



Aquatic Consulting Services

P.O. Box 530, Sanford, MI 48657
www.aquaticremedies.com

989-689-0223

December 15, 2022

Julius Suchy, Manager
Ada Township
7330 Thornapple River Dr, PO Box 370
Ada, MI 49301

Dear Mr. Suchy,

We have completed the spongy moth surveys, map, and report for the 2023 season in Ada Township, Kent County. I have included JPG and PDF map files of the results for you to review and to post on the township website as needed. Both JPG and PDF files are printable for your purposes although the .PDF file will likely be more user friendly on a website. I will provide your GIS personnel with .SHP files for use in a GIS mapping system. I have also included a short report on the conditions in each recommended spray block. An 18 x 24-inch map may be sent in a separate package for display purposes.

I am pleased to report that, during our survey, we found spongy moth populations in many of the previously infested areas were significantly reduced. In some areas, we found no new egg masses with many areas seeing >90% reduction. This result is certainly the goal of spongy moth suppression programs, but I do need to explain the factors I suspect may have been at play in this reduction. The application of *Bacillus thuringiensis kurstaki* (Btk) was definitely a driving force in the observed reduction, but complete eradication is usually not possible with Btk application alone. When we see this type of reduction, there are often interacting factors that combine to cause population collapse, especially latent environmental factors. There are three major environmental controls that limit spongy moth population buildups; a fungus called *E. maiamiga*, a spongy moth virus called NPV, and a class of egg parasitoid wasps. After several successive years of dry precipitation patterns in late spring, we experienced a relatively wet spring in 2022, particularly in early June. These are the ideal conditions to initiate a partial population collapse. This is the ultimate goal of spongy moth suppression programs, to limit defoliation and reduce nuisance until environmental controls kick-in and eliminate what remains. This good news comes with a caveat; this is not the time to let our guard down. We have seen nearly eradicated remnant spongy moth populations rebound to problem levels within 2 years. Accordingly, the recommended acreage for spray in spring 2023 is 654 acres. This is a 75% reduction from last year, which may be higher or lower than you anticipated, but I must assure you, only areas with potentially damaging egg mass densities were recommended. There are a few areas with less severe infestations that were not recommended but should definitely be monitored. A proactive approach toward monitoring can usually prevent this type of situation and is much more economical relative to several years of costly reactionary spraying. Overall, I anticipate good results for next season, but strongly encourage Ada Township to continue with some sort of monitoring program.

I will hold off on digitizing the spray blocks for the pilot's use until you have had a chance to review the maps. Once we get closer to spray time and you have selected an aerial applicator, I will provide the pilot with spray maps and digitized files.

Thank you for the opportunity to work for Ada Township this season. Please let me know if I can help you with anything further at this time. 989-689-0223 or spongymoth@aquaticremedies.com.

Sincerely,

Neal Swanson
Owner/Biologist