

# Nebraska Conservation and Environmental Review Tool (CERT): How to Retrieve Statewide Distributional Data for A Species

Nebraska Natural Heritage Program  
Nebraska Game and Parks Commission  
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This tutorial walks the CERT user through the steps to visualize distributional data for a particular species at a statewide level. The result of the steps is a map showing the range (or model when available) of the species as well as areas for which there we have recent documented occurrences. This tutorial uses American Burying Beetle as the species of interest.

For information about the content of the data layers used in the steps below, consult the layer descriptions found on the Resources page of the CERT site.

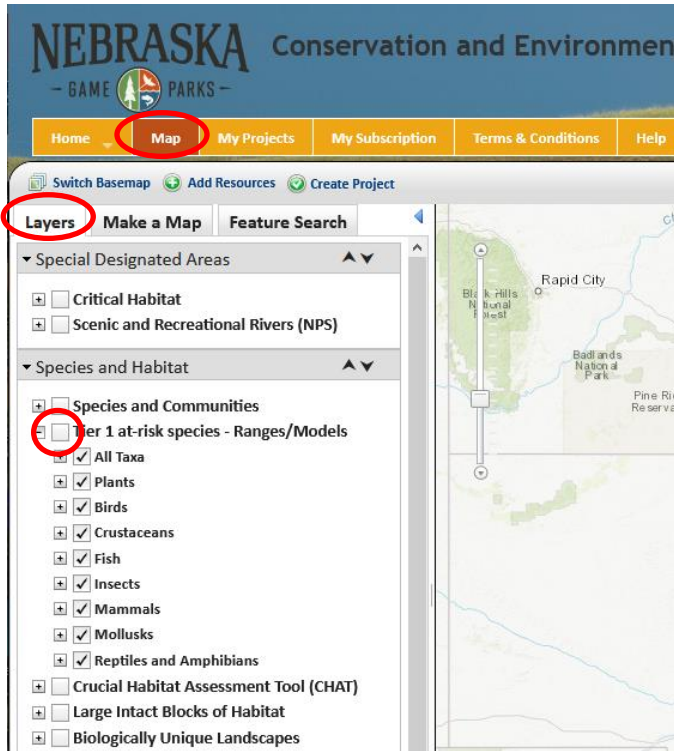
Please note that this is not meant to be a comprehensive help document for using the map interface and search features; for detailed Help instructions on the various map features, please consult the Help page of the CERT site.

## Contents

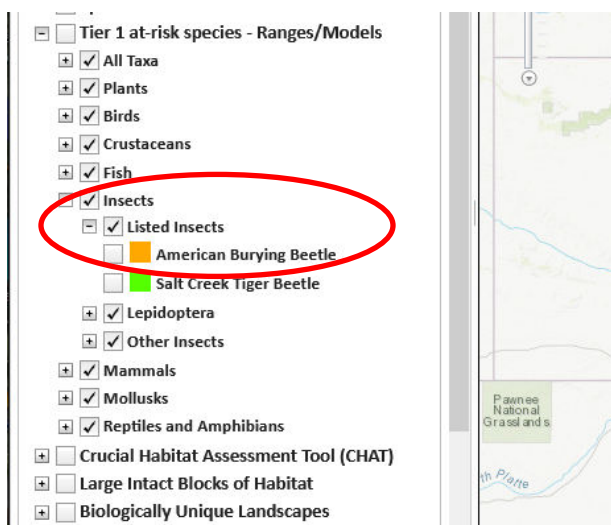
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## Step 1. Display the range/model for the species of interest.

From the Map view activate the Layers tab and locate the layer called 'Tier 1 at-risk species – Ranges/Models.' Click on the plus sign next to the layer's checkbox. This will expand the Table of Contents (TOC) for the layer.

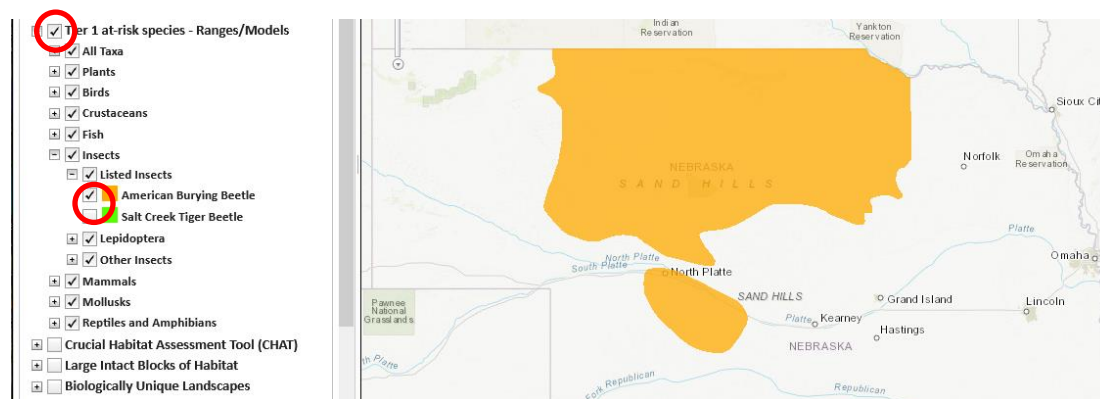


Continue expanding the TOC for the relevant sublayers until you find American Burying Beetle (under Insects/Listed Insects).



Display the range of the species. To do this, place a checkmark in the box next to ‘American Burying Beetle’ AND in the box next to ‘Tier 1 at-risk species – Ranges/Models.’

Result:



## Step 2. Display areas with recent documented occurrences.

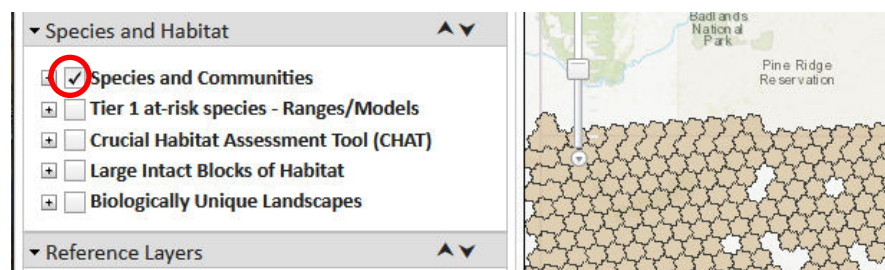
*The features shown in Species and Communities layer represent 49 square-mile units that overlap with one or more recent records for at-risk species as documented in a database managed by the Nebraska Natural Heritage Program of the Nebraska Game and Parks Commission. At the state boundaries these units are often cut off and therefore the portion of the unit in the state can be much smaller. Therefore, prior to processing the occurrence data, the units were processed such that areas under 30 square miles were merged with their neighbor(s). Locations are generalized in order to protect sensitive species and to protect landowner privacy.*

There are two possible methods to use to display areas with records for a particular species.

### Method 1: Feature Search

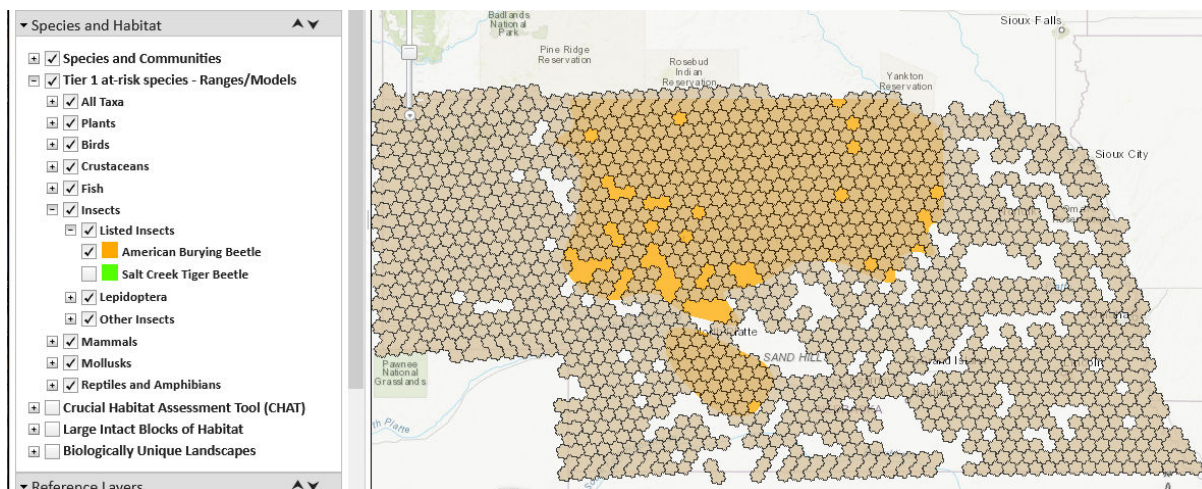
By using the Feature Search, all the features in the layer are displayed, and those that meet the search criteria are highlighted.

From the Layers tab, turn on Species and Communities by checking the box next to it in the TOC.

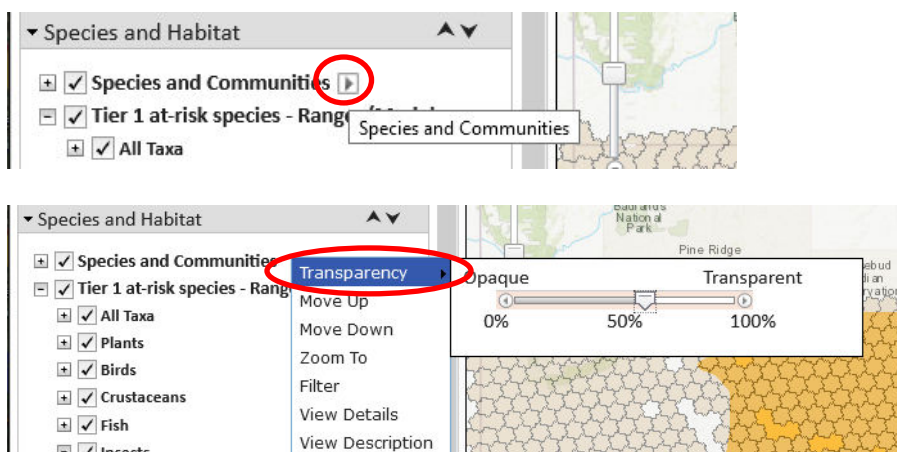


This turns on all the units that contain one or more recent element occurrences.

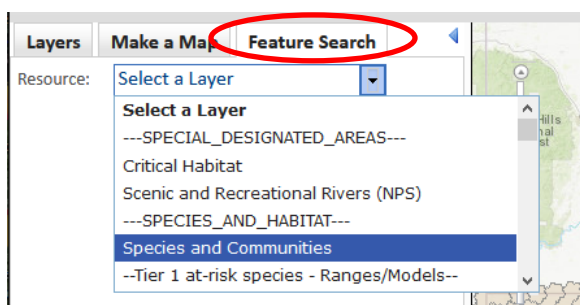
Next, turn on the Tier 1 at-risk species-Ranges/Models layer (if it is not already on).



Notice that the Tier 1 at-risk species-Ranges/Models layer is obscured by layer above it. To see the American Burying Beetle range more clearly, you can adjust the transparency of the layer above. To do this, click on the arrow next to it, choose Transparency and adjust the slider bar to make the layer more transparent.

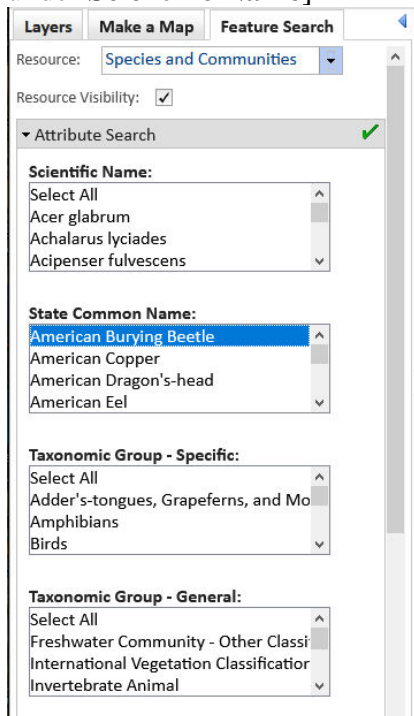


Next, click the Feature Search tab and select Species and Communities from the drop-down menu to the right of Resource.






From the Attribute Search drop-down menu, select **American Burying Beetle** under **State Common Name**. [alternatively, you could select **Nicrophorus americanus** from the menu under **Scientific Name**]



Layers Make a Map Feature Search

Resource: Species and Communities

Resource Visibility: ☒

▼ Attribute Search 

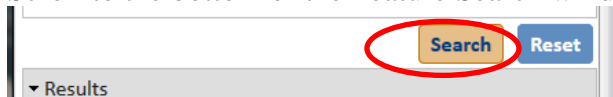
**Scientific Name:**  
Select All  
Acer glabrum  
Achalarus lyciades  
Acipenser fulvescens

**State Common Name:**  
American Burying Beetle  
American Copper  
American Dragon's-head  
American Eel

**Taxonomic Group - Specific:**  
Select All  
Adder's-tongues, Grapeferns, and Mo  
Amphibians  
Birds

**Taxonomic Group - General:**  
Select All  
Freshwater Community - Other Classi  
International Vegetation Classificator  
Invertebrate Animal

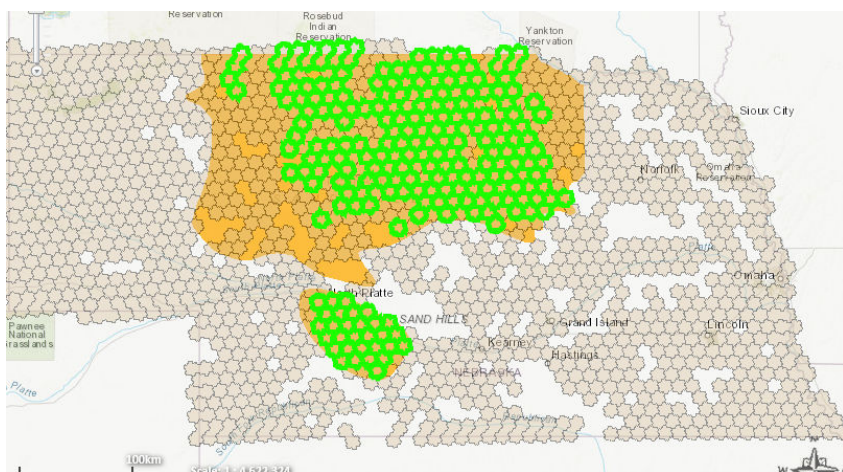
Scroll to the bottom of the Feature Search window and click **Search**.



Search Reset

▼ Results

Areas with recent element occurrences for American Burying Beetle are now highlighted.



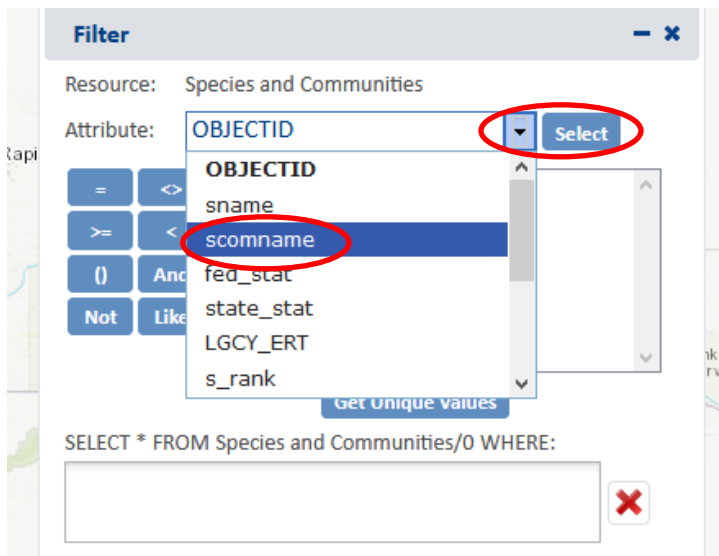
## Method 2: Filter

The Filter option is enabled for some layers. Filtering allows the user to hide all features except those that meet the search criteria. However, filtering requires using a search window that is not typically as user-friendly as the Feature Search.

From the Layers tab, in the drop-down menu to the right of the layer name Species and Communities, select **Filter**.



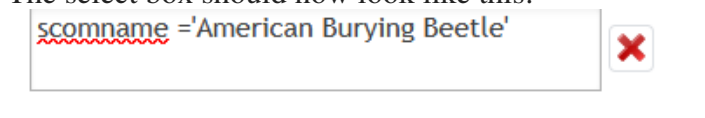
The filter window opens. Click the down arrow to bring up the Attribute drop-down menu, highlight **scomname** (the field containing the common name used in Nebraska) and click **Select**.



Click '='.

Type 'American Burying Beetle' (with the single quotes) to the right of the '=' sign in the select box.

The select box should now look like this:



When your filter string is complete click Apply. A text box with the number of features that match the criteria of the query will appear in the top right corner of the map. Close the Filter window.

Filter

Resource: Species and Communities

Attribute:  Select

=

<>

>

>=

<

<=

()

And

Or

Not

Like

Is

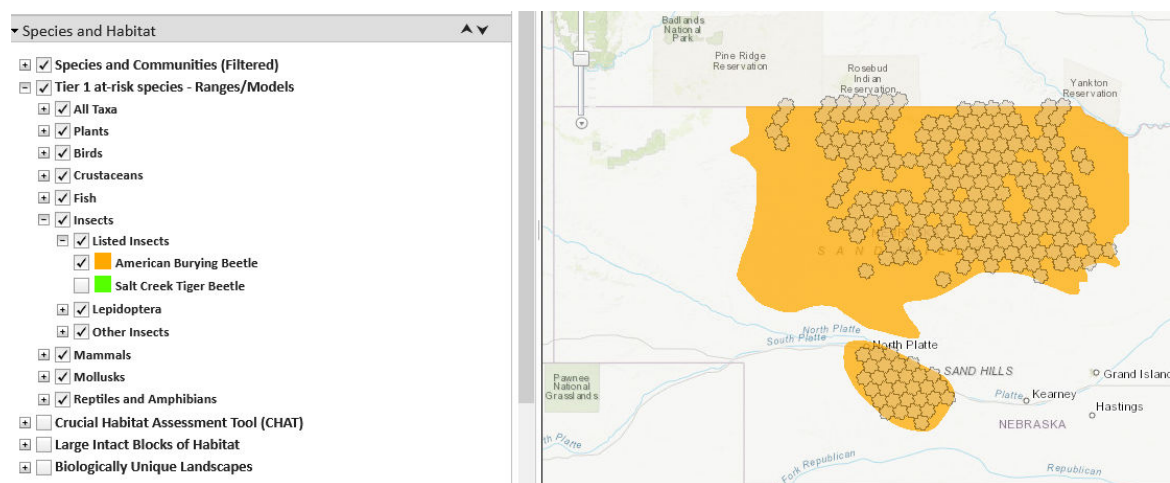
Get Unique Values

SELECT \* FROM Species and Communities/O WHERE:

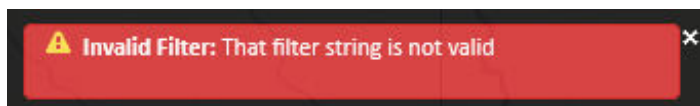
OK

Apply

Result:



Note: If, as in this case, your search is on a text field, it is important to remember to enclose the value you are searching for in single quotes (e.g. 'American Burying Beetle'). If the single quotes are missing or if you use double quotation marks, you will get an error message like this:



An alternative to typing in 'American Burying Beetle' is to have the system generate a picklist to select from. To do this, choose the attribute scomname and then click on **Get Unique Values**.

The Filter window is titled "Filter" and has a close button (X). It shows the Resource as "Species and Communities". The Attribute is set to "scomname" with a "Select" button next to it. Below the attribute field is a grid of comparison operators: "=", "<>", ">", ">=", "<", "<=", "()", "And", "Or", "Not", "Like", and "Is". To the right of this grid is a text area labeled "Collecting unique values.." with a scroll bar. Below the text area is a "Get Unique Values" button. At the bottom, there is a SQL query editor showing "SELECT \* FROM Species and Communities/0 WHERE:" followed by a text box containing "scomname =" and a red X icon. At the very bottom are "OK" and "Apply" buttons.

You may get a warning that the list may take some time to generate. Click Yes if you wish to proceed (typically 10,000 records take less than 10 seconds to process).

The "Get Unique Values" dialog box has a title bar with a close button (X). The text inside reads: "There are 9717 records and this process will either take significant time or possibly critically fail. Would you like to continue still?". At the bottom are "Yes" and "No" buttons.

From the resulting list, double-click on American Burying Beetle to add it to the select box. Notice that the system automatically includes the single quotes necessary for searching on a text field. In addition you won't need to worry about spelling and hyphenation.

The Filter window is shown again. The comparison operator grid is now replaced by a list box containing the following species names: American Avocet, American Burying Beetle (highlighted in blue), American Copper, American Dragon's-head, American Eel, American Eelgrass, and American Gopher. Below the list box is a "Get Unique Values" button. The SQL query editor now shows "scomname = 'American Burying Beetle'" with a red X icon. The "OK" and "Apply" buttons remain at the bottom.

Click Apply to run the filter operation to view the results, and close the Filter window.