

VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV and CHIK

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CDC WEEK 24: 14 June to 20 June, 2015

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This New Jersey Agricultural Experiment Station report is supported by Rutgers University, Hatch funds, funding from the NJ State Mosquito Control Commission and with the participation of the Department of Health, Department of Agriculture and of the 21 county mosquito control agencies of New Jersey.

Culiseta melanura and Eastern Equine Encephalitis

SITE/Boxes	Inland or Coastal	Historic Population Mean	Current Weekly Mean	Total Tested* (Collected)	Total Pools Tested* (Submitted)	EEE Isolation Pools	MFIR
Bass River (Burlington Co.)/5	Coastal	0.07	0.20	3 (4)	2 (3)		
Green Bank (Burlington Co.)/25	Coastal	1.97	0.12	18 (21)	2 (3)		
Corbin City (Atlantic Co.)/25	Coastal	1.16	1.44	23 (59)	1 (2)		
Dennisville (Cape May Co.)/50	Coastal	4.50	0.50	98	3		
Winslow (Camden Co.)/50	Inland	4.42	3.60	434	10		
Centerton (Salem Co.)/50	Inland	1.53	0.46	204	6		
Turkey Swamp (Monmouth Co.)/50	Inland	0.51	0.08	(37) (41)	(1) (2)		
Glassboro (Gloucester Co.)/36	Inland	0.90	0.31	67	3		

*Current week (in parentheses) results pending.

Remarks: Currently, there is no detection of EEE in the samples tested to date.

Traditional Resting Box Sites: No EEE positive *Cs. melanura* pools were detected at the state resting box sites since the season began. To date, 855 *Cs. melanura* from 29 pools have been tested for EEE with an additional 4 pools containing 44 *Cs. melanura* remain to be tested.

Additional <i>Cs. melanura</i> trapped by counties *traps with positives indicated in BOLD .				
County	Trap types*	Number collected (pools)	Number of positive pools	MFIR
Burlington	CO ₂	320 (5)		
Cape May	GR, RB	8 (3)		
Cumberland	CO ₂ , RB	34 (3)		
Middlesex	RB	14 (1)		
Ocean	RB	5 (2)		
TOTAL		381 (14)		

Additional *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas. Additional pools from these sites were not positive.

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes cantator</i>	2	8		
<i>Aedes sollicitans</i>	1	2		
<i>Coquillettidia perturbans</i>	9	171		
<i>Culex pipiens</i>	19	143		
<i>Culex salinarius</i>	1	2		
<i>Culex</i> sp.	2	4		
State Total	34	330		

Additional Species: Six (+) additional species were tested for EEE and no positives were detected.

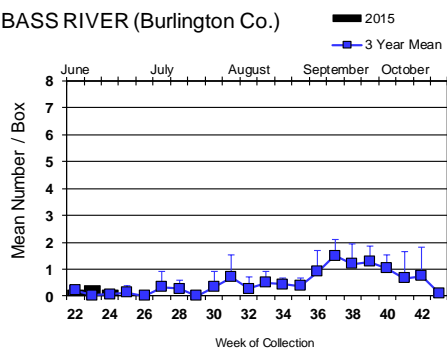
Horses and Humans: No horses or humans have been reported with EEE.

Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

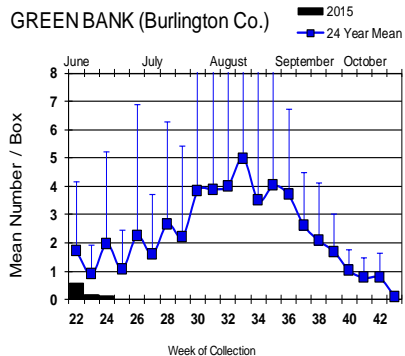
Culiseta melanura Population Graphs

Coastal

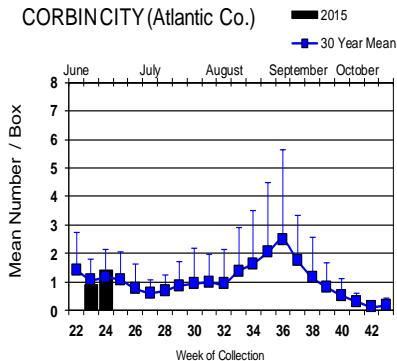
BASS RIVER (Burlington Co.)



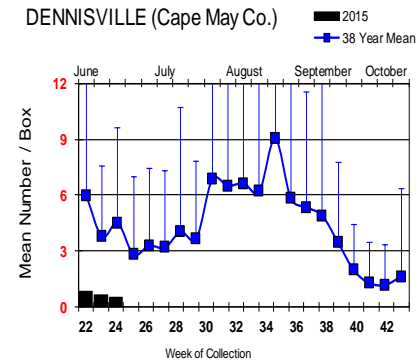
GREEN BANK (Burlington Co.)



CORBINCITY (Atlantic Co.)

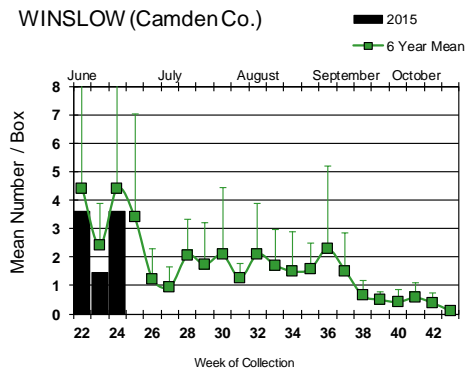


DENNISVILLE (Cape May Co.)

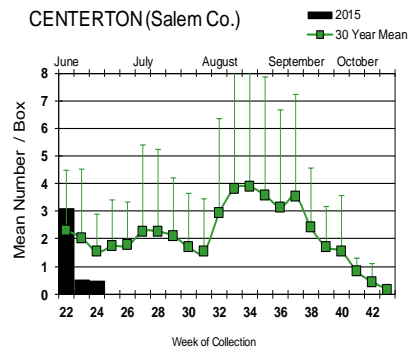


Inland

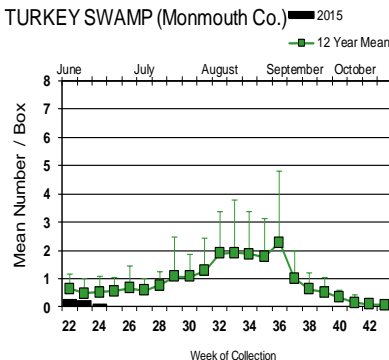
WINSLOW (Camden Co.)



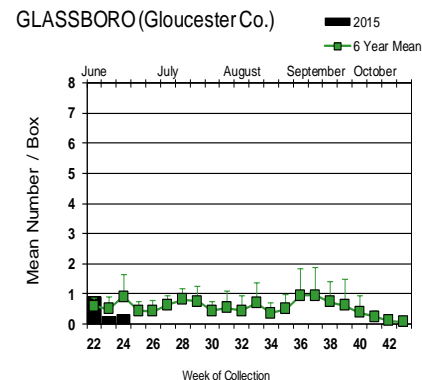
CENTERTON (Salem Co.)



TURKEY SWAMP (Monmouth Co.)



GLASSBORO (Gloucester Co.)



No populations of *Cs. melanura* at the traditional resting box sites were significantly above historical averages in the past week.

= Positive pool(s) detected (red = melanura, purple = other species).

EEE in US (2015 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: FL(6)
- mosquito pools:
- sentinel: FL(30)
- human:

West Nile Virus Positive Organisms in US, 2015

West Nile in US (2015 cumulative cases): Single black values indicate no change from previous week. Black values / red values equals previous week/**New totals**.
 Note: Data reported by all states should be considered provisional and subject to change. Sources for this table can be found [here](#).

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Alabama					
Alaska					
Arizona	0	2		0	0
Arkansas				0	0
California	61/77	84/119	1		0
Colorado		0			0
Connecticut		0			0
Delaware					0
DC					0
Florida			7/8		
Georgia	0	0		0	0
Hawaii					
Idaho	0	0		0	0
Illinois	0	1		0	0
Indiana	0	1			0
Iowa					
Kansas		0			1
Kentucky				0	
Louisiana					
Maine					
Maryland					
Mass.		0		0	0
Michigan	3				
Minnesota					
Mississippi		0		0	0
Missouri		0		0	0

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana					
Nebraska	0	0		0	0
Nevada					
New Hampshire					
New Jersey	0	0		0	0
New Mexico					1
New York					
North Carolina					
North Dakota	0	0		0	0
Ohio		2			
Oklahoma					2
Oregon	0	0	0	0	0
Pennsylvania	1	2/4			
Rhode Island		0		0	0
South Carolina					
South Dakota					
Tennessee		6			
Texas		7/19			1/3
Utah					
Vermont					
Virginia					
Washington	2	0		0	0
West Virginia					
Wisconsin	3	0		0	0
Wyoming					

* Can include other species (e.g., dogs, cows) reported positive.

Protocol: New Jersey Department of Health (NJDH Public Health Environmental and Agricultural Laboratories, PHEAL) and the Cape May County Department of Mosquito Control tests mosquito pools using RT-PCR Taqman techniques.

Mosquito Species Submitted and Tested for West Nile Virus Testing through 22 June 2015

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	5	6		
<i>Aedes atlanticus</i>	1	6		
<i>Aedes canadensis canadensis</i>	5	19		
<i>Aedes cantator</i>	4	60		
<i>Aedes japonicus</i>	32	111		
<i>Aedes sollicitans</i>	1	2		
<i>Aedes triseriatus</i>	2	21		
<i>Aedes trivittatus</i>	1	2		
<i>Aedes vexans</i>	2	76		
<i>Anopheles quadrimaculatus</i>	6	94		
<i>Coquillettidia perturbans</i>	10	172		
<i>Culex erraticus</i>	1	1		
<i>Culex pipiens</i>	21	219		
<i>Culex restuans</i>	40	391		
<i>Culex salinarius</i>	1	2		
<i>Culex</i> sp.	109	3758		
<i>Culiseta melanura</i>	44	1241		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora ferox</i>	1	1		
Grand Total	287	6183		

Remarks: To date, 287 pools of 6,183 mosquitoes from 18 species have been tested, with no positive pools detected..

Humans, Horses and Wild Birds: No human cases of WNV have been reported. For further information, see <http://www.state.nj.us/health/cd/westnile/techinfo.shtml>.

No horse cases have been detected.

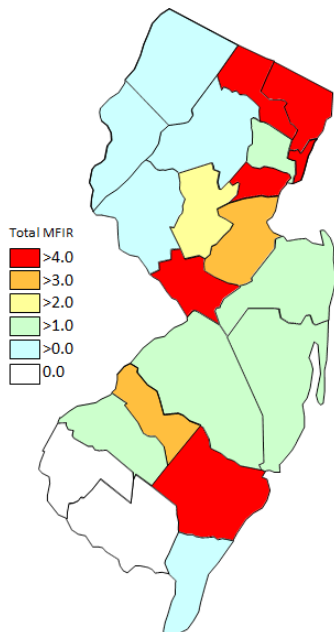
Bird testing began in mid-April. No positive birds have been reported. To date, 10 birds have been tested. Species includes: American Crow (*Corvus brachyrhynchos* 0/1) Fish Crow (*Corvus ossifragus* 0/3), Blue Jay (*Cyanocitta cristata* 0/1), Hawk/Raptor (0/1) and other avian species (0/4). Counties (positives) submitting birds are Atlantic, Essex, Hunterdon, Mercer, Morris, Ocean, Salem and Warren.

WNV Results by County through 22 June 2015

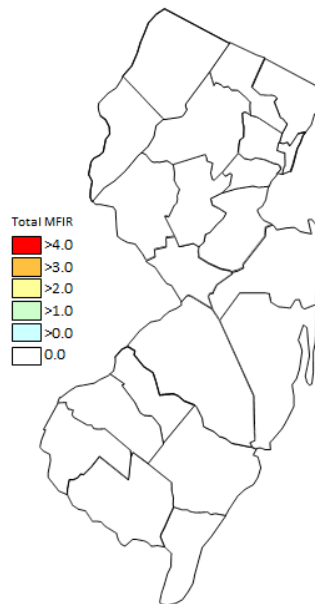
County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		12	276		
	<i>Aedes japonicus</i>	3	5		
	<i>Coquillettidia perturbans</i>	2	11		
	<i>Culex</i> spp.	6	237		
	<i>Culiseta melanura</i>	1	23		
Burlington		14	508		
	<i>Culex</i> spp.	5	167		
	<i>Culiseta melanura</i>	9	341		
Camden		25	1017		

	<i>Aedes albopictus</i>	1	2		
	<i>Aedes japonicus</i>	2	9		
	<i>Culex</i> spp.	11	571		
	<i>Culiseta melanura</i>	10	434		
	<i>Psorophora ferox</i>	1	1		
Cape May		88	684		
	<i>Aedes canadensis canadensis</i>	2	2		
	<i>Aedes cantator</i>	2	8		
	<i>Aedes japonicus</i>	20	65		
	<i>Aedes triseriatus</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	4	75		
	<i>Coquillettidia perturbans</i>	5	154		
	<i>Culex pipiens</i>	19	143		
	<i>Culex restuans</i>	27	126		
	<i>Culex salinarius</i>	1	2		
	<i>Culex</i> spp.	1	2		
	<i>Culiseta melanura</i>	6	106		
Cumberland		15	174		
	<i>Aedes atlanticus</i>	1	6		
	<i>Aedes cantator</i>	1	2		
	<i>Aedes japonicus</i>	1	6		
	<i>Aedes sollicitans</i>	1	2		
	<i>Aedes trivitattus</i>	1	2		
	<i>Aedes vexans</i>	1	75		
	<i>Anopheles quadrimaculatus</i>	2	19		
	<i>Coquillettidia perturbans</i>	1	5		
	<i>Culex</i> spp.	2	22		
	<i>Culiseta melanura</i>	3	34		
	<i>Psorophora ciliata</i>	1	1		
Essex		11	62		
	<i>Aedes japonicus</i>	3	3		
	<i>Culex</i> spp.	8	59		
Gloucester		3	67		
	<i>Culiseta melanura</i>	3	67		
Hunterdon		8	400		
	<i>Culex</i> spp.	8	400		
Mercer		15	341		
	<i>Aedes vexans</i>	1	1		
	<i>Culex pipiens</i>	2	76		
	<i>Culex restuans</i>	12	264		
Middlesex		17	992		
	<i>Aedes albopictus</i>	3	3		
	<i>Culex</i> spp.	13	975		
	<i>Culiseta melanura</i>	1	14		
Monmouth		15	159		
	<i>Aedes canadensis canadensis</i>	3	17		
	<i>Aedes cantator</i>	1	50		

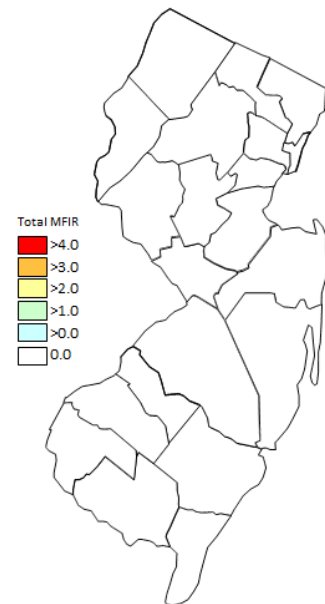
	<i>Coquillettidia perturbans</i>	1	1		
	<i>Culex erraticus</i>	1	1		
	<i>Culex</i> spp.	6	77		
	<i>Culiseta melanura</i>	3	13		
Morris		15	450		
	<i>Culex</i> spp.	15	450		
Ocean		13	216		
	<i>Aedes japonicus</i>	3	23		
	<i>Culex</i> spp.	8	188		
	<i>Culiseta melanura</i>	2	5		
Salem		12	263		
	<i>Aedes albopictus</i>	1	1		
	<i>Coquillettidia perturbans</i>	1	1		
	<i>Culex restuans</i>	1	1		
	<i>Culex</i> spp.	3	56		
	<i>Culiseta melanura</i>	6	204		
Somerset		10	281		
	<i>Culex</i> spp.	10	281		
Sussex		9	196		
	<i>Aedes triseriatus</i>	1	20		
	<i>Culex</i> spp.	8	176		
Warren		5	97		
	<i>Culex</i> spp.	5	97		
Grand Total		287	6183		



Cumulative WNV activity in 2014.



WNV activity to 15 June 2015.



WNV activity last week, 2015.

Grand Total		4	4	4	4	4	4	4	4		
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Chikungunya (CHIK) to 22 June 2015.

New Jersey will be selectively testing for CHIK this year. Chikungunya is similar in symptoms to Dengue, a “breakbone” fever and has a low mortality rate. But this virus has had recent worldwide activity, and in the past year has come to the Western Hemisphere. As with Dengue, transmission can occur when a mosquito bites an infected human, then bites an uninfected human who subsequently becomes ill. CHIK is an alphavirus with *Aedes* mosquitoes as potential vectors. In New Jersey, *Aedes albopictus* is the mosquito of interest.

No pools have tested positive in 2015. Currently, there are 9 imported human cases reported in New Jersey.

County	Species	Pools	Mosquitoes	Positives	MFIR
Middlesex		3	3		
	<i>Aedes albopictus</i>	3	3		
Salem		1	1		
	<i>Aedes albopictus</i>	1	1		
Grand Total		4	4		