

VECTOR SURVEILLANCE SUMMARY SHEET
EEE and WNV in New Jersey
WEEK 8: July 22 to 28, 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.)	3.9	0.1	209	27	-	Waterford (Camden Co.)	0.5	0.4	327	26	-
Corbin City (Atlantic Co.)	1.0	0.2	314	32	-	Centerton (Salem Co.)	2.6	0.2	351	29	-
Dennisville (Cape May Co.)	4.4	0.4	1035	41	-	Turkey Swamp (Monmouth Co.)	1.8	0.9	337	34	-

*Including trial run last week in May.

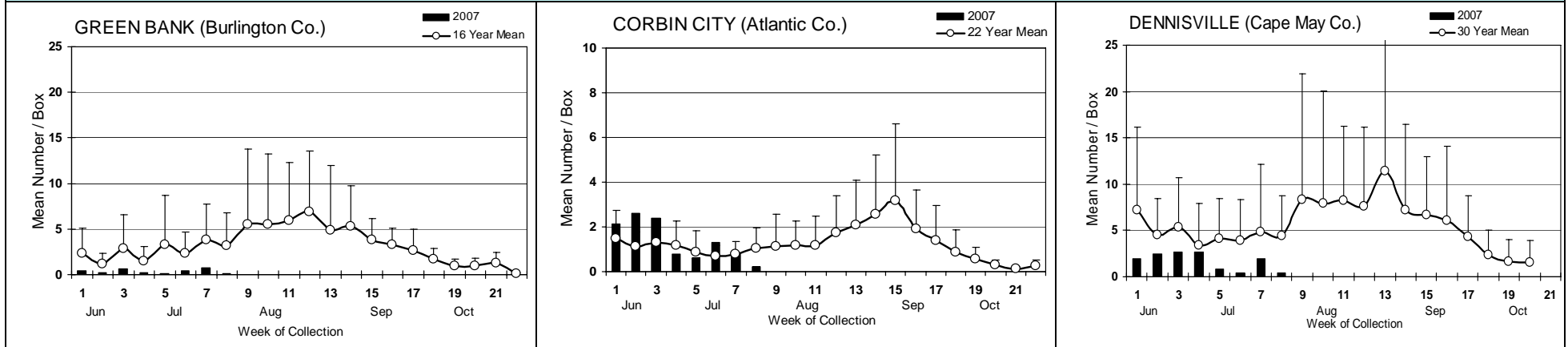
Remarks: *Culiseta melanura* populations dropped from the previous weeks at all three coastal sites while populations at two of the inland sites began to increase. All sites are below their respective historical means. All sites are within the historical standard deviation, with the exception of Centerton. EEE activity has been detected in states from Massachusetts to Florida.

To date, 189 pools have been tested for EEE and there have been no positive results.

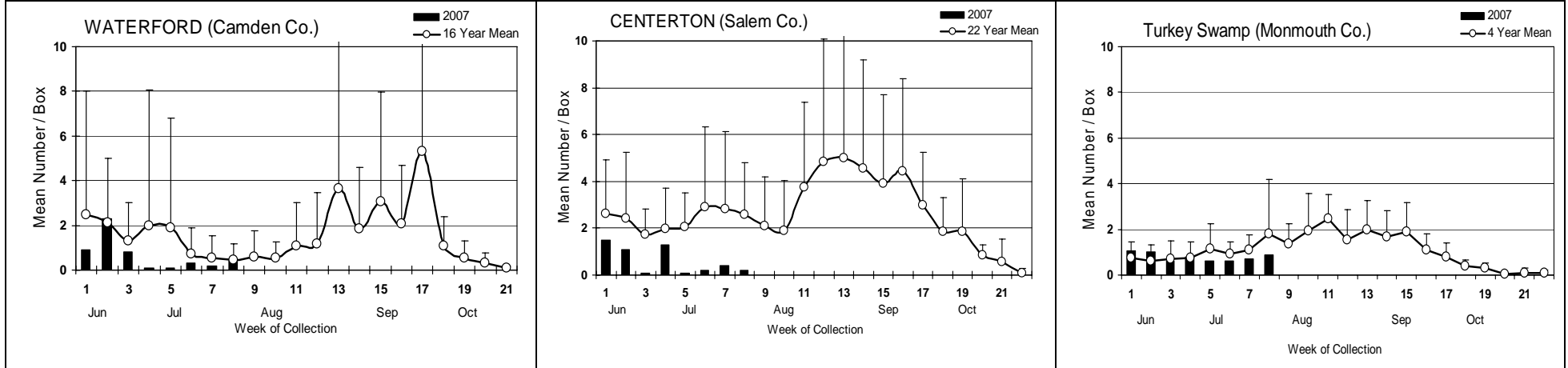
Supported by funding from the NJ State Mosquito Control Commission. Summary Prepared by Lisa M. Reed, Scott Crans and Dina Fonseca at the Center for Vector Biology, Rutgers University

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.

- equine: 1(AR) 11(FL) 1(VA)
- mosquito: 2(LA) 1(MA) 4(VA)
- sentinel: 42(87live wild bird)(FL) 2(VA)
- human: 0

Mosquito Species Submitted for West Nile Virus Testing through 27 July 2007

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	108	617		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes atropalpus</i>	3	6		
<i>Aedes canadensis canadensis</i>	31	693		
<i>Aedes cantator</i>	9	30		
<i>Aedes cinereus</i>	3	18		
<i>Aedes grossbecki</i>	1	1		
<i>Aedes japonicus</i>	119	671	1	1.49
<i>Aedes sollicitans</i>	5	31		
<i>Aedes sticticus</i>	8	249		
<i>Aedes stimulans</i>	1	3		
<i>Aedes taeniorhynchus</i>	3	10		
<i>Aedes thibaulti</i>	3	4		
<i>Aedes triseriatus</i>	53	119		
<i>Aedes trivittatus</i>	2	2		
<i>Aedes vexans</i>	30	375		
<i>Anopheles barberi</i>	2	2		
<i>Anopheles bradleyi</i>	15	109		
<i>Anopheles punctipennis</i>	33	132		
<i>Anopheles quadrimaculatus</i>	49	1631		
<i>Anopheles walkeri</i>	2	2		
<i>Coquillettidia perturbans</i>	39	929		
<i>Culex erraticus</i>	4	42		
<i>Culex pipiens</i>	115	1850	1	0.54
<i>Culex restuans</i>	81	1338		
<i>Culex salinarius</i>	25	141		
<i>Culex sp.</i>	672	27260	13	0.48
<i>Culex territans</i>	13	38		
<i>Culiseta melanura</i>	211	2693		
<i>Orthopodomyia alba</i>	2	52		
<i>Orthopodomyia signifera</i>	1	1		
<i>Psorophora columbiae</i>	4	50		
<i>Psorophora ferox</i>	4	45		
<i>Uranotaenia sapphirina</i>	3	3		
Grand Total	1655	39148	15	0.06

Remarks: To date, there have been 39,148 mosquitoes submitted for testing in 1,655 pools. Submissions are from 33 different species, including mixed *Culex* pools and are from 21 counties. West Nile virus activity took a jump this past week, with positive pools found in mixed *Culex* specimens as well as a *Culex pipiens* pool. This suggests that amplification is well underway in the avian hosts. Furthermore, a bridge vector (*Aedes japonicus*) with high competency for WN was found to be positive. An examination of WN activity from 2003-2006 indicates that human infection can occur as early as this week.

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

	Birds	Mosqs.	Sentinels	Horses	Humans
Alabama					2
Alaska					
Arizona	1/2	7/56	3/5	1	7
Arkansas	1				1
California	230/355	143/224	13	3	9/27
Colorado	7	88			2/6
Connecticut		1			
Delaware	3				
Florida	12 live		7/11		
Georgia					
Hawaii					
Idaho	2	3			4
Illinois		38/50			2/3
Indiana		18/20			
Iowa					1/2
Kansas					2
Louisiana		38			
Maine					
Maryland					
Massachusetts					
Michigan					
Minnesota		5			3
Mississippi	4	1			8
Missouri		40/55			
Montana					
Nebraska	1/5	2/18			2

	Birds	Mosqs.	Sentinels	Horses	Humans
Nevada					1
New Hampshire					
New Jersey	2	2/15			
New Mexico				1	
New York	1				
North Carolina					
North Dakota	4/7				8/14
Kentucky					
Ohio		9/11			
Oklahoma		2			
Oregon	2				
Pennsylvania		2			
Rhode Island					
South Carolina					
South Dakota		6/23		1	7/28
Tennessee	2			1	
Texas	5/8	22/34		2	1/2
Utah		1	1		1/2
Vermont					
Virginia		1/9		1	1
Washington					
West Virginia					
Wisconsin	7				
Wyoming					1/7

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 27 July 2007

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		81	1262	0	0
	<i>Aedes albopictus</i>	7	80		
	<i>Aedes vexans</i>	2	31		
	<i>Anopheles bradleyi</i>	1	1		
	<i>Coquillettidia perturbans</i>	2	7		
	<i>Culex erraticus</i>	1	26		
	<i>Culex restuans</i>	1	1		
	<i>Culex sp.</i>	18	713		
	<i>Culex territans</i>	3	3		
	<i>Culiseta melanura</i>	34	316		
	<i>Aedes canadensis canadensis</i>	1	26		
	<i>Aedes cantator</i>	2	7		
	<i>Aedes grossbecki</i>	1	1		
	<i>Aedes japonicus</i>	2	3		
	<i>Aedes sollicitans</i>	1	6		
	<i>Aedes taeniorhynchus</i>	1	6		
	<i>Aedes triseriatus</i>	2	5		
	<i>Orthopodomyia signifera</i>	1	1		
	<i>Psorophora ferox</i>	1	29		

Bergen	45	3236	5	
<i>Culex sp.</i>	43	3225	5	1.55
<i>Aedes japonicus</i>	2	11		
Burlington	133	893	0	
<i>Aedes albopictus</i>	14	88		
<i>Aedes vexans</i>	4	27		
<i>Anopheles barberi</i>	1	1		
<i>Anopheles bradleyi</i>	3	8		
<i>Anopheles punctipennis</i>	6	10		
<i>Anopheles quadrimaculatus</i>	1	1		
<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>	13	154		
<i>Culiseta melanura</i>	31	218		
<i>Aedes atropalpus</i>	3	6		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes japonicus</i>	12	26		
<i>Aedes sticticus</i>	1	1		
<i>Aedes triseriatus</i>	6	14		
<i>Psorophora ferox</i>	1	1		
Camden	100	1360	1	
<i>Aedes albopictus</i>	13	53		
<i>Anopheles punctipennis</i>	7	39		
<i>Anopheles quadrimaculatus</i>	5	5		
<i>Culex restuans</i>	1	1		
<i>Culex sp.</i>	28	885	1	1.13
<i>Culiseta melanura</i>	26	327		
<i>Aedes atlanticus</i>	1	1		
<i>Aedes canadensis canadensis</i>	1	1		
<i>Aedes japonicus</i>	11	36		
<i>Aedes triseriatus</i>	4	9		
<i>Aedes trivittatus</i>	2	2		
<i>Uranotaenia sapphirina</i>	1	1		
Cape_May	126	2959	0	
<i>Anopheles bradleyi</i>	6	68		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	23	1467		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex pipiens</i>	11	114		
<i>Culex restuans</i>	11	43		
<i>Culex salinarius</i>	5	24		
<i>Culex sp.</i>	19	159		

<i>Culex territans</i>	4	14		
<i>Culiseta melanura</i>	43	1063		
<i>Aedes cantator</i>	1	2		
<i>Aedes japonicus</i>	1	2		
Cumberland	20	332	0	
<i>Culex erraticus</i>	3	16		
<i>Culex pipiens</i>	7	232		
<i>Culex restuans</i>	2	17		
<i>Culex sp.</i>	3	39		
<i>Culiseta melanura</i>	4	23		
<i>Aedes japonicus</i>	1	5		
Essex	45	289	0	
<i>Aedes albopictus</i>	6	39		
<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>	16	184		
<i>Aedes canadensis canadensis</i>	2	4		
<i>Aedes japonicus</i>	4	18		
<i>Aedes stimulans</i>	1	3		
<i>Aedes triseriatus</i>	7	9		
<i>Psorophora ferox</i>	2	15		
Gloucester	46	709	0	
<i>Aedes albopictus</i>	3	13		
<i>Anopheles walkeri</i>	2	2		
<i>Culex pipiens</i>	28	664		
<i>Aedes japonicus</i>	13	30		
Hudson	117	4456	1	
<i>Aedes albopictus</i>	25	86		
<i>Culex sp.</i>	90	4368	1	0.23
<i>Aedes triseriatus</i>	2	2		
Hunterdon	51	2117	1	
<i>Anopheles punctipennis</i>	1	2		
<i>Culex sp.</i>	46	2041	1	0.49
<i>Aedes japonicus</i>	3	66		
<i>Aedes triseriatus</i>	1	8		
Mercer	101	1563	1	
<i>Aedes albopictus</i>	11	79		
<i>Culex pipiens</i>	44	692	1	1.45
<i>Culex restuans</i>	22	383		

<i>Culex salinarius</i>	3	7		
<i>Culex sp.</i>	8	360		
<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		
Middlesex	125	4016	3	
<i>Aedes albopictus</i>	3	30		
<i>Aedes vexans</i>	4	65		
<i>Anopheles barberi</i>	1	1		
<i>Anopheles bradleyi</i>	3	29		
<i>Anopheles punctipennis</i>	1	8		
<i>Anopheles quadrimaculatus</i>	3	8		
<i>Coquillettidia perturbans</i>	9	377		
<i>Culex pipiens</i>	4	41		
<i>Culex restuans</i>	8	302		
<i>Culex salinarius</i>	3	66		
<i>Culex sp.</i>	65	2988	3	1.00
<i>Culex territans</i>	1	2		
<i>Culiseta melanura</i>	3	11		
<i>Aedes canadensis canadensis</i>	5	35		
<i>Aedes japonicus</i>	9	47		
<i>Aedes sollicitans</i>	1	1		
<i>Aedes triseriatus</i>	2	5		
Monmouth	154	1262	1	
<i>Aedes albopictus</i>	7	13		
<i>Aedes vexans</i>	9	139		
<i>Anopheles punctipennis</i>	3	3		
<i>Anopheles quadrimaculatus</i>	2	2		
<i>Coquillettidia perturbans</i>	2	30		
<i>Culex pipiens</i>	5	14		
<i>Culex restuans</i>	12	111		
<i>Culex salinarius</i>	3	19		
<i>Culex sp.</i>	35	202		
<i>Culex territans</i>	4	18		
<i>Culiseta melanura</i>	36	361		
<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>	8	12		
<i>Uranotaenia sapphirina</i>	2	2		

Morris	63	1112	0	
<i>Aedes albopictus</i>	1	45		
<i>Aedes cinereus</i>	1	13		
<i>Aedes vexans</i>	2	36		
<i>Anopheles punctipennis</i>	1	1		
<i>Anopheles quadrimaculatus</i>	2	2		
<i>Coquillettidia perturbans</i>	1	2		
<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>Aedes canadensis canadensis</i>	2	14		
<i>Aedes japonicus</i>	9	34		
<i>Aedes triseriatus</i>	2	3		
<i>Orthopodomyia alba</i>	2	52		
<i>Psorophora columbiae</i>	4	50		
Ocean	93	2776	0	
<i>Aedes albopictus</i>	11	62		
<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>	41	2190		
<i>Culiseta melanura</i>	5	23		
<i>Aedes canadensis canadensis</i>	6	340		
<i>Aedes japonicus</i>	9	61		
<i>Aedes sticticus</i>	1	17		
<i>Aedes triseriatus</i>	6	12		
Passaic	47	1779	2	
<i>Aedes albopictus</i>	1	14		
<i>Culex sp.</i>	44	1752	2	1.14
<i>Aedes japonicus</i>	1	5		
<i>Aedes triseriatus</i>	1	8		
Salem	51	544	0	
<i>Anopheles bradleyi</i>	2	3		
<i>Anopheles punctipennis</i>	7	51		
<i>Anopheles quadrimaculatus</i>	8	130		
<i>Culex restuans</i>	1	2		
<i>Culiseta melanura</i>	29	351		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes thibaulti</i>	3	4		
Somerset	83	2002	0	

<i>Aedes cinereus</i>	2	5		
<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>	37	1426		
<i>Culex territans</i>	1	1		
<i>Aedes japonicus</i>	16	222		
<i>Aedes sticticus</i>	4	221		
<i>Aedes triseriatus</i>	7	26		
Sussex	52	1932	0	
<i>Coquillettidia perturbans</i>	8	388		
<i>Culex sp.</i>	43	1542		
<i>Aedes japonicus</i>	1	2		
Union	39	915	0	
<i>Aedes albopictus</i>	6	15		
<i>Culex sp.</i>	23	861		
<i>Aedes japonicus</i>	8	36		
<i>Aedes triseriatus</i>	2	3		
Warren	83	3634	0	
<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>	76	3609		
Grand Total	1655	39148	15	0.38