

Exercise 5: Explore species and trends with Data Catalog and Observations Map

The data catalog is a way of discovering what is in the Avian Knowledge Network.

1. Open **Data Catalog** (https://data.pointblue.org/apps/data_catalog/)
2. Let's start by getting oriented to the Data Catalog:
 - a. Click **Dataset** at the top of the screen. Each project database has a data catalog entry.
 - b. Click **Groups** at the top of the screen. These groups / organizations have tagged a collection of Datasets to them.
 - c. Note the giant **Search** bar. You can search for Datasets by a variety of criteria. You can use this in conjunction with the **Map** -- click the pencil to zoom/pan on the map and draw a rectangle to search.
 - i. To **zoom in / out**, click on the Plus/Minus icons in the upper left corner. **Double click** the mouse to zoom, as well.
 - ii. To **pan**, make sure your cursor looks like a hand, and click-hold the mouse and drag. If your mouse is a cross sign and you want to pan, just click anywhere in the map to reset so you can pan.
 - iii. To **search** by a rectangle, click the pencil icon in the upper right corner of the map (the cursor becomes a cross). Click and hold the mouse and drag to create the box. To change it, simply click the pencil icon and draw again. If you are happy with your rectangle, click the Apply button in the bottom right corner below the map.
 - d. In the search bar, type "KBO" and hit Enter. Click on the first in the list of results (KBO Aquatic Monitoring (KBOAQUATIC)). This example is fully filled out, including citations.
3. Open **Observations Map** (<https://avianknowledge.net/index.php/observations-map/>)
 - a. Go to Avian Knowledge Network home page (avianknowledge.net)
 - b. Click on the line graph icon or title **USE TOOLS TO EXPLORE AKN DATA** about half way down the page.
 - c. Scroll down the page to the list of tools, and find the link for **Observations Map**
4. Let's start by getting oriented to the Observations Map:
 - a. To **zoom in / out**, click on the Plus/Minus icons in the upper left corner. **Double click** the mouse to zoom, as well.
 - b. To **pan**, click-hold the mouse and drag.
 - c. "Search by address" lets you zoom into a specific area by name. Type in a place name and click Go.
 - d. **Choose a species** - the tool requires you to pick a specific species first. Pick one from the dropdown list, and you will see the Data Collections turn on.

- e. **Choose a date range** - use this if you want to further filter the search to be only within a range of months (say the breeding season), or leave as is to give back all data.
 - f. **Choose a data collection** - choose from the AKN (all from our data warehouses), eBird, and BBS collections. Dots will appear in colors showing where observations were made for that species in the area you're looking at. Note that some of the larger collections (eg eBird) is broken into regional datasets for system performance.
 - g. **Click on a map dot** - this will give you information about what was surveyed and observed at that location in the panel to the right.
 - i. If a year is listed at the top, you can click on it to see a summary of that year.
 - ii. **Avian Data Summary** - for AKN or BBS data only, click on this link to get an Analyst report of **species richness** for this location. (Be patient letting this live analytics report run. You'll see a twirling icon in the upper left corner while it is running)
 - iii. **Species** - for AKN or BBS data only, click on a species link to get an Analyst report of **phenology** and **species abundance**. Again, be patient in letting this live analytics report run.
 - h. **Choose a map overlay** - for visual appearance and area summary. Choose the type of summary you are interested in, and **click in the specific area to summarize between the observation dots**. You will get a summary of observations for that area in the right panel.
5. You are doing a quick assessment of Chipping Sparrows around South Lake Tahoe and are interested in seeing what data/information is available from the AKN.
- a. What datasets are available?
 - b. What do you see about where observations are?
 - c. Who can you contact for data?
 - d. What trends do you see about Chipping Sparrows?
 - e. What else do you notice?
6. Extra credit: What datasets are available near your installation? What datasets are available for your branch of the military?