

Southern Wings Resource Guide for Full Annual Cycle Avian Conservation

National Audubon Society

- <https://explorer.audubon.org/>
 - This resource is valuable for visualizing the connections between breeding and non-breeding areas for migratory birds, especially related to individual-level movements using telemetry data. Connections can be visualized either as tracks or as connected polygons.
 - Other species-specific tools include spatial and temporal visualizations of relevant conservation challenges (e.g., where and when a species may have high exposure to light pollution, forest management, urban footprints, etc.). Conservation challenges are tailored to each species.
 - Other information for each species includes climate vulnerability, global population size, US & Canada population size, PIF ACAD assessment, and IUCN status.

Cornell Lab of Ornithology

- <https://www.birds.cornell.edu/home/us-state-level-conservation-data-summaries>
 - This resource was specifically designed for integrating community-science eBird data into State Wildlife Action Plans.
 - It includes explainer videos for highlighted tools catered to state fish and wildlife agency needs.
 - The main product is the state-level Status & Trends Database.
 - For each state, the database contains specific-specific maps of relative abundance.
 - For each state, Stewardship Maps show the migratory connections between that state and the rest of the hemisphere.
 - Stewardship Connections show the relative strength of connection between your state and the rest of the hemisphere for priority species.
 - Uniqueness of Stewardship Connections depict how uniquely-connected your state is to the rest of hemisphere relative to all other states for priority species.
 - State-level data is all available for direct download.
- <https://science.ebird.org/en/status-and-trends>
 - This tool is helpful for visualizing state-level trends in avian populations and the weekly migratory status of all species.
 - For each species, relative abundance maps are categorized by season allowing for easy depictions of where that species is concentrated during different times of the year at high resolutions. A user can also select a specific geography (e.g., country, state, or province) and a table will appear depicting percent of the global population found in that geography at each season. The same table also includes the percentage of that geography

occupied by the species for each season, the percentage of the global range of that species that falls within that geography for each season, and the number of days that geography is occupied by the species.

- Animations of weekly relative abundance visually depict the full cycle movements of each species at high resolution.
- Trend maps depict the relative change in abundance of each species from 2012-2022 at high spatial resolution. A user can also select a specific geography (e.g., country, state, or province) and an estimate of the change in relative abundance for that species will appear alongside confidence intervals.
- Most maps and animations available for direct download.

Southern Wings Outreach/Education and FAC resources

- <https://www.fishwildlife.org/afwa-inspires/southern-wings>
 - In the lower left corner of the website you will find the following.
 - Template SWAP language
 - A species spreadsheet that provides information on annual cycle connections for priority species impacted by Southern Wings projects.
 - A presentation by Cornell Lab about how to use their data and resources on the state agency eBird page.