

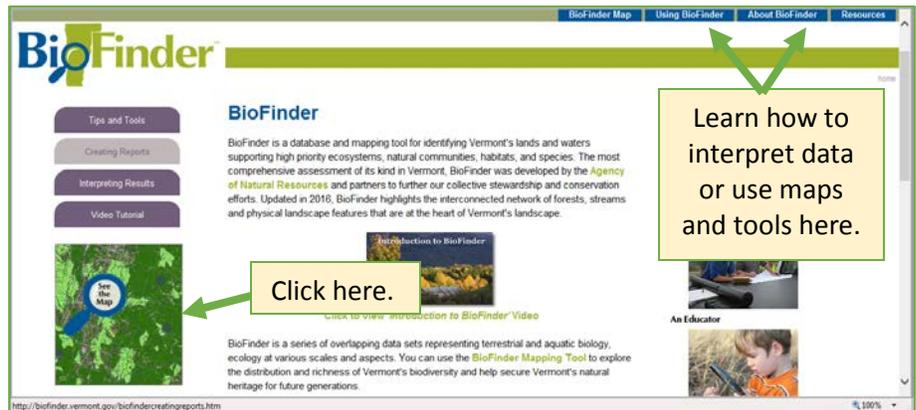
BioFinder 2016

Mapping Vermont's Conservation Resources

Tips and Tools Booklet

Getting Started

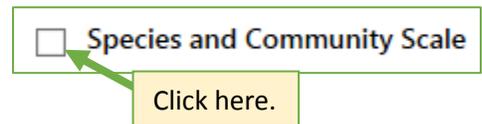
Go to <http://biofinder.vermont.gov>.
Click the picture of the map to launch the mapping tool.



When BioFinder launches, a map displays on the right. On the left, the Layers menu lists all datasets available for display.



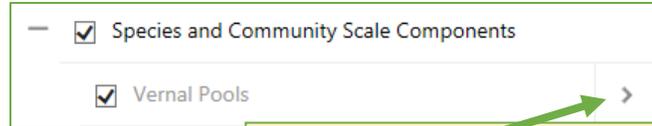
You can build a map to suit your needs by clicking the box next to each layer name to turn that layer on or off. A "✓" appears next to all layers displayed on the map.



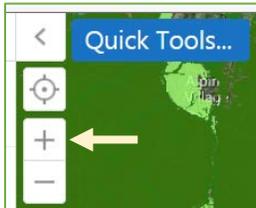
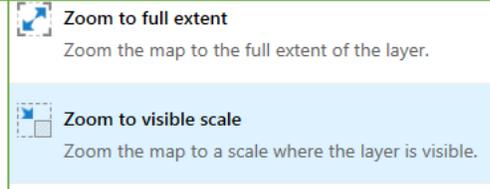
In some cases, several layers are listed together under a common heading. Click the "+" to display all layers; click the "-" to collapse the list. The box next to the heading turns on or off all associated layers that have been checked.



Layer names appear “greyed out”—lighter in color--when they can’t be displayed at the current map scale. To see these layers, click on the right arrow next to a layer title and choose to “Zoom to visible scale”.



Clicking this arrow brings up the options below. Select “Zoom to visible scale” to see the layer on the map.



To zoom in, click the “+” sign on the map, beneath the Quick Tools menu.

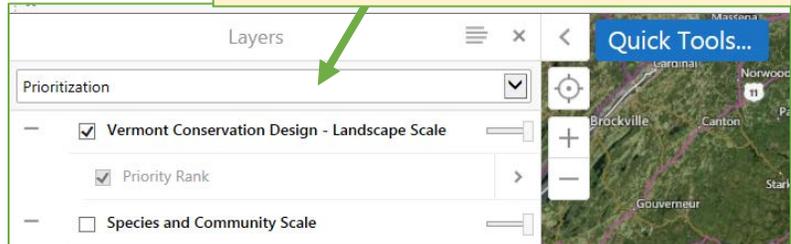
You can also zoom in or out using the zoom tool on the map.

Changing the Theme

The theme allows you to switch between raw inventory information and prioritized map layers.

BioFinder categorizes information into two *themes*, each with a different list of map layers. The default theme *Prioritization* appears when you open the map tool.

To change the theme, click this box. You can select “Prioritization” or “Inventory.”



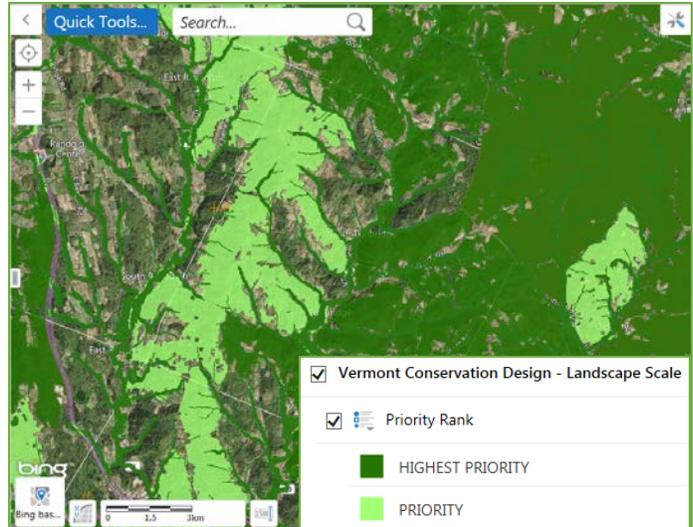
Prioritization Theme

Highlights the locations of highest ecological importance.

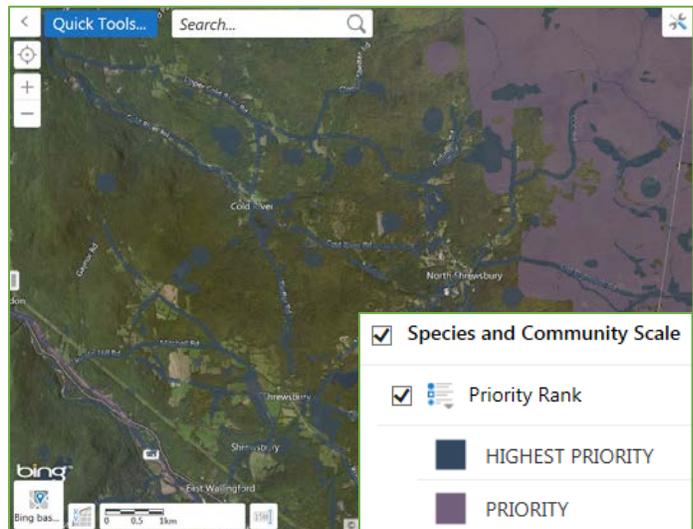
The “Prioritization” theme identifies ecological priorities based on their contribution to **ecological function**—the ability of habitats, plants and animals to interact as needed to thrive, reproduce, migrate, and move, even as the climate changes.

This theme considers components at two scales—the Landscape scale (large blocks of forest, water networks, etc.) and the “Species and Community” scale (individual wetlands, wildlife road crossings, vernal pools, etc.)

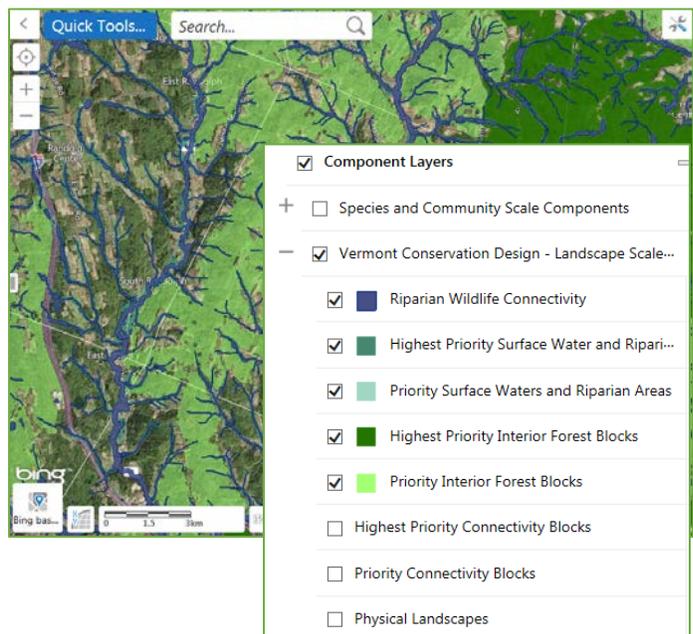
Vermont Conservation Design—Landscape Scale priorities include the forest networks, waterways, and physical landforms that provide habitat to *most* Vermont species. This map lumps all landscape components together in order to prioritize.



Species and Community Scale priorities are important to individual species or groups of species with known conservation value in Vermont. These habitats are smaller in size but equally important. This layer includes habitat for rare species, vernal pools, locations where wildlife are most likely to cross roads, and more.



Component Layers: You can also see the components of the priority layers above *individually*. Click the + next to “Species and Community Scale Components” or “Vermont Conservation Design—Landscape Scale Components” to see the full list of components used.

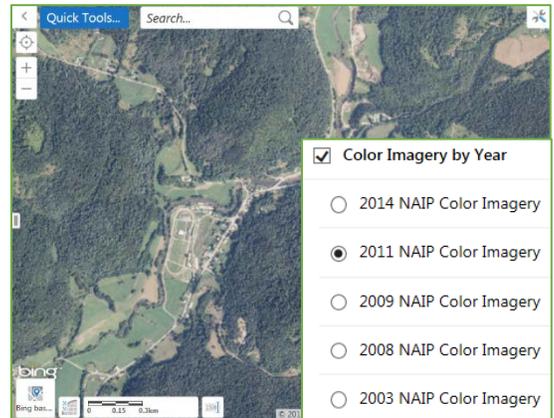


***Uncheck** boxes next to Vermont Conservation Design—Landscape Scale and Species and Community Scale to see components. These maps display *on top of* component layers.

- ANR Basemap Data
- Buildings (E911)
- Bridge & Culvert Inventory
- Railroads
- Roads
- Waterbody
- Stream
- Parcels (where available)
- Town Boundary

ANR Basemap Data: This set of layers provides additional information often used for navigation or for finding landmarks, such as roads, streams, rivers, and the locations of buildings and parcels.

Color Imagery: These layers allow you to change the background to aerial photographs taken in different years—between 2003 and 2014—to see changes to the landscape over time.

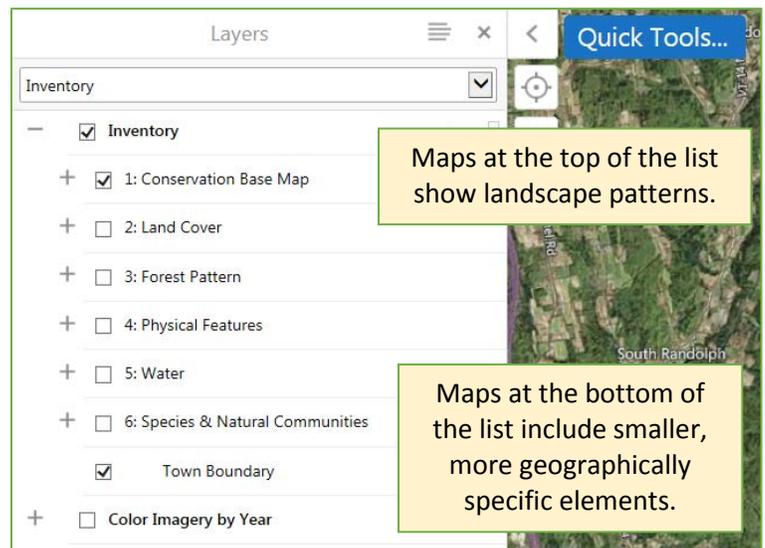


Inventory Theme

Answers the question: What's here?

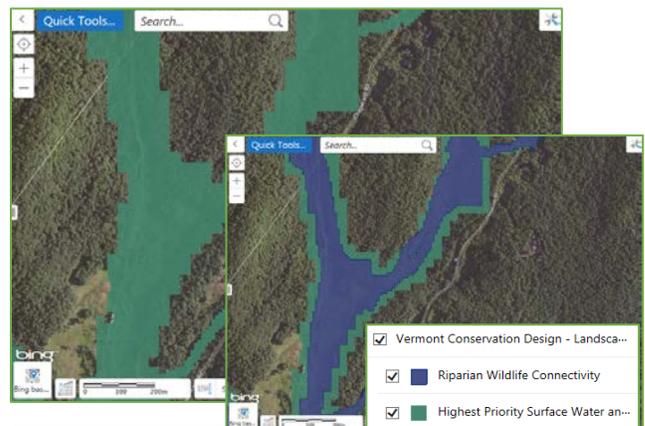
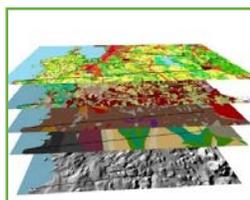
The “Inventory” theme presents basic information about the location of features often used in conservation planning. While information in the “Prioritization” theme was chosen by VFWD biologists to represent *the most important* ecological locations for conservation planning, most “Inventory” information has not been interpreted in any way.

Information in this theme is displayed as a series of already-compiled maps, each showing a different aspect of the landscape.



Using Multiple Layers Together

In general, a map found *higher* on the Layer list is drawn *on top of* a layer found lower on the list.

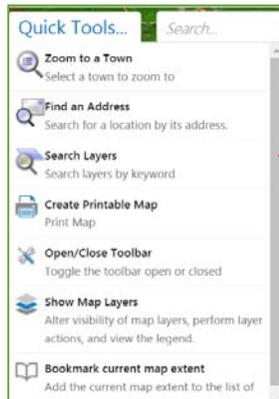
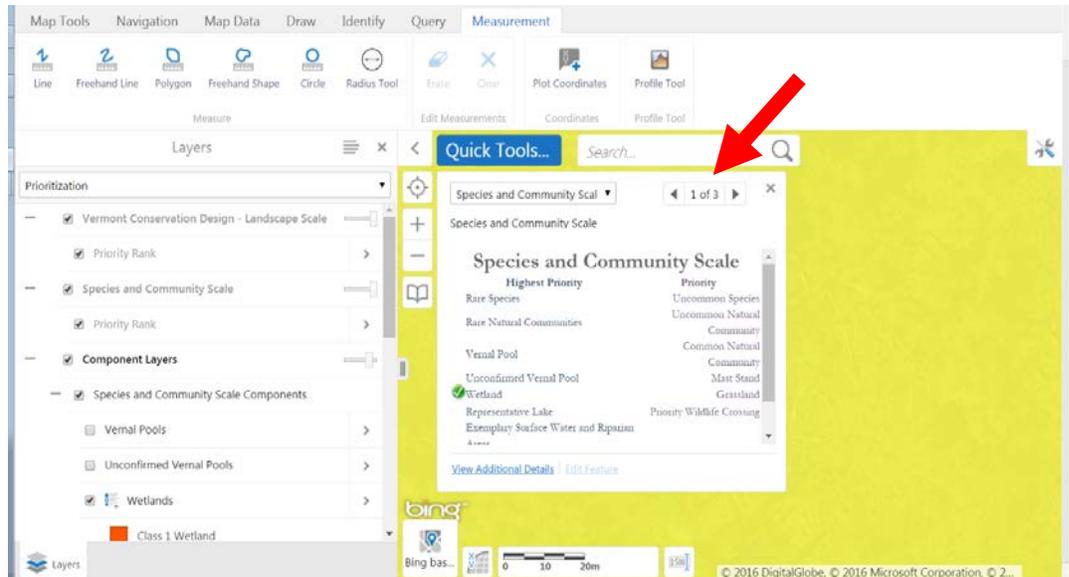


Located higher on the Layers list, “Riparian Wildlife Connectivity” displays on top of “Highest Priority Surface Waters and Riparian Areas.”

Identification Box

If you click on the map, a box pops up with detailed information about all the layers checked “on” in the Layers menu that are present in the location selected.

When multiple layers are found in the selected area, the Identification Box creates a separate “page” of results for each layer. In the example, three layers are present. This is indicated by the “1 of 3” box with arrows in the top, right-hand corner of the box. Click on the arrows to move between pages of results.



Quick Tools: A short list of useful tools

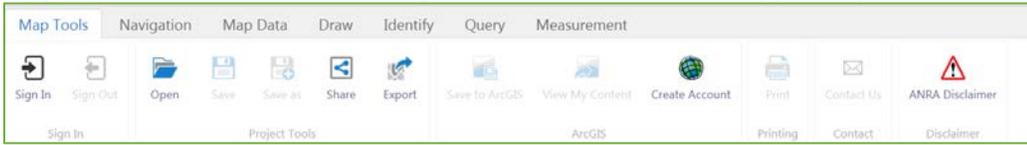


Toolbars: The toolbar can be turned on/off by clicking the wrench/screwdriver icon in the top right corner of the map screen.



This provides access to seven tool tabs.

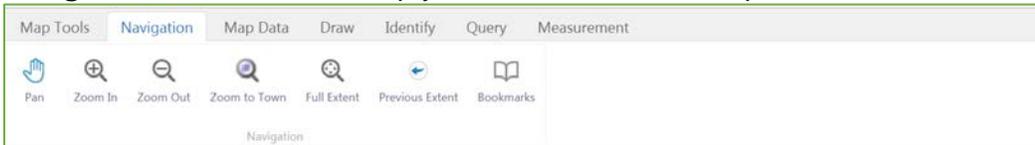
Map Tools: Instructions for using each of these tools will appear upon selection.



Share provides you with a URL of a particular place that you're zoomed in to and the specific layers that you have turned on or off. Note that your drawings or shapefiles you have added will NOT be included in the URL.

Export creates an image file that you can save. This option *will* include drawings that you've added or shapefiles you've uploaded.

Navigation: Offers tools to help you move around the map.



Pan allows you to click on the map and move it around with your mouse.

Zoom In and **Zoom Out** allow you to draw a box around an area of interest and change your scale.

Zoom to Town allows you to center the map around any town in Vermont.

Full Extent zooms out to the scale of the world.

Previous Extent takes you back to the scale you were at before last zooming in or out.

Map Data: Upload and download information with this tab.



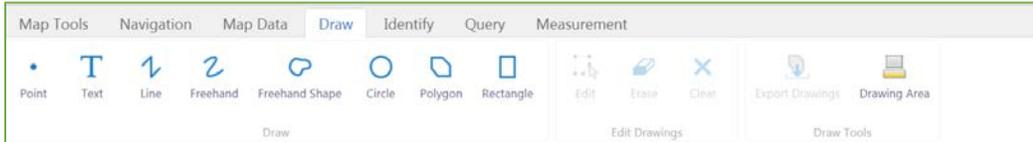
Show Layers turns the Layers Menu on.

Ortho Year allows you to select a background aerial photo from a year between 2003-2014.

The **Layer Catalog tool** allows you to add other map layers from the **ANR Atlas** from the Agency of Natural Resources, or you can add GIS shapefiles of your own creation.

Upload Data allows you to add files stored on your computer.

Draw: The tools under this tab help you customize your maps. The drawings you create (i.e. if you circle or mark an important spot) can be exported to create shapefiles (the geographically-specific files used by most mapping programs) and then uploaded back into BioFinder (using “Upload Data” under the Map Data tab). The advantage of turning your drawings into a shapefile is that you can easily turn them on and off without losing them.



Identify: Instructions for using each of these tools will appear upon selection. They can be used to extract map information for an area of interest.



Query: Instructions for using each of these tools will appear at the bottom of the map page upon selection. They are used to help you locate features containing particular criteria that you select.



Landscape Report tool generates a report (a spreadsheet or pdf file) describing the acreage covered by each component in the Vermont Conservation Design--Landscape scale layer within an area that you've selected. This report can be used to capture a quantitative view of the Vermont Conservation Design map.

Species and Community Report tool generates a report (a spreadsheet or pdf file) describing the acreage covered by each component among species and community scale elements within an area that you've selected.

Measurement: These tools measure both distance and area on your map. Measurements are added in increments as you draw, allowing you to capture distance for each small segment that contributes to a larger distance or area.

