



**NYSDOH STATEWIDE MOSQUITO-BORNE DISEASE
ANNUAL ACTIVITY REPORT 2020
March 15, 2022**

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
(01/01/2020 - 12/31/2020)

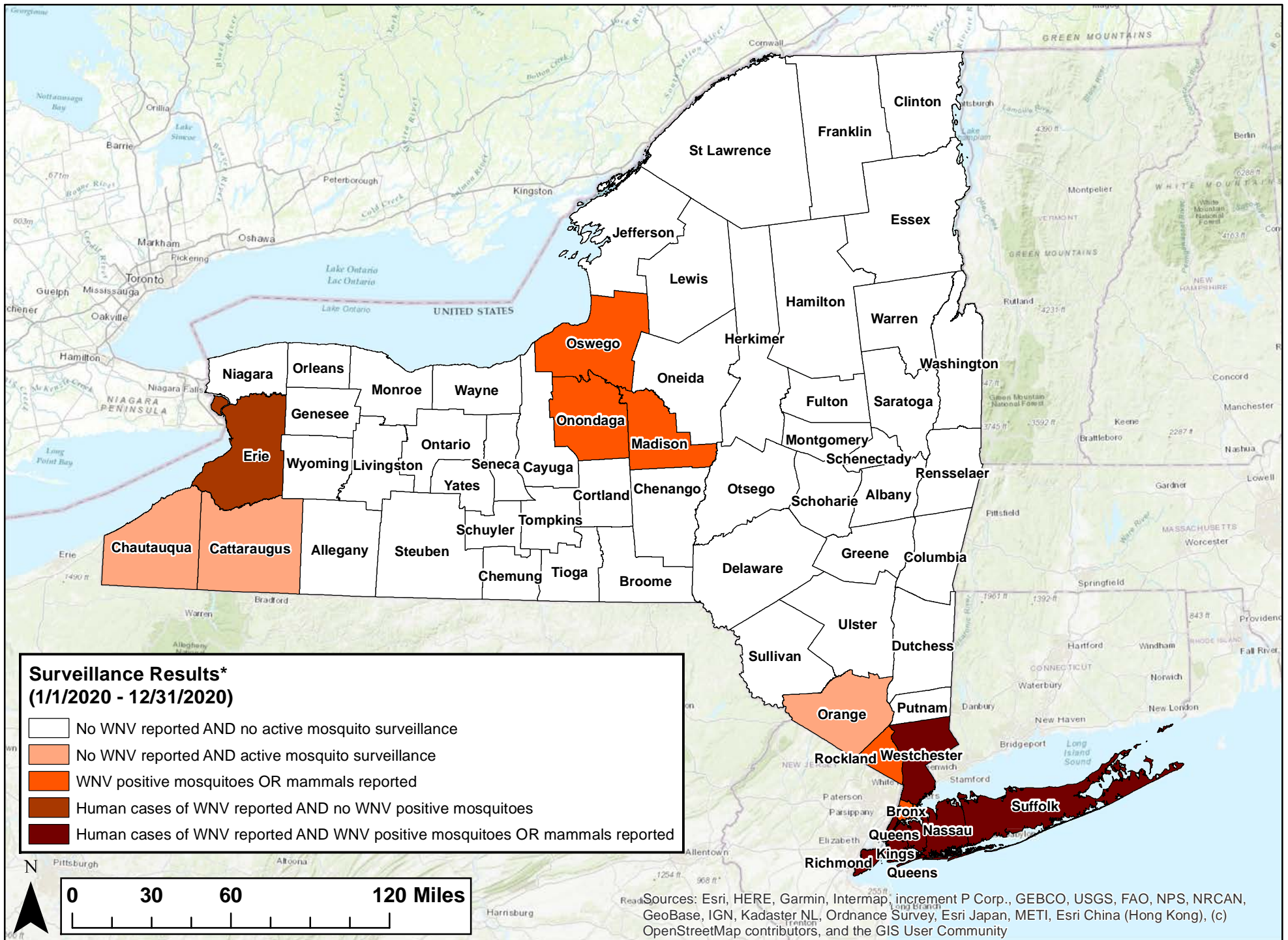
- WNV:
 - 611 WNV-positive pools have been identified.
 - 23 human cases of WNV infection have been reported.
 - 0 equine cases of WNV infection have been reported.
 - 1 presumptive viremic donor has been reported to CDC.¹
- EEE:
 - 26 EEE-positive mosquito pools have been identified.
 - 0 human cases of EEEV infection have been reported.
 - 8 equine cases of EEEV infection have been reported.
- ZIKV:
 - *Aedes albopictus* has been identified in 3 counties and in NYC. *Aedes aegypti* has not been identified anywhere in the state.
 - 0 mosquito pools have been positive for Zika virus.
 - 2 human cases of ZIKV infection have been reported to NYSDOH. No cases of local mosquito-borne transmission (LMBT) have been identified.²
- CHIKV, DENV, and Malaria³:
 - 0 human cases of CHIKV infection have been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 12 human cases of DENV infection have been reported to NYSDOH. 0 cases of LMBT have identified.
 - 19 human cases of malaria infection have been reported to NYSDOH. 0 cases of LMBT have identified.

¹ 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 for the presence of West Nile virus. Some PVDs do go on to develop symptoms after donation, at which point they would be included in the count of human disease cases by their state.

² 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.

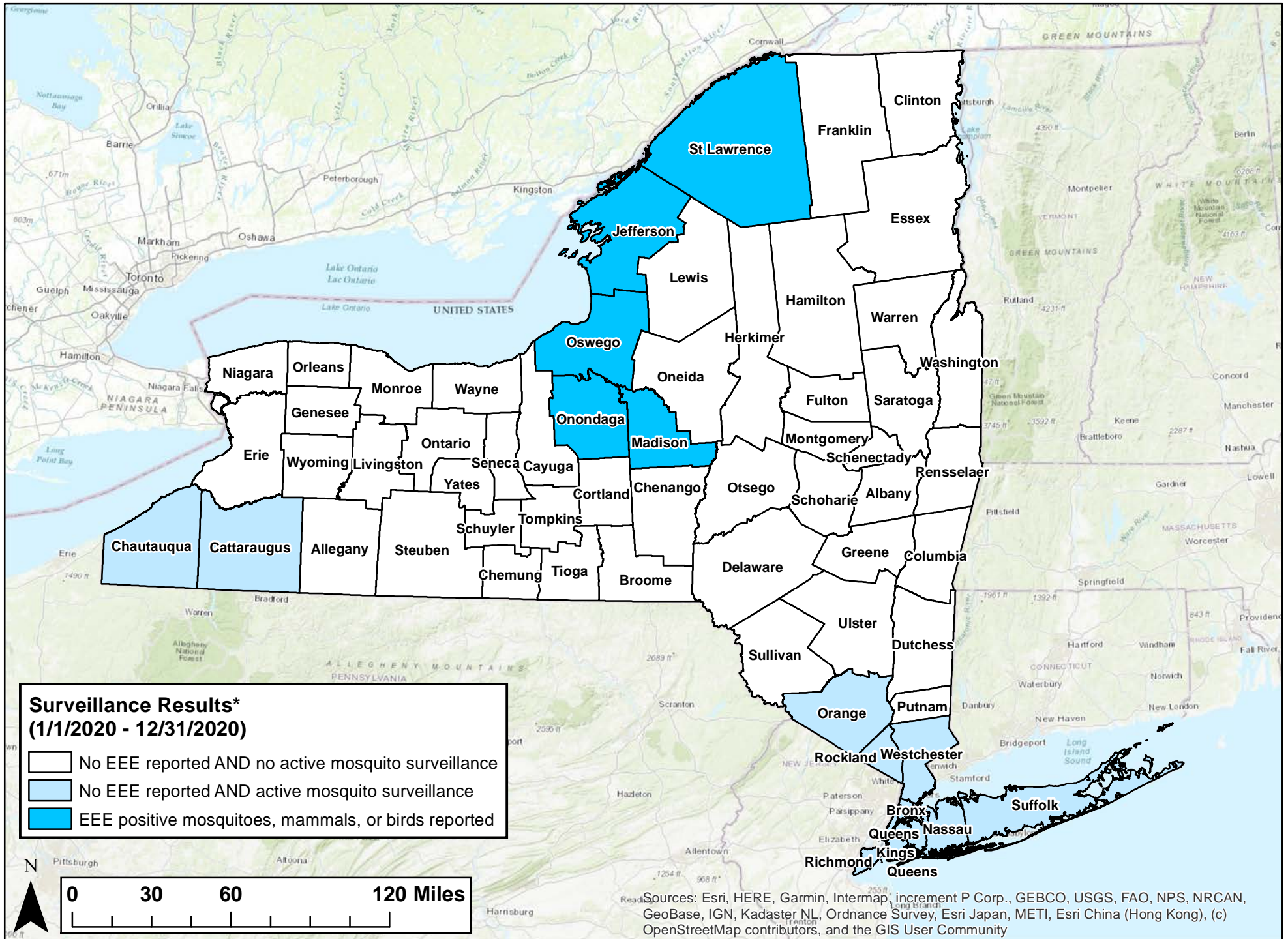
³ NYCDOHMH directly reports human cases of CHIKV, DENV and malaria infection to CDC.

2020 West Nile Virus Surveillance Summary



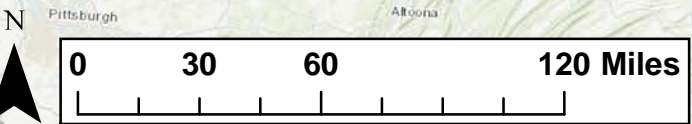
*The number of WNV positive mosquitoes, mammal infections, or human cases depends, in part, on the amount of surveillance and testing performed in each county, and is not necessarily associated with the degree of WNV risk.
- Map shows results reported through date range indicated.

2020 Eastern Equine Encephalitis Virus Surveillance Summary



Surveillance Results*
(1/1/2020 - 12/31/2020)

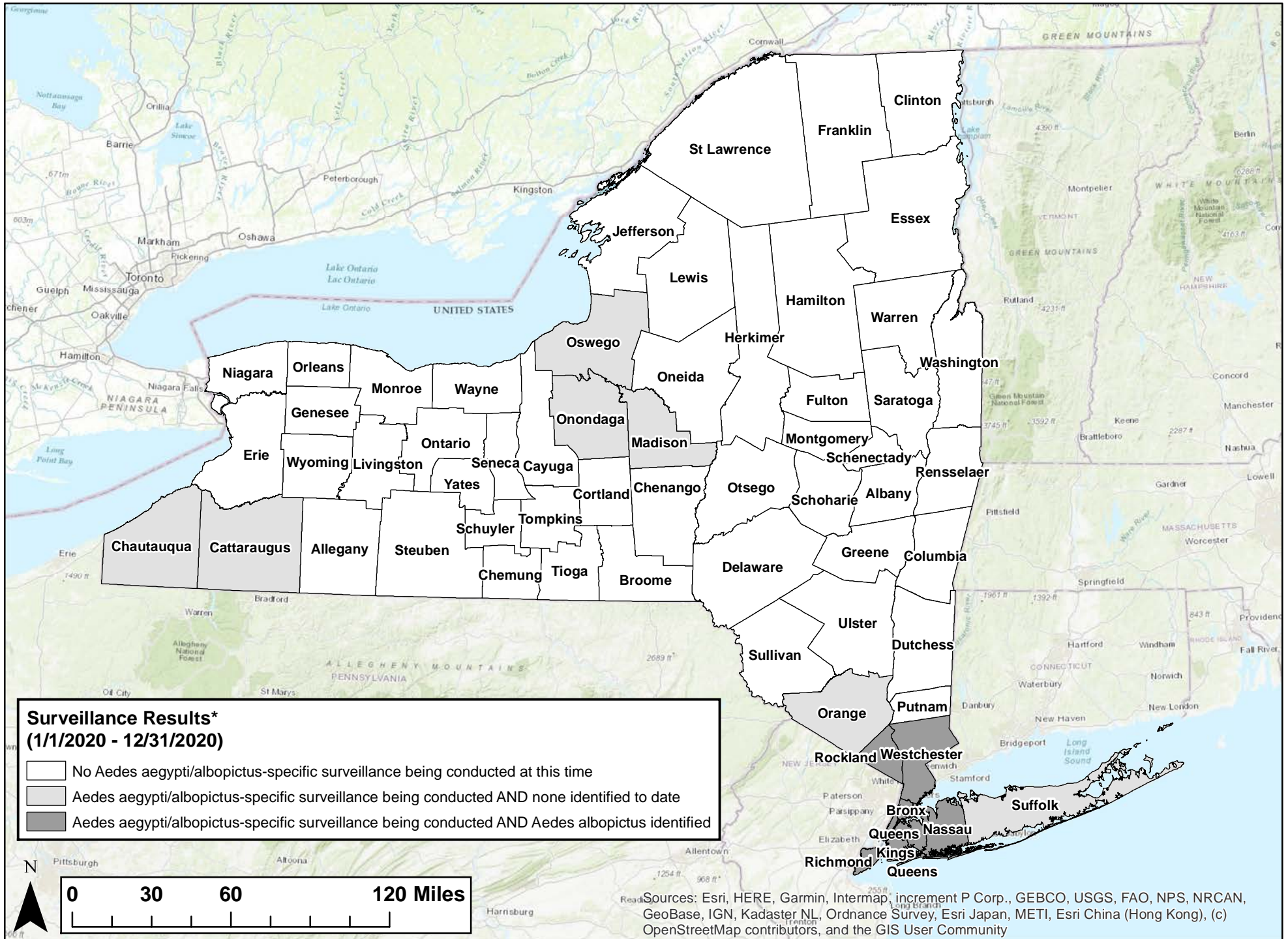
- No EEE reported AND no active mosquito surveillance
- No EEE reported AND active mosquito surveillance
- EEE positive mosquitoes, mammals, or birds reported



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

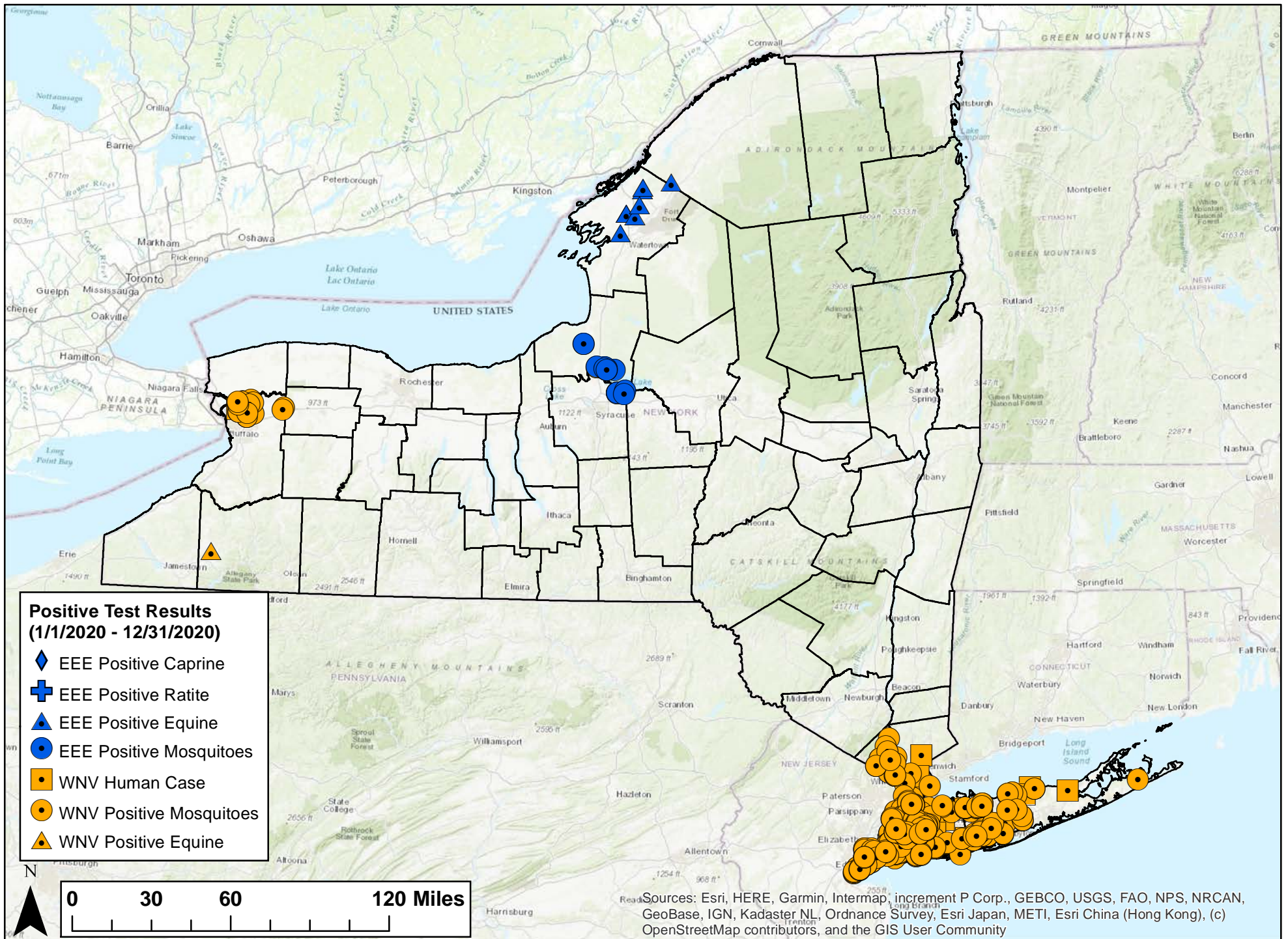
*The number of EEE positive mosquitoes, mammal infections, or human cases depends, in part, on the amount of surveillance and testing performed in each county, and is not necessarily associated with the degree of EEE risk.
- Map shows results reported through date range indicated.

2020 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.

2020 Mosquito-borne Illness Surveillance



- Human cases represent local mosquito-borne transmission (LMBT). Travel associated cases are not included.
 - NYC positive human cases are placed at the corresponding county's centroid in the patient's county of residence.
 - Map shows results through the date range indicated.

New York State Arboviral Surveillance
Summary 01/01/2020 - 12/31/2020

Jurisdiction	Eastern Equine Encephalitis				Positive Mosquito Pools	West Nile Virus		
	Cases					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	0	0	31
BROOME	0	0	0	0	--	0	0	--
CATTARAUGUS *	0	0	0	0	0	0	0	0
CAYUGA	0	0	0	0	--	0	0	--
CHAUTAUQUA *	0	0	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	--	0	0	--
ERIE *	0	0	0	0	0	1	0	28
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	7	0	0	--	0	0	--
KINGS *	0	0	0	0	0	2	0	72
LEWIS	0	0	0	0	--	0	0	--
LIVINGSTON	0	0	0	0	--	0	0	--
MADISON *	0	0	0	0	3	0	0	1
MONROE	0	0	0	0	--	0	0	--
MONTGOMERY	0	0	0	0	--	0	0	--
NASSAU *	0	0	0	0	0	6	0	22
NEW YORK *	0	0	0	0	0	3	0	12
NIAGARA	0	0	0	0	--	0	0	--
ONEIDA	0	0	0	0	--	0	0	--
ONONDAGA *	0	0	0	0	4	0	0	1
ONTARIO	0	0	0	0	--	0	0	--
ORANGE *	0	0	0	0	0	0	0	0
ORLEANS	0	0	0	0	--	0	0	--
OSWEGO *	0	0	0	0	19	0	0	2
OTSEGO	0	0	0	0	--	0	0	--
PUTNAM	0	0	0	0	--	0	0	--
QUEENS *	0	0	0	0	0	2	0	172
RENSSELAER	0	0	0	0	--	0	0	--
RICHMOND *	0	0	0	0	0	1	0	159
ROCKLAND *	0	0	0	0	0	0	0	18
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	1	0	0	0	0	0	0
STEUBEN	0	0	0	0	--	0	0	--
SUFFOLK *	0	0	0	0	0	5	0	88
SULLIVAN	0	0	0	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	--	0	0	--
WESTCHESTER *	0	0	0	0	0	3	0	5
WYOMING	0	0	0	0	--	0	0	--
YATES	0	0	0	0	--	0	0	--
NYS (excluding NYC) TOTAL	0	8	0	0	26	15	0	165
NYC* TOTAL	0	0	0	0	0	8	0	446
NYS TOTAL	0	8	0	0	26	23	0	611

* Jurisdiction conducting mosquito surveillance

** Number(s) in parentheses indicates fatal case(s)

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

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

New York State Arboviral Surveillance
Summary 01/01/2020 - 12/31/2020

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	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	1	0	--
SENECA	0	0	--
ST.LAWRENCE	0	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 *	1	0	0
WYOMING	0	0	--
YATES	0	0	--
NYS (excluding NYC) TOTAL	2	0	0
NYC*† ~ TOTAL	--	--	--
NYS TOTAL	2	0	0

* Jurisdiction conducting mosquito surveillance

** Number(s) in parentheses indicates fatal case(s)

† NYCDOHMH directly reports human cases of ZIKV infection to CDC

New York State Arboviral Surveillance
Summary 01/01/2020 - 12/31/2020

Jurisdiction	Chikungunya			Dengue			Malaria		
	Human Cases		Positive Mosquito	Human Cases		Positive Mosquito	Human Cases		Positive Mosquito
	Travel Associated	LMBT**	Pools	Travel Associated	LMBT**	Pools	Travel Associated	LMBT**	Pools
ALBANY	0	0	--	0	0	--	1	0	--
ALLEGANY	0	0	--	0	0	--	0	0	--
BRONX *	0	0	0	0	0	0	0	0	0
BROOME	0	0	--	1	0	--	0	0	--
CATTARAUGUS *	0	0	0	0	0	0	0	0	0
CAYUGA	0	0	--	0	0	--	0	0	--
CHAUTAUQUA *	0	0	0	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	--	1	0	--
ERIE *	0	0	0	1	0	0	3	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	--	0	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	0	0	0
MONROE	0	0	--	1	0	--	4	0	--
MONTGOMERY	0	0	--	0	0	--	0	0	--
NASSAU *	0	0	0	0	0	0	2	0	0
NEW YORK *	0	0	0	0	0	0	0	0	0
NIAGARA	0	0	--	0	0	--	0	0	--
ONEIDA	0	0	--	0	0	--	0	0	--
ONONDAGA *	0	0	0	0	0	0	0	0	0
ONTARIO	0	0	--	0	0	--	0	0	--
ORANGE *	0	0	0	2	0	0	1	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	--	0	0	--	1	0	--
SCHENECTADY	0	0	--	0	0	--	2	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	1	0	0
STEUBEN	0	0	--	1	0	--	0	0	--
SUFFOLK *	0	0	0	0	0	0	0	0	0
SULLIVAN	0	0	--	0	0	--	0	0	--
TIOGA	0	0	--	0	0	--	0	0	--
TOMPKINS	0	0	--	0	0	--	2	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	--	0	0	--
WESTCHESTER *	0	0	0	6	0	0	1	0	0
WYOMING	0	0	--	0	0	--	0	0	--
YATES	0	0	--	0	0	--	0	0	--
NYS (excluding NYC) TOTAL	0	0	0	12	0	0	19	0	0
NYC*† ~ TOTAL	--	--	0	--	--	0	--	--	0
NYS TOTAL	0	0	0	12	0	0	19	0	0

* Jurisdiction conducting mosquito surveillance

** Number(s) in parentheses indicates fatal case(s)

† NYCDOHMH directly reports human cases of ZIKV infection to CDC

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/>).