

VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV, CHIK, ZIKV, and JCV

Prepared by Lisa M. Reed and Dina Fonseca

Center for Vector Biology, Rutgers University

3 June to 10 June 2022, CDC Week 23

Data download 2:15 pm 10 June



This New Jersey Agricultural Experiment Station report is supported by Rutgers University, Hatch funds, funding from the NJ State Mosquito Control Commission and with the participation of the Department of Health, Department of Agriculture and of the 21 county mosquito control agencies of New Jersey. Data is held in JerseySurv, a subset of the CalSurv system.

NOTE: County/species tables for arboviruses are now in a supplemental file [here](#)

Arbovirus Summary

- Note: Data download times are noted and do not necessarily reflect all pools submitted and analyzed to that point in time. This report may vary from other reports from the same dataset as they are all snapshots in time.
- No pools tested for EEE virus have been detected positive in any species submitted to date. No horse or human cases have been reported.
- 1 pool has tested positive for WN virus in *Aedes cantator*, collected in Burlington County 2 June. No horse or human cases have been reported.
- No pools tested for SLE virus have been detected positive in any species submitted to date.
- No pools tested for LAC virus have been detected positive in any species submitted to date.
- 1 pool has tested positive for JC virus in *Aedes cantator*, collected in Bergen County 3 June.
- Testing for DENG, CHIK, and ZIKA have not yet been requested.

- In 2021, there were 35 positive EEE pools in *Culiseta melanura*, *Culex erraticus*, *Ae. taeniorhynchus*, and *Ae. triseriatus*. There were 3 horse case reported. There were no human cases reported.
- There were 997 positive WNV pools, in *Culex Mix*, *Culex pipiens*, *Culex restuans*, *Culex erraticus*, *Culiseta melanura*, *Aedes albopictus*, *Aedes japonicus*, *Ae. taeniorhynchus*, *Ae. triseriatus*, *Ae. trivittatus*, *Ae. vexans*, *Anopheles bradleyi*, *An. punctipennis*, *An. quadrimaculatus*, *Coquillettidia perturbans*, *Psorophora ciliata*, and *Ps. ferox*. There were 36 human cases with 5 fatalities, plus 13 positive birds. There were no horse cases.

- There were 8 positive JVC pools in *Aedes albopictus*, *Ae. vexans*, *Anopheles punctipennis* and *Culex* Mix. There were 2 human cases reported.

Culiseta melanura and Eastern Equine Encephalitis

SITE/Boxes	Inland or Coastal	Historic Population Mean	Current Weekly Mean	Total Tested* (Collected)	Total Pools Tested* (Submitted)	EEE Isolation Pools	MFIR
Bass River (Burlington Co.)/5	Coastal	0.06	0.00	0	0		
Green Bank (Burlington Co.)/25	Coastal	0.68	0.00	6	1		
Corbin City (Atlantic Co.)/25	Coastal	0.99	0.60	55	5		
Dennisville (Cape May Co.)/50	Coastal	3.33	0.02	9(8)	2(1)		
Winslow (Camden Co.)/50	Inland	2.39	0.54	32(57)	1(2)		
Centerton (Salem Co.)/50	Inland	1.79	0.08	(9)	(3)		
Turkey Swamp (Monmouth Co.)/50	Inland	0.35	nd	333	7		
Glassboro (Gloucester Co.)/50	Inland	0.35	0.04	7(3)	2(1)		

*Current week (in parentheses) results pending. ‡ corrected from previous week na =not available ND=No Data (site offline) NR=Not Recorded

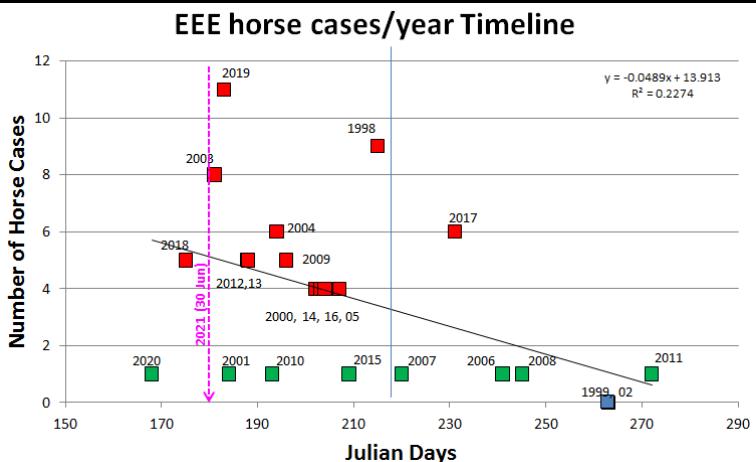
Remarks: Currently, there are no positive EEE pools detected in the samples submitted.

Statewide: 441 *Cs. melanura* from 52 pools have been submitted for testing, with no positive pools detected and an overall *Cs. melanura* MFIR of 0.000. 12,904 specimens in 635 pools from 24 other species have also been tested with no positive pools detected. Overall MFIR for all species statewide is 0.000.

Traditional Resting Box Sites: 226 *Cs. melanura* from 22 pools have been collected at the traditional resting box sites. Of these, 18 pools of 142 mosquitoes have been submitted for testing with no positive pools detected. Overall *Cs. melanura* MFIR at the traditional resting box site is 0.00.

Additional <i>Cs. melanura</i> trapped by counties *traps with positives indicated in BOLD UNDERLINE .					
County	Trap types*	Pools	Mosquitoes	Positives	MFIR
Atlantic	RB	6	96		
Cape May	GRA	4	6		
Cumberland	RB	6	19		
Gloucester		7	91		
Monmouth	CO2	3	4		
Morris	ASP, CO2, GRA, RB	6	31		
Salem	RB	2	40		
Sussex		1	12		
TOTAL		35	299		

Additional County-set *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. In 2021, first positive pools of *Cs. Melanura* were detected at a non-traditional resting box site in Gloucester County, collected 30Jun. Currently, there are no positive pools detected.



Graph above indicate start times to detection of EEE in *Culiseta melanura* and associated number of horse cases from 1998 to 2021. Early detections are associated with multiple horse cases.

Horses and Humans: In 2021, 3 horses were reported with EEE. Currently, no horse or humans have been reported. For more information, see DOH Vectorborne Surveillance reports: <https://www.nj.gov/health/cd/statistics/arboviral-stats/>

Case	Animal	Age	Sex	County	Date of Onset			Comment
					Euthanized?	Vaccinated?		

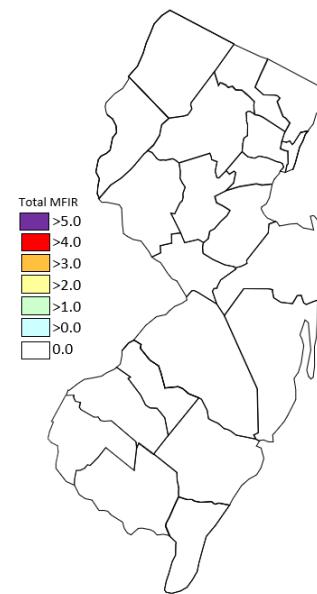
Horses and Vaccinations: *Horse owners are urged to make sure their horses are up to date on their vaccinations (see link below). EEE horse cases are known to occur through October and sometimes into November.* Other sensitive species are non-native birds, such as Ostriches/Emus and Gallinaceous birds such as pheasants of Eurasian origins. The fate of unvaccinated equids reinforces the necessity of

maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	12	257		
<i>Aedes albopictus</i>	11	32		
<i>Aedes aurifer</i>	6	21		
<i>Aedes canadensis canadensis</i>	29	510		
<i>Aedes cantator</i>	21	856		
<i>Aedes grossbecki</i>	3	39		
<i>Aedes japonicus</i>	48	144		
<i>Aedes provocans</i>	2	3		
<i>Aedes sollicitans</i>	7	82		
<i>Aedes sticticus</i>	6	147		
<i>Aedes stimulans</i>	5	26		
<i>Aedes taeniorhynchus</i>	3	116		
<i>Aedes vexans</i>	44	1278		
<i>Anopheles bradleyi</i>	3	11		
<i>Anopheles punctipennis</i>	62	602		
<i>Anopheles quadrimaculatus</i>	9	54		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex erraticus</i>	2	4		
<i>Culex Mix</i>	263	6770		
<i>Culex pipiens</i>	34	761		
<i>Culex restuans</i>	56	1068		
<i>Culex salinarius</i>	5	100		
<i>Culiseta inornata</i>	1	2		
<i>Psorophora columbiae</i>	1	15		
<i>Psorophora ferox</i>	1	4		
State Total	635	12904		

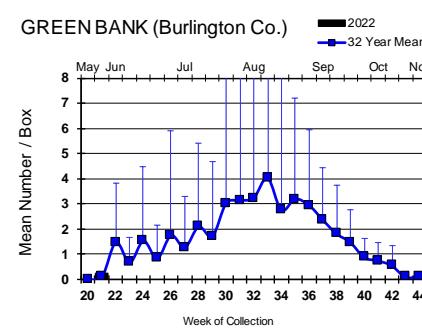
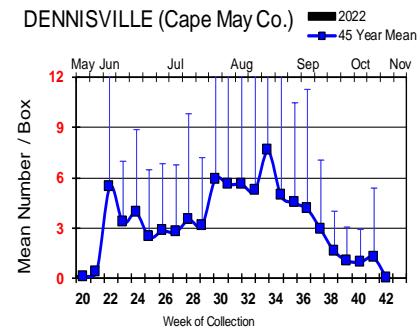
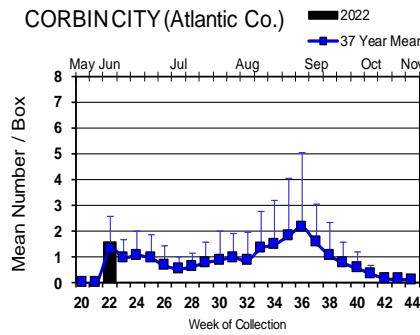
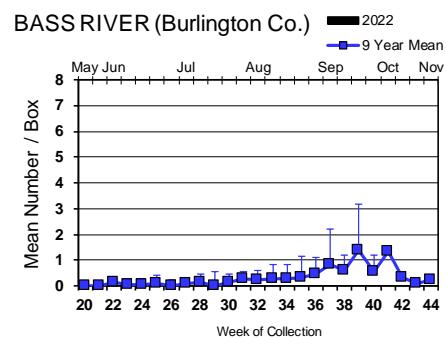
Additional Species: 24 additional species were tested for EEE. No positive pools were detected. In 2021, the first positive non-*melanura* pool was detected in of *Culex erraticus* in Atlantic County on 5 Aug.

Overall MFIR rates, human and animal cases per county:

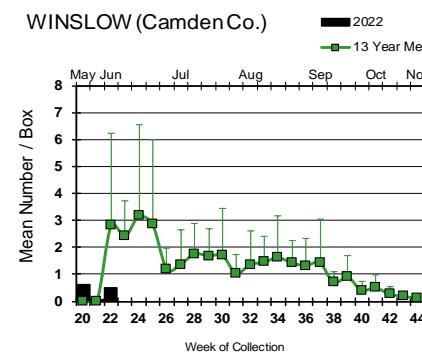
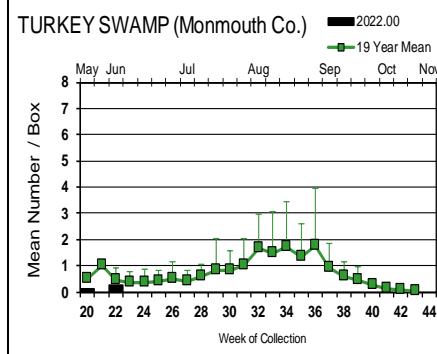
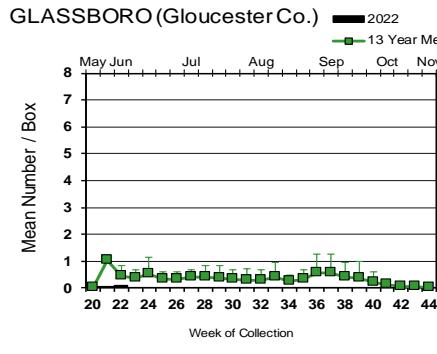
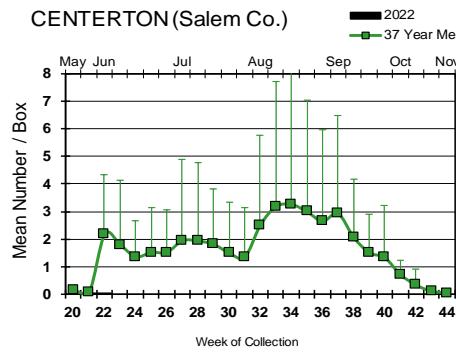


Culiseta melanura Populations

Coastal



Inland



This year's surveillance season began mid-May, about two weeks earlier to accommodate increasing indications of earlier population emergences. This is the second year New Jersey has started this early (notice lack of error bars during the first two weeks). Currently, no positive EEE pools have been detected at any sites within the state.



= Positive pool(s) detected (red = melanura, purple = other species).

EEE in US (2022 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: **1**(FL)
- mosquito pools:
- sentinel: **20**(FL)
- human:

West Nile Virus Positive Organisms in US, 2022

West Nile in US (2022 cumulative cases): Single black values indicate no change from previous week. Black values / red values equals previous week/**New totals**. Note: Data reported by all states should be considered provisional and subject to change. Sources for this table can be found [here](#).

	Birds	Mosquito Pools	Sentinels	Horses*	Humans
Alabama					0
Alaska					
Arizona					
Arkansas					
California	5/5	16/16	0	0	0
Colorado					
Connecticut					
Delaware					
Florida			5/5		
Georgia					
Hawaii					
Idaho					
Illinois	0	5/8		0	0
Indiana	0	0		0	0
Iowa					
Kansas					
Kentucky					
Louisiana					
Maine					
Maryland(+DC)					
Mass.		0		0	0
Michigan					
Minnesota					
Mississippi					2/2
Missouri		0		0	0

	Birds	Mosquito Pools	Sentinels	Horses*	Humans
Montana					
Nebraska					
Nevada					
New Hampshire					
New Jersey	0	1		0	0
New Mexico					
New York					
North Carolina					
North Dakota					
Ohio					
Oklahoma					
Oregon	0	0	0	0	0
Pennsylvania		2+/4+			
Rhode Island					
South Carolina					
South Dakota					
Tennessee					
Texas	0	2/4	0	0	1
Utah					
Vermont		0		0	0
Virginia					
Washington					
West Virginia					
Wisconsin					
Wyoming		0		0	0

* Can include other species (e.g., dogs, cows) reported positive.

Protocol: New Jersey Department of Health (NJDH Public Health Environmental and Agricultural Laboratories, PHEAL) and the Cape May County Department of Mosquito Control tests mosquito pools using RT-PCR Taqman techniques.

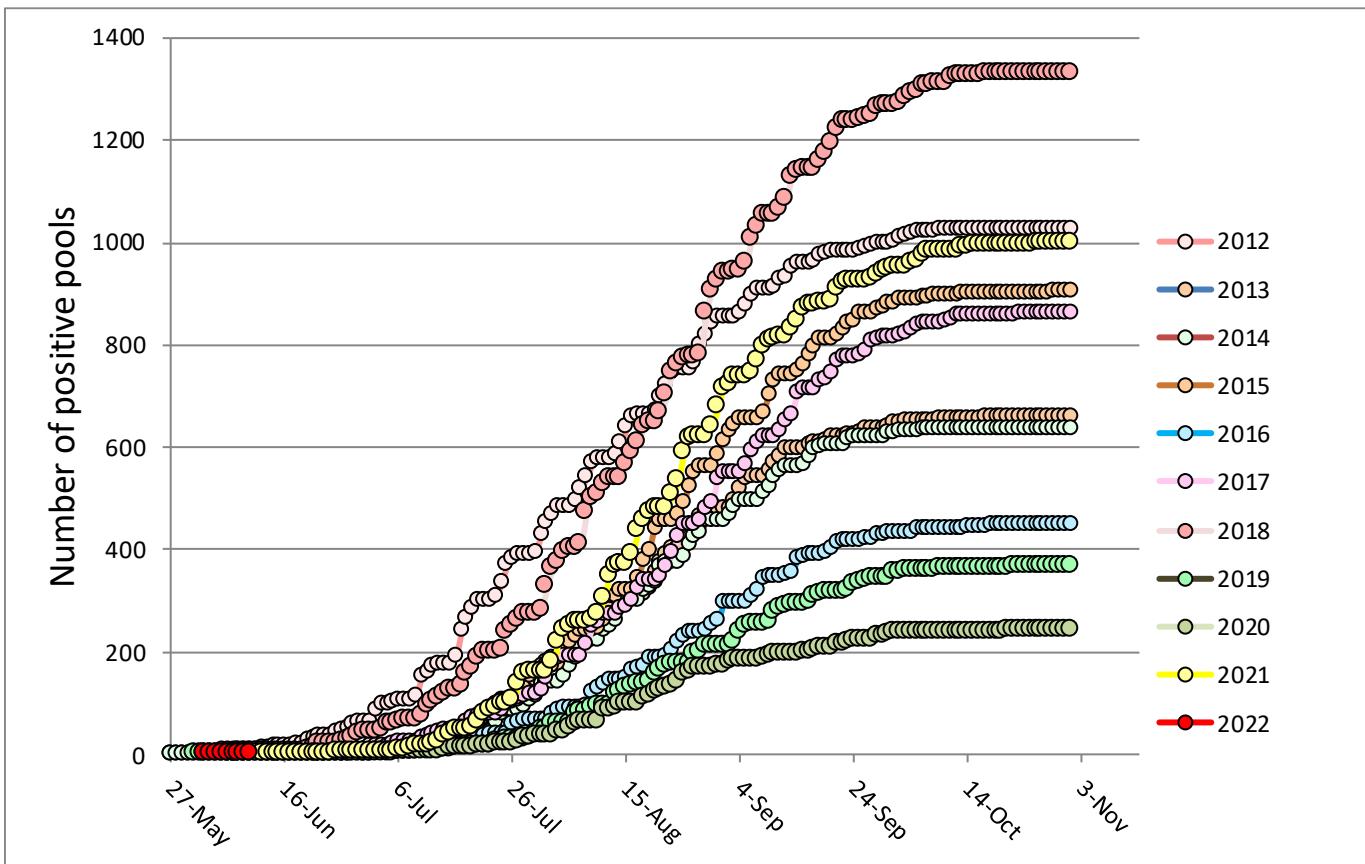
Mosquito Species Submitted and Tested for West Nile Virus through 10 June 2022

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	12	257		
<i>Aedes albopictus</i>	11	32		
<i>Aedes aurifer</i>	6	21		
<i>Aedes canadensis canadensis</i>	29	510		
<i>Aedes cantator</i>	21	856	1	1.168
<i>Aedes grossbecki</i>	3	39		
<i>Aedes japonicus</i>	48	144		
<i>Aedes provocans</i>	2	3		
<i>Aedes sollicitans</i>	7	82		
<i>Aedes sticticus</i>	6	147		
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<i>Aedes triseriatus</i>	4	9		
<i>Aedes vexans</i>	44	1278		
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<i>Anopheles punctipennis</i>	62	602		
<i>Anopheles quadrimaculatus</i>	9	54		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex erraticus</i>	2	4		
<i>Culex</i> spp.	263	6770		
<i>Culex pipiens</i>	34	761		
<i>Culex restuans</i>	56	1068		
<i>Culex salinarius</i>	5	100		
<i>Culiseta inornata</i>	1	2		
<i>Culiseta melanura</i>	52	441		
<i>Psorophora columbiae</i>	1	15		
<i>Psorophora ferox</i>	1	4		
Grand Total	691	13354	1	0.075

Remarks: To date 691 pools of 13,354 mosquitoes from 25 species have been tested. First positive pool was detected in *Aedes cantator*, collected 2 June in Burlington County at a traditional resting box site. First positive detected in 2021 was a pool of *Culex* Mix collected on 7 June in Somerset County. Cumulative MFIR for all mosquitoes in New Jersey is 0.075.

Humans, Horses and Wild Birds: No date, no humans or livestock have been reported with WNV. Last year, no horses have been reported infected but 36 human cases were detected. See DOH reports on arbovirus activity for further information: <https://www.nj.gov/health/cd/statistics/arboviral-stats/index.shtml>

Although birds are no longer routinely tested in New Jersey, last year 13 corvids and birds of prey were reported positive for WNV.



Above is a graph showing cumulative number of positive pools for the previous 10 years, inclusive of the most active (2018) year. 2022 is represented in RED (first positive collected 2 June).

Go [here](#) for the table supplement of arbovirus by county by mosquito species.