MOSQUITO ABATEMENT
ST. TAMMANY PARISH

August MONTHLY Report

2021

Letter From the Director

Director Kevin Caillouet, Ph.D., M.S.P.H.

Hurricanes have a way of marking time like a tattoo on the historical timeline. Sixteen years ago, it was Hurricane Katrina. On August 29, 2021, it was Hurricane Ida. Very little will be remembered in the 28 days of August 2021 prior to that day. The effects of Ida are well known to Louisianans living through these weeks after this event, but for the sake of this record I'll highlight a few. Ida made landfall as a strong Category 4 storm near Port Fourchon before proceeding north through Raceland, Des Allemands, Gramercy, and Walker to the west of St. Tammany Parish by about 30 miles. Winds exceeded 100 mph in much of western St. Tammany, widespread rainfall of >10 inches swelled rivers, and storm surge inundated coastal Lake Pontchartrain.

The Mosquito Abatement facility in Slidell suffered minor damage from wind driven rain, but was without power for five days. Most of the staff suffered similar minor damage though some still lack power and internet service. Given the minimal impact to personnel, equipment, and our office, we resumed limited operations in four days and full operations eight days after the event.

STPMAD biologists Sydney Johnson, Haley Marquette, and Richard Frazier, took the above pictures as they worked in the aftermath of Hurricane Ida.

As expected, due to direct mortality, mosquito abundances in traps set four days after the storm were much lower than normal. However, counts of floodwater mosquitoes and residents' complaints are significantly rising and will trigger multiple rounds of aerial insecticide treatments. Our teams are out in full force treating normal habitats like sewage-polluted roadside ditches and storm created habitats including root ball voids, unmaintained swimming pools, and water holding storm debris.

The threat of mosquito-transmitted pathogens was certainly real and known prior to Hurricane Ida. The Louisiana Department of Health reported a single human case of West Nile virus in St. Tammany Parish during the week prior to Ida. Four pools (groups) of mosquitoes collected in the month of August were found to be infected with West Nile virus (WNV) and one (out of 418 submitted) with Eastern equine encephalitis by the Louisiana Animal Disease Diagnostic Laboratory. After Hurricane Katrina areas directly affected by that storm suffered a disproportionate burden of WNV for up to one year. Short term changes in human exposure to vectors and long-term habitat changes likely accounted for these increases.

Though Hurricane Ida will be a tattoo that we all regret, we will not likely forget this one. Our team is working to ensure that arboviruses do not mark another disaster after this hurricane. Please do your part to protect yourself and your family by limiting your exposure to mosquitoes and helping us to eliminate the sources of their production.

Yours in health,

Kevin A. Caillouet, Ph.D., M.S.P.H.
Director

Cover photo taken by Field Biologist Haley Marquette of root ball void she treated in Madisonville.

AUGUST MOSQUITO CONTROL STATS

157,672 acres treated by ground

70,937 acres treated by airplane

15,360 acres treated (adulticide) by helicopter

1,346 miles of ditch treated with larvicide

74 property inspections completed

August Arbovirus Report

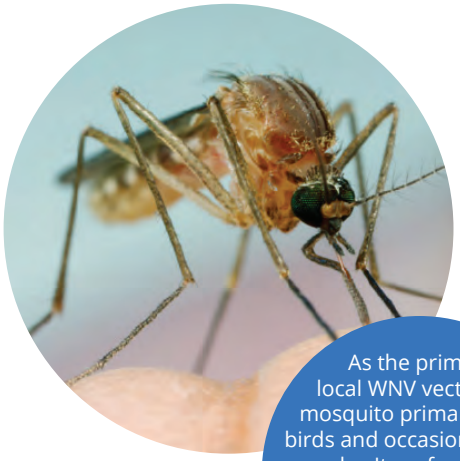
Four of the 418 pools of mosquitoes, tested from specimens collected in August, were positive for West Nile virus (WNV). There was one positive pool of Eastern equine encephalitis Virus (EEE) in *Culex salinarius* mosquitoes early in the month. Adult mosquitoes are collected using No Light CO_2-baited CDC traps and tested in pools (or groups) via RT-PCR, by the Louisiana Arbovirus Disease Diagnostic Laboratory (LADDL) in Baton Rouge. The presence of WNV and EEE pose an increased risk to the residents of St. Tammany Parish.

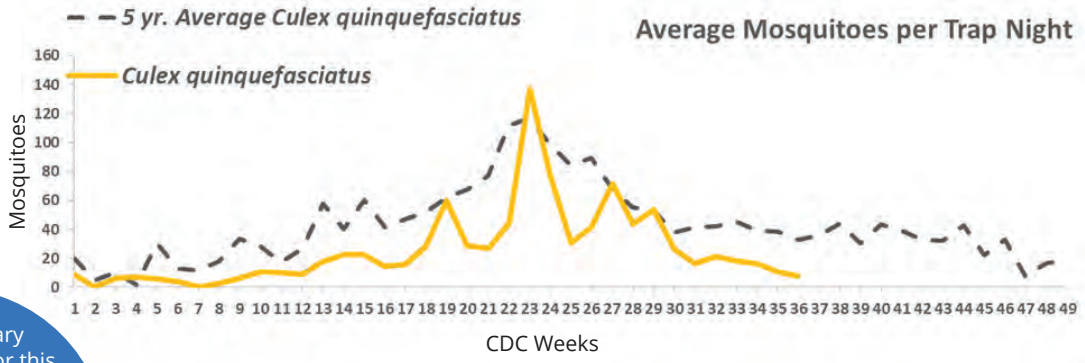
A total 9,728 mosquitoes were collected and tested for WNV in August across St. Tammany Parish. *Culex quinquefasciatus*, our primary WNV vector, accounted for 32.0 % of mosquitoes submitted for virus testing. Populations of *Culex salinarius*, a secondary WNV vector, consisted of 28.4 % of the mosquitoes collected and tested for WNV.

The Louisiana Department of Health has reported one WNV human case found from a blood donation, but no human cases of West Nile neuro-invasive disease this year-to-date in St. Tammany.

How Bad are the Mosquitoes?

Culex quinquefasciatus





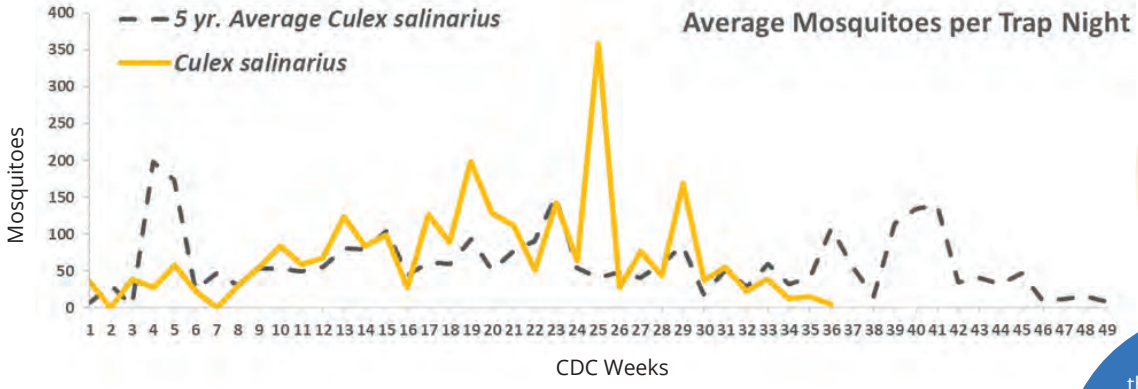
Common name:
The southern house mosquito

As the primary local WNV vector this mosquito primarily bites birds and occasionally bites people. It prefers to lay its eggs in sewage-associated water. As it readily enters structures, it is named the "house" mosquito.

3,424
Cx. quinquefasciatus trapped in August

19,848
total mosquitoes trapped in August

Culex salinarius



A serious pest that is produced in fresh to brackish marshes. It frequently bites large mammals (including people) and birds. Considered an important secondary WNV vector.

Common name:
The brackish marsh mosquito

24
# of different species found in August

4,459
Cx. salinarius trapped in August

Top five species trapped in August