NLFA Fish Tissue Search User's Guide

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1.0 INTRODUCTION

This document provides instructions to assist users with searching the EPA's NLFA Fish Tissue Search and mapping website (Figure 1). This website provides fish tissue contaminant data collected by the states in support of their fish consumption advisory designations. The EPA requests fish tissue data from the states, territories, and tribes annually; and data are added to the NLFA database every 2 years. The EPA does not analyze these data and does not require that these data be gathered in a specific way. The EPA simply provides a central one-stop" repository as a service to and convenience for the public. Each state determines the scope and extent of monitoring, and consequently, it is difficult to draw conclusions or trends from the fish tissue information provided.

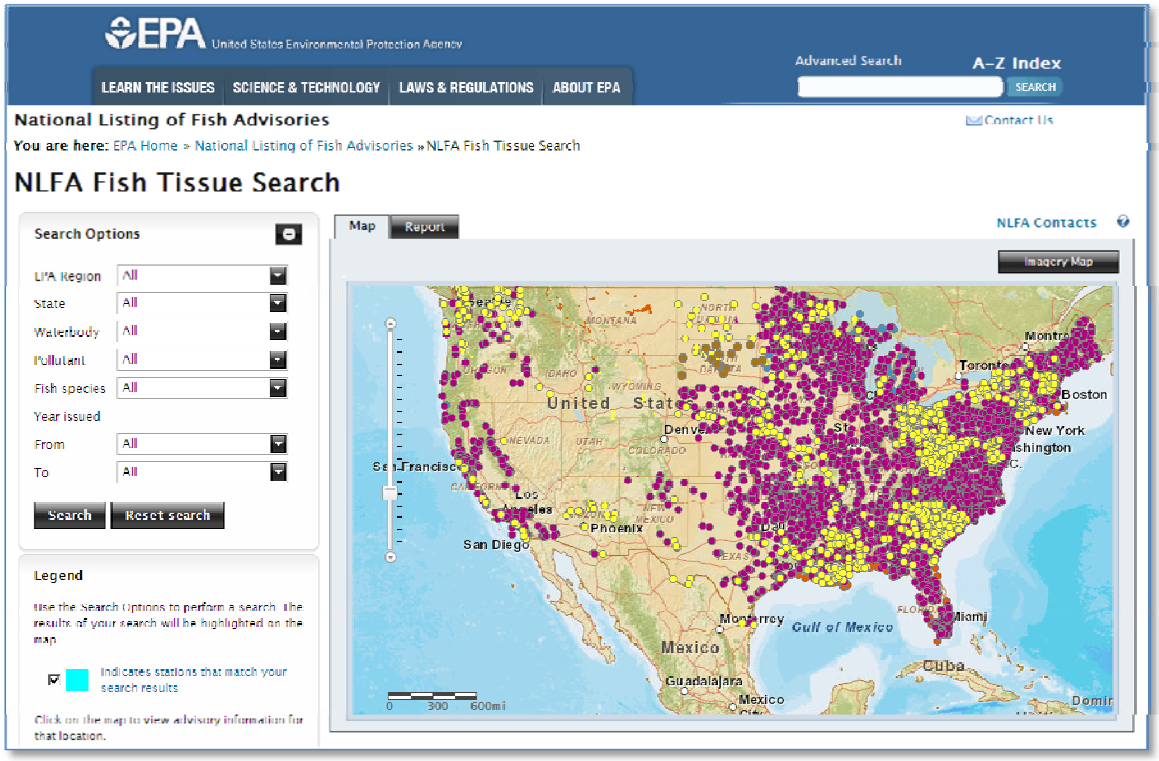


Figure 1. NLFA fish tissue search screen.

The Fish Tissue Search is specifically designed for State and Tribal Fish Advisory Program Managers and other more advanced and technical users. A drop-down search form with type-ahead functionality allows the user to search the technical fish tissue contaminant data attributes. Users can then choose to display the results in map format, table format, or as a downloadable spreadsheet or PDF report. To conduct a simple search of advisories by state and waterbody name, please go to NLFA Advisories Where You Live.

2.0 OPTIONS FOR CONDUCTING A SEARCH

The Fish Tissue Search allows users to search for fish tissue contaminant data based on one or more search options (Figure 2). To the left of the main map is the **Search Options** box.

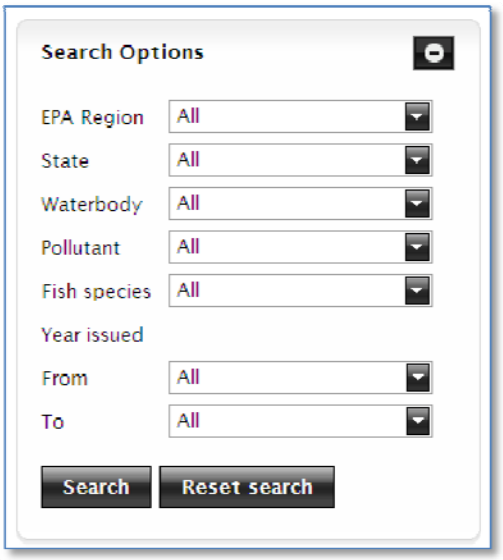


Figure 2. NLFA fish tissue search options.

To conduct a search,

1) **Choose a location**. This can be a specific EPA Region, a State, or, if you leave the EPA Region and State set to "All," you can conduct a search of the entire United States.

2) **Choose details**. You may conduct a search of just one criterion, such as Fish Species or Pollutant, or you may build a precise search using several of the different options provided. Please see the Definition of Data Terms section of the Help document for more information on the search terms. Please note that only waterbodies with tissue data included in the NLFA will appear in the Waterbody search box. If you do not see a waterbody name that you are interested in, please visit the state website for more information.

3) **Choose dates**. There is significant amount of historical fish tissue data in the NLFA, dating back to 1967. If you wish to view only recently collected data, please make sure that you set the "Year issued" choices to the most recent years available for the state or area you are searching.

4) **The search options will change** to display only the available criteria, based on other choices you have already made. For example, a user selects State = California. All other search options are filtered to only show options available in California. Next, the user selects Waterbody = Alameda Creek. Again, all other search criteria are filtered to only display options related to Alameda Creek. After setting those criteria, the only pollutant available to choose is Mercury (Figure 3). This means that there are no data for other pollutants listed in the NLFA for this waterbody. If you want to search for a different pollutant, you would need to set your previous criteria back to "All" or click the "Reset Search" button and revise your input criteria.

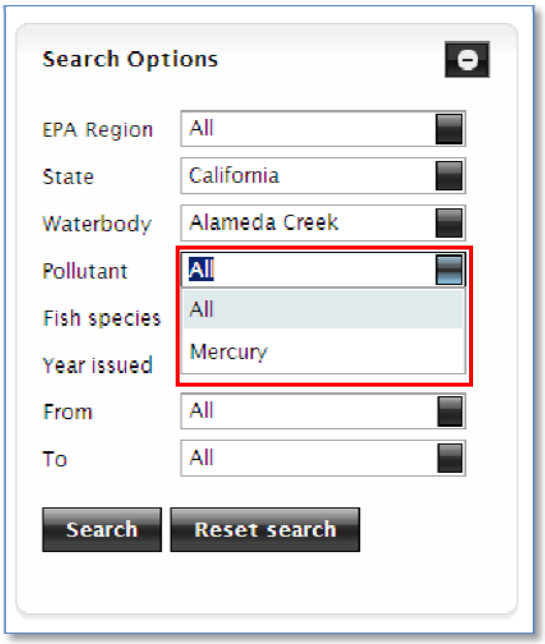


Figure 3. Example fish tissue search to demonstrate how criteria change based search options selected.

5) It may take several seconds for the application to update the search options after you make each selection. While the application is updating, you will see the "***Loading…***" fish icon (Figure 4). Please wait for the updates to complete before selecting more search options.

Figure 4. Data loading icon.

6) **Click the "Search" button** after selecting your criteria. To change your criteria, click "Reset search" to clear the options and start over.

3.0 SEARCH RESULTS: MAP TAB

1) **The Map tab will be visible by default** when you first conduct your search. After you click the "Search" button, the results of your search will be displayed on the map, and it will automatically zoom in to the location of the selected tissue data points. The data points that match your search criteria will be highlighted in bright blue. For your reference, the search criteria are written across the top of the map. In this example, the user has chosen to view all tissue data stations in California where samples were collected between the years 1998-2000 (Figure 5). The dots that are not colored in bright blue are from different years, see Map Legend (Figure 15) for more information on what the colors symbolize.

   Please note: You may click on the "Report" tab in the upper left of the map window to view your results in table format at any time. Please refer to Search Results: Report Tab for instructions on using that view.

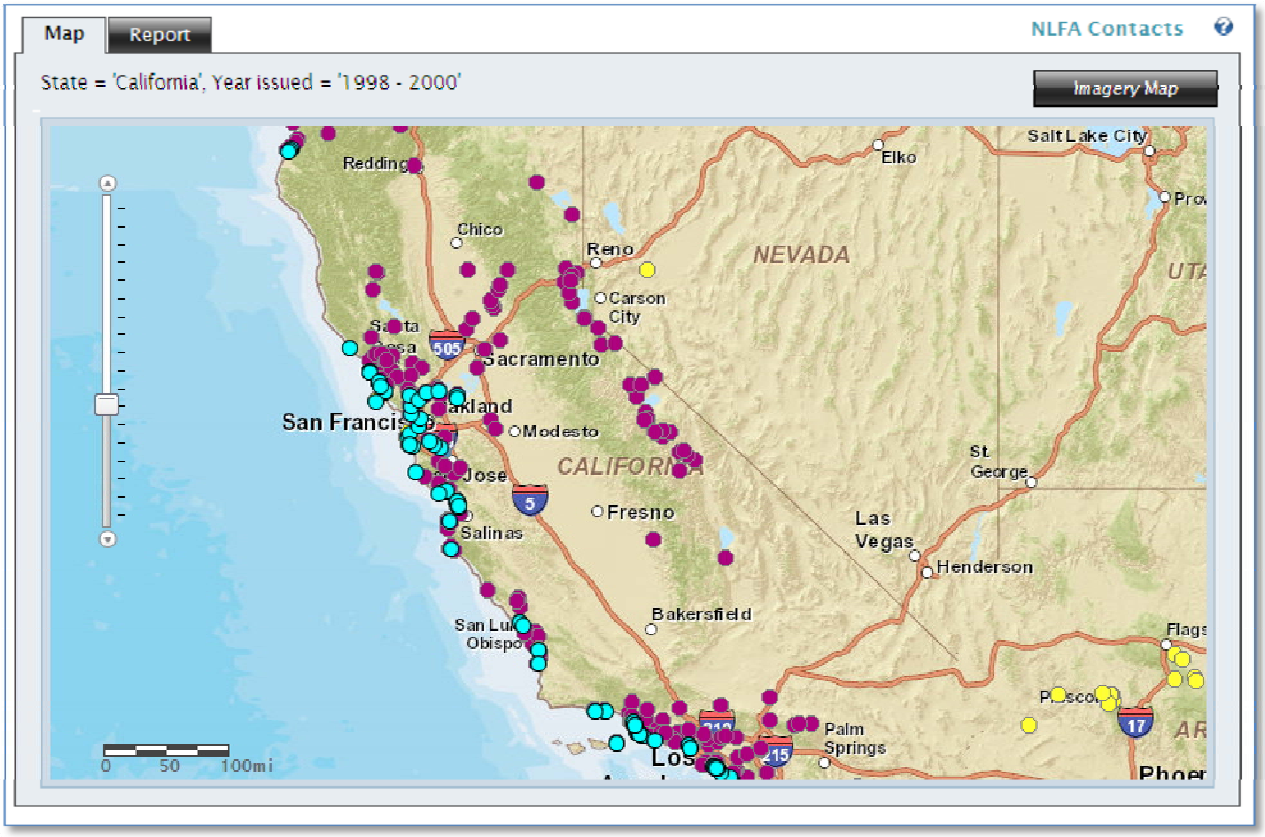


Figure 5. Map results for fish tissue search.

2) **Too much data to display**: If you receive this message box instead of a map, your search criteria selected too many data points to be mapped (Figure 6). Click "OK" and either view your results in

tabular format by clicking on the “Report” tab or limit the results by refining your search until a map can be displayed.

Figure 6. NLFA fish tissue search error message.

3) **For tips on navigating the map**, please refer to Navigating the Map.

4) **Colors are defined in the Legend**. For more information please refer to Map Legend.

5) **Click on a data point** for more detailed information (Figure 7). The selected point will turn orange and a Fish Tissue Sampling Station Information box will pop up. You may click on any point for more information, even if it is not one that matches your original search criteria.

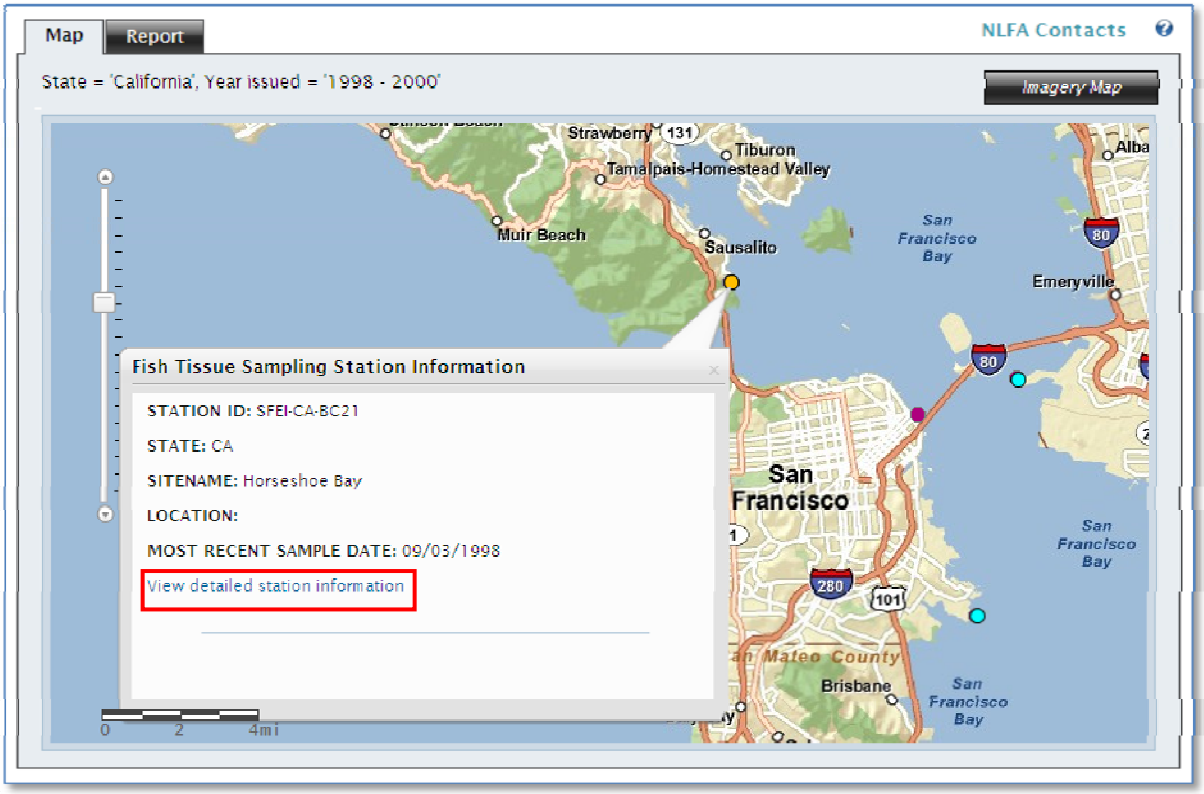
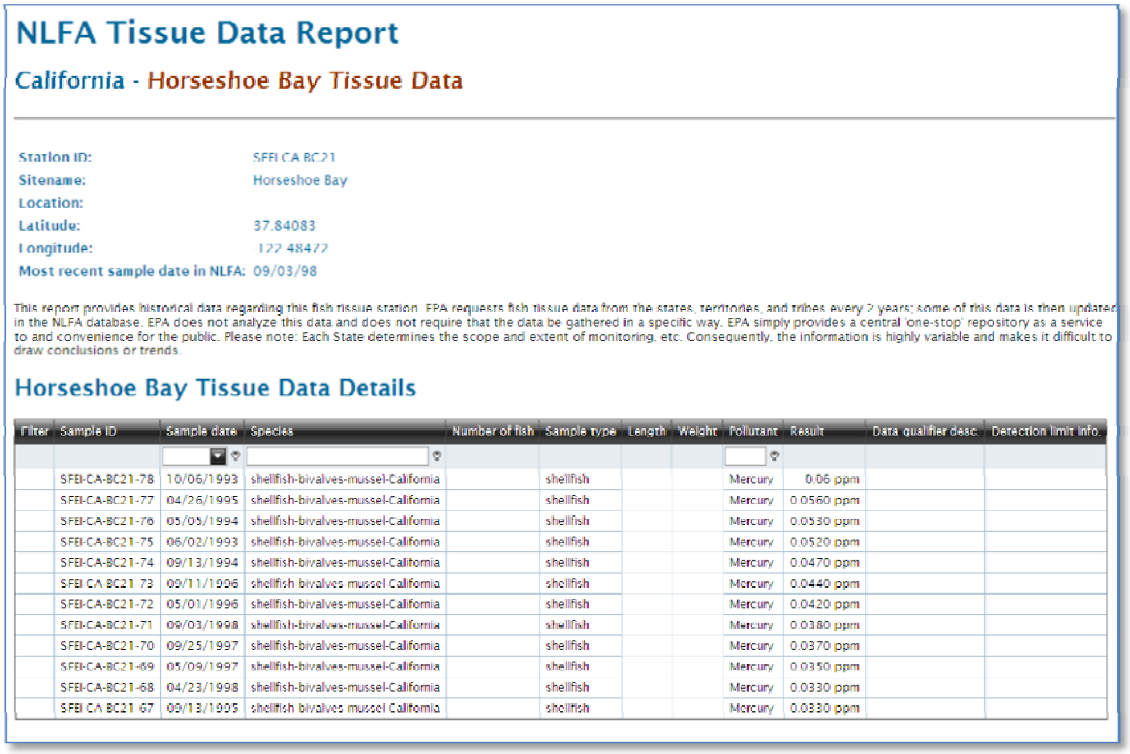


Figure 7. Map search results with fish advisory information box.

6) **View detailed station information** by clicking on the link in the Information box (Figure 7). Clicking on that link will open a new window with detailed information on that one tissue sampling station, including the contaminant residue results for samples taken at that location (Figure 8).



NLFA Tissue Data Report

California - Horseshoe Bay Tissue Data

Station ID: SFEI CA BC21
Sitename: Horseshoe Bay
Location:
Latitude: 37.84083
Longitude: 122.48472
Most recent sample date in NLFA: 09/03/98

This report provides historical data regarding this fish tissue station. EPA requests fish tissue data from the states, territories, and tribes every 2 years; some of this data is then updated in the NLFA database. EPA does not analyze this data and does not require that the data be gathered in a specific way. EPA simply provides a central 'one-stop' repository as a service to and convenience for the public. Please note: Each State determines the scope and extent of monitoring, etc. Consequently, the information is highly variable and makes it difficult to draw conclusions or trends.

Horseshoe Bay Tissue Data Details

Filter	Sample ID	Sample date	Species	Number of fish	Sample type	Length	Weight	Pollutant	Result	Data qualifier desc	Detection limit info.
	SFEI-CA-BC21-78	10/06/1993	shellfish-bivalves-mussel-California		shellfish			Mercury	0.06 ppm		
	SFEI-CA-BC21-77	04/26/1995	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0560 ppm		
	SFEI-CA-BC21-76	05/05/1994	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0530 ppm		
	SFEI-CA-BC21-75	06/02/1993	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0520 ppm		
	SFEI-CA-BC21-74	09/13/1994	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0470 ppm		
	SFEI CA BC21 73	09/11/1996	shellfish bivalves mussel California		shellfish			Mercury	0.0440 ppm		
	SFEI-CA-BC21-72	05/01/1996	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0420 ppm		
	SFEI-CA-BC21-71	09/03/1998	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0380 ppm		
	SFEI-CA-BC21-70	09/25/1997	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0370 ppm		
	SFEI-CA-BC21-69	05/09/1997	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0350 ppm		
	SFEI-CA-BC21-68	04/23/1998	shellfish-bivalves-mussel-California		shellfish			Mercury	0.0330 ppm		
	SFEI CA BC21 67	09/13/1995	shellfish bivalves mussel California		shellfish			Mercury	0.0330 ppm		

Figure 8. Detailed fish tissue data report.

7) **To sort your results**, click on the header of the column you wish to sort the results by. Click the same header again to sort in the reverse order.

8) **To filter your results**, type into the text box or select from the dropdown list at the top of the column you wish to use to filter (Figure 10).

9) You may print the tissue data report if you wish. If you would like to download results in PDF or spreadsheet format, or see data from more than one location in table format, please use the Report tab.

4.0 SEARCH RESULTS: REPORT TAB

1) **Click on the "Report" tab** in the upper left of the map window (Figure 9). The Report view will allow you to filter and sort your results and then download them in PDF or spreadsheet format.

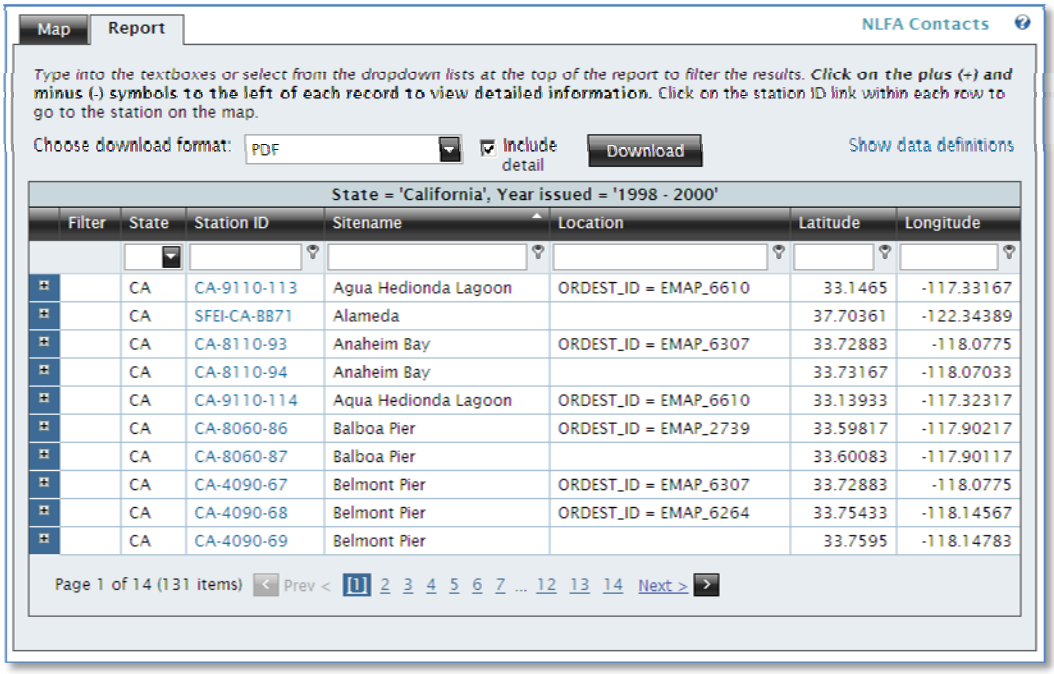


Figure 9. NLFA tissue search results report tab.

2) The table will show all of the data points that match your search terms printed across the top of the report for your reference. In this example, the user has chosen to view all fish tissue data in California collected between the years 1998-2000 (Figure 9).

3) **To sort your results**, click on the header of the column you wish to use to sort the results by. Click the same header again to sort in the reverse order (Figure 10).

4) **To filter your results**, type into the text box or select from the dropdown list at the top of the column you wish to use to filter. In the following example, the user wants to filter the results to show only Huntington Beach. The application will begin filtering as you begin typing. To clear the filter, click "Clear filter" in the leftmost column of the table (Figure 10).

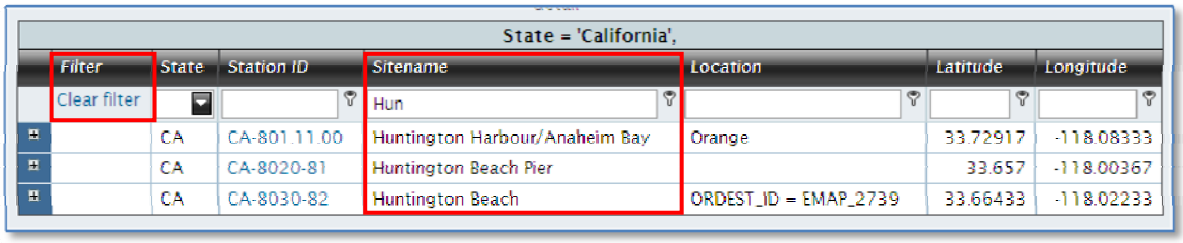


Figure 10. Filtering fish tissue data results.

5) **To see more information about a specific sampling station,** click the blue plus (+) and minus (-) symbols to the left of the station record. The record you chose will expand to show all of the

samples collected at that station (Figure 11). Refer to Description of Data Terms for more information on the terms used in this view.

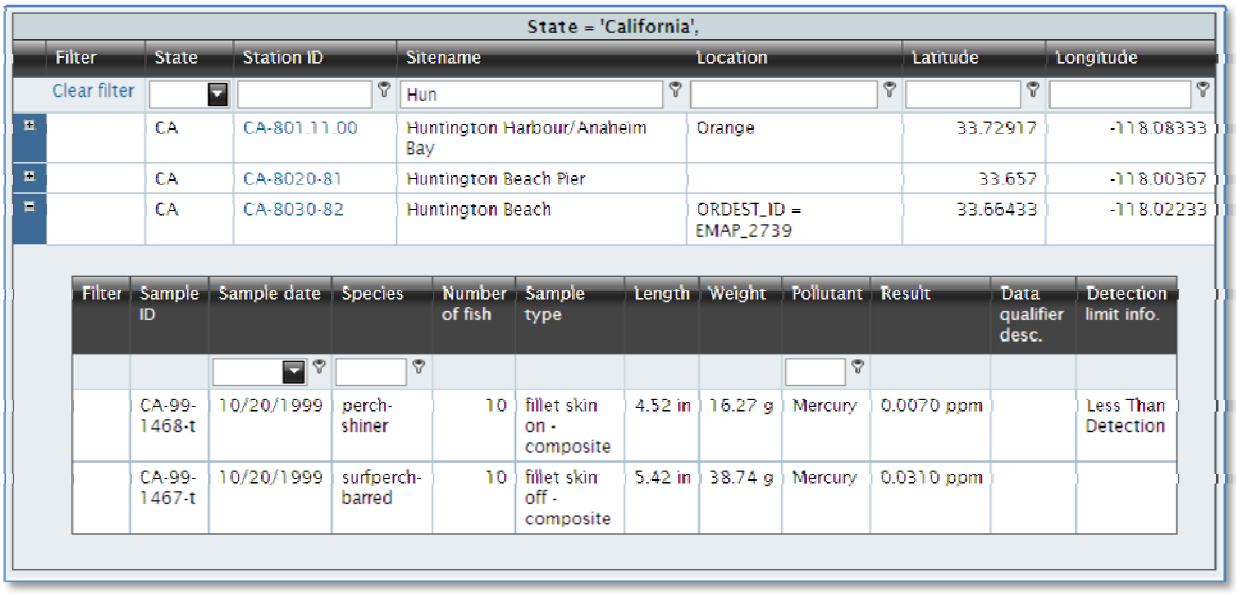


Figure 11. Results showing samples collected at Station ID CA-8030-82.

6) **To map a sampling station**, click on the ID in the "Station ID" column.

You may also click on the "Map" tab in the upper left of the map window to view all of your results displayed on a map at any time. Please refer to Search Results: Map Tab for instructions on using that view.

7) **To download your results**, choose the format of the download from the dropdown box (Figure 12). You may select .PDF, .XLS, or .XLSX. Then, check the "Include detail" box if you wish to include the samples and associated contaminant residue data for each station.

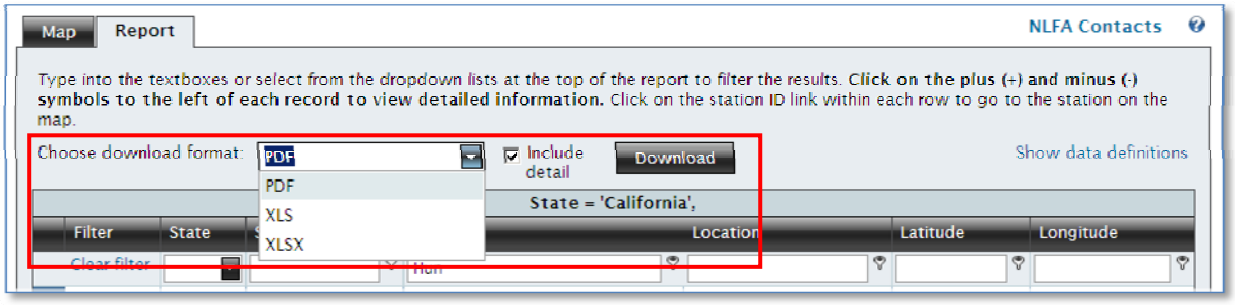
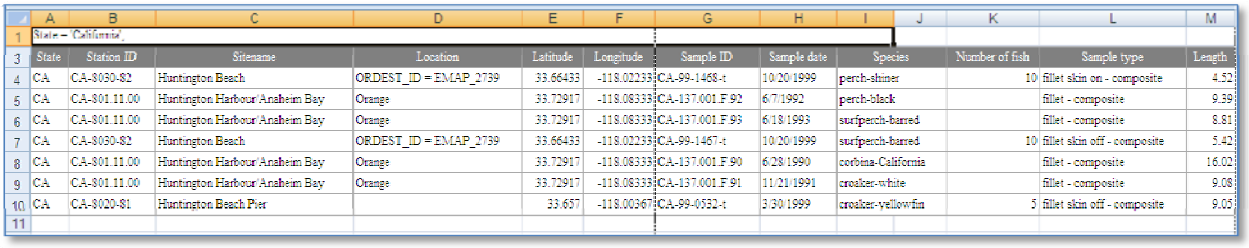


Figure 12. File format options for downloading fish tissue data.

Then click “Download.” A pop-up box will ask you if you want to open or save the file. Save it to your computer or open and print your file as desired. Please note, when you choose to download an Excel file, the details will automatically be included (Figure 13).



State = 'California'											
State	Station ID	Sitename	Location	Latitude	Longitude	Sample ID	Sample date	Species	Number of fish	Sample type	Length
CA	CA-8030-82	Huntington Beach	ORDEST_ID = EMAP_2739	33.66433	-118.02233	CA-99-1468-t	10/20/1999	perch-shiner	10	fillet skin on - composite	4.52
CA	CA-801.11.00	Huntington Harbour/Anaheim Bay	Orange	33.72917	-118.08333	CA-137.001.F.92	6/7/1992	perch-black		fillet - composite	9.39
CA	CA-801.11.00	Huntington Harbour/Anaheim Bay	Orange	33.72917	-118.08333	CA-137.001.F.93	6/18/1993	surfperch-barred		fillet - composite	8.81
CA	CA-8030-82	Huntington Beach	ORDEST_ID = EMAP_2739	33.66433	-118.02233	CA-99-1467-t	10/20/1999	surfperch-barred	10	fillet skin off - composite	5.42
CA	CA-801.11.00	Huntington Harbour/Anaheim Bay	Orange	33.72917	-118.08333	CA-137.001.F.90	6/28/1990	corbina-California		fillet - composite	16.02
CA	CA-801.11.00	Huntington Harbour/Anaheim Bay	Orange	33.72917	-118.08333	CA-137.001.F.91	11/21/1991	croaker-white		fillet - composite	9.08
CA	CA-8020-81	Huntington Beach Pier		33.657	-118.00367	CA-99-0582-t	3/30/1999	croaker-yellowfin	5	fillet skin off - composite	9.05

Figure 13. Downloaded fish advisory data with details in Excel.5.0 find state fish advisory contact information

1) **Click the link “NLFA Contacts”** in the upper right of the map view or report view.

5.0 NAVIGATING THE MAP

There are several ways that you can navigate around the map to look for waterbodies and sampling stations of interest. You may choose to use the mouse, keyboard, and/or slider for panning and zooming into the map (Figure 14).

Zoom In

- **Mouse Scroll Forward**: Roll the scroll button on your mouse forward to zoom in on the map.
- **SHIFT + Drag the mouse**: Holding down the SHIFT key while dragging the mouse will allow you to draw a box around the area you wish to zoom in to.
- **Double Click**: Double-clicking your mouse on the map will zoom in one level.
- **Slider**: The slider bar is located in the upper left corner of the map. Click the top of the slider bar to zoom in once, or click on the slider box and drag it upward to zoom in as many levels as necessary.

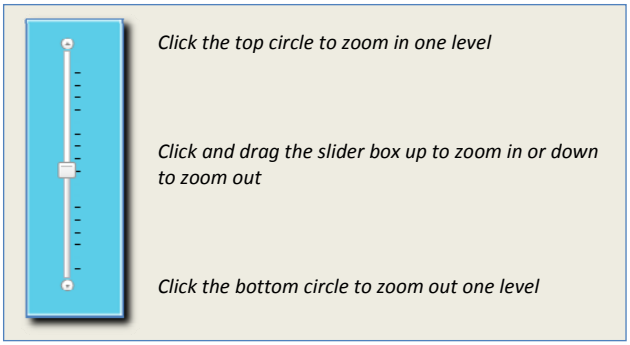


Figure 14. Ways to navigate the Technical Advisory search map.

Zoom Out

- **Mouse Scroll Backward**: Roll the scroll button on your mouse backward to zoom out on the map.
- **SHIFT + CTRL + Drag the mouse**: Holding down the SHIFT and CTRL keys while dragging the mouse will allow you to draw a box around the area you wish to zoom out of.
- **Slider**: The slider bar is located in the upper left corner of the map. Click the bottom of the slider bar to zoom out one level, or click on the slider box and drag it downward to zoom out as many levels as necessary.

Pan

- **Drag the mouse**: Choose a spot on the map and click and hold down the mouse button, while dragging the mouse. This allows you to pan across the map in any direction.
- **Use arrow keys**: Click inside the map once with your mouse and then use the arrow keys on your keyboard to pan the map up, down, left, or right.

Re-center the Map

- **SHIFT + Click**: Hold down the SHIFT button and click the mouse on the map. This will re-center the map to the location of your click.

6.0 MAP LEGEND

The map legend will always be to the left and down from the map (Figure 15). You may click on the checkboxes to show or hide the different layers of information.

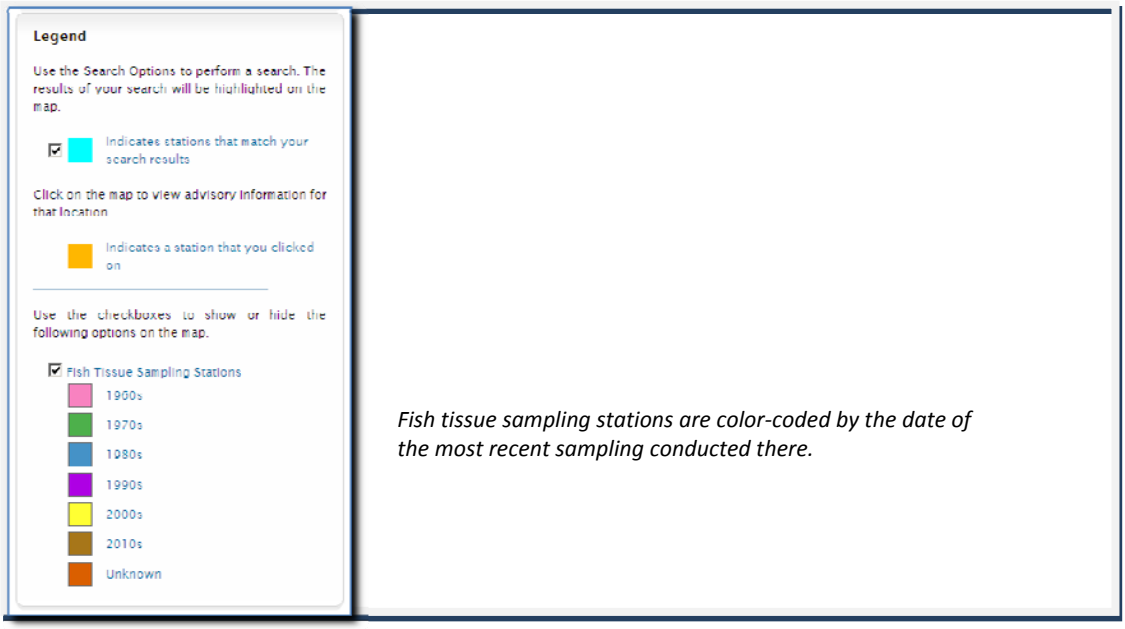


Figure 15. Fish tissue search legend.

7.0 HELP

The Help button (? symbol) is located above the upper right corner of the map or report (Figure 16). You may click the button at any time to bring up this Help document.

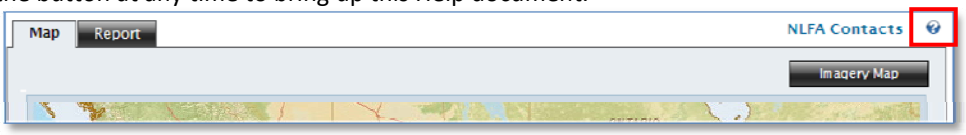


Figure 16. NLFA fish tissue search HELP icon.

8.0 DESCRIPTION OF DATA TERMS

State - State abbreviation

Station ID - Unique identifier given to each station in the database

Sitename - Name of the site, often the waterbody name

Location - Description of station location

Latitude - Latitude (decimal degrees)

Longitude - Longitude (decimal degrees)

Sample ID - Unique identifier given to each sample in the database

Sample date - Date sample was taken in the field Species Fish species

Number of fish - Number of fish in this sample

Sample type - Type of sample (for example, fillet or whole fish)

Length - Fish length

Length unit - Units associated with length

Weight - Fish weight

Weight unit - Units associated with weight

Pollutant - Name of the pollutant for which this sample was tested

Result - Result value for the pollutant tested

Result unit - Units associated with result

Data qualifier desc. - Data qualifier description, including data qualifier code, if available

Detection limit info. - Detection limit information, if available