RUTGERS
New Jersey Agricultural Experiment Station

VECTOR SURVEILLANCE IN NEW JERSEY
EEE and WNV
CDC WEEK 26: June 22 to June 28, 2008

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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.)	1.5	0.1	17	11	0	Waterford (Camden Co.)	1.9	0	0	0	0
Corbin City (Atlantic Co.)	1.2	0.5	85	19	0	Centerton (Salem Co.)	1.9	0.5	75	15	0
Dennisville (Cape May Co.)	4.0	0.1	321	17	0	Turkey Swamp (Monmouth Co.)	0.8	0.3	40	12	0

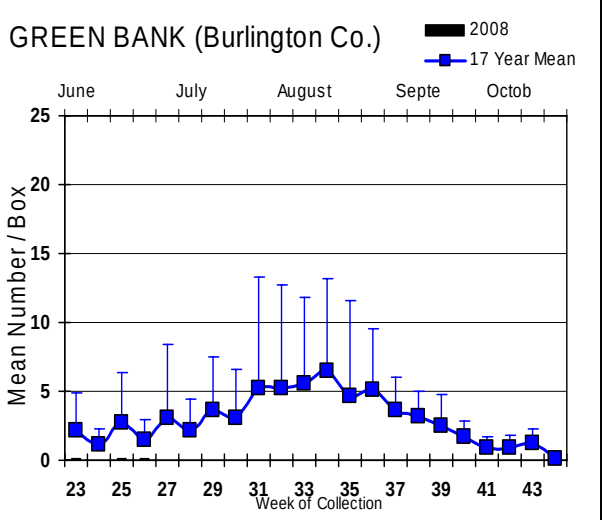
*Including trial run last week in May.

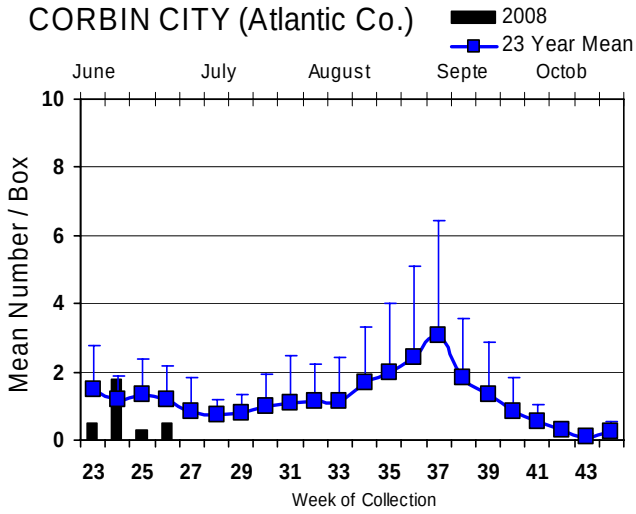
Remarks: *Culiseta melanura* populations continue to remain low at all resting box monitoring sites. There were no mosquitoes caught in the resting boxes at Waterford for the fourth week in a row. This lack of mosquitoes is a first for the seventeen years of records, but it is not entirely unusual. In 2002, five mosquitoes were caught (mean equals 0.1) during the first week, but then the next five weeks failed to show any mosquitoes at the Waterford site.

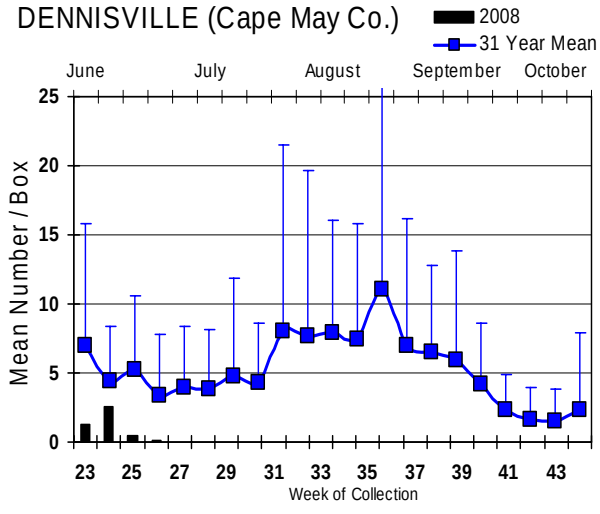
To date, 74 pools from 538 *Cs. melanura* mosquitoes have been sent for EEE testing from the resting box collections. No positives have been detected from these pools or from pools submitted by the counties. Twenty-two species other than *Cs. melanura* have also been tested and all pools were found to be negative. These species include: *Aedes albopictus, Ae. cinereus, Ae. vexans, Anopheles bradleyi, An. crucians, An. punctipennis, Coquillettidia perturbans, Culiseta inornata, Culex erraticus, Cx. pipiens, Cx. restuans, Mixed Culex, Cx. territans, Psorophora ciliata, Ps., ferox, and Uranotaenia sapphirina.*

Culiseta melanura Population Graphs

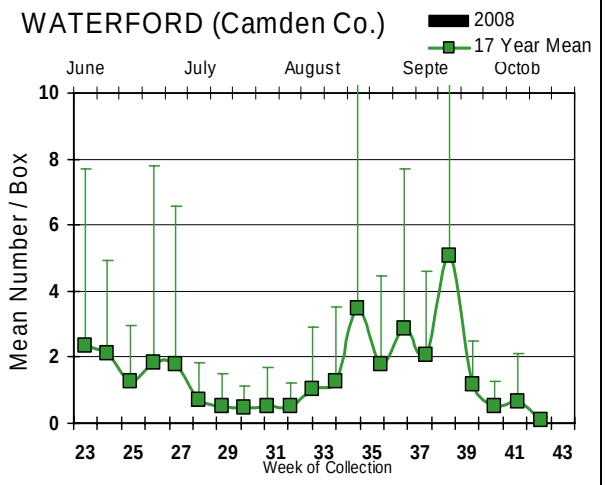
Coastal

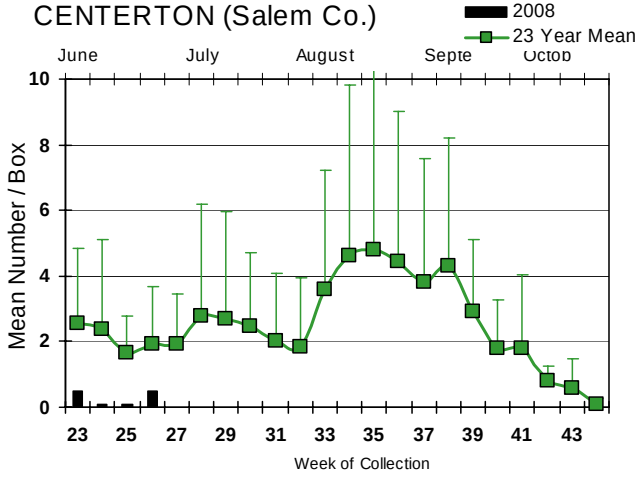


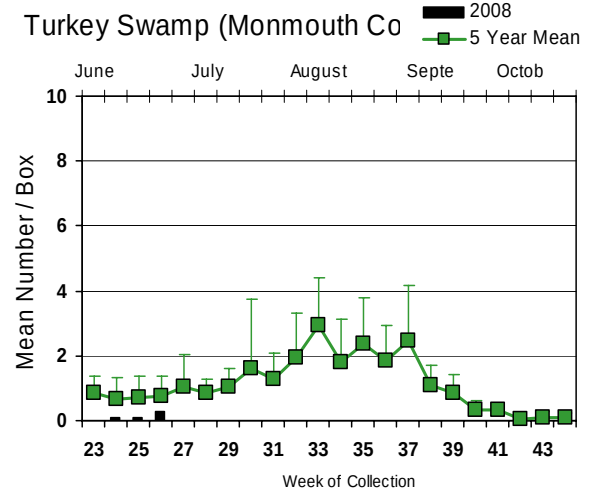




Inland







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 (2008 cumulative cases): (Red = new reported cases)

- equine: 2(AL), 45(FL), 10(GA)
- mosquito: 4(FL)
- sentinel: 3(AL), 46(FL, 31 wild)
- human:

West Nile Virus

West Nile in US (2008 cumulative cases): Single black values indicate no change from previous week. Black values / red values equals previous week/New totals.

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Alabama				1	
Alaska					
Arizona		2	9		1
Arkansas				1	
California	160/184	41/57	2	1	1
Colorado					2
Connecticut		1/2			
Delaware					
Florida	2 live		2	1	
Georgia					
Hawaii					
Idaho					
Illinois		5/8			
Indiana		2			
Iowa					
Kansas					
Kentucky					
Louisiana		251			
Maine					
Maryland					
Mass.					
Michigan	*				
Minnesota					
Mississippi					4/7
Missouri		86			
Montana					
Nebraska					

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Nevada					
New Hampshire					
New Jersey					
New Mexico					
New York		1			
North Carolina					
North Dakota				1	1/3
Ohio		1			
Oklahoma					2
Oregon					
Pennsylvania		1/5			
Rhode Island					
South Carolina	2				
South Dakota	1				1
Tennessee		4/6			1
Texas		11/17			3
Utah	1/2	7/14			
Vermont					
Virginia					
Washington					
West Virginia	2	3		1	
Wisconsin	1			1	
Wyoming					

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

Mosquito Species Submitted for West Nile Virus Testing through 1 July 2008

Species	Pools	Mosquitoes	Positives	MFIR
Aedes abserratus	1	9		
Aedes albopictus	19	83		
Aedes atlanticus	1	4		
Aedes canadensis canadensis	28	739		
Aedes cantator	17	241		
Aedes cinereus	1	3		
Aedes grossbecki	3	4		
Aedes japonicus	21	54		
Aedes sollicitans	5	100		
Aedes sticticus	4	83		
Aedes taeniorhynchus	3	13		
Aedes thibaulti	3	11		
Aedes triseriatus	12	37		
Aedes vexans	32	895		

Anopheles bradleyi	15	504		
Anopheles crucians	1	2		
Anopheles punctipennis	23	190		
Anopheles quadrimaculatus	10	275		
Coquillettidia perturbans	17	224		
Culex erraticus	2	3		
Culex pipiens	64	1309		
Culex restuans	88	2061		
Culex salinarius	39	1028		
Culex spp.	92	3849		
Culex territans	3	7		
Culiseta inornata	1	3		
Culiseta melanura	84	667		
Orthopodomyia signifera	2	10		
Psorophora ciliata	1	1		
Psorophora columbiae	1	2		
Psorophora ferox	6	74		
Psorophora howardii	1	4		
Uranotaenia sapphirina	1	2		
Grand Total	601	12491		

Remarks: Submitted pools (601) comprised of 12941 individual mosquitoes continue to be negative for the presence of West Nile virus. Submissions are from 32 different species and are from 11 counties. Last year, the first positive pool occurred on 28th June 2007, in a Mixed *Culex* pool from Camden County.

Humans, Horses and Wild Birds: No vertebrate cases have been reported. To date, there have been 39 dead birds submitted for West Nile virus testing, none positive. By this time last year, there had been 41 birds submitted for testing with one positive corvid (a Blue Jay) found on the 18th of June in Ocean County.

2008 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year
0/601	1 / 502

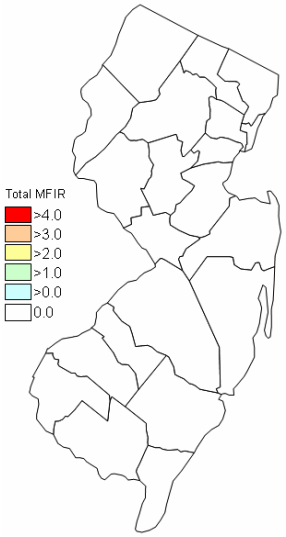
WNV Results by County through 1 July 2008

County	Species	Pools	Mosquitoes	Positives
Atlantic		**53**	**999**	**0**
	Aedes albopictus	2	20	
	Aedes canadensis canadensis	1	1	
	Aedes cantator	1	15	
	Aedes thibaulti	1	5	
	Aedes triseriatus	2	6	
	Aedes vexans	2	9	
	Anopheles bradleyi	1	24	
	Anopheles punctipennis	2	2	
	Culex restuans	1	1	
	Culex sp.	2	32	
	Culex territans	17	793	
	Culiseta melanura	1	4	
Bergen		**40**	**801**	**0**
	Aedes albopictus	1	1	

	Aedes vexans	3	9	
	Coquillettidia perturbans	5	130	
	Culex pipiens	13	176	
	Culex restuans	9	93	
	Culex salinarius	9	392	
Burlington		**67**	**651**	**0**
	Aedes albopictus	1	1	
	Aedes canadensis canadensis	7	177	
	Aedes cantator	2	67	
	Aedes cinereus	1	3	
	Aedes grossbecki	1	1	
	Aedes sollicitans	1	18	
	Aedes sticticus	1	3	
	Aedes triseriatus	3	3	
	Aedes vexans	10	125	
	Anopheles bradleyi	1	2	
	Anopheles crucians	1	2	
	Anopheles punctipennis	2	5	
	Coquillettidia perturbans	4	37	
	Culex erraticus	1	1	
	Culex pipiens	1	10	
	Culex restuans	1	3	
	Culex sp.	9	122	
	Culex territans	2	3	
	Culiseta inornata	1	3	
	Culiseta melanura	12	50	
	Orthopodomyia signifera	1	9	
	Psorophora ciliata	1	1	
	Psorophora ferox	2	3	
	Uranotaenia sapphirina	1	2	
Camden		**41**	**894**	**0**
	Aedes albopictus	5	18	
	Aedes japonicus	4	11	
	Aedes vexans	2	39	
	Anopheles punctipennis	3	15	
	Culex pipiens	5	162	
	Culex restuans	12	422	
	Culex salinarius	2	13	
	Culex sp.	6	212	
	Culiseta melanura	1	1	
	Orthopodomyia signifera	1	1	
Cape_May		**107**	**2570**	**0**
	Aedes canadensis canadensis	4	71	
	Aedes cantator	8	82	
	Aedes japonicus	5	13	
	Aedes sollicitans	3	81	
	Aedes taeniorhynchus	2	8	
	Aedes triseriatus	1	1	
	Aedes vexans	2	13	
	Anopheles bradleyi	9	406	
	Anopheles punctipennis	4	96	
	Anopheles quadrimaculatus	5	246	
	Coquillettidia perturbans	2	26	

	Culex erraticus	1	2	
	Culex pipiens	8	151	
	Culex restuans	21	607	
	Culex salinarius	10	423	
	Culex sp.	3	16	
	Culiseta melanura	19	328	
Gloucester		**53**	**1433**	**0**
	Aedes abserratus	1	9	
	Aedes albopictus	1	3	
	Aedes canadensis canadensis	6	237	
	Aedes japonicus	4	10	
	Aedes thibaulti	1	5	
	Aedes vexans	2	7	
	Anopheles bradleyi	1	1	
	Anopheles punctipennis	2	6	
	Culex pipiens	17	599	
	Culex restuans	12	540	
	Culex salinarius	4	11	
	Culiseta melanura	2	15	
Middlesex		**28**	**794**	**0**
	Aedes japonicus	2	7	
	Aedes triseriatus	1	3	
	Culex pipiens	4	73	
	Culex restuans	4	56	
	Culex spp.	17	655	
Monmouth		**54**	**266**	**0**
	Aedes albopictus	1	1	
	Aedes canadensis canadensis	2	2	
	Aedes cantator	2	3	
	Aedes japonicus	1	1	
	Aedes vexans	2	2	
	Anopheles punctipennis	2	3	
	Coquillettidia perturbans	2	2	
	Culex pipiens	11	61	
	Culex restuans	14	145	
	Culex salinarius	5	6	
	Culiseta melanura	12	40	
Ocean		**69**	**1892**	**0**
	Aedes albopictus	7	35	
	Aedes canadensis canadensis	3	72	
	Aedes japonicus	4	9	
	Aedes triseriatus	1	7	
	Aedes vexans	1	1	
	Anopheles punctipennis	1	4	
	Coquillettidia perturbans	1	3	
	Culex pipiens	4	75	
	Culex restuans	11	157	
	Culex salinarius	4	15	
	Culex sp.	29	1451	
	Culiseta melanura	3	63	

Salem		**78**	**1581**	**0**
	Aedes albopictus	3	18	
	Aedes atlanticus			
	Aedes canadensis canadensis			
	Aedes cantator			
	Aedes grossbecki			
	Aedes japonicus			
	Aedes sollicitans			
	Aedes sticticus			
	Aedes triseriatus			
	Aedes vexans			
	Anopheles bradleyi			
	Anopheles punctipennis			
	Anopheles quadrimaculatus	3	18	
	Coquillettidia perturbans	2	2	
	Culex pipiens			
	Culex restuans	1	1	
	Culex salinarius			
	Culiseta melanura			
	Psorophora columbiae	15	83	
	Psorophora ferox			
	Psorophora howardii			
Warren		**11**	**600**	**0**
	Culex spp.	11	600	
Grand Total		**601**	**12491**	**0**



Activity this week.

RAMP (Rapid Analyte Measurement Platform). More than half of the counties in New Jersey are incorporating the use of RAMP results in their vector surveillance programs. Counties participate with the PHEL Lab in monitoring the efficacy and sensitivity of the RAMP results by sending in samples to be confirmed. Note that not all samples sent in by the counties equal the number of RAMP tests done.

RAMP Results for 28 June 2008

County	Species	Pools	Mosquitoes	Positives	PHEL (submitted/+/-)
Monmouth		**75**	**671**		
	Aedes albopictus	4	11		
	Aedes canadensis	8	38		
	Aedes cantator	3	13		
	Aedes japonicus	11	42		
	Aedes sollicitans	1	1		
	Aedes triseriatus	3	6		
	Aedes trivittatus	1	1		
	Anopheles punctipennis	2	2		
	Coquillettidia perturbans	1	1		
	Culex spp.	28	467		
	Culex pipiens	12	88		
	Culiseta melanura	1	1		
Warren		**1608**	**39**		
	Culex restuans	4	1		
	Culex spp.	1604	38	**2**	**9/0/2**