California Department of Fish and Wildlife
RareFind 5 User Guide

California Department of Fish and Wildlife
California Natural Diversity Database
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RareFind 5 is an Internet application that allows robust querying and reporting of over 90,000 textual records on over 2,600 different rare native plants, animals, and natural communities in the California Natural Diversity Database (CNDDB). This version of RareFind interacts with the BIOS 5 map viewer, allowing CNDDB subscribers to easily view the spatial features of occurrence records queried in RareFind 5. Because it is an Internet application, RareFind 5 eliminates the need for users to install an application on their computers and download updated versions of CNDDB data every month.

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Launching RareFind 5

For the best performance with RareFind 5, we recommend that you use either the Firefox or Chrome web browsers. We also recommend that you always launch the RareFind application from the CNDDB Maps & Data web page rather than creating a browser bookmark for it. This webpage will always have a link to the latest version of RareFind, and may at times contain important information for RareFind users.

Login Screen

Upon clicking the RareFind 5 link, you will be prompted to log in. California Department of Fish and Wildlife (CDFW) users can log in using their usual Department login information. CNDDB subscribers can log in using the monthly username and password that is emailed to them at the beginning of each month. If you check the "Remember Me" checkbox when you log in and you don't subsequently log out, you should not need to log back in if you close the browser or navigate away from the RareFind application.


More information about the CNDDB subscription is available on the CNDDB Subscription web page.

Query Tab

When you first log in to RareFind 5, you will see the Query tab. Some of the other tabs at the top are unavailable and will remain greyed out until you run a query. Once you have run a query, the inactive tabs will become available and you may click on them to view your query results in different formats. Note: Do not click on the browser's Back button to go to a previous tab; that will cause the browser to take you back to the Login screen.
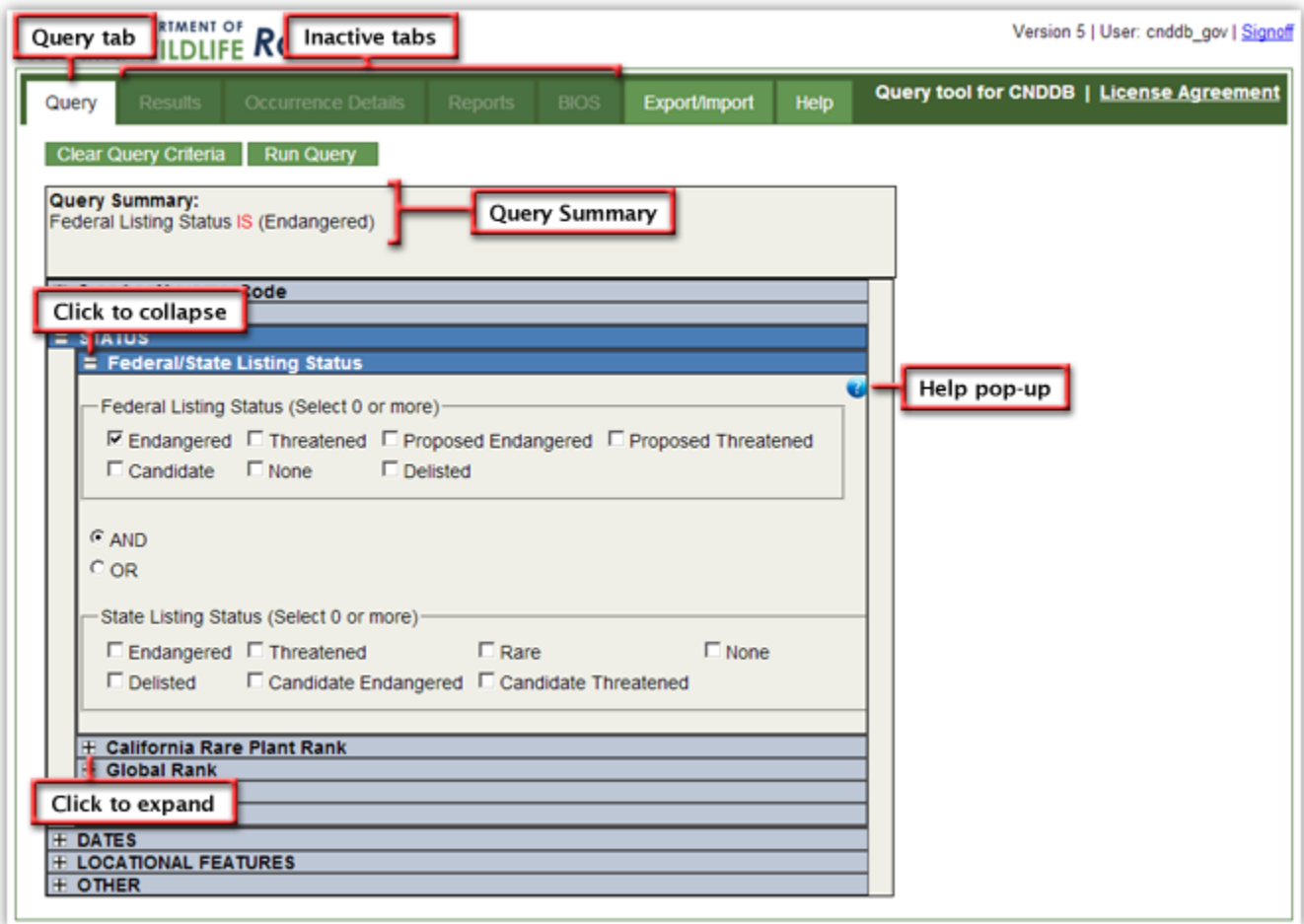
At the top of the Query tab is the Query Summary, which shows what RareFind 5 will query the CNDDB data for when the Run Query button is clicked. If no criterion is selected, the application will query for "All CNDDB element occurrences." As you select query criteria, the Query Summary will automatically update. It is a good idea to review the Query Summary as you build your query to make sure the application is querying for what you want.

Query criteria selectors are categorized into groups that may be expanded by clicking on the ⊞ (plus) box to the left of the category heading. These groups can be collapsed by clicking on the ⊟ (minus) box that appears to the left of the category heading when a group is expanded. If you need help with what the criteria mean and how to use a particular selector for your query, click on the blue help bubble (🌐) that appears on the upper right-hand side of an expanded criteria category. This will cause a small help window to appear.

Methods of Selecting Query Criteria

There are a few different ways to select criteria for your query.

When given a search text box, simply type what you want to search for into the text box and then click on the Search button or hit the Enter key. For the "Species Name or Code" criteria selector, you may query for scientific name, common name, or

Element Code. (Note: The search text box is not case-sensitive and will return any entry that contains the text you have entered. However, some common names such as "red-legged frog" require typing in the hyphen.)

Once you have searched for your entered text, the results will appear in the list box directly below the search text box, on the left side of the screen. The number in parentheses next to each result represents the number of element occurrences for that species currently in the CNDDB. To add a search result to your query criteria, you need to move it to the list box on the right. You may do this by selecting the result (single-click on it, and the result will highlight in blue) and pressing the single arrow > button, or by double-clicking on the result. Clicking the double arrow >> button moves all results from the left to the right.

To remove species from the right-hand box, and thus remove them from your query criteria, use the < button or double-click on the record. You can remove all of the species from the right-hand box using the << button. The Reset button clears both the left-hand and right-hand boxes. When you move search results to and from the right-hand box, your Query Summary will update.

Some criteria selectors appear as a group of checkboxes, such as the "Taxonomic Group" criteria selector. You can query on everything in the CNDDB by leaving all

boxes unchecked. If you want to narrow your query results, you may click on certain checkboxes to add the criteria to your Query Summary. The plus signs ⊞ will expand the hierarchical categories. You may select one or many items. A selection at a higher level in the hierarchy selects all lower groups below it. In the example below, selecting "Vascular" added "Ferns," "Gymnosperms," "Monocots," and "Dicots" to the Query Summary.

Some criteria selectors with checkboxes are not grouped in a hierarchy, but work in a similar fashion. You may select one or many of the checkboxes, and each selection that you make will automatically update your Query Summary.

Some criteria selectors will have an Apply button associated with text boxes. The criteria you have typed in will not be added to your Query Summary until you have clicked on the Apply button. This signifies to the application that you have finished entering your text.

Query Summary:
Element Last Seen Date IS after "1/1/2006"

Query criterion appears after the Apply button is clicked

⊞ **Species Name or Code**
⊞ **Taxonomic Group**
⊞ **STATUS**
⊟ **DATES**
    ⊟ **Date Element Last Seen (mm/dd/yyyy)**
    (From)
    01/01/2006

    (To)
    mm/dd/yyyy

Text boxes for query criteria

    Apply
    ⊞ **Date Site Last Seen (mm/dd/yyyy)**
    ⊞ **Last Updated Date (mm/dd/yyyy)**
⊞ **LOCATIONAL FEATURES**
⊞ **OTHER**

Some criteria selectors have a drop-down menu or a text box that produces a drop-down menu when you start typing in it. As soon as you select a criterion from the drop-down menu, it will show up in a list in the box below as well as in your Query Summary. To remove a criterion from the bottom list box, select the item (it will highlight in blue) and click on the ✖ button. To remove all criteria selections made in this category, but not change the rest of your query, click on the Reset button.

Run a Query

Once all query criteria have been selected, click on the Run Query button above the Query Summary to run your query. If you modify your query criteria, you can click the Run Query button again to see the results for your modified criteria. To start a completely new query, click on the Clear Query Criteria button.

Results Tab

After you click on the Run Query button, you will be taken to the Results tab. On the Results tab, the top table displays the Element results, and the bottom table displays the Occurrence results for the element highlighted in the top table. In this example, burrowing owl is selected and highlighted in yellow in the Elements table. The occurrences displayed in the bottom table are therefore all for burrowing owl. If elf

owl were selected in the Elements table, then all of the occurrences displayed in the Occurrences table would be for elf owl.

Elements table

Occurrences table for selected Element

Sorting Results by Field

To sort a field/column in one of the tables, click on the field header. The results are sorted on the field/column that shows a triangle ⬍ next to the field title. The direction of the triangle illustrates the direction of the sort (a triangle pointing up indicates alphabetical/smallest to largest; a triangle pointing down indicates reverse alphabetical/largest to smallest). To reverse the sort order of a field/column, simply click on the field header again.

Sort triangle

Field/column header

Case-sensitive filter text box

Filtering Results by Field

To filter the result records in the Elements table, use the case-sensitive filter text boxes below each field header. The text that you enter into a filter box will restrict the results displayed. For example, if you enter "elf" in the Common Name filter box,

then only element records with the text "elf" in the Common Name field will be displayed in the Elements table. To remove the filter, simply delete the text from the filter box. (Note: The filter only changes which records are displayed; it does not alter the results of your query.)

Changing Visible Columns

A subset of the available fields/columns is presented in the tables by default. To add or subtract fields/columns, click the `Change visible columns` button. (Note: There are different field/column options for the Elements table than for the Occurrences table.) Adding fields/columns may make it necessary to horizontally scroll to the right to view all of the fields/columns.

If you cannot read the entire contents of a field because the column is too small, you can either resize the column by clicking and dragging the upper right-hand corner of the column, or hover over the text to see the full text in a tool tip.

Additional Functions

Print View: The `Print View` button next to the "Change Visible Columns" button in the Elements table will open a new tab in your browser with a printable table, similar to

the one shown here, of all CNDDB elements that resulted from your query. The order in which the elements are listed in this table is determined by how you sort the elements in the Elements table.

Image search: To see photos of an element, use the g+ (Google) and Ca (CalPhotos) links at the left side of the Elements table. When clicked, these links will open a new tab in your browser and conduct an Internet search; the result pages are not owned or maintained by the California Department of Fish and Wildlife.

Occurrence Details Tab

There are two ways to get to the Occurrence Details tab. You may click on the Occurrence Details tab at the top, or you may double-click on an occurrence record in the bottom table of the Results tab.

The Occurrence Details tab is arranged with the element information on the top half and occurrence information on the bottom half. The difference between this screen and the Results tab is that only one occurrence is displayed at a time here, but it is in a more readable format than the spreadsheet-type format of the Results tab.

All of the information in a CNDDB occurrence record is shown on this screen. If a box is empty, it means we have no data of that type for this occurrence. The source list (bibliography) for each occurrence is also shown at the bottom of the occurrence details.

To navigate between the elements that were returned in your query results, use the arrow buttons (< and >) on the Element Details bar. To navigate between the occurrences that were returned for an element, use the corresponding buttons on the Occurrence Details bar. In addition, on the Occurrence Details bar the << button takes you to the first occurrence record for the current element, while the >> button takes you to the last record.

Some of the fields shown under the Element Details bar and the Occurrence Details bar contain dropdown lists, which can be accessed by clicking the down arrow ▼ to their right. These allow you to quickly navigate to specific records in your query results. (Note: These fields retain the sort order you selected under the results tab.)

Reports Tab

The Reports tab contains various built-in reports that RareFind 5 can automatically generate from your query. Your query is displayed at the top next to "Query Criteria."

If you click on the Add text to report button, a multi-line text box appears. You can use this text box to include your own custom text (e.g., Company name) on the first page of a report. To remove that text so that it doesn't appear on your reports, click the Clear text button.

BIOS Tab

Unlike other tabs, clicking on the BIOS tab will not take you to another screen. Instead, it will open a small window with up to five options. The BIOS tab is best used while viewing the Results tab; what you have selected in the "Elements" and "Occurrences by Selected Elements" tables will affect the options you may choose from.

1) The "Show map with no selection" option opens the BIOS 5 data viewer in a new window with the CNDDB layer loaded and turned on.

2) The "Show map with ALL returned occurrences (#)" option opens BIOS 5, loads the CNDDB layer, and then zooms to a layer created from all the occurrences selected in your RareFind 5 query. The number of occurrences selected is shown in parentheses on the BIOS tab.

3) The "Show map with only current element's occurrences (#)" option opens BIOS 5, loads the CNDDB layer, and then zooms to a layer created from the occurrences for the current element highlighted on the RareFind 5 Results tab (all occurrences displayed in the Occurrences table at the bottom of the Results tab). The number of occurrences selected is shown in parentheses.

4) The "Show map with only current element's selected occurrences (#)" option opens BIOS 5, loads the CNDDB layer, and then zooms to a layer created from the selected occurrences of the currently selected element (occurrences checked in the Occurrences table). The number of occurrences selected is shown in parentheses.

5) The "Show map with currently displayed occurrence (1)" option is only seen when clicking on the BIOS tab while on the Occurrence Details screen. This option opens the BIOS 5 data viewer, loads the CNDDB layer, and then zooms to a layer created from the occurrence that is currently displayed on the Occurrence Details screen.

If you are working in the BIOS 5 viewer, you can spatially select CNDDB occurrences and then view their detailed textual information in RareFind 5 by clicking on the RF button. In RareFind 5, the Query Summary will then show "BIOS Selection."

For general information on how to use the BIOS 5 data viewer, please see our BIOS 5 User Guide. For more details on how to work with the CNDDB data in BIOS, refer to our tutorial for Using CNDDB in BIOS 5.

Export/Import Tab

If you have not yet run a query, the Export section of the Export/Import tab will not be visible. At any time, you can import a DBF file containing a list of occurrences, and that list will be used to select records in the CNDDB data. The DBF file must contain an "EOndx" field, which is the unique identifier for occurrence records. When RareFind has successfully imported a list of EOndx values and selected the corresponding occurrence records, the Query Summary will show "Imported file Selection."
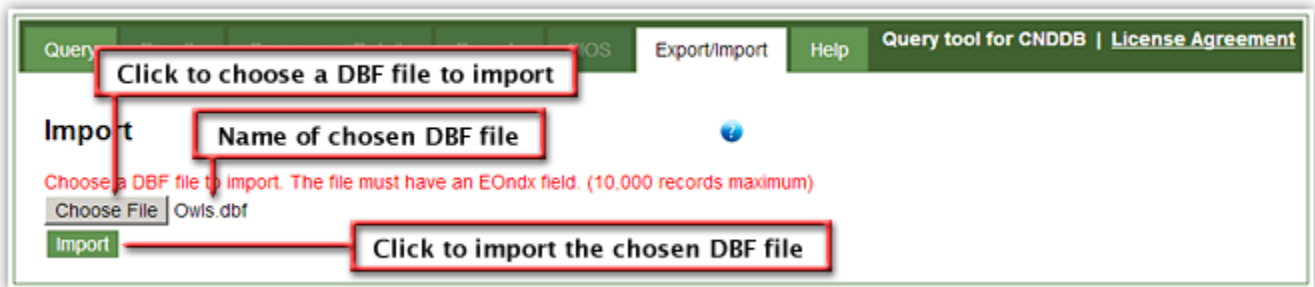
After you have run a query, you can export the results of your query as a comma-separated value (CSV) file or a dBase (DBF) file. The results will be exported as either a table of element records or a table of occurrence records.
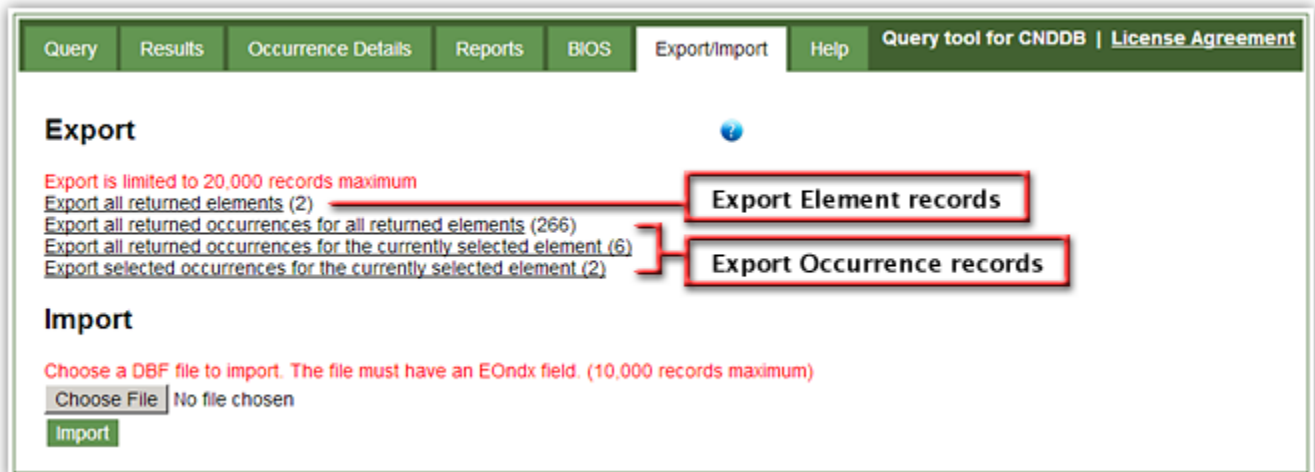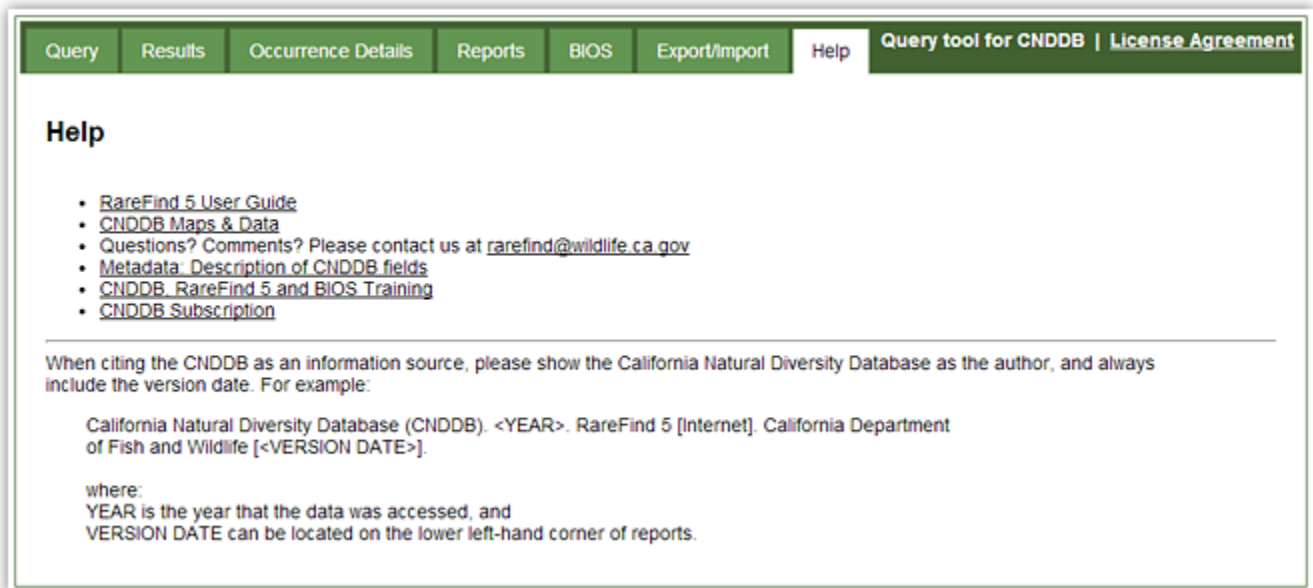
1) The "Export all returned occurrences for all returned elements (#)" option exports all of the occurrences selected in your RareFind 5 query. The number of occurrences selected is shown in parentheses.

2) The "Export all returned occurrences for the currently selected element (#)" option exports only the occurrences for the element that is currently selected on the Results tab. The number of occurrences selected is shown in parentheses.

3) The "Export selected occurrences for the currently selected element (#)" option exports only the specifically-selected occurrences for the element that is currently selected on the Results tab. Those occurrences must be checked in the Occurrences table. The number of occurrences selected is shown in parentheses.

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Help Tab

The Help tab contains links to this user guide, as well as:

- the CNDDB Maps & Data page,
- CNDDB metadata that explains all the data fields shown in RareFind 5,
- CNDDB, RareFind 5 and BIOS training, and
- CNDDB subscription information.

If you have any questions or comments, please contact us at rarefind@wildlife.ca.gov.

Suppressed Data Information

The CNDDB marks some species and/or individual element occurrences (locations) as "suppressed" based on one or more of the following:

- The species is over-collected in the wild.

- The species and/or its occurrences were reported by someone who asked us to make it suppressed, thus restricting its distribution only to government subscribers.

- There is substantial information leading us to protect this site/occurrence from intentional destruction by suppressing the precise location data.

Less than 2% of CNDDB occurrences are marked as suppressed. All coordinate and location information is suppressed. Suppressed occurrences in RareFind 5 appear with a notice advising Commercial CNDDB subscribers to contact the CNDDB directly for more information. Once we understand the nature of your intended use of the data, we may provide you the information in a more generalized format.
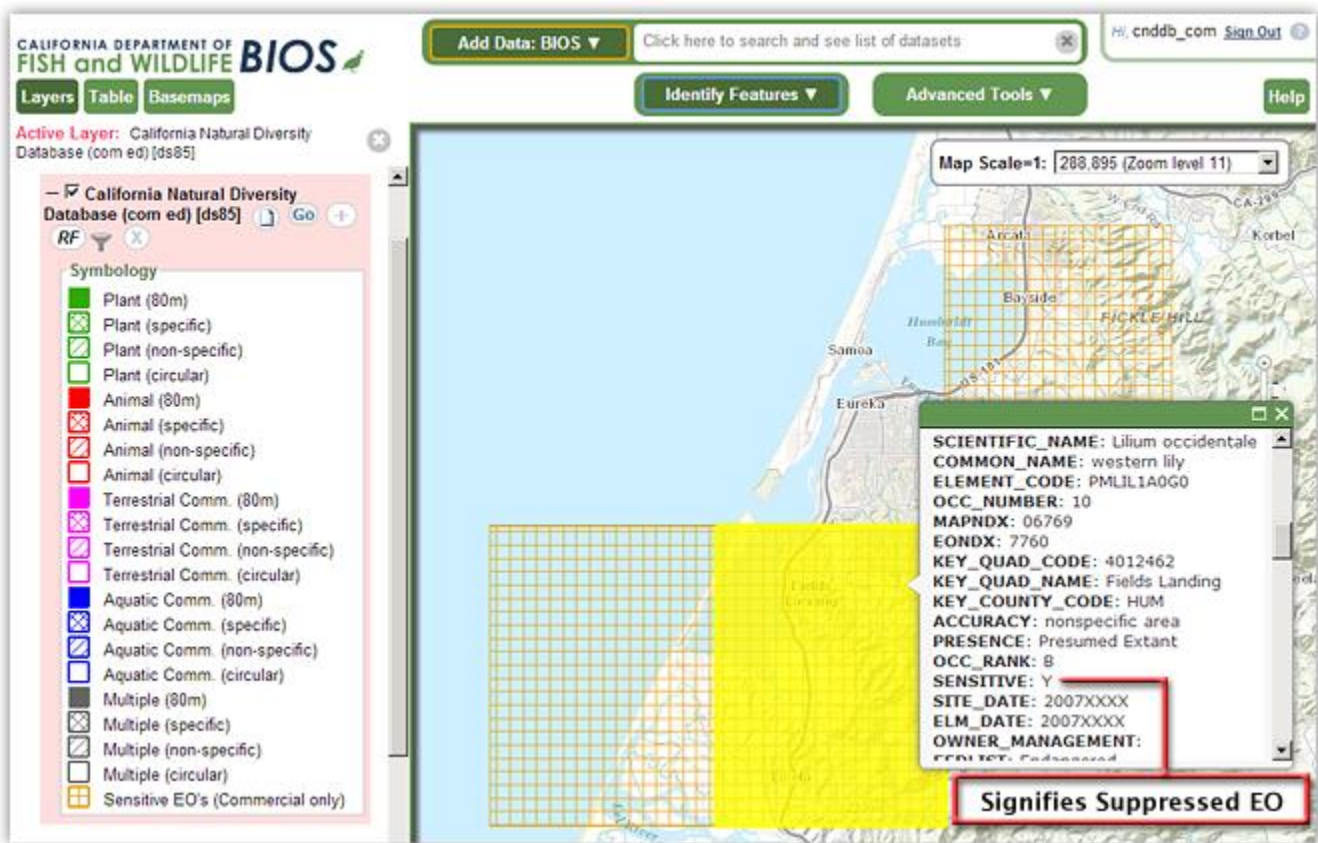
Suppressed locations will appear as generalized quad-based features in BIOS 5 for Commercial CNDDB subscribers; the actual element occurrences fall somewhere within these generalized features.

Spotted Owl Observations Database

Both subspecies of Spotted Owl occurring in California are tracked by the CNDDB, but are maintained in the CDFW Spotted Owl Observations Database. The Spotted Owl Observations Database is packaged with the CNDDB and is governed by the CNDDB License Agreement. The Spotted Owl Observations Database has not been integrated directly into the CNDDB because management plans for both Northern and California Spotted Owls specifically address owl activity centers; the CNDDB follows a slightly different mapping protocol, the Natural Heritage Methodology of Element Occurrences, which doesn't track activity centers. To access Spotted Owl data, please use the CNDDB & Spotted Owl Viewer (BIOS 5) and refer to the tutorial Using the Spotted Owl Report Generator in BIOS 5.

Disclaimer

The California Department of Fish and Wildlife makes no claim, implied or otherwise, as to the suitability of this dataset for the particular use which the subscriber may have in mind. The CNDDB is an ongoing and continuously updated database. While the information is complete and accurate to the best of our knowledge and ability, it does not constitute an

official response from any state agency and will not in itself meet the requirements of the California Environmental Quality Act (CEQA). The information supplied is based on the material available at the time of the request and should not be regarded as complete data on the elements or areas being considered. The information must be used in consultation with the appropriate local, state and federal officials. Absence of data does not constitute the basis for a negative declaration.