BeeMapper Quick Guide

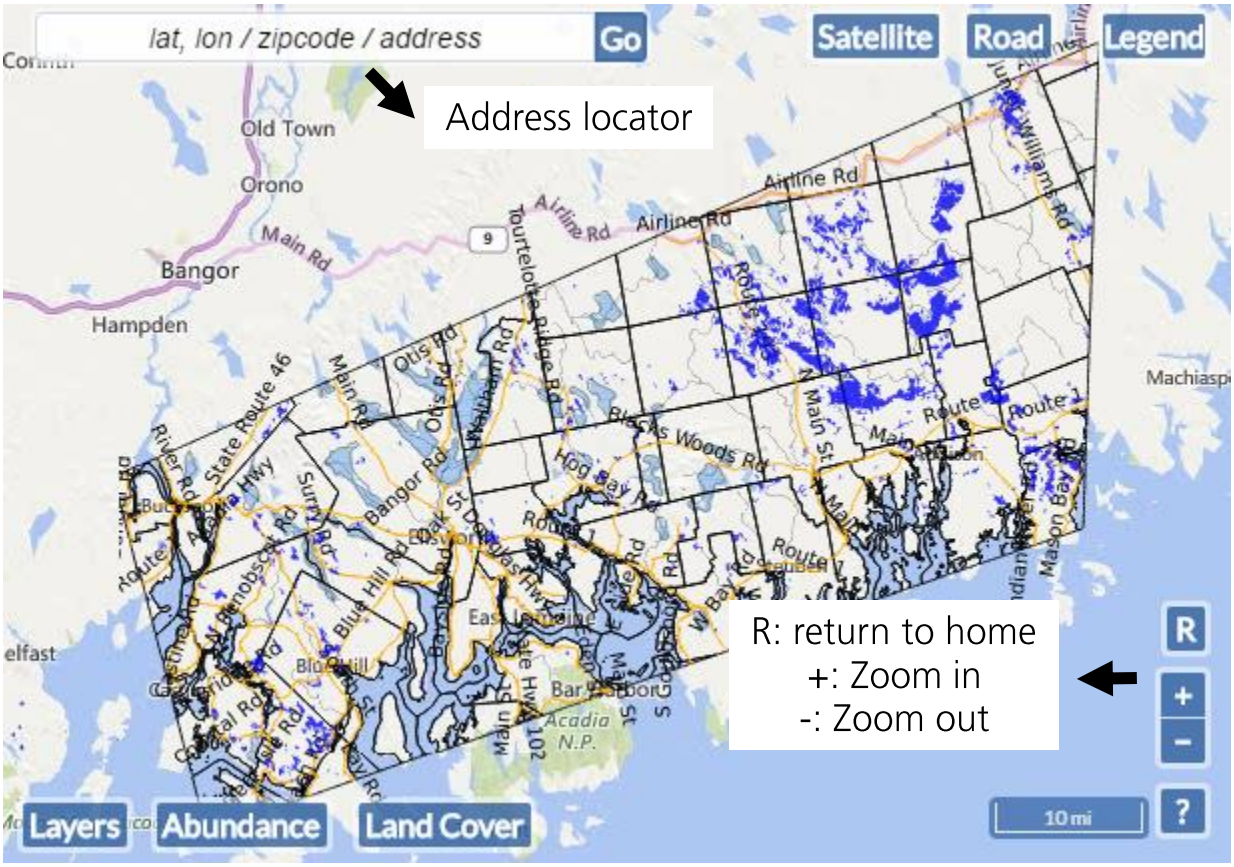
www.umaine.edu/beemapper

What is BeeMapper?

BeeMapper is a pollinator habitat assessment tool. BeeMapper is simple to use: with one click, it provides a summary of wild bee abundance and habitat resources around a wild blueberry crop field.

BeeMapper is based on two maps:

- The land cover map displays eight land cover types that each offer a unique set of habitat resources to wild bees.
- The predicted wild bee abundance map displays our prediction of wild bee abundance across the Maine wild blueberry production landscape.



BeeMapper home screen with navigation buttons

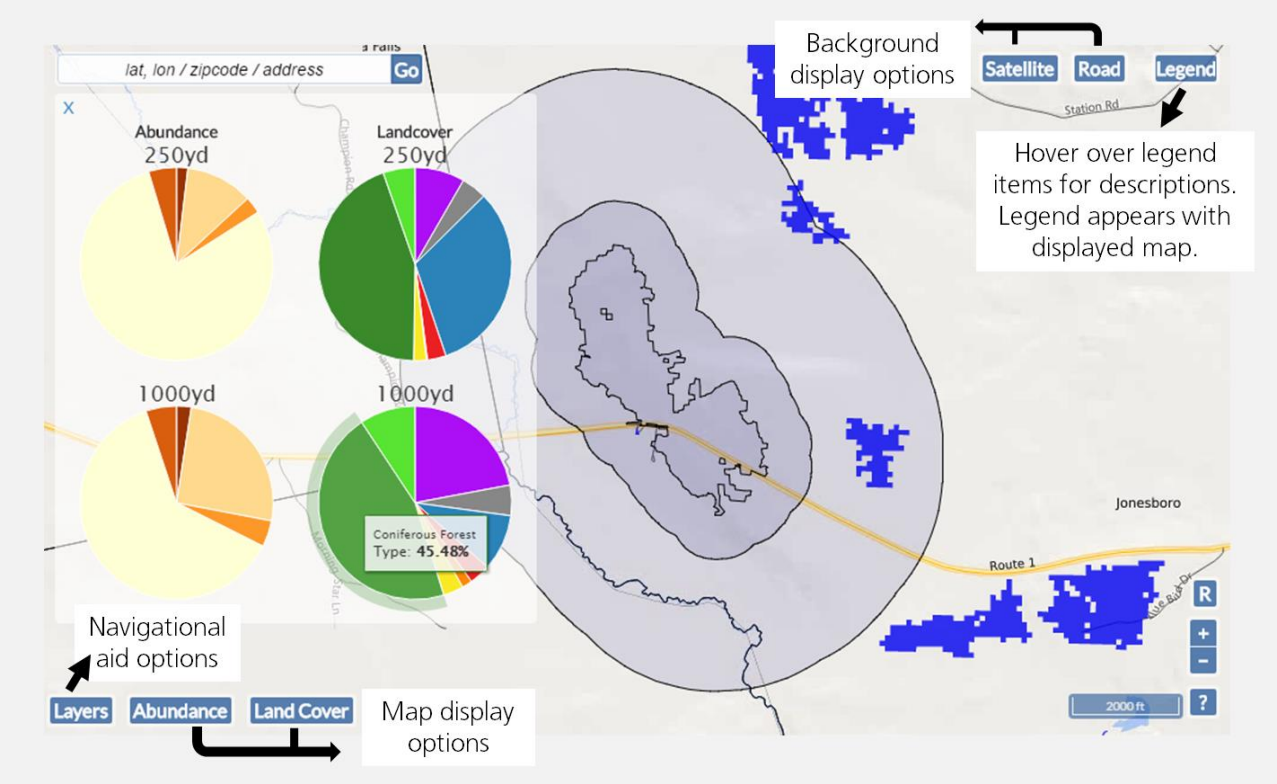
Using BeeMapper: Go to www.umaine.edu/beemapper.

Step 1: Find your blueberry field. To find your blueberry field, use the address locator in the top left corner, the navigation buttons in the bottom right corner, or use click-and-drag navigation, scrolling up or down to zoom in or out.

Step 2: Click on your blueberry field. Two shaded regions appear around the field, which represent the distance different sized wild bees can fly to access that blueberry field.

- The small circle encloses 250 yards from the edge of the blueberry field. Small wild bees can fly from within this area into your blueberry field for pollination.
- The large circle encloses 1000 yards from the edge of the blueberry field. Large wild bees, such as bumblebees, can fly from within this area into your blueberry field for pollination.

These regions are your wild bee source habitat. Wild bees that can contribute to crop pollination in your field have their nests and find forage before and after crop bloom here.



BeeMapper one-click pollinator habitat assessment

When you click on a field, a summary box with four pie charts appears in the top left corner. These pie charts summarize the land cover and predicted wild bee abundance maps for the small wild bee source habitat (250 yd) and large wild bee source habitat (1000 yd) surrounding a field. Hover over each wedge for a category label and percent total value.

Interpreting BeeMapper data:

BeeMapper demonstrates the connection between land cover type and wild bee habitat resources. The types of land surrounding wild blueberry fields play a very strong role in determining the wild bee community present. In particular, forest edges, emergent wetland, and urban areas provide high quality bee habitat, whereas coniferous and deciduous forest provide fewer habitat resources to wild bees. Working with the landscape surrounding your crop fields can affect your wild bee pollination resource.

Making pollination management decisions:

Areas with high wild bee abundance can provide up to 30% of fruit set to a nearby wild blueberry field. If these patches are found around your field, you might strategically place rented honey bee hives or purchased bumblebee quads away from these areas. You can concentrate managed pollinators in areas of your crop field that are not surrounded by high quality wild bee habitat. Additionally, conserving areas with high wild bee abundance ensures that wild bees will continue to pollinate your crop. If your crop field is surrounded by poor quality wild bee habitat with low predicted wild bee abundance, you may consider habitat enhancement to promote wild bee populations around your crop field.

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