

VECTOR SURVEILLANCE SUMMARY SHEET  
 EEE and WNV in New Jersey  
 WEEK 9: July 29 to August 4, 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.)	5.5	0.7	246	30	-	Waterford (Camden Co.)	0.6	0.1	330	28	-
Corbin City (Atlantic Co.)	1.2	0.2	320	35	-	Centerton (Salem Co.)	2.1	0.5	390	33	-
Dennisville (Cape May Co.)	8.3	0.3	1052	45	-	Turkey Swamp (Monmouth Co.)	1.4	1.0	385	38	-

\*Including trial run last week in May.

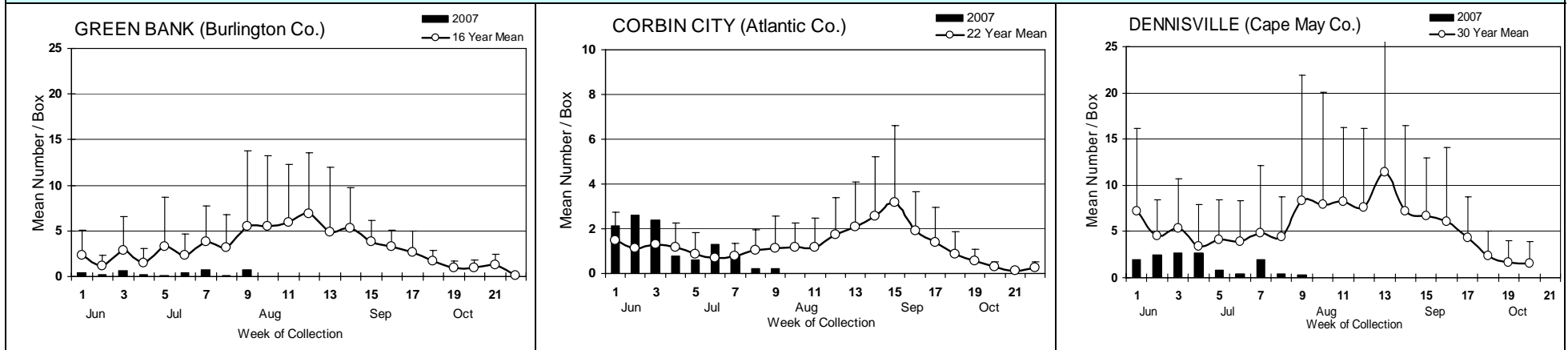
Remarks: *Culiseta melanura* populations at two of the inland sites (Centerton and Turkey Swamp) have increased from the previous week while the population at the third inland site in Waterford has decreased. Under typical conditions, an increase in *Cs. melanura* abundance is expected at this time as the second generation emerges that was produced by earlier broods. The newly emerged mosquitoes continue to add to the population until it peaks in late August/early September. This year, the seasonal patterns are less clear at the coastal sites. At Green Bank, numbers rose considerably over the previous week while further south at Corbin City, population levels remained the same. At the most southerly site of Dennisville, the number of *Cs. melanura* caught in resting boxes decreased.

To date, 209 pools have been tested for EEE and there have been no positive results.

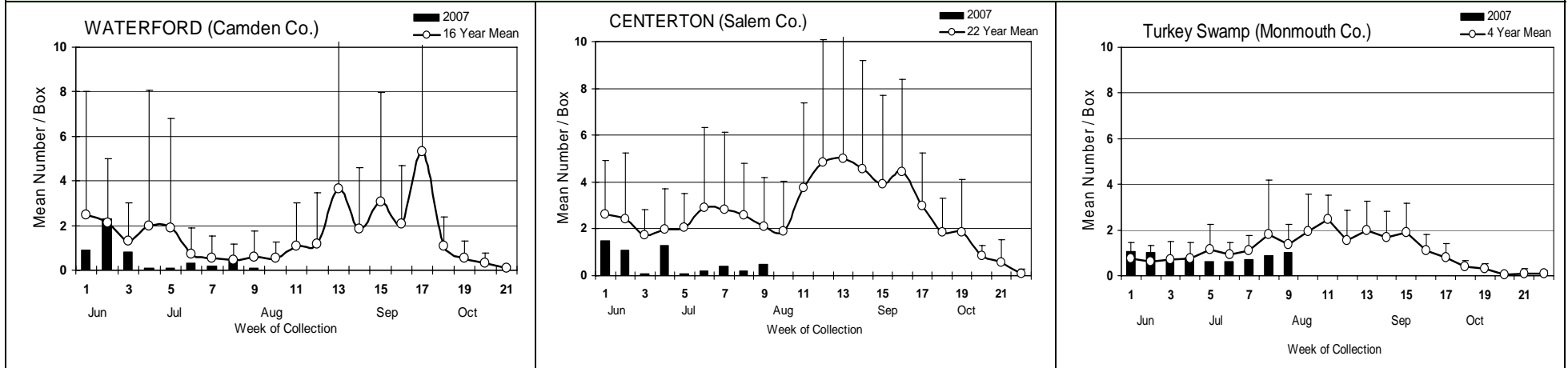
Summary Prepared by Lisa M. Reed, Scott Crans and Dina Fonseca at the Center for Vector Biology, Rutgers University. Supported by funding from the NJ State Mosquito Control Commission.

# 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: Florida is also reporting SLE and CE activity in birds and/or mosquitoes.

- equine: 1(AR) 13(FL) 1(VA)
- mosquito: 2(LA) 1(MA) 14(VA)
- sentinel: 45(92live wild bird)(FL) 8(VA)
- human: 0

Mosquito Species Submitted for West Nile Virus Testing through 3 August 2007

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	154	1196		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes atropalpus</i>	3	6		
<i>Aedes canadensis canadensis</i>	41	1153		
<i>Aedes cantator</i>	10	44		
<i>Aedes cinereus</i>	3	18		
<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	135	865	1	1.16
<i>Aedes sollicitans</i>	8	167		
<i>Aedes sticticus</i>	8	249		
<i>Aedes stimulans</i>	1	3		
<i>Aedes taeniorhynchus</i>	5	32		
<i>Aedes thibaulti</i>	3	4		
<i>Aedes triseriatus</i>	69	173		
<i>Aedes trivittatus</i>	5	6		
<i>Aedes vexans</i>	36	394		
<i>Anopheles barberi</i>	3	3		
<i>Anopheles bradleyi</i>	18	134		
<i>Anopheles punctipennis</i>	37	169		
<i>Anopheles quadrimaculatus</i>	59	1739		
<i>Anopheles walkeri</i>	3	3		
<i>Coquillettidia perturbans</i>	47	1267		
<i>Culex erraticus</i>	8	88		
<i>Culex pipiens</i>	156	3039	1	0.33
<i>Culex restuans</i>	104	2290		
<i>Culex salinarius</i>	36	323		
<i>Culex sp.</i>	843	34218	23	0.67
<i>Culex territans</i>	16	54		
<i>Culiseta melanura</i>	233	2855		
<i>Orthopodomyia alba</i>	2	52		
<i>Orthopodomyia signifera</i>	1	1		
<i>Psorophora columbiae</i>	6	52		
<i>Psorophora ferox</i>	4	45		
<i>Psorophora howardii</i>	1	1		
<i>Uranotaenia sapphirina</i>	3	3		
<b>Grand Total</b>	<b>2063</b>	<b>50648</b>	<b>25</b>	<b>0.49</b>

**Remarks:** To date, there have been 50,648 mosquitoes submitted for testing in 2,063 pools. Submissions are from 34 different species, including mixed *Culex* pools and are from 21 counties. After an increase in West Nile positive pools, primarily from enzootic *Culex* vectors, there were no further positive pools found this past week. Two additional corvids were found positive from a different site in Ocean County as compared to the first two positive birds.

Twenty-five pools are positive, including 1 pool of *Aedes japonicus*, a bridge vector. At this time last year, there were 58 positive pools of mosquitoes, all *Culex*.

Update: An additional 13 pools have been found positive for WN, including 12 *Culex* pools and one *Aedes albopictus*. Concentration continues through the suburban region that runs from Trenton to New York City.

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

	Birds	Mosqs.	Sentinels	Horses	Humans
Alabama					4
Alaska					
Arizona	2	7/56	3/5	1	7
Arkansas	1/4				1
California	355/423	143/224	13	3	27/42
Colorado	7	88			6/10
Connecticut		1			
Delaware	3				
Florida	12 live		7/11		
Georgia					
Hawaii					
Idaho	2	3			4/8
Illinois		38/50			3
Indiana		18/20			
Iowa					1/2
Kansas					2/3
Louisiana		38			
Maine					
Maryland					
Massachusetts	1				
Michigan					
Minnesota		5			3/4
Mississippi	4	1			8/13
Missouri		40/55			2
Montana					
Nebraska	5	2/18			2/12

	Birds	Mosqs.	Sentinels	Horses	Humans
Nevada	3				1
New Hampshire					
New Jersey	2/4	25			
New Mexico				1	2
New York	1/4				
North Carolina					
North Dakota	7				14
Kentucky					
Ohio		9/11			1
Oklahoma		2			
Oregon	2/5				
Pennsylvania		2			
Rhode Island					
South Carolina	1				
South Dakota		6/23		1	28/38
Tennessee	2			1	
Texas	8	22/34		2	2/6
Utah		1	1		2
Vermont					
Virginia	8	9/62		1	1
Washington					
West Virginia					
Wisconsin	7				
Wyoming					7/9

**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 3 August 2007**

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		81	1262	0	0
	<i>Aedes albopictus</i>	9	83		
	<i>Aedes canadensis canadensis</i>	1	26		
	<i>Aedes cantator</i>	3	21		
	<i>Aedes grossbecki</i>	1	1		
	<i>Aedes japonicus</i>	2	3		
	<i>Aedes sollicitans</i>	4	142		
	<i>Aedes taeniorhynchus</i>	2	12		
	<i>Aedes triseriatus</i>	2	5		
	<i>Aedes vexans</i>	3	35		
	<i>Anopheles bradleyi</i>	2	3		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	2	7		
	<i>Culex erraticus</i>	1	26		
	<i>Culex restuans</i>	1	1		
	<i>Culex salinarius</i>	2	60		
	<i>Culex sp.</i>	19	737		
	<i>Culex territans</i>	3	3		
	<i>Culiseta melanura</i>	37	322		
	<i>Orthopodomyia signifera</i>	1	1		
	<i>Psorophora columbiae</i>	1	1		
	<i>Psorophora ferox</i>	1	29		
	<i>Psorophora howardii</i>	1	1		

<b>Bergen</b>	<b>60</b>	<b>4361</b>	<b>6</b>	<b>1.38</b>
<i>Aedes japonicus</i>	2	11		
<i>Culex sp.</i>	58	4350	6	1.38
<b>Burlington</b>	<b>151</b>	<b>1242</b>	<b>0</b>	
<i>Aedes albopictus</i>	19	285		
<i>Aedes atropalpus</i>	3	6		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes japonicus</i>	13	101		
<i>Aedes sticticus</i>	1	1		
<i>Aedes triseriatus</i>	9	31		
<i>Aedes vexans</i>	4	27		
<i>Anopheles barberi</i>	2	2		
<i>Anopheles bradleyi</i>	3	8		
<i>Anopheles punctipennis</i>	6	10		
<i>Anopheles quadrimaculatus</i>	2	2		
<i>Coquillettidia perturbans</i>	12	118		
<i>Culex pipiens</i>	7	42		
<i>Culex restuans</i>	7	151		
<i>Culex salinarius</i>	4	6		
<i>Culex sp.</i>	17	175		
<i>Culiseta melanura</i>	34	255		
<i>Psorophora ferox</i>	1	1		
<b>Camden</b>	<b>120</b>	<b>1548</b>	<b>1</b>	<b>0.65</b>
<i>Aedes albopictus</i>	18	70		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes japonicus</i>	12	41		
<i>Aedes triseriatus</i>	4	9		
<i>Aedes trivittatus</i>	4	5		
<i>Anopheles punctipennis</i>	8	41		
<i>Anopheles quadrimaculatus</i>	6	6		
<i>Culex pipiens</i>	1	1		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	1	1		
<i>Culex sp.</i>	34	1040	1	0.96
<i>Culiseta melanura</i>	28	330		
<i>Uranotaenia sapphirina</i>	1	1		
<b>Cape_May</b>	<b>144</b>	<b>3153</b>	<b>0</b>	
<i>Aedes albopictus</i>	1	3		
<i>Aedes cantator</i>	1	2		
<i>Aedes japonicus</i>	1	2		
<i>Anopheles bradleyi</i>	7	88		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	24	1507		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	15	165		
<i>Culex restuans</i>	12	44		
<i>Culex salinarius</i>	6	25		
<i>Culex sp.</i>	24	220		
<i>Culex territans</i>	4	14		
<i>Culiseta melanura</i>	47	1080		

<b>Cumberland</b>	<b>35</b>	<b>601</b>	<b>0</b>	
<i>Aedes albopictus</i>	3	16		
<i>Aedes japonicus</i>	2	8		
<i>Aedes taeniorhynchus</i>	1	16		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex erraticus</i>	4	19		
<i>Culex pipiens</i>	9	277		
<i>Culex restuans</i>	3	54		
<i>Culex salinarius</i>	2	100		
<i>Culex sp.</i>	4	75		
<i>Culiseta melanura</i>	6	35		
<b>Essex</b>	<b>52</b>	<b>371</b>	<b>0</b>	
<i>Aedes albopictus</i>	8	42		
<i>Aedes canadensis canadensis</i>	2	4		
<i>Aedes japonicus</i>	5	20		
<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>	20	261		
<i>Psorophora ferox</i>	2	15		
<b>Gloucester</b>	<b>61</b>	<b>990</b>	<b>0</b>	
<i>Aedes albopictus</i>	3	13		
<i>Aedes japonicus</i>	14	32		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Anopheles walkeri</i>	2	2		
<i>Culex pipiens</i>	40	941		
<b>Hudson</b>	<b>152</b>	<b>5777</b>	<b>6</b>	<b>1.04</b>
<i>Aedes albopictus</i>	35	162		
<i>Aedes triseriatus</i>	2	2		
<i>Aedes trivittatus</i>	1	1		
<i>Culex sp.</i>	114	5612	<b>6</b>	1.07
<b>Hunterdon</b>	<b>89</b>	<b>3869</b>	<b>1</b>	<b>0.26</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>	61	2761	<b>1</b>	0.36
<i>Culex territans</i>	2	9		
<b>Mercer</b>	<b>115</b>	<b>1876</b>	<b>1</b>	<b>0.53</b>
<i>Aedes albopictus</i>	16	251		
<i>Aedes canadensis canadensis</i>	2	9		
<i>Aedes japonicus</i>	7	27		
<i>Aedes sticticus</i>	1	3		

	<i>Aedes triseriatus</i>	3	3		
	<i>Culex erraticus</i>	1	12		
	<i>Culex pipiens</i>	47	745	1	1.34
	<i>Culex restuans</i>	23	384		
	<i>Culex salinarius</i>	3	7		
	<i>Culex sp.</i>	12	435		
<b>Middlesex</b>		<b>164</b>	<b>4820</b>	<b>4</b>	<b>0.83</b>
	<i>Aedes albopictus</i>	6	48		
	<i>Aedes canadensis canadensis</i>	5	35		
	<i>Aedes japonicus</i>	13	67		
	<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>	7	150		
	<i>Culex restuans</i>	11	417		
	<i>Culex salinarius</i>	5	71		
	<i>Culex sp.</i>	80	3498	4	1.14
	<i>Culex territans</i>	1	2		
	<i>Culiseta melanura</i>	3	11		
	<i>Psorophora columbiae</i>	1	1		
<b>Monmouth</b>		<b>178</b>	<b>1696</b>	<b>1</b>	<b>0.59</b>
	<i>Aedes albopictus</i>	11	30		
	<i>Aedes canadensis canadensis</i>	4	240		
	<i>Aedes cantator</i>	6	21		
	<i>Aedes japonicus</i>	10	40	1	25.00
	<i>Aedes sollicitans</i>	3	24		
	<i>Aedes sticticus</i>	1	7		
	<i>Aedes taeniorhynchus</i>	2	4		
	<i>Aedes triseriatus</i>	11	17		
	<i>Aedes vexans</i>	9	139		
	<i>Anopheles punctipennis</i>	4	4		
	<i>Anopheles quadrimaculatus</i>	2	2		
	<i>Coquillettidia perturbans</i>	2	30		
	<i>Culex pipiens</i>	9	213		
	<i>Culex restuans</i>	17	266		
	<i>Culex salinarius</i>	5	21		
	<i>Culex sp.</i>	35	202		
	<i>Culex territans</i>	5	25		
	<i>Culiseta melanura</i>	40	409		
	<i>Uranotaenia sapphirina</i>	2	2		
<b>Morris</b>		<b>80</b>	<b>1908</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>	9	34		
	<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>	8	338		
<i>Culex pipiens</i>	5	37		
<i>Culex restuans</i>	5	254		
<i>Culex salinarius</i>	2	7		
<i>Culex sp.</i>	24	562		
<i>Orthopodomyia alba</i>	2	52		
<i>Psorophora columbiae</i>	4	50		
<b>Ocean</b>	<b>108</b>	<b>3273</b>	<b>0</b>	
<i>Aedes albopictus</i>	13	86		
<i>Aedes canadensis canadensis</i>	6	340		
<i>Aedes japonicus</i>	11	69		
<i>Aedes sticticus</i>	1	17		
<i>Aedes triseriatus</i>	8	23		
<i>Aedes vexans</i>	3	18		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	1	8		
<i>Culex restuans</i>	5	33		
<i>Culex salinarius</i>	4	10		
<i>Culex sp.</i>	50	2644		
<i>Culiseta melanura</i>	5	23		
<b>Passaic</b>	<b>52</b>	<b>1914</b>	<b>4</b>	<b>2.09</b>
<i>Aedes albopictus</i>	2	21		
<i>Aedes japonicus</i>	1	5		
<i>Aedes triseriatus</i>	1	8		
<i>Culex sp.</i>	48	1880	4	2.13
<b>Salem</b>	<b>68</b>	<b>801</b>	<b>0</b>	
<i>Aedes albopictus</i>	1	2		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes thibaulti</i>	3	4		
<i>Aedes triseriatus</i>	1	1		
<i>Anopheles bradleyi</i>	3	6		
<i>Anopheles punctipennis</i>	8	84		
<i>Anopheles quadrimaculatus</i>	10	190		
<i>Anopheles walkeri</i>	1	1		
<i>Culex erraticus</i>	2	31		
<i>Culex pipiens</i>	3	74		
<i>Culex restuans</i>	1	2		
<i>Culex salinarius</i>	1	13		
<i>Culiseta melanura</i>	33	390		
<b>Somerset</b>	<b>113</b>	<b>3016</b>	<b>1</b>	<b>0.33</b>
<i>Aedes cinereus</i>	2	5		
<i>Aedes japonicus</i>	20	281		
<i>Aedes sticticus</i>	4	221		
<i>Aedes triseriatus</i>	8	27		
<i>Aedes vexans</i>	5	58		
<i>Anopheles punctipennis</i>	4	14		
<i>Anopheles quadrimaculatus</i>	1	2		
<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>	62	2380	1	0.42
	<i>Culex territans</i>	1	1		
<b>Sussex</b>		<b>67</b>	<b>2392</b>	<b>0</b>	
	<i>Aedes japonicus</i>	1	2		
	<i>Coquillettidia perturbans</i>	8	388		
	<i>Culex sp.</i>	58	2002		
<b>Union</b>		<b>57</b>	<b>1352</b>	<b>0</b>	
	<i>Aedes albopictus</i>	8	39		
	<i>Aedes japonicus</i>	8	36		
	<i>Aedes triseriatus</i>	4	5		
	<i>Aedes vexans</i>	2	7		
	<i>Anopheles quadrimaculatus</i>	1	2		
	<i>Coquillettidia perturbans</i>	1	2		
	<i>Culex sp.</i>	33	1261		
<b>Warren</b>		<b>98</b>	<b>4168</b>	<b>0</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>	90	4123		
<b>Grand Total</b>		<b>2063</b>	<b>50648</b>	<b>25</b>	<b>0.49</b>