

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

27 October to end 2019, 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.

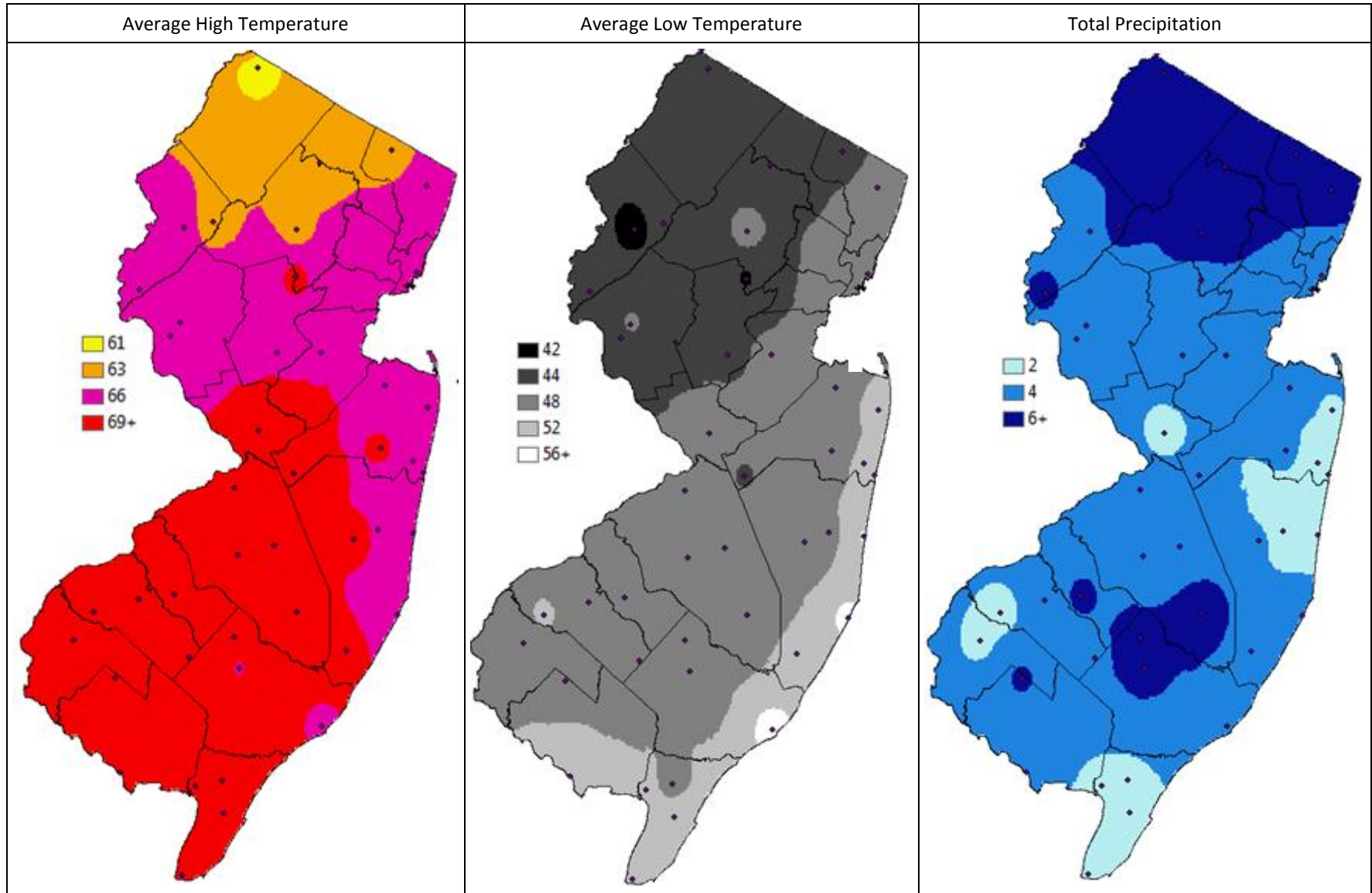
**Summary Table – Week 43**

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	0.02	0.14	0	2.64	2.61	1	0.00	0.00	0	0.00	<0.01	0
Coastal	0.03	0.74	0	0.68	1.25	0	0.00	0.00	0	0.03	<0.01	4
Delaware Bayshore	0.00	0.18	0	1.31	0.30	4	0.00	0.00	0	0.06	0.14	0
Delaware River Basin	0.00	0.17	0	1.86	0.30	4	0.00	0.00	0	0.00	0.00	0
New York Metro	0.01	0.01	0	0.37	0.15	3	0.00	0.00	0	0.00	0.00	0
North Central Rural	0.02	0.00	0	0.02	0.00		0.00	0.00	0	0.00	0.00	0
Northwest Rural	0.00	0.54	0	0.00	0.21	0	0.00	0.00	0	0.00	0.00	0
Philadelphia Metro	0.00	0.17	0	0.07	0.31	0	0.00	0.00	0	0.00	0.00	0
Pinelands	0.04	0.15	0	0.35	0.31	1	0.00	0.00	0	0.00	0.00	0
Suburban Corridor	0.13	0.01	4	0.18	0.14	1	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 2019 season, and the peculiarities of this season are demonstrated by the flush of activity as a last hurrah before the season ends. *Aedes sollicitans* shows significant activity in the Coastal region, but at low population levels. After quiet for most of the season, *Aedes vexans* abundances increased significantly in the Suburban Corridor. *Culex Mix* had notable populations in the Delaware Bayshore, Delaware River Basin and the New York Metropolitan regions, along with mild increases in the Agricultural, Pinelands, and Suburban Corridor. For the third week in a row, the North Central Rural had populations above an historic zero. *Coquillettidia perturbans* has ended for the season.

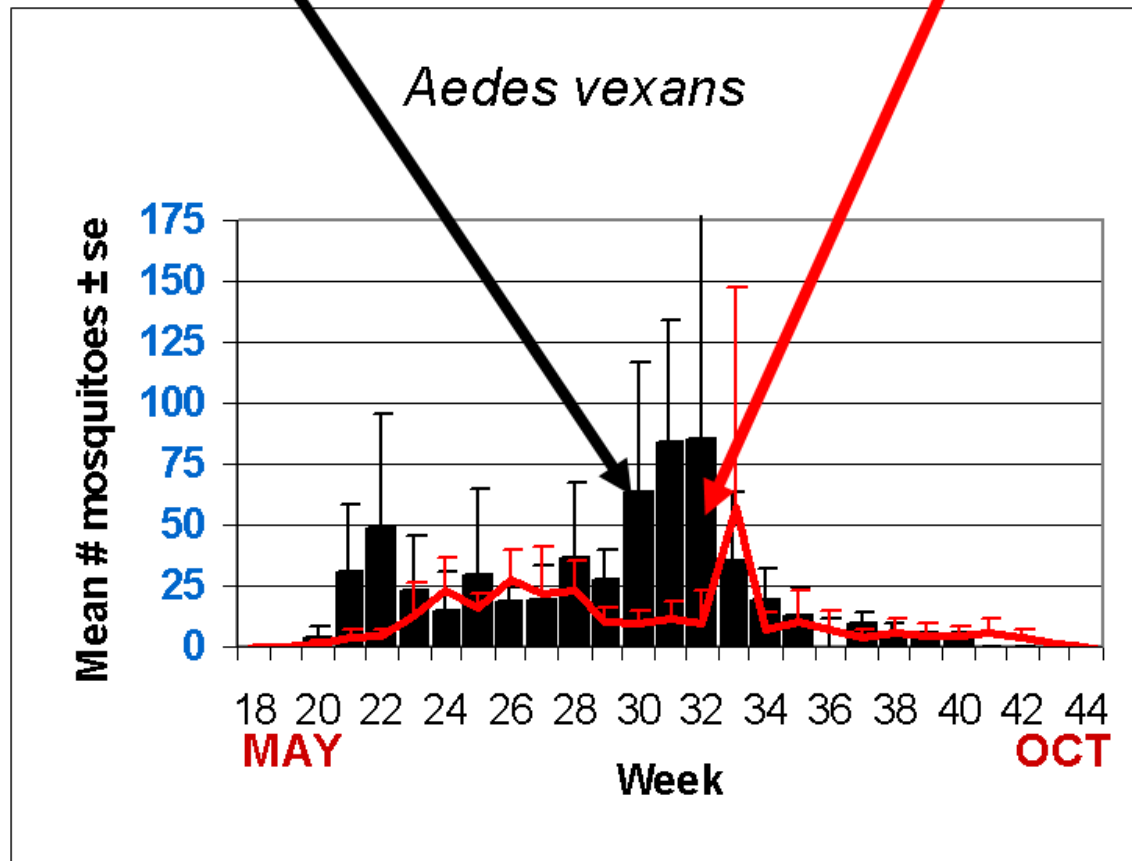
## Climate Factors



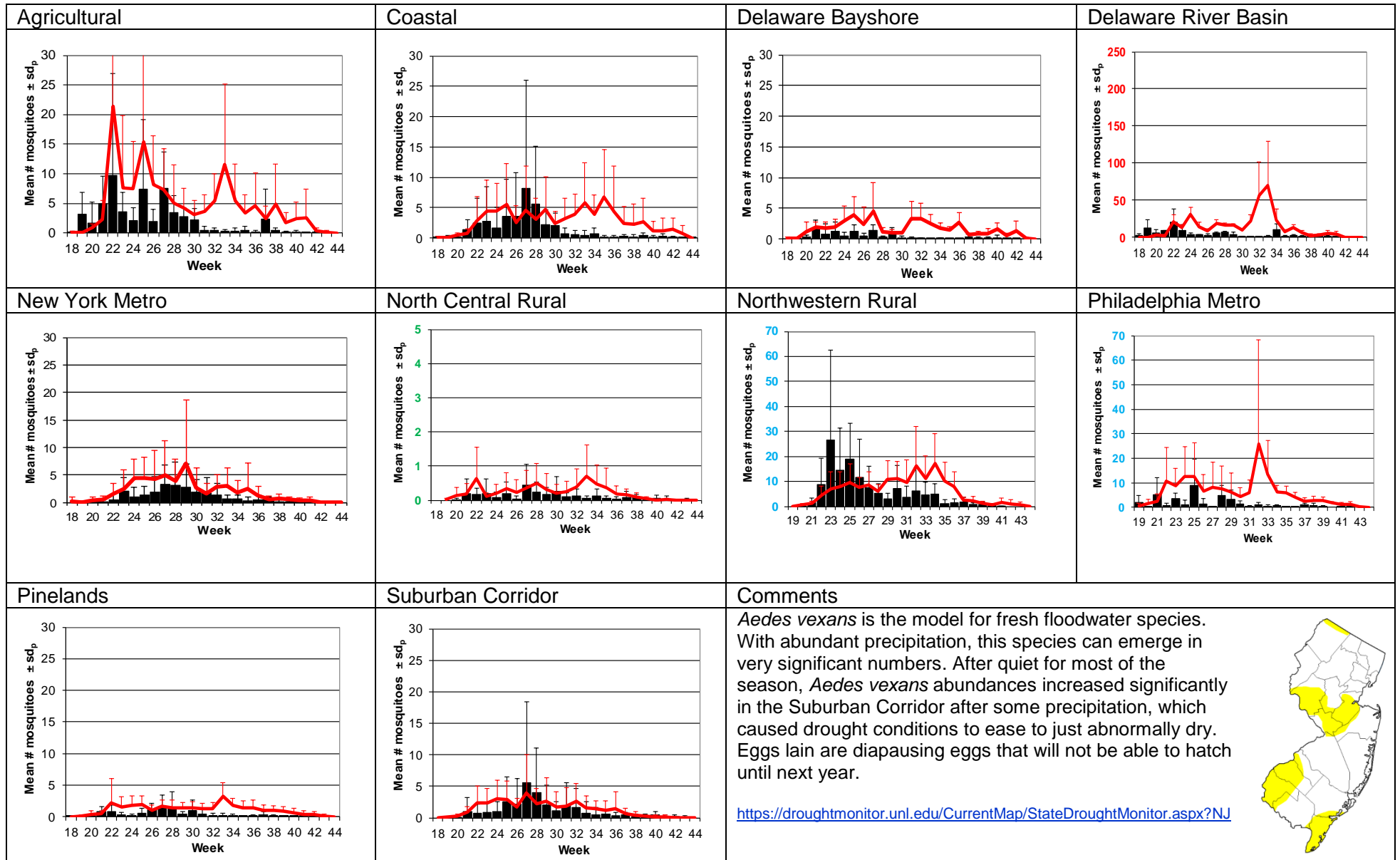
The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 28 October 2019 in New Jersey. Data points are from about 50 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. 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 Atlantic, Bergen, Burlington, Cape May, Cumberland, Hudson, Mercer, Middlesex, Monmouth, Morris, and Salem counties. Data for the previous week are from Atlantic, Bergen, Burlington, Cape May, Cumberland, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Passaic, Salem, Sussex, and Union counties. Some counties are bringing light traps in as their seasons come to a close.

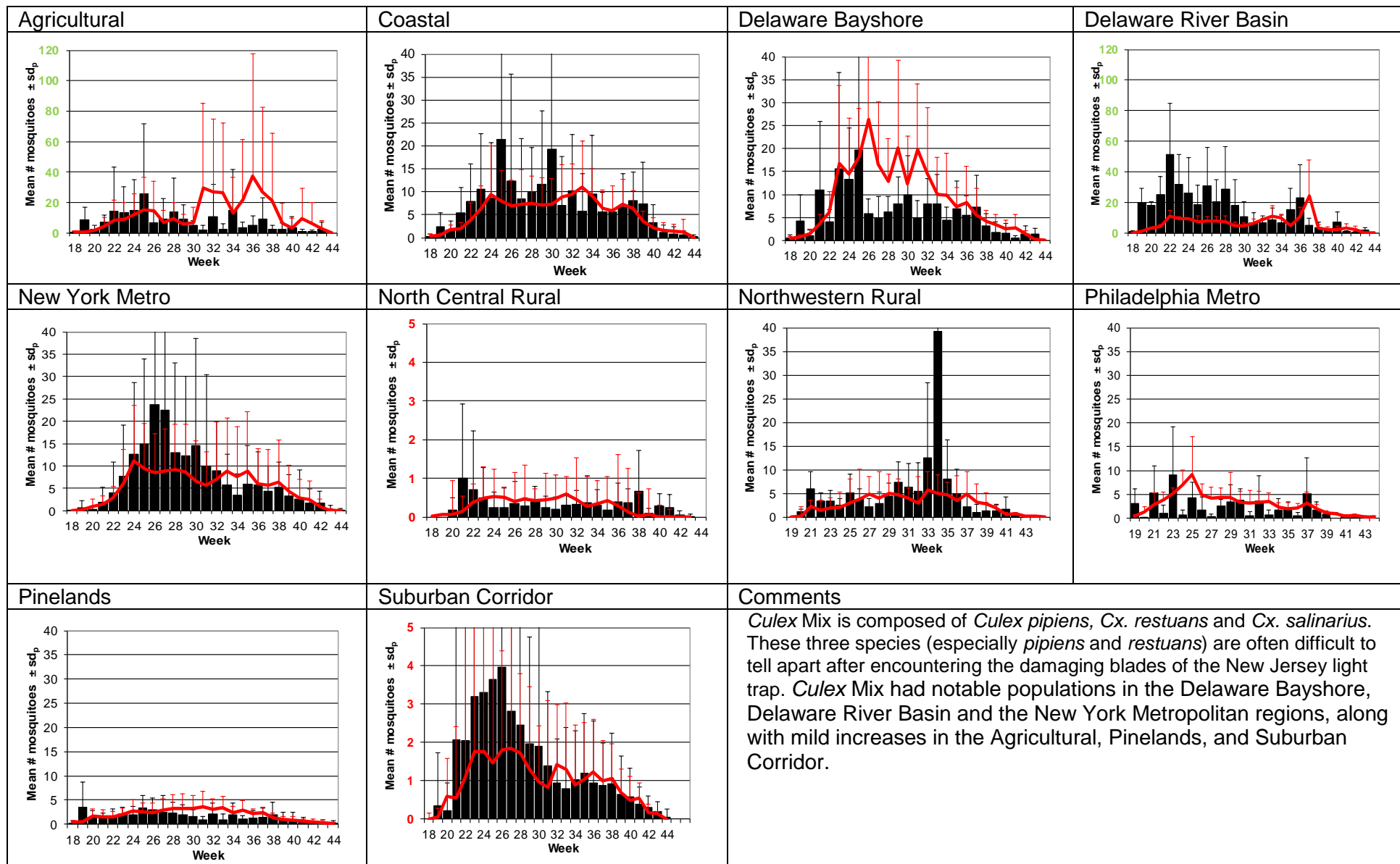
## Weekly Means Against 5-year Average



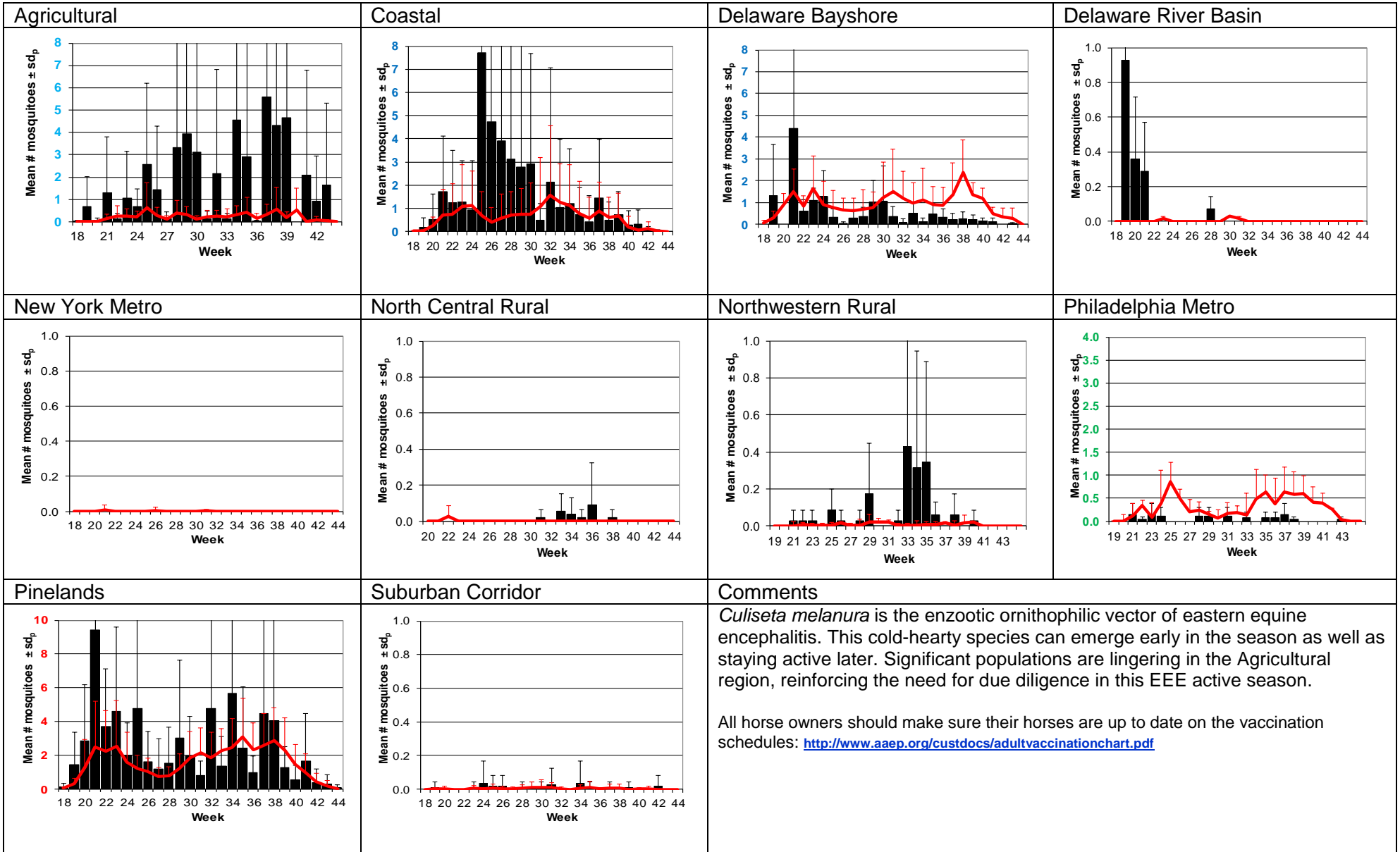
# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)



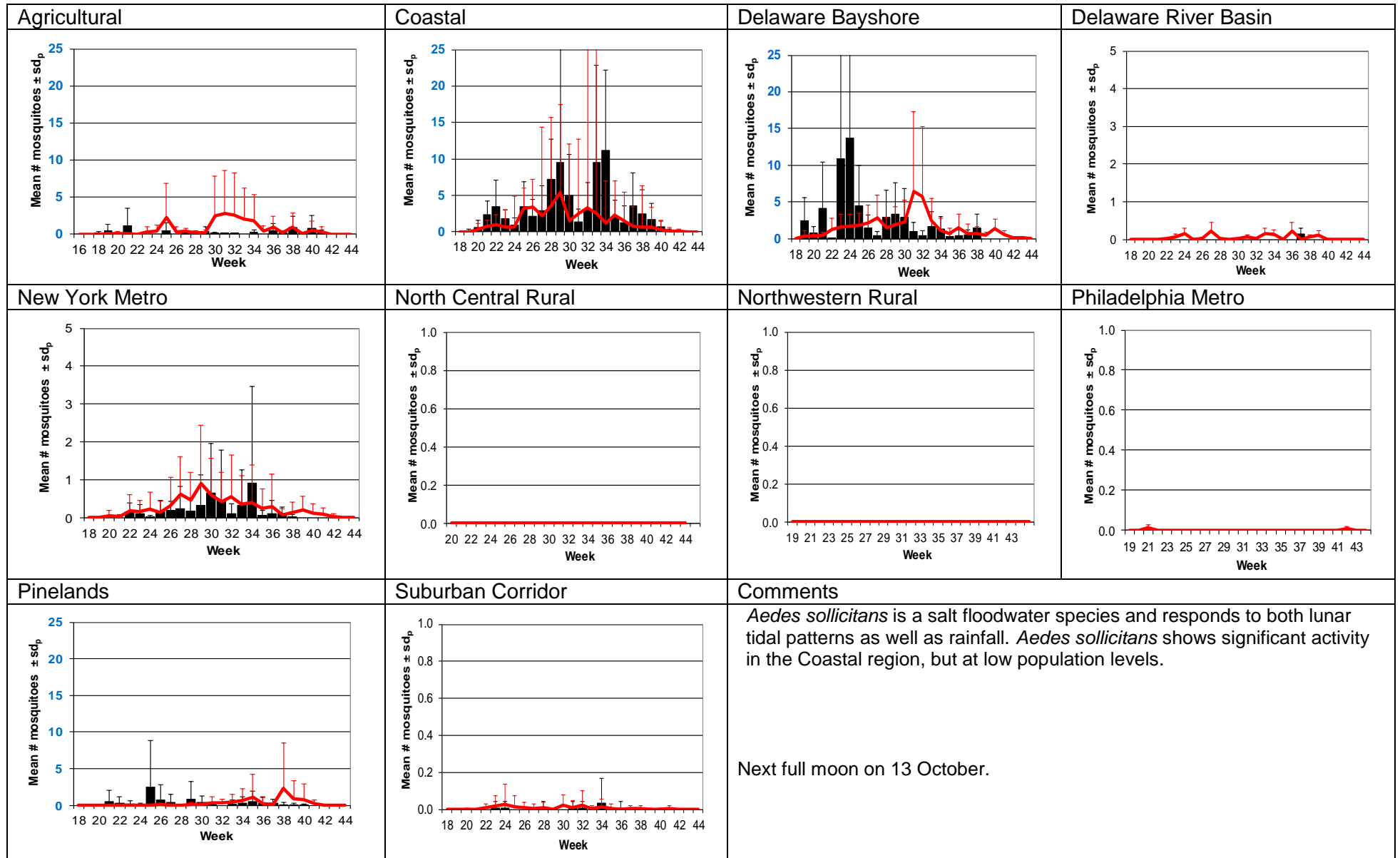
# Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

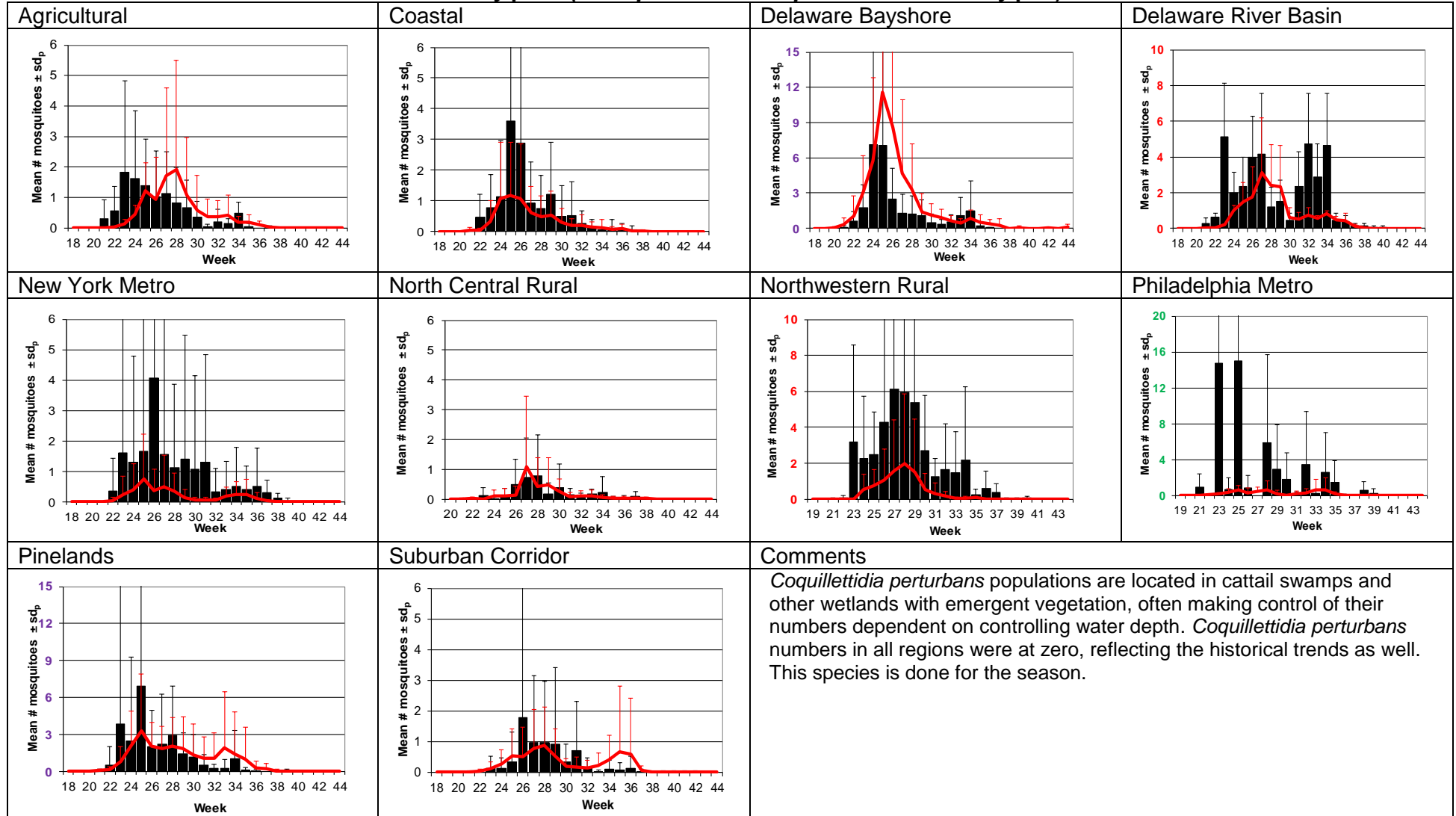


# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)



# *Coquillettidia perturbans*

## Monotypic (*Coquillettidia perturbans* Type)



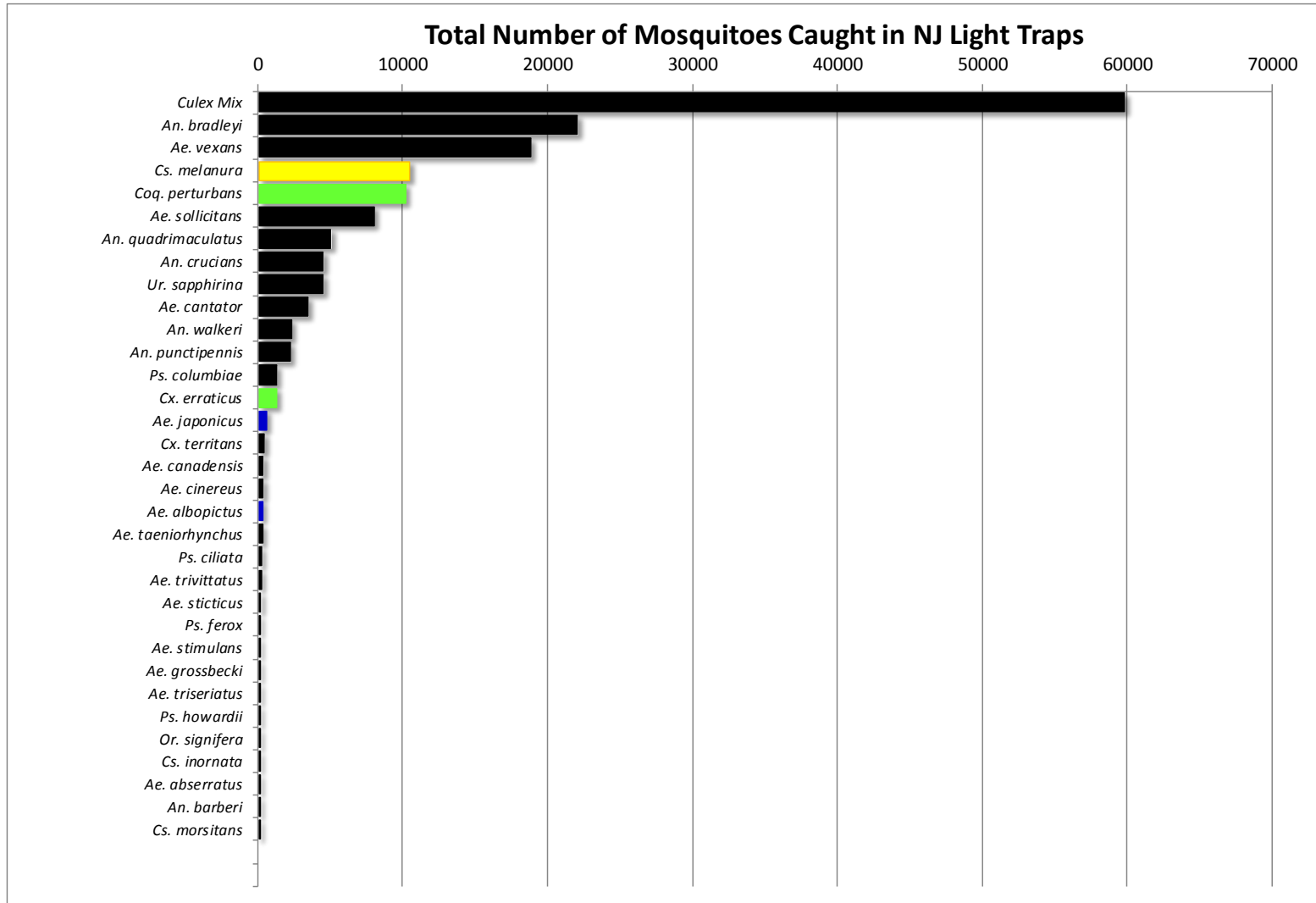


WNV

EEE

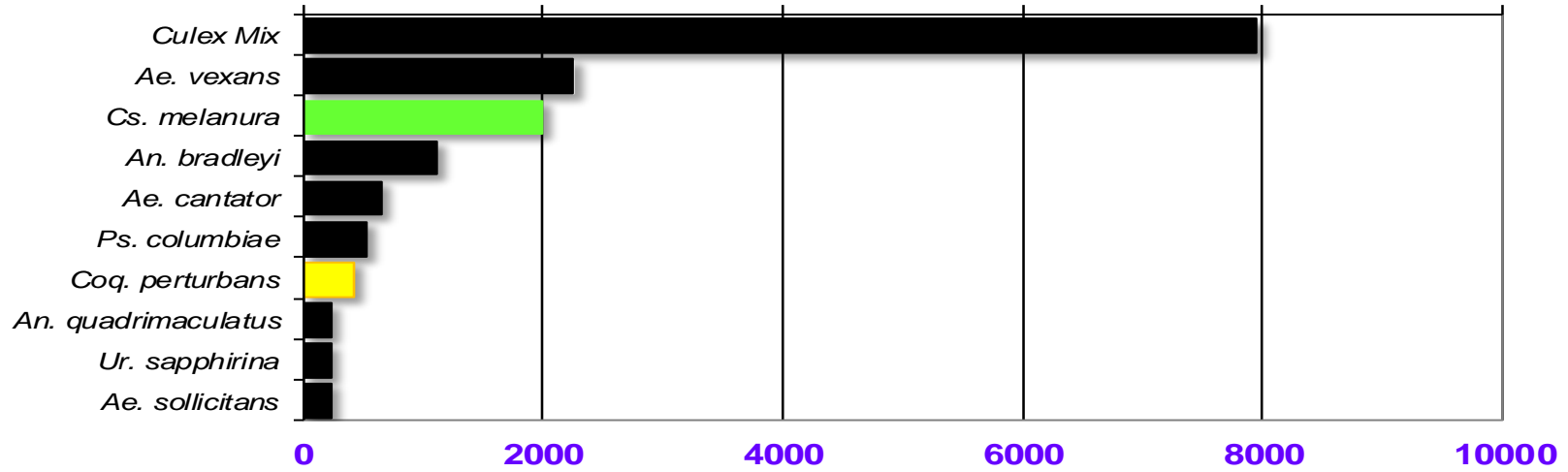
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



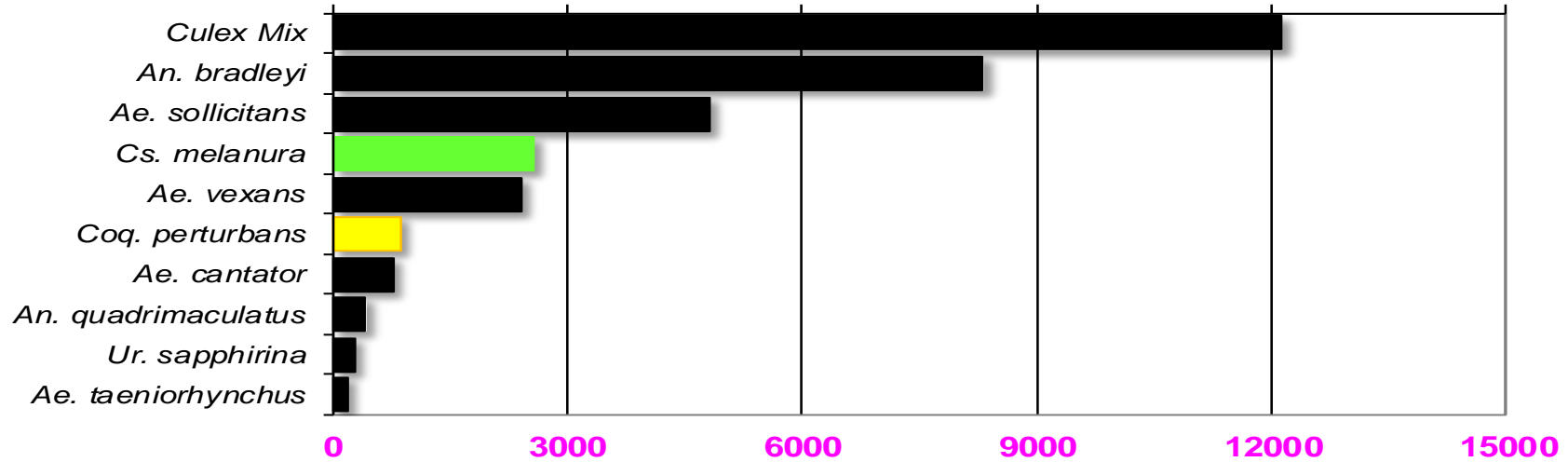
## Agricultural

Total # mosquitoes



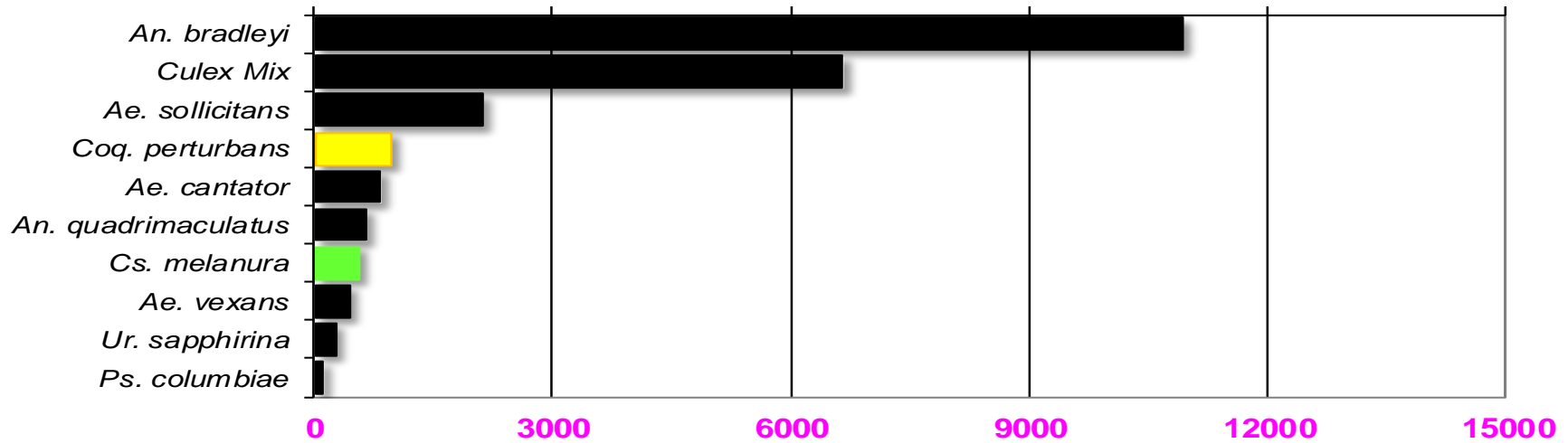
## Coastal

Total # mosquitoes



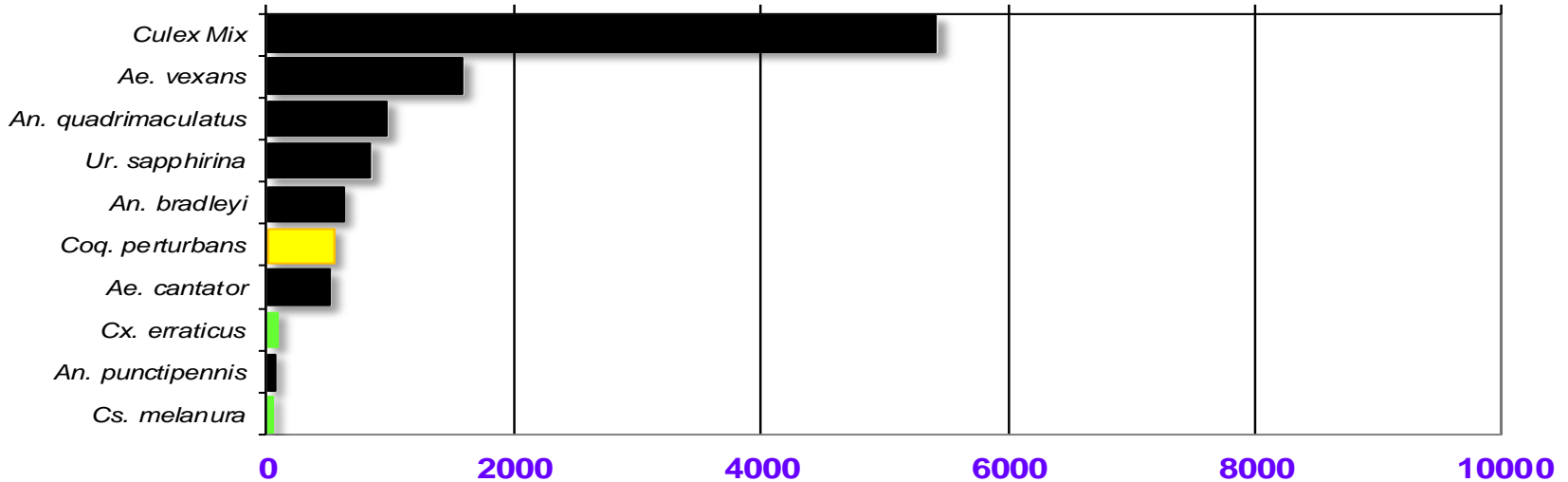
## Delaware Bayshore

Total # mosquitoes



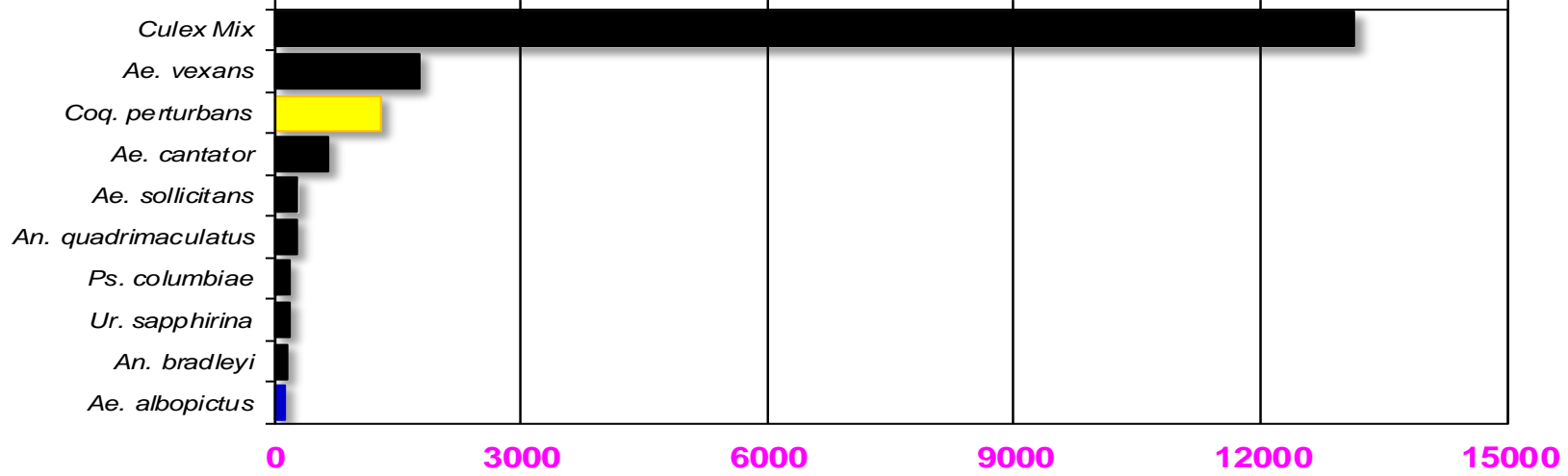
## Delaware River Basin

Total # mosquitoes



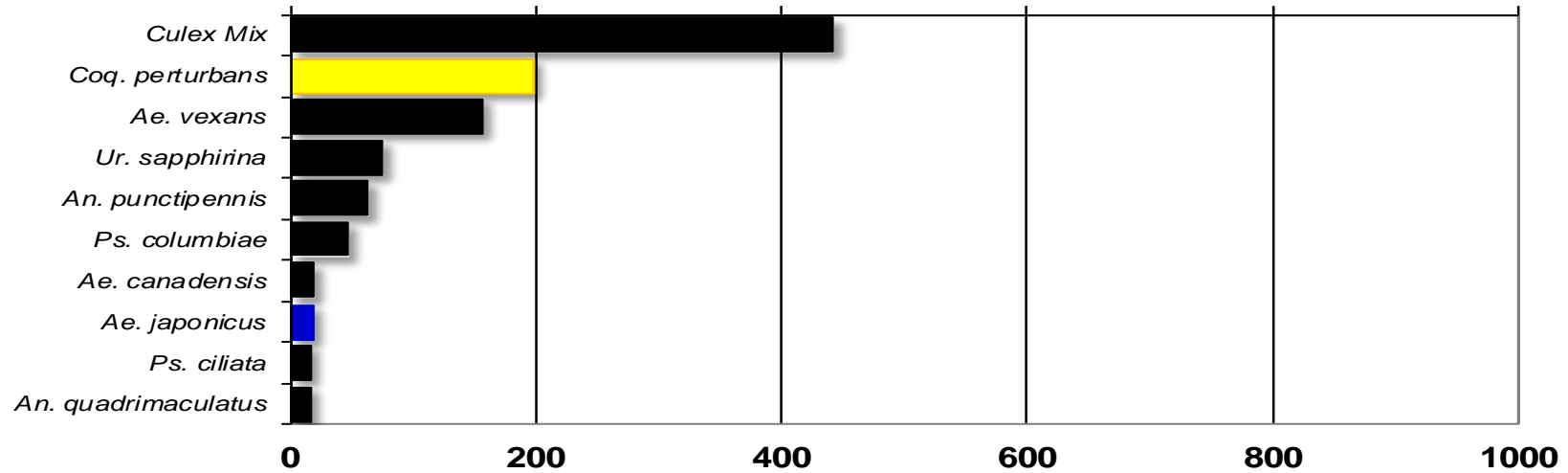
## New York Metropolitan

Total # mosquitoes



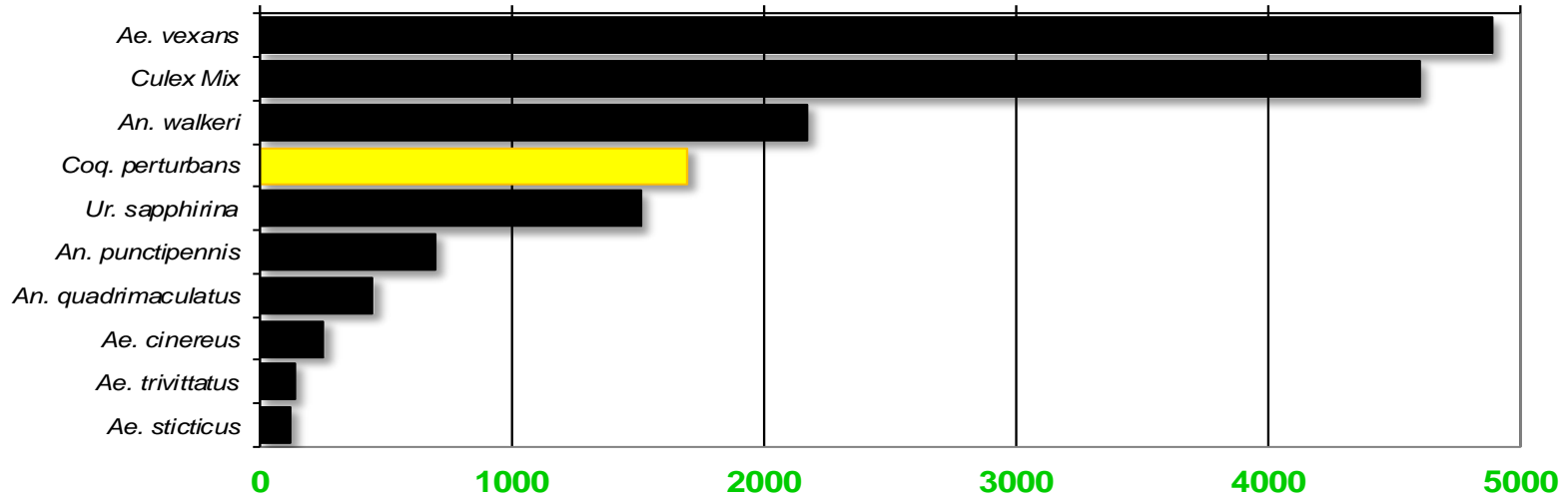
## North Central Rural

Total # mosquitoes



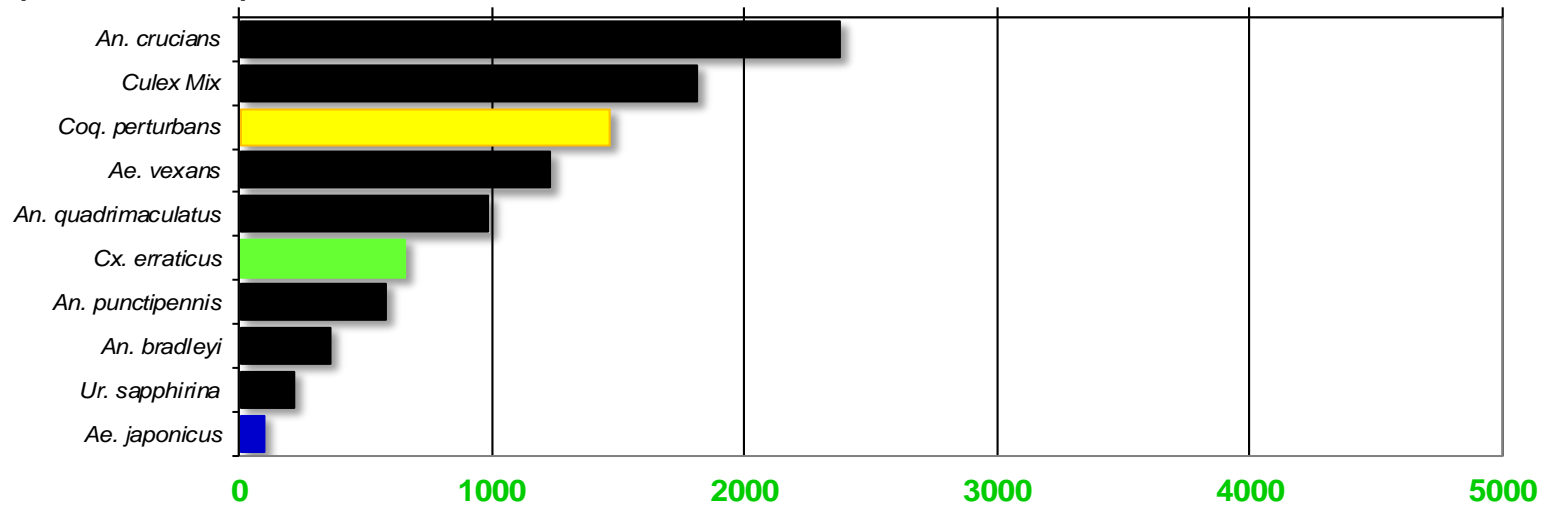
## Northwest Rural

Total # mosquitoes



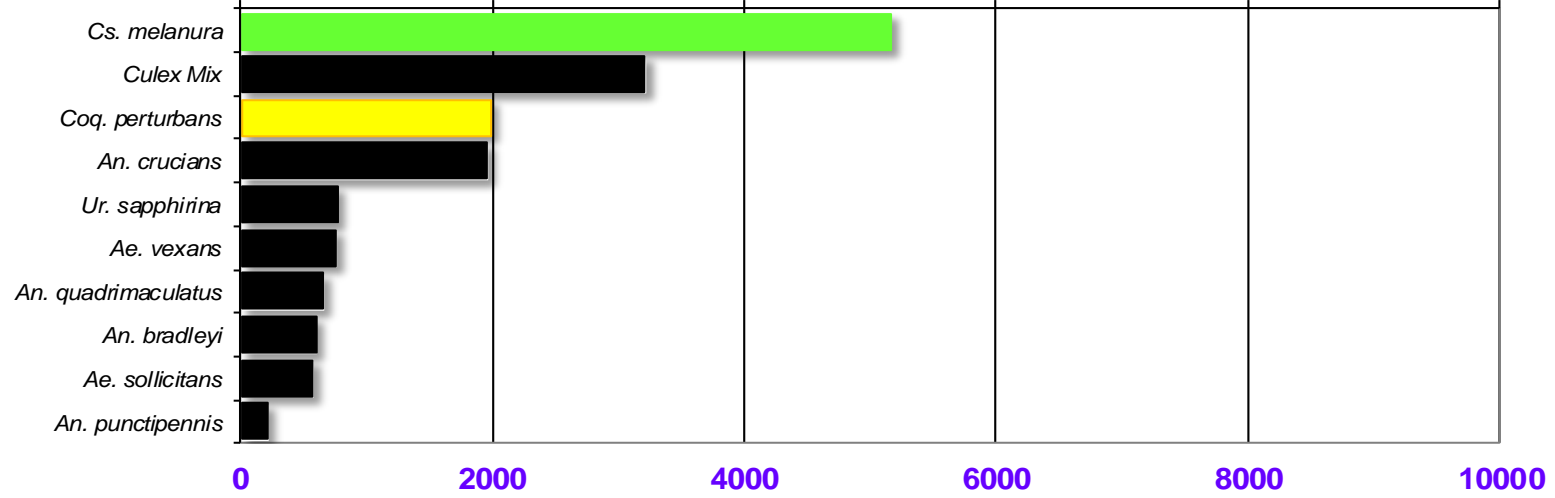
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

