

# VECTOR SURVEILLANCE IN NEW JERSEY

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

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28 July to 3 August, 2019, CDC Week 31

Data download 3:00 pm 2 August



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. Data is held in JerseySurv, a subset of the CalSurv system.

### *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	0.36	0.00	4	2		
Green Bank (Burlington Co.)/25	Coastal	3.46	0.02	30 (31)	5 (6)		
Corbin City (Atlantic Co.)/25	Coastal	0.95	nd	80	8		
Dennisville (Cape May Co.)/50	Coastal	5.88	0.00	40	7		
Winslow (Camden Co.)/50	Inland	1.19	0.54	239	8	1	4.183
Centerton (Salem Co.)/50	Inland	1.42	0.06	107	6		
Turkey Swamp (Monmouth Co.)/49	Inland	1.07	1.02	228 (278)	11 (12)	2	8.772
Glassboro (Gloucester Co.)/50	Inland	0.23	0.22	124	7	1	8.065

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

**Remarks:** Currently in 2019, there are 11 detections of EEE virus: nine pools of *Culiseta melanura* (four collected at traditional resting box sites, and five collected at county trap sites) and one pool each in *Aedes albopictus* and *Culex Mix*. The first positive pool was collected on 3 July at Turkey Swamp, Monmouth County. There are two horse cases and no human cases.

Statewide, 4,444 *Cs. melanura* from 326 pools have been tested, with an overall *Cs. melanura* MFIR of 2.025. 89,187 specimens in 3,809 pools from 35 other species have also been tested, with two positive pools detected (*Aedes albopictus* and *Culex Mix* pools). Overall MFIR for all species statewide is 0.117.

**Traditional Resting Box Sites:** 852 *Cs. melanura* from 54 pools have been tested, with four positive pools detected – two at Turkey Swamp, 1 at Glassboro and 1 at Winslow. An additional 51 *Cs. melanura* in two pools are at labs to be tested.

County	Additional <i>Cs. melanura</i> trapped by counties *traps with positives indicated in <b><u>BOLD UNDERLINE</u></b> .				
	Trap types*	Pools	Mosquitoes	Positives	MFIR
Atlantic	BGS, CO <sub>2</sub> , GR, RB	40 4 25 100 13 21 8 11 15 29 13 3	1018 13 785 244 95 736 44 71 263 210 45 68	1 2 2.548 1 4.762 1 2.222 5 1.392	0.982
Bergen	CO <sub>2</sub> , RB				
Burlington	<b><u>ULVT</u></b>				
Cape May	GR, RB				
Cumberland	AGO, RB				
Gloucester	RB				
Middlesex	RB				
Monmouth	CO <sub>2</sub> , Other				
Morris	CO <sub>2</sub> , RB				
Ocean	<b><u>CO<sub>2</sub></u></b> , GR, RB				
Salem	CO <sub>2</sub> , GR, <b><u>RB</u></b>				
Sussex	CO <sub>2</sub>				
<b><u>TOTAL</u></b>		<b><u>282</u></b>	<b><u>3592</u></b>	<b><u>5</u></b>	<b><u>1.392</u></b>

**Additional County-set *Cs. melanura*:** Counties maintain trap sites for *Cs. melanura* in other areas, using a variety of traps. Last year, half of the EEE detection came from such trappings. In 2019, five pools of *Cs. melanura* have been found positive – the latest in Atlantic County collected 24 July and Burlington County collected 30 July. Earlier positive pools were found in Salem County, collected 9 July, and Ocean County collected 10 July.

**Horses and Humans:** A second horse case has been reported, involving a 20 year old gelding in Ocean County with date of onset 26 July, euthanized the same day. Vaccination history is unknown. The first horse case involved a 12-year-old mare in Ocean County, with onset date of 23 July, was euthanized the same day. This horse was about 11-14 miles from two active sites. There appears to be an incomplete vaccination history, with the first dose of EEE vaccine administered in April, but no follow up vaccination 4-6 weeks later was reported. Over the past ten years, first onset dates for horses have been in August or October except for 2012, where an onset date was 22 July. Last year five horses were reported with EEE. All had either an incomplete or no vaccination history. ***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.

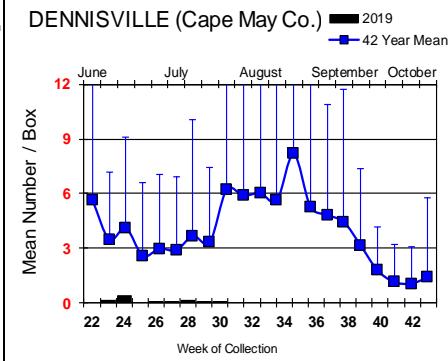
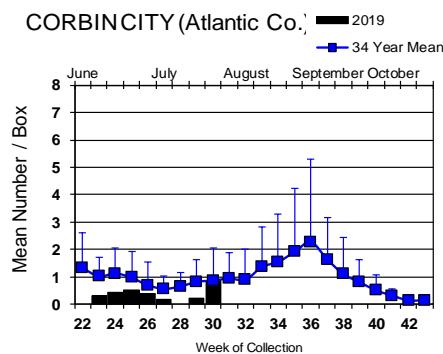
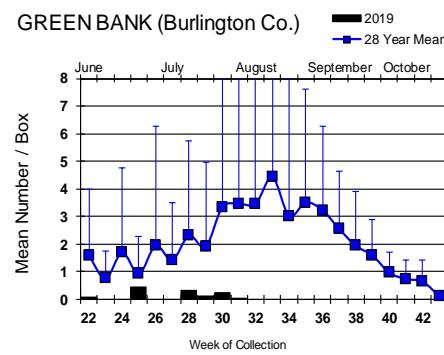
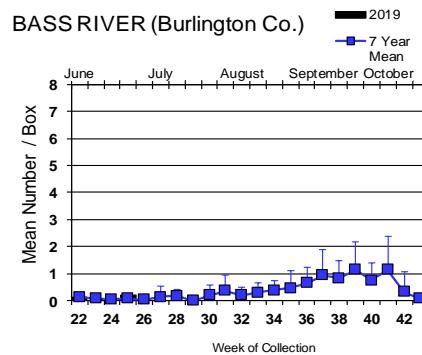
**Horses and Vaccinations:** The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: [http://www.aaep.org/vaccination\\_guidelines.htm](http://www.aaep.org/vaccination_guidelines.htm)

**Additional Species:** 35 additional species were tested for EEE. One positive pool in *Aedes albopictus*, collected in Ocean County on 9 July was found. On 16 July, a positive pool of *Culex Mix* was detected in Camden County. (Note: *Culex pipiens* is refractory for EEE virus).

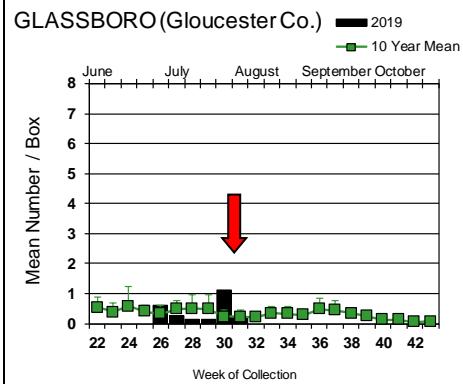
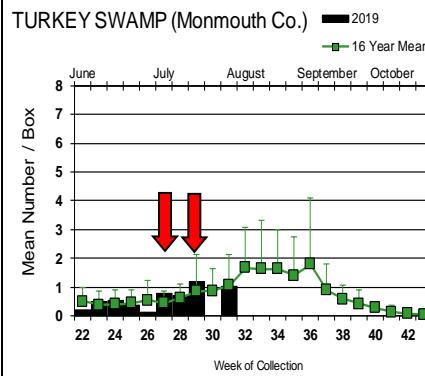
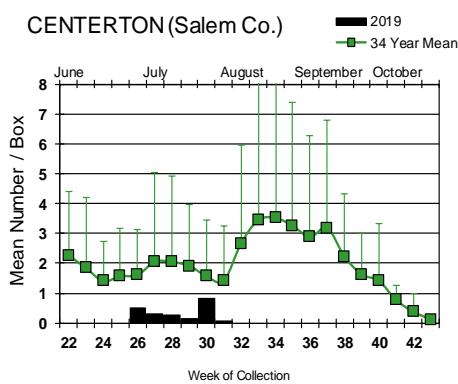
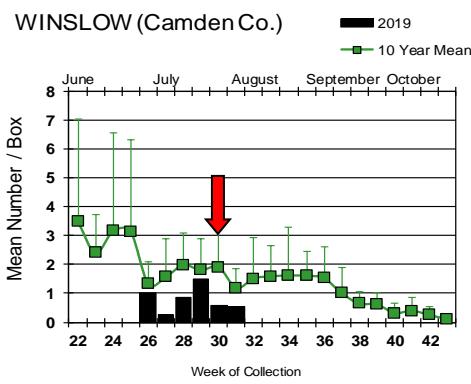
Species other than <i>Cs. melanura</i>	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	13	258		
<i>Aedes albopictus</i>	321	2308	1	0.433
<i>Aedes atlanticus</i>	11	90		
<i>Aedes aurifer</i>	3	14		
<i>Aedes canadensis canadensis</i>	92	1988		
<i>Aedes cantator</i>	16	292		
<i>Aedes grossbecki</i>	5	12		
<i>Aedes infirmatus</i>	1	1		
<i>Aedes japonicus</i>	401	3041		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes provocans</i>	2	8		
<i>Aedes sollicitans</i>	9	287		
<i>Aedes sticticus</i>	3	93		
<i>Aedes stimulans</i>	2	10		
<i>Aedes taeniorhynchus</i>	5	190		
<i>Aedes thibaulti</i>	2	27		
<i>Aedes triseriatus</i>	63	192		
<i>Aedes trivittatus</i>	18	249		
<i>Aedes vexans</i>	47	445		
<i>Anopheles bradleyi</i>	42	171		
<i>Anopheles crucians</i>	3	75		
<i>Anopheles punctipennis</i>	45	267		
<i>Anopheles quadrimaculatus</i>	75	608		
<i>Coquillettidia perturbans</i>	125	2728		
<i>Culex Mix</i>	1665	70044	1	0.014
<i>Culex erraticus</i>	40	246		
<i>Culex pipiens</i>	273	2902		
<i>Culex restuans</i>	298	962		
<i>Culex salinarius</i>	166	1148		
<i>Culex territans</i>	22	68		
<i>Orthopodomyia signifera</i>	4	4		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	6	53		
<i>Psorophora ferox</i>	25	398		
<i>Psorophora howardii</i>	1	1		
<i>Uranotaenia sapphirina</i>	3	5		
<b>State Total</b>	<b>3809</b>	<b>89187</b>	<b>2</b>	<b>0.022</b>

# *Culiseta melanura* Populations

## Coastal



## Inland



*Culiseta melanura* populations at most traditional resting box sites remain well below historical values. During week 31, a positive EEE pool from *Cs. melanura* was detected at Glassboro. Positive *Cs. melanura* have been found at other non-traditional sites (see table 2 above).

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

**EEE in US** (2019 cumulative cases): (Black or Red = previous + new reported cases occurring)

- **equine:** 25(FL) 1(GA) 7(MS) 1(NC) 2(NJ) 3(SC) 1(WI)
- **mosquito pools:** 140(MA) 11(NJ) 4(NY)
- **sentinel:** 83 (+1 emu 1 BAEA, FL)
- **human:**

## West Nile Virus Positive Organisms in US, 2019

West Nile in US (2019 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				1	0
Alaska					
Arizona	0	295	1	1	80
Arkansas					2
California	30/43	1094/1371	3	0	2/4
Colorado					1
Connecticut		0		0	3
Delaware					
Florida			27/35	1	
Georgia					
Hawaii					
Idaho	0	10/12		1	0
Illinois	2	109/121		0	0
Indiana	0	9/19		0	0
Iowa				2	2
Kansas					0
Kentucky					1
Louisiana					
Maine		0			0
Maryland(+DC)					1
Mass.		10/26		0	0
Michigan	1/2	3/7			0
Minnesota					
Mississippi		12		5	3
Missouri		0		0	1

	Birds	Mosquito Pools	Sentinels	Horses*	Humans
Montana					
Nebraska	0	13		0	1
Nevada					1
New Hampshire					
New Jersey		17/36		0	1
New Mexico					0
New York		13/62		0	0
North Carolina					
North Dakota	0	0		0	1
Ohio		22		0	0
Oklahoma					3
Oregon	0	16/18	0	1	0
Pennsylvania		21/47			
Rhode Island		0			
South Carolina		3			
South Dakota		0			1
Tennessee					
Texas		43/47			
Utah		7/17			
Vermont					
Virginia					1
Washington	0	3/7		0	0
West Virginia					
Wisconsin	0	3		0	0
Wyoming	0	1/4		0	1/2

\* 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 through 2 August 2019

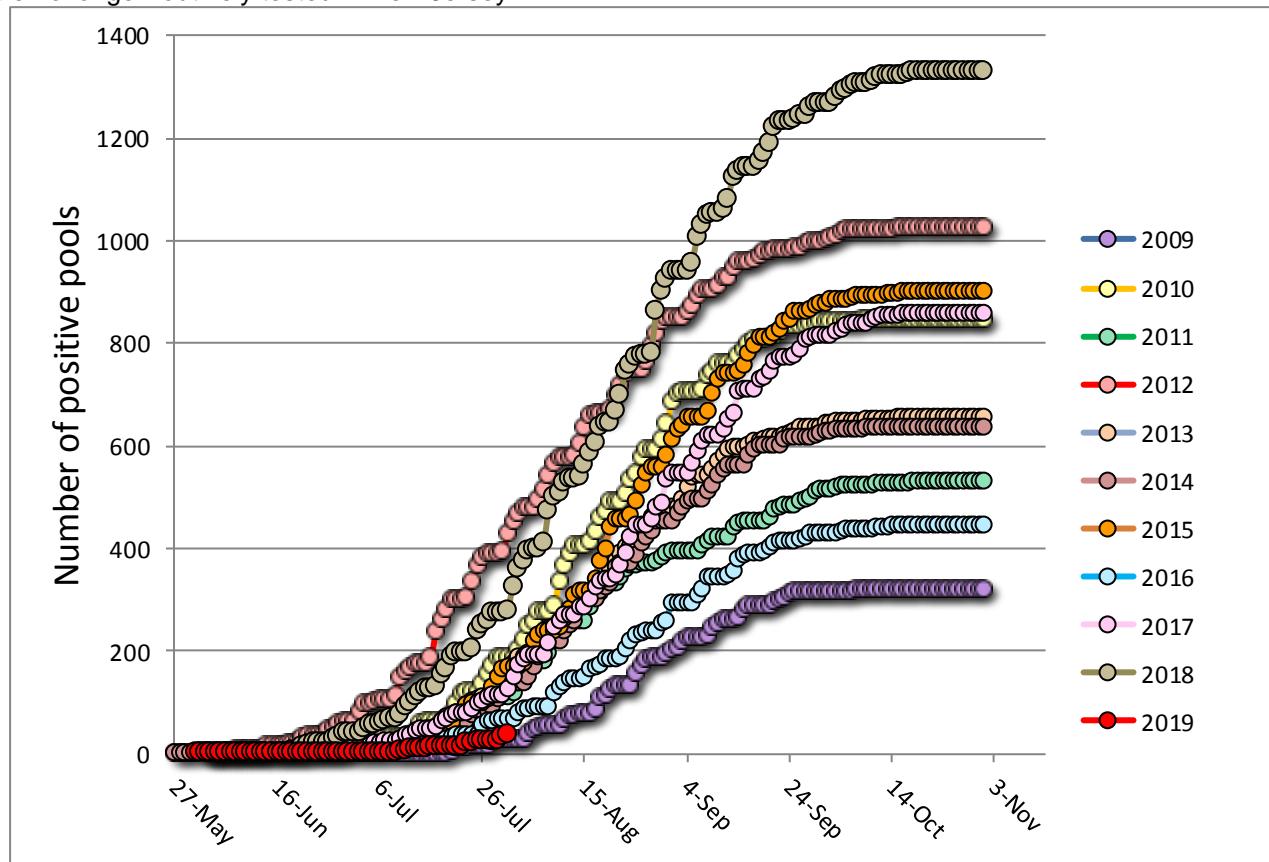
Species	Pools	Mosquitoes	Positives	MFIR
<i>Aedes abserratus</i>	13	258		
<i>Aedes albopictus</i>	538	2790		
<i>Aedes atlanticus</i>	11	90		
<i>Aedes aurifer</i>	3	14		
<i>Aedes canadensis canadensis</i>	92	1988		
<i>Aedes cantator</i>	16	292	1	3.425
<i>Aedes grossbecki</i>	5	12		
<i>Aedes infirmatus</i>	1	1		
<i>Aedes japonicus</i>	415	3474	1	0.288
<i>Aedes mitchellae</i>	1	1		
<i>Aedes provocans</i>	2	8		
<i>Aedes sollicitans</i>	9	287		
<i>Aedes sticticus</i>	3	93		
<i>Aedes stimulans</i>	2	10		
<i>Aedes taeniorhynchus</i>	5	190		
<i>Aedes thibaulti</i>	2	27		
<i>Aedes triseriatus</i>	266	1013	1	0.987
<i>Aedes trivittatus</i>	18	249		
<i>Aedes vexans</i>	47	445		
<i>Anopheles bradleyi</i>	42	171		
<i>Anopheles crucians</i>	3	75		
<i>Anopheles punctipennis</i>	46	268		
<i>Anopheles quadrimaculatus</i>	75	608		
<i>Coquillettidia perturbans</i>	136	3289		
<i>Culex</i> spp.	1665	70044	30	0.428
<i>Culex erraticus</i>	40	246		
<i>Culex pipiens</i>	274	2903	1	0.344
<i>Culex restuans</i>	302	966		
<i>Culex salinarius</i>	167	1151		
<i>Culex territans</i>	22	68		
<i>Culiseta melanura</i>	336	4444	2	0.450
<i>Orthopodomyia signifera</i>	4	4		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	6	53		
<i>Psorophora ferox</i>	25	398		
<i>Psorophora howardii</i>	1	1		
<i>Uranotaenia sapphirina</i>	3	5		
<b>Grand Total</b>	<b>4597</b>	<b>95937</b>	<b>36</b>	<b>0.375</b>

**Remarks:** To date, 4,597 pools of 95,937 mosquitoes from 36 species have been tested. A total of 36 positive WNV pools have been detected throughout the state beginning with a pool of *Aedes triseriatus*, collected on 31 May, 2019 in Passaic County. This pool was also co-infected with LAC (see table below). Thirty-one of the positives are in *Culex* species pools. Also positive are *Aedes cantator*, *Ae. japonicus*, and *Culiseta melanura*. Last year was a year of significant activity, with over 1300 positive pools detected. Currently, the statewide MFIR rate for all mosquitoes increased from 0.210 to 0.375.

**Humans, Horses and Wild Birds:** There has been one human case of West Nile virus from Hunterdon County reported, with an onset date of 21 June. This represents the earliest typical case reported in New Jersey. (A few years ago, there was one case reported in May from a long-term hospitalized patient making date of infection difficult to determine.) For more information, see NJ arboviral reports from the Department of Health: <https://www.nj.gov/health/cd/statistics/arboviral-stats/>. Last year we have over 60 cases reported, the highest to date.

Currently, there are no reported horse cases for WNV. Last year only one WNV horse case has been reported, occurring in Burlington County. This seemed rather unusual, given all the other indicators of high virus activity. 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 previous 10 years, inclusive of the most active (2018) and least active (2009) years. The red series represents this year, starting with the first positive pool.

### WNV Results by County through 2 August 2019.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>195</b>	<b>6270</b>	<b>1</b>	<b>0.159</b>
	<i>Aedes albopictus</i>	27	240		
	<i>Aedes cantator</i>	2	112		
	<i>Aedes japonicus</i>	5	71		
	<i>Aedes sollicitans</i>	8	286		
	<i>Aedes taeniorhynchus</i>	4	181		
	<i>Aedes vexans</i>	7	188		
	<i>Anopheles bradleyi</i>	3	38		
	<i>Anopheles crucians</i>	1	6		
	<i>Anopheles punctipennis</i>	1	45		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	20	625		
	<i>Culex</i> spp.	60	3147	1	0.318
	<i>Culex erraticus</i>	3	3		

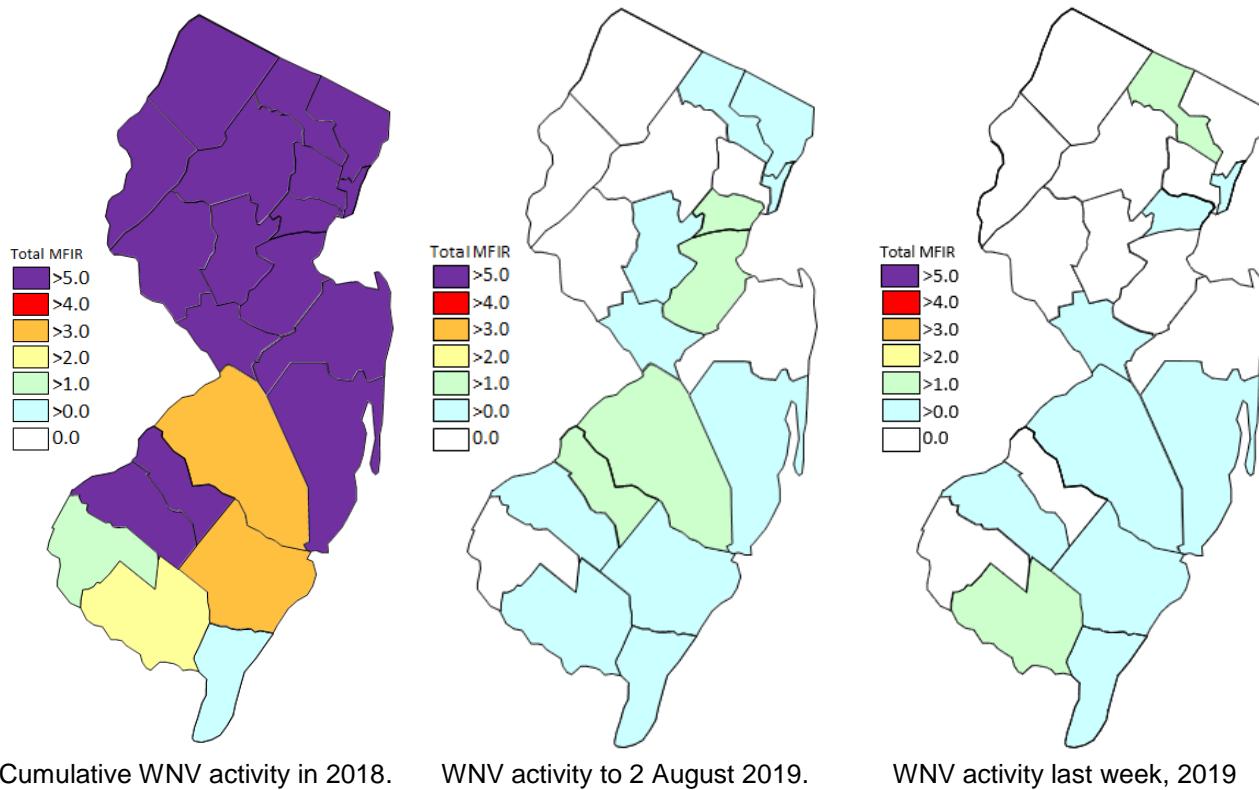
<i>Culex pipiens</i>	1	75		
<i>Culex restuans</i>	1	3		
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	48	1098		
<i>Psorophora ferox</i>	2	150		
<b>Bergen</b>	<b>152</b>	<b>8565</b>	<b>1</b>	<b>0.117</b>
<i>Aedes albopictus</i>	5	68		
<i>Aedes canadensis canadensis</i>	4	28		
<i>Aedes cantator</i>	2	105		
<i>Aedes japonicus</i>	14	423		
<i>Aedes thibaulti</i>	2	27		
<i>Aedes triseriatus</i>	5	47		
<i>Aedes trivittatus</i>	1	6		
<i>Coquillettidia perturbans</i>	3	37		
<i>Culex</i> spp.	107	7589	1	0.132
<i>Culex salinarius</i>	4	216		
<i>Culiseta melanura</i>	4	13		
<i>Psorophora ferox</i>	1	6		
<b>Burlington</b>	<b>192</b>	<b>9176</b>	<b>12</b>	<b>1.308</b>
<i>Aedes albopictus</i>	7	90		
<i>Aedes atlanticus</i>	3	49		
<i>Aedes canadensis canadensis</i>	8	232		
<i>Aedes cantator</i>	1	28		
<i>Aedes infirmatus</i>	1	1		
<i>Aedes japonicus</i>	9	244		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sticticus</i>	1	9		
<i>Aedes taeniorhynchus</i>	1	9		
<i>Aedes triseriatus</i>	5	17		
<i>Aedes vexans</i>	1	30		
<i>Anopheles bradleyi</i>	1	27		
<i>Anopheles crucians</i>	2	69		
<i>Anopheles quadrimaculatus</i>	1	10		
<i>Coquillettidia perturbans</i>	7	481		
<i>Culex</i> spp.	96	6493	11	1.694
<i>Culex salinarius</i>	13	515		
<i>Culex territans</i>	1	28		
<i>Culiseta melanura</i>	32	819	1	1.221
<i>Psorophora ferox</i>	1	24		
<b>Camden</b>	<b>45</b>	<b>950</b>	<b>1</b>	<b>1.053</b>
<i>Aedes albopictus</i>	9	38		
<i>Aedes japonicus</i>	8	28		
<i>Aedes triseriatus</i>	1	4		
<i>Culex</i> spp.	19	641	1	1.560
<i>Culiseta melanura</i>	8	239		
<b>Cape May</b>	<b>1473</b>	<b>5612</b>	<b>1</b>	<b>0.178</b>
<i>Aedes albopictus</i>	237	416		
<i>Aedes canadensis canadensis</i>	11	15		
<i>Aedes cantator</i>	4	4		
<i>Aedes japonicus</i>	135	285		
<i>Aedes triseriatus</i>	130	197		
<i>Aedes vexans</i>	10	11		

	<i>Anopheles bradleyi</i>	37	105		
	<i>Anopheles punctipennis</i>	5	5		
	<i>Anopheles quadrimaculatus</i>	51	452		
	<i>Coquillettidia perturbans</i>	18	53		
	<i>Culex</i> spp.	14	41		
	<i>Culex erraticus</i>	9	16		
	<i>Culex pipiens</i>	261	2684	1	0.373
	<i>Culex restuans</i>	282	654		
	<i>Culex salinarius</i>	136	343		
	<i>Culex territans</i>	19	38		
	<i>Culiseta melanura</i>	107	284		
	<i>Orthopodomyia signifera</i>	4	4		
	<i>Uranotaenia sapphirina</i>	3	5		
<b>Cumberland</b>		<b>118</b>	<b>1057</b>	<b>1</b>	<b>0.946</b>
	<i>Aedes albopictus</i>	11	82		
	<i>Aedes canadensis canadensis</i>	2	51		
	<i>Aedes japonicus</i>	2	11		
	<i>Aedes trivittatus</i>	4	8		
	<i>Aedes vexans</i>	18	156		
	<i>Anopheles punctipennis</i>	11	52		
	<i>Anopheles quadrimaculatus</i>	12	111		
	<i>Coquillettidia perturbans</i>	9	12		
	<i>Culex</i> spp.	22	288		
	<i>Culex erraticus</i>	5	88		
	<i>Culex salinarius</i>	1	29		
	<i>Culiseta melanura</i>	13	95	1	10.526
	<i>Psorophora ciliata</i>	1	1		
	<i>Psorophora columbiae</i>	2	13		
	<i>Psorophora ferox</i>	5	60		
<b>Essex</b>		<b>67</b>	<b>295</b>		
	<i>Aedes albopictus</i>	9	16		
	<i>Aedes canadensis canadensis</i>	2	14		
	<i>Aedes grossbecki</i>	5	12		
	<i>Aedes japonicus</i>	9	14		
	<i>Aedes triseriatus</i>	6	12		
	<i>Aedes trivittatus</i>	6	116		
	<i>Aedes vexans</i>	1	1		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Culex</i> spp.	28	109		
<b>Gloucester</b>		<b>200</b>	<b>7710</b>	<b>1</b>	<b>0.130</b>
	<i>Aedes albopictus</i>	32	574		
	<i>Aedes japonicus</i>	20	392		
	<i>Aedes triseriatus</i>	7	39		
	<i>Aedes vexans</i>	1	1		
	<i>Anopheles punctipennis</i>	1	75		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Culex</i> spp.	105	5614	1	0.178
	<i>Culex pipiens</i>	3	60		
	<i>Culiseta melanura</i>	28	860		
	<i>Psorophora columbiae</i>	1	19		
	<i>Psorophora ferox</i>	1	75		
<b>Hudson</b>		<b>122</b>	<b>5461</b>	<b>5</b>	<b>0.916</b>

	<i>Aedes albopictus</i>	17	220		
	<i>Aedes triseriatus</i>	10	18		
	<i>Culex</i> spp.	95	5223	5	0.957
<b>Hunterdon</b>		<b>129</b>	<b>5920</b>		
	<i>Aedes albopictus</i>	1	6		
	<i>Aedes triseriatus</i>	4	21		
	<i>Aedes trivittatus</i>	1	50		
	<i>Aedes vexans</i>	1	7		
	<i>Anopheles punctipennis</i>	1	3		
	<i>Coquillettidia perturbans</i>	1	2		
	<i>Culex</i> spp.	118	5819		
	<i>Psorophora ferox</i>	1	11		
	<i>Psorophora howardii</i>	1	1		
<b>Mercer</b>		<b>183</b>	<b>2403</b>	<b>1</b>	<b>0.416</b>
	<i>Aedes albopictus</i>	27	200		
	<i>Aedes japonicus</i>	49	257	1	3.891
	<i>Aedes triseriatus</i>	16	67		
	<i>Aedes vexans</i>	1	12		
	<i>Anopheles quadrimaculatus</i>	1	2		
	<i>Culex</i> spp.	89	1865		
<b>Middlesex</b>		<b>143</b>	<b>2240</b>	<b>4</b>	<b>1.786</b>
	<i>Aedes albopictus</i>	13	80		
	<i>Aedes japonicus</i>	16	194		
	<i>Aedes triseriatus</i>	6	25		
	<i>Coquillettidia perturbans</i>	2	23		
	<i>Culex</i> spp.	98	1874	4	2.134
	<i>Culiseta melanura</i>	8	44		
<b>Monmouth</b>		<b>241</b>	<b>3477</b>		
	<i>Aedes albopictus</i>	35	196		
	<i>Aedes atlanticus</i>	2	13		
	<i>Aedes canadensis canadensis</i>	18	513		
	<i>Aedes cantator</i>	4	30		
	<i>Aedes japonicus</i>	10	21		
	<i>Aedes sollicitans</i>	1	1		
	<i>Aedes triseriatus</i>	17	398		
	<i>Aedes trivittatus</i>	1	4		
	<i>Aedes vexans</i>	6	37		
	<i>Anopheles punctipennis</i>	17	59		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	11	43		
	<i>Culex</i> spp.	74	1798		
	<i>Culex erraticus</i>	4	4		
	<i>Culex restuans</i>	3	3		
	<i>Culex salinarius</i>	4	15		
	<i>Culex territans</i>	1	1		
	<i>Culiseta melanura</i>	22	299		
	<i>Psorophora columbiae</i>	2	20		
	<i>Psorophora ferox</i>	8	21		
<b>Morris</b>		<b>210</b>	<b>7991</b>		
	<i>Aedes canadensis canadensis</i>	19	817		

<i>Aedes japonicus</i>	15	143		
<i>Aedes triseriatus</i>	4	12		
<i>Coquillettidia perturbans</i>	15	823		
<i>Culex</i> spp.	142	5933		
<i>Culiseta melanura</i>	15	263		
<b>Ocean</b>	<b>168</b>	<b>1449</b>	<b>1</b>	<b>0.690</b>
<i>Aedes albopictus</i>	35	264		
<i>Aedes atlanticus</i>	2	17		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes cantator</i>	3	13	1	76.923
<i>Aedes japonicus</i>	12	34		
<i>Aedes triseriatus</i>	3	6		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	1	2		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	3	4		
<i>Coquillettidia perturbans</i>	10	37		
<i>Culex</i> spp.	46	757		
<i>Culex erraticus</i>	3	5		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	7	29		
<i>Culiseta melanura</i>	29	210		
<i>Psorophora ferox</i>	4	47		
<b>Passaic</b>	<b>139</b>	<b>1059</b>	<b>1</b>	<b>0.944</b>
<i>Aedes albopictus</i>	8	29		
<i>Aedes canadensis canadensis</i>	3	13		
<i>Aedes japonicus</i>	38	350		
<i>Aedes triseriatus</i>	19	38	1	26.316
<i>Aedes trivittatus</i>	1	6		
<i>Anopheles quadrimaculatus</i>	1	6		
<i>Coquillettidia perturbans</i>	2	10		
<i>Culex</i> spp.	64	596		
<i>Culex restuans</i>	2	8		
<i>Psorophora ferox</i>	1	3		
<b>Salem</b>	<b>297</b>	<b>3853</b>		
<i>Aedes albopictus</i>	56	166		
<i>Aedes atlanticus</i>	4	11		
<i>Aedes aurifer</i>	2	2		
<i>Aedes japonicus</i>	35	126		
<i>Aedes triseriatus</i>	18	23		
<i>Aedes trivittatus</i>	1	1		
<i>Anopheles punctipennis</i>	7	25		
<i>Anopheles quadrimaculatus</i>	5	23		
<i>Coquillettidia perturbans</i>	23	193		
<i>Culex</i> spp.	93	2980		
<i>Culex erraticus</i>	16	130		
<i>Culex pipiens</i>	8	9		
<i>Culex restuans</i>	6	6		
<i>Culex salinarius</i>	2	4		
<i>Culiseta melanura</i>	19	152		
<i>Psorophora columbiae</i>	1	1		
<i>Psorophora ferox</i>	1	1		

<b>Somerset</b>	<b>112</b>	<b>3532</b>	<b>1</b>	<b>0.283</b>
<i>Aedes albopictus</i>	3	17		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes japonicus</i>	12	168		
<i>Aedes triseriatus</i>	2	4		
<i>Aedes trivittatus</i>	2	57		
<i>Culex</i> spp.	92	3283	1	0.305
<b>Sussex</b>	<b>159</b>	<b>5434</b>		
<i>Aedes abserratus</i>	13	258		
<i>Aedes aurifer</i>	1	12		
<i>Aedes canadensis canadensis</i>	17	281		
<i>Aedes japonicus</i>	7	314		
<i>Aedes provocans</i>	2	8		
<i>Aedes sticticus</i>	2	84		
<i>Aedes stimulans</i>	2	10		
<i>Aedes triseriatus</i>	12	81		
<i>Coquillettidia perturbans</i>	1	75		
<i>Culex</i> spp.	91	3877		
<i>Culex pipiens</i>	1	75		
<i>Culex restuans</i>	7	291		
<i>Culiseta melanura</i>	3	68		
<b>Union</b>	<b>85</b>	<b>4916</b>	<b>5</b>	<b>1.017</b>
<i>Aedes albopictus</i>	6	88		
<i>Aedes japonicus</i>	2	25		
<i>Aedes triseriatus</i>	1	4		
<i>Coquillettidia perturbans</i>	14	875		
<i>Culex</i> spp.	62	3924	5	1.274
<b>Warren</b>	<b>167</b>	<b>8567</b>		
<i>Aedes japonicus</i>	17	374		
<i>Culex</i> spp.	150	8193		
<b>Grand Total</b>	<b>4597</b>	<b>95937</b>	<b>36</b>	<b>0.375</b>



**Beginning in 2019, viruses are tested as a panel, and so there may be results for species not normally associated with that virus. We have also begun testing for Jamestown Canyon virus.**

## Saint Louis Encephalitis (SLE) to 2 August 2019.

New Jersey will be primarily testing for SLE as part of a panel of arboviruses. SLE has had previous activity in New Jersey, most notably in 1964 and 1975, the latter outbreak 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 2019. No human cases have been reported.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>195</b>	<b>6270</b>		
	<i>Aedes albopictus</i>	27	240		
	<i>Aedes cantator</i>	2	112		
	<i>Aedes japonicus</i>	5	71		
	<i>Aedes sollicitans</i>	8	286		
	<i>Aedes taeniorhynchus</i>	4	181		
	<i>Aedes vexans</i>	7	188		
	<i>Anopheles bradleyi</i>	3	38		
	<i>Anopheles crucians</i>	1	6		
	<i>Anopheles punctipennis</i>	1	45		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	20	625		
	<i>Culex</i> spp.	60	3147		
	<i>Culex erraticus</i>	3	3		
	<i>Culex pipiens</i>	1	75		
	<i>Culex restuans</i>	1	3		
	<i>Culex territans</i>	1	1		
	<i>Culiseta melanura</i>	48	1098		

<i>Psorophora ferox</i>	2	150		
<b>Bergen</b>	<b>144</b>	<b>8339</b>		
<i>Aedes albopictus</i>	3	32		
<i>Aedes canadensis canadensis</i>	4	28		
<i>Aedes cantator</i>	2	105		
<i>Aedes japonicus</i>	10	253		
<i>Aedes thibaulti</i>	2	27		
<i>Aedes triseriatus</i>	3	27		
<i>Aedes trivittatus</i>	1	6		
<i>Coquillettidia perturbans</i>	3	37		
<i>Culex</i> spp.	107	7589		
<i>Culex salinarius</i>	4	216		
<i>Culiseta melanura</i>	4	13		
<i>Psorophora ferox</i>	1	6		
<b>Burlington</b>	<b>175</b>	<b>8853</b>		
<i>Aedes albopictus</i>	1	3		
<i>Aedes atlanticus</i>	3	49		
<i>Aedes canadensis canadensis</i>	8	232		
<i>Aedes cantator</i>	1	28		
<i>Aedes infirmatus</i>	1	1		
<i>Aedes japonicus</i>	3	25		
<i>Aedes mitchellae</i>	1	1		
<i>Aedes sticticus</i>	1	9		
<i>Aedes taeniorhynchus</i>	1	9		
<i>Aedes vexans</i>	1	30		
<i>Anopheles bradleyi</i>	1	27		
<i>Anopheles crucians</i>	2	69		
<i>Anopheles quadrimaculatus</i>	1	10		
<i>Coquillettidia perturbans</i>	7	481		
<i>Culex</i> spp.	96	6493		
<i>Culex salinarius</i>	13	515		
<i>Culex territans</i>	1	28		
<i>Culiseta melanura</i>	32	819		
<i>Psorophora ferox</i>	1	24		
<b>Camden</b>	<b>45</b>	<b>950</b>		
<i>Aedes albopictus</i>	9	38		
<i>Aedes japonicus</i>	8	28		
<i>Aedes triseriatus</i>	1	4		
<i>Culex</i> spp.	19	641		
<i>Culiseta melanura</i>	8	239		
<b>Cape May</b>	<b>1140</b>	<b>5063</b>		
<i>Aedes albopictus</i>	31	67		
<i>Aedes canadensis canadensis</i>	11	15		
<i>Aedes cantator</i>	4	4		
<i>Aedes japonicus</i>	132	274		
<i>Aedes triseriatus</i>	15	34		
<i>Aedes vexans</i>	10	11		
<i>Anopheles bradleyi</i>	37	105		
<i>Anopheles punctipennis</i>	4	4		
<i>Anopheles quadrimaculatus</i>	51	452		
<i>Coquillettidia perturbans</i>	16	36		
<i>Culex</i> spp.	14	41		

<i>Culex erraticus</i>	9	16		
<i>Culex pipiens</i>	260	2683		
<i>Culex restuans</i>	278	650		
<i>Culex salinarius</i>	135	340		
<i>Culex territans</i>	19	38		
<i>Culiseta melanura</i>	107	284		
<i>Orthopodomyia signifera</i>	4	4		
<i>Uranotaenia sapphirina</i>	3	5		
<b>Cumberland</b>	<b>118</b>	<b>1057</b>		
<i>Aedes albopictus</i>	11	82		
<i>Aedes canadensis canadensis</i>	2	51		
<i>Aedes japonicus</i>	2	11		
<i>Aedes trivittatus</i>	4	8		
<i>Aedes vexans</i>	18	156		
<i>Anopheles punctipennis</i>	11	52		
<i>Anopheles quadrimaculatus</i>	12	111		
<i>Coquillettidia perturbans</i>	9	12		
<i>Culex</i> spp.	22	288		
<i>Culex erraticus</i>	5	88		
<i>Culex salinarius</i>	1	29		
<i>Culiseta melanura</i>	13	95		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	2	13		
<i>Psorophora ferox</i>	5	60		
<b>Essex</b>	<b>67</b>	<b>295</b>		
<i>Aedes albopictus</i>	9	16		
<i>Aedes canadensis canadensis</i>	2	14		
<i>Aedes grossbecki</i>	5	12		
<i>Aedes japonicus</i>	9	14		
<i>Aedes triseriatus</i>	6	12		
<i>Aedes trivittatus</i>	6	116		
<i>Aedes vexans</i>	1	1		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex</i> spp.	28	109		
<b>Gloucester</b>	<b>200</b>	<b>7710</b>		
<i>Aedes albopictus</i>	32	574		
<i>Aedes japonicus</i>	20	392		
<i>Aedes triseriatus</i>	7	39		
<i>Aedes vexans</i>	1	1		
<i>Anopheles punctipennis</i>	1	75		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex</i> spp.	105	5614		
<i>Culex pipiens</i>	3	60		
<i>Culiseta melanura</i>	28	860		
<i>Psorophora columbiae</i>	1	19		
<i>Psorophora ferox</i>	1	75		
<b>Hudson</b>	<b>114</b>	<b>5447</b>		
<i>Aedes albopictus</i>	17	220		
<i>Aedes triseriatus</i>	2	4		
<i>Culex</i> spp.	95	5223		

<b>Hunterdon</b>	<b>126</b>	<b>5902</b>		
<i>Aedes albopictus</i>	1	6		
<i>Aedes triseriatus</i>	1	3		
<i>Aedes trivittatus</i>	1	50		
<i>Aedes vexans</i>	1	7		
<i>Anopheles punctipennis</i>	1	3		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex</i> spp.	118	5819		
<i>Psorophora ferox</i>	1	11		
<i>Psorophora howardii</i>	1	1		
<b>Mercer</b>	<b>167</b>	<b>2336</b>		
<i>Aedes albopictus</i>	27	200		
<i>Aedes japonicus</i>	49	257		
<i>Aedes vexans</i>	1	12		
<i>Anopheles quadrimaculatus</i>	1	2		
<i>Culex</i> spp.	89	1865		
<b>Middlesex</b>	<b>139</b>	<b>2225</b>		
<i>Aedes albopictus</i>	13	80		
<i>Aedes japonicus</i>	16	194		
<i>Aedes triseriatus</i>	2	10		
<i>Coquillettidia perturbans</i>	2	23		
<i>Culex</i> spp.	98	1874		
<i>Culiseta melanura</i>	8	44		
<b>Monmouth</b>	<b>225</b>	<b>3081</b>		
<i>Aedes albopictus</i>	35	196		
<i>Aedes atlanticus</i>	2	13		
<i>Aedes canadensis canadensis</i>	18	513		
<i>Aedes cantator</i>	4	30		
<i>Aedes japonicus</i>	10	21		
<i>Aedes sollicitans</i>	1	1		
<i>Aedes triseriatus</i>	1	2		
<i>Aedes trivittatus</i>	1	4		
<i>Aedes vexans</i>	6	37		
<i>Anopheles punctipennis</i>	17	59		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Coquillettidia perturbans</i>	11	43		
<i>Culex</i> spp.	74	1798		
<i>Culex erraticus</i>	4	4		
<i>Culex restuans</i>	3	3		
<i>Culex salinarius</i>	4	15		
<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	22	299		
<i>Psorophora columbiae</i>	2	20		
<i>Psorophora ferox</i>	8	21		
<b>Morris</b>	<b>210</b>	<b>7991</b>		
<i>Aedes canadensis canadensis</i>	19	817		
<i>Aedes japonicus</i>	15	143		
<i>Aedes triseriatus</i>	4	12		
<i>Coquillettidia perturbans</i>	15	823		
<i>Culex</i> spp.	142	5933		
<i>Culiseta melanura</i>	15	263		

<b>Ocean</b>	<b>168</b>	<b>1449</b>		
<i>Aedes albopictus</i>	35	264		
<i>Aedes atlanticus</i>	2	17		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes cantator</i>	3	13		
<i>Aedes japonicus</i>	12	34		
<i>Aedes triseriatus</i>	3	6		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	1	2		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	3	4		
<i>Coquillettidia perturbans</i>	10	37		
<i>Culex</i> spp.	46	757		
<i>Culex erraticus</i>	3	5		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	7	29		
<i>Culiseta melanura</i>	29	210		
<i>Psorophora ferox</i>	4	47		
<b>Passaic</b>	<b>132</b>	<b>1045</b>		
<i>Aedes albopictus</i>	6	20		
<i>Aedes canadensis canadensis</i>	3	13		
<i>Aedes japonicus</i>	38	350		
<i>Aedes triseriatus</i>	14	33		
<i>Aedes trivittatus</i>	1	6		
<i>Aedes quadrimaculatus</i>	1	6		
<i>Coquillettidia perturbans</i>	2	10		
<i>Culex</i> spp.	64	596		
<i>Culex restuans</i>	2	8		
<i>Psorophora ferox</i>	1	3		
<b>Salem</b>	<b>281</b>	<b>3832</b>		
<i>Aedes albopictus</i>	56	166		
<i>Aedes atlanticus</i>	4	11		
<i>Aedes aurifer</i>	2	2		
<i>Aedes japonicus</i>	35	126		
<i>Aedes triseriatus</i>	2	2		
<i>Aedes trivittatus</i>	1	1		
<i>Anopheles punctipennis</i>	7	25		
<i>Anopheles quadrimaculatus</i>	5	23		
<i>Coquillettidia perturbans</i>	23	193		
<i>Culex</i> spp.	93	2980		
<i>Culex erraticus</i>	16	130		
<i>Culex pipiens</i>	8	9		
<i>Culex restuans</i>	6	6		
<i>Culex salinarius</i>	2	4		
<i>Culiseta melanura</i>	19	152		
<i>Psorophora columbiae</i>	1	1		
<i>Psorophora ferox</i>	1	1		
<b>Somerset</b>	<b>112</b>	<b>3532</b>		
<i>Aedes albopictus</i>	3	17		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes japonicus</i>	12	168		
<i>Aedes triseriatus</i>	2	4		

<i>Aedes trivittatus</i>	2	57		
<i>Culex spp.</i>	92	3283		
<b>Sussex</b>	<b>146</b>	<b>5320</b>		
<i>Aedes abserratus</i>	13	258		
<i>Aedes aurifer</i>	1	12		
<i>Aedes canadensis canadensis</i>	17	281		
<i>Aedes japonicus</i>	6	281		
<i>Aedes provocans</i>	2	8		
<i>Aedes sticticus</i>	2	84		
<i>Aedes stimulans</i>	2	10		
<i>Coquillettidia perturbans</i>	1	75		
<i>Culex spp.</i>	91	3877		
<i>Culex pipiens</i>	1	75		
<i>Culex restuans</i>	7	291		
<i>Culiseta melanura</i>	3	68		
<b>Union</b>	<b>75</b>	<b>4368</b>		
<i>Aedes albopictus</i>	6	88		
<i>Aedes japonicus</i>	2	25		
<i>Coquillettidia perturbans</i>	5	331		
<i>Culex spp.</i>	62	3924		
<b>Warren</b>	<b>167</b>	<b>8567</b>		
<i>Aedes japonicus</i>	17	374		
<i>Culex spp.</i>	150	8193		
<b>Grand Total</b>	<b>4146</b>	<b>93632</b>		

## La Crosse Encephalitis (LAC) to 2 August 2019.

New Jersey will be testing for LAC as part of a panel. New Jersey has had 3 cases of this encephalitic disease since 1964. 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).

One pool of *Aedes triseriatus* has been detected infected with LAC, collected 31 May in Passaic County. This pool was also reported co-infected with WNV. No human cases have been reported.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Bergen</b>		<b>17</b>	<b>423</b>		
	<i>Aedes albopictus</i>	3	54		
	<i>Aedes canadensis canadensis</i>	1	3		
	<i>Aedes japonicus</i>	9	327		
	<i>Aedes triseriatus</i>	4	39		
<b>Burlington</b>		<b>17</b>	<b>323</b>		
	<i>Aedes albopictus</i>	6	87		
	<i>Aedes japonicus</i>	6	219		
	<i>Aedes triseriatus</i>	5	17		

<b>Cape May</b>	* species removed	<b>125</b>	<b>184</b>		
	<i>Aedes triseriatus</i>	125	184		
<b>Essex</b>		<b>1</b>	<b>3</b>		
	<i>Aedes triseriatus</i>	1	3		
<b>Hudson</b>		<b>8</b>	<b>14</b>		
	<i>Aedes triseriatus</i>	8	14		
<b>Hunterdon</b>		<b>3</b>	<b>18</b>		
	<i>Aedes triseriatus</i>	3	18		
<b>Mercer</b>		<b>16</b>	<b>67</b>		
	<i>Aedes triseriatus</i>	16	67		
<b>Middlesex</b>		<b>4</b>	<b>15</b>		
	<i>Aedes triseriatus</i>	4	15		
<b>Monmouth</b>		<b>16</b>	<b>396</b>		
	<i>Aedes triseriatus</i>	16	396		
<b>Passaic</b>		<b>18</b>	<b>51</b>	<b>1</b>	<b>19.608</b>
	<i>Aedes albopictus</i>	4	16		
	<i>Aedes canadensis canadensis</i>	1	8		
	<i>Aedes triseriatus</i>	12	25	1	40.000
	<i>Coquillettidia perturbans</i>	1	2		
<b>Salem</b>		<b>16</b>	<b>21</b>		
	<i>Aedes triseriatus</i>	16	21		
<b>Sussex</b>		<b>13</b>	<b>114</b>		
	<i>Aedes japonicus</i>	1	33		
	<i>Aedes triseriatus</i>	12	81		
<b>Union</b>		<b>10</b>	<b>548</b>		
	<i>Aedes triseriatus</i>	1	4		
	<i>Coquillettidia perturbans</i>	9	544		
<b>Grand Total</b>		<b>264</b>	<b>2177</b>	<b>1</b>	<b>0.459</b>

### Dengue (DENV) to 2 August 2019.

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.

Negative pools are reported without reference to the 4 serotypes. Positive pools will refer to the serotypes.

No pools of Dengue have been found positive in 2019. There are currently 12 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>27</b>	<b>240</b>		
	<i>Aedes albopictus</i>	27	240		
<b>Middlesex</b>		<b>10</b>	<b>52</b>		
	<i>Aedes albopictus</i>	10	52		
<b>Grand Total</b>		<b>37</b>	<b>292</b>		

## Chikungunya (CHIK) to 2 August 2019.

Mosquitoes will be tested for CHIK as part of a panel. 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 been found positive in 2019. There are currently 3 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>27</b>	<b>240</b>		
	<i>Aedes albopictus</i>	27	240		
<b>Cape May</b>		<b>232</b>	<b>422</b>		
	<i>Aedes albopictus</i>	228	401		
	<i>Aedes triseriatus</i>	2	17		
	<i>Culex pipiens</i>	1	1		
	<i>Culex restuans</i>	1	3		
<b>Middlesex</b>		<b>10</b>	<b>52</b>		
	<i>Aedes albopictus</i>	10	52		
<b>Grand Total</b>		<b>269</b>	<b>714</b>		

## Zika (ZIKV) to 2 August 2019.

Mosquitoes will be tested for ZIKV as part of a panel. 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 of ZIKV have tested positive in 2019. There are currently 4 travel-related human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>27</b>	<b>240</b>		
	<i>Aedes albopictus</i>	27	240		
<b>Cape May</b>		<b>231</b>	<b>421</b>		
	<i>Aedes albopictus</i>	227	400		
	<i>Coquillettidia perturbans</i>	2	17		
	<i>Culex restuans</i>	1	1		
	<i>Culex salinarius</i>	1	3		
<b>Middlesex</b>		<b>10</b>	<b>52</b>		
	<i>Aedes albopictus</i>	10	52		
<b>Grand Total</b>		<b>268</b>	<b>713</b>		

## Jamestown Canyon (JCV) to 2 August 2019.

New Jersey will begin testing for JCV this year. Jamestown Canyon is a native arboviral threat with fever and meningitis or meningoencephalitis consequences. JCV is an orthobunyavirus with a number of potential mosquito vectors, including *Aedes*, *Coquillettidia*, and *Culex* species.

Three pools of positive mosquitoes have been detected. One pool of *Aedes abserratus* in Sussex County (collected 5 June), one pool of *Aedes cantator* collected in Bergen County (collected 22 June) and one pool of *Anopheles crucians* in Burlington County (collected 2 July) have been found positive in 2019. *Ae. abserratus* is a deer-feeding species that has been found positive in Connecticut and implicated as a potential vector (Theodore G. Andreadis, John F. Anderson, Philip M. Armstrong, and Andrew J. Main. Vector-Borne and Zoonotic Diseases. Apr 2008.

<http://doi.org/10.1089/vbz.2007.0169>). *Ae. cantator* tends to feed on human-associated species and likely plays little if any role in the transmission of JCV. *An. crucians* obtains bloodmeals from a few birds, but mostly small to medium-sized mammals (Edman, J. D. 1971. Host-feeding patterns of Florida mosquitoes. I. *Aedes*, *Anopheles*, *Coquillettidia*, *Mansonia*, and *Psorophora*. J. Med. Entomol. 8: 687-95.) There are currently 0 human cases in NJ.

County	Species	Pools	Mosquitoes	Positives	MFIR
<b>Atlantic</b>		<b>195</b>	<b>6270</b>		
	<i>Aedes albopictus</i>	27	240		
	<i>Aedes cantator</i>	2	112		
	<i>Aedes japonicus</i>	5	71		
	<i>Aedes sollicitans</i>	8	286		
	<i>Aedes taeniorhynchus</i>	4	181		
	<i>Aedes vexans</i>	7	188		
	<i>Anopheles bradleyi</i>	3	38		
	<i>Anopheles crucians</i>	1	6		
	<i>Anopheles punctipennis</i>	1	45		
	<i>Anopheles quadrimaculatus</i>	1	1		
	<i>Coquillettidia perturbans</i>	20	625		
	<i>Culex</i> spp.	60	3147		
	<i>Culex erraticus</i>	3	3		
	<i>Culex pipiens</i>	1	75		
	<i>Culex restuans</i>	1	3		
	<i>Culex territans</i>	1	1		
	<i>Culiseta melanura</i>	48	1098		
	<i>Psorophora ferox</i>	2	150		
<b>Bergen</b>		<b>144</b>	<b>8339</b>	<b>1</b>	<b>0.120</b>
	<i>Aedes albopictus</i>	3	32		
	<i>Aedes canadensis canadensis</i>	4	28		
	<i>Aedes cantator</i>	2	105	1	9.524
	<i>Aedes japonicus</i>	10	253		
	<i>Aedes thibaulti</i>	2	27		
	<i>Aedes triseriatus</i>	3	27		
	<i>Aedes trivittatus</i>	1	6		
	<i>Coquillettidia perturbans</i>	3	37		
	<i>Culex</i> spp.	107	7589		
	<i>Culex salinarius</i>	4	216		
	<i>Culiseta melanura</i>	4	13		
	<i>Psorophora ferox</i>	1	6		
<b>Burlington</b>		<b>175</b>	<b>8853</b>	<b>1</b>	<b>0.113</b>
	<i>Aedes albopictus</i>	1	3		
	<i>Aedes atlanticus</i>	3	49		
	<i>Aedes canadensis canadensis</i>	8	232		
	<i>Aedes cantator</i>	1	28		
	<i>Aedes infirmatus</i>	1	1		
	<i>Aedes japonicus</i>	3	25		

<i>Aedes mitchellae</i>	1	1		
<i>Aedes sticticus</i>	1	9		
<i>Aedes taeniorhynchus</i>	1	9		
<i>Aedes vexans</i>	1	30		
<i>Anopheles bradleyi</i>	1	27		
<i>Anopheles crucians</i>	2	69	1	14.493
<i>Coquillettidia perturbans</i>	1	10		
<i>Culex</i> spp.	7	481		
<i>Culex salinarius</i>	96	6493		
<i>Culiseta melanura</i>	13	515		
<i>Psorophora ferox</i>	1	28		
<b>Camden</b>	<b>37</b>	<b>711</b>		
<i>Aedes albopictus</i>	9	38		
<i>Aedes japonicus</i>	8	28		
<i>Aedes triseriatus</i>	1	4		
<i>Culex</i> spp.	19	641		
<b>Cape May</b>	<b>21</b>	<b>33</b>		
<i>Aedes triseriatus</i>	21	33		
<b>Cumberland</b>	<b>118</b>	<b>1057</b>		
<i>Aedes albopictus</i>	11	82		
<i>Aedes canadensis canadensis</i>	2	51		
<i>Aedes japonicus</i>	2	11		
<i>Aedes trivittatus</i>	4	8		
<i>Aedes vexans</i>	18	156		
<i>Anopheles punctipennis</i>	11	52		
<i>Anopheles quadrimaculatus</i>	12	111		
<i>Coquillettidia perturbans</i>	9	12		
<i>Culex</i> spp.	22	288		
<i>Culex erraticus</i>	5	88		
<i>Culex salinarius</i>	1	29		
<i>Culiseta melanura</i>	13	95		
<i>Psorophora ciliata</i>	1	1		
<i>Psorophora columbiae</i>	2	13		
<i>Psorophora ferox</i>	5	60		
<b>Essex</b>	<b>67</b>	<b>295</b>		
<i>Aedes albopictus</i>	9	16		
<i>Aedes canadensis canadensis</i>	2	14		
<i>Aedes grossbecki</i>	5	12		
<i>Aedes japonicus</i>	9	14		
<i>Aedes triseriatus</i>	6	12		
<i>Aedes trivittatus</i>	6	116		
<i>Aedes vexans</i>	1	1		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex</i> spp.	28	109		
<b>Gloucester</b>	<b>193</b>	<b>7586</b>		
<i>Aedes albopictus</i>	32	574		
<i>Aedes japonicus</i>	20	392		
<i>Aedes triseriatus</i>	7	39		
<i>Aedes vexans</i>	1	1		
<i>Anopheles punctipennis</i>	1	75		

<i>Anopheles quadrimaculatus</i>	1	1		
<i>Culex</i> spp.	105	5614		
<i>Culex pipiens</i>	3	60		
<i>Culiseta melanura</i>	21	736		
<i>Psorophora columbiæ</i>	1	19		
<i>Psorophora ferox</i>	1	75		
<b>Hudson</b>	<b>114</b>	<b>5447</b>		
<i>Aedes albopictus</i>	17	220		
<i>Aedes triseriatus</i>	2	4		
<i>Culex</i> spp.	95	5223		
<b>Hunterdon</b>	<b>126</b>	<b>5902</b>		
<i>Aedes albopictus</i>	1	6		
<i>Aedes triseriatus</i>	1	3		
<i>Aedes trivittatus</i>	1	50		
<i>Aedes vexans</i>	1	7		
<i>Anopheles punctipennis</i>	1	3		
<i>Coquillettidia perturbans</i>	1	2		
<i>Culex</i> spp.	118	5819		
<i>Psorophora ferox</i>	1	11		
<i>Psorophora howardii</i>	1	1		
<b>Mercer</b>	<b>167</b>	<b>2336</b>		
<i>Aedes albopictus</i>	27	200		
<i>Aedes japonicus</i>	49	257		
<i>Aedes vexans</i>	1	12		
<i>Anopheles quadrimaculatus</i>	1	2		
<i>Culex</i> spp.	89	1865		
<b>Middlesex</b>	<b>139</b>	<b>2225</b>		
<i>Aedes albopictus</i>	13	80		
<i>Aedes japonicus</i>	16	194		
<i>Aedes triseriatus</i>	2	10		
<i>Coquillettidia perturbans</i>	2	23		
<i>Culex</i> spp.	98	1874		
<i>Culiseta melanura</i>	8	44		
<b>Monmouth</b>	<b>225</b>	<b>3081</b>		
<i>Aedes albopictus</i>	35	196		
<i>Aedes atlanticus</i>	2	13		
<i>Aedes canadensis canadensis</i>	18	513		
<i>Aedes cantator</i>	4	30		
<i>Aedes japonicus</i>	10	21		
<i>Aedes sollicitans</i>	1	1		
<i>Aedes triseriatus</i>	1	2		
<i>Aedes trivittatus</i>	1	4		
<i>Aedes vexans</i>	6	37		
<i>Anopheles punctipennis</i>	17	59		
<i>Anopheles quadrimaculatus</i>	1	1		
<i>Coquillettidia perturbans</i>	11	43		
<i>Culex</i> spp.	74	1798		
<i>Culex erraticus</i>	4	4		
<i>Culex restuans</i>	3	3		
<i>Culex salinarius</i>	4	15		

<i>Culex territans</i>	1	1		
<i>Culiseta melanura</i>	22	299		
<i>Psorophora columbiae</i>	2	20		
<i>Psorophora ferox</i>	8	21		
<b>Morris</b>	<b>210</b>	<b>7991</b>		
<i>Aedes canadensis canadensis</i>	19	817		
<i>Aedes japonicus</i>	15	143		
<i>Aedes triseriatus</i>	4	12		
<i>Coquillettidia perturbans</i>	15	823		
<i>Culex</i> spp.	142	5933		
<i>Culiseta melanura</i>	15	263		
<b>Ocean</b>	<b>168</b>	<b>1449</b>		
<i>Aedes albopictus</i>	35	264		
<i>Aedes atlanticus</i>	2	17		
<i>Aedes canadensis canadensis</i>	7	21		
<i>Aedes cantator</i>	3	13		
<i>Aedes japonicus</i>	12	34		
<i>Aedes triseriatus</i>	3	6		
<i>Aedes trivittatus</i>	1	1		
<i>Aedes vexans</i>	1	2		
<i>Anopheles bradleyi</i>	1	1		
<i>Anopheles punctipennis</i>	3	4		
<i>Coquillettidia perturbans</i>	10	37		
<i>Culex</i> spp.	46	757		
<i>Culex erraticus</i>	3	5		
<i>Culex restuans</i>	1	1		
<i>Culex salinarius</i>	7	29		
<i>Culiseta melanura</i>	29	210		
<i>Psorophora ferox</i>	4	47		
<b>Passaic</b>	<b>132</b>	<b>1045</b>		
<i>Aedes albopictus</i>	6	20		
<i>Aedes canadensis canadensis</i>	3	13		
<i>Aedes japonicus</i>	38	350		
<i>Aedes triseriatus</i>	14	33		
<i>Aedes trivittatus</i>	1	6		
<i>Anopheles quadrimaculatus</i>	1	6		
<i>Coquillettidia perturbans</i>	2	10		
<i>Culex</i> spp.	64	596		
<i>Culex restuans</i>	2	8		
<i>Psorophora ferox</i>	1	3		
<b>Salem</b>	<b>275</b>	<b>3725</b>		
<i>Aedes albopictus</i>	56	166		
<i>Aedes atlanticus</i>	4	11		
<i>Aedes aurifer</i>	2	2		
<i>Aedes japonicus</i>	35	126		
<i>Aedes triseriatus</i>	2	2		
<i>Aedes trivittatus</i>	1	1		
<i>Anopheles punctipennis</i>	7	25		
<i>Anopheles quadrimaculatus</i>	5	23		
<i>Coquillettidia perturbans</i>	23	193		
<i>Culex</i> spp.	93	2980		
<i>Culex erraticus</i>	16	130		

<i>Culex pipiens</i>	8	9		
<i>Culex restuans</i>	6	6		
<i>Culex salinarius</i>	2	4		
<i>Culiseta melanura</i>	13	45		
<i>Psorophora columbiae</i>	1	1		
<i>Psorophora ferox</i>	1	1		
<b>Somerset</b>	<b>112</b>	<b>3532</b>		
<i>Aedes albopictus</i>	3	17		
<i>Aedes canadensis canadensis</i>	1	3		
<i>Aedes japonicus</i>	12	168		
<i>Aedes triseriatus</i>	2	4		
<i>Aedes trivittatus</i>	2	57		
<i>Culex</i> spp.	92	3283		
<b>Sussex</b>	<b>146</b>	<b>5320</b>	<b>1</b>	<b>0.188</b>
<i>Aedes abserratus</i>	13	258	1	3.876
<i>Aedes aurifer</i>	1	12		
<i>Aedes canadensis canadensis</i>	17	281		
<i>Aedes japonicus</i>	6	281		
<i>Aedes provocans</i>	2	8		
<i>Aedes sticticus</i>	2	84		
<i>Aedes stimulans</i>	2	10		
<i>Coquillettidia perturbans</i>	1	75		
<i>Culex</i> spp.	91	3877		
<i>Culex pipiens</i>	1	75		
<i>Culex restuans</i>	7	291		
<i>Culiseta melanura</i>	3	68		
<b>Union</b>	<b>75</b>	<b>4368</b>		
<i>Aedes albopictus</i>	6	88		
<i>Aedes japonicus</i>	2	25		
<i>Coquillettidia perturbans</i>	5	331		
<i>Culex</i> spp.	62	3924		
<b>Warren</b>	<b>167</b>	<b>8567</b>		
<i>Aedes japonicus</i>	17	374		
<i>Culex</i> spp.	150	8193		
<b>Grand Total</b>	<b>3006</b>	<b>88132</b>	<b>3</b>	<b>0.034</b>