

VECTOR SURVEILLANCE SUMMARY SHEET
EEE and WNV in New Jersey
WEEK 10: August 5 to August 11, 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	0.1	251	32	-	Waterford (Camden Co.)	0.6	<0.1	332	30	-
Corbin City (Atlantic Co.)	1.2	0.3	333	37	-	Centerton (Salem Co.)	1.9	0.4	417	36	-
Dennisville (Cape May Co.)	7.9	1.0	1100	49	-	Turkey Swamp (Monmouth Co.)	2.0	1.8	476	42	-

*Including trial run last week in May.

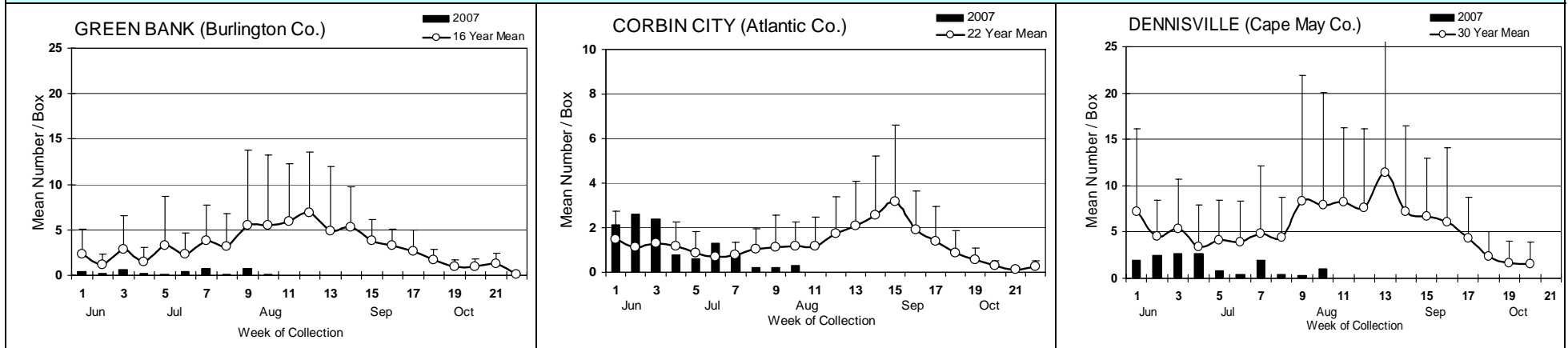
Remarks: The *Culiseta melanura* population at Turkey Swamp has been increasing over the past 4 weeks. This pattern is typical for *Cs. melanura* populations in the Pinelands of New Jersey. Other sites that also increased from the previous week were the coastal sites of Corbin City and Dennisville. Green Bank continues to harbor very low populations of this mosquito. Last year's low mosquito abundance at this site still produced a pool positive for eastern equine encephalitis. A horse located less than 10 miles away subsequently became infected the following week. This occurred at the end of August/beginning of September.

To date, 226 pools have been tested for EEE and there have been no positive results.

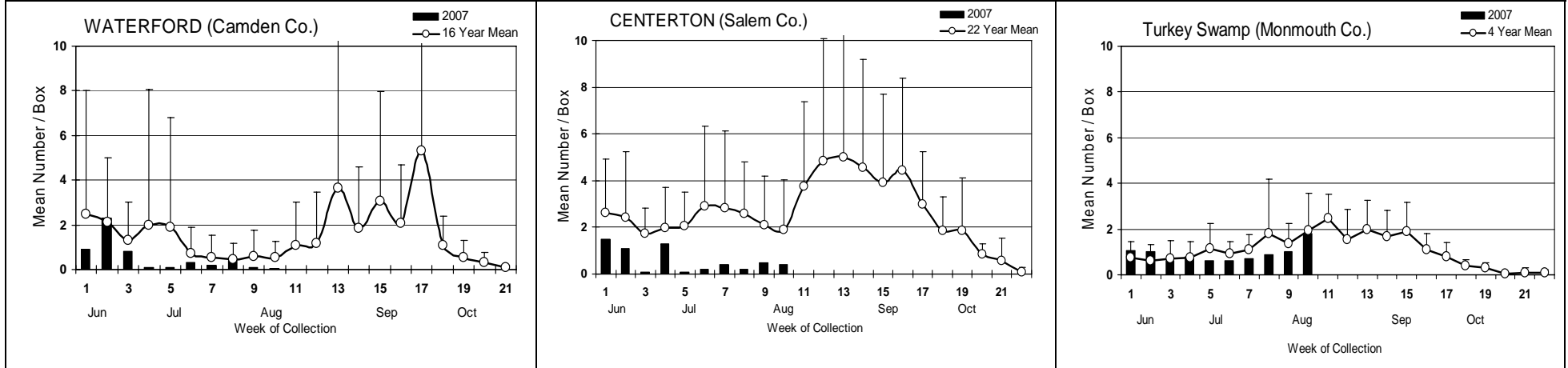
Summary Prepared by Lisa M. Reed, Scott Crans and Dina Fonseca at the Center for Vector Biology, Rutgers University. Supported by funding from the NJ State Mosquito Control Commission.

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: 4(AL) 1(AR) 13(FL) 2(GA) 3(MS) 1(TX) 1(VA)
- mosquito: 2(LA) 1(MA) 2(NH) 14(VA)
- sentinel: 6(AL) 45(92live wild bird)(FL) 2(NC) 11(VA)
- human: 0

Mosquito Species Submitted for West Nile Virus Testing through 14 August 2007

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	199	1546	2	1.29
<i>Aedes cinereus</i>	3	18		
<i>Aedes vexans</i>	53	393		
<i>Anopheles barberi</i>	3	3		
<i>Anopheles bradleyi</i>	22	173		
<i>Anopheles punctipennis</i>	46	216		
<i>Anopheles quadrimaculatus</i>	67	1820		
<i>Anopheles walkeri</i>	5	10		
<i>Coquillettidia perturbans</i>	58	1291		
<i>Culex erraticus</i>	12	119		
<i>Culex pipiens</i>	197	4003	10	2.50
<i>Culex restuans</i>	116	2456	2	0.81
<i>Culex salinarius</i>	50	658	1	1.52
<i>Culex sp.</i>	1029	38367	40	1.04
<i>Culex territans</i>	19	77		
<i>Culiseta melanura</i>	257	3099		
<i>Aedes atlanticus</i>	2	2		
<i>Aedes atropalpus</i>	4	6		
<i>Aedes canadensis canadensis</i>	43	1166		
<i>Aedes cantator</i>	12	57		
<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	171	1105	1	0.90
<i>Aedes sollicitans</i>	12	181		
<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>	80	199		
<i>Aedes trivittatus</i>	5	6		
<i>Orthopodomyia alba</i>	2	52		
<i>Orthopodomyia signifera</i>	1	1		
<i>Psorophora columbiae</i>	10	56		
<i>Psorophora ferox</i>	6	49		
<i>Psorophora howardii</i>	1	1		
<i>Uranotaenia sapphirina</i>	3	3		
	2507	57,426	56	0.98

Remarks: To date, there have been 60,324 mosquitoes submitted for testing in 2,507 pools. Submissions are from 34 different species, including mixed *Culex* pools and are from 21 counties. One pool of *Aedes albopictus* collected on 30 July was found positive in Middlesex County and a second pool of *Ae. albopictus* collected in neighboring Union County on the 7th of August was also positive. This very competent bridge vector is an aggressive biter. Additionally, *Aedes salinarius* a mosquito implicated in Connecticut and New York as being an important bridge vector has also been found positive this past week.

Bridge vectors have converted earlier this year as compared to last year despite the fewer positive pools to date.

2007 Positive pools to date	This time last year
56	95

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

	Birds	Mosqs.	Sentinels	Horses	Humans
Alabama	1				4
Alaska					
Arizona	2/3	56/84	5	1/4	7/16
Arkansas	4/10	1			1/2
California	423/552	224/524	13/106	3/9	42/86
Colorado	7/27	88/246		4	27/41
Connecticut		1/3			
Delaware	3				
Florida	12 live		11/14		
Georgia	2	3			2
Hawaii					
Idaho	2/4	3		5	8/13
Illinois		50/165			3/6
Indiana	1	34			2
Iowa					2
Kansas				1	3
Kentucky					
Louisiana		38			
Maine					
Maryland					
Massachusetts	1/2	6			
Michigan	1	2			
Minnesota		5/15		1	4/9
Mississippi	4	1/15		2	13/14
Missouri		55/77		3	2
Montana				4	3
Nebraska	5/16	18			12

	Birds	Mosqs.	Sentinels	Horses	Humans
Nevada	3				1/2
New Hampshire					
New Jersey	4	25/43			
New Mexico		33		1/3	2/5
New York	4/6	22			
North Carolina					
North Dakota	7/8		1	3	14/39
Ohio		11/19			1
Oklahoma		2/8			
Oregon	5	4			
Pennsylvania		2/12			1
Rhode Island					
South Carolina	1	12			
South Dakota		23/53		1	38/46
Tennessee	2	38		1	
Texas	8/14	34/84		2	6
Utah		1/33	1/5		2
Vermont					
Virginia		62	8	1	1
Washington					
West Virginia					
Wisconsin	7				
Wyoming		1			9/12

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 14 August 2007

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		113	1581	0	0.00
	<i>Aedes albopictus</i>	11	87		
	<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>	4	42		
	<i>Anopheles bradleyi</i>	2	3		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	3	8		
	<i>Culex erraticus</i>	1	26		
	<i>Culex restuans</i>	2	2		
	<i>Culex salinarius</i>	2	60		
	<i>Culex sp.</i>	21	760		
	<i>Culex territans</i>	3	3		
	<i>Culiseta melanura</i>	40	341		
	<i>Orthopodomyia signifera</i>	1	1		
	<i>Psorophora columbiae</i>	1	1		
	<i>Psorophora ferox</i>	2	32		
	<i>Psorophora howardii</i>	1	1		

Bergen	85	5743	12	2.09
<i>Aedes albopictus</i>	1	1		
<i>Aedes japonicus</i>	4	62		
<i>Aedes vexans</i>	2	3		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	6	430	3	6.98
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	2	144	1	6.94
<i>Culex sp.</i>	68	5100	8	1.57
Burlington	174	1630	0	
<i>Aedes albopictus</i>	19	285		
<i>Aedes atropalpus</i>	3	6		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes cantator</i>	1	12		
<i>Aedes japonicus</i>	13	101		
<i>Aedes sollicitans</i>	2	8		
<i>Aedes sticticus</i>	1	1		
<i>Aedes taeniorhynchus</i>	1	4		
<i>Aedes triseriatus</i>	9	31		
<i>Aedes vexans</i>	5	33		
<i>Anopheles barberi</i>	2	2		
<i>Anopheles bradleyi</i>	3	8		
<i>Anopheles punctipennis</i>	6	10		
<i>Anopheles quadrimaculatus</i>	4	16		
<i>Coquillettidia perturbans</i>	16	130		
<i>Culex erraticus</i>	1	2		
<i>Culex pipiens</i>	7	42		
<i>Culex restuans</i>	7	151		
<i>Culex salinarius</i>	5	7		
<i>Culex sp.</i>	21	453		
<i>Culex territans</i>	1	8		
<i>Culiseta melanura</i>	39	298		
<i>Psorophora ferox</i>	1	1		
Camden	143	1818	1	0.55
<i>Aedes albopictus</i>	23	231		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes japonicus</i>	13	43		
<i>Aedes triseriatus</i>	5	10		
<i>Aedes trivittatus</i>	4	5		
<i>Aedes vexans</i>	2	5		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	10	43		
<i>Anopheles quadrimaculatus</i>	7	8		
<i>Coquillettidia perturbans</i>	1	1		
<i>Culex pipiens</i>	3	73		
<i>Culex restuans</i>	3	9		
<i>Culex salinarius</i>	2	2		
<i>Culex sp.</i>	35	1051	1	0.95
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	30	332		

<i>Uranotaenia sapphirina</i>	1	1		
Cape_May	162	3332	0	
<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>	8	107		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	25	1535		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	21	191		
<i>Culex restuans</i>	12	44		
<i>Culex salinarius</i>	6	25		
<i>Culex sp.</i>	29	277		
<i>Culex territans</i>	4	14		
<i>Culiseta melanura</i>	51	1128		
Cumberland	50	817	0	
<i>Aedes albopictus</i>	6	39		
<i>Aedes japonicus</i>	4	14		
<i>Aedes taeniorhynchus</i>	1	16		
<i>Aedes triseriatus</i>	1	2		
<i>Anopheles bradleyi</i>	1	18		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex erraticus</i>	5	22		
<i>Culex pipiens</i>	9	277		
<i>Culex restuans</i>	3	54		
<i>Culex salinarius</i>	2	100		
<i>Culex sp.</i>	9	229		
<i>Culiseta melanura</i>	8	45		
Essex	54	405	0	
<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>	21	293		
<i>Psorophora ferox</i>	2	15		
Gloucester	75	1161	0	
<i>Aedes albopictus</i>	3	13		
<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>	49	1099		
Hudson	176	6067	15	2.47

	<i>Aedes albopictus</i>	48	241		
	<i>Aedes triseriatus</i>	2	2		
	<i>Aedes trivittatus</i>	1	1		
	<i>Culex sp.</i>	125	5823	15	2.58
Hunterdon		104	4619	2	0.43
	<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>	76	3511	2	0.57
	<i>Culex territans</i>	2	9		
Mercer		129	1982	4	2.02
	<i>Aedes albopictus</i>	21	256		
	<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>	54	811	3	3.70
	<i>Culex restuans</i>	23	384		
	<i>Culex salinarius</i>	3	7		
	<i>Culex sp.</i>	14	470	1	2.13
Middlesex		181	5249	7	1.33
	<i>Aedes albopictus</i>	7	61	1	16.39
	<i>Aedes canadensis canadensis</i>	5	35		
	<i>Aedes japonicus</i>	14	77		
	<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>	8	166		
	<i>Culex restuans</i>	12	436		
	<i>Culex salinarius</i>	6	77		
	<i>Culex sp.</i>	92	3863	6	1.55
	<i>Culex territans</i>	1	2		
	<i>Culiseta melanura</i>	3	11		
	<i>Psorophora columbiae</i>	1	1		
Monmouth		223	2260	1	0.44
	<i>Aedes albopictus</i>	16	49		
	<i>Aedes atlanticus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	4	240		
	<i>Aedes cantator</i>	6	21		
	<i>Aedes japonicus</i>	17	60	1	16.67
	<i>Aedes sollicitans</i>	4	29		
	<i>Aedes sticticus</i>	1	7		
	<i>Aedes taeniorhynchus</i>	2	4		

	<i>Aedes triseriatus</i>	13	21		
	<i>Aedes vexans</i>	11	146		
	<i>Anopheles punctipennis</i>	6	8		
	<i>Anopheles quadrimaculatus</i>	2	2		
	<i>Coquillettidia perturbans</i>	2	30		
	<i>Culex pipiens</i>	10	214		
	<i>Culex restuans</i>	18	267		
	<i>Culex salinarius</i>	5	21		
	<i>Culex sp.</i>	52	598		
	<i>Culex territans</i>	6	39		
	<i>Culiseta melanura</i>	44	500		
	<i>Psorophora ferox</i>	1	1		
	<i>Uranotaenia sapphirina</i>	2	2		
Morris		97	2155	0	
	<i>Aedes albopictus</i>	1	45		
	<i>Aedes canadensis canadensis</i>	13	485		
	<i>Aedes cinereus</i>	1	13		
	<i>Aedes japonicus</i>	16	89		
	<i>Aedes triseriatus</i>	2	3		
	<i>Aedes vexans</i>	2	36		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	3	3		
	<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>	31	741		
	<i>Orthopodomyia alba</i>	2	52		
	<i>Psorophora columbiae</i>	4	50		
Ocean		146	4143	6	1.45
	<i>Aedes albopictus</i>	14	98		
	<i>Aedes canadensis canadensis</i>	7	341		
	<i>Aedes japonicus</i>	15	123		
	<i>Aedes sticticus</i>	1	17		
	<i>Aedes triseriatus</i>	10	36		
	<i>Aedes vexans</i>	6	23		
	<i>Anopheles punctipennis</i>	3	15		
	<i>Coquillettidia perturbans</i>	3	7		
	<i>Culex pipiens</i>	5	152	3	19.74
	<i>Culex restuans</i>	9	167	2	11.98
	<i>Culex salinarius</i>	6	13		
	<i>Culex sp.</i>	59	3122	1	0.32
	<i>Culiseta melanura</i>	6	27		
	<i>Psorophora columbiae</i>	2	2		
Passaic		59	1990	4	2.01
	<i>Aedes albopictus</i>	2	21		
	<i>Aedes japonicus</i>	4	34		
	<i>Aedes triseriatus</i>	1	8		
	<i>Culex sp.</i>	52	1927	4	2.08
Salem		80	929	0	
	<i>Aedes albopictus</i>	2	4		

	<i>Aedes canadensis canadensis</i>	1	3		
	<i>Aedes thibaulti</i>	3	4		
	<i>Aedes triseriatus</i>	2	2		
	<i>Anopheles bradleyi</i>	4	7		
	<i>Anopheles punctipennis</i>	9	100		
	<i>Anopheles quadrimaculatus</i>	11	225		
	<i>Anopheles walkeri</i>	1	1		
	<i>Culex erraticus</i>	4	57		
	<i>Culex pipiens</i>	3	74		
	<i>Culex restuans</i>	1	2		
	<i>Culex salinarius</i>	3	33		
	<i>Culiseta melanura</i>	36	417		
Somerset		113	3016	1	0.33
	<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>Coquillettia 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		
Sussex		82	2690	1	0.37
	<i>Aedes japonicus</i>	1	2		
	<i>Coquillettia perturbans</i>	8	388		
	<i>Culex sp.</i>	73	2300	1	0.43
Union		80	1740	2	1.15
	<i>Aedes albopictus</i>	12	115	1	8.70
	<i>Aedes cantator</i>	1	1		
	<i>Aedes japonicus</i>	10	39		
	<i>Aedes triseriatus</i>	6	9		
	<i>Aedes vexans</i>	3	8		
	<i>Anopheles quadrimaculatus</i>	2	3		
	<i>Coquillettia perturbans</i>	2	4		
	<i>Culex pipiens</i>	3	51	1	19.61
	<i>Culex restuans</i>	1	2		
	<i>Culex salinarius</i>	3	160		
	<i>Culex sp.</i>	35	1346		
	<i>Psorophora columbiae</i>	2	2		
Warren		98	4168		
	<i>Aedes japonicus</i>	1	20		
	<i>Anopheles punctipennis</i>	1	2		
	<i>Coquillettia perturbans</i>	1	1		
	<i>Culex pipiens</i>	2	3		
	<i>Culex restuans</i>	3	19		
	<i>Culex sp.</i>	90	4123		

Grand Total		2422	57374	56	0.98
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