

# VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV and CHIK

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CDC WEEK 36: 31 August to 6 September, 2014

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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.)/4	Coastal	1.35	0.00	6	4		
Green Bank (Burlington Co.)/25	Coastal	3.84	0.12	113 (116)	13 (14)	1	10.64
Corbin City (Atlantic Co.)/25	Coastal	2.53	0.92	199 (222)	13 (14)		
Dennisville (Cape May Co.)/50	Coastal	5.49	0.16	378	16	4	8.11
Winslow (Camden Co.)/50	Inland	1.29	0.64	1061	28	2	1.94
Centerton (Salem Co.)/45	Inland	3.20	1.73	438	17		
Turkey Swamp (Monmouth Co.)/50	Inland	2.49	0.18	158 (167)	14 (15)		
Glassboro (Gloucester Co.)/50	Inland	0.53	0.90	458	16		

\*Current week (in parentheses) results pending.

**Remarks:** EEE activity continues with four additional positive *Cs. melanura* mosquito pools: 1 from the Dennisville traditional resting box site and the rest from Counties non-traditional sites. Total number of positive EEE pools is 19, all in *Cs. melanura*. Statewide, for all mosquitoes tested, MFIR is 1.72. *Cs. melanura* activity continue to remain relatively low (see page 3 population graphs) with regard to resting box data.

**Traditional Resting Box Sites:** One new EEE positive *Cs. melanura* pool has been detected at the Dennisville site. To date, 2811 *Cs. melanura* from 121 pools have been tested for EEE at the traditional resting box sites. Overall MFIR for these traditional sites is 2.49. Three additional pools containing 35 *Cs. melanura* remains to be tested.

<b>Additional <i>Cs. melanura</i> trapped by counties</b>				
*traps with positives indicated in <b>BOLD</b> .				
<b>County</b>	<b>Trap types*</b>	<b>Number collected (pools)</b>	<b>Number of positive pools</b>	<b>MFIR</b>
Atlantic	CO <sub>2</sub>	4 (3)		
Burlington	<b>CO<sub>2</sub></b>	3882 (90)	8	2.061
Cape May	Gravid, <b>RB</b>	185 (14)	1	5.405
Cumberland	CO <sub>2</sub> , RB	89 (14)		
Gloucester	<b>RB</b>	734 (60)	1	1.362
Monmouth	Other	2 (1)		
Ocean	<b>CO<sub>2</sub>, RB</b>	40 (13)	2	50.000
Salem	CO <sub>2</sub>	9 (5)		
<b>TOTAL</b>		<b>4945 (200)</b>	<b>12</b>	<b>2.427</b>

**Additional *Cs. melanura*:**

Counties submit additional pools of *Cs. melanura* caught in other trap types as well as resting boxes. Three additional positive pools were detected in CO<sub>2</sub> traps from Burlington County (2) and one RB trap in Ocean County. Virus was first detected in these additional pools from a Gloucester County resting box sampled on 23 July.

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes atlanticus</i>	1	5		
<i>Aedes canadensis canadensis</i>	6	148		
<i>Aedes cantator</i>	4	7		
<i>Aedes cinereus</i>	1	1		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	4	45		
<i>Aedes taeniorhynchus</i>	4	30		
<i>Aedes triseriatus</i>	4	17		
<i>Aedes vexans</i>	4	35		
<i>Anopheles bradleyi</i>	12	322		
<i>Anopheles punctipennis</i>	34	656		
<i>Anopheles quadrimaculatus</i>	20	583		
<i>Coquillettidia perturbans</i>	42	706		
<i>Culex erraticus</i>	12	111		
<i>Culex pipiens</i>	22	170		
<i>Culex restuans</i>	3	12		
<i>Culex salinarius</i>	29	398		
<i>Culex</i> spp.	8	56		
<i>Culex territans</i>	1	1		
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	2	14		
State Total	<b>216</b>	<b>3320</b>		

**Additional Species:** Counties submit additional pools of species other than *Cs. melanura* for EEE virus testing. Currently, no detection of EEE in other species has occurred.

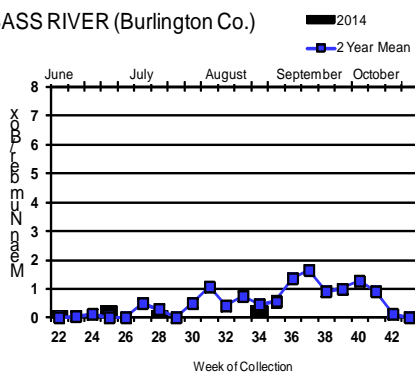
**Horses and Humans:** Currently there is no reported horse or human cases

**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)

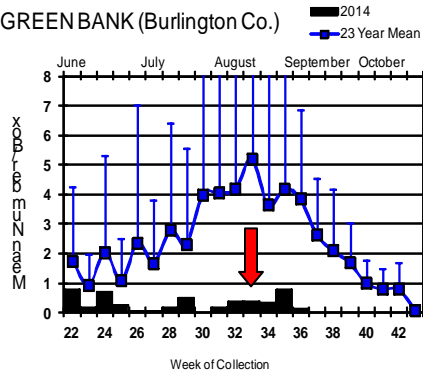
# Culiseta melanura Population Graphs

## Coastal

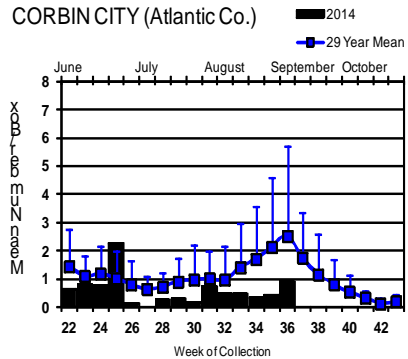
**BASS RIVER (Burlington Co.)**



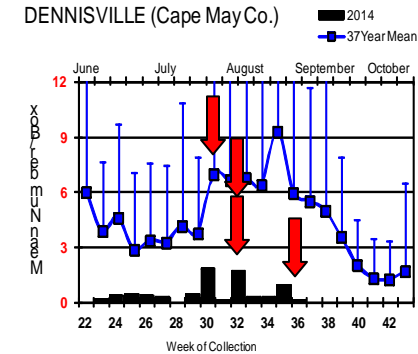
**GREEN BANK (Burlington Co.)**



**CORBIN CITY (Atlantic Co.)**

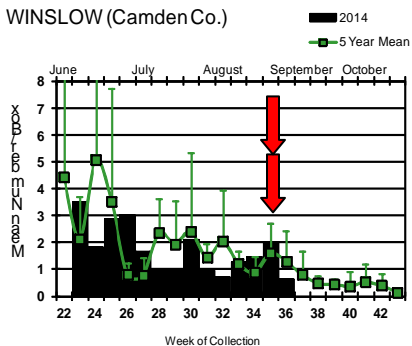


**DENNISVILLE (Cape May Co.)**

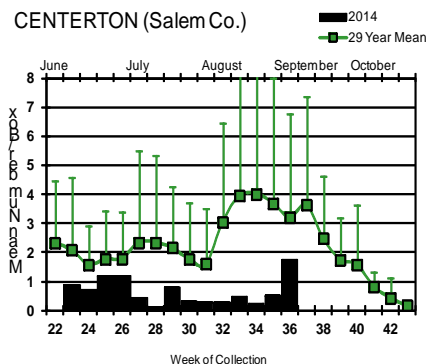


## Inland

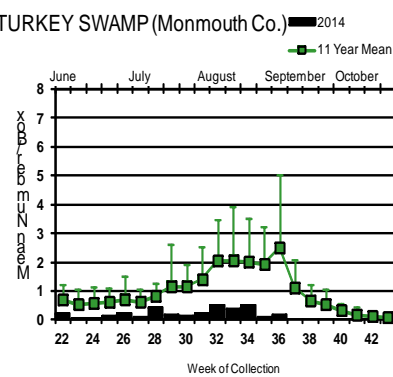
**WINSLOW (Camden Co.)**



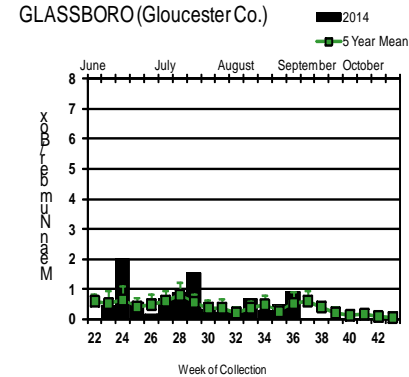
**CENTERTON (Salem Co.)**



**TURKEY SWAMP (Monmouth Co.)**



**GLASSBORO (Gloucester Co.)**



*Culiseta melanura* populations continued to be low at most sites, but with increases at Corbin City, Centerton and Glassboro. Positive pool was detected at Dennisville.

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

**EEE in US** (2014 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: AL(2) FL (46 +2 deer) GA(6) LA(5) MA(1) NC(6) NH(1) NY(1) SC(7) TX(1)
- mosquito pools: GA(1) LA(1) MA(24) ME(4) NH(6) NJ(19) NY(60) VA(108) VT(3)
- sentinel: AL(3) FL(151) GA(1) ME(1 emu) NC(1) VA(27/3 cassowaries)
- human: AL(1) NH(1) NY(1)

**West Nile Virus Positive Organisms in US**

West Nile in US (2014 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				1	1
Alaska					
Arizona	1	192		1/2	27/34
Arkansas					2
California	1733/1827	2485/2660	242/274	2/4	129/181
Colorado	1/2	101/148		2	12/19
Connecticut		33/34			0
Delaware	1/2				
DC					1
Florida			35/44	2	
Georgia	0	25			1/3
Hawaii					
Idaho		49/62		2	11/13
Illinois	22/25	606/760			2/4
Indiana		67/85			2
Iowa		5		1	8
Kansas		0			1/3
Kentucky				1	
Louisiana		817	26	1	61/80
Maine		0		0	0
Maryland		12/14		1	1
Mass.		33/39		0	1
Michigan	10	6		1	
Minnesota	2	10		1	3/4
Mississippi		54		0	17/24
Missouri		34		1	1/2

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana		9		2	1/3
Nebraska	3/4	142/153		0	14/27
Nevada		15/43			
New Hampshire		0		0	0
New Jersey	11/13	371/429		0	2
New Mexico		1		2	1
New York		327/492			2/3
North Carolina					
North Dakota	0	6		2*	7/9
Ohio		73/216			3
Oklahoma		4/5			4/6
Oregon	0	31	0	2	4
Pennsylvania	7	990/1097			2
Rhode Island		1			
South Carolina	1				
South Dakota	1	57		1	26
Tennessee	0	202/293		0	3
Texas	62/63	1313/1480		1	49
Utah	2	114/133		1	1
Vermont		7		0	0
Virginia		130	15		
Washington	0	60		1	4
West Virginia	1	6		0	0
Wisconsin	23	5		1	3/5
Wyoming	1	12		3	3/4

\* 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 Testing through 8 September 2014

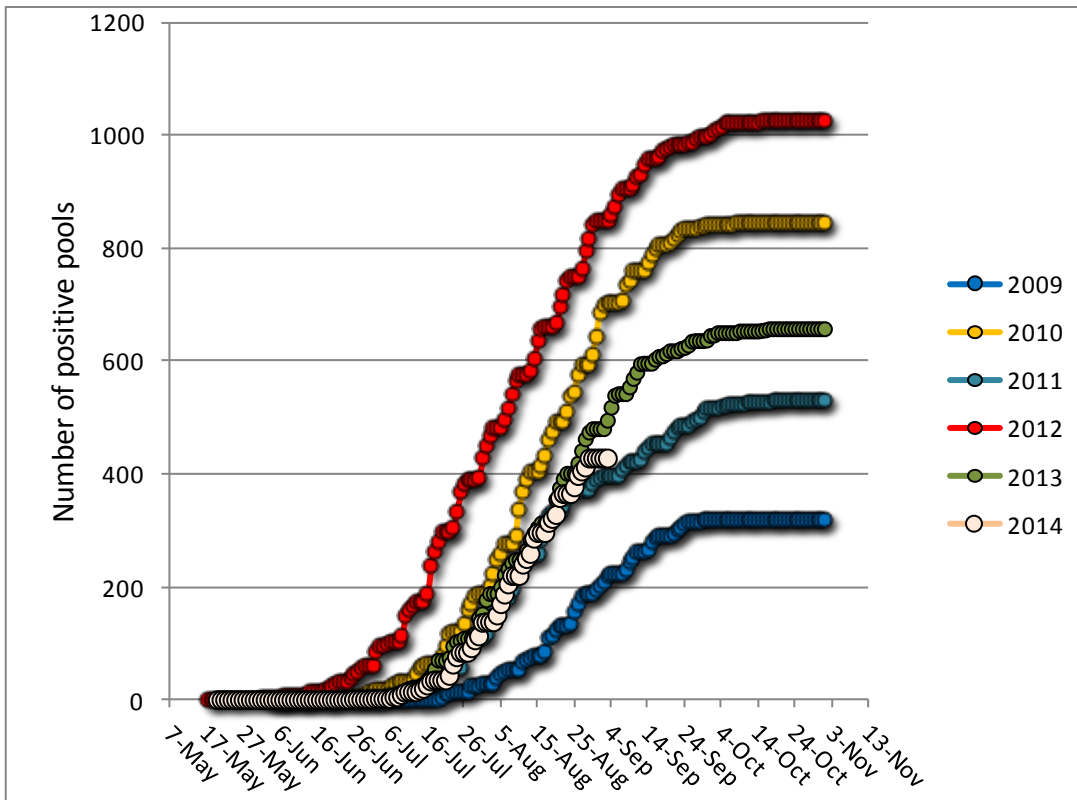
Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	620	5909	10	1.692
<i>Aedes atlanticus</i>	1	5		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	30	608		
<i>Aedes cantator</i>	16	208		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	392	2333	2	0.857
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	10	95		
<i>Aedes sticticus</i>	3	7		
<i>Aedes taeniorhynchus</i>	15	349		
<i>Aedes triseriatus</i>	118	470	1	2.128
<i>Aedes trivittatus</i>	14	66		
<i>Aedes vexans</i>	47	329		
<i>Anopheles bradleyi</i>	24	619		
<i>Anopheles punctipennis</i>	79	936		
<i>Anopheles quadrimaculatus</i>	58	1217		
<i>Coquillettidia perturbans</i>	84	1122		
<i>Culex erraticus</i>	40	311		
<i>Culex pipiens</i>	440	14054	29	2.063
<i>Culex restuans</i>	199	4659	14	3.005
<i>Culex salinarius</i>	35	420		
<i>Culex spp.</i>	2622	106002	367	3.462
<i>Culex territans</i>	4	4		
<i>Culiseta melanura</i>	343	7707	6	0.779
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora ciliata</i>	3	3		
<i>Psorophora columbiae</i>	11	87		
<i>Psorophora ferox</i>	10	122		
<b>State Total</b>	<b>5222</b>	<b>147650</b>	<b>429</b>	<b>2.906</b>

**Remarks:** To date, 5222 pools of 147,650 mosquitoes from 28 species have been tested, with 429 positive pools detected. First positive was detected in a Mixed *Culex* pool collected on 20 May in Camden County. First positive *Ae. triseriatus* was detected on 21 Aug in Mercer County. Nineteen counties have detected positive pools, including Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren Counties. Overall MFIR for the state has increased from 2.448 to 2.724.

**Humans, Horses and Wild Birds:** Two human cases of WNV have occurred, one each in Gloucester and Monmouth County. For further information, see <http://www.state.nj.us/health/cd/westnile/techinfo.shtml>.

No horse cases have been detected.

Bird testing began in mid-April. First positive bird (Fish Crow in Mercer County collected 8 July) has been reported. To date, 102 birds have been tested, with 13 positives. Species includes: American Crow (*Corvus brachyrhynchos* 3/3) Fish Crow (*Corvus ossifragus* 8/32), Blue Jay (*Cyanocitta cristata* 0/10), Hawk/Raptor (1/7), unidentified corvid (0/3) and other avian species (1/47). Counties (positives) submitting birds are Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, Union and Warren.



**Positive pool trends:** The graph above shows the trends of cumulative positive through each season for 2009 to 2014 (to date). Less activity was seen in 2009, 2011 and 2013 than for 2010 or 2012. This year, the trend appears to be in line for cumulative pools somewhere between the activity seen for 2011 and 2013.

### WNV Results by County through 8 September 2014

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>126</b>	<b>2983</b>	<b>18</b>	<b>6.034</b>
	<i>Aedes albopictus</i>	21	199	1	5.025
	<i>Aedes canadensis canadensis</i>	3	26		
	<i>Aedes cantator</i>	3	10		
	<i>Aedes japonicus</i>	3	23		
	<i>Aedes sollicitans</i>	2	6		
	<i>Aedes sticticus</i>	1	1		
	<i>Aedes taeniorhynchus</i>	6	247		
	<i>Aedes vexans</i>	5	33		
	<i>Anopheles bradleyi</i>	3	11		
	<i>Anopheles punctipennis</i>	2	4		
	<i>Anopheles quadrimaculatus</i>	3	10		
	<i>Coquillettidia perturbans</i>	4	23		
	<i>Culex</i> spp.	49	2143	17	7.933
	<i>Culiseta melanura</i>	17	206		
	<i>Psorophora ferox</i>	4	41		
<b>Bergen</b>		<b>178</b>	<b>13139</b>	<b>89</b>	<b>6.774</b>
	<i>Aedes albopictus</i>	3	14		
	<i>Culex</i> spp.	175	13125	89	6.781
<b>Burlington</b>		<b>365</b>	<b>8933</b>	<b>14</b>	<b>1.567</b>
	<i>Aedes albopictus</i>	42	283		
	<i>Aedes atlanticus</i>	1	5		
	<i>Aedes canadensis canadensis</i>	4	142		

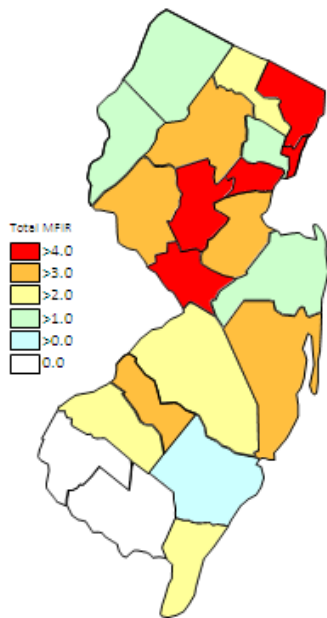
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	29	267		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes taeniorhynchus</i>	4	30		
<i>Aedes triseriatus</i>	12	65		
<i>Aedes trivittatus</i>	1	41		
<i>Aedes vexans</i>	7	85		
<i>Anopheles bradleyi</i>	5	180		
<i>Anopheles punctipennis</i>	3	13		
<i>Anopheles quadrimaculatus</i>	1	21		
<i>Coquillettidia perturbans</i>	7	141		
<i>Culex erraticus</i>	6	51		
<i>Culex pipiens</i>	2	2		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	16	264		
<i>Culex</i> spp.	111	3323	9	2.708
<i>Culiseta melanura</i>	107	4001	5	1.250
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	3	15		
<b>Camden</b>	<b>327</b>	<b>9148</b>	<b>24</b>	<b>2.624</b>
<i>Aedes albopictus</i>	17	35		
<i>Aedes japonicus</i>	86	365		
<i>Culex</i> spp.	196	7687	24	3.122
<i>Culiseta melanura</i>	28	1061		
<b>Cape May</b>	<b>333</b>	<b>3876</b>	<b>1</b>	<b>0.258</b>
<i>Aedes albopictus</i>	31	195		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes cantator</i>	4	7		
<i>Aedes japonicus</i>	14	35		
<i>Aedes taeniorhynchus</i>	1	50		
<i>Aedes triseriatus</i>	13	64		
<i>Aedes vexans</i>	1	1		
<i>Anopheles bradleyi</i>	7	142		
<i>Anopheles quadrimaculatus</i>	15	485		
<i>Coquillettidia perturbans</i>	3	52		
<i>Culex erraticus</i>	6	59		
<i>Culex pipiens</i>	129	1669		
<i>Culex restuans</i>	65	522		
<i>Culex salinarius</i>	8	61		
<i>Culex</i> spp.	2	3		
<i>Culex territans</i>	3	3		
<i>Culiseta melanura</i>	29	522	1	1.916
<b>Cumberland</b>	<b>145</b>	<b>2276</b>		
<i>Aedes albopictus</i>	4	9		
<i>Aedes canadensis canadensis</i>	1	2		
<i>Aedes japonicus</i>	2	2		
<i>Aedes sollicitans</i>	4	45		
<i>Aedes taeniorhynchus</i>	2	18		
<i>Aedes vexans</i>	9	97		
<i>Anopheles bradleyi</i>	8	285		
<i>Anopheles punctipennis</i>	14	158		
<i>Anopheles quadrimaculatus</i>	6	26		



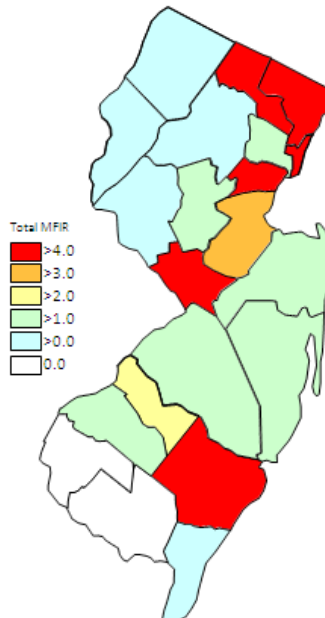
	<i>Coquillettidia perturbans</i>	10	271		
	<i>Culex erraticus</i>	1	4		
	<i>Culex pipiens</i>	1	5		
	<i>Culex salinarius</i>	6	83		
	<i>Culex</i> spp.	54	1106		
	<i>Culiseta melanura</i>	15	93		
	<i>Psorophora ciliata</i>	2	2		
	<i>Psorophora columbiae</i>	5	69		
	<i>Psorophora ferox</i>	1	1		
<b>Essex</b>		<b>237</b>	<b>2640</b>	<b>4</b>	<b>1.515</b>
	<i>Aedes albopictus</i>	17	68		
	<i>Aedes japonicus</i>	35	108		
	<i>Aedes triseriatus</i>	4	8		
	<i>Aedes trivittatus</i>	7	17		
	<i>Aedes vexans</i>	1	4		
	<i>Anopheles quadrimaculatus</i>	3	3		
	<i>Culex</i> spp.	168	2430	4	1.646
	<i>Psorophora ferox</i>	2	2		
<b>Gloucester</b>		<b>467</b>	<b>14962</b>	<b>22</b>	<b>1.470</b>
	<i>Aedes albopictus</i>	74	978	2	2.045
	<i>Aedes japonicus</i>	10	157		
	<i>Aedes triseriatus</i>	5	50		
	<i>Aedes vexans</i>	1	4		
	<i>Anopheles punctipennis</i>	27	636		
	<i>Anopheles quadrimaculatus</i>	19	582		
	<i>Coquillettidia perturbans</i>	5	39		
	<i>Culex pipiens</i>	251	11348	20	1.762
	<i>Culiseta melanura</i>	75	1168		
<b>Hudson</b>		<b>123</b>	<b>6040</b>	<b>56</b>	<b>9.272</b>
	<i>Aedes albopictus</i>	12	186	2	10.753
	<i>Culex</i> spp.	111	5854	54	9.224
<b>Hunterdon</b>		<b>224</b>	<b>11031</b>	<b>6</b>	<b>0.544</b>
	<i>Culex</i> spp.	224	11031	6	0.544
<b>Mercer</b>		<b>356</b>	<b>7980</b>	<b>38</b>	<b>4.762</b>
	<i>Aedes albopictus</i>	68	554		
	<i>Aedes canadensis canadensis</i>	2	5		
	<i>Aedes japonicus</i>	40	145		
	<i>Aedes triseriatus</i>	10	28	1	35.714
	<i>Aedes vexans</i>	5	48		
	<i>Culex erraticus</i>	1	5		
	<i>Culex pipiens</i>	53	1024	9	8.789
	<i>Culex restuans</i>	129	4131	14	3.389
	<i>Culex salinarius</i>	2	8		
	<i>Culex</i> spp.	46	2032	14	6.890
<b>Middlesex</b>		<b>286</b>	<b>12066</b>	<b>46</b>	<b>3.812</b>
	<i>Aedes albopictus</i>	50	360	3	8.333
	<i>Aedes triseriatus</i>	2	14		
	<i>Culex</i> spp.	234	11692	43	3.678

<b>Monmouth</b>	<b>374</b>	<b>5673</b>	<b>9</b>	<b>1.586</b>
<i>Aedes albopictus</i>	110	1390		
<i>Aedes canadensis canadensis</i>	14	273		
<i>Aedes cantator</i>	6	56		
<i>Aedes japonicus</i>	38	149		
<i>Aedes sollicitans</i>	4	44		
<i>Aedes taeniorhynchus</i>	2	4		
<i>Aedes triseriatus</i>	15	41		
<i>Aedes trivitatus</i>	6	8		
<i>Aedes vexans</i>	9	26		
<i>Anopheles punctipennis</i>	16	24		
<i>Anopheles quadrimaculatus</i>	3	3		
<i>Coquillettidia perturbans</i>	6	6		
<i>Culex erraticus</i>	3	9		
<i>Culex restuans</i>	2	2		
<i>Culex salinarius</i>	1	1		
<i>Culex</i> spp.	117	3470	9	2.594
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	16	161		
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora columbiae</i>	3	3		
<i>Psorophora ferox</i>	1	1		
<b>Morris</b>	<b>222</b>	<b>9863</b>	<b>3</b>	<b>0.304</b>
<i>Aedes albopictus</i>	5	75		
<i>Coquillettidia perturbans</i>	4	200		
<i>Culex</i> spp.	213	9588	3	0.313
<b>Ocean</b>	<b>285</b>	<b>3929</b>	<b>6</b>	<b>1.527</b>
<i>Aedes albopictus</i>	67	908		
<i>Aedes canadensis canadensis</i>	3	96		
<i>Aedes cantator</i>	3	135		
<i>Aedes japonicus</i>	44	228	2	8.772
<i>Aedes sticticus</i>	2	6		
<i>Aedes triseriatus</i>	12	39		
<i>Aedes vexans</i>	8	28		
<i>Coquillettidia perturbans</i>	17	94		
<i>Culex erraticus</i>	4	5		
<i>Culex salinarius</i>	2	3		
<i>Culex</i> spp.	86	2237	4	1.788
<i>Culiseta melanura</i>	35	73		
<i>Psorophora ferox</i>	2	77		
<b>Passaic</b>	<b>139</b>	<b>4041</b>	<b>18</b>	<b>4.454</b>
<i>Aedes albopictus</i>	14	41		
<i>Aedes japonicus</i>	29	282		
<i>Aedes triseriatus</i>	8	15		
<i>Aedes vexans</i>	1	3		
<i>Coquillettidia perturbans</i>	2	12		
<i>Culex</i> spp.	85	3688	18	4.881
<b>Salem</b>	<b>274</b>	<b>2592</b>		
<i>Aedes albopictus</i>	58	350		
<i>Aedes japonicus</i>	26	61		
<i>Aedes triseriatus</i>	23	48		

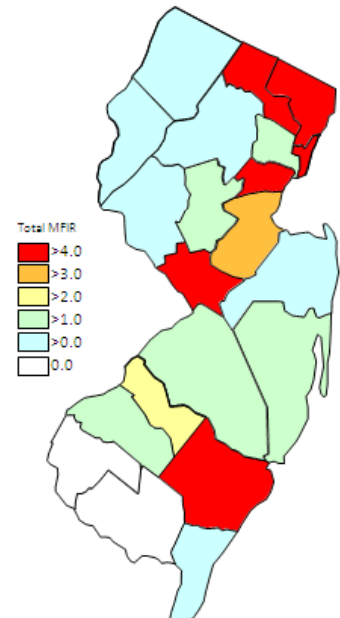
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	13	78		
<i>Anopheles quadrimaculatus</i>	6	80		
<i>Coquillettidia perturbans</i>	25	267		
<i>Culex erraticus</i>	19	178		
<i>Culex pipiens</i>	4	6		
<i>Culex restuans</i>	2	3		
<i>Culex</i> spp.	76	1098		
<i>Culiseta melanura</i>	21	422		
<b>Somerset</b>	<b>198</b>	<b>4220</b>	<b>6</b>	<b>1.422</b>
<i>Aedes albopictus</i>	9	36		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes japonicus</i>	18	218		
<i>Aedes triseriatus</i>	4	18		
<i>Anopheles punctipennis</i>	1	2		
<i>Culex</i> spp.	165	3943	6	1.522
<b>Sussex</b>	<b>176</b>	<b>5224</b>	<b>2</b>	<b>0.383</b>
<i>Aedes japonicus</i>	7	139		
<i>Aedes triseriatus</i>	6	64		
<i>Anopheles punctipennis</i>	2	8		
<i>Anopheles quadrimaculatus</i>	1	5		
<i>Coquillettidia perturbans</i>	1	17		
<i>Culex</i> spp.	159	4991	2	0.401
<b>Union</b>	<b>151</b>	<b>7503</b>	<b>63</b>	<b>8.397</b>
<i>Aedes albopictus</i>	12	135	2	14.815
<i>Aedes canadensis canadensis</i>	1	60		
<i>Aedes japonicus</i>	6	84		
<i>Culex</i> spp.	132	7224	61	8.444
<b>Warren</b>	<b>236</b>	<b>9531</b>	<b>4</b>	<b>0.420</b>
<i>Aedes albopictus</i>	6	93		
<i>Aedes japonicus</i>	5	70		
<i>Aedes triseriatus</i>	4	16		
<i>Anopheles punctipennis</i>	1	13		
<i>Anopheles quadrimaculatus</i>	1	2		
<i>Culex</i> spp.	219	9337	4	0.428
<b>Grand Total</b>	<b>5222</b>	<b>147650</b>	<b>429</b>	<b>2.906</b>



Cumulative WNV activity in 2013.



WNV activity to 8 September 2014.



WNV activity last week, 2014.

### Saint Louis Encephalitis (SLE) to 8 September 2014.

New Jersey will be selectively testing for SLE this year. 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 have been detected positive for SLE in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Burlington</b>		<b>139</b>	<b>3562</b>		
	<i>Aedes albopictus</i>	6	48		
	<i>Aedes japonicus</i>	23	233		
	<i>Aedes triseriatus</i>	1	1		
	<i>Culex pipiens</i>	2	2		
	<i>Culex restuans</i>	1	1		
	<i>Culex</i> spp.	106	3277		
<b>Cape May</b>		<b>23</b>	<b>166</b>		
	<i>Culex pipiens</i>	21	163		
	<i>Culex</i> spp.	2	3		
<b>Grand Total</b>		<b>162</b>	<b>3728</b>		

### La Crosse Encephalitis (LAC) through 8 September 2014.

New Jersey will be selectively testing for La Crosse (LAC) virus this year. 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 have been detected positive for LAC in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Burlington</b>		<b>42</b>	<b>322</b>		
	<i>Aedes albopictus</i>	21	146		
	<i>Aedes canadensis canadensis</i>	3	67		
	<i>Aedes japonicus</i>	6	44		
	<i>Aedes triseriatus</i>	12	65		
<b>Cape May</b>		<b>14</b>	<b>71</b>		
	<i>Aedes triseriatus</i>	13	64		
	<i>Culex pipiens</i>	1	7		
<b>Salem</b>		<b>12</b>	<b>25</b>		
	<i>Aedes triseriatus</i>	12	25		
<b>Grand Total</b>		<b>68</b>	<b>418</b>		

### Dengue (DENV) to 8 September 2014.

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. There are currently 25 imported human cases in New Jersey, no local transmission.

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

No pools have been detected positive for DENV in 2014.

County	Species	DENV1		DENV2		DENV3		DENV4		Positives	MFIR
		Pool	Mos.	Pool	Mos.	Pool	Mos.	Pool	Mos.		
<b>Atlantic</b>		<b>18</b>	<b>190</b>	<b>18</b>	<b>190</b>	<b>18</b>	<b>190</b>	<b>17</b>	<b>184</b>		
	<i>Aedes albopictus</i>	18	190	18	190	18	190	17	184		
<b>Bergen</b>		<b>3</b>	<b>14</b>	<b>3</b>	<b>14</b>	<b>3</b>	<b>14</b>	<b>3</b>	<b>14</b>		
	<i>Aedes albopictus</i>	3	14	3	14	3	14	3	14		
<b>Burlington</b>		<b>19</b>	<b>121</b>	<b>19</b>	<b>121</b>	<b>19</b>	<b>121</b>	<b>19</b>	<b>19</b>		
	<i>Aedes albopictus</i>	19	121	19	121	19	121	19	19		
<b>Camden</b>		<b>9</b>	<b>25</b>	<b>9</b>	<b>25</b>	<b>9</b>	<b>25</b>	<b>9</b>	<b>25</b>		
	<i>Aedes albopictus</i>	9	25	9	25	9	25	9	25		
<b>Cape May</b>		<b>18</b>	<b>171</b>	<b>18</b>	<b>171</b>	<b>18</b>	<b>171</b>	<b>18</b>	<b>171</b>		
	<i>Aedes albopictus</i>	18	171	18	171	18	171	18	171		

<b>Cumberland</b>		<b>3</b>	<b>8</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>8</b>		
	<i>Aedes albopictus</i>	3	8	3	8	3	8	3	8		
<b>Gloucester</b>		<b>62</b>	<b>733</b>	<b>62</b>	<b>733</b>	<b>62</b>	<b>733</b>	<b>62</b>	<b>733</b>		
	<i>Aedes albopictus</i>	62	733	62	733	62	733	62	733		
<b>Hudson</b>		<b>12</b>	<b>186</b>	<b>12</b>	<b>186</b>	<b>12</b>	<b>186</b>	<b>12</b>	<b>186</b>		
	<i>Aedes albopictus</i>	12	186	12	186	12	186	12	186		
<b>Mercer</b>		<b>51</b>	<b>481</b>	<b>51</b>	<b>481</b>	<b>51</b>	<b>481</b>	<b>51</b>	<b>481</b>		
	<i>Aedes albopictus</i>	51	481	51	481	51	481	51	481		
<b>Middlesex</b>		<b>49</b>	<b>360</b>	<b>49</b>	<b>360</b>	<b>49</b>	<b>360</b>	<b>49</b>	<b>360</b>		
	<i>Aedes albopictus</i>	48	352	48	352	48	352	48	352		
	<i>Culex spp.</i>	1	8	1	8	1	8	1	8		
<b>Monmouth</b>		<b>72</b>	<b>1197</b>	<b>72</b>	<b>1197</b>	<b>72</b>	<b>1197</b>	<b>72</b>	<b>1197</b>		
	<i>Aedes albopictus</i>	72	1197	72	1197	72	1197	72	1197		
<b>Morris</b>		<b>2</b>	<b>24</b>	<b>2</b>	<b>24</b>	<b>2</b>	<b>24</b>	<b>2</b>	<b>24</b>		
	<i>Aedes albopictus</i>	2	24	2	24	2	24	2	24		
<b>Passaic</b>		<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>		
	<i>Aedes albopictus</i>	1	2	1	2	1	2	1	2		
<b>Salem</b>		<b>54</b>	<b>338</b>	<b>54</b>	<b>338</b>	<b>54</b>	<b>338</b>	<b>54</b>	<b>338</b>		
	<i>Aedes albopictus</i>	54	338	54	338	54	338	54	338		
<b>Somerset</b>		<b>3</b>	<b>7</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>7</b>		
	<i>Aedes albopictus</i>	3	7	3	7	3	7	3	7		
<b>Warren</b>		<b>5</b>	<b>76</b>	<b>5</b>	<b>76</b>	<b>5</b>	<b>76</b>	<b>5</b>	<b>76</b>		
	<i>Aedes albopictus</i>	5	76	5	76	5	76	5	76		
<b>Grand Total</b>		<b>381</b>	<b>3933</b>	<b>381</b>	<b>3933</b>	<b>381</b>	<b>3933</b>	<b>380</b>	<b>3927</b>		

### Chikungunya (CHIK) to 8 September 2014.

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. There are currently 76 imported human cases in New Jersey, no local transmission.

No pools have been detected positive for CHIK in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>18</b>	<b>190</b>		
	<i>Aedes albopictus</i>	18	190		
<b>Bergen</b>		<b>3</b>	<b>14</b>		
	<i>Aedes albopictus</i>	3	14		

<b>Burlington</b>		<b>19</b>	<b>121</b>		
	<i>Aedes albopictus</i>	19	121		
<b>Camden</b>		<b>9</b>	<b>25</b>		
	<i>Aedes albopictus</i>	9	25		
<b>Cape May</b>		<b>18</b>	<b>171</b>		
	<i>Aedes albopictus</i>	18	171		
<b>Cumberland</b>		<b>3</b>	<b>8</b>		
	<i>Aedes albopictus</i>	3	8		
<b>Gloucester</b>		<b>62</b>	<b>733</b>		
	<i>Aedes albopictus</i>	62	733		
<b>Hudson</b>		<b>12</b>	<b>186</b>		
	<i>Aedes albopictus</i>	12	186		
<b>Mercer</b>		<b>51</b>	<b>481</b>		
	<i>Aedes albopictus</i>	51	481		
<b>Middlesex</b>		<b>49</b>	<b>360</b>		
	<i>Aedes albopictus</i>	48	352		
	<i>Culex spp.</i>	1	8		
<b>Monmouth</b>		<b>72</b>	<b>1197</b>		
	<i>Aedes albopictus</i>	72	1197		
<b>Morris</b>		<b>2</b>	<b>24</b>		
	<i>Aedes albopictus</i>	2	24		
<b>Passaic</b>		<b>1</b>	<b>2</b>		
	<i>Aedes albopictus</i>	1	2		
<b>Salem</b>		<b>54</b>	<b>338</b>		
	<i>Aedes albopictus</i>	54	338		
<b>Somerset</b>		<b>3</b>	<b>7</b>		
	<i>Aedes albopictus</i>	3	7		
<b>Warren</b>		<b>5</b>	<b>76</b>		
	<i>Aedes albopictus</i>	5	76		
<b>Grand Total</b>		<b>381</b>	<b>3933</b>		