RUTGERS
New Jersey Agricultural Experiment Station

VECTOR SURVEILLANCE IN NEW JERSEY
EEE, WNV and SLE
CDC WEEK 38: September 20 to September 26, 2009

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Supported by funding from the NJ State Mosquito Control Commission.

Culiseta melanura and Eastern Equine Encephalitis

SITE	Inland / Coastal	Historic Mean	Current Weekly Mean	Total Tested to Date*	Total Pools Submitted	EEE Isolations	MFIR
Green Bank (Burlington County)	Coastal	2.4	1.60	937	38	3	3.20
Corbin City (Atlantic County)	Coastal	1.2	0.68	245	21	1	4.08
Dennisville (Cape May County)	Coastal	4.1	0.55	1690	53	20	11.83
Winslow † (Camden County)	Inland	No history	1.62	1386	32	15	10.82
Centerton (Salem County)	Inland	2.8	1.36	462	32	1	2.16
Turkey Swamp (Monmouth County)	Inland	0.7	1.56	1356	115	15	11.06
Glassboro (Gloucester County)	Inland	No history	2.12	911	38	3	3.29

*Including trial run last week in May. † Date of site change-over occurred during Week 30.

Remarks: Eastern equine encephalitis virus continues to develop strongly throughout southern New Jersey. The total number of positive EEE pools of mosquitoes is at 110. Most positive pools remain in the enzootic vector, *Culiseta melanura* (88 out of the 110 positive pools). Positive pools of *Cs. melanura* from the traditional resting box sites are at 55. Thirty-three positive *Cs. melanura* pools come from traps set by county agencies and 22 other positive species come from those traps (see below). To date, 329 pools from 6987 *Cs. melanura* mosquitoes have been sent for EEE testing from the seven resting box collections, and a total of 677 pools from 12,832 *Cs. melanura* from all trap sites.

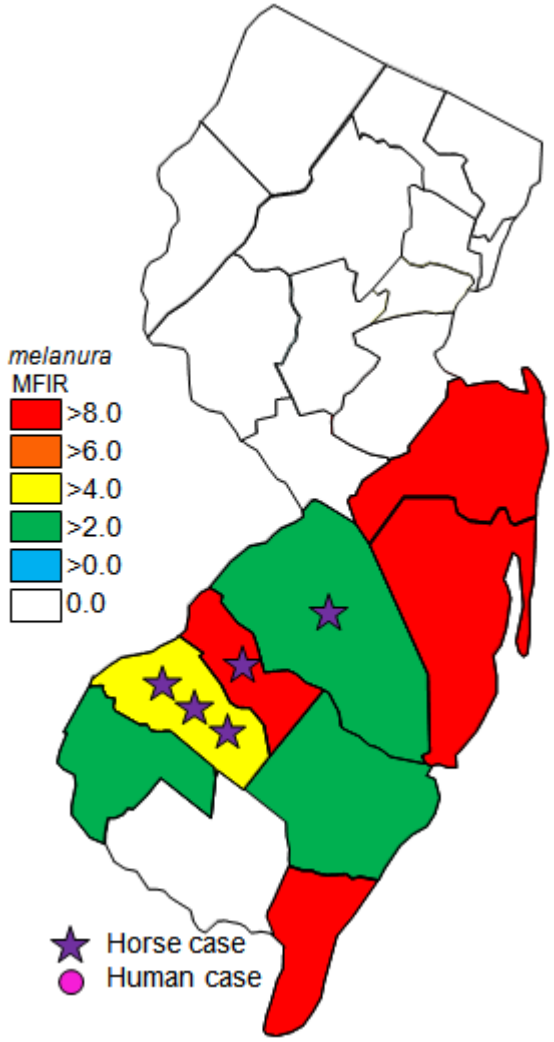
Positive species other than *Cs. melanura*	County(s)	Total Pools	Total Mosquitoes	Total Positive Pools	MFIR
Aedes canadensis	Burlington, Monmouth	38	709	3	4.23
Aedes japonicus	Ocean	43	188	1	5.32
Aedes vexans	Gloucester	32	800	1	1.25
Anopheles punctipennis	Monmouth	56	306	1	3.27
Mixed *Culex* species	Atlantic, Monmouth	195	7502	3	0.28

Positive species other than *Cs. melanura*	County(s)	Total Pools	Total Mosquitoes	Total Positive Pools	MFIR
Culex erraticus	Cape May	135	5970	11	1.84
Culex pipiens	Cape May	53	428	1	2.34
Culex salinarius	Burlington	111	3151	1	0.32

Additional Pools: *Aedes japonicus* is the newest species in which EEE has been detected in New Jersey. *Aedes japonicus* has the potential to transmit EEE (Sardelis *et al.,* 2002 Experimental transmission of EEE virus by *Ochlerotatus j. japonicus* J. Med. Entomol. 39: 480-484). EEE continued to be detected in pools of *Culex erraticus* from Cape May County in an area loaded with wading birds and is likely taking avian bloodmeals being an opportunistic feeder. Other species tested for EEE include: *Aedes abserratus, Ae. albopictus, Ae. atlanticus, Ae. atropalpus, Ae. cantator, Ae. cinereus, Ae. sollicitans, Ae. sticticus, Ae. taeniorhynchus, Ae. thibaulti, Ae. triseriatus, Ae. trivittatus, Anopheles barberi, An. bradleyi, An. crucians, An. quadrimaculatus, An. walkeri, Coquillettidia perturbans, Cx. restuans, Cx. territans, Culiseta inornata, Psorophora ciliate, Ps. columbiae, Ps. ferox, Ps. howardii and Uranotaenia sapphirina.*

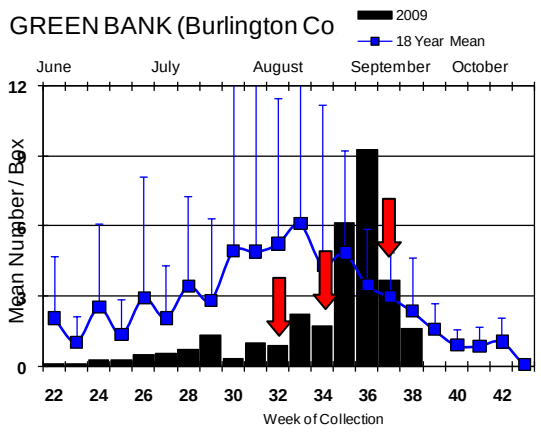
MFIR values: The largest jump in MFIR values (from 7 to 11) was at the Turkey Swamp site in Monmouth County. This was due to an increase from 10 to 15 positive *Cs. melanura* pools. Additionally, *Aedes canadensis* and Mixed *Culex* pools were also found positive in Monmouth this week. With this increased activity, county and state agencies should maintain surveillance and control with due diligence through the remainder of the season. Graph to the right is the MFIR values of *Cs. melanura* for counties with positive pools, including non-resting box pools. Stars only indicate which counties have positive horses, not location.

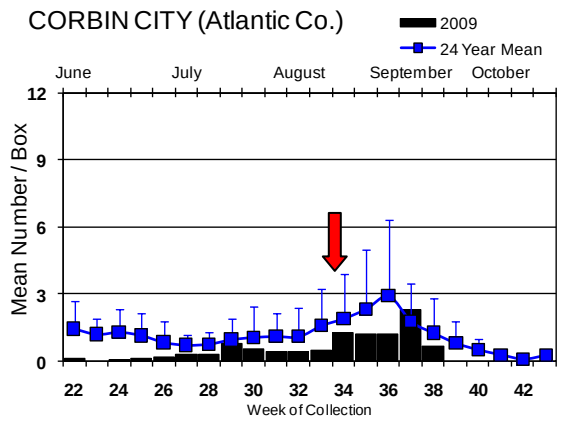
Horses and Humans: The number of EEE positive horses is now five (Burlington-1, Camden-1 and Gloucester-3). Previously reported Atlantic County horse case was not EEE positive. Also, the reported Gloucester County co-infection of WNV & EEE was confirmed for EEE only.
The fate of these five horses reinforces 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
No human cases have been detected to date.

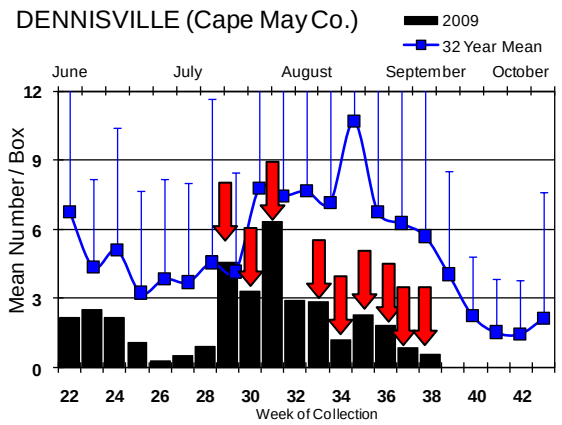


Culiseta melanura Population Graphs

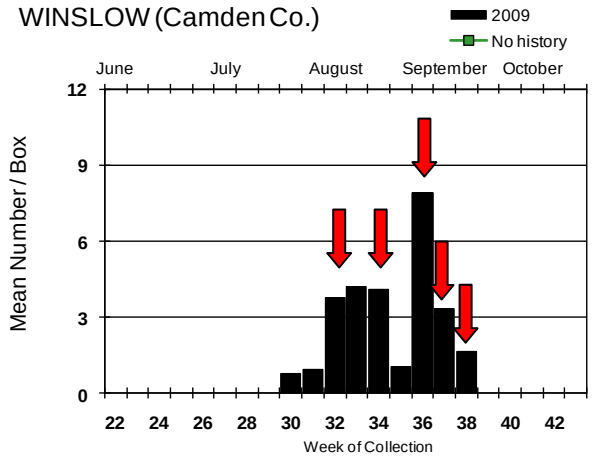
Coastal

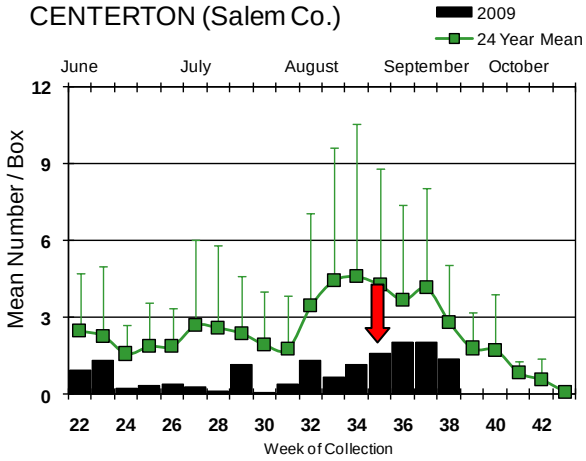


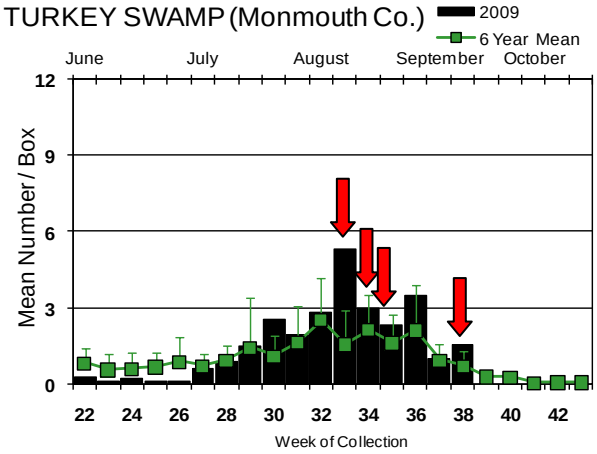




Inland

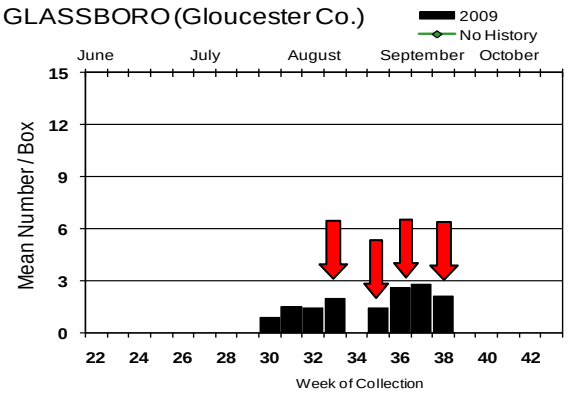






Four traditional resting box locations detected positive *Culiseta melanura* pools, with Turkey Swamp experiencing the greatest increase in activity. This was the only site to have an increase in the *Cs. melanura* population from the previous week. With widespread EEE activity being present in both the enzootic vector and other species, continued vigilance with appropriate suppression action is warranted.

= positive pool(s) detected.



EEE in US (2009 cumulative cases): (Red = new reported cases occurring) [1 horse case Nova Scotia]

- **equine:** 19(AL) 67(FL) 44(GA) 21(LA) 1(MA) 15(ME) 1(MO) 44(MS) 16(NC) 5[1alpaca,1llama](NH) 4(NJ) 4(NY) 1(RI) 11(SC) 4(TX) 10(VA)
- **mosquito:** 74(CT) 1(FL) 2(LA) 52(MA) 46(NH) 110(NJ) 45(NY) 2(RH) 136(VA)
- **sentinel:** 2(AL) 155/80wild(FL) 24(NC) 58[1emu,1fairybluebird(*Irena* sp)](VA)
- **human:** 1(LA) 1(NH) 1(NY)

West Nile Virus

West Nile in US (2009 cumulative cases): Single black values indicate no change from previous week. Black values / red values equals previous week/New totals.
Note: Some data reported by states are provisional and are subject to change. Sources for this table can be found here.

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Alabama			1/2	1	
Alaska					
Arizona	1	72/80	5	0	15/16
Arkansas					1
California	43/457	967/1008	255/306	9/11	52/61
Colorado		70		15	51/71
Connecticut	0	23/28	0	0	0
Delaware					
DC					
Florida	2 (flavi)		15	1	0
Georgia	0	17		2	2
Hawaii					
Idaho	1	9 co.		9/10	26/29
Illinois	20/21	354/377	0	4/5	4
Indiana	2	107/117		0	3
Iowa		8/9	6	2	2/3
Kansas		3/4			4
Kentucky				4/5	1/2
Louisiana		37/944	5	2	14
Maine					
Maryland	0	8		0	0
Mass.		25/25		0	0
Michigan		3	0	0	0
Minnesota	1	4			1
Mississippi		7		3/4	40/41
Missouri		347 flavi		2	1/2
Montana		5		8/12	5
Nebraska	17	60/72		2/3	21/33

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Nevada		4+			12
New Hampshire		0		0	0
New Jersey	25/28	254/278	0	2	1/2
New Mexico		+		1/4	3/5
New York	29	83/92	0	0	1/2
North Carolina					
North Dakota	0	0		2 dogs	1
Ohio	0	226/234		0	1/2
Oklahoma	0	0	0	5	4
Oregon	15	266	0	5	7
Pennsylvania	8/10	247/267	0	2	2
Rhode Island		1/2			
South Carolina	2	11			3
South Dakota	0	18	0	3	14
Tennessee	1	428/463	0	0	2
Texas	7/8	341/36	0	4/6	59/66
Utah		267/280	1	6	0
Vermont	3	8	0	0	0
Virginia		39	8	2	0
Washington	19/20	326	0	64/67	20/27
West Virginia	1	7/72	0	1	0
Wisconsin	5		0	1	0
Wyoming		22		2	7/8

Protocol: New Jersey Department of Health and Senior Services (NJDHSS Public Health and Environmental Laboratories, PHEL) and the Cape May County Division of Mosquito Control tests mosquito pools using RT-PCR Taqman techniques.

Mosquito Species Submitted for West Nile Virus Testing through 1 October 2009

Species	Pools	Mosquitoes	Positives	MFIR
Aedes abserratus	1	1		
Aedes albopictus	579	4110	3	0.730
Aedes atlanticus	15	40		
Aedes atropalpus	2	16		
Aedes canadensis canadensis	121	2732		
Aedes cantator	54	461		
Aedes cinereus	2	7		
Aedes grossbecki	3	35		
Aedes japonicus	724	4613	1	0.217
Aedes sollicitans	33	370		
Aedes sticticus	12	115		
Aedes taeniorhynchus	17	141		
Aedes thibaulti	6	9		
Aedes triseriatus	263	1026	1	0.975
Aedes trivittatus	38	592		
Aedes vexans	162	2327	1	0.430
Anopheles barberi	6	17		
Anopheles bradleyi	40	755	1	1.325
Anopheles crucians	4	32		
Anopheles punctipennis	156	564		
Anopheles quadrimaculatus	126	1478		
Anopheles walkeri	1	19		
Coquillettidia perturbans	61	611		
Culex erraticus	150	6137		
Culex pipiens	958	20865	10	0.479
Culex restuans	584	6616	2	0.302
Culex salinarius	168	3649		
Culex spp.	3573	144659	268	1.853
Culex territans	32	116		
Culiseta inornata	1	2		
Culiseta melanura	614	9671	2	0.207
Culiseta morsitans	1	3		
Orthopodomyia signifera	3	3		
Psorophora ciliata	5	40		
Psorophora columbiae	9	165		
Psorophora ferox	43	467		
Psorophora howardii	1	6		
Uranotaenia sapphirina	3	16		
State Total	**8571**	**212486**	**289**	**1.360**

Remarks: The number of pools positive for West Nile virus has increased from 254 to 289. Infected pools continue to be primarily from ornithophilic species (268 pools). Increased activity is occurring in potential bridge vectors, with positive pools detected in *Aedes albopictus, Ae. japonicus, Ae. triseriatus* and *Ae. vexans* (the first two are competent vectors of WNV). Despite an increase in activity, this season continues to be less active as compared to last year.

Humans, Horses and Wild Birds: A second human was reported positive for WNV in Camden County, with onset of symptoms occurring on 28 August. The first human had been reported positive for WNV by PHEL in Hunterdon County with symptom onset on 18 August. For more details plus information about WNV, see the PHEL's West Nile Virus Alert and FAQ Sheets: http://www.state.nj.us/health/cd/westnile/enceph.htm

The previously reported horse case for co-infection of WNV& EEE was confirmed for only EEE infection. Thus only one WNV horse case in Salem County has occurred. Sixteen positive Blue Jays (*Cyanocitta cristata*) mostly in Ocean County, four American Crows (*Corvus brachyrhynchos*), six unknown crow species (*Corvus*) and two unknown hawks have been detected with WNV infection to date. No Fish Crows (*Corvus ossifragus*) have been reported infected with WNV.

2009 Positive Mosquito pools to date / Total Mosquito Pools Submitted	This time last year* * 2008 started later (at least one month) last year than in 2009
278 / 6844 (4.1%)	613 / 7788 (7.9%)
2009 Positive Birds to date / Total Birds Submitted	This time last year* * 2008 started later (at least one month) last year than in 2009
28 / 116 (24.1%)	48 / 156 (30.8%)

WNV Results by County through 1 October 2009

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**246**	**6088**	**3**	**0.493**
	Aedes albopictus	18	254		
	Aedes atlanticus	1	4		
	Aedes canadensis canadensis	6	78		
	Aedes cantator	8	148		
	Aedes grossbecki	1	8		
	Aedes japonicus	12	77		
	Aedes sollicitans	5	17		
	Aedes sticticus	2	18		
	Aedes taeniorhynchus	7	43		
	Aedes thibaulti	3	3		
	Aedes triseriatus	5	12		
	Aedes trivittatus	3	20		
	Aedes vexans	20	528		
	Anopheles bradleyi	7	58	1	17.241
	Anopheles punctipennis	6	11		
	Anopheles quadrimaculatus	5	9		
	Culex erraticus	2	12		
	Culex restuans	2	5		
	Culex salinarius	2	37		
	Culex spp.	98	4321	2	0.463
	Culex territans	1	1		
	Culiseta melanura	27	388		
	Psorophora columbiae	2	3		
	Psorophora ferox	3	33		
Bergen		**219**	**14669**	**78**	**5.317**
	Aedes albopictus	5	21		
	Aedes japonicus	11	41		
	Aedes triseriatus	1	1		
	Anopheles punctipennis	3	10		
	Culex spp.	199	14596	78	5.344

Burlington	**521**	**14313**	**25**	**1.747**
Aedes abserratus	1	1		
Aedes albopictus	44	315		
Aedes atlanticus	3	18		
Aedes atropalpus	2	16		
Aedes canadensis canadensis	27	1286		
Aedes cantator	6	67		
Aedes cinereus	1	6		
Aedes grossbecki	1	26		
Aedes japonicus	33	169		
Aedes sollicitans	5	71		
Aedes sticticus	2	85		
Aedes taeniorhynchus	4	57		
Aedes triseriatus	16	85		
Aedes trivittatus	2	9		
Aedes vexans	29	1017		
Anopheles barberi	1	1		
Anopheles bradleyi	10	469		
Anopheles crucians	2	11		
Anopheles punctipennis	11	46		
Anopheles quadrimaculatus	4	12		
Coquillettidia perturbans	21	288		
Culex erraticus	11	36		
Culex pipiens	1	75		
Culex restuans	2	4		
Culex salinarius	22	591		
Culex spp.	142	6198	25	4.034
Culex territans	3	13		
Culiseta inornata	1	2		
Culiseta melanura	101	3096		
Psorophora ciliate	2	34		
Psorophora columbiae	2	7		
Psorophora ferox	7	182		
Psorophora howardii	1	6		
Uranotaenia sapphirina	1	14		
Camden	**264**	**7085**	**20**	**2.823**
Aedes albopictus	30	150	2	13.333
Aedes japonicus	37	96	1	10.417
Aedes thibaulti	1	1		
Aedes triseriatus	5	5		
Aedes trivittatus	2	2		
Aedes vexans	1	1		
Anopheles punctipennis	3	8		
Anopheles quadrimaculatus	3	4		
Culex pipiens	3	107		
Culex restuans	3	3		
Culex spp.	166	6612	17	2.571
Culex territans	1	1		
Culiseta melanura	6	92		
Orthopodomyia signifera	3	3		

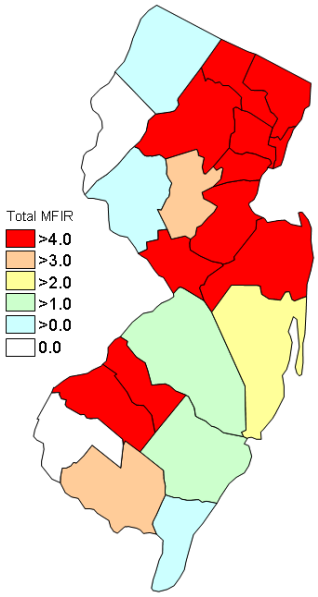
Cape May		**2112**	**35657**	**13**	**0.365**
	Aedes albopictus	116	448		
	Aedes canadensis canadensis	6	84		
	Aedes cantator	7	22		
	Aedes japonicus	187	698		
	Aedes sollicitans	10	111		
	Aedes taeniorhynchus	4	21		
	Aedes triseriatus	45	150		
	Aedes vexans	1	1		
	Anopheles bradleyi	11	131		
	Anopheles punctipennis	6	20		
	Anopheles quadrimaculatus	32	1068		
	Coquillettidia perturbans	3	30		
	Culex erraticus	94	5371		
	Culex pipiens	485	8347	6	0.719
	Culex restuans	375	4287	2	0.467
	Culex salinarius	94	2691		
	Culex spp.	434	8900	3	0.337
	Culex territans	7	29		
	Culiseta melanura	194	3243	2	0.617
	Psorophora ferox	1	5		
Cumberland		**119**	**2403**	**1**	**0.416**
	Aedes albopictus	11	130		
	Aedes atlanticus	1	5		
	Aedes cantator	1	15		
	Aedes japonicas	17	107		
	Aedes triseriatus	2	11		
	Aedes vexans	1	4		
	Anopheles punctipennis	1	1		
	Anopheles quadrimaculatus	2	5		
	Culex erraticus	8	95		
	Culex pipiens	19	556	1	1.799
	Culex restuans	2	6		
	Culex salinarius	1	5		
	Culex spp.	40	1341		
	Culex territans	1	1		
	Culiseta melanura	12	121		
Essex		**271**	**3791**	**2**	**0.528**
	Aedes albopictus	21	128		
	Aedes japonicus	27	153		
	Aedes sticticus	1	1		
	Aedes triseriatus	18	32		
	Aedes trivittatus	4	28		
	Aedes vexans	17	69		
	Anopheles punctipennis	9	16		
	Anopheles quadrimaculatus	7	14		
	Coquillettidia perturbans	4	6		
	Culex spp.	157	3297	2	0.607
	Psorophora ciliata	1	3		
	Psorophora ferox	5	44		

Gloucester		**629**	**13316**	**3**	**0.225**
	Aedes albopictus	55	630		
	Aedes atlanticus	1	1		
	Aedes canadensis canadensis	2	2		
	Aedes japonicus	60	492		
	Aedes thibaulti	1	4		
	Aedes triseriatus	9	38		
	Aedes trivittatus	1	75		
	Aedes vexans	16	95		
	Anopheles barberi	2	13		
	Anopheles crucians	2	21		
	Anopheles punctipennis	31	183		
	Anopheles quadrimaculatus	36	158		
	Anopheles walkeri	1	19		
	Coquillettidia perturbans	5	22		
	Culex pipiens	315	10724	3	0.280
	Culex restuans	20	142		
	Culex salinarius	1	1		
	Culex territans	4	9		
	Culiseta melanura	66	686		
	Psorophora ciliata	1	1		
Hudson		**226**	**11560**	**43**	**3.720**
	Culex spp.	226	11560	43	3.720
Hunterdon		**302**	**14779**	**32**	**2.165**
	Aedes albopictus	1	45		
	Culex erraticus	4	109		
	Culex spp.	297	14625	32	2.188
Mercer		**471**	**8063**	**3**	**0.372**
	Aedes albopictus	52	153		
	Aedes japonicus	69	176		
	Aedes triseriatus	8	12		
	Culex erraticus	1	1		
	Culex pipiens	97	783		
	Culex restuans	128	1820		
	Culex salinarius	6	26		
	Culex spp.	110	5092	3	0.589
Middlesex		**305**	**13611**	**12**	**0.882**
	Aedes albopictus	11	87		
	Aedes japonicus	25	333		
	Aedes triseriatus	1	6		
	Culex spp.	268	13185	12	0.910
Monmouth		**655**	**6118**	**2**	**0.327**
	Aedes albopictus	72	352		
	Aedes atlanticus	4	4		
	Aedes canadensis canadensis	37	304		
	Aedes cantator	11	52		
	Aedes japonicus	49	261		
	Aedes sollicitans	2	3		

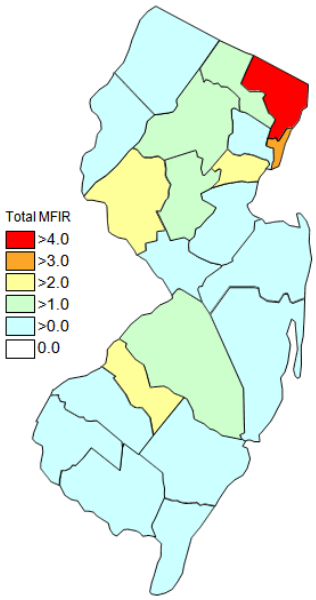
	Aedes thibaulti	1	1		
	Aedes triseriatus	29	138		
	Aedes trivittatus	9	21		
	Aedes vexans	17	110		
	Anopheles barberi	3	3		
	Anopheles punctipennis	32	116		
	Anopheles quadrimaculatus	14	27		
	Coquillettidia perturbans	6	15		
	Culex erraticus	12	130		
	Culex pipiens	21	59		
	Culex restuans	28	62		
	Culex salinarius	1	5		
	Culex spp.	159	2973	2	0.673
	Culex territans	13	60		
	Culiseta melanura	125	1383		
	Psorophora columbiae	1	3		
	Psorophora ferox	7	34		
	Uranotaenia sapphirina	2	2		
Morris		**215**	**8678**	**9**	**1.037**
	Aedes japonicus	30	421		
	Aedes triseriatus	5	39		
	Anopheles punctipennis	1	2		
	Culex spp.	179	8216	9	1.095
Ocean		**636**	**10561**	**6**	**0.568**
	Aedes albopictus	83	1182	1	0.846
	Aedes atlanticus	5	8		
	Aedes canadensis canadensis	40	950		
	Aedes cantator	21	157		
	Aedes cinereus	1	1		
	Aedes grossbecki	1	1		
	Aedes japonicus	73	422		
	Aedes sollicitans	8	133		
	Aedes sticticus	6	10		
	Aedes taeniorhynchus	2	20		
	Aedes triseriatus	33	97		
	Aedes trivittatus	5	15		
	Aedes vexans	47	218	1	4.587
	Anopheles bradleyi	12	97		
	Anopheles punctipennis	27	53		
	Anopheles quadrimaculatus	9	21		
	Coquillettidia perturbans	11	23		
	Culex erraticus	2	2		
	Culex pipiens	2	3		
	Culex restuans	14	18		
	Culex salinarius	24	89		
	Culex spp.	157	6805	4	0.588
	Culiseta melanura	37	157		
	Psorophora columbiae	2	2		
	Psorophora ferox	14	77		

Passaic		**113**	**2140**	**4**	**1.869**
	Aedes albopictus	8	72		
	Aedes canadensis canadensis	1	20		
	Aedes japonicus	25	409		
	Aedes triseriatus	12	59	1	16.949
	Anopheles punctipennis	2	5		
	Culex spp.	65	1575	3	1.905
Salem		**186**	**5351**	**2**	**0.374**
	Aedes albopictus	13	45		
	Aedes japonicus	8	37		
	Aedes triseriatus	3	3		
	Aedes vexans	2	150		
	Anopheles punctipennis	11	57		
	Anopheles quadrimaculatus	10	152		
	Coquillettidia perturbans	4	128		
	Culex erraticus	16	381		
	Culex restuans	4	79		
	Culex salinarius	3	153		
	Culex spp.	70	3532	2	0.566
	Culex territans	2	2		
	Culiseta melanura	37	480		
	Psorohpora ciliata	1	2		
	Psorophora columbiae	2	150		
Somerset		**310**	**6744**	**12**	**1.779**
	Aedes albopictus	16	48		
	Aedes canadensis canadensis	2	8		
	Aedes japonicus	37	534		
	Aedes sticticus	1	1		
	Aedes triseriatus	38	145		
	Aedes trivittatus	12	422		
	Aedes vexans	3	25		
	Anopheles punctipennis	11	30		
	Anopheles quadrimaculatus	4	8		
	Coquillettidia perturbans	3	4		
	Culex spp.	180	5501	12	2.181
	Psorophora ferox	3	18		
Sussex		**337**	**9598**	**6**	**0.625**
	Aedes japonicus	3	3		
	Aedes triseriatus	30	187		
	Coquillettidia perturbans	3	94		
	Culex pipiens	15	211		
	Culex restuans	6	190		
	Culex salinarius	14	51		
	Culex spp.	256	8834	6	0.679
	Culiseta melanura	9	25		
	Culiseta morsitans	1	3		

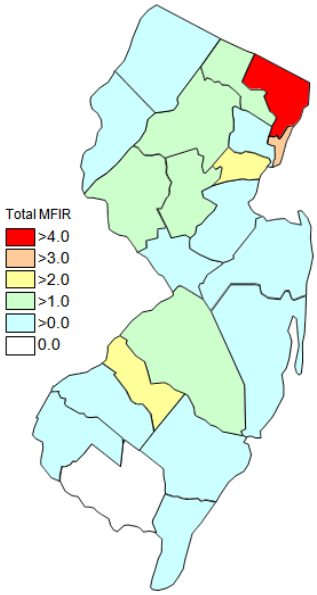
Union		**169**	**4552**	**12**	**2.636**
	Aedes albopictus	24	95		
	Aedes japonicus	20	139		
	Aedes sollicitans	3	35		
	Aedes triseriatus	3	6		
	Aedes vexans	8	109		
	Anopheles punctipennis	2	6		
	Coquillettidia perturbans	1	1		
	Culex spp.	105	4087	12	2.936
	Psorophora ferox	3	74		
Warren		**265**	**13409**	**1**	**0.075**
	Culex spp.	265	13409	1	0.075
Grand Total		**8571**	**212486**	**289**	**1.360**



Cumulative activity in 2008



Activity this year to 1 Oct 2009



Activity last week, 2009.

Saint Louis Encephalitis (SLE) through 1 October 2009.

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.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		**451**	**12292**		
	Aedes abserratus	1	1		
	Aedes albopictus	44	315		
	Aedes atlanticus	3	18		
	Aedes atropalpus	2	16		
	Aedes canadensis canadensis	14	544		
	Aedes cantator	5	66		
	Aedes cinereus	1	6		
	Aedes japonicus	32	168		

	Aedes sollicitans	5	71		
	Aedes sticticus	1	41		
	Aedes taeniorhynchus	4	57		
	Aedes triseriatus	15	84		
	Aedes trivittatus	2	9		
	Aedes vexans	24	773		
	Anopheles barberi	1	1		
	Anopheles bradleyi	9	468		
	Anopheles crucians	2	11		
	Anopheles punctipennis	9	40		
	Anopheles quadrimaculatus	3	11		
	Coquillettidia perturbans	21	288		
	Culex erraticus	11	36		
	Culex pipiens	1	75		
	Culex restuans	1	3		
	Culex salinarius	21	590		
	Culex spp.	140	6189		
	Culex territans	2	7		
	Culiseta inornata	1	2		
	Culiseta melanura	63	2159		
	Psorophora ciliate	2	34		
	Psorophora columbiae	2	7		
	Psorophora ferox	7	182		
	Psorophora howardii	1	6		
	Uranotaenia sapphirina	1	14		
Camden		**181**	**4817**		
	Aedes albopictus	28	142		
	Aedes japonicus	25	73		
	Aedes triseriatus	5	5		
	Aedes vexans	1	1		
	Culex pipiens	2	95		
	Culex restuans	1	1		
	Culex spp.	116	4497		
	Orthopodomyia signifera	3	3		
Cape May		**965**	**17260**		
	Aedes albopictus	18	88		
	Aedes cantator	1	2		
	Aedes japonicus	6	34		
	Aedes triseriatus	3	14		
	Anopheles quadrimaculatus	1	1		
	Coquillettidia perturbans	2	22		
	Culex erraticus	2	78		
	Culex pipiens	349	6562		
	Culex restuans	176	1762		
	Culex salinarius	21	182		
	Culex spp.	373	8364		
	Culiseta melanura	13	151		
Essex		**216**	**3563**		
	Aedes albopictus	21	128		

	Aedes japonicus	17	107		
	Aedes sticticus	1	1		
	Aedes triseriatus	9	14		
	Aedes vexans	9	25		
	Anopheles punctipennis	1	1		
	Coquillettidia perturbans	1	1		
	Culex spp.	155	3283		
	Psorophora ferox	2	3		
Hunterdon		**66**	**3300**		
	Culex spp.	66	3300		
Mercer		**453**	**7961**		
	Aedes albopictus	52	153		
	Aedes japonicus	65	172		
	Aedes triseriatus	8	12		
	Culex pipiens	94	772		
	Culex restuans	124	1777		
	Culex salinarius	4	24		
	Culex spp.	106	5051		
Ocean		**2**	**3**		
	Aedes albopictus	1	1		
	Culex spp.	1	2		
Somerset		**22**	**557**		
	Aedes albopictus	1	4		
	Culex spp.	21	553		
Somerset		**30**	**187**		
	Aedes triseriatus	30	187		
Grand Total		**2386**	**49940**		

Specimens submitted by the counties continue to be negative for SLE.

La Crosse Encephalitis (LAC) through 1 October 2009.

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).

County	Species	Pools	Mosquitoes	Positives	MFIR
Cape May		**288**	**1298**		
	Aedes albopictus	98	380		
	Aedes japonicus	137	555		

	Aedes sollicitans	1	2		
	Aedes triseriatus	42	138		
	Anopheles bradleyi	1	34		
	Culex pipiens	1	41		
	Culex restuans	1	8		
	Culex salinarius	2	77		
	Culex spp.	5	63		
Passaic		**2**	**17**		
	Aedes triseriatus	2	17		
Sussex		**30**	**187**		
	Aedes triseriatus	30	187		
Grand Total		**320**	**1502**		