RUTGERS
New Jersey Agricultural Experiment Station

# VECTOR SURVEILLANCE IN NEW JERSEY

## EEE, WNV, SLE and LAC

CDC WEEK 32: August 8 to August 14, 2010

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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 | 5.01 | 0.32 | 95 | 11 | 0 | 0 |
| **Corbin City** (Atlantic County) | Coastal | 1.07 | 0.04 | 288 | 12 | 0 | 0 |
| **Dennisville** (Cape May County) | Coastal | 7.54 | 1.08 | 624 | 20 | 1 | 1.60 |
| **Winslow** (Camden County) | Inland | 3.76 | 4.80 | 1712 | 38 | 1 | 0.58 |
| **Centerton** (Salem County) | Inland | 3.37 | 0.80 | 1145 | 27 | 0 | 0 |
| **Turkey Swamp** (Monmouth County) | Inland | 1.57 | 2.00† | 401 | 38 | 0 | 0 |
| **Glassboro** (Gloucester County) | Inland | 1.44 | 0.32 | 336 | 11 | 0 | 0 |

*Including trial run last week in May. † results included in next week's report. *adjusted

**Remarks**: There are **7 positive EEE pools** to report at this time. Six positive pools are from *Cs. melanura*, from both traditional resting box monitoring sites and county-run traps. The Winslow site produced the second positive *Cs. melanura* pool from the traditional resting box sites, collected 4 August. To date, 4552 *Culiseta melanura* mosquitoes forming 155 pools from the resting box sites have been tested. An additional 4926 *Cs. melanura* forming 213 pools have been sampled by the counties using a variety of traps (table to the left), producing four positive pools. One of the positive *Cs. melanura* pools was collected on the 9th of August from a Burlington County site. The seventh pool is a *Culex erraticus* pool, collected 3 August in northern Cape May County. This species produced the second largest number of positive pools last year.

**Additional *Cs. melanura* trapped by counties**
*traps with positives indicated in **BOLD**.

| County | Trap types* | Number collected | Number of positives | MFIR |
|---|---|---|---|---|
| Atlantic | $CO_2$ | 17 | | |
| Burlington | **$CO_2$** | 1919 | 2 | 1.042 |
| Cape May | $CO_2$, Gravid, **RB** | 1609 | 1 | 0.622 |
| Cumberland | RB | 322 | | |
| Gloucester | **RB** | 871 | 1 | 1.15 |
| Ocean | $CO_2$, Gravid, RB | 156 | | |
| Salem | $CO_2$ | 1 | | |
| Sussex | $CO_2$, NJLT | 31 | | |
| **TOTAL** | | **4926** | **4** | **0.812** |

The table below indicates non-melanura species tested for EEE. A *Culex erraticus* pool from Cape May was detected positive for EEE:

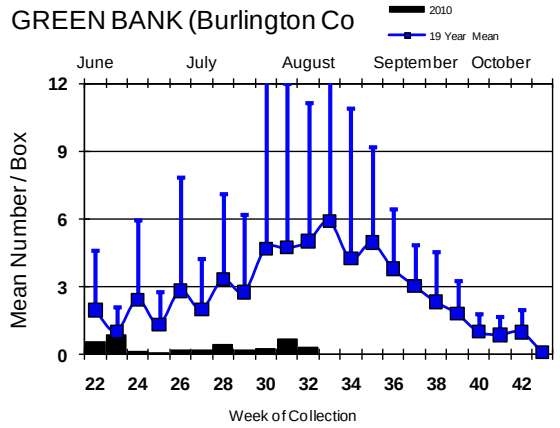
| Species other than *Cs. melanura* | Pools | Mosquitoes | Positives | MFIR |
|---|---|---|---|---|
| *Aedes albopictus* | 11 | 66 | | |
| *Aedes canadensis canadensis* | 2 | 30 | | |
| *Aedes japonicus* | 3 | 10 | | |
| *Aedes sollicitans* | 3 | 99 | | |
| *Aedes taeniorhynchus* | 1 | 7 | | |
| *Aedes triseriatus* | 1 | 2 | | |
| *Aedes trivittatus* | 1 | 2 | | |
| *Aedes vexans* | 8 | 185 | | |
| *Anopheles bradleyi* | 7 | 89 | | |
| *Anopheles crucians* | 2 | 122 | | |
| *Anopheles punctipennis* | 2 | 14 | | |
| *Anopheles quadrimaculatus* | 5 | 17 | | |
| *Coquillettidia perturbans* | 33 | 775 | | |
| *Culex erraticus* | 33 | 1125 | 1 | 0.889 |
| *Culex pipiens* | 171 | 1602 | | |
| *Culex restuans* | 5 | 15 | | |
| *Culex salinarius* | 17 | 146 | | |
| *Culex* spp. | 118 | 3061 | | |
| *Culex territans* | 1 | 1 | | |
| *Culiseta minnesotae* | 1 | 1 | | |
| *Psorophora columbiae* | 1 | 5 | | |
| *Uranotaenia sapphirina* | 1 | 6 | | |
| **State Total** | **427** | **7380** | **1** | **0.136** |

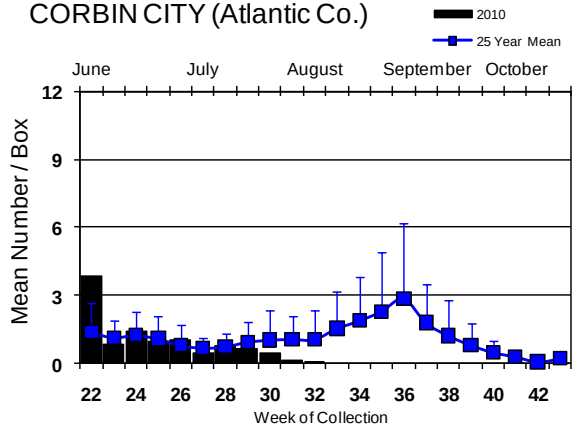
There are no positive horse or human cases to date.

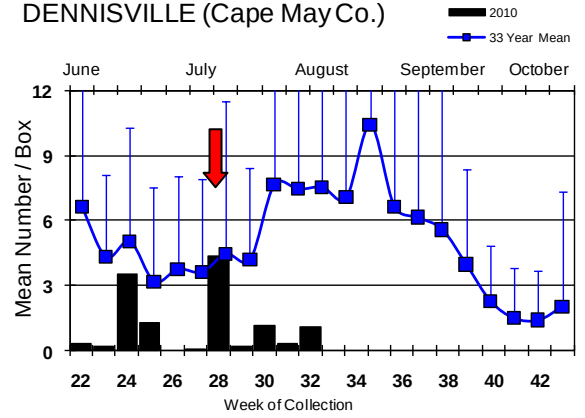
**Horses and Vaccinations:** The fate of unvaccinated equids reinforces the necessity of maintaining a vaccination schedule for arboviruses. For vaccination schedules recommended by the American Association of Equine Practices, see: http://www.aaep.org/vaccination_guidelines.htm

# *Culiseta melanura* Population Graphs

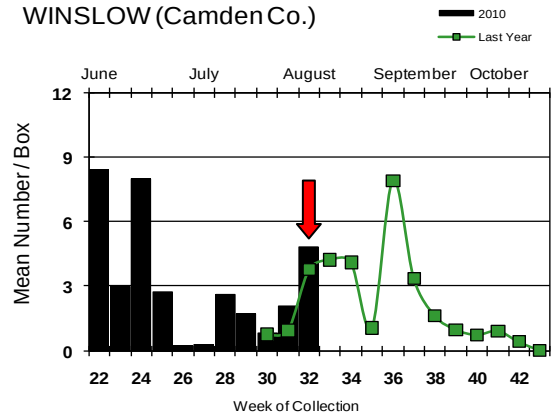
## Coastal

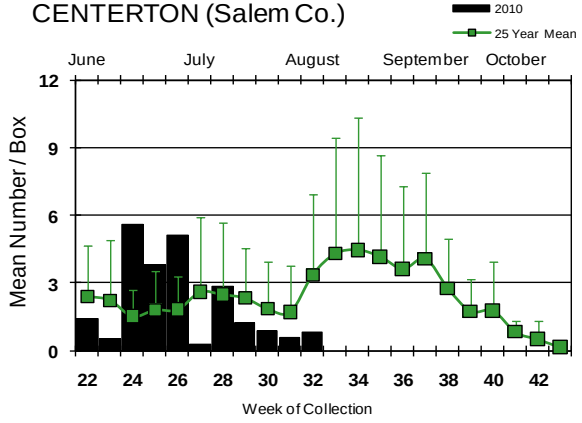


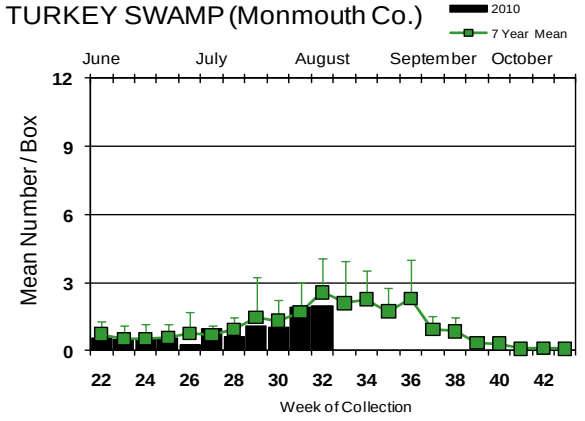




## Inland

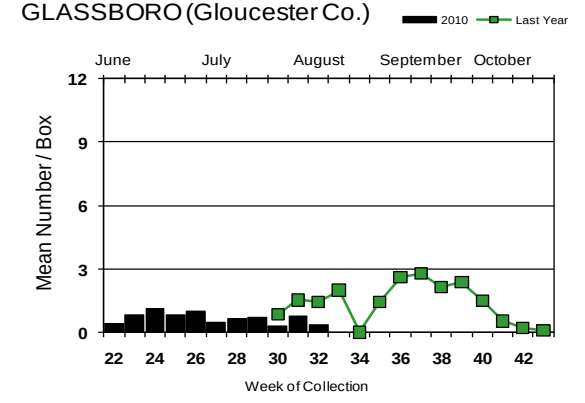



*Cs. melanura* populations trends continued to show mixed trends. Green Bank populations are well below historical trends while Turkey Swamp is tracking these trends closely. The Dennisville site has shown a variable response through the season while light trap data from near the site showed high early-season activity and is currently tracking historical values. Both positive pools occurred when population levels were around historical levels.

= Zero positive pool(s) detected.



**EEE in US (2010 cumulative cases)**: (Black or Red = previous + new reported cases occurring)

- equine: 6(AL) 69(FL) 15(GA) 9(LA) 3(MA) 16(MI)
- mosquito: 3(FL) 7(NJ) 15(NY) 47(MA) 3(VA)
- sentinel: 2(AL) 113/26(FL chickens/wild) 1 wild bird?(ME)
- human: 1(TX-out of country acquired case) 4(FL) 1(MA>RI)

# West Nile Virus

**West Nile in US (2010 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 | | | | | 2 |
| Alaska | | | | | |
| Arizona | | 196/210 | 9 | | 43/54 |
| Arkansas | | | | | |
| California | 179/219 | 562/676 | 45/51 | 1/4 | 12/16 |
| Colorado | | 8/15 | | | 7 |
| Connecticut | | 28/46 | | | |
| Delaware | | | | | 1 |
| DC | | | | | |
| Florida | 1Flavi | | 65 | 6 | |
| Georgia | 0 | 1/12 | | 0 | 3/4 |
| Hawaii | | | | | |
| Idaho | | | | | |
| Illinois | 23/27 | 243/401 | | | |
| Indiana | 0 | 62/90 | | 0 | 0 |
| Iowa | | 0 | 1 | 0 | 0 |
| Kansas | | | | | 2 |
| Kentucky | | | | 0 | |
| Louisiana | | 106/172 | 0 | 2/9 | 1 |
| Maine | | | | | |
| Maryland | | 1 | | | |
| Mass. | | 12/25 | | 0 | 0 |
| Michigan | | | | | |
| Minnesota | | | | | 1 |
| Mississippi | | 2 | | | 1 |
| Missouri | | 48/49 | | | 1 |
| Montana | | | | | |
| Nebraska | 0 | 9/16 | | 0 | 2/3 |

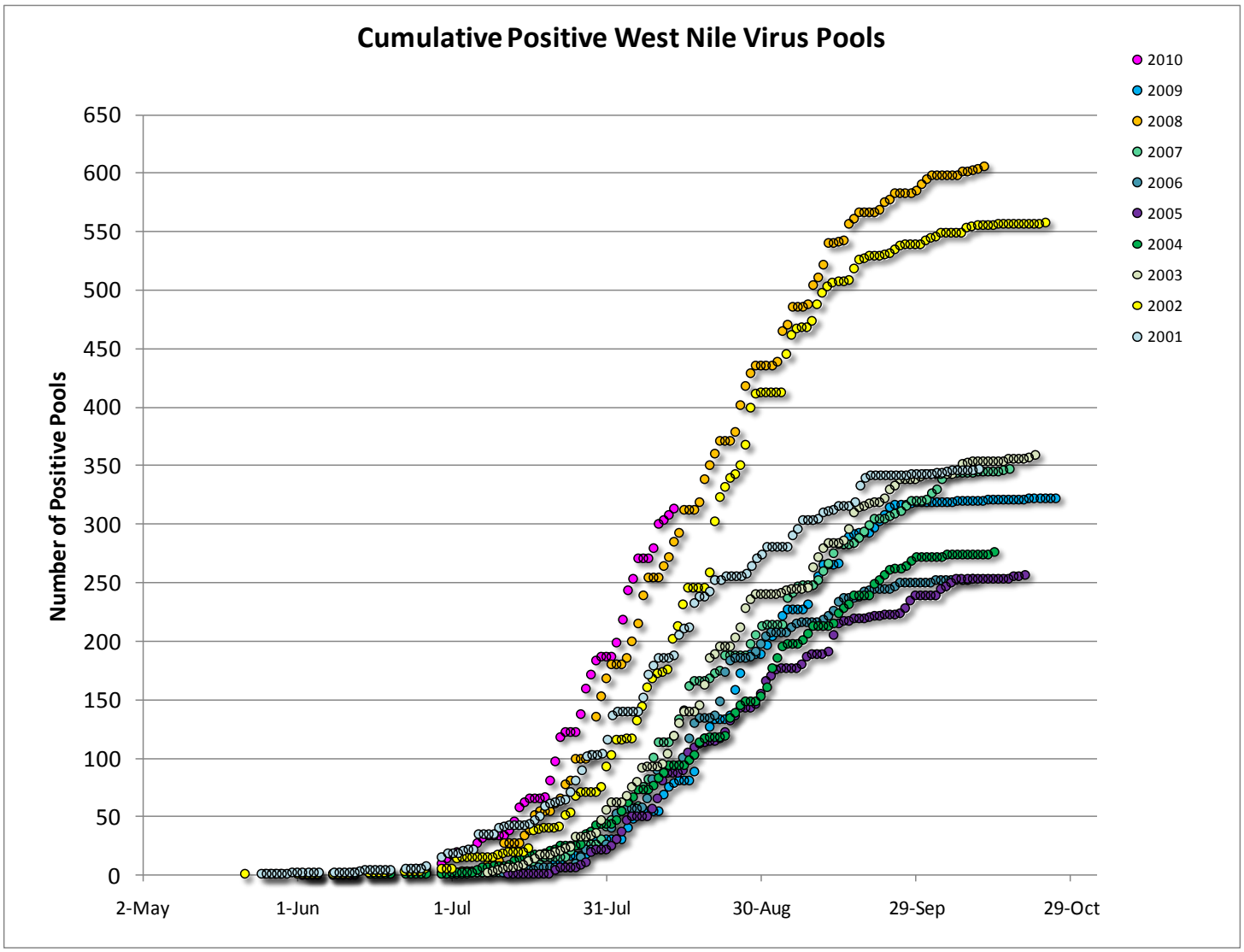
| | Birds | Mosquito Pools | Sentinels | Horses | Humans |
|---|---|---|---|---|---|
| Nevada | | 1 | | 2 | |
| New Hampshire | | 0 | | 0 | 0 |
| New Jersey | 41/54 | 223/318 | 0 | 0 | 0 |
| New Mexico | | | | | 0 |
| New York | 0 | 199/305 | | 0 | 8 |
| North Carolina | | | 1 | | |
| North Dakota | | | | 1 | 2/3 |
| Ohio | | 6/19 | | 0 | 0 |
| Oklahoma | | 2 | | | |
| Oregon | 0 | 1 | 0 | 0 | 0 |
| Pennsylvania | 4/5 | 236/349 | | | |
| Rhode Island | | | | | |
| South Carolina | | | | | |
| South Dakota | | | | | 4 |
| Tennessee | 0 | 43 | | 0 | 0 |
| Texas | 0 | 39/93 | | 0 | 2/3 |
| Utah | | 1/3 | | | |
| Vermont | 0 | 3 | | 0 | 0 |
| Virginia | | 28 | | | |
| Washington | 0 | 52/71 | | 0 | 0 |
| West Virginia | 0 | 22/26 | | 0 | 0 |
| Wisconsin | 0 | | | 0 | 0 |
| Wyoming | | 8/13 | | | 1 |

**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 16 Aug 2010**

| Species | Pools | Mosquitoes | Positives | MFIR |
|---|---|---|---|---|
| *Aedes albopictus* | 227 | 1334 | 3 | 2.249 |
| *Aedes canadensis canadensis* | 23 | 398 | | |
| *Aedes cantator* | 7 | 21 | | |
| *Aedes japonicus* | 210 | 1127 | | |
| *Aedes sollicitans* | 4 | 108 | | |
| *Aedes sticticus* | 1 | 1 | | |
| *Aedes stimulans* | 3 | 8 | | |
| *Aedes taeniorhynchus* | 3 | 38 | | |
| *Aedes triseriatus* | 82 | 187 | | |
| *Aedes trivittatus* | 5 | 37 | | |
| *Aedes vexans* | 53 | 482 | | |
| *Anopheles barberi* | 1 | 1 | | |
| *Anopheles bradleyi* | 11 | 98 | | |
| *Anopheles crucians* | 2 | 122 | | |
| *Anopheles punctipennis* | 23 | 260 | | |
| *Anopheles quadrimaculatus* | 30 | 339 | | |
| *Anopheles walkeri* | 3 | 4 | | |
| *Coquillettidia perturbans* | 74 | 1485 | | |
| *Culex erraticus* | 37 | 1139 | | |
| *Culex pipiens* | 499 | 11653 | 77 | 6.608 |
| *Culex restuans* | 132 | 956 | 2 | 2.092 |
| *Culex salinarius* | 39 | 508 | | |
| *Culex spp.* | 1551 | 57526 | 231 | 4.016 |
| *Culex territans* | 1 | 1 | | |
| *Culiseta melanura* | 359 | 8010 | 5 | 0.624 |
| *Culiseta minnesotae* | 1 | 1 | | |
| *Orthopodomyia signifera* | 1 | 1 | | |
| *Psorophora ciliata* | 1 | 1 | | |
| *Psorophora columbiae* | 1 | 5 | | |
| *Psorophora cyanescens* | 1 | 1 | | |
| *Uranotaenia sapphirina* | 1 | 6 | | |
| State Total | **3386** | **85858** | **318** | **3.704** |

**Remarks:** The number of positive WNV mosquito pools to date is 318. *Culex* Mix continues to show increased activity, most notably in central and northern New Jersey. *Aedes albopictus* were also virally active, increasing positive pools from 1 to 3 this week and suggesting due vigilance is warranted as the virus may be crossing over to potential bridge vectors. Additionally, the time is approaching that *Culex* species may change their diet from primarily avian to other vertebrates as migratory birds begin their travels south. 2010 cumulative patterns are in advance of any other year from 2001 to 2009 (see graph below). Number of human cases over the years are 2001=12, 2002=24, 2003=34, 2004=1, 2005=6, 2006=5, 2007=1, 2008=10, 2009=3. In the graph below, the years with the highest number of positive pools and the earliest sustained activity had the second and fourth highest number of human cases. However, the highest number of human cases in 2003, which shows lower activity than the current year.




**Humans, Horses and Wild Birds:** No humans or horses have been found positive for WNV to date. For more details plus information about WNV, see the West Nile Virus Alert and FAQ Sheets from the NJ Department of Health and Senior Services, Communicable Disease Service, Infectious and Zoonotic Disease Program: http://www.state.nj.us/health/cd/westnile/enceph.htm

Fifty-four dead, wild birds out of 125 tested are been positive for WNV, well ahead of last year's results in terms of number and timing. This year's positive birds include 35 corvids (11 positives/17 tested American Crows, 17/29 Fish Crows, 16/26 Blue Jays and 4/11 unidentified Crows), 3 negative Hawks (unknown species) and 6/39 unknown species.

| 2010 Positive Mosquito pools to date / Total Mosquito Pools Submitted | This time last year |
|---|---|
| 318/ 3386 (0.094%) | 79/ 4677 (0.017%) |
| 2010 Positive Birds to date / Total Birds Submitted | This time last year |
| 54/ 125 (0.43%) | 1/ 55 (0.02%) |

**WNV Results by County through 16 Aug 2010**

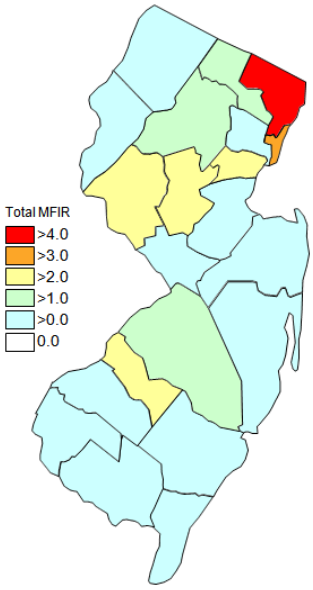
| County | Species | Pools | Mosquitoes | Positives | MFIR |
|---|---|---|---|---|---|
| **Atlantic** | | **144** | **3509** | **20** | **5.700** |
| | *Aedes albopictus* | 16 | 122 | 1 | 8.197 |
| | *Aedes canadensis canadensis* | 3 | 56 | | |

| | | | | | |
|---|---|---|---|---|---|
| | *Aedes cantator* | 3 | 14 | | |
| | *Aedes japonicus* | 7 | 14 | | |
| | *Aedes sollicitans* | 1 | 9 | | |
| | *Aedes taeniorhynchus* | 1 | 24 | | |
| | *Aedes triseriatus* | 3 | 7 | | |
| | *Aedes trivittatus* | 3 | 26 | | |
| | *Aedes vexans* | 11 | 125 | | |
| | *Anopheles bradleyi* | 3 | 8 | | |
| | *Anopheles punctipennis* | 3 | 62 | | |
| | *Anopheles quadrimaculatus* | 2 | 3 | | |
| | *Coquillettidia perturbans* | 7 | 29 | | |
| | *Culex* spp. | 60 | 2651 | 18 | 6.790 |
| | *Culiseta melanura* | 20 | 358 | 1 | 2.793 |
| | *Orthopodomyia signifera* | 1 | 1 | | |
| **Bergen** | | **125** | **8889** | **51** | **5.737** |
| | *Aedes albopictus* | 3 | 15 | | |
| | *Aedes japonicus* | 3 | 14 | | |
| | *Culex* spp. | 119 | 8860 | 51 | 5.756 |
| **Burlington** | | **142** | **5571** | **18** | **3.231** |
| | *Aedes albopictus* | 10 | 59 | | |
| | *Aedes canadensis canadensis* | 2 | 30 | | |
| | *Aedes japonicus* | 1 | 4 | | |
| | *Aedes sollicitans* | 2 | 87 | | |
| | *Aedes taeniorhynchus* | 1 | 7 | | |
| | *Aedes vexans* | 7 | 183 | | |
| | *Anopheles bradleyi* | 1 | 29 | | |
| | *Anopheles crucians* | 2 | 122 | | |
| | *Anopheles punctipennis* | 1 | 13 | | |
| | *Anopheles quadrimaculatus* | 1 | 3 | | |
| | *Coquillettidia perturbans* | 7 | 285 | | |
| | *Culex erraticus* | 5 | 177 | | |
| | *Culex pipiens* | 3 | 23 | | |
| | *Culex salinarius* | 4 | 26 | | |
| | *Culex* spp. | 50 | 2498 | 17 | 6.805 |
| | *Culiseta melanura* | 43 | 2014 | 1 | 0.497 |
| | *Psorophora columbiae* | 1 | 5 | | |
| | *Uranotaenia sapphirina* | 1 | 6 | | |
| **Camden** | | **80** | **1892** | **11** | **5.814** |
| | *Aedes albopictus* | 14 | 52 | | |
| | *Aedes canadensis canadensis* | 1 | 1 | | |
| | *Aedes japonicus* | 7 | 7 | | |
| | *Aedes triseriatus* | 2 | 2 | | |
| | *Anopheles punctipennis* | 1 | 1 | | |
| | *Anopheles quadrimaculatus* | 1 | 1 | | |
| | *Culex* spp. | 40 | 1231 | 11 | 8.936 |
| | *Culiseta melanura* | 14 | 597 | | |
| **Cape May** | | **750** | **9782** | **3** | **0.307** |
| | *Aedes albopictus* | 13 | 30 | | |
| | *Aedes japonicus* | 22 | 48 | | |
| | *Aedes sollicitans* | 1 | 12 | | |
| | *Aedes taeniorhynchus* | 1 | 7 | | |
| | *Aedes triseriatus* | 12 | 35 | | |

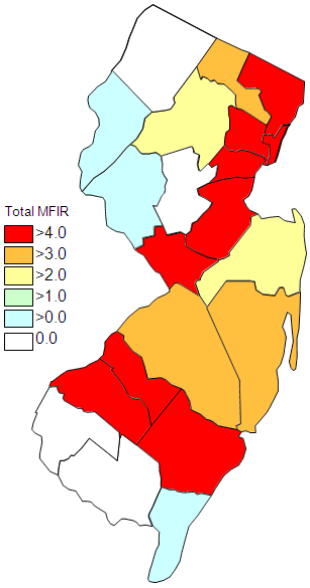
| | | | | | |
|---|---|---|---|---|---|
| | *Anopheles bradleyi* | 4 | 57 | | |
| | *Anopheles quadrimaculatus* | 6 | 176 | | |
| | *Coquillettidia perturbans* | 8 | 140 | | |
| | *Culex erraticus* | 28 | 956 | | |
| | *Culex pipiens* | 286 | 3733 | 2 | 0.536 |
| | *Culex restuans* | 90 | 520 | | |
| | *Culex salinarius* | 16 | 209 | | |
| | *Culex* spp. | 122 | 1075 | | |
| | *Culiseta melanura* | 141 | 2784 | 1 | 0.359 |
| **Cumberland** | | **22** | **365** | | |
| | *Aedes albopictus* | 1 | 10 | | |
| | *Aedes triseriatus* | 2 | 2 | | |
| | *Anopheles bradleyi* | 2 | 3 | | |
| | *Anopheles punctipennis* | 1 | 1 | | |
| | *Anopheles quadrimaculatus* | 3 | 4 | | |
| | *Culex erraticus* | 1 | 1 | | |
| | *Culex pipiens* | 2 | 21 | | |
| | *Culex territans* | 1 | 1 | | |
| | *Culiseta melanura* | 9 | 322 | | |
| **Essex** | | **122** | **1290** | **11** | **8.527** |
| | *Aedes albopictus* | 11 | 24 | | |
| | *Aedes japonicus* | 22 | 259 | | |
| | *Aedes stimulans* | 1 | 3 | | |
| | *Aedes triseriatus* | 15 | 29 | | |
| | *Aedes vexans* | 9 | 26 | | |
| | *Culex* spp. | 64 | 949 | 11 | 11.591 |
| **Gloucester** | | **208** | **7216** | **60** | **8.315** |
| | *Aedes albopictus* | 13 | 141 | | |
| | *Aedes japonicus* | 3 | 20 | | |
| | *Anopheles quadrimaclatus* | 1 | 5 | | |
| | *Culex pipiens* | 149 | 6023 | 58 | 9.630 |
| | *Culiseta melanura* | 42 | 1027 | 2 | 1.947 |
| **Hudson** | | **119** | **5708** | **40** | **7.008** |
| | *Culex* spp. | 119 | 5708 | 40 | 7.008 |
| **Hunterdon** | | **135** | **6720** | **2** | **0.298** |
| | *Culex* spp. | 135 | 6720 | 2 | 0.298 |
| **Mercer** | | **132** | **2548** | **18** | **7.064** |
| | *Aedes albopictus* | 24 | 53 | | |
| | *Aedes japonicus* | 18 | 31 | | |
| | *Aedes triseriatus* | 4 | 5 | | |
| | *Aedes vexans* | 3 | 75 | | |
| | *Culex pipiens* | 43 | 1789 | 17 | 9.503 |
| | *Culex restuans* | 27 | 324 | 1 | 3.086 |
| | *Culex salinarius* | 12 | 264 | | |
| | *Culex* spp. | 1 | 7 | | |
| **Middlesex** | | **177** | **8905** | **40** | **4.492** |
| | *Aedes albopictus* | 1 | 7 | | |
| | *Aedes japonicus* | 3 | 21 | | |

| | | | | | |
|---|---|---|---|---|---|
| | *Aedes triseriatus* | 1 | 6 | | |
| | *Culex* spp. | 172 | 8871 | 40 | 4.509 |
| **Monmouth** | | **199** | **1478** | **3** | **2.030** |
| | *Aedes albopictus* | 27 | 111 | | |
| | *Aedes canadensis canadensis* | 10 | 89 | | |
| | *Aedes cantator* | 3 | 6 | | |
| | *Aedes japonicus* | 27 | 76 | | |
| | *Aedes triseriatus* | 10 | 11 | | |
| | *Aedes vexans* | 2 | 5 | | |
| | *Anopheles barberi* | 1 | 1 | | |
| | *Anopheles punctipennis* | 1 | 1 | | |
| | *Anopheles quadrimaculatus* | 3 | 3 | | |
| | *Coquillettidia perturbans* | 5 | 8 | | |
| | *Culex erraticus* | 2 | 4 | | |
| | *Culex pipiens* | 1 | 1 | | |
| | *Culex restuans* | 1 | 1 | | |
| | *Culex salinarius* | 2 | 2 | | |
| | *Culex* spp. | 62 | 756 | 3 | 3.968 |
| | *Culiseta melanura* | 41 | 402 | | |
| | *Psorophora cyanescens* | 1 | 1 | | |
| **Morris** | | **115** | **3930** | **9** | **2.290** |
| | *Aedes japonicus* | 12 | 134 | | |
| | *Aedes vexans* | 1 | 5 | | |
| | *Anopheles punctipennis* | 2 | 6 | | |
| | *Anopheles quadrimaculatus* | 3 | 82 | | |
| | *Coquillettidia perturbans* | 6 | 207 | | |
| | *Culex* spp. | 91 | 3496 | 9 | 2.574 |
| **Ocean** | | **184** | **2932** | **11** | **3.752** |
| | *Aedes albopictus* | 41 | 446 | | |
| | *Aedes canadensis canadensis* | 7 | 222 | | |
| | *Aedes japonicus* | 26 | 87 | | |
| | *Aedes sticticus* | 1 | 1 | | |
| | *Aedes triseriatus* | 7 | 22 | | |
| | *Aedes trivittatus* | 1 | 1 | | |
| | *Aedes vexans* | 5 | 13 | | |
| | *Coquillettidia perturbans* | 7 | 90 | | |
| | *Culex erraticus* | 1 | 1 | | |
| | *Culex restuans* | 2 | 2 | 1 | 500 |
| | *Culex salinarius* | 3 | 3 | | |
| | *Culex* spp. | 60 | 1888 | 10 | 5.297 |
| | *Culiseta melanura* | 23 | 156 | | |
| **Passaic** | | **83** | **1193** | **4** | **3.353** |
| | *Aedes albopictus* | 13 | 61 | | |
| | *Aedes japonicus* | 13 | 140 | | |
| | *Aedes triseriatus* | 8 | 19 | | |
| | *Anopheles punctipennis* | 2 | 3 | | |
| | *Anopheles quadrimaculatus* | 1 | 2 | | |
| | *Coquillettidia perturbans* | 4 | 44 | | |
| | *Culex* spp. | 42 | 924 | 4 | 4.329 |

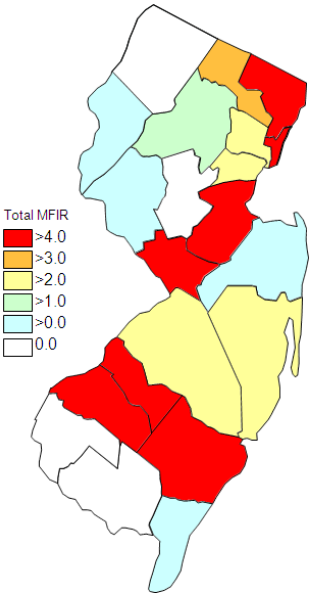
| | | | | | |
|---|---|---|---|---|---|
| **Salem** | | **119** | **863** | | |
| | *Aedes albopictus* | 18 | 33 | | |
| | *Aedes cantator* | 1 | 1 | | |
| | *Aedes japonicus* | 10 | 13 | | |
| | *Aedes triseriatus* | 3 | 3 | | |
| | *Aedes vexans* | 14 | 26 | | |
| | *Anopheles bradleyi* | 1 | 1 | | |
| | *Anopheles punctipennis* | 3 | 3 | | |
| | *Anopheles quadrimaculatus* | 7 | 14 | | |
| | *Anopheles walkeri* | 3 | 4 | | |
| | *Coquillettidia perturbans* | 6 | 9 | | |
| | *Culex pipiens* | 4 | 6 | | |
| | *Culex restuans* | 4 | 6 | | |
| | *Culex* spp. | 36 | 425 | | |
| | *Culiseta melanura* | 9 | 319 | | |
| **Somerset** | | **138** | **1404** | | |
| | *Aedes albopictus* | 12 | 27 | | |
| | *Aedes japonicus* | 15 | 94 | | |
| | *Aedes triseriatus* | 11 | 30 | | |
| | *Anopheles punctipennis* | 7 | 20 | | |
| | *Anopheles quadrimaculatus* | 1 | 2 | | |
| | *Culex* spp. | 92 | 1231 | | |
| **Sussex** | | **181** | **4040** | | |
| | *Aedes japonicus* | 10 | 75 | | |
| | *Aedes stimulans* | 2 | 5 | | |
| | *Coquillettidia perturbans* | 14 | 300 | | |
| | *Culex pipiens* | 11 | 57 | | |
| | *Culex restuans* | 8 | 103 | | |
| | *Culex salinarius* | 2 | 4 | | |
| | *Culex* spp. | 116 | 3464 | | |
| | *Culiseta melanura* | 17 | 31 | | |
| | *Culiseta minnesotae* | 1 | 1 | | |
| **Union** | | **106** | **3844** | **16** | **4.162** |
| | *Aedes albopictus* | 10 | 143 | 2 | 13.986 |
| | *Aedes japonicus* | 10 | 88 | | |
| | *Coquillettidia perturbans* | 1 | 9 | | |
| | *Culex* spp. | 85 | 3604 | 14 | 3.885 |
| **Warren** | | **105** | **3779** | **1** | **0.265** |
| | *Aedes japonicus* | 1 | 2 | | |
| | *Aedes triseriatus* | 4 | 16 | | |
| | *Aedes trivittatus* | 1 | 10 | | |
| | *Aedes vexans* | 1 | 24 | | |
| | *Anopheles punctipennis* | 2 | 150 | | |
| | *Anopheles quadrimaculatus* | 1 | 44 | | |
| | *Coquillettidia perturbans* | 9 | 364 | | |
| | *Culex* spp. | 85 | 3168 | 1 | 0.316 |
| | *Psorophora ciliata* | 1 | 1 | | |
| **Grand Total** | | **3386** | **85858** | **318** | **3.704** |




Cumulative WNV activity in 2009.




WNV activity to 16 Aug, 2010.




WNV activity last week, 2010.

# Saint Louis Encephalitis (SLE) through 16 Aug 2010.

New Jersey will be selectively testing for SLE this year. SLE has had previous activity in New Jersey, most notably in 1964 and 1975 (CDC's SLE website), the latter prompting the surveillance reporting by Rutgers. SLE is a flavivirus and has a similar transmission pattern to West Nile, with *Culex* species as the predominant vectors.

No pools tested positive to date for 2010.

| County | Species | Pools | Mosquitoes | Positives | MFIR |
|---|---|---|---|---|---|
| **Burlington** | | **131** | **5476** | | |
| | *Aedes albopictus* | 10 | 59 | | |
| | *Aedes canadensis canadensis* | 2 | 30 | | |
| | *Aedes japonicus* | 1 | 4 | | |
| | *Aedes sollicitans* | 2 | 87 | | |
| | *Aedes taeniorhynchus* | 1 | 7 | | |
| | *Aedes vexans* | 7 | 183 | | |
| | *Anopheles bradleyi* | 1 | 29 | | |
| | *Anopheles crucians* | 2 | 122 | | |
| | *Anopheles punctipennis* | 1 | 13 | | |
| | *Anopheles quadrimaculatus* | 1 | 3 | | |
| | *Coquillettidia perturbans* | 7 | 285 | | |
| | *Culex erraticus* | 5 | 177 | | |
| | *Culex pipiens* | 3 | 23 | | |
| | *Culex salinarius* | 4 | 26 | | |
| | *Culex* spp. | 50 | 2498 | | |
| | *Culiseta melanura* | 32 | 1919 | | |
| | *Psorophora columbiae* | 1 | 5 | | |
| | *Uranotaenia sapphirina* | 1 | 6 | | |
| **Camden** | | **53** | **1169** | | |
| | *Aedes albopictus* | 10 | 25 | | |
| | *Aedes canadensis canadensis* | 1 | 1 | | |
| | *Aedes japonicus* | 5 | 5 | | |
| | *Aedes triseriatus* | 2 | 2 | | |
| | *Anopheles punctipennis* | 1 | 1 | | |
| | *Culex* spp. | 34 | 1135 | | |
| **Essex** | | **83** | **1203** | | |
| | *Aedes japonicus* | 18 | 249 | | |
| | *Aedes vexans* | 1 | 5 | | |
| | *Culex* spp. | 64 | 949 | | |
| **Hudson** | | **80** | **4178** | | |
| | *Culex* spp. | 80 | 4178 | | |
| **Salem** | | **1** | **7** | | |
| | *Culex* spp. | 1 | 7 | | |
| **Grand Total** | | **348** | **12033** | | |

# La Crosse Encephalitis (LAC) through 16 Aug 2010.

New Jersey will be selectively testing for La Crosse (LAC) virus this year. New Jersey has had 3 cases of this encephalitic disease since 1964 (see CDC's LAC website). The mortality is low but like other encephalitides, LAC can have both personal (lasting neurological sequelae) and economic impacts. LAC is a bunyavirus with a transmission cycle involving mosquitoes such as *Aedes triseriatus* and small mammals such as squirrels and chipmunks. LAC can not only infect *Aedes albopictus* but transovarial transmission was also demonstrated (Tesh and Gubler 1975 Laboratory studies of transovarial transmission of La Crosse and other arboviruses by *Aedes albopictus* and *Culex fatigans.* American Journal of Tropical Medicine and Hygiene 24(5):876-880).

No pools tested positive to date for 2010.

| County | Species | Pools | Mosquitoes | Positives | MFIR |
|---|---|---|---|---|---|
| **Cape May** | | **10** | **23** | | |
| | *Aedes triseriatus* | 10 | 23 | | |
| **Cumberland** | | **2** | **2** | | |
| | *Aedes triseriatus* | 2 | 2 | | |
| **Warren** | | **10** | **106** | | |
| | *Aedes canadensis canadensis* | 4 | 86 | | |
| | *Aedes triseriatus* | 6 | 20 | | |
| **Grand Total** | | **22** | **131** | | |