

Dragon Mosquito Control, Inc. **RECEIVED**

Monthly Update

June 2021

JUL 14 2021

SELECTMEN'S OFFICE
TOWN OF SANDOWN NH

One year ago, we were experiencing a moderate drought. Today, we're currently in better shape. Lawns are green, gardens are growing and backyard containers are full of water, which is perfect for mosquitoes. Continue to dump out standing water in your yard to reduce mosquito numbers and the risk of mosquito-borne illnesses.

In June, Dragon crews have:

- Monitored catch basins for larval mosquito activity
- Treated catch basins with an organic insecticide to control disease carrying mosquitoes
- Checked freshwater wetlands for mosquito larvae and treat when needed with Bti
- Prepared for the upcoming trapping of adult mosquitoes for disease testing
- Trapped, processed and identified adult mosquitoes

During a heat wave, many jobs become more difficult. Municipal mosquito control is one of them. Dragon crews survived the hottest heat wave on record while treating mosquito larvae on the salt marshes. It's punishing to carry a 50 pound backpack while wearing protective gear when it's 95+ degrees. Heat speeds mosquito development while it slows us down making our work even more challenging.

Many catch basins retain water and produce abundant mosquitoes making them a focus during the summer months. Catch basin mosquitoes have tested positive for West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE) through the years in NH. Catch basins are treated with an organic insecticide that kills the larvae.

Trapping of adult mosquitoes for disease testing is underway. Traps are set weekly in numerous locations throughout your community. Trap catches are collected, and sorted, specimens are identified and select species are sent to the State Lab in Concord where they are tested for disease. As well as submitting mosquitoes for disease testing, data collected from trapping is an essential part of Dragon's integrated mosquito management program and guides our treatment decisions.

The NH Department of Health and Human Services announced that mosquitoes collected in Bow, Dumbarton and Canterbury have tested positive for Jamestown Canyon Virus (JCV). There have been over a dozen human cases of JCV in NH since 2013. This is the first time mosquitoes are being tested for JCV. The pilot program intends to estimate the prevalence of JCV in mosquitoes throughout Central New Hampshire. Testing mosquitoes for Eastern Equine Encephalitis and West Nile Virus begins in July. The State will issue a press release when EEE and WNV are first detected in mosquitoes. Arboviral disease test results and the arboviral risk map can be found at <https://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>.

New Hampshire Arbovirus Surveillance Bulletin #1

JUL 14 2021

ROUTINE TEST RESULTS

MMWR Week 25 June 20, 2021 – June 26, 2021

SELECTMEN'S OFFICE
TOWN OF SANDOWN NH

| HUMANS | | Number Tested | WNV Positive [¥] | EEEV Positive [¥] | JCV Positive [¥] | POW Positive [¥] |
|--------------|------|---------------|---------------------------|----------------------------|---------------------------|---------------------------|
| CURRENT YEAR | Week | 1 | 0 | 0 | 0 | 0 |
| | YTD | 6 | 0 | 0 | 0 | 0 |
| Prior Years | 2020 | 33 | 0 | 0 | 5 | 0 |
| | 2019 | 35 | 0 | 0 | 3 | 2 |
| | 2018 | 30 | 0 | 0 | 1 [€] | 0 |
| | 2017 | 31 | 1 [£] | 0 | 4 | 1 |
| | 2016 | 31 | 0 | 0 | 0 | 1 |

[¥] Confirmatory testing completed by the Centers for Disease Control and Prevention (CDC). There is a delay between testing and result confirmation.

[£] Testing performed by commercial laboratory

[€] Infection likely acquired out of state.

| ANIMALS | | Number Tested | WNV Positive | EEEV Positive |
|--------------|------|---------------|--------------|---------------|
| CURRENT YEAR | Week | 0 | 0 | 0 |
| | YTD | 1 | 0 | 0 |
| Prior Years | 2020 | 7 | 0 | 0 |
| | 2019 | 19 | 1 | 2 |
| | 2018 | 13 | 4 | 0 |
| | 2017 | 7 | 0 | 0 |
| | 2016 | 10 | 0 | 0 |

| MOSQUITO BATCHES* | | Number Tested | WNV Positive | EEEV Positive |
|-------------------|-------------------|---------------|--------------|---------------|
| CURRENT YEAR | Week [‡] | 0 | 0 | 0 |
| | YTD | 0 | 0 | 0 |
| Prior Years | 2020 | 1988 | 2 | 0 |
| | 2019 | 5610 | 1 | 16 |
| | 2018 | 4945 | 32 | 6 |
| | 2017 | 4176 | 9 | 0 |
| | 2016 | 1773 | 1 | 0 |

* A mosquito batch is a collection of mosquitoes sorted by species, date of collection, and trap location.

[‡] This week, mosquitoes were submitted from no counties for routine surveillance.

JAMESTOWN CANYON VIRUS MOSQUITO TEST RESULTS
MMWR Week 25 June 20, 2021 – June 26, 2021

| MOSQUITO BATCHES* | | Number Tested | JCV Positive |
|-------------------|--------|---------------|--------------|
| CURRENT YEAR | Week † | 77 | 2 |
| | YTD | 208 | 3 |

Note: Testing for WNV and EEEV will not begin until July 1, 2021 as part of routine surveillance. For the 2021 arboviral surveillance season, collections of mosquitoes for JCV surveillance began May 12, 2021. These mosquito collections are separate from those collected for our routine WNV and EEEV. Mosquito testing for JCV will occur as the New Hampshire Public Health Laboratories staff have the availability to complete testing as it is not part of our routine surveillance program. JCV mosquito data will be reported out as it is available through this bulletin. JCV surveillance in 2021 is part of a pilot project in collaboration with Cornell University, Northeast Regional Center of Excellence in Vectorborne Diseases (NEVBD), and the New Hampshire Division of Forests and Lands. We are grateful for their support. Additional information about this project can be found here: <https://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>.

TEST RESULT SUMMARIES
2021 YEAR TO DATE

MOSQUITO BATCHES

This year, only mosquito batches containing >1 individual were accepted for testing.

| Town or City | Date Collected | Species | Virus Result |
|--------------|----------------|-------------------------|------------------------|
| Bow | 06/08/2021 | <i>Aedes excrucians</i> | Jamestown Canyon Virus |
| Canterbury | 06/11/2021 | <i>Aedes aberratus</i> | Jamestown Canyon Virus |
| Dunbarton | 06/17/2021 | <i>Aedes sticticus</i> | Jamestown Canyon Virus |

ANIMALS

There have been no animal cases of EEEV or WNV identified in New Hampshire in 2021 to date.

HUMANS

There have been no human cases of EEEV, WNV, JCV, or POW identified in New Hampshire in 2021 to date.

Data notes:

1. Data provided are those for which final results are available. Data are current as of 6/30/2021.
2. Test results include only those specimens tested with results finalized during the week being reported on. Pending results from the previous week are not included.
3. Prior years' data is cumulative.
4. YTD = All specimens submitted beginning 01/01/2021 through the week being reported on.
5. WNV = West Nile virus. EEEV = Eastern Equine Encephalitis Virus. JCV = Jamestown Canyon Virus. POW = Powassan Virus

Use the following link to view the locations of positive test results and regional risk maps:

<http://www.dhhs.nh.gov/dphs/cdcs/arboviral/results.htm>