

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 8 June to 14 June 2014, CDC Week 24

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Center for Vector Biology



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 21 county mosquito control agencies of New Jersey.

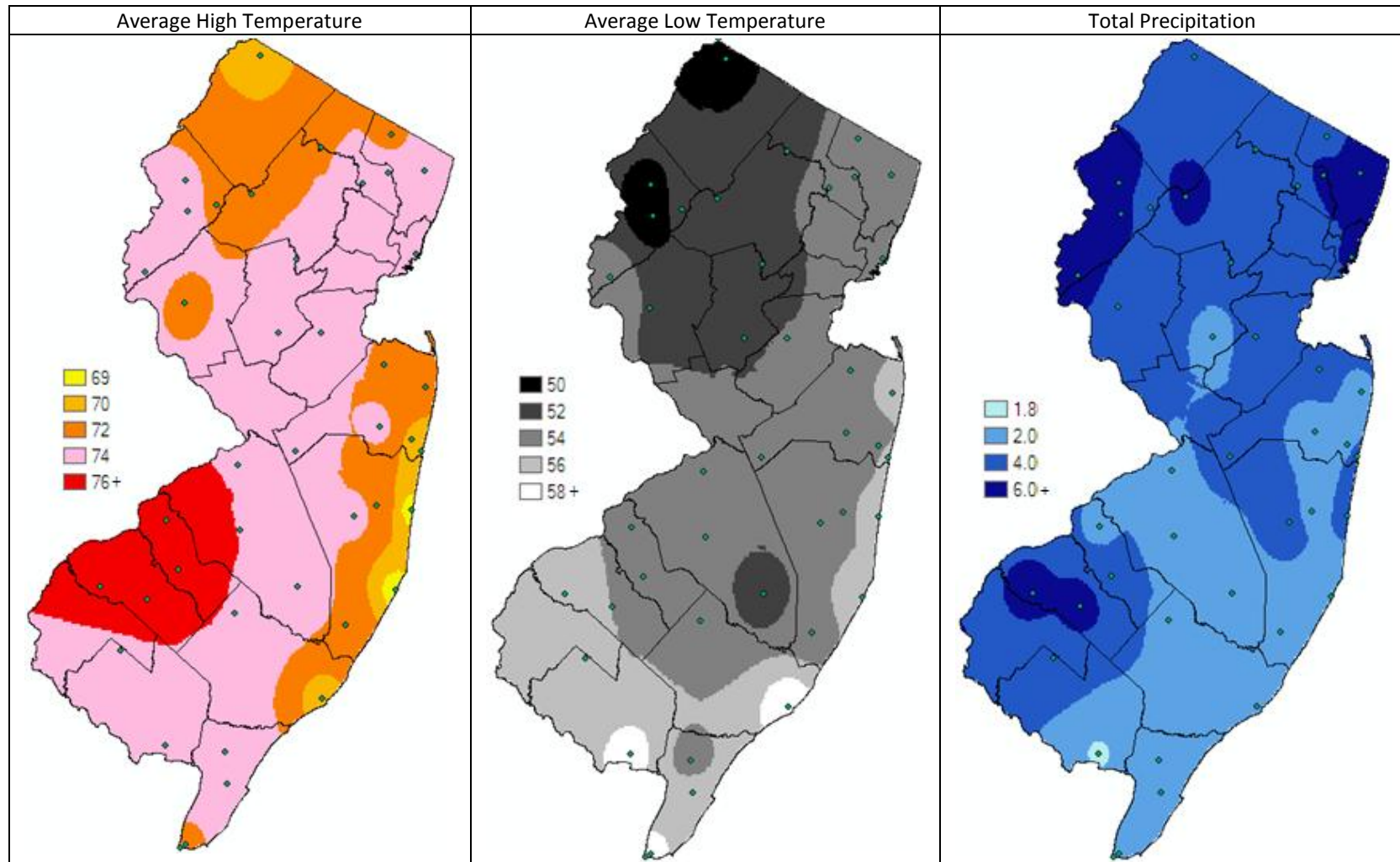
**Summary Table – Week 24**

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	0.06	1.09	0	0.03	2.77	0	0.03	0.32	0	0.00	0.06	0
Coastal	0.20	2.03	0	0.54	14.03	0	0.00	0.70	0	0.20	2.32	0
Delaware Bayshore	nd	2.33	0	nd	30.51	0	nd	3.14	0	nd	1.96	0
Delaware River Basin	nd	7.23	0	nd	4.61	0	nd	0.37	0	nd	0.14	0
New York Metro	4.17	0.66	4	4.17	5.46	0	0.00	0.17	0	0.10	0.09	1
North Central Rural	0.69	0.23	4	1.10	0.94	1	0.02	0.01	3	0.00	0.00	0
Northwest Rural	nd	5.85	0	nd	2.99	0	nd	1.05	0	nd	0.00	0
Philadelphia Metro	nd	2.67	0	nd	5.33	0	nd	0.52	0	nd	0.00	0
Pinelands	0.05	0.70	0	0.09	1.93	0	0.00	0.83	0	0.00	0.11	0
Suburban Corridor	2.78	1.91	1	1.62	3.49	0	0.06	0.57	0	0.00	0.00	0

\*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. nd=no data reported.

**State Summary:** Data should be considered provisional as counties continue to come online with their datasets. At this time, elevated populations are seen for *Aedes vexans* in the New York Metro and North Central Rural regions as well as for *Coquillettidia perturbans* in the North Central Rural region. Slightly elevated populations were also seen for *Aedes vexans* in the Suburban Corridor, *Culex Mix* in the North Central Rural and *Aedes sollicitans* in the New York Metropolitan regions.

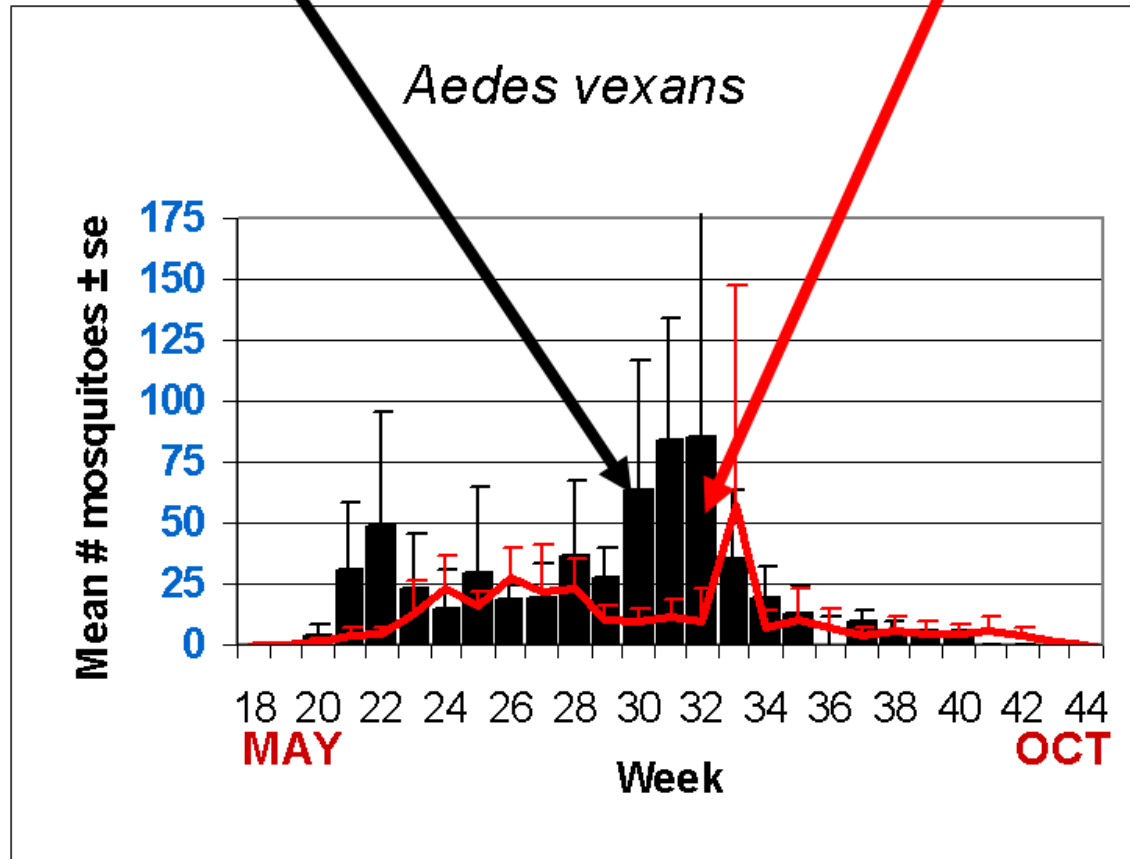
## Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 31 days prior to 13 June 2014 in New Jersey. Data points are from about 41 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.1.

**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 this week are from Bergen, Essex, Monmouth, Morris, Ocean and Union counties. Data for the previous week(s) are from Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Mercer, Middlesex, Monmouth, Morris, Ocean, Salem and Union counties.

## Weekly Means Against 5-year Average

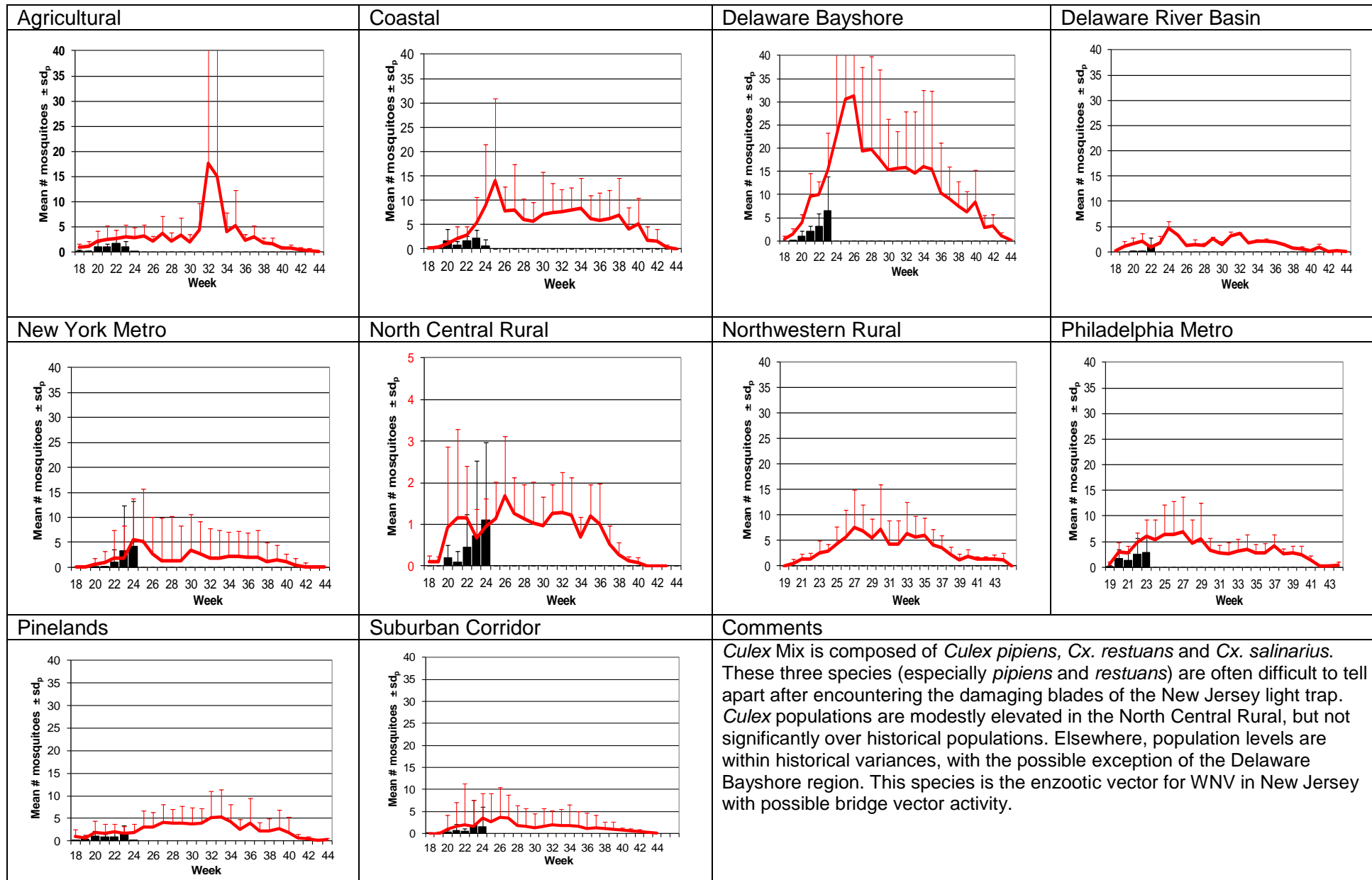


# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

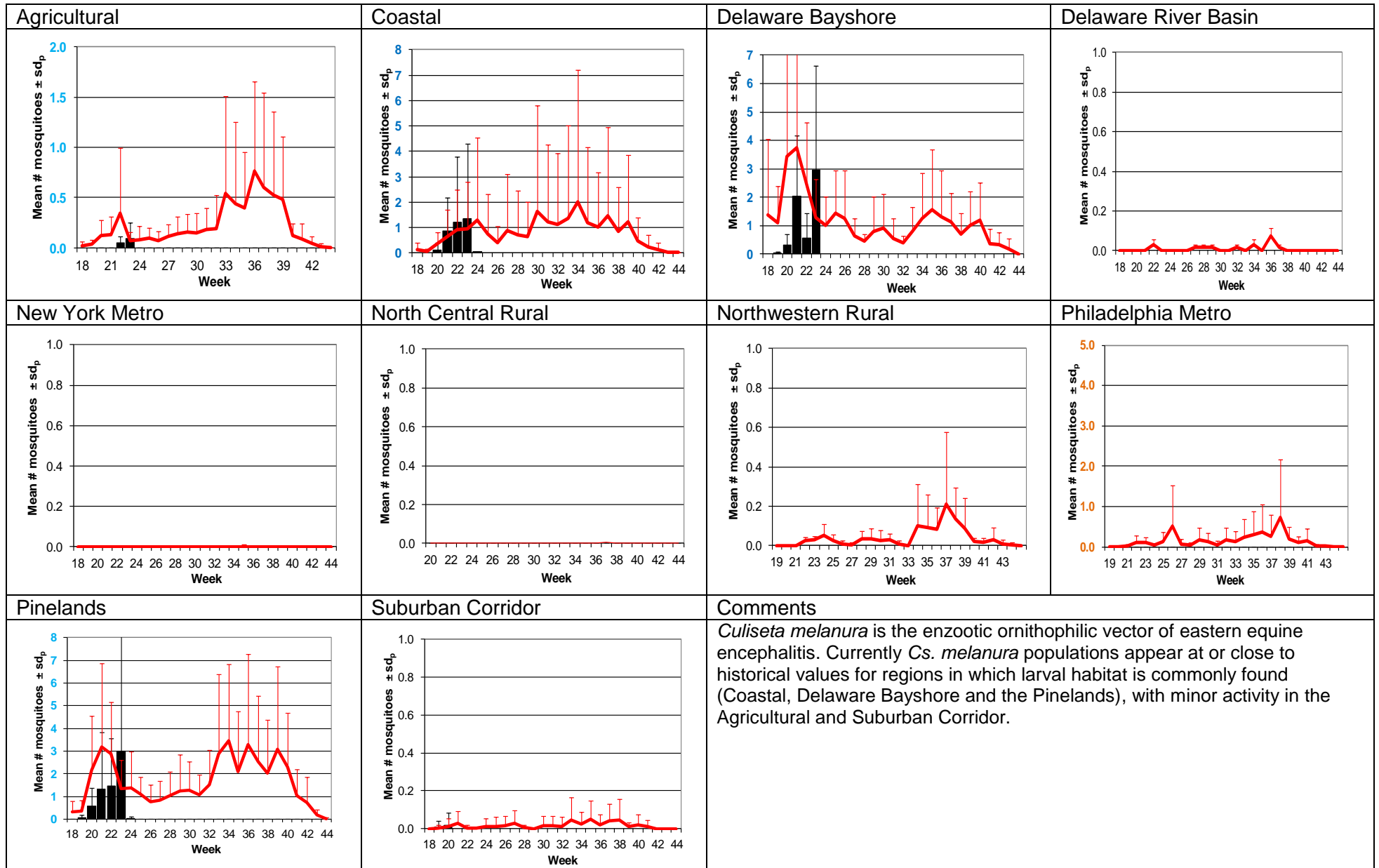
<p><b>Agricultural</b></p>	<p><b>Coastal</b></p>	<p><b>Delaware Bayshore</b></p>	<p><b>Delaware River Basin</b></p>
<p><b>New York Metro</b></p>	<p><b>North Central Rural</b></p>	<p><b>Northwestern Rural</b></p>	<p><b>Philadelphia Metro</b></p>
<p><b>Pinelands</b></p>	<p><b>Suburban Corridor</b></p>	<p><b>Comments</b></p> <p>Aedes vexans populations have continue to respond to warming weather and precipitation with notable emergences in Week21/22 for the New York Metropolitan region and to a lesser extent, in the Suburban Corridor, generating significant nuisance calls. This species has been implicated in the transmission of dog heartworm, and due to its significant abundance in New Jersey, is always in the top 10 species of activity.</p>	

# Culex Mix – Permanent Water Species

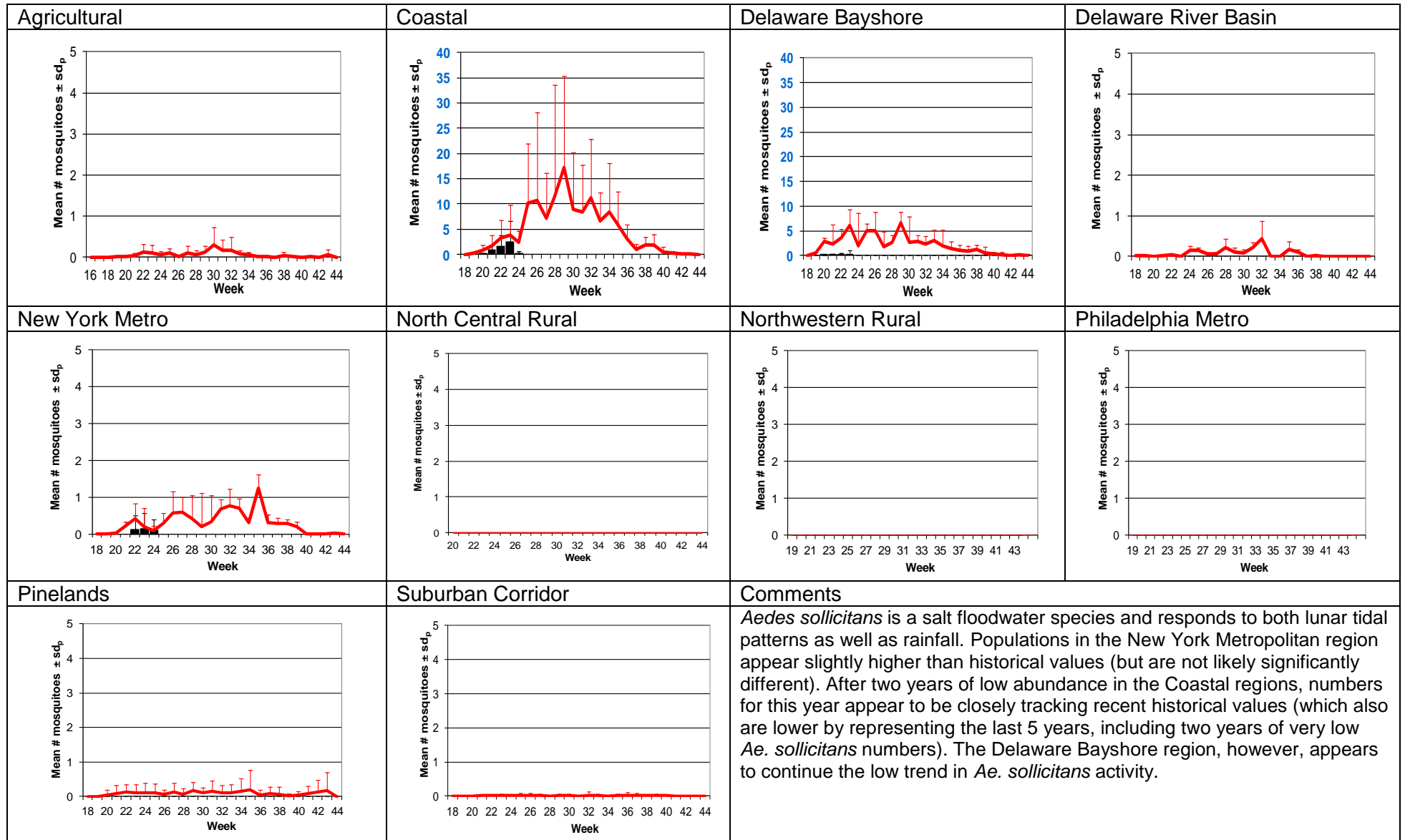
## Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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



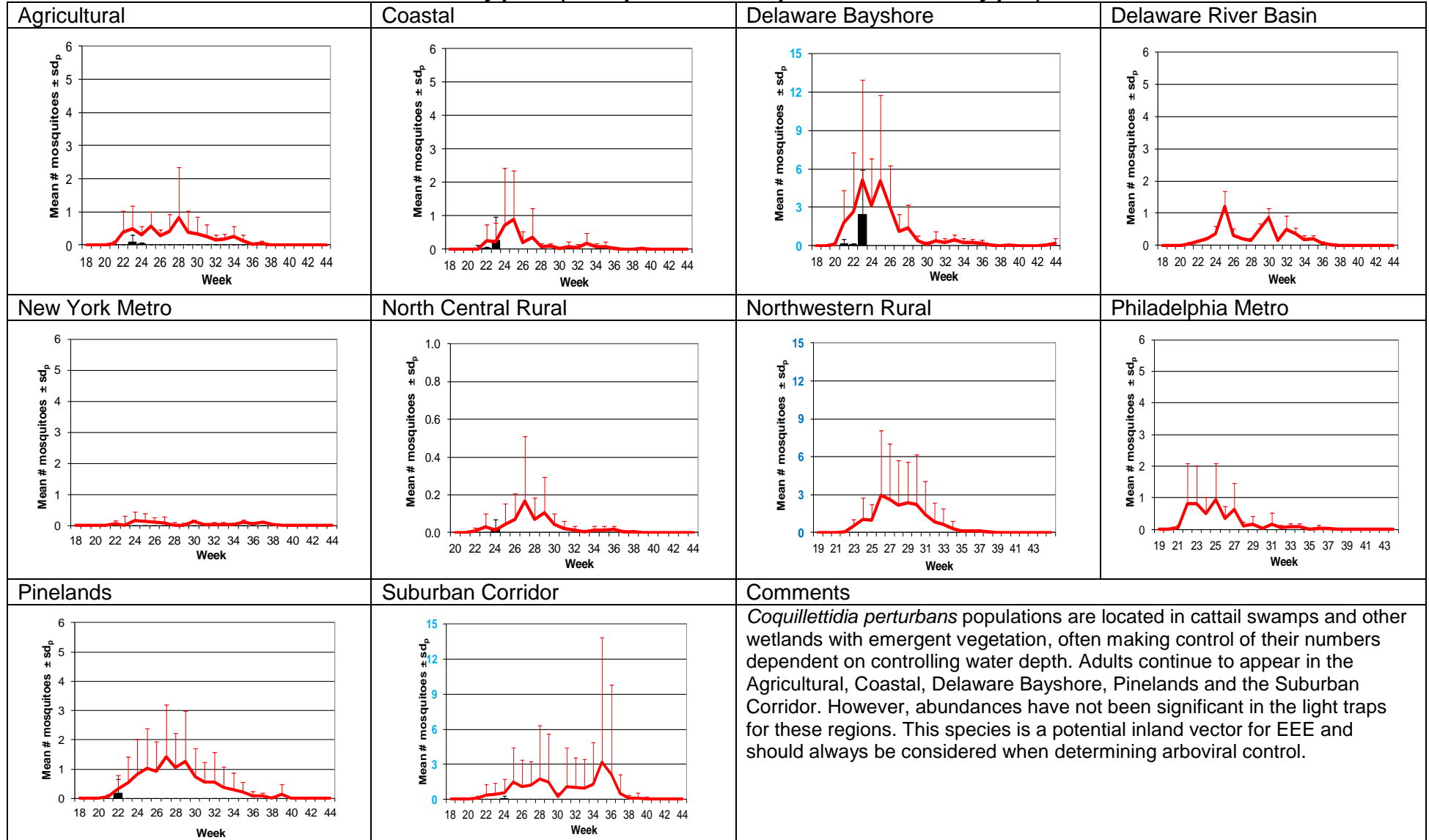
# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)





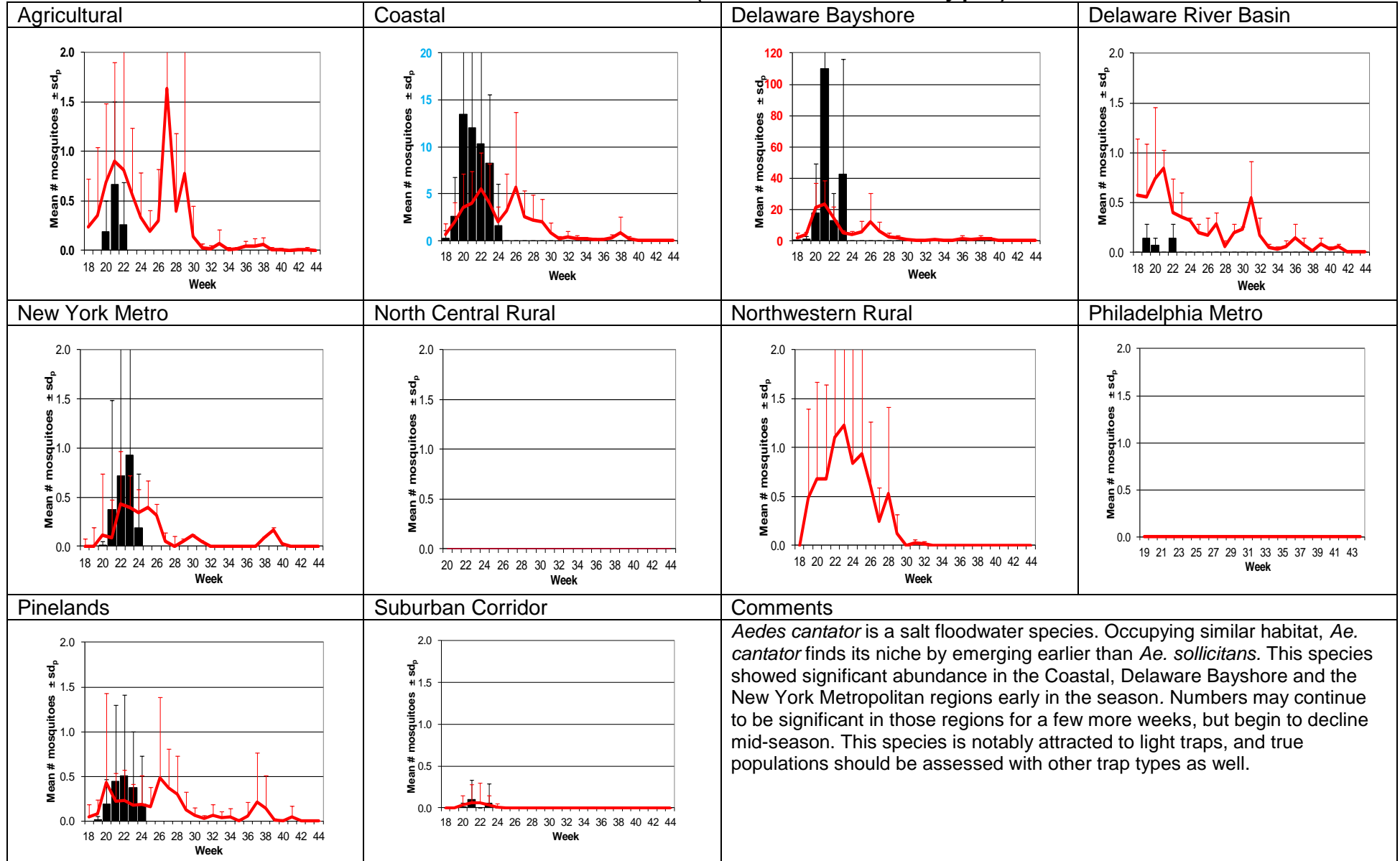
# Coquillettidia perturbans

## Monotypic (*Coquillettidia perturbans* Type)





# *Aedes cantator* Multivoltine Aedine (*Ae. sollicitans* Type)

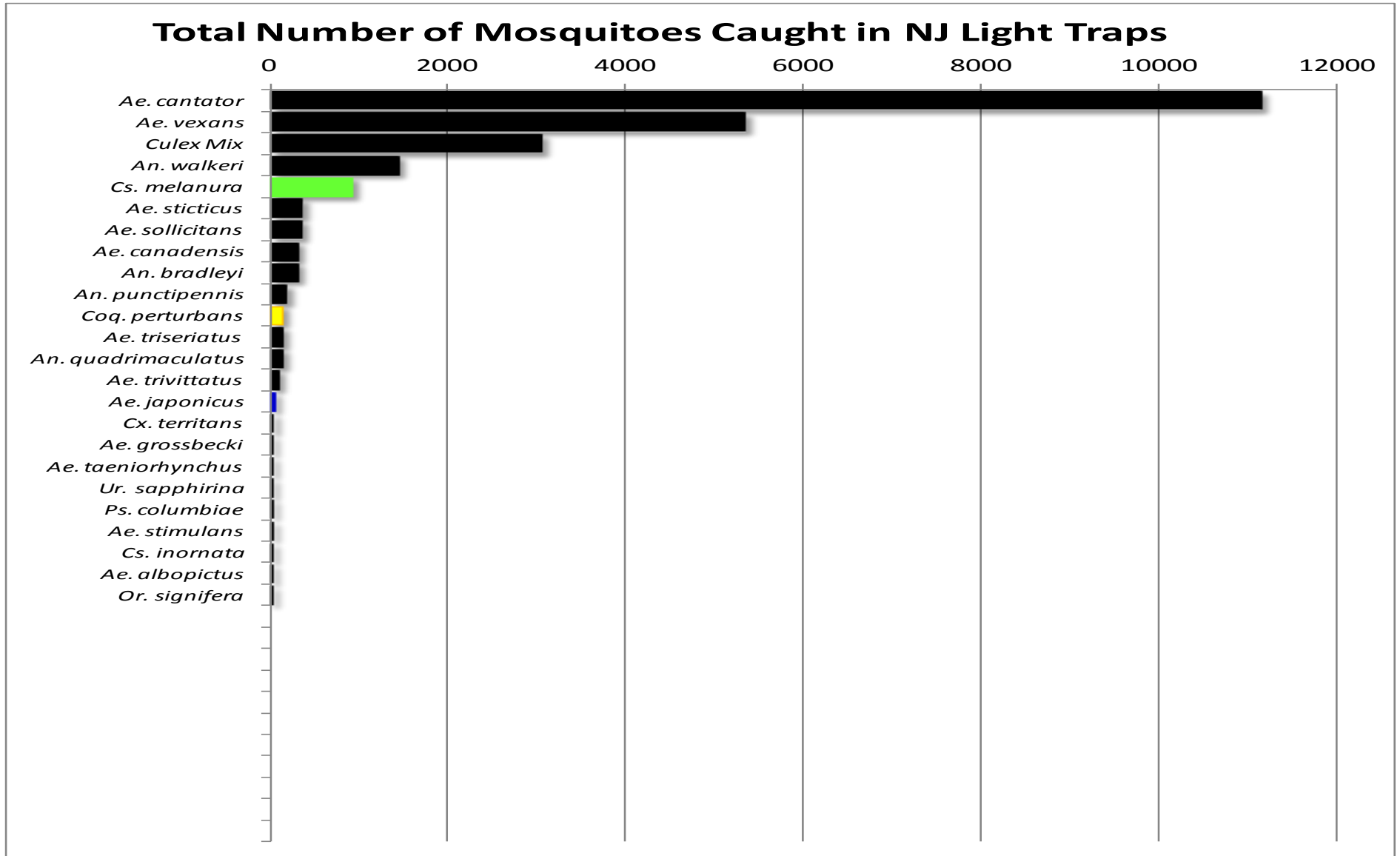


WNV

EEE

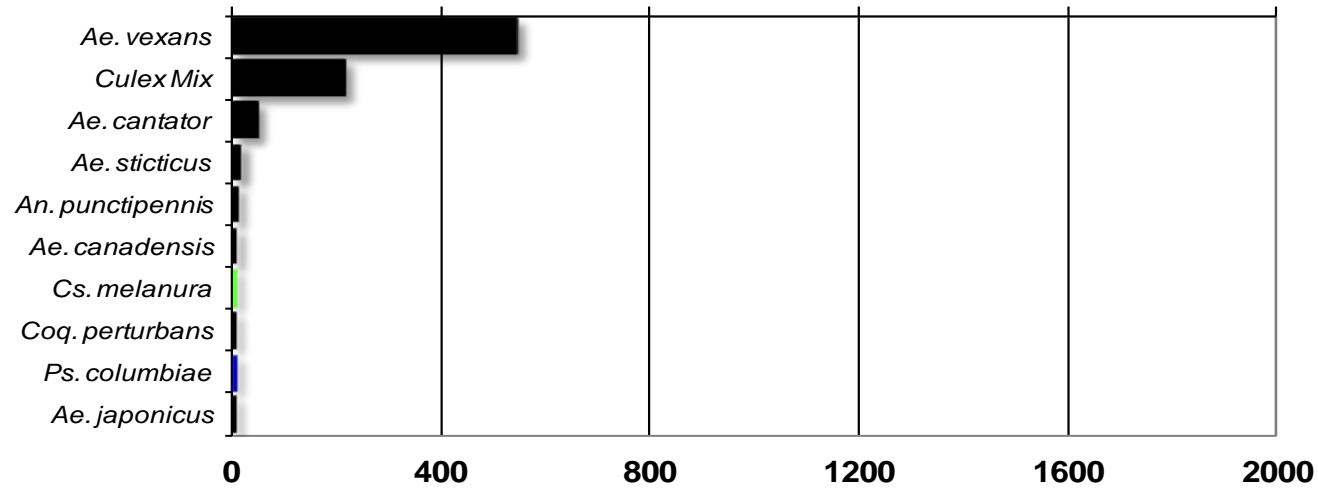
**Top Ten Mosquito Species/Region** - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

Note: In early season when fewer species are caught, graphs may show less than ten species/region or 25 statewide.



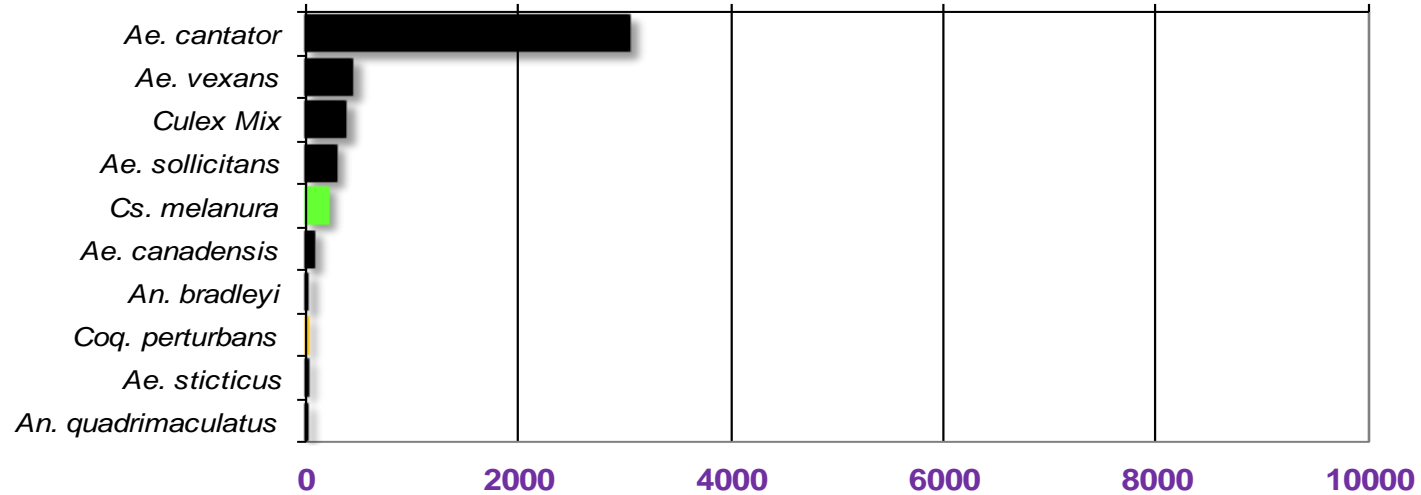
## Agricultural

Total # mosquitoes



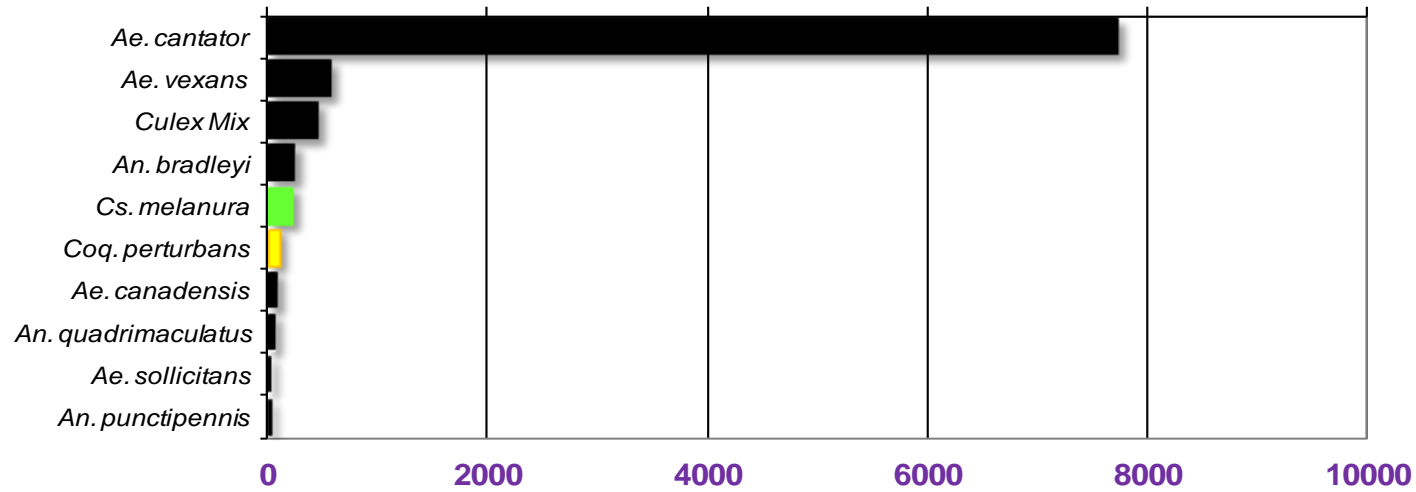
## Coastal

Total # mosquitoes



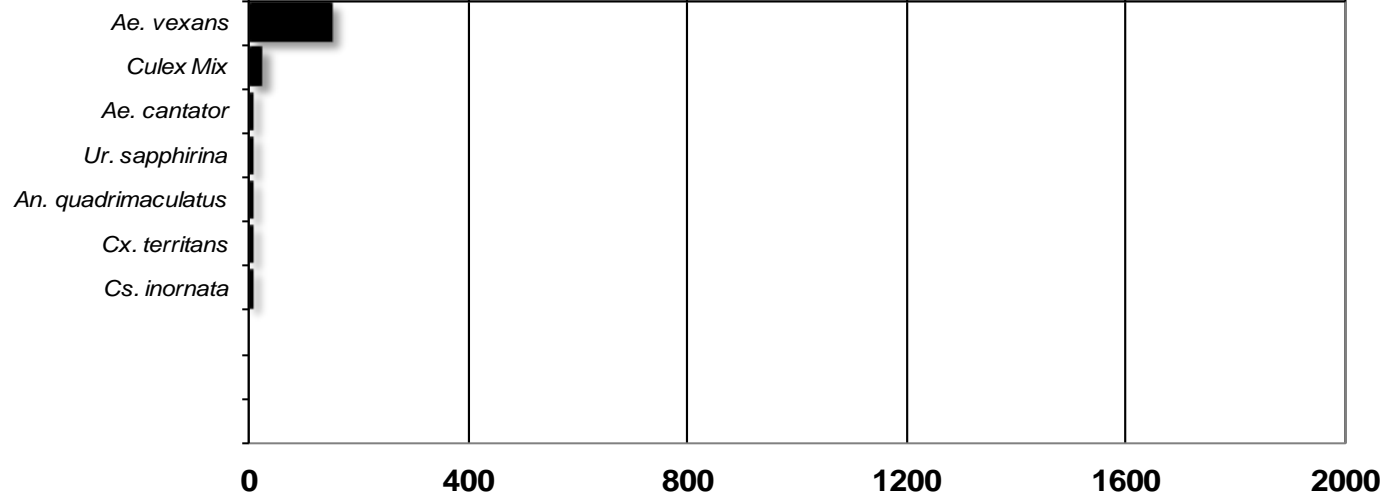
## Delaware Bayshore

Total # mosquitoes



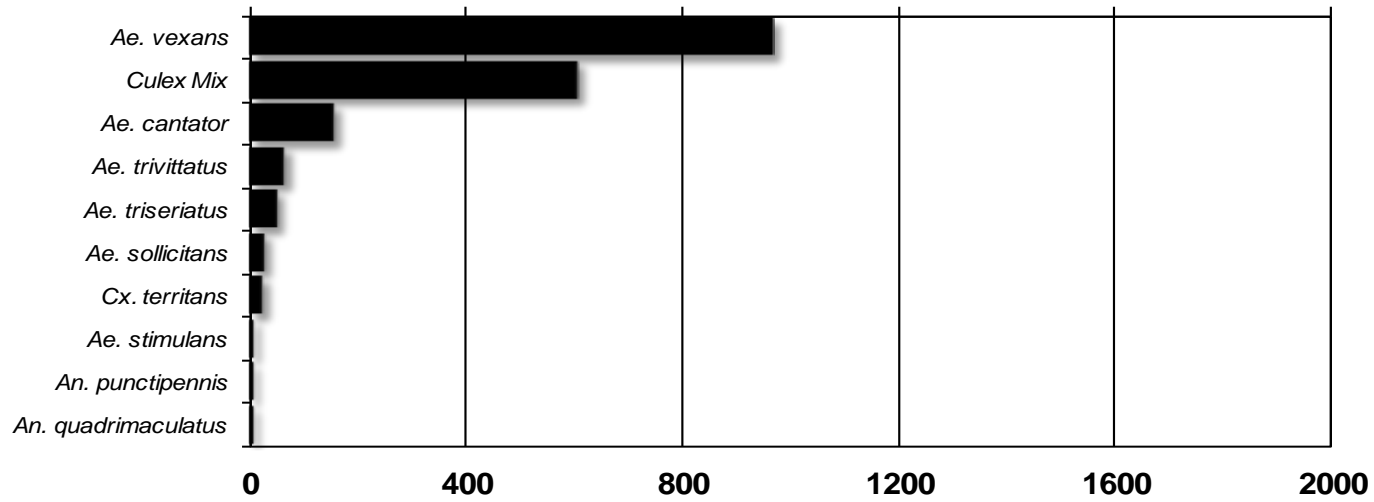
## Delaware River Basin

Total # mosquitoes



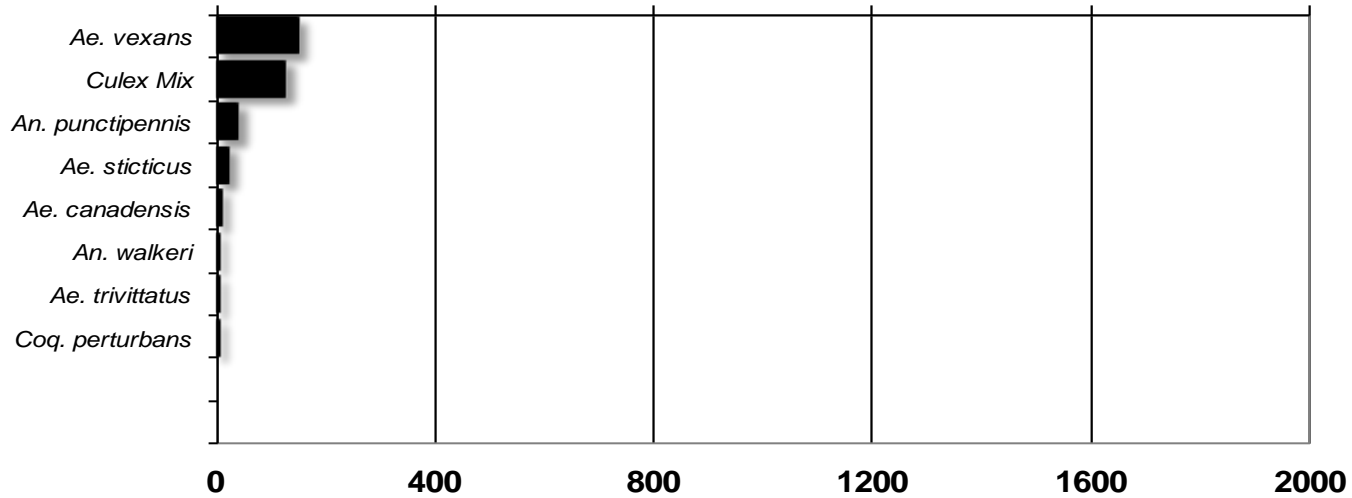
## New York Metropolitan

Total # mosquitoes



## North Central Rural

Total # mosquitoes



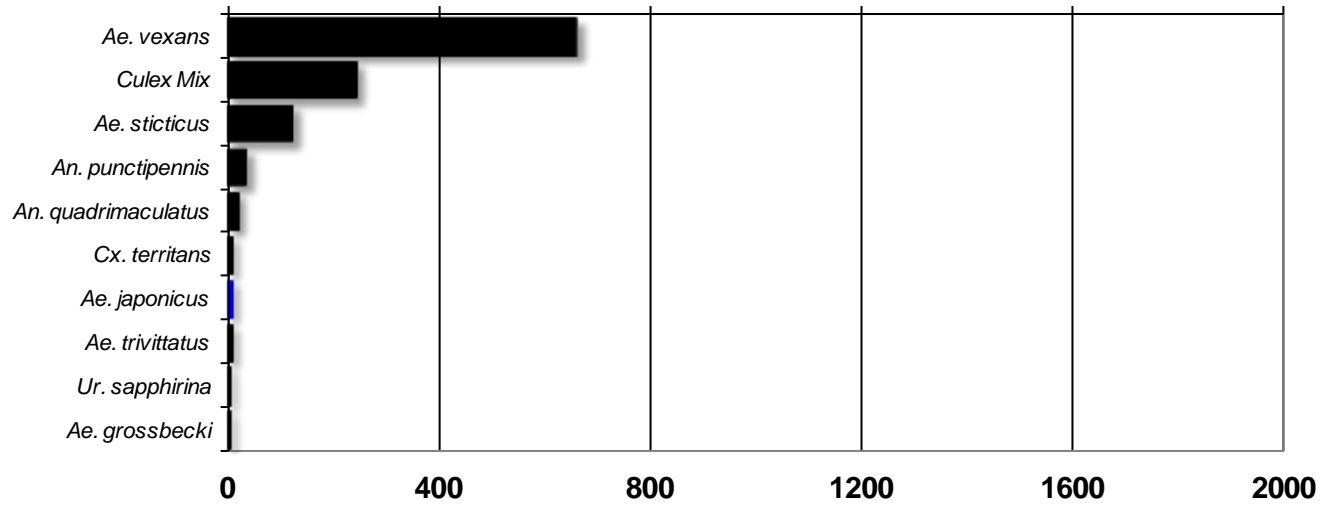
## Northwest Rural

Total # mosquitoes



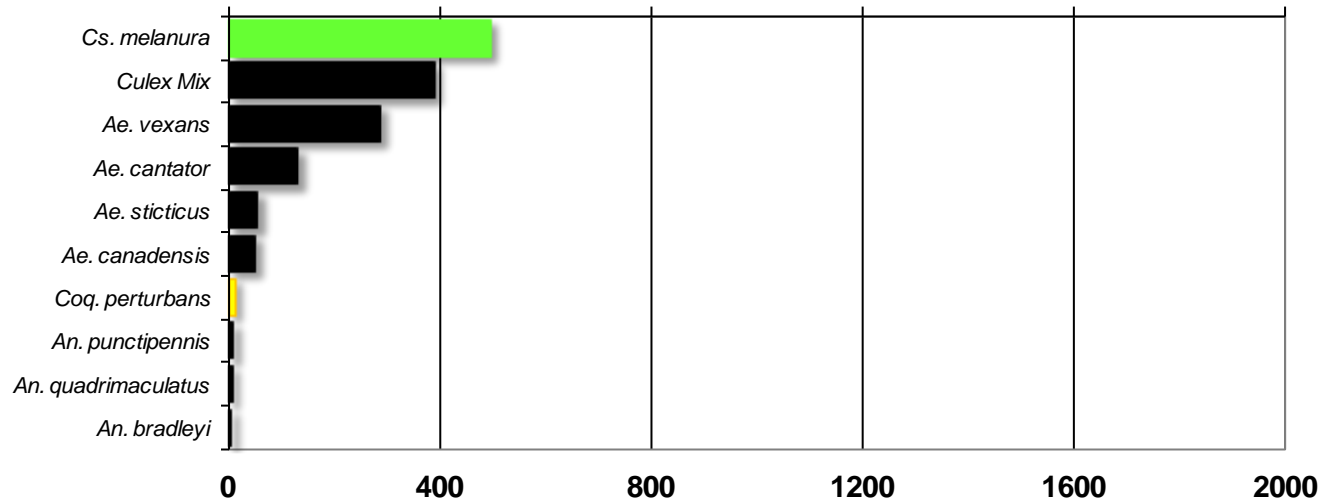
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

