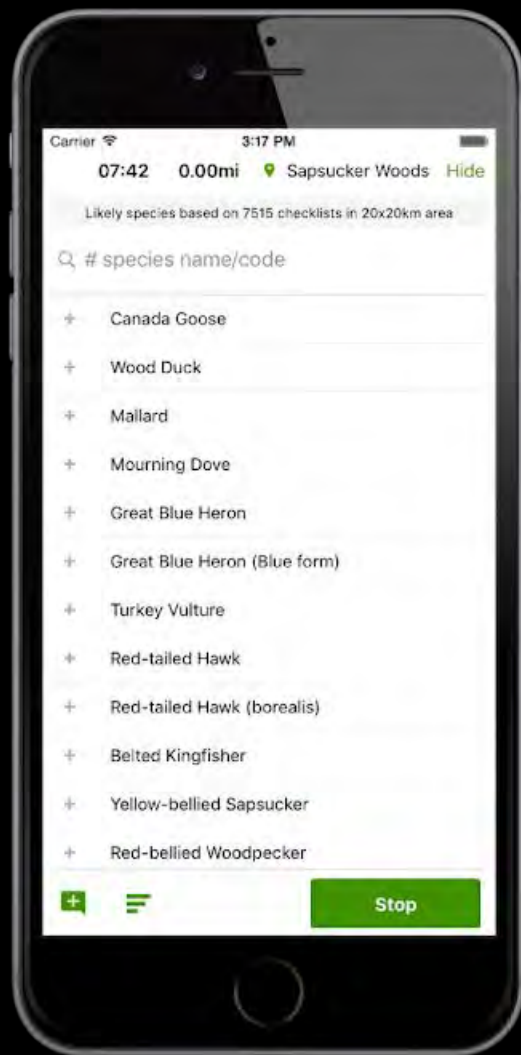
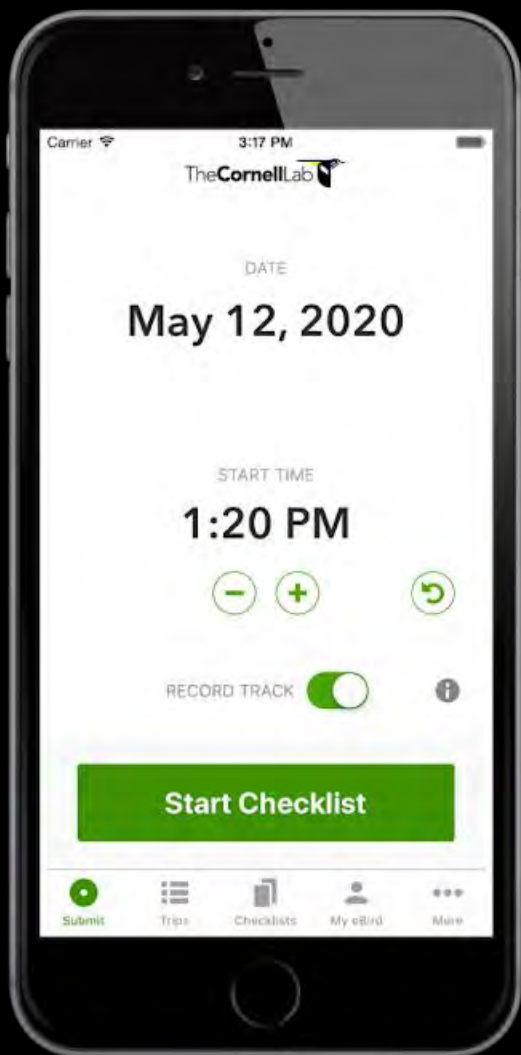
# If you were to run your own eBird workshop, who do you think the audience would consist of?





**Find and share birds with eBird**

# eBird Mobile







## eBird Essentials

**eBird: A New World of Birding**

00:52

Show Transcript +

### Your How-To Guide

Explore how eBird can help spark new birding adventures.

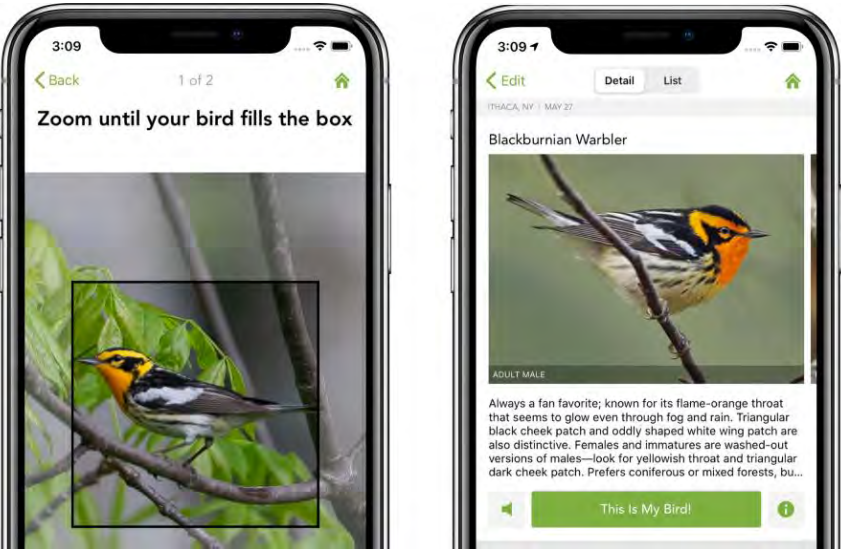
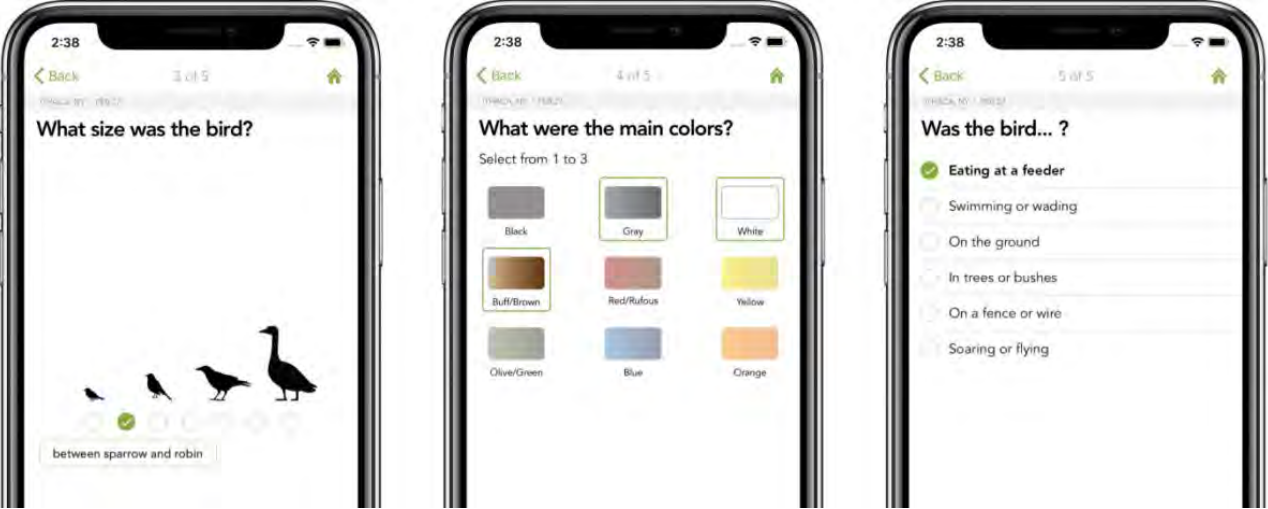
- ✓ Discover tools that help you find birds wherever you go
- ✓ Gain confidence submitting your sightings
- ✓ Get expert tips for using eBird and joining the community

# Frequently Asked Questions

- What if I don't know the birds?
- Why does it matter how long I went birding?
- How can I make my observations even more valuable for science?
- How do we know that the data are reliable?
- How does eBird protect sensitive and at-risk species?



# What if I don't know the birds?



# What if I don't know the birds?

## Piping Plover

*Charadrius melodus*

**NT** Near Threatened Names (28) Monotypic

Elise Elliott-Smith and Susan M. Haig  
Version: 1.0 — Published March 4, 2020  
Text last updated November 1, 2004



SEEN PHOTO AUDIO



© Lelah Cafuoco Macaulay Library eBird



The **Cornell** Lab of Ornithology  
**Birds of the World**

LISTEN

**Introduction**

**Appearance**

**Systematics**

**Distribution**

**Habitat**

**Movements and Migration**

**Diet and Foraging**

**Sounds and Vocal Behavior**

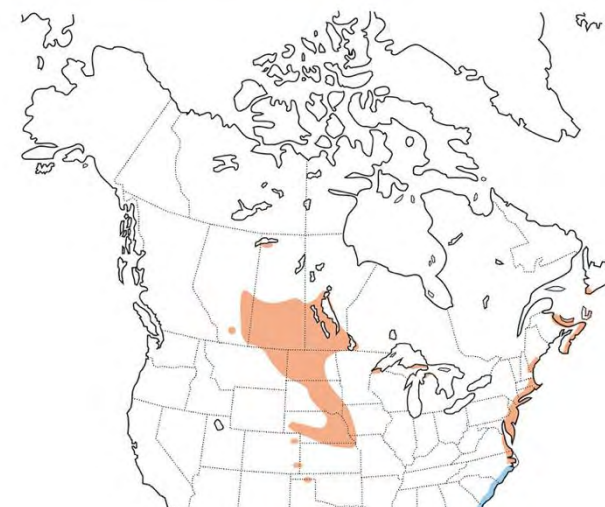
**Behavior**

**Breeding**

**Demography and**

The Piping Plover is a threatened and endangered shorebird that inhabits wide, open beaches, alkali flats, and sandflats of North America. It breeds primarily along the Atlantic coast from North Carolina to eastern Canada and the French Islands of Saint Pierre and Miquelon, inland along rivers and wetlands of the northern Great Plains from Nebraska to the southern Prairie Provinces, and along portions of the western Great Lakes in the U.S. and western Ontario. In winter, most individuals are found on coastal beaches, sandflats, and mudflats from the Carolinas to Yucatan; some scatter through the Bahamas and West Indies.

This plover is divided into two subspecies based on geographic distribution, presence or absence of complete neck bands, and mitochondrial DNA (SMH). Numerous studies have been conducted across the species' range, and conservation efforts are well organized in breeding areas across North America. Several recent efforts have also focused on winter areas. Its coexistence with human use of beaches is increasingly dependent on management: fencing nests, restricting off-road vehicle access, and predator control. Fewer than 3,000 breeding pairs of Piping Plovers were detected in the U.S. and





# What if I don't know the birds?



Tim Zurowski/Shutterstock

## Be a Better Birder: Sparrow Identification

The most comprehensive online course on sparrows. Covers all 49 species in the U.S. and Canada. Practice for the field with SnapID.

All About Birds

Birds ▾ Live Cam

Welcome To Your Online Guide To Birds And Bird Watching

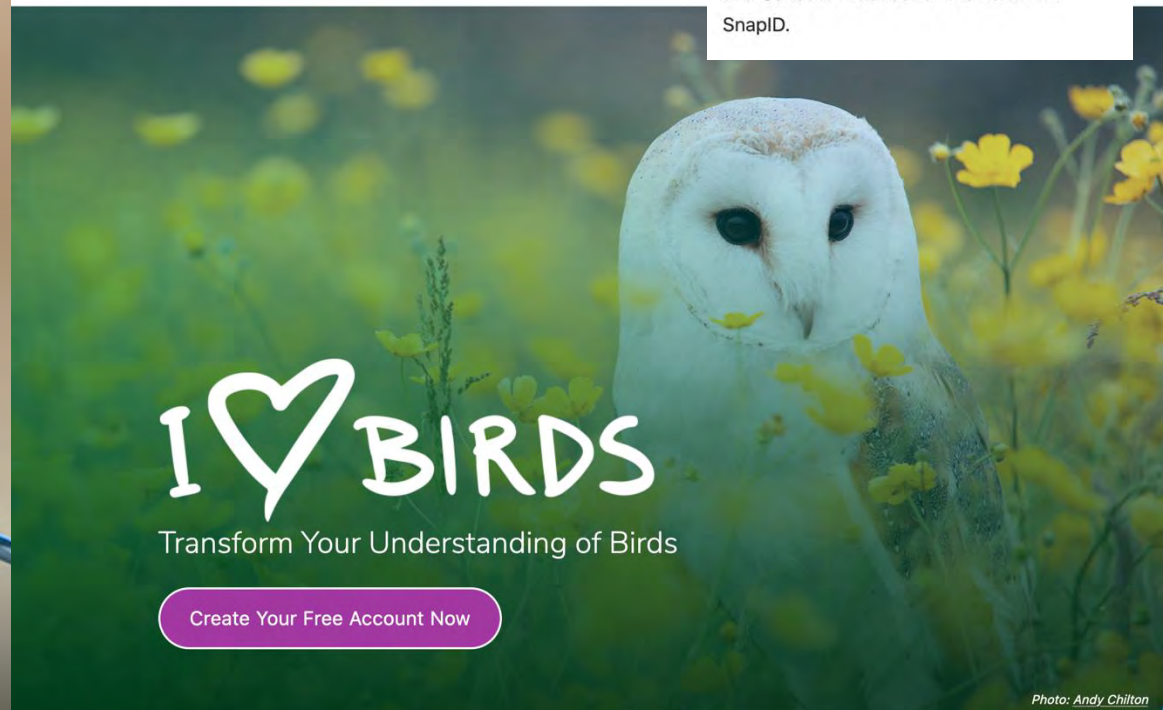
🔍 Search

Or [Get Instant ID Help](#)



Mountain Bluebird by Ilya Povalyaev/Macaulay Library.

Bird Academy



I ♥ BIRDS

Transform Your Understanding of Birds

Create Your Free Account Now

Photo: Andy Chilton



# Why do birding details matter?

- Single calendar date
- Single location
- Protocol (= observation type)

*Necessary details for more advanced statistical models*



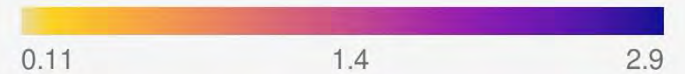


## Wood Thrush *Hylocichla mustelina*

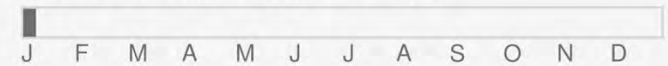
### Abundance

Estimates of relative abundance for every week of the year animated to show movement patterns. Relative abundance is the estimated number of individuals detected by an eBirder during a traveling count at the optimal time of day for each species.

#### RELATIVE ABUNDANCE



#### WEEK OF THE YEAR January 4



Modeled area (0 abundance)

No prediction

eBird data from 2005-2020. Estimated for 2019.  
Fink, D., T. Auer, A. Johnston, M. Strimas-Mackey, O. Robinson, S. Ligocki, W. Hochachka, C. Wood, I. Davies, M. Iliff, L. Seitz. 2020. eBird Status and Trends, Data Version: 2019; Released: 2020. Cornell Lab of Ornithology, Ithaca, New York. <https://doi.org/10.2173/ebirdst.2019>

# Is eBird data reliable?



Dogbird



Catbird

- Automated data quality filters flag rarities in real time
- Volunteer reviewer network - 1900 experts
- Checklist and media review



# Protecting sensitive species



Great Gray Owl



Sensitive



# Adding scientific value to eBird checklists

- Submit complete checklists
  - Report every species you can identify
  - Include birds seen and/or heard
- Count birds
- Limit the length and duration of each list
- Document rarities






The power of eBird

# Land Trust Small Grant Awardee Success Story

- eBird citizen science monitoring platform
- Community engagement via workshops & trainings
- Data overlaid with parcel ownership & land use
- Inform prioritization of acquisitions / easements
- Maximize conservation dollars

## Lewis's Woodpecker Project



Help report Lewis's Woodpecker sightings in Central Colorado

We need your help! Central Colorado Conservancy has been awarded a grant from [Cornell Laboratory of Ornithology](#) to record old-growth cottonwood habitat usage by Lewis's Woodpeckers. We are asking for your help to record as many sightings as possible. Through this data gathering and research, the Conservancy aims to conserve old-growth cottonwood habitat and Lewis's Woodpecker populations throughout our six-county service area in Central Colorado. We are interested in all sightings, whether they occur in a cottonwood habitat, ponderosa, pinyon-juniper, aspen, or at your bird feeder.

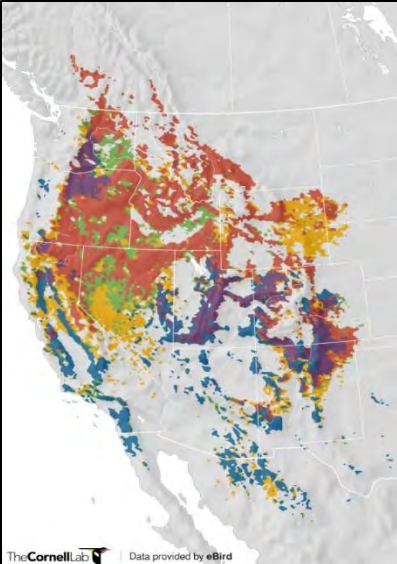


**Why is this important?**

In Central Colorado, old-growth cottonwood habitat is a necessary requirement for Lewis's Woodpeckers. Species data collection has occurred in the Intermountain West. Lewis's Woodpecker is a species of continental conservation concern.

**About Lewis's Woodpeckers**

Head, back, wings, and tail are metallic greenish-black. The collar and breast are gray and the belly is pinkish-red. The face is dark red framed in greenish-black. Male and females look alike. Juveniles are more brownish-black on back, lacking extensive gray, red, and pink coloration of adults, but colorings can be highly variable.



**Lewis's Woodpecker** *Melanerpes lewis*

**Range**

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

**OCCURRENCE**

- Year-round
- Breeding season May 24 - Jul 27
- Non-breeding season Nov 16 - Apr 12
- Pre-breeding migratory season Apr 19 - May 17
- Post-breeding migratory season Aug 10 - Nov 9

Note: Seasonal ranges overlap and are stacked in the order above; view full range in season maps.

**SEASONS TIMELINE**

J F M A M J J A S O N D

Modeled area (10 abundance)  
No prediction

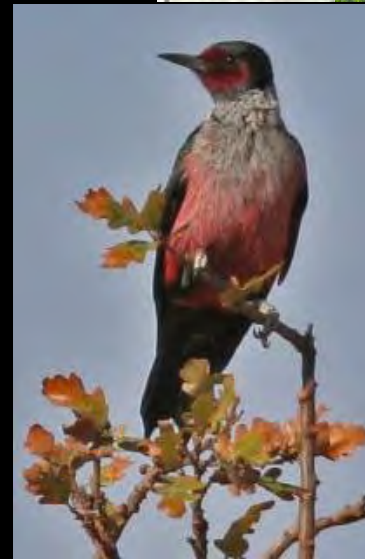
eBird data from 2005-2020. Estimated for 2019.  
Fink, D., T. Auer, A. Johnson, M. Strimling-Mackey, O. Robinson, S. Lodge, W. Hochachka, C. Wood, I. Davies, M. Hill, L. Seltz. 2020. eBird Status and Trends, Data Version: 2019. Released: 2020. Cornell Lab of Ornithology, Ithaca, New York. <https://doi.org/10.2173/ebirdst.2019>

The Cornell Lab Data provided by eBird



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Lewis's Woodpecker







*“Besides our moral imperative to maintain the earth’s beauty and bounty for future generations to enjoy, it is important to view birds as accessible indicators of the health of our lands and waters....In short, healthy bird habitat makes for healthy human habitat.”*

*John W. Fitzpatrick, Cornell Lab of Ornithology,  
New York Times Op-ed, Aug. 29, 2014*

[www.ebird.org](http://www.ebird.org)

[Jenna Curtis, jc2585@cornell.edu](mailto:jc2585@cornell.edu)

[www.birdtrust.org](http://www.birdtrust.org)

[Sara Barker, sb65@cornell.edu](mailto:sb65@cornell.edu)

Sarah K. deCoizart  
Perpetual Charitable Trust





# Questions and Discussion

# Thank you!

- **eBird Webinar #2: June 15 from 1-2:00 pm ET** –  
“*Conservation applications of eBird data and products*”
  - eBird Workshop Toolkit & Resources
  - eBird Workshop mini grants
  
- **Save the Dates: Forestry for the Birds Webinar** –  
September 15, 22, 29 & October 13, 2021
  
- Interested in getting involved in the  
**Northeast Bird Habitat Conservation Initiative?**
  - Email Katie [kblake@highstead.org](mailto:kblake@highstead.org) or Sara [sb65@cornell.edu](mailto:sb65@cornell.edu)

