An Introduction to eBird

By Paul J. Hurtado
Talk Overview

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

Christmas Bird Count

- 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
What is 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
How is eBird Different?

- Worldwide monitoring program
- **All** species & field identifiable forms
- Year-round!
- Advanced geo-referencing
- Broad user-base
eBird — 2011 Stats

- ~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
Encouraging Participation - Integration

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

<table>
<thead>
<tr>
<th></th>
<th>de por Vida</th>
<th>Anual</th>
<th>Mensual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total de especies</td>
<td>785</td>
<td>698</td>
<td>259</td>
</tr>
<tr>
<td>Total de Listados</td>
<td>525</td>
<td>253</td>
<td>22</td>
</tr>
<tr>
<td>Total de marcas por Estado</td>
<td>1986</td>
<td>1396</td>
<td>77</td>
</tr>
</tbody>
</table>

Tus listados

<table>
<thead>
<tr>
<th>Regiones Mayores</th>
<th>Estado/Provincia</th>
<th>Total de marcas por Condado/Municipio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>de por Vida</td>
<td>Anual</td>
</tr>
<tr>
<td>Colorado</td>
<td>375</td>
<td>233</td>
</tr>
<tr>
<td>Jalisco</td>
<td>267</td>
<td>267</td>
</tr>
<tr>
<td>Illinois</td>
<td>258</td>
<td>205</td>
</tr>
<tr>
<td>Chiapas</td>
<td>228</td>
<td>228</td>
</tr>
<tr>
<td>Veracruz</td>
<td>222</td>
<td>205</td>
</tr>
</tbody>
</table>

Mis observaciones
- Resumir mis observaciones
- Calcular frecuencias, abundancias
- Ver, editar, imprimir o bajar mis observaciones

Administrador Mis Localidades
- Agrega localidades nuevas o edita las existentes

Datos de tu cuenta
- Editar mi perfil
- Mis Preferencias de aVerAves
• 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!
Excellent count! Please check 'CONFIRM' and add comments about this observation.

**Red-throated Loon** *Gavia stellata*


Breeding Code: Choose the highest possible code...

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
- 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
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

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

Your email address: heraldpetrel@gmail.com [edit]

Your Life List: 737 Species

<table>
<thead>
<tr>
<th>Your Stats</th>
<th>Life</th>
<th>Year</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Species</td>
<td>737</td>
<td>204</td>
<td>139</td>
</tr>
<tr>
<td>Total Checklists</td>
<td>3025</td>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>ABA Area Total Ticks</td>
<td>1946</td>
<td>222</td>
<td>139</td>
</tr>
</tbody>
</table>

Your Lists

<table>
<thead>
<tr>
<th>Major Regions</th>
<th>Life</th>
<th>Year</th>
<th>Total County Ticks</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>447</td>
<td>106</td>
<td>1506</td>
</tr>
<tr>
<td>New Jersey</td>
<td>259</td>
<td>0</td>
<td>472</td>
</tr>
<tr>
<td>New York</td>
<td>209</td>
<td>0</td>
<td>512</td>
</tr>
<tr>
<td>Arizona</td>
<td>203</td>
<td>10</td>
<td>251</td>
</tr>
<tr>
<td>Baja California</td>
<td>194</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Virginia</td>
<td>161</td>
<td>0</td>
<td>228</td>
</tr>
</tbody>
</table>
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)
Notes for navigating the eBird website

(... 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
What kind of birding did you do?

**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
Why estimate numbers?

- Be exact when possible, conservative always
- 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

**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!
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:
  - FlickR, Picasa (Google), YouTube, SoundCloud.com

- **Audio ID**: AllAboutBirds.org, Xeno-canto.org

- **Documenting Obs.**: OOS Website

- BirdLog (smartphone app)

- “**Birding Ohio**” on Facebook

- [www.ebird.org](http://www.ebird.org)
Questions?