

**NYSDOH STATEWIDE MOSQUITO-BORNE DISEASE
ACTIVITY REPORT
August 02, 2023**

The New York State Department of Health (NYSDOH) collects, compiles, and analyzes information on mosquito-borne disease activity in New York State (NYS) and produces this annual report at the end of the year. Data in this report reflects testing performed by both NYSDOH's Wadsworth Center Laboratories (WC) and the New York City Department of Health and Mental Hygiene's (NYCDOHMH) Public Health Laboratory (PHL).

***Year to Date Summary
(01/01/2021 - 12/31/2021)***

- West Nile Virus (WNV):
 - 1472 WNV-positive pools¹ have been identified in NYS².
 - 43 human cases of WNV infection have been reported.
 - 5 equine cases of WNV infection have been reported.
 - 1 presumptive viremic donor³ has been reported to CDC.
- Eastern Equine Encephalitis Virus (EEEV):
 - 35 EEEV-positive mosquito pools have been identified.
 - 0 human cases of EEEV infection have been reported.
 - 5 equine cases of EEEV infection have been reported.
 - 0 caprine cases of EEEV infection have reported.
 - 0 ratite cases of EEEV infection have reported.
- Zika Virus (ZIKV):
 - *Aedes albopictus* has been identified in 4 counties outside of NYC. *Aedes aegypti* has not been identified anywhere in the state.
 - 0 mosquito pools have been positive for Zika virus.
 - 0 human cases of ZIKV infection have been reported to NYSDOH. No cases of local mosquito-borne transmission⁴ (LMBT) have been identified.
- Chikungunya Virus (CHIKV), Dengue Virus (DENV), and Malaria⁵:
 - 1 human case of CHIKV infection has been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 9 human cases of DENV infection have been reported to NYSDOH. 0 cases of LMBT have identified.
 - 47 human cases of malaria infection have been reported to NYSDOH. 0 cases of LMBT have identified.

¹ Mosquito specimens collected by county surveillance staff are grouped into one or more "pools" of specimens according to their collection location, collection date, and species. A positive pool refers to a mosquito pool in which at least one specimen was positive for a given pathogen.

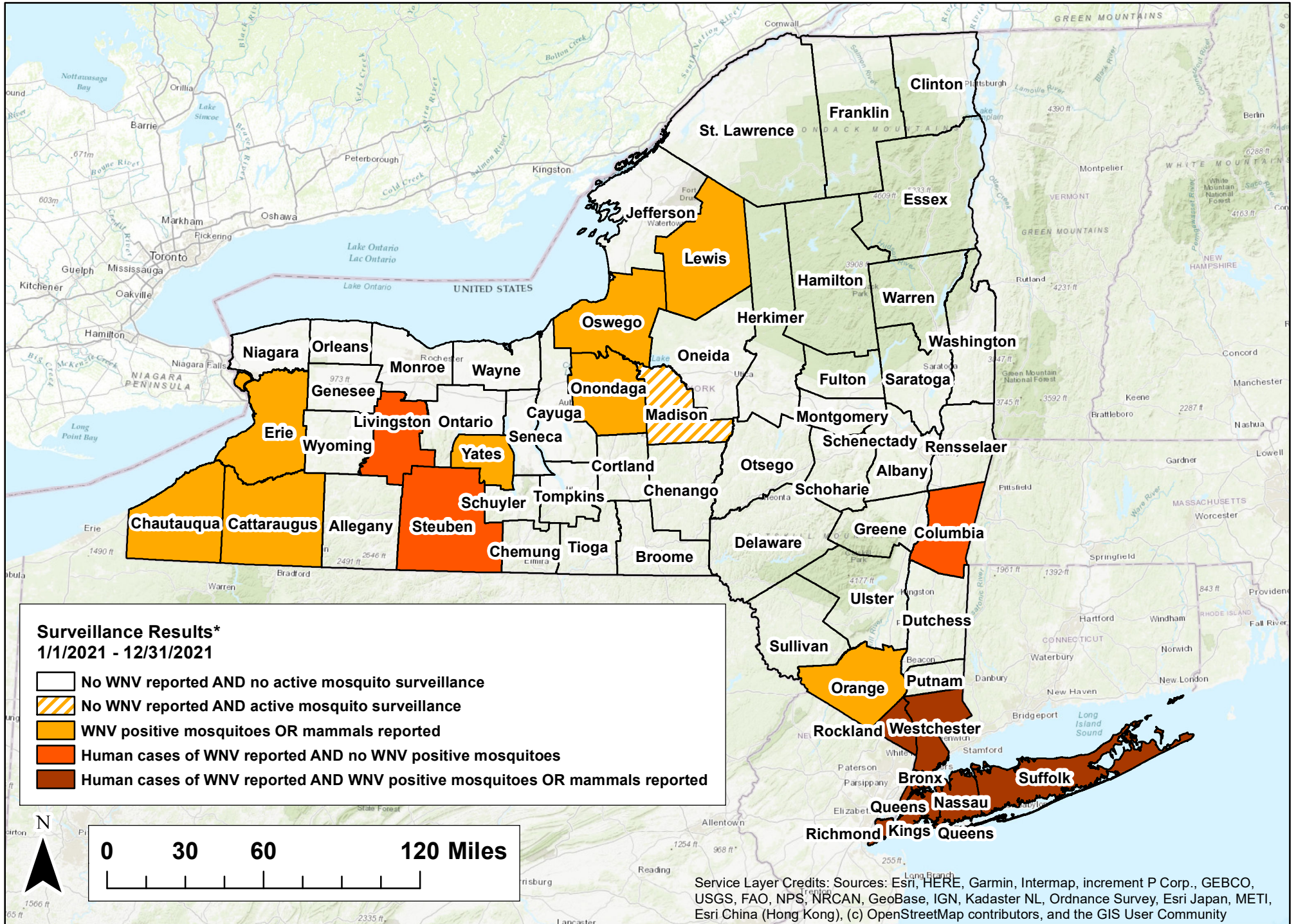
² Data pertaining to New York City municipalities in this report are derived from the NYC Department of Mental Health and Hygiene (NYCDOHMH) website (<https://www.nyc.gov/site/doh/health/health-topics/west-nile-virus.page>) and only reflect WNV+ mosquito pools. NYCDOHMH does not report the total number of pools collected or tested. Consequently, some fields relating to NYC cannot be calculated and have been omitted from this report.

³ Presumptive viremic donors (PVDs) are people who had no symptoms at the time of donating blood (people with symptoms are deferred from donating) through a blood collection agency, but whose blood tested positive in preliminary tests when screened West Nile virus. Some PVDs develop symptoms after donation, at which point they would be included in the count of human cases by their state.

⁴ Local mosquito-borne transmission is defined by the absence of the following epidemiological risk factors: recent travel to a country or region with known active ZIKV transmission OR sexual contact with a recent traveler from these areas; recent blood transfusion; recent laboratory exposure to ZIKV; or mother-to-child transmission during pregnancy. NYCDOHMH directly reports human cases of ZIKV infection to CDC.

⁵ NYCDOHMH directly reports human cases of CHIKV, DENV and malaria infection to CDC.

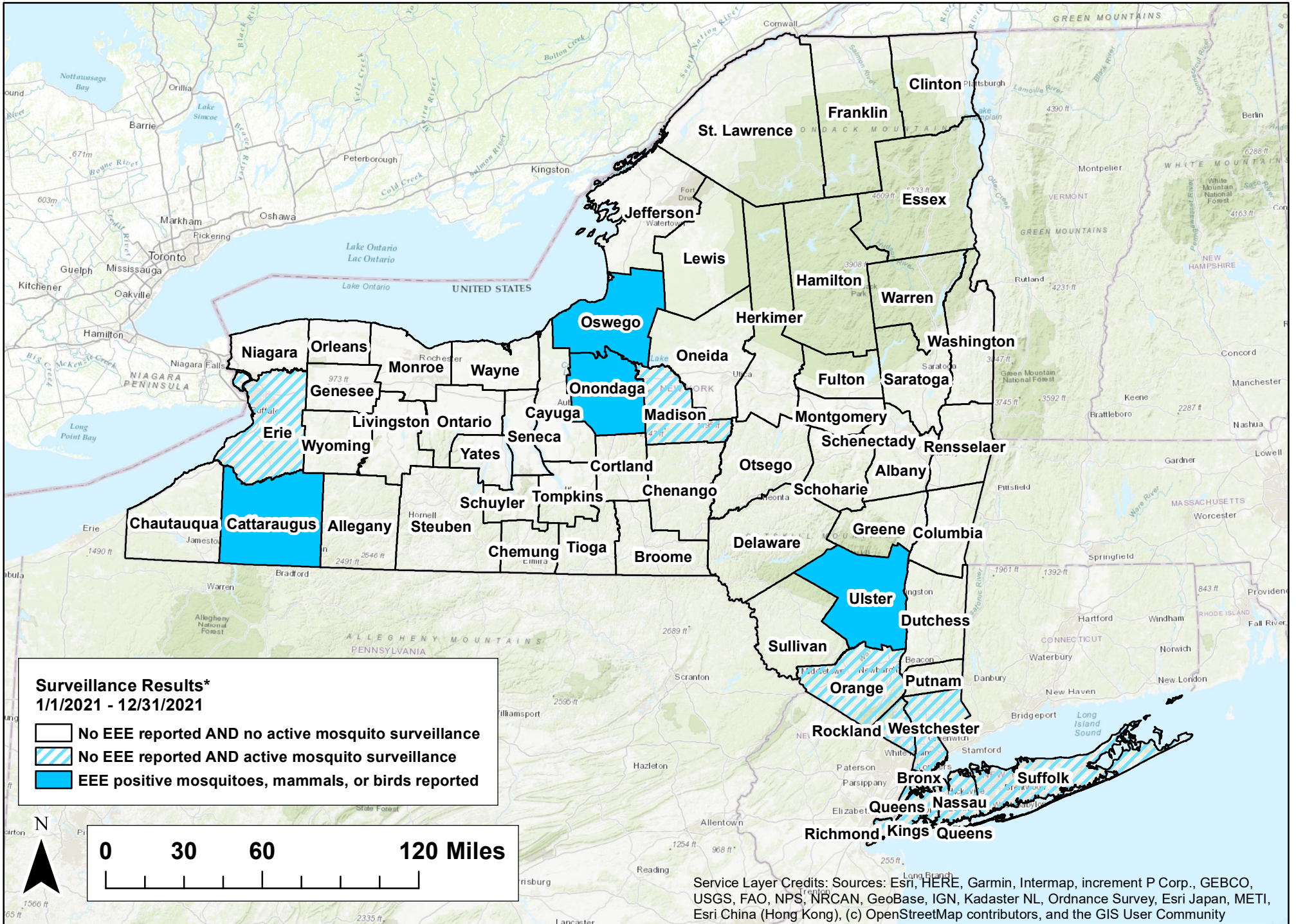
2021 West Nile Surveillance Summary



*The number of WNV positive mosquitoes, mammal infections, or human cases depends, in part, on the amount of surveillance and testing performed in each county, and is not necessarily associated with the degree of WNV risk.
 -- Map shows results reported through date range indicated.

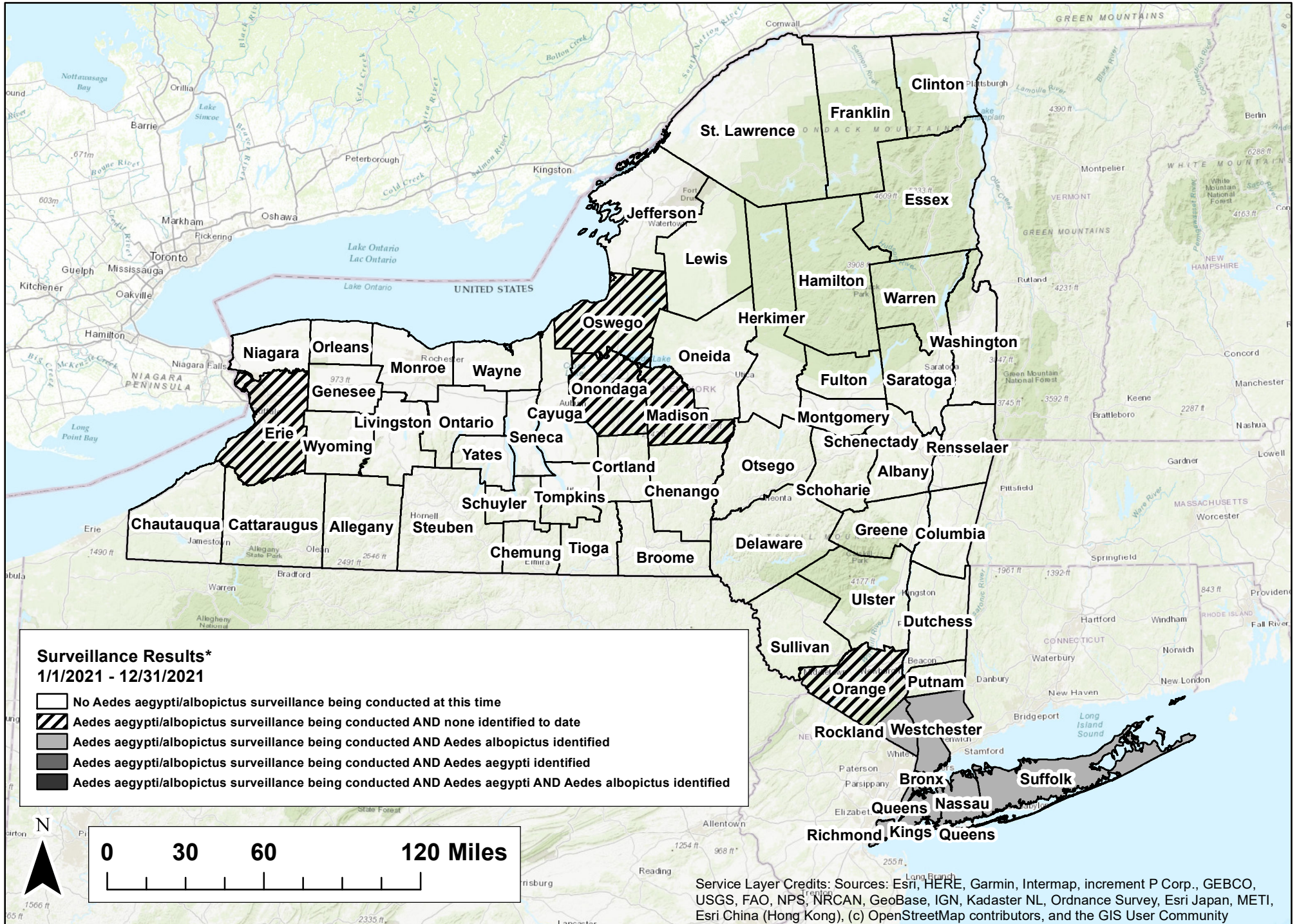
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

2021 Eastern Equine Encephalitis Virus Surveillance Summary



*The number of EEE positive mosquitoes, mammal infections, or human cases depends, in part, on the amount of surveillance and testing performed in each county, and is not necessarily associated with the degree of EEE risk.
-- Map shows results reported through date range indicated.

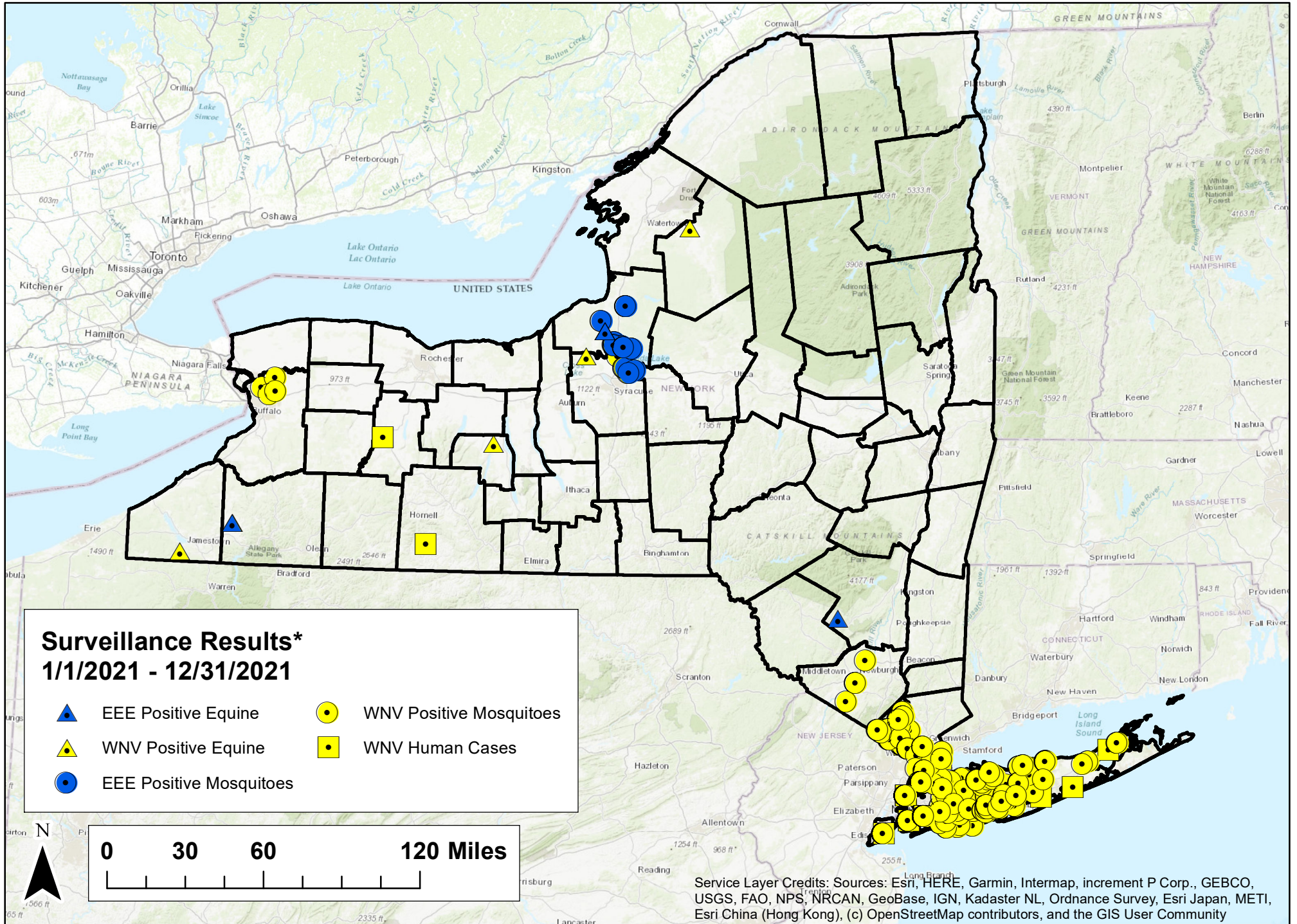
2021 Aedes aegypti/albopictus Surveillance Summary



*The total number of Aedes aegypti or albopictus identified within a county depends on the amount of surveillance performed in each county, and is not necessarily associated with degree of Zika risk.

-- Map shows results reported through date range indicated.

2021 Mosquito-borne Illness Summary



*Current week positives are highlighted with a white halo around the respective specimen symbols.
 -- Human cases represent local mosquito-borne transmission. Travel associated cases are not included.
 -- NYC positive human cases are placed randomly in the patient's county of residence.
 -- Map shows results reported through date range indicated.

New York State Arboviral Surveillance
Summary 01/01/2021 - 12/31/2021

| Jurisdiction | Eastern Equine Encephalitis | | | | | West Nile Virus | | |
|---------------------|-----------------------------|--------|-----------|-----------|-------------------------|-----------------|--------|-------------------------|
| | Cases | | | | Positive Mosquito Pools | Cases | | Positive Mosquito Pools |
| | Human | Equine | Caprine** | Ratite*** | | Human | Equine | |
| Albany | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Allegany | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Bronx * | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 179 |
| Broome | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Cattaraugus * | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| Cayuga | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Chautauqua | 0 | 0 | 0 | 0 | -- | 0 | 1 | -- |
| Chemung | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Chenango | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Clinton | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Columbia | 0 | 0 | 0 | 0 | -- | 1 | 0 | -- |
| Cortland | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Delaware | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Dutchess | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Erie * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Essex | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Franklin | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Fulton | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Genesee | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Greene | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Hamilton | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Herkimer | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Jefferson | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Kings * | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 145 |
| Lewis | 0 | 0 | 0 | 0 | -- | 0 | 1 | -- |
| Livingston | 0 | 0 | 0 | 0 | -- | 1 | 0 | -- |
| Madison * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Monroe | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Montgomery | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Nassau * | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 84 |
| New York * | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 81 |
| Niagara | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Oneida | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Onondaga * | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 5 |
| Ontario | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Orange * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Orleans | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Oswego * | 0 | 3 | 0 | 0 | 32 | 0 | 0 | 2 |
| Otsego | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Putnam | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Queens * | 0 | 0 | 0 | 0 | 0 | 9† | 0 | 392 |
| Rensselaer | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Richmond * | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 320 |
| Rockland * | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 128 |
| Saratoga | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Schenectady | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Schoharie | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Schuyler | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Seneca | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| St. Lawrence | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Steuben | 0 | 0 | 0 | 0 | -- | 1 | 0 | -- |
| Suffolk * | 0 | 0 | 0 | 0 | 0 | 9† | 0 | 111 |
| Sullivan | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Tioga | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Tompkins | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Ulster | 0 | 1 | 0 | 0 | -- | 0 | 0 | -- |
| Warren | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Washington | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Wayne | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Westchester * | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 15 |
| Wyoming | 0 | 0 | 0 | 0 | -- | 0 | 0 | -- |
| Yates | 0 | 0 | 0 | 0 | -- | 0 | 1 | -- |
| NYS (excluding NYC) | 0 | 5 | 0 | 0 | 35 | 22 | 5 | 355 |
| TOTAL | | | | | | | | |
| NYC* TOTAL | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 1117 |
| NYS TOTAL | 0 | 5 | 0 | 0 | 35 | 44 | 5 | 1472 |

* Jurisdiction conducting mosquito surveillance

** Caprine - of, relating to, or being a goat

*** Ratite - (of a bird) having a flat breastbone without a keel, and so unable to fly

† includes 1 WNV presumptive viremic donor

New York State Arboviral Surveillance
Summary 01/01/2021 - 12/31/2021

| Jurisdiction | Zika | | |
|---------------------------|-------------------|--------|-------------------------|
| | Human Cases | | Positive Mosquito Pools |
| | Travel Associated | LMBT** | |
| Albany | 0 | 0 | -- |
| Allegany | 0 | 0 | -- |
| Bronx * | 0 | 0 | 0 |
| Broome | 0 | 0 | -- |
| Cattaraugus * | 0 | 0 | 0 |
| Cayuga | 0 | 0 | -- |
| Chautauqua | 0 | 0 | -- |
| Chemung | 0 | 0 | -- |
| Chenango | 0 | 0 | -- |
| Clinton | 0 | 0 | -- |
| Columbia | 0 | 0 | -- |
| Cortland | 0 | 0 | -- |
| Delaware | 0 | 0 | -- |
| Dutchess | 0 | 0 | -- |
| Erie * | 0 | 0 | 0 |
| Essex | 0 | 0 | -- |
| Franklin | 0 | 0 | -- |
| Fulton | 0 | 0 | -- |
| Genesee | 0 | 0 | -- |
| Greene | 0 | 0 | -- |
| Hamilton | 0 | 0 | -- |
| Herkimer | 0 | 0 | -- |
| Jefferson | 0 | 0 | -- |
| Kings * | 0 | 0 | 0 |
| Lewis | 0 | 0 | -- |
| Livingston | 0 | 0 | -- |
| Madison * | 0 | 0 | 0 |
| Monroe | 0 | 0 | -- |
| Montgomery | 0 | 0 | -- |
| Nassau * | 0 | 0 | 0 |
| New York * | 0 | 0 | 0 |
| Niagara | 0 | 0 | -- |
| Oneida | 0 | 0 | -- |
| Onondaga * | 0 | 0 | 0 |
| Ontario | 0 | 0 | -- |
| Orange * | 0 | 0 | 0 |
| Orleans | 0 | 0 | -- |
| Oswego * | 0 | 0 | 0 |
| Otsego | 0 | 0 | -- |
| Putnam | 0 | 0 | -- |
| Queens * | 0 | 0 | 0 |
| Rensselaer | 0 | 0 | -- |
| Richmond * | 0 | 0 | 0 |
| Rockland * | 0 | 0 | 0 |
| Saratoga | 0 | 0 | -- |
| Schenectady | 0 | 0 | -- |
| Schoharie | 0 | 0 | -- |
| Schuyler | 0 | 0 | -- |
| Seneca | 0 | 0 | -- |
| St. Lawrence | 0 | 0 | -- |
| Steuben | 0 | 0 | -- |
| Suffolk * | 0 | 0 | 0 |
| Sullivan | 0 | 0 | -- |
| Tioga | 0 | 0 | -- |
| Tompkins | 0 | 0 | -- |
| Ulster | 0 | 0 | -- |
| Warren | 0 | 0 | -- |
| Washington | 0 | 0 | -- |
| Wayne | 0 | 0 | -- |
| Westchester * | 0 | 0 | 0 |
| Wyoming | 0 | 0 | -- |
| Yates | 0 | 0 | -- |
| NYS (excluding NYC) TOTAL | 0 | 0 | 0 |
| NYC*† TOTAL | -- | -- | -- |
| NYS TOTAL | 0 | 0 | 0 |

* Jurisdiction conducting mosquito surveillance

† NYCDOHMH directly reports human cases of ZIKV infection to CDC

New York State Arboviral Surveillance
Summary 01/01/2021 - 12/31/2021

| Jurisdiction | Chikungunya | | | Dengue | | | Malaria | | |
|---------------------------|-------------------|--------|-------------------------|-------------------|--------|-------------------------|-------------------|--------|-------------------------|
| | Human Cases | | Positive Mosquito Pools | Human Cases | | Positive Mosquito Pools | Human Cases | | Positive Mosquito Pools |
| | Travel Associated | LMBT** | | Travel Associated | LMBT** | | Travel Associated | LMBT** | |
| Albany | 0 | 0 | -- | 0 | 0 | -- | 4 | 0 | -- |
| Allegany | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Bronx * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Broome | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Cattaraugus * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cayuga | 0 | 0 | -- | 0 | 0 | -- | 1 | 0 | -- |
| Chautauqua | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Chemung | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Chenango | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Clinton | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Columbia | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Cortland | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Delaware | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Dutchess | 0 | 0 | -- | 0 | 0 | -- | 2 | 0 | -- |
| Erie * | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| Essex | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Franklin | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Fulton | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Genesee | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Greene | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Hamilton | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Herkimer | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Jefferson | 0 | 0 | -- | 0 | 0 | -- | 2 | 0 | -- |
| Kings * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lewis | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Livingston | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Madison * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Monroe | 0 | 0 | -- | 2 | 0 | -- | 4 | 0 | -- |
| Montgomery | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Nassau * | 1 | 0 | 0 | 3 | 0 | 0 | 5 | 0 | 0 |
| New York * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Niagara | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Oneida | 0 | 0 | -- | 1 | 0 | -- | 1 | 0 | -- |
| Onondaga * | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| Ontario | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Orange * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Orleans | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Oswego * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Otsego | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Putnam | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Queens * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rensselaer | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Richmond * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rockland * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saratoga | 0 | 0 | -- | 1 | 0 | -- | 3 | 0 | -- |
| Schenectady | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Schoharie | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Schuyler | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Seneca | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| St. Lawrence | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Steuben | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Suffolk * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Sullivan | 0 | 0 | -- | 1 | 0 | -- | 0 | 0 | -- |
| Tioga | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Tompkins | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Ulster | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Warren | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Washington | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Wayne | 0 | 0 | -- | 0 | 0 | -- | 1 | 0 | -- |
| Westchester * | 0 | 0 | 0 | 1 | 0 | 0 | 13 | 0 | 0 |
| Wyoming | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Yates | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| NYS (excluding NYC) TOTAL | 1 | 0 | 0 | 9 | 0 | 0 | 47 | 0 | 0 |
| NYC† TOTAL | -- | -- | 0 | -- | -- | 0 | -- | -- | 0 |
| NYS TOTAL | 1 | 0 | 0 | 9 | 0 | 0 | 47 | 0 | 0 |

* Jurisdiction conducting mosquito surveillance

United States Mosquito-borne Disease Surveillance and Other Information

Current and historic nationwide surveillance information on mosquito-borne illnesses in the United States can be found at: (https://wwwn.cdc.gov/arbovet/Maps/ADB_Diseases_Map/index.html)

- Specific information about WNV, including statistics and maps, can be found at: (<http://www.cdc.gov/westnile/>)
- Specific information about EEEV, including statistics and maps, can be found at: (<http://www.cdc.gov/EasternEquineEncephalitis>)
- Specific information about Zika virus, including statistics and maps of areas with active mosquito-borne transmission of Zika virus can be found at: (<http://www.cdc.gov/zika/>)
- Specific information about chikungunya virus, including statistics and maps, can be found at: (<http://www.cdc.gov/chikungunya/>)
- Specific information about dengue fever, including statistics and maps, can be found at can be at: (<http://www.cdc.gov/dengue/>)
- Specific information about malaria, including statistics and maps, can be found here at: (<http://www.cdc.gov/malaria/>)