



Lisle Township September 2015 – Status Report

Season Perspective

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 drought conditions.

The summer of 2015 was the sixth coolest on record. However, the pattern dramatically changed in late August through most of September with temperatures much above normal. The month averaged just shy of 70 degrees, more than 4 degrees above normal. Most of the Chicagoland area was impacted by three or four major floodwater mosquito annoyance periods during September from rainfall events between August 28th and September 10th. The above normal temperature pattern, including three days in the 90°s and fifteen days at 80° or above, created ideal conditions for the mosquitoes to be a significant factor.

A cold front moved through the area on September 29th to dramatically change the weather pattern and diminish the presence of the late season mosquito population. Adult mosquito activity will cease after the first major frost that typically occurs by October 9th in northern Illinois.

Mosquito-Borne Disease Update

As of September 29, 2015, a total of 48 states and the District of Columbia have reported West Nile virus infections in people, birds, or mosquitoes in 2015. Overall, 1,028 cases of West Nile virus disease in people have been reported to CDC, including 54 fatalities. Of these, 638 (62%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 390 (38%) were classified as non-neuroinvasive disease.

The following CDC map shows current WNV activity in the United States:





On May 29th, the Illinois Department of Public Health (IDPH) reported the first WNV-positive adult mosquito sample in downstate St. Clair County, across from St. Louis. As of September 28th, IDPH has reported WNV activity in 60 counties, 1,609 positive adult mosquito samples and 50 positive birds. In the Chicago are, there was a surge of positive mosquitoes in late July, August and early September, the historical and key WNV transmission period. As of September 28th, IDPH has reported 30 human cases including 4 fatalities.

Recommendations

The CDC currently shows a risk category 2, as defined by the following parameters and recommendations:

- Sustained transmission activity in mosquitoes or birds.
- Human case or viremic blood donor reported.
- Intensify and expand adult mosquito control in areas using ground and/or aerial applications where surveillance indicates human risk.
- Intensify visible activities in community to increase attention to WNV transmission risk and personal protection measures.
- Work with collaborators to address high risk populations.
- Intensify and expand surveillance for human cases.

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 weather stations in your area.

Weather Station Name	Rainfall Date	Rain Amount (inches)	Brood Prediction Date
Du Page Co.	08/18/2015	0.55	09/05/2015
Du Page Co.	08/28/2015	0.59	09/17/2015
Du Page Co.	08/29/2015	0.66	09/18/2015
Du Page Co.	09/08/2015	0.87	10/01/2015
Du Page Co.	09/10/2015	0.66	10/01/2015
Du Page Co.	09/17/2015	1.19	10/01/2015
Du Page Co.	09/18/2015	1.17	10/02/2015

Upcoming Operations – October

All operations completed for the season



Operation and Surveillance Reports

Below is a report outlining all services performed in the last month. These services could include the following:

- **0952 N. J. Light Trap Seasonal Service:** *Seasonal Light Trap Service for adult mosquito population monitoring.*
- **1252 Complete Site Larval Inspection Service:** *Inspection service of all potential mosquito larvae development sites.*
- **1302 Targeted Site Larval Inspection:** *Inspection of all targeted larval development sites.*
- **1352 Larval Site Service Call:** *Special inspection of standing water for mosquito breeding per hot line request.*
- **1502 Ground Prehatch:** *Ground prehatch for control of mosquito larvae.*
- **1752 Backpack Larviciding:** *Backpack larviciding for biological control of mosquito larvae sites.*
- **1754 Hand Larviciding:** *Hand equipment larviciding for biological control of mosquito larvae.*
- **2006 Natular T30 CB Bike:** *Catch Basin treatment for larval control*
- **2019 Altosid XR CB Bike – 150 day:** *Catch Basin treatment for larval control.*
- **2202 Helicopter Prehatch Appl:** *Helicopter prehatch application for larval control.*
- **2786 Anvil ULV Festival Touch Up:** *Truck ULV “touch-up” application for community festival mosquito control.*
- **2922 0.5% FLIT (Permethrin) BP Barr:** *Backpack barrier strip application to reduce adult mosquito reinfestation.*
- **2888 Biomist 3+15 Truck ULV:** *ULV application insecticide for adult mosquito control.*

Services Performed September 2015:

Service Item	Start Date
ROS2015 - Vectolex WSP Catch Basin Trtmt	09/02/2015
ROS1302 - Targeted Site Larval Insp Serv	09/02/2015
ROS1302 - Targeted Site Larval Insp Serv	09/16/2015