VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE and LAC

Prepared by Lisa M. Reed, Scott Crans and Mark Robson
Center for Vector Biology, Rutgers University

CDC WEEK 43: October 21 to October 27, 2012

Data Downloaded 10:06 pm 29 October 2012

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 / 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**	0.07	0	524	18	1	1.91
Corbin City (Atlantic Co.)/25	**Coastal**	0.23	0.20	(221) 216	(20) 19		
Dennisville (Cape May Co.)/50	**Coastal**	0	0	192	17	3	15.62
Winslow (Camden Co.)/50	**Inland**	0.09	0	2006	51	8	3.99
Centerton (Salem Co.)/50	**Inland**	0.14	0.02	548	24	3	5.47
Turkey Swamp (Monmouth Co.)/48	**Inland**	0.07	0	676	25	2	2.96
Glassboro (Gloucester Co.)/50	**Inland**	0.07	0	238	20	1	4.20

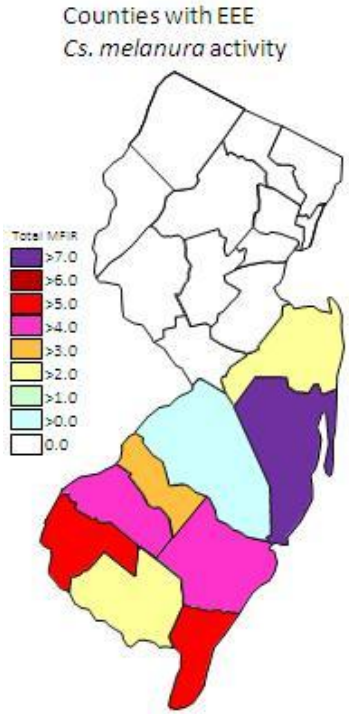
*Including trial run last week in May. ‡ Incomplete, to be updated.

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 and 2 additional positive pools from another species (see next page) have been detected in New Jersey this season.

To date 4472 *Cs. melanura* from 184 pools have been tested from the traditional resting box sites, with one additional pools in the system to be tested, for an MFIR of 4.02. Thirteen positive pools of *Cs. melanura* in traps set by individual counties have been detected for a county site MFIR of 1.83 (see below). Overall *Cs. melanura* MFIR value for the state is 2.68.

Additional *Cs. melanura*: Four hundred forty-three additional pools containing 7107 *Cs. melanura* have been tested from other sites using other traps in addition to resting boxes. No new positive pools were 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	45.45
Burlington	**CO_2**, Other	4531 (111)	2	0.44
Cape May	**Gravid, RB**	732 (162)	2	2.73
Cumberland	CO_2, Gravid, **RB**	354 (27)	1	2.96
Gloucester	CO_2, **RB**	1301 (101)	6	4.83
Monmouth	Gravid	26 (3)		
Ocean	**CO_2**, Gravid, RB	138 (34)	1	7.25
Salem	CO_2	3 (3)		
TOTAL		**7107 (443)**	**13**	1.83



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	23	593		
Aedes cantator	36	472		
Aedes japonicus	18	72		
Aedes mitchellae	6	68		
Aedes sollicitans	21	172		
Aedes sticticus	1	8		
Aedes taeniorhynchus	1	1		
Aedes triseriatus	8	9		
Aedes trivittatus	1	2		
Aedes vexans	9	162		

Anopheles bradleyi	80	482		
Anopheles crucians	7	41		
Anopheles punctipennis	38	187		
Anopheles quadrimaculatus	34	156		
Coquillettidia perturbans	70	1637		
Culex erraticus	341	9181	2	**0.218**
Culex pipiens	845	7883		
Culex restuans	17	78		
Culex salinarius	221	973		
Culex sp.	185	4702		
Psorophora columbiae	4	41		
Psorophora ferox	1	50		
State Total	**1981**	**27051**	**2**	**0.074**

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.

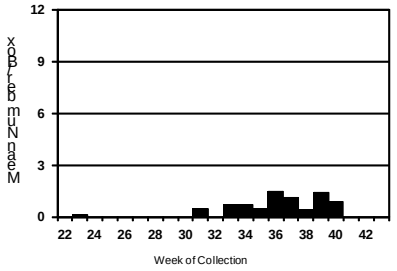
In Burlington County, 300 out of 3000 birds died September 1st/2nd in a flock of ring-necked pheasants (*Phasianus colchicus)*. Three birds of the 300 were tested out of state and returned positive for EEE. This non-native game bird can be susceptible to EEE effects, including hemorrhagic enteritis and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

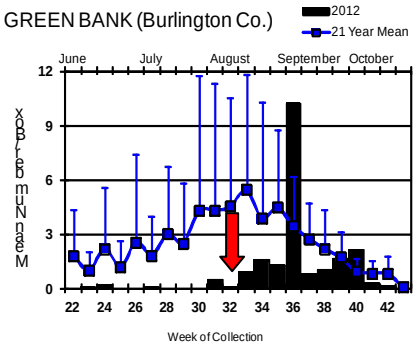
Culiseta melanura Population Graphs

Coastal

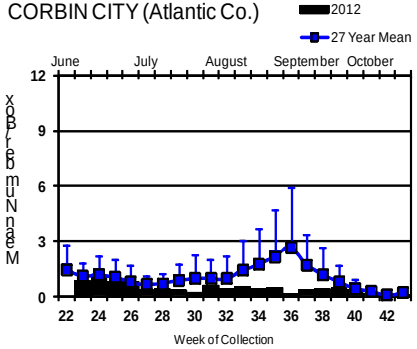
BASS RIVER (Burlington Co.)



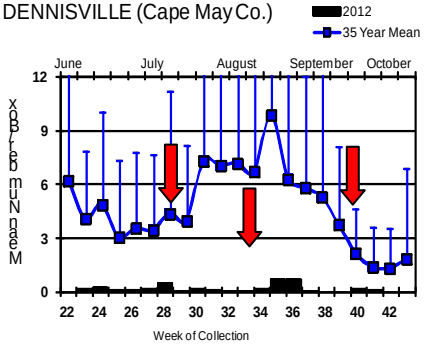
GREEN BANK (Burlington Co.)



CORBIN CITY (Atlantic Co.)

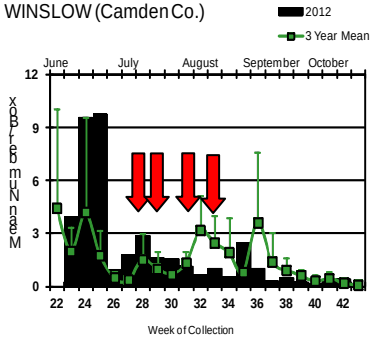


DENNISVILLE (Cape May Co.)

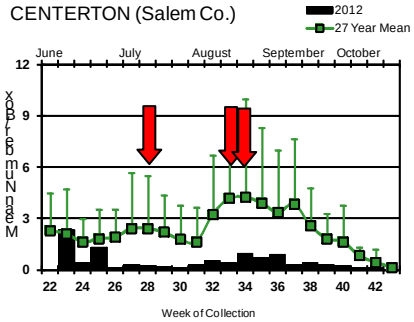


Inland

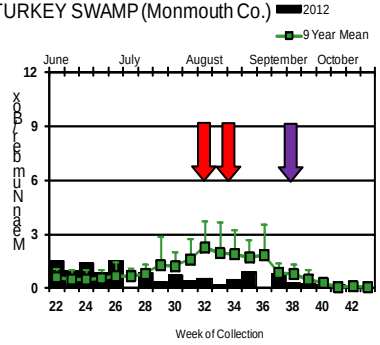
WINSLOW (Camden Co.)



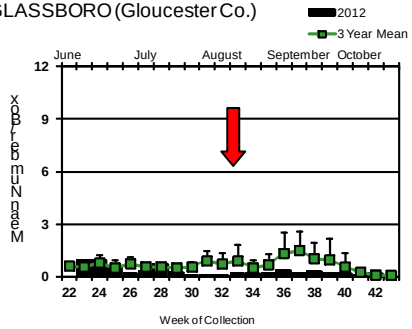
CENTERTON (Salem Co.)



TURKEY SWAMP (Monmouth Co.)



GLASSBORO (Gloucester Co.)



Apart from Corbin City and Centerton, no *Cs. melanura* were collected at the traditional resting box sites. At Corbin City and Centerton, populations were below the historical data.

= 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) 25(FL) 8(GA) 45(LA) 6(MA) 1(MI) 31(MS) 18(NC) 4(NH) 6(NJ) 2(NY) 1(PA) 12(SC) 5(TN) 1(TX) 2(VT) 4(WI)
- mosquito pools: 9(CT) 2(GA) 4(LA) 266(MA) 9(NH) 33(NJ) 1(NY) 6(RI) 137(VA) 10(VT)
- sentinel: 1(AL) 1(DE) 67(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		20/23	10	31/39
Alaska					0
Arizona	1	151/181	2	1	67/95
Arkansas				10	57/60
California	1569/1604	2757/2792	477/492	21	301/339
Colorado	4	209		15	125/127
Connecticut		234		2	20/21
Delaware	24		26/36	0	7/8
DC					2
Florida	1	4	343/360	6/7	52/54
Georgia	1	114	0	7	58/63
Hawaii					
Idaho	3	35		9	15
Illinois	108	3936/3945		7	211/215
Indiana	2	734/737		28/30	67/69
Iowa		14	17	26/33	25
Kansas		6		1	41/42
Kentucky		2		13	6
Louisiana		2488/2491	137/143	50	271/279
Maine		7			1
Maryland		10		2	41/44
Mass.		307		2	25/26
Michigan	39	24		5	196
Minnesota	26	105		11	68
Mississippi		56		24/32	233
Missouri		162		6	21/22

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana	1	11		6	5
Nebraska	14/15	257		11/14	136/155
Nevada		2		3	7
New Hampshire		41		0	1
New Jersey	132	1020/1023		6*	45/46
New Mexico	1	20		10	38/39
New York		1005		5/6	96/99
North Carolina				2/3	6
North Dakota	2	0		15*	88
Ohio		1214/1218		12	111/114
Oklahoma	1	30		15/22	173/178
Oregon	1	71	0	2	4
Pennsylvania	135	3410		49/51	36
Rhode Island		5		0	4
South Carolina	23	3		5	40
South Dakota	5	84		10/12	195/200
Tennessee	3	759/762		5/6	29/32
Texas	209	1381/1391		81/95	1634/1683
Utah		19/21	1	1	5
Vermont		1		2*	2
Virginia		208	19	1	24
Washington	0	5		1	4
West Virginia	1	281			7
Wisconsin	30/32	0		2	48/57
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 29 October 2012

Species	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	1610	11303	5	0.442
Aedes atlanticus	12	34		
Aedes atropalpus	17	47		
Aedes canadensis canadensis	94	1976		
Aedes cantator	75	886		
Aedes grossbecki	2	2		
Aedes japonicus	639	3057	7	2.290
Aedes mitchellae	6	68		
Aedes sollicitans	27	188		
Aedes sticticus	9	126		
Aedes taeniorhynchus	47	470		
Aedes triseriatus	331	761		
Aedes trivittatus	8	16		
Aedes vexans	174	1158	1	0.864
Anopheles bradleyi	115	834		
Anopheles crucians	16	62		
Anopheles punctipennis	146	499	1	2.004
Anopheles quadrimaculatus	196	674	1	1.484
Coquillettidia perturbans	92	1881		
Culex erraticus	386	9500		
Culex pipiens	1743	35018	148	4.226
Culex restuans	626	2542	7	2.754
Culex salinarius	268	1284	1	0.779
Culex sp.	3883	127334	840	6.597
Culex territans	58	111		
Culiseta melanura	674	11730	12	1.023
Culiseta minnesotae	1	2		
Orthopodomyia signifera	24	25		
Psorophora ciliata	1	1		
Psorophora columbiae	24	211		
Psorophora ferox	16	120		
Psorophora howardii	2	2		
Uranotaenia sapphirina	14	37		
State Total	**11336**	**211959**	**1023**	**4.826**

Remarks: To date, there have been 211,959 mosquitoes tested in 11,336 pools from 32 species. Currently, 1023 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-six 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 (3) 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
1023 / 11336 (0.090)	523 / 7348 (0.072)
2012 Positive Birds to date / Total Birds Submitted	This time last year
132 / 309 (0.427)	42 / 122 (0.344)

WNV Results by County through 29 October 2012

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**152**	**2642**	**5**	**1.893**
	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	13	83		
	Culex salinarius	1	27		
	Culex spp.	43	1647	5	3.036
	Culiseta melanura	26	268		
	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		**552**	**15772**	**35**	**2.219**
	Aedes albopictus	29	501		
	Aedes atlanticus	2	20		
	Aedes atropalpus	1	2		
	Aedes canadensis canadensis	19	564		
	Aedes cantator	2	30		
	Aedes japonicus	27	133	1	7.519
	Aedes mitchellae	6	68		
	Aedes sollicitans	1	9		
	Aedes sticticus	1	8		
	Aedes triseriatus	6	55		
	Aedes trivittatus	1	2		
	Aedes vexans	14	322		
	Anopheles bradleyi	10	193		
	Anopheles crucians	4	38		
	Anopheles punctipennis	9	32		
	Anopheles quadrimaculatus	8	17		
	Coquillettidia perturbans	25	983		
	Culex erraticus	15	127		
	Culex pipiens	8	234		
	Culex restuans	8	74		

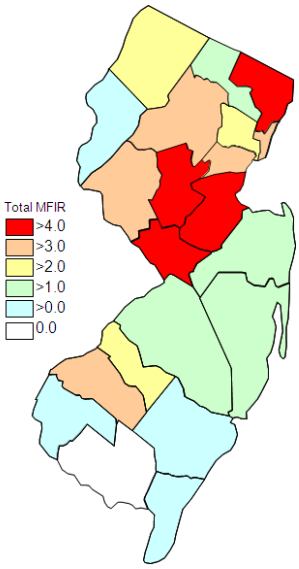
	Culex salinarius	13	272		
	Culex spp.	194	6844	29	4.237
	Culiseta melanura	139	5127	5	0.975
	Orthopodomyia signifera	1	1		
	Psorophora columbiae	4	43		
	Psorophora ferox	1	50		
	Uranotaenia sapphirina	4	23		
Camden		**327**	**8545**	**47**	**5.500**
	Aedes albopictus	53	218	1	4.587
	Aedes japonicus	29	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		**4147**	**30747**	**31**	**1.008**
	Aedes albopictus	805	2262		
	Aedes atlanticus	6	9		
	Aedes atropalpus	16	45		
	Aedes canadensis canadensis	10	79		
	Aedes cantator	47	462		
	Aedes japonicus	155	221		
	Aedes sollicitans	21	164		
	Aedes taeniorhynchus	43	377		
	Aedes triseriatus	178	314		
	Aedes vexans	34	77		
	Anopheles bradleyi	75	369		
	Anopheles punctipennis	30	35		
	Anopheles quadrimaculatus	123	423		
	Coquillettidia perturbans	6	25		
	Culex erraticus	290	8771		
	Culex pipiens	1121	13245	24	1.812
	Culex restuans	561	1622	6	3.699
	Culex salinarius	222	773		
	Culex spp.	117	374		
	Culex territans	54	107		
	Culiseta melanura	194	950	1	1.053
	Orthopodomyia signifera	23	24		
	Psorophora columbiae	5	6		
	Psorophora ferox	2	2		
	Uranotaenia sapphirina	9	11		
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		**509**	**6601**	**29**	**4.393**
	Aedes albopictus	103	696		
	Aedes canadensis canadensis	2	2		
	Aedes grossbecki	2	2		
	Aedes japonicus	67	486	2	4.115
	Aedes sticticus	5	113		
	Aedes triseriatus	13	32		
	Aedes vexans	23	231		
	Culex spp.	293	5035	27	5.362
	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		**391**	**15001**	**74**	**4.933**
	Culex spp.	391	15001	74	4.933
Mercer		**364**	**8624**	**70**	**8.117**
	Aedes albopictus	93	942		
	Aedes japonicus	41	217		
	Aedes triseriatus	5	11		
	Aedes vexans	1	3		
	Culex erraticus	5	12		
	Culex pipiens	179	6481	65	10.029
	Culex restuans	29	545	1	1.835
	Culex spp.	11	413	4	9.685
Middlesex		**285**	**10179**	**86**	**8.449**
	Aedes albopictus	19	222		

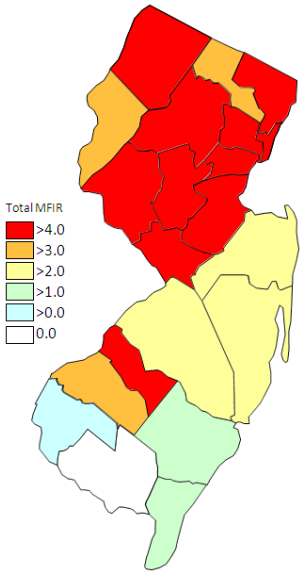
	Aedes japonicus	15	120		
	Aedes triseriatus	3	14		
	Culex spp.	248	9823	86	8.755
Monmouth		**431**	**4759**	**12**	**2.522**
	Aedes albopictus	86	417	1	2.398
	Aedes canadensis canadensis	13	130		
	Aedes cantator	8	43		
	Aedes japonicus	60	200	1	5.000
	Aedes triseriatus	18	24		
	Aedes vexans	13	23		
	Anopheles crucians	2	2		
	Anopheles punctipennis	25	40		
	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.	140	2991	10	3.343
	Culex territans	1	1		
	Culiseta melanura	35	720		
	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		**524**	**7126**	**16**	**2.245**
	Aedes albopictus	134	2831	1	0.353
	Aedes atlanticus	1	2		
	Aedes canadensis canadensis	42	1165		
	Aedes cantator	12	328		
	Aedes japonicus	41	152		
	Aedes sollicitans	2	2		
	Aedes sticticus	2	2		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	25	51		
	Aedes trivittatus	1	2		
	Aedes vexans	28	89	1	11.236
	Anopheles bradleyi	13	52		
	Anopheles crucians	2	10		
	Anopheles punctipennis	6	7		
	Anopheles quadrimaculatus	6	8		
	Coquillettidia perturbans	21	431		
	Culex erraticus	9	13		
	Culex restuans	1	1		
	Culex salinarius	14	43		
	Culex spp.	123	1792	14	7.813
	Culiseta melanura	34	138		

	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		**362**	**3327**	**2**	**0.601**
	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	28	231		
	Anopheles bradleyi	8	46		
	Anopheles punctipennis	11	17		
	Anopheles quadrimaculatus	19	56		
	Coquillettidia perturbans	20	144		
	Culex erraticus	23	183		
	Culex pipiens	7	29		
	Culex restuans	6	20		
	Culex spp.	113	1746	1	0.573
	Culiseta melanura	33	573	1	1.745
	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		**363**	**9550**	**41**	**4.293**
	Aedes albopictus	4	4		
	Aedes japonicus	4	45		
	Coquillettidia perturbans	1	43		
	Culex pipiens	15	86	1	11.628
	Culex restuans	8	188		
	Culex salinarius	1	1		
	Culex spp.	320	9167	40	4.363
	Culiseta melanura	10	16		

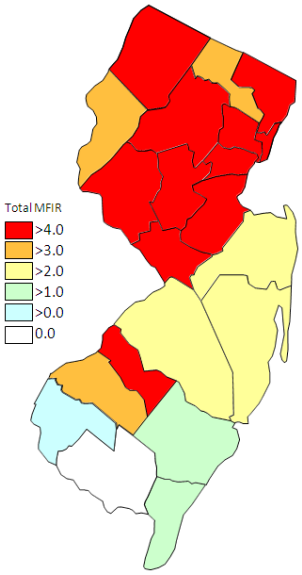
Union		**312**	**14118**	**114**	**8.075**
	Aedes albopictus	59	838		
	Aedes japonicus	5	64		
	Aedes triseriatus	1	15		
	Culex spp.	247	13201	114	8.636
Warren		**409**	**7488**	**24**	**3.219**
	Aedes albopictus	6	86		
	Aedes japonicus	58	271		
	Aedes triseriatus	32	76		
	Aedes trivittatus	4	8		
	Aedes 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		**11336**	**211959**	**1023**	**4.826**



Cumulative WNV activity in 2011.



WNV activity to 29 Oct 2012.



WNV activity last week, 2012.

Saint Louis Encephalitis (SLE) through 29 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		**282**	**9447**		
	Aedes albopictus	6	107		
	Aedes canadensis canadensis	6	214		
	Aedes cantator	2	30		
	Aedes japonicus	19	77		

	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	8	234		
	Culex restuans	4	56		
	Culex salinarius	10	182		
	Culex spp.	126	4829		
	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		**632**	**20920**		

La Crosse Encephalitis (LAC) through 29 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		**156**	**283**		
	Aedes taeniorhynchus	1	1		
	Aedes triseriatus	146	268		
	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		**168**	**356**		