



Charting Bird Migration

STUDENT ACTIVITY INSTRUCTIONS

Introduction (Read before doing the activity)

In this activity you will become a community scientist! You will use community science data to learn more about migratory birds in your local area and create graphs comparing migratory and non-migratory species.

Activity Instructions:

1. Think about migratory birds you might see in your area and study 2 species
 - a. What birds live here, and when do they come and go?
 - b. Pick your location by following this link: Choose Location (ebird.org) - <https://ebird.org/GuideMe?cmd=changeLocation>
 - c. Select two species - one that is migratory and one that is not – you can tell when a bird is in the area by looking at the green bars on the bar chart.

“eBird bar charts are based on frequency: the percentage of checklists reporting that species within a specified date range and region. Thus, taller bars indicate a species is reported on a large proportion of checklists from that area and time of year.”

(<https://support.ebird.org/en/support/solutions/articles/48000961496-explore-birds-in-ebird#anchorBarCharts>)
 - d. Using the All About Birds website, <https://www.allaboutbirds.org/>, (From the Bar Charts tab, click the species name to visit the species page), or a bird field guide, identify the summer (breeding) and winter (non-breeding) regions for the two species you choose. Look at what their habitat and food needs are and take time to explore other information about the two birds. Write this information in your notebook.
 - e. Using eBird’s “Line Graphs” function, create a graph comparing total sightings of the two bird species. To do this:

From the Bar Charts tab, click the:

- [Chart icon](#) next to your migratory species to get detailed histograms (bar graphs) and line graphs of frequency and counts throughout the year
- To add the second species to the same chart: click the "[Change Species](#)" button and type in the name of the second species, make sure the box next to both species are checked, then hit the "[continue](#)" button
- Click on the [Totals](#) tab to see the comparison of the total birds ([Totals](#): on [eBird Bar Charts](#), the sum of all counts from all observations for a species within a specified date range and region)
- Create a copy of your graphs and Bird Observation information by taking a screenshot or creating a PDF

When you are finished, answer the following questions:

1. What did you learn about where the migratory bird species go when not in your region?
2. Why does the non-migratory bird stay in the area? Are there sufficient resources for them to survive, and what are they?
3. What is something that surprised you?

Conclusion

We can use community science data to learn about birds and their migration journeys. Community scientists like you can help trained scientists gather data from all over the world — even from space. They can provide new ideas and new ways of thinking.

