VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE and LAC

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CDC WEEK 39: September 23 to September 29, 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	1.40	(53) 49	(9) 8		
Green Bank (Burlington Co.)/25	**Coastal**	1.73	1.68	(459) 417	(15) 14	1	2.40
Corbin City (Atlantic Co.)/25	**Coastal**	0.81	0.44	192‡	15		
Dennisville (Cape May Co.)/50	**Coastal**	2.15	0	178	15	2	11.24
Winslow (Camden Co.)/50	**Inland**	0.62	0.24	1972	48	8	4.06
Centerton (Salem Co.)/50	**Inland**	1.83	0.26	526	20	3	5.70
Turkey Swamp (Monmouth Co.)/48	**Inland**	0.48	0.21	(664) 640	(22) 21	2	3.06
Glassboro (Gloucester Co.)/50	**Inland**	0.96	0.16	220	17	1	4.55

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

Remarks: There were no new detections of EEE in *Cs. melanura* at the traditional resting box sites. There was an additional positive pool of *Cs. melanura* in the county sites plus 2 additional positive pools from another species (see next pages). A total of 30 positive pools have been detected in New Jersey.

To date 4207 *Cs. melanura* from 158 pools have been tested from the traditional resting box sites, with three additional pools in the system to be tested. Seventeen positive pools have been detected at these sites, for an MFIR of 4.04. Eleven positive pools of *Cs. melanura* in traps set by individual counties have been detected for a county site MFIR of 1.70 (see below). Overall *Cs. melanura* MFIR value for the state is 2.63.

Additional *Cs. melanura*: Three hundred sixty-seven additional pools containing 6455 *Cs. melanura* have been tested from other sites using other traps in addition to resting boxes. One additional positive pool was found in a CO2 trap from Cumberland County, collected 19 Sep. A season total of 11 positive *Cs. melanura* pools from these sites have been detected.

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**	18 (1)	1	55.56
Burlington	**CO_2**, Other	4133 (96)	2	0.48
Cape May	Gravid, RB	595 (119)		
Cumberland	CO_2, Gravid, **RB**	338 (24)	1	2.96
Gloucester	CO_2, **RB**	1239 (95)	6	4.84
Monmouth	Gravid	9 (2)		
Ocean	**CO_2**, Gravid, RB	120 (27)	1	8.13
Salem	CO_2	3 (3)		
TOTAL		**6455 (367)**	**11**	1.70

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 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 the 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 canadensis canadensis	13	310		
Aedes cantator	36	472		
Aedes japonicus	18	72		
Aedes mitchellae	4	60		
Aedes sollicitans	21	172		
Aedes sticticus	1	8		
Aedes taeniorhynchus	1	1		
Aedes triseriatus	7	8		
Aedes trivittatus	1	2		
Aedes vexans	7	83		
Anopheles bradleyi	66	399		
Anopheles crucians	5	39		
Anopheles punctipennis	29	137		

Anopheles quadrimaculatus	24	140		
Coquillettidia perturbans	70	1637		
Culex erraticus	267	8817	2	0.227
Culex pipiens	663	6128		
Culex restuans	14	68		
Culex salinarius	182	896		
Culex sp.	156	4587		
Psorophora columbiae	3	17		
Psorophora ferox	1	50		
State Total	**1598**	**24144**	**2**	**0.083**

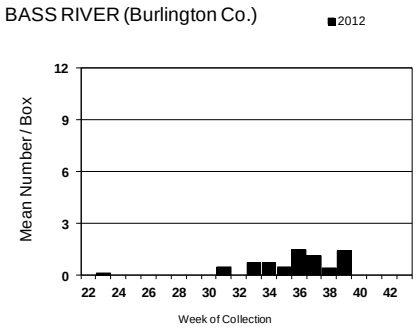
Horses and Humans: To date, six EEE positive horses have been identified, including with the above: 1) A presumptive positive horse with an unusually early onset date of 25 May has been reported for Burlington County. The horse was reportedly vaccinated in early May. 2) A second horse has been reported, 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.

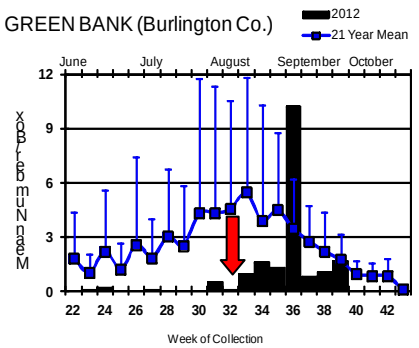
In Burlington County, 300 out of 3000 birds died September 1st/2nd in a flock of ring-necked pheasants (*Phasianus colchicus)*. Three birds of the 300 were tested out of state and returned positive for EEE. This non-native species can be susceptible to EEE effects, including hemorrhagic enteritis and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

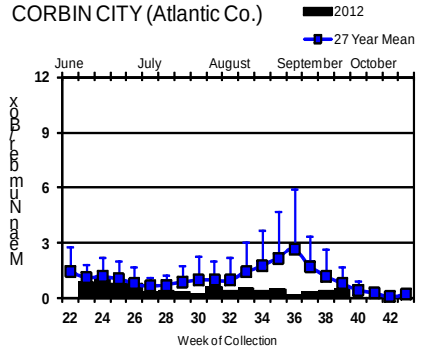
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

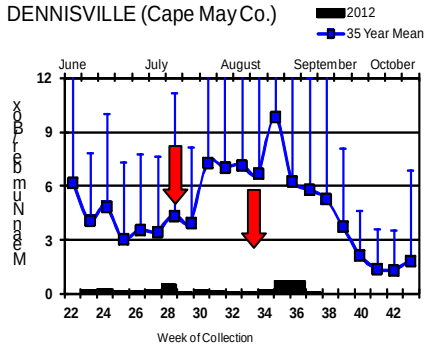
Culiseta melanura Population Graphs

Coastal

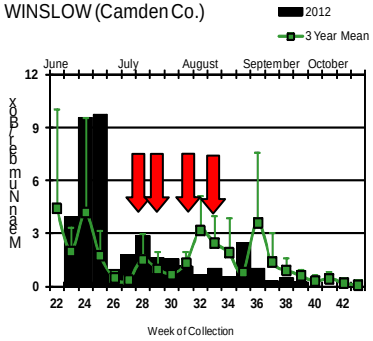


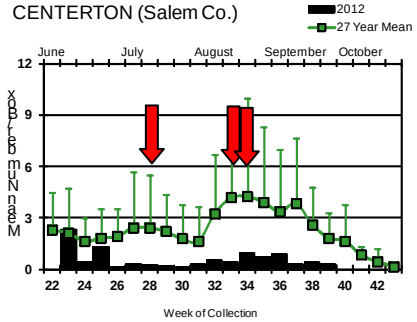


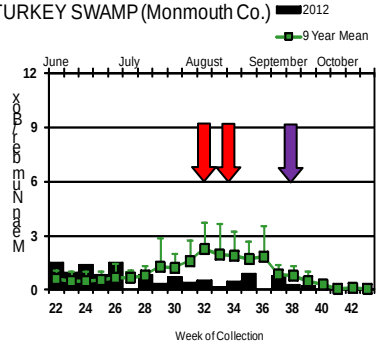


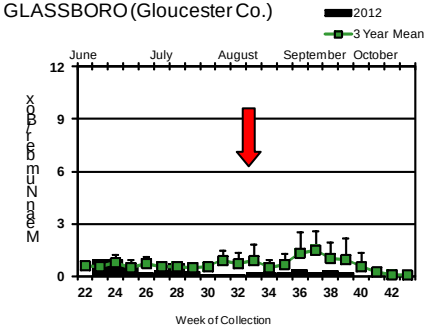


Inland









Increases in populations of *Culiseta melanura* occurred at Bass River, Green Bank and Corbin City, while decreases continued at all other sites. Dennisville has had no *Cs. melanura* recorded there for the past two weeks. No new positive EEE pools in *Cs. melanura* occurred, although Turkey Swamp was the site where a positive EEE pool of *Culex erraticus* was detected.

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

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

- equine: 9(AL) 22(FL) 8(GA) 44(LA) 5(MA) 1(MI) 28(MS) 17(NC) 3(NH) 6(NJ) 2(NY) 12(SC) 2(VT) 4(WI)
- mosquito pools: 9(CT) 2(GA) 3(LA) 288(MA) 5(NH) 30(NJ) 1(NY) 5(RI) 137(VA) 10(VT)
- sentinel: 1(AL) 1(DE) 48(FL) 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		13/21	3/5	20/21
Alaska					0
Arizona	1	134/151	2	1	50/67
Arkansas					43/48
California	1290/1376	2417/2541	389/420	17/20	147/182
Colorado		209		9/10	75/92
Connecticut		231/233		0	15/17
Delaware	17/24		9/17	0	6
DC					2
Florida	1	4	181/194	4/6	40/43
Georgia	0	97/109	0	4	42/55
Hawaii					
Idaho	2	35		8	13
Illinois	97/98	3759/3852		5	120/138
Indiana	2	702/713		21	56/61
Iowa		3/14	12	18/21	14/19
Kansas		2		1	31
Kentucky		2		12/13	6
Louisiana		2418/2447	104/120	42	251/281
Maine		7			1
Maryland		8/10		1	30/33
Mass.		241/244		2	17/20
Michigan	26/30	16/23		3/5	162/178
Minnesota	26	95/102		8	60/61
Mississippi		55/56		10	186/200
Missouri		119/150		6	13/16

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana	1	11		6	3/5
Nebraska	13	221		11	85
Nevada		2		1	2
New Hampshire		40		0	1
New Jersey	117/123	952/975		3	31/35
New Mexico	1	20		9	30/31
New York		963/975		1/2	62/67
North Carolina				2	6
North Dakota	2	0		14	70/79
Ohio		1172/1206		7/8	79/89
Oklahoma	1	30		5/8	150/154
Oregon	1	58/71	0	1/2	2/4
Pennsylvania	123/129	3321/3353		39	22/23
Rhode Island		4/5		0	4
South Carolina	16	1		4	33
South Dakota	4/5	77/82		9/10	158/175
Tennessee	3	732/742		4	24/25
Texas	166/177	1305/1334		49/58	1375/1442
Utah		16	1	1	3
Vermont		1		0	1
Virginia		208	19		9
Washington	0	5		1	4
West Virginia	1	238/266			3
Wisconsin	26/30	0		1	25
Wyoming	3	13		4/5	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 1 October 2012

Species	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	1348	10158	5	0.492
Aedes atlanticus	10	14		
Aedes atropalpus	10	23		
Aedes canadensis canadensis	70	1639		
Aedes cantator	73	884		
Aedes grossbecki	2	2		
Aedes japonicus	527	2796	6	2.146
Aedes mitchellae	4	60		
Aedes sollicitans	25	184		
Aedes sticticus	8	125		
Aedes taeniorhynchus	40	461		
Aedes triseriatus	291	686		
Aedes trivittatus	7	11		
Aedes vexans	127	899	1	1.112
Anopheles bradleyi	97	737		
Anopheles crucians	13	59		
Anopheles punctipennis	122	430	1	2.326
Anopheles quadrimaculatus	152	564	1	1.773
Coquillettidia perturbans	92	1881		
Culex erraticus	298	9079		
Culex pipiens	1458	32087	139	4.332
Culex restuans	393	1891	3	1.586
Culex salinarius	226	1173	1	0.853
Culex sp.	3547	122667	807	6.579
Culex territans	50	102		
Culiseta melanura	564	10774	11	1.021
Culiseta minnesotae	1	2		
Orthopodomyia signifera	15	15		
Psorophora ciliata	1	1		
Psorophora columbiae	22	185		
Psorophora ferox	16	120		
Psorophora howardii	2	2		
Uranotaenia sapphirina	4	8		
State Total	**9615**	**199719**	**975**	**4.882**

Remarks: To date, there have been 199,719 mosquitoes tested in 9,615 pools from 32 species. Currently, 975 positive pools have been detected in *Aedes albopictus, Ae. japonicus, Ae. vexans, Anopheles punctipennis, An. quadrimaculatus, Culex pipiens,* Mixed *Cx.* species, *Cx. restuans, Cx. salinarius and Culiseta melanura*.

Humans, Horses and Wild Birds: Thirty-five human cases have been reported in the following counties: Atlantic (1), Bergen (2), Burlington (2), Camden (5), Cape May (1), Essex (3), Gloucester (2), Hudson (1), Mercer (1), Middlesex (4), Monmouth (2), Ocean (7), Passaic (1) Salem (1) and Somerset (2). DOH noted that a change in protocol has occurred to include WNV results from commercial laboratories. See http://www.state.nj.us/health/cd/westnile/techinfo.shtml for further information.

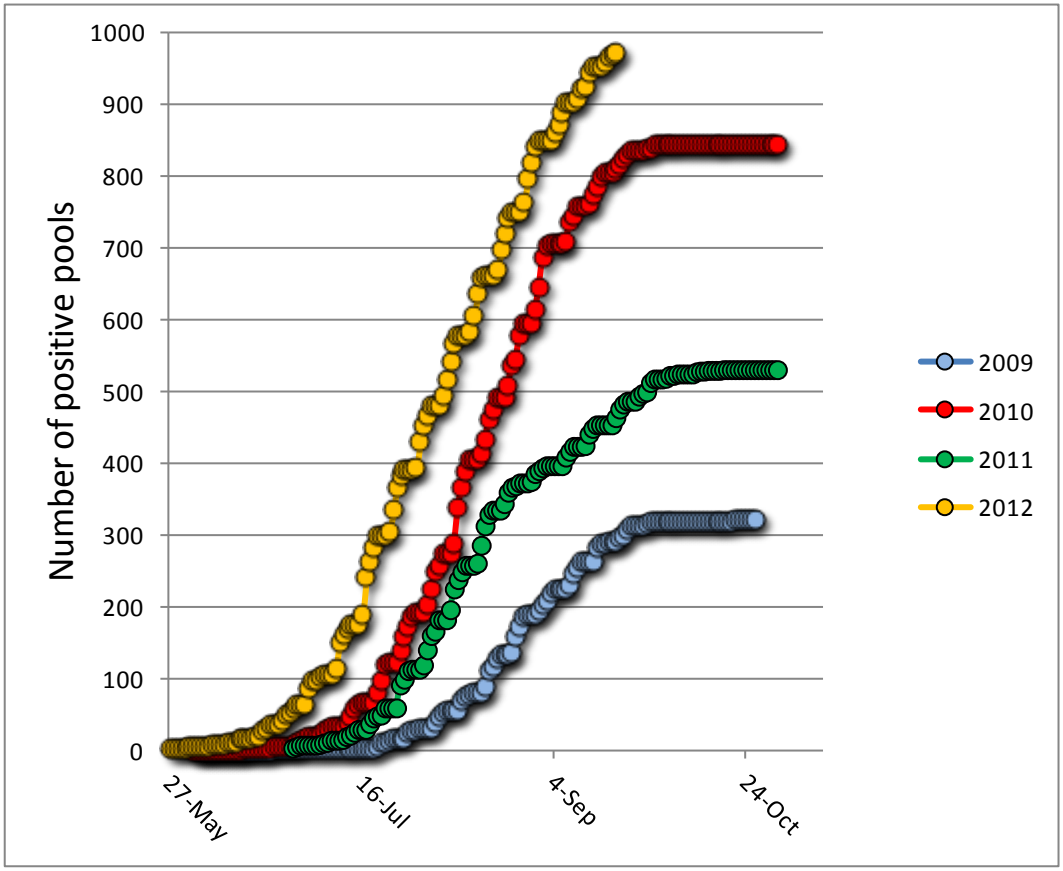
Three positive WNV horses have been reported to date: 1) A 11 yo quarter horse from Salem County, with onset of symptoms on 4th August. The horse was put down the same day. Generally horses have either an unknown or no vaccination history, but this horse was reported as vaccinated. See

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 Sep 15 was euthanized Sep 17. No vaccination history was reported.

Bird testing began in mid-April. To date, WNV has been detected in 124 birds out of 286 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* 58/64), Fish Crow (*Corvus ossifragus* 14/42), unidentified Crow (*Corvus* spp. 15/25), Blue Jay (*Cyanocitta cristata* 31/41), Hawk/Raptor (1/10) and other avian species (5/104). Counties submitting birds are Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Gloucester, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Somerset, Sussex and Warren.

2012 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year
952 / 9124 (0.104)	481 / 6023 (0.080)
2012 Positive Birds to date / Total Birds Submitted	This time last year
117 / 269 (0.435)	30 / 101 (0.297)

Activity, as seen by plotting cumulative positive pools (graph below) has now gone above 2010 levels. It should be noted that testing began earlier this year.



WNV Results by County through 1 October 2012

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**130**	**2493**	**5**	**2.006**
	Aedes albopictus	19	278		
	Aedes canadensis canadensis	1	2		
	Aedes cantator	2	11		

	Aedes japonicus	8	32		
	Aedes sollicitans	1	9		
	Aedes taeniorhynchus	2	89		
	Aedes triseriatus	5	18		
	Aedes trivittatus	1	2		
	Aedes vexans	7	88		
	Anopheles bradleyi	3	7		
	Anopheles punctipennis	2	16		
	Anopheles quadrimaculatus	2	5		
	Coquillettidia perturbans	2	3		
	Culex erraticus	10	79		
	Culex spp.	40	1598	5	3.129
	Culiseta melanura	20	238		
	Psorophora columbiae	2	2		
	Psorophora ferox	2	15		
	Psorophora howardii	1	1		
Bergen		**245**	**12565**	**159**	**12.654**
	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.	235	12499	154	12.321
Burlington		**470**	**14280**	**31**	**2.171**
	Aedes albopictus	26	444		
	Aedes atropalpus	1	2		
	Aedes canadensis canadensis	9	281		
	Aedes cantator	2	30		
	Aedes japonicus	25	126	1	7.937
	Aedes mitchellae	4	60		
	Aedes sollicitans	1	9		
	Aedes sticticus	1	8		
	Aedes triseriatus	6	55		
	Aedes trivittatus	1	2		
	Aedes vexans	11	235		
	Anopheles bradleyi	7	127		
	Anopheles crucians	3	37		
	Anopheles punctipennis	7	28		
	Anopheles quadrimaculatus	3	11		
	Coquillettidia perturbans	25	983		
	Culex erraticus	10	106		
	Culex pipiens	6	222		
	Culex restuans	4	56		
	Culex salinarius	11	257		
	Culex spp.	183	6529	26	3.982
	Culiseta melanura	118	4599	4	0.870
	Orthopodomyia signifera	1	1		
	Psorophora columbiae	3	19		
	Psorophora ferox	1	50		
	Uranotaenia sapphirina	1	3		
Camden		**285**	**8266**	**47**	**5.686**

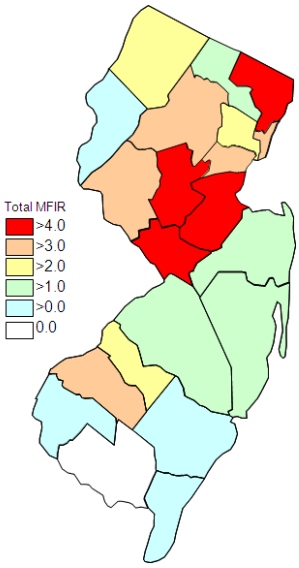
	Aedes albopictus	42	178	1	5.618
	Aedes japonicus	23	41	1	24.390
	Aedes triseriatus	2	6		
	Aedes trivittatus	1	2		
	Aedes vexans	3	7		
	Anopheles crucians	1	1		
	Anopheles punctipennis	1	2		
	Culex erraticus	1	1		
	Culex spp.	163	6065	44	7.255
	Culiseta melanura	47	1960	1	0.510
	Uranotaenia sapphirina	1	3		
Cape May		**3215**	**26309**	**20**	**0.760**
	Aedes albopictus	642	1794		
	Aedes atlanticus	6	9		
	Aedes atropalpus	9	21		
	Aedes canadensis canadensis	10	79		
	Aedes cantator	46	461		
	Aedes japonicus	116	169		
	Aedes sollicitans	21	164		
	Aedes taeniorhynchus	37	371		
	Aedes triseriatus	162	296		
	Aedes vexans	30	73		
	Anopheles bradleyi	64	353		
	Anopheles punctipennis	24	28		
	Anopheles quadrimaculatus	100	368		
	Coquillettidia perturbans	6	25		
	Culex erraticus	229	8449		
	Culex pipiens	882	10711	17	1.587
	Culex restuans	345	1007	2	1.986
	Culex salinarius	185	711		
	Culex spp.	83	299		
	Culex territans	46	98		
	Culiseta melanura	149	799	1	1.252
	Orthopodomyia signifera	14	14		
	Psorophora columbiae	5	6		
	Psorophora ferox	2	2		
	Uranotaenia sapphirina	2	2		
Cumberland		**194**	**1774**		
	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	4	158		
	Anopheles bradleyi	6	10		
	Anopheles punctipennis	9	18		
	Anopheles quadrimaculatus	4	4		
	Coquillettidia perturbans	6	89		
	Culex erraticus	14	165		
	Culex pipiens	22	357		
	Culex restuans	11	90		
	Culex salinarius	12	150		

	Culex spp.	9	30		
	Culex territans	3	3		
	Culiseta melanura	25	372		
	Psorophora columbiae	2	104		
	Psorophora ferox	3	22		
Essex		**461**	**6432**	**28**	**4.353**
	Aedes albopictus	84	586		
	Aedes canadensis canadensis	2	2		
	Aedes grossbecki	2	2		
	Aedes japonicus	55	457	1	2.188
	Aedes sticticus	5	113		
	Aedes triseriatus	12	31		
	Aedes vexans	19	226		
	Culex spp.	281	5011	27	5.388
	Psorophora ferox	1	4		
Gloucester		**583**	**17402**	**61**	**3.505**
	Aedes albopictus	49	1245		
	Aedes japonicus	7	141		
	Aedes triseriatus	1	7		
	Aedes vexans	3	12		
	Anopheles punctipennis	23	139		
	Anopheles quadrimaculatus	21	133		
	Coquillettidia perturbans	1	2		
	Culex pipiens	366	14269	57	3.995
	Culiseta melanura	112	1454	4	2.751
Hudson		**241**	**13496**	**79**	**5.854**
	Culex spp.	241	13496	79	5.854
Hunterdon		**310**	**13498**	**62**	**4.593**
	Culex spp.	310	13498	62	4.593
Mercer		**342**	**8554**	**70**	**8.183**
	Aedes albopictus	90	931		
	Aedes japonicus	39	214		
	Aedes triseriatus	5	11		
	Aedes vexans	1	3		
	Culex erraticus	3	10		
	Culex pipiens	173	6442	65	10.090
	Culex restuans	22	533	1	1.876
	Culex spp.	9	410	4	9.756
Middlesex		**273**	**10024**	**86**	**8.579**
	Aedes albopictus	19	222		
	Aedes japonicus	15	120		
	Aedes triseriatus	3	14		
	Culex spp.	236	9668	86	8.895
Monmouth		**378**	**4595**	**11**	**2.394**
	Aedes albopictus	74	386	1	2.591
	Aedes canadensis canadensis	12	129		
	Aedes cantator	8	43		
	Aedes japonicus	54	185	1	5.405

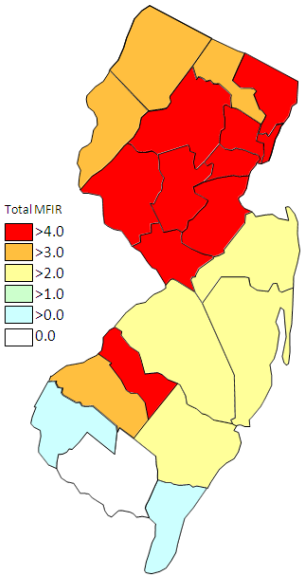
	Aedes triseriatus	17	23		
	Aedes vexans	9	19		
	Anopheles crucians	1	1		
	Anopheles punctipennis	21	29		
	Anopheles quadrimaculatus	1	1		
	Coquillettidia perturbans	4	5		
	Culex erraticus	11	128		
	Culex pipiens	1	1		
	Culex salinarius	3	14		
	Culex spp.	130	2947	9	3.054
	Culex territans	1	1		
	Culiseta melanura	28	678		
	Psorophora columbiae	2	3		
	Psorophora ferox	1	2		
Morris		**361**	**12324**	**73**	**5.923**
	Aedes albopictus	2	25		
	Aedes japonicus	24	327		
	Aedes triseriatus	3	14		
	Aedes vexans	1	1		
	Anopheles punctipennis	3	66		
	Coquillettidia perturbans	3	149		
	Culex spp.	325	11742	73	6.217
Ocean		**422**	**6649**	**15**	**2.256**
	Aedes albopictus	111	2617	1	0.382
	Aedes atlanticus	1	2		
	Aedes canadensis canadensis	29	1112		
	Aedes cantator	11	327		
	Aedes japonicus	34	141		
	Aedes sollicitans	2	2		
	Aedes sticticus	1	1		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	18	39		
	Aedes trivittatus	1	2		
	Aedes vexans	17	58	1	17.241
	Anopheles bradleyi	11	46		
	Anopheles crucians	2	10		
	Anopheles punctipennis	2	2		
	Anopheles quadrimaculatus	4	5		
	Coquillettidia perturbans	21	431		
	Culex erraticus	5	7		
	Culex restuans	1	1		
	Culex salinarius	13	37		
	Culex spp.	104	1682	13	7.729
	Culiseta melanura	27	120		
	Psorophora columbiae	1	1		
	Psorophora ferox	4	4		
	Psorophora howardii	1	1		
Passaic		**160**	**2778**	**11**	**3.960**
	Aedes albopictus	29	128	1	7.813
	Aedes japonicus	34	335		
	Aedes triseriatus	13	29		
	Anopheles punctipennis	4	15		
	Coquillettidia perturbans	1	2		

	Culex spp.	79	2269	10	4.407
Salem		**287**	**2754**	**2**	**0.726**
	Aedes albopictus	49	140		
	Aedes canadensis canadensis	2	6		
	Aedes cantator	1	1		
	Aedes japonicus	10	24		
	Aedes sticticus	1	3		
	Aedes triseriatus	5	6		
	Aedes vexans	13	123		
	Anopheles bradleyi	8	46		
	Anopheles punctipennis	10	16		
	Anopheles quadrimaculatus	11	31		
	Coquillettidia perturbans	20	144		
	Culex erraticus	15	134		
	Culex pipiens	4	26		
	Culex restuans	4	18		
	Culex spp.	95	1424	1	0.702
	Culiseta melanura	28	538	1	1.859
	Culiseta minnesotae	1	2		
	Psorophora ciliata	1	1		
	Psorophora columbiae	7	50		
	Psorophora ferox	2	21		
Somerset		**268**	**4795**	**41**	**8.551**
	Aedes albopictus	19	122		
	Aedes canadensis canadensis	1	3		
	Aedes japonicus	20	148		
	Aedes triseriatus	4	42		
	Aedes vexans	1	8		
	Anopheles punctipennis	4	25	1	40.000
	Culex spp.	219	4447	40	8.995
Sussex		**321**	**9330**	**36**	**3.859**
	Aedes albopictus	3	3		
	Aedes japonicus	4	45		
	Coquillettidia perturbans	1	43		
	Culex pipiens	4	59		
	Culex restuans	6	186		
	Culex salinarius	1	1		
	Culex spp.	293	8978	36	4.010
	Culiseta melanura	9	15		
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		**357**	**7283**	**24**	**3.295**
	Aedes albopictus	6	86		
	Aedes japonicus	34	177		
	Aedes triseriatus	24	62		
	Aedes trivittatus	3	3		
	Aedes vexans	6	25		

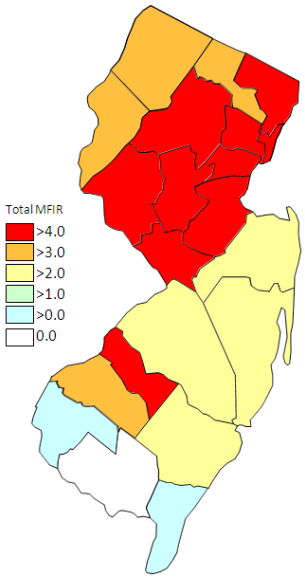
	Anopheles punctipennis	11	45		
	Anopheles quadrimaculatus	5	5		
	Coquillettidia perturbans	2	5		
	Culex spp.	265	6874	24	3.491
	Culiseta melanura	1	1		
Grand Total		**9615**	**199719**	**975**	**4.882**



Cumulative WNV activity in 2011.



WNV activity to 1 Oct 2012.



WNV activity last week, 2012.

Saint Louis Encephalitis (SLE) through 1 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		**271**	**9293**		
	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.	119	4693		
	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		**621**	**20766**		

La Crosse Encephalitis (LAC) through 1 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		**134**	**256**		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	130	250		
	Culex spp.	1	2		
	Orthopodomyia signifera	1	1		
	Psorophora columbiae	1	2		
Cumberland		**8**	**16**		
	Aedes triseriatus	8	16		
Salem		**2**	**3**		
	Aedes triseriatus	2	3		
Union		**1**	**15**		
	Aedes triseriatus	1	15		
Grand Total		**146**	**329**		