VECTOR SURVEILLANCE IN NEW JERSEY

EEE, WNV, SLE, LAC, DENV, CHIK and ZIKV

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CDC WEEK 39: 24 September to 30 September, 2017

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Culiseta melanura and Eastern Equine Encephalitis

SITE/Boxes	Inland or Coastal	Historic Population Mean	Current Weekly Mean	Total Tested* (Collected)	Total Pools Tested* (Submitted)	EEE Isolation Pools	MFIR
Bass River (Burlington Co.)/5	**Coastal**	1.00	3.00	29 (44)	7 (8)		
Green Bank (Burlington Co.)/18	**Coastal**	1.58	0.92	163 (186)	11 (12)		
Corbin City (Atlantic Co.)/25	**Coastal**	0.80	1.12	317 (345)	17 (18)	1	3.15
Dennisville (Cape May Co.)/50	**Coastal**	1.87	0.30	149	13		
Winslow (Camden Co.)/50	**Inland**	0.47	1.32	932	28		
Centerton (Salem Co.)/50	**Inland**	1.64	2.04	791	27	4	5.06
Turkey Swamp (Monmouth Co.)/50	**Inland**	0.45	0.22	224 (235)	16 (17)	1	4.46
Glassboro (Gloucester Co.)/50	**Inland**	0.23	0.44	210	17	1	4.76

*Current week (in parentheses) results pending. ‡ corrected from previous week NC=no collection

Remarks: A total of fifteen positive EEE pools have been detected in a *Culiseta melanura*. The latest 4 positive pools were found at traditional resting box sites as well as a county-set site. Two horses have been reported infected with EEE. NOTE: Despite impending cooler weather, due diligence is required as *Culiseta melanura* is a cold tolerant species and will be active late into the season.

Statewide, 7,648 *Cs. melanura* from 582 pools have been tested, with fifteen positive pools detected for an overall *Cs. melanura* MFIR of 1.961. 13,977 specimens from 21 other species have also been tested, with no positives detected. Overall MFIR for all species statewide is 0.694.

Traditional Resting Box Sites: 2,815 *Cs. melanura* from 136 pools have been tested for EEE, with 77 additional *Cs. melanura* from 4 pools to be tested. Three new positive pools of *Cs. melanura* from Centerton (26 Sept.), Turkey Swamp (20 Sept.) and Glassboro (26 Sept.) were detected. Four positive pools were previously detected at the traditional resting box sites.

	Additional *Cs. melanura* trapped by counties *traps with positives indicated in **BOLD.**				
County	**Trap types***	**Pools**	**Mosquitoes**	**Positives**	**MFIR**
Atlantic	GR, **LT**, RB	40	850	1	1.18
Burlington	CO_2, **UVLT**	62	1896	3	1.58
Cape May	BGS, GR, **RB**	180	928	3	3.23
Cumberland	LT, **RB**	17	185	1	5.41
Gloucester	RB	48	327		
Middlesex	RB	22	336		
Monmouth	CDC	1	1		
Morris	ABC	1	1		
Ocean	GR, LT, RB	21	90		
Passaic	RB	6	6		
Salem	LT	5	35		
Sussex	ABC, BGS, GR, RB	41	164		
Warren	LT	2	14		
TOTAL		**446**	**4833**	**8**	**1.66**

Additional County-set *Cs. melanura*: Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. One new positive pools was collected in Atlantic County on 15 September. Previously, seven positive pools were collected from these county-set sites.

Horses and Humans: A second horse case has been detected with EEE. This horse was a 9 yo mare with date of onset 17 September and no vaccination history for 2017, but reportedly vaccinated two years ago. The first horse case was a 5 yo mare from Cumberland County, with onset date of 23 Aug, euthanized on 28 Aug. There was no vaccination history. Nearly all of the horse cases from previous years include those horses who were either not vaccinated or had incomplete vaccination histories. ***Horse owners are urged to make sure their horses are up to date on their vaccinations. Horse cases are known to occur through October and sometimes into November (see link below).*** Other sensitive species are non-native birds, such as Ostriches/Emus and Gallinaceous birds such as pheasants of Eurasian origins.

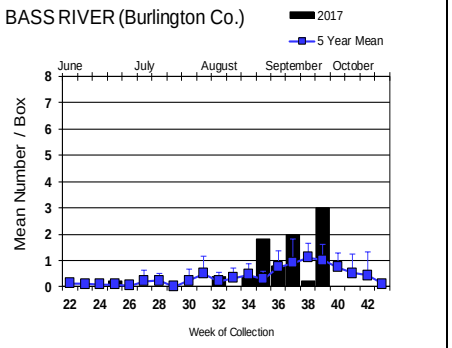
Horses and Vaccinations: The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

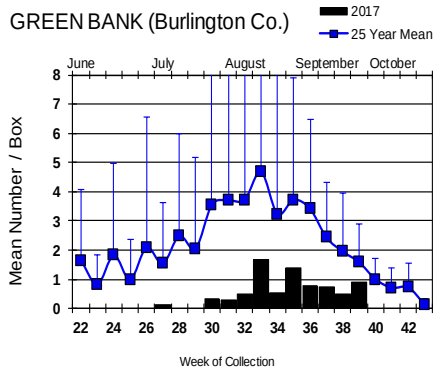
Additional Species: Twenty-one additional species were tested for EEE. No additional positives were detected. Previously reported *Aedes provocans* was re-assigned to *Anopheles punctipennis.*

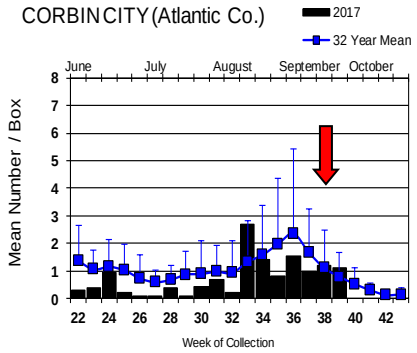
Species other than *Cs. melanura*	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	1	1		
Aedes canadensis canadensis	14	196		
Aedes cantator	11	27		
Aedes japonicus	2	20		
Aedes mitchellae	2	10		
Aedes sollicitans	8	26		
Aedes taeniorhynchus	2	11		
Aedes triseriatus	1	4		
Aedes vexans	6	150		
Anopheles bradleyi	132	938		
Anopheles crucians	4	129		
Anopheles punctipennis	35	312		
Anopheles quadrimaculatus	17	231		
Coquillettidia perturbans	77	1442		
Culex erraticus	94	1905		
Culex pipiens	701	6743		
Culex restuans	1	1		
Culex salinarius	263	1673		
Culex sp.	41	135		
Psorophora columbiae	3	13		
Psorophora cyanescens	1	1		
Psorophora ferox	3	9		
State Total	**1419**	**13977**		

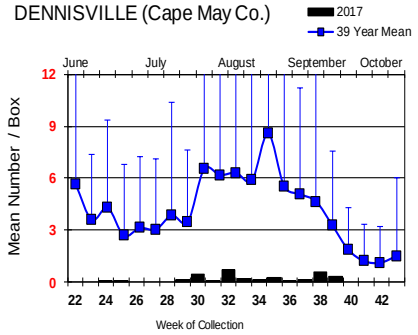
Culiseta melanura Population Graphs

Coastal

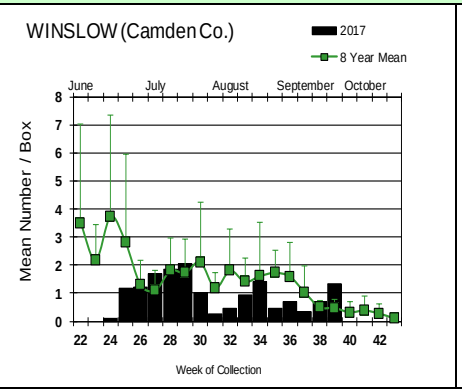


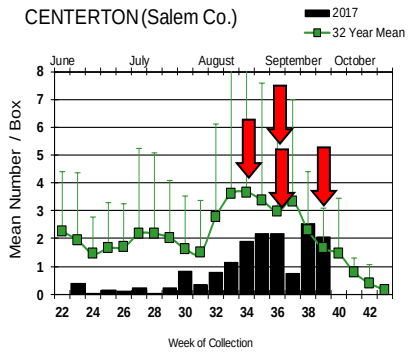


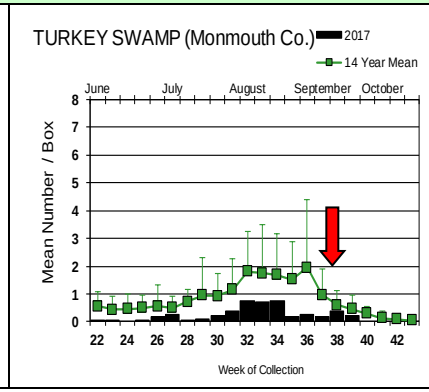


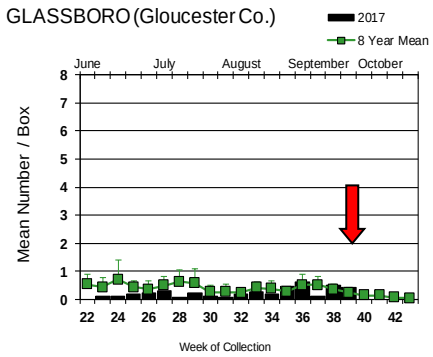


Inland









Three additional pools of *Cs.* melanura at the traditional resting box sites were detected at Centerton, Turkey Swamp and Glassboro. Four previous detections of EEE had occurred at Centerton Corbin City. Mosquito populations increased, some significantly, at Bass River, Green Bank, Corbin City, Winslow and Glassboro. Positive pools continue to be in the southern half of the state.

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

EEE in US (2017 cumulative cases): (Black or Red = previous + new reported cases occurring)

- equine: FL(4/1 deer) GA(**5**) LA(2) MI(3) NC(1) NJ(4) OH(1) SC(8) TX(1) WI(14)
- mosquito pools: MA(1) NJ(15) NY(30) RI(2)
- sentinel: FL(33) TX(6)
- human:

West Nile Virus Positive Organisms in US, 2017

West Nile in US (2017 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					28
Alaska					
Arizona	1	245		0	58/76
Arkansas				1	11/14
California	395/428	3116	235	13	174/211
Colorado	5	136/142		5	29/42
Connecticut		116/121			1/3
Delaware					
DC					1
Florida	1	2	45	2	0
Georgia		0		1	22/30
Hawaii					
Idaho	3	122		5/8	11/18
Illinois	21/23	1829/1916			37/39
Indiana	0	600/636		10/11	12/16
Iowa	1	67		2	6
Kansas		13		0	10/13
Kentucky				11/12	4/5
Louisiana	43	390/395			34/39
Maine		0		0	0
Maryland					2
Mass.		276/289		0	2
Michigan	148	86		9/13	16/34
Minnesota					20/22
Mississippi		244/248		1	53/55
Missouri		0		2/3	8

	Birds	Mosquito Pools	Sentinels	Horses	Humans
Montana					7/8
Nebraska	1	72/80		0	43/45
Nevada					31/43
New Hampshire		4/7		0	0
New Jersey		689/758		1	2/4
New Mexico					9/24
New York		1172/1163		2/5	16/27
North Carolina					2
North Dakota	11	16		1	57/58
Ohio		1945		5	18/20
Oklahoma					19/23
Oregon		91		5	5
Pennsylvania	37/42	2935/3105		5/7	12
Rhode Island		3		0	0
South Carolina	9	42			6/7
South Dakota	2	55			55/61
Tennessee					15
Texas		893/936		5/8	80/91
Utah		423/433		7/11	40/42
Vermont					1
Virginia				1	6/8
Washington	4	34		9	3
West Virginia					1
Wisconsin	79/83	37		18/19	7/11
Wyoming				1	1

* 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 September 2017

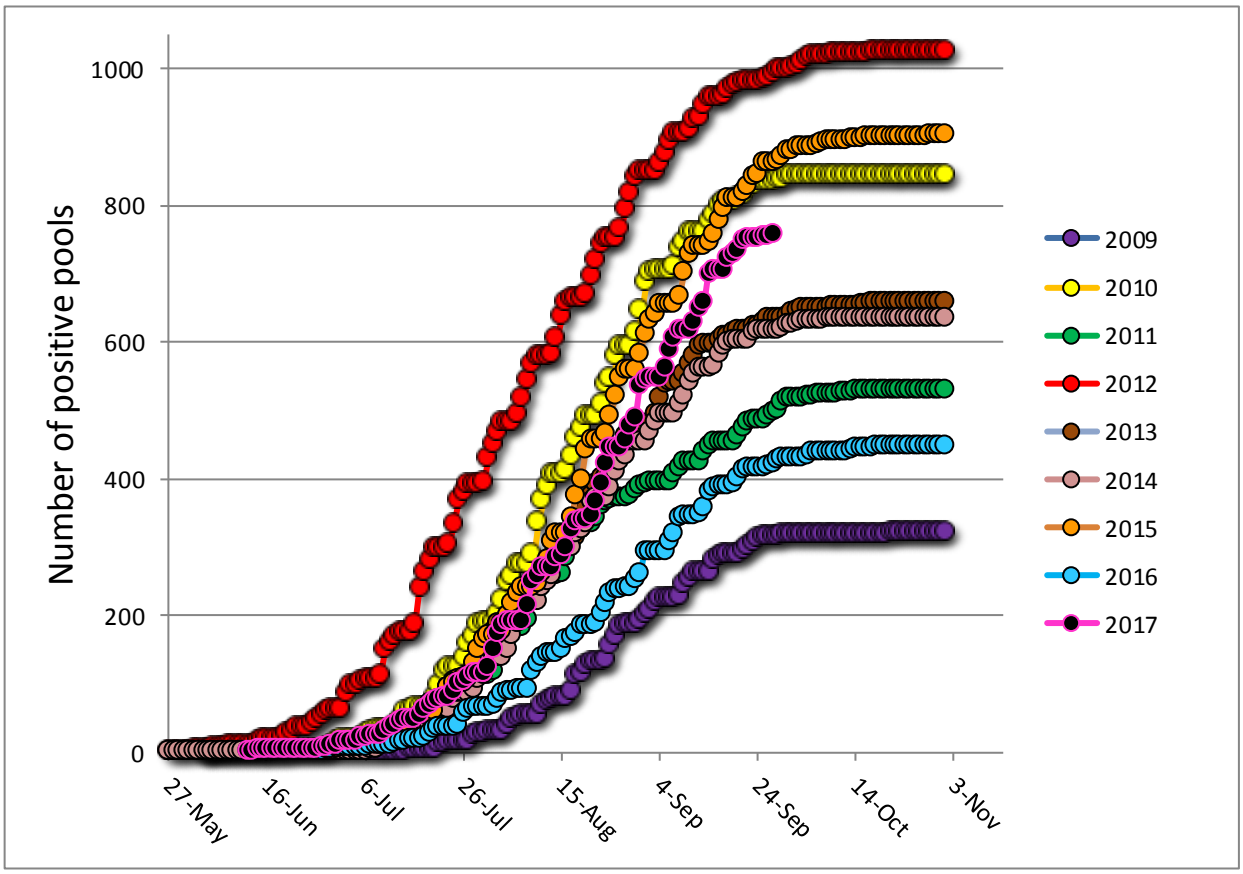
Species	Pools	Mosquitoes	Positives	MFIR
Aedes albopictus	1332	15215	12	0.789
Aedes atlanticus	16	46		
Aedes atropalpus	27	112		
Aedes canadensis canadensis	56	593		
Aedes cantator	29	241		
Aedes cinereus	1	54		
Aedes grossbecki	2	4		
Aedes japonicus	397	1675	4	2.388
Aedes mitchellae	2	10		
Aedes sollicitans	29	661		
Aedes stimulans	1	10		
Aedes taeniorhynchus	15	97		
Aedes triseriatus	269	740		
Aedes trivittatus	8	156		
Aedes vexans	106	1062		
Anopheles barberi	3	3		
Anopheles bradleyi	147	1334		
Anopheles crucians	6	205	1	4.878
Anopheles earlei	1	1		
Anopheles punctipennis	87	493		
Anopheles quadrimaculatus	166	1140		
Coquillettidia perturbans	93	1559		
Culex erraticus	110	2011		
Culex pipiens	836	9809	25	2.549
Culex restuans	668	3458	10	2.892
Culex salinarius	288	2365	3	1.268
Culex spp.	2633	106468	691	6.490
Culex territans	45	120		
Culiseta inornata	1	1		
Culiseta melanura	585	7655	11	1.437
Orthopodomyia signifera	6	6		
Psorophora ciliata	4	8		
Psorophora columbiae	27	102	1	9.804
Psorophora cyanescens	1	1		
Psorophora ferox	19	291		
Uranotaenia sapphirina	4	38		
Grand Total	**8020**	**157744**	**758**	**4.805**

Remarks: To date, 8,020 pools of 157,744 mosquitoes from 35 species have been tested. 758 positive pools have been detected. Most continue to be in the enzootic vector, *Culex* (Mix, *pipiens* or *restuans*). Overall MFIR for New Jersey is at 4.805, up from 4.687 of last week. Activity level is approaching 2010 levels (see graph below). First positive *Culex* Mix pool was detected in Sussex County on 12 June. Last year, the first positive pool of *Culex* Mix was collected on 14 June in Monmouth County.

Humans, Horses and Wild Birds: Four human cases of WNV have been detected: Atlantic (1), Mercer (2) and Monmouth(1). (A previous case in Atlantic County has been re-assigned to a different state as the person developed

symptoms a day after arriving in NJ.) One presumptive horse case in Gloucester County, a 1 yo colt with unknown onset date has been reported. An initial dose of 3 vaccinations was reported. Last year, human cases were first reported in CDC week 20, but under unusual circumstances. First typical case occurred in CDC week 27. For further information, see http://www.nj.gov/health/cd/statistics/arboviral-stats/ .

Birds are no longer routinely tested in New Jersey.



Above is a graph showing cumulative number of positive pools for the last 9 years, inclusive of the most active (2012) and least active (2009) years. As the season peaks, the cumulative increase for 2017 is showing a definite increase in activity (black markers with pink borders). It will be a race to the end of the season to see if 2017 hits the activity level of 2010.

WNV Results by County through 29 September 2017.

County	Species	Pools	Mosquitoes	Positives	MFIR
Atlantic		**202**	**5211**	**4**	**0.768**
	Aedes albopictus	26	370		
	Aedes canadensis canadensis	1	3		
	Aedes japonicus	4	119		
	Aedes sollicitans	6	318		
	Aedes taeniorhynchus	3	71		
	Aedes triseriatus	2	14		
	Aedes vexans	6	274		
	Anopheles bradleyi	10	359		
	Coquillettidia perturbans	14	468		
	Culex erraticus	10	234		
	Culex pipiens	27	877	1	1.140
	Culex salinarius	6	73		

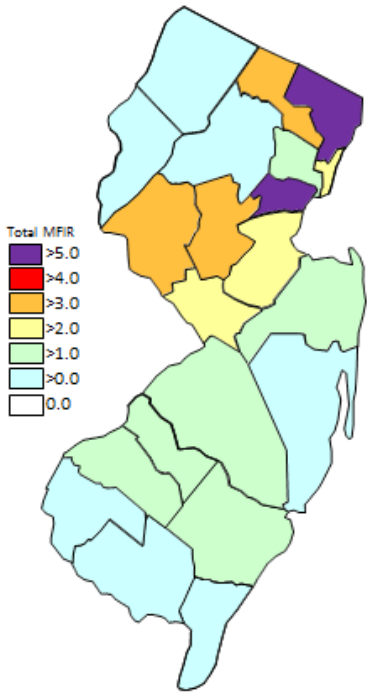
	Culex spp.	26	779	2	2.567
	Culiseta melanura	57	1167	1	0.857
	Psorophora columbiae	1	1		
	Psorophora ferox	3	84		
Bergen		**200**	**9550**	**106**	**11.099**
	Aedes albopictus	4	129		
	Aedes japonicus	9	86		
	Culex spp.	187	9335	106	11.355
Burlington		**246**	**7657**	**25**	**3.265**
	Aedes albopictus	12	221		
	Aedes canadensis canadensis	9	184		
	Aedes cantator	2	18		
	Aedes japonicus	5	95		
	Aedes mitchellae	2	10		
	Aedes taeniorhynchus	2	11		
	Aedes triseriatus	5	41		
	Aedes vexans	5	149		
	Anopheles bradleyi	5	225		
	Anopheles crucians	4	129		
	Coquillettidia perturbans	2	124		
	Culex erraticus	3	215		
	Culex salinarius	17	732		
	Culex spp.	91	3412	21	6.155
	Culiseta melanura	80	2088	4	1.916
	Orthopodomyia signifera	1	1		
	Psorophora columbiae	1	2		
Camden		**182**	**6134**	**37**	**6.032**
	Aedes albopictus	28	170	4	23.529
	Aedes japonicus	20	79	1	12.658
	Culex spp.	106	4953	30	6.057
	Culiseta melanura	28	932	2	2.146
Cape May		**3253**	**16568**	**21**	**1.268**
	Aedes albopictus	605	2108		
	Aedes atlanticus	16	46		
	Aedes atropalpus	26	102		
	Aedes canadensis canadensis	21	31		
	Aedes cantator	9	9		
	Aedes japonicus	198	452		
	Aedes sollicitans	6	6		
	Aedes taeniorhynchus	4	6		
	Aedes triseriatus	186	330		
	Aedes vexans	41	120		
	Anopheles bradleyi	128	658		
	Anopheles punctipennis	10	14		
	Anopheles quadrimaculatus	121	793		
	Coquillettidia perturbans	17	22		
	Culex erraticus	57	1223		
	Culex pipiens	703	6770	14	2.068
	Culex restuans	575	1855	4	2.156
	Culex salinarius	241	696	2	2.874
	Culex spp.	29	56		
	Culex territans	45	120		

	Culiseta melanura	194	1078	1	0.928
	Orthopodomyia signifera	4	4		
	Psorophora columbiae	8	9		
	Psorophora ferox	5	22		
	Uranotaenia sapphirina	4	38		
Cumberland		**171**	**2249**	**3**	**1.334**
	Aedes albopictus	24	346		
	Aedes canadensis canadensis	2	3		
	Aedes japonicus	8	36		
	Aedes sollicitans	2	20		
	Aedes triseriatus	1	2		
	Aedes vexans	19	354		
	Anopheles bradleyi	1	75		
	Anopheles punctipennis	3	25		
	Anopheles quadrimaculatus	10	62		
	Coquillettidia perturbans	11	105		
	Culex erraticus	4	20		
	Culex salinarius	6	246		
	Culex spp.	52	627	3	4.785
	Culiseta melanura	17	185		
	Psorophora columbiae	6	39		
	Psorophora ferox	5	104		
Essex		**156**	**994**	**6**	**6.036**
	Aedes albopictus	70	291		
	Aedes japonicus	10	15		
	Culex spp.	76	688	6	8.721
Gloucester		**422**	**17351**	**80**	**4.611**
	Aedes albopictus	79	2112	2	0.947
	Aedes atropalpus	1	10		
	Aedes japonicus	15	155		
	Aedes triseriatus	5	38		
	Aedes vexans	1	1		
	Anopheles crucians	1	75	1	13.333
	Anopheles punctipennis	26	273		
	Anopheles quadrimaculatus	16	230		
	Coquillettidia perturbans	3	8		
	Culex pipiens	17	894	3	3.356
	Culex spp.	190	12941	74	5.718
	Culiseta melanura	65	537		
	Psorophora ferox	3	77		
Hudson		**176**	**7283**	**67**	**9.200**
	Culex spp.	176	7283	67	9.200
Hunterdon		**251**	**11681**	**80**	**6.849**
	Culex erraticus	3	54		
	Culex spp.	248	11627	80	6.881
Mercer		**235**	**3423**	**22**	**6.427**
	Aedes albopictus	20	189		
	Aedes japonicus	41	139	2	14.388
	Culex pipiens	19	239	1	4.184

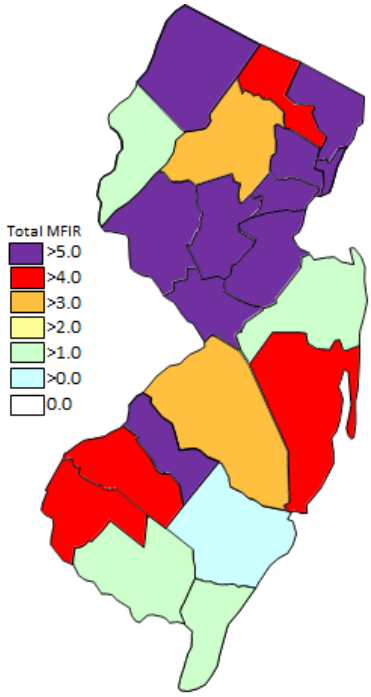
	Culex restuans	56	943	2	2.121
	Culex spp.	99	1913	17	8.887
Middlesex		**199**	**7541**	**49**	**6.498**
	Culex spp.	177	7205	48	6.662
	Culiseta melanura	22	336	1	2.976
Monmouth		**555**	**9397**	**12**	**1.277**
	Aedes albopictus	235	6276		
	Aedes canadensis canadensis	23	372		
	Aedes cantator	17	176		
	Aedes grossbecki	2	4		
	Aedes japonicus	25	97		
	Aedes sollicitans	15	317		
	Aedes taeniorhynchus	6	9		
	Aedes triseriatus	16	58		
	Aedes trivittatus	2	2		
	Aedes vexans	27	65		
	Anopheles barberi	3	3		
	Anopheles bradleyi	2	13		
	Anopheles crucians	1	1		
	Anopheles earlei	1	1		
	Anopheles punctipennis	42	109		
	Anopheles quadrimaculatus	9	30		
	Coquillettidia perturbans	8	18		
	Culex erraticus	9	32		
	Culex restuans	1	1		
	Culex salinarius	3	58	1	17.241
	Culex spp.	74	1480	11	7.432
	Culiseta inornata	1	1		
	Culiseta melanura	19	231		
	Orthopodomyia signifera	1	1		
	Psorophora ciliata	3	3		
	Psorophora columbiae	8	37		
	Psorophora cyanescens	1	1		
	Psorophora ferox	1	1		
Morris		**275**	**8012**	**27**	**3.370**
	Aedes albopictus	45	166	1	6.024
	Coquillettidia perturbans	12	429		
	Culex spp.	217	7416	26	3.506
	Culiseta melanura	1	1		
Ocean		**207**	**3076**	**13**	**4.226**
	Aedes albopictus	78	1583	2	1.263
	Aedes japonicus	8	43		
	Aedes triseriatus	4	12		
	Anopheles punctipennis	1	1		
	Coquillettidia perturbans	5	103		
	Culex erraticus	6	99		
	Culex spp.	84	1145	11	9.607
	Culiseta melanura	21	90		
Passaic		**132**	**1121**	**5**	**4.460**
	Aedes albopictus	9	58		

	Aedes japonicus	23	144		
	Aedes triseriatus	3	11		
	Coquillettidia perturbans	8	12		
	Culex erraticus	2	4		
	Culex pipiens	57	691	3	4.342
	Culex restuans	13	85	1	11.765
	Culex spp.	11	110	1	9.091
	Culiseta melanura	6	6		
Salem		**198**	**2417**	**10**	**4.137**
	Aedes albopictus	44	237	1	4.219
	Aedes japonicus	10	27	1	37.037
	Aedes triseriatus	15	37		
	Aedes vexans	4	9		
	Anopheles bradleyi	1	4		
	Anopheles quadrimaculatus	9	22		
	Coquillettidia perturbans	6	66		
	Culex erraticus	16	130		
	Culex pipiens	6	7	1	142.857
	Culex restuans	4	6		
	Culex salinarius	1	1		
	Culex spp.	46	1029	4	3.887
	Culiseta melanura	32	826	2	2.421
	Psorophora columbiae	3	14	1	71.429
	Psorophora ferox	1	2		
Somerset		**211**	**5635**	**34**	**6.034**
	Aedes albopictus	9	49		
	Aedes japonicus	10	57		
	Aedes triseriatus	4	13		
	Anopheles punctipennis	3	21		
	Culex spp.	185	5495	34	6.187
Sussex		**259**	**6019**	**35**	**5.815**
	Aedes albopictus	9	18		
	Aedes japonicus	3	57		
	Aedes triseriatus	26	169		
	Anopheles punctipennis	1	40		
	Coquillettidia perturbans	5	90		
	Culex pipiens	7	331	2	6.042
	Culex restuans	19	568	3	5.282
	Culex salinarius	14	559		
	Culex spp.	134	4023	30	7.457
	Culiseta melanura	41	164		
Union		**202**	**12735**	**95**	**7.460**
	Aedes albopictus	33	867	2	2.307
	Culex spp.	169	11868	93	7.836
Warren		**288**	**13690**	**27**	**1.972**
	Aedes albopictus	2	25		
	Aedes cantator	1	38		
	Aedes cinereus	1	54		
	Aedes japonicus	8	74		
	Aedes stimulans	1	10		

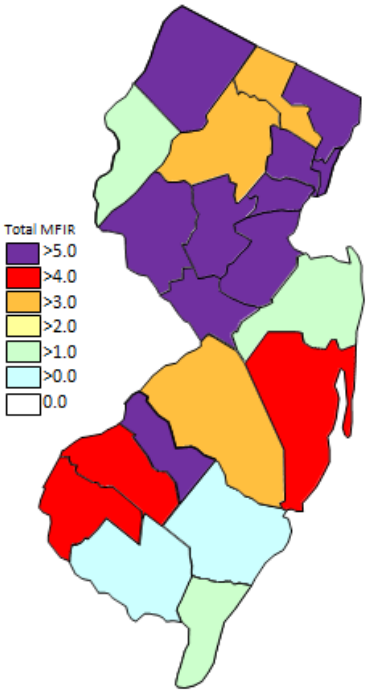
	Aedes triseriatus	2	15		
	Aedes trivittatus	6	154		
	Aedes vexans	3	90		
	Anopheles punctipennis	1	10		
	Anopheles quadrimaculatis	1	3		
	Coquillettidia perturbans	2	114		
	Culex spp.	256	13083	27	2.064
	Culiseta melanura	2	14		
	Psorophora ciliata	1	5		
	Psorophora ferox	1	1		
Grand Total		**8020**	**157744**	**758**	**4.805**



Cumulative WNV activity in 2016.



WNV activity to 29 September 2017.



WNV activity last week, 2017

Saint Louis Encephalitis (SLE) to 29 September 2017.

New Jersey will be primarily testing for SLE this year only when adjacent states show human activity (Cape May tests mosquitoes in the Cape May lab independently). 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 of SLE have tested positive for 2017. No human cases have been reported.

County	Species	Pools	Mosquitoes	Positives	MFIR
Burlington		**20**	**1042**		
	Culex spp.	20	1042		
Cape May		**730**	**6799**		
	Culex pipiens	701	6743		
	Culex spp.	29	56		
Grand Total		**750**	**7841**		

La Crosse Encephalitis (LAC) to 29 September 2017.

New Jersey will be primarily testing for LAC this year only when adjacent states show human activity (Cape May tests mosquitoes in the Cape May lab independently). 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 of SLE have tested positive for 2017. No human cases have been reported.

County	Species			Positives	MFIR
Burlington		**17**	**304**		
	Aedes albopictus	8	171		
	Aedes japonicus	4	92		
	Aedes triseriatus	5	41		
Cape May		**21**	**59**		
	Aedes triseriatus	21	59		
Sussex		**26**	**169**		
	Aedes triseriatus	26	169		
Grand Total		**64**	**532**		

Dengue (DENV) to 29 September 2017.

New Jersey will be selectively testing for DENV (including serotypes) this year. Dengue has not had a history of local transmission here in New Jersey, but each year, travelers can bring virus back from areas in the world with virus activity. This is significant as humans are NOT dead-end hosts and thus there is the potential for local transmission (i.e., New Jersey mosquitoes biting a sick person and then biting and transmitting the disease to someone else) to be established. DENV is a flavivirus but unlike WNV, *Aedes* mosquitoes are predominant vectors. In New Jersey, *Aedes albopictus* is a candidate for local transmission. There are 4 serotypes tested for Dengue.

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

No pools of Dengue have tested positive in 2017. There are 3 travel-related human cases in NJ.

County	Species	DENV1		DENV2		DENV3		DENV4		Pos.	MFIR
		Pool	Mos.	Pool	Mos.	Pool	Mos.	Pool	Mos.		
Mercer		**8**	**87**	**8**	**87**	**8**	**87**	**8**	**87**		
	Aedes albopictus	8	87	8	87	8	87	8	87		
Grand Total		**8**	**87**	**8**	**87**	**8**	**87**	**8**	**87**		

Chikungunya (CHIK) to 29 September2017.

New Jersey will be selectively testing for CHIK this year. Chikungunya is similar in symptoms to Dengue, a "breakbone" fever and has a low mortality rate. But this virus has had recent worldwide activity, and in the past year has come to the Western Hemisphere. As with Dengue, transmission can occur when a mosquito bites an infected human, then bites an uninfected human who subsequently becomes ill. CHIK is an alphavirus with *Aedes* mosquitoes as potential vectors. In New Jersey, *Aedes albopictus* is the mosquito of interest.

No pools of CHIK have tested positive in 2017. There are 3 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Cape May		**434**	**1184**		
	Aedes albopictus	434	1184		
Mercer		**8**	**87**		
	Aedes albopictus	8	87		
Grand Total		**442**	**1271**		

Zika (ZIKV) to 29 September 2017.

New Jersey will be selectively testing for ZIKV this year. Zika is an emerging arboviral threat with significant health consequences for fetuses and recent activity in the Western Hemisphere. Humans are potential hosts that can transmit through sexual activity. ZIKV is a flavivirus with *Aedes* mosquitoes as potential vectors. In New Jersey, *Aedes albopictus* is the mosquito of interest.

No pools have tested positive in 2017. There are 21 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
Cape May		**601**	**2090**		
	Aedes albopictus	601	2090		
Mercer		**8**	**87**		
	Aedes albopictus	8	87		
Grand Total		**609**	**2177**		