

# Observing the Birds of El Paso: Revisiting historical localities in the field and online

## *Learning Objectives:*

By the end of this module students will be able to:

1. Use Arctos and other resources to explore the data of museum specimens
2. Conduct field observations of birds
3. Describe why bird species may be found at certain times of the year; the day; the season (and not others)
4. Be able to explain why species may have been observed in the past, but not in the present

## *Introduction*

For over 100 years, the community of El Paso has been collecting and preserving birds for public interest and scientific research. These collections were primarily built by curators, researchers, students, and through salvage donations from the community, and are now housed at the UTEP Biodiversity Collections (UTEP-BC). Like many natural history museums, access to the contents of these collections was initially limited to researchers, with locality information stored in paper catalogs. However, in recent decades, museums have digitized this data in publicly available online databases. Combined with bird specimens from other museums and data sources, these historical records offer valuable points of comparison. Revisiting and resampling these historically sampled localities can provide clues as to how species distributions may shift overtime.

Today, you will explore El Paso through the bird specimens of the past and select a locality where preserved specimens have previously been collected. After familiarizing yourself with the historical records, you will plan a visit to your chosen site and resample the location through photographs.

Quality observations and products that you produce as a part of this module can be added to local databases, such as iNaturalist and the UTEP-BC collections on Arctos to build our collective knowledge on our local birds.

## Activities

Read the instructions below. Write or type your answers separately (**answer all questions in red for your assignment**).

### Pre-lab Activity: Making observations

Brainstorm (5 minutes):

**Q1. What information can we learn by revisiting sites that were historically sampled? Why might some bird species be found at certain locations during one observation period and not another? Write your ideas below:**

### Activity 1: Pick a location to revisit and look up basic information about your species

There are various locations around El Paso that you can revisit. A map of possible locations is provided to you here, as well as a list of locations.

A digital version of the list of localities and map are provided here:

<https://arctos.database.museum/project/10004050>

Access the pick list by the following instructions:

- 1) Click the project link above and agree to terms of the database after you read it.
- 2) Under Catalog Records Used beneath the project description, select the [Berkeley Mapper] link
- 3) A map of historical collection locations will display. Each dot represents an aggregated set or localities. Cooler colors indicate fewer specimens collected at that location. Warmer colors indicate a hot spot of several collecting localities. As you zoom in, these points will separate and will become clearer.
- 4) Choose a locality that you would like to visit by selecting a dot. You may choose a locality close to your house, or work, or some other interesting place. At the bottom of the screen, a list of specimens will be displayed along with the date of collection, a locality description, the species collected, and the coordinates.

**Q2. Describe your chosen locality:**

**a) What is the locality under "specific locality"?**

b) List the species found at that locality you picked

c) List the date(s) that these species were found.

Q3. Click on some of the links to the records (in the far left column on the website) by selecting one of the catalog numbers, which can be identified by its prefix "UTEP:Bird" i.e. "UTEP:Bird:2343". These links will open the detailed records. List **five** pieces of information that are given about museum specimens (on any part of the page or embedded links):

Q4. Look up distribution and migration maps on audubon: <https://www.audubon.org/birds>  
Describe the distribution with words of **at least one** species that was found at your location of choice.

- 5) Copy and paste the Latitude and Longitude into Google Maps from either the specimen list or the locality section in the record. Get the directions to that locality to prepare for your visit. Make sure there is a comma or space separating the latitude and the longitude. For example: "31.2343, -103.2343" or "31.2343 -103.2343"

## Activity 2: Pre-planning your visit

Pre-plan how you will look for bird species and make observations by answering the questions below.

**Safety considerations:** Consider whether you are going to a public place or near a private address. It is always safer to partner with another person and let someone know exactly where you will be! If a locality is a private address, keep in mind that birds can be documented anywhere in the neighborhood and you do not need to go onto the property. We recommend bringing your UTEP student ID in case anyone asks why you are walking and taking photographs. If at any moment you feel uncomfortable, remove yourself from the situation and leave the area. Please let your TA know if anything adverse happens while visiting your field site. In emergency you may dial 9-1-1 from the US or Mexico. Lastly, be sure to dress appropriately for the weather, wear sunscreen, and bring plenty of water. For additional safety considerations, you may read the following articles:

<https://eos.org/opinions/ten-steps-to-protect-bipoc-scholars-in-the-field>

<https://www.nature.com/articles/s41559-020-01328-5>

Q5. Describe your location in your own words (you can optionally copy-paste a map as well):

Q6. What do you think the best date/time will be to visit your location? Keep in mind what you have learned so far about bird behavior!

Q7. How do you plan to get to your location?

Q8. Is this a public place that you can walk around or a private residence? How might this affect the way in which you can make observations? Note: please don't go onto private property or disturb any residences.

Q9. How long do you plan to spend at your location identifying birds?

Q10. How do you plan to identify the birds you see (both in the field and later)?

### Activity 3: Visit your location: Observations to make

When you arrive at your location, look for your bird species (and any other bird species). Be sure to bring a notebook to record the species (and number of each species) of birds. Make notes on any bird behavior that you see. You can also bring a camera/audio recorder/cell phone to take photographs and record calls.

Q11. Did you find your bird species?

Q12. If you found other birds, what other birds did you find at your site?

Q13. Describe other aspects of your site:

- a. Exact time and date you began and ended observations:
- b. Habitat
- c. Weather (cloud cover, air temperature, etc.)
- d. Other plants/animals
- e. Is there a lot of foot traffic/vehicle traffic nearby?
- f. Other observations:

Q14. Compare the Arctos page of the historical bird records with your observations. Please note all similarities and differences in time of day/year and other aspects listed above.

Q15. Take a photograph of your location and paste it below

Extra credit: Get a photograph or audio recording of a bird to potentially add to Arctos.

## Assessments

Your lab assignment/homework is to answer all of the **questions in red** above.

## References and Resources:

Anadu, J., Ali, H., Jackson, C. 2020. Ten Steps to Protect BIPOC Scholars in the Field. Eos, 101, <https://doi.org/10.1029/2020EO150525>.

Arctos Collaborative Collection Management Solution. Database.  
<https://arctos.database.museum/search.cfm>

Demery, A.J.C., Pipkin, M.A. 2021. Safe fieldwork strategies for at-risk individuals, their supervisors and institutions. Nat Ecol Evol 5, 5–9. <https://doi.org/10.1038/s41559-020-01328-5>

National Audubon Society. Website. <https://www.audubon.org/birds>

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## Location List

Be sure to exactly copy-paste the locality into Arctos <https://arctos.database.museum/search.cfm> in the field that says “Specific Locality” in the “Place” search row)

\*Students need to sign up for locations

[illegible]

