

VECTOR SURVEILLANCE IN NEW JERSEY

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

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CDC WEEK 43: 21 October to 27 October, 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	0.08	0.00	22	4		
Green Bank (Burlington Co.)/25	Coastal	0.13	0.00	484‡	19‡		
Corbin City (Atlantic Co.)/25	Coastal	0.15	0.20	260‡	20		
Dennisville (Cape May Co.)/50	Coastal	0.00	0.00	325	20		
Winslow (Camden Co.)/50	Inland	0.11	0.02	2192	54	4	1.825
Centerton (Salem Co.)/50	Inland	0.14	0.02	453	22	2	4.415
Turkey Swamp (Monmouth Co.)/49	Inland	0.05	0.00	535	22	1	1.869
Glassboro (Gloucester Co.)/50	Inland	0.07	0.06	181	20		

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

Remarks: Currently for the 2018 season, there are 14 detections of EEE among submitted mosquito pools, seven at resting box sites (4 at Winslow, 2 at Centerton, 1 at Turkey Swamp) and seven from county-set traps. No new positive pools were detected this past week. All positive pools are in the enzootic vector, *Culiseta melanura*. Five horses have tested positive for EEE; all were not vaccinated and all were euthanized.

Statewide, 10,427 *Cs. melanura* from 630 pools have been tested, with 14 positive pools detected for an overall *Cs. melanura* MFIR of 1.343. 19007 specimens in 1886 pools from 25 other species have also been tested, with no positives detected. Overall MFIR for all species statewide is 0.476.

Traditional Resting Box Sites: 4452 *Cs. melanura* from 182 pools have been tested for EEE in 2018. No additional positive pools were detected at the traditional resting box sites this past week. A total of 7 positive pools have been detected at the traditional resting box sites.

Additional <i>Cs. melanura</i> trapped by counties					
*traps with positives indicated in BOLD UNDERLINED .					
County	Trap types*	Pools	Mosquitoes	Positives	MFIR
Atlantic	CO2, GR , RB	54	1378	1	0.726
Bergen	RB	8	24		
Burlington	CDCL	76	3111	5	1.607
Cape May	GR, RB	211	500		
Cumberland	BGSCCL, RB	26	190	1	5.263
Gloucester		11	422		
Middlesex	RB	2	21		
Monmouth	OTHER	1	2		
Morris	CDCL	1	1		
Ocean	CDCL, RB	38	193		
Passaic	RB	4	4		
Salem	CDCL	6	53		
Sussex	ABC	9	70		
Warren	CDCL	1	6		
TOTAL		448	5975	7	1.172

Additional County-set *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. A total of 7 county-trapped positive pools have been detected, one in Atlantic and four in Burlington County. The last came from Cumberland County, collected on 2 Oct.

Horses and Humans: Five horses have been reported with EEE. The fifth horse is a 12 year old gelding in Gloucester County. Symptom onset was 12 Sep and the unvaccinated horse was euthanized on the 13th Sep. The fourth horse was reported in Ocean County. This gelding of unknown age and unknown vaccination history showed symptoms on the 3rd of September and was euthanized on the 4th. A third EEE horse was reported in Ocean County. This seven year old had an unknown vaccination history, but had apparently been purchased 2 months prior. Date of onset and euthanasia was 4 Sept. The second reported horse with EEE was euthanized on 27 Aug in Camden County. This 12 year old gelding had not been vaccinated this year. The first horse case of EEE was reported in a 5 year-old mare in Monmouth County. This horse was reportedly vaccinated last year, but was not current for 2018. She was euthanized on 18 Aug. 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. **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.

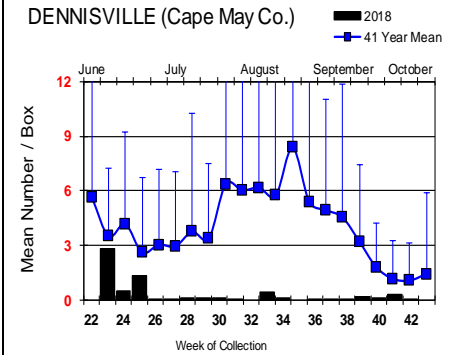
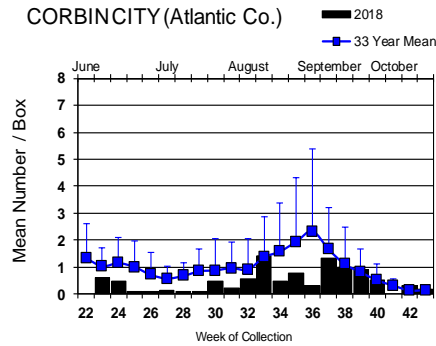
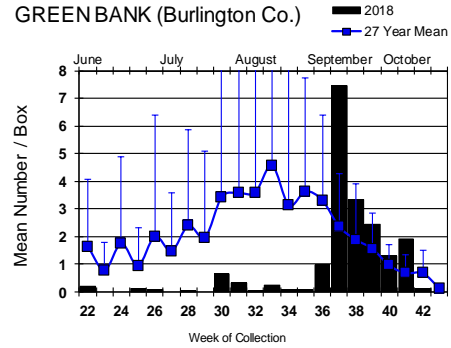
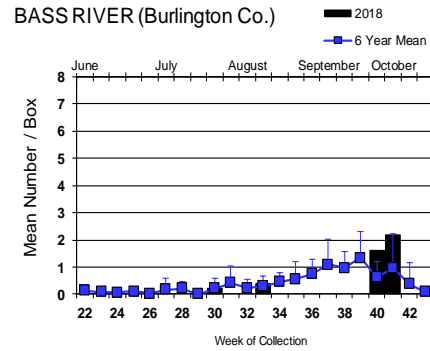
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

Additional Species: Twenty-five additional species were tested for EEE. No positives were detected.

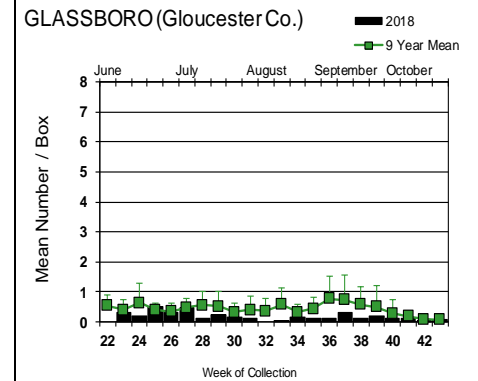
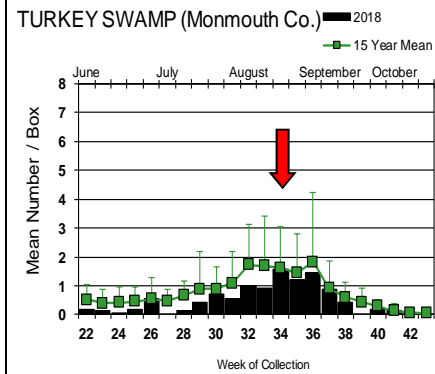
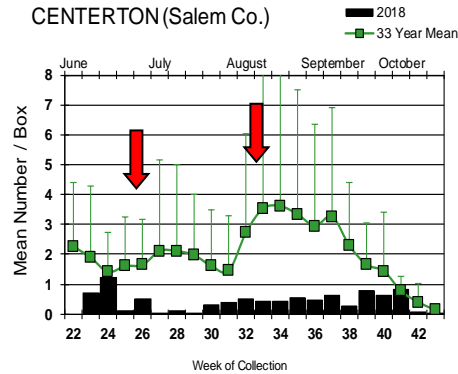
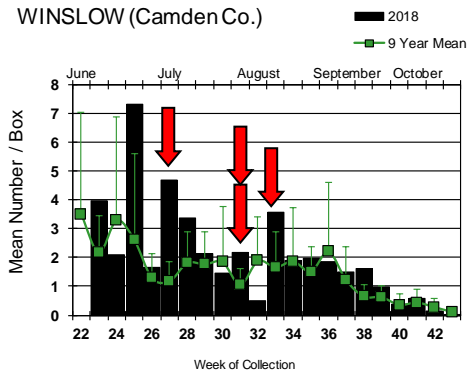
Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	15	71		
<i>Aedes atlanticus</i>	4	59		
<i>Aedes canadensis canadensis</i>	4	60		
<i>Aedes cantator</i>	4	4		
<i>Aedes infirmatus</i>	3	6		
<i>Aedes japonicus</i>	3	21		
<i>Aedes mitchellae</i>	1	2		
<i>Aedes sollicitans</i>	17	103		
<i>Aedes taeniorhynchus</i>	3	88		
<i>Aedes triseriatus</i>	2	6		
<i>Aedes vexans</i>	9	215		
<i>Anopheles barberi</i>	2	17		
<i>Anopheles bradleyi</i>	75	479		
<i>Anopheles crucians</i>	2	17		
<i>Anopheles punctipennis</i>	28	142		
<i>Anopheles quadrimaculatus</i>	3	4		
<i>Coquillettidia perturbans</i>	92	1835		
<i>Culex erraticus</i>	176	1704		
<i>Culex pipiens</i>	982	11438		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	370	1737		
<i>Culex spp.</i>	73	615		
<i>Culiseta inornata</i>	1	10		
<i>Psorophora ciliata</i>	2	9		
<i>Psorophora columbiae</i>	2	7		
<i>Psorophora ferox</i>	12	357		
State Total	1886	19007		

Culiseta melanura Populations



Coastal



Inland



Populations have decreased significantly after more than one week of low temperatures. Half of the sites recorded no *Cs. melanura*.

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

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

- equine: AL(3) FL(51/2 mule & donkey) GA(6) IN(2) LA(6) MI(4) NC(7) NJ(5) NY(2) SC(1) VA(2) WI(2) Ontario Canada(10)
- mosquito pools: CT(6) FL(2) GA(3) LA(1) MA(2) NC(1) NH(6) NJ(14) NY(25) RI(4)
- sentinel: FL(143/6 owl emus & 5 emu flocks) DE(8)
- human: FL(3) GA(1) MI(1)

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					25
Alaska					
Arizona	1	84/142	1	4	16/19
Arkansas				2	7
California	483/490	1,947/1,952	150/152	10	132/143
Colorado	Present	Present		5	84/132
Connecticut		393			19
Delaware	27/37		47/66	3	6/8
DC	1	21		2	14
Florida	1/4	27	434/466	5	16/17
Georgia		Present			24
Hawaii					
Idaho		39		4	13
Illinois	34	3,011/3,012		11	117/123
Indiana		665/688		18	26/29
Iowa		100/102		13	77/91
Kansas					19
Kentucky		Present		2/13	9
Louisiana	98	1063		5	87
Maine		4		1	3
Maryland(+DC)	1	30		6	39/40
Mass.		579		3	42/44
Michigan	166/185	154		2	90/98
Minnesota		Present		Present	38
Mississippi		111			43/44
Missouri	1	3		5	14/17

	Birds	Mosquito Pools	Sentinels	Horses*	Humans
Montana		9		42	44
Nebraska	1	122			225/230
Nevada		Present			7
New Hampshire	4	30/32			
New Jersey		1,324/1,327		1	55/58
New Mexico					5
New York		1,490/1,495		14/19	66/77
North Carolina					5
North Dakota	12	102		4	184
Ohio		3,264/3,281		43	49/57
Oklahoma		21traps		1	14
Oregon	1	47/58		2	2
Pennsylvania	107	4,729		90	87
Rhode Island		10			
South Carolina			5	3	9
South Dakota		9counties			161
Tennessee	1	891/957			11
Texas	6	946/947		9/12	89/98
Utah		180		9	10/11
Vermont		151/157		1	
Virginia				1	40
Washington		49		2	2
West Virginia		24			
Wisconsin	55	83		3	11/15
Wyoming	3	17		15	4

* 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 26 October 2018

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	1	11		
<i>Aedes albopictus</i>	1700	14819	34	2.294
<i>Aedes atlanticus</i>	30	185		
<i>Aedes atropalpus</i>	26	61		
<i>Aedes canadensis canadensis</i>	37	297		
<i>Aedes cantator</i>	10	112		
<i>Aedes cinereus</i>	1	18		
<i>Aedes excrucians</i>	1	2		
<i>Aedes grossbecki</i>	2	10		
<i>Aedes infirmatus</i>	5	9		
<i>Aedes japonicus</i>	826	4564	19	4.163
<i>Aedes mitchellae</i>	1	2		
<i>Aedes sollicitans</i>	31	372		
<i>Aedes sticticus</i>	5	53		
<i>Aedes taeniorhynchus</i>	19	381	1	2.625
<i>Aedes thibaulti</i>	1	10		
<i>Aedes triseriatus</i>	296	734	3	4.087
<i>Aedes trivittatus</i>	35	506	1	1.976
<i>Aedes vexans</i>	259	5585	2	0.358
<i>Anopheles barberi</i>	3	24		
<i>Anopheles bradleyi</i>	88	894		
<i>Anopheles crucians</i>	3	19	1	52.632
<i>Anopheles punctipennis</i>	101	394	1	2.538
<i>Anopheles quadrimaculatus</i>	196	2709	1	0.369
<i>Anopheles walkeri</i>	1	35		
<i>Coquillettidia perturbans</i>	120	2778	3	1.080
<i>Culex erraticus</i>	237	2004	6	2.994
<i>Culex pipiens</i>	1086	13316	32	2.403
<i>Culex restuans</i>	737	4897	9	1.838
<i>Culex salinarius</i>	423	3939	1	0.254
<i>Culex</i> spp.	3776	144558	1196	8.273
<i>Culex territans</i>	18	74		
<i>Culiseta inornata</i>	1	10		
<i>Culiseta melanura</i>	633	10466	15	1.433
<i>Orthopodomyia signifera</i>	4	5		
<i>Psorophora ciliata</i>	8	74		
<i>Psorophora columbiae</i>	34	246	1	4.065
<i>Psorophora cyanescens</i>	2	19		
<i>Psorophora ferox</i>	90	1525		
<i>Psorophora howardii</i>	2	14	1	71.429
<i>Uranotaenia sapphirina</i>	12	47		
Grand Total	10861	215778	1327	6.150

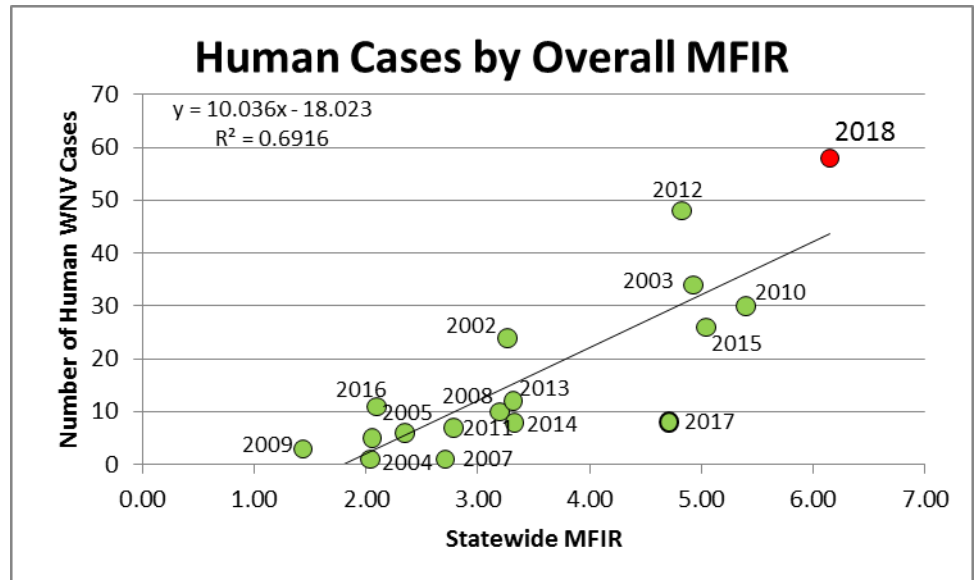
Remarks: To date, 10,861 pools of 215,778 mosquitoes from 40 species have been tested. A total of 1,327 positive WNV pools have been detected throughout the state. The bulk of new positives continue to be in the enzootic vector(s) *Culex* spp. First positive WNV pool detected has been revised from 7 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. Positive non-*Culex* species continue to include *Aedes albopictus*, *Ae. japonicus*, *Ae. taeniorhynchus*, *Ae. triseriatus*, *Ae. trivittatus*, *Ae. vexans*, *Anopheles crucians*, *An. punctipennis*, *An. quadrimaculatus*, *Coquillettia perturbans*, *Culex erraticus*, *Culiseta melanura*, *Psorophora columbiae* and *Ps. howardii*. The statewide MFIR rate for all mosquitoes has finally decreased to 6.224 from last week's 6.400.

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:

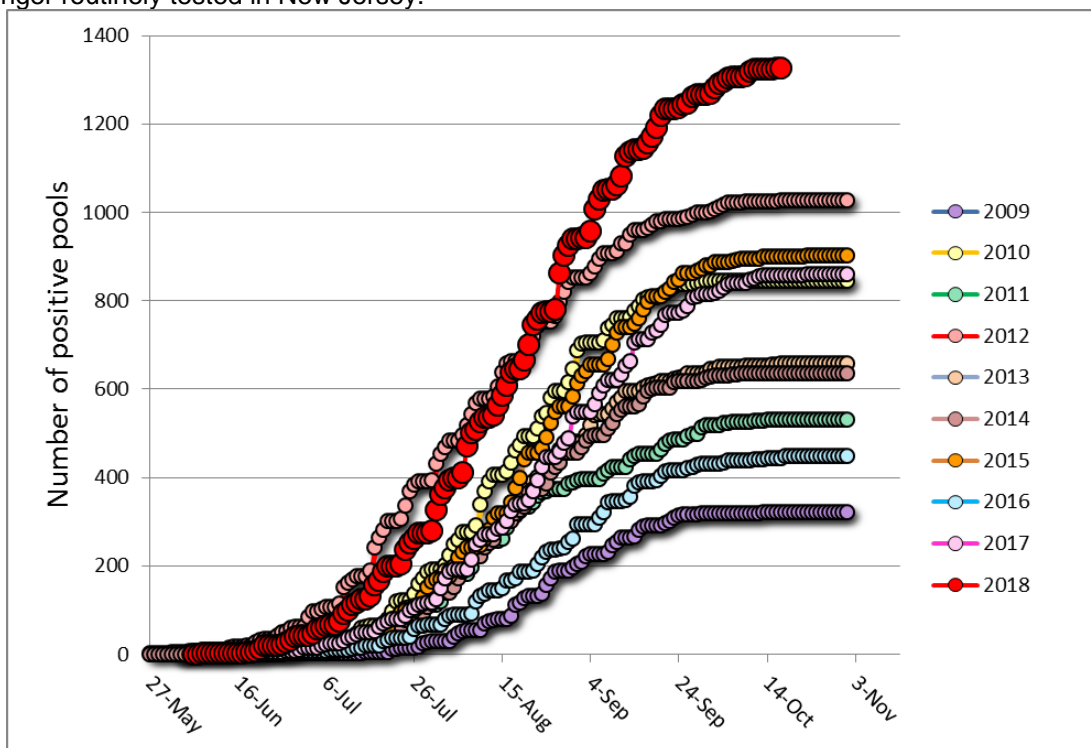
Currently 58 human cases of WNV have been detected in the following counties: Atlantic 1, Bergen 10, Burlington 3, Camden 3, Cape May 2, Cumberland 2, Essex 1, Gloucester 1, Hudson 4, Hunterdon 3, Mercer 1, Middlesex 5, Monmouth 3, Morris 4, Ocean 2, Passaic 3, Somerset 4, Sussex 1, Union 1, and Warren 4.

The graph to the right shows the relationship between statewide overall endpoint MFIR and human cases since the beginning of the outbreak. This week, the estimate for 2018 continued to rise above the trend line, consistent with higher than normal activity.



One WNV horse case has been reported, occurring in Burlington County. The 10 year old mare is currently being treated. 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 currently has well surpassed other recent years in activity.

WNV Results by County through 26 October 2018.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		331	7988	24	3.005
	<i>Aedes albopictus</i>	55	1047	1	0.955
	<i>Aedes atlanticus</i>	4	85		
	<i>Aedes canadensis canadensis</i>	6	65		
	<i>Aedes japonicus</i>	7	67		
	<i>Aedes sollicitans</i>	5	105		
	<i>Aedes sticticus</i>	1	35		
	<i>Aedes taeniorhynchus</i>	5	271		
	<i>Aedes triseriatus</i>	1	2		
	<i>Aedes vexans</i>	25	580	1	1.724
	<i>Anopheles bradleyi</i>	6	242		
	<i>Coquillettidia perturbans</i>	13	320	1	3.125
	<i>Culex erraticus</i>	24	228	1	4.386
	<i>Culex pipiens</i>	22	766	6	7.833
	<i>Culex restuans</i>	1	23		
	<i>Culex salinarius</i>	1	24		
	<i>Culex spp.</i>	60	1593	12	7.533
	<i>Culex territans</i>	1	3		
	<i>Culiseta melanura</i>	74	1638	2	1.221
	<i>Psorophora ciliata</i>	1	1		
	<i>Psorophora columbiae</i>	1	1		
	<i>Psorophora ferox</i>	18	892		
Bergen		415	23239	161	6.928
	<i>Aedes albopictus</i>	39	928	1	1.078
	<i>Aedes japonicus</i>	8	28	1	35.714
	<i>Aedes sollicitans</i>	3	146		
	<i>Aedes trivittatus</i>	2	29		
	<i>Aedes vexans</i>	24	1134		
	<i>Anopheles bradleyi</i>	1	4		
	<i>Coquillettidia perturbans</i>	4	50		
	<i>Culex salinarius</i>	9	270		
	<i>Culex spp.</i>	314	20542	158	7.692
	<i>Culiseta melanura</i>	8	24		
	<i>Psorophora ferox</i>	2	82		
	<i>Psorophora howardii</i>	1	2	1	500.00
Burlington		329	9794	35	3.574
	<i>Aedes albopictus</i>	25	397		
	<i>Aedes atlanticus</i>	4	59		
	<i>Aedes canadensis canadensis</i>	3	56		
	<i>Aedes infirmatus</i>	3	6		
	<i>Aedes japonicus</i>	17	163	2	12.270
	<i>Aedes mitchellae</i>	1	2		
	<i>Aedes taeniorhynchus</i>	1	42		
	<i>Aedes triseriatus</i>	4	27		
	<i>Aedes vexans</i>	12	485		
	<i>Anopheles bradleyi</i>	4	120		

<i>Anopheles crucians</i>	1	16		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	1	3		
<i>Coquillettidia perturbans</i>	2	127		
<i>Culex erraticus</i>	10	146		
<i>Culex pipiens</i>	6	6		
<i>Culex salinarius</i>	12	471		
<i>Culex</i> spp.	119	4027	27	6.705
<i>Culiseta melanura</i>	99	3617	6	1.659
<i>Psorophora ciliata</i>	1	8		
<i>Psorophora columbiae</i>	2	14		
<i>Psorophora ferox</i>	1	1		
Camden	211	6569	40	6.089
<i>Aedes albopictus</i>	33	104	3	28.846
<i>Aedes excrucians</i>	1	2		
<i>Aedes japonicus</i>	31	144	1	6.944
<i>Aedes triseriatus</i>	2	4		
<i>Anopheles punctipennis</i>	3	4		
<i>Culex</i> spp.	86	4117	34	8.258
<i>Culiseta melanura</i>	54	2192	2	0.912
<i>Psorophora ferox</i>	1	2		
Cape May	3881	22360	20	0.894
<i>Aedes albopictus</i>	739	1596		
<i>Aedes atlanticus</i>	18	33		
<i>Aedes atropalpus</i>	26	61		
<i>Aedes canadensis canadensis</i>	8	12		
<i>Aedes cantator</i>	4	4		
<i>Aedes infirmatus</i>	2	3		
<i>Aedes japonicus</i>	284	595		
<i>Aedes sollicitans</i>	9	9		
<i>Aedes sticticus</i>	1	1		
<i>Aedes taeniorhynchus</i>	6	7		
<i>Aedes triseriatus</i>	147	263		
<i>Aedes vexans</i>	33	53		
<i>Anopheles barberi</i>	1	16		
<i>Anopheles bradleyi</i>	71	359		
<i>Anopheles punctipennis</i>	9	17		
<i>Anopheles quadrimaculatus</i>	152	2301		
<i>Coquillettidia perturbans</i>	10	33		
<i>Culex erraticus</i>	79	450		
<i>Culex pipiens</i>	982	11438	17	1.486
<i>Culex restuans</i>	621	2763	3	1.086
<i>Culex salinarius</i>	353	1229		
<i>Culex</i> spp.	49	155		
<i>Culex territans</i>	16	70		
<i>Culiseta melanura</i>	232	825		
<i>Orthopodomyia signifera</i>	2	3		
<i>Psorophora columbiae</i>	7	12		
<i>Psorophora ferox</i>	12	17		
<i>Uranotaenia sapphirina</i>	8	35		
Cumberland	327	4295	10	2.328
<i>Aedes albopictus</i>	73	1258	3	2.385
<i>Aedes japonicus</i>	14	49		

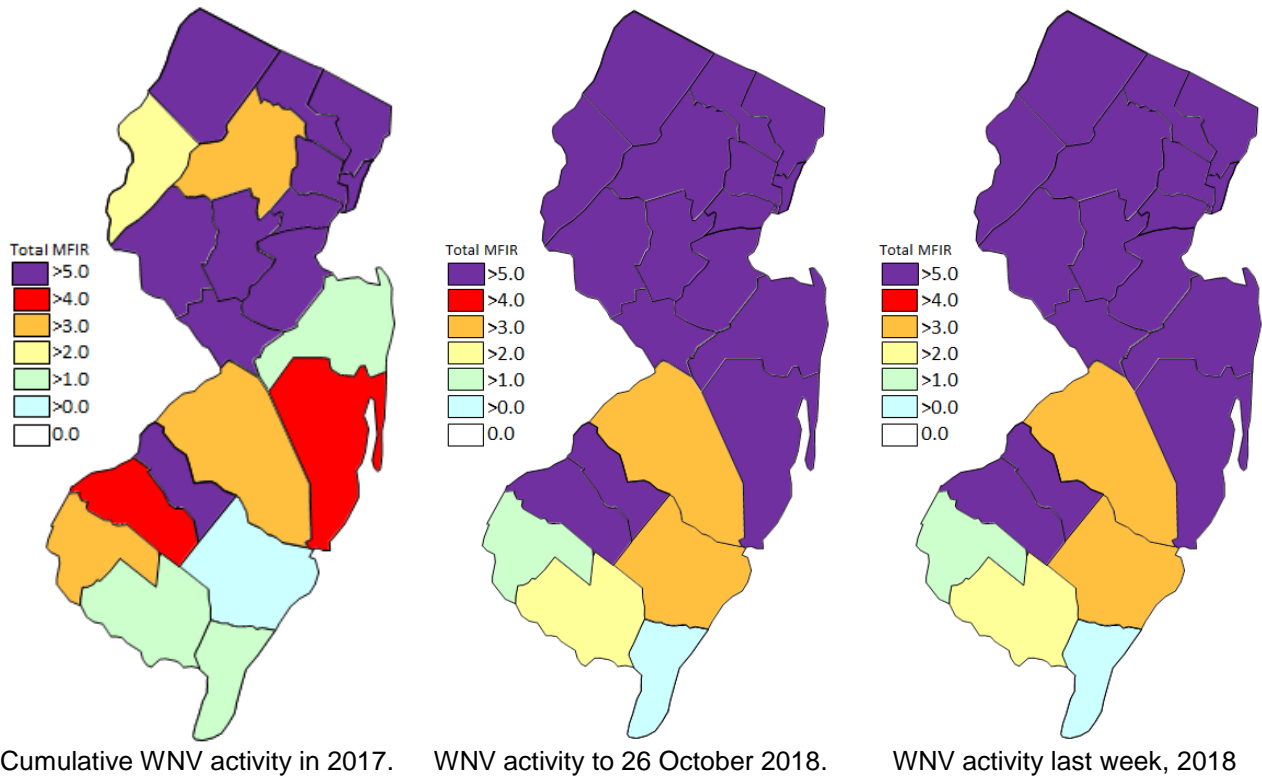
<i>Aedes sollicitans</i>	4	21		
<i>Aedes sticticus</i>	1	1		
<i>Aedes triseriatus</i>	8	16		
<i>Aedes trivittatus</i>	4	12		
<i>Aedes vexans</i>	37	759		
<i>Anopheles bradleyi</i>	1	24		
<i>Anopheles punctipennis</i>	13	59		
<i>Anopheles quadrimaculatus</i>	20	334		
<i>Coquillettidia perturbans</i>	6	6		
<i>Culex erraticus</i>	32	790	2	2.532
<i>Culex pipiens</i>	7	43		
<i>Culex restuans</i>	2	2		
<i>Culex salinarius</i>	7	58		
<i>Culex</i> spp.	52	467	3	6.424
<i>Culiseta melanura</i>	26	190	2	10.526
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	9	89		
<i>Psorophora ferox</i>	8	107		
<i>Uranotaenia sapphirina</i>	2	9		
Essex	174	939	14	14.909
<i>Aedes albopictus</i>	48	174		
<i>Aedes japonicus</i>	28	54	3	55.556
<i>Aedes trivittatus</i>	19	36	1	27.778
<i>Aedes vexans</i>	3	4		
<i>Anopheles quadrimaculatus</i>	3	3	1	333.333
<i>Culex</i> spp.	73	668	9	13.473
Gloucester	587	15036	117	7.781
<i>Aedes albopictus</i>	129	941	6	6.376
<i>Aedes canadensis canadensis</i>	1	4		
<i>Aedes japonicus</i>	94	934	9	9.636
<i>Aedes triseriatus</i>	17	73		
<i>Aedes vexans</i>	8	64		
<i>Anopheles barberi</i>	1	7		
<i>Anopheles punctipennis</i>	22	127	1	7.874
<i>Anopheles quadrimaculatus</i>	5	13		
<i>Coquillettidia perturbans</i>	7	36		
<i>Culex pipiens</i>	28	394	5	12.690
<i>Culex restuans</i>	1	3		
<i>Culex</i> spp.	229	11623	96	8.259
<i>Culiseta melanura</i>	31	603		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	1	8		
<i>Psorophora ferox</i>	12	205		
Hudson	220	9701	68	7.010
<i>Aedes albopictus</i>	13	178		
<i>Culex</i> spp.	207	9523	68	7.141
Hunterdon	397	17051	159	9.325
<i>Culex</i> spp.	397	17051	159	9.325
Mercer	350	5917	43	7.267
<i>Aedes albopictus</i>	86	944	3	3.178

<i>Aedes canadensis canadensis</i>	1	6		
<i>Aedes japonicus</i>	74	328	1	3.049
<i>Aedes triseriatus</i>	2	7		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	25	351	1	2.849
<i>Coquillettidia perturbans</i>	2	37	1	27.027
<i>Culex erraticus</i>	8	20		
<i>Culex pipiens</i>	6	60	1	16.667
<i>Culex restuans</i>	49	1214	6	4.942
<i>Culex spp.</i>	95	2948	30	10.176
<i>Culiseta melanura</i>	1	1		
Middlesex	248	6627	56	8.450
<i>Aedes albopictus</i>	14	148		
<i>Aedes japonicus</i>	1	64		
<i>Aedes vexans</i>	3	105		
<i>Anopheles punctipennis</i>	1	1		
<i>Coquillettidia perturbans</i>	3	9		
<i>Culex spp.</i>	225	6290	56	8.903
<i>Culiseta inornata</i>	1	10		
Monmouth	583	11406	63	5.523
<i>Aedes albopictus</i>	128	3454	6	1.737
<i>Aedes atlanticus</i>	2	6		
<i>Aedes canadensis canadensis</i>	15	110		
<i>Aedes cantator</i>	5	50		
<i>Aedes grossbecki</i>	2	10		
<i>Aedes japonicus</i>	25	78		
<i>Aedes sollicitans</i>	5	37		
<i>Aedes taeniorhynchus</i>	4	7		
<i>Aedes triseriatus</i>	21	137		
<i>Aedes trivittatus</i>	7	56		
<i>Aedes vexans</i>	32	160		
<i>Anopheles barberi</i>	1	1		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles crucians</i>	2	3	1	333.333
<i>Anopheles punctipennis</i>	35	102		
<i>Anopheles quadrimaculatus</i>	3	4		
<i>Coquillettidia perturbans</i>	4	5		
<i>Culex erraticus</i>	14	54	2	37.037
<i>Culex restuans</i>	5	8		
<i>Culex salinarius</i>	9	263		
<i>Culex spp.</i>	209	6200	52	8.387
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	25	539	1	1.855
<i>Orthopodomyia signifera</i>	2	2		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	7	61	1	16.393
<i>Psorophora ferox</i>	18	56		
Morris	473	17101	166	9.707
<i>Aedes albopictus</i>	17	104		
<i>Aedes japonicus</i>	22	185		
<i>Aedes sollicitans</i>	1	1		
<i>Aedes vexans</i>	7	190		
<i>Anopheles punctipennis</i>	2	7		

<i>Anopheles quadrimaculatus</i>	1	3		
<i>Coquillettidia perturbans</i>	6	300		
<i>Culex</i> spp	412	16273	166	10.201
<i>Culiseta melanura</i>	1	1		
<i>Psorophora ferox</i>	4	37		
Ocean	380	3267	26	7.958
<i>Aedes albopictus</i>	109	899	5	5.562
<i>Aedes cantator</i>	1	58		
<i>Aedes japonicus</i>	44	103		
<i>Aedes taeniorhynchus</i>	2	50		
<i>Aedes triseriatus</i>	29	72	2	27.778
<i>Aedes vexans</i>	6	51		
<i>Anopheles bradleyi</i>	2	139		
<i>Anopheles punctipennis</i>	2	2		
<i>Anopheles quadrimaculatus</i>	3	6		
<i>Coquillettidia perturbans</i>	21	168	1	5.952
<i>Culex erraticus</i>	15	32		
<i>Culex pipiens</i>	1	1		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	4	86		
<i>Culex</i> spp.	98	1396	17	12.178
<i>Culiseta melanura</i>	38	193	1	5.181
<i>Psorophora ferox</i>	4	10		
Passaic	260	2097	16	7.630
<i>Aedes abserratus</i>	1	11		
<i>Aedes albopictus</i>	37	168		
<i>Aedes japonicus</i>	65	370	1	2.703
<i>Aedes thibaulti</i>	1	10		
<i>Aedes triseriatus</i>	4	14		
<i>Aedes vexans</i>	1	34		
<i>Coquillettidia perturbans</i>	5	40		
<i>Culex erraticus</i>	12	21		
<i>Culex pipiens</i>	11	202		
<i>Culex restuans</i>	9	95		
<i>Culex</i> spp.	108	1109	15	13.526
<i>Culiseta melanura</i>	4	4		
<i>Psorophora cyanescens</i>	2	19		
Salem	417	7496	9	1.201
<i>Aedes albopictus</i>	76	923		
<i>Aedes atlanticus</i>	2	2		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes japonicus</i>	36	160		
<i>Aedes sollicitans</i>	2	24		
<i>Aedes taeniorhynchus</i>	1	4	1	250.00
<i>Aedes triseriatus</i>	30	40		
<i>Aedes trivittatus</i>	3	4		
<i>Aedes vexans</i>	6	188		
<i>Anopheles bradleyi</i>	2	5		
<i>Anopheles punctipennis</i>	4	10		
<i>Anopheles quadrimaculatus</i>	7	39		
<i>Coquillettidia perturbans</i>	20	550		
<i>Culex erraticus</i>	43	263	1	3.802
<i>Culex pipiens</i>	11	14		

<i>Culex restuans</i>	7	18		
<i>Culex salinarius</i>	12	760	1	1.316
<i>Culex</i> spp.	113	3925	5	1.274
<i>Culiseta melanura</i>	28	506	1	1.976
<i>Psorophora ciliate</i>	1	6		
<i>Psorophora columbiae</i>	4	13		
<i>Psorophora ferox</i>	5	26		
<i>Psorophora howardii</i>	1	12		
<i>Uranotaenia sapphirina</i>	2	3		
Somerset	289	8811	84	9.534
<i>Aedes albopictus</i>	5	17		
<i>Aedes canadensis canadensis</i>	1	12		
<i>Aedes japonicus</i>	15	159		
<i>Aedes triseriatus</i>	5	9		
<i>Aedes trivittatus</i>	2	2		
<i>Anopheles punctipennis</i>	3	5		
<i>Culex</i> spp.	257	8606	84	9.761
<i>Psorophora ferox</i>	1	1		
Sussex	362	10531	56	5.318
<i>Aedes albopictus</i>	3	5		
<i>Aedes canadensis canadensis</i>	1	31		
<i>Aedes japonicus</i>	14	255		
<i>Aedes triseriatus</i>	3	27		
<i>Aedes trivittatus</i>	2	129		
<i>Aedes vexans</i>	19	1033		
<i>Anopheles punctipennis</i>	1	24		
<i>Coquillettidia perturbans</i>	15	1008		
<i>Culex pipiens</i>	12	392	3	7.653
<i>Culex restuans</i>	41	770		
<i>Culex salinarius</i>	13	670		
<i>Culex</i> spp.	228	6042	53	8.772
<i>Culiseta melanura</i>	9	70		
<i>Psorophora ferox</i>	1	75		
Union	196	10534	78	7.405
<i>Aedes albopictus</i>	37	822	5	6.083
<i>Aedes sollicitans</i>	2	29		
<i>Culex salinarius</i>	3	108		
<i>Culex</i> spp	154	9575	73	7.624
Warren	431	15019	82	5.460
<i>Aedes albopictus</i>	34	712	1	1.404
<i>Aedes cinereus</i>	1	18		
<i>Aedes japonicus</i>	47	828	1	1.208
<i>Aedes sticticus</i>	2	16		
<i>Aedes triseriatus</i>	4	7		
<i>Aedes trivittatus</i>	14	273	1	3.663
<i>Aedes vexans</i>	18	394		
<i>Anopheles punctipennis</i>	5	35		
<i>Anopheles quadrimaculatus</i>	1	3		
<i>Anopheles walkeri</i>	1	35		
<i>Coquillettidia perturbans</i>	2	89		
<i>Culex</i> spp.	291	12428	79	6.357
<i>Culiseta melanura</i>	3	63		

<i>Psorophora ciliata</i>	2	56		
<i>Psorophora columbiae</i>	3	48		
<i>Psorophora ferox</i>	3	14		
Grand Total	10861	215778	1327	6.150



Saint Louis Encephalitis (SLE) to 26 October 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		36	1987		
	<i>Culex</i> spp	36	1987		
Cape May		987	11321		
	<i>Culex pipiens</i>	942	11176		
	<i>Culex</i> spp.	45	145		
Grand Total		1023	13308		

Gloucester		7	7	7	7	7	7	7	7		
	<i>Aedes albopictus</i>	5	5	5	5	5	5	5	5		
	<i>Aedes japonicus</i>	2	2	2	2	2	2	2	2		
Middlesex		2	2	2	2	2	2	2	2		
	<i>Aedes albopictus</i>	2	2	2	2	2	2	2	2		
Monmouth		2	2	2	2	2	2	2	2		
	<i>Aedes albopictus</i>	2	2	2	2	2	2	2	2		
Morris		1	1	1	1	1	1	1	1		
	<i>Aedes albopictus</i>	1	1	1	1	1	1	1	1		
Ocean		67	67	67	67	67	67	67	67		
	<i>Aedes albopictus</i>	67	67	67	67	67	67	67	67		
Sussex		3	3	3	3	3	3	3	3		
	<i>Aedes albopictus</i>	3	3	3	3	3	3	3	3		
Grand Total		138	138	138	138	138	138	138	138		

Chikungunya (CHIK) to 26 October 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 9 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		55	1047		
	<i>Aedes albopictus</i>	55	1047		
Bergen		1	14		
	<i>Aedes albopictus</i>	1	14		
Gloucester		7	20		
	<i>Aedes albopictus</i>	5	18		
	<i>Aedes japonicus</i>	2	2		
Middlesex		2	12		
	<i>Aedes albopictus</i>	2	12		
Monmouth		2	67		
	<i>Aedes albopictus</i>	2	67		
Ocean		67	709		
	<i>Aedes albopictus</i>	67	709		
Somerset		1	1		
	<i>Aedes albopictus</i>	1	1		
Sussex		3	5		
	<i>Aedes albopictus</i>	3	5		
Grand Total		138	1875		

Zika (ZIKV) to 26 October 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 7 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		55	1047		
	<i>Aedes albopictus</i>	55	1047		
Bergen		1	14		
	<i>Aedes albopictus</i>	1	14		
Cape May		665	1412		
	<i>Aedes albopictus</i>	665	1412		
Gloucester		7	20		
	<i>Aedes albopictus</i>	5	18		
	<i>Aedes japonicus</i>	2	2		
Middlesex		2	12		
	<i>Aedes albopictus</i>	2	12		
Monmouth		2	67		
	<i>Aedes albopictus</i>	2	67		
Ocean		67	709		
	<i>Aedes albopictus</i>	67	709		
Somerset		1	1		
	<i>Anopheles punctipennis</i>	1	1		
Sussex		3	5		
	<i>Aedes albopictus</i>	3	5		
Grand Total		803	3287		