

2020 IMVCA District Report

Macon Mosquito Abatement District

The Macon Mosquito Abatement District (MMAD) is comprised of 101 square miles within central Macon County and serves the residents of the City of Decatur and portions of the surrounding townships of Blue Mound, Harristown, Hickory Point, Long Creek, Oakley, South Wheatland and Whitmore. MMAD is made up of both dense urban and sparse rural areas contributing to the variety of mosquito species captured and control methods utilized annually. In 2021, MMAD will enter its 60th year of service.

Mosquito prevention activities at MMAD are multifaceted, but primarily focus on larval control in permanent standing water sources and storm drains within the District. Over 850 known, permanent sources of standing water and those that form following rain events are monitored on a weekly basis for larval development. In addition, a concentrated effort in partnership with the City of Decatur to locate cryptic breeding habitats serves to reduce larval production. These cryptic sites when combined with permanent sources, accounted for nearly 8,000 inspections in 2020 and resulted in over 1,600 larval treatments. Over 11,000 catch basin treatments were made within the District.

While inspections and treatments account for the actionable efforts of our District, the true backbone to our work is surveillance. A network of 19 gravid traps placed throughout the District support the capture of Culex species mosquitos and detection of West Nile virus which guide our treatment decisions. The 2020 season was mostly average, producing 32,169 Culex mosquitoes. Virus detection was low, resulting in 4 WNV positive pools out of 367 and zero human cases reported. However, the most important surveillance measure of the 2020 season was the abundant capture of over 4,000 Aedes albopictus mosquitoes. This season a dedicated effort was made to create a robust network of BG Sentinel traps specifically designed to capture this invasive species that has been reported in our District since the early 2000's. Previously, this species was mostly thought to be abundant due to a local tire recycling facility that produced on its own over 1,500 Aedes albopictus in a handful of trap nights in 2019. Interestingly, this source was removed for the 2020 season, yet the population persisted. A total of 7 permanent sites were targeted using the BGS2 trap baited with CO₂. For a first year of surveillance these results were impressive, resulting in twice as many Ae. albopictus captured than the previous two years combined. Further, it's worth noting, that all 17 gravid trap locations captured Ae. albopictus as well. All Ae. albopictus will be sent to the Illinois Natural History Survey (INHS) for further analysis. We will strengthen this trap network by fine-tuning and adding trap locations for the 2021 season.

Jason Probus- Director

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