

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 11 June to 17 June 2017, CDC Week 24

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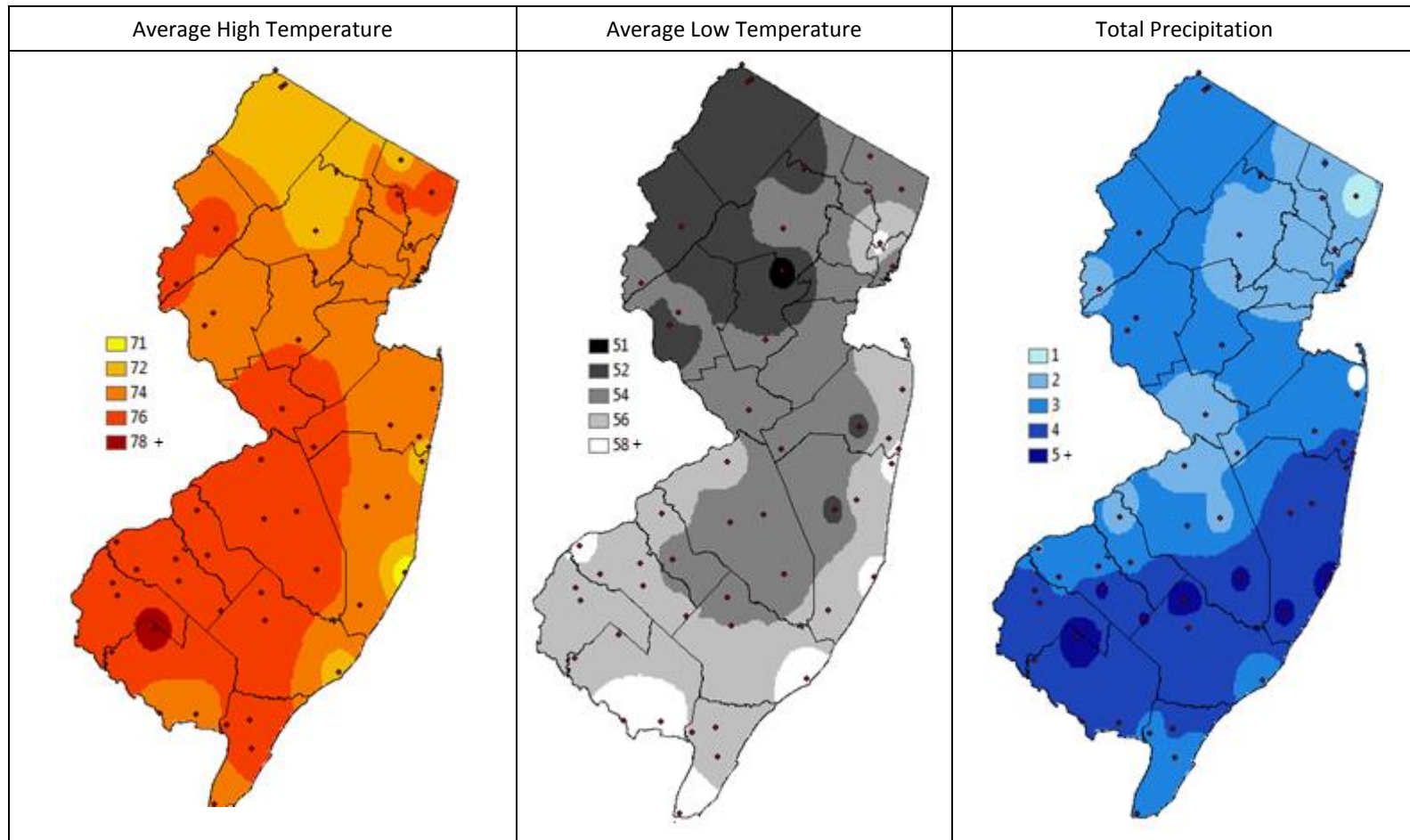
**Summary Table – Week 24**

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	1.77	1.36	1	5.51	1.60	4	0.06	0.11	0	0.00	0.01	0
Coastal	0.32	0.78	0	0.70	3.11	0	0.00	0.13	0	0.00	0.59	0
Delaware Bayshore	2.74	0.91	4	11.51	9.55	1	0.34	2.41	0	2.46	0.74	4
Delaware River Basin	17.43	1.26	4	12.43	1.24	4	1.00	0.07	4	0.00	0.00	0
New York Metro	3.29	2.56	1	16.89	4.44	4	0.10	0.06	2	0.29	0.07	4
North Central Rural	0.05	0.24	0	0.23	0.52	0	0.29	<0.01	4	0.00	0.00	0
Northwest Rural	nd	2.37	0	nd	1.41	0	nd	0.02	0	nd	0.00	0
Philadelphia Metro	nd	1.82	0	nd	2.35	0	nd	0.11	0	nd	0.00	0
Pinelands	0.29	0.32	0	0.32	1.00	0	0.01	0.26	0	0.00	<0.01	0
Suburban Corridor	1.52	1.95	0	2.50	1.54	2	0.01	0.36	0	0.00	<0.01	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: More counties deliver data from the beginning of the season. Higher amounts of precipitation in the spring, and especially May (9<sup>th</sup> wettest May since 1895 in NJ) takes New Jersey out of drought conditions. Fresh floodwater (*Ae. vexans*) and salt floodwater (*Ae. sollicitans*) species respond to this and the warm weather. *Culex Mix* are also higher in several regions. *Coq. perturbans* was significantly higher in the Delaware River Basin and the North Central Rural regions.

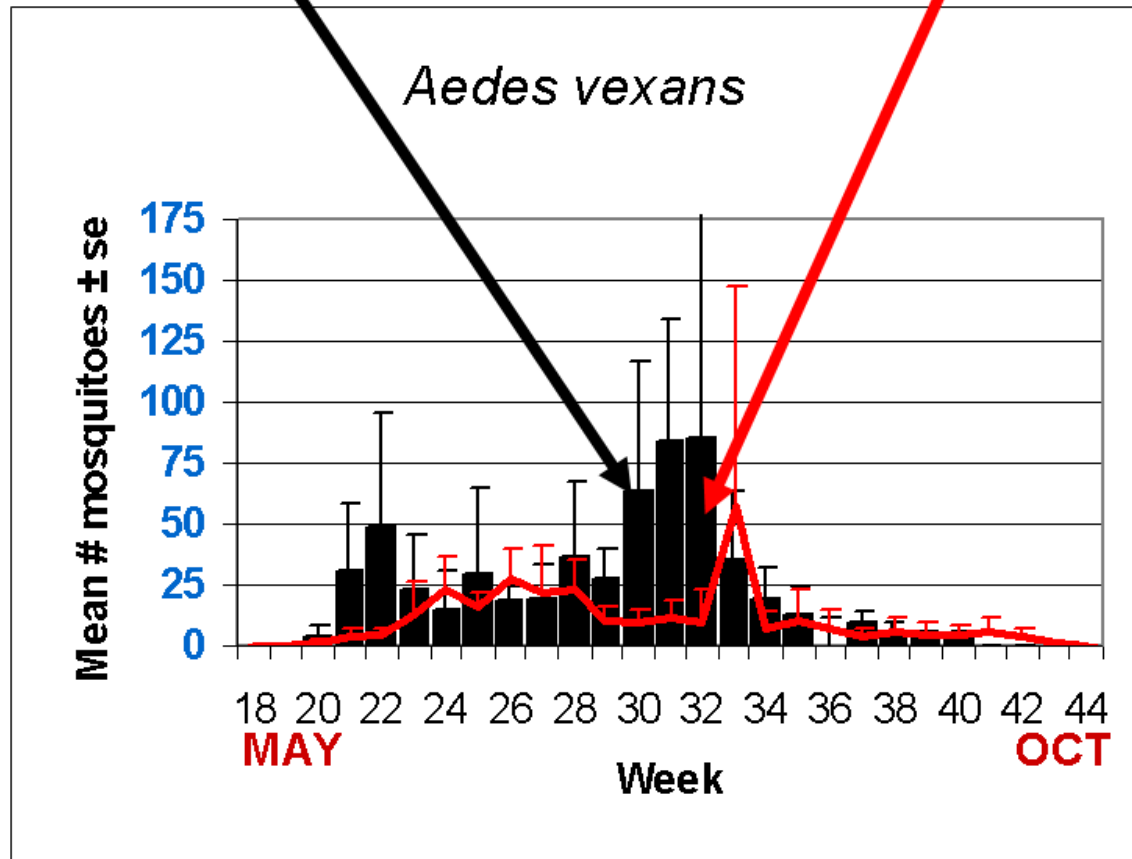
## Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 16 June 2017 in New Jersey. Data points are from about 56 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 Cumberland, Hudson, Monmouth, Morris, Salem and Union counties. Data for the previous week are from Atlantic, Bergen, Cape May, Cumberland, Hudson, Mercer, Monmouth, Morris, Ocean, Passaic, Salem, Sussex, and Union counties.

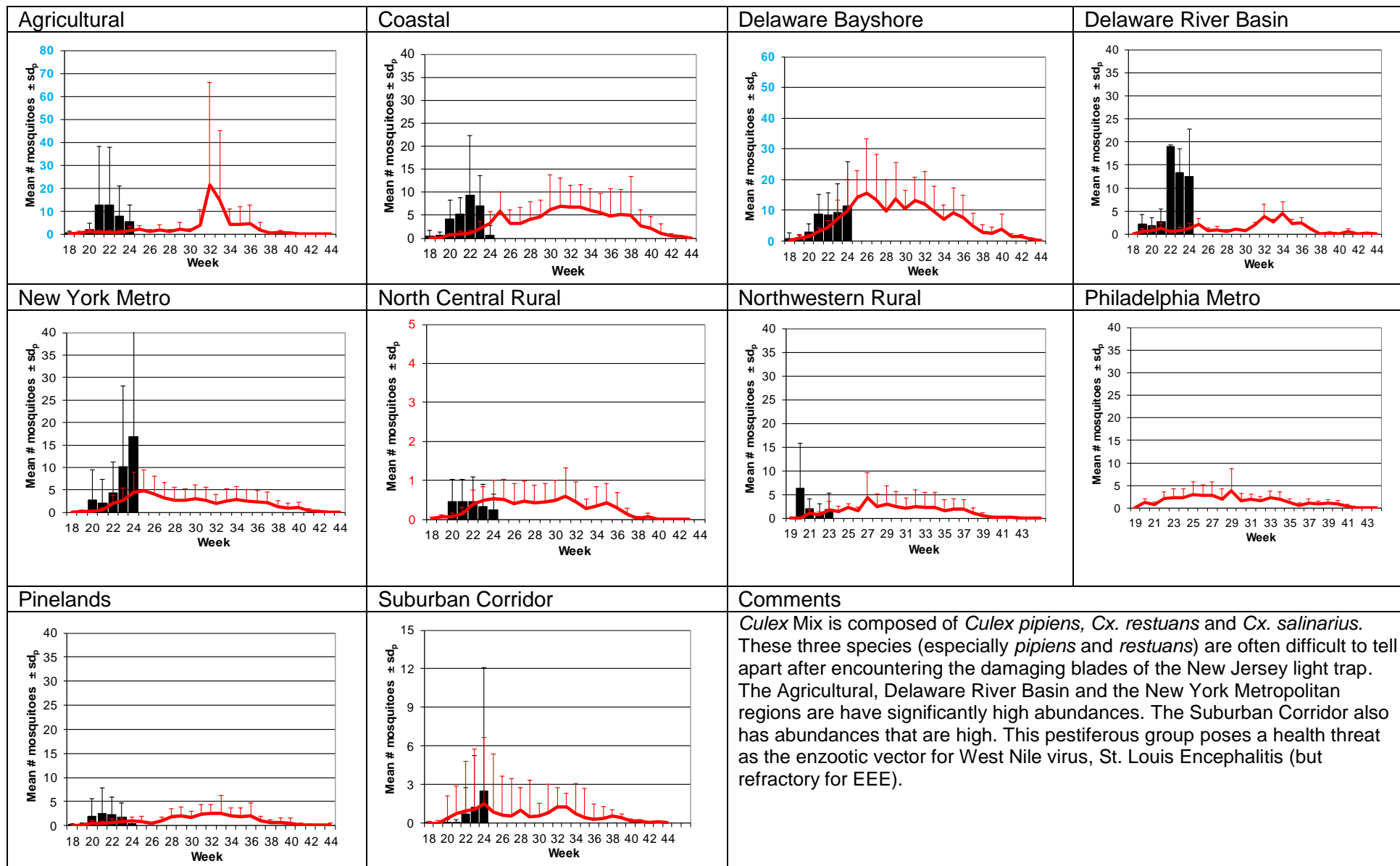
## Weekly Means Against 5-year Average



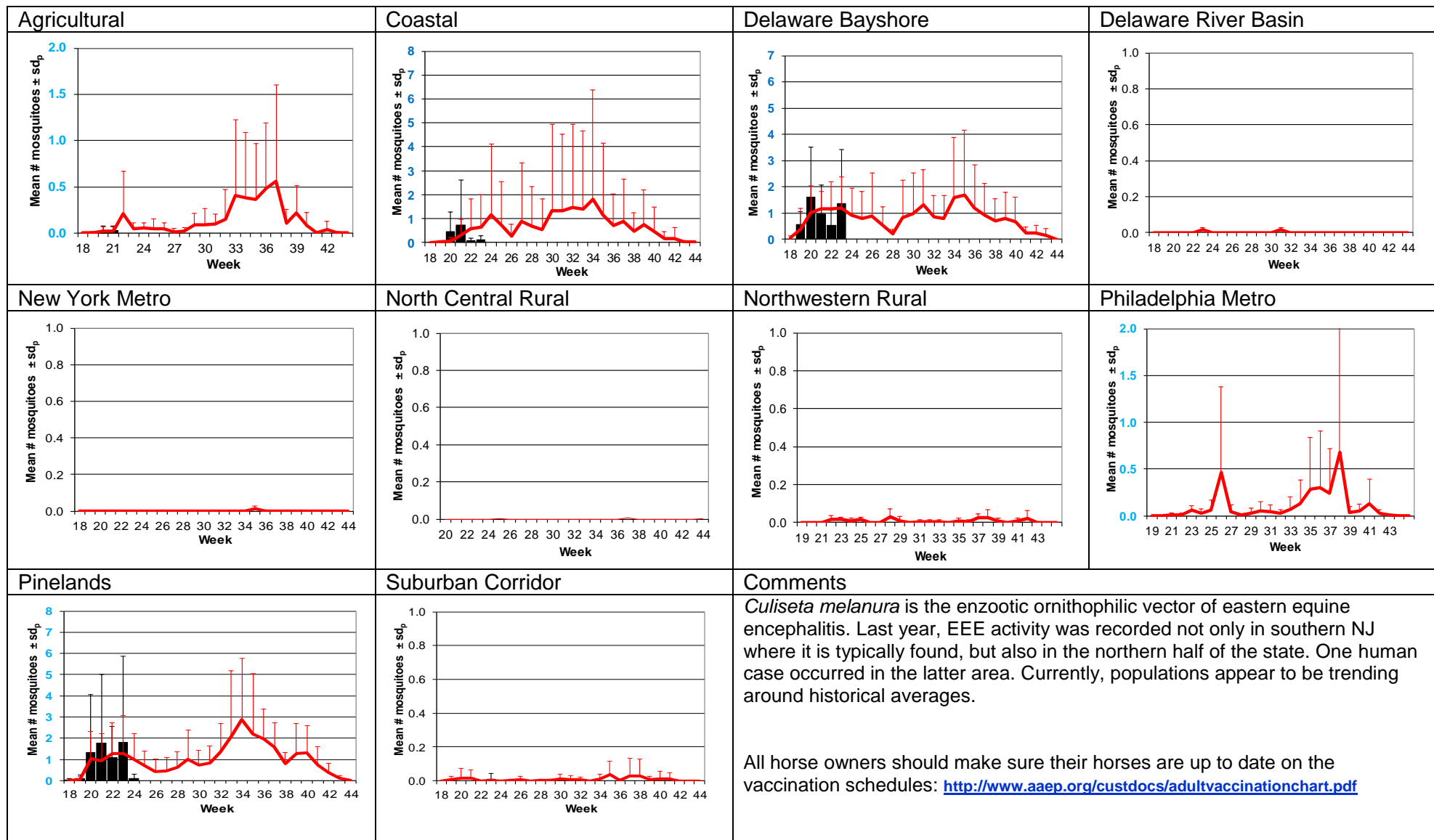
# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

<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><i>Aedes vexans</i> is the model for fresh floodwater species. With abundant precipitation, this species can emerge in very significant numbers. Last year's drought reduced overall numbers in certain regions throughout the season. The Delaware River Basin, Northwestern Rural and Philadelphia Metropolitan regions can host large numbers due to dredge spoils or large flooding areas that provide excellent habitat. Currently, both the Delaware Bayshore and River Basin regions have populations significantly above historical values.</p>	

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



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

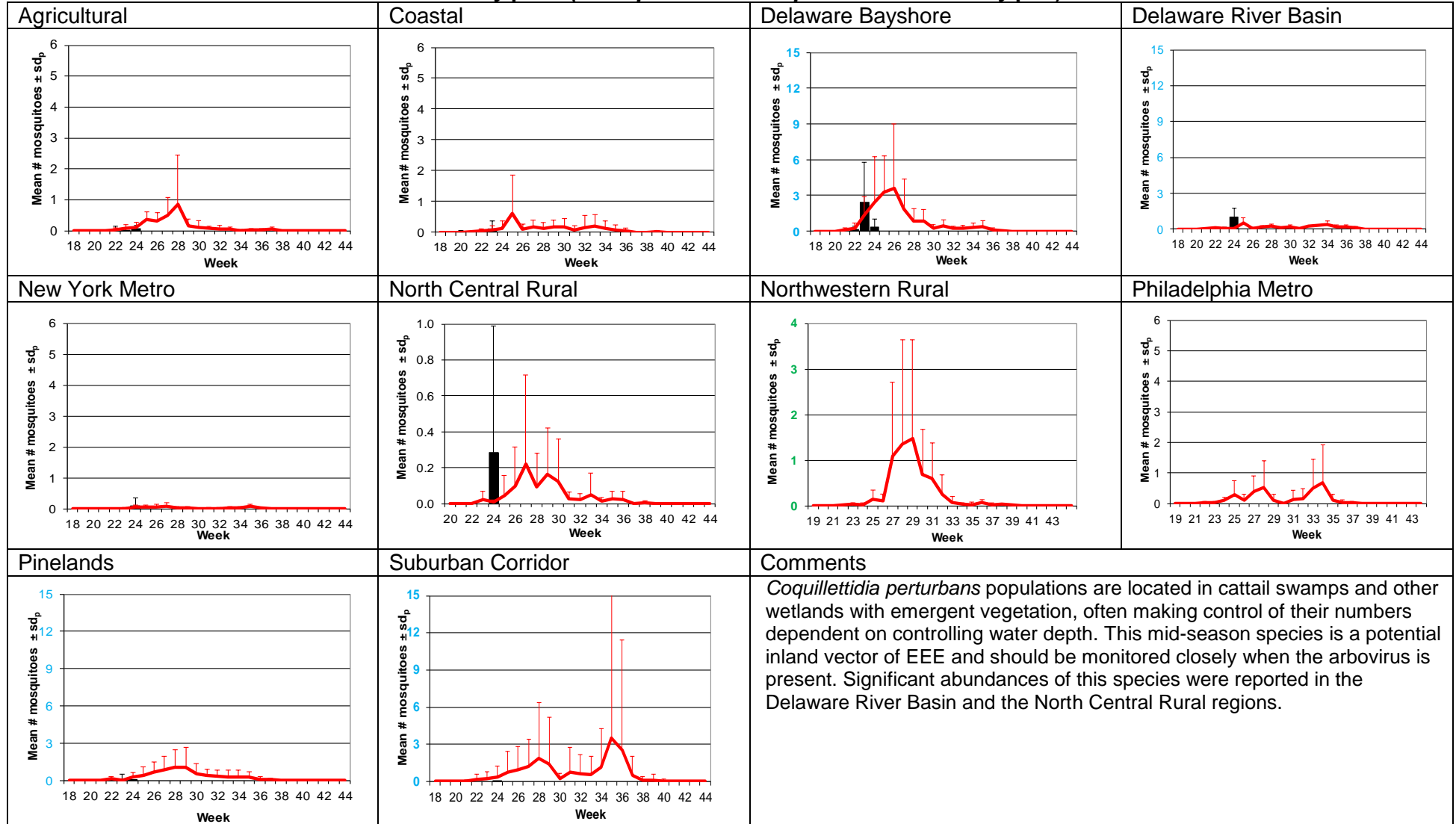


# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)

<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><i>Aedes sollicitans</i> is a salt floodwater species and responds to both lunar tidal patterns as well as rainfall. Currently, notably high populations are found in the Delaware Bayshore and the New York Metropolitan regions.</p> <p>Last full moon was on the 9<sup>th</sup> June.</p>	

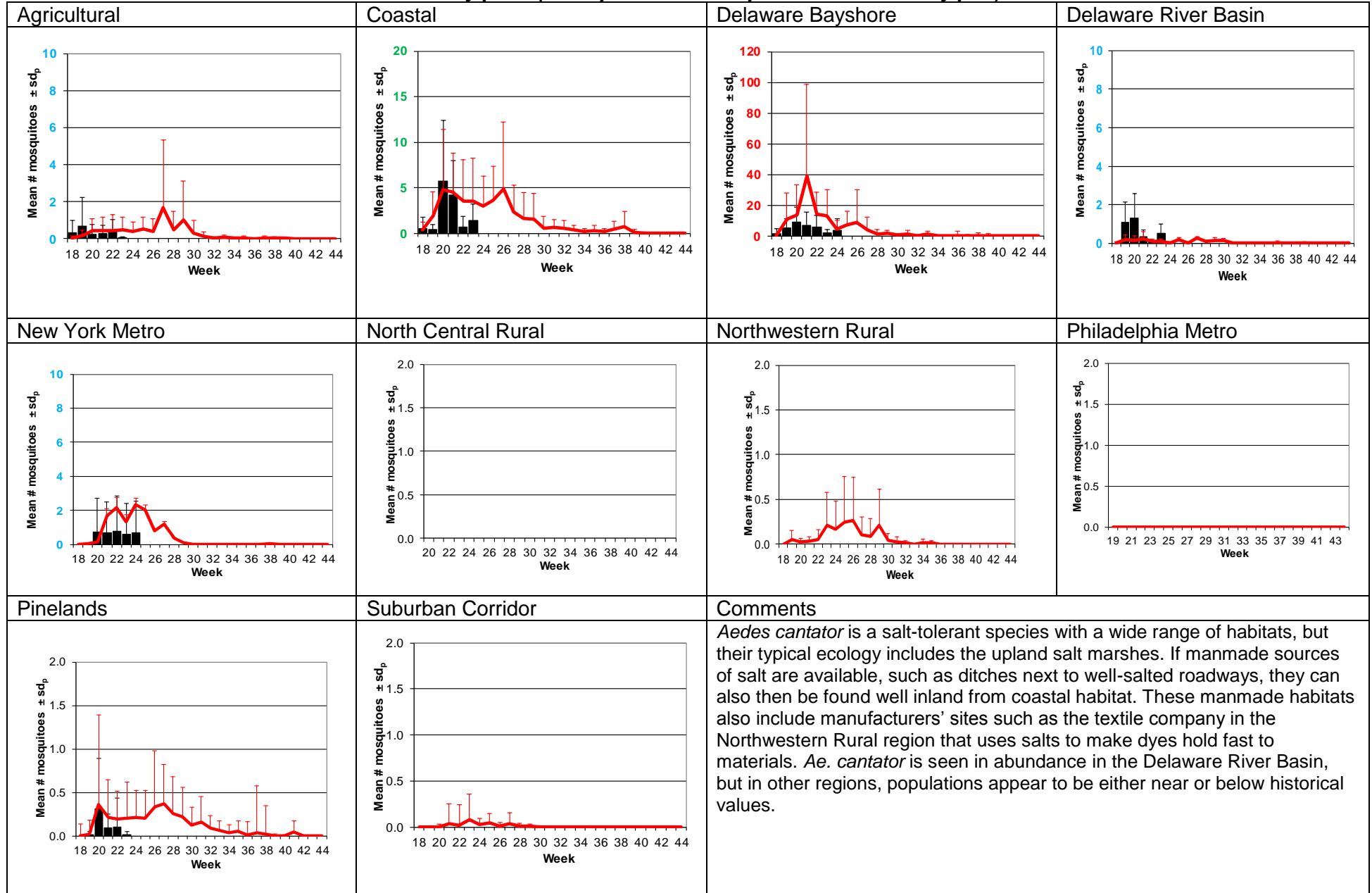
# Coquillettidia perturbans

## Monotypic (*Coquillettidia perturbans* Type)





# *Aedes cantator* Monotypic (*Coquillettidia perturbans* Type)

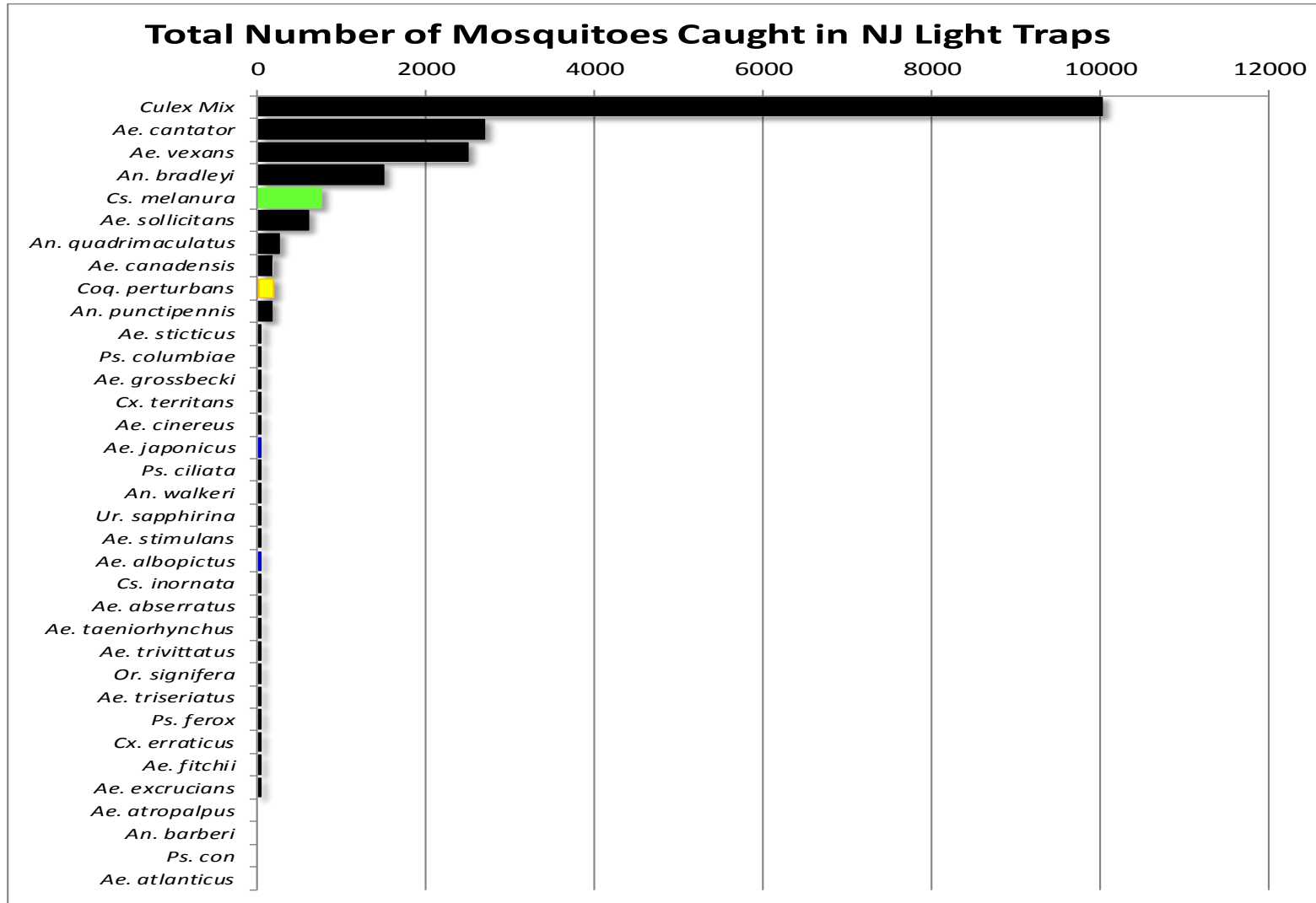


WNV

EEE

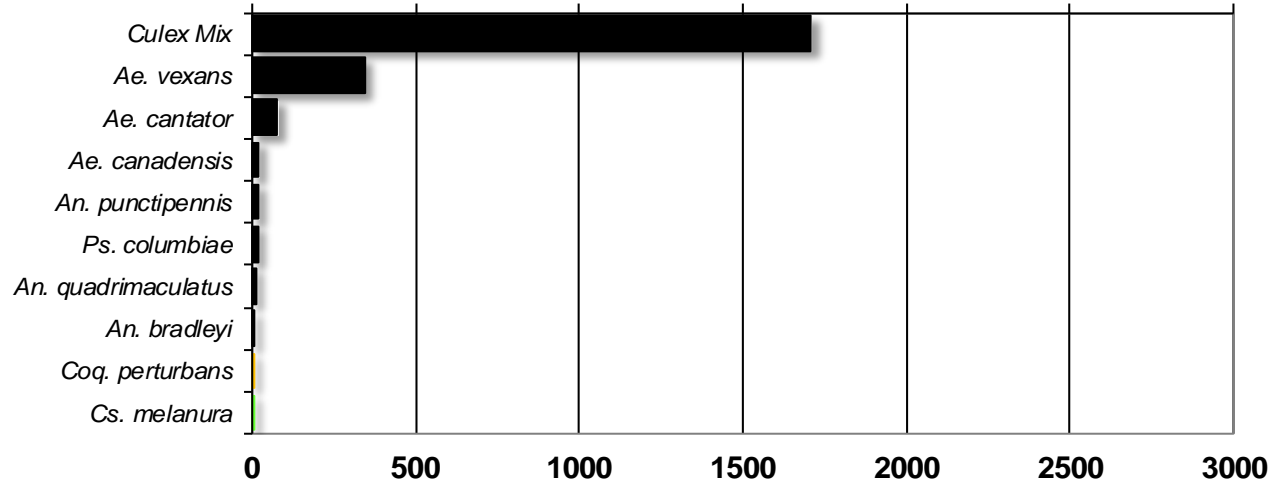
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



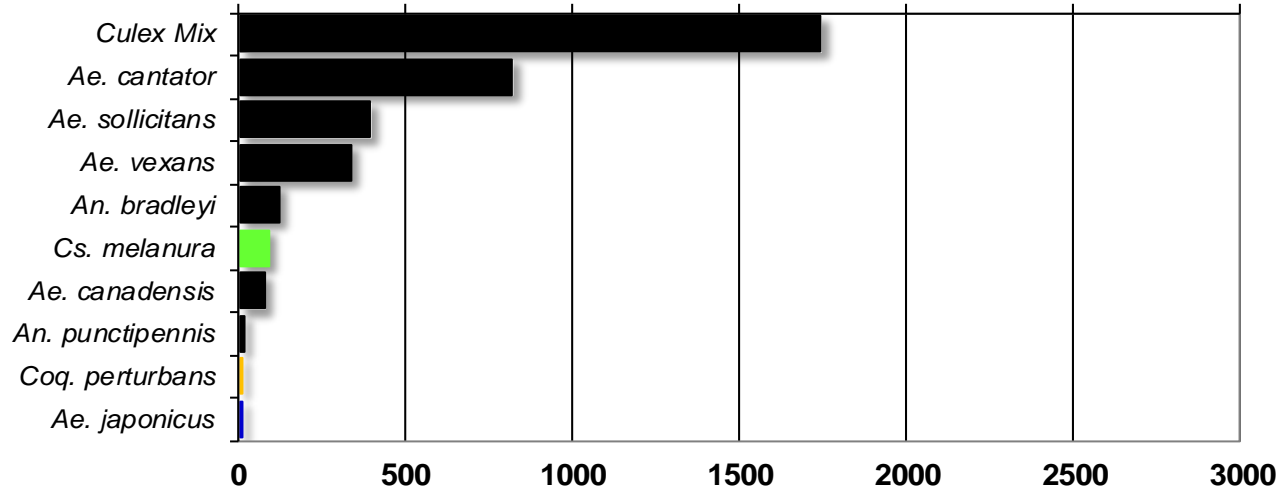
## Agricultural

Total # mosquitoes



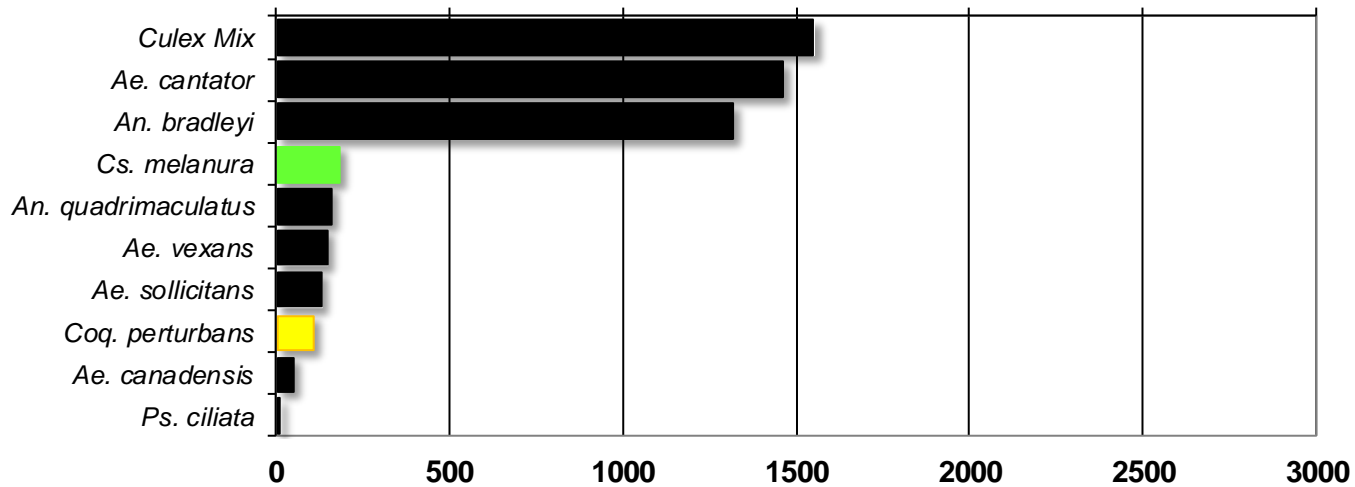
## Coastal

Total # mosquitoes



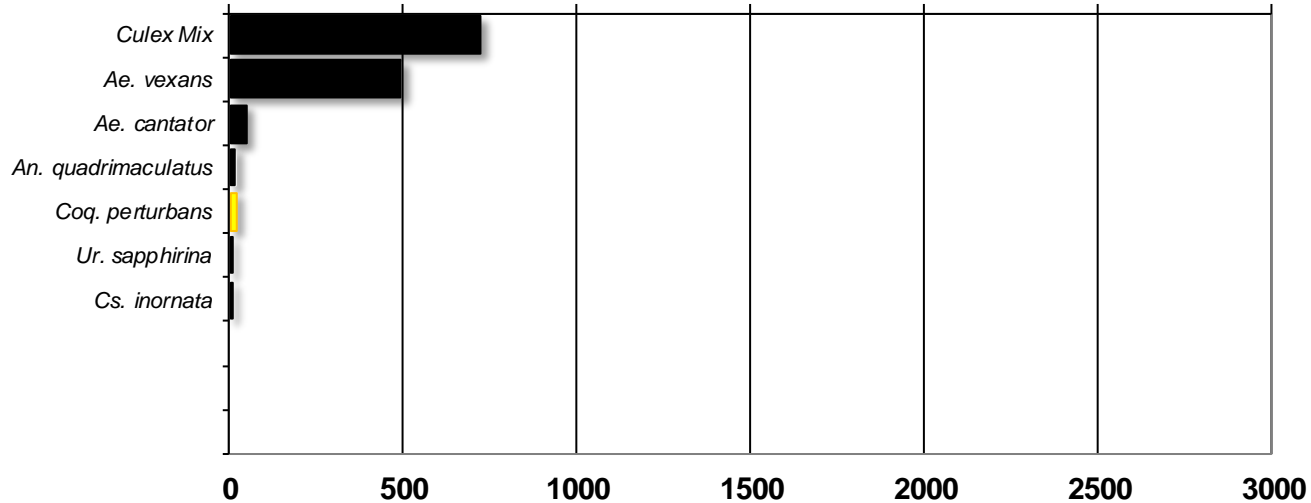
### Delaware Bayshore

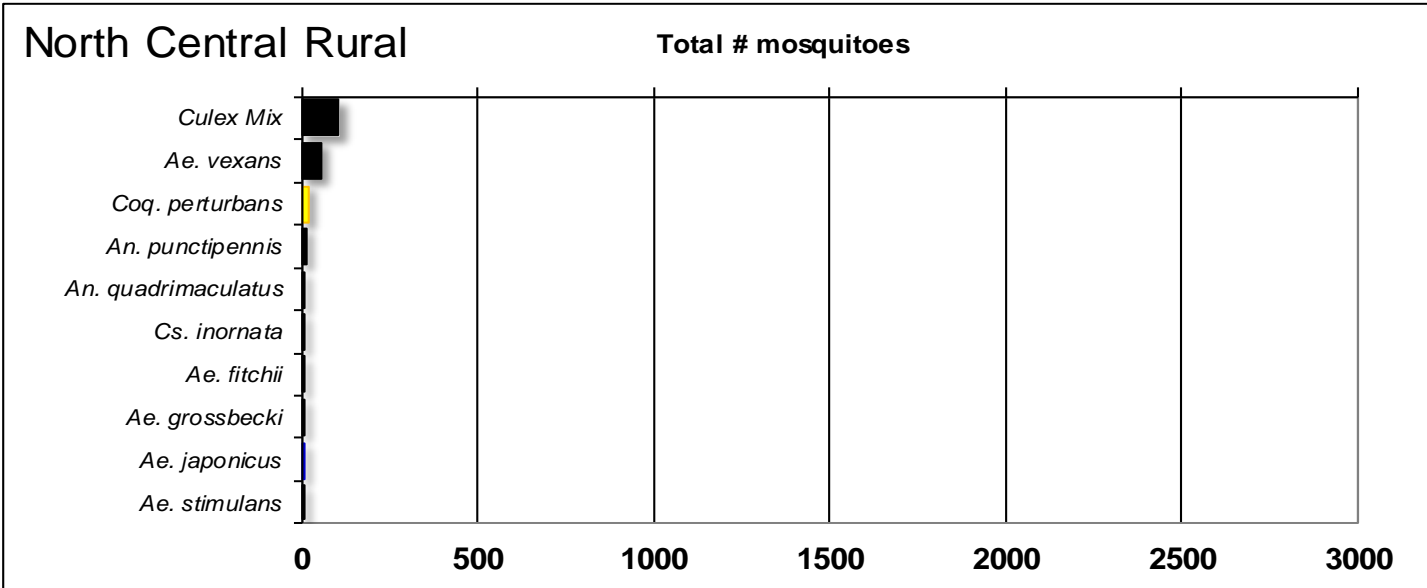
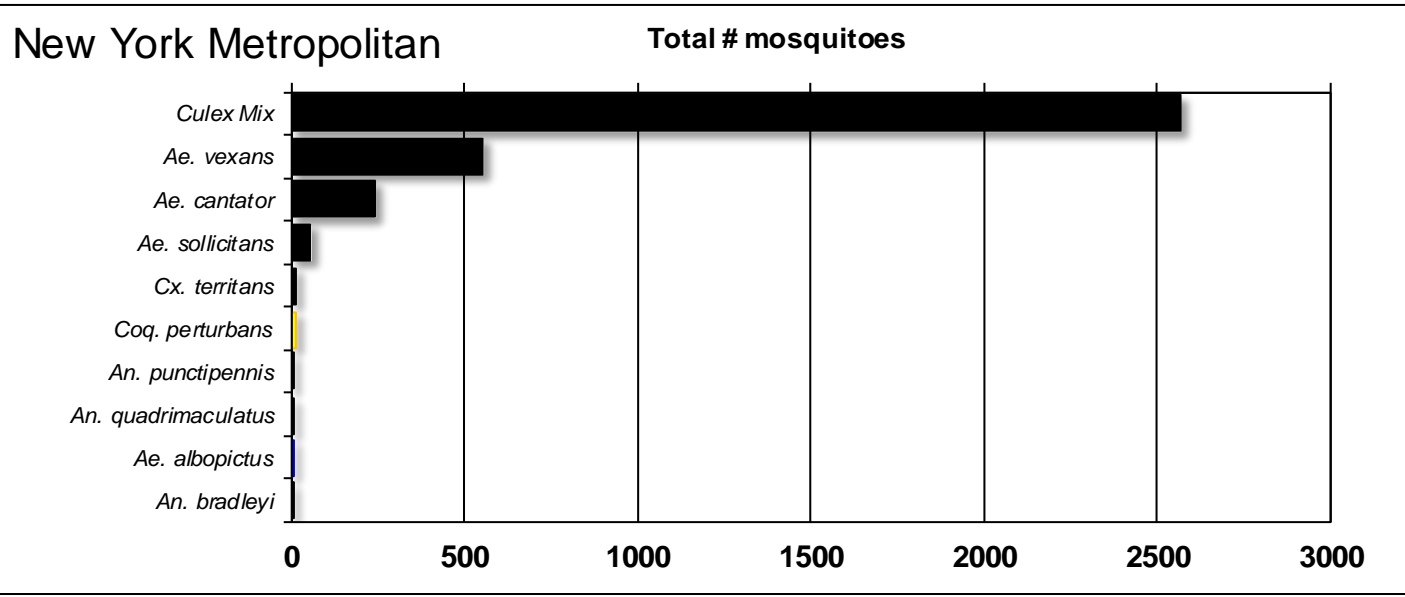
Total # mosquitoes



### Delaware River Basin

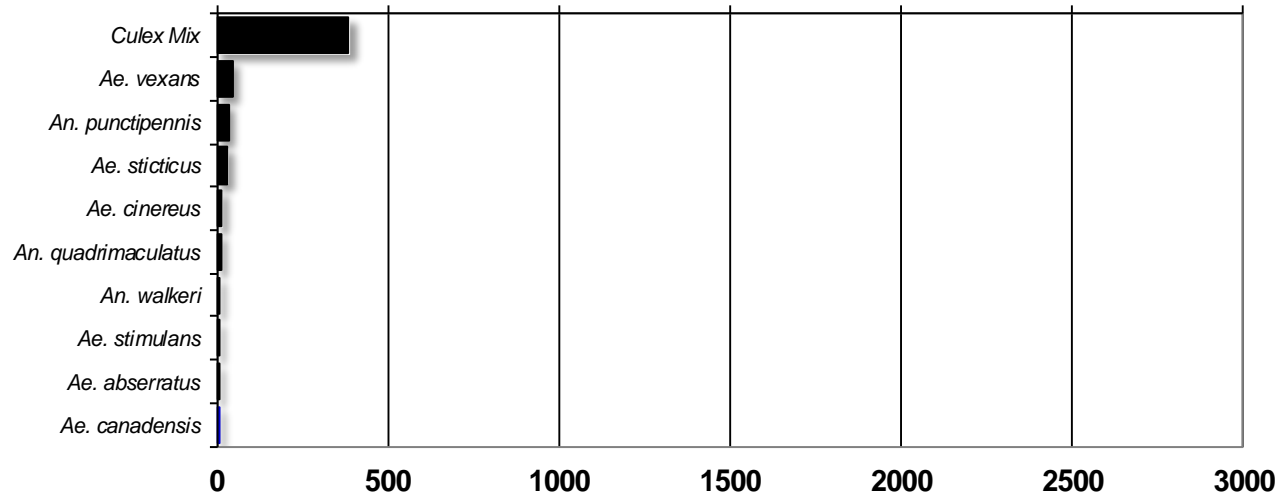
Total # mosquitoes





## Northwest Rural

Total # mosquitoes



## Philadelphia Metropolitan

Total # mosquitoes



