



# Plainfield Township

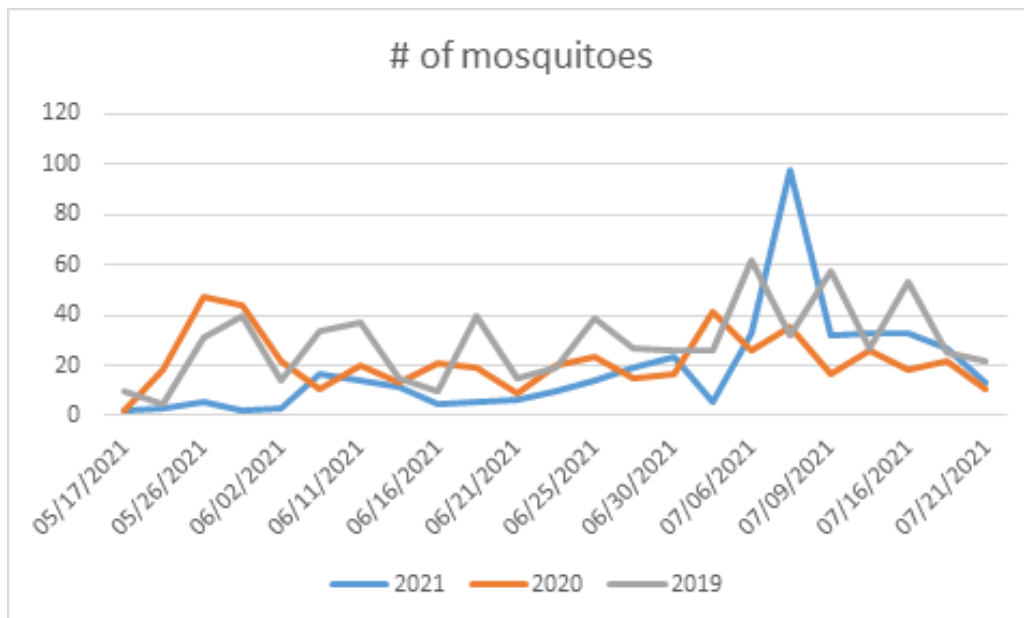
## July 2021 - Status Report

### 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.

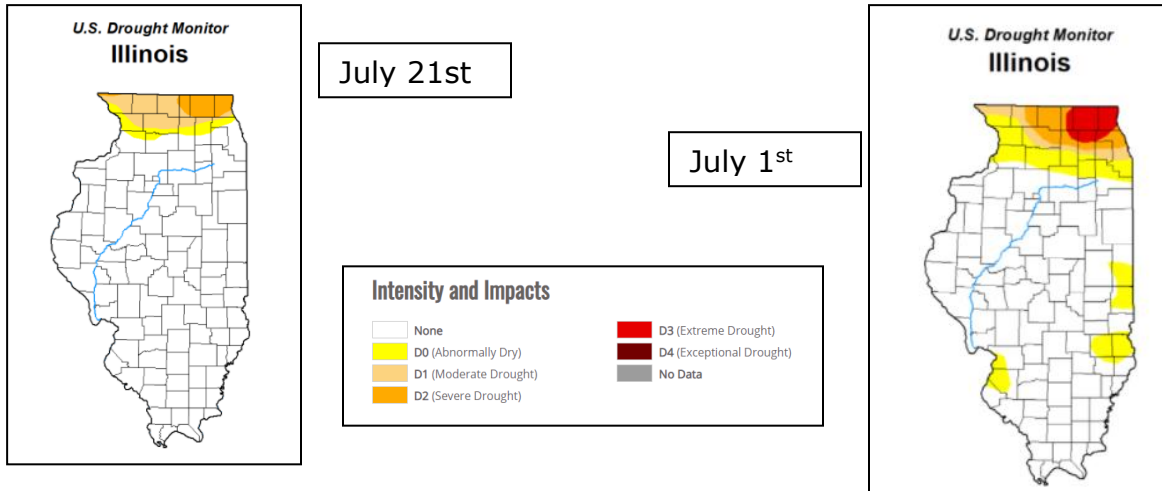
### Floodwater Mosquitoes spike in July and WNV activity is increasing in August!

Since the start of the 2021 mosquito season, rainfalls have hatched a total of 7 floodwater mosquito broods at O'Hare, and 10 at DuPage County Airport. Because of the early season extreme drought conditions, the series of back-to-back broods began hitting the area in late June. During July, 547 citizen reports were received on the Clarke Mosquito Hotline & Portal, confirming the dramatic increase in mosquito annoyance conditions across the area. The following chart compares 2021 year-to-date mosquito population levels to 2019 and 2020 from our network of 100 New Jersey light traps. **July 2021 shows the highest peak of mosquito activity in the past three years.**





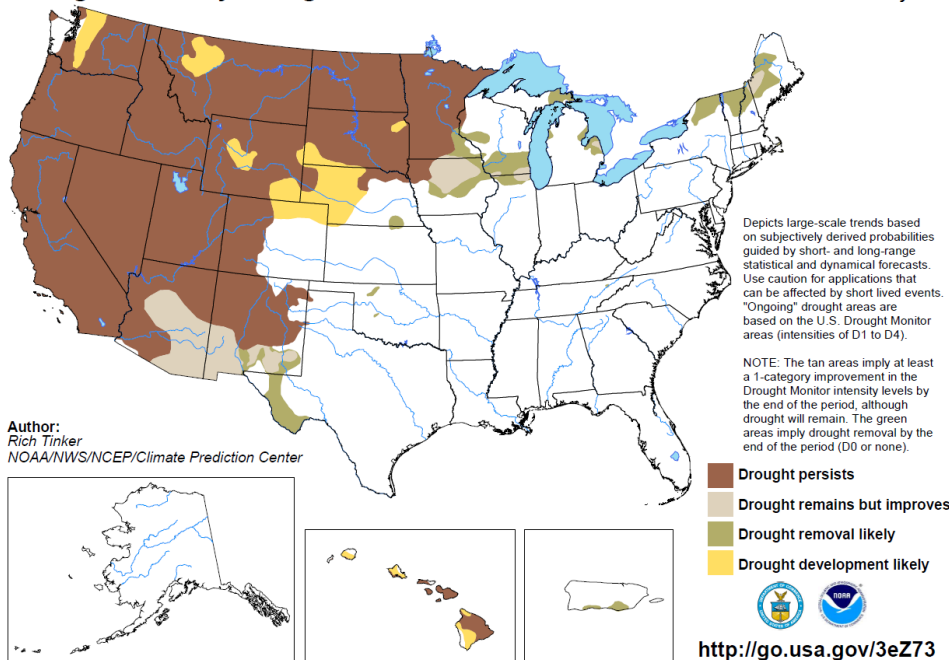
Over 7 inches of rain was received at O'Hare in late June and July. As shown by the following maps, drought conditions have improved in Northeastern Illinois since July 1<sup>st</sup>:



As shown by the following map, the National Weather Service & Climatic Prediction Center expect near-normal moisture levels in Illinois for the balance of the mosquito season:

**U.S. Seasonal Drought Outlook**  
Drought Tendency During the Valid Period

Valid for July 15 - October 31, 2021  
Released July 15



**Operations Plan.** Late July floodwater mosquito hatches will likely result in early August annoyance conditions. Accordingly, Clarke operations will focus on floodwater, as well as, permanent water larval development habitats for the control of *Culex* species. Truck ULV adulticide applications will be recommended to protect the public health, as warranted by



**surveillance data, especially as WNV+ mosquitoes are detected.** Community-wide spraying will be warranted in August for mosquito annoyance conditions and the increasing risk of WNV transmission.

**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 for July and August calculates peak annoyance periods based on rainfall and temperature data collected from weather stations in your area.

Weather Station Name	Rain Date	Rain Amount	Brood Prediction Date
Will Co.	06/12/2021	0.63	06/29/2021
Will Co.	06/20/2021	0.93	07/08/2021
Will Co.	06/24/2021	1.17	07/09/2021
Will Co.	06/25/2021	1.51	07/10/2021
Will Co.	06/26/2021	1.29	07/11/2021
Will Co.	06/28/2021	0.72	07/16/2021
Will Co.	06/29/2021	0.74	07/17/2021
Will Co.	07/27/2021	1.30	08/10/2021

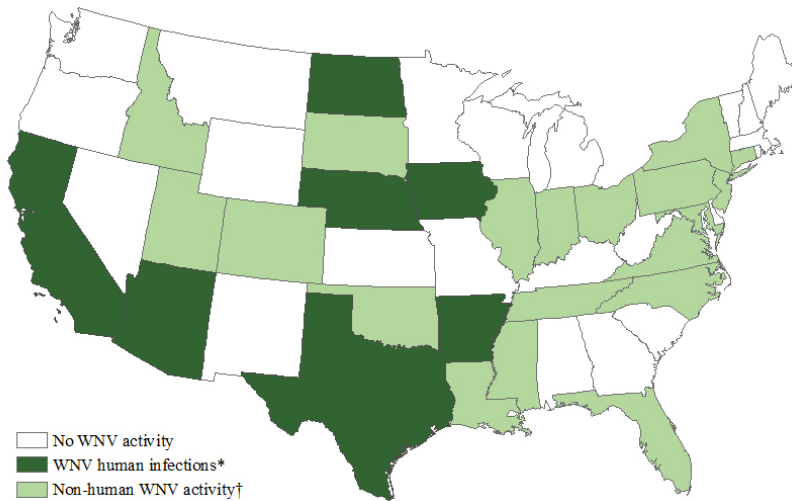
**MOSQUITO-BORNE DISEASE UPDATE**

**West Nile Virus (WNV)**

**2021 – USA.** As of July 27, 2021, a total of 21 cases of West Nile virus disease in people have been reported to CDC. Of these, 14 (67%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 7 (33%) were classified as non-neuroinvasive disease. The following map shows WNV activity by state, as of July 13, 2021:



West Nile Virus Activity by State – United States, 2021 (as of July 27, 2021)



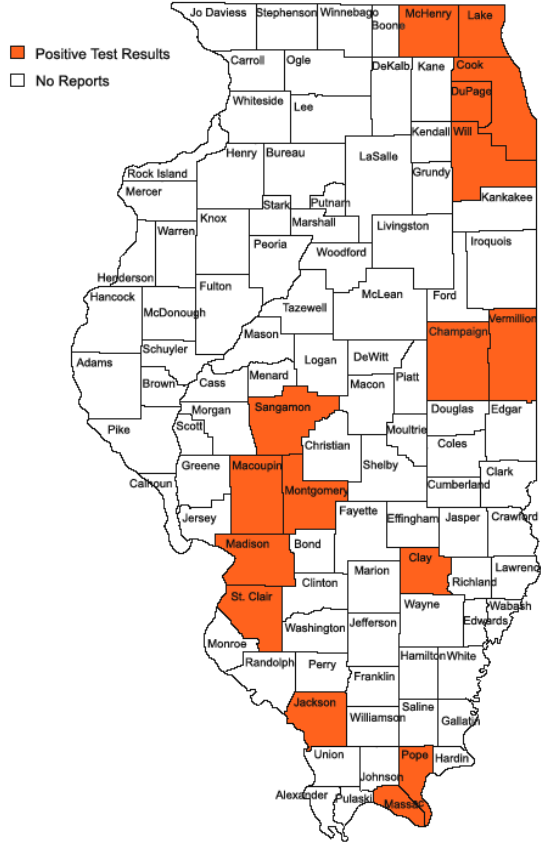
**2021 – Illinois.** Late July and early August WNV activity is increasing in Illinois. For example, on July 27<sup>th</sup>, DesPlaines Valley MAD reported 80% of mosquito samples in the Village of Berkeley tested positive for WNV. The following chart summarizes IDPH WNV 2021 surveillance data, as compared to historical data from 2020 and 2012, the last year of a state-wide outbreak:

West Nile Virus Activity Comparison and Summary (as of July 21, 2021)

	Number Collected in all Counties	# WNV Positives	% WNV Positives
<b>2021 Data as of July 21</b>			
2021 Mosquito Surveillance Samples	6,873	68	1.0%
2021 Bird Surveillance Samples	51	0	0%
2021 WNV Positive Counties	9		
2021 Human Cases as of July 21	0		
<b>2020 Historical Data as of July 21 for Comparison</b>			
2020 Mosquito Surveillance Samples	7,785	64	0.8%
2020 Bird Surveillance Samples	71	4	5.6%
2020 WNV Positive Counties	8		
2020 Total Human Cases	39		
<b>2012 Historical Data as of July 21 for Comparison</b>			
2012 Mosquito Surveillance Samples	7,341	976	13.3%
2012 Bird Surveillance Samples	350	27	7.7%
2012 WNV Positive Counties	29		
2012 Total Human Cases	290		



The following map shows the Illinois counties that have had WNV-positive activity in 2021:



### Reported Animal/Insect Positives

Municipality	Date Collected	Animal/Insect
BLOOMINGDALE	07/22/2021	MOSQUITO
CLARENDON HILLS	06/30/2021	MOSQUITO
ITASCA	07/20/2021	MOSQUITO
KEENEYVILLE	07/27/2021	MOSQUITO
LEMONT	07/01/2021	MOSQUITO
NAPERVILLE	07/22/2021	MOSQUITO
WOOD DALE	07/22/2021	MOSQUITO
WOOD DALE	07/22/2021	MOSQUITO
WOOD DALE	07/22/2021	MOSQUITO
WOODRIDGE	07/28/2021	MOSQUITO



**New Jersey Light Trap Counts**

(\*Red numbers indicate an annoyance level)

Trap Location	Jul 02	Jul 06	Jul 07	Jul 09	Jul 12	Jul 14	Jul 16	Jul 19	Jul 21	Jul 23	Jul 26	Jul 28	Jul 30
24711 Easy St	7	55	77	63	28	56	53	55	43	64	47	44	17

**OPERATIONS UPDATE**

**Services Performed July 2021:**

Service Item	Start Date
ROS2009 - Natular XRT CB Bike	07/16/2021
ROS2888 - Biomist 3+15 Truck ULV	07/27/2021

**August 2021 Operations**

Work Type	Service Kit
Targeted Site Larval Insp Serv	ROS1302 - Targeted Site Larval Insp Serv
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