

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

October 24 to October 30, CDC Week 43

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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.

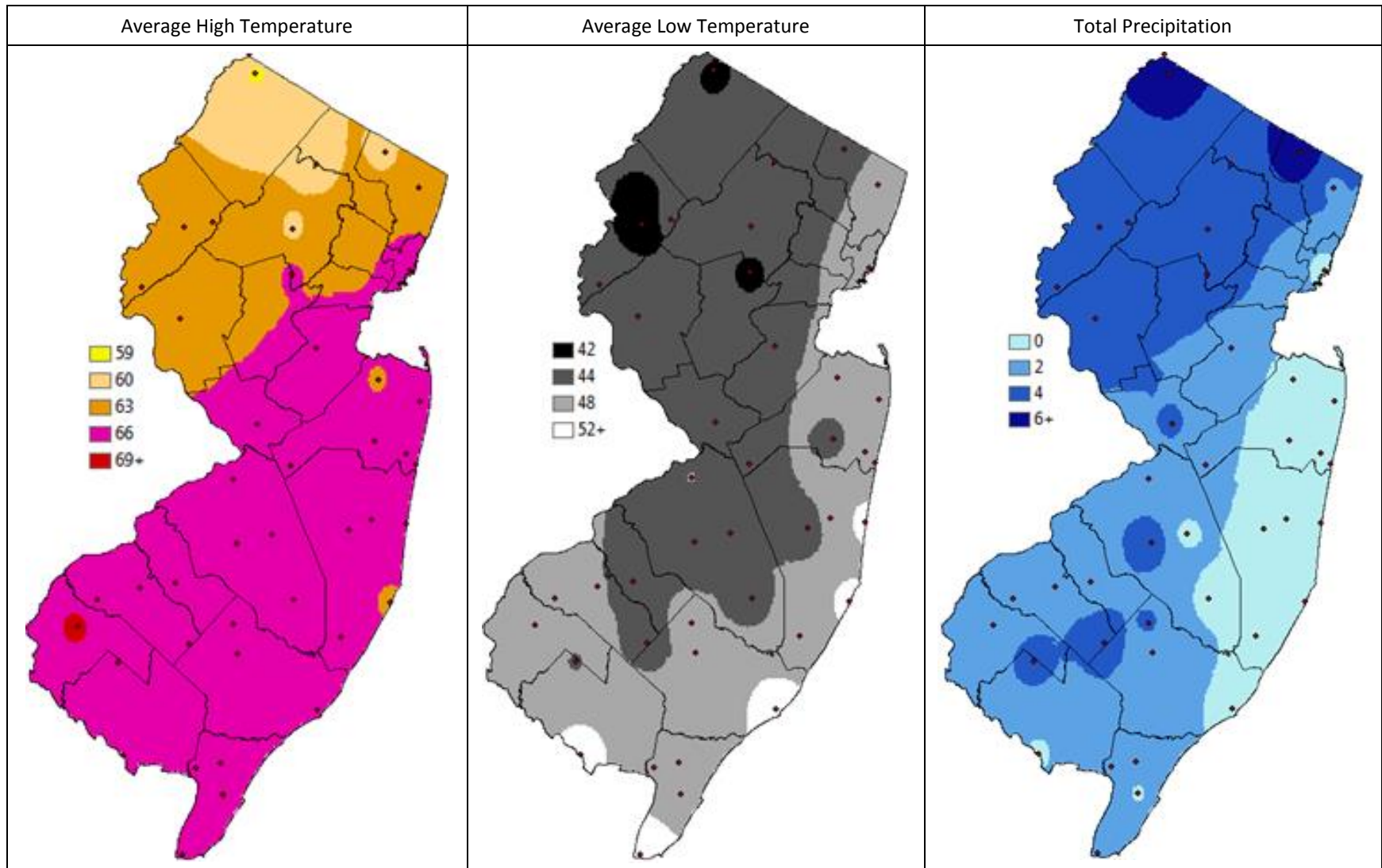
Summary Table – Week 43

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	1.29	0.56	3	1.31	7.33	0	0.00	0.00	0	0.00	<0.01	0
Coastal	3.97	0.64	4	3.14	1.65	2	0.00	0.00	0	0.00	<0.01	0
Delaware Bayshore	11.64	0.25	4	15.19	1.51	4	0.00	0.00	0	0.00	0.05	0
Delaware River Basin	0.00	0.64	0	0.00	1.09	0	0.00	0.00	0	0.00	0.00	0
New York Metro	0.43	0.01	4	0.13	0.56	0	0.00	0.00	0	0.00	0.00	0
North Central Rural	0.00	<0.01	0	0.00	<0.01	0	0.00	0.00	0	0.00	0.00	0
Northwest Rural	0.46	0.54	0	0.60	0.34	2	0.00	0.00	0	0.00	0.00	0
Philadelphia Metro	0.00	0.11	0	0.00	0.33	0	0.00	0.00	0	0.00	0.00	0
Pinelands	0.69	0.18	4	0.29	0.49	0	0.00	0.00	0	0.00	0.00	0
Suburban Corridor	0.02	0.05	0	0.00	0.09	0	0.00	0.00	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: This is the last report of the season. Counties can continue to add data to JerseySurv and that will be included in the seasonal final report completed later. With variable weather running between mild to occasional frosts, some mosquito species continue to be on the wing, and biting. Until a solid frost happens, large variations in populations could be seen. *Aedes vexans* populations are an indication of this potential variation, with significant populations seen in five regions (Agricultural, Coastal, Delaware Bayshore, New York Metropolitan, and the Pinelands). *Culex Mix* numbers were also significantly increased in the Delaware Bayshore region, with modest elevations were observed in the Coastal and Northwestern Rural regions. Both *Coquillettidia perturbans* and *Aedes sollicitans* are done for the season.

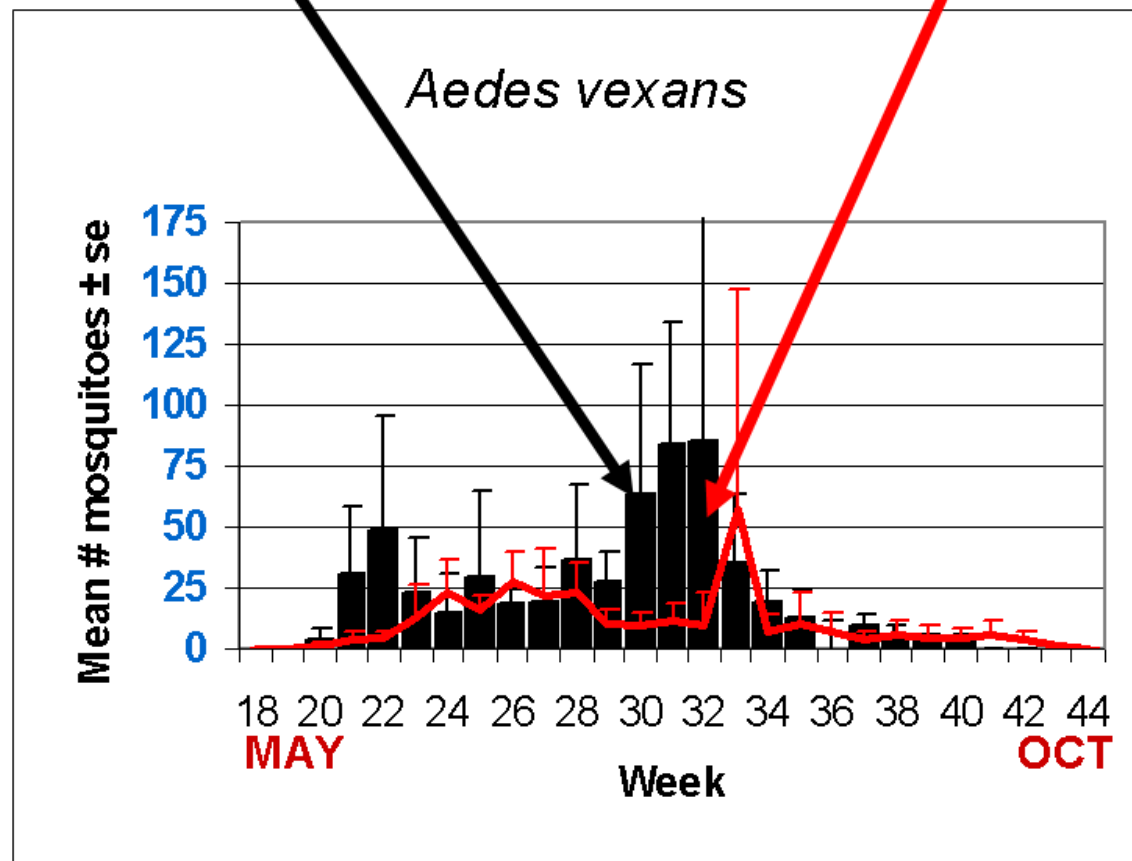
Climate Factors



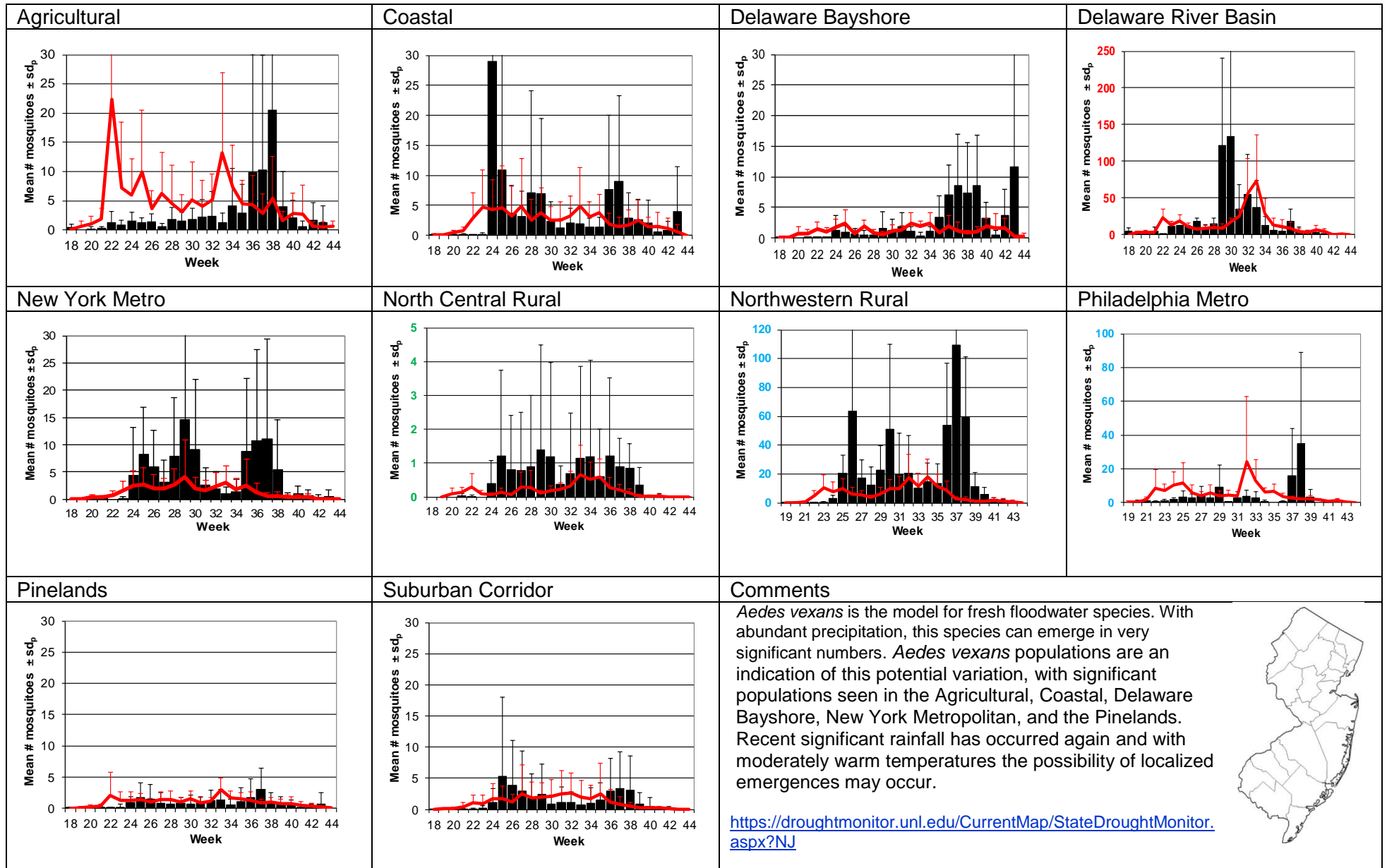
The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 31 October 2021 in New Jersey. Data points are from about 45 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. 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 Atlantic, Cumberland, Hudson, Mercer, Monmouth, and Sussex counties. Data for the previous week are from Atlantic, Burlington, Cape May, Cumberland, Hudson, Mercer, Middlesex, Monmouth, Morris, Passaic, Salem, Sussex, and Warren counties.

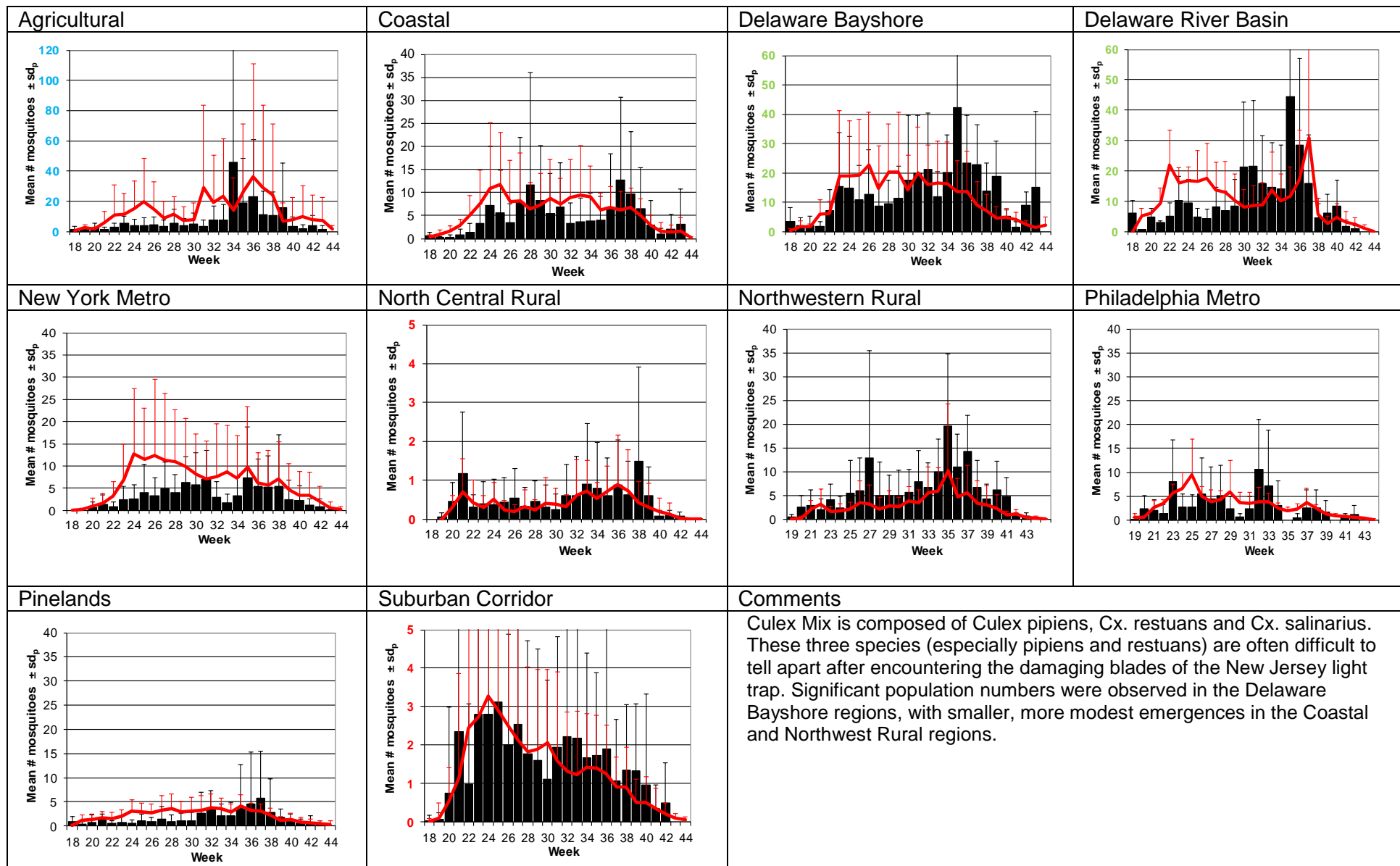
Weekly Means Against 5-year Average



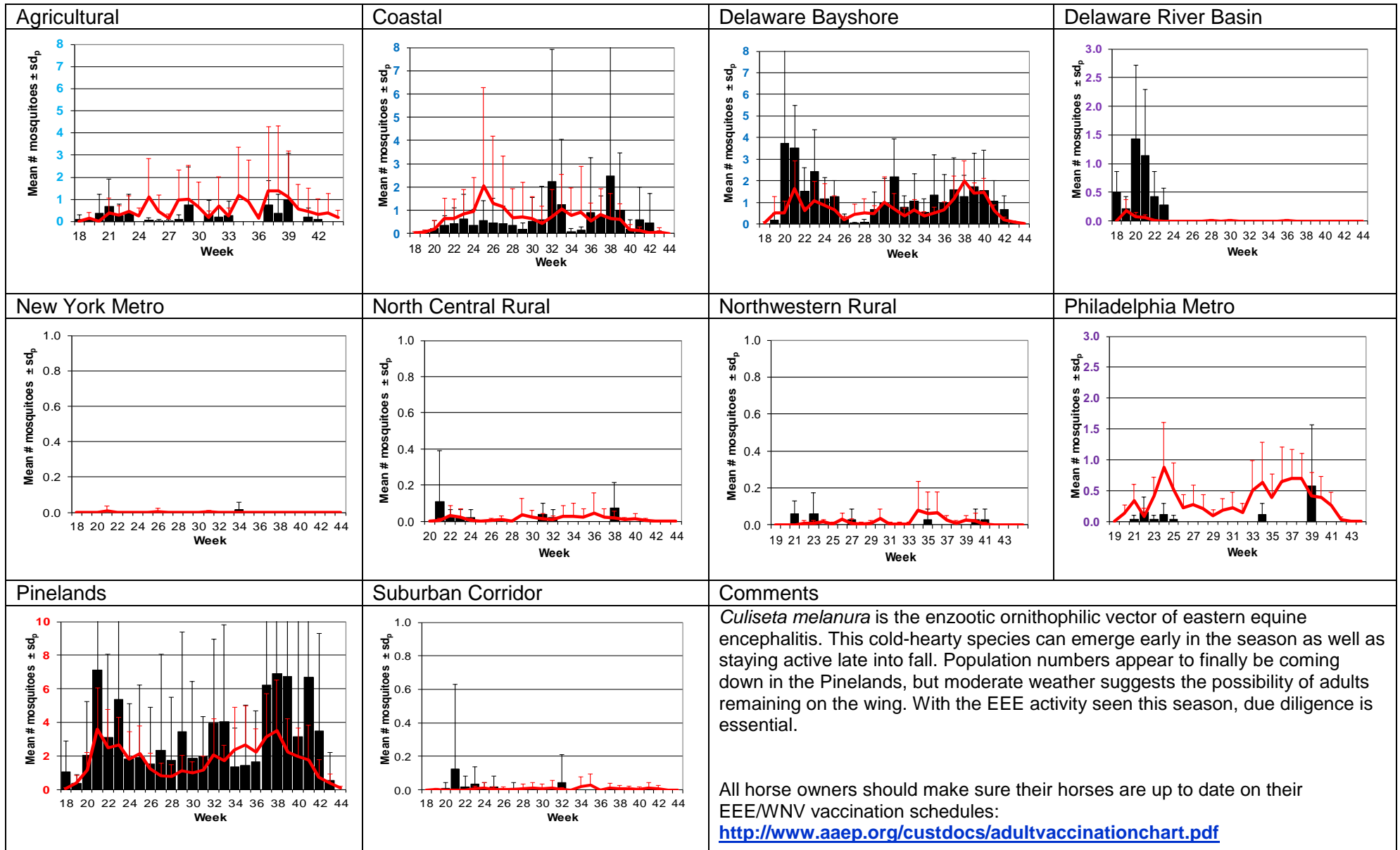
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)



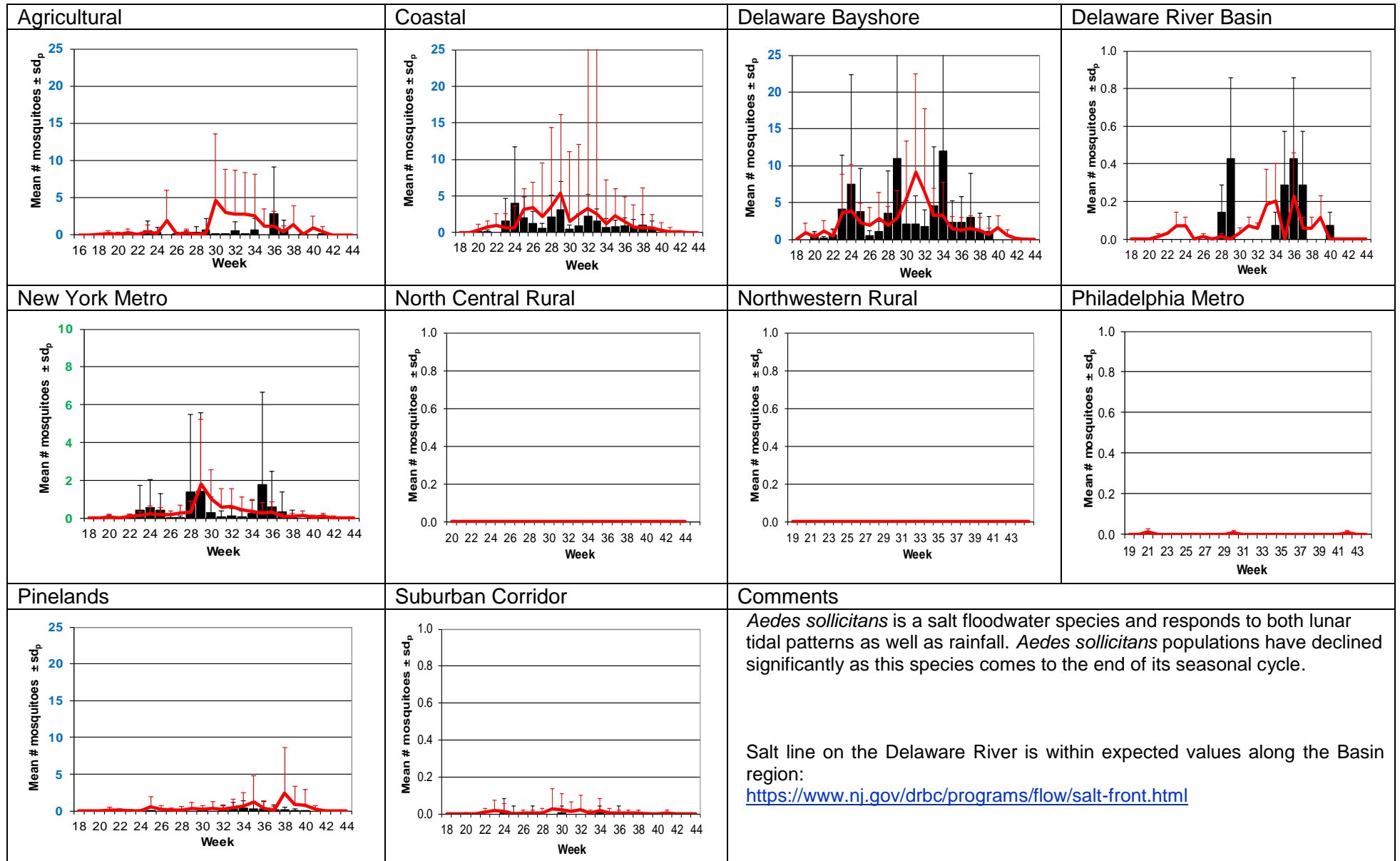
Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

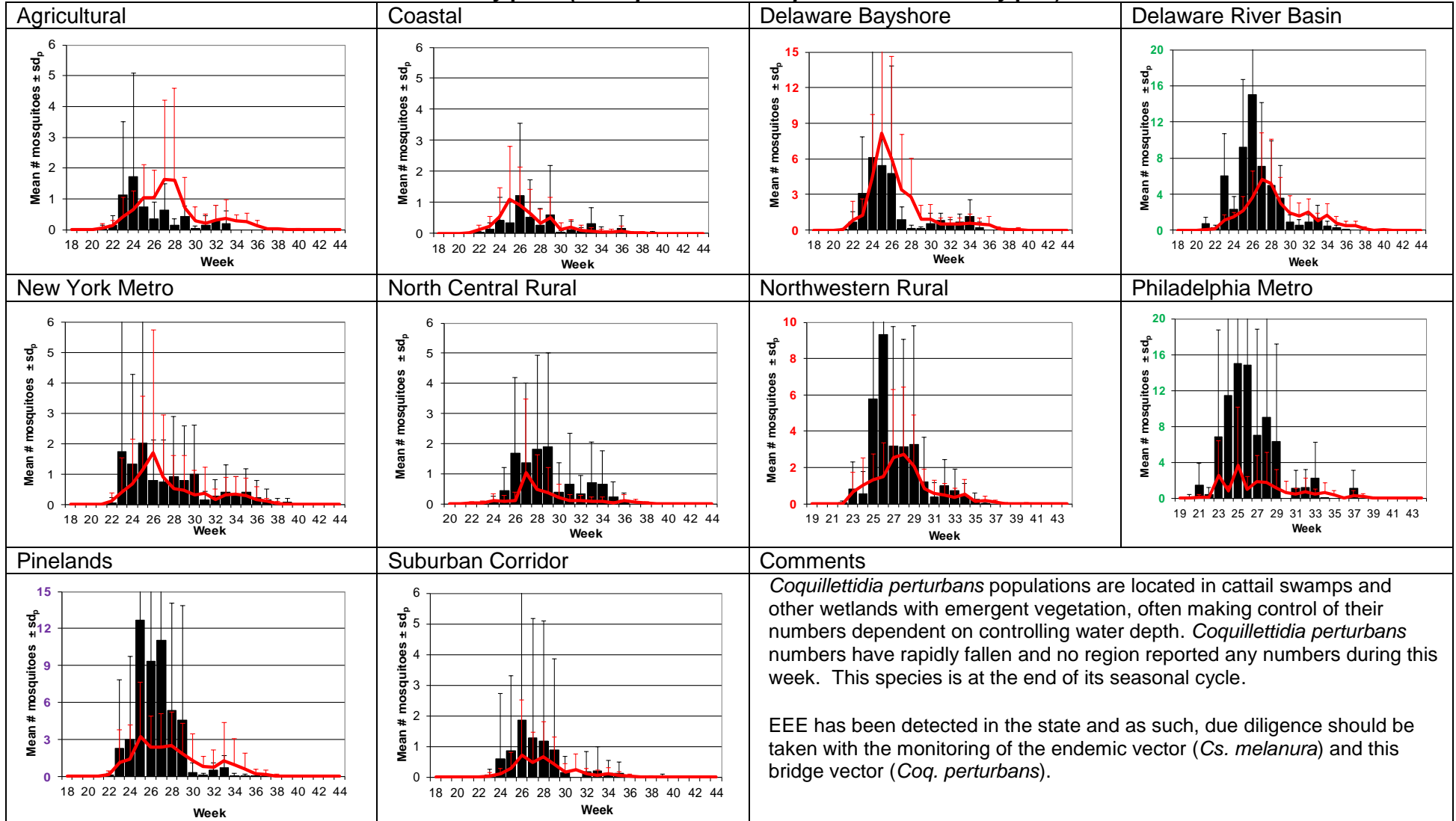


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

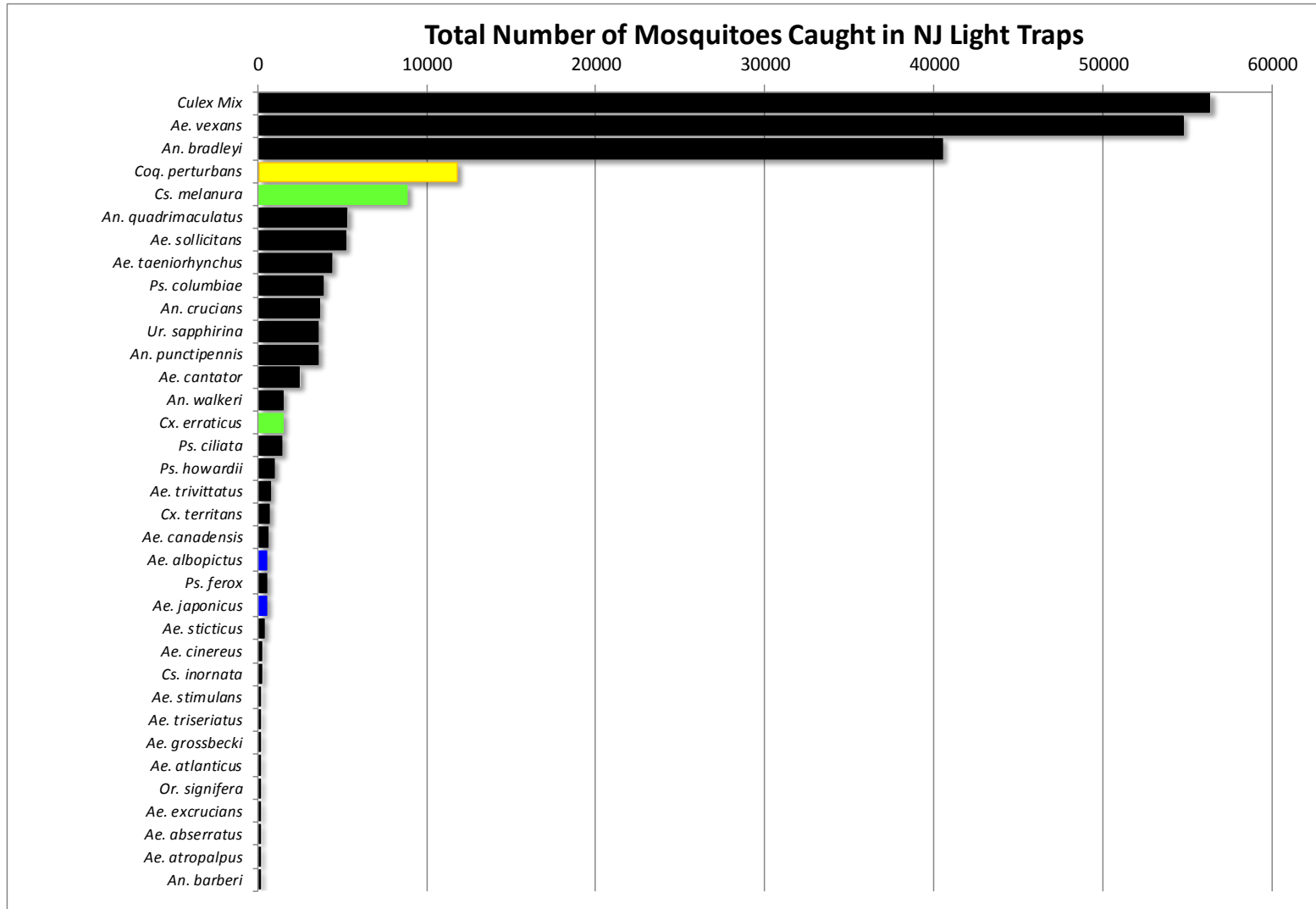


WNV

EEE

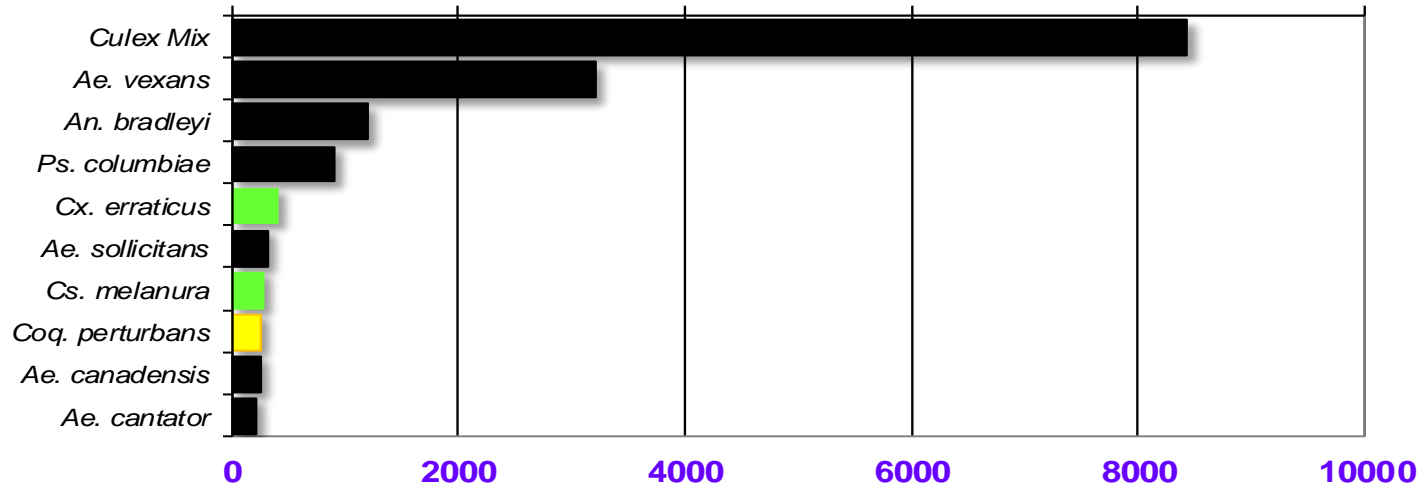
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



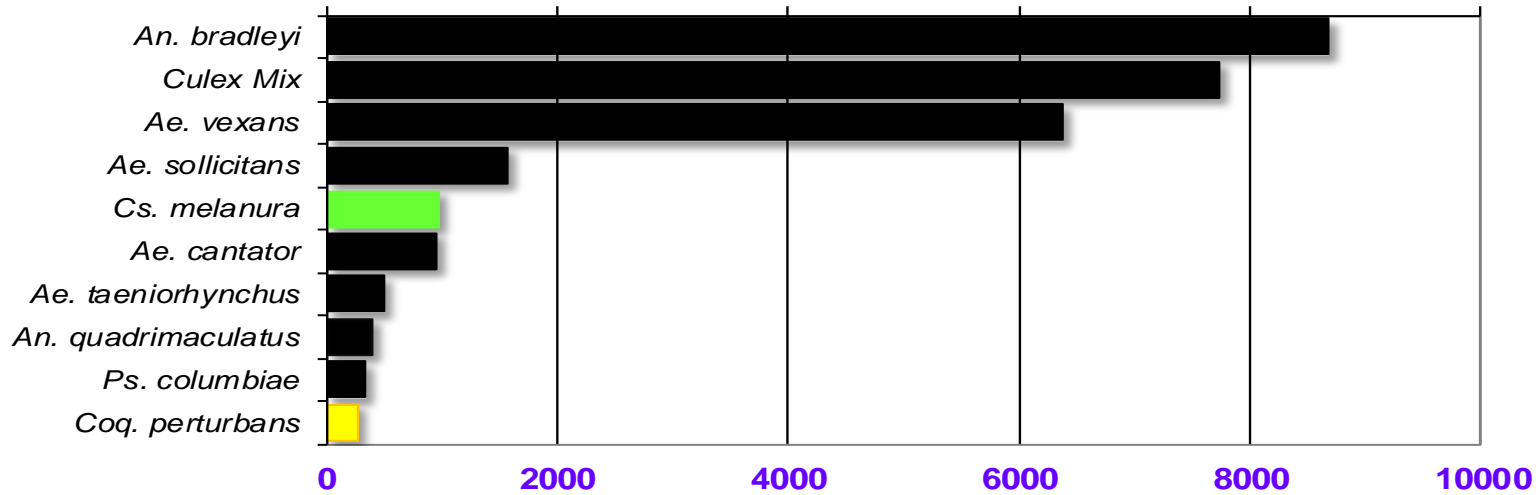
Agricultural

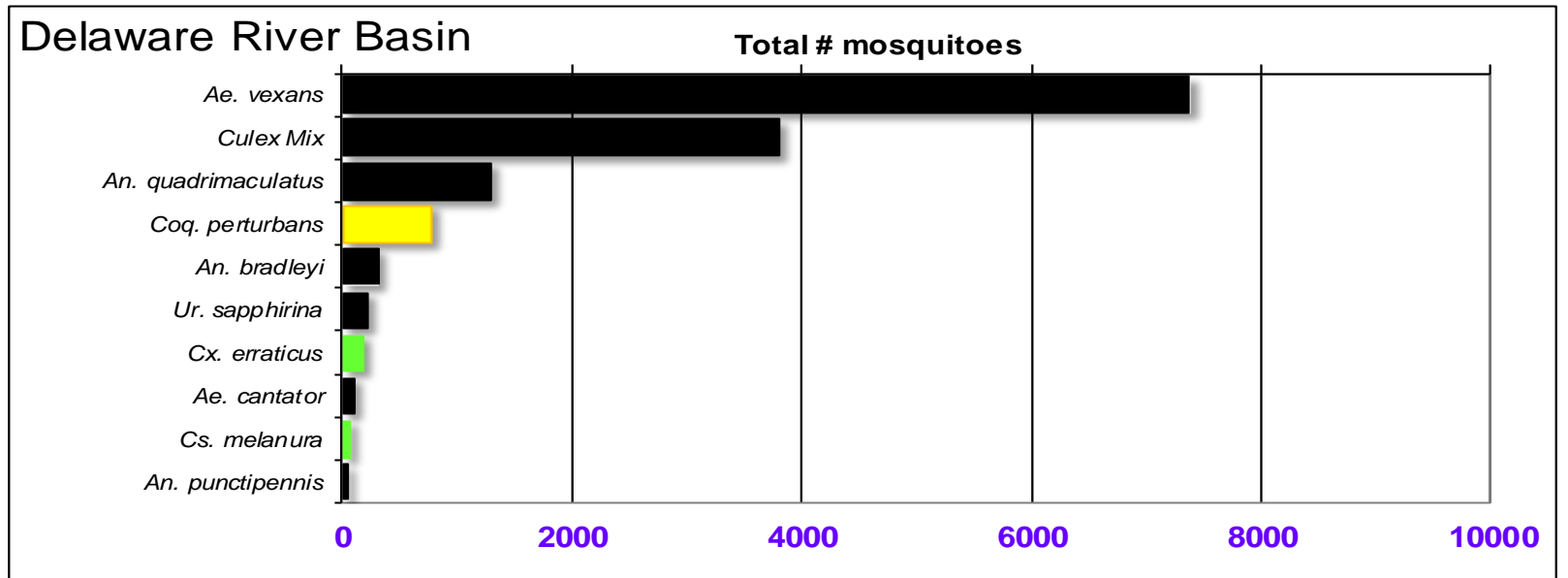
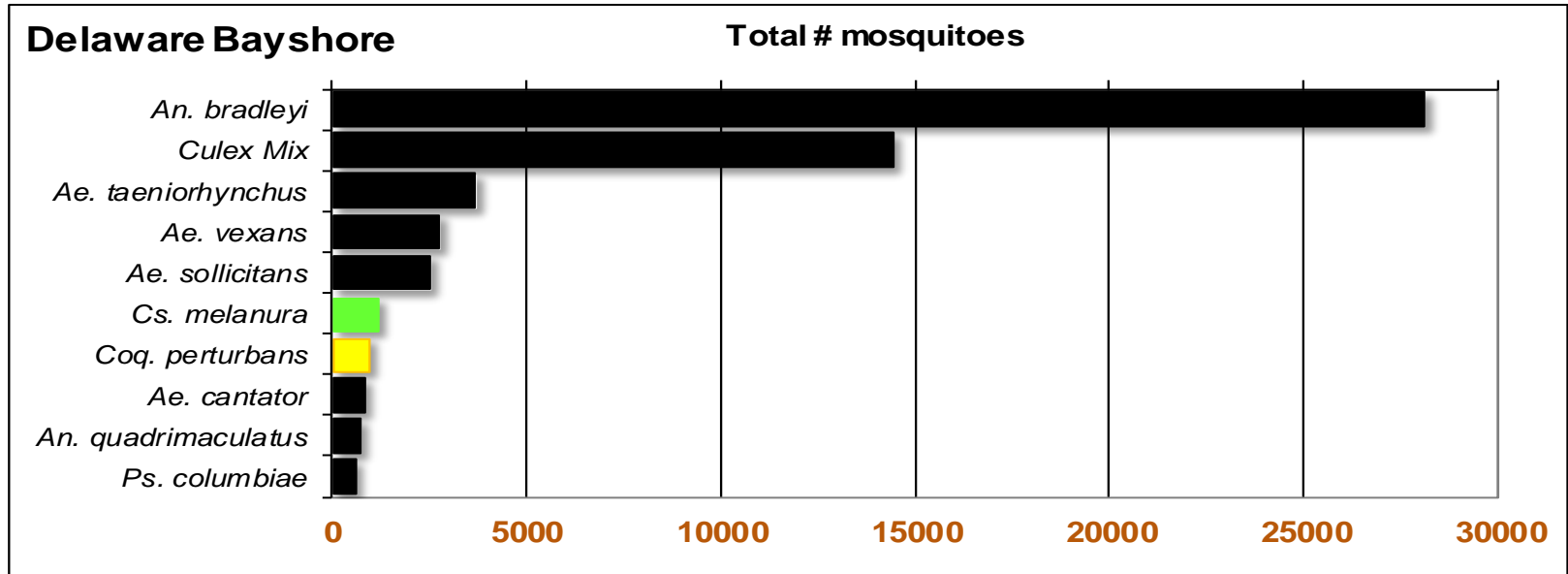
Total # mosquitoes



Coastal

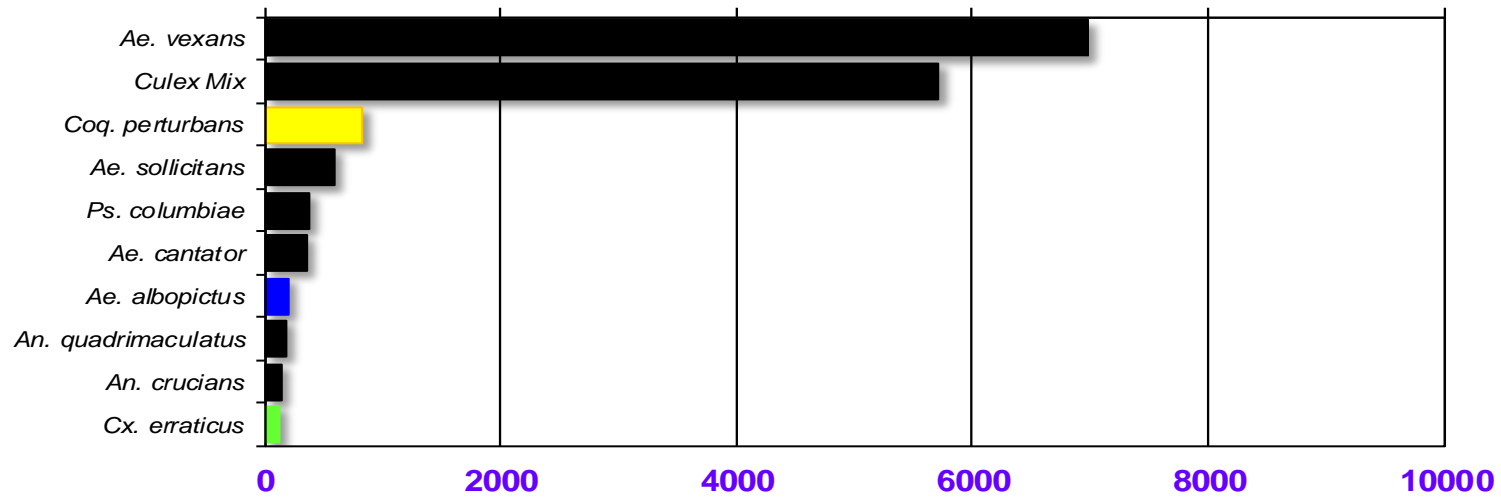
Total # mosquitoes





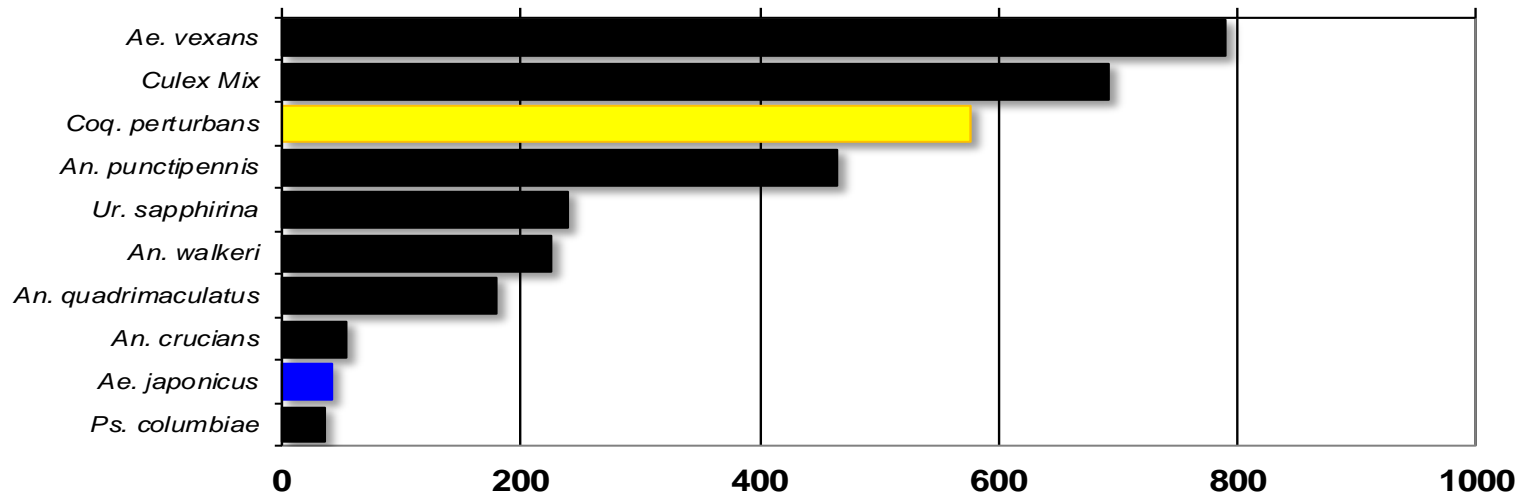
New York Metropolitan

Total # mosquitoes



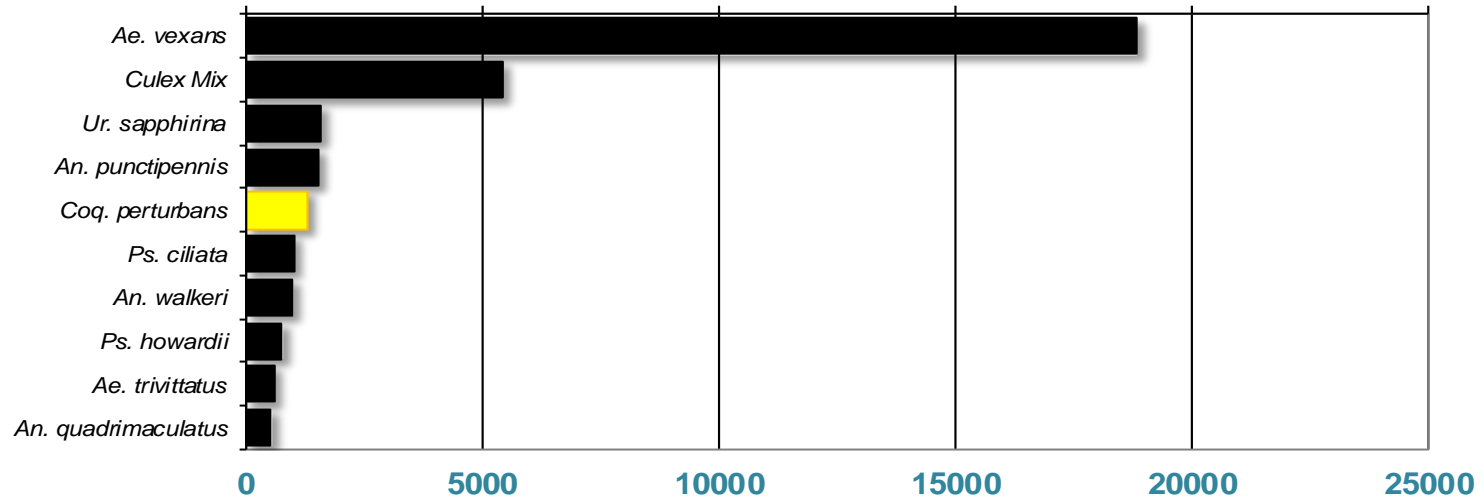
North Central Rural

Total # mosquitoes



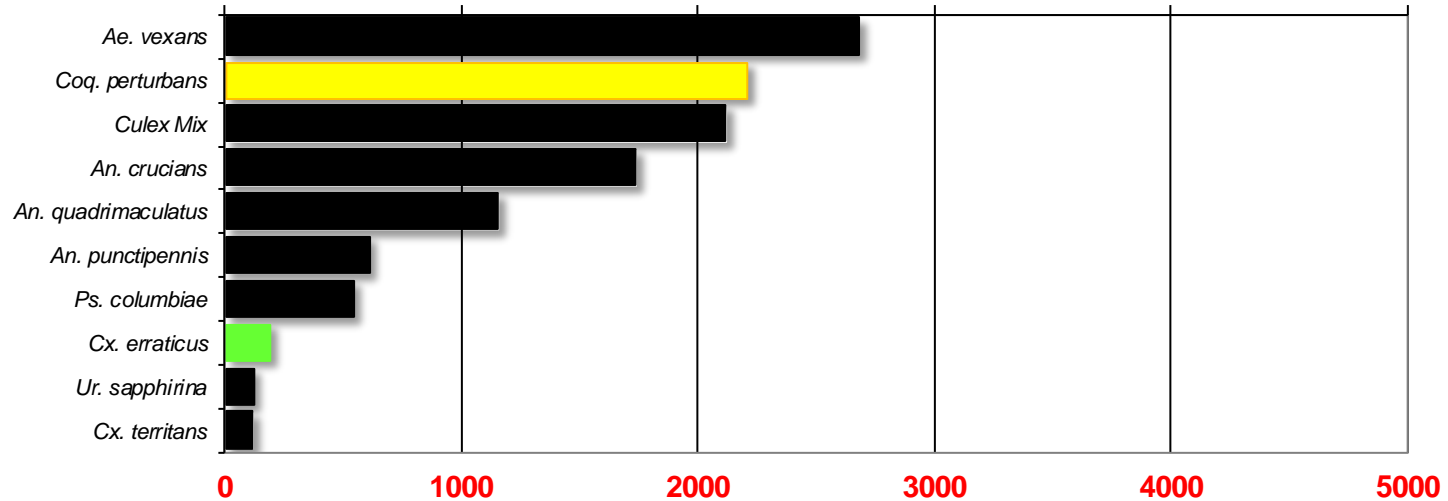
Northwest Rural

Total # mosquitoes



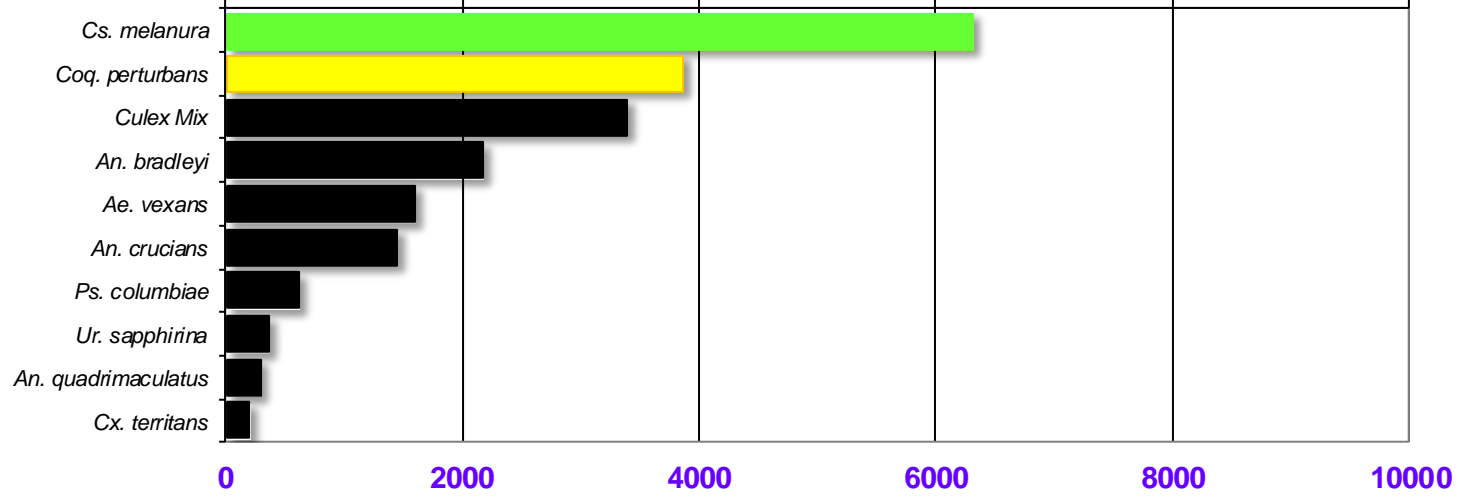
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

