

Accessing California Least Tern Monitoring Data in BIOS

California Department of Fish and Wildlife Instructional Guide

This document is a guide for accessing the statewide California least tern (*Sternula antillarum browni*; CLTE) monitoring data on the California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (BIOS). Data can also be viewed and downloaded from CDFW's [Open Data Portal](#). For additional information about BIOS, please visit the [BIOS homepage](#) and the [BIOS tutorials and training page](#).

Downloading Data From BIOS

There are two CLTE datasets available for viewing and downloading by the public. These include the site-specific dataset which displays data for the individual colonies where nesting is monitored (California Least Tern Monitoring Sites Generalized - CDFW [ds3146]) and the regional dataset (California Least Tern Monitoring Sites by Region - CDFW [ds3147]), which includes summed data for the four main regions (San Francisco, Central, Ventura, and Southern) as well as two inland regions (Sacramento, and Kings). Users can download the data by using the links below and clicking 'Download this dataset' in the top left corner. This will download a zipped file with both the GIS geodatabase and a .csv file that can be opened in Excel.

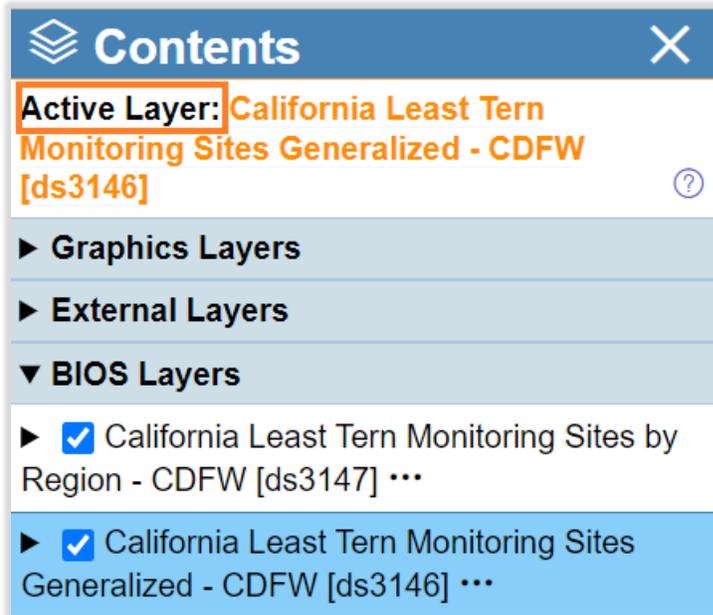
- [California Least Tern Monitoring Sites by Region - CDFW \[ds3147\]](#)
 - This dataset allows viewing of regional totals in BIOS.
- [California Least Tern Monitoring Sites Generalized - CDFW \[ds3146\]](#)
 - This dataset shows site specific data. Regional totals are included in the download as well.



Viewing Data in BIOS

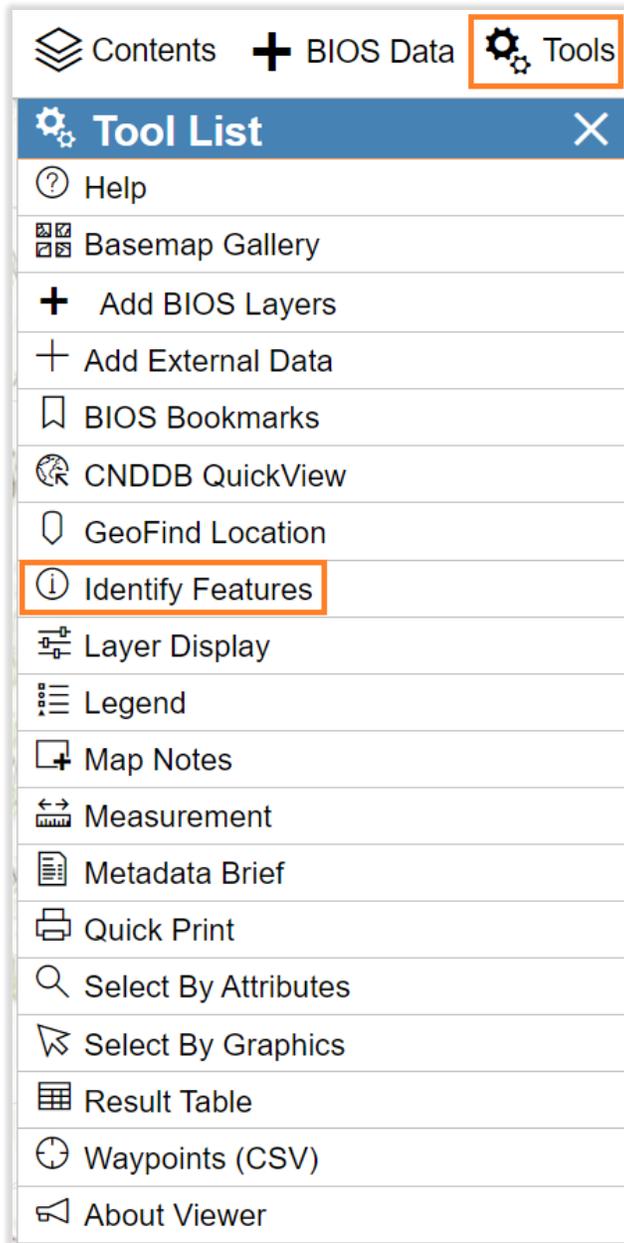
For general BIOS navigation, see the [BIOS 6 Getting Started](#) guide. [Open BIOS with both layers loaded.](#) Please note that it may take a few seconds to load the layers, depending on your connection.

To view records for a site or region, select an active layer by clicking on the layer title. The layer should be highlighted blue and be listed as the **active layer**.



To select a site through map navigation:

- Zoom to your site of interest by using the zoom in/out buttons or the scroll bar on your mouse. You can pan around on the map by clicking and dragging with your mouse.
- In the upper right corner, select **Tools**.
- From the tools list, click **Identify Features**.



- Select your site of interest by clicking on the site in the map.
- A table will pop up with all records for that site.

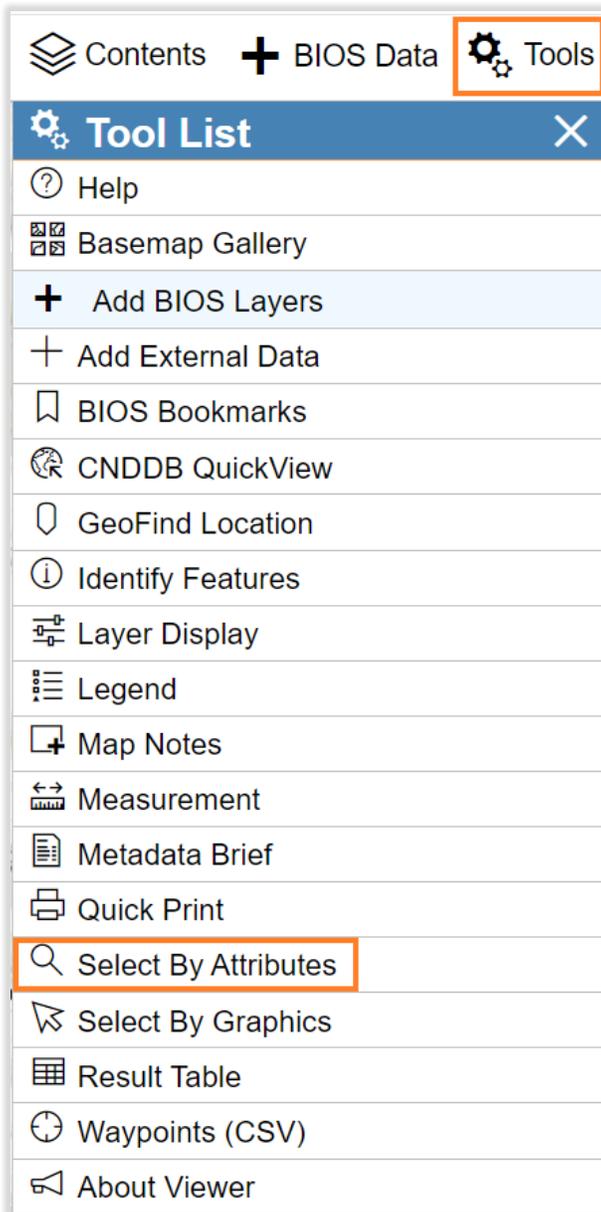


- Some sites will have more than one page and you will need to select the next page to view additional records at the bottom left of the table.



To select a site by attributes:

- In the upper right corner, select **Tools**.
- From the tools list, click **Select by Attributes**.



- Select **Site_Name** for your attribute field.
- Select **Equals** for operator.
- Then select your **site name** in the drop-down menu below the operator.
- Then select **Query New Selection**.

Select By Attributes [X]

FROM **California Least Tern Monitoring Sites Generalized - CDFW [ds3146]**
WHERE

Build Query Expression

Site_Name [v] [+]

--SELECT RELATED COLUMN-- [v] [+]

string data type

Equals [v] [+]

BATIQUITOS LAGOON ECOLOGICAL RESERVE [v] [+]

Find/Filter field values by [v] [magnifying glass]

--CONNECTORS-- [v]

Site_Name = 'BATIQUITOS LAGOON ECOLOGICAL RESERVE'

CLEAR SQL EXPRESSION

Make Selection [v] [question mark]

Query New Selection [v] | Query Within Selection

- A table will pop up with all records for that site.
- Note, there are a few historic sites without spatial information. To access this data, please download the full dataset following the instructions outlined above.



To download the selected table from map or attribute method:

- Click the **download** cloud button on top of the table. This will download a .csv file with the selected site data. For spatial data, please use the full dataset following the instructions outlined above.

California Least Tern Monitoring Sites Generalized - CDFW [ds3146] (1 features) (16 related records)  

