

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 27 May to 2 June 2012, CDC Weeks 22

Prepared by Lisa M. Reed, Scott Crans and Mark Robson

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.

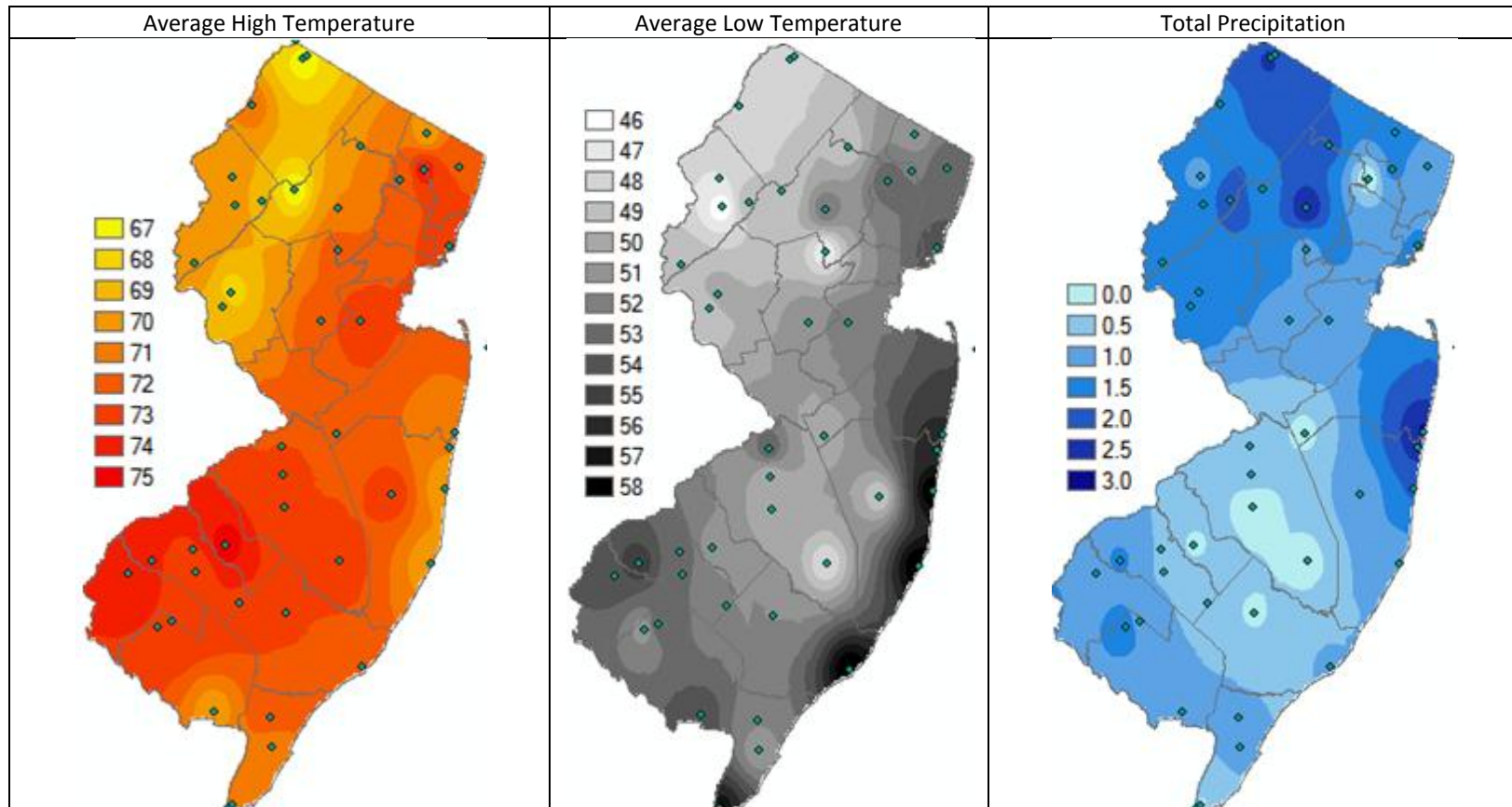
**Summary Table – Week 22 (last full week)**

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	0.60	2.15	0	1.19	4.16	0	0.07	0.34	0	0.26	0.10	4
Coastal	0.51	2.90	0	1.92	4.48	0	0.03	0.27	0	1.68	4.41	0
Delaware Bayshore	4.51	2.95	2	8.60	9.25	0	0.57	2.19	0	0.49	2.49	0
Delaware River Basin	0.79	4.50	0	0.86	3.09	0	0.50	0.08	4	0.14	0.01	4
New York Metro	2.96	3.57	0	6.89	5.79	1	0.00	0.12	0	0.27	0.84	0
North Central Rural	nd	0.24	nd	0.00	1.08	nd	0.00	0.01	0	nd	0.00	0
Northwest Rural	3.26	6.72	0	4.37	1.04	4	0.14	0.02	4	0.00	0.00	0
Philadelphia Metro	6.79	5.35	1	6.93	4.69	1	0.18	0.71	0	0.00	0.00	0
Pinelands	0.35	1.40	0	1.26	2.80	0	0.21	0.25	0	0.36	0.04	4
Suburban Corridor	1.21	2.66	0	3.18	2.49	1	0.00	0.21	0	0.02	0.00	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. nd=no data reported.

**State Summary:** *Aedes vexans* numbers are slightly above historical levels in the Delaware Bayshore and the Philadelphia Metropolitan regions. *Culex* populations are significant in the Northwest Rural region. *Coquillettidia perturbans* are also elevated in the same region as well as the Delaware River Basin. *Aedes sollicitans* continue higher in the Agricultural, Delaware River Basin, the Pinelands and the Suburban Corridor.

## Climate Factors

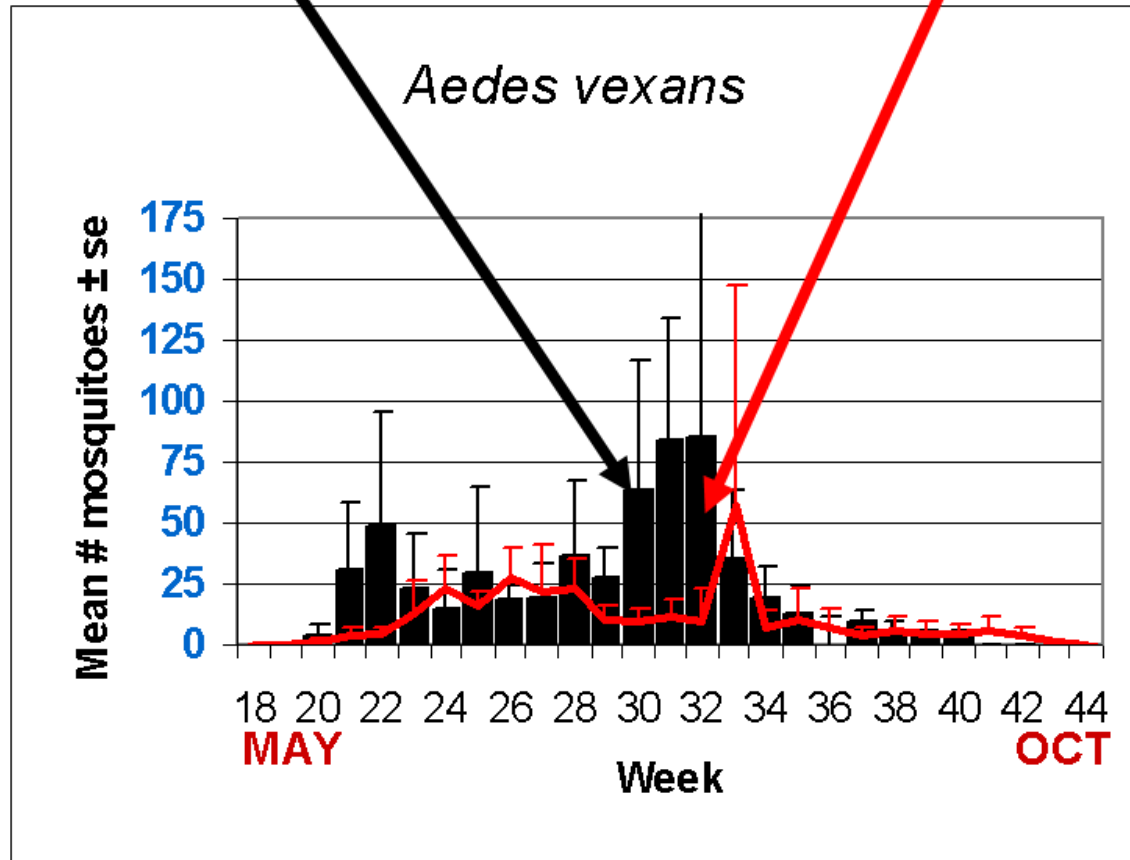


The three figures show the interpolation of average maximum and minimum temperature and total precipitation through 1 June to 8 June, 2012 in New Jersey. Data points are from about 46 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 9.2/10.

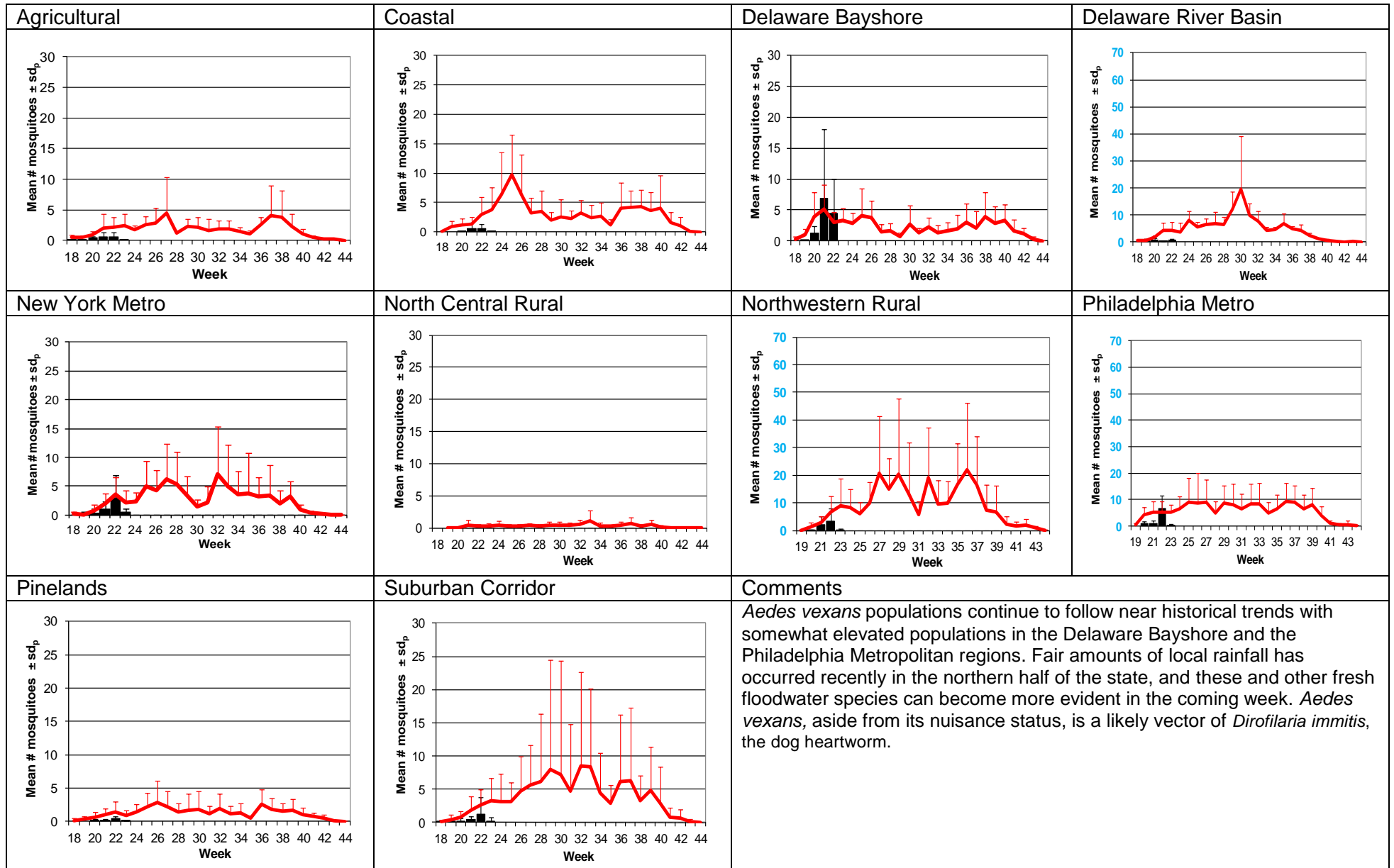
Average high, low temperatures and precipitation for the first week of June is presented.

**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 report are from Bergen, Burlington, Camden, Cape May, Essex, Hudson, Middlesex, Monmouth, Ocean, Salem, Sussex, Union and Warren counties. Data for the previous week is from Bergen, Burlington, Camden, Cape May, Cumberland, Essex, Hudson, Mercer, Middlesex, Monmouth, Ocean, Salem, Somerset, Sussex, Union and Warren counties. Note: County data is sent in at a variety of times during the week.

## Weekly Means Against 5-year Average

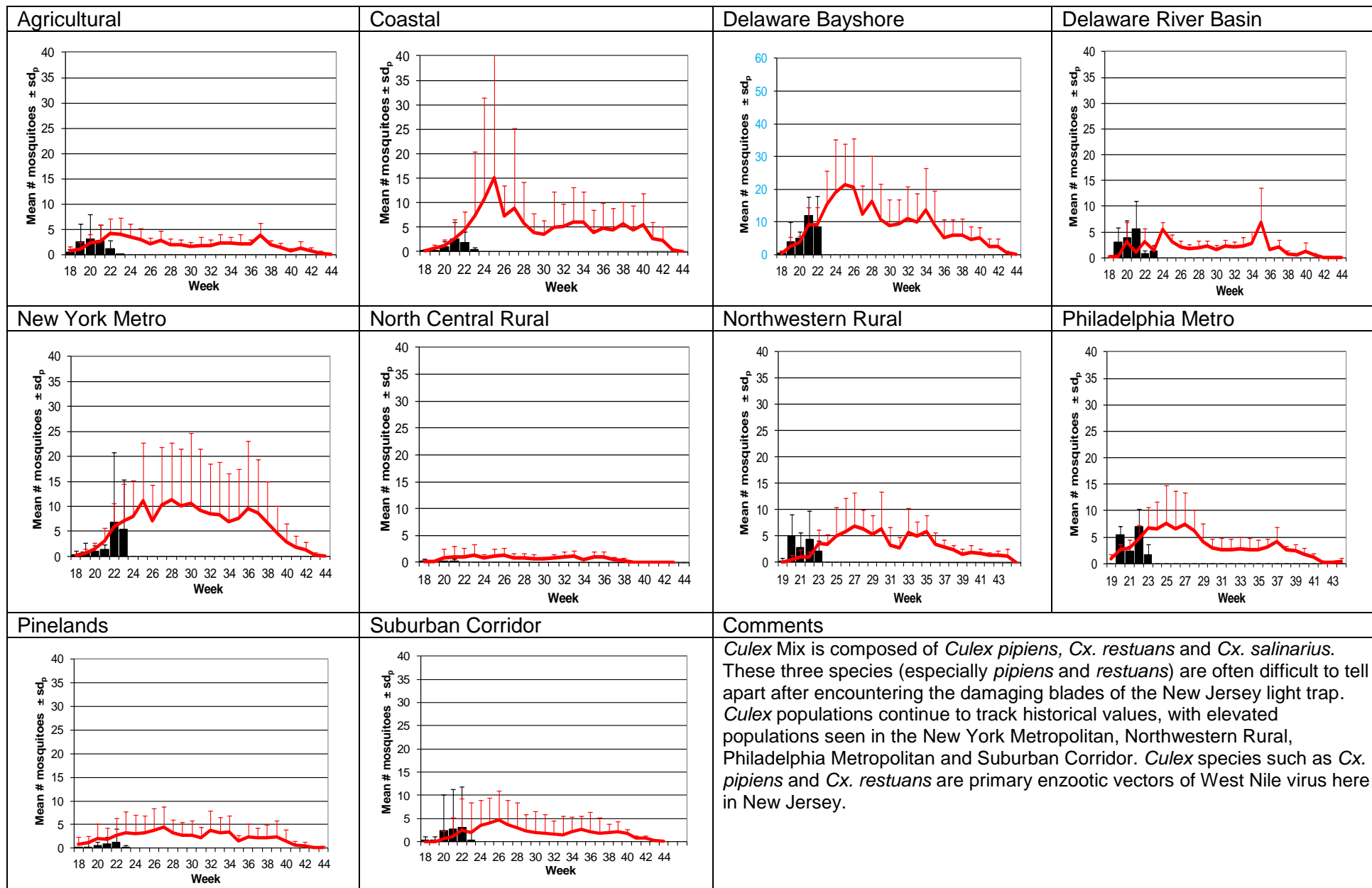


# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

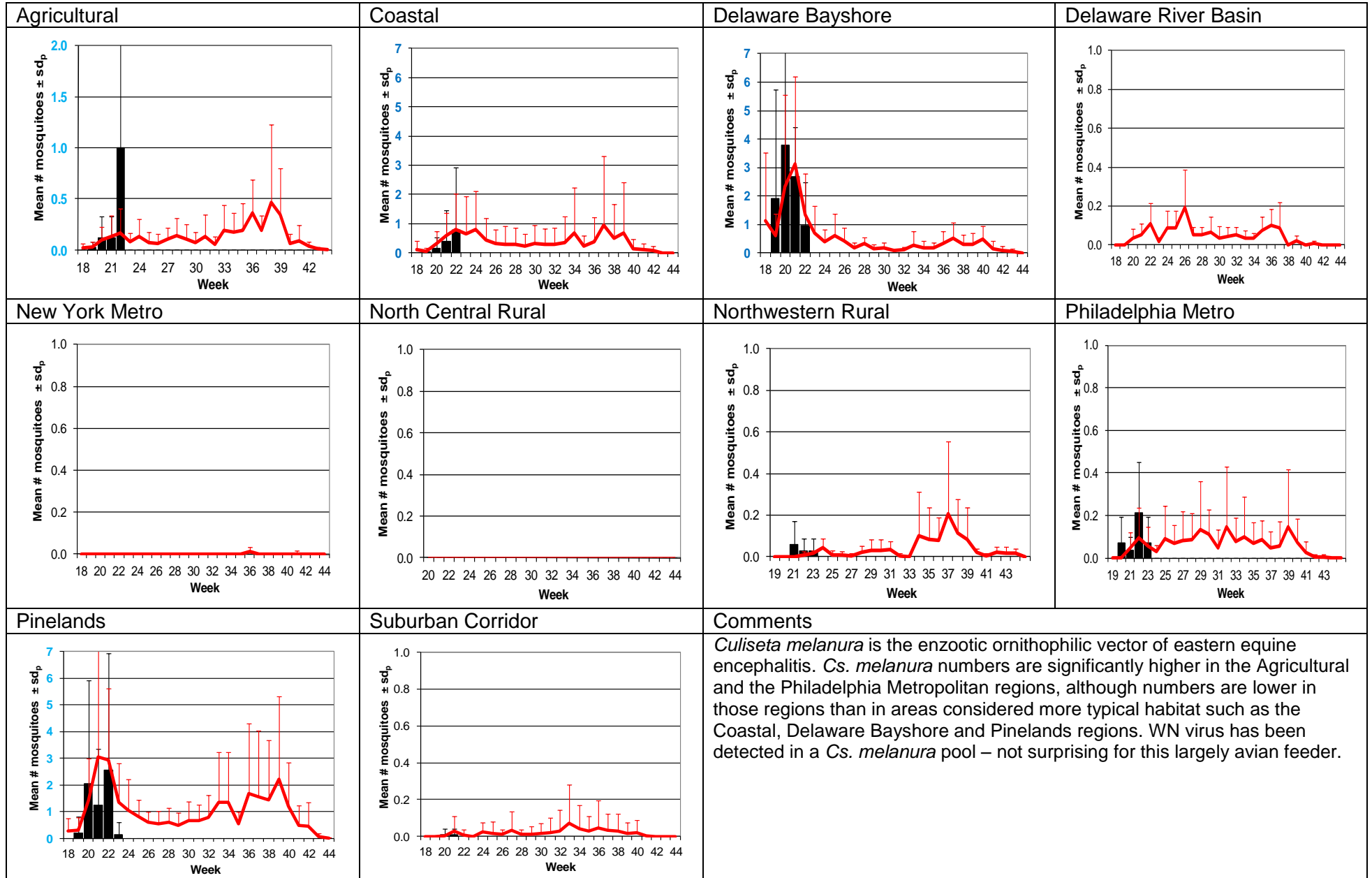


# Culex Mix – Permanent Water Species

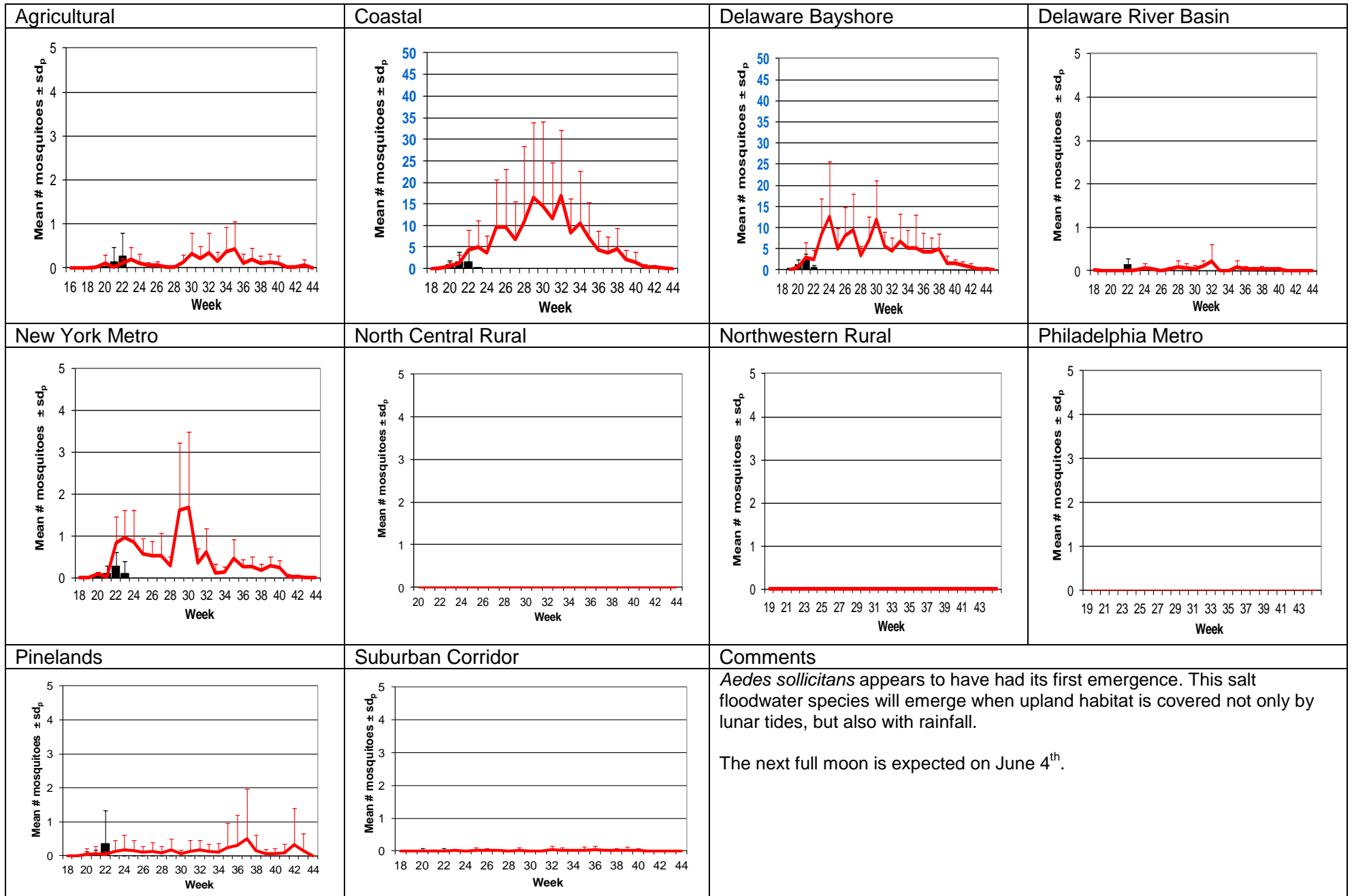
## Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

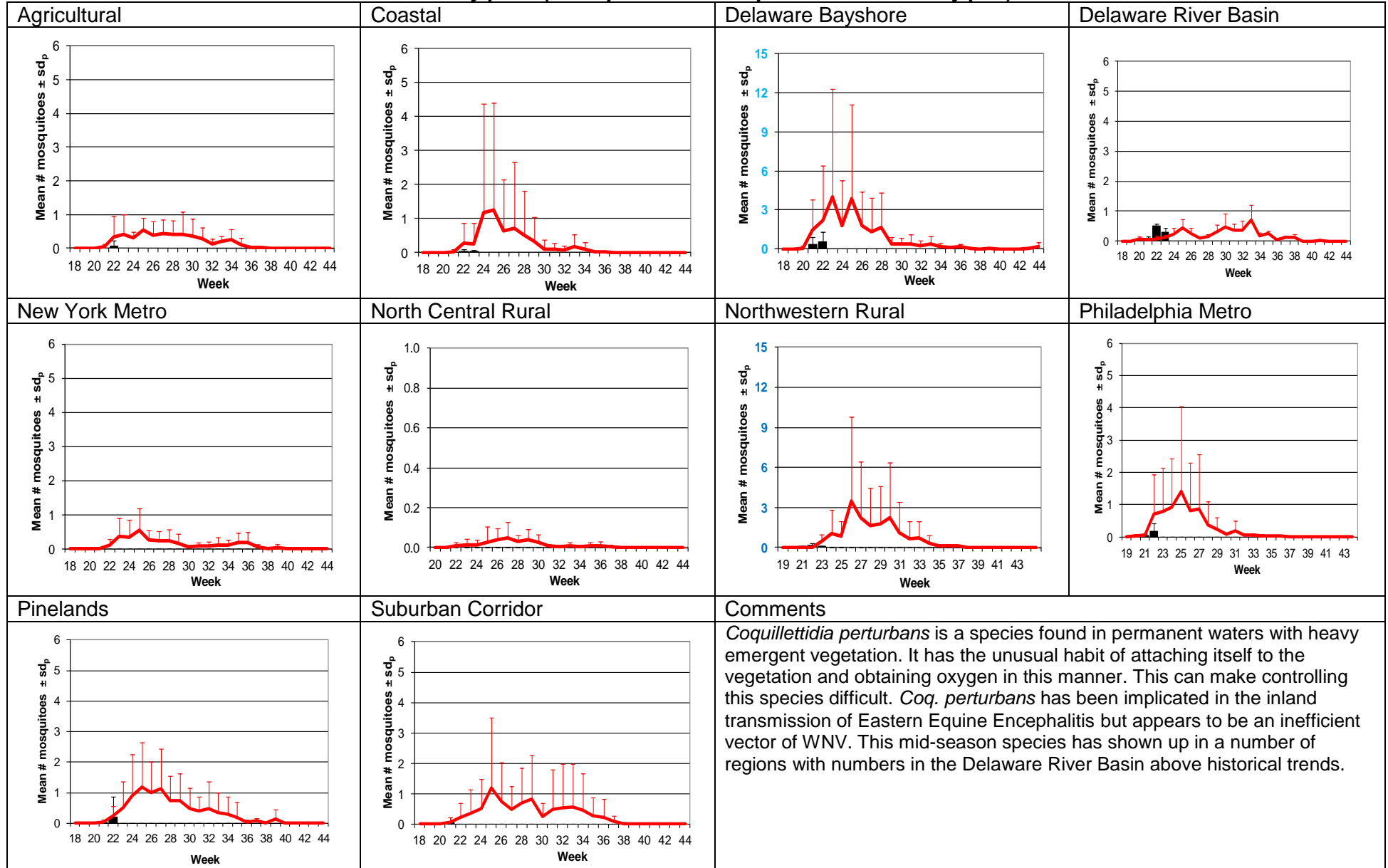


# *Aedes sollicitans* - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)



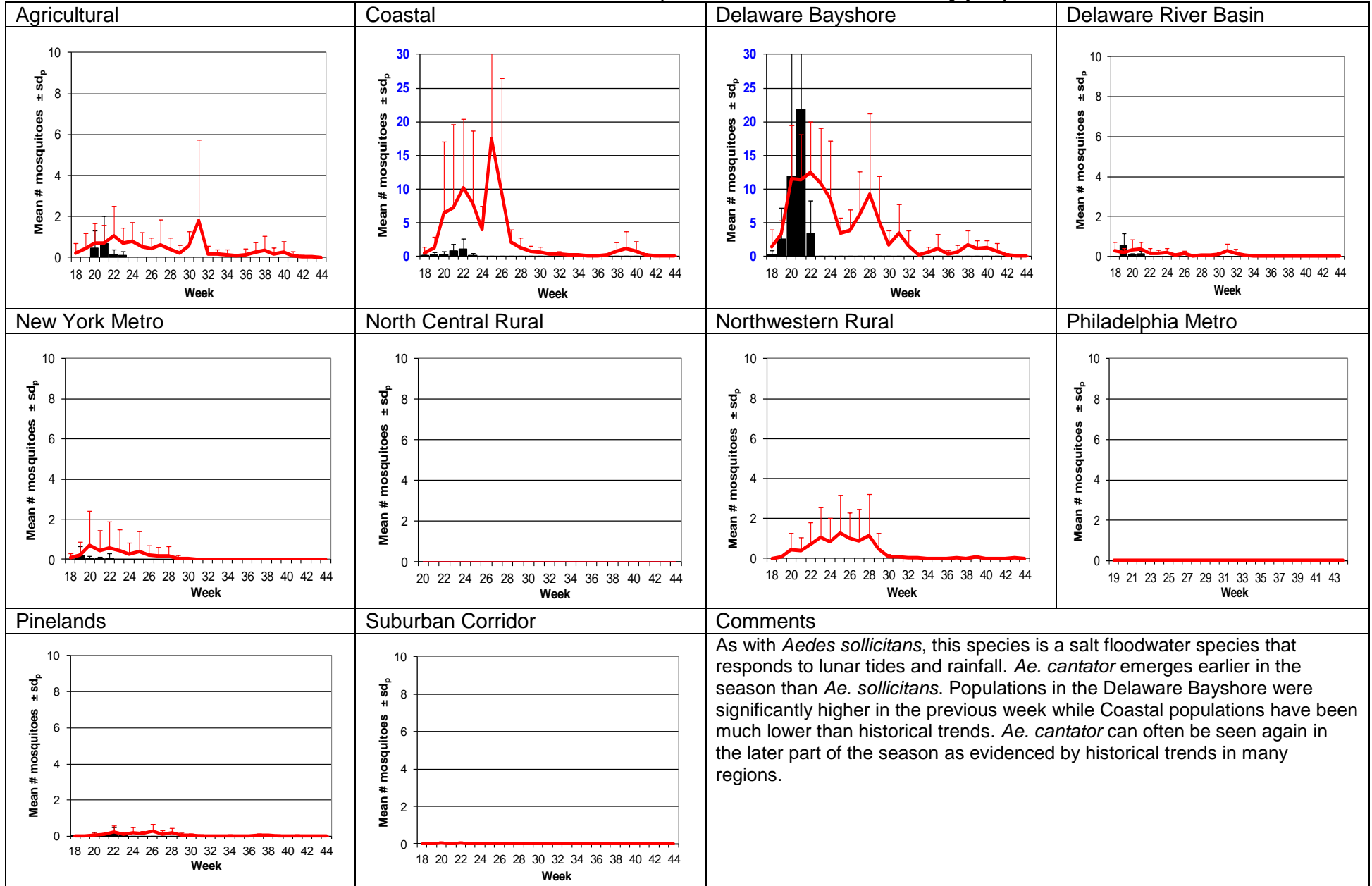
# Coquillettidia perturbans

## Monotypic (*Coquillettidia perturbans* Type)





# *Aedes cantator* – Salt Floodwater Species Multivoltine Aedine (*Aedes sollicitans* Type)

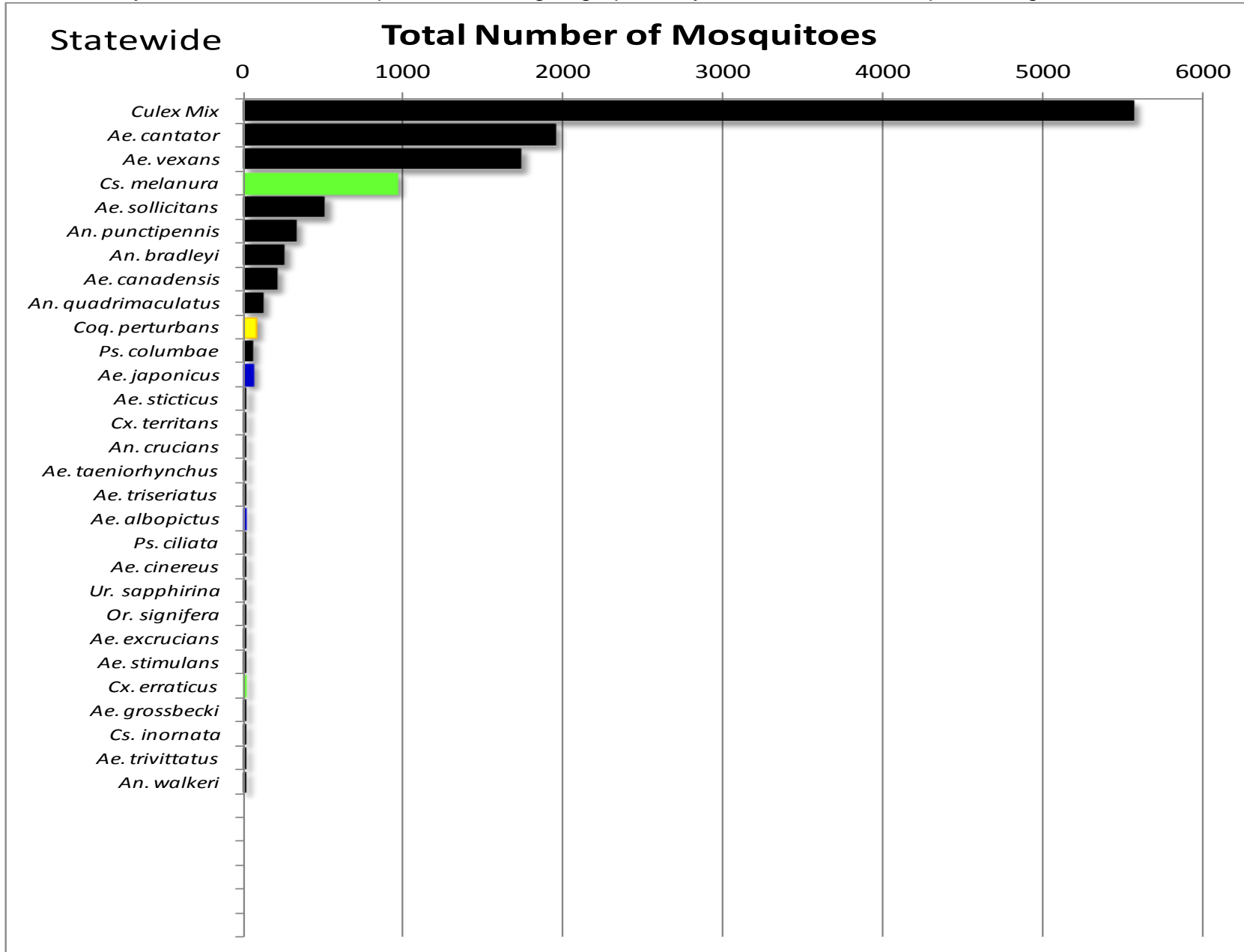


WNV

EEE

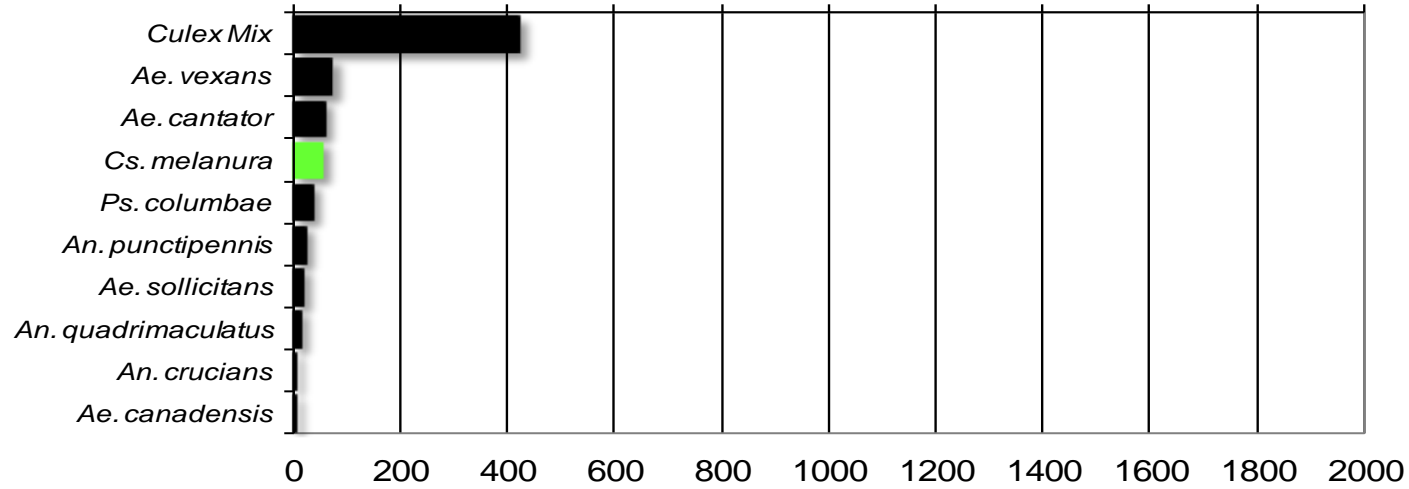
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



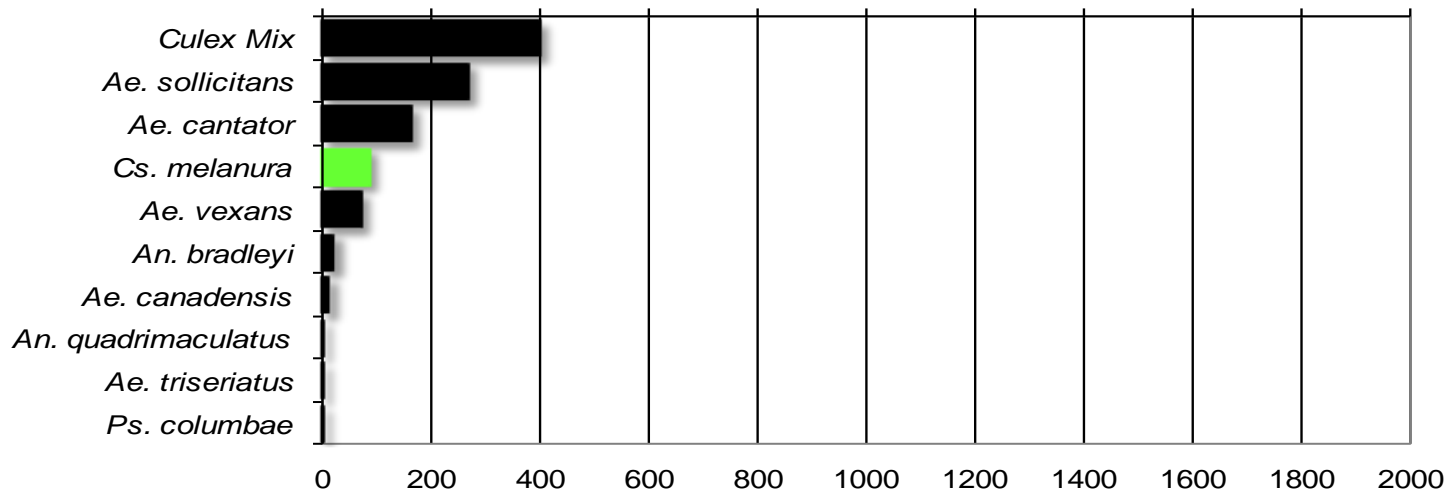
## Agricultural

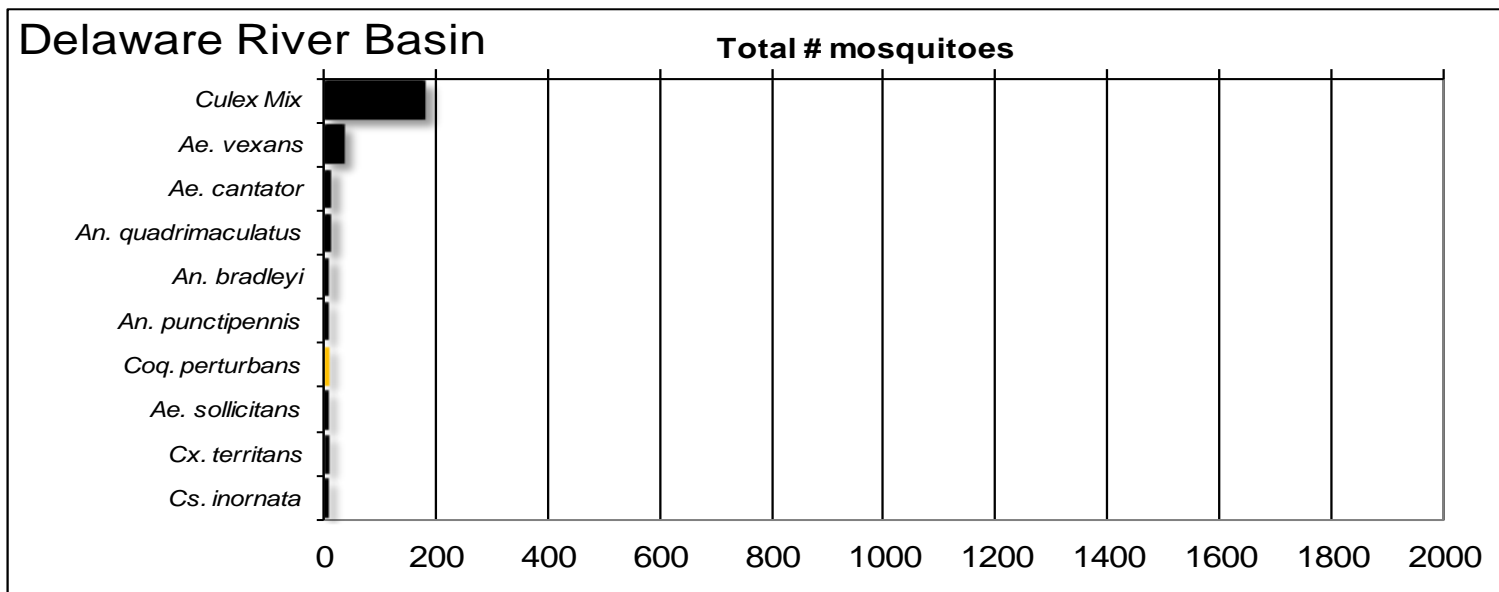
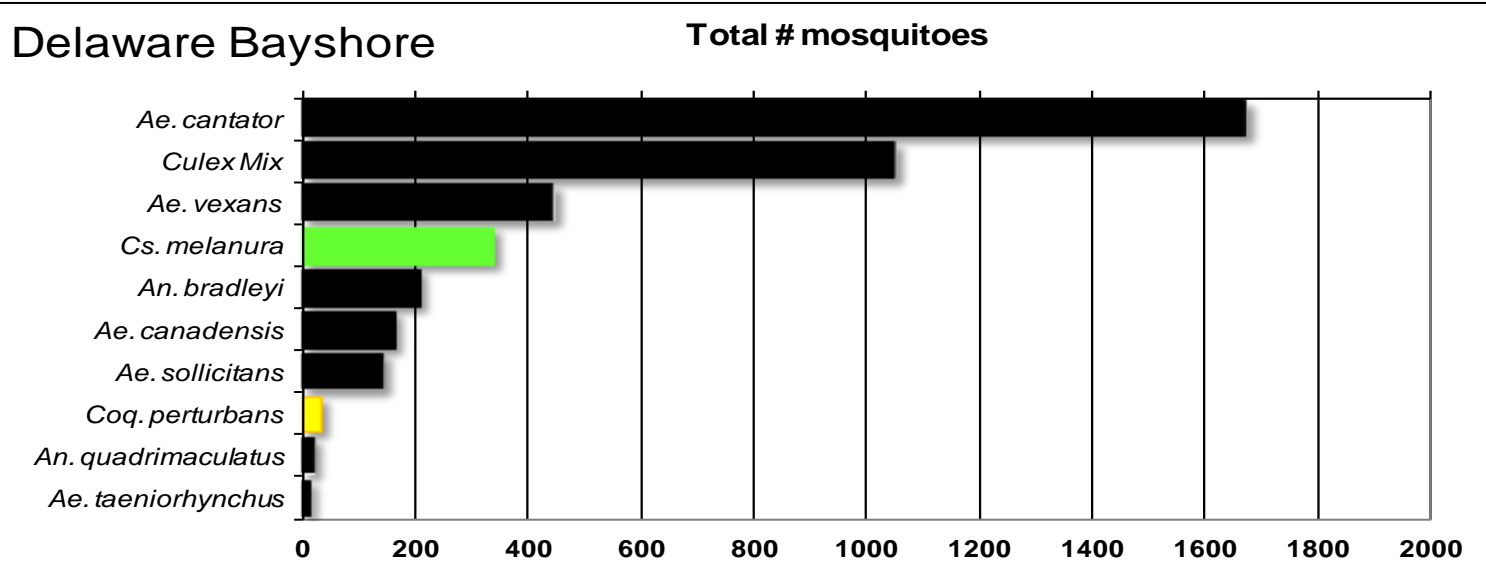
Total # mosquitoes



## Coastal

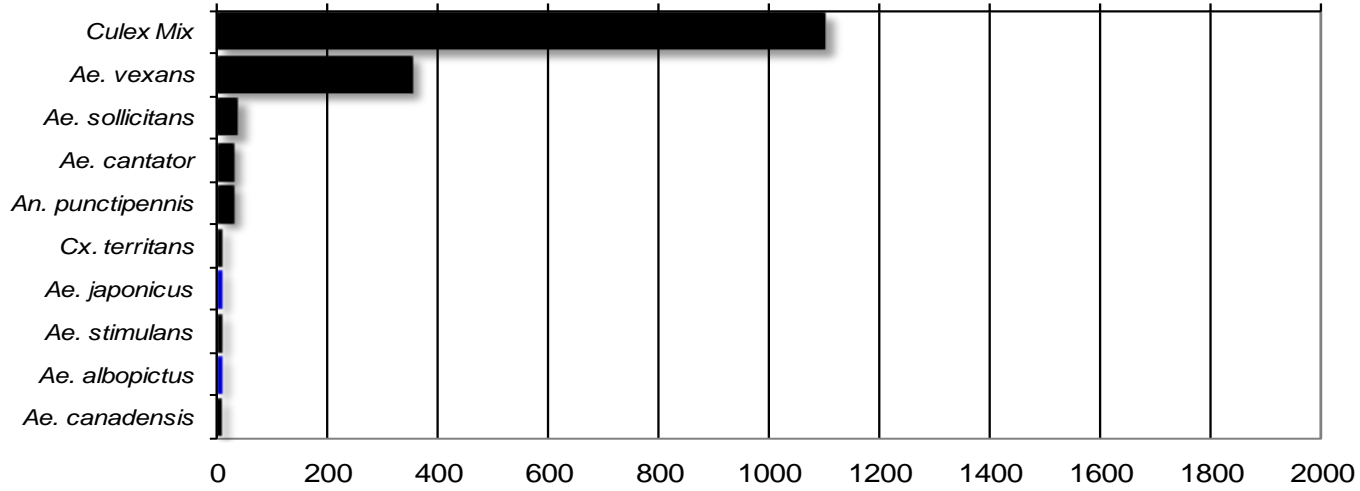
Total # mosquitoes





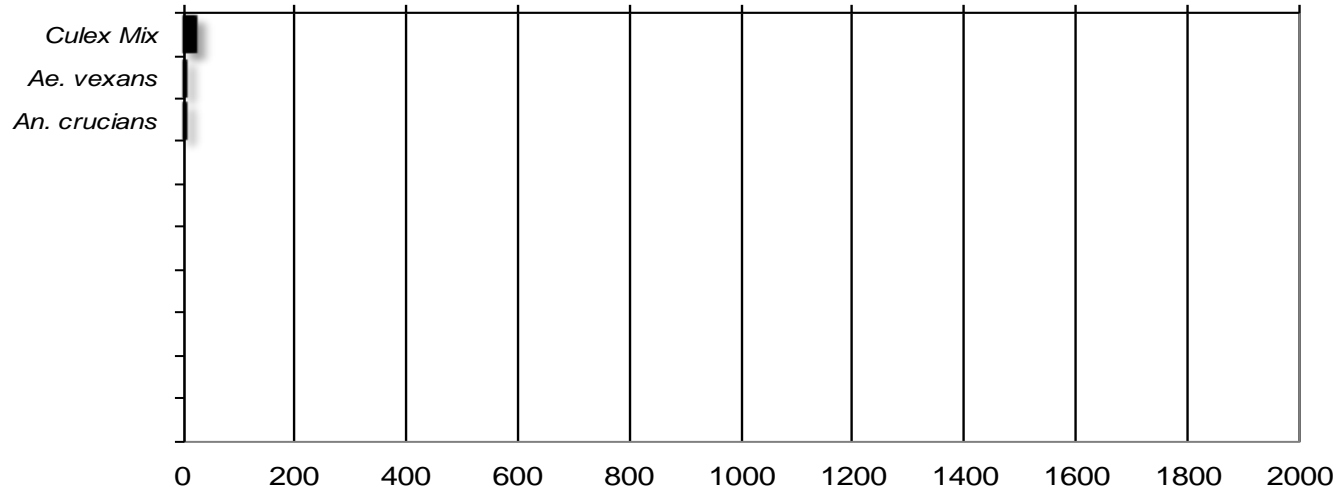
# New York Metropolitan

## Total # mosquitoes



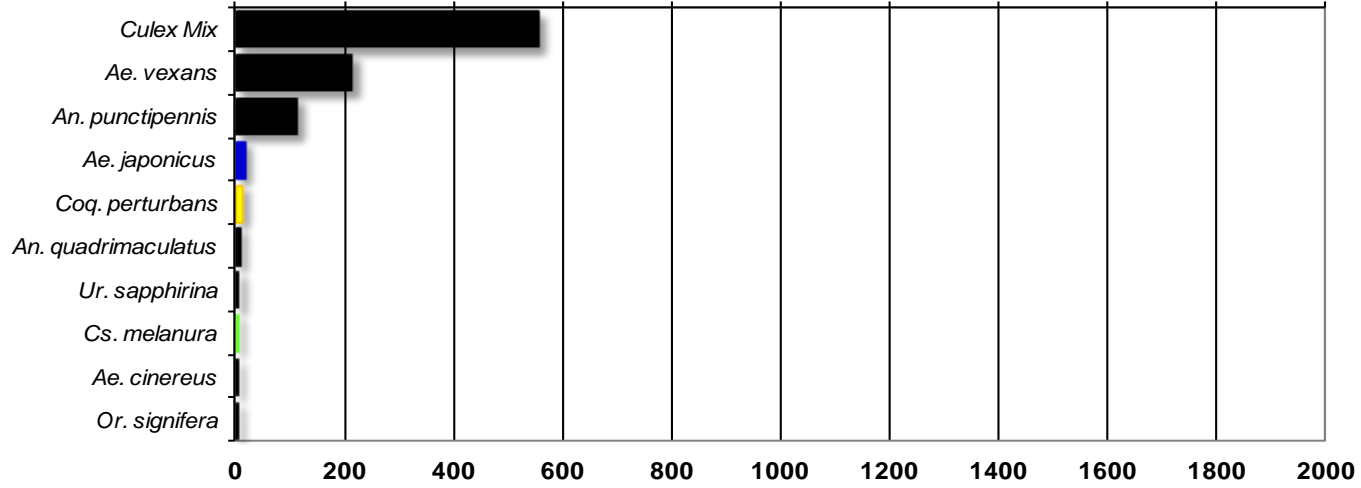
# North Central Rural

## Total # mosquitoes



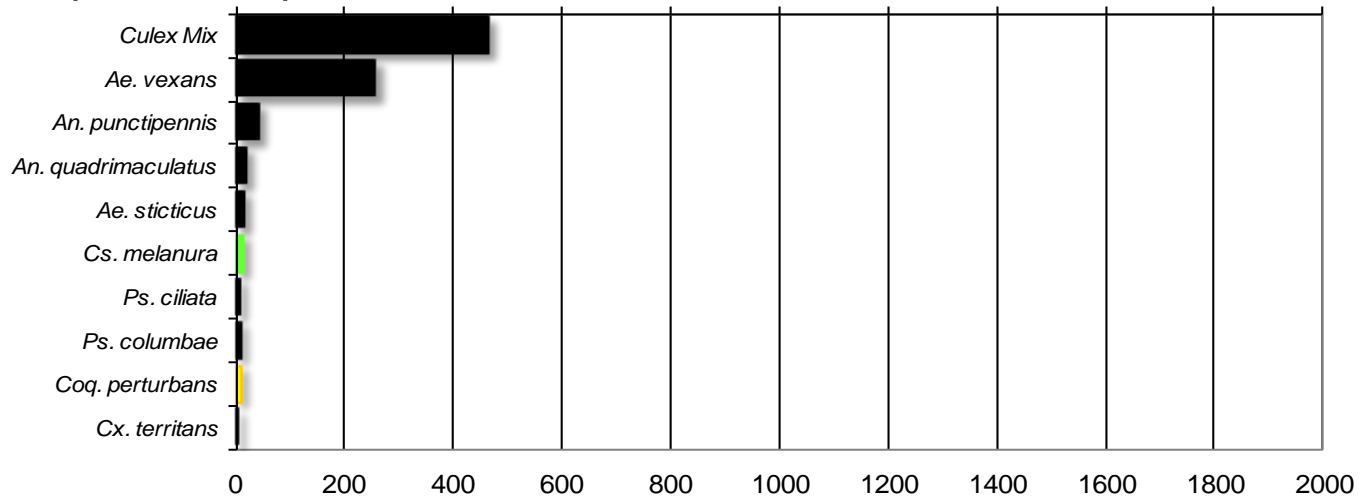
## Northwest Rural

Total # mosquitoes



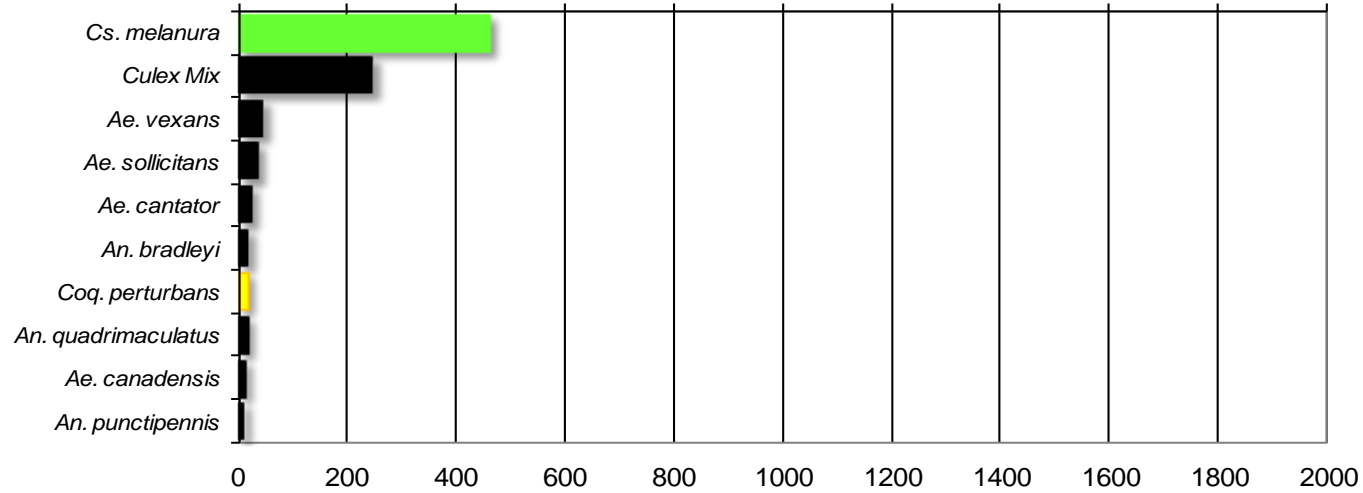
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

