

# VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV and CHIK

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CDC WEEK 39: 21 September to 27 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.)/5	Coastal	1.00	1.80	21 (30)	6 (7)		
Green Bank (Burlington Co.)/25	Coastal	1.69	1.68	222 (264)	17 (18)	1	4.50
Corbin City (Atlantic Co.)/25	Coastal	0.81	0.80	310	17		
Dennisville (Cape May Co.)/50	Coastal	2.03	0.00	443	19	5	11.29
Winslow (Camden Co.)/50	Inland	0.42	0.32	1222	33	3	2.46
Centerton (Salem Co.)/50	Inland	1.73	1.20	572	21	1	1.75
Turkey Swamp (Monmouth Co.)/50	Inland	0.51	0.42	178 (199)	17 (18)	1	5.62
Glassboro (Gloucester Co.)/50	Inland	0.22	0.46	532	19		

\*Current week (in parentheses) results pending.

**Remarks:** Four additional positive EEE pools have been detected this past week, one at Turkey Swamp resting box site, two at a Burlington additional trap site and one at a Gloucester additional trap site. Total number of positive EEE pools is 31, 30 in *Cs. melanura* and 1 in *Culex salinarius*. Statewide, for all mosquitoes tested, MFIR is 2.14, up from 2.08 of the previous week.

**Traditional Resting Box Sites:** One new EEE positive *Cs. melanura* pools were detected, at Turkey Swamp in Monmouth County. To date, 3500 *Cs. melanura* from 147 pools have been tested for EEE at the traditional resting box sites. Overall MFIR for these traditional sites is 3.14, up from 3.08 of the previous week. Three additional pools containing 72 *Cs. melanura* remain 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> , Gravid	27 (7)		
Burlington	<b>CO<sub>2</sub></b>	5070 (114)	11	2.170
Cape May	<b>Gravid, RB</b>	261 (22)	4	15.236
Cumberland	CO <sub>2</sub> , <b>RB</b>	141 (20)	1	7.092
Gloucester	<b>RB</b>	888 (76)	1	1.126
Monmouth	Other	4 (2)		
Ocean	<b>CO<sub>2</sub>, Gravid, RB</b>	93 (19)	2	21.739
Salem	CO <sub>2</sub>	9 (5)		
<b>TOTAL</b>		<b>6493 (265)</b>	<b>19</b>	<b>2.926</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 gravid and resting box traps from Cape May 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 albopictus</i>	2	10		
<i>Aedes atlanticus</i>	1	5		
<i>Aedes canadensis canadensis</i>	13	254		
<i>Aedes cantator</i>	5	8		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	3	10		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	6	57		
<i>Aedes taeniorhynchus</i>	4	30		
<i>Aedes triseriatus</i>	8	32		
<i>Aedes vexans</i>	7	47		
<i>Anopheles bradleyi</i>	16	403		
<i>Anopheles crucians</i>	3	17		
<i>Anopheles punctipennis</i>	41	846		
<i>Anopheles quadrimaculatus</i>	29	818		
<i>Coquillettidia perturbans</i>	47	778		
<i>Culex erraticus</i>	21	173		
<i>Culex pipiens</i>	34	301		
<i>Culex restuans</i>	4	16		
<i>Culex salinarius</i>	37	558	1	1.792
<i>Culex</i> spp.	13	77		
<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>301</b>	<b>4459</b>	<b>1</b>	<b>0.224</b>

**Additional Species:** Counties submit additional pools of species other than *Cs. melanura* for EEE virus testing. First detection into non-*melanura* species has occurred with a positive pool of *Culex salinarius*, collected in Burlington County on 16 Sep.

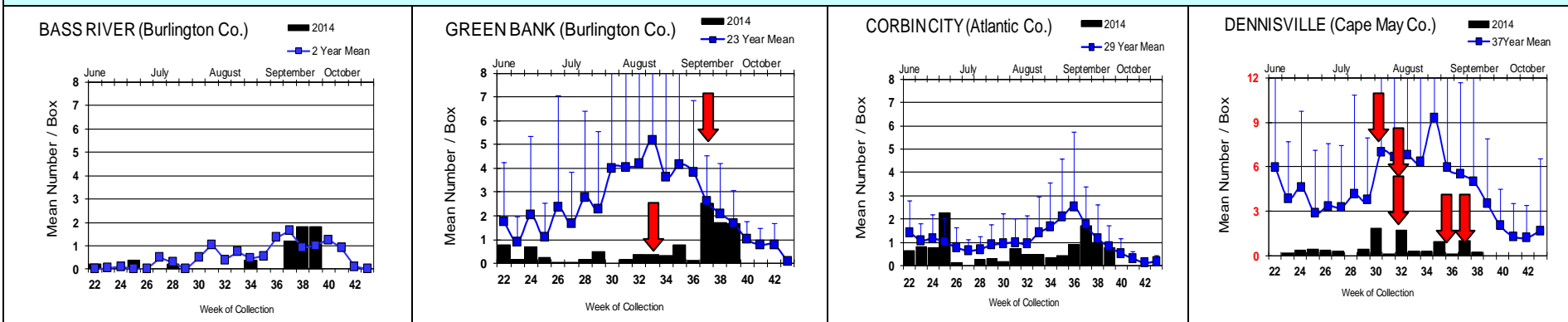
**Horses and Humans:** Three horses have been reported with EEE: Earliest onset date is on 11 Aug, 2014 for a 4 yo mare in Gloucester County, died 14 Sep. Second case with onset date of 11 Sep for a 2 yo mare in Ocean County, euthanized same date. Third case with onset date of 21 Sep 2014 for a 6 yo gelding in Burlington County, euthanized same date. Vaccination history for all horses was either uncertain or not done.

**No human cases have been reported.**

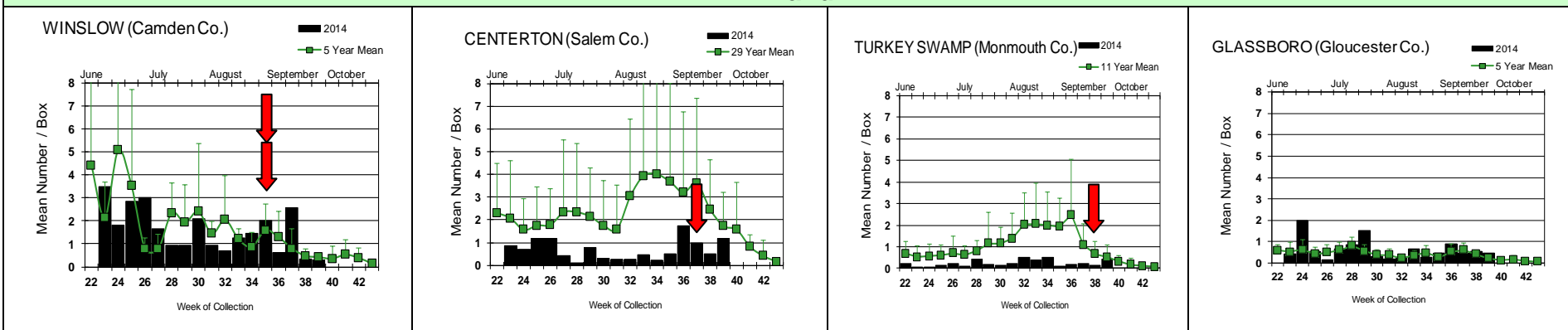
**Horses and Vaccinations:** The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: [http://www.aaep.org/vaccination\\_guidelines.htm](http://www.aaep.org/vaccination_guidelines.htm)

# Culiseta melanura Population Graphs

## Coastal



## Inland



Populations of *Cs. melanura* are generally declining while detection of EEE continues and horse cases are developing. EEE has been detected in a non-*melanura* species. Due diligence is required when in the habitat of *Cs. melanura* or potential bridge vectors.

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

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

- equine: AL(5) FL (52 +2 deer) GA(8) LA(10) MA(1) ME(1) MI(2) MS(1) NC(9) NH(1) NJ(3) NY(10) SC(7) TX(1) VA(1)
- mosquito pools: GA(1) LA(1) MA(32) MD(1) ME(15) NH(13) NJ(31) NY(86) VA(108) VT(5)
- sentinel: AL(3) FL(154) GA(1) ME(1 emu) NC(2) VA(33/3 cassowaries)
- human: AL(1) NH(2) NY(2)

**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	1
Alaska					
Arizona	1	275/277		3	40/48
Arkansas					2/4
California	2079/2155	2952/3047	328/361	8/10	311/375
Colorado	3	195		3	42/79
Connecticut		62/64			3
Delaware	2/3		3		
DC					2
Florida			79/91	5	5
Georgia	0	25			6/8
Hawaii					
Idaho		62		3/5	13/18
Illinois	33/34	1139/1210			15/19
Indiana		141/157			3
Iowa		9		2/3	11
Kansas		1			10/16
Kentucky				1/2	
Louisiana		894/910	39/42	1	103/118
Maine		0		0	0
Maryland		23/28		1	2
Mass.		55/56		0	2/3
Michigan	11/14	9		1	1
Minnesota	2	19		1/2	4/6
Mississippi		67		1	37/40
Missouri	1/ 2	34		6/9	7/9

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana		12		2/3	4
Nebraska	5	235/246		0	69/81
Nevada		89/95			2
New Hampshire		1		0	0
New Jersey	17/18	556/602		0	3
New Mexico		1/ 2		2/3	7/11
New York		650/722		1	10/13
North Carolina					
North Dakota	0	6		4*	17/21
Ohio		313			6
Oklahoma		5			11/13
Oregon	6	31/58	0	2/ 3	4/7
Pennsylvania	12/13	1345/1402		1	5/6
Rhode Island		1/2			
South Carolina	1				
South Dakota	1	75		1	35/49
Tennessee	0	552/598		0	6/9
Texas	69/74	1777/1901		1/4	91/156
Utah	2	145/159	1	3	1
Vermont		7/8		0	0
Virginia		130	15		1
Washington	0	80		4	7/8
West Virginia	1	6/7		0	0
Wisconsin	25	3		2	5
Wyoming	1	12		3	5

\* 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 29 September 2014

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	830	7992	11	1.376
<i>Aedes atlanticus</i>	4	10		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	42	660		
<i>Aedes cantator</i>	17	209		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	491	2956	5	1.691
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	12	107		
<i>Aedes sticticus</i>	3	7		
<i>Aedes taeniorhynchus</i>	17	364		
<i>Aedes triseriatus</i>	153	589	1	1.698
<i>Aedes trivittatus</i>	15	67		
<i>Aedes vexans</i>	64	434		
<i>Anopheles bradleyi</i>	33	826		
<i>Anopheles crucians</i>	3	17		
<i>Anopheles punctipennis</i>	101	1192		
<i>Anopheles quadrimaculatus</i>	86	1675		
<i>Coquillettidia perturbans</i>	93	1201		
<i>Culex erraticus</i>	73	532	1	1.880
<i>Culex pipiens</i>	581	18102	51	2.817
<i>Culex restuans</i>	247	5458	23	4.214
<i>Culex salinarius</i>	44	581		
<i>Culex spp.</i>	3231	124501	502	4.032
<i>Culex territans</i>	5	5		
<i>Culiseta melanura</i>	440	9972	8	0.802
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora ciliata</i>	4	4		
<i>Psorophora columbiae</i>	17	177		
<i>Psorophora ferox</i>	12	207		
<b>State Total</b>	<b>6622</b>	<b>177853</b>	<b>602</b>	<b>3.385</b>

**Remarks:** To date, 6622 pools of 177,853 mosquitoes from 29 species have been tested, with 602 positive pools detected. First positive was detected in a Mixed *Culex* pool collected on 20 May in Camden 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 3.303 to 3.385.

**Humans, Horses and Wild Birds:** Three human cases of WNV have occurred, one each in Gloucester, Hudson and Monmouth Counties. 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, 110 birds have been tested, with 18 positives. Species includes: American Crow (*Corvus brachyrhynchos* 3/3) Fish Crow (*Corvus ossifragus* 10/34), Blue Jay (*Cyanocitta cristata* 2/12), Hawk/Raptor (1/7), unidentified corvid (1/4) and other avian species (1/50). Counties (positives) submitting birds are Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, Union and Warren.

## WNV Results by County through 29 September 2014

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>170</b>	<b>3748</b>	<b>19</b>	<b>5.069</b>
	<i>Aedes albopictus</i>	28	274	1	3.650
	<i>Aedes atlanticus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	4	27		
	<i>Aedes cantator</i>	3	10		
	<i>Aedes japonicus</i>	8	40		
	<i>Aedes sollicitans</i>	2	6		
	<i>Aedes sticticus</i>	1	1		
	<i>Aedes taeniorhynchus</i>	6	247		
	<i>Aedes vexans</i>	6	56		
	<i>Anopheles bradleyi</i>	4	13		
	<i>Anopheles punctipennis</i>	2	4		
	<i>Anopheles quadrimaculatus</i>	3	10		
	<i>Coquillettidia perturbans</i>	5	24		
	<i>Culex erraticus</i>	2	25		
	<i>Culex</i> spp.	64	2544	18	7.075
	<i>Culiseta melanura</i>	25	340		
	<i>Psorophora ferox</i>	6	126		
<b>Bergen</b>		<b>238</b>	<b>17194</b>	<b>135</b>	<b>7.852</b>
	<i>Aedes albopictus</i>	8	44	1	22.727
	<i>Aedes japonicus</i>	2	124		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Culex</i> spp.	227	17025	134	7.871
<b>Burlington</b>		<b>441</b>	<b>10831</b>	<b>15</b>	<b>1.385</b>
	<i>Aedes albopictus</i>	47	329		
	<i>Aedes atlanticus</i>	1	5		
	<i>Aedes canadensis canadensis</i>	10	247		
	<i>Aedes cinereus</i>	1	1		
	<i>Aedes japonicus</i>	34	283		
	<i>Aedes mitchellae</i>	1	1		
	<i>Aedes taeniorhynchus</i>	4	30		
	<i>Aedes triseriatus</i>	15	78		
	<i>Aedes trivittatus</i>	1	41		
	<i>Aedes vexans</i>	10	97		
	<i>Anopheles bradleyi</i>	9	261		
	<i>Anopheles punctipennis</i>	3	13		
	<i>Anopheles quadrimaculatus</i>	1	21		
	<i>Coquillettidia perturbans</i>	8	143		
	<i>Culex erraticus</i>	9	59		
	<i>Culex pipiens</i>	3	3		
	<i>Culex restuans</i>	1	1		
	<i>Culex salinarius</i>	22	407		
	<i>Culex</i> spp.	121	3482	10	2.872
	<i>Culiseta melanura</i>	136	5313	5	0.941
	<i>Psorophora ciliata</i>	1	1		
	<i>Psorophora columbiae</i>	3	15		
<b>Camden</b>		<b>390</b>	<b>10195</b>	<b>35</b>	<b>3.433</b>
	<i>Aedes albopictus</i>	19	43		
	<i>Aedes japonicus</i>	106	443	1	2.257
	<i>Culex</i> spp.	232	8487	34	4.006

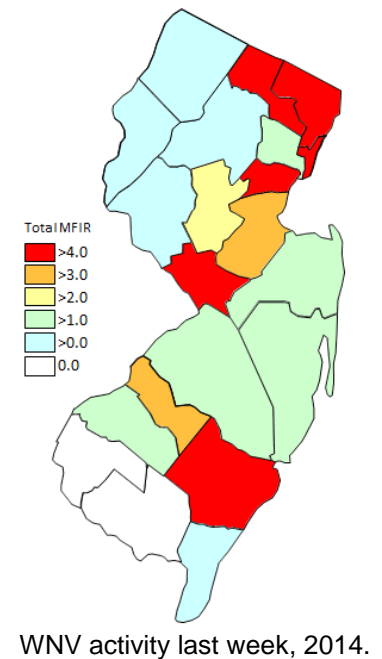
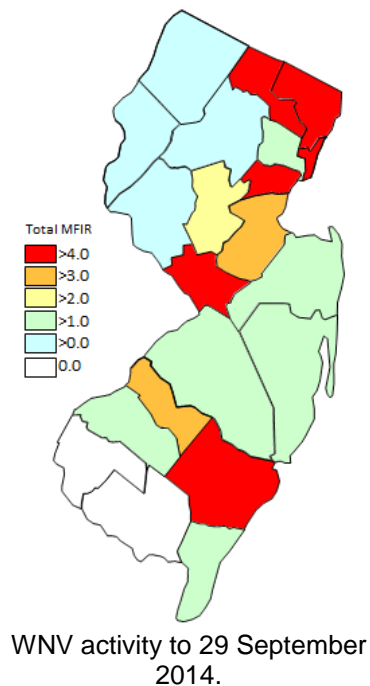
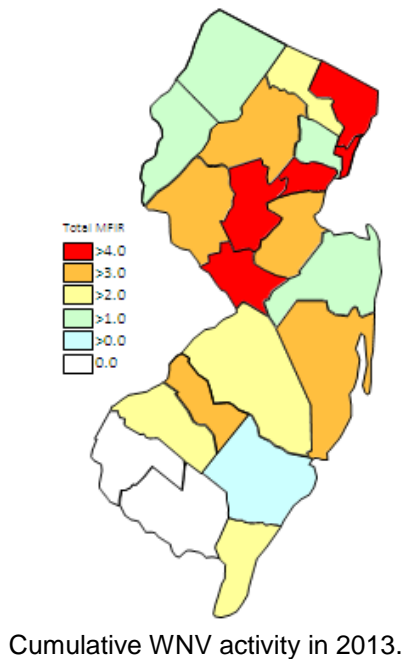
<i>Culiseta melanura</i>	33	1222		
<b>Cape May</b>	<b>450</b>	<b>5194</b>	<b>6</b>	<b>1.155</b>
<i>Aedes albopictus</i>	36	271		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	6	6		
<i>Aedes cantator</i>	5	8		
<i>Aedes japonicus</i>	18	56		
<i>Aedes taeniorhynchus</i>	1	50		
<i>Aedes triseriatus</i>	16	87		
<i>Aedes vexans</i>	1	1		
<i>Anopheles bradleyi</i>	7	142		
<i>Anopheles quadrimaculatus</i>	21	588		
<i>Coquillettidia perturbans</i>	3	52		
<i>Culex erraticus</i>	7	66		
<i>Culex pipiens</i>	181	2329	3	1.288
<i>Culex restuans</i>	90	783	1	1.277
<i>Culex salinarius</i>	10	78		
<i>Culex spp.</i>	3	5		
<i>Culex territans</i>	4	4		
<i>Culiseta melanura</i>	40	663	2	3.017
<b>Cumberland</b>	<b>204</b>	<b>3128</b>		
<i>Aedes albopictus</i>	5	11		
<i>Aedes atlanticus</i>	2	4		
<i>Aedes canadensis canadensis</i>	1	2		
<i>Aedes japonicus</i>	5	5		
<i>Aedes sollicitans</i>	6	57		
<i>Aedes taeniorhynchus</i>	3	32		
<i>Aedes triseriatus</i>	1	12		
<i>Aedes vexans</i>	16	151		
<i>Anopheles bradleyi</i>	12	409		
<i>Anopheles punctipennis</i>	20	176		
<i>Anopheles quadrimaculatus</i>	10	109		
<i>Coquillettidia perturbans</i>	11	334		
<i>Culex erraticus</i>	2	23		
<i>Culex pipiens</i>	2	11		
<i>Culex salinarius</i>	6	83		
<i>Culex spp.</i>	69	1403		
<i>Culiseta melanura</i>	22	157		
<i>Psorophora ciliata</i>	3	3		
<i>Psorophora columbiae</i>	7	145		
<i>Psorophora ferox</i>	1	1		
<b>Essex</b>	<b>265</b>	<b>2795</b>	<b>5</b>	<b>1.789</b>
<i>Aedes albopictus</i>	22	78		
<i>Aedes japonicus</i>	39	125		
<i>Aedes triseriatus</i>	5	9		
<i>Aedes trivittatus</i>	7	17		
<i>Aedes vexans</i>	1	4		
<i>Anopheles quadrimaculatus</i>	6	7		
<i>Coquillettidia perturbans</i>	1	1		
<i>Culex spp.</i>	182	2552	5	1.959
<i>Psorophora ferox</i>	2	2		
<b>Gloucester</b>	<b>607</b>	<b>18922</b>	<b>35</b>	<b>1.850</b>



<i>Aedes albopictus</i>	106	1369	2	1.461
<i>Aedes japonicus</i>	15	193	1	5.181
<i>Aedes triseriatus</i>	9	70		
<i>Aedes vexans</i>	1	4		
<i>Anopheles punctipennis</i>	36	856		
<i>Anopheles quadrimaculatus</i>	27	816		
<i>Coquillettidia perturbans</i>	6	41		
<i>Culex pipiens</i>	313	14177	31	2.187
<i>Culiseta melanura</i>	94	1396	1	0.716
<b>Hudson</b>	<b>164</b>	<b>7811</b>	<b>75</b>	<b>9.602</b>
<i>Aedes albopictus</i>	14	220	2	9.091
<i>Culex spp.</i>	150	7591	73	9.617
<b>Hunterdon</b>	<b>269</b>	<b>12675</b>	<b>9</b>	<b>0.710</b>
<i>Culex spp.</i>	269	12675	9	0.710
<b>Mercer</b>	<b>460</b>	<b>9585</b>	<b>60</b>	<b>6.260</b>
<i>Aedes albopictus</i>	107	793		
<i>Aedes canadensis canadensis</i>	2	5		
<i>Aedes japonicus</i>	45	154	1	6.494
<i>Aedes triseriatus</i>	10	28	1	35.714
<i>Aedes vexans</i>	5	48		
<i>Culex erraticus</i>	3	8	1	125.000
<i>Culex pipiens</i>	78	1576	17	10.787
<i>Culex restuans</i>	152	4669	22	4.712
<i>Culex salinarius</i>	2	8		
<i>Culex spp.</i>	56	2296	18	7.840
<b>Middlesex</b>	<b>353</b>	<b>13285</b>	<b>52</b>	<b>3.914</b>
<i>Aedes albopictus</i>	65	487	3	6.160
<i>Aedes triseriatus</i>	2	14		
<i>Culex spp.</i>	286	12784	49	3.833
<b>Monmouth</b>	<b>486</b>	<b>6936</b>	<b>10</b>	<b>1.442</b>
<i>Aedes albopictus</i>	157	2051		
<i>Aedes canadensis canadensis</i>	14	273		
<i>Aedes cantator</i>	6	56		
<i>Aedes japonicus</i>	49	168		
<i>Aedes sollicitans</i>	4	44		
<i>Aedes taeniorhynchus</i>	3	5		
<i>Aedes triseriatus</i>	17	43		
<i>Aedes trivitatus</i>	7	9		
<i>Aedes vexans</i>	14	41		
<i>Anopheles punctipennis</i>	21	29		
<i>Anopheles quadrimaculatus</i>	6	8		
<i>Coquillettidia perturbans</i>	6	6		
<i>Culex erraticus</i>	8	17		
<i>Culex restuans</i>	2	2		
<i>Culex salinarius</i>	1	1		
<i>Culex spp.</i>	143	3982	10	2.511
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	21	194		
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora columbiae</i>	4	4		

<i>Psorophora ferox</i>	1	1		
<b>Morris</b>	<b>277</b>	<b>11560</b>	<b>9</b>	<b>0.779</b>
<i>Aedes albopictus</i>	6	81		
<i>Coquillettidia perturbans</i>	4	200		
<i>Culex</i> spp.	267	11279	9	0.798
<b>Ocean</b>	<b>375</b>	<b>4578</b>	<b>7</b>	<b>1.529</b>
<i>Aedes albopictus</i>	91	1128		
<i>Aedes canadensis canadensis</i>	4	97		
<i>Aedes cantator</i>	3	135		
<i>Aedes japonicus</i>	58	264	2	7.576
<i>Aedes sticticus</i>	2	6		
<i>Aedes triseriatus</i>	18	55		
<i>Aedes vexans</i>	9	29		
<i>Anopheles crucians</i>	3	17		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Coquillettidia perturbans</i>	20	103		
<i>Culex erraticus</i>	8	12		
<i>Culex salinarius</i>	3	4		
<i>Culex</i> spp.	109	2519	5	1.985
<i>Culiseta melanura</i>	44	131		
<i>Psorophora ferox</i>	2	77		
<b>Passaic</b>	<b>158</b>	<b>4304</b>	<b>19</b>	<b>4.414</b>
<i>Aedes albopictus</i>	16	48		
<i>Aedes japonicus</i>	35	346		
<i>Aedes triseriatus</i>	10	18		
<i>Aedes vexans</i>	1	3		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Coquillettidia perturbans</i>	2	12		
<i>Culex</i> spp.	93	3876	19	4.902
<b>Salem</b>	<b>350</b>	<b>3353</b>		
<i>Aedes albopictus</i>	71	442		
<i>Aedes japonicus</i>	29	66		
<i>Aedes triseriatus</i>	32	60		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	13	78		
<i>Anopheles quadrimaculatus</i>	6	80		
<i>Coquillettidia perturbans</i>	26	268		
<i>Culex erraticus</i>	34	322		
<i>Culex pipiens</i>	4	6		
<i>Culex restuans</i>	2	3		
<i>Culex</i> spp.	104	1458		
<i>Culiseta melanura</i>	25	556		
<i>Psorophora columbiae</i>	3	13		
<b>Somerset</b>	<b>255</b>	<b>5007</b>	<b>12</b>	<b>2.397</b>
<i>Aedes albopictus</i>	10	39		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes japonicus</i>	19	226		
<i>Aedes triseriatus</i>	5	21		
<i>Anopheles punctipennis</i>	1	2		
<i>Culex</i> spp.	219	4716	12	2.545

<b>Sussex</b>	<b>236</b>	<b>6415</b>	<b>3</b>	<b>0.468</b>
<i>Aedes japonicus</i>	13	279		
<i>Aedes triseriatus</i>	8	77		
<i>Anopheles punctipennis</i>	2	8		
<i>Anopheles quadrimaculatus</i>	2	27		
<i>Coquillettidia perturbans</i>	1	17		
<i>Culex</i> spp.	210	6007	3	0.499
<b>Union</b>	<b>201</b>	<b>10101</b>	<b>89</b>	<b>8.811</b>
<i>Aedes albopictus</i>	16	191	2	10.471
<i>Aedes japonicus</i>	6	84		
<i>Culex</i> spp.	179	9826	87	8.854
<b>Warren</b>	<b>273</b>	<b>10236</b>	<b>7</b>	<b>0.684</b>
<i>Aedes albopictus</i>	6	93		
<i>Aedes japonicus</i>	10	100		
<i>Aedes triseriatus</i>	5	17		
<i>Anopheles punctipennis</i>	2	25		
<i>Anopheles quadrimaculatus</i>	2	7		
<i>Culex</i> spp.	248	9994	7	0.700
<b>Grand Total</b>	<b>6622</b>	<b>177853</b>	<b>602</b>	<b>3.385</b>



### Saint Louis Encephalitis (SLE) to 29 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>157</b>	<b>3749</b>		
	<i>Aedes albopictus</i>	6	48		
	<i>Aedes japonicus</i>	28	249		
	<i>Aedes triseriatus</i>	1	1		
	<i>Culex erraticus</i>	1	3		
	<i>Culex pipiens</i>	3	3		
	<i>Culex restuans</i>	1	1		
	<i>Culex</i> spp.	117	3444		
<b>Cape May</b>		<b>35</b>	<b>293</b>		
	<i>Culex pipiens</i>	32	288		
	<i>Culex</i> spp.	3	5		
<b>Grand Total</b>		<b>192</b>	<b>4042</b>		

### La Crosse Encephalitis (LAC) through 29 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>56</b>	<b>482</b>		
	<i>Aedes albopictus</i>	25	185		
	<i>Aedes canadensis canadensis</i>	9	172		
	<i>Aedes japonicus</i>	7	47		
	<i>Aedes triseriatus</i>	15	78		
<b>Cape May</b>		<b>17</b>	<b>94</b>		
	<i>Aedes triseriatus</i>	16	87		
	<i>Culex pipiens</i>	1	7		
<b>Salem</b>		<b>14</b>	<b>29</b>		
	<i>Aedes triseriatus</i>	14	29		
<b>Grand Total</b>		<b>87</b>	<b>605</b>		

### Dengue (DENV) to 29 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>25</b>	<b>265</b>	<b>25</b>	<b>265</b>	<b>25</b>	<b>265</b>	<b>24</b>	<b>259</b>		
	<i>Aedes albopictus</i>	25	265	25	265	25	265	24	259		
<b>Bergen</b>		<b>8</b>	<b>44</b>	<b>8</b>	<b>44</b>	<b>8</b>	<b>44</b>	<b>8</b>	<b>44</b>		
	<i>Aedes albopictus</i>	8	44	8	44	8	44	8	44		
<b>Burlington</b>		<b>20</b>	<b>128</b>	<b>20</b>	<b>128</b>	<b>20</b>	<b>128</b>	<b>20</b>	<b>128</b>		
	<i>Aedes albopictus</i>	20	128	20	128	20	128	20	128		
<b>Camden</b>		<b>11</b>	<b>33</b>	<b>11</b>	<b>33</b>	<b>11</b>	<b>33</b>	<b>11</b>	<b>33</b>		
	<i>Aedes albopictus</i>	11	33	11	33	11	33	11	33		
<b>Cape May</b>		<b>23</b>	<b>247</b>	<b>23</b>	<b>247</b>	<b>23</b>	<b>247</b>	<b>23</b>	<b>247</b>		
	<i>Aedes albopictus</i>	23	247	23	247	23	247	23	247		
<b>Cumberland</b>		<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>		
	<i>Aedes albopictus</i>	4	10	4	10	4	10	4	10		
<b>Gloucester</b>		<b>94</b>	<b>1124</b>	<b>94</b>	<b>1124</b>	<b>94</b>	<b>1124</b>	<b>94</b>	<b>1124</b>		
	<i>Aedes albopictus</i>	94	1124	94	1124	94	1124	94	1124		
<b>Hudson</b>		<b>14</b>	<b>220</b>	<b>14</b>	<b>220</b>	<b>14</b>	<b>220</b>	<b>14</b>	<b>220</b>		
	<i>Aedes albopictus</i>	14	220	14	220	14	220	14	220		
<b>Mercer</b>		<b>90</b>	<b>720</b>	<b>90</b>	<b>720</b>	<b>90</b>	<b>720</b>	<b>90</b>	<b>720</b>		
	<i>Aedes albopictus</i>	90	720	90	720	90	720	90	720		
<b>Middlesex</b>		<b>64</b>	<b>487</b>	<b>64</b>	<b>487</b>	<b>64</b>	<b>487</b>	<b>64</b>	<b>487</b>		
	<i>Aedes albopictus</i>	63	479	63	479	63	479	63	479		
	<i>Culex</i> spp.	1	8	1	8	1	8	1	8		
<b>Monmouth</b>		<b>109</b>	<b>1783</b>	<b>109</b>	<b>1783</b>	<b>109</b>	<b>1783</b>	<b>109</b>	<b>1783</b>		
	<i>Aedes albopictus</i>	109	1783	109	1783	109	1783	109	1783		
<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>Ocean</b>		<b>1</b>	<b>25</b>	<b>1</b>	<b>25</b>	<b>1</b>	<b>25</b>	<b>1</b>	<b>25</b>		
	<i>Aedes albopictus</i>	1	25	1	25	1	25	1	25		
<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>67</b>	<b>430</b>	<b>67</b>	<b>430</b>	<b>67</b>	<b>430</b>	<b>67</b>	<b>430</b>		
<i>Aedes albopictus</i>	67	430	67	430	67	430	67	430		
<b>Somerset</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>	<b>4</b>	<b>10</b>		
<i>Aedes albopictus</i>	4	10	4	10	4	10	4	10		
<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>542</b>	<b>5628</b>	<b>542</b>	<b>5628</b>	<b>542</b>	<b>5628</b>	<b>541</b>	<b>5622</b>		

### Chikungunya (CHIK) to 29 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 87 imported human cases in New Jersey, no local transmission.

No pools have been detected positive for CHIK in 2014.

<b>County</b>	<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>	<b>MFIR</b>
<b>Atlantic</b>		<b>25</b>	<b>265</b>		
	<i>Aedes albopictus</i>	25	265		
<b>Bergen</b>		<b>8</b>	<b>44</b>		
	<i>Aedes albopictus</i>	8	44		
<b>Burlington</b>		<b>20</b>	<b>128</b>		
	<i>Aedes albopictus</i>	20	128		
<b>Camden</b>		<b>11</b>	<b>33</b>		
	<i>Aedes albopictus</i>	11	33		
<b>Cape May</b>		<b>23</b>	<b>247</b>		
	<i>Aedes albopictus</i>	23	247		
<b>Cumberland</b>		<b>4</b>	<b>10</b>		
	<i>Aedes albopictus</i>	4	10		
<b>Gloucester</b>		<b>94</b>	<b>1124</b>		
	<i>Aedes albopictus</i>	94	1124		
<b>Hudson</b>		<b>14</b>	<b>220</b>		
	<i>Aedes albopictus</i>	14	220		
<b>Mercer</b>		<b>90</b>	<b>720</b>		
	<i>Aedes albopictus</i>	90	720		
<b>Middlesex</b>		<b>64</b>	<b>487</b>		
	<i>Aedes albopictus</i>	63	479		
	<i>Culex spp.</i>	1	8		
<b>Monmouth</b>		<b>109</b>	<b>1783</b>		
	<i>Aedes albopictus</i>	109	1783		
<b>Morris</b>		<b>2</b>	<b>24</b>		
	<i>Aedes albopictus</i>	2	24		
<b>Ocean</b>		<b>1</b>	<b>25</b>		
	<i>Aedes albopictus</i>	1	25		
<b>Passaic</b>		<b>1</b>	<b>2</b>		
	<i>Aedes albopictus</i>	1	2		
<b>Salem</b>		<b>67</b>	<b>430</b>		
	<i>Aedes albopictus</i>	67	430		
<b>Somerset</b>		<b>4</b>	<b>10</b>		
	<i>Aedes albopictus</i>	4	10		

<b>Warren</b>		<b>5</b>	<b>76</b>		
	<i>Aedes albopictus</i>	5	76		
<b>Grand Total</b>		<b>542</b>	<b>5628</b>		