

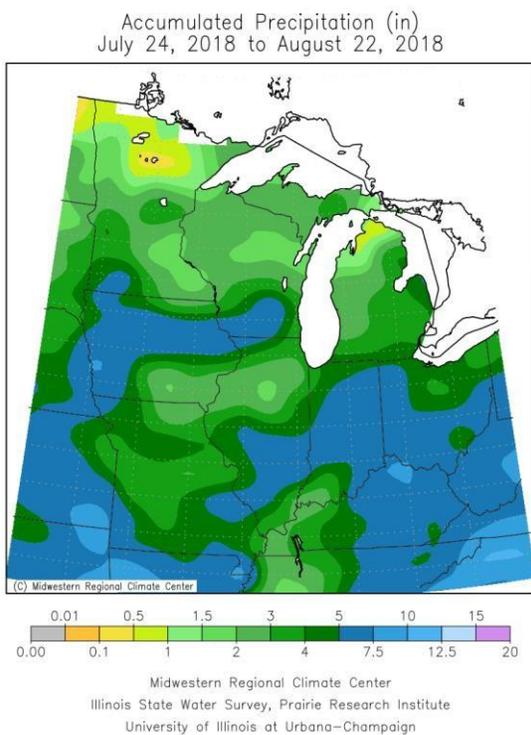


Lisle Township August 2018 Status Report

SEASON PERSPECTIVE

Introduction. Weather conditions critically affect the seasonal mosquito population. Excessive rainfall periods trigger hatches of floodwater mosquitoes (*Aedes vexans*), the dominant annoyance species in northern Illinois that has a flight range of 15 to 20 miles. The other target species is the northern house mosquito (*Culex pipiens*), the primary vector of West Nile virus (WNV) that flourishes under stagnant water and drought conditions.

The floodwater mosquito population peaked in early July as a result of record rainfall in May and June. The excessive July heat and dry spell depleted soil moisture and curtailed the impact of subsequent floodwater mosquito brood hatches. The following Midwest Regional Climatic Center map shows the more recent rainfall pattern between July 24th and August 22nd:



Most of northern Illinois received 2.0 to 4.0 inches of rain that hatched several floodwater broods by Labor Day weekend. In addition, late August, Labor Day weekend, and early September heavy rains will trigger late season floodwater broods. The National Weather Service predicts above normal temperatures for September. These rainfalls will fill manmade container habitats, such as, bird baths, roof gutter, stagnant swimming pools, buckets, old tires, to sustain residential *Culex* larval development.



While the floodwater mosquito population declined in August, the northern house mosquito (*Culex pipiens*) surged in the dry and hot conditions increasing the WNV potential. As of August 23rd, the State of Illinois reported 6 human cases in Cook, DuPage, Macoupin, Tazewell and Will Counties. Gravid trapping results indicated an alarming percentage of West Nile positive (WNV+) mosquitoes during the week of August 20th. The North Shore Mosquito Abatement District reported 78.6% (81/103) positive results of *Culex* batches tested, and Clarke reported 50.3% (84/167) positive. Therefore, more Chicagoland human cases are expected because of the high mosquito infection rate, as shown by the sudden increase of statewide cases jumping from 6 to 22 during the week of August 27th. The case count increased to 34 on September 5th.

Strategy and Recommendations. There is a high prevalence of WNV+ *Culex* across the Chicagoland that continues to increase the risk of human infection. Accordingly, Clarke operations will continue to focus on *Culex* mosquito larval development, including the booster treatment of street catch basins, a primary habitat for this species. Following Centers for Disease Control & Prevention (CDC) guidelines: “*Adult mosquito control is also intended to reduce the abundance of biting, infected adult mosquitoes in order to prevent them from transmitting WNV to humans and to break the mosquito-bird transmission cycle.*” Therefore, through September, cyclic truck ultra-low volume (ULV) adulticide applications will be recommended to suppress the adult mosquito population and protect the public health from WNV.

The Clarke Mosquito Hotline (800-942-2555) is available to citizens to report standing water and excessive biting annoyance situations.

Floodwater Mosquito Brood Prediction

The floodwater mosquito (*Aedes vexans*) is the key nuisance species in the Chicagoland area. Distinct hatches of floodwater mosquito populations, or broods, are triggered by significant rainfall events. The Clarke Brood Prediction Model calculates peak annoyance periods based on rainfall and temperature data collected from a weather station in your area.

Weather Station Name	Rainfall Date	Rain Amount	Brood Prediction Date
Du Page Co.	07/20/2018	0.70	08/08/2018
Du Page Co.	08/07/2018	1.37	08/23/2018
Du Page Co.	08/15/2018	0.66	08/31/2018
Du Page Co.	08/16/2018	0.52	08/31/2018
Du Page Co.	08/28/2018	1.25	09/11/2018



The following chart summarizes 2018 year-to-date surveillance data for northern Illinois counties in the State of Illinois, as of September 7th:

County	American Crow	Blue Jay	Other Birds	Mosquito Batches	Horse
COOK	0	0	4	1,938	0
DEKALB	2	0	0	19	0
DUPAGE	0	0	0	156	0
KANE	0	0	0	39	0
LAKE	1	0	1	68	0
MCHENRY	0	0	1	15	0
WILL	0	0	0	89	0
WINNEBAGO	1	0	0	22	0
TOTAL	14	1	9	2,714	2

Zika virus (ZIKV)

Background. In 2016, the continental United States endured a major ZIKV outbreak with more than 5,100 travel-related nationwide and 139 locally transmitted cases in areas of south Florida. In 2017, the ZIKV human case count was dramatically diminished in the continental United States with the CDC reporting 407 cases with the following breakdown: □ 398 – travelers returning from affected areas

- 4 – through presumed local transmission in Florida and Texas
- 5 – through sexual transmission

Provisional ZIKV Data as of September 5, 2018.

<https://www.cdc.gov/zika/reporting/2018-case-counts.html>

Zika Case Origin	Human Case Count	
	USA	US Territories
Travelers from affected areas	41	0
Presumed local transmission	0	82
Acquired via sexual transmission	0	0
YTD TOTAL	41	82

