



# An Introduction to eBird

By Paul J. Hurtado





# eBird

Where Birding  
Meets Science



## Talk Overview

- What is eBird?
  - Navigating the eBird website:
    - Exploring the data
      - Contributing and organizing your own observations
  - Additional resources
  - Q&A





# Want these slides?

1. My [website](#)
2. These & MORE at eBird.org!



## eBird



SWAROVSKI  
OPTIK

[Home](#)[About eBird](#)[Submit Observations](#)[Explore Data](#)[My eBird](#)[Sign In](#) | [Register as a New User](#)Translate to: [English](#) | [Español](#) | [Français](#)

### About eBird

#### Global tools for birders, critical data for science

- Record the birds you see
- Keep track of your bird lists
- Explore dynamic maps and graphs
- Share your sightings and join the eBird community
- Contribute to science and conservation

#### Overview

A real-time, online checklist program, eBird has revolutionized the way that the birding community reports and accesses information about birds. Launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society, eBird provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales.

eBird's goal is to maximize the utility and accessibility of the vast numbers of bird observations made

[Register Now!](#)

#### About eBird

- [eBird Quick Start Guide](#)
- [Why should I eBird?](#)
- [What is My eBird?](#)
- [What data are appropriate?](#)
- [How can I make my checklists more valuable?](#)
- [Improving your eBird reporting skills](#)
- [How will scientists use your observations?](#)
- [eBird Tutorial](#)
- [Uploading your records](#)
- [eBird Regional Portals](#)
- [eBird Data Quality](#)
- [Hotspots](#)
- [eBird Taxonomy](#)
- [Frequently Asked Questions](#)
- [Data Privacy Issues](#)
- [Recommended Citation](#)
- [Affiliates and Sponsors](#)
- [eBird News Index](#)
- [eBird Promotional Material](#)
- [ABA Codes and eBird](#)
- [eBird County Birding](#)



## Christmas Bird Count

**iNaturalist.org**  
**usanpn.org**

- Since 1900
  - From 25 to 2000 count circles over 100 years
  - Currently 50,000 participants

## Breeding Bird Survey

- Since 1966
  - From 600 to 3700 routes over 40 years
  - Several thousand participants





# eBird

### Gather

- Internet-based checklist program
  - Tool for gathering observational data
  - Tool for maintaining personal records

### Archive

- Persistent archive of bird observations
  - Gathers baseline data on bird distribution and abundance

### Disseminate

- Public tool for data visualization
- AKN, conduit for observational data





# eBird

- Worldwide monitoring program
  - **All** species & field identifiable forms
    - Year-round!
    - Advanced geo-referencing
      - Broad user-base







# eBird

- ~70,000 account holders and growing
  - ~300,000 site visitors
  - 230 countries/territories
  - >5,000,000 checklists submitted
  - 9,152 species reported
  - ~70 million observations reported





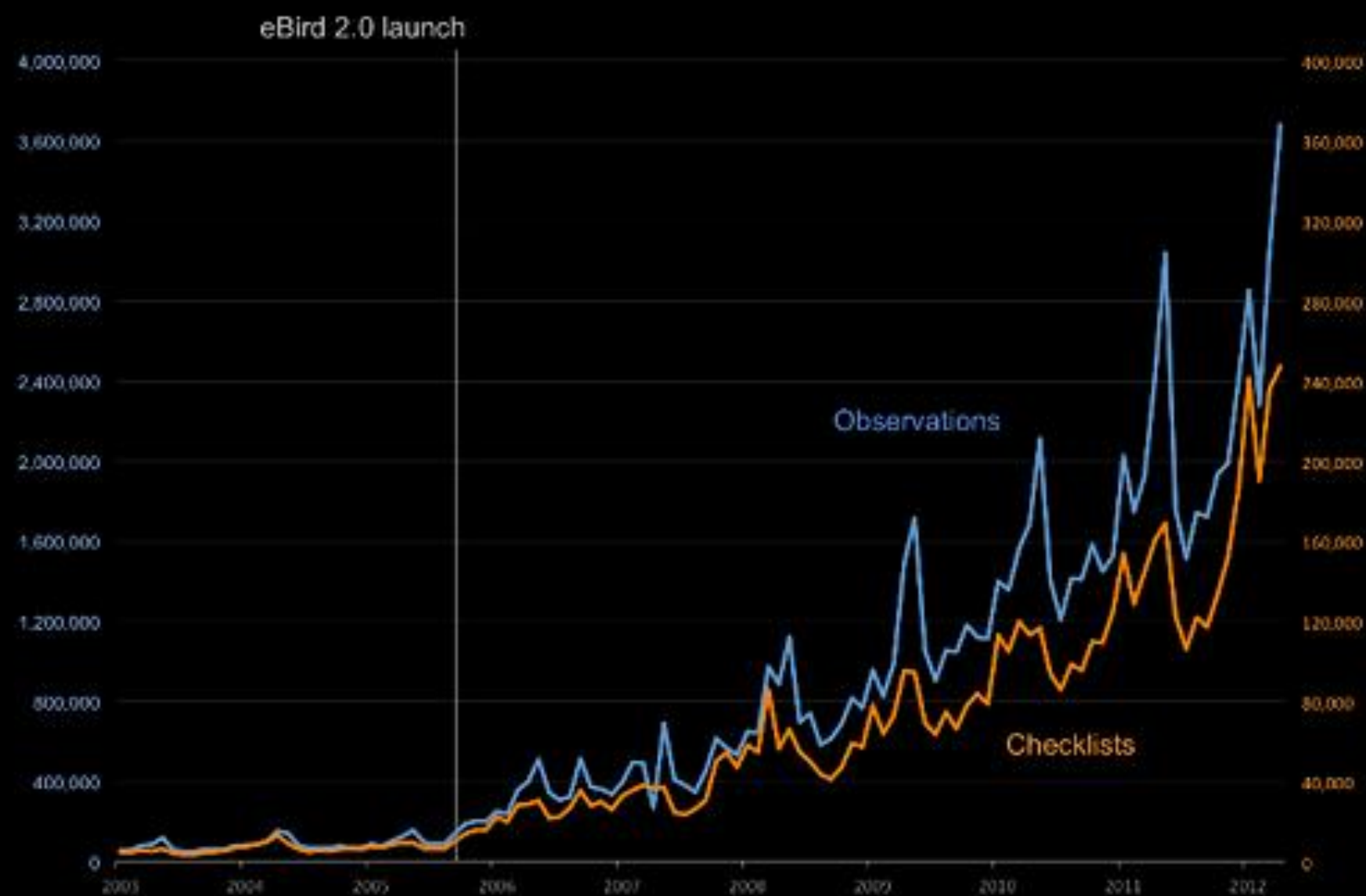
# eBird

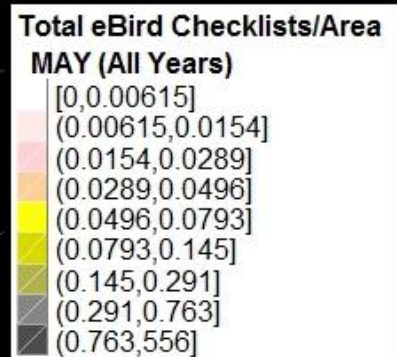
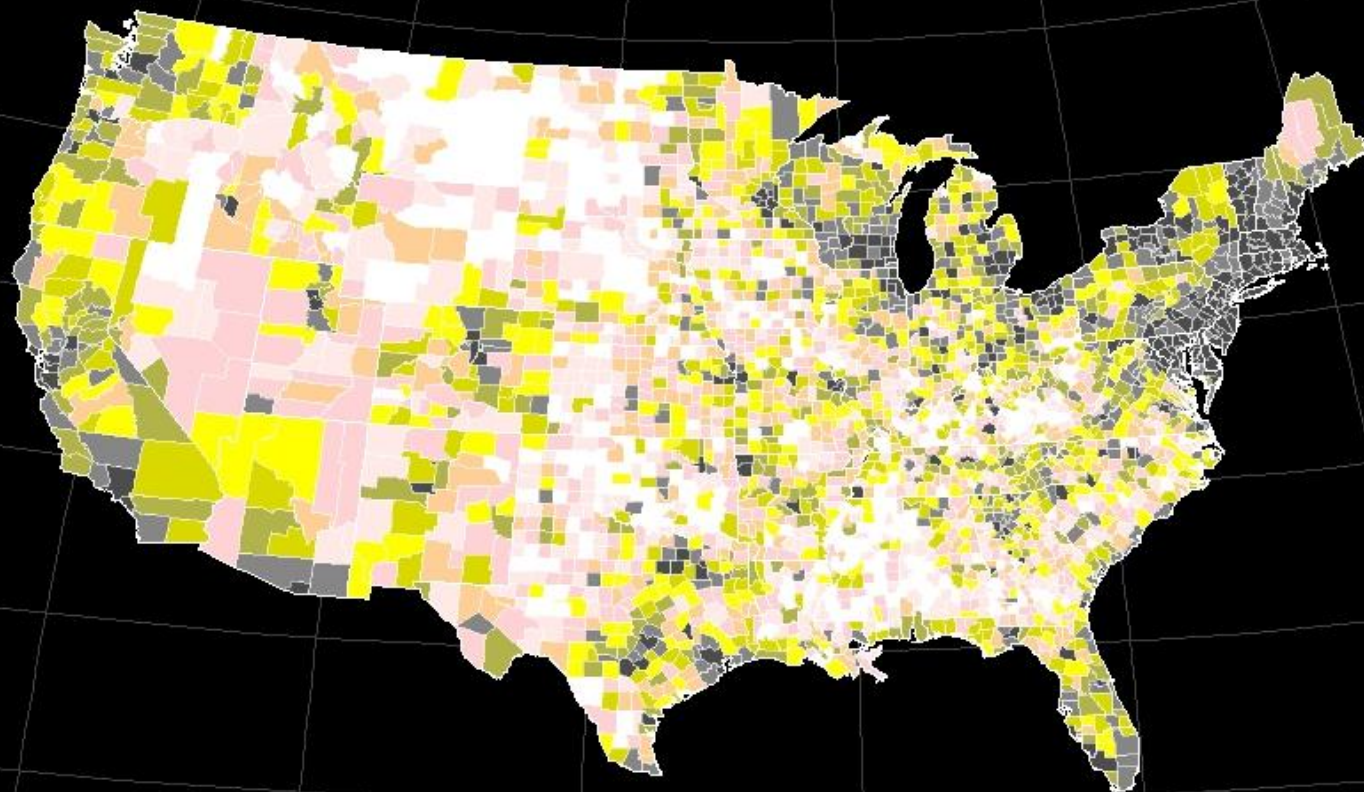
- ~80,000 account holders and growing
  - ~400,000 site visitors
  - **ALL** countries/territories
  - ~8,9000,000 checklists submitted
  - ~9,779 species reported
  - ~120 million observations reported

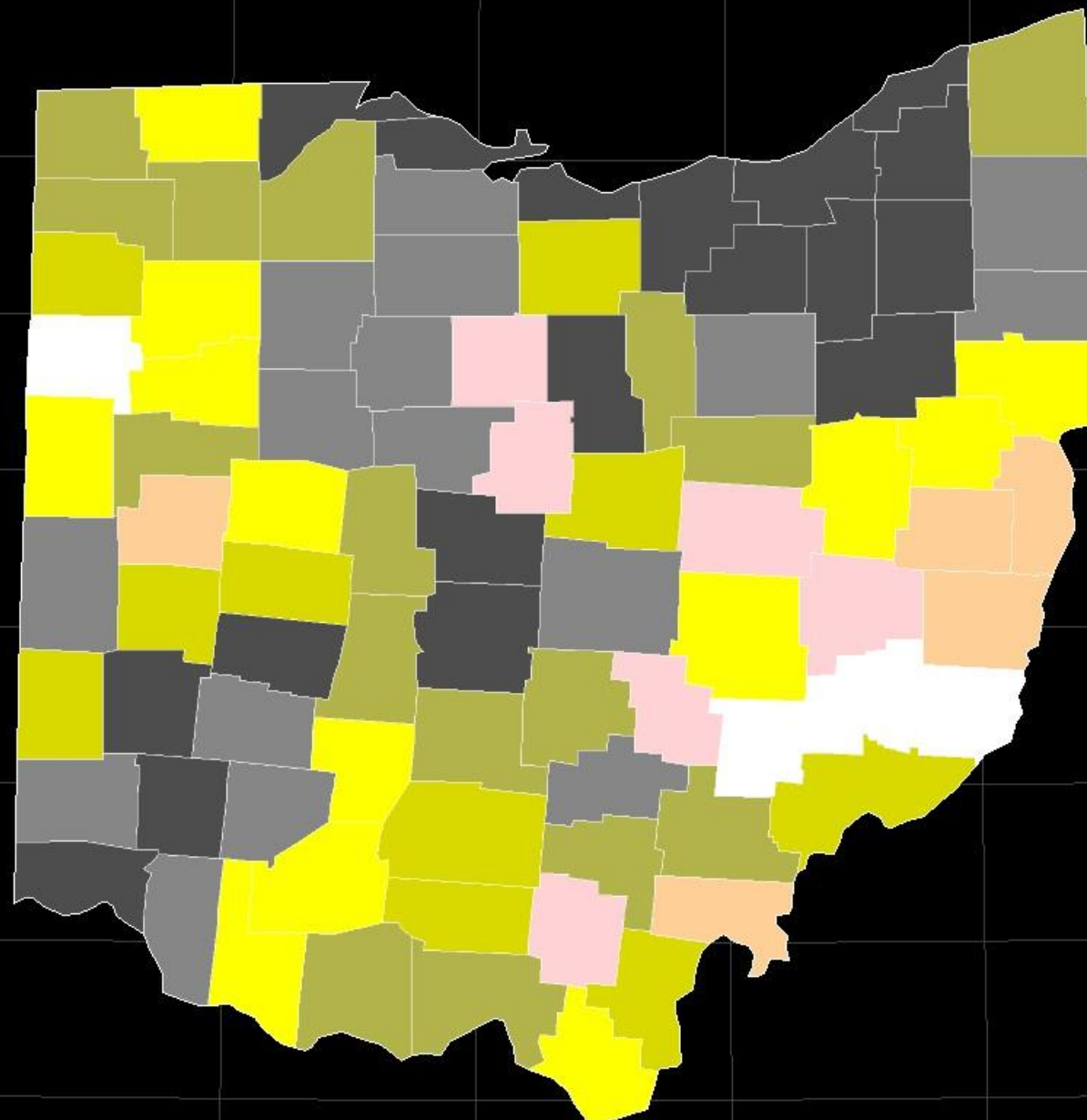




# Growth in eBird Observations and Checklists

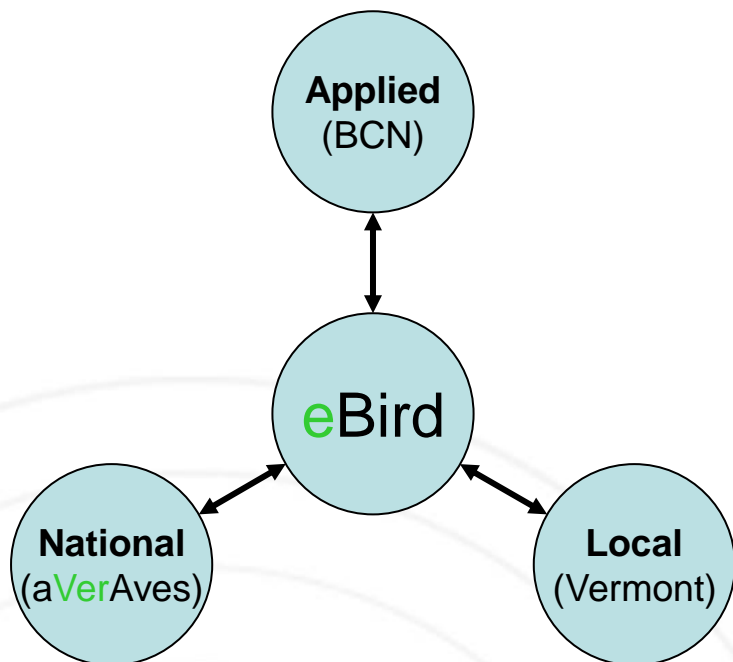








# Encouraging Participation - Integration



Hola Chris Wood. [Salir](#)

[Contacto](#) | [Preguntas frecuentes](#) | [Glosario](#)

[Inicio](#) | [Acerca de aVerAves](#) | [Envia Tus Observaciones](#) | [Ver y Explorar Datos](#) | [Mi aVerAves](#)

## Mi aVerAves

Personaliza tu cuenta de aVerAves, maneja tus localidades y observaciones y guarda tus listados personales.

### Tu listado de por Vida: [785 Especies](#)

Tus estadísticas

	<a href="#">de por Vida</a>	<a href="#">Anual</a>	Mensual	
Total de especies	785	698	259	
Total de Listados	625	253	22	
Total de marcas por Estado	1886	1336	77	

### Tus listados

[Regiones Mayores](#) | [Estado/Provincia](#) | [Condado/Municipio](#)

	<a href="#">de por Vida</a>	<a href="#">Anual</a>	Total de marcas por Condados/Municipios	
Colorado	<a href="#">375</a>	<a href="#">233</a>	3168	
Jalisco	<a href="#">267</a>	<a href="#">267</a>	--	
Illinois	<a href="#">258</a>	<a href="#">205</a>	1622	
Chiapas	<a href="#">228</a>	<a href="#">228</a>	--	
Veracruz	<a href="#">222</a>	<a href="#">205</a>	--	

### Mis observaciones

[Resumir mis observaciones](#)  
Calcular frecuencias, abundancias y elaborar cuadros con mis observaciones.

[Administrar mis observaciones](#)  
Ver, editar, imprimir o bajar mis observaciones.

[Administrar Mis Localidades](#)  
Agrega localidades nuevas o edita las existentes.

### Datos de tu cuenta

[Editar mi perfil](#)  
[Mis Preferencias de aVerAves](#)





# Regional Applications – Empowering Local Birders

aVerAves



nabci

Puerto Rico  
eBird



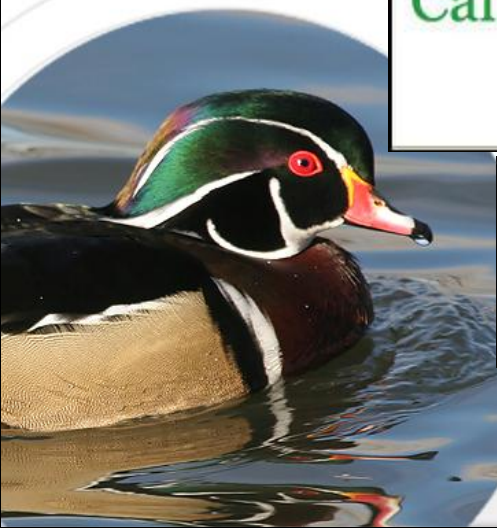
aVerAves  
Hispaniola



California  
eBird



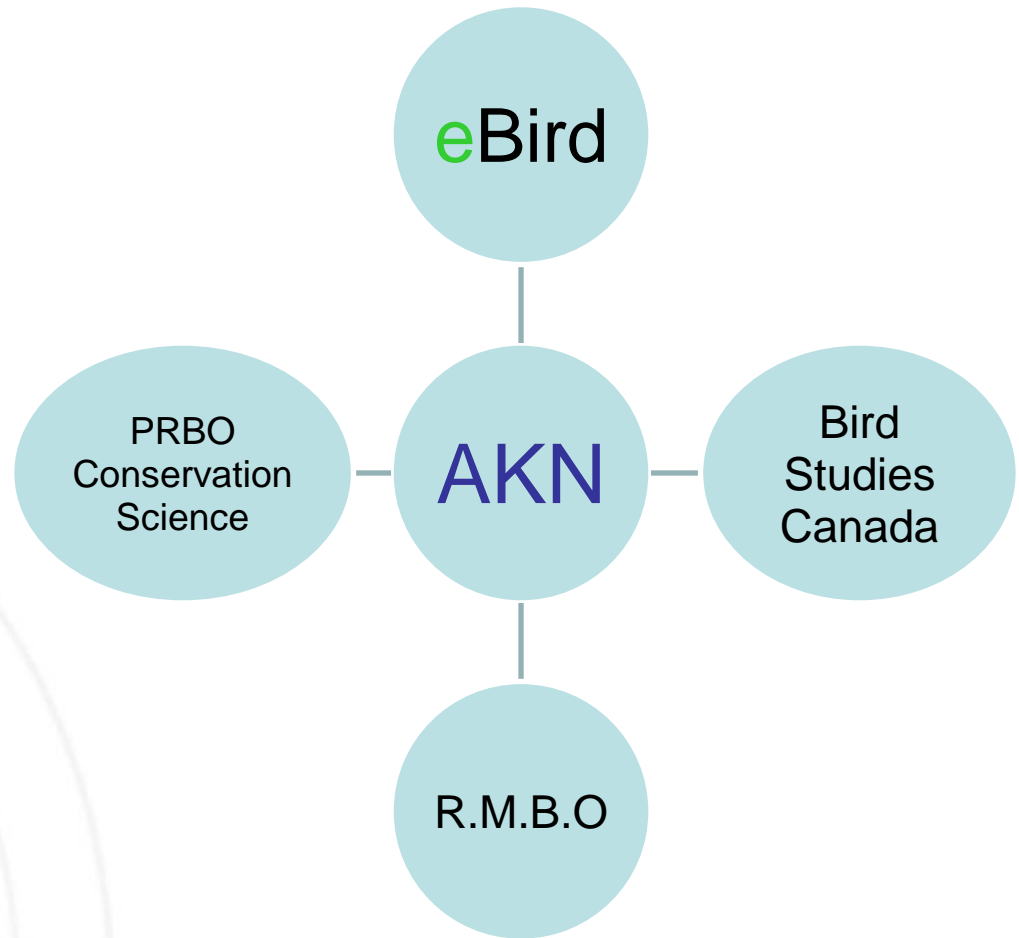
DATAves  
Colombia





# What Happens to the Data?

- eBird data go global
- Combine with other datasets
- Available for download
- Analysis tools
- Visualization and exploration







## **Every record submitted to eBird goes through some level of data verification**

- Rarities
  - Aseasonal reports
  - Unusually high counts
  - Network of 500+ reviewers
    - Goal: one per county
  - Help them: leave comments!





# eBird—Data Entry—Age, Sex, Species Comments

☒ Confirm

15

Red-throated Loon *Gavia stellata*

Hide Details

Comments:

Swimming with Pacific Loons offshore of sandy beach. Photos at:  
[www.briansullivanphotography.com](http://www.briansullivanphotography.com).

X

Breeding Code:

Choose the highest possible code...



Help...

X

Add data for...

Choose the highest possible code...

NY Confirmed--Nest with Young

NE Confirmed--Nest with Eggs

ON Confirmed--Occupied Nest

FL Confirmed--Recently Fledged Young

FY Confirmed--Feeding Young

CS Confirmed--Carrying Fecal Sac

CF Confirmed--Carrying Food

DD Confirmed--Distraction Display

PE Confirmed--Brood Patch and Physiological Evidence

NB Confirmed/Probable--Nest Building

CN Confirmed/Probable--Carrying Nesting Material

T Probable--Territory Held for 7+ Days

C Probable--Courtship, Display or Copulation

N Probable--Visiting Probable Nest site

A Probable--Agitated Behavior

P Probable--Pair in Suitable Habitat

S Possible--Singing male

H Possible--In appropriate habitat

F Flyover

WATERFOWL

Brant *Branta bernicla*

Brant (Black) *Branta nigripennis*

Canada Goose *Branta canadensis*

Canada Goose (n)

Wood Duck *Aix sponsa*

Gadwall *Anas strepera*

Mallard *Anas platyrhynchos*

Cinnamon Teal *Anas cyanoptera*

Northern Shoveler *Anas platyrhynchos*

Northern Pintail *Anas acuta*



What about me?!

# eBird

**So... why contribute? What's in it for me?**

- Make your observations count!
- eBird keeps helps you organize your observations, lists.
- It makes me a better birder.
- Makes birding even more accessible, social, & fun!








# Keep Track of Your Lists Using My eBird

- Maintain and manage lists
- Regional, state and county
- View your eBird stats
- Manage your data
- View and manage profile





We make it visible.

[Home](#) [About eBird](#) [Submit Observations](#) [View and Explore Data](#) [My eBird](#)

Hello Brian Sullivan. [Sign Out](#)

## My eBird

Manage your personal lists, observations, locations, and account settings.

Your email address: [heraldpetrel@gmail.com](mailto:heraldpetrel@gmail.com) [\[edit\]](#)

### Your Life List: [737 Species](#)

#### Your Stats

	<a href="#">Life</a>	<a href="#">Year</a>	<a href="#">Month</a>	
<a href="#">Total Species</a>	737	204	139	
<a href="#">Total Checklists</a>	3025	70	26	
<a href="#">ABA Area Total Ticks</a>	1946	222	139	

#### Your Lists

[Major Regions](#) [My State/Province Lists](#) [My County Lists](#)

	<a href="#">Life</a>	<a href="#">Year</a>	<a href="#">Total County Ticks</a>	
California	<a href="#">447</a>	<a href="#">186</a>	1506	
New Jersey	<a href="#">259</a>	0	472	
New York	<a href="#">209</a>	0	512	
Arizona	<a href="#">203</a>	<a href="#">19</a>	351	
Baja California	<a href="#">194</a>	0	--	
Virginia	<a href="#">161</a>	0	228	

### My Observations

[Summarize My Observations](#)  
Create frequency, abundance and other tables of my observations.

[Manage My Observations](#)  
View, edit, print or download my observations.

[Manage My Locations](#)  
Edit existing locations.

[Import Data](#)  
Import your observations from *National Geographic Handheld Birds*

[Manage Imported Data](#)  
View, fix, and submit your imported data

### Account Settings

[Edit my profile](#)  
[My eBird Preferences](#)



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



## The ebird website is organized into 5 sections:

- 3 of 5 sections can be used by anyone (no account/sign-in is required to browse the data)
  - [Home](#): News feed and a few resources on the sidebar.
  - [About](#): The links listed on the right **are a goldmine of eBird “HowTo” information!**
  - [Explore Data](#): Data visualization tools
    - **Maps & Barcharts** are most useful
    - Also see the “Listing” links (in the box) and the arrival/departure links.
    - Maps: single species; easy to specify regions, timeframes
    - Barcharts: Visualize all (species) observations by region, timeframe
      - **“Download histogram data”** link allows user to open data as a spreadsheet; Great for doing *even more* with eBird data!
    - For beginners/students: Use Maps, Barcharts with AllAboutBirds.org
- 2 of 5 are for contributing users (requires login)
  - [Submit Observations](#):
  - [My eBird](#): manage observations, view lists.
  - (see next slide for details)



## (... continued)

- 2 of 5 are for contributing users (requires login)
  - [Submit Observations](#): Where birders enter sightings
    - Mandatory data: **location, date, time of day**
    - Two types of data collected: **Effort & Observations**
    - **Effort** = Stationary count? Traveling/walking?  
How far? Time duration? # Observers?  
*\* Helps eBird give you a list of expected species for submitting...*
    - **Observations**: Species? Number or presence ("X")?  
Optional: Comments/notes, age, sex, breeding status
  - [My eBird](#): manage observations, view lists, etc.
- **For more on entering (valuable) checklists? → [About](#)**
  - [eBird Tutorial](#) (includes registering, entering checklists)
  - [Making checklists more valuable](#)
  - [Improving your eBird reporting skills](#)
  - [Embedding photos, video in checklists](#)
  - [Breeding Codes](#), etc.



## **Your bird observations can be more valuable to science if collected in a particular way**

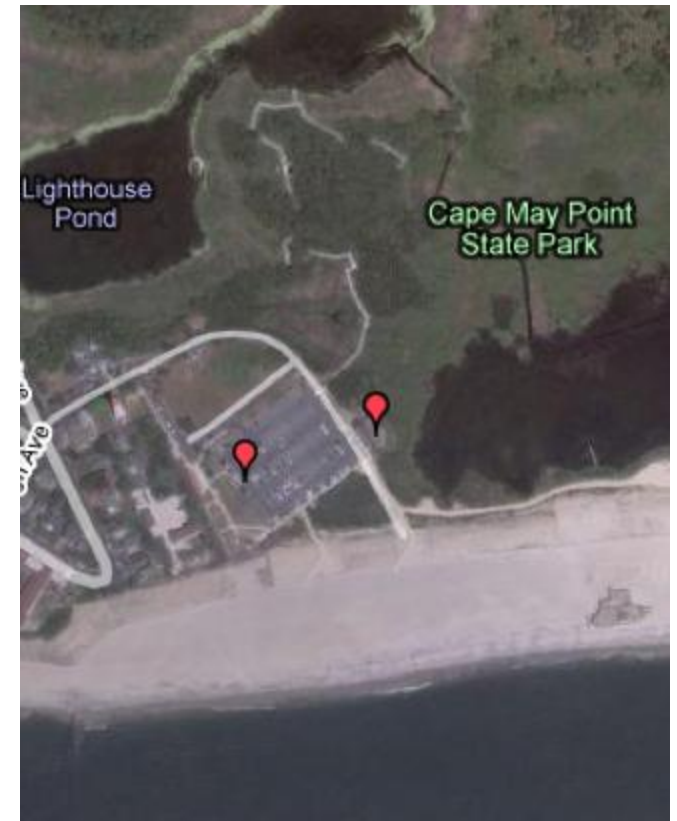
- Be precise when recording your location
  - Tell us what kind of birding you did
    - Estimate numbers for all the birds you see
      - Submit complete checklists each time you go birding
        - Seek out under-birded areas
        - Do a standardized count once a week
        - Document your rarities





**eBird Rule of Thumb:** refined locations are always better than broad-scale locations

- Always be precise!
  - Use the 'Find it on a map' tool to plot your location
  - Use 'Hotspots' where appropriate
  - Use a GPS for lat/long
    - Avoid entering state and county level data for new observations
  - Merge big locations into smaller ones





**eBird Rule of Thumb:** effort-based observations always trump casual observations

- Understand the different types of birding
  - Describe your birding event
    - Use traveling, stationary or area counts
      - Traveling counts should be short (<5 mi)
        - Record time spent in the field
          - Note the number of observers





**eBird Rule of Thumb:** estimating numbers is always better than putting an 'X' to indicate presence

- An 'X' could be 1 or it could be 1,000,000 or more!
- Numeric estimates allow study of relative abundance
- Realize that estimates are just that – 'estimates'
- Be exact when possible, conservative always
  - Use 'X' for historic data where numeric estimates are lacking





# The value of the “complete” checklist

**eBird Rule of Thumb:** always report all the species you see or hear, not just the highlights of your day

- Understand, and answer ‘yes’ to the “All species reported” question
  - Helps gather baseline data on all bird species
  - Makes birders more attentive



- Allows us to map birds more accurately by showing presence (green) and absence (gray)



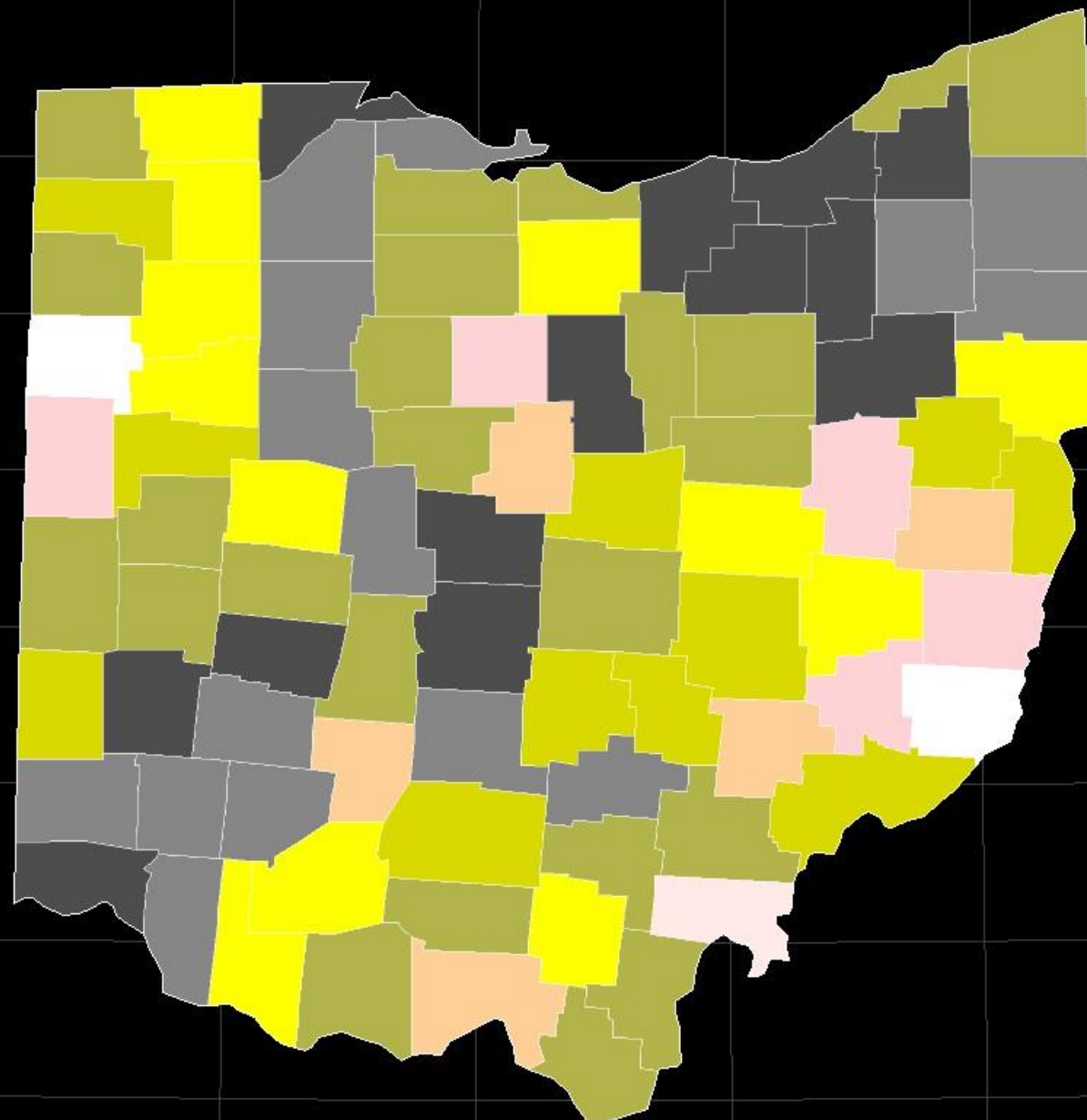




**eBird Rule of Thumb:** birding in under-birded regions provides important new information

- eBird data density is tied to human population density
  - Seek out new birding locations
  - Conduct effort-based observations when you get there







**eBird Rule of Thumb:** rare and unusual birds should be accompanied by written details and photos when possible

- eBird rarities include: vagrants, aseasonal reports, and high counts
  - If eBird asks you to confirm your sighting, the species or count is unusual for the area
    - Please submit such records with care and use the comments field to provide a description, links to photos, etc.
    - Network of 500+ reviewers looks at each such record individually and may get in touch!





### **Want to learn more about contributing to eBird? More about bird observation, identification & behavior?**

- **Share** photos, recordings:
  - [FlickrR](#), [Picasa](#) (Google), YouTube, [SoundCloud.com](#)
- **Audio ID:** [AllAboutBirds.org](#), [Xeno-canto.org](#)
- **Documenting Birds:** [OOS Website](#)
  - BirdLog (smartphone app)
  - **[“Birding Ohio”](#)** on Facebook
  - [www.ebird.org](#)





# Questions?

## Contact:

- Paul.J.Hurtado@gmail.com
- **Google “Paul Hurtado”**
- Birding Ohio (Facebook group)

