

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 3 July to 9 July 2011, CDC Week 27  
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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.

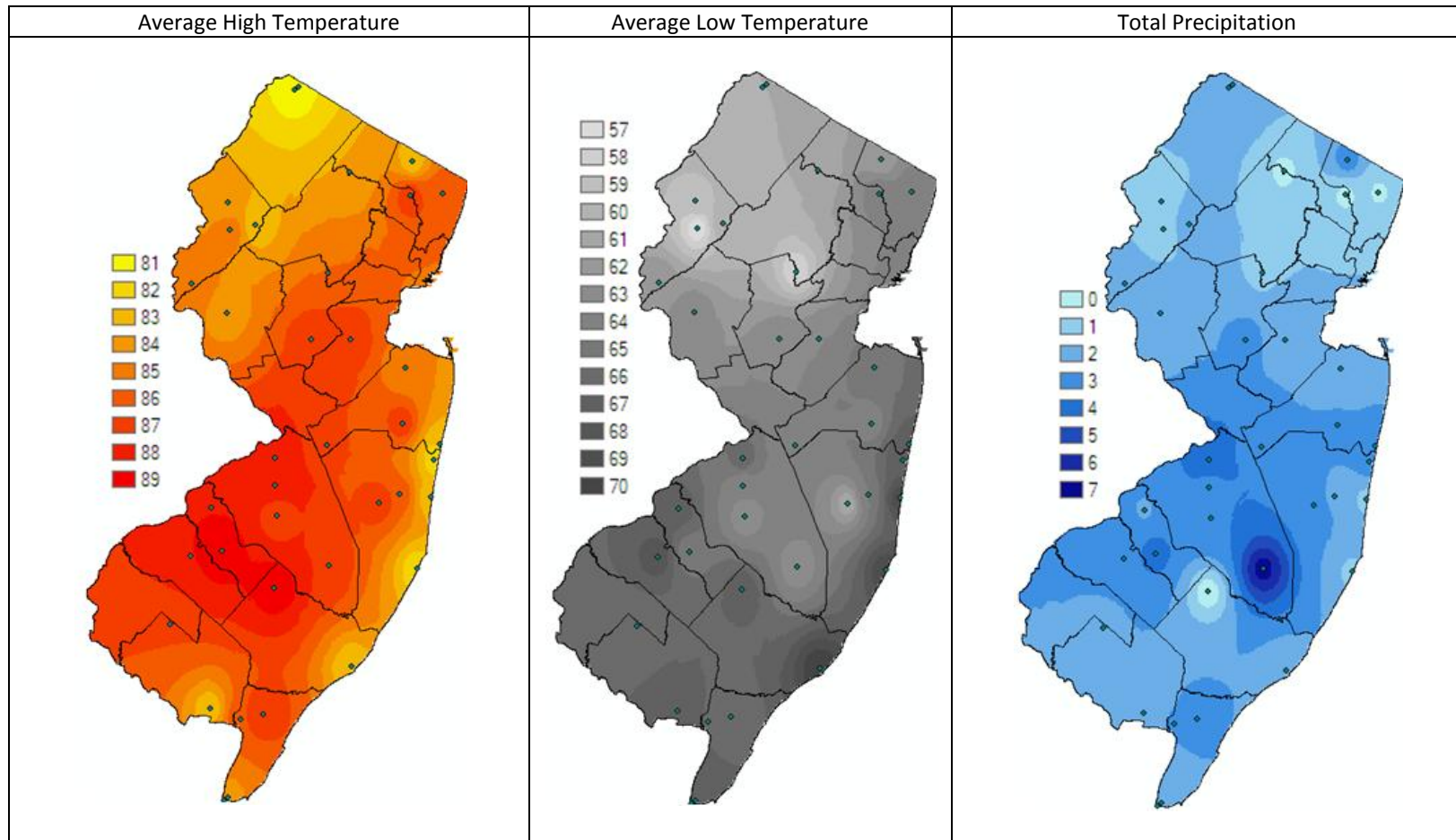
**Summary Table – Week 27**

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	0.57	5.81	0	1.57	3.50	0	0.54	0.41	1	0.03	0.17	0
Coastal	2.19	4.03	0	2.46	9.68	0	0.00	0.89	0	16.94	6.61	4
Delaware Bayshore	0.00	2.15	0	0.00	16.51	0	0.00	1.71	0	0.00	8.49	0
Delaware River Basin	0.00	9.76	0	0.00	2.27	0	0.00	0.07	0	0.00	0.09	0
New York Metro	1.39	4.29	0	7.44	9.46	0	0.01	0.28	0	0.90	0.30	4
North Central Rural	0.14	0.35	0	0.55	0.94	0	0.00	0.05	0	0.00	0.00	0
Northwest Rural	65.14	15.08	4	6.34	5.90	1	2.29	2.03	1	0.00	0.00	0
Philadelphia Metro	21.46	9.86	3	12.46	6.57	2	1.79	0.78	3	0.00	0.00	0
Pinelands	0.82	2.22	0	2.73	3.85	0	1.03	1.18	0	0.03	0.13	0
Suburban Corridor	2.94	8.16	0	2.37	3.63	0	0.18	0.47	0	0.03	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.

State Summary: *Aedes vexans* abundances increased significantly over historical values in the Northwest Rural region and the Philadelphia Metro. Both these regions saw an increase also in *Culex* species and *Coquillettidia perturbans*. The latter species was slightly higher in Agricultural regions. *Aedes sollicitans* continues to be higher in the Coastal region as well as the New York Metro and Suburban Corridor.

## Climate Factors

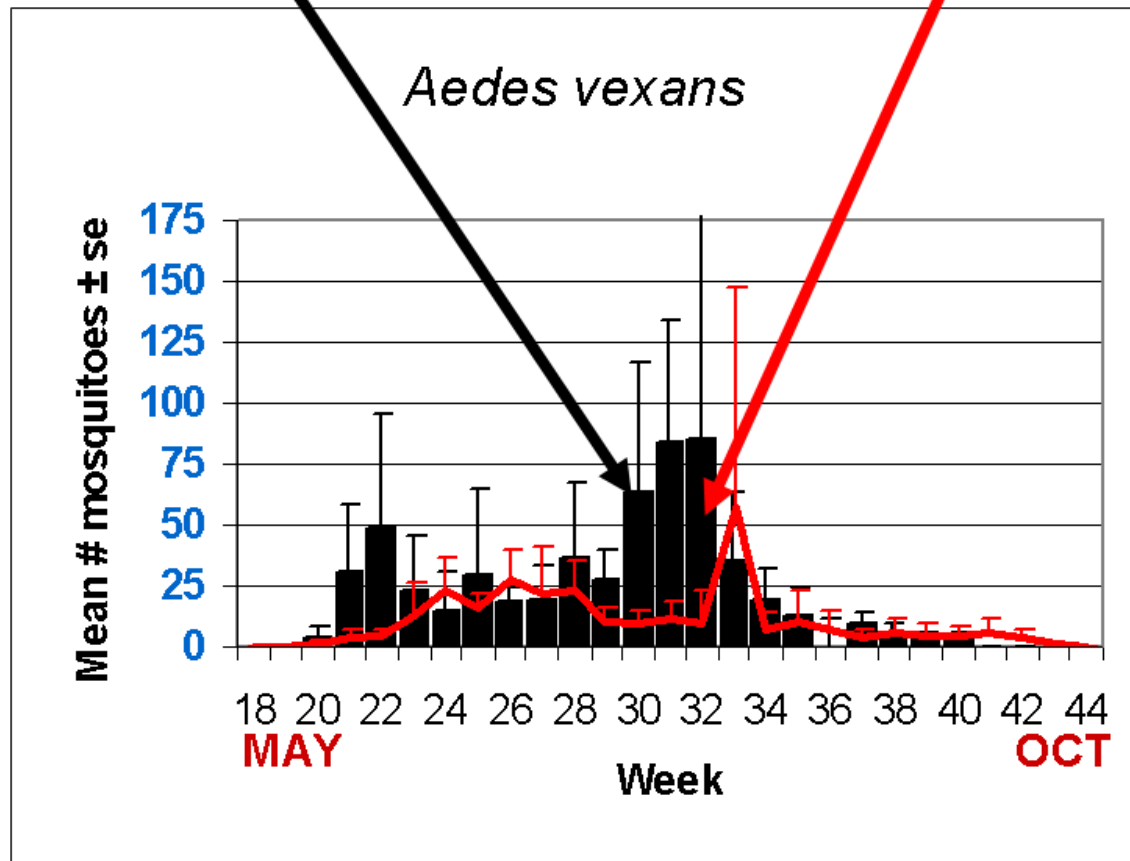


The three figures show the interpolation of average maximum and minimum temperature and total precipitation from 1 July to 15 July, 2011 in New Jersey. Data points are from about 37 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.

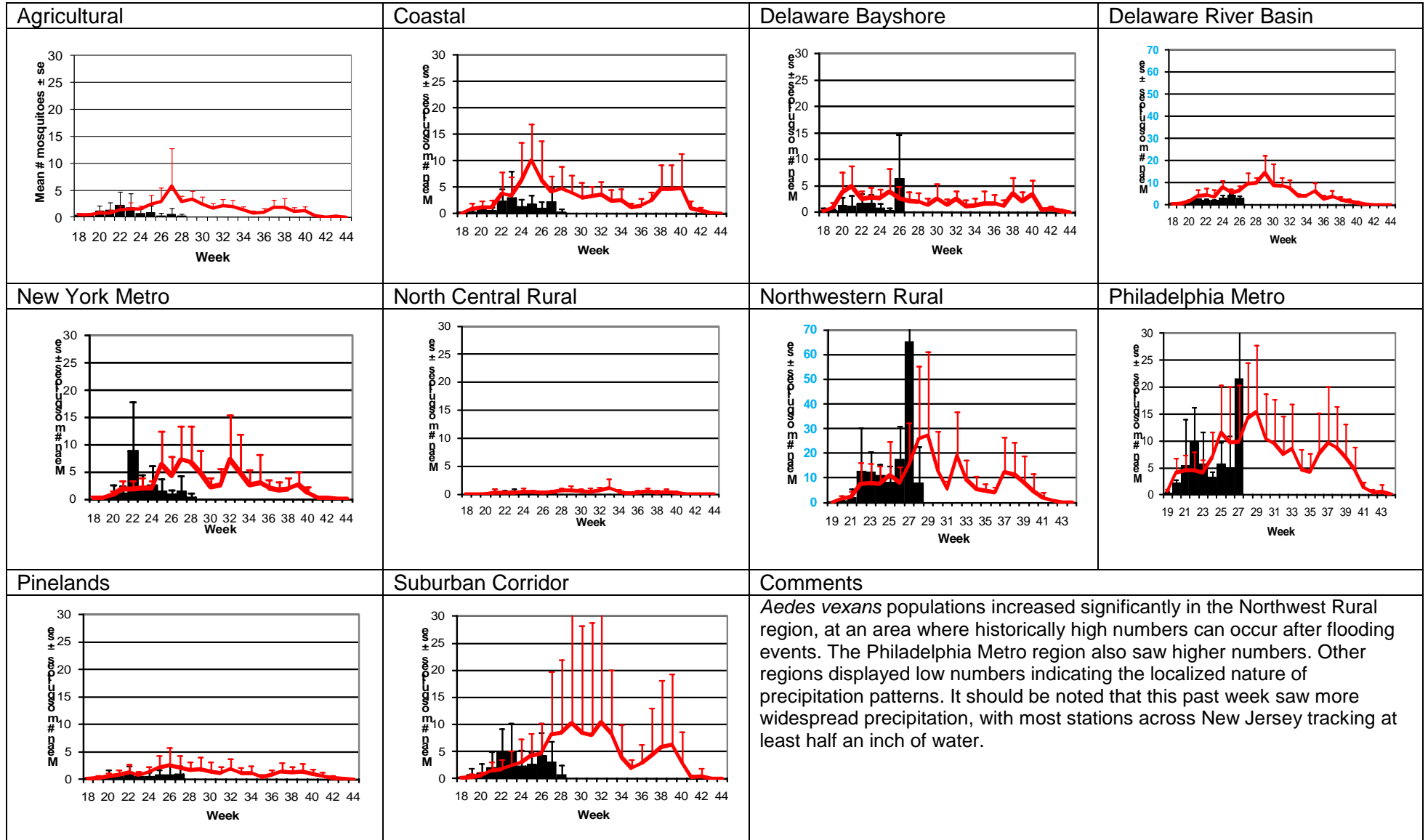
Average high temperatures were seen in the interior portions of New Jersey. Average low temperatures were slightly warmer than last week and were highest along the coastal region (moderating effects of large bodies of water – i.e., the Atlantic Ocean). Precipitation patterns changed as more of the state received rainfall.

**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 these weeks are from Atlantic, Bergen, Burlington, Camden, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Somerset, Sussex, Union and Warren counties. Last week included Atlantic, Bergen, Burlington, Camden, Cape May, Hunterdon, Mercer, Middlesex, Monmouth, Morris, 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

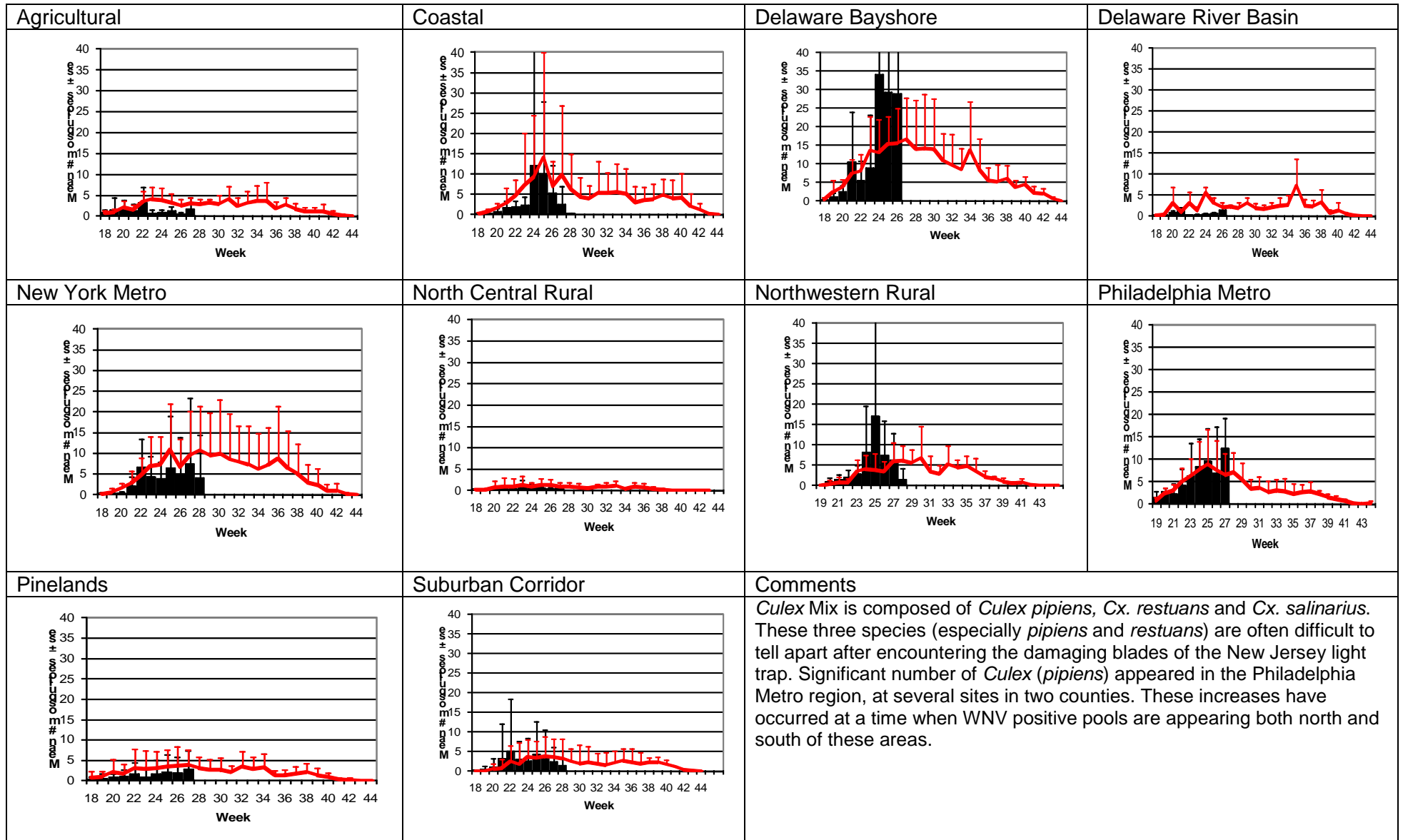


# *Aedes vexans* - Fresh Floodwater Species Multivoltine Aedine (*Ae. vexans* Type)

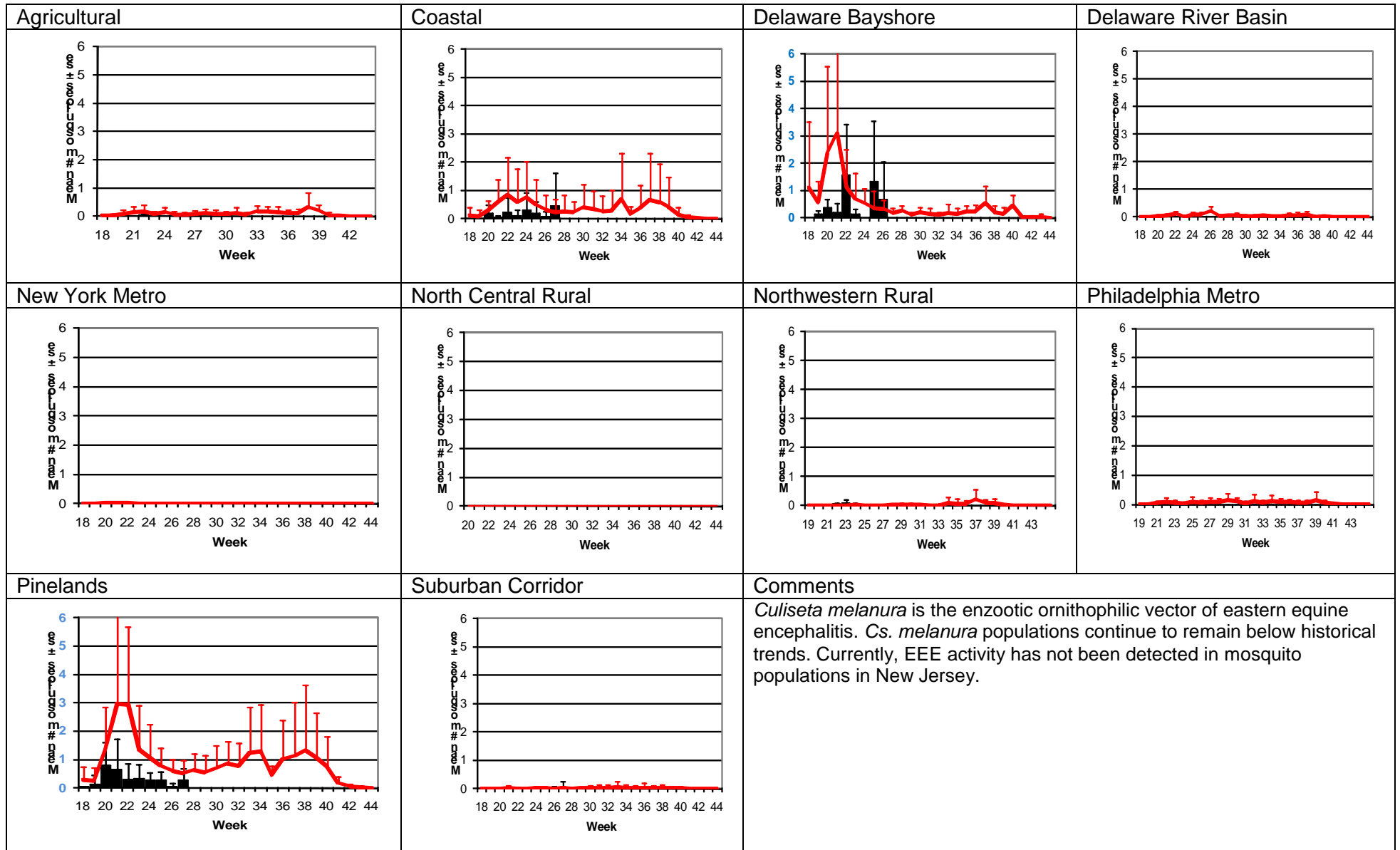


# Culex Mix – Permanent Water Species

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

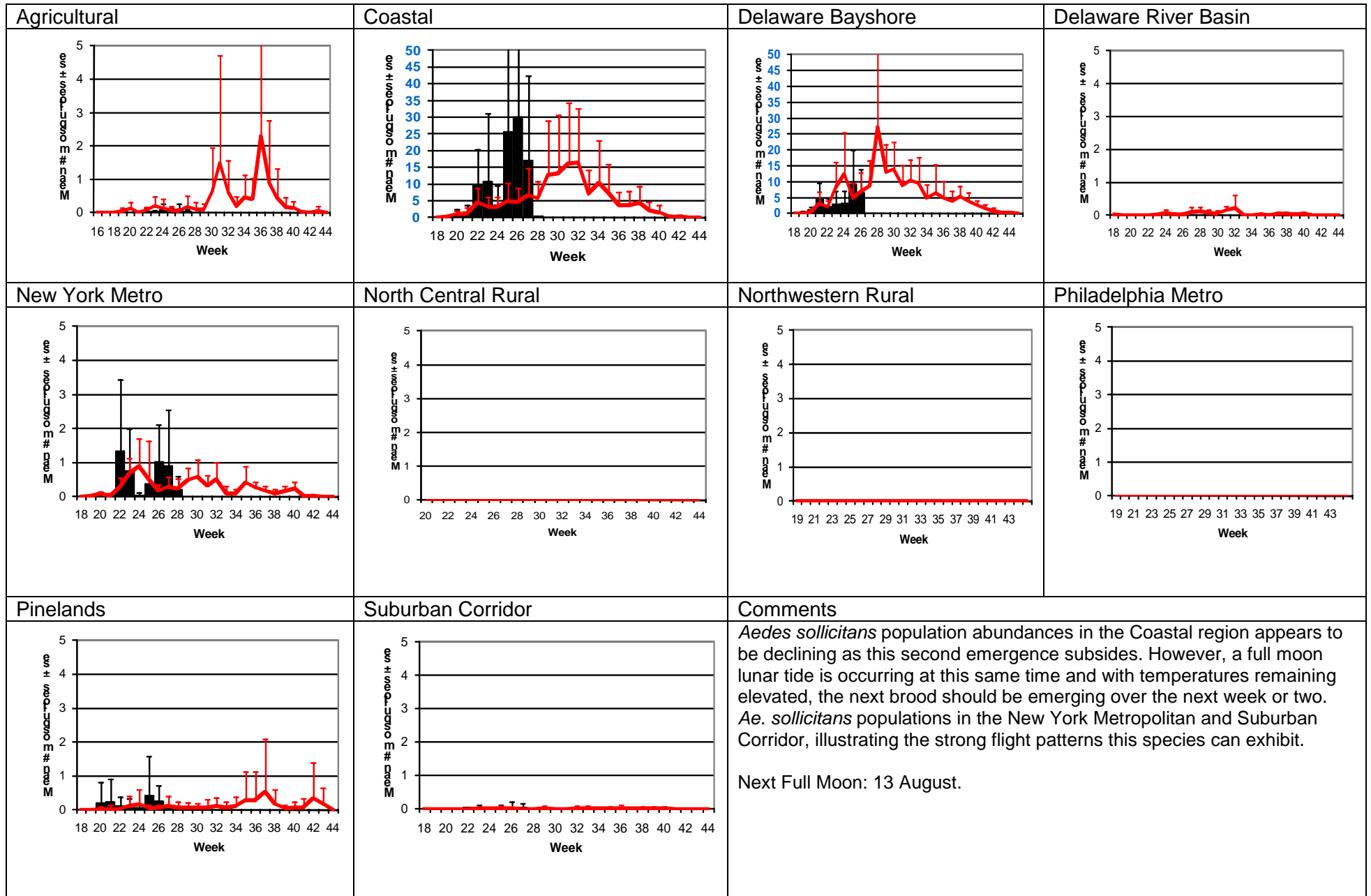


## *Culiseta melanura* – Miscellaneous Group Unique (*Cs. melanura* Type)

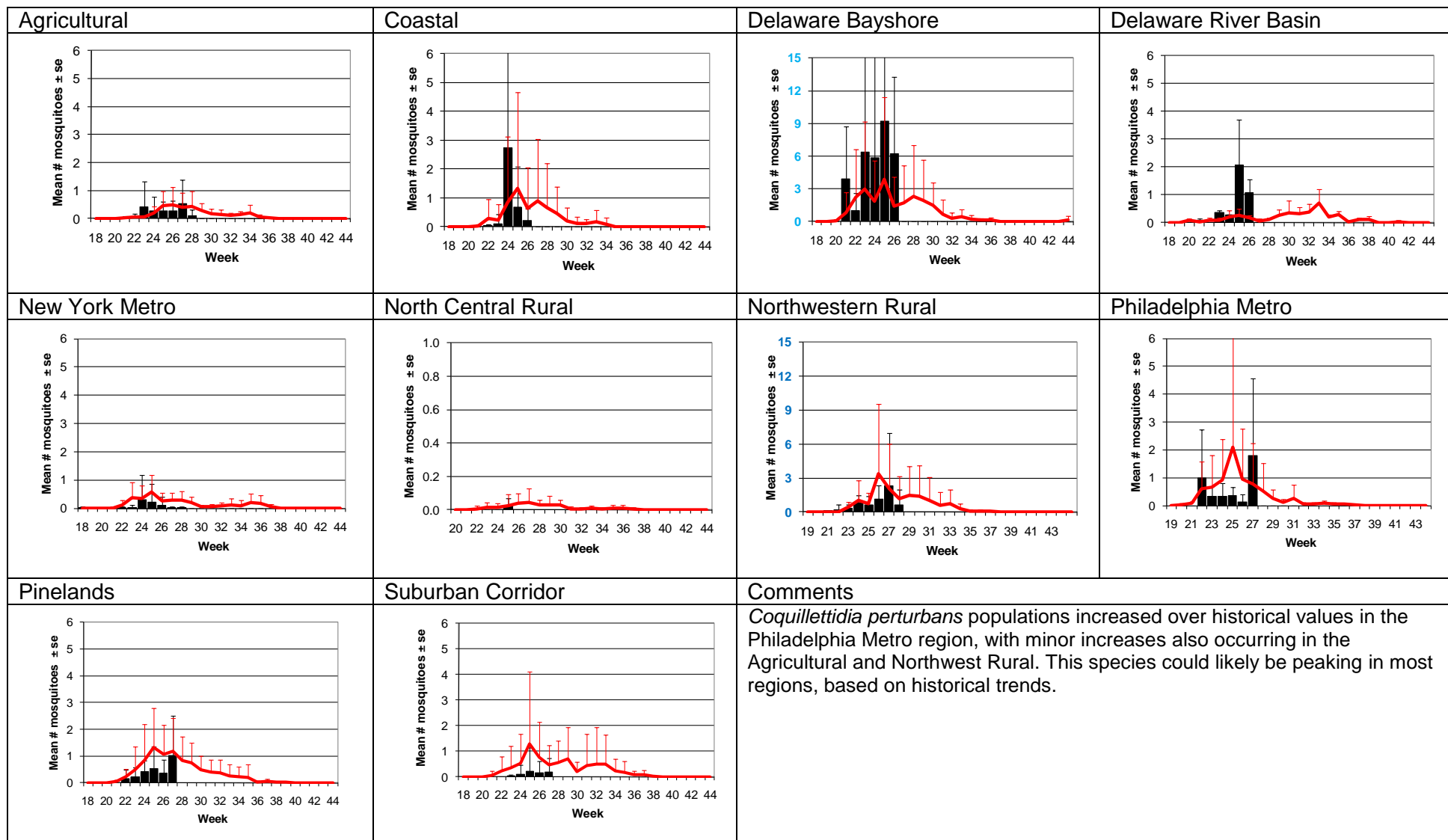


# Aedes sollicitans - Salt Floodwater Species

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



# *Coquillettidia perturbans* Monotypic (*Coq. perturbans* Type)



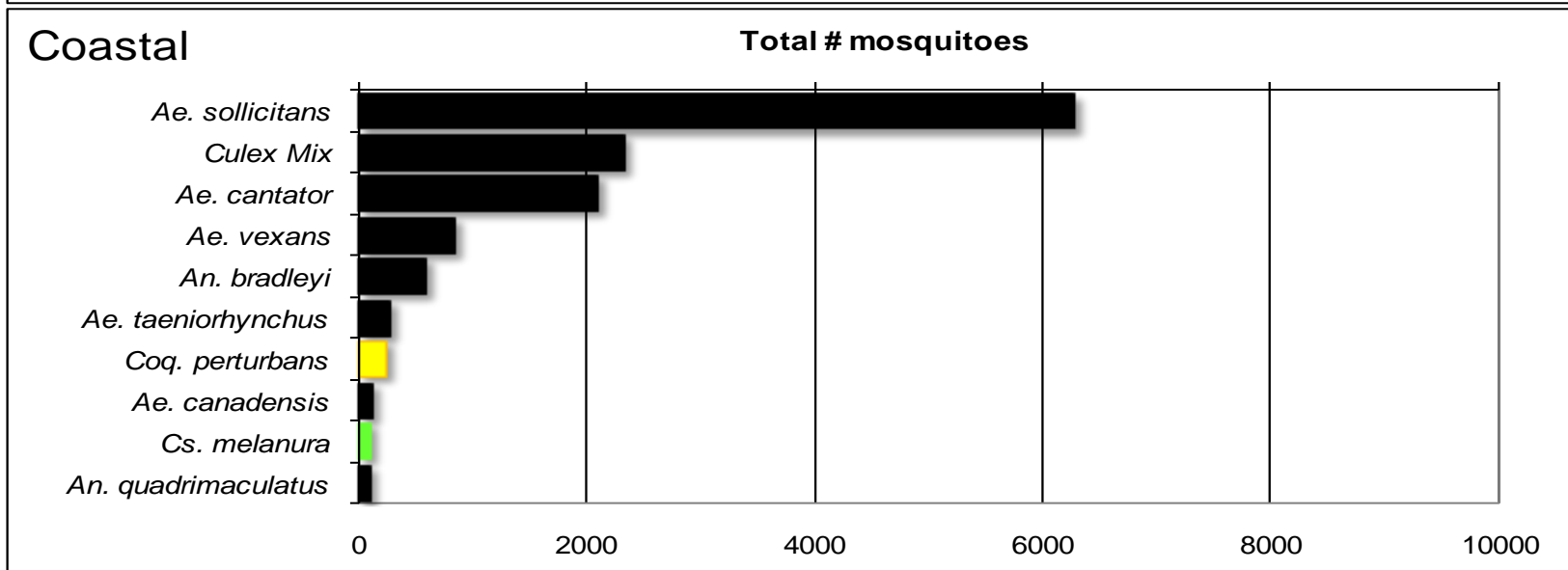
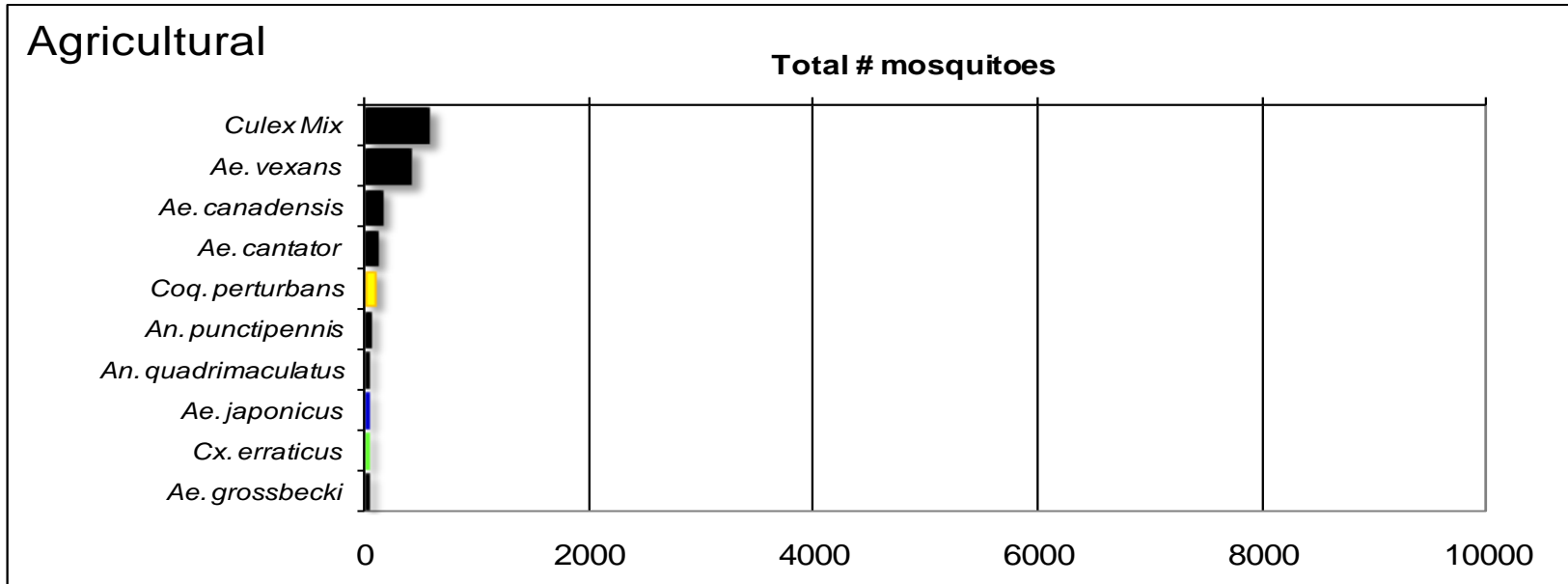


WNV

EEE

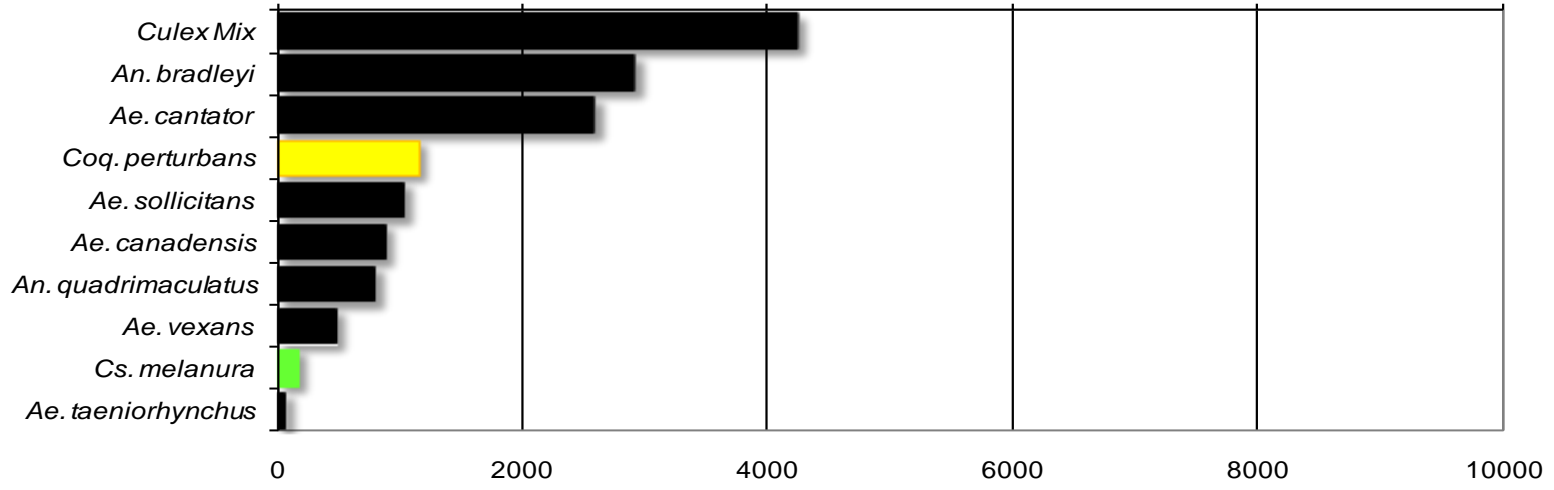
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



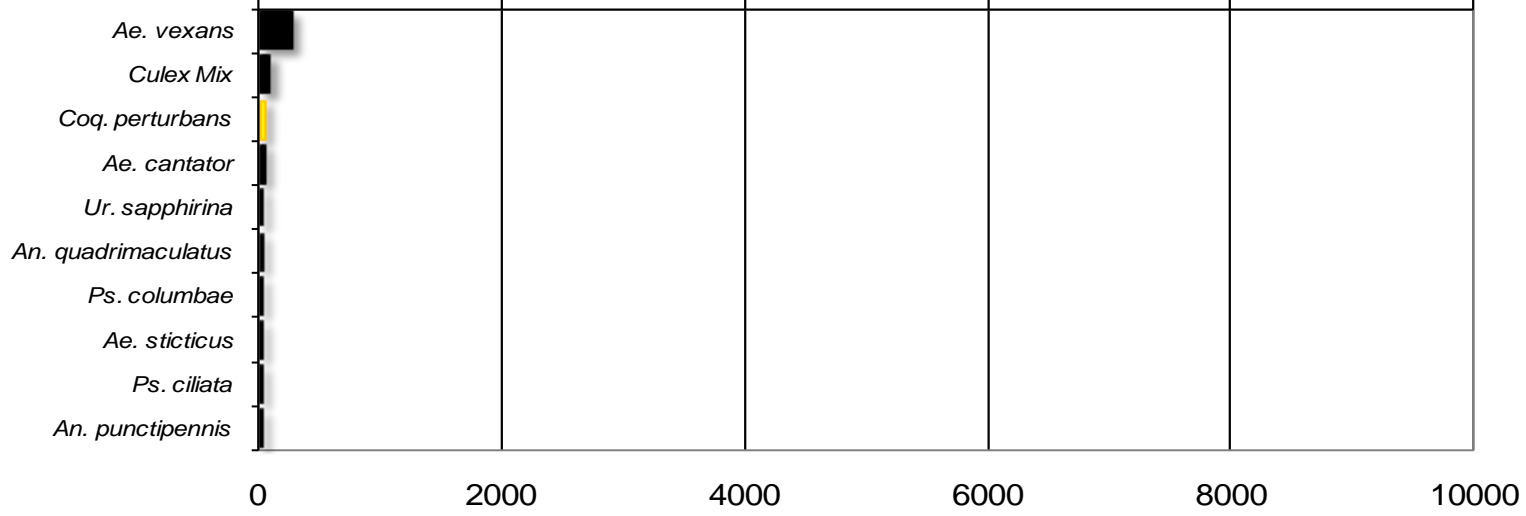
## Delaware Bayshore

Total # mosquitoes



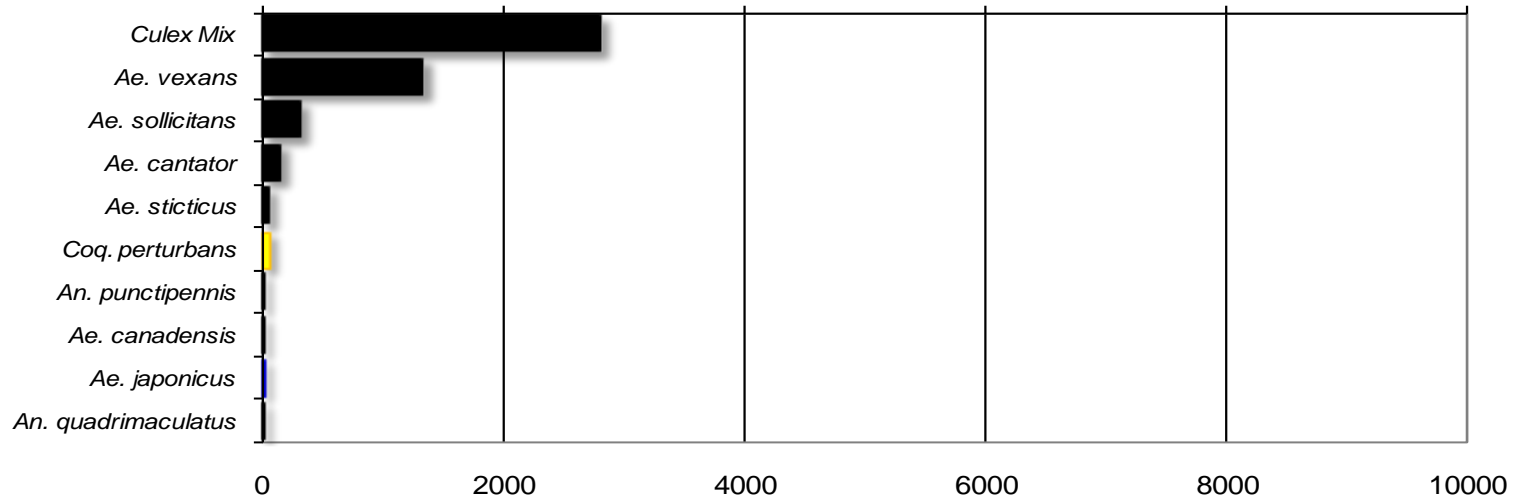
## Delaware River Basin

Total # mosquitoes



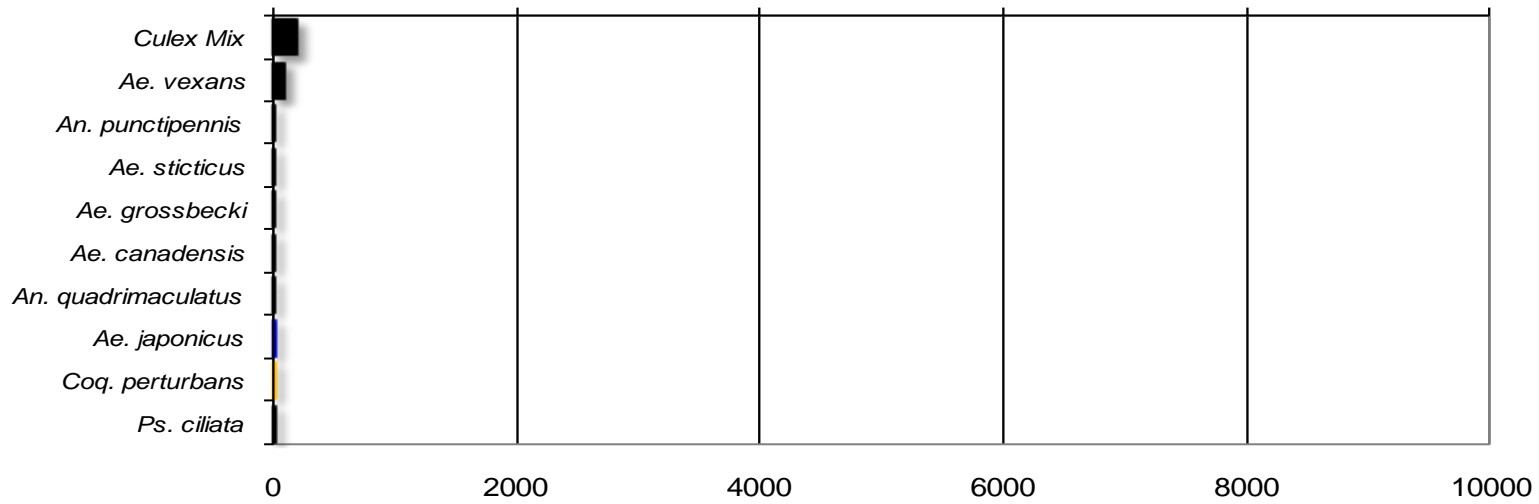
## New York Metropolitan

### Total # mosquitoes



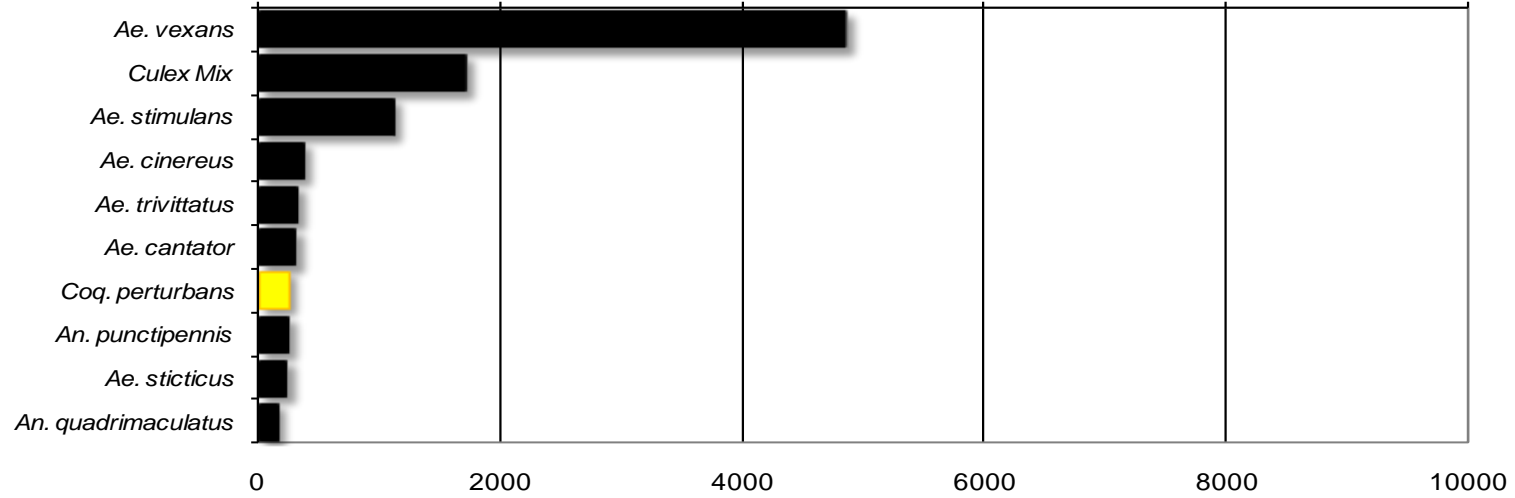
## North Central Rural

### Total # mosquitoes



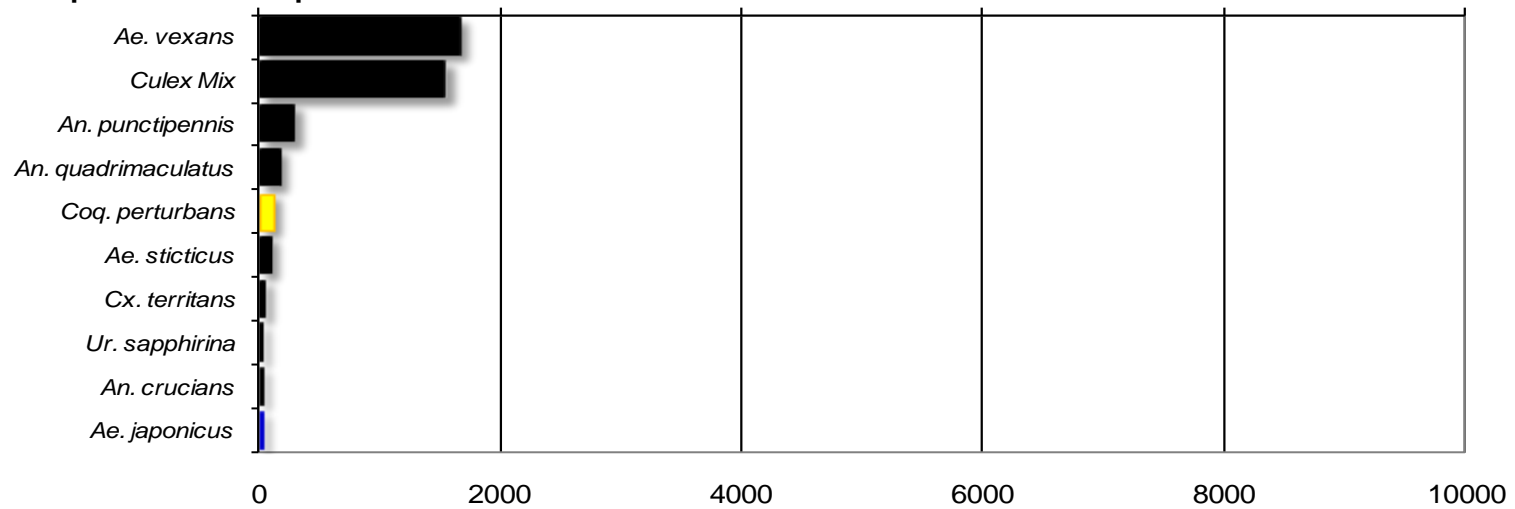
## Northwest Rural

Total # mosquitoes



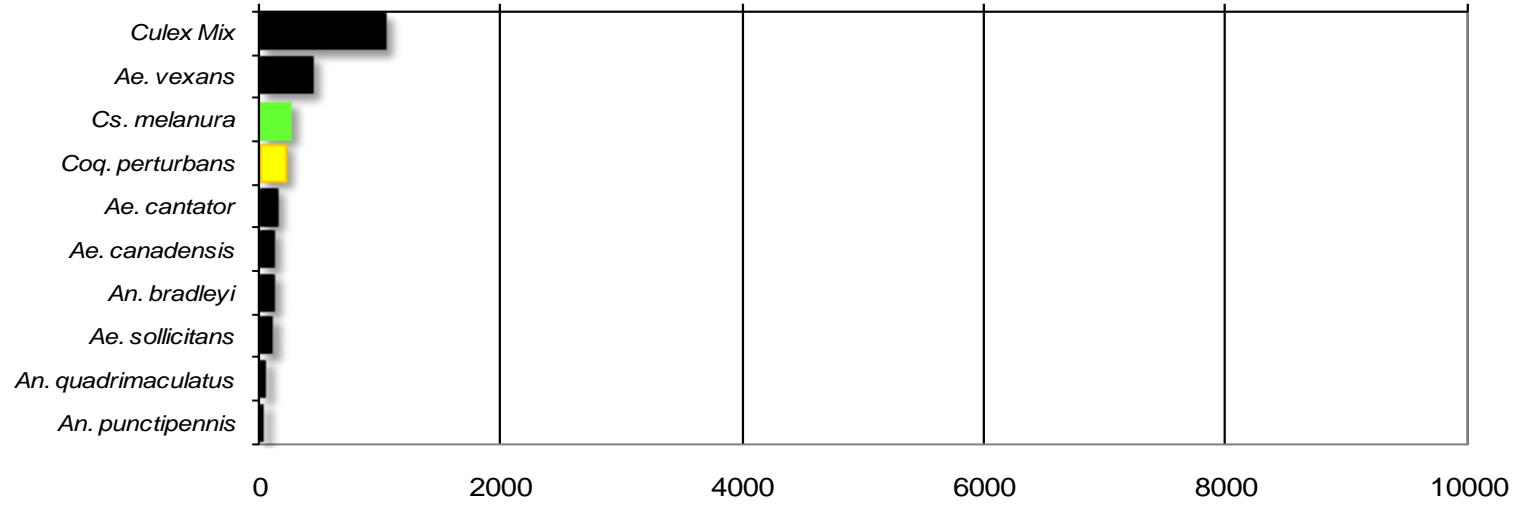
## Philadelphia Metropolitan

Total # mosquitoes



# Pinelands

Total # mosquitoes



# Suburban Corridor

Total # mosquitoes

