Brandon Buzz

The BLSG Reports on the Larvicide Program

Mosquitoes generally lay eggs in shallow, standing water such as the edges of wetlands, flooded fields or floodplains, and even stagnant water in gutters, old tires, or flower pots. When the eggs hatch (which can range from several days to several years later, as conditions dictate) larvae appear. Four larval stages of development occur, after which adults emerge and fly. Adult females seek blood meals to nourish their eggs with protein, and that is when they become pests. About 45 species of mosquitoes inhabit Vermont and each has its own favored habits and habitats. Through the course of a season waves of different species will emerge, depending on conditions, making control all the more difficult.

The ideal situation is to control the life cycle in the larval stage. This involves applications of BTI to water (by plane, helicopter, or backpack sprayer) of an organic pesticide (*Bacillus thuringensis*, or Bt) that closely targets mosquito larvae with little to no environmental impact. The timing and location of applications are critical and when it works, it works very well and is quite safe. But it is complex. First, the applicator must learn where there are dense populations of larvae, and that involves broad field surveys over thousands of acres.

Over the last two weeks, the BLSG Field Technicians have surveyed by dipping water samples at seventy known locations. The results have shown high readings (over 10 larvae per cup). If greater funds were available, these locations might be treated over a substantial area (a thousand acres or more) with an aerial application of the larvicide. As funds are very limited this year, the BLSG technicians have treated manually by boat, Argo or on foot, the individual areas identified. For more information on larvae counts by location, go to the BLSG web site https://blsgmosquito.com/larvicide-program/. Larval control is complex, whether by manual or aerial treatment, and not always successful and that is where control of adults is needed.