

VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV and CHIK

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CDC WEEK 40: 28 September to 4 October, 2014

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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	1.25	0.60	30 (33)	7 (8)		
Green Bank (Burlington Co.)/25	Coastal	1.00	1.32	334 (367)	18 (19)	1	2.99
Corbin City (Atlantic Co.)/25	Coastal	0.54	0.20	310 (315)	17 (18)		
Dennisville (Cape May Co.)/50	Coastal	1.31	0.08	447	19	5	11.19
Winslow (Camden Co.)/50	Inland	0.36	0.36	1240	34	3	2.42
Centerton (Salem Co.)/50	Inland	1.57	0.60	602	21	2	3.32
Turkey Swamp (Monmouth Co.)/50	Inland	0.32	0.42	199 (220)	18 (19)	1	5.02
Glassboro (Gloucester Co.)/50	Inland	0.13	0.28	546	19		

*Current week (in parentheses) results pending.

Remarks: One additional positive EEE mosquito pool has been detected this past week at the Centerton resting box site. Total number of positive EEE pools is 32, 31 in *Cs. melanura* and 1 in *Culex salinarius*. Statewide, for all 14,783 mosquitoes tested, MFIR is 2.16, up from 2.14 of the previous week.

Traditional Resting Box Sites: One new EEE positive *Cs. melanura* pools were detected, at Centerton in Salem County. To date, 3708 *Cs. melanura* from 153 pools have been tested for EEE at the traditional resting box sites. Overall MFIR for these traditional sites is 3.24, up from 3.14 of the previous week. Four additional pools containing 62 *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
Atlantic	CO ₂ , Gravid	27 (7)		
Burlington	CO₂	5070 (114)	11	2.170
Cape May	Gravid, RB	261 (22)	4	15.236
Cumberland	CO ₂ , RB	141 (20)	1	7.092
Gloucester	RB	888 (76)	1	1.126
Monmouth	Other	4 (2)		
Ocean	CO₂, Gravid, RB	110 (24)	2	18.18
Salem	CO ₂	9 (5)		
TOTAL		6510 (270)	19	2.919

Additional *Cs. melanura*:

Counties submit additional pools of *Cs. melanura* caught in other trap types as well as resting boxes. No additional positive pools were detected this week. Virus was first detected in these additional pools from a Gloucester County resting box sampled on 23 July.

Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	3	11		
<i>Aedes atlanticus</i>	1	5		
<i>Aedes canadensis canadensis</i>	13	254		
<i>Aedes cantator</i>	8	12		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	5	16		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	6	57		
<i>Aedes taeniorhynchus</i>	4	30		
<i>Aedes triseriatus</i>	8	32		
<i>Aedes vexans</i>	7	47		
<i>Anopheles bradleyi</i>	16	403		
<i>Anopheles crucians</i>	3	17		
<i>Anopheles punctipennis</i>	41	846		
<i>Anopheles quadrimaculatus</i>	31	825		
<i>Coquillettidia perturbans</i>	47	778		
<i>Culex erraticus</i>	23	176		
<i>Culex pipiens</i>	46	382		
<i>Culex restuans</i>	4	16		
<i>Culex salinarius</i>	37	558	1	1.792
<i>Culex</i> spp.	15	81		
<i>Culex territans</i>	1	1		
<i>Culiseta morsitans</i>	1	1		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	2	14		
State Total	325	4565	1	0.219

Additional Species: Counties submit additional pools of species other than *Cs. melanura* for EEE virus testing. First detection into non-*melanura* species has occurred with a positive pool of *Culex salinarius*, collected in Burlington County on 16 Sep.

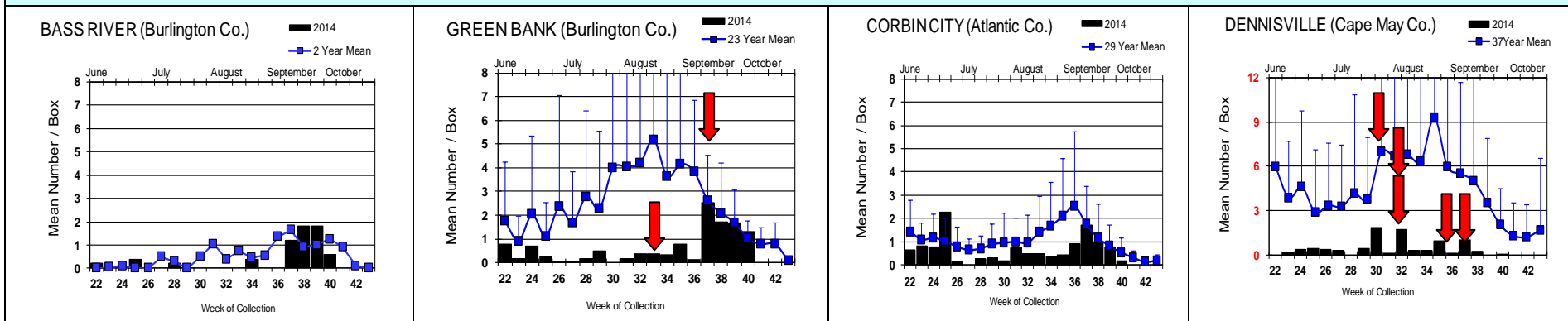
Horses and Humans: Three horses have been reported with EEE: Earliest onset date is on 11 Aug, 2014 for a 4 yo mare in Gloucester County, died 14 Sep. Second case with onset date of 11 Sep for a 2 yo mare in Ocean County, euthanized same date. Third case with onset date of 21 Sep 2014 for a 6 yo gelding in Burlington County, euthanized same date. Vaccination history for all horses was either uncertain or not done.

No human cases have been reported.

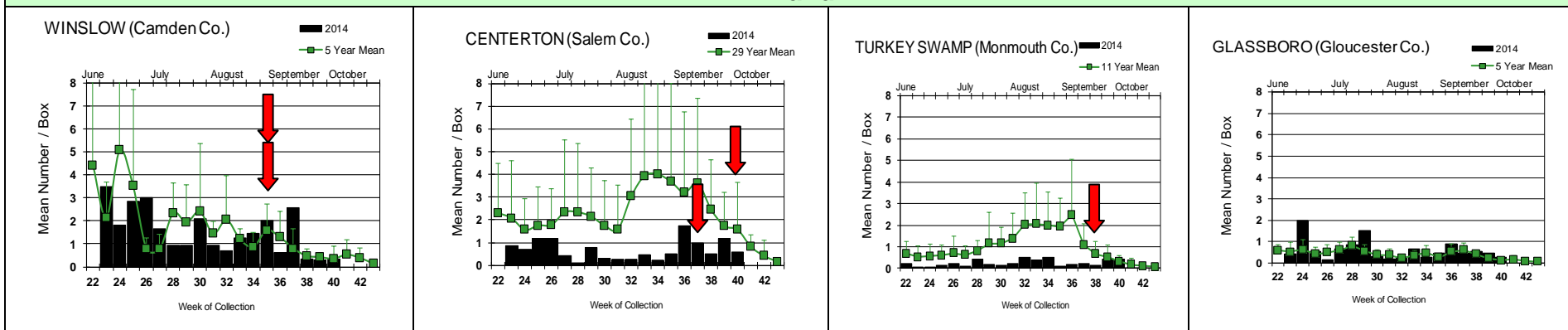
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

Culiseta melanura Population Graphs

Coastal



Inland



Populations of *Cs. melanura* are declining while detection of EEE continues. Latest detection occurred at the Centerton resting box site. EEE has been detected in a non-*melanura* species. Due diligence is required when in the habitat of *Cs. melanura* or potential bridge vectors.

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

EEE in US (2014 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: AL(5) FL (53 +2 deer) GA(8) LA(10) MA(1) ME(1) MI(5) MS(1) NC(9) NH(2) NJ(3) NY(10) SC(7) TX(3) VA(1)
- mosquito pools: GA(1) LA(1) MA(33) MD(1) ME(15) NH(18) NJ(32) NY(86) VA(108) VT(6)
- sentinel: AL(3) FL(158) GA(1) ME(1 emu) NC(2) VA(33/3 cassowaries)
- human: AL(1) NH(2) NY(2)

West Nile Virus Positive Organisms in US

West Nile in US (2014 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			1	1	1
Alaska					
Arizona	1	277		3	48
Arkansas					4/5
California	2155/2253	3047/3139	361	10/14	375
Colorado	3	195		3/4	79/90
Connecticut		64			3/4
Delaware	2/3		3		
DC					2/3
Florida			91/114	5	5/7
Georgia	0	25			8/10
Hawaii					
Idaho		62		5/6	18/19
Illinois	34/36	1210/1238			19/28
Indiana		157/163			3/4
Iowa		9		2/3	11
Kansas		1			16/23
Kentucky				2/3	
Louisiana		910/921	42/52	1	118/123
Maine		0		0	0
Maryland		28		1	2
Mass.		56		0	3
Michigan	14/19	9		1	1
Minnesota	2	19/21		2	6/9
Mississippi		67		1	40/43
Missouri	1/ 2	34/43		9	9/10

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana		12		3/4	4/5
Nebraska	5/6	246/248		0	81/99
Nevada		95/96			2/3
New Hampshire		1		0	0
New Jersey	18	602/617		0	3
New Mexico		2		3/4	11/14
New York		722/741		1	13/16
North Carolina					
North Dakota	0	6		4*	21
Ohio		313			6
Oklahoma		5			13
Oregon	6/7	58	0	3	7
Pennsylvania	13/14	1402/1419		1	6
Rhode Island		2			
South Carolina	1				
South Dakota	1	75		1	49
Tennessee	0	598/664		0	9/10
Texas	74	1901		4	156
Utah	2	159	1	3	1
Vermont		8		0	0
Virginia		130	15		1/3
Washington	0	80		4	7/8
West Virginia	1	6/7		0	0
Wisconsin	25	3		2	5/8
Wyoming	1	12		3	5

* 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 6 October 2014

Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes albopictus</i>	867	8203	11	1.341
<i>Aedes atlanticus</i>	4	10		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	45	666		
<i>Aedes cantator</i>	20	213		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	515	3085	5	1.621
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sollicitans</i>	12	107		
<i>Aedes sticticus</i>	3	7		
<i>Aedes taeniorhynchus</i>	17	364		
<i>Aedes triseriatus</i>	157	593	1	1.686
<i>Aedes trivittatus</i>	15	67		
<i>Aedes vexans</i>	64	434		
<i>Anopheles bradleyi</i>	33	826		
<i>Anopheles crucians</i>	3	17		
<i>Anopheles punctipennis</i>	101	1192		
<i>Anopheles quadrimaculatus</i>	88	1682		
<i>Coquillettidia perturbans</i>	93	1201		
<i>Culex erraticus</i>	75	535	1	1.869
<i>Culex pipiens</i>	603	18331	52	2.837
<i>Culex restuans</i>	268	5676	24	4.228
<i>Culex salinarius</i>	44	581		
<i>Culex spp.</i>	3351	127087	515	4.052
<i>Culex territans</i>	5	5		
<i>Culiseta melanura</i>	453	10197	8	0.785
<i>Culiseta morsitans</i>	1	1		
<i>Orthopodomyia signifera</i>	1	1		
<i>Psorophora ciliata</i>	4	4		
<i>Psorophora columbiae</i>	17	177		
<i>Psorophora ferox</i>	12	207		
State Total	6874	181476	617	3.400

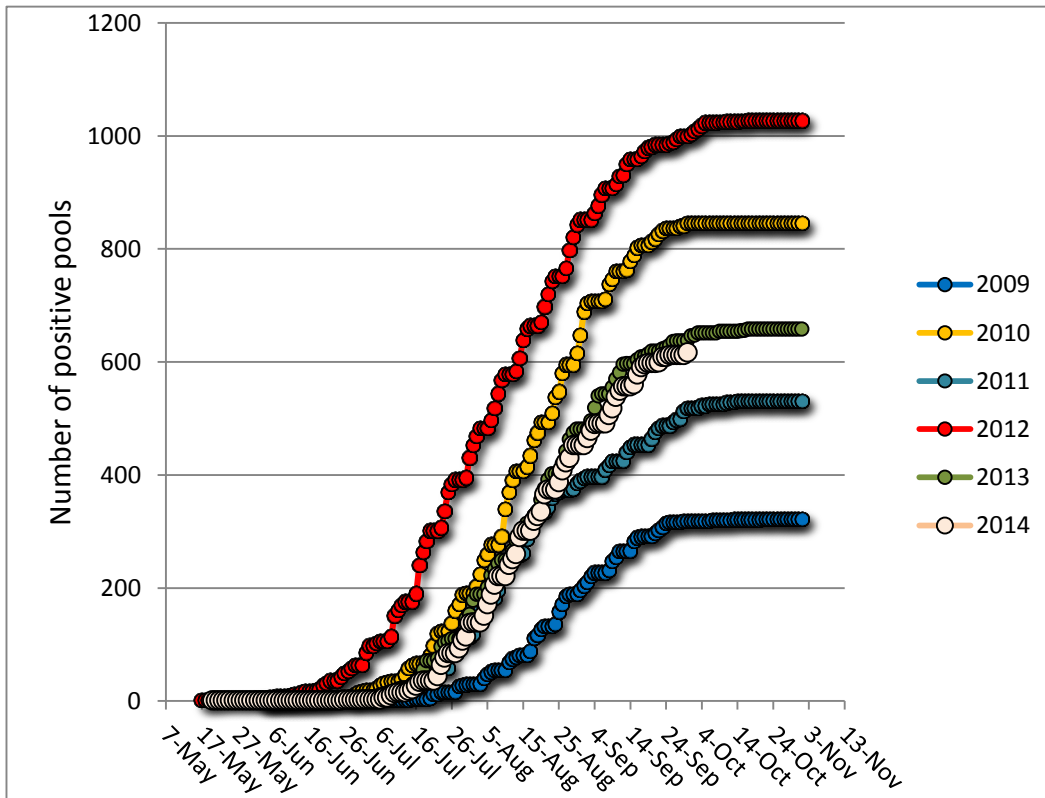
Remarks: To date, 6874 pools of 181,476 mosquitoes from 30 species have been tested, with 617 positive pools detected. *Culex erraticus*, collected 9 Sep in Mercer County has been found positive. First positive was detected in a Mixed *Culex* pool collected on 20 May in Camden County. Nineteen counties have detected positive pools, including Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren Counties. Overall MFIR for the state has increased from 3.385 to 3.400.

Humans, Horses and Wild Birds: Three human cases of WNV have occurred, one each in Gloucester, Hudson and Monmouth Counties. 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. First positive bird (Fish Crow in Mercer County collected 8 July) has been reported. To date, 110 birds have been tested, with 18 positives. Species includes: American Crow (*Corvus brachyrhynchos* 3/3) Fish Crow (*Corvus ossifragus* 10/34), Blue Jay (*Cyanocitta cristata* 2/12), Hawk/Raptor (1/7), unidentified corvid (1/4) and other

avian species (1/50). Counties (positives) submitting birds are Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, Union and Warren.



The graph above shows cumulative positive pools for this and the previous 5 years in New Jersey. It appears that 2014 is similar to 2013 with regard to the number and rate of positive pools detected.

WNV Results by County through 6 October 2014

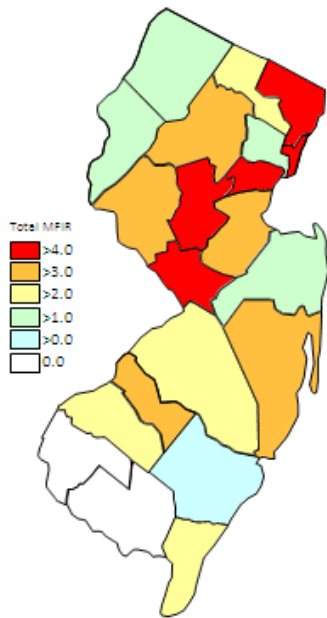
County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		171	3750	19	5.067
	<i>Aedes albopictus</i>	29	276	1	3.623
	<i>Aedes atlanticus</i>	1	1		
	<i>Aedes canadensis canadensis</i>	4	27		
	<i>Aedes cantator</i>	3	10		
	<i>Aedes japonicus</i>	8	40		
	<i>Aedes sollicitans</i>	2	6		
	<i>Aedes sticticus</i>	1	1		
	<i>Aedes taeniorhynchus</i>	6	247		
	<i>Aedes vexans</i>	6	56		
	<i>Anopheles bradleyi</i>	4	13		
	<i>Anopheles punctipennis</i>	2	4		
	<i>Anopheles quadrimaculatus</i>	3	10		
	<i>Coquillettidia perturbans</i>	5	24		
	<i>Culex erraticus</i>	2	25		
	<i>Culex spp.</i>	64	2544	18	7.075
	<i>Culiseta melanura</i>	25	340		
	<i>Psorophora ferox</i>	6	126		
Bergen		244	17577	138	7.851
	<i>Aedes albopictus</i>	9	52	1	19.231
	<i>Aedes japonicus</i>	3	199		
	<i>Anopheles punctipennis</i>	1	1		
	<i>Culex spp.</i>	231	17325	137	7.908

Burlington	446	10962	15	1.368
<i>Aedes albopictus</i>	47	329		
<i>Aedes atlanticus</i>	1	5		
<i>Aedes canadensis canadensis</i>	10	247		
<i>Aedes cinereus</i>	1	1		
<i>Aedes japonicus</i>	34	283		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes taeniorhynchus</i>	4	30		
<i>Aedes triseriatus</i>	15	78		
<i>Aedes trivittatus</i>	1	41		
<i>Aedes vexans</i>	10	97		
<i>Anopheles bradleyi</i>	9	261		
<i>Anopheles punctipennis</i>	3	13		
<i>Anopheles quadrimaculatus</i>	2	23		
<i>Coquillettidia perturbans</i>	8	143		
<i>Culex erraticus</i>	9	59		
<i>Culex pipiens</i>	3	3		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	22	407		
<i>Culex spp.</i>	122	3490	10	2.865
<i>Culiseta melanura</i>	139	5434	5	0.920
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	3	15		
Camden	398	10223	35	3.424
<i>Aedes albopictus</i>	26	53		
<i>Aedes japonicus</i>	106	443	1	2.257
<i>Culex spp.</i>	232	8487	34	4.006
<i>Culiseta melanura</i>	34	1240		
Cape May	502	5476	6	1.096
<i>Aedes albopictus</i>	39	286		
<i>Aedes atropalpus</i>	1	5		
<i>Aedes canadensis canadensis</i>	9	12		
<i>Aedes cantator</i>	8	12		
<i>Aedes japonicus</i>	24	77		
<i>Aedes taeniorhynchus</i>	1	50		
<i>Aedes triseriatus</i>	20	91		
<i>Aedes vexans</i>	1	1		
<i>Anopheles bradleyi</i>	7	142		
<i>Anopheles quadrimaculatus</i>	21	588		
<i>Coquillettidia perturbans</i>	3	52		
<i>Culex erraticus</i>	7	66		
<i>Culex pipiens</i>	193	2410	3	1.245
<i>Culex restuans</i>	107	925	1	1.081
<i>Culex salinarius</i>	10	78		
<i>Culex spp.</i>	5	9		
<i>Culex territans</i>	4	4		
<i>Culiseta melanura</i>	41	667	2	2.999
<i>Orthopodomyia signifera</i>	1	1		
Cumberland	204	3128		
<i>Aedes albopictus</i>	5	11		
<i>Aedes atlanticus</i>	2	4		
<i>Aedes canadensis canadensis</i>	1	2		

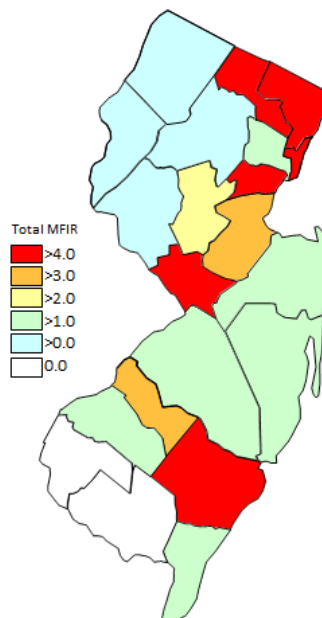
<i>Aedes japonicus</i>	5	5		
<i>Aedes sollicitans</i>	6	57		
<i>Aedes taeniorhynchus</i>	3	32		
<i>Aedes triseriatus</i>	1	12		
<i>Aedes vexans</i>	16	151		
<i>Anopheles bradleyi</i>	12	409		
<i>Anopheles punctipennis</i>	20	176		
<i>Anopheles quadrimaculatus</i>	10	109		
<i>Coquillettidia perturbans</i>	11	334		
<i>Culex erraticus</i>	2	23		
<i>Culex pipiens</i>	2	11		
<i>Culex salinarius</i>	6	83		
<i>Culex</i> spp.	69	1403		
<i>Culiseta melanura</i>	22	157		
<i>Psorophora ciliata</i>	3	3		
<i>Psorophora columbiae</i>	7	145		
<i>Psorophora ferox</i>	1	1		
Essex	265	2795	5	1.789
<i>Aedes albopictus</i>	22	78		
<i>Aedes japonicus</i>	39	125		
<i>Aedes triseriatus</i>	5	9		
<i>Aedes trivittatus</i>	7	17		
<i>Aedes vexans</i>	1	4		
<i>Anopheles quadrimaculatus</i>	6	7		
<i>Coquillettidia perturbans</i>	1	1		
<i>Culex</i> spp.	182	2552	5	1.959
<i>Psorophora ferox</i>	2	2		
Gloucester	608	18936	35	1.848
<i>Aedes albopictus</i>	106	1369	2	1.461
<i>Aedes japonicus</i>	15	193	1	5.181
<i>Aedes triseriatus</i>	9	70		
<i>Aedes vexans</i>	1	4		
<i>Anopheles punctipennis</i>	36	856		
<i>Anopheles quadrimaculatus</i>	27	816		
<i>Coquillettidia perturbans</i>	6	41		
<i>Culex pipiens</i>	313	14177	31	2.187
<i>Culiseta melanura</i>	95	1410	1	0.709
Hudson	177	8492	79	9.303
<i>Aedes albopictus</i>	14	220	2	9.091
<i>Culex</i> spp.	163	8272	77	9.309
Hunterdon	284	12968	9	0.694
<i>Culex</i> spp.	284	12968	9	0.694
Mercer	496	9987	62	6.208
<i>Aedes albopictus</i>	122	915		
<i>Aedes canadensis canadensis</i>	2	5		
<i>Aedes japonicus</i>	51	166	1	6.024
<i>Aedes triseriatus</i>	10	28	1	35.714
<i>Aedes vexans</i>	5	48		
<i>Culex erraticus</i>	3	8	1	125.000
<i>Culex pipiens</i>	88	1724	18	10.441

	<i>Culex restuans</i>	156	4745	23	4.847
	<i>Culex salinarius</i>	2	8		
	<i>Culex</i> spp.	57	2340	18	7.692
Middlesex		369	13337	53	3.974
	<i>Aedes albopictus</i>	67	494	3	6.073
	<i>Aedes triseriatus</i>	2	14		
	<i>Culex</i> spp.	300	12829	50	3.897
Monmouth		499	6995	10	1.430
	<i>Aedes albopictus</i>	159	2055		
	<i>Aedes canadensis canadensis</i>	14	273		
	<i>Aedes cantator</i>	6	56		
	<i>Aedes japonicus</i>	51	171		
	<i>Aedes sollicitans</i>	4	44		
	<i>Aedes taeniorhynchus</i>	3	5		
	<i>Aedes triseriatus</i>	17	43		
	<i>Aedes trivitatus</i>	7	9		
	<i>Aedes vexans</i>	14	41		
	<i>Anopheles punctipennis</i>	21	29		
	<i>Anopheles quadrimaculatus</i>	7	13		
	<i>Coquillettidia perturbans</i>	6	6		
	<i>Culex erraticus</i>	9	19		
	<i>Culex restuans</i>	2	2		
	<i>Culex salinarius</i>	1	1		
	<i>Culex</i> spp.	149	4006	10	2.496
	<i>Culex territans</i>	1	1		
	<i>Culiseta melanura</i>	22	215		
	<i>Culiseta morsitans</i>	1	1		
	<i>Psorophora columbiae</i>	4	4		
	<i>Psorophora ferox</i>	1	1		
Morris		292	11773	9	0.764
	<i>Aedes albopictus</i>	6	81		
	<i>Coquillettidia perturbans</i>	4	200		
	<i>Culex</i> spp.	282	11492	9	0.783
Ocean		396	4663	7	1.501
	<i>Aedes albopictus</i>	96	1170		
	<i>Aedes canadensis canadensis</i>	4	97		
	<i>Aedes cantator</i>	3	135		
	<i>Aedes japonicus</i>	63	276	2	7.246
	<i>Aedes sticticus</i>	2	6		
	<i>Aedes triseriatus</i>	18	55		
	<i>Aedes vexans</i>	9	29		
	<i>Anopheles crucians</i>	3	17		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	20	103		
	<i>Culex erraticus</i>	9	13		
	<i>Culex salinarius</i>	3	4		
	<i>Culex</i> spp.	114	2532	5	1.975
	<i>Culiseta melanura</i>	49	148		
	<i>Psorophora ferox</i>	2	77		
Passaic		167	4405	19	4.313

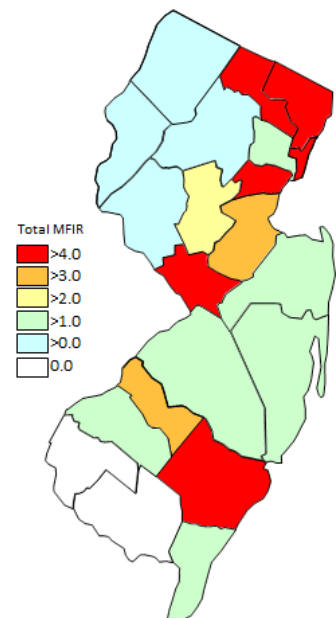
	<i>Aedes albopictus</i>	16	48		
	<i>Aedes japonicus</i>	39	352		
	<i>Aedes triseriatus</i>	10	18		
	<i>Aedes vexans</i>	1	3		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	2	12		
	<i>Culex</i> spp.	98	3971	19	4.785
Salem		352	3384		
	<i>Aedes albopictus</i>	72	443		
	<i>Aedes japonicus</i>	29	66		
	<i>Aedes triseriatus</i>	32	60		
	<i>Anopheles bradleyi</i>	1	1		
	<i>Anopheles punctipennis</i>	13	78		
	<i>Anopheles quadrimaculatus</i>	6	80		
	<i>Coquillettidia perturbans</i>	26	268		
	<i>Culex erraticus</i>	34	322		
	<i>Culex pipiens</i>	4	6		
	<i>Culex restuans</i>	2	3		
	<i>Culex</i> spp.	104	1458		
	<i>Culiseta melanura</i>	26	586		
	<i>Psorophora columbiae</i>	3	13		
Somerset		262	5048	12	2.377
	<i>Aedes albopictus</i>	10	39		
	<i>Aedes canadensis canadensis</i>	1	3		
	<i>Aedes japonicus</i>	19	226		
	<i>Aedes triseriatus</i>	5	21		
	<i>Anopheles punctipennis</i>	1	2		
	<i>Culex</i> spp.	226	4757	12	2.523
Sussex		256	6802	3	0.441
	<i>Aedes japonicus</i>	13	279		
	<i>Aedes triseriatus</i>	8	77		
	<i>Anopheles punctipennis</i>	2	8		
	<i>Anopheles quadrimaculatus</i>	2	27		
	<i>Coquillettidia perturbans</i>	1	17		
	<i>Culex</i> spp.	230	6394	3	0.469
Union		209	10518	94	8.937
	<i>Aedes albopictus</i>	16	191	2	10.471
	<i>Aedes japonicus</i>	6	84		
	<i>Culex</i> spp.	187	10243	92	8.982
Warren		277	10257	7	0.682
	<i>Aedes albopictus</i>	6	93		
	<i>Aedes japonicus</i>	10	100		
	<i>Aedes triseriatus</i>	5	17		
	<i>Anopheles punctipennis</i>	2	25		
	<i>Anopheles quadrimaculatus</i>	2	7		
	<i>Culex</i> spp.	252	10015	7	0.699
Grand Total		6874	181476	617	3.400



Cumulative WNV activity in 2013.



WNV activity to 6 October 2014.



WNV activity last week, 2014.

Saint Louis Encephalitis (SLE) to 6 October 2014.

New Jersey will be selectively testing for SLE this year. SLE has had previous activity in New Jersey, most notably in 1964 and 1975 (CDC's SLE [website](#)), the latter prompting the surveillance reporting by Rutgers. SLE is a flavivirus and has a similar transmission pattern to West Nile, with *Culex* species as the predominant vectors.

No pools have been detected positive for SLE in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		157	3749		
	<i>Aedes albopictus</i>	6	48		
	<i>Aedes japonicus</i>	28	249		
	<i>Aedes triseriatus</i>	1	1		
	<i>Culex erraticus</i>	1	3		
	<i>Culex pipiens</i>	3	3		
	<i>Culex restuans</i>	1	1		
	<i>Culex</i> spp.	117	3444		
Cape May		44	369		
	<i>Culex pipiens</i>	5	9		
	<i>Culex</i> spp.	44	369		
Grand Total		206	4127		

La Crosse Encephalitis (LAC) through 6 October 2014.

New Jersey will be selectively testing for La Crosse (LAC) virus this year. New Jersey has had 3 cases of this encephalitic disease since 1964 (see CDC's LAC [website](#)). The mortality is low but like other encephalitides, LAC can have both personal (lasting neurological sequelae) and economic impacts. LAC is a bunyavirus with a

transmission cycle involving mosquitoes such as *Aedes triseriatus* and small mammals such as squirrels and chipmunks. LAC can not only infect *Aedes albopictus* but transovarial transmission was also demonstrated. (Tesh and Gubler 1975 Laboratory studies of transovarial transmission of La Crosse and other arboviruses by *Aedes albopictus* and *Culex fatigans*. American Journal of Tropical Medicine and Hygiene 24(5):876-880).

No pools have been detected positive for LAC in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		56	482		
	<i>Aedes albopictus</i>	25	185		
	<i>Aedes canadensis canadensis</i>	9	172		
	<i>Aedes japonicus</i>	7	47		
	<i>Aedes triseriatus</i>	15	78		
Cape May		21	98		
	<i>Aedes triseriatus</i>	20	91		
	<i>Culex pipiens</i>	1	7		
Salem		14	29		
	<i>Aedes triseriatus</i>	14	29		
Grand Total		91	609		

Dengue (DENV) to 6 October 2014.

New Jersey will be selectively testing for DENV (including serotypes) this year. Dengue has not had a history of local transmission here in New Jersey, but each year, travelers can bring virus back from areas in the world with virus activity. This is significant as humans are NOT dead-end hosts and thus there is the potential for local transmission (i.e., New Jersey mosquitoes biting a sick person and then biting and transmitting the disease to someone else) to be established. DENV is a flavivirus but unlike WNV, *Aedes* mosquitoes are predominant vectors. In New Jersey, *Aedes albopictus* is a candidate for local transmission. There are 4 serotypes tested for Dengue. There are currently 32 imported human cases in New Jersey, no local transmission.

Note Same pools of *Ae. albopictus* were tested for the four serotypes of Dengue as well as Chikungunya.

No pools have been detected positive for DENV in 2014.

County	Species	DENV1		DENV2		DENV3		DENV4		Positives	MFIR
		Pool	Mos.	Pool	Mos.	Pool	Mos.	Pool	Mos.		
Atlantic		26	267	26	267	26	267	25	261		
	<i>Aedes albopictus</i>	26	267	26	267	26	267	25	261		
Bergen		9	52	9	52	9	52	9	52		
	<i>Aedes albopictus</i>	9	52	9	52	9	52	9	52		
Burlington		20	128	20	128	20	128	20	128		
	<i>Aedes albopictus</i>	20	128	20	128	20	128	20	128		
Camden		18	43	18	43	18	43	18	43		
	<i>Aedes albopictus</i>	18	43	18	43	18	43	18	43		
Cape May		25	261	25	261	25	261	25	261		
	<i>Aedes albopictus</i>	25	261	25	261	25	261	25	261		
Cumberland		4	10	4	10	4	10	4	10		
	<i>Aedes albopictus</i>	4	10	4	10	4	10	4	10		
Gloucester		94	1124	94	1124	94	1124	94	1124		
	<i>Aedes albopictus</i>	94	1124	94	1124	94	1124	94	1124		
Hudson		14	220	14	220	14	220	14	220		
	<i>Aedes albopictus</i>	14	220	14	220	14	220	14	220		
Mercer		105	842	105	842	105	842	105	842		
	<i>Aedes albopictus</i>	105	842	105	842	105	842	105	842		
Middlesex		66	494	66	494	66	494	66	494		
	<i>Aedes albopictus</i>	65	486	65	486	65	486	65	486		
	<i>Culex spp.</i>	1	8	1	8	1	8	1	8		
Monmouth		109	1783	109	1783	109	1783	109	1783		
	<i>Aedes albopictus</i>	109	1783	109	1783	109	1783	109	1783		
Morris		2	24	2	24	2	24	2	24		
	<i>Aedes albopictus</i>	2	24	2	24	2	24	2	24		

Ocean		1	25	1	25	1	25	1	25		
	<i>Aedes albopictus</i>	1	25	1	25	1	25	1	25		
Passaic		1	2	1	2	1	2	1	2		
	<i>Aedes albopictus</i>	1	2	1	2	1	2	1	2		
Salem		68	431	68	431	68	431	68	431		
	<i>Aedes albopictus</i>	68	431	68	431	68	431	68	431		
Somerset		4	10	4	10	4	10	4	10		
	<i>Aedes albopictus</i>	4	10	4	10	4	10	4	10		
Warren		5	76	5	76	5	76	5	76		
	<i>Aedes albopictus</i>	5	76	5	76	5	76	5	76		
Grand Total		571	5792	571	5792	571	5792	570	5786		

Chikungunya (CHIK) to 6 October 2014.

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. There are currently 109 imported human cases in New Jersey, no local transmission.

No pools have been detected positive for CHIK in 2014.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		26	267		
	<i>Aedes albopictus</i>	26	267		
Bergen		9	52		
	<i>Aedes albopictus</i>	9	52		
Burlington		20	128		
	<i>Aedes albopictus</i>	20	128		
Camden		18	43		
	<i>Aedes albopictus</i>	18	43		
Cape May		25	261		
	<i>Aedes albopictus</i>	25	261		
Cumberland		4	10		
	<i>Aedes albopictus</i>	4	10		
Gloucester		94	1124		
	<i>Aedes albopictus</i>	94	1124		
Hudson		14	220		
	<i>Aedes albopictus</i>	14	220		
Mercer		105	842		
	<i>Aedes albopictus</i>	105	842		
Middlesex		66	494		
	<i>Aedes albopictus</i>	65	486		
	<i>Culex spp.</i>	1	8		
Monmouth		109	1783		
	<i>Aedes albopictus</i>	109	1783		
Morris		2	24		
	<i>Aedes albopictus</i>	2	24		
Ocean		1	25		
	<i>Aedes albopictus</i>	1	25		
Passaic		1	2		
	<i>Aedes albopictus</i>	1	2		
Salem		68	431		
	<i>Aedes albopictus</i>	68	431		
Somerset		4	10		
	<i>Aedes albopictus</i>	4	10		

Warren	5	76		
<i>Aedes albopictus</i>	5	76		
Grand Total	571	5792		