

# NEW JERSEY STATEWIDE SURVEILLANCE

## Week 34 Report for 17 August to 23 August, 2005

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**Purpose:** Data from 84 New Jersey light traps contributed by county mosquito control agencies are used to calculate trends in mosquito populations for species of nuisance or health concerns.

Calculations are based on regional distributions, with emphasis on mosquito habitat and land use. Trends will allow a statewide evaluation of changing mosquito populations, in response to control and/or changes in habitat.

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Figure 1a: Map of ten regions selected for the New Jersey Surveillance Program overlaid with county boarders.

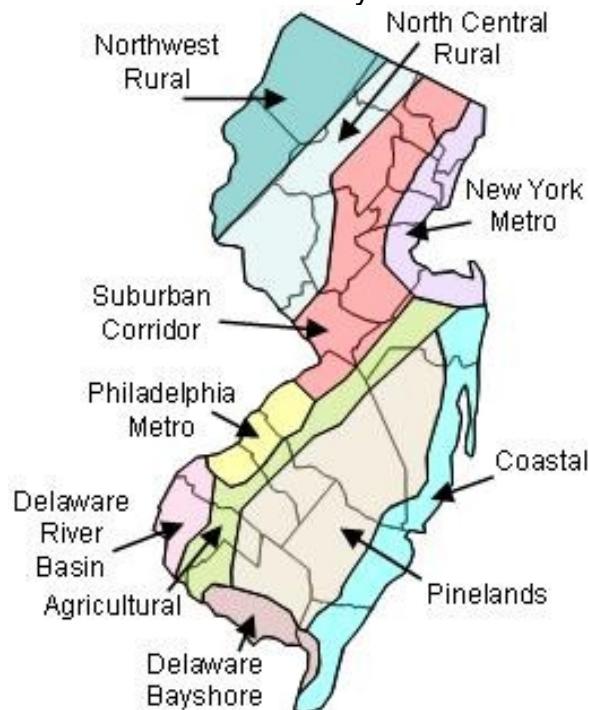
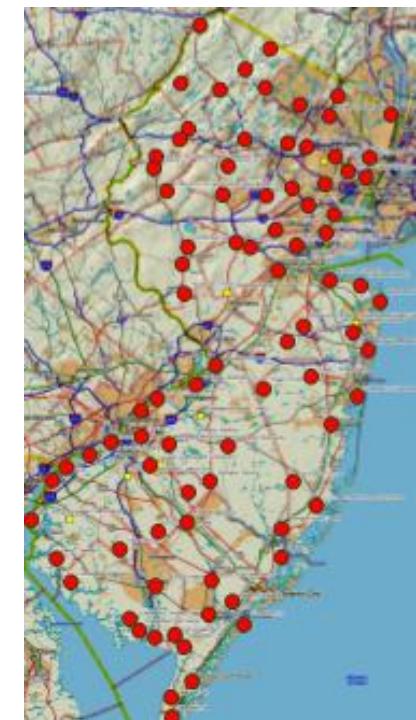


Figure 1b. Trap lat-long locations.



## Summary table – Week 34

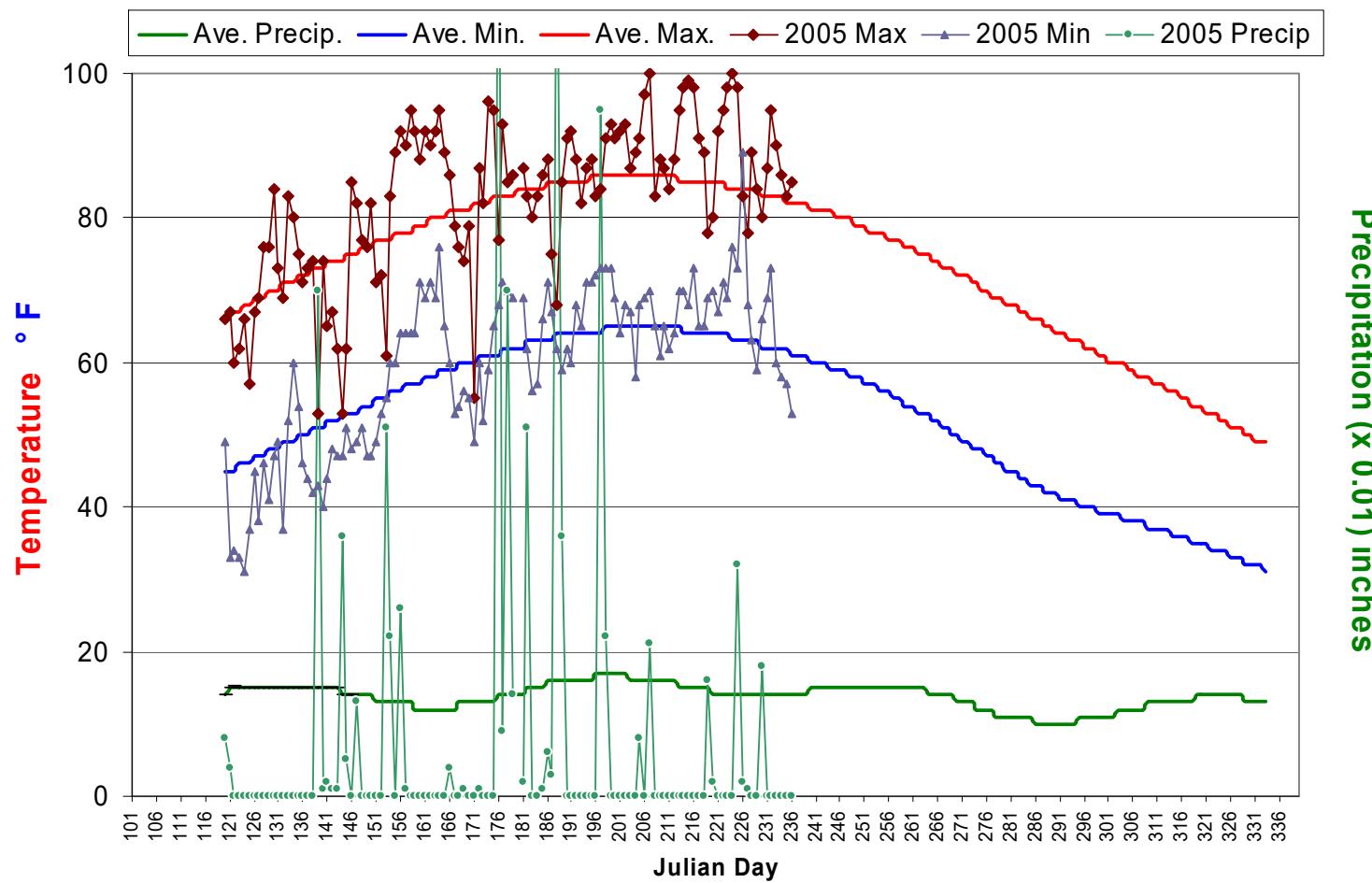
		<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquillettidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*	
Agricultural	0.40	24.12	3.14	39.63	0.05	0.23	1.07	1.36	
Coastal	1.46	2.42	2.71	4.61	0.25	0.17	52.32	38.23	
Delaware Bayshore	0.83	5.35	54.43	86.62	1.07	6.56	24.64	7.93	
Delaware River Basin	1.36	14.18	0.82	13.31	0.18	0.34	0.00	0.96	
New York Metro	0.24	6.03	2.71	5.77	0.09	0.10	0.14	0.89	
North Central Rural	0.08	1.19	0.27	1.26	0.00	0.08	0.00	0.00	
Northwest Rural	2.62	21.44	0.48	4.27	0.00	0.27	0.00	0.00	
Philadelphia Metro	1.23	9.06	0.64	5.69	0.19	0.12	0.00	0.01	
Pinelands	0.70	2.88	0.81	3.49	0.38	0.35	0.16	0.40	
Suburban Corridor	0.90	9.25	0.76	3.60	0.30	0.75	0.00	0.12	

Graphs include *Ae. vexans*, *Culex complex* (*Cx. pipiens*, *Cx. restuans*, and *Cx. salinarius*), *Oc. sollicitans*, and *Cs. melanura*.

16 of 21 counties in current week; 20 of 21 counties reporting.

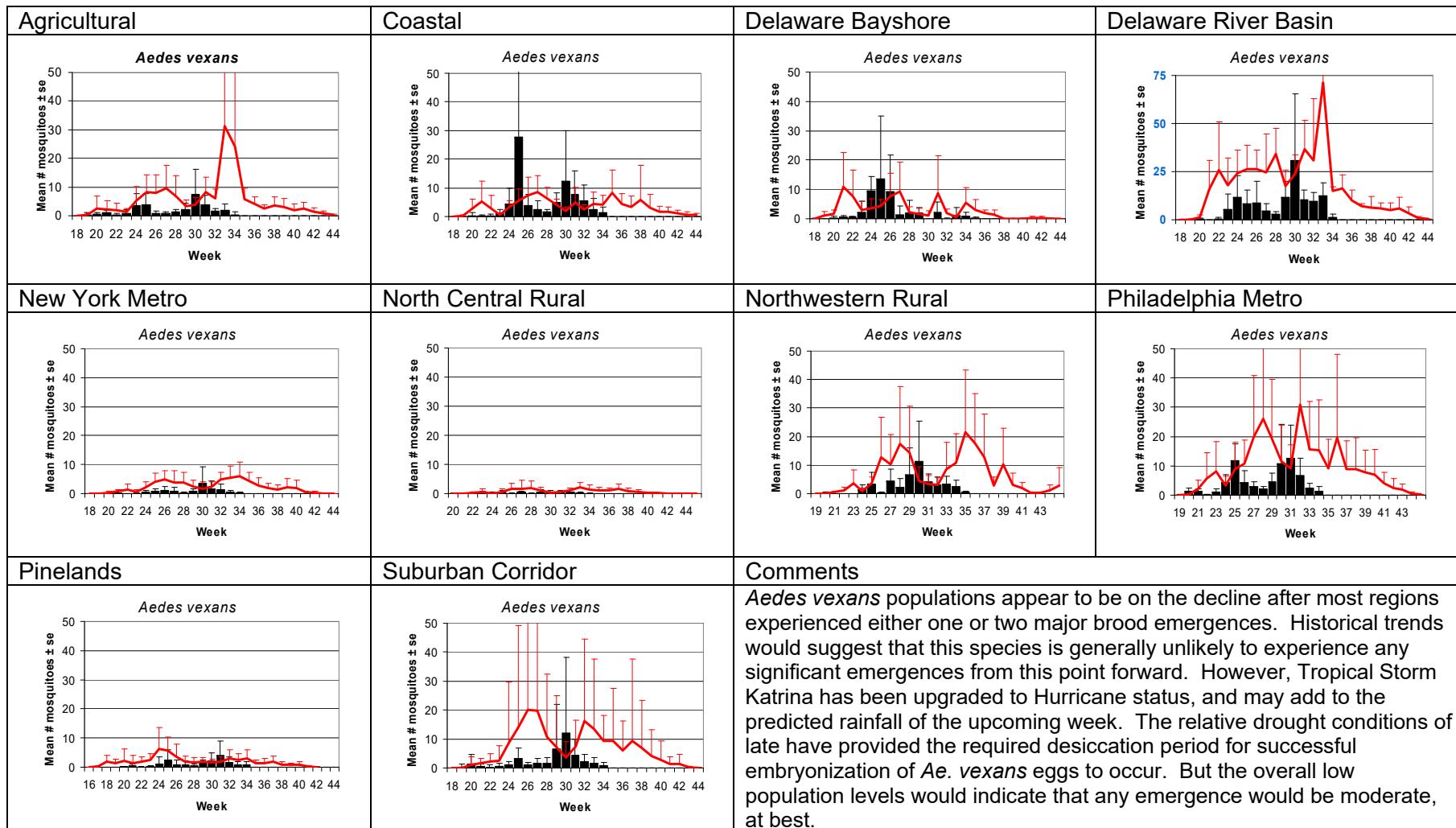
## Climate Data

New Brunswick 1971-2000 Historical/Hillsborough 2005

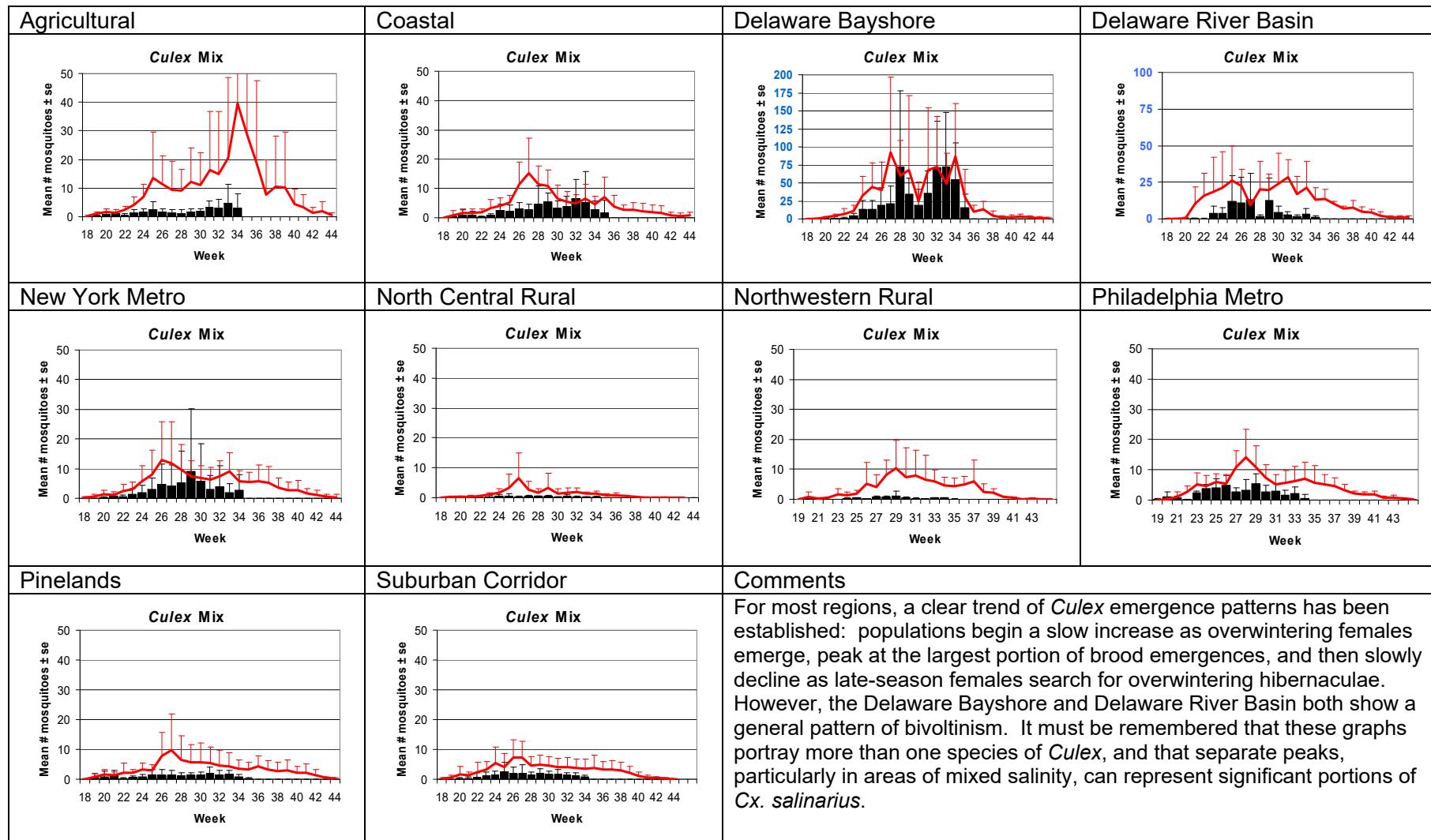


This figure shows historical average maximum and minimum temperatures and average precipitation recorded in the New Brunswick, NJ weather station over a recent 30 year period. Also graphed are the current year's minimum and maximum temperatures as recorded at the Hillsborough NJ weather station (a station close to central NJ which recorded all three parameters and was available online at the NJ state climatologist).

# *Aedes vexans* - Fresh Floodwater Species



## Culex Complex - Multivoltine Culex Species



# *Ochlerotatus sollicitans* - Salt Marsh Floodwater Species

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<p><i>Ochlerotatus sollicitans</i></p>	<p><i>Ochlerotatus sollicitans</i></p>	<p><i>Ochlerotatus sollicitans</i></p>	<p><i>Ochlerotatus sollicitans</i></p>
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<p><i>Ochlerotatus sollicitans</i></p>	<p><i>Ochlerotatus sollicitans</i></p>	<p><b>Comments</b></p> <p>The previous two years reported three <i>Ochlerotatus sollicitans</i> brood emergences by this CDC week. This year's pattern indicates that at least that many broods have come off in the Coastal region, and in substantial numbers. The Delaware Bayshore numbers are close to the expected, with a significant suppression after the first emergence. The Delaware River Basin region produced very few <i>Oc. sollicitans</i> in comparison to the recent past years. There is still time for yet another emergence. With the time-shift of feeding from night to daylight hours expected, a rise in complaints can also be expected.</p>	

## *Culiseta melanura* – Miscellaneous Group

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>
<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>
<p><i>Culiseta melanura</i></p>	<p><i>Culiseta melanura</i></p>	<p><b>Comments</b></p> <p>Light trap data of <i>Culiseta melanura</i> is often highly variable. This year, the classical build-up after an initial emergence of the overwintering 4<sup>th</sup> instars is clearly seen in the Pineland region. As the population increases towards the end of the season, the largest group to oviposit will be giving those cohorts the greatest time to develop, and thus contribute to next year's first emerging brood (which produces the initial peak early in the season).</p>	