

# VECTOR SURVEILLANCE IN NEW JERSEY

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

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 CDC WEEK 31: 31 July to 6 August, 2016



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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	0.52	0.40	1 (2)	1 (2)		
Green Bank (Burlington Co.)/25	Coastal	3.80	1.20	21 (51)	5 (6)		
Corbin City (Atlantic Co.)/25	Coastal	0.98	0.96	82 (106)	11 (12)		
Dennisville (Cape May Co.)/50	Coastal	6.33	0.28	58	9		
Winslow (Camden Co.)/50	Inland	1.26	0.40	611	16		
Centerton (Salem Co.)/50	Inland	1.50	0.88	195	10		
Turkey Swamp (Monmouth Co.)/49	Inland	1.22	0.22	25 (36)	10 (11)		
Glassboro (Gloucester Co.)/50	Inland	0.48	0.02	79	10		

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

**Remarks:** One new positive EEE pool, the first in *Culiseta melanura*, was detected in NJ. Total positive EEE pools detected are 3, with 2 pools found earlier in *Culex pipiens* in Cape May (collected 6 July).

**Traditional Resting Box Sites:** 1072 *Cs. melanura* from 72 pools have been tested for EEE, with 4 pools of 76 *Cs. melanura* to be tested. No positives at these traditional sites have been detected. Statewide, 2841 *Cs. melanura* have been tested, with one positive pool recently found in *Cs. melanura* at a county site. 11,593 specimens from 14 other species have also been tested, with two reported positives *Culex pipiens* pools.

		Additional <i>Cs. melanura</i> trapped by counties			
County	Trap types*	Pools	Mosquitoes	Positives	MFIR
Atlantic	CO <sub>2</sub> , RB	17	220		
Burlington	CO <sub>2</sub>	33	854		
Cape May	CDC, CO <sub>2</sub> , GR, RB	79	158		
Cumberland	RB	5	29		
Middlesex	GR, RB	29	482	1	2.07
Ocean	CO <sub>2</sub> , GR	10	26		
<b>TOTAL</b>		<b>174</b>	<b>1769</b>	<b>1</b>	<b>0.57</b>

central/northern counties in this state.

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	1	1		
<i>Aedes cantator</i>	23	50		
<i>Aedes sollicitans</i>	12	439		
<i>Aedes taeniorhynchus</i>	2	68		
<i>Anopheles bradleyi</i>	39	182		
<i>Anopheles crucians</i>	2	40		
<i>Anopheles punctipennis</i>	9	19		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Coquillettidia perturbans</i>	67	1182		
<i>Culex erraticus</i>	15	64		
<i>Culex pipiens</i>	517	7413	2	0.270
<i>Culex restuans</i>	1	3		
<i>Culex salinarius</i>	199	2016		
<i>Culex</i> sp.	37	103		
<i>Culex territans</i>	1	12		
<b>State Total</b>	<b>926</b>	<b>11593</b>	<b>2</b>	<b>0.173</b>

**Additional *Cs. melanura*:** Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. One positive pool was detected, sampled from a Middlesex county resting box on 25 July. This year, Middlesex County put out resting boxes for the purpose of testing for EEE, something not normally done for

**Additional Species:** Twelve additional species were tested for EEE. First positive pools were detected in *Culex pipiens*, an ornithophilic species, in Cape May, collected on 6 July.

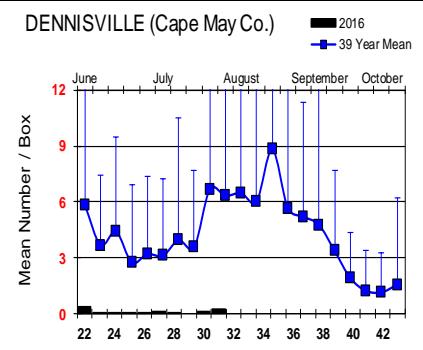
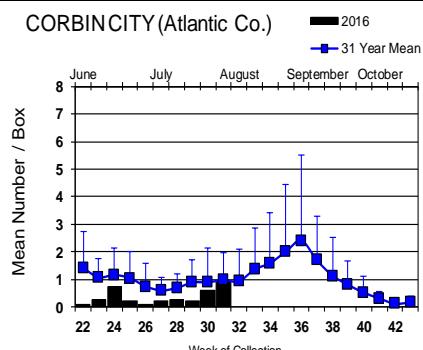
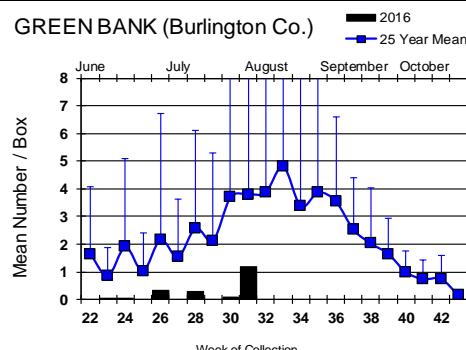
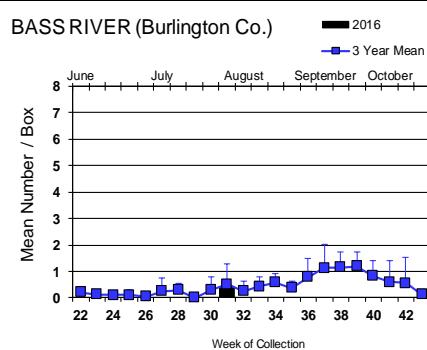
**Horses and Humans:** No positive horse or humans have been reported. Last year one positive horse was reported.

**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:

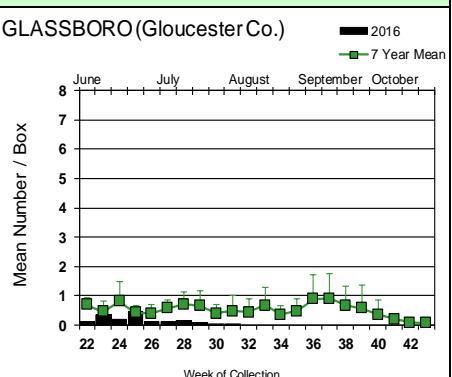
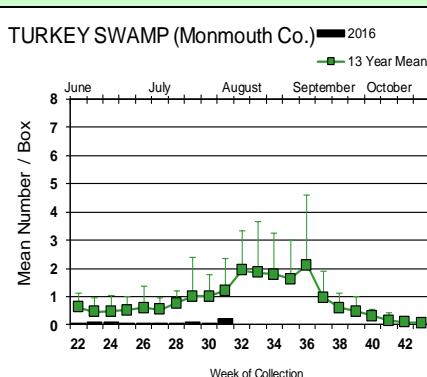
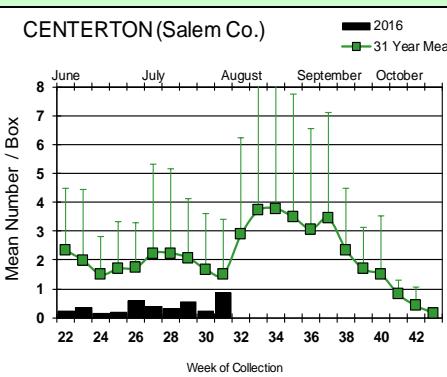
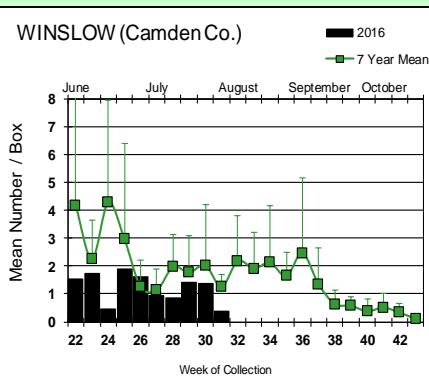
[http://www.aaep.org/vaccination\\_guidelines.htm](http://www.aaep.org/vaccination_guidelines.htm)

# Culiseta melanura Population Graphs

## Coastal



## Inland



While numbers continue to remain below historical values for most *Cs. melanura* populations, some rise in numbers were observed at sites like Green Bank, Corbin City and Centerton. No positive pools have been reported at these sites, but two non-neighboring counties (Cape May and Middlesex) have reported positives, suggesting that some dissemination of virus has occurred.



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

**EEE in US** (2016 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: AL(1) FL(16) GA(5) LA(5) MS(3) NC(1) SC(11) TN(1) VA(4)
- mosquito pools: NJ(3) MA(1)
- sentinel: FL(51) GA(2) TX(21)
- human:

## West Nile Virus Positive Organisms in US, 2016

West Nile in US (2016 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					2
Alaska					
Arizona	0	39	0	0	22/27
Arkansas				0	1
California	715/834	1487/1841	73/84	2/5	3/10
Colorado	1	17/28		1	4/6
Connecticut		1/14			0
Delaware					
DC					
Florida		2	51/52	1	
Georgia		0			0
Hawaii					
Idaho	0	14/18		1	1
Illinois	4/7	339/593		0	3/4
Indiana	0	20/28		0	1
Iowa		1			0
Kansas		0			2
Kentucky				0	
Louisiana					0
Maine		0			0
Maryland		1			
Mass.		18/36		0	0
Michigan	13	3			1
Minnesota		6			
Mississippi		20			5/9
Missouri		8		0	0

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana					
Nebraska	2	28/33		1	5/8
Nevada					1
New Hampshire		0		0	0
New Jersey		39/61		0	1
New Mexico					
New York		5/51			0
North Carolina					
North Dakota	6	15		1	4/7
Ohio		1/8		0	1
Oklahoma		7		1	2/4
Oregon	0	8/9	0	0	0
Pennsylvania	2	148/249			1
Rhode Island		0			
South Carolina					
South Dakota		28/68			19/26
Tennessee					1
Texas		604/692		2/3	22/24
Utah		27/47			
Vermont					1
Virginia					
Washington	0	39/50		1	0
West Virginia					
Wisconsin	5/8	0		0	0
Wyoming	1	23			1

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

**Mosquito Species Submitted and Tested  
for West Nile Virus Testing through 6 August 2016**

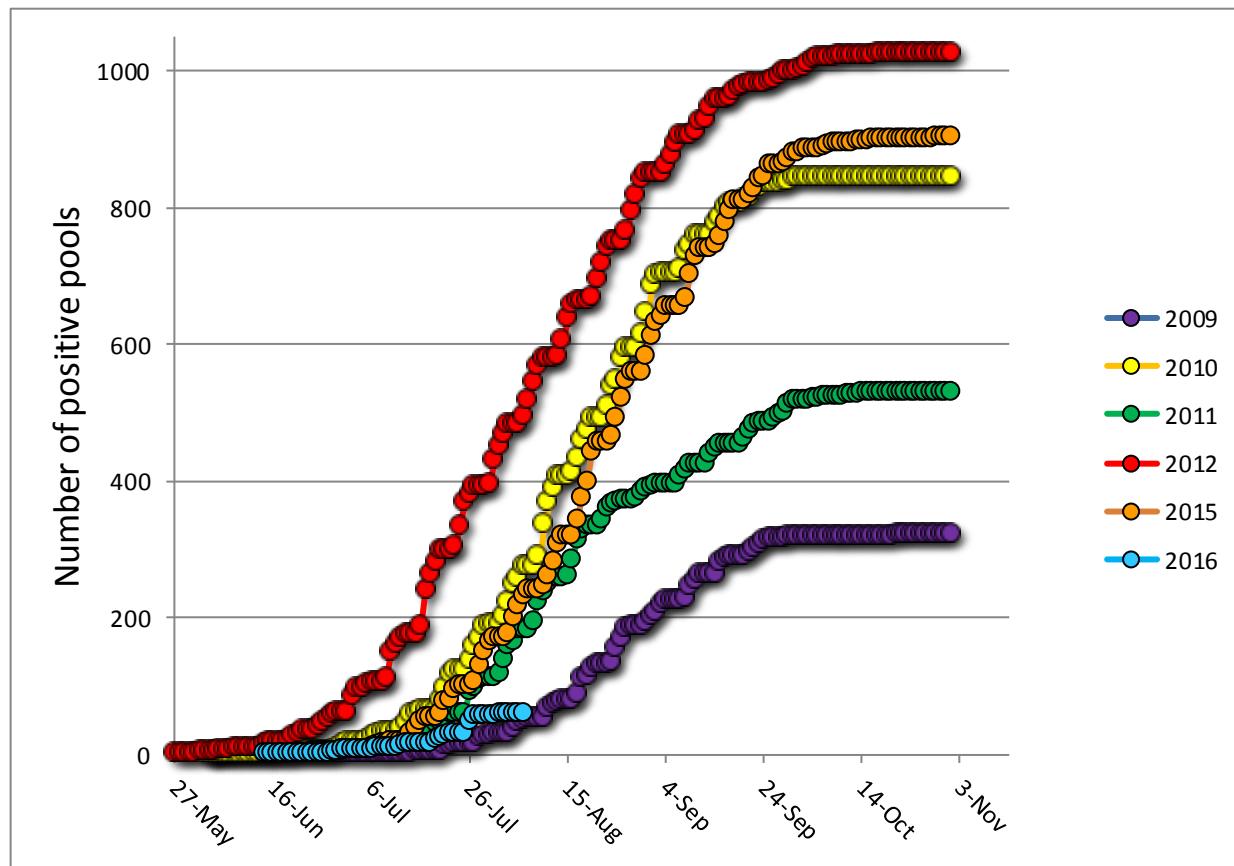
Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	652	4553	1	0.220
<i>Aedes atlanticus</i>	4	6		
<i>Aedes atropalpus</i>	19	62		
<i>Aedes canadensis canadensis</i>	31	625		
<i>Aedes cantator</i>	33	242		
<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	328	1767		
<i>Aedes sollicitans</i>	17	554		
<i>Aedes sticticus</i>	1	6		
<i>Aedes taeniorhynchus</i>	14	370		
<i>Aedes triseriatus</i>	143	300		
<i>Aedes trivittatus</i>	2	34		
<i>Aedes vexans</i>	39	479		
<i>Anopheles atropos</i>	1	1		
<i>Anopheles barberi</i>	2	2		
<i>Anopheles bradleyi</i>	46	399		
<i>Anopheles crucians</i>	4	46		
<i>Anopheles punctipennis</i>	38	143		
<i>Anopheles quadrimaculatus</i>	74	662		
<i>Coquillettidia perturbans</i>	85	2106		
<i>Culex erraticus</i>	25	103		
<i>Culex pipiens</i>	698	18020	7	0.388
<i>Culex restuans</i>	626	7330	1	0.136
<i>Culex salinarius</i>	204	2135		
<i>Culex spp.</i>	1598	64753	52	0.803
<i>Culex territans</i>	18	219		
<i>Culiseta melanura</i>	244	2763		
<i>Orthopodomyia signifera</i>	3	3		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	7	47		
<i>Psorophora ferox</i>	9	72		
<i>Uranotaenia sapphirina</i>	1	3		
<b>Grand Total</b>	<b>4968</b>	<b>107807</b>	<b>61</b>	<b>0.566</b>

**Remarks:** To date, 4968 pools of 107,807 mosquitoes from 31 species have been tested, with 61 positive pools detected. First non-*Culex* detection occurred in *Aedes albopictus*, collected in Hudson County on 19 July. The first positive pool of *Culex* Mix was collected on 14 June in Monmouth County.

**Humans, Horses and Wild Birds:** One human from Camden County had been reported with WNV, onset of early July. Last year 26 humans and one horse were positive. Onset in 2015 for humans began in early August and the onset for the horse case began in September. For further information, see <http://www.state.nj.us/health/cd/westnile/techinfo.shtml>.

Birds are no longer routinely tested in New Jersey.

The graph below shows cumulative positive pools for several years, with 2012 as the most active year and 2009 as the least active year. While it currently appears that New Jersey may be on track for low activity, last year we saw a similar pattern that increased to the second most active year as the season progressed and samples were completed.



### WNV Results by County through 6 August 2016

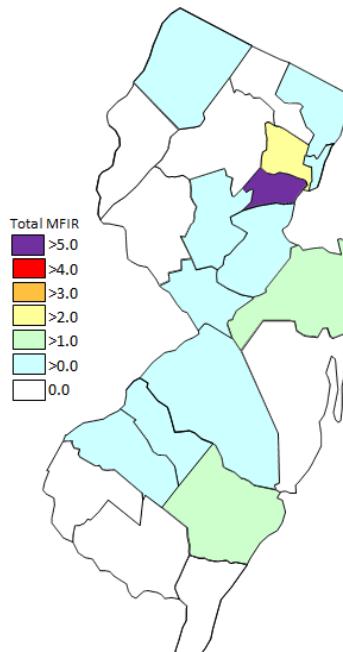
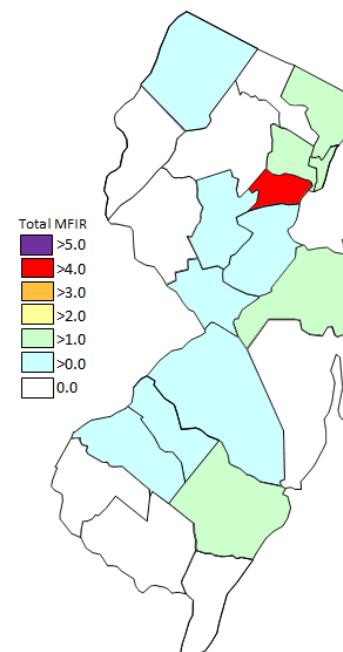
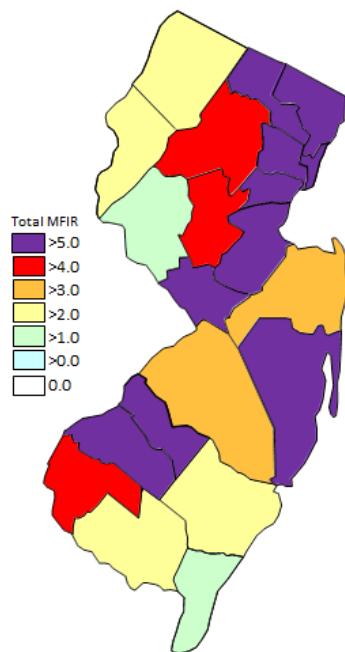
County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		119	3748	4	1.067
	<i>Aedes albopictus</i>	13	157		
	<i>Aedes japonicus</i>	1	4		
	<i>Aedes sollicitans</i>	5	333		
	<i>Aedes sticticus</i>	1	6		
	<i>Aedes taeniorhynchus</i>	4	266		
	<i>Aedes vexans</i>	6	203		
	<i>Anopheles bradleyi</i>	3	95		
	<i>Coquillettidia perturbans</i>	16	350		
	<i>Culex erraticus</i>	2	25		
	<i>Culex pipiens</i>	15	849	4	4.711
	<i>Culex restuans</i>	3	52		
	<i>Culex salinarius</i>	4	123		
	<i>Culex</i> spp.	16	954		
	<i>Culiseta melanura</i>	28	302		
	<i>Psorophora ferox</i>	2	29		
<b>Bergen</b>		115	7542	13	1.724
	<i>Aedes albopictus</i>	15	72		
	<i>Aedes japonicus</i>	2	120		
	<i>Culex</i> spp.	98	7350	13	1.769
<b>Burlington</b>		121	4263	3	0.704

<i>Aedes albopictus</i>	6	86		
<i>Aedes atropalpus</i>	3	18		
<i>Aedes japonicus</i>	8	174		
<i>Aedes taeniorhynchus</i>	2	68		
<i>Aedes triseriatus</i>	5	13		
<i>Anopheles barberi</i>	1	1		
<i>Anopheles bradleyi</i>	1	6		
<i>Anopheles crucians</i>	2	40		
<i>Coquillettidia perturbans</i>	1	58		
<i>Culex salinarius</i>	11	362		
<i>Culex</i> spp.	51	2651	3	1.132
<i>Culex territans</i>	1	12		
<i>Culiseta melanura</i>	29	774		
<b>Camden</b>	<b>117</b>	<b>3461</b>	<b>2</b>	<b>0.578</b>
<i>Aedes albopictus</i>	16	66		
<i>Aedes japonicus</i>	14	56		
<i>Culex</i> spp.	71	2728	2	0.733
<i>Culiseta melanura</i>	16	611		
<b>Cape May</b>	<b>1976</b>	<b>14950</b>		
<i>Aedes albopictus</i>	152	242		
<i>Aedes atlanticus</i>	3	4		
<i>Aedes atropalpus</i>	16	44		
<i>Aedes canadensis canadensis</i>	12	244		
<i>Aedes cantator</i>	23	50		
<i>Aedes japonicus</i>	165	341		
<i>Aedes sollicitans</i>	2	4		
<i>Aedes taeniorhynchus</i>	2	2		
<i>Aedes triseriatus</i>	99	181		
<i>Aedes vexans</i>	7	10		
<i>Anopheles atropos</i>	1	1		
<i>Anopheles bradleyi</i>	38	176		
<i>Anopheles punctipennis</i>	9	10		
<i>Anopheles quadrimaculatus</i>	64	647		
<i>Coquillettidia perturbans</i>	25	415		
<i>Culex erraticus</i>	8	16		
<i>Culex pipiens</i>	519	7418		
<i>Culex restuans</i>	520	4021		
<i>Culex salinarius</i>	166	596		
<i>Culex</i> spp.	32	90		
<i>Culex territans</i>	17	207		
<i>Culiseta melanura</i>	88	216		
<i>Orthopodomyia signifera</i>	2	2		
<i>Psorophora columbiae</i>	2	2		
<i>Psorophora ferox</i>	3	8		
<i>Uranotaenia sapphirina</i>	1	3		
<b>Cumberland</b>	<b>80</b>	<b>1927</b>		
<i>Aedes albopictus</i>	6	87		
<i>Aedes cantator</i>	1	1		
<i>Aedes japonicus</i>	5	9		
<i>Aedes sollicitans</i>	7	210		
<i>Aedes taeniorhynchus</i>	3	26		
<i>Aedes vexans</i>	7	219		
<i>Anopheles bradleyi</i>	4	122		

<i>Anopheles crucians</i>	1	5		
<i>Anopheles punctipennis</i>	3	38		
<i>Anopheles quadrimaculatus</i>	1	3		
<i>Coquillettidia perturbans</i>	4	104		
<i>Culex pipiens</i>	1	7		
<i>Culex salinarius</i>	21	989		
<i>Culex spp.</i>	4	19		
<i>Culiseta melanura</i>	5	29		
<i>Orthopodomyia signifera</i>	1	1		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	4	44		
<i>Psorophora ferox</i>	1	13		
<b>Essex</b>	<b>118</b>	<b>511</b>	<b>1</b>	<b>1.957</b>
<i>Aedes albopictus</i>	39	165		
<i>Aedes japonicus</i>	5	8		
<i>Aedes triseriatus</i>	2	2		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex spp.</i>	70	334	1	2.994
<b>Gloucester</b>	<b>190</b>	<b>9844</b>	<b>3</b>	<b>0.305</b>
<i>Aedes albopictus</i>	16	199		
<i>Aedes japonicus</i>	14	186		
<i>Aedes triseriatus</i>	1	4		
<i>Anopheles punctipennis</i>	2	10		
<i>Culex pipiens</i>	147	9366	3	0.320
<i>Culiseta melanura</i>	10	79		
<b>Hudson</b>	<b>120</b>	<b>5861</b>	<b>6</b>	<b>1.024</b>
<i>Aedes albopictus</i>	18	423	1	2.364
<i>Culex spp.</i>	102	5438	5	0.919
<b>Hunterdon</b>	<b>104</b>	<b>4673</b>		
<i>Culex spp.</i>	104	4673		
<b>Mercer</b>	<b>192</b>	<b>5442</b>	<b>4</b>	<b>0.735</b>
<i>Aedes albopictus</i>	22	358		
<i>Aedes japonicus</i>	4	43		
<i>Aedes triseriatus</i>	2	24		
<i>Aedes vexans</i>	1	3		
<i>Culex pipiens</i>	15	379		
<i>Culex restuans</i>	99	3250	1	0.308
<i>Culex spp.</i>	49	1385	3	2.166
<b>Middlesex</b>	<b>197</b>	<b>8000</b>	<b>4</b>	<b>0.500</b>
<i>Aedes albopictus</i>	33	217		
<i>Culex spp.</i>	133	7300	4	0.548
<i>Culiseta melanura</i>	31	483		
<b>Monmouth</b>	<b>384</b>	<b>4107</b>	<b>7</b>	<b>1.704</b>
<i>Aedes albopictus</i>	208	1690		
<i>Aedes atlanticus</i>	1	2		
<i>Aedes canadensis canadensis</i>	18	311		
<i>Aedes cantator</i>	9	191		

<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	18	35		
<i>Aedes sollicitans</i>	3	7		
<i>Aedes taeniorhynchus</i>	3	8		
<i>Aedes triseriatus</i>	5	12		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	5	21		
<i>Anopheles barberi</i>	1	1		
<i>Anopheles crucians</i>	1	1		
<i>Anopheles punctipennis</i>	18	36		
<i>Anopheles quadrimaculatus</i>	2	2		
<i>Coquillettidia perturbans</i>	4	5		
<i>Culex erraticus</i>	2	5		
<i>Culex restuans</i>	1	3		
<i>Culex</i> spp.	70	1729	7	4.049
<i>Culiseta melanura</i>	11	26		
<i>Psorophora ferox</i>	2	20		
<b>Morris</b>		<b>178</b>	<b>6493</b>	
<i>Aedes albopictus</i>	13	52		
<i>Culex</i> spp.	165	6441		
<b>Ocean</b>		<b>175</b>	<b>2692</b>	
<i>Aedes albopictus</i>	48	520		
<i>Aedes canadensis canadensis</i>	1	70		
<i>Aedes japonicus</i>	21	76		
<i>Aedes triseriatus</i>	8	14		
<i>Aedes vexans</i>	1	1		
<i>Anopheles punctipennis</i>	2	2		
<i>Coquillettidia perturbans</i>	14	236		
<i>Culex erraticus</i>	2	14		
<i>Culex restuans</i>	1	2		
<i>Culex</i> spp.	61	1709		
<i>Culiseta melanura</i>	16	48		
<b>Passaic</b>		<b>180</b>	<b>4483</b>	
<i>Aedes albopictus</i>	6	7		
<i>Aedes japonicus</i>	45	202		
<i>Aedes triseriatus</i>	5	6		
<i>Aedes vexans</i>	12	22		
<i>Culex</i> spp.	112	4246		
<b>Salem</b>		<b>156</b>	<b>1066</b>	
<i>Aedes albopictus</i>	34	126		
<i>Aedes japonicus</i>	11	29		
<i>Aedes triseriatus</i>	14	24		
<i>Anopheles punctipennis</i>	2	2		
<i>Anopheles quadrimaculatus</i>	6	9		
<i>Coquillettidia perturbans</i>	9	82		
<i>Culex erraticus</i>	11	43		
<i>Culex pipiens</i>	1	1		
<i>Culex restuans</i>	2	2		
<i>Culex</i> spp.	54	550		
<i>Culiseta melanura</i>	10	195		
<i>Psorophora columbiae</i>	1	1		
<i>Psorophora ferox</i>	1	2		

<b>Somerset</b>	<b>105</b>	<b>2476</b>	<b>1</b>	<b>0.404</b>
<i>Aedes albopictus</i>	3	14		
<i>Aedes japonicus</i>	2	16		
<i>Aedes triseriatus</i>	1	4		
<i>Culex</i> spp.	99	2442	1	0.410
<b>Sussex</b>	<b>177</b>	<b>6945</b>	<b>2</b>	<b>0.288</b>
<i>Aedes japonicus</i>	13	468		
<i>Aedes triseriatus</i>	1	16		
<i>Aedes trivittatus</i>	1	33		
<i>Anopheles punctipennis</i>	1	44		
<i>Coquillettidia perturbans</i>	12	856		
<i>Culex salinarius</i>	2	65		
<i>Culex</i> spp.	147	5463	2	0.366
<b>Union</b>	<b>44</b>	<b>2415</b>	<b>11</b>	<b>4.555</b>
<i>Aedes albopictus</i>	4	72		
<i>Culex</i> spp.	40	2343	11	4.695
<b>Warren</b>	<b>120</b>	<b>6908</b>		
<i>Culex</i> spp.	120	6908		
<b>Grand Total</b>	<b>4968</b>	<b>107807</b>	<b>61</b>	<b>0.566</b>



Cumulative WNV activity in 2015.    WNV activity to 6 August 2016.    WNV activity last week, 2016.

## Saint Louis Encephalitis (SLE) to 6 August 2016.

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.

Currently, there are no reported positive pools of SLE for 2016. There are no human cases reported.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Burlington</b>		<b>52</b>	<b>2652</b>		
	<i>Anopheles barberi</i>	1	1		
	<i>Culex</i> spp.	51	2651		
<b>Cape May</b>		<b>550</b>	<b>7504</b>		
	<i>Aedes albopictus</i>	1	1		
	<i>Culex pipiens</i>	517	7413		
	<i>Culex</i> spp.	32	90		
<b>Grand Total</b>		<b>602</b>	<b>10156</b>		

## La Crosse Encephalitis (LAC) to 6 August 2016.

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).

Currently, there are no reported positive pools of LAC for 2016. There are no human cases reported.

County	Species		Positives	MFIR
<b>Burlington</b>		<b>22</b>	<b>291</b>	
	<i>Aedes albopictus</i>	6	86	
	<i>Aedes atropalpus</i>	3	18	
	<i>Aedes japonicus</i>	8	174	
	<i>Aedes triseriatus</i>	5	13	
<b>Grand Total</b>		<b>22</b>	<b>291</b>	

## Dengue (DENV) to 6 August 2016.

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 have tested positive in 2016. Currently, New Jersey has 31 imported human cases of Dengue.

County	Species	DENV1		DENV2		DENV3		DENV4		Positives	MFIR
		Pool	Mos.	Pool	Mos.	Pool	Mos.	Pool	Mos.		
Atlantic		13	157	13	157	13	157	13	157		
	<i>Aedes albopictus</i>	13	157	13	157	13	157	13	157		
Bergen		15	72	15	72	15	72	15	72		
	<i>Aedes albopictus</i>	15	72	15	72	15	72	15	72		
Camden		16	66	16	66	16	66	16	66		
	<i>Aedes albopictus</i>	16	66	16	66	16	66	16	66		
Cumberland		6	87	6	87	6	87	6	87		
	<i>Aedes albopictus</i>	6	87	6	87	6	87	6	87		
Essex		39	165	39	165	39	165	39	165		
	<i>Aedes albopictus</i>	39	165	39	165	39	165	39	165		
Hudson		18	423	18	423	18	423	18	423		
	<i>Aedes albopictus</i>	18	423	18	423	18	423	18	423		
Mercer		22	358	22	358	22	358	22	358		
	<i>Aedes albopictus</i>	22	358	22	358	22	358	22	358		
Middlesex		34	218	34	218	34	218	34	218		
	<i>Aedes albopictus</i>	33	217	33	217	33	217	33	217		
	<i>Culiseta melanura</i>	1	1	1	1	1	1	1	1		
Monmouth		176	1582	176	1582	176	1582	176	1582		
	<i>Aedes albopictus</i>	176	1582	176	1582	176	1582	176	1582		
Morris		15	55	15	55	15	55	15	55		
	<i>Aedes albopictus</i>	13	52	13	52	13	52	13	52		
	<i>Culex</i> spp.	2	3	2	3	2	3	2	3		
Passaic		2	3	2	3	2	3	2	3		
	<i>Aedes albopictus</i>	2	3	2	3	2	3	2	3		
Salem		34	126	34	126	34	126	34	126		
	<i>Aedes albopictus</i>	34	126	34	126	34	126	34	126		
<b>Grand Total</b>		<b>390</b>	<b>3312</b>	<b>390</b>	<b>3312</b>	<b>390</b>	<b>3312</b>	<b>390</b>	<b>3312</b>		

### Chikungunya (CHIK) to 6 August 2016.

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 have tested positive in 2016. Currently, New Jersey has 1 imported human case of Chikungunya.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		13	157		
	<i>Aedes albopictus</i>	13	157		
Bergen		15	72		
	<i>Aedes albopictus</i>	15	72		
Camden		16	66		
	<i>Aedes albopictus</i>	16	66		

	<i>Aedes albopictus</i>	16	66		
<b>Cape May</b>		<b>152</b>	<b>245</b>		
	<i>Aedes albopictus</i>	151	241		
	<i>Culex pipiens</i>	1	4		
<b>Cumberland</b>		<b>6</b>	<b>87</b>		
	<i>Aedes albopictus</i>	6	87		
<b>Essex</b>		<b>39</b>	<b>165</b>		
	<i>Aedes albopictus</i>	39	165		
<b>Hudson</b>		<b>18</b>	<b>423</b>		
	<i>Aedes albopictus</i>	18	423		
<b>Mercer</b>		<b>22</b>	<b>358</b>		
	<i>Aedes albopictus</i>	22	358		
<b>Middlesex</b>		<b>34</b>	<b>218</b>		
	<i>Aedes albopictus</i>	33	217		
	<i>Culiseta melanura</i>	1	1		
<b>Monmouth</b>		<b>176</b>	<b>1582</b>		
	<i>Aedes albopictus</i>	176	1582		
<b>Morris</b>		<b>15</b>	<b>55</b>		
	<i>Aedes albopictus</i>	13	52		
	<i>Culex spp.</i>	2	3		
<b>Passaic</b>		<b>2</b>	<b>3</b>		
	<i>Aedes albopictus</i>	2	3		
<b>Salem</b>		<b>34</b>	<b>126</b>		
	<i>Aedes albopictus</i>	34	126		
<b>Grand Total</b>		<b>542</b>	<b>3557</b>		

### Zika (ZIKV) to 6 August 2016.

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 2016. Currently, New Jersey has 80 imported human cases of Zika.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Cape May</b>		<b>152</b>	<b>245</b>		
	<i>Aedes albopictus</i>	151	241		
	<i>Culex pipiens</i>	1	4		
<b>Monmouth</b>		<b>6</b>	<b>8</b>		
	<i>Aedes albopictus</i>	6	8		
<b>Grand Total</b>		<b>158</b>	<b>253</b>		