

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME
Biogeographic Data Branch
California Natural Diversity Database

How to Read CNDDDB Quad Overlays

Map overlays are designed to show the geographical locations and the spatial extent of elements of the California Natural Diversity Data Base (CNDDDB). They are produced on translucent paper at standard scales so that they may be used in conjunction with United States Geological Survey (USGS) quadrangle maps (USGS maps not included). Because they are intended to overlay existing maps, only CNDDDB features (with some exceptions) are shown on the overlays. CNDDDB map overlays may be ordered for either the 1:24,000 or the 1:100,000 series of USGS maps.

The overlay map is designed to include the entire extent of the selected quad map and adjacent areas as determined by page and size of the specified quadrangle. Consequently, more CNDDDB element occurrences will appear on the map than those which occur on the ordered quadrangle. This is done intentionally because quad boundaries form biologically arbitrary boundaries. Occurrences should not be construed as ending at quad boundaries, and occurrences beyond quad boundaries should also be considered.

Selected information about each element occurrence is included directly on each overlay. Refer to the accompanying full text report containing all fields of information for more information on individual element occurrences.

The CNDDDB contains spatial information on element occurrences that are considered sensitive. This information is not for general distribution. Sensitive elements within the map extent of the requested overlay are not depicted graphically, but information identifying their presence is listed. For additional information on sensitive elements, please contact Information Services (916-324-3812).

Definitions of CNDDDB Terms

Element/Element Occurrence: Plant taxa, animal taxa, and natural communities in the CNDDDB are referred to as “elements.” An “element occurrence” (EO) is a location record for a site which contains an individual, population, nest site, den, or stand of a special status element. Populations, individuals, or colonies located within **1/4 mile** of each other generally constitute a single occurrence, sometimes with multiple “parts.”

Map Feature Number: The number located within or near the mapped EO feature on the overlay (used on 1:24,000 map overlays only).

Element Code: A 10-character code assigned to each element by the Association for Biodiversity Information (ABI) for data management purposes (please refer to the CNDDDB Metadata for additional information - <http://www.dfg.ca.gov/whdab/metadata.html>).

Occurrence Number: The number which uniquely identifies a particular instance of a species or community. Taken together, Element Code and Occurrence Number form a primary key to the CNDDDB.

Accuracy Class: Relative confidence level of mapping for an EO (please refer to the legend). There are 10 accuracy classes. Accuracy classes 1 and 2 are the most specific and “confidence-rich” of the features. These classes depict, to the best of our ability, actually where the elements occur. Accuracy class 3, the non-specific bounded area, is less precise and depicts an area where the element is found “somewhere within the boundaries.”

Map Index: Uniquely identifies a geographic location. This location may consist of several unconnected features contained in a complex. More than one element may occur at a given map index, creating a situation known as a 'multiple' (see below).

Multiples: Multiples are represented by black graphics on the overlay. Multiples indicate that more than one element occurs at that location; this can consist of more than one plant, a plant and an animal, more than one animal, etc. etc. Correct interpretation of multiples can be verified by referring to the map feature numbers and map index number. For multiples, the map index number is the same for all associated map feature numbers. Thus, to find all the members of a multiple occurrence, just scan the list for all the map index numbers that match. A quick way to identify which map indexes refer to multiples, is to scan the Element Count column; an element count greater than one indicates the presence of a multiple.

Element Count: The number of EOs which share a given map index number. An element count greater than one indicates the presence of a multiple EO at a given graphic feature.

Number of Components: The number of parts associated with one map index number. Usually, the occurrence is composed of one part. In some cases, however, the occurrence may be composed of a complex of disjunct parts (locations of a given element found within 1/4 mile from each other generally constitute a single element occurrence).

Scientific Name: The scientific (Latin) name of a plant or animal. Natural communities have only one, English name.

Common name: The common name of an element.

Overlay Features

Overlay Symbology: The following colors are used to depict the different element types:

Green	Plants
Red	Animals
Purple	Terrestrial Natural Communities
Cyan	Aquatic Communities
Black	Multiple Occurrences

Accuracy Class Descriptions: 10 definitions and example graphics (see above).

Overlay Features for the 1:24,000 Scale Quads:

The number appearing within or near the EO feature references the table located to the right of the map. Quad boundaries are shown. Coastal and/or county boundaries are shown if they are located within the quad. Tics are provided at the corners of the quad, with the latitude and longitude value located just outside the neat line.

Element Table - 1:24,000 Quads: The element table located to the right of the map provides the following information for each EO:

Map Feature Number	Accuracy Class	Number of Components
Element Code	Map Index	Scientific Name
Occurrence Number	Element Count	Common Name

The color of the map feature number placed within or near the EO graphic on the overlay indicates the element type (see overlay symbology, above). The totals for unique elements and number of elements shown on the overlay are provided.

Information on **Sensitive EOs** is listed at the bottom of the element table. Graphic information on sensitive EOs is not provided; please call Information Services (916-324-3812) for more information.

To identify a map feature:

Locate a **map feature number** that you think may be associated with the **map feature**. (We apologize for the sometimes confusing placement of the numbers; this is because we have an automated overlay production system and due to high volume of production, we cannot edit the labels on each overlay). Find the corresponding number in the **Element Table** located to the right of the map. Read across the line.

The **accuracy class** number can be used to decode the type of graphic feature used; refer to the legend to the left of the map. If the map feature you have selected does not match the size or description of the accuracy class in the key legend, you have selected the wrong map feature number. Checking the line type (solid, dotted, or dashed) will also give information regarding the precision of the element.

Mapndx and **element count** can be used together to help identify the selected map feature. If the element count is greater than 1, then the mapndx is shared by the number of elements listed in element count. The features should be black if the element count is greater than one. You can scan the Element Table to locate the additional features that share the mapndx. If the number in the Number of Components column is greater than 1, then there are multiple parts to that map feature.

Overlay Features for the 1:100,000 Scale Quads:

The number appearing within or near the EO feature is the Map Index. This number can be used to reference information which is provided in report form designated by USGS 7.5' quad.

Latitude and longitude values for the intersection of the 1:100,000 quad boundary are provided.

Sensitive EO information is not shown or listed on the 1:100,000 quad overlays.

How to identify EOs on the 1:100,000 overlay:

Since most quads contain many overlapping occurrences, it can be difficult to identify a specific EO. To help distinguish one EO from another, please refer to the overlay legend.