

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 25 September to 1 October 2011, CDC Week 39

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Center for Vector Biology



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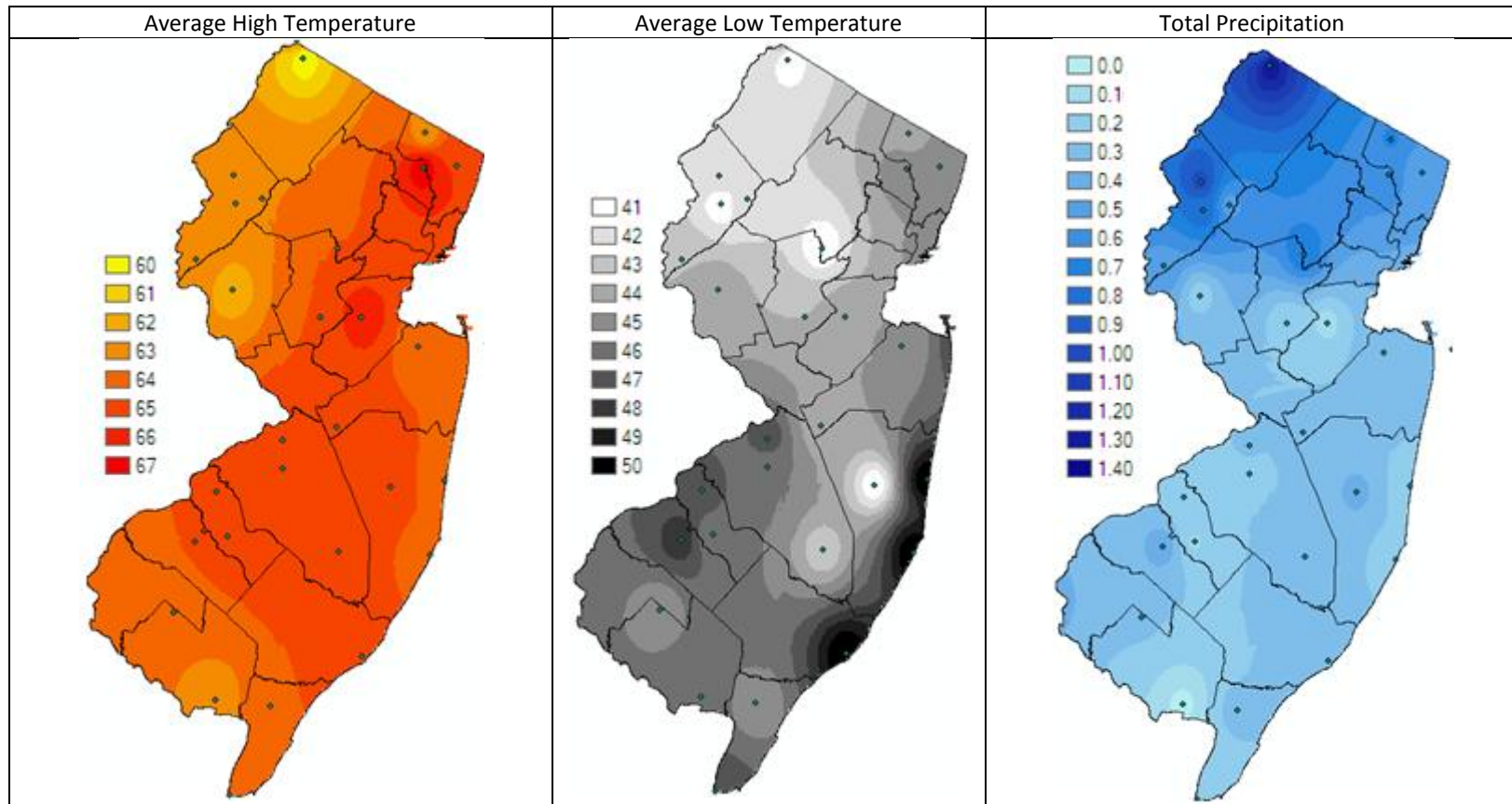
**Summary Table – Week 39**

Region	<i>Aedes vexans</i>			<i>Culex Mix</i>			<i>Coquillettidia perturbans</i>			<i>Aedes sollicitans</i>		
	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase
Agricultural	7.90	1.12	4	2.71	1.11	3	0.00	0.00	0	0.00	0.18	0
Coastal	5.71	4.76	1	6.16	3.98	2	0.00	0.00	0	1.03	2.18	0
Delaware Bayshore	6.40	2.04	4	12.89	3.55	4	0.00	0.02	0	1.49	3.77	0
Delaware River Basin	0.00	1.86	0	0.00	0.76	0	0.00	0.00	0	0.00	0.04	0
New York Metro	5.37	2.56	3	9.01	2.88	4	0.14	0.01	4	0.41	0.18	3
North Central Rural	0.35	0.42	0	0.59	0.03	4	0.00	0.00	0	0.00	0.00	0
Northwest Rural	27.03	7.90	4	6.09	0.97	4	0.02	0.01	3	0.00	0.00	0
Philadelphia Metro	24.96	6.97	4	9.93	1.47	4	0.00	0.01	0	0.00	0.00	0
Pinelands	2.75	1.48	2	5.61	1.33	4	0.57	0.02	4	0.10	0.04	4
Suburban Corridor	10.01	6.58	2	3.86	2.26	2	0.00	0.01	0	0.06	0.02	4

\*Averages represent data from, at most, the previous 5 years. Increase is a scale of current values from historical values where no difference or a decrease is represented by 0 (blue), up to 50% greater difference by 1 (green), up to 100% greater difference by 2 (yellow), up to 150% greater difference by 3 (orange) and greater than 150% increase by 4 (red). White cells in the increase column denote increases from an historic zero and thus no value can be appropriately given.

**State Summary:** The effects of continuous rainfall well after the passing of Irene is still apparent for not only floodwater species (*Aedes vexans* and *Aedes sollicitans*) but also permanent water species such as *Culex*. Many regions continue to report significant populations, sometimes well above historical values. *Coquillettidia perturbans* experienced a significant surge in their Pinelands population, primarily at one locale.

## Climate Factors

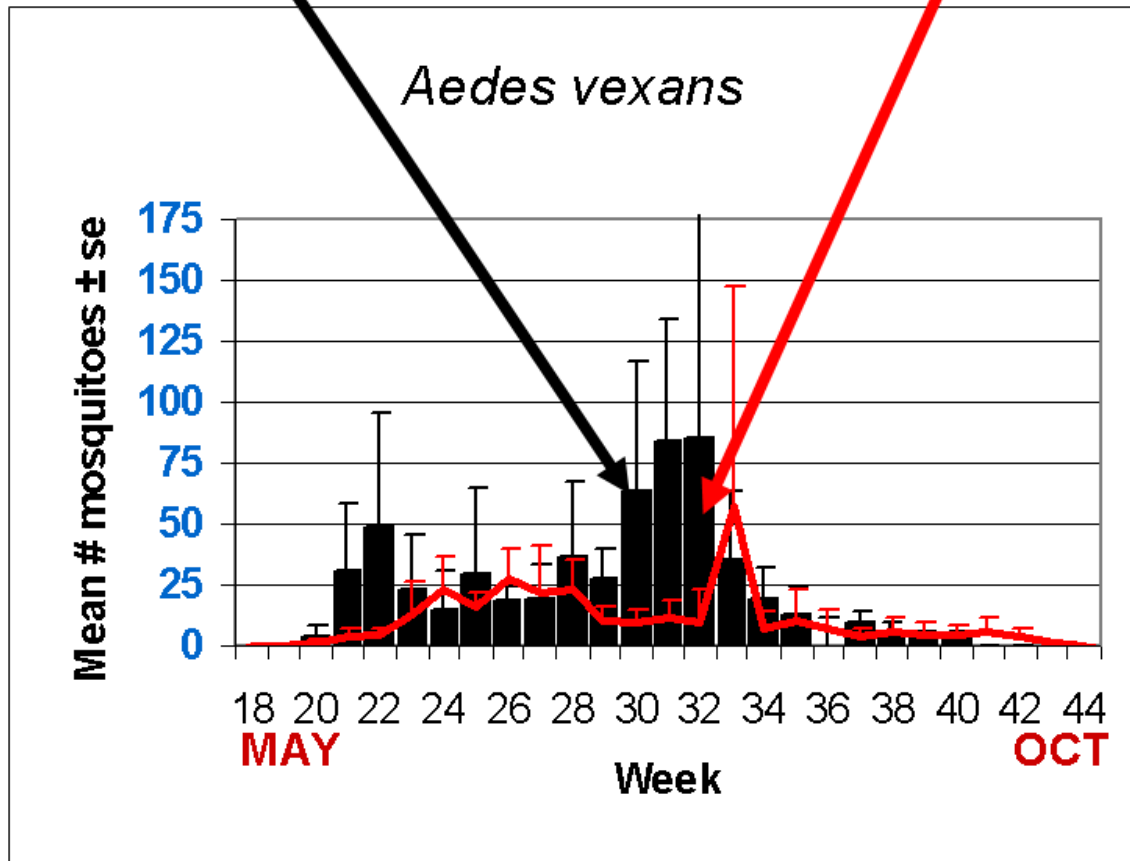


The three figures show the interpolation of average maximum and minimum temperature and total precipitation through 1 October to 7 October, 2011 in New Jersey. Data points are from about 32 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10. Several stations were eliminated from the maps due to going offline (recognizably incomplete data) from Hurricane Irene.

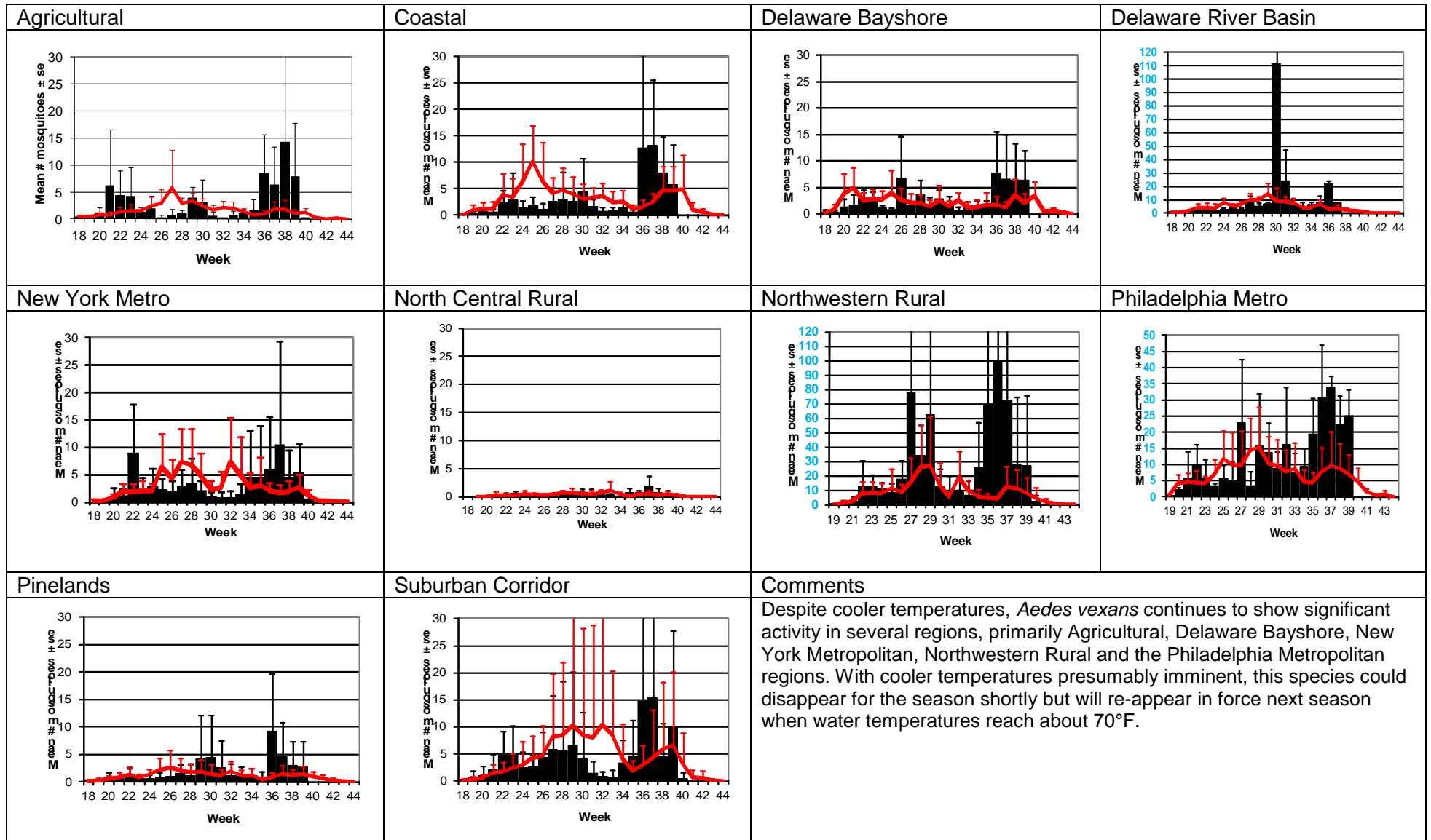
Both average high and low temperatures dropped considerably for the first week in October. Precipitation has been generally less than 1 inch, except for portions of the northwestern parts of the state.

**The Species Graphs:** The species graph pages include a graph with two plots for each of the ten regions defined on the first page (Agricultural, Coastal, Delaware Bayshore, Delaware River, New York Metro, North-Central, Northwestern, Philadelphia Metro, Pinelands, and Suburban Corridor). Below is an example of one graph from one species within one region. The bar plot show the average number of mosquitoes per trap within the region (weekly means) and line plots show the historical trend as the average number of mosquitoes from the previous 5 years (5-year average). In general, historical data are running means from the previous 5 years, but on occasion, will include data from fewer years. Adjustments are made to account for year discrepancies. Data for last week are from Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Somerset, Sussex and Union counties. Previous week included Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Somerset, Sussex and Union counties. Note: County data is sent in at a variety of times during the week. A number of counties have brought in their light traps for the season, particularly in the north.

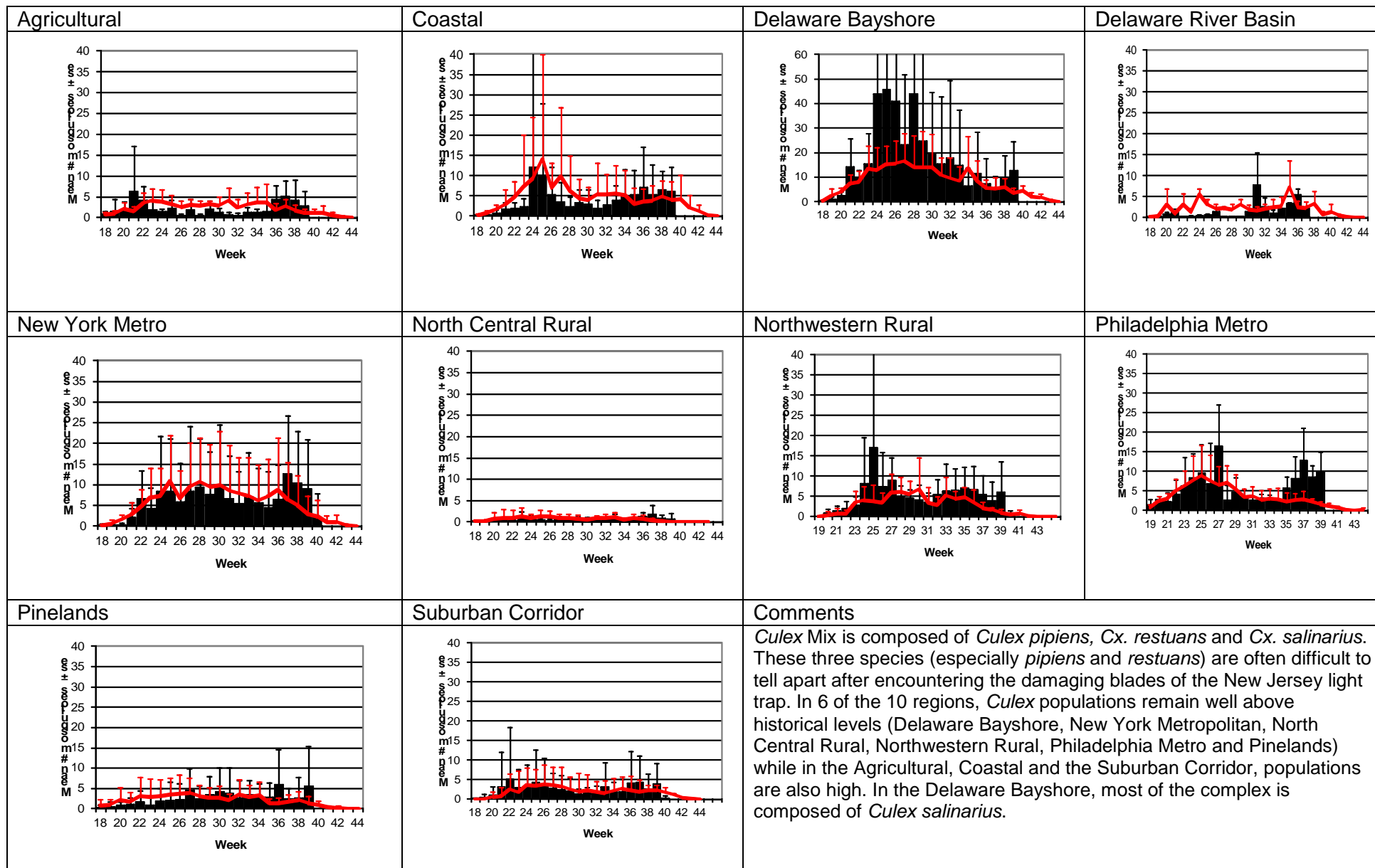
## Weekly Means Against 5-year Average



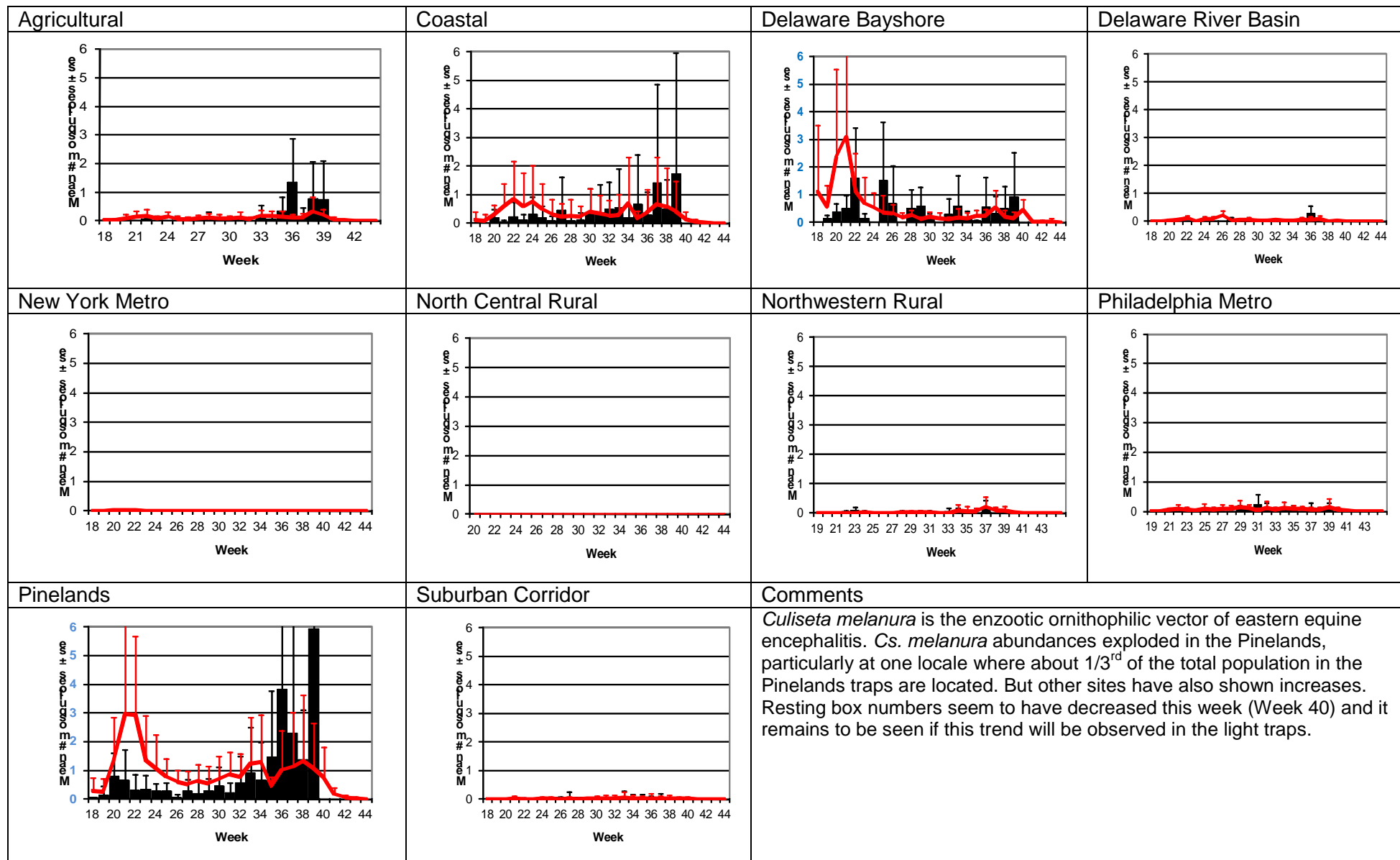
# *Aedes vexans* - Fresh Floodwater Species Multivoltine Aedine (*Ae. vexans* Type)



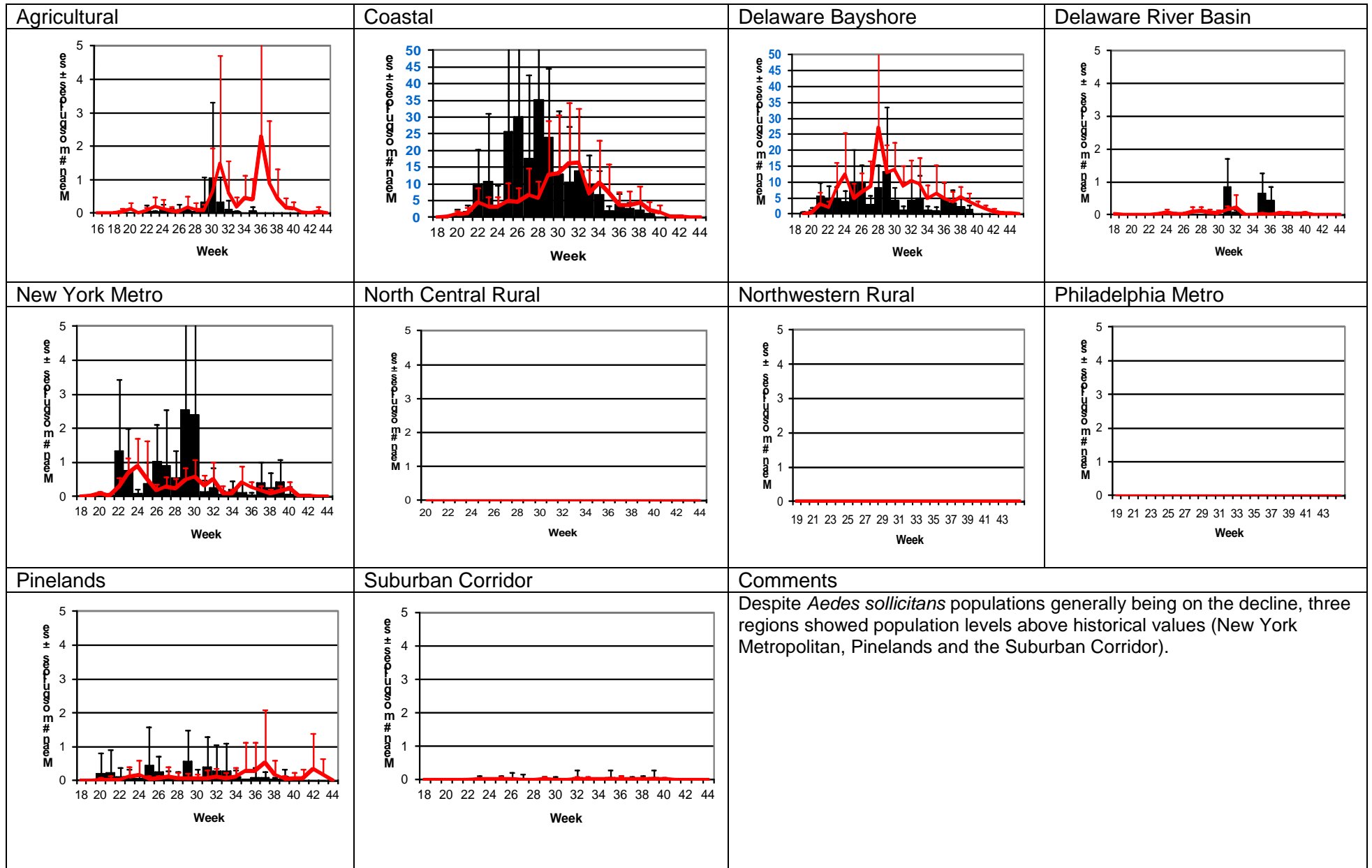
# Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



## *Culiseta melanura* – Miscellaneous Group Unique (*Cs. melanura* Type)



# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)

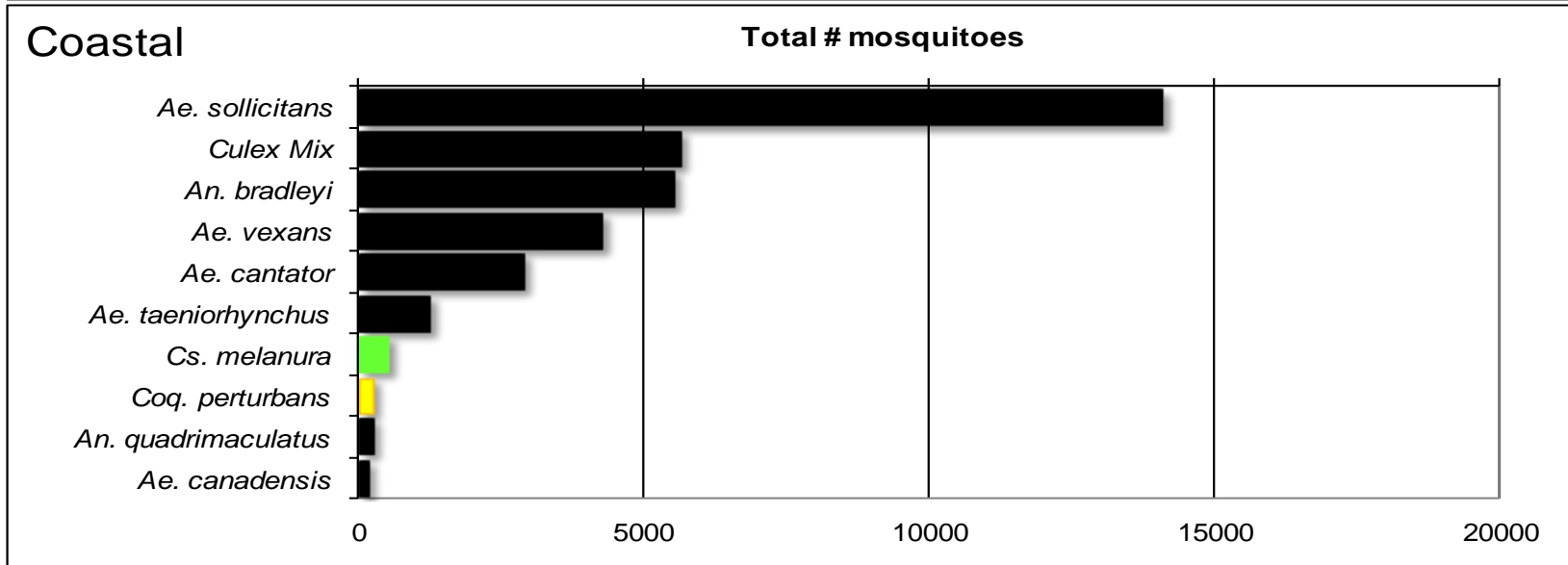
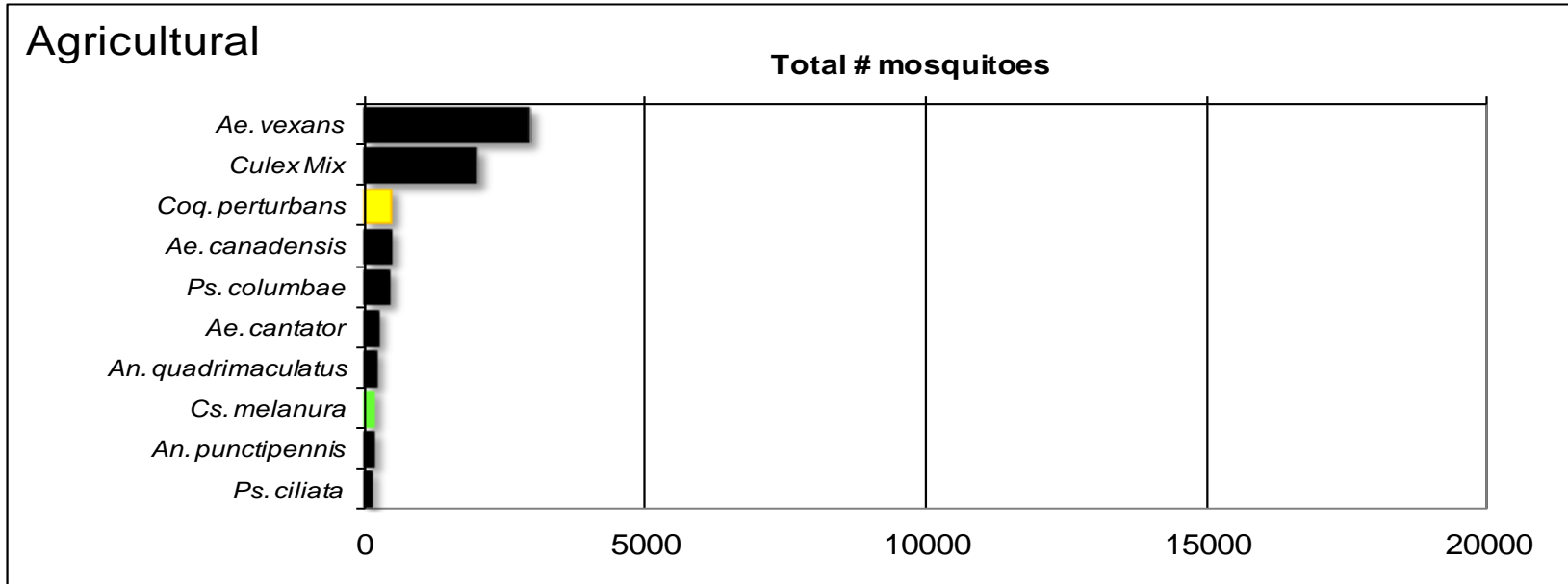


WNV

EEE

**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

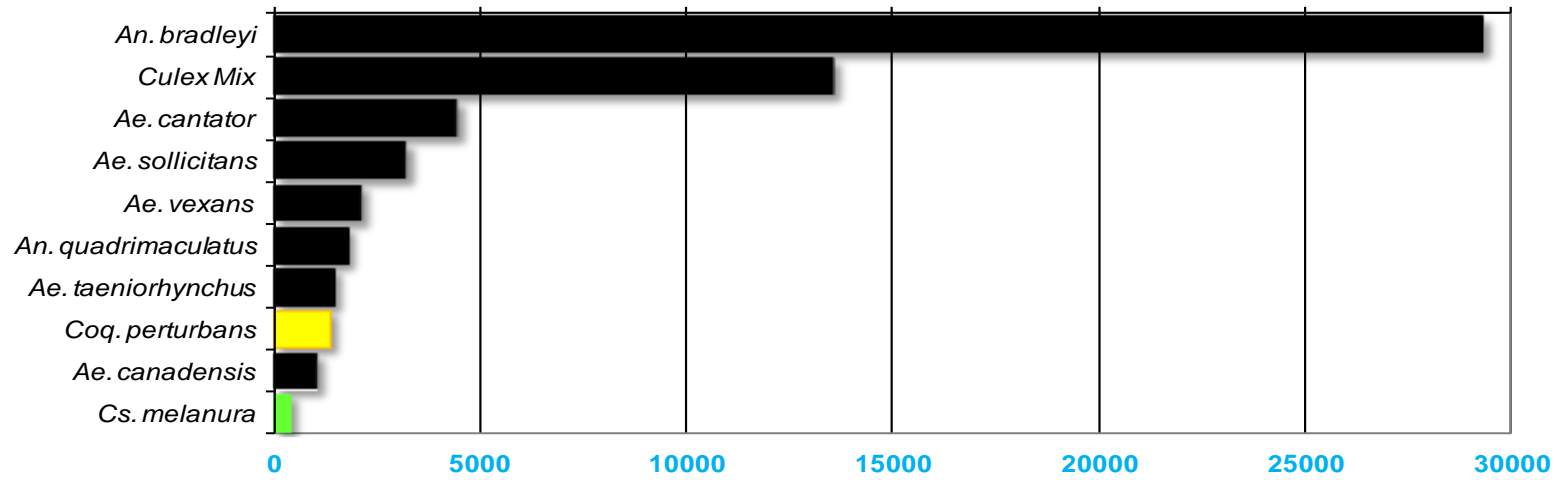
Note: In early season when fewer species are caught, graphs may show less than ten species listed.





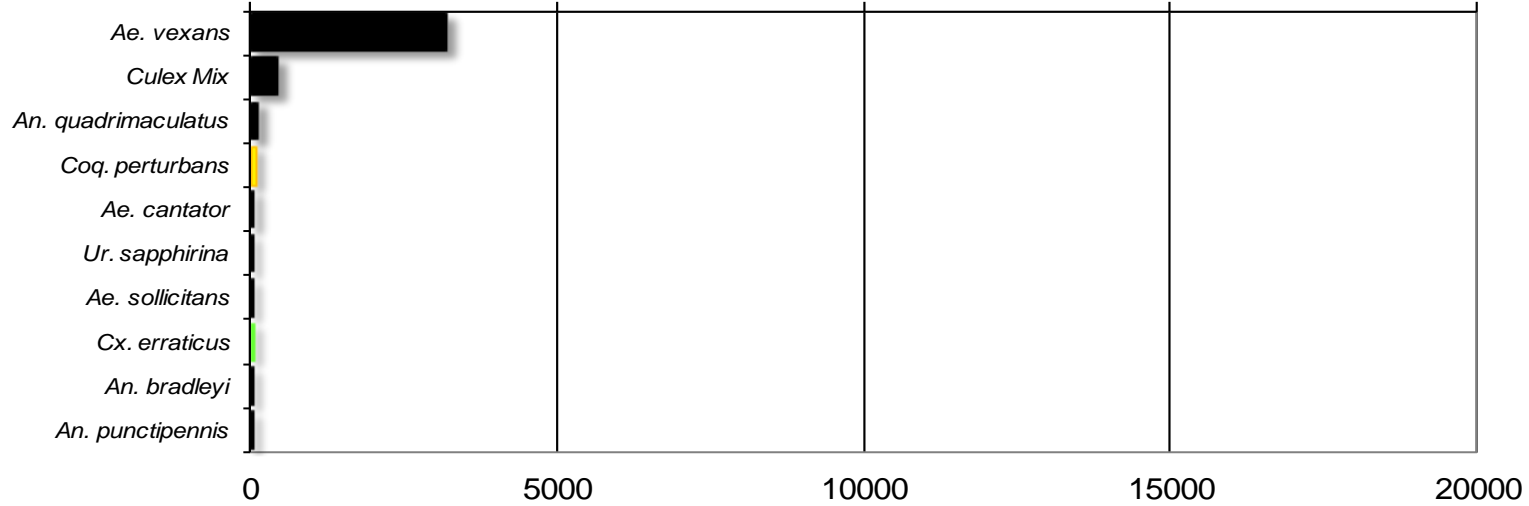
## Delaware Bayshore

Total # mosquitoes



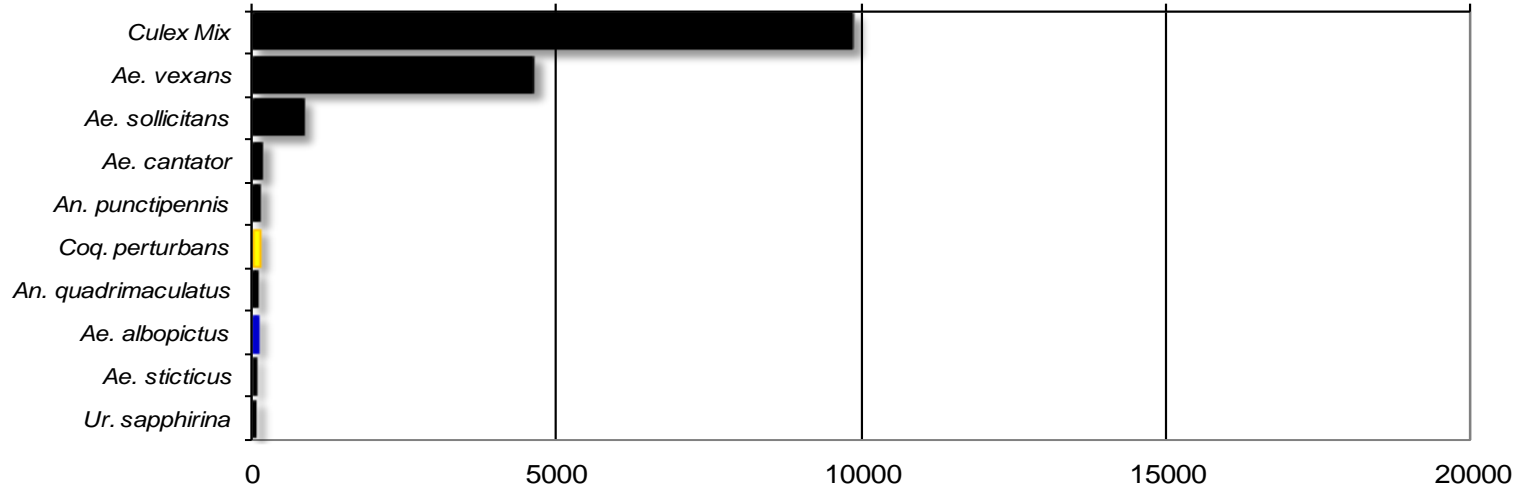
## Delaware River Basin

Total # mosquitoes



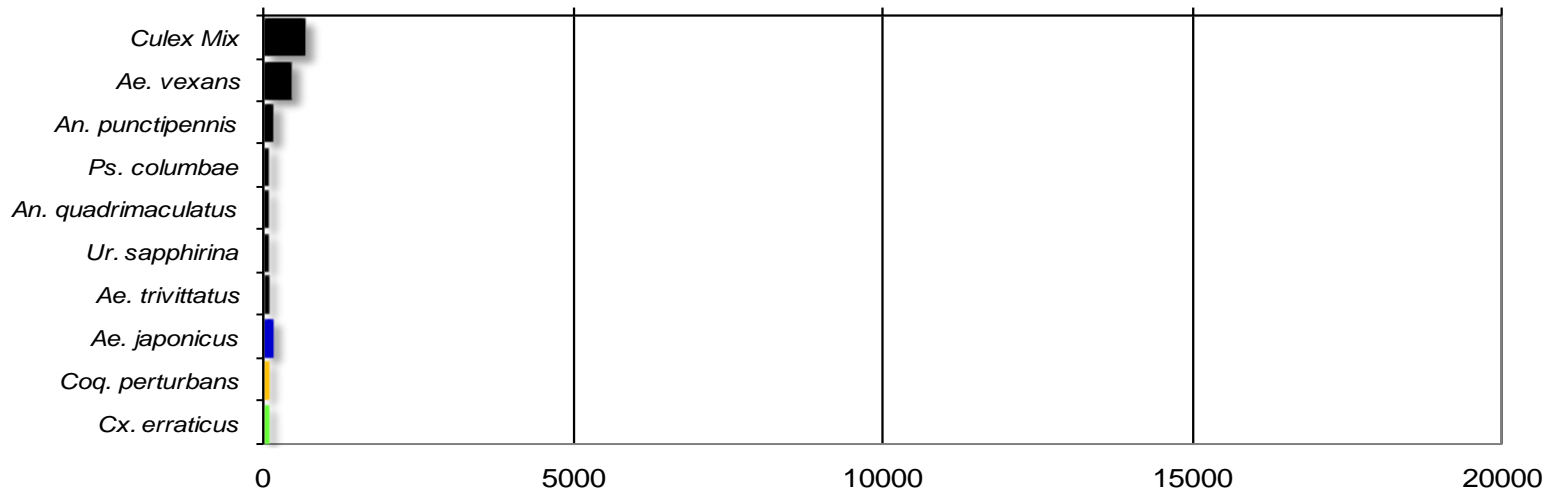
# New York Metropolitan

## Total # mosquitoes



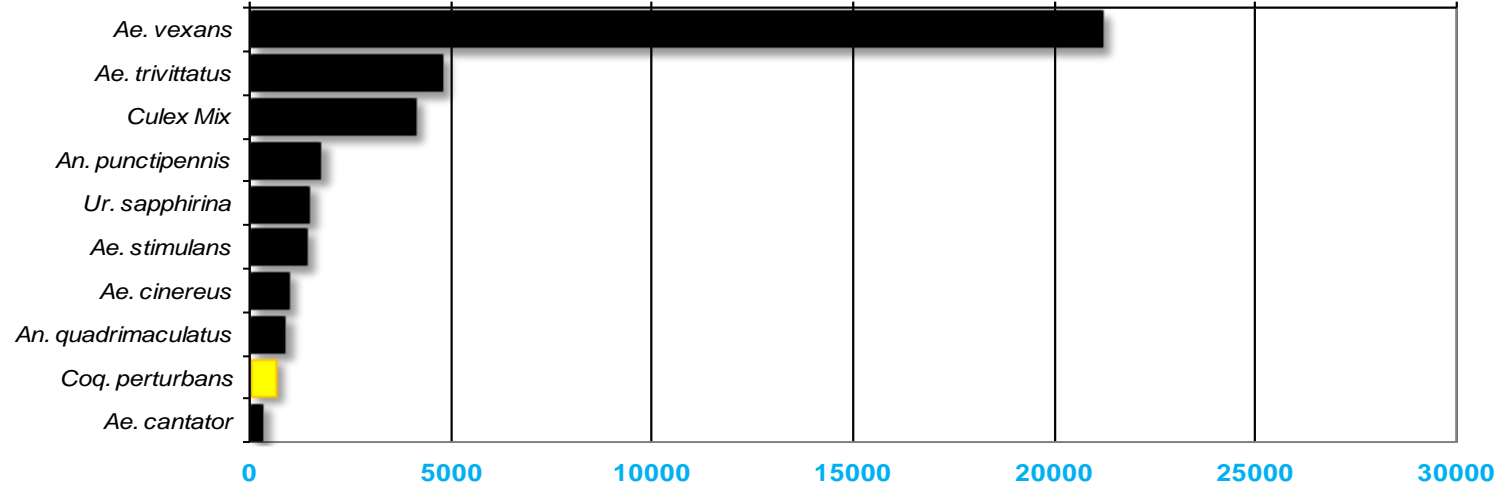
# North Central Rural

## Total # mosquitoes



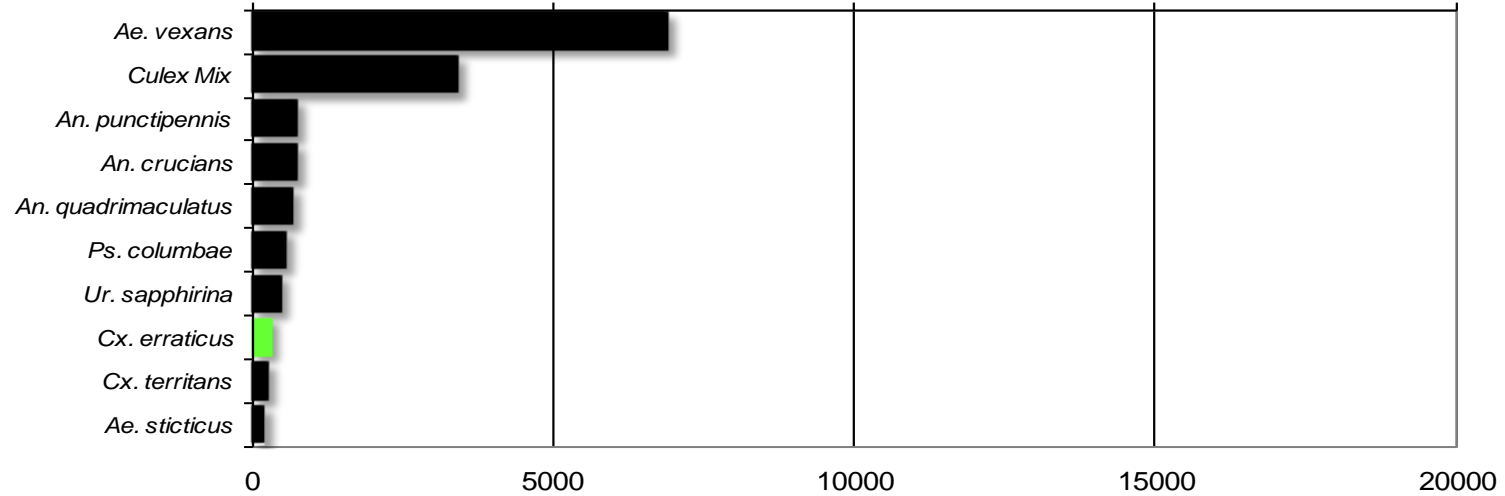
## Northwest Rural

Total # mosquitoes



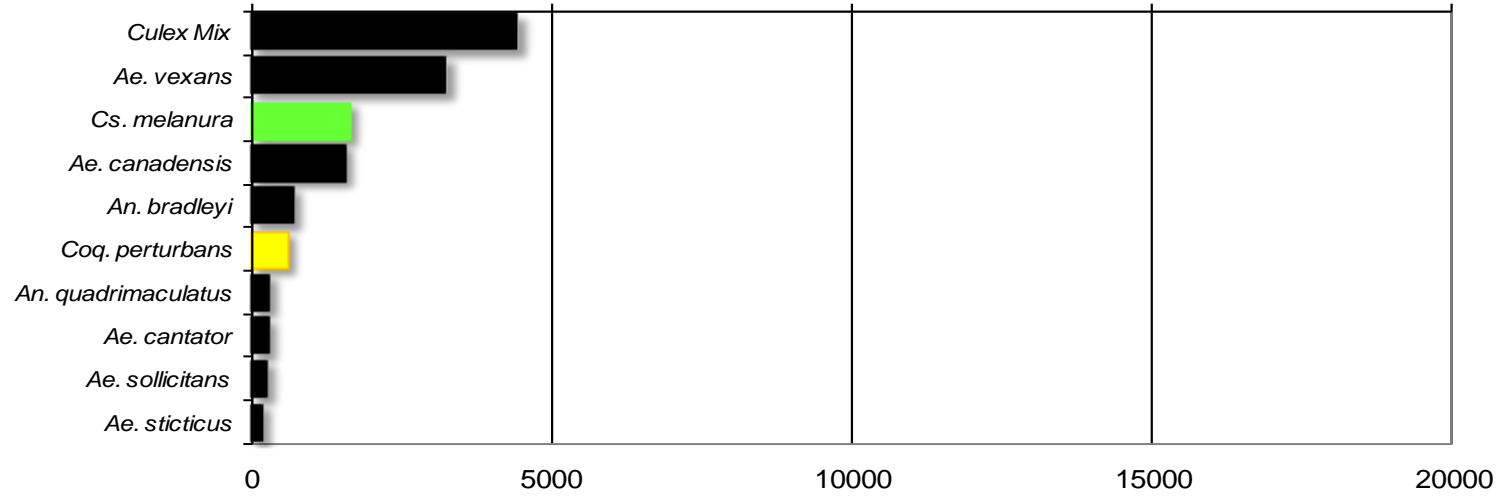
## Philadelphia Metropolitan

Total # mosquitoes



# Pinelands

Total # mosquitoes



# Suburban Corridor

Total # mosquitoes

