VECTOR SURVEILLANCE IN NEW JERSEY

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

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CDC WEEK 34: 19 August to 25 August, 2018

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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**	0.45	0.00	3	2		
Green Bank (Burlington Co.)/25	**Coastal**	3.14	0.08	42 (44)	8 (9)		
Corbin City (Atlantic Co.)/25	**Coastal**	1.59	0.48	112‡ (124)	11 (12)		
Dennisville (Cape May Co.)/50	**Coastal**	8.38	0.10	289	14		
Winslow (Camden Co.)/50	**Inland**	1.86	1.88	1741	41	4	2.298
Centerton (Salem Co.)/50	**Inland**	3.61	0.42	240	13	2	8.333
Turkey Swamp (Monmouth Co.)/50	**Inland**	1.63	1.56	195‡ (273)	11 (13)		
Glassboro (Gloucester Co.)/50	**Inland**	0.31	0.14	124	11		

*Current week (in parentheses) results pending. ‡ corrected from previous week NC=no collection

Remarks: Currently for the 2018 season, there are nine detections of EEE among submitted mosquito pools, six at resting box sites (4 at Winslow and 2 at Centerton) and three from county-set traps. All positive pools are in the enzootic vector, *Culiseta melanura.*

Statewide, 5525 *Cs. melanura* from 338 pools have been tested, with nine positive pools detected for an overall *Cs. melanura* MFIR of 1.629. 11124 specimens in 958 pools from 16 other species have also been tested, with no positives detected. Overall MFIR for all species statewide is 0.541.

Traditional Resting Box Sites: 2746 *Cs. melanura* from 111 pools have been tested for EEE (plus three pools totaling 92 to be tested) in 2018. No additional positive pools were detected at these traditional resting box sites.

	Additional *Cs. melanura* trapped by counties *traps with positives indicated in **BOLD.**				
County	**Trap types***	**Pools**	**Mosquitoes**	**Positives**	**MFIR**
Atlantic	CO2, RB	25	657		
Bergen	RB	6	14		
Burlington	CDCL	30	1274	3	2.355
Cape May	GR, RB	116	301		
Cumberland	BGSCL, RB	12	58		
Morris	CDCL	1	1		
Ocean	CDCL, RB	20	126		
Passaic	RB	2	2		
Salem	CDCL	3	46		
Sussex	ABC	8	69		
Warren	CDCL	1	6		
TOTAL		**224**	**2554**	**3**	**1.175**

Additional County-set *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. Three total positive pools have been detected, all in Burlington, all caught with a CDC trap and all at different locations. Positive pools were caught on the 6th and 14th of August.

Horses and Humans: Currently, there is one horse case of EEE reported from a 5 year-old mare in Monmouth County. This horse was reportedly vaccinated last year, but not currently. She was euthanized on the 18th of August. Last year, there were 6 horses detected with EEE. EEE is nearly always fatal for those horses without a complete vaccination history. Horses in New Jersey that have gone down in the past with EEE have either an incomplete vaccination history or NO vaccination history. Note that Florida is experiencing early and continued EEE activity with horse and now 1 human case. ***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.

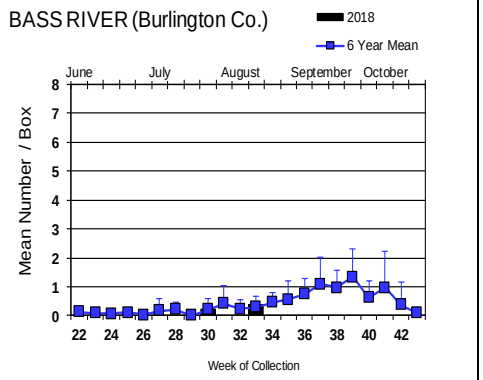
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

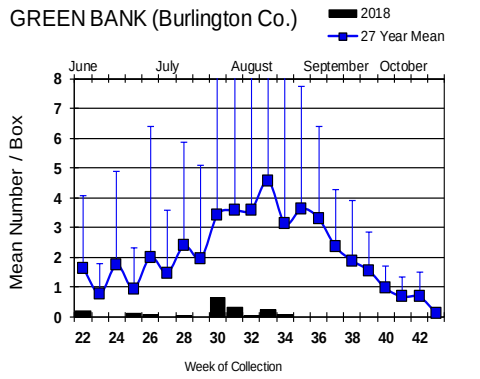
Additional Species: Sixteen additional species were tested for EEE. No positives were detected.

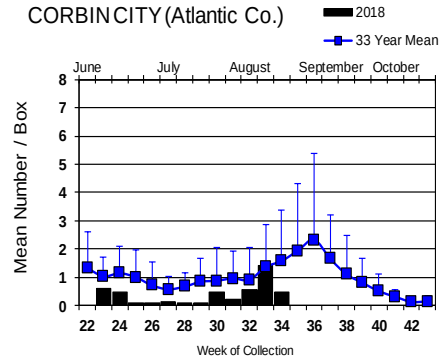
Species other than *Cs. melanura*	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	2	2		
Aedes canadensis canadensis	1	10		
Aedes cantator	2	2		
Aedes infirmatus	1	1		
Aedes sollicitans	7	33		
Aedes taeniorhynchus	2	46		
Aedes vexans	1	6		
Anopheles bradleyi	24	111		
Anopheles punctipennis	8	32		
Anopheles quadrimaculatus	1	1		
Coquillettidia perturbans	76	1721		
Culex erraticus	43	291		
Culex pipiens	553	7681		
Culex salinarius	198	759		
Culex spp.	34	118		
Culiseta inornata	1	10		
Psorophora ferox	4	300		
State Total	**958**	**11124**		

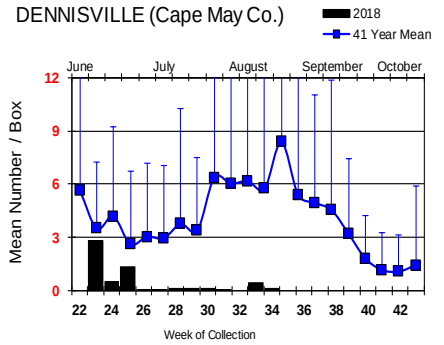
Culiseta melanura Populations

Coastal

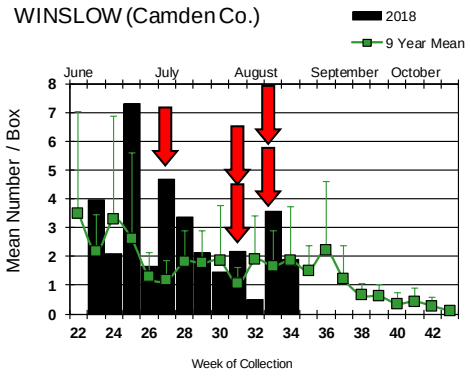


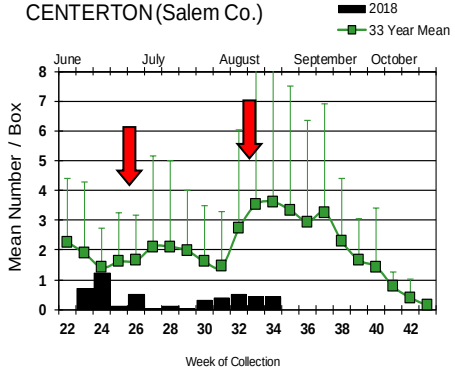


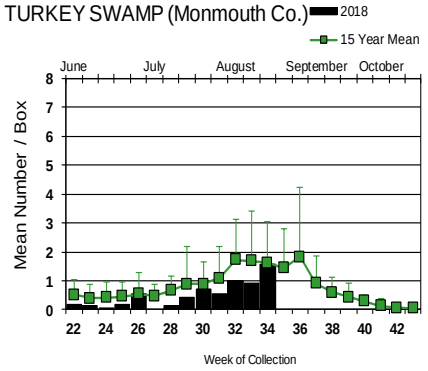


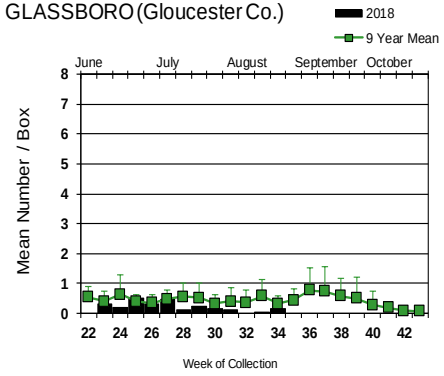


Inland









No further EEE activity was seen at the traditional resting box sites. Turkey Swamp saw an increase in numbers, the highest for the season.

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

EEE in US (2018 cumulative cases): (Black or Red = previous + new reported cases occurring)

- **equine: FL(49/2 mule & donkey) NY(1)**
- **mosquito pools: FL(2) NJ(9) NY(12) RI(4)**
- **sentinel: FL(133/6 owl emus & 5 emu flocks) DE(2)**
- **human: FL(3)**

West Nile Virus Positive Organisms in US, 2018

West Nile in US (2017 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					4
Alaska					
Arizona		48/51			3/5
Arkansas					
California	285/316	942/1,119	38/44	5	12/21
Colorado	Present	Present			3/6
Connecticut		140/181			
Delaware	12		17		1
DC	1	12			2
Florida	1	18	92/118		1
Georgia		Present			1/4
Hawaii					
Idaho		23/34		1	1/2
Illinois	12/18	1,775/2,159		1	4
Indiana		311/324			2/3
Iowa		28		2	9
Kansas					2
Kentucky		Present			1
Louisiana	35/54	655/739		2	39/53
Maine					
Maryland(+DC)	1	18/21			3/5
Mass.		241/308			
Michigan	42/66	62/74			8
Minnesota		Present		Present	4
Mississippi		86/92			23/26
Missouri	1	3		1	1/2

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana		6/8		10/14	
Nebraska	1	37/46			8/19
Nevada		Present			
New Hampshire		1/2			
New Jersey		505/591			3/5
New Mexico					
New York		568/897		1	1/7
North Carolina					1
North Dakota	11/12	42/62		1	38/54
Ohio		1,498/1,984		1	2/5
Oklahoma		13/14traps			1
Oregon		18/28			1
Pennsylvania	35/38	1,100/2,140			1
Rhode Island		2/5			
South Carolina					1/2
South Dakota		9counties			41/56
Tennessee		393			2
Texas		461/556		1	13/17
Utah		26/40			1/2
Vermont		68/80			
Virginia					2/3
Washington		31/36		1	
West Virginia		1/18			
Wisconsin	30/35	30/50		1	1
Wyoming		2			

* 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 24 August 2018

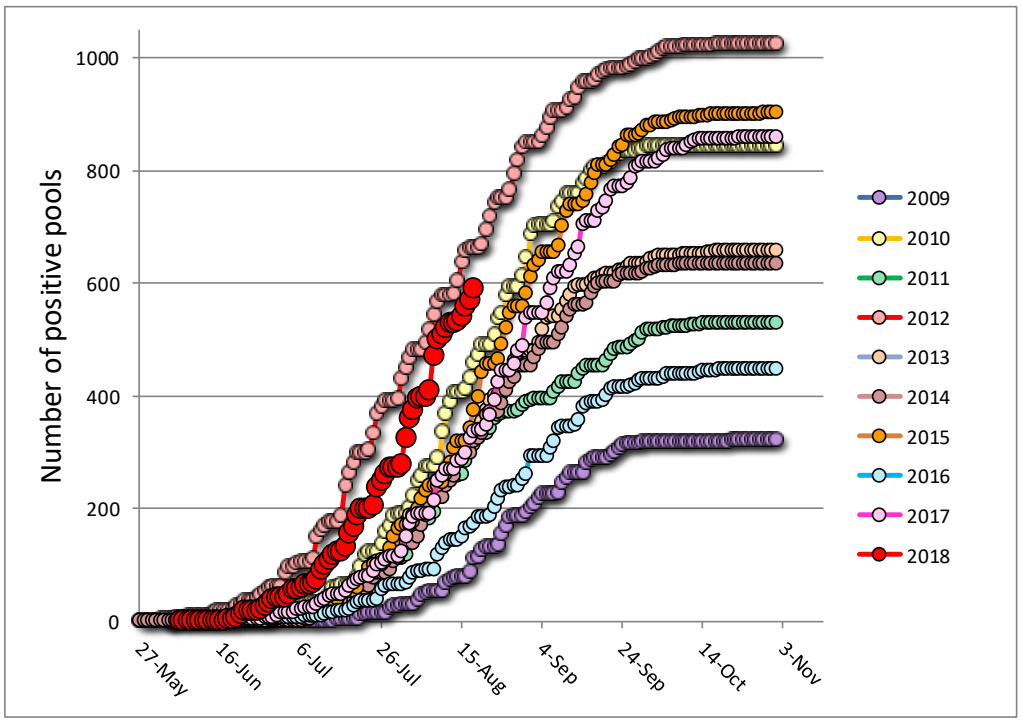
Species	Pools	Mosquitoes	Positives	MFIR
Aedes abserratus	1	11		
Aedes albopictus	683	4510	18	3.991
Aedes atlanticus	1	1		
Aedes atropalpus	16	46		
Aedes canadensis canadensis	25	195		
Aedes cantator	7	52		
Aedes excrucians	1	2		
Aedes grossbecki	2	10		
Aedes infirmatus	2	2		
Aedes japonicus	477	3134	14	4.467
Aedes sollicitans	15	126		
Aedes sticticus	3	37		
Aedes taeniorhynchus	5	126	1	7.937
Aedes thibaulti	1	10		
Aedes triseriatus	173	466	1	2.146
Aedes trivittatus	13	125	1	8.000
Aedes vexans	57	924	1	1.082
Anopheles barberi	1	7		
Anopheles bradleyi	29	132		
Anopheles punctipennis	42	142	1	7.042
Anopheles quadrimaculatus	125	2153		
Coquillettidia perturbans	96	2609	1	0.383
Culex erraticus	63	382	1	2.618
Culex pipiens	617	9018	17	1.885
Culex restuans	374	3533	6	1.698
Culex salinarius	226	2095	1	0.477
Culex spp.	2091	86885	521	5.996
Culex territans	13	62		
Culiseta inornata	1	10		
Culiseta melanura	340	5527	7	1.267
Orthopodomyia signifera	2	3		
Psorophora ciliata	2	61		
Psorophora columbiae	11	66		
Psorophora ferox	33	526		
Uranotaenia sapphirina	1	1		
Grand Total	**5549**	**122989**	**591**	**4.805**

Remarks: To date, 5549 pools of 122,989 mosquitoes from 34 species have been tested. A total of 591 positive WNV pools have been detected throughout the state. The bulk of new positives continue to be in the enzootic vector(s) *Culex* spp. First positive WNV pool detected has been revised from 7 June 2018 in Warren County to 5 June in Gloucester County, in *Culex pipiens*. Last year, the first positive *Culex* Mix pool was detected in Sussex County on 12 June and the first non-*Culex* positive was collected in *Aedes albopictus* on 14 July in Gloucester County. This year, the first non-*Culex* positive species was *Aedes japonicus*, also collected in Gloucester County on 7 JUNE, more than one month earlier. Other positive non-*Culex* species include *Aedes albopictus, Ae. taeniorhynchus, Ae. triseriatus, Ae. trivittatus, Ae. vexans, Anopheles punctipennis, Coquillettidia perturbans, Culex erraticus,* and *Culiseta melanura*. The statewide MFIR rate for all mosquitoes is 4.805.

***NOTE* - *Additional* WNV pools have been reported to the counties, but are not yet in the database. This report should be considered up for revision as necessary.**

Humans, Horses and Wild Birds: Currently five human cases of WNV have been detected; the latest two detected in Somerset and Ocean counties, in addition to the three cases in Essex, Hudson and Hunterdon counties each. No horse cases of WNV have been reported. In 2017, eight human cases of WNV were detected and two horse cases were detected. For further information, see http://www.nj.gov/health/cd/statistics/arboviral-stats/ .

Birds are no longer routinely tested in New Jersey.



Above is a graph showing cumulative number of positive pools for the previous 9 years, inclusive of the most active (2012) and least active (2009) years. The red series represents this year and is on track for high activity.

WNV Results by County through 24 August 2018.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**148**	**4061**	**11**	**2.709**
	Aedes albopictus	22	482	1	2.075
	Aedes canadensis canadensis	3	54		
	Aedes japonicus	6	64		
	Aedes sollicitans	2	57		
	Aedes sticticus	1	35		
	Aedes taeniorhynchus	3	121		
	Aedes vexans	8	94		
	Anopheles bradleyi	2	15		
	Coquillettidia perturbans	10	295		
	Culex erraticus	7	50		
	Culex pipiens	13	603	3	4.975
	Culex restuans	1	23		
	Culex salinarius	1	24		
	Culex spp.	24	924	7	7.576
	Culiseta melanura	36	769		
	Psorophora ferox	9	451		

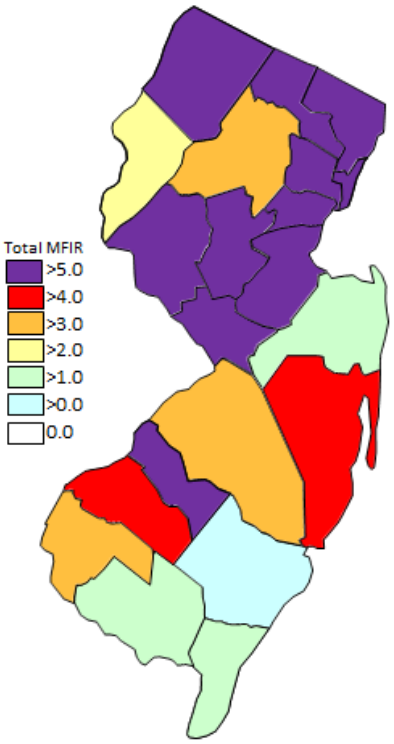
Bergen		**176**	**11856**	**84**	**7.085**
	Aedes albopictus	3	89		
	Aedes japonicus	3	13	1	76.923
	Coquillettidia perturbans	4	50		
	Culex spp.	160	11690	83	7.100
	Culiseta melanura	6	14		
Burlington		**140**	**4795**	**19**	**3.962**
	Aedes albopictus	8	80		
	Aedes canadensis canadensis	1	10		
	Aedes infirmatus	1	1		
	Aedes japonicus	9	138	1	7.246
	Aedes triseriatus	2	7		
	Aedes vexans	1	6		
	Coquillettidia perturbans	2	127		
	Culex erraticus	3	64		
	Culex pipiens	1	1		
	Culex salinarius	5	101		
	Culex spp.	64	2716	14	5.155
	Culiseta melanura	43	1544	4	2.591
Camden		**138**	**4665**	**22**	**4.716**
	Aedes albopictus	19	32	2	62.500
	Aedes excrucians	1	2		
	Aedes japonicus	21	122	1	8.197
	Anopheles punctipennis	2	3		
	Culex spp.	53	2763	19	6.877
	Culiseta melanura	41	1741		
	Psorophora ferox	1	2		
Cape May		**2003**	**14143**	**9**	**0.636**
	Aedes albopictus	309	590		
	Aedes atropalpus	16	46		
	Aedes canadensis canadensis	7	11		
	Aedes cantator	2	2		
	Aedes infirmatus	1	1		
	Aedes japonicus	189	442		
	Aedes sollicitans	5	5		
	Aedes sticticus	1	1		
	Aedes triseriatus	90	178		
	Aedes vexans	4	5		
	Anopheles bradleyi	24	111		
	Anopheles punctipennis	6	8		
	Anopheles quadrimaculatus	108	1889		
	Coquillettidia perturbans	8	10		
	Culex erraticus	14	108		
	Culex pipiens	556	7684	9	1.171
	Culex restuans	293	1640		
	Culex salinarius	190	648		
	Culex spp.	29	101		
	Culex territans	13	62		
	Culiseta melanura	130	590		
	Orthopodomyia signifera	2	3		
	Psorophora columbiae	2	2		
	Psorophora ferox	3	5		

	Uranotaenia sapphirina	1	1		
Cumberland		**149**	**1382**	**4**	**2.894**
	Aedes albopictus	37	427		
	Aedes japonicus	9	43		
	Aedes sollicitans	1	3		
	Aedes sticticus	1	1		
	Aedes triseriatus	7	14		
	Aedes trivittatus	1	8		
	Aedes vexans	12	199		
	Anopheles punctipennis	8	37		
	Anopheles quadrimaculatus	10	248		
	Coquillettidia perturbans	2	2		
	Culex erraticus	8	53	1	18.868
	Culex pipiens	4	39		
	Culex restuans	1	1		
	Culex salinarius	3	10		
	Culex spp.	22	168	1	5.952
	Culiseta melanura	12	58	2	34.483
	Psorophora columbiae	5	49		
	Psorophora ferox	6	22		
Essex		**102**	**490**	**7**	**14.286**
	Aedes albopictus	24	55		
	Aedes japonicus	17	28	3	107.143
	Aedes trivittatus	9	12		
	Aedes vexans	1	2		
	Culex spp.	51	393	4	10.178
Gloucester		**235**	**7171**	**44**	**6.136**
	Aedes albopictus	50	351	2	5.698
	Aedes japonicus	49	684	6	8.772
	Aedes triseriatus	11	61		
	Anopheles barberi	1	7		
	Anopheles punctipennis	4	21	1	47.619
	Anopheles quadrimaculatus	1	3		
	Culex pipiens	13	269	4	14.870
	Culex spp.	95	5651	31	5.486
	Culiseta melanura	11	124		
Hudson		**120**	**6225**	**37**	**5.944**
	Culex spp.	120	6225	37	5.944
Hunterdon		**224**	**10563**	**56**	**5.302**
	Culex spp.	224	10563	56	5.302
Mercer		**194**	**4279**	**35**	**8.179**
	Aedes albopictus	31	301	2	6.645
	Aedes canadensis canadensis	1	6		
	Aedes japonicus	50	251	1	3.984
	Aedes triseriatus	2	7		
	Aedes vexans	10	118	1	8.475
	Culex pipiens	5	59	1	16.949
	Culex restuans	37	1100	6	5.455
	Culex spp.	58	2437	24	9.848

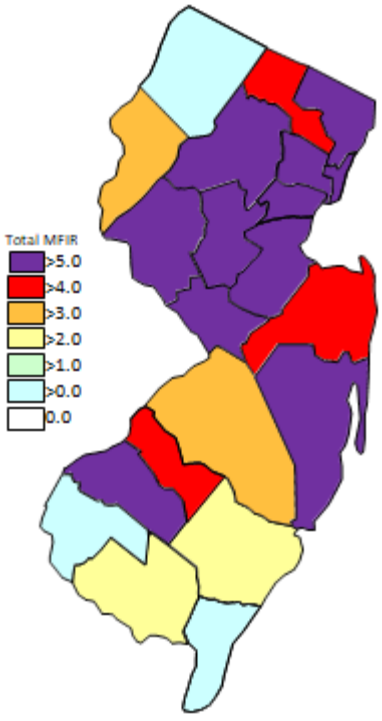
Middlesex		**157**	**4893**	**28**	**5.722**
	Aedes albopictus	5	59		
	Aedes japonicus	1	64		
	Anopheles punctipennis	1	1		
	Coquillettidia perturbans	1	1		
	Culex spp.	148	4758	28	5.885
	Culiseta inornata	1	10		
Monmouth		**293**	**5957**	**26**	**4.365**
	Aedes albopictus	60	1142	2	1.751
	Aedes canadensis canadensis	11	101		
	Aedes cantator	5	50		
	Aedes grossbecki	2	10		
	Aedes japonicus	14	44		
	Aedes sollicitans	5	37		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	9	76		
	Aedes trivittatus	6	55		
	Aedes vexans	8	40		
	Anopheles bradleyi	1	1		
	Anopheles punctipennis	18	69		
	Anopheles quadrimaculatus	1	1		
	Coquillettidia perturbans	3	4		
	Culex erraticus	1	1		
	Culex salinarius	7	243		
	Culex spp.	117	3851	24	6.232
	Culiseta melanura	13	197		
	Psorophora ferox	11	34		
Morris		**274**	**10708**	**73**	**6.817**
	Coquillettidia perturbans	6	300		
	Culex spp	267	10407	73	7.015
	Culiseta melanura	1	1		
Ocean		**199**	**1476**	**13**	**8.808**
	Aedes albopictus	59	459	4	8.715
	Aedes japonicus	23	64		
	Aedes triseriatus	18	46	1	21.739
	Aedes vexans	1	2		
	Anopheles punctipennis	1	1		
	Anopheles quadrimaculatus	2	5		
	Coquillettidia perturbans	20	166	1	6.024
	Culex erraticus	5	6		
	Culex salinarius	2	3		
	Culex spp.	47	597	7	11.725
	Culiseta melanura	20	126		
	Psorophora ferox	1	1		
Passaic		**135**	**1204**	**5**	**4.153**
	Aedes abserratus	1	11		
	Aedes albopictus	11	43		
	Aedes japonicus	31	216		
	Aedes thibaulti	1	10		
	Aedes triseriatus	3	10		

	Coquillettidia perturbans	5	40		
	Culex erraticus	6	10		
	Culex pipiens	11	202		
	Culex restuans	9	95		
	Culex spp.	55	565	5	8.850
	Culiseta melanura	2	2		
Salem		**247**	**5606**	**3**	**0.535**
	Aedes albopictus	31	82		
	Aedes atlanticus	1	1		
	Aedes canadensis canadensis	1	1		
	Aedes japonicus	22	142		
	Aedes sollicitans	2	24		
	Aedes taeniorhynchus	1	4	1	250.000
	Aedes triseriatus	17	23		
	Aedes trivittatus	2	3		
	Aedes vexans	2	79		
	Anopheles bradleyi	2	5		
	Anopheles punctipennis	2	2		
	Anopheles quadrimaculatus	3	7		
	Coquillettidia perturbans	19	549		
	Culex erraticus	19	90		
	Culex pipiens	8	10		
	Culex restuans	2	13		
	Culex salinarius	11	759	1	1.318
	Culex spp.	80	3503		
	Culiseta melanura	16	286	1	3.497
	Psorophora ciliate	1	6		
	Psorophora columbiae	3	6		
	Psorophora ferox	2	11		
Somerset		**169**	**6120**	**42**	**6.863**
	Aedes albopictus	1	2		
	Aedes canadensis canadensis	1	12		
	Aedes japonicus	10	137		
	Aedes triseriatus	1	3		
	Culex spp.	156	5966	42	7.040
Sussex		**176**	**5324**	**5**	**0.939**
	Aedes albopictus	1	3		
	Aedes japonicus	2	56		
	Aedes triseriatus	3	27		
	Aedes vexans	3	185		
	Coquillettidia perturbans	14	976		
	Culex pipiens	6	151		
	Culex restuans	31	661		
	Culex salinarius	7	307		
	Culex spp.	101	2889	5	1.731
	Culiseta melanura	8	69		
Union		**55**	**2896**	**38**	**13.122**
	Aedes albopictus	8	259	4	15.444
	Culex spp	47	2637	34	12.893
Warren		**215**	**9175**	**30**	**3.270**

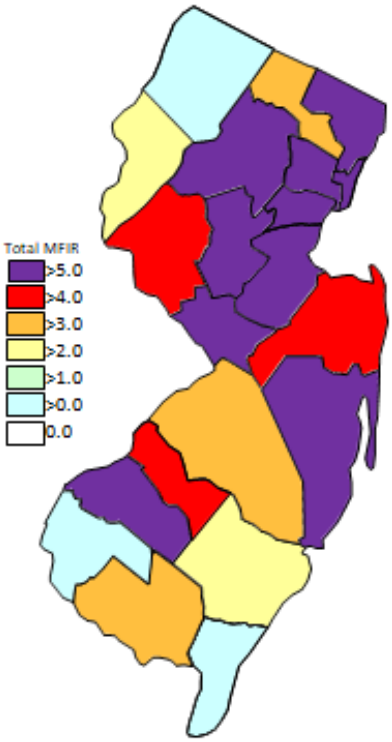
Aedes albopictus	4	54	1	18.519
Aedes japonicus	21	626	1	1.597
Aedes triseriatus	1	2		
Aedes trivittatus	4	59	1	16.949
Aedes vexans	7	194		
Coquillettidia perturbans	2	89		
Culex spp.	173	8081	27	3.341
Culiseta melanura	1	6		
Psorophora ciliata	1	55		
Psorophora columbiae	1	9		
Grand Total	**5549**	**122989**	**591**	**4.805**



Cumulative WNV activity in 2017.



WNV activity to 24 August 2018.



WNV activity last week, 2018

Saint Louis Encephalitis (SLE) to 24 August 2018.

New Jersey will be primarily testing for SLE this year only when adjacent states show human activity (Cape May tests mosquitoes in the Cape May lab independently). SLE has had previous activity in New Jersey, most notably in 1964 and 1975 (CDC's SLE website), the latter prompting the surveillance reporting by Rutgers. SLE is a flavivirus and has a similar transmission pattern to West Nile, with *Culex* species as the predominant vectors.

No pools of SLE have tested positive for 2018. No human cases have been reported.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		**34**	**1876**		
	Culex spp	34	1876		
Cape May		**581**	**7780**		
	Culex pipiens	553	7681		

	Culex spp.	28	99		
Grand Total		**615**	**9656**		

La Crosse Encephalitis (LAC) to 24 August 2018.

New Jersey will be primarily testing for LAC this year only when adjacent states show human activity (Cape May tests mosquitoes in the Cape May lab independently). New Jersey has had 3 cases of this encephalitic disease since 1964 (see CDC's LAC website). The mortality is low but like other encephalitides, LAC can have both personal (lasting neurological sequelae) and economic impacts. LAC is a bunyavirus with a transmission cycle involving mosquitoes such as *Aedes triseriatus* and small mammals such as squirrels and chipmunks. LAC can not only infect *Aedes albopictus* but transovarial transmission was also demonstrated.
(Tesh and Gubler 1975 Laboratory studies of transovarial transmission of La Crosse and other arboviruses by *Aedes albopictus* and *Culex fatigans.* American Journal of Tropical Medicine and Hygiene 24(5):876-880).

No pools of LAC have been tested yet for 2018. No human cases have been reported.

County	Species			Positives	MFIR
Burlington		**10**	**153**		
	Aedes albopictus	2	29		
	Aedes japonicus	6	117		
	Aedes triseriatus	2	7		
Ocean		**4**	**9**		
	Aedes albopictus	2	3		
	Aedes japonicus	1	1		
	Aedes triseriatus	1	5		
Salem		**3**	**4**		
	Aedes triseriatus	3	4		
Sussex		**3**	**27**		
	Aedes triseriatus	3	27		
Grand Total		**20**	**193**		

Dengue (DENV) to 24 August 2018.

New Jersey will be selectively testing for DENV (including serotypes) this year. Dengue has not had a history of local transmission here in New Jersey, but each year, travelers can bring virus back from areas in the world with virus activity. This is significant as humans are NOT dead-end hosts and thus there is the potential for local transmission (i.e., New Jersey mosquitoes biting a sick person and then biting and transmitting the disease to someone else) to be established. DENV is a flavivirus but unlike WNV, *Aedes* mosquitoes are predominant vectors. In New Jersey, *Aedes albopictus* is a candidate for local transmission. There are 4 serotypes tested for Dengue.

Note Same pools of *Ae. albopictus* are tested for the four serotypes of Dengue as well as Chikungunya.

No pools of Dengue have been tested yet in 2018. There are currently 5 travel-related human cases in NJ.

County	Species	DENV1		DENV2		DENV3		DENV4		Pos.	MFIR
		Pool	Mos.	Pool	Mos.	Pool	Mos.	Pool	Mos.		
Atlantic		**22**	**482**	**22**	**482**	**22**	**482**	**22**	**482**		

	Aedes albopictus	22	482	22	482	22	482	22	482		
Bergen		**1**	**14**	**1**	**14**	**1**	**14**	**1**	**14**		
	Aedes albopictus	1	14	1	14	1	14	1	14		
Middlesex		**2**	**12**	**2**	**12**	**2**	**12**	**2**	**12**		
	Aedes albopictus	2	12	2	12	2	12	2	12		
Ocean		**34**	**336**	**34**	**336**	**34**	**336**	**34**	**336**		
	Aedes albopictus	34	336	34	336	34	336	34	336		
Sussex		**1**	**3**	**1**	**3**	**1**	**3**	**1**	**3**		
	Aedes albopictus	1	3	1	3	1	3	1	3		
Grand Total		**60**	**847**	**60**	**847**	**60**	**847**	**60**	**847**		

Chikungunya (CHIK) to 24 August 2018.

New Jersey will be selectively testing for CHIK this year. Chikungunya is similar in symptoms to Dengue, a "breakbone" fever and has a low mortality rate. But this virus has had recent worldwide activity, and in the past year has come to the Western Hemisphere. As with Dengue, transmission can occur when a mosquito bites an infected human, then bites an uninfected human who subsequently becomes ill. CHIK is an alphavirus with *Aedes* mosquitoes as potential vectors. In New Jersey, *Aedes albopictus* is the mosquito of interest.

No pools of CHIK have been tested yet in 2018. There are currently 5 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**22**	**482**		
	Aedes albopictus	22	482		
Bergen		**1**	**14**		
	Aedes albopictus	1	14		
Middlesex		**2**	**12**		
	Aedes albopictus	2	12		
Ocean		**34**	**336**		
	Aedes albopictus	34	336		
Sussex		**1**	**3**		
	Aedes albopictus	1	3		
Grand Total		**60**	**847**		

Zika (ZIKV) to 24 August 2018.

New Jersey will be selectively testing for ZIKV this year. Zika is an emerging arboviral threat with significant health consequences for fetuses and recent activity in the Western Hemisphere. Humans are potential hosts that can transmit through sexual activity. ZIKV is a flavivirus with *Aedes* mosquitoes as potential vectors. In New Jersey, *Aedes albopictus* is the mosquito of interest.

No pools have tested positive in 2018. There are currently 6 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**22**	**482**		
	Aedes albopictus	22	482		
Bergen		**1**	**14**		
	Aedes albopictus	1	14		

Cape May		**307**	**588**		
	Aedes albopictus	306	586		
	Culiseta melanura	1	2		
Middlesex		**2**	**12**		
	Aedes albopictus	2	12		
Ocean		**34**	**336**		
	Aedes albopictus	34	336		
Sussex		**1**	**3**		
	Aedes albopictus	1	3		
Grand Total		**367**	**1435**		