

VECTOR SURVEILLANCE IN NEW JERSEY

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

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1 August to 7 August, 2021, CDC Week 31

Data download 2:20 pm 6 August



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

Arbovirus Summary

- Currently, there are 165 positive WNV pools, 162 in *Culex Mix*, and one each in *Cx. pipiens*, *Aedes triseriatus*, and *Ae. trivittatus*. Four positive birds (1 *Corvus brachyrhynchos*, 3 *Accipiter cooperii*).
- There are two positive EEE pools detected in *Cs. melanura*, one from Gloucester County, collected 30 June and the second from Camden County.
- There is one positive JCV pool detected in *Aedes vexans*, from Sussex County, collected 8 July.
- There is one human case of Jamestown Canyon virus, in Sussex County. Date of onset was May 8.

- In 2020, there were 13 positive EEE pools in *Culiseta melanura*.
- There were 241 positive WNV pools, in *Culex Mix* (231), in *Culex pipiens* (4), *Culex restuans* (1), *Culiseta melanura* (2), *Aedes albopictus* (2), and *Aedes canadensis canadensis* (1).
- There were 6 positive JVC pools in *Aedes cantator* (2), *Aedes taeniorhynchus* (1), *Anopheles quadrimaculatus* (1) and *Coquillettidia perturbans* (2).
- There was one EEE horse case reported. There are no WNV horse cases.
- There were 3 human WNV cases; in Essex County (1) and Monmouth County (2).
- There was one WNV positive Red-tailed Hawk (*Buteo jamaicensis*) in Cumberland County (regular surveillance of birds is no longer done in NJ).
- 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.

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	0.16	ND	0	0		
Green Bank (Burlington Co.)/25	Coastal	3.13	0.00	12 (17)	3 (4)		
Corbin City (Atlantic Co.)/25	Coastal	0.86	1.68	183	9		
Dennisville (Cape May Co.)/50	Coastal	6.06	0.02	66 (77)	8 (9)		
Winslow (Camden Co.)/50	Inland	1.69	0.74	137	6	1	7.299
Centerton (Salem Co.)/50	Inland	1.55	0.00	92	8		
Turkey Swamp (Monmouth Co.)/50	Inland	0.82	0.14	21	5		
Glassboro (Gloucester Co.)/50	Inland	0.29	0.08	110	7		

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

Remarks: Currently, two positive EEE pools in *Cs. melanura* have been detected. First detected pool was from a county-run site in Gloucester, sampled 30 June. Second came from a traditional resting box site in Camden County sampled 20 July. Sampling near Bass River has begun again with the understanding that the canopy has opened up after a fire and the site might not see much activity. Current weekly mean is for Week 30.

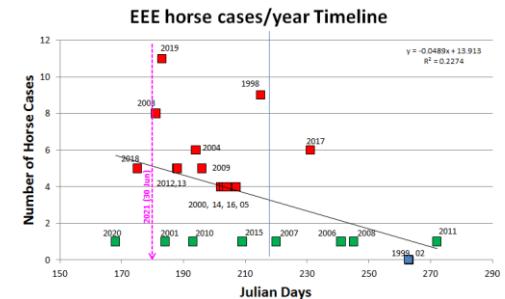
Statewide: 5707 *Cs. melanura* from 332 pools have been tested, with two positive pools detected and an overall *Cs. melanura* MFIR of 0.350. 87,711 specimens in 2979 pools from 35 other species have also been tested with no positive pools detected. Overall MFIR for all species statewide is 0.021.

Traditional Resting Box Sites: 591 *Cs. melanura* from 46 pools have been tested, with one positive pool detected at Winslow in Camden County. 16 mosquitoes in 2 pools pending. Overall *Cs. melanura* MFIR at the traditional resting box site is 1.692.

Additional <i>Cs. melanura</i> trapped by counties *traps with positives indicated in BOLD UNDERLINED .					
County	Trap types*	Pools	Mosquitoes	Positives	MFIR
Atlantic	CO2, RB	43	1144		
Bergen	NJLT, RB	5	48		
Burlington	ULVT	28	967		
Camden	GRA	1	2		
Cape May	GRA, RB	29	405		
Cumberland	CO2, GRA, RB	29	255		
Gloucester	RB	66	1942	1	0.515
Middlesex	NJLT	5	16		
Monmouth	Other	2	3		
Morris	CO2, RB	14	51		
Ocean	CO2	7	12		
Salem	CO2, GRA, RB	22	137		
Sussex	CO2, GRA, RB	34	118		
Warren	Co2	1	16		
TOTAL		286	5116	1	0.210

Additional County-set *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. First positive pools of *Cs. melanura* have been detected at a non- traditional resting box site in Gloucester County, collected 30Jun.

Graph below indicate start times to detection of EEE in *Culiseta melanura* from 1998 to 2020. Last year was the earliest collected during that time period, suggesting the possibility of multiple horse cases.



Horses and Humans: Last year, only 1 horse was reported with EEE, detected in September. **Horse owners are urged to make sure their horses are up to date on their vaccinations. Horse cases are known to occur through October and sometimes into November (see link below).**

Other sensitive species are non-native birds, such as Ostriches/Emus and Gallinaceous birds such as pheasants of Eurasian origins.

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

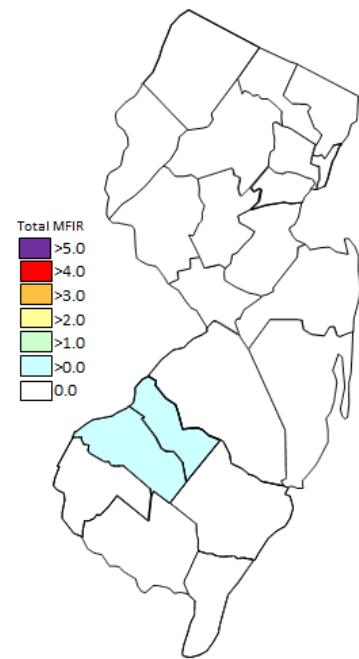
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

There are no human cases of EEE currently reported. For more information, see DOH Vectorborne Surveillance reports:
<https://www.nj.gov/health/cd/statistics/arboviral-stats/>

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	14	118		
<i>Aedes albopictus</i>	131	968		
<i>Aedes atlanticus</i>	4	105		
<i>Aedes aurifer</i>	5	102		
<i>Aedes canadensis canadensis</i>	68	943		
<i>Aedes cantator</i>	40	563		
<i>Aedes cinereus</i>	2	79		
<i>Aedes grossbecki</i>	9	33		
<i>Aedes japonicus</i>	147	745		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	15	317		
<i>Aedes sticticus</i>	15	261		
<i>Aedes stimulans</i>	5	28		
<i>Aedes taeniorhynchus</i>	21	1023		
<i>Aedes thibaulti</i>	2	105		
<i>Aedes triseriatus</i>	18	46		
<i>Aedes trivittatus</i>	10	122		
<i>Aedes vexans</i>	67	1531		
<i>Anopheles</i> spp.	5	90		
<i>Anopheles bradleyi</i>	15	450		
<i>Anopheles crucians</i>	10	114		
<i>Anopheles punctipennis</i>	132	1986		
<i>Anopheles quadrimaculatus</i>	52	622		
<i>Anopheles walkeri</i>	12	873		
<i>Coquillettidia perturbans</i>	150	5650		
<i>Culex erraticus</i>	33	314		
<i>Culex Mix</i>	1644	62040		
<i>Culex pipiens</i>	181	5706		
<i>Culex restuans</i>	72	1391		
<i>Culex salinarius</i>	39	453		
<i>Culex territans</i>	1	1		
<i>Culiseta inornata</i>	17	242		
<i>Culiseta morsitans</i>	4	8		
<i>Orthopodomyia signifera</i>	3	4		
<i>Psorophora ciliata</i>	5	103		
<i>Psorophora columbiae</i>	14	367		
<i>Psorophora ferox</i>	16	207		
State Total	2979	87711		

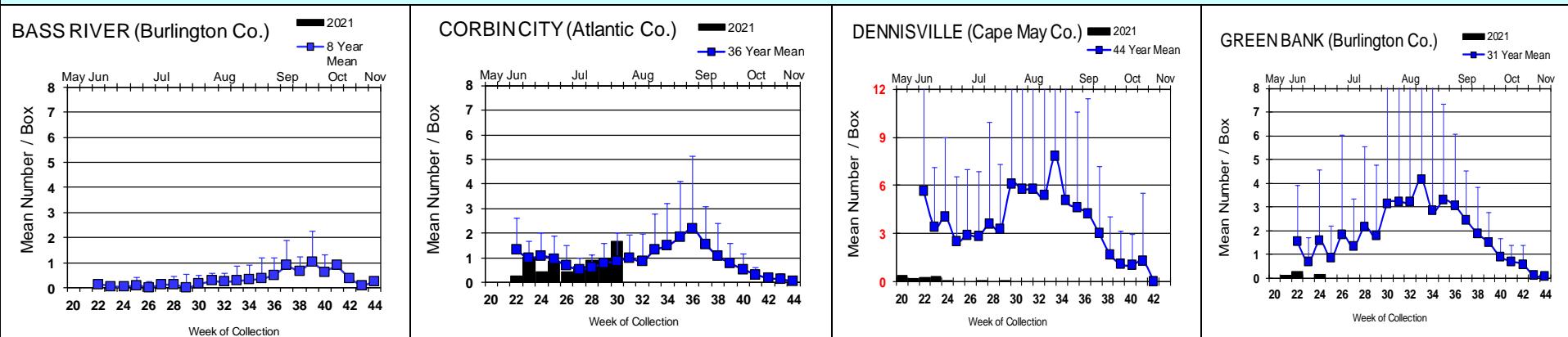
Additional Species: 34 additional species were tested for EEE. No positive pools have been detected to date.

Overall MFIR rates, human and animal cases per county:

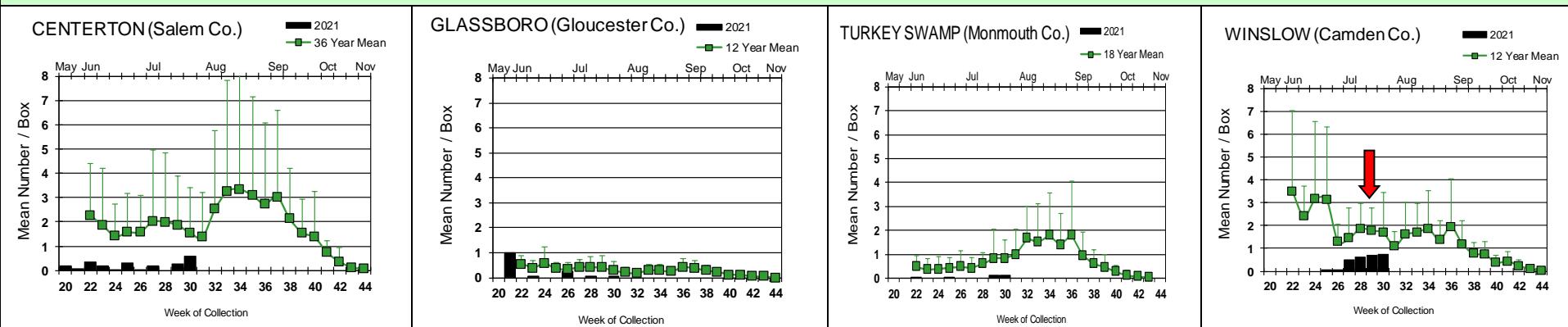


Culiseta melanura Populations

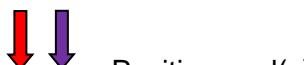
Coastal



Inland



This year's surveillance season began two weeks earlier to accommodate increasing indications of earlier population emergences. Currently, populations remain at or well below the historical averages at most traditional resting box sites, with rising rates at Corbin City and Winslow. One positive pool has been detected at Winslow, in addition to a non-traditional resting box site pool collected earlier. Adult mosquito surveillance reports at <http://vectorbio.rutgers.edu/reports/mosquito/>) continue to suggest resting box collections are lower than light box collections, apart from Corbin City.



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

EEE in US (2021 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: 1(AZ) 12(FL) 1(Ontario)
- mosquito pools: 2(NJ)
- sentinel: 148(FL)
- human:

West Nile Virus Positive Organisms in US, 2021

West Nile in US (2021 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					3
Alaska					
Arizona					13
Arkansas					1
California	94/109	414/770	10	1	4/8
Colorado		5		1/1	0
Connecticut		10/25			
Delaware					
Florida		5/10			
Georgia					
Hawaii					
Idaho		9/23			2
Illinois	3	238/406	0	0	0
Indiana	0	2/4		0	0
Iowa					2
Kansas					
Kentucky					
Louisiana					
Maine					
Maryland(+DC)					
Mass.		23/30			
Michigan					
Minnesota					
Mississippi		3/11		2?	
Missouri					1

	Birds	Mosquito Pools	Sentinels	Horses*	Humans
Montana					
Nebraska	0	2/6		0	1
Nevada					
New Hampshire					
New Jersey	1/4	86/165		0	0
New Mexico					
New York					
North Carolina					
North Dakota					1
Ohio		86/160			
Oklahoma					1
Oregon	0	0	0	0	0
Pennsylvania	0	76	0	0	0
Rhode Island					
South Carolina					1
South Dakota					
Tennessee					
Texas	3/5	274/395	0	0	1
Utah					
Vermont					
Virginia					
Washington		12/30			1
West Virginia					
Wisconsin					
Wyoming					

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

**Mosquito Species Submitted and Tested
for West Nile Virus through 6 August 2021**

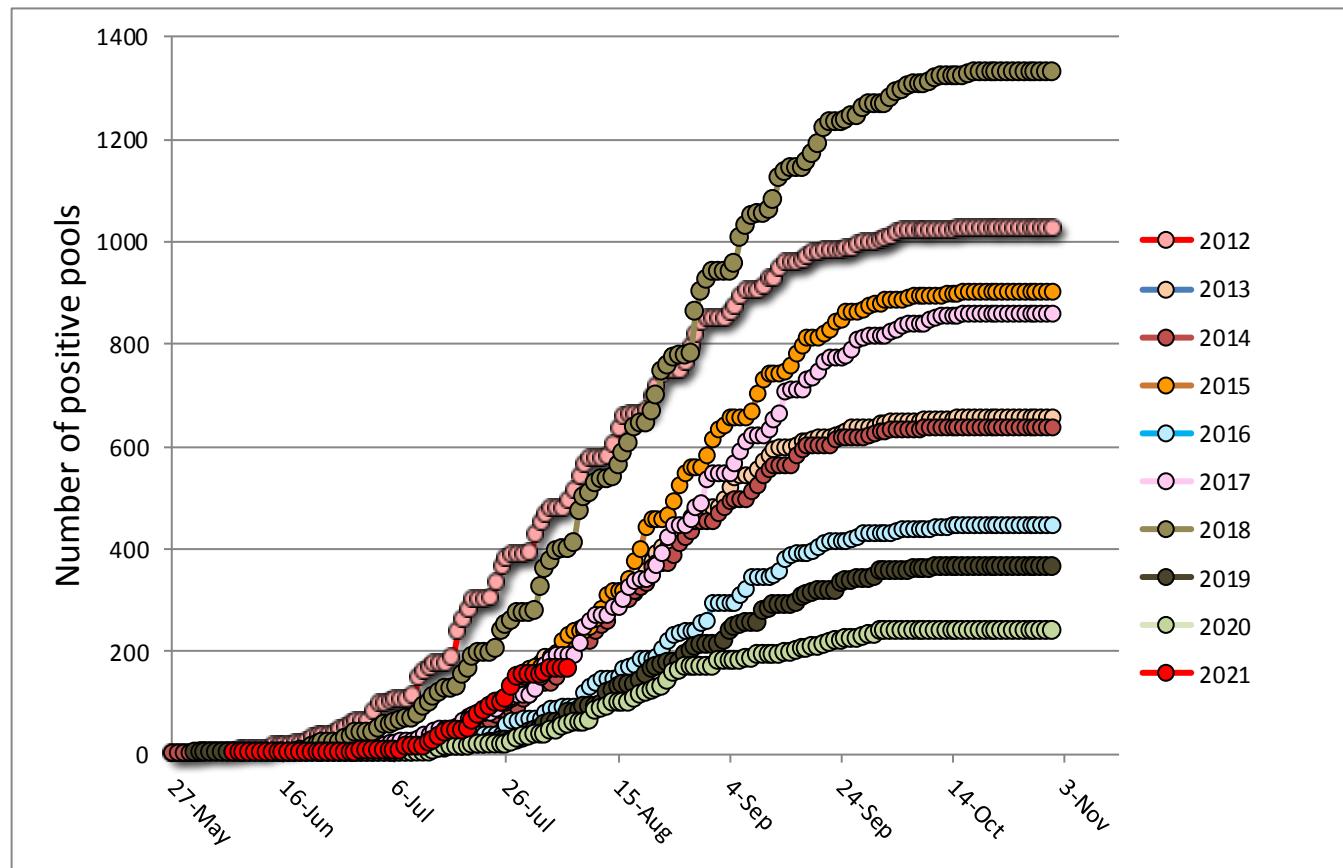
Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	15	120		
<i>Aedes albopictus</i>	184	1428		
<i>Aedes atlanticus</i>	5	114		
<i>Aedes aurifer</i>	5	102		
<i>Aedes canadensis canadensis</i>	78	1063		
<i>Aedes cantator</i>	46	720		
<i>Aedes cinereus</i>	2	79		
<i>Aedes grossbecki</i>	9	33		
<i>Aedes japonicus</i>	192	1330		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	18	447		
<i>Aedes sticticus</i>	15	261		
<i>Aedes stimulans</i>	5	28		
<i>Aedes taeniorhynchus</i>	29	1251		
<i>Aedes thibaulti</i>	2	105		
<i>Aedes triseriatus</i>	47	138	1	7.246
<i>Aedes trivittatus</i>	16	138	1	7.246
<i>Aedes vexans</i>	80	1788		
<i>Anopheles</i> spp.	7	159		
<i>Anopheles bradleyi</i>	17	575		
<i>Anopheles crucians</i>	14	150		
<i>Anopheles punctipennis</i>	161	2512		
<i>Anopheles quadrimaculatus</i>	62	753		
<i>Anopheles walkeri</i>	13	898		
<i>Coquillettidia perturbans</i>	150	5650		
<i>Culex erraticus</i>	33	314		
<i>Culex</i> spp.	2133	84471	162	1.918
<i>Culex pipiens</i>	246	7610	1	0.131
<i>Culex restuans</i>	79	1448		
<i>Culex salinarius</i>	50	794		
<i>Culex territans</i>	1	1		
<i>Culiseta inornata</i>	18	244		
<i>Culiseta melanura</i>	332	5707		
<i>Culiseta morsitans</i>	4	8		
<i>Orthopodomyia signifera</i>	3	4		
<i>Psorophora ciliata</i>	6	112		
<i>Psorophora columbiae</i>	19	478		
<i>Psorophora ferox</i>	27	383		
<i>Psorophora howardii</i>	1	50		
Grand Total	4125	121467	165	1.358

Remarks: To date 4125 pools of 121,467 mosquitoes from 36 species have been tested. 163 pools of *Culex* Mix or *Cx. pipiens*, 1 pool of *Ae. trivittatus* and 1 pool of *Ae. triseriatus* have been identified as positive for WNV in Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties. First positive detected in a pool of *Culex* Mix collected on 7 June in

Somerset County and the *Ae. trivittatus* pool was collected on 2 July in Essex County. Cumulative MFIR for all mosquitoes in New Jersey is 1.358.

Humans, Horses and Wild Birds: No horses have been reported infected with WNV in 2021. No human activity has been reported to date. 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, one American Crow (*Corvus brachyrhynchos*) from Burlington County has tested positive for WNV. Three Cooper's Hawks (*Accipiter cooperii*) tested positive from Union County.



Above is a graph showing cumulative number of positive pools for the previous 9 years, inclusive of the most active (2018) year. 2021 is represented in RED, with first positive showing on 7 June.

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