VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE and LAC

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CDC WEEK 42: October 14 to October 20, 2012

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Culiseta melanura and Eastern Equine Encephalitis

SITE/Boxes	Inland / Coastal	Historic Population Mean	Current Weekly Mean	Total (Collected) Tested*	Total Pools (Submitted) Tested	EEE Isolation Pools	MFIR
Bass River (Burlington Co.)/10	**Coastal**	na	0	72	10		
Green Bank (Burlington Co.)/25	**Coastal**	0.83	0.12	(524) 521	(18) 17	1	1.92
Corbin City (Atlantic Co.)/25	**Coastal**	0.09	0.08	(216) 214	(19) 18		
Dennisville (Cape May Co.)/50	**Coastal**	1.83	0	192	17	3	15.62
Winslow (Camden Co.)/50	**Inland**	0.19	0.40	2006	51	8	3.99
Centerton (Salem Co.)/50	**Inland**	0.45	0.10	547	23	3	5.48
Turkey Swamp (Monmouth Co.)/48	**Inland**	0.09	0.02	675‡	24	2	2.96
Glassboro (Gloucester Co.)/50	**Inland**	0.11	0.18	238	20	1	4.20

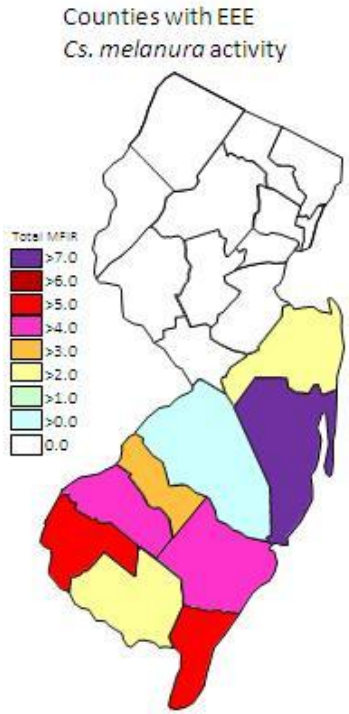
*Including trial run last week in May. ‡ Incomplete, to be updated.

Remarks: At the traditional resting box sites, there were no new detections of EEE pools in *Cs. melanura*. To date, 18 positives have occurred at these sites. A total of 33 positive pools including 13 *Cs. melanura* at other sites (one new positive *Cs. melanura* pools detected, see below) and 2 additional positive pools from another species (see next pages) have been detected in New Jersey this season.

To date 4465 *Cs. melanura* from 180 pools have been tested from the traditional resting box sites, with two additional pools in the system to be tested, for an MFIR of 4.03. Thirteen positive pools of *Cs. melanura* in traps set by individual counties have been detected for a county site MFIR of 1.84 (see below). Overall *Cs. melanura* MFIR value for the state is 2.69.

Additional *Cs. melanura*: Four hundred twenty-six additional pools containing 7072 *Cs. melanura* have been tested from other sites using other traps in addition to resting boxes. One new positive pool in a gravid trap from Cape May County was detected this past week. A season total of 13 positive *Cs. melanura* pools from these sites have been detected. Figure of New Jersey shows *Cs. melanura* MFIR values in counties with EEE activity.

Additional *Cs. melanura* trapped by counties *traps with positives indicated in **BOLD.**				
County	**Trap types***	**Number collected (pools)**	**Number of positives pools**	**MFIR**
Atlantic	**CO_2**	22 (2)	1	55.56
Burlington	**CO_2**, Other	4521 (110)	2	0.48
Cape May	**Gravid, RB**	710 (148)	2	2.82
Cumberland	CO_2, Gravid, **RB**	354 (27)	1	2.96
Gloucester	CO_2, **RB**	1301 (101)	6	4.84
Monmouth	Gravid	26 (3)		
Ocean	**CO_2**, Gravid, RB	135 (32)	1	7.46
Salem	CO_2	3 (3)		
TOTAL		**7072 (426)**	**12**	1.84



Additional Species: The table below indicates non-*Cs. melanura* mosquitoes tested for EEE. An additional 22 species of mosquitoes have been tested. Two positive pools have previously been detected in *Culex erraticus*, both collected on 19 Sep, with one in the traditional resting box site at Turkey Swamp and the other in Cumberland County, where an additional positive *Culiseta melanura* pool was also detected. *Culex erraticus* is a known enzootic vector in the southern US. It is also cosmopolitan in its diet, making it a potential bridge vector.

Species other than *Cs. melanura*	**Pools**	**Mosquitoes**	**Positives**	**MFIR**
Aedes albopictus	9	41		
Aedes atlanticus	2	20		
Aedes canadensis canadensis	20	559		
Aedes cantator	36	472		
Aedes japonicus	18	72		
Aedes mitchellae	5	64		
Aedes sollicitans	21	172		
Aedes sticticus	1	8		
Aedes taeniorhynchus	1	1		
Aedes triseriatus	8	9		
Aedes trivittatus	1	2		

Aedes vexans	8	158		
Anopheles bradleyi	78	460		
Anopheles crucians	7	41		
Anopheles punctipennis	36	184		
Anopheles quadrimaculatus	34	156		
Coquillettidia perturbans	70	1637		
Culex erraticus	317	9073	2	0.220
Culex pipiens	792	7304		
Culex restuans	17	78		
Culex salinarius	209	952		
Culex sp.	177	4688		
Psorophora columbiae	4	41		
Psorophora ferox	1	50		
State Total	**1872**	**26242**	**2**	**0.076**

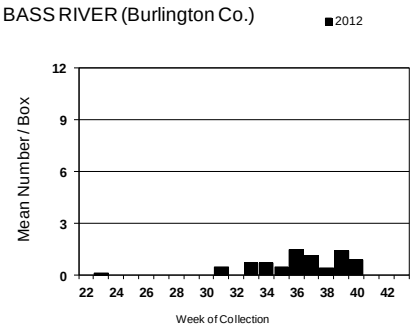
Horses and Humans: To date, six EEE positive horses have been identified, including with the above: 1) A presumptive positive horse with an unusually early onset date of 25 May has been reported for Burlington County. The horse was reportedly vaccinated in early May. 2) A second horse has been reported, also from Burlington County. Date of onset was 22 July, with the 3.9 yo mare euthanized on the same date and no reported vaccination history. 3) A 3 yo mare from Atlantic County with date of onset of 10 Aug was euthanized on the same day (no vaccination history), 4) a 4 yo mare from Camden County with date of onset 18 Aug was euthanized on same date, no vaccination history and 5/6) two 2 yo colts from Camden County with onset date of 9 Sep, both euthanized on 10 Sep, both with no vaccination or travel history.

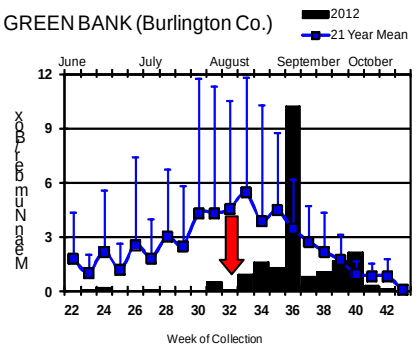
In Burlington County, 300 out of 3000 birds died September 1st/2nd in a flock of ring-necked pheasants (*Phasianus colchicus)*. Three birds of the 300 were tested out of state and returned positive for EEE. This non-native game bird can be susceptible to EEE effects, including hemorrhagic enteritis and sick birds can become aggressive targets of healthier birds.

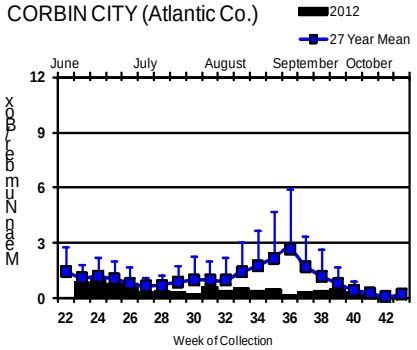
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

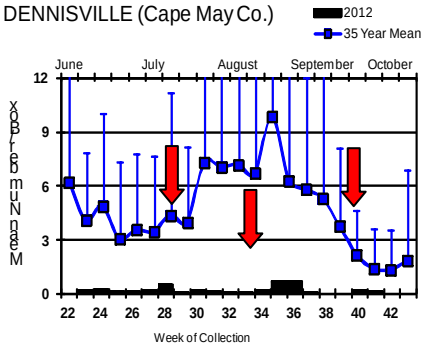
Culiseta melanura Population Graphs

Coastal

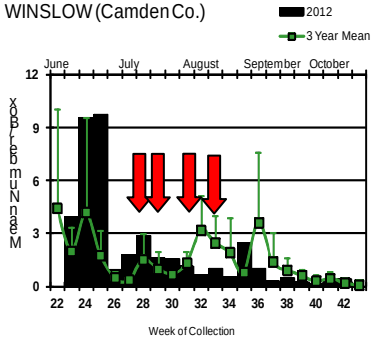


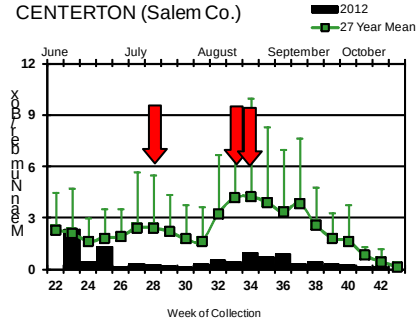


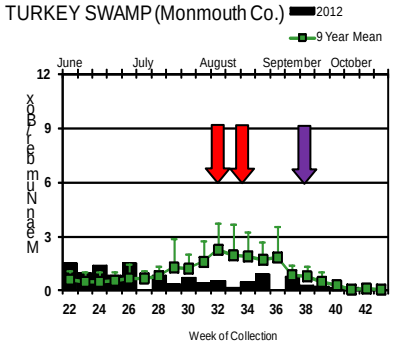


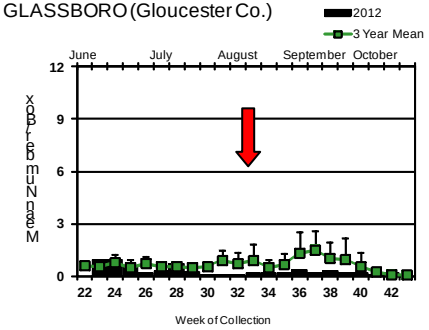


Inland









Winslow and Glassboro were the only sites showing a modest increase in populations of *Culiseta melanura.* All other traditional resting sites remained below historical trends. No new positive pools were detected at these traditional resting box sites.

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

EEE in US (2012 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: 12(AL) 1(AR) 23(FL) 8(GA) 45(LA) 6(MA) 1(MI) 31(MS) 18(NC) 4(NH) 6(NJ) 2(NY) 1(PA) 12(SC) 2(VT) 4(WI)
- mosquito pools: 9(CT) 2(GA) 4(LA) 265(MA) 9(NH) 33(NJ) 1(NY) 6(RI) 137(VA) 10(VT)
- sentinel: 1(AL) 1(DE) 58(FL) 300(game birds NJ) 1[2 wild](ME) 3(NC) (2 emu NH) 33(VA)
- human: 1(FL) 7(MA) 1(NC) 1(VA) 2(VT)

West Nile Virus

West Nile in US (2012 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	15		20	10	31
Alaska					0
Arizona	1	151/181	2	1	67/95
Arkansas				9/10	55/57
California	1511/1569	2704/2757	463/477	20/21	266/301
Colorado	4	209		13/15	118/125
Connecticut		234		2	18/20
Delaware	24		26	0	7
DC					2
Florida	1	4	284/343	6	48/52
Georgia	1	110/114	0	6/7	55/58
Hawaii					
Idaho	2/3	35		8/9	14/15
Illinois	107/108	3933/3936		6/7	185/211
Indiana	2	734		28	65/67
Iowa		14	17	25/26	19/25
Kansas		5/6		1	38/41
Kentucky		2		13	6
Louisiana		2482/2488	136/137	50	271
Maine		7			1
Maryland		10		1/2	36/41
Mass.		246/307		2	22/25
Michigan	35/39	23/24		5	189/196
Minnesota	26	105		11	65/68
Mississippi		56		20/24	225/233
Missouri		162		6	18/21

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana	1	11		6	5
Nebraska	14	257		11	136
Nevada		2		3	2/7
New Hampshire		40/41		0	1
New Jersey	132	1015/1020		6*	42/45
New Mexico	1	20		10	38
New York		1005		5	92/96
North Carolina				2	6
North Dakota	2	0		15*	86/88
Ohio		1214		10/12	104/111
Oklahoma	1	30		15	165/173
Oregon	1	71	0	2	4
Pennsylvania	135	3409/3410		46/49	25/36
Rhode Island		5		0	4
South Carolina	23	3		5	40
South Dakota	5	84		10/12	195/200
Tennessee	3	755/759		5	29
Texas	191/209	1362/1381		72/81	1574/1634
Utah		19	1	1	5
Vermont		1		2*	2
Virginia		208	19	1	21/24
Washington	0	5		1	4
West Virginia	1	266/281			5/7
Wisconsin	30	0		2	40/48
Wyoming	4	13		5	7

* 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 13 October 2012

Species	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	1578	11215	5	0.446
Aedes atlanticus	12	34		
Aedes atropalpus	16	46		
Aedes canadensis canadensis	89	1939		
Aedes cantator	73	884		
Aedes grossbecki	2	2		
Aedes japonicus	617	3019	6	1.987
Aedes mitchellae	5	64		
Aedes sollicitans	27	188		
Aedes sticticus	9	126		
Aedes taeniorhynchus	46	469		
Aedes triseriatus	327	756		
Aedes trivittatus	8	16		
Aedes vexans	165	1139	1	0.878
Anopheles bradleyi	111	806		
Anopheles crucians	16	62		
Anopheles punctipennis	143	495	1	2.020
Anopheles quadrimaculatus	191	669	1	1.495
Coquillettidia perturbans	92	1881		
Culex erraticus	357	9366		
Culex pipiens	1667	34241	147	4.293
Culex restuans	552	2320	7	3.017
Culex salinarius	255	1257	1	0.796
Culex sp.	3842	127010	839	6.606
Culex territans	55	107		
Culiseta melanura	653	11688	12	1.027
Culiseta minnesotae	1	2		
Orthopodomyia signifera	20	21		
Psorophora ciliata	1	1		
Psorophora columbiae	24	211		
Psorophora ferox	16	120		
Psorophora howardii	2	2		
Uranotaenia sapphirina	9	15		
State Total	**10981**	**210171**	**1020**	**4.853**

Remarks: To date, there have been 210,171 mosquitoes tested in 10,981 pools from 32 species. Currently, 1020 positive pools have been detected in *Aedes albopictus, Ae. japonicus, Ae. vexans, Anopheles punctipennis, An. quadrimaculatus, Culex pipiens, Cx. restuans, Cx. salinarius,* Mixed *Cx.* species *and Culiseta melanura*.

Humans, Horses and Wild Birds: Forty-five human cases have been reported in the following counties: Atlantic (1), Bergen (4), Burlington (2), Camden (5), Cape May (1), Essex (4), Gloucester (2), Hudson (1), Mercer (1), Middlesex (4), Monmouth (3), Ocean (9), Passaic (4) Salem (1) Somerset (2) and Union (1). DOH noted that a change in protocol has occurred midyear to include WNV results from commercial laboratories. See http://www.state.nj.us/health/cd/westnile/techinfo.shtml for further information.

Five positive WNV horses have been reported to date: 1) A 11 yo quarter horse from Salem County, with onset of symptoms on 4th August. The horse was put down the same day. Generally horses have either an unknown or no vaccination history, but this horse was reported as vaccinated. See

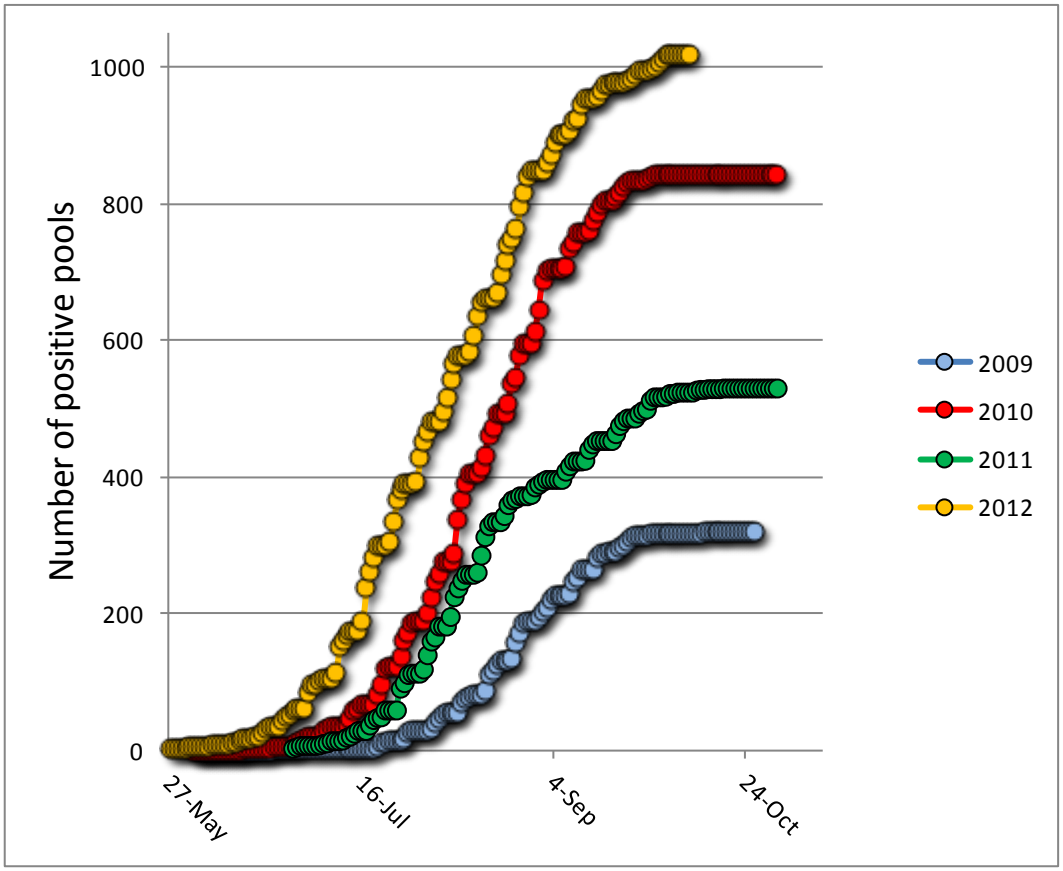
http://www.escrutgers.com/downloads/NJDA_08102012.pdf In the very active year of 2010, the first WNV horse case had an onset date of 17 August. 2) A 25 yo gelding from Monmouth County, onset of symptoms 14 July, was vaccinated and is recovering. 3) An additional Monmouth County horse (2 yo mare) with date of onset on 15 Sep was euthanized 17 Sep. No vaccination history was reported. 4) One 3 yo unvaccinated stallion was reported from Atlantic County, date of onset and euthanasia on 26 Sep (no travel history) and 5) the latest horse from Sussex County was a 33 yo gelding with no vaccination or travel history, and date on onset 4 Oct. This horse, at this time, is still alive.

An unvaccinated 5 yo male alpaca from Gloucester County developed WNV with an onset date of 28 Sep and euthanized 1 Oct.

Bird testing began in mid-April. To date, WNV has been detected in 132 birds out of 303 tested. WNV was first detected in an American Crow (*Corvus brachyrhynchos*) from Morris County, collected 9 April. To date, testing includes: American Crow (*Corvus brachyrhynchos* 62/69), Fish Crow (*Corvus ossifragus* 14/42), unidentified Crow (*Corvus* spp. 15/26), Blue Jay (*Cyanocitta cristata* 33/44), Hawk/Raptor (2/12) and other avian species (6/110). Counties submitting birds are Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Gloucester, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Salem, Somerset, Sussex and Warren.

2012 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year
1020 / 10981 (0.093)	522 / 7040 (0.074)
2012 Positive Birds to date / Total Birds Submitted	**This time last year**
132 / 303 (0.436)	41 / 117 (0.350)

Activity, as seen by plotting cumulative positive pools (graph below) has now gone well above 2010 levels. It should be noted that testing began earlier this year. A number of counties have stopped for the season.



WNV Results by County through 13 October 2012

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**150**	**2639**	**5**	**1.895**
	Aedes albopictus	21	289		
	Aedes canadensis canadensis	1	2		
	Aedes cantator	2	11		
	Aedes japonicus	9	33		
	Aedes sollicitans	1	9		
	Aedes taeniorhynchus	3	92		
	Aedes triseriatus	6	19		
	Aedes trivittatus	1	2		
	Aedes vexans	8	102		
	Anopheles bradleyi	4	14		
	Anopheles punctipennis	4	18		
	Anopheles quadrimaculatus	2	5		
	Coquillettidia perturbans	2	3		
	Culex erraticus	12	82		
	Culex salinarius	1	27		
	Culex spp.	43	1647	5	3.036
	Culiseta melanura	25	266		
	Psorophora columbiae	2	2		
	Psorophora ferox	2	15		
	Psorophora howardii	1	1		
Bergen		**265**	**13265**	**166**	**12.514**
	Aedes albopictus	2	43	1	23.256
	Aedes japonicus	3	13	2	153.846
	Aedes triseriatus	1	1		
	Aedes vexans	1	4		
	Anopheles punctipennis	1	1		
	Anopheles quadrimaculatus	1	1	1	1000.000
	Culex salinarius	1	3	1	333.333
	Culex spp.	255	13199	161	12.198
Burlington		**530**	**15593**	**34**	**2.180**
	Aedes albopictus	29	501		
	Aedes atlanticus	2	20		
	Aedes atropalpus	1	2		
	Aedes canadensis canadensis	16	530		
	Aedes cantator	2	30		
	Aedes japonicus	26	128	1	7.813
	Aedes mitchellae	5	64		
	Aedes sollicitans	1	9		
	Aedes sticticus	1	8		
	Aedes triseriatus	6	55		
	Aedes trivittatus	1	2		
	Aedes vexans	13	318		
	Anopheles bradleyi	8	171		
	Anopheles crucians	4	38		
	Anopheles punctipennis	8	31		
	Anopheles quadrimaculatus	8	17		
	Coquillettidia perturbans	25	983		
	Culex erraticus	15	127		
	Culex pipiens	6	222		
	Culex restuans	7	73		

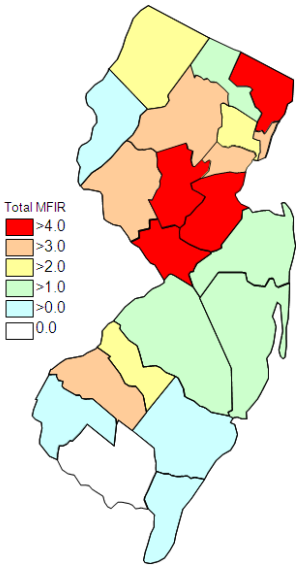
	Culex salinarius	12	268		
	Culex spp.	190	6785	28	4.127
	Culiseta melanura	137	5114	5	0.978
	Orthopodomyia signifera	1	1		
	Psorophora columbiae	4	43		
	Psorophora ferox	1	50		
	Uranotaenia sapphirina	1	3		
Camden		**327**	**8545**	**47**	**5.500**
	Aedes albopictus	53	218	1	4.587
	Aedes japonicus	29	48	1	20.833
	Aedes triseriatus	2	6		
	Aedes trivittatus	1	2		
	Aedes vexans	4	8		
	Anopheles crucians	1	1		
	Anopheles punctipennis	2	3		
	Culex erraticus	1	1		
	Culex spp.	181	6248	44	7.042
	Culiseta melanura	52	2007	1	0.498
	Uranotaenia sapphirina	1	3		
Cape May		**3894**	**29521**	**30**	**1.016**
	Aedes albopictus	783	2210		
	Aedes atlanticus	6	9		
	Aedes atropalpus	15	44		
	Aedes canadensis canadensis	10	79		
	Aedes cantator	46	461		
	Aedes japonicus	140	198		
	Aedes sollicitans	21	164		
	Aedes taeniorhynchus	42	376		
	Aedes triseriatus	175	310		
	Aedes vexans	34	77		
	Anopheles bradleyi	74	368		
	Anopheles punctipennis	30	35		
	Anopheles quadrimaculatus	121	421		
	Coquillettidia perturbans	6	25		
	Culex erraticus	267	8664		
	Culex pipiens	1054	12501	23	1.840
	Culex restuans	490	1403	6	4.277
	Culex salinarius	211	756		
	Culex spp.	105	352		
	Culex territans	51	103		
	Culiseta melanura	180	928	1	1.078
	Orthopodomyia signifera	19	20		
	Psorophora columbiae	5	6		
	Psorophora ferox	2	2		
	Uranotaenia sapphirina	7	9		
Cumberland		**205**	**1808**		
	Aedes albopictus	23	92		
	Aedes atlanticus	3	3		
	Aedes canadensis canadensis	4	25		
	Aedes cantator	3	11		
	Aedes japonicus	17	37		
	Aedes triseriatus	9	17		
	Aedes vexans	5	17		

	Anopheles crucians	5	160		
	Anopheles bradleyi	7	11		
	Anopheles punctipennis	9	18		
	Anopheles quadrimaculatus	6	6		
	Coquillettidia perturbans	6	89		
	Culex erraticus	17	177		
	Culex pipiens	22	357		
	Culex restuans	12	91		
	Culex salinarius	12	150		
	Culex spp.	9	30		
	Culex territans	3	3		
	Culiseta melanura	28	388		
	Psorophora columbiae	2	104		
	Psorophora ferox	3	22		
Essex		**500**	**6587**	**28**	**4.251**
	Aedes albopictus	100	688		
	Aedes canadensis canadensis	2	2		
	Aedes grossbecki	2	2		
	Aedes japonicus	64	483	1	2.070
	Aedes sticticus	5	113		
	Aedes triseriatus	13	32		
	Aedes vexans	22	230		
	Culex spp.	291	5033	27	5.365
	Psorophora ferox	1	4		
Gloucester		**635**	**18038**	**62**	**3.437**
	Aedes albopictus	60	1412		
	Aedes japonicus	10	153		
	Aedes triseriatus	3	15		
	Aedes vexans	3	12		
	Anopheles punctipennis	25	173		
	Anopheles quadrimaculatus	23	149		
	Coquillettidia perturbans	1	2		
	Culex pipiens	388	14580	58	3.978
	Culiseta melanura	122	1542	4	2.594
Hudson		**260**	**14153**	**79**	**5.582**
	Culex spp.	260	14153	79	5.582
Hunterdon		**375**	**14801**	**74**	**5.000**
	Culex spp.	375	14801	74	5.000
Mercer		**358**	**8603**	**70**	**8.137**
	Aedes albopictus	93	942		
	Aedes japonicus	40	215		
	Aedes triseriatus	5	11		
	Aedes vexans	1	3		
	Culex erraticus	3	10		
	Culex pipiens	177	6465	65	10.054
	Culex restuans	28	544	1	1.838
	Culex spp.	11	413	4	9.685
Middlesex		**285**	**10179**	**86**	**8.449**
	Aedes albopictus	19	222		

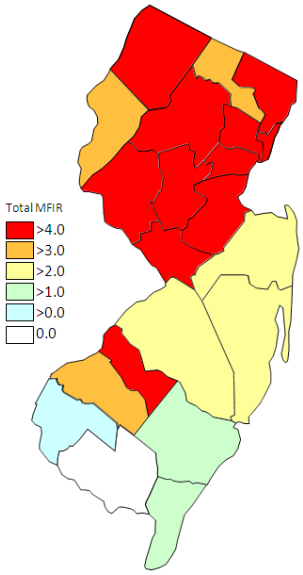
	Aedes japonicus	15	120		
	Aedes triseriatus	3	14		
	Culex spp.	248	9823	86	8.755
Monmouth		**426**	**4750**	**12**	**2.526**
	Aedes albopictus	85	416	1	2.404
	Aedes canadensis canadensis	13	130		
	Aedes cantator	8	43		
	Aedes japonicus	59	196	1	5.102
	Aedes triseriatus	18	24		
	Aedes vexans	13	23		
	Anopheles crucians	2	2		
	Anopheles punctipennis	24	38		
	Anopheles quadrimaculatus	2	3		
	Coquillettidia perturbans	4	5		
	Culex erraticus	13	133		
	Culex pipiens	3	6		
	Culex restuans	1	1		
	Culex salinarius	4	15		
	Culex spp.	139	2990	10	3.344
	Culex territans	1	1		
	Culiseta melanura	34	719		
	Psorophora columbiae	2	3		
	Psorophora ferox	1	2		
Morris		**372**	**12409**	**73**	**5.883**
	Aedes albopictus	2	25		
	Aedes japonicus	25	332		
	Aedes triseriatus	4	15		
	Aedes vexans	1	1		
	Anopheles punctipennis	3	66		
	Coquillettidia perturbans	3	149		
	Culex spp.	334	11821	73	6.175
Ocean		**501**	**7038**	**16**	**2.273**
	Aedes albopictus	128	2804	1	0.357
	Aedes atlanticus	1	2		
	Aedes canadensis canadensis	40	1162		
	Aedes cantator	11	327		
	Aedes japonicus	40	151		
	Aedes sollicitans	2	2		
	Aedes sticticus	2	2		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	24	50		
	Aedes trivittatus	1	2		
	Aedes vexans	26	85	1	11.765
	Anopheles bradleyi	12	47		
	Anopheles crucians	2	10		
	Anopheles punctipennis	5	6		
	Anopheles quadrimaculatus	6	8		
	Coquillettidia perturbans	21	431		
	Culex erraticus	9	13		
	Culex restuans	1	1		
	Culex salinarius	13	37		
	Culex spp.	118	1756	14	7.973
	Culiseta melanura	32	135		

	Psorophora columbiae	1	1		
	Psorophora ferox	4	4		
	Psorophora howardii	1	1		
Passaic		**180**	**2827**	**11**	**3.891**
	Aedes albopictus	33	143	1	6.993
	Aedes japonicus	40	353		
	Aedes triseriatus	14	30		
	Anopheles punctipennis	5	16		
	Anopheles quadrimaculatus	1	1		
	Coquillettidia perturbans	1	2		
	Culex spp.	86	2282	10	4.382
Salem		**345**	**3281**	**2**	**0.610**
	Aedes albopictus	57	154		
	Aedes canadensis canadensis	2	6		
	Aedes cantator	1	1		
	Aedes japonicus	13	31		
	Aedes sollicitans	2	4		
	Aedes sticticus	1	3		
	Aedes triseriatus	6	7		
	Aedes vexans	23	221		
	Anopheles bradleyi	8	46		
	Anopheles punctipennis	11	17		
	Anopheles quadrimaculatus	16	53		
	Coquillettidia perturbans	20	144		
	Culex erraticus	20	159		
	Culex pipiens	4	26		
	Culex restuans	5	19		
	Culex spp.	112	1742	1	0.574
	Culiseta melanura	32	572	1	1.748
	Culiseta minnesotae	1	2		
	Psorophora ciliata	1	1		
	Psorophora columbiae	8	52		
	Psorophora ferox	2	21		
Somerset		**291**	**5013**	**46**	**9.176**
	Aedes albopictus	21	128		
	Aedes canadensis canadensis	1	3		
	Aedes japonicus	20	148		
	Aedes triseriatus	5	59		
	Aedes vexans	1	8		
	Anopheles punctipennis	5	28	1	35.714
	Culex spp.	238	4639	45	9.700
Sussex		**361**	**9548**	**41**	**4.294**
	Aedes albopictus	4	4		
	Aedes japonicus	4	45		
	Coquillettidia perturbans	1	43		
	Culex pipiens	13	84	1	11.905
	Culex restuans	8	188		
	Culex salinarius	1	1		
	Culex spp.	320	9167	40	4.363
	Culiseta melanura	10	16		

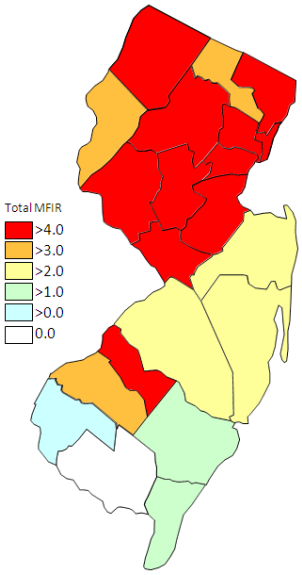
Union		**312**	**14118**	**114**	**8.075**
	Aedes albopictus	59	838		
	Aedes japonicus	5	64		
	Aedes triseriatus	1	15		
	Culex spp.	247	13201	114	8.636
Warren		**409**	**7488**	**24**	**3.219**
	Aedes albopictus	6	86		
	Aedes japonicus	58	271		
	Aedes triseriatus	32	76		
	Aedes trivittatus	4	8		
	Aedes vexans	10	30		
	Anopheles punctipennis	11	45		
	Anopheles quadrimaculatus	5	5		
	Coquillettidia perturbans	2	5		
	Culex spp.	280	6928	24	3.464
	Culiseta melanura	1	1		
Grand Total		**10981**	**210171**	**1020**	**4.853**



Cumulative WNV activity in 2011.



WNV activity to 13 Oct 2012.



WNV activity last week, 2012.

Saint Louis Encephalitis (SLE) through 13 October 2012.

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 tested positive for SLE to date in 2012.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		**274**	**9370**		
	Aedes albopictus	6	107		
	Aedes canadensis canadensis	6	214		
	Aedes cantator	2	30		
	Aedes japonicus	18	72		

	Aedes mitchellae	4	60		
	Aedes sticticus	1	8		
	Aedes triseriatus	3	3		
	Aedes trivittatus	1	2		
	Aedes vexans	4	65		
	Anopheles bradleyi	1	4		
	Anopheles crucians	3	37		
	Anopheles punctipennis	2	13		
	Anopheles quadrimaculatus	3	11		
	Coquillettidia perturbans	20	892		
	Culex erraticus	3	71		
	Culex pipiens	6	222		
	Culex restuans	3	55		
	Culex salinarius	10	182		
	Culex spp.	122	4770		
	Culiseta melanura	55	2547		
	Psorophora columbiae	1	5		
Camden		**75**	**2601**		
	Aedes albopictus	7	31		
	Aedes japonicus	4	6		
	Aedes triseriatus	1	5		
	Anopheles punctipennis	1	2		
	Culex spp.	62	2557		
Essex		**200**	**3900**		
	Aedes albopictus	23	48		
	Aedes canadensis canadensis	2	2		
	Aedes grossbecki	2	2		
	Aedes japonicus	30	251		
	Aedes sticticus	5	113		
	Aedes triseriatus	9	22		
	Aedes vexans	16	220		
	Culex spp.	112	3238		
	Psorophora ferox	1	4		
Hudson		**74**	**4966**		
	Culex spp.	74	4966		
Salem		**1**	**6**		
	Culex spp.	1	6		
Grand Total		**624**	**20843**		

La Crosse Encephalitis (LAC) through 13 October 2012.

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 tested positive to date for 2012.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		**1**	**39**		
	Aedes triseriatus	1	39		
Cape May		**153**	**279**		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	143	264		
	Culex spp.	1	2		
	Orthopodomyia signifera	5	6		
	Psorophora columbiae	1	2		
	Uranotaenia sapphirina	2	4		
Cumberland		**8**	**16**		
	Aedes triseriatus	8	16		
Salem		**2**	**3**		
	Aedes triseriatus	2	3		
Union		**1**	**15**		
	Aedes triseriatus	1	15		
Grand Total		**165**	**352**		