DECEMBER 2024

# **MOSQUITO SEASON SUMMARY**



Prepared for Beaver County by the Beaver County Vector Management Program

### Program Goals VECTOR MANAGEMENT

The purpose of Vector Management is the surveillance and control of biting arthropods like mosquitoes that can cause human illness within the Commonwealth. This is accomplished through Integrated Vector Management. Integrated Vector Management incorporates educating the public, arthropod surveillance, and preventative practices coupled with physical, biological, and chemical control applications. This report contains Beaver County's 2024 Season Summary for mosquito surveillance, testing, and control.

### **Mosquito Surveillance** SITE LOCATIONS AND TEST RESULTS

From April through October, sites within Beaver County were surveyed for adult and immature (larval and pupal) mosquitoes. Any adult mosquitoes captured were tested for specific mosquito-borne viruses. Sites were chosen in areas with standing water likely to be mosquito habitat, including artificial containers like tires, sewage treatment plants, and floodwater areas. Mosquito trapping was prioritized in areas with a higher human population or nearby public parks. Sites were located throughout Beaver County municipalities. Beaver County surveillance collected over 42,200 mosquitoes in gravid traps, over 2,500 in BG Sentinel traps, and over 1,600 larvae/pupae in samples.

In 2024, 4 different diseases were tested for in Beaver County mosquitoes: West Nile Virus, St. Louis Encephalitis, Jamestown Canyon Virus, and La Crosse Virus. All adult mosquito's tested for La Crosse Virus, Jamestown Canyon Virus, and St. Louis Encephalitis returned a negative result. We ended the season with 91 samples testing positive for West Nile Virus in mosquitoes within Beaver County. The county reported 0 human cases in 2024.



Figure 1. Two trap types that capture mosquitoes for surveillance and testing. Top: Gravid Bottom: BG Sentinel

# 2024 MOSQUITO SEASON SUMMARY



### **Mosquito Prevention and Control**

#### VECTOR PROGRAM EFFORTS

Mosquitoes breed in standing water. Immature mosquitoes, called larvae or pupae, need standing water to survive. When staff find mosquito larvae or pupae, our first step is to dump out or otherwise eliminate the water wherever possible. If the water cannot be eliminated, staff will treat the water with a mosquito control product to prevent larvae from turning into adult mosquitoes, breaking their life cycle. When these efforts are not sufficient to control nuisance or diseased adult mosquito numbers, adult mosquito control products are used. In 2024, Vector staff conducted 342 larval control events and 42 adult events. Of the adult events, 9 thermal fogs were conducted, 24 barrier treatments, and 9 ULV (Ultra Low Volume) truck sprays.

#### WHAT MUNICIPALITIES CAN DO

Municipalities can help reduce mosquitoes by eliminating any areas that hold standing water for extended periods of time. Avoid mowing while the ground is wet so that tire ruts and low spots that hold water are not formed. Once mowed, avoid placing clippings in catch basins and clean out existing debris so they can flow freely. Regularly dump water in unused equipment or store equipment under cover. Tires can be regularly recycled, stored under cover, and stacked in a threaded manner so water does not accumulate. Gutters on buildings can be cleaned so they do not hold water due to clogged downspouts. All these measures can help reduce mosquitoes in your municipality!

## **Mosquito Education**

#### COMPLAINTS AND PUBLIC EDUCATION

Citizens can contact Beaver County Conservation District Vector Management with mosquito complaints. Vector staff will survey the area and look for potential mosquito habitat nearby.

Staff provide education to citizens on how to reduce mosquitoes on their property. This includes dumping water from buckets, kiddie pools, flowerpots, bird baths and other containers. To further reach the public, our staff held 11 educational events at local events, school programs, and county fairs. We can all contribute to reducing mosquitoes and the diseases they carry!



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Figure 2. a) Mosquito larvae and pupae, b) standing water in an excavator, c) tires with standing water inside.