

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

September 13 to September 19, CDC Week 38

Prepared by Lisa M. Reed and Dina Fonseca
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.

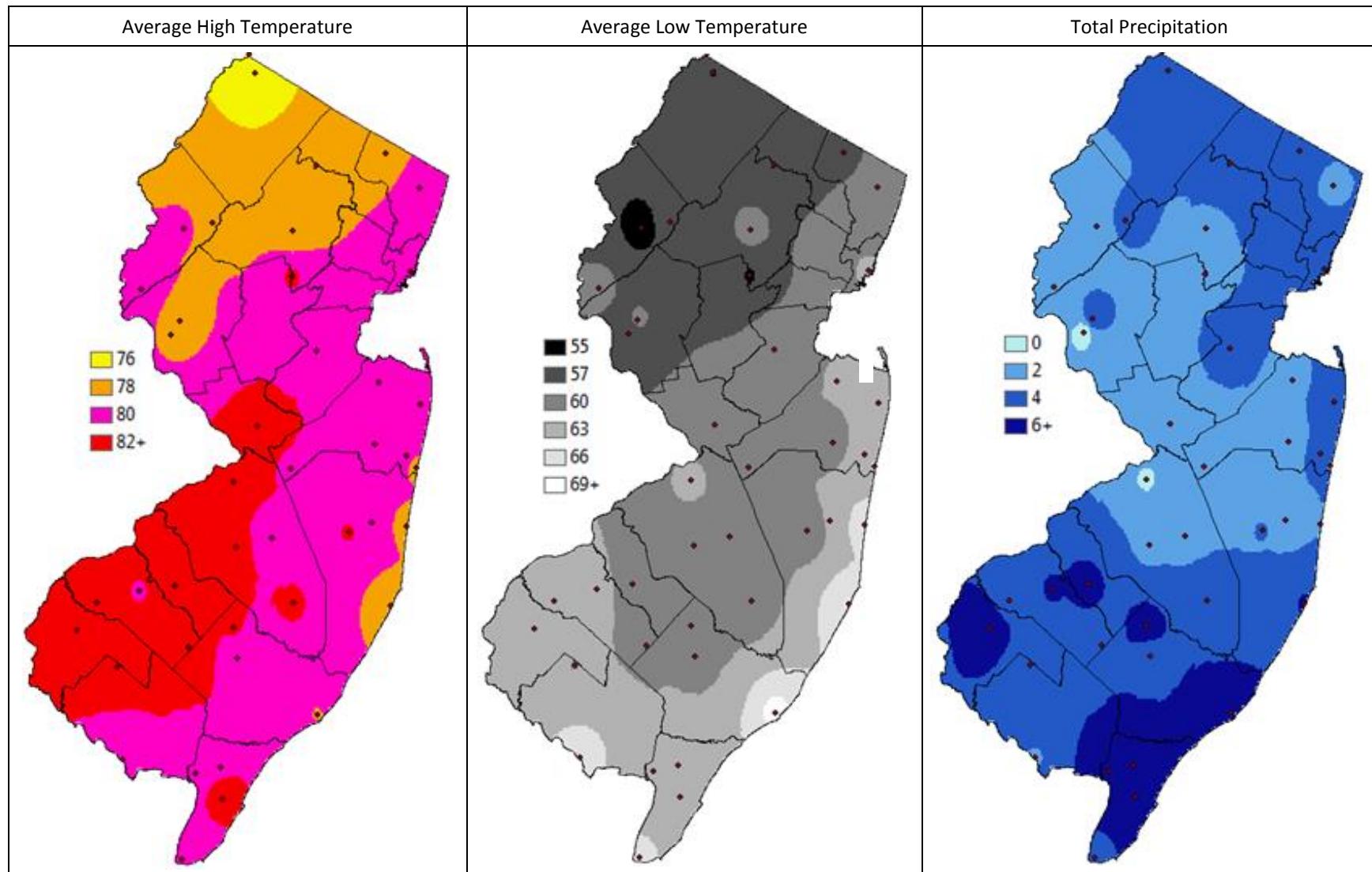
Summary Table – Week 38

Region	Aedes vexans			Culex Mix			Coquillettidia perturbans			Aedes sollicitans		
	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase
Agricultural	1.07	4.83	0	12.29	21.59	0	0.05	0.00		1.00	0.98	1
Coastal	0.02	2.26	0	1.00	6.46	0	0.00	0.02	0	0.00	0.59	0
Delaware Bayshore	0.40	0.94	0	9.60	4.10	3	0.00	0.00	0	0.26	0.65	0
Delaware River Basin	6.43	2.77	3	7.00	3.34	3	0.64	0.03	4	0.00	0.06	0
New York Metro	0.21	0.69	0	4.54	6.43	0	0.00	0.02	0	0.06	0.13	0
North Central Rural	0.00	0.09	0	0.14	0.03	4	0.00	0.02	0	0.00	0.00	0
Northwest Rural	0.11	2.18	0	0.09	3.15	0	0.00	<0.01	0	0.00	0.00	0
Philadelphia Metro	0.00	2.62	0	0.00	1.92	0	0.00	<0.01	0	0.00	0.00	0
Pinelands	0.00	0.97	0	0.90	1.43	0	0.00	0.05	0	0.00	2.35	0
Suburban Corridor	0.15	0.38	0	0.42	1.06	0	0.01	0.00	4	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.

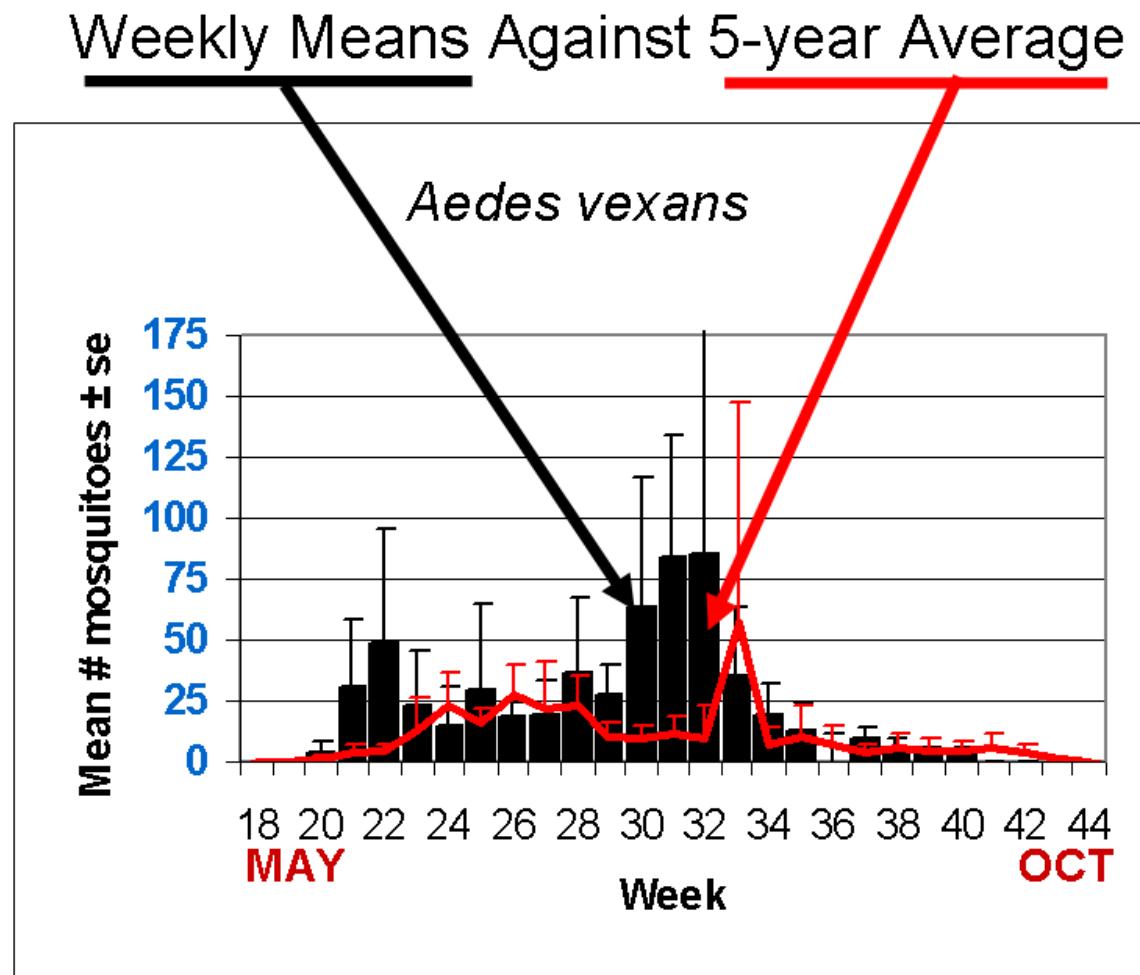
State Summary: This week's data represents 10 out of 21 counties. As we progress into cooler weather, mosquito populations enter that time period when trends are more variable as historical averages decline. Here we see several regions show populations with greater numbers than historical averages, such as for *Aedes vexans* in the Delaware River Basin. Also, *Culex Mix* numbers were higher than expected in the Delaware Bayshore, the Delaware River Basin and the North Central Rural regions. *Coquillettidia perturbans* were significantly higher in the Delaware River Basin and the Suburban Corridor. *Aedes sollicitans* were mildly higher than the historical average in the Agricultural region.

Climate Factors



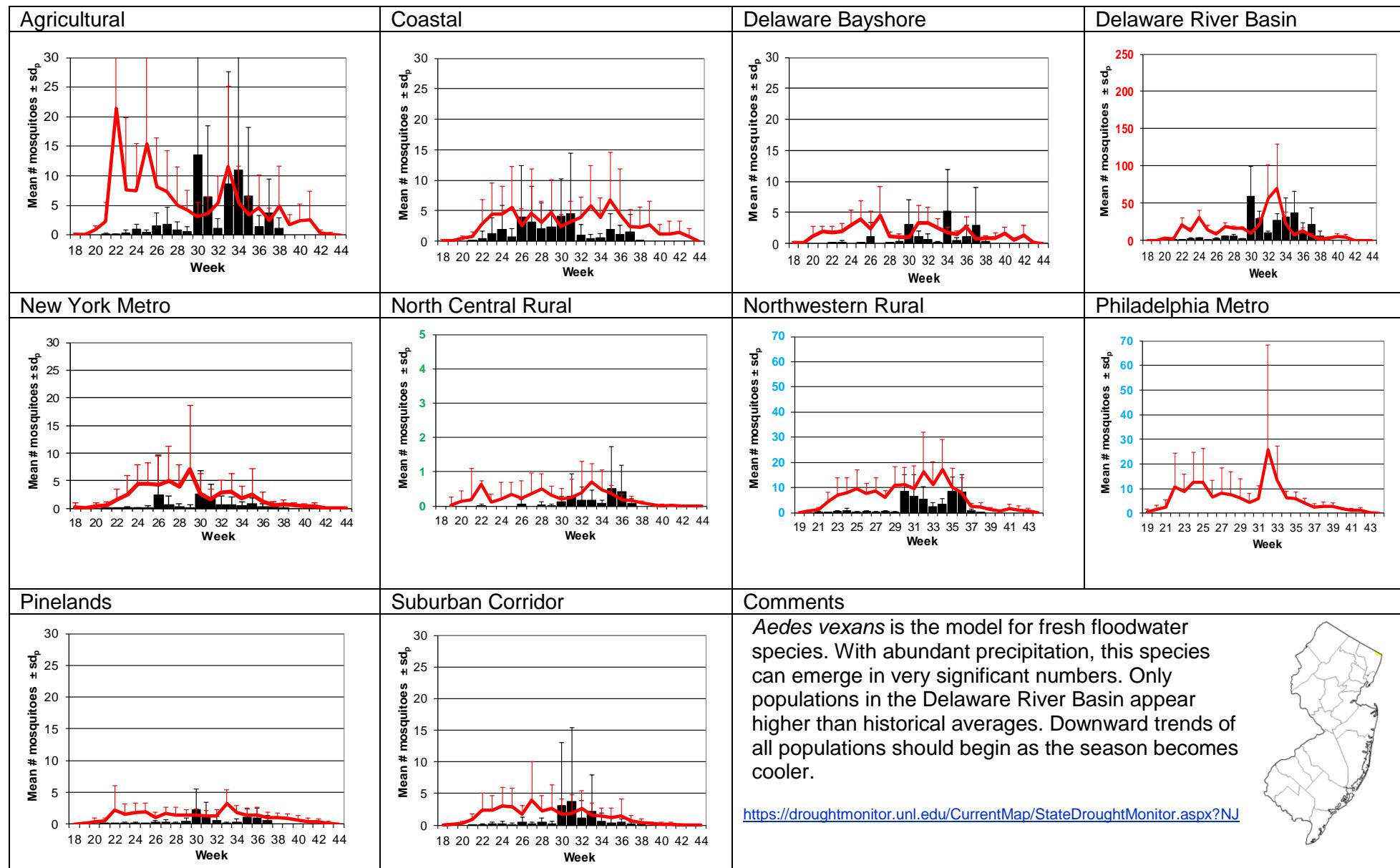
The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 17 September 2020 in New Jersey. Data points are from about 50 weather stations maintained through the New Jersey Weather & Climate Network and the State 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, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Salem, Union, and Warren counties. Data for the previous week are from Atlantic, Cape May, Cumberland, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Sussex, Union, and Warren counties.



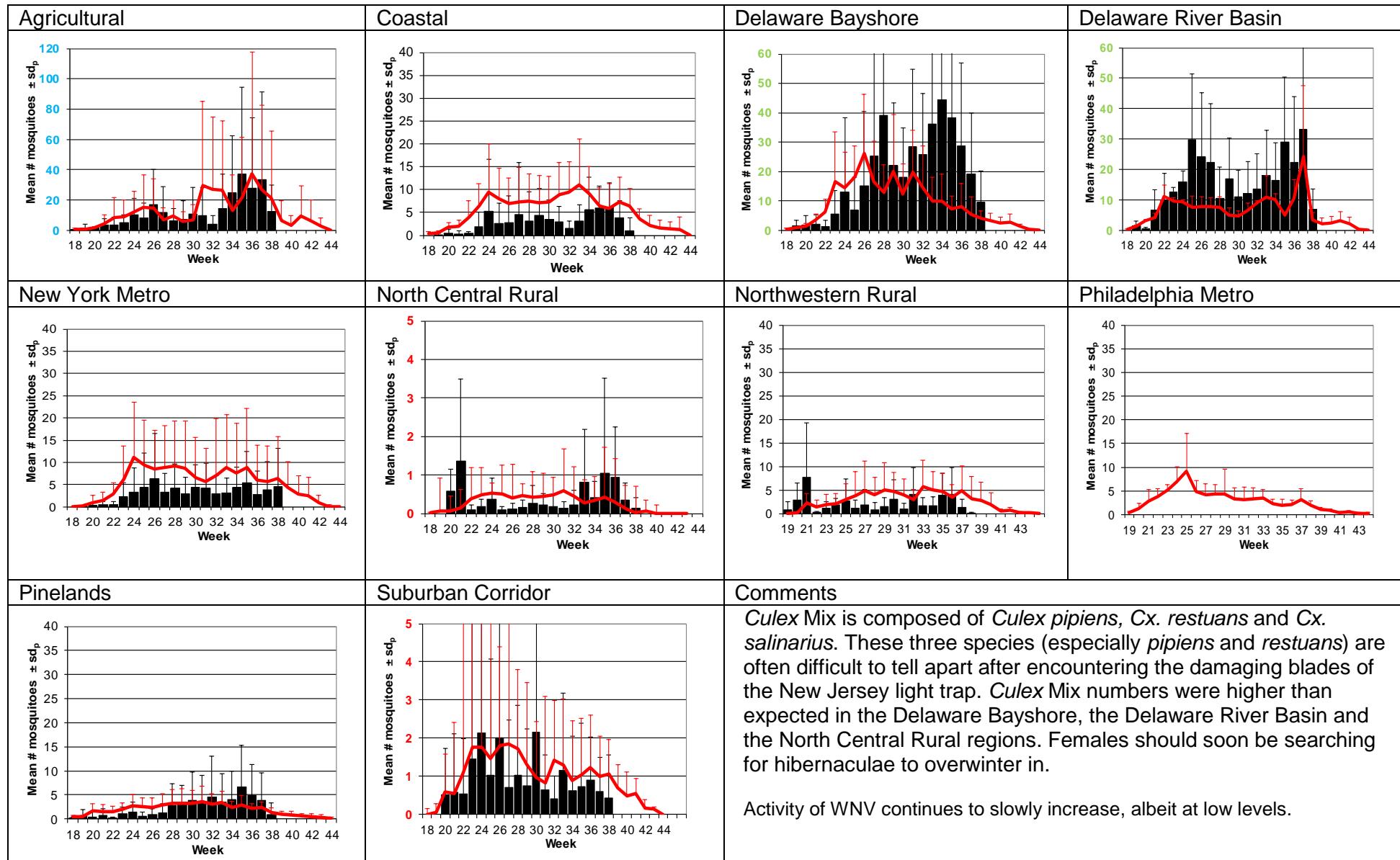
Aedes vexans - Fresh Floodwater Species

Multivoltine Aedine (Ae. vexans Type)



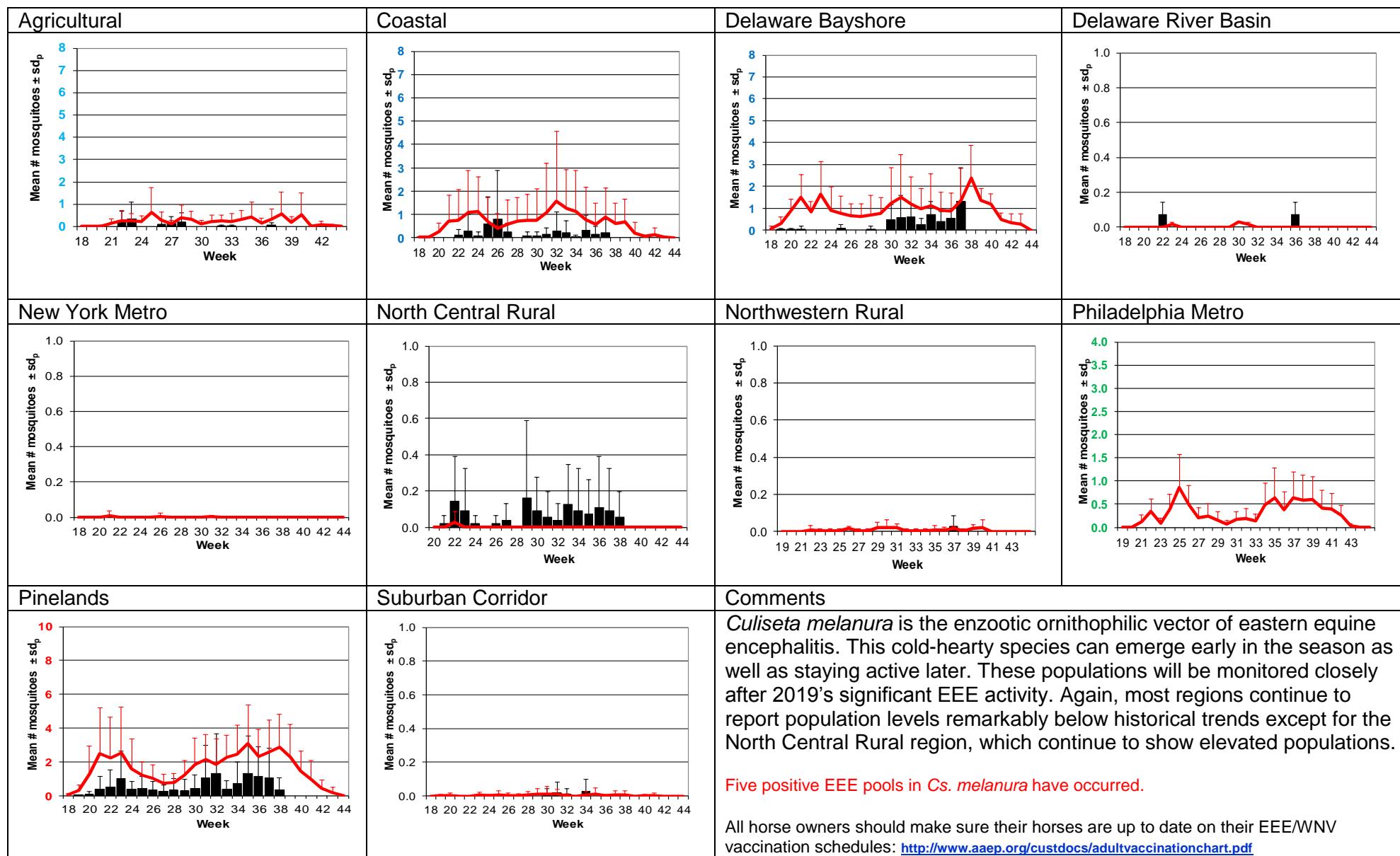
Culex Mix – Permanent Water Species

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



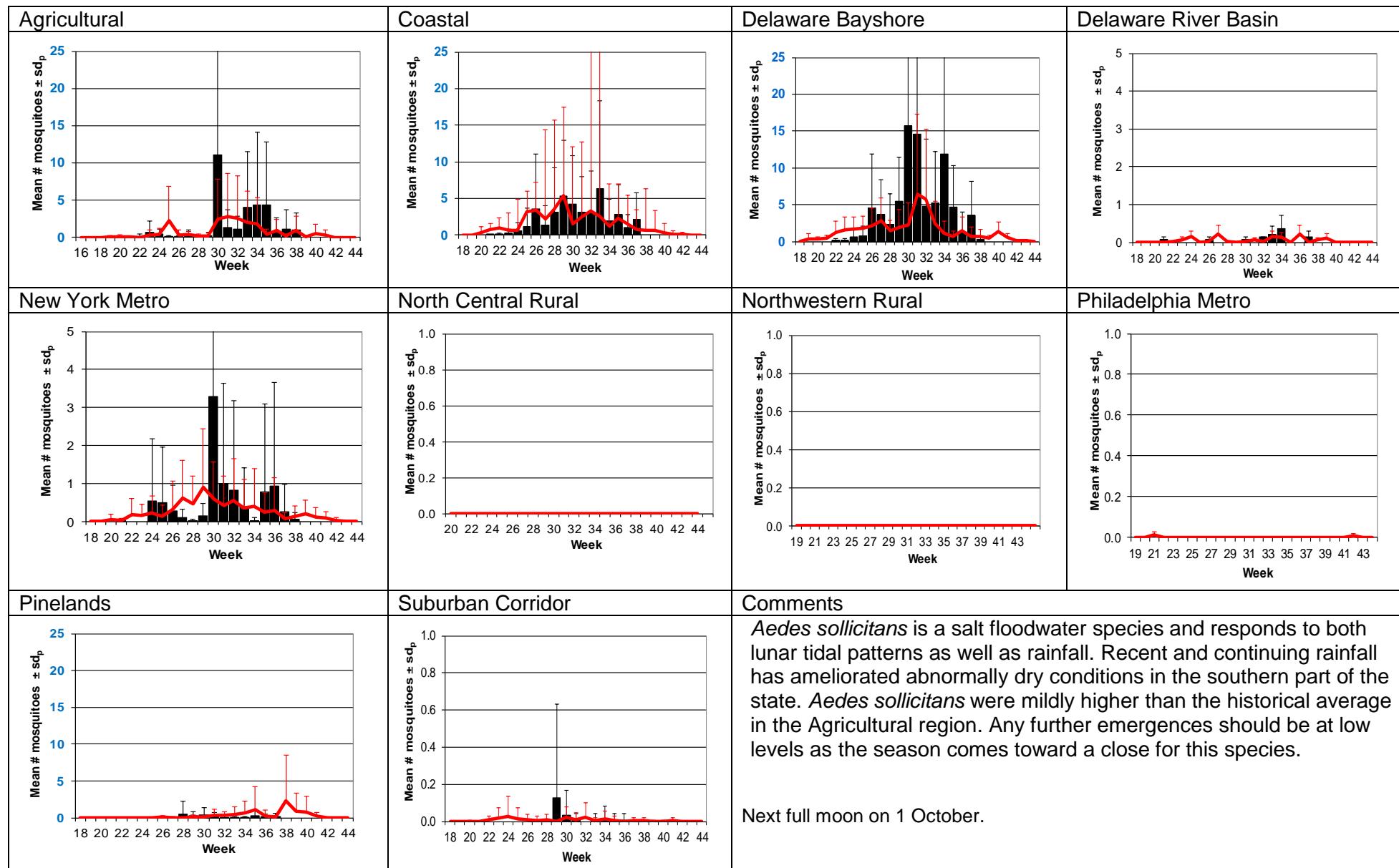
Culiseta melanura – Miscellaneous Group

Unique (*Cs. melanura* Type)



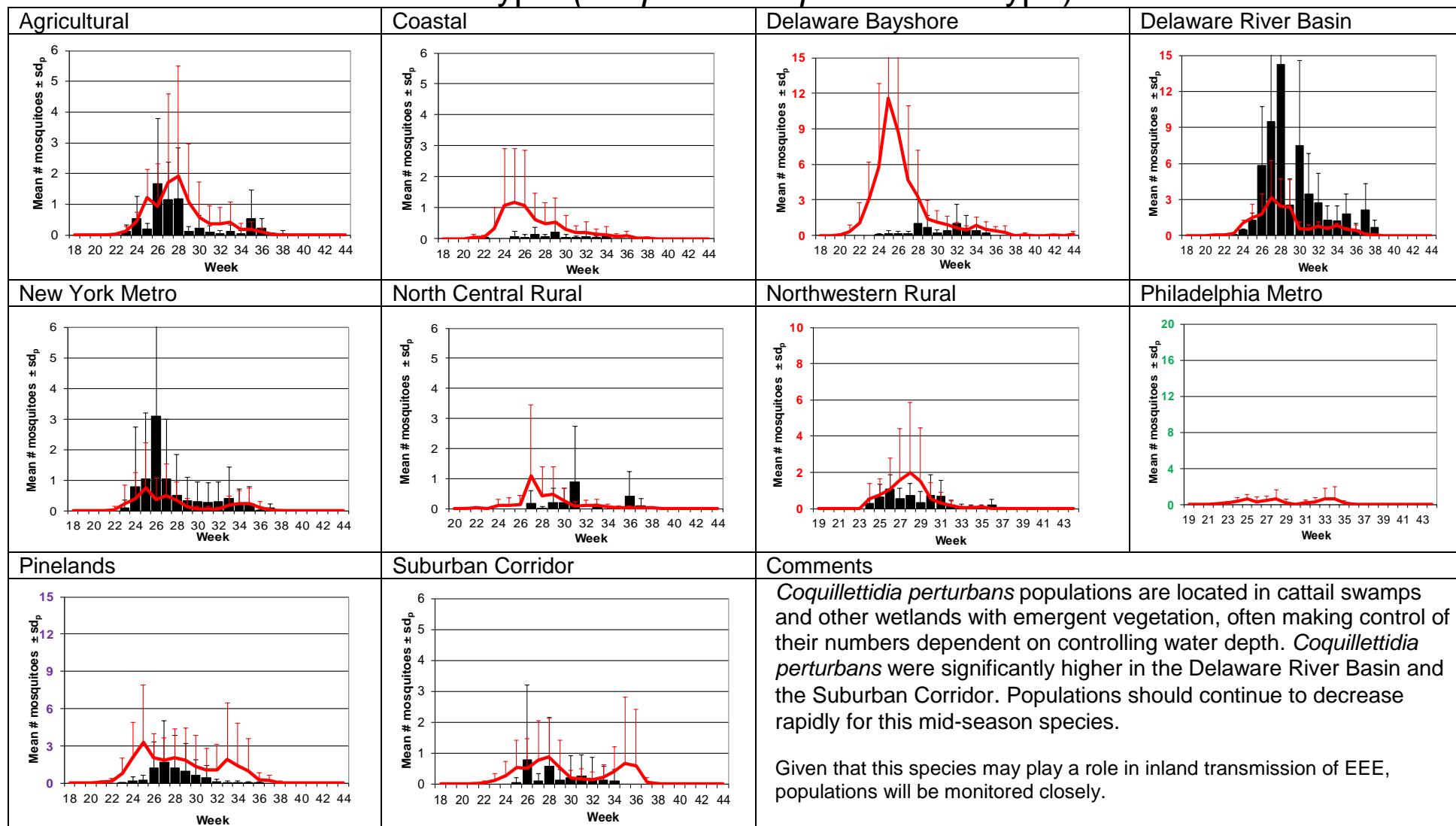
Aedes sollicitans - Salt Floodwater Species

Multivoltine Aedine (*Ae. sollicitans* Type)



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

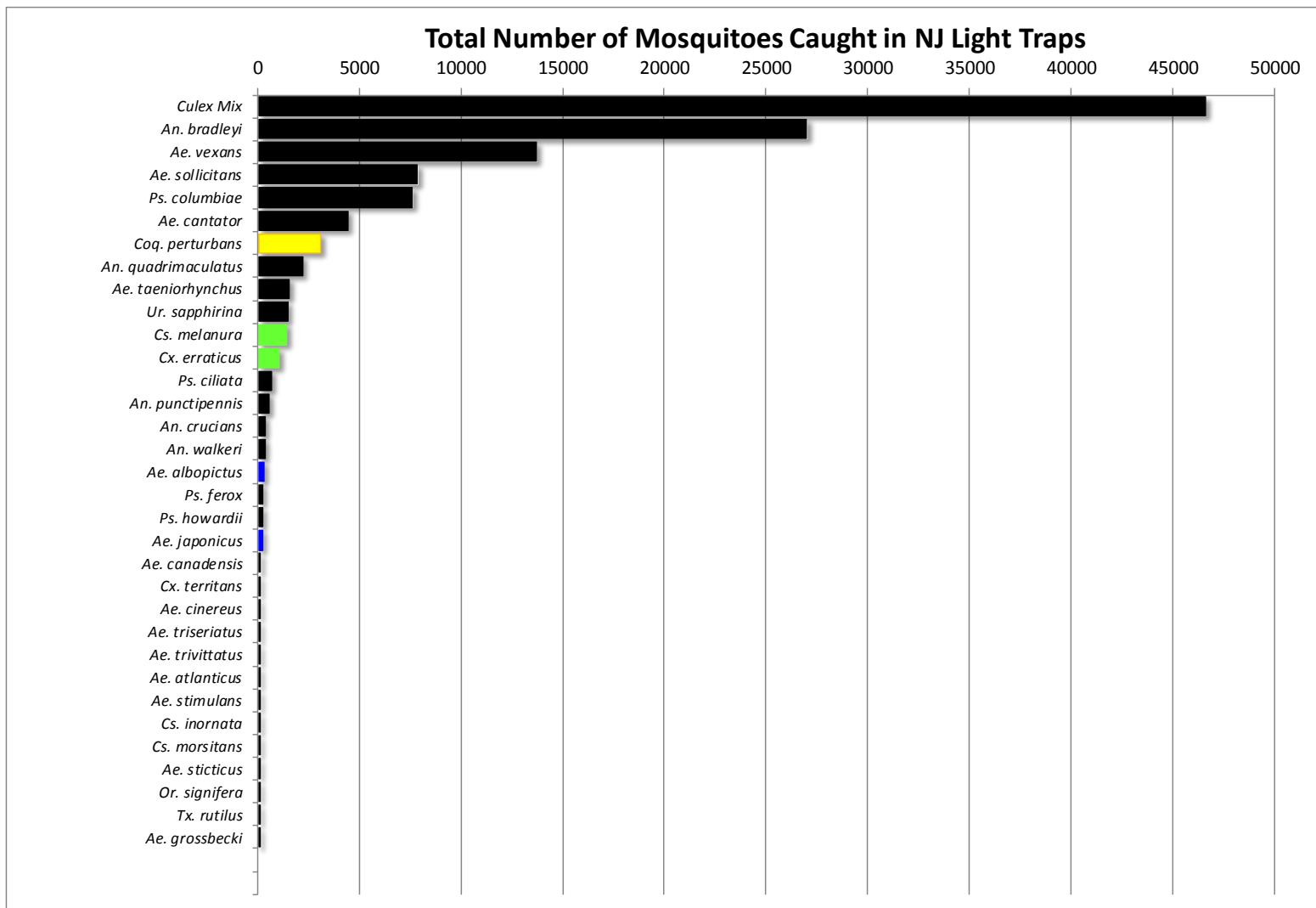


WNV

EEE

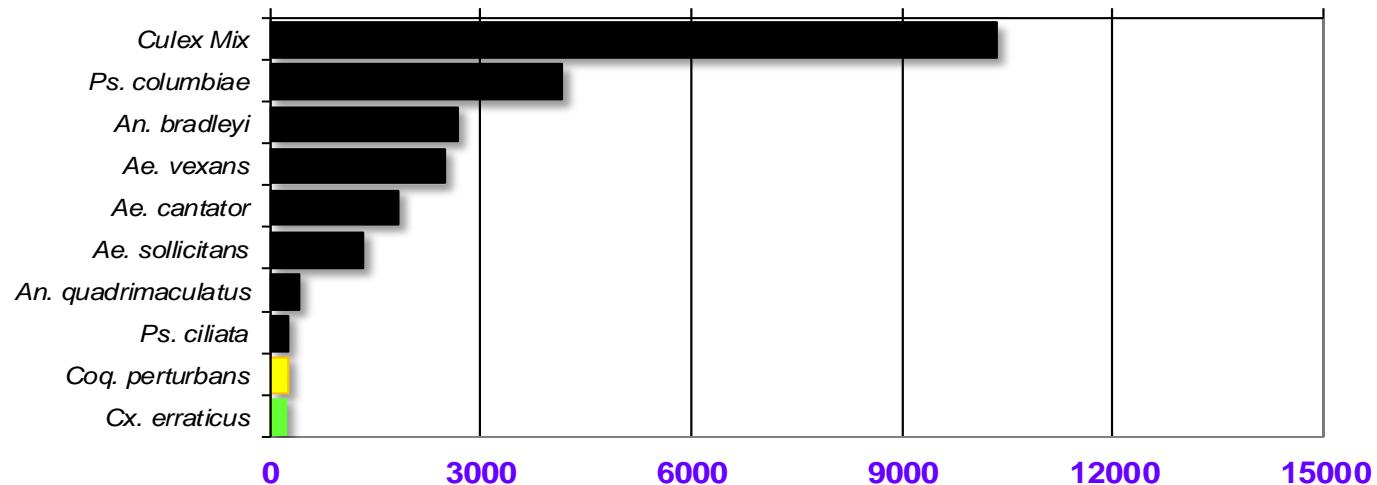
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



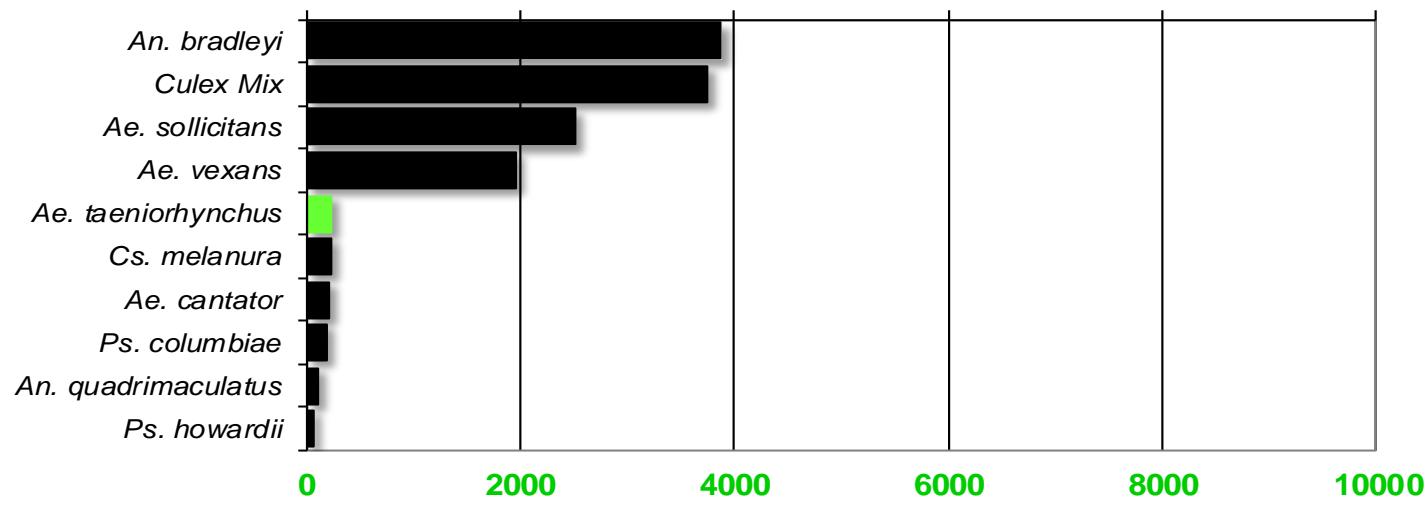
Agricultural

Total # mosquitoes



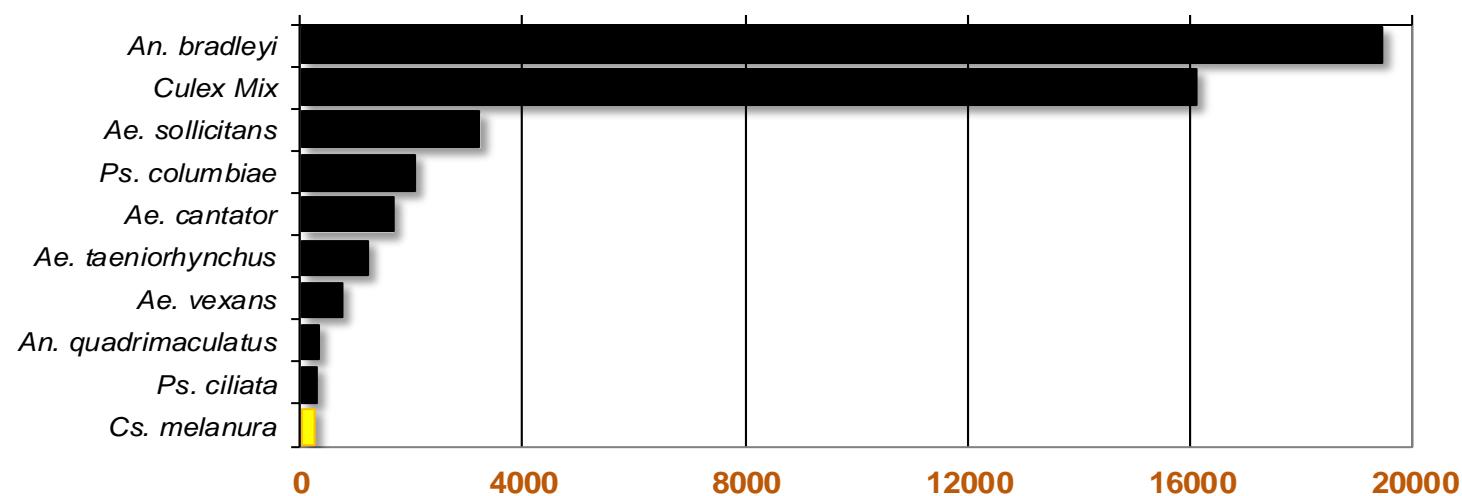
Coastal

Total # mosquitoes



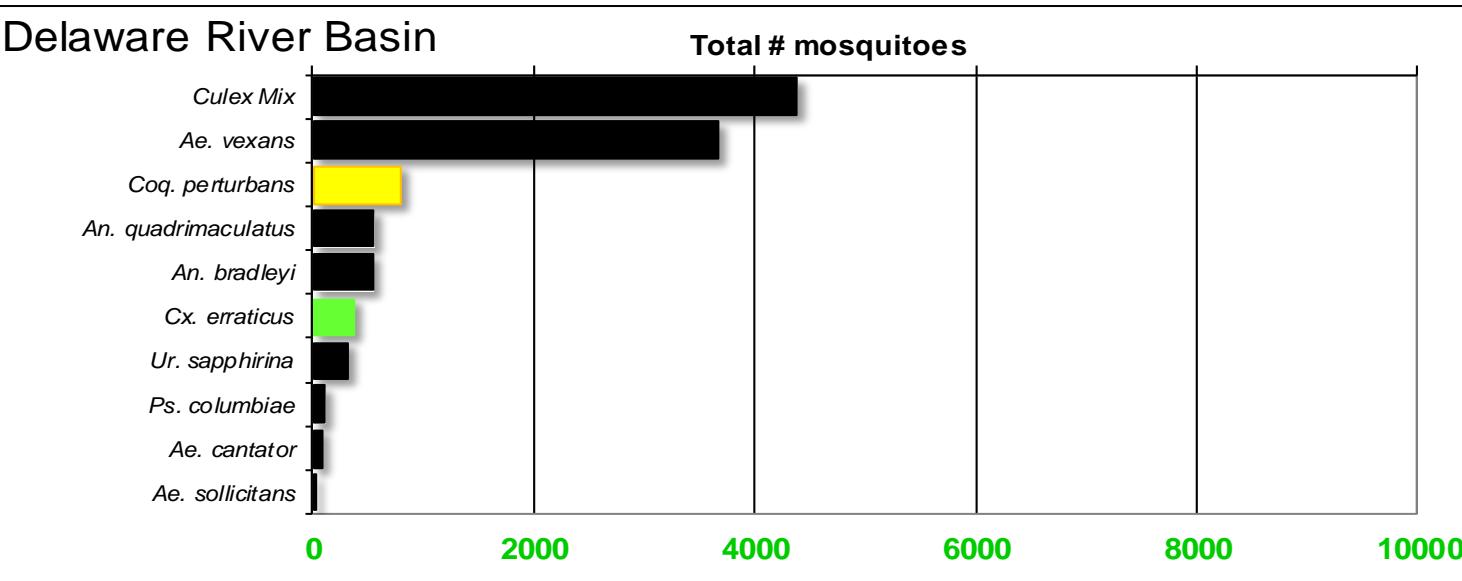
Delaware Bayshore

Total # mosquitoes



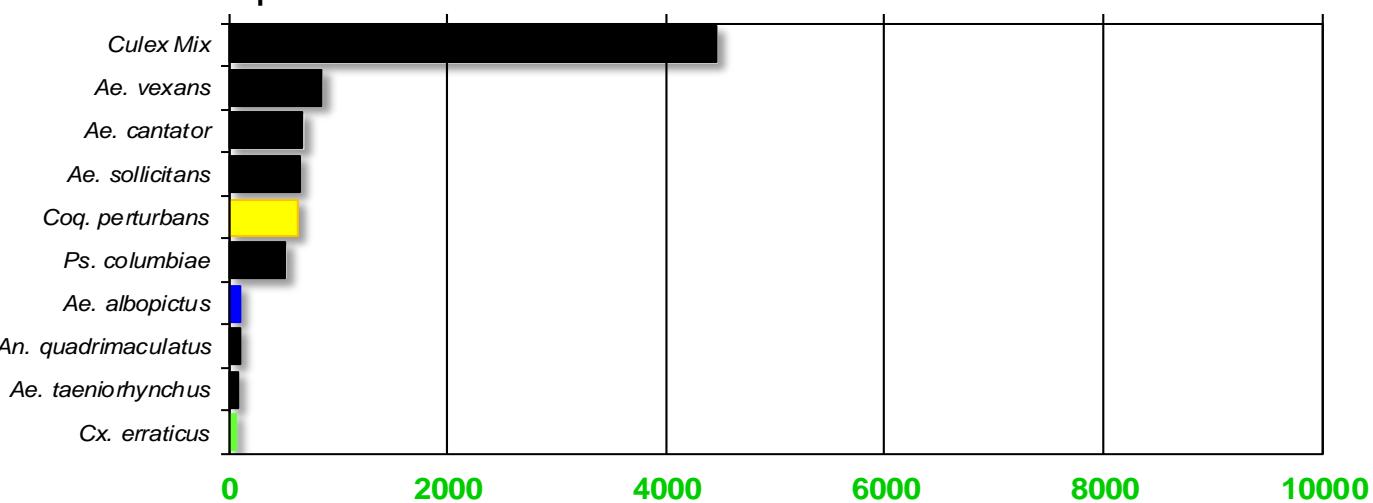
Delaware River Basin

Total # mosquitoes



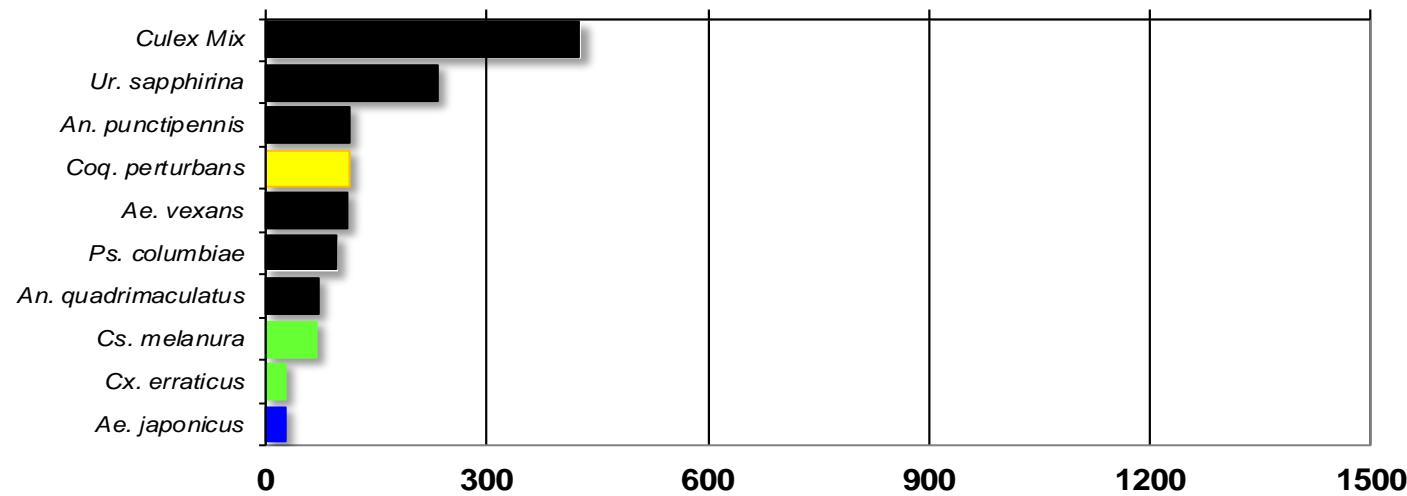
New York Metropolitan

Total # mosquitoes



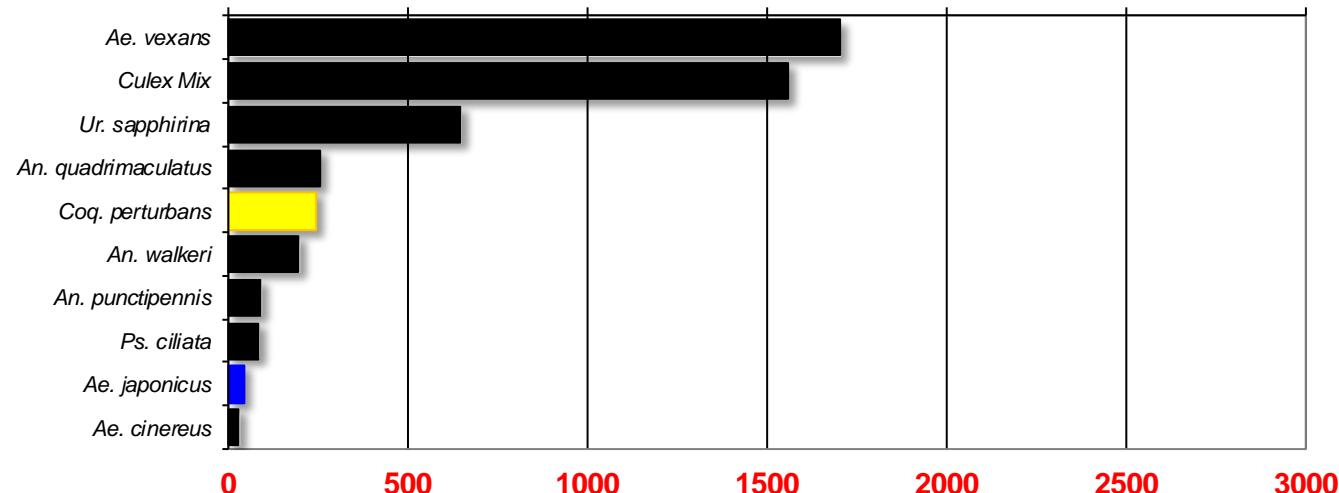
North Central Rural

Total # mosquitoes



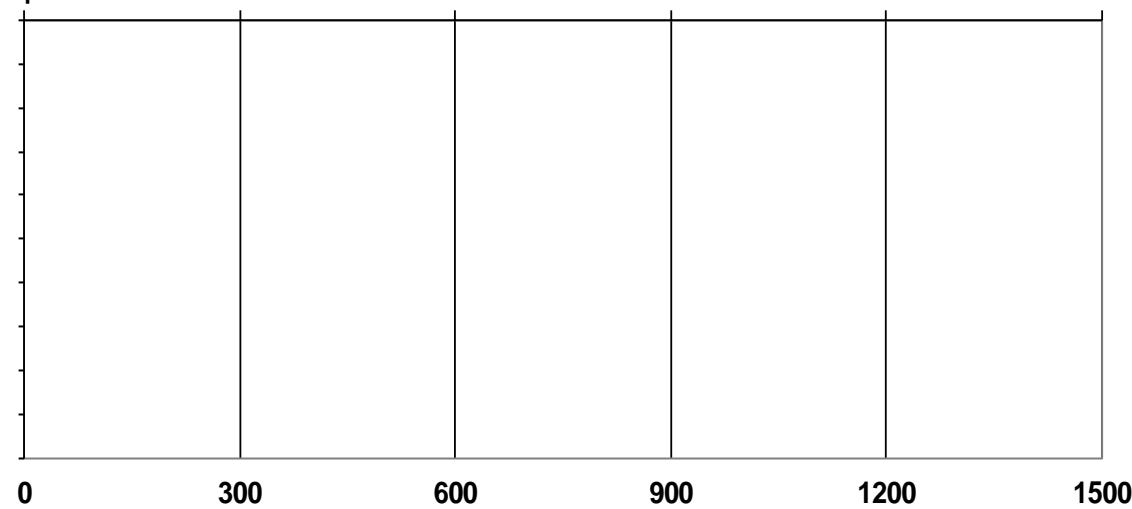
Northwest Rural

Total # mosquitoes



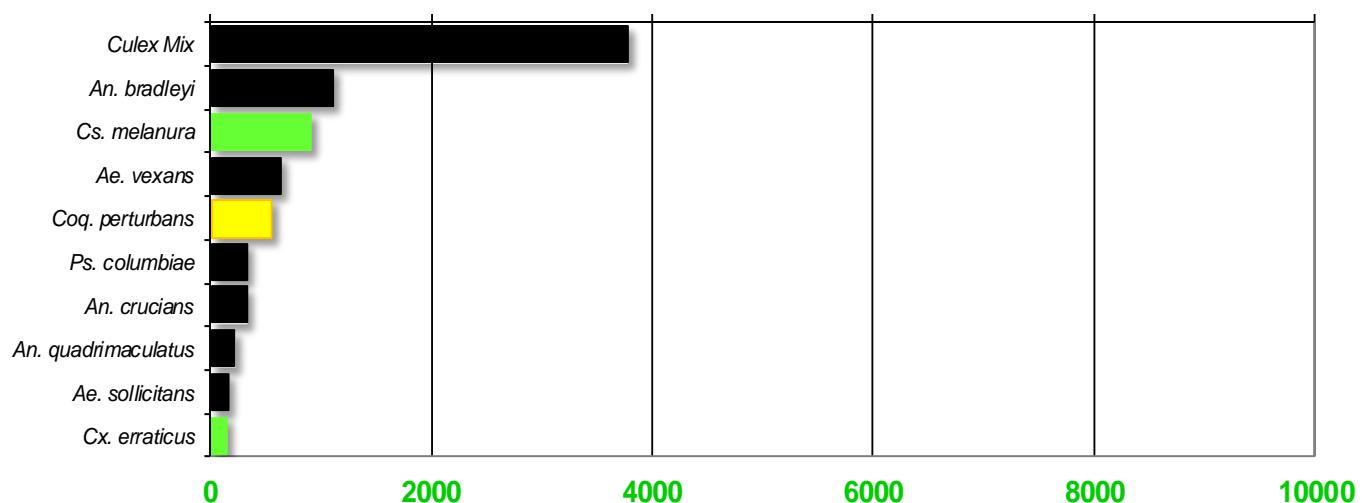
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

