



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

Purpose: In this exercise, we will introduce you to two other data exploration and discovery tools in the AKN that do not require an account:

The Data Catalog allows you to search for available datasets in the AKN and find out some information about them. The Data Catalog is also an excellent resource to document important metadata about your project for future researchers at your installation, but it is only as good as you make it! We will show you some examples of information that is helpful to include in a data catalog entry, such as citations, contact information, and field methodology.

The Observations Map lets you explore survey locations and data from multiple sources (AKN, BBS, or eBird) and examine species occurrence and trends. Unlike the RAIL tool, this is not a modeled dataset, but actual observation data that has been set to Level 2 sharing and above.

Goals: 1) Be comfortable searching the Data Catalog to find available datasets and project metadata. 2) Understand how to use the Observations Map to find survey locations from different datasets for a particular species and examine species trends.

1. Open **Data Catalog** (https://data.pointblue.org/apps/data_catalog/)
2. Let's start by getting oriented to the Data Catalog:
 - a. Click **Datasets** 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** (Note the Map will not appear until you have searched for something) -- 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/>)
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. Note, state summaries take several minutes to run and load, and Watersheds overlay is not working at the moment.

Putting it together: Use the Data Catalog and the Observations Map to find data and trends

5. You are doing a quick assessment of Brewer’s sparrows around Lake Havasu City 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. What trends do you see about Brewer’s sparrows?
 - d. 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?