

**VECTOR SURVEILLANCE IN NEW JERSEY**  
**EEE, WNV and SLE**  
CDC WEEK 26: June 28 to July 4, 2009

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*Culiseta melanura* and Eastern Equine Encephalitis

SITE	Inland / Coastal	Historic Mean	Current Weekly Mean	Total Tested to Date*	Total Pools Submitted	EEE Isolations	MFIR
<b>Green Bank</b> (Burlington County)	Coastal	3.0	0.5	81	19	0	0
<b>Corbin City</b> (Atlantic County)	Coastal	0.8	0.2	11	8	0	0
<b>Dennisville</b> (Cape May County)	Coastal	3.9	0.3	445	29	0	0
<b>Waterford</b> (Camden County)	Inland	1.7	0.0	11	4	0	0
<b>Centerton</b> (Salem County)	Inland	1.9	0.4	168	25	0	0
<b>Turkey Swamp</b> (Monmouth County)	Inland	0.9	0.1	51	25	0	0
<b>Glassboro</b> (Gloucester County)	Inland	0	no collection	153	20	0	0

\*Including trial run last week in May.

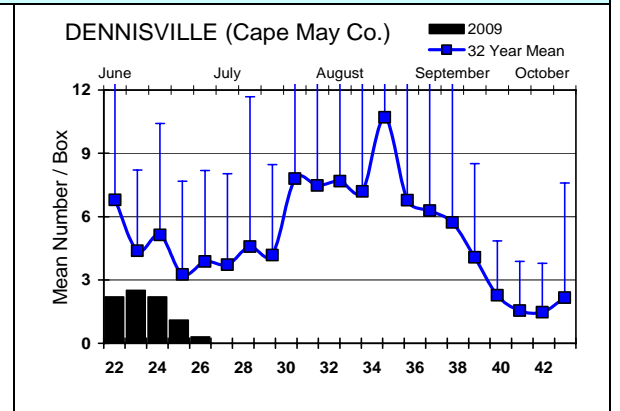
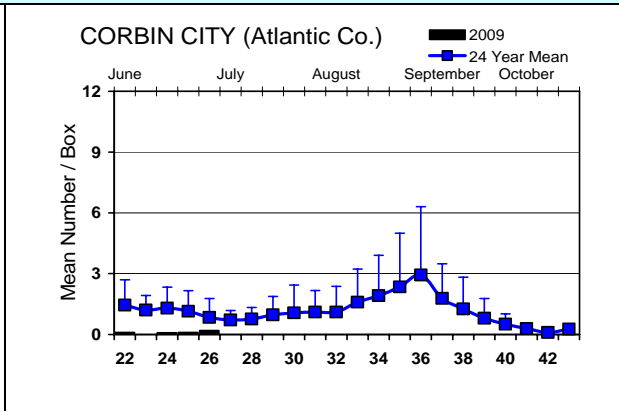
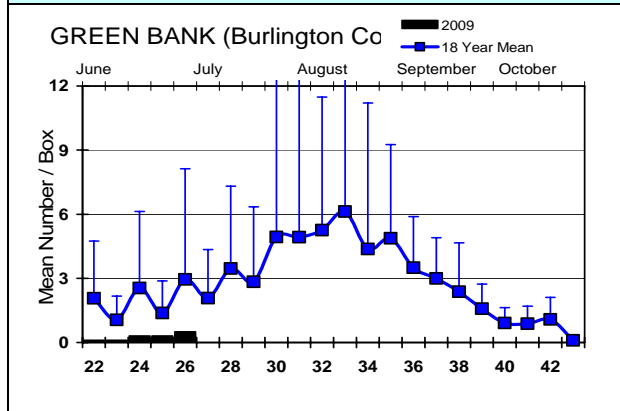
**Remarks:** Note: With the beginning of the new fiscal year, county collection and identification of all traditional resting box sites has begun. The "Total Collected To Date" has been changed to "Total Tested to Date" (in the past, there was little, if any difference, but with several more schedules involved in sample deliveries, the Total Tested will be more accurate). A collection was not made in Glassboro in anticipation of moving the site.

*Culiseta melanura* populations have been showing a mixed response this week. Green Bank, Centerton and Corbin City has risen from the previous week, but are still well below historical values. Dennisville and Waterford have decreased while no change was seen in Turkey Swamp. The Dennisville population is tracking historical patterns and may be displaying the lull between first overwintering emergences and the build-up of the second generation. As of 4<sup>th</sup> of July, there is no EEE activity in New Jersey.

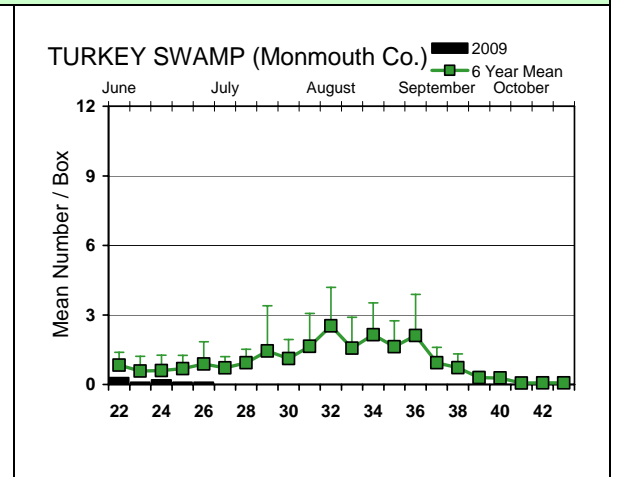
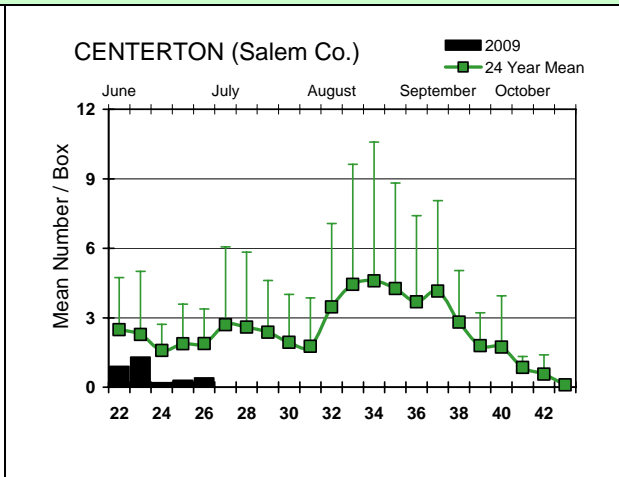
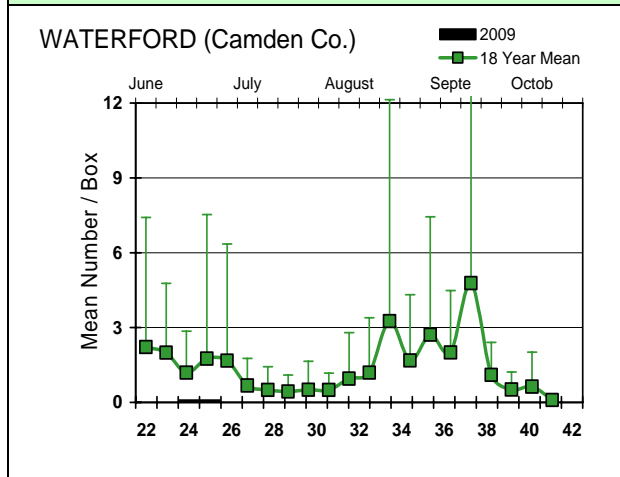
To date, 130 pools from 920 *Cs. melanura* mosquitoes have been sent for EEE testing from the seven resting box collections. Previously, Ocean County has submitted *Cs. melanura* samples collected from gravid and CO<sub>2</sub> traps while Gloucester County has sampled additional sites with resting boxes. Other species tested for EEE from resting boxes include: *Aedes abserratus*, *Aedes albopictus*, *Ae. canadensis canadensis*, *Ae. cantator*, *Ae. japonicus*, *Ae. sollicitans*, *Ae. triseriatus*, *Ae. trivittatus*, *Ae. vexans*, *Anopheles bradleyi*, *An. punctipennis*, *An. quadrimaculatus*, *Coquillettidia perturbans*, *Culex pipiens*, *Cx. restuans* *Cx. salinarius*, Mixed *Culex* pools, *Cx. territans* and *Culiseta inornata*. All 118 pools of 1166 mosquitoes are reported negative for EEE virus.

# Culiseta melanura Population Graphs

## Coastal

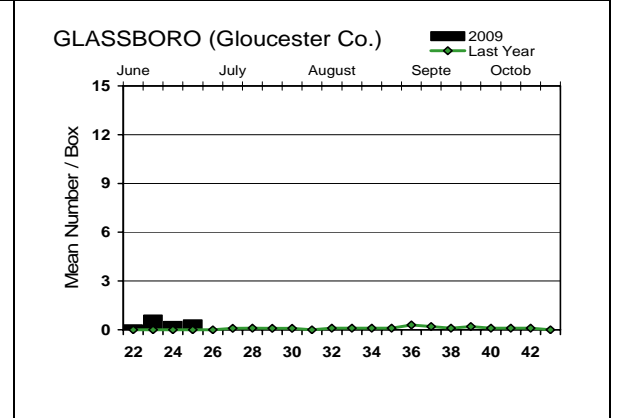


## Inland



County sampling has begun. During this week, Rutgers has sampled Green Bank, Waterford and Dennisville for the last time. As in the past, Atlantic sampled Corbin City and Monmouth sampled Turkey Swamp and they will continue to sample those sites. In Week 27, Cape May County will sample Glassboro, Dennisville and Waterford, Ocean County will begin sampling Green Bank. This week, Cumberland/Salem sampled Centerton.

Resting box populations of *Culiseta melanura* continue to track lower than recent historical trends at all sites. Patterns for this species in the Statewide Adult Mosquito Surveillance program reflect similar patterns.



**EEE in US (2009 cumulative cases):** (Red = new reported cases occurring)

- equine: 4(AL) 34(FL) 10(GA) 3(LA) 6(MS)
- mosquito: 1(LA)
- sentinel: 69/39wild(FL)
- human:

## West Nile Virus

**West Nile in US (2009 cumulative cases):** Single black values indicate no change from previous week. Black values / red values equals previous week/**New totals**.

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Alabama					
Alaska					
Arizona	0	5/26	?	0	1
Arkansas					1
California	60/139	81/97	3/5	0	0
Colorado		1			
Connecticut	0	0	0	0	0
Delaware					
DC					
Florida	2	0	1	0	0
Georgia					
Hawaii					
Idaho		1 county			1
Illinois	2	12/21	0	0	0
Indiana					
Iowa	0	0	0	0	0
Kansas					
Kentucky					
Louisiana					
Maine					
Maryland					
Mass.		0		0	0
Michigan		0	0	0	0
Minnesota					
Mississippi				0	0
Missouri		+?			
Montana					
Nebraska	0	0		0	0

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Nevada					1
New Hampshire					
New Jersey	0	1/2	0	0	0
New Mexico				0	0
New York	0	0	0	0	0
North Carolina					
North Dakota	0	0		0	0
Ohio	0	0		0	0
Oklahoma	0	0	0	0	0
Oregon	0	0	0	0	0
Pennsylvania	1	4/5	0	0	0
Rhode Island					
South Carolina					
South Dakota	0	0	0	0	1
Tennessee	0	0	0	0	0
Texas	1	8	0	1	1
Utah		11/16		0	0
Vermont	0				
Virginia	0	1+	0	0	0
Washington	0	15	0	0	0
West Virginia	0	7	0	0	0
Wisconsin	0	0	0	0	0
Wyoming					

Note: Some data reported by states are provisional and are subject to change. Sources for this table can be found [here](#).

**Protocol:** New Jersey Department of Health and Senior Services (NJDHSS Public Health and Environmental Laboratories, PHEL) tests mosquito pools using RT-PCR Taqman techniques.

**Mosquito Species Submitted for West Nile Virus Testing through 09 July 2009**

<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>	<b>MFIR</b>
<i>Aedes abserratus</i>	1	1		0
<i>Aedes albopictus</i>	65	463		0
<i>Aedes atlanticus</i>	1	1		0
<i>Aedes canadensis canadensis</i>	62	1831		0
<i>Aedes cantator</i>	20	114		0
<i>Aedes cinereus</i>	1	1		0
<i>Aedes grossbecki</i>	3	35		0
<i>Aedes japonicus</i>	119	672		0
<i>Aedes sollicitans</i>	4	13		0
<i>Aedes sticticus</i>	6	68		0
<i>Aedes taeniorhynchus</i>	1	1		0
<i>Aedes thibaulti</i>	5	8		0
<i>Aedes triseriatus</i>	33	102		0
<i>Aedes trivittatus</i>	13	312		0
<i>Aedes vexans</i>	48	933		0
<i>Anopheles bradleyi</i>	9	70		0
<i>Anopheles punctipennis</i>	36	82		0
<i>Anopheles quadrimaculatus</i>	30	717		0
<i>Coquillettidia perturbans</i>	24	292		0
<i>Culex erraticus</i>	2	3		0
<i>Culex pipiens</i>	191	4953		0
<i>Culex restuans</i>	134	1585		0
<i>Culex salinarius</i>	16	65		0
<i>Culex spp.</i>	695	30555	2	0.065
<i>Culex territans</i>	19	51		0
<i>Culiseta inornata</i>	1	2		0
<i>Culiseta melanura</i>	132	1051		0
<i>Culiseta morsitans</i>	1	3		0
<i>Psorophora columbiae</i>	1	1		0
<i>Psorophora ferox</i>	4	26		0
<b>State Total</b>	<b>1677</b>	<b>44,011</b>	<b>2</b>	<b>0.045</b>

**Remarks:** The number of pools positive for West Nile virus remains at two, one each from Mercer and Bergen counties. These two counties include highly urban/suburbanized areas typical of WNV activity in New Jersey. At this time last year, there were 11 positive pools from seven counties.

**Humans, Horses and Wild Birds:** No humans have been reported positive for WNV by PHEL. For more details plus information about WNV, see the PHEL's West Nile Virus Alert and FAQ Sheets:

<http://www.state.nj.us/health/cd/westnile/enceph.htm>

No confirmed horse cases have occurred.

2009 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year* * 2008 started later (at least one month) last year than in 2009
2 / 1954	11 / 1545

2009 Positive Birds to date / Total Birds Submitted	This time last year* * 2008 started later (at least one month) last year than in 2009
0 / 30	0 / 54

**WNV Results by County through 09July 2009**

<b>County</b>	<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>	<b>MFIR</b>
<b>Atlantic</b>		<b>56</b>	<b>1195</b>		
	<i>Aedes albopictus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	3	34		
	<i>Aedes cantator</i>	2	32		
	<i>Aedes grossbecki</i>	1	8		
	<i>Aedes japonicus</i>	1	2		
	<i>Aedes sticticus</i>	2	18		
	<i>Aedes thibaulti</i>	3	3		
	<i>Aedes triseriatus</i>	1	2		
	<i>Aedes vexans</i>	6	222		
	<i>Anopheles punctipennis</i>	3	6		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Culex restuans</i>	2	5		
	<i>Culex salinarius</i>	1	1		
	<i>Culex spp.</i>	19	844		
	<i>Culex territans</i>	1	1		
	<i>Culiseta melanura</i>	9	15		
<b>Bergen</b>		<b>22</b>	<b>1578</b>	<b>1</b>	<b>0.63</b>
	<i>Aedes japonicus</i>	1	3		
	<i>Culex spp.</i>	21	1575	<b>1</b>	<b>0.63</b>
<b>Burlington</b>		<b>131</b>	<b>2284</b>		
	<i>Aedes abserratus</i>	1	1		
	<i>Aedes albopictus</i>	10	45		
	<i>Aedes canadensis canadensis</i>	16	793		
	<i>Aedes cantator</i>	3	21		
	<i>Aedes grossbecki</i>	1	26		
	<i>Aedes japonicus</i>	11	32		
	<i>Aedes sollicitans</i>	1	1		
	<i>Aedes sticticus</i>	1	44		
	<i>Aedes triseriatus</i>	5	18		
	<i>Aedes trivittatus</i>	1	6		
	<i>Aedes vexans</i>	12	383		
	<i>Anopheles bradleyi</i>	1	1		
	<i>Anopheles punctipennis</i>	4	10		
	<i>Coquillettidia perturbans</i>	7	109		
	<i>Culex restuans</i>	1	3		
	<i>Culex salinarius</i>	1	1		
	<i>Culex spp.</i>	27	615		
	<i>Culex territans</i>	1	6		
	<i>Culiseta inornata</i>	1	2		
	<i>Culiseta melanura</i>	26	167		
<b>Camden</b>		<b>81</b>	<b>2187</b>		
	<i>Aedes albopictus</i>	2	8		
	<i>Aedes japonicus</i>	12	23		
	<i>Aedes thibaulti</i>	1	1		

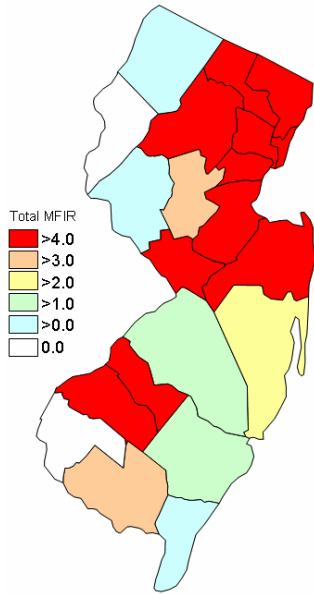
<i>Aedes trivittatus</i>	2	2		
<i>Anopheles punctipennis</i>	3	8		
<i>Anopheles quadrimaculatus</i>	3	4		
<i>Culex pipiens</i>	1	12		
<i>Culex restuans</i>	2	2		
<i>Culex</i> spp.	50	2115		
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	4	11		
<b>Cape May</b>	<b>110</b>	<b>1580</b>		
<i>Aedes albopictus</i>	1	2		
<i>Aedes canadensis canadensis</i>	1	6		
<i>Aedes cantator</i>	1	1		
<i>Aedes japonicus</i>	7	17		
<i>Anopheles bradleyi</i>	6	67		
<i>Anopheles punctipennis</i>	4	16		
<i>Anopheles quadrimaculatus</i>	14	691		
<i>Culex pipiens</i>	11	73		
<i>Culex restuans</i>	29	230		
<i>Culex salinarius</i>	4	16		
<i>Culex</i> spp.	1	4		
<i>Culex territans</i>	7	29		
<i>Culiseta melanura</i>	24	428		
<b>Cumberland</b>	<b>19</b>	<b>254</b>		
<i>Aedes japonicus</i>	1	2		
<i>Anopheles punctipennis</i>	1	1		
<i>Culex pipiens</i>	1	2		
<i>Culex restuans</i>	2	6		
<i>Culex</i> spp.	12	234		
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	1	8		
<b>Essex</b>	<b>17</b>	<b>300</b>		
<i>Aedes albopictus</i>	1	2		
<i>Aedes japonicus</i>	3	6		
<i>Aedes triseriatus</i>	1	2		
<i>Aedes vexans</i>	1	3		
<i>Culex</i> spp.	10	285		
<i>Psorophora ferox</i>	1	2		
<b>Gloucester</b>	<b>226</b>	<b>5239</b>		
<i>Aedes albopictus</i>	11	221		
<i>Aedes canadensis canadensis</i>	2	2		
<i>Aedes japonicus</i>	18	71		
<i>Aedes thibaulti</i>	1	4		
<i>Aedes triseriatus</i>	1	1		
<i>Aedes trivittatus</i>	1	75		
<i>Aedes vexans</i>	6	57		
<i>Anopheles punctipennis</i>	6	17		
<i>Anopheles quadrimaculatus</i>	9	17		
<i>Coquilletidia perturbans</i>	2	2		
<i>Culex pipiens</i>	124	4516		

	<i>Culex restuans</i>	12	41		
	<i>Culex territans</i>	4	9		
	<i>Culiseta melanura</i>	29	206		
<b>Hudson</b>		<b>49</b>	<b>1928</b>		
	<i>Culex</i> spp.	49	1928		
<b>Hunterdon</b>		<b>61</b>	<b>2991</b>		
	<i>Aedes albopictus</i>	1	45		
	<i>Culex</i> spp.	60	2946		
<b>Mercer</b>		<b>173</b>	<b>2941</b>	<b>1</b>	<b>0.340</b>
	<i>Aedes albopictus</i>	9	25		
	<i>Aedes japonicus</i>	8	13		
	<i>Aedes triseriatus</i>	2	2		
	<i>Culex erraticus</i>	1	1		
	<i>Culex pipiens</i>	50	342		
	<i>Culex restuans</i>	67	1082		
	<i>Culex salinarius</i>	2	2		
	<i>Culex</i> spp.	34	1474	1	0.678
<b>Middlesex</b>		<b>121</b>	<b>6703</b>		
	<i>Aedes japonicus</i>	4	50		
	<i>Culex</i> spp.	117	6653		
<b>Monmouth</b>		<b>128</b>	<b>709</b>		
	<i>Aedes albopictus</i>	10	77		
	<i>Aedes canadensis canadensis</i>	14	143		
	<i>Aedes cantator</i>	7	33		
	<i>Aedes japonicus</i>	10	30		
	<i>Aedes triseriatus</i>	6	39		
	<i>Aedes trivittatus</i>	3	3		
	<i>Aedes vexans</i>	5	49		
	<i>Anopheles punctipennis</i>	3	3		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	3	11		
	<i>Culex erraticus</i>	1	2		
	<i>Culex pipiens</i>	1	1		
	<i>Culex restuans</i>	9	22		
	<i>Culex</i> spp.	40	255		
	<i>Culex territans</i>	2	2		
	<i>Culiseta melanura</i>	13	38		
<b>Morris</b>		<b>22</b>	<b>995</b>		
	<i>Aedes japonicus</i>	2	9		
	<i>Culex</i> spp.	20	986		
<b>Ocean</b>		<b>181</b>	<b>3846</b>		
	<i>Aedes albopictus</i>	14	49		
	<i>Aedes atlanticus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	24	826		
	<i>Aedes cantator</i>	7	27		
	<i>Aedes cinereus</i>	1	1		
	<i>Aedes grossbecki</i>	1	1		
	<i>Aedes japonicus</i>	18	120		

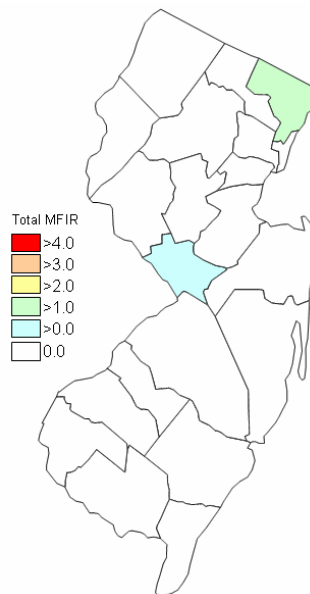
<i>Aedes sollicitans</i>	3	12		
<i>Aedes sticticus</i>	3	6		
<i>Aedes taeniorhynchus</i>	1	1		
<i>Aedes triseriatus</i>	9	16		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	15	64		
<i>Anopheles bradleyi</i>	2	2		
<i>Anopheles punctipennis</i>	7	9		
<i>Coquillettidia perturbans</i>	5	9		
<i>Culex restuans</i>	2	2		
<i>Culex salinarius</i>	5	42		
<i>Culex</i> spp.	54	2625		
<i>Culiseta melanura</i>	5	10		
<i>Psorophora columbiae</i>	1	1		
<i>Psorophora ferox</i>	2	21		
<b>Passaic</b>	<b>23</b>	<b>375</b>		
<i>Aedes albopictus</i>	1	7		
<i>Aedes canadensis canadensis</i>	1	20		
<i>Aedes japonicus</i>	6	32		
<i>Aedes triseriatus</i>	2	3		
<i>Culex</i> spp.	13	313		
<b>Salem</b>	<b>45</b>	<b>657</b>		
<i>Aedes albopictus</i>	4	24		
<i>Aedes japonicus</i>	1	5		
<i>Aedes vexans</i>	2	150		
<i>Anopheles punctipennis</i>	4	10		
<i>Anopheles quadrimaculatus</i>	2	3		
<i>Coquillettidia perturbans</i>	2	64		
<i>Culex restuans</i>	2	2		
<i>Culex</i> spp.	6	238		
<i>Culex territans</i>	2	2		
<i>Culiseta melanura</i>	20	159		
<b>Somerset</b>	<b>70</b>	<b>2199</b>		
<i>Aedes albopictus</i>	1	2		
<i>Aedes canadensis canadensis</i>	1	7		
<i>Aedes japonicus</i>	11	193		
<i>Aedes triseriatus</i>	6	19		
<i>Aedes trivittatus</i>	5	225		
<i>Aedes vexans</i>	1	5		
<i>Anopheles punctipennis</i>	1	2		
<i>Coquillettidia perturbans</i>	2	3		
<i>Culex</i> spp.	41	1740		
<i>Psorophora ferox</i>	1	3		
<b>Sussex</b>	<b>45</b>	<b>871</b>		
<i>Aedes japonicus</i>	3	3		
<i>Coquillettidia perturbans</i>	3	94		
<i>Culex pipiens</i>	3	7		
<i>Culex restuans</i>	6	190		
<i>Culex salinarius</i>	3	3		



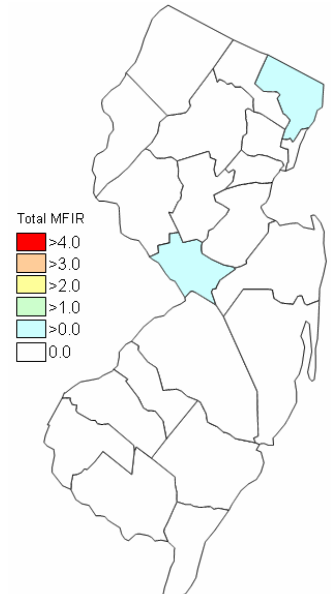
<i>Culex spp.</i>	25	562		
<i>Culiseta melanura</i>	1	9		
<i>Culiseta morsitans</i>	1	3		
<b>Union</b>	<b>27</b>	<b>1194</b>		
<i>Aedes japonicus</i>	1	16		
<i>Culex spp.</i>	26	1178		
<b>Warren</b>	<b>68</b>	<b>3846</b>		
<i>Culex spp.</i>	68	3846		
<b>Grand Total</b>	<b>1675</b>	<b>43,872</b>	<b>2</b>	<b>0.046</b>



Cumulative activity in 2008



Activity last week.



Recent Activity to 9 July 2009

## Saint Louis Encephalitis (SLE) through 09 July 2009.

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.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Burlington</b>		<b>86</b>	<b>1125</b>		
	<i>Aedes abserratus</i>	1	1		
	<i>Aedes albopictus</i>	10	45		
	<i>Aedes canadensis canadensis</i>	4	52		
	<i>Aedes cantator</i>	2	20		
	<i>Aedes japonicus</i>	10	31		
	<i>Aedes sollicitans</i>	1	1		
	<i>Aedes triseriatus</i>	4	17		
	<i>Aedes trivittatus</i>	1	6		
	<i>Aedes vexans</i>	8	140		
	<i>Anopheles bradleyi</i>	1	1		
	<i>Anopheles punctipennis</i>	2	4		
	<i>Coquillettidia perturbans</i>	7	109		
	<i>Culex restuans</i>	1	3		
	<i>Culex salinarius</i>	1	1		
	<i>Culex spp.</i>	25	606		
	<i>Culiseta inornata</i>	1	2		
	<i>Culiseta melanura</i>	7	86		
<b>Essex</b>		<b>17</b>	<b>300</b>		
	<i>Aedes albopictus</i>	1	2		
	<i>Aedes japonicus</i>	3	6		
	<i>Aedes triseriatus</i>	1	2		
	<i>Aedes vexans</i>	1	3		
	<i>Culex spp.</i>	10	285		
	<i>Psorophora ferox</i>	1	2		
<b>Mercer</b>		<b>156</b>	<b>2903</b>		
	<i>Aedes albopictus</i>	9	25		
	<i>Aedes japonicus</i>	4	9		
	<i>Aedes triseriatus</i>	2	2		
	<i>Culex pipiens</i>	47	331		
	<i>Culex restuans</i>	63	1039		
	<i>Culex spp.</i>	31	1497		

Specimens submitted by Burlington and Mercer County continue to be negative for SLE.