



Mosquito-borne Illness
Weekly Report
Jul 02 - Jul 08 (MMWR Week 27)



NYSDOH STATEWIDE MOSQUITO-BORNE DISEASE ACTIVITY REPORT July 13, 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 weekly report. 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).

Weekly Summary (July 02 - July 08)

- West Nile Virus (WNV):
 - 2 WNV-positive mosquito pools¹ have been identified in NYS, outside of NYC². (Nassau 1, Suffolk 1)
 - 5 WNV-positive mosquito pools have been reported from 3 NYC counties. (Bronx, Queens, Richmond)
 - 0 human cases of WNV infection have been reported, outside of NYC.
 - 0 equine cases of WNV infection have been reported.
 - 0 presumptive viremic donors³ have been reported, outside of NYC.
- Eastern Equine Encephalitis Virus (EEE):
 - 0 EEE-positive mosquito pools have been identified.
 - 0 human cases of EEEV infection have been reported.
 - 0 equine cases of EEEV infection have been reported.
 - 0 caprine⁴ cases of EEEV infection have been reported.
 - 0 ratite⁵ cases of EEEV infection have been reported.
- Zika Virus (ZIKV):
 - Aedes albopictus has been identified in 0 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:
 - 0 human cases of CHIKV infection have been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 0 human cases of DENV infection have been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 0 human cases of malaria infection have been reported to NYSDOH. 0 cases of LMBT have been 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.

Year to Date Summary (01/01/2023 - 07/08/2023)

- West Nile Virus (WNV):
 - 2 WNV-positive mosquito pools¹ have been identified in NYS, outside of NYC².
 - 5 WNV-positive mosquito pools have been reported from 3 NYC counties. (Bronx, Queens, Richmond)
 - 0 human cases of WNV infection have been reported, outside of NYC.
 - 0 equine cases of WNV infection have been reported.
 - 0 presumptive viremic donors³ have been reported, outside of NYC.³
- Eastern Equine Encephalitis Virus (EEE):
 - 0 EEE-positive mosquito pools have been identified.
 - 0 human cases of EEEV infection have been reported.
 - 0 equine cases of EEEV infection have been reported.
 - 0 caprine⁴ cases of EEEV infection have been reported.
 - 0 ratite⁵ cases of EEEV infection have been reported.
- · Zika Virus (ZIKV):
 - Aedes albopictus has been identified in 0 counties outside of NYC. Aedes aegypti has not been identified anywhere in the state.
 - o 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 transmission⁶ (LMBT) have been identified.
- Chikungunya Virus (CHIKV), Dengue Virus (DENV), and Malaria⁷:
 - 8 human cases of CHIKV infection have been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 2 human cases of DENV infection have been reported to NYSDOH. 0 cases of LMBT have been identified.
 - 44 human cases of malaria infection have been reported to NYSDOH. 0 cases of LMBT have been 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.

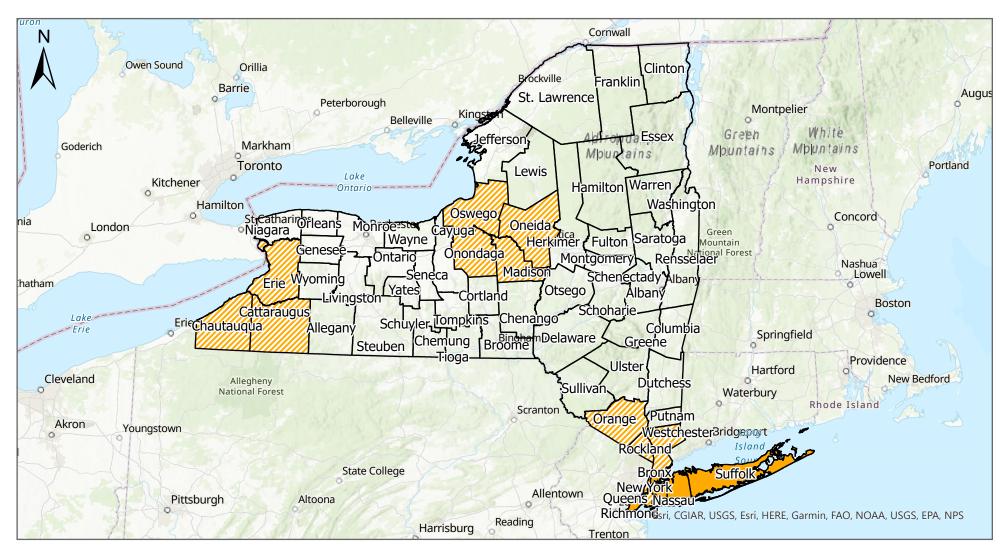
² Data pertaining to New York City municipalities in this report are derived from the NYC Department of Mental Health and Hygiene (NYCDOHMH) website (https://www.nyc.gov/site/doh/health/health-topics/west-nile-virus.page) and only reflect WNV+ mosquito pools. NYCDOHMH does not report the total number of pools collected. 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.

2023 West Nile Virus Surveillance Summary



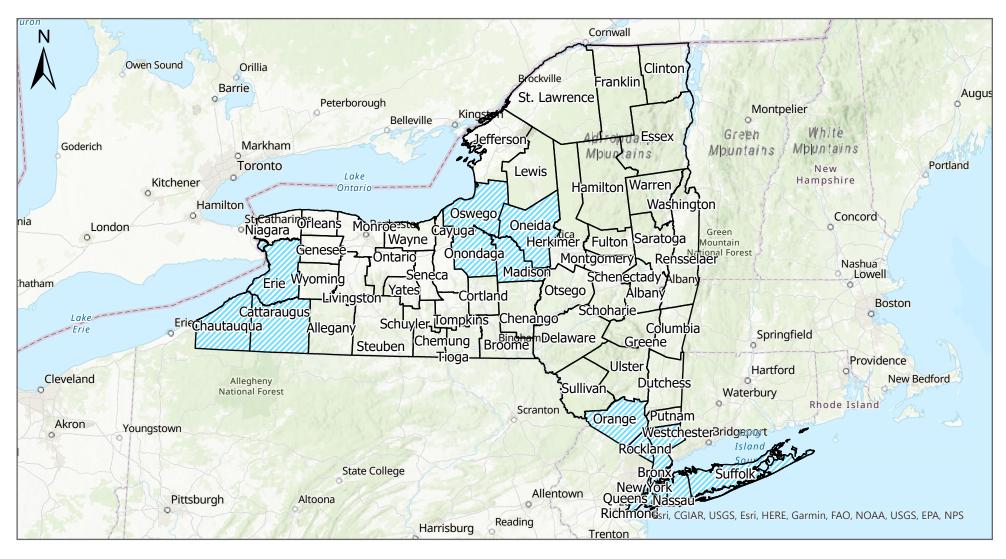
^{*}The number of WNV positive mosquitoes, mammal infections or human cases depends, in part, on the amount of surveillance and testing performed in each county, and is not necessarily associated with the degree of WNV risk.

-- Map shows results reported through date range indicated.

Surveillance Summary (01/01/2023 - 07/08/2023)

Mosquito surveillance being conducted AND no WNV reported No mosquito surveillance being mosquitoes OR conducted AND no WNV reported WNV positive mosquitoes OR mammals reported

2023 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.

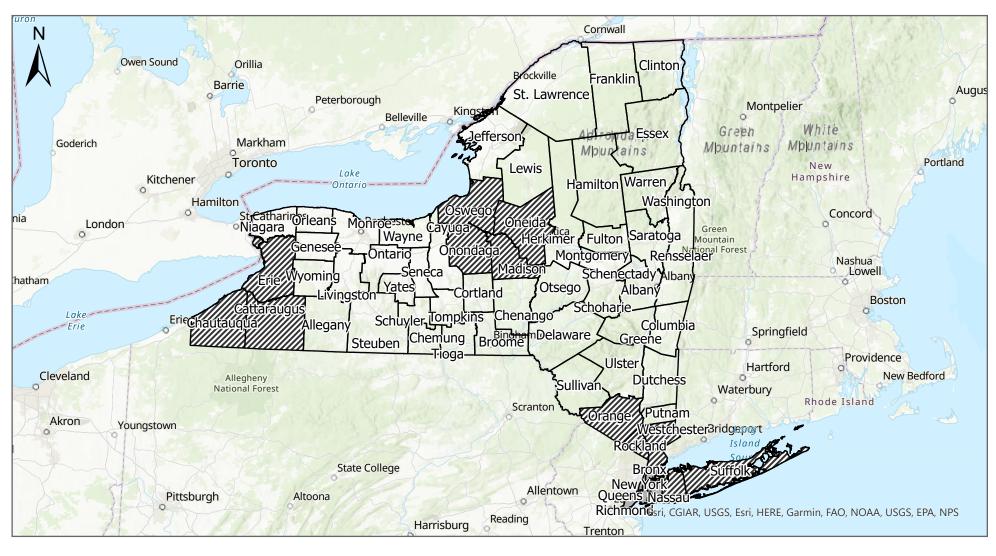
Surveillance Summary (01/01/2023 - 07/08/2023)

Mosquito surveillance
being conducted AND
no EEE reported

No mosquito
surveillance being
conducted AND no EEE
reported

NYSDOH, BCDC - July 08, 2023 Map Scale: 1:4,019,896

2023 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.

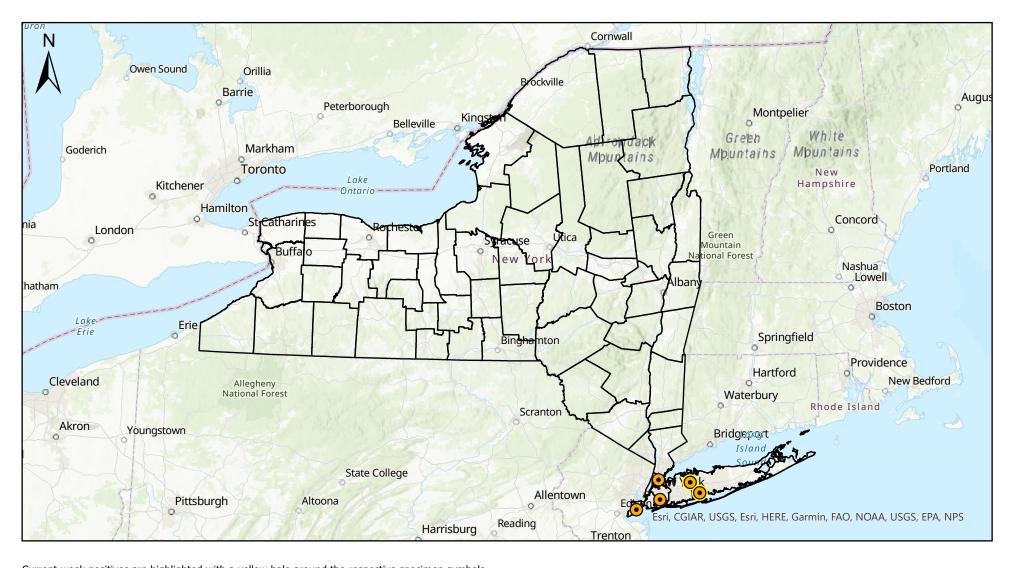
Mosquito surveillance being conducted AND Aedes albopictus reported

Surveillance Summary (01/01/2023 - 07/08/2023)

Mosquito surveillance being conducted AND no Aedes albopictus or Aedes aegypti reported

No mosquito
surveillance being
conducted

2023 Mosquito-borne Illness Surveillance



Current week positives are highlighted with a yellow halo around the respective specimen symbols.

- -- Human cases represent local mosquito-borne transmission (LMBT). 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.

Surveillance Summary (01/01/2023 - 07/08/2023)



WNV Positive Mosquitoes EEE Positive Mosquitoes

WNV Positive Equine

EEE Positive Equine

New York State Arboviral Surveillance Summary (01/01/2023 - 07/08/2023)

			West Nile Virus		
Jurisdiction	Cas	ses			
	Human	Equine	WNV+ Pools	Mosquito Pools Total Pools	% Positivity
Albany	0	0			
Allegany	0	0			
Bronx *	0	0	1		
Broome	0	0			
Cattaraugus *	0	0	0	6	0.0
Cayuga	0	0			
Chautauqua *	0	0	0	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	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 Livingston	0	0			
Livingston Madison *	0	0	0	42	0.0
Monroe	0	0			
Montgomery	0	0			
Nassau *	0	0	1	80	1.2
New York *	0	0	0		1.2
Niagara	0	0			
Oneida *	0	0	0	5	0.0
Onondaga *	0	0	0	106	0.0
Ontario	0	0			
Orange *	0	0	0	25	0.0
Orleans	0	0			
Oswego *	0	0	0	80	0.0
Otsego	0	0			
Putnam	0	0			
Queens *	0	0	2		
Rensselaer	0	0			-
Richmond *	0	0	2		
Rockland *	0	0	0	109	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	1	322	0.3
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	35	0.0
Wyoming	0	0			
Yates	0	0			
NYS (excluding NYC) TOTAL	0	0	2	810	0.2
NYC*† TOTAL	0	-	5		
NYS TOTAL	0	0	7	810	
		•	l .	-	

^{*} Jurisdiction conducting mosquito surveillance

 $[\]dagger \ \mathsf{NYCDOHMH} \ \mathsf{mosquito} \ \mathsf{pools} \ \mathsf{represent} \ \mathsf{positive} \ \mathsf{totals} \ \mathsf{only}; \mathsf{number} \ \mathsf{of} \ \mathsf{total} \ \mathsf{pools} \ \mathsf{collected} \ \mathsf{and} \ \mathsf{tested} \ \mathsf{not} \ \mathsf{available}$

New York State Arboviral Surveillance Summary (01/01/2023 - 07/08/2023)

	Eastern Equine Encephalitis									
Jurisdiction			ses		Mosquito Pools					
	Human	Equine	Caprine**	Ratite***	EEE+ Pools	Total Pools	% Positivity			
Albany	0	0	0	0	-					
Allegany	0	0	0	0						
Bronx *	0	0	0							
Broome	0	0	0	0						
Cattaraugus *	0	0	0	0	0	6	0.0			
Cayuga	0	0	0	0						
Chautauqua *	0	0	0	0	0	0	0.0			
Chemung							-			
Chenango Clinton	0	0	0	0						
Columbia	0	0	0	0			-			
Cortland	0	0	0	0	 1					
Delaware	0	0	0	0	 1					
Dutchess	0	0	0	0						
Erie *	0	0	0	0	0	0	0.0			
Essex	0	0	0	0						
Franklin	0	0	0	0						
Fulton	0	0	0	0						
Genesee	0	0	0	0						
Greene	0	0	0	0	<u></u>					
Hamilton	0	0	0	0						
Herkimer	0	0	0	0						
Jefferson	0	0	0	0		-	_			
Kings *	0	0	0	0	0					
Lewis	0	0	0	0						
Livingston	0	0	0	0						
Madison *	0	0	0	0	0	42	0.0			
Monroe	0	0	0	0			-			
Montgomery	0	0	0	0			-			
Nassau *	0	0	0	0	0	80	0.0			
New York *	0	0	0	0	0					
Niagara	0	0	0	0						
Oneida *	0	0	0	0	0	5	0.0			
Onondaga *	0	0	0	0	0	106	0.0			
Ontario	0	0	0	0						
Orange *	0	0	0	0	0	25	0.0			
Orleans	0	0	0	0	i					
Oswego *	0	0	0	0	0	80	0.0			
Otsego	0	0	0	0	i		-			
Putnam	0	0	0	0	i		-			
Queens *	0	0	0	0	0					
Rensselaer	0	0	0	0			-			
Richmond *	0	0	0	0	0		-			
Rockland *	0	0	0	0	0	109	0.0			
Saratoga	0	0	0	0						
Schenectady	0	0	0	0						
Schoharie	0	0	0	0						
Schuyler	0	0	0	0						
Seneca	0	0	0	0						
St. Lawrence	0	0	0	0						
Steuben	0	0	0	0						
Suffolk *	0	0	0	0	0	322	0.0			
Sullivan	0	0	0	0			-			
Tioga	0	0	0	0			-			
Tompkins	0	0	0	0			-			
Ulster	0	0	0	0						
Warren	0	0	0	0						
Washington	0	0	0	0						
Wayne	0	0	0	0			-			
Westchester *	0	0	0	0	0	35	0.0			
Wyoming	0	0	0	0			-			
Yates	0	0	0	0						
NYS (excluding NYC) TOTAL	0	0	0	0	0	810	0.0			
NYC*† TOTAL					0					

^{*} 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

[†] NYCDOHMH mosquito pools represent positive totals only; number of total pools collected and tested not available

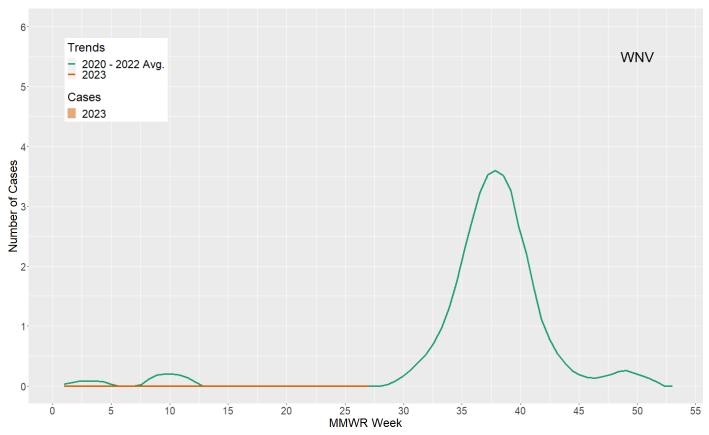


Fig 1. Current year and trend data for human WNV cases (excluding NYC)

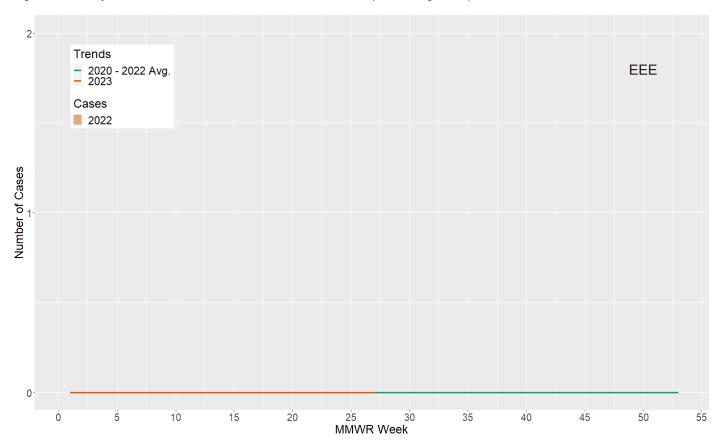


Fig 2. Current year and trend data for human EEE cases (excluding NYC)

New York State Arboviral Surveillance Summary (01/01/2023 - 07/08/2023)

Lance and the second	Chikungunya		L	Dengue			Malaria			Zika		
Jurisdiction	Human Cases		Positive Mosquito	Human Case		Positive Mosquito	Human Case	S	Positive Mosquito	Human Case	es	Positive Mosquito
	Travel Associated	LMBT	Pools									
Albany	0	0		0	0		2	0		0	0	
Allegany	0	0		0	0		0	0		0	0	
Bronx *	0	0	0	0	0	0	0	0	0	0	0	0
Broome	1	0		0	0		0	0		0	0	
Cattaraugus *	0	0	0	0	0	0	0	0	0	0	0	0
Cayuga	0	0		0	0		0	0		0	0	
Chautauqua *	0	0	0	0	0	0	0	0	0	0	0	0
Chemung	0	0		0	0		0	0		0	0	
Chenango	0	0		0	0		0	0		0	0	
Clinton	0	0		0	0		0	0		0	0	
Columbia	0	0		0	0		0	0		0	0	
Cortland	0	0		0	0		0	0		0	0	
Delaware	0	0		0	0		0	0		0	0	
Dutchess	0	0		0	0		4	0		0	0	
Erie *	0	0	0	1	0	0	4	0	0	0	0	0
Essex	0	0		0	0		0	0		0	0	
Franklin	0	0		0	0		0	0		0	0	
Fulton	0	0		0	0		0	0		0	0	
Genesee	0	0		0	0		0	0		0	0	
Greene Hamilton	0	0		0	0		0	0		0	0	
Herkimer	0			0	0			0		0		
Jefferson	0	0		0	0		2	0		0	0	
Kings *	0	0	0	0	0	0	0	0	0	0	0	0
Lewis	0	0		0	0		0	0		0	0	
	0	0	 	0	0		0	0		0	0	
Livingston Madison *	0	0	0	0	0	0	0	0	0	0	0	0
Monroe	0	0		0	0		4	0		0	0	
Montgomery	0	0	 	0	0		0	0		0	0	
Nassau *	2	0	0	0	0	0	7	0	0	0	0	0
New York *	0	0	0	0	0	0	0	0	0	0	0	0
Niagara	0	0		0	0		1	0		0	0	
Oneida *	0	0	0	0	0	0	2	0	0	0	0	0
Oneida Onondaga *	0	0	0	0	0	0	8	0	0	0	0	0
Ontario	0	0		0	0		0	0		0	0	
Orange *	0	0	0	0	0	0	2	0	0	0	0	0
Orleans	0	0		0	0		0	0		0	0	
Oswego *	0	0	0	0	0	0	0	0	0	0	0	0
Otsego	0	0	<u> </u>	0	0		0	0		0	0	
Putnam	0	0		0	0		0	0		0	0	
Queens *	0	0	0	0	0	0	0	0	0	0	0	0
Rensselaer	0	0		0	0		1	0		0	0	
Richmond *	0	0	0	0	0	0	0	0	0	0	0	0
Rockland *	0	0	0	0	0	0	0	0	0	0	0	0
Saratoga	1	0		0	0		0	0		0	0	
Schenectady	0	0		0	0		0	0		0	0	
Schoharie	0	0		0	0		0	0	-	0	0	-
Schuyler	0	0		0	0		0	0		0	0	i
Seneca	0	0		0	0		0	0		0	0	i
St. Lawrence	0	0		0	0		0	0	-	0	0	-
Steuben	0	0		0	0		0	0		0	0	i
Suffolk *	0	0	0	1	0	0	2	0	0	0	0	0
Sullivan	0	0		0	0		0	0		0	0	<u>-</u>
Tioga	0	0		0	0		0	0		0	0	
Tompkins	0	0		0	0		2	0		0	0	
Ulster	0	0		0	0		0	0		0	0	
Warren	0	0		0	0		0	0		0	0	
Washington	0	0		0	0		0	0		0	0	
Wayne	0	0		0	0		0	0		0	0	i -
Westchester *	4	0	0	0	0	0	3	0	0	0	0	0
Wyoming	0	0		0	0		0	0		0	0	i
Yates	0	0		0	0		0	0		0	0	
NYS (excluding NYC) TOTAL	8	0	0	2	0	0	44	0	0	0	0	0
NYC*† TOTAL			0	-		0			0		-	0
			0	2	0	0	44	0	0	0	0	0

^{*} Jurisdiction conducting mosquito surveillance

 $[\]dagger$ NYCDOHMH directly reports human cases of ZIKv infection to CDC

West Nile Virus Mosquito Pool Positivity by Species

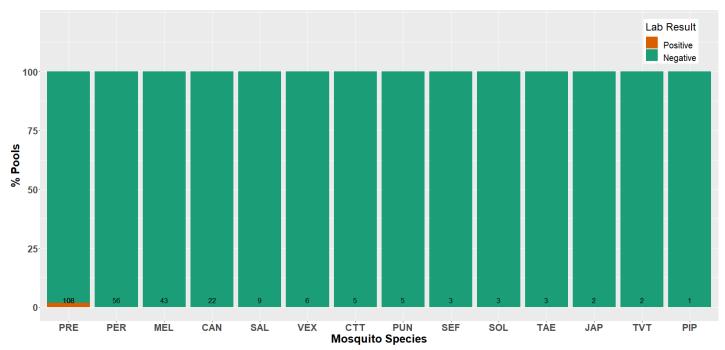


Fig 3. Weekly summary of West Nile Virus positivity by mosquito species. Numbers within each bar represent the number of total pools tested.

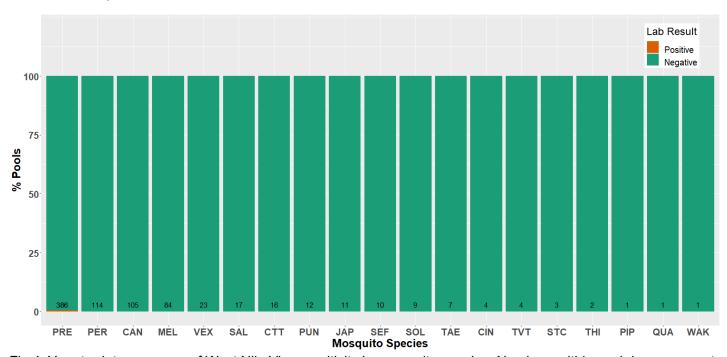


Fig 4. Year-to-date summary of West Nile Virus positivity by mosquito species. Numbers within each bar represent the number of total pools tested.

Abbreviation	Species	Abbreviation	Species	Abbreviation	Species	
CIN	Ae. cinereus	CAN	Ae. canadensis			
VEX	Ae. vexans	CTT	Ae. cantator			
PUN	An. punctipennis	JAP	Ae. japonicus			
QUA	An. quadrimaculatus	SOL	Ae. sollicitans			
WAK	An. walkeri	STC	Ae. sticticus			
PER	Cq. perturbans	SEF	Ae. stimulans gr.			
MEL	Cs. melanura	TAE	Ae. taeniorhynchus			
PIP	Cx. pipiens	TVT	Ae. trivittatus			
PRE	Cx. pipiens-restuans	THI	Ae. thibaulti			
SAL	Cx. salinarius					

Eastern Equine Encephalitis Mosquito Pool Positivity by Species

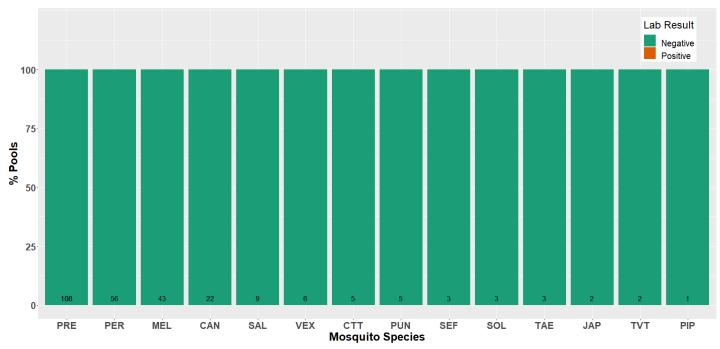


Fig 5. Weekly summary of Eastern Equine Encephalitis positivity by mosquito species. Numbers within each bar represent the number of total pools tested.

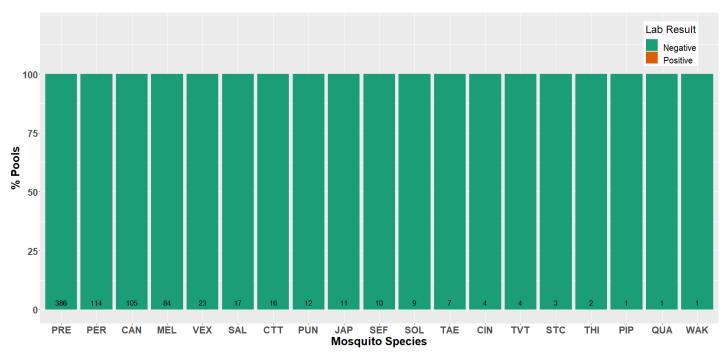


Fig 6. Year-to-date summary of Eastern Equine Encephalitis Virus positivity by mosquito species. Numbers within each bar represent the number of total pools tested.

Abbreviation	Species	Abbreviation	Species	Abbreviation	Species
CIN	Ae. cinereus	CAN	Ae. canadensis		
VEX	Ae. vexans	CTT	Ae. cantator		
PUN	An. punctipennis	JAP	Ae. japonicus		
QUA	An. quadrimaculatus	SOL	Ae. sollicitans		
WAK	An. walkeri	STC	Ae. sticticus		
PER	Cq. perturbans	SEF	Ae. stimulans gr.		
MEL	Cs. melanura	TAE	Ae. taeniorhynchus		
PIP	Cx. pipiens	TVT	Ae. trivittatus		
PRE	Cx. pipiens-restuans	THI	Ae. thibaulti		
SAL	Cx. salinarius				

Seasonality of Human Cases

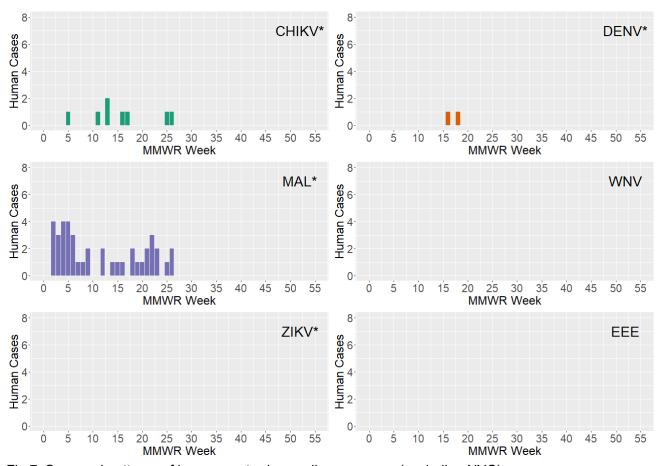


Fig 7. Seasonal patterns of human vector-borne disease cases (excluding NYC)

^{*} No cases of LMBT; all cases to date are travel-related.

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://www.cdc.gov/fight-the-bite/at-risk/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/)