

**VECTOR SURVEILLANCE IN NEW JERSEY**  
EEE, WNV, SLE and LAC  
CDC WEEK 23: June 5 to June 11, 2011  
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Mosquito Control Commission.

*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	1.90	0.04	1	1	0	
<b>Corbin City</b> (Atlantic County)	Coastal	1.15	1.04	26	1 <sup>†</sup>		
<b>Dennisville</b> (Cape May County)	Coastal	4.20	0.18	17	2	0	
<b>Winslow</b> (Camden County)	Inland	2.96	1.04	73	3	0	
<b>Centerton</b> (Salem County)	Inland	2.17	0.94	70	2	0	
<b>Turkey Swamp</b> (Monmouth County)	Inland	0.52	0.16	8	1 <sup>‡</sup>		
<b>Glassboro</b> (Gloucester County)	Inland	0.80	0.30	49	2	0	

\*Including trial run last week in May. † not yet tested. ‡adjusted to first tested.

**Remarks:** The 7 traditional resting box sites for the collection of *Culiseta melanura*, the primary enzootic vector, continue to show no detectable EEE activity. To date 210 *Cs. melanura* from 10 pools have tested negative, with two pools to be tested upon arrival to the Department of Public Health and Senior Services. One additional pool containing one *Cs. melanura* have tested negative from other county trapping sites.

<b>Additional <i>Cs. melanura</i> trapped by counties</b>				
*traps with positives indicated in <b>BOLD</b> .				
County	Trap types*	Number collected	Number of positives	MFIR
Ocean	RB	1	0	
<b>TOTAL</b>		<b>1</b>	<b>0</b>	

The table below indicates non-*melanura* species tested for EEE:

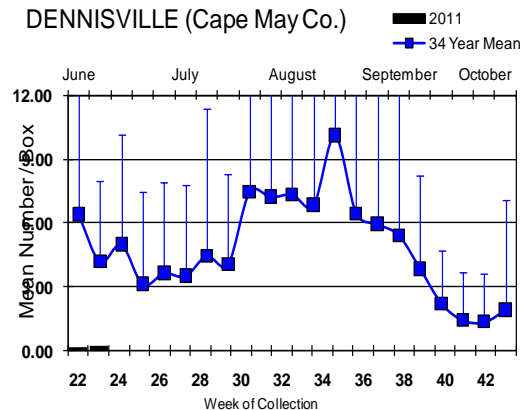
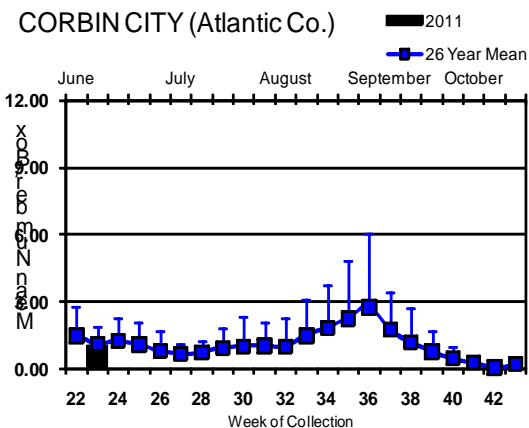
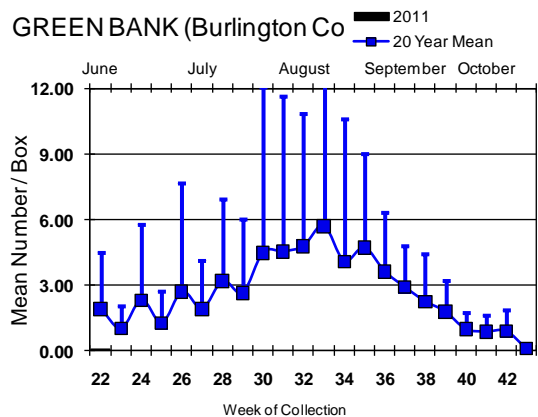
<b>Species other than <i>Cs. melanura</i></b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>	<b>MFIR</b>
<i>Aedes albopictus</i>	1	1		
<i>Aedes canadensis canadensis</i>	3	20		
<i>Aedes cantator</i>	1	10		
<i>Aedes sollicitans</i>	1	7		
<i>Aedes sticticus</i>	1	3		
<i>Aedes taeniorhynchus</i>	1	3		
<i>Anopheles punctipennis</i>	2	10		
<i>Coquillettidia perturbans</i>	7	126		
<i>Culex restuans</i>	2	2		
<i>Culex salinarius</i>	3	30		
<i>Culex</i> spp.	13	555		
<b>State Total</b>	<b>35</b>	<b>767</b>		

**Horses and Humans:** No positive horses or humans to date.

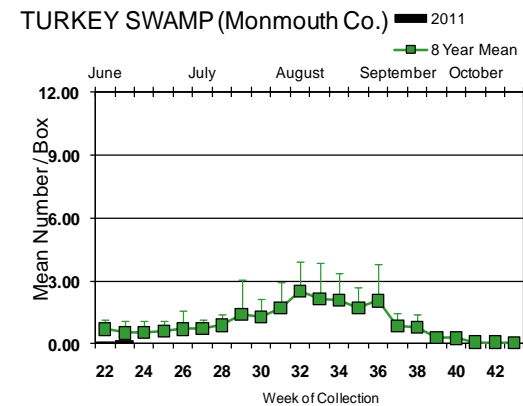
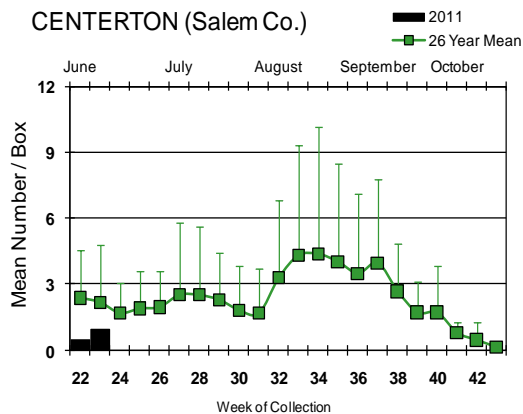
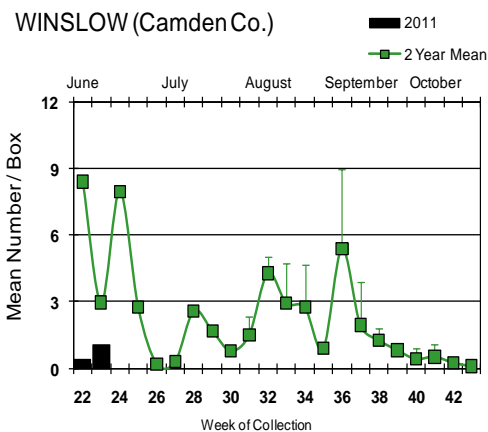
**Horses and Vaccinations:** The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: [http://www.aaep.org/vaccination\\_guidelines.htm](http://www.aaep.org/vaccination_guidelines.htm)

# Culiseta melanura Population Graphs

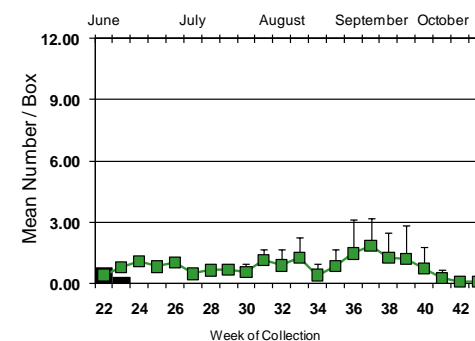
## Coastal



## Inland



**GLASSBORO (Gloucester Co.)** 2011 (black bars), Last Year (green line with squares)



Populations of *Culiseta melanura* continue to remain near or below historical values at all traditional resting box sites.

= Positive pool(s) detected.

Note: Both Winslow and Glassboro have single point historical data (the previous year) for weeks 22 to 29.

**EEE in US (2011 cumulative cases):** (Black or Red = previous + new reported cases occurring)

- equine:
- mosquito pools:
- sentinel: 5 chickens/20 wild bird (FL)
- human:

### West Nile Virus

**West Nile in US (2011 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					
Alaska					
Arizona		1/2			
Arkansas					
California	8/11	4/5			
Colorado					
Connecticut					
Delaware					
DC					
Florida			27		
Georgia					
Hawaii					
Idaho					
Illinois	0	0	0	0	0
Indiana	0	0		0	0
Iowa		0	0	0	0
Kansas					
Kentucky					
Louisiana					
Maine					
Maryland					
Mass.		0		0	0
Michigan	0	0	0	0	0
Minnesota					
Mississippi		0		0	1
Missouri	0	0		0	0

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana				0	0
Nebraska	0	0		0	0
Nevada					0
New Hampshire		0		0	0
New Jersey	0	0		0	0
New Mexico					0
New York		0		0	0
North Carolina					
North Dakota	0	0		0	0
Ohio		0		0	0
Oklahoma					
Oregon	0	0	0	0	0
Pennsylvania	0	1		0	0
Rhode Island		0		0	0
South Carolina	0	0		0	0
South Dakota		0		0	0
Tennessee	0	2		0	0
Texas	0	0		0	0
Utah		0	0	0	0
Vermont	0	0		0	0
Virginia		0	0	0	0
Washington	0	0		0	0
West Virginia					
Wisconsin	0	0		0	0
Wyoming		0		0	0

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

**Mosquito Species Submitted for West Nile Virus Testing through 13 June 2011**

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	11	22		
<i>Aedes canadensis canadensis</i>	9	104		
<i>Aedes cantator</i>	6	23		
<i>Aedes japonicus</i>	4	10		
<i>Aedes sollicitans</i>	2	10		
<i>Aedes sticticus</i>	1	3		
<i>Aedes taeniorhynchus</i>	2	19		
<i>Aedes triseriatus</i>	4	4		
<i>Aedes vexans</i>	2	12		
<i>Anopheles punctipennis</i>	2	10		
<i>Coquillettidia perturbans</i>	8	128		
<i>Culex pipiens</i>	17	503		
<i>Culex restuans</i>	7	75		
<i>Culex salinarius</i>	4	46		
<i>Culex spp.</i>	41	1439		
<i>Culiseta melanura</i>	26	439		
State Total	<b>146</b>	<b>2847</b>		

**Remarks:** The season for West Nile testing has begun, with 146 pools of 2847 mosquitoes in 15 species tested with no positives detected.

**Humans, Horses and Wild Birds:** There are no positive human or horse cases reported.

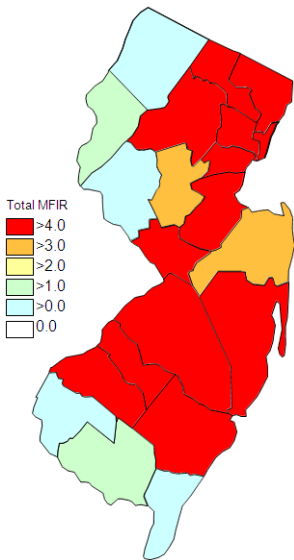
Bird testing began in mid-April. Nine birds have been tested with no positives detected. Species include Blue Jays *Cyanocitta cristata* (2), Fish Crows *Corvus ossifragus* (1) and Other (non-corvid) species (6). The birds were submitted from Burlington, Cumberland, Gloucester, Monmouth Ocean and Warren counties.

2011 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year
0/146 (0%)	1 / 300 (.004%)
2011 Positive Birds to date / Total Birds Submitted	This time last year
0/ 9 (0%)	0/16 (0%)

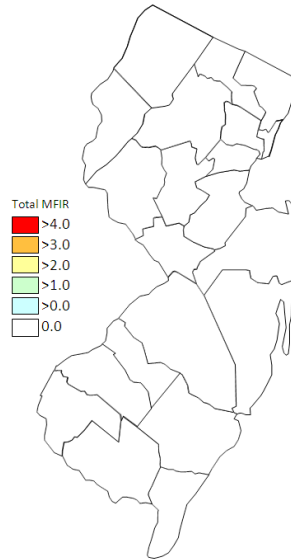
**WNV Results by County through 13 June 2011**

<b>County</b>	<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>	<b>MFIR</b>
<b>Atlantic</b>		<b>14</b>	<b>475</b>		
	<i>Aedes albopictus</i>	1	5		
	<i>Aedes cantator</i>	1	8		
	<i>Aedes vexans</i>	1	8		
	<i>Culex restuans</i>	1	1		
	<i>Culex spp.</i>	9	427		
	<i>Culiseta melanura</i>	1	26		
<b>Burlington</b>		<b>31</b>	<b>792</b>		
	<i>Aedes albopictus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	3	20		
	<i>Aedes sticticus</i>	1	3		
	<i>Aedes taeniorhynchus</i>	1	3		
	<i>Coquillettidia perturbans</i>	5	84		
	<i>Culex salinarius</i>	2	10		
	<i>Culex spp.</i>	13	555		
	<i>Culiseta melanura</i>	5	116		
<b>Camden</b>		<b>10</b>	<b>295</b>		
	<i>Aedes albopictus</i>	2	2		
	<i>Culex spp.</i>	3	81		
	<i>Culiseta melanura</i>	2	5		
<b>Cape May</b>		<b>17</b>	<b>208</b>		
	<i>Aedes cantator</i>	1	10		
	<i>Aedes sollicitans</i>	1	7		
	<i>Aedes taeniorhynchus</i>	1	16		
	<i>Coquillettidia perturbans</i>	2	42		
	<i>Culex pipiens</i>	3	18		
	<i>Culex restuans</i>	5	73		
	<i>Culex salinarius</i>	1	20		
	<i>Culex spp.</i>	1	5		
	<i>Culiseta melanura</i>	2	17		
<b>Cumberland</b>		<b>5</b>	<b>54</b>		
	<i>Culex restuans</i>	1	1		
	<i>Culiseta melanura</i>	4	53		
<b>Gloucester</b>		<b>24</b>	<b>578</b>		
	<i>Aedes triseriatus</i>	1	1		
	<i>Anopheles punctipennis</i>	2	10		
	<i>Culex pipiens</i>	14	485		
	<i>Culiseta melanura</i>	7	82		
<b>Monmouth</b>		<b>18</b>	<b>216</b>		
	<i>Aedes albopictus</i>	2	2		
	<i>Aedes canadensis canadensis</i>	3	81		
	<i>Aedes japonicus</i>	2	5		
	<i>Aedes sollicitans</i>	1	3		
	<i>Aedes triseriatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	1	2		

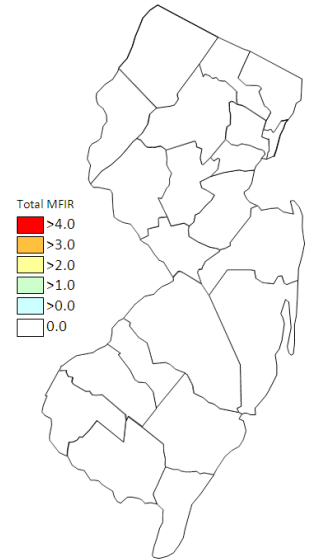
	<i>Culex salinarius</i>	1	16		
	<i>Culex</i> spp.	6	105		
	<i>Culiseta melanura</i>	1	1		
<b>Ocean</b>		<b>25</b>	<b>159</b>		
	<i>Aedes albopictus</i>	6	13		
	<i>Aedes canadensis canadensis</i>	3	3		
	<i>Aedes cantator</i>	4	5		
	<i>Aedes japonicus</i>	2	5		
	<i>Aedes triseriatus</i>	2	2		
	<i>Aedes vexans</i>	1	4		
	<i>Culex</i> spp.	6	126		
	<i>Culiseta melanura</i>	1	1		
<b>Salem</b>		<b>2</b>	<b>70</b>		
	<i>Culiseta melanura</i>	2	70		
<b>Grand Total</b>		<b>146</b>	<b>2827</b>		



Cumulative WNV activity in 2010.



WNV activity to 13 June 2011.



WNV activity last week, 2011.

## Saint Louis Encephalitis (SLE) through 13 June 2011.

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 tested positive for SLE to date in 2011.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Burlington</b>		<b>30</b>	<b>791</b>		
	<i>Aedes albopictus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	3	20		
	<i>Aedes sticticus</i>	1	3		
	<i>Aedes taeniorhynchus</i>	1	3		
	<i>Coquillettidia perturbans</i>	5	84		
	<i>Culex salinarius</i>	2	10		
	<i>Culex</i> spp.	13	555		
	<i>Culiseta melanura</i>	4	115		
<b>Camden</b>		<b>7</b>	<b>222</b>		
	<i>Aedes albopictus</i>	1	1		
	<i>Culex</i> spp.	6	221		
<b>Grand Total</b>		<b>37</b>	<b>1013</b>		

## La Crosse Encephalitis (LAC) through 13 June 2011.

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 tested to date for 2011.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Grand Total</b>					