

**VECTOR SURVEILLANCE SUMMARY SHEET**  
**EEE and WNV in New Jersey**  
**WEEK 11: August 12 to August 18, 2007**



*Culiseta melanura* and Eastern Equine Encephalitis

Coastal Resting Boxes						Inland Resting Boxes					
Sites	Mean From Previous Years	No. Per Box For This Collection	Total Collected to Date*	Total Pools Submitted to Date*	EEE Isolations To Date	Sites	Mean From Previous Years	No. Per Box For This Collection	Total Collected to Date*	Total Pools Submitted to Date*	EEE Isolations To Date
Green Bank (Burlington Co.)	5.9	0.26	264	34	1	Waterford (Camden Co.)	1.1	0.00	332	30	-
Corbin City (Atlantic Co.)	1.2	0.04	334	38	-	Centerton (Salem Co.)	3.8	0.3	435	40	-
Dennisville (Cape May Co.)	8.2	0.22	1111	52	-	Turkey Swamp (Monmouth Co.)	2.5	4.96	724	49	-

\*Including trial run last week in May.

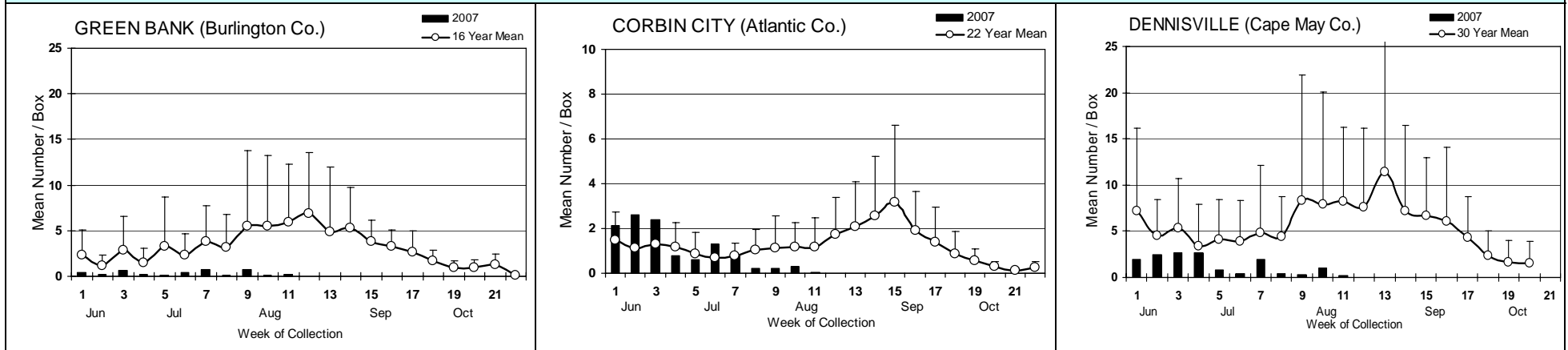
**Remarks:** The first positive EEE pool of the season was found in *Culiseta melanura* collected from the Green Bank site on 8 August. This is earlier than last year's positive *Cs. melanura* pool collected from the same site. The Green Bank *Cs. melanura* abundance increased over the previous week, yet overall, the population remains much suppressed in comparison to historical trends. This was also true of last year's abundance trend at this site. *Culiseta melanura* population increased at Turkey Swamp to the second highest level recorded in the past five years. While this increase is expected from the typical seasonal distribution of *Cs. melanura* in the New Jersey pineland habitat, the magnitude of the increase is still nearly twice as large as recent historical trends would indicate for this time of year. The four other sites have experienced a drop in population levels from the previous week.

To date, 243 pools have been tested for EEE with one positive pool from Green Bank.

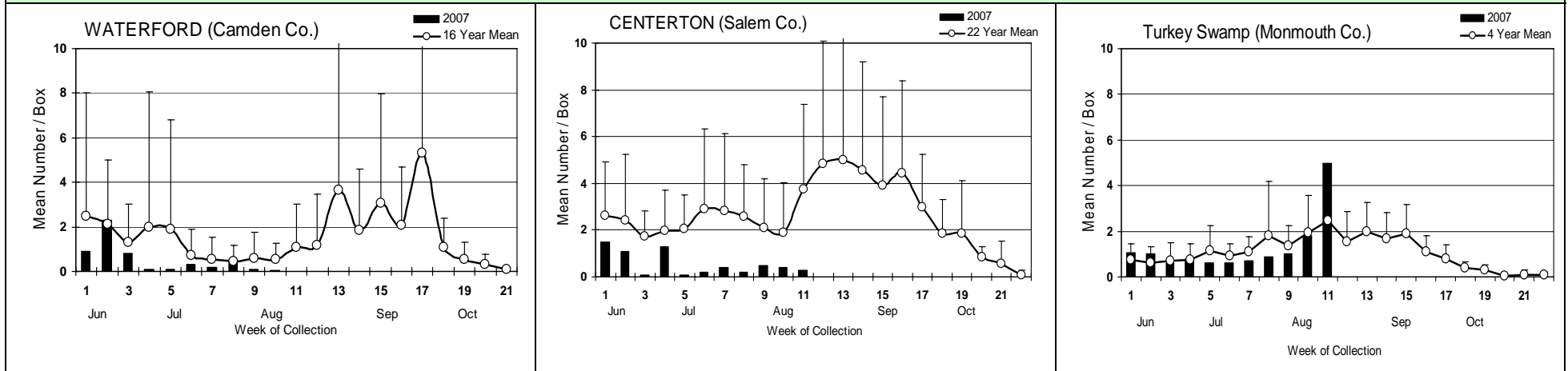
Summary Prepared by Lisa M. Reed, Scott Crans and Dina Fonseca at the Center for Vector Biology, Rutgers University. Supported by funding from the NJ State Mosquito Control Commission.

# Culiseta melanura Population Graphs

## Coastal



## Inland



Figures: Inland and coastal resting box sites showing current weekly population levels (in bars) against historical trends (lines with standard deviation). The number of years for historical population levels varies by site.

**EEE in US (2007 cumulative cases):** New Reports are in red. NOTE: First human case of EEE.

- equine: 4(AL) 1(AR) 13(FL) 2(GA) **10(MS)** 1(TX) 2(VA)
- mosquito: 2(LA) **3(MA)** 2(NH) **1(NJ)** 14(VA)
- sentinel: 6(AL) 45(92live wild bird)(FL) **3(NC)** 11(VA)
- human: **1(NH)**

Mosquito Species Submitted for West Nile Virus Testing through 17 August 2007

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	1	2		
<i>Aedes albopictus</i>	239	2189	2	0.91
<i>Aedes atlanticus</i>	2	2		
<i>Aedes atropalpus</i>	5	8		
<i>Aedes canadensis</i>				
<i>canadensis</i>	44	1159		
<i>Aedes cantator</i>	13	61		
<i>Aedes cinereus</i>	3	18		
<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	197	1267	2	1.58
<i>Aedes sollicitans</i>	13	185		
<i>Aedes sticticus</i>	8	249		
<i>Aedes stimulans</i>	1	3		
<i>Aedes taeniorhynchus</i>	6	36		
<i>Aedes thibaulti</i>	3	4		
<i>Aedes triseriatus</i>	89	223		
<i>Aedes trivittatus</i>	6	8		
<i>Aedes vexans</i>	61	480		
<i>Anopheles barberi</i>	4	4		
<i>Anopheles bradleyi</i>	25	220		
<i>Anopheles punctipennis</i>	55	258		
<i>Anopheles quadrimaculatus</i>	79	1928		
<i>Anopheles walkeri</i>	5	9		
<i>Coquillettidia perturbans</i>	59	1292		
<i>Culex erraticus</i>	18	168		
<i>Culex pipiens</i>	239	4764	11	2.31
<i>Culex restuans</i>	124	2588	2	0.77
<i>Culex salinarius</i>	58	889	3	3.37
<i>Culex sp.</i>	1201	47268	74	1.57
<i>Culex territans</i>	20	116		
<i>Culiseta melanura</i>	277	3433		
<i>Orthopodomyia alba</i>	2	52		
<i>Orthopodomyia signifera</i>	2	2		
<i>Psorophora columbiae</i>	11	57		
<i>Psorophora ferox</i>	8	51		
<i>Psorophora howardii</i>	3	3		
<i>Uranotaenia sapphirina</i>	4	5		
<b>Grand Total</b>	<b>2886</b>	<b>69002</b>	<b>94</b>	<b>1.36</b>

**Remarks:** To date, there have been 69,002 mosquitoes submitted for testing in 2,886 pools. Submissions are from 35 different species, including mixed *Culex* pools and are from 21 counties. A second pool of *Aedes japonicus* was found positive, this time in Camden County. Two pools of *Aedes salinarius* were also found positive in Union County. While virus activity is beginning to show up in areas away from the suburban and metropolitan areas, these heavily populated areas remain the focus of positive pools.

In addition to positive mosquito pools, West Nile activity has also increased in the number of positive dead bird. Positive corvids (Fish and American Crows) have been turned in from Mercer, Middlesex and Monmouth Counties.

2007 Positive pools to date	This time last year
94	135

**West Nile in US (2007 cumulative cases): Old/New reports**

	Birds	Mosqs.	Sentinels	Horses	Humans
Alabama	1				7
Alaska					
Arizona	3	84	5	1/4	16
Arkansas	22	1/4			2/3
California	552/641	524/590	106/136	9/11	86/120
Colorado	27/30	246/309		4	41/72
Connecticut		3/11			2
Delaware	3				
Florida	12/11 live		14		1
Georgia	2	3			2/3
Hawaii					
Idaho	4	3		5	13
Illinois		50/165			6/8
Indiana	1	34			2
Iowa			2		2
Kansas				1	3/5
Kentucky					
Louisiana		38			
Maine					
Maryland					
Massachusetts	2/3	6			
Michigan	1	2			
Minnesota		15/27		1	9/15
Mississippi	4	1/5		2	14
Missouri		77/85		3	2/4
Montana				4	3/6
Nebraska	16/21	18			12/16

	Birds	Mosqs.	Sentinels	Horses	Humans
Nevada	3	5			2
New Hampshire					
New Jersey	4	43/94			
New Mexico		33/35		1/3	5/8
New York	6/10	112			
North Carolina					
North Dakota	8/9		1	3	39/52
Ohio	3	11/19			1
Oklahoma		8			2
Oregon	5	4			
Pennsylvania		12/27			1
Rhode Island					
South Carolina	1	12			
South Dakota		53/60		1	46/62
Tennessee	2/4	38		1	
Texas	14	84		2	6/7
Utah	1	1/33	5/6		2
Vermont					
Virginia		62	8	1	1
Washington					
West Virginia					
Wisconsin	7				
Wyoming		1			12/34

**Protocol:** New Jersey Department of Health and Senior Services tests mosquito pools using RT-PCR Taqman techniques.

**Submission for West Nile Testing by County through 17 August 2007**

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>125</b>	<b>1771</b>	<b>3</b>	<b>1.69</b>
	<i>Aedes albopictus</i>	13	102		
	<i>Aedes canadensis canadensis</i>	2	27		
	<i>Aedes cantator</i>	3	21		
	<i>Aedes grossbecki</i>	1	1		
	<i>Aedes japonicus</i>	3	4		
	<i>Aedes sollicitans</i>	4	142		
	<i>Aedes taeniorhynchus</i>	2	12		
	<i>Aedes triseriatus</i>	3	6		
	<i>Aedes vexans</i>	5	47		
	<i>Anopheles bradleyi</i>	2	3		
	<i>Anopheles quadrimaculatus</i>	2	2		
	<i>Coquillettidia perturbans</i>	3	8		
	<i>Culex erraticus</i>	2	27		
	<i>Culex restuans</i>	2	2		
	<i>Culex salinarius</i>	2	60		
	<i>Culex sp.</i>	26	926	<b>3</b>	<b>3.24</b>
	<i>Culex territans</i>	3	3		
	<i>Culiseta melanura</i>	41	342		
	<i>Orthopodomyia signifera</i>	1	1		
	<i>Psorophora columbiae</i>	2	2		
	<i>Psorophora ferox</i>	2	32		
	<i>Psorophora howardii</i>	1	1		

<b>Bergen</b>	<b>126</b>	<b>8217</b>	<b>23</b>	<b>2.80</b>
<i>Aedes albopictus</i>	2	2		
<i>Aedes japonicus</i>	4	62		<b>1.57</b>
<i>Aedes vexans</i>	2	3		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	11	467	<b>3</b>	<b>6.42</b>
<i>Culex restuans</i>	1	1		<b>6.98</b>
<i>Culex salinarius</i>	4	155	<b>1</b>	
<i>Culex sp.</i>	101	7525	<b>19</b>	<b>6.94</b>
<b>Burlington</b>	<b>206</b>	<b>1781</b>	<b>0</b>	
<i>Aedes albopictus</i>	24	347		
<i>Aedes atropalpus</i>	4	7		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes cantator</i>	1	12		
<i>Aedes japonicus</i>	14	102		
<i>Aedes sollicitans</i>	2	8		
<i>Aedes sticticus</i>	1	1		
<i>Aedes taeniorhynchus</i>	1	4		
<i>Aedes triseriatus</i>	10	32		
<i>Aedes vexans</i>	11	54		
<i>Anopheles barberi</i>	2	2		
<i>Anopheles bradleyi</i>	3	8		
<i>Anopheles punctipennis</i>	9	19		
<i>Anopheles quadrimaculatus</i>	6	18		
<i>Coquillettidia perturbans</i>	16	130		
<i>Culex erraticus</i>	1	2		
<i>Culex pipiens</i>	9	51		
<i>Culex restuans</i>	8	152		
<i>Culex salinarius</i>	6	11		
<i>Culex sp.</i>	25	475		
<i>Culex territans</i>	1	8		
<i>Culiseta melanura</i>	41	312		
<i>Psorophora ferox</i>	1	1		
<i>Psorophora howardii</i>	2	2		
<i>Uranotaenia sapphirina</i>	1	2		
<b>Camden</b>	<b>171</b>	<b>2193</b>	<b>2</b>	<b>0.91</b>
<i>Aedes albopictus</i>	27	398		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes japonicus</i>	17	59	<b>1</b>	<b>16.95</b>
<i>Aedes triseriatus</i>	7	12		
<i>Aedes trivittatus</i>	5	7		
<i>Aedes vexans</i>	4	17		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	11	46		
<i>Anopheles quadrimaculatus</i>	10	11		
<i>Coquillettidia perturbans</i>	2	2		
<i>Culex pipiens</i>	7	219		
<i>Culex restuans</i>	4	18		
<i>Culex salinarius</i>	4	4		
<i>Culex sp.</i>	38	1063	<b>1</b>	<b>0.94</b>
<i>Culex territans</i>	1	1		

	<i>Culiseta melanura</i>	30	332		
	<i>Uranotaenia sapphirina</i>	1	1		
<b>Cape May</b>		<b>175</b>	<b>3445</b>	<b>0</b>	
	<i>Aedes albopictus</i>	1	3		
	<i>Aedes cantator</i>	1	2		
	<i>Aedes japonicus</i>	1	2		
	<i>Aedes sollicitans</i>	1	1		
	<i>Anopheles bradleyi</i>	9	128		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	27	1573		
	<i>Coquillettidia perturbans</i>	1	2		
	<i>Culex pipiens</i>	25	214		
	<i>Culex restuans</i>	12	44		
	<i>Culex salinarius</i>	6	25		
	<i>Culex sp.</i>	32	297		
	<i>Culex territans</i>	4	14		
	<i>Culiseta melanura</i>	54	1139		
<b>Cumberland</b>		<b>65</b>	<b>1065</b>	<b>0</b>	
	<i>Aedes abserratus</i>	1	2		
	<i>Aedes albopictus</i>	9	73		
	<i>Aedes japonicus</i>	4	14		
	<i>Aedes sollicitans</i>	1	4		
	<i>Aedes taeniorhynchus</i>	1	16		
	<i>Aedes triseriatus</i>	1	2		
	<i>Anopheles bradleyi</i>	2	33		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Culex erraticus</i>	6	25		
	<i>Culex pipiens</i>	9	277		
	<i>Culex restuans</i>	3	54		
	<i>Culex salinarius</i>	2	100		
	<i>Culex sp.</i>	15	378		
	<i>Culiseta melanura</i>	10	86		
<b>Essex</b>		<b>58</b>	<b>519</b>	<b>4</b>	<b>7.71</b>
	<i>Aedes albopictus</i>	8	42		
	<i>Aedes canadensis canadensis</i>	2	4		
	<i>Aedes japonicus</i>	6	22		
	<i>Aedes stimulans</i>	1	3		
	<i>Aedes triseriatus</i>	7	9		
	<i>Aedes vexans</i>	1	1		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	4	14		
	<i>Coquillettidia perturbans</i>	1	1		
	<i>Culex sp.</i>	25	407	<b>4</b>	<b>9.83</b>
	<i>Psorophora ferox</i>	2	15		
<b>Gloucester</b>		<b>91</b>	<b>1416</b>	<b>0</b>	
	<i>Aedes albopictus</i>	4	14		
	<i>Aedes japonicus</i>	17	39		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Anopheles walkeri</i>	4	8		
	<i>Culex pipiens</i>	64	1353		

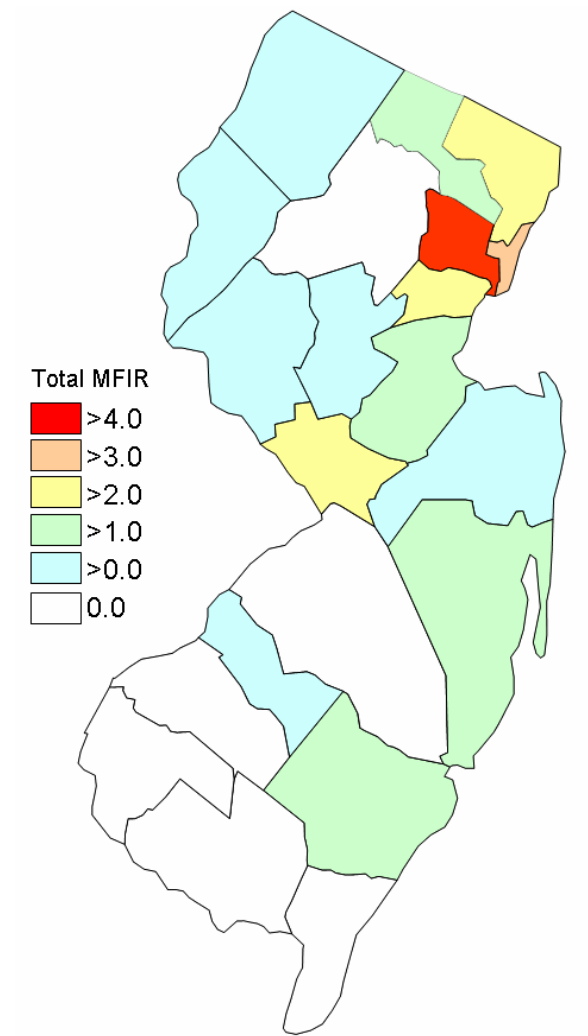
<b>Hudson</b>		<b>218</b>	<b>7672</b>	<b>23</b>	<b>3.00</b>
	<i>Aedes albopictus</i>	60	350		
	<i>Aedes atropalpus</i>	1	1		
	<i>Aedes triseriatus</i>	3	3		
	<i>Aedes trivittatus</i>	1	1		
	<i>Culex sp.</i>	153	7317	<b>23</b>	<b>3.14</b>
<b>Hunterdon</b>		<b>116</b>	<b>5179</b>	<b>2</b>	<b>0.39</b>
	<i>Aedes japonicus</i>	3	66		
	<i>Aedes triseriatus</i>	1	8		
	<i>Anopheles punctipennis</i>	1	2		
	<i>Culex pipiens</i>	9	380		
	<i>Culex restuans</i>	12	643		
	<i>Culex sp.</i>	88	4071	<b>2</b>	<b>0.49</b>
	<i>Culex territans</i>	2	9		
<b>Mercer</b>		<b>152</b>	<b>2414</b>	<b>5</b>	<b>2.07</b>
	<i>Aedes albopictus</i>	24	320		
	<i>Aedes canadensis canadensis</i>	2	9		
	<i>Aedes japonicus</i>	12	34		
	<i>Aedes sticticus</i>	1	3		
	<i>Aedes triseriatus</i>	3	3		
	<i>Culex erraticus</i>	2	23		
	<i>Culex pipiens</i>	63	1091	<b>4</b>	<b>3.67</b>
	<i>Culex restuans</i>	28	454		
	<i>Culex salinarius</i>	3	7		
	<i>Culex sp.</i>	14	470	<b>1</b>	<b>2.13</b>
<b>Middlesex</b>		<b>202</b>	<b>5817</b>	<b>10</b>	<b>1.72</b>
	<i>Aedes albopictus</i>	10	88	<b>1</b>	<b>11.36</b>
	<i>Aedes canadensis canadensis</i>	5	35		
	<i>Aedes japonicus</i>	15	83		
	<i>Aedes sollicitans</i>	1	1		
	<i>Aedes triseriatus</i>	6	22		
	<i>Aedes vexans</i>	7	73		
	<i>Anopheles barberi</i>	1	1		
	<i>Anopheles bradleyi</i>	3	29		
	<i>Anopheles punctipennis</i>	1	8		
	<i>Anopheles quadrimaculatus</i>	4	9		
	<i>Coquillettidia perturbans</i>	9	377		
	<i>Culex pipiens</i>	9	167		
	<i>Culex restuans</i>	12	436		
	<i>Culex salinarius</i>	7	83		
	<i>Culex sp.</i>	107	4391	<b>9</b>	<b>2.05</b>
	<i>Culex territans</i>	1	2		
	<i>Culiseta melanura</i>	3	11		
	<i>Psorophora columbiae</i>	1	1		
<b>Monmouth</b>		<b>256</b>	<b>2805</b>	<b>1</b>	<b>0.36</b>
	<i>Aedes albopictus</i>	17	54		
	<i>Aedes atlanticus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	5	244		
	<i>Aedes cantator</i>	7	25		
	<i>Aedes japonicus</i>	18	64	<b>1</b>	<b>15.63</b>

	<i>Aedes sollicitans</i>	4	29		
	<i>Aedes sticticus</i>	1	7		
	<i>Aedes taeniorhynchus</i>	2	4		
	<i>Aedes triseriatus</i>	14	24		
	<i>Aedes vexans</i>	13	155		
	<i>Anopheles barberi</i>	1	1		
	<i>Anopheles punctipennis</i>	9	12		
	<i>Anopheles quadrimaculatus</i>	3	4		
	<i>Coquillettidia perturbans</i>	2	30		
	<i>Culex pipiens</i>	13	223		
	<i>Culex restuans</i>	18	267		
	<i>Culex salinarius</i>	7	79		
	<i>Culex sp.</i>	59	752		
	<i>Culex territans</i>	7	78		
	<i>Culiseta melanura</i>	51	748		
	<i>Psorophora ferox</i>	2	2		
	<i>Uranotaenia sapphirina</i>	2	2		
<b>Morris</b>		<b>124</b>	<b>2683</b>	<b>0</b>	
	<i>Aedes albopictus</i>	1	45		
	<i>Aedes canadensis canadensis</i>	12	474		
	<i>Aedes cinereus</i>	1	13		
	<i>Aedes japonicus</i>	25	144		
	<i>Aedes triseriatus</i>	2	3		
	<i>Aedes vexans</i>	2	36		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	2	2		
	<i>Coquillettidia perturbans</i>	9	339		
	<i>Culex pipiens</i>	5	37		
	<i>Culex restuans</i>	5	254		
	<i>Culex salinarius</i>	2	7		
	<i>Culex sp.</i>	50	1225		
	<i>Orthopodomyia alba</i>	2	52		
	<i>Psorophora columbiae</i>	4	50		
	<i>Psorophora ferox</i>	1	1		
<b>Ocean</b>		<b>163</b>	<b>4540</b>	<b>8</b>	<b>1.76</b>
	<i>Aedes albopictus</i>	18	176		
	<i>Aedes canadensis canadensis</i>	7	341		
	<i>Aedes japonicus</i>	18	159		
	<i>Aedes sticticus</i>	1	17		
	<i>Aedes triseriatus</i>	13	51		
	<i>Aedes vexans</i>	6	23		
	<i>Anopheles punctipennis</i>	4	17		
	<i>Coquillettidia perturbans</i>	3	7		
	<i>Culex pipiens</i>	5	152	<b>3</b>	<b>19.74</b>
	<i>Culex restuans</i>	10	218	<b>2</b>	<b>9.17</b>
	<i>Culex salinarius</i>	6	13		
	<i>Culex sp.</i>	63	3336	<b>3</b>	<b>0.90</b>
	<i>Culiseta melanura</i>	7	28		
	<i>Psorophora columbiae</i>	2	2		
<b>Passaic</b>		<b>68</b>	<b>2193</b>	<b>4</b>	<b>1.82</b>
	<i>Aedes albopictus</i>	3	35		
	<i>Aedes japonicus</i>	4	34		



	<i>Aedes triseriatus</i>	1	8		
	<i>Culex sp.</i>	60	2116	4	1.89
<b>Salem</b>		<b>98</b>	<b>1140</b>	<b>0</b>	
	<i>Aedes albopictus</i>	2	4		
	<i>Aedes canadensis canadensis</i>	1	3		
	<i>Aedes thibaulti</i>	3	4		
	<i>Aedes triseriatus</i>	3	3		
	<i>Anopheles bradleyi</i>	5	18		
	<i>Anopheles punctipennis</i>	10	133		
	<i>Anopheles quadrimaculatus</i>	14	286		
	<i>Anopheles walkeri</i>	1	1		
	<i>Culex erraticus</i>	7	91		
	<i>Culex pipiens</i>	3	74		
	<i>Culex restuans</i>	2	3		
	<i>Culex salinarius</i>	3	33		
	<i>Culex sp.</i>	4	52		
	<i>Culiseta melanura</i>	40	435		
<b>Somerset</b>		<b>143</b>	<b>3594</b>	<b>1</b>	<b>0.28</b>
	<i>Aedes cinereus</i>	2	5		
	<i>Aedes japonicus</i>	23	317		
	<i>Aedes sticticus</i>	4	221		
	<i>Aedes triseriatus</i>	9	28		
	<i>Aedes vexans</i>	5	58		
	<i>Anopheles punctipennis</i>	5	15		
	<i>Anopheles quadrimaculatus</i>	2	3		
	<i>Coquillettidia perturbans</i>	1	1		
	<i>Culex pipiens</i>	1	3		
	<i>Culex restuans</i>	3	21		
	<i>Culex salinarius</i>	1	2		
	<i>Culex sp.</i>	86	2919	1	0.34
	<i>Culex territans</i>	1	1		
<b>Sussex</b>		<b>111</b>	<b>3489</b>	<b>1</b>	<b>0.29</b>
	<i>Aedes japonicus</i>	1	2		
	<i>Coquillettidia perturbans</i>	8	388		
	<i>Culex sp.</i>	102	3099	1	0.32
<b>Union</b>		<b>98</b>	<b>2084</b>	<b>6</b>	<b>2.88</b>
	<i>Aedes albopictus</i>	16	136	1	7.35
	<i>Aedes cantator</i>	1	1		
	<i>Aedes japonicus</i>	11	40		
	<i>Aedes triseriatus</i>	6	9		
	<i>Aedes vexans</i>	5	13		
	<i>Anopheles quadrimaculatus</i>	3	4		
	<i>Coquillettidia perturbans</i>	2	4		
	<i>Culex pipiens</i>	4	53	1	18.87
	<i>Culex restuans</i>	1	2		
	<i>Culex salinarius</i>	5	310	2	6.45
	<i>Culex sp.</i>	41	1509	2	1.33
	<i>Orthopodomyia signifera</i>	1	1		
	<i>Psorophora columbiae</i>	2	2		
<b>Warren</b>		<b>120</b>	<b>4985</b>	<b>1</b>	<b>0.20</b>

<i>Aedes japonicus</i>	1	20		
<i>Anopheles punctipennis</i>	1	2		
<i>Coquillettidia perturbans</i>	1	1		
<i>Culex pipiens</i>	2	3		
<i>Culex restuans</i>	3	19		
<i>Culex sp.</i>	112	4940	1	0.20
<b>Grand Total</b>	<b>2886</b>	<b>69002</b>	<b>94</b>	<b>1.36</b>



Overall mosquito MFIR values per county.