

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 30 July to 5 August 2017, CDC Week 31

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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.

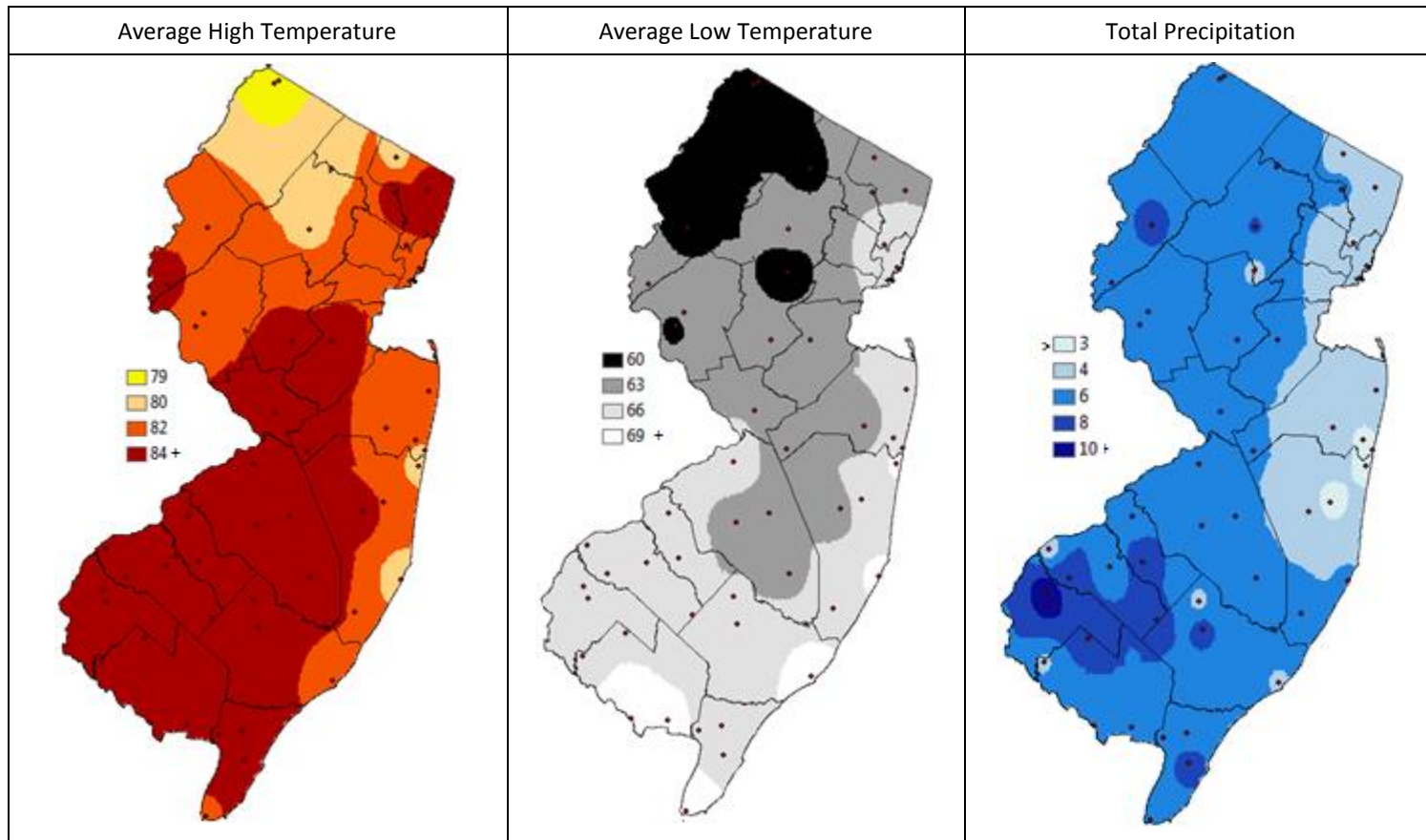
**Summary Table – Week 31**

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	0.31	1.55	0	18.17	4.03	4	0.00	0.08	0	0.00	0.07	0
Coastal	1.27	1.65	0	0.81	6.96	0	0.00	0.08	0	1.70	2.46	0
Delaware Bayshore	nd	3.78	0	nd	13.07	0	nd	0.42	0	nd	1.27	0
Delaware River Basin	1.43	3.04	0	2.21	1.90	1	0.43	0.06	4	0.00	0.00	0
New York Metro	1.43	1.00	1	8.66	2.76	4	0.06	0.02	4	0.07	0.18	0
North Central Rural	0.00	0.15	0	0.07	0.60	0	0.00	0.02	0	0.00	0.00	0
Northwest Rural	nd	1.83	0	nd	2.14	0	nd	0.60	0	nd	0.00	0
Philadelphia Metro	nd	2.50	0	nd	1.98	0	nd	0.15	0	nd	0.00	0
Pinelands	0.30	0.64	0	0.70	2.39	0	0.04	0.38	0	0.08	0.02	4
Suburban Corridor	0.44	1.18	0	0.85	0.80	1	0.02	0.73	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: A number of pestiferous populations were significantly higher than recent historical averages, including *Culex Mix* in the Agricultural and New York Metropolitan regions, *Coquillettidia perturbans* in the Delaware River Basin and New York Metropolitan regions, and *Aedes sollicitans* in the Pinelands. Others were mildly elevated over historical regions with the data submitted to date.

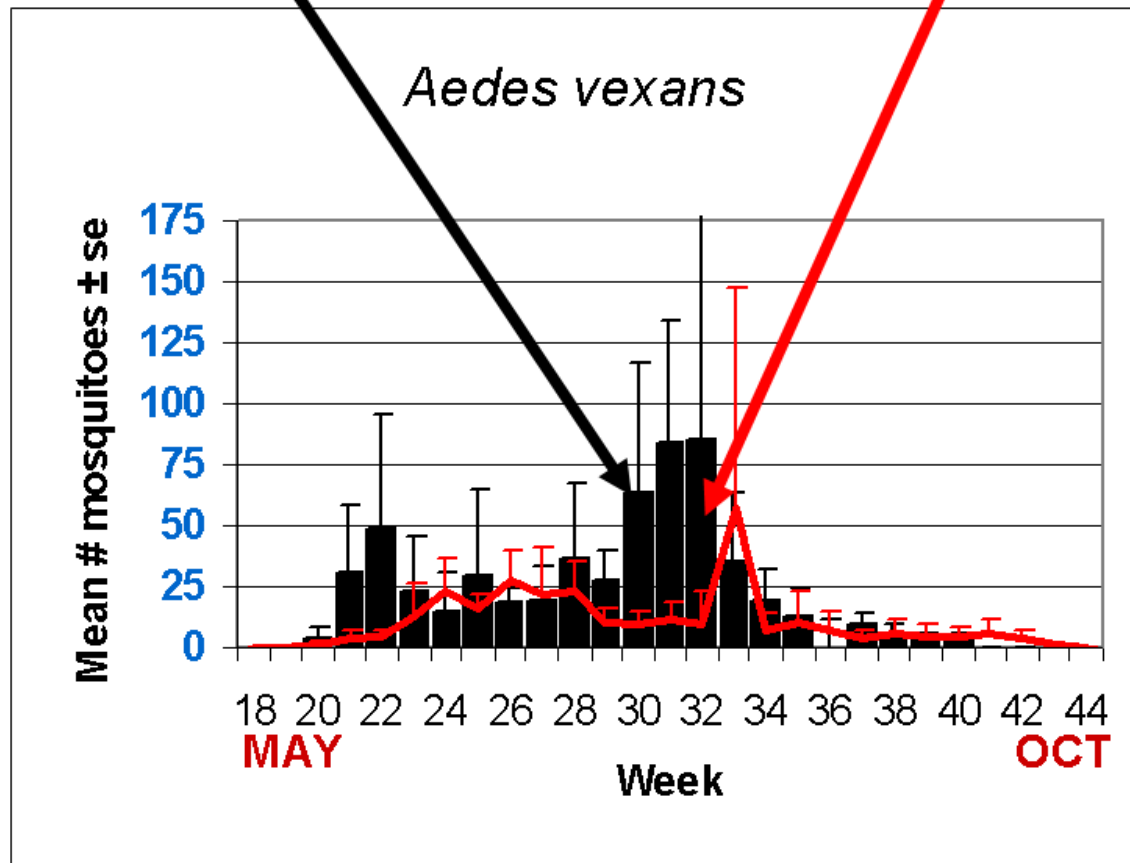
## Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 5 August 2017 in New Jersey. Data points are from about 55 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, Essex, Hudson, Hunterdon, Mercer, Monmouth, Passaic, Salem, and Union counties. Data for the previous week are from Atlantic, Bergen, Burlington, Cape May, Cumberland, Essex, Hudson, Hunterdon, Mercer, Monmouth, Morris, Ocean, Passaic, Salem, and Union counties.

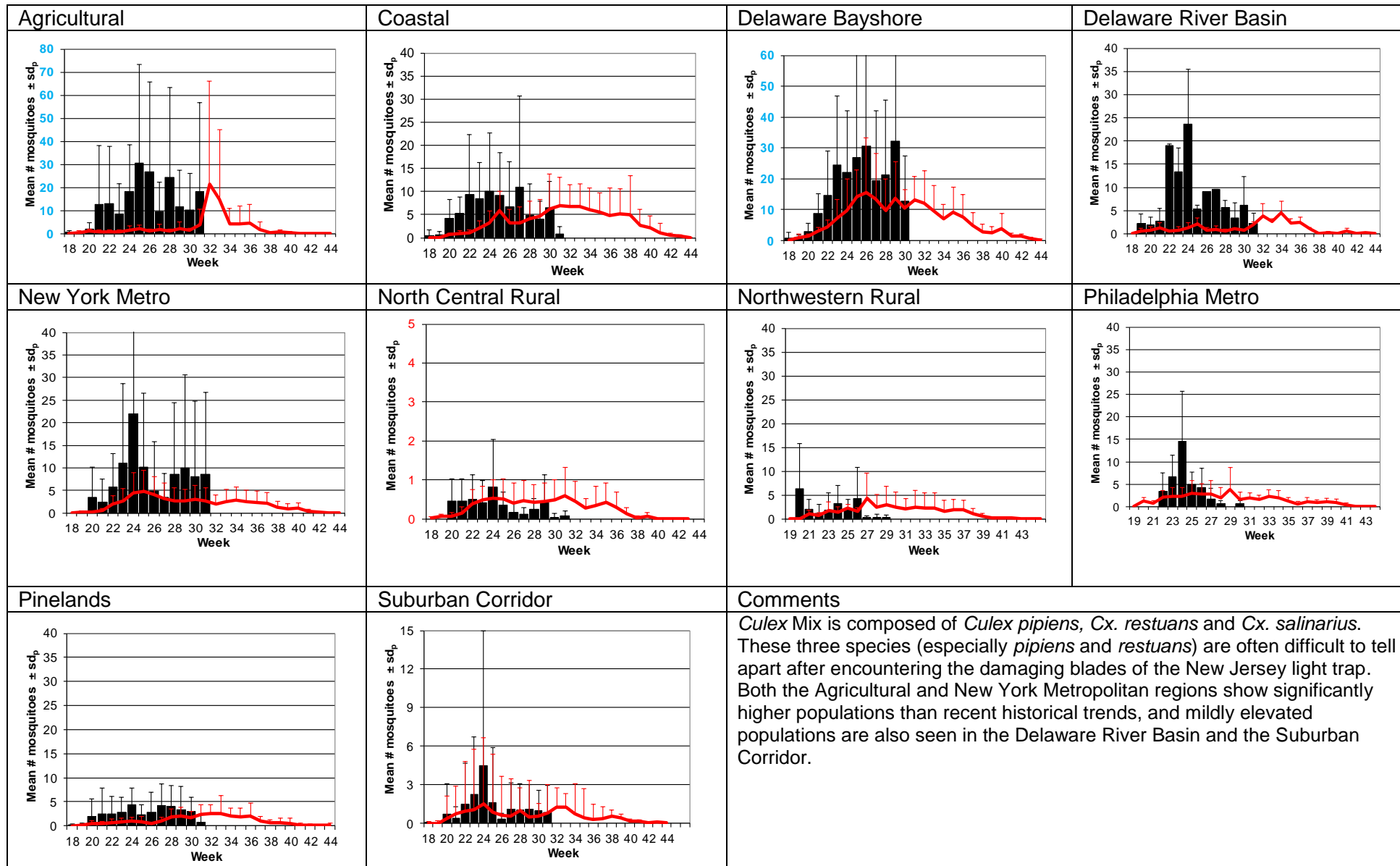
## Weekly Means Against 5-year Average



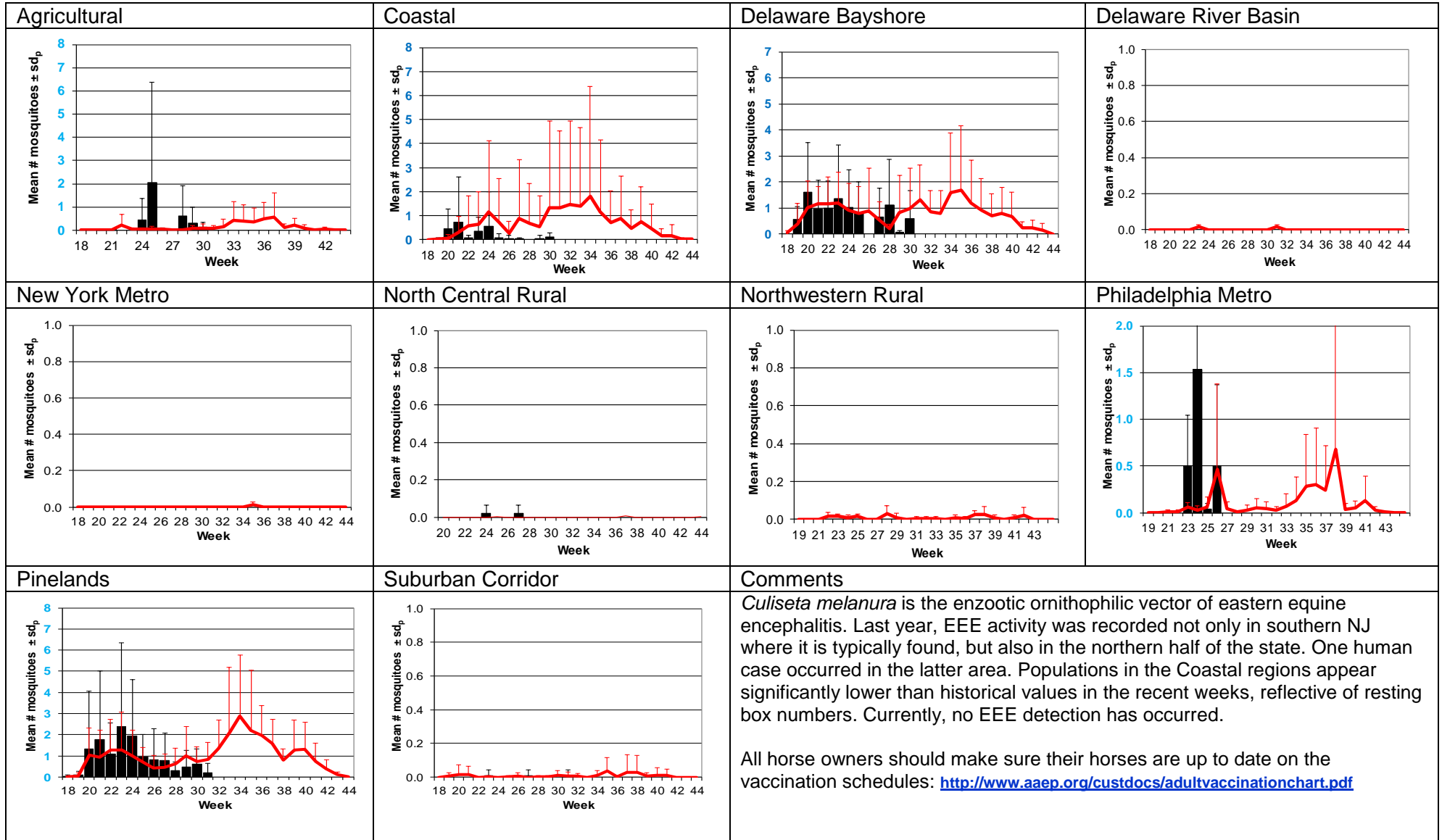
# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

<p><b>Agricultural</b></p>	<p><b>Coastal</b></p>	<p><b>Delaware Bayshore</b></p>	<p><b>Delaware River Basin</b></p>
<p><b>New York Metro</b></p>	<p><b>North Central Rural</b></p>	<p><b>Northwestern Rural</b></p>	<p><b>Philadelphia Metro</b></p>
<p><b>Pinelands</b></p>	<p><b>Suburban Corridor</b></p>	<p><b>Comments</b></p> <p><i>Aedes vexans</i> is the model for fresh floodwater species. With abundant precipitation, this species can emerge in very significant numbers. Currently, <i>Ae. vexans</i> numbers in the New York Metropolitan region were the only populations reported as mildly elevated over historical averages. Flooding potential today is forecasted through much of New Jersey, setting up the potential for larger emergences of floodwater (both fresh and salt) species into next week.</p>	

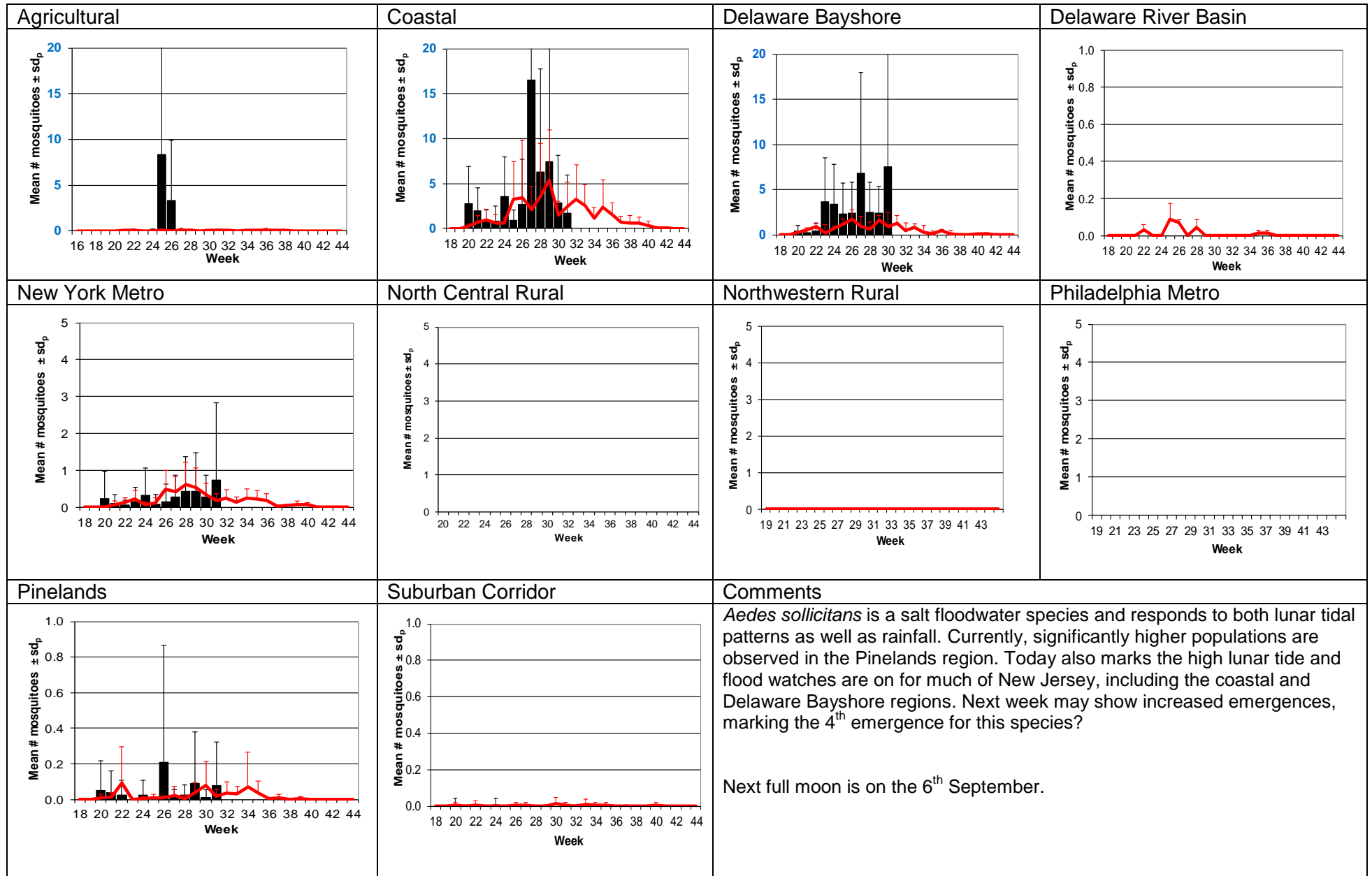
# Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

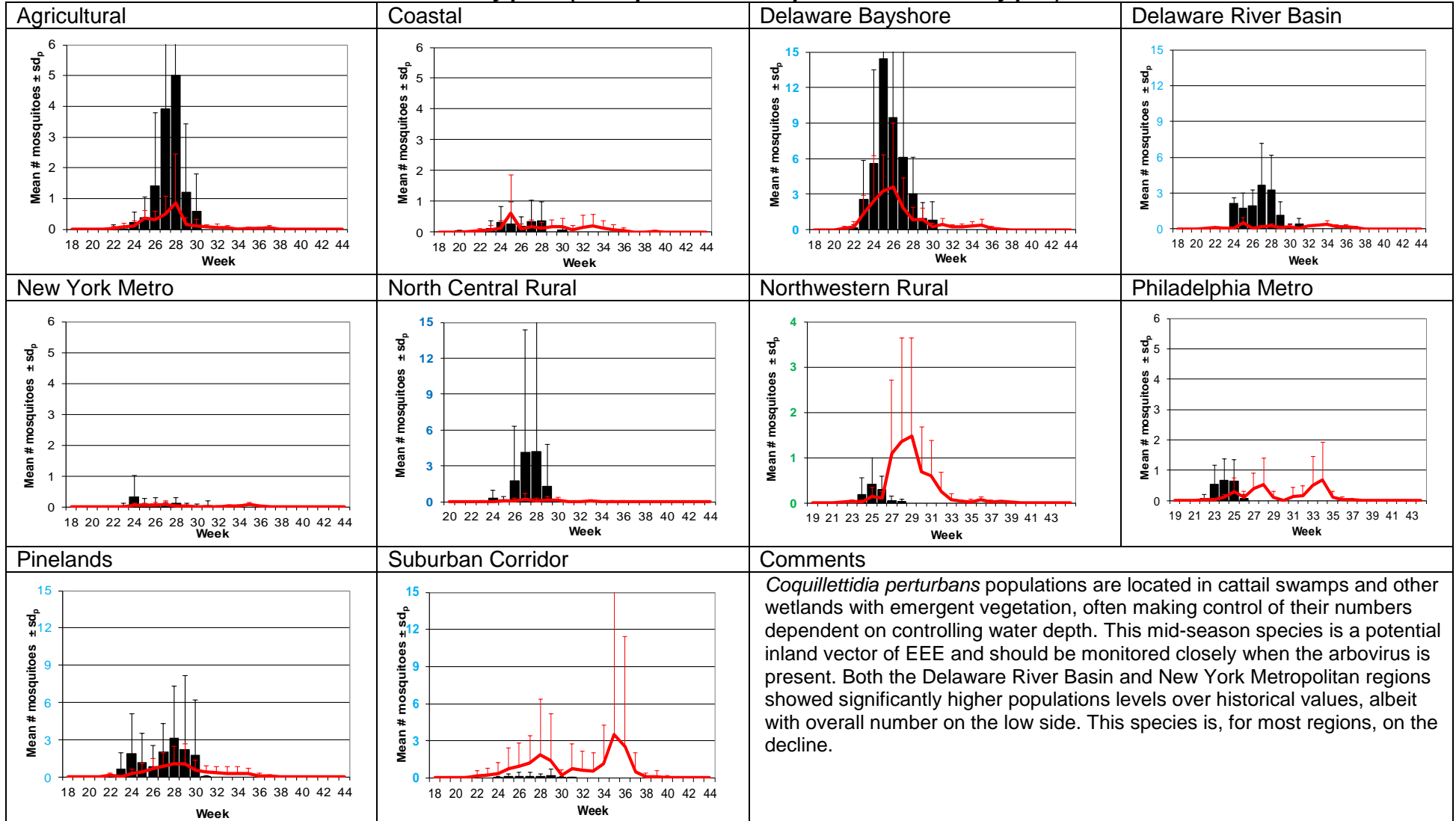


# *Aedes sollicitans* - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)



# Coquillettidia perturbans

## Monotypic (*Coquillettidia perturbans* Type)



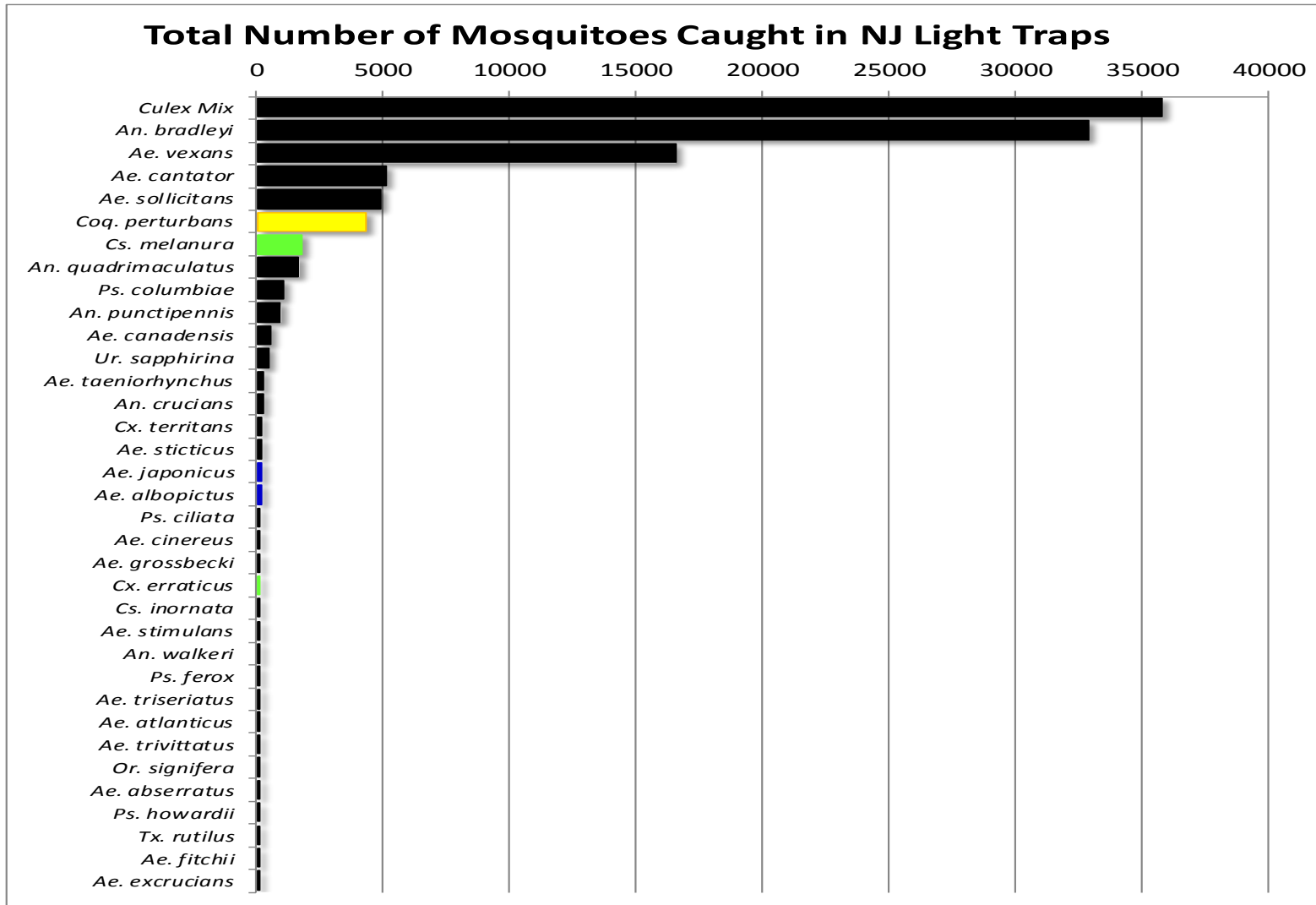


WNV

EEE

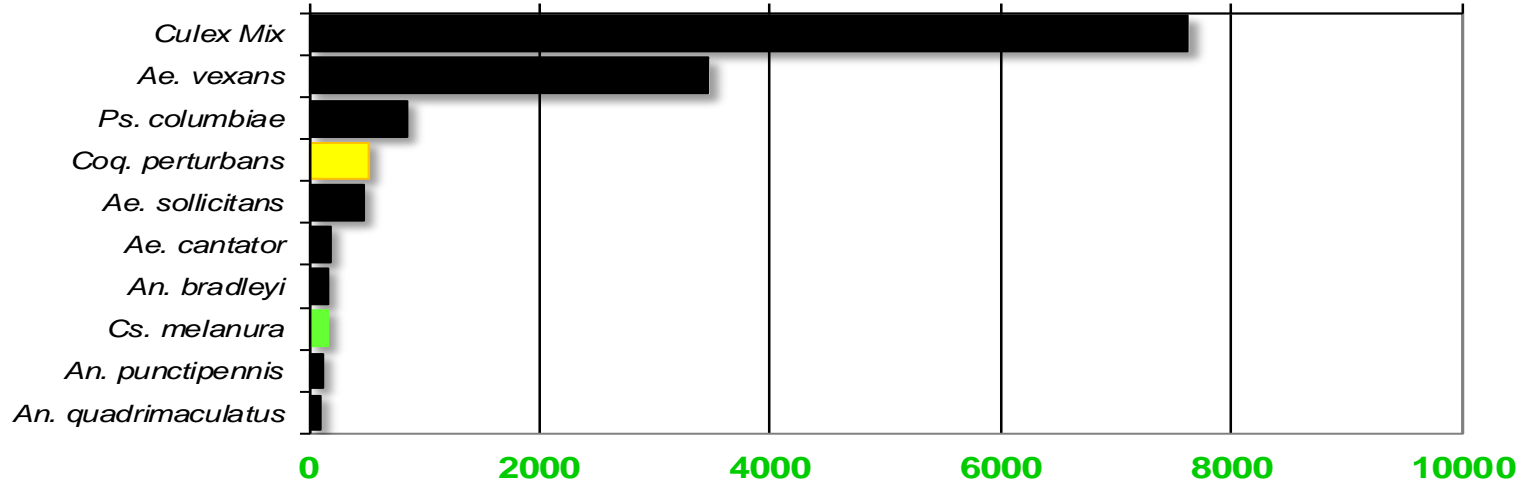
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



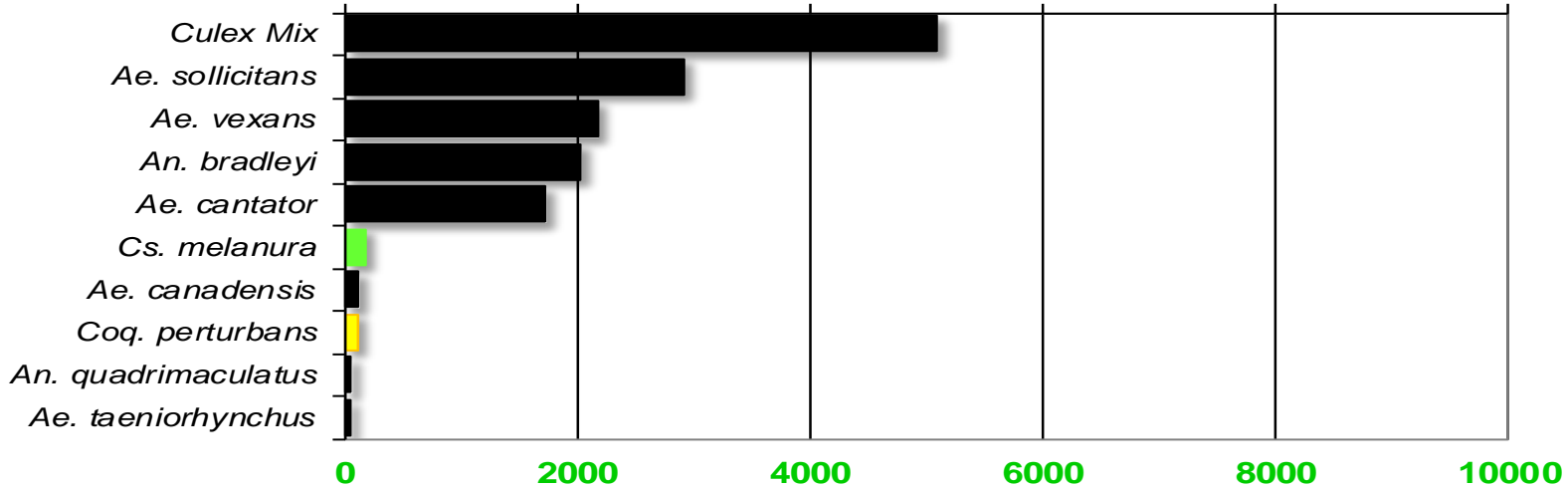
## Agricultural

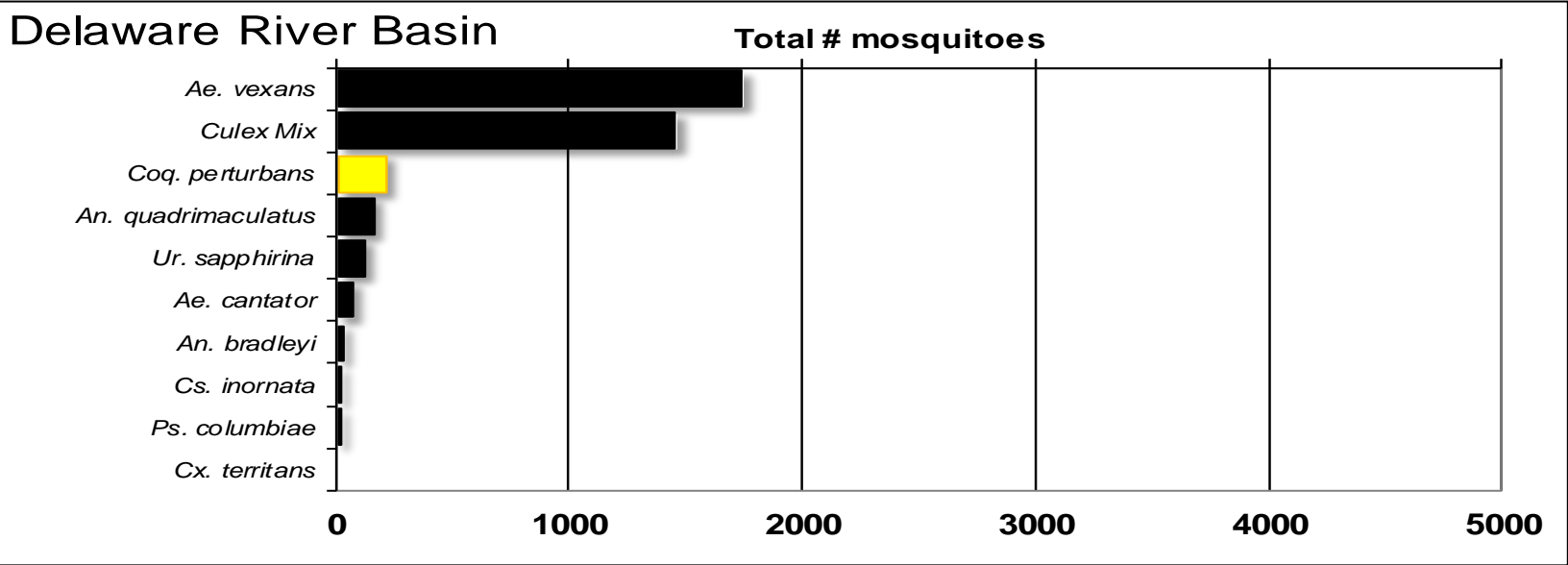
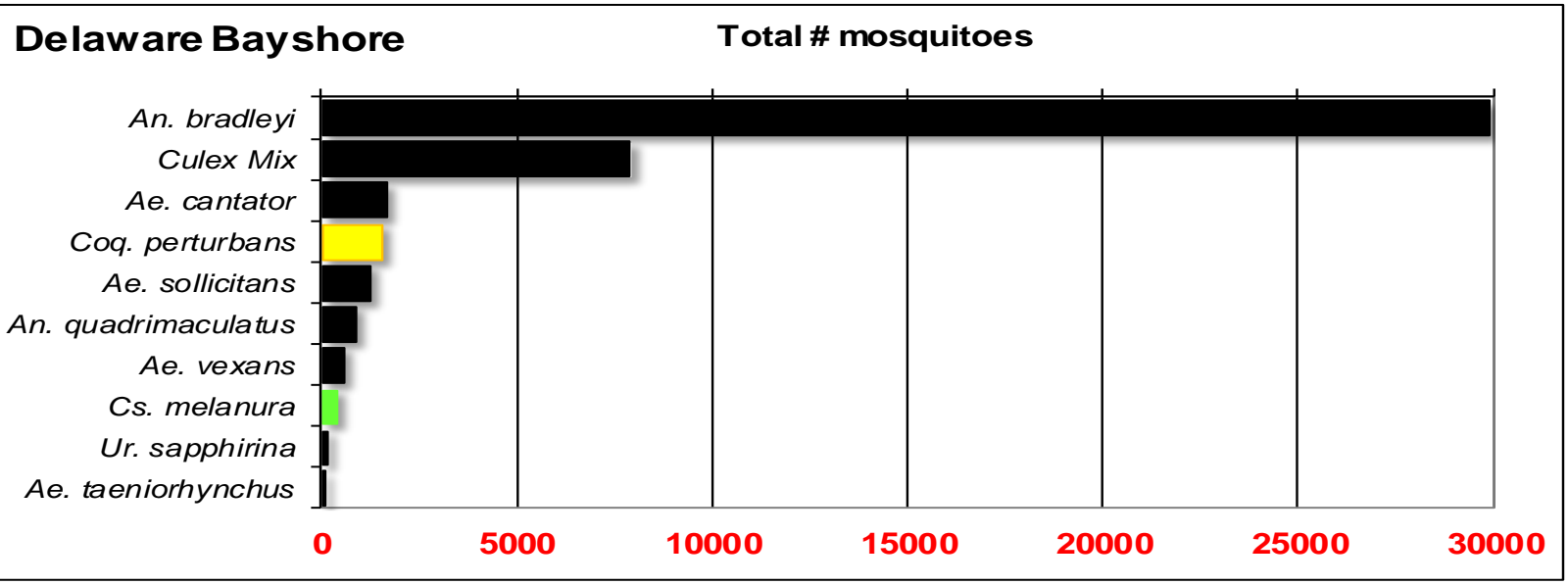
Total # mosquitoes



## Coastal

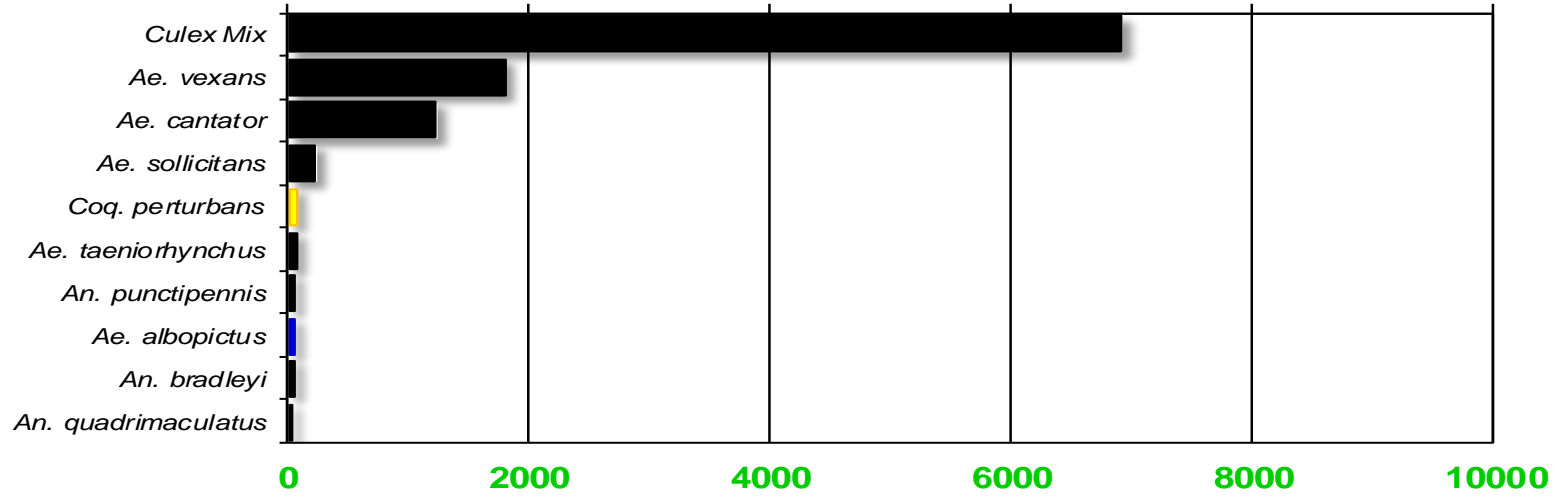
Total # mosquitoes





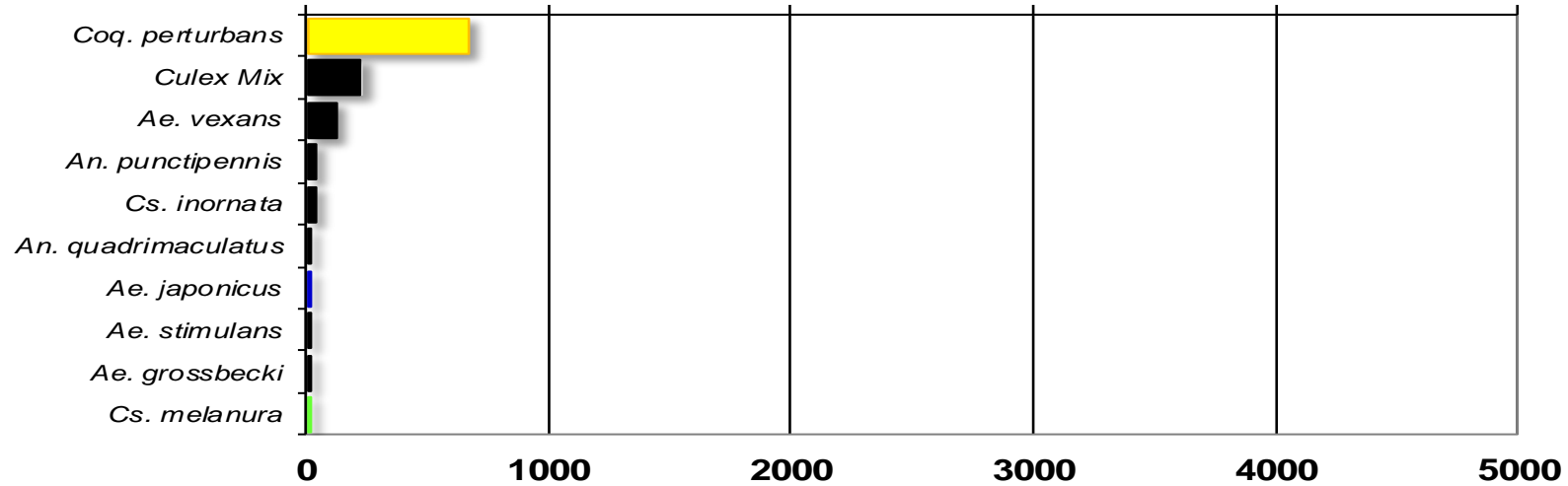
## New York Metropolitan

Total # mosquitoes



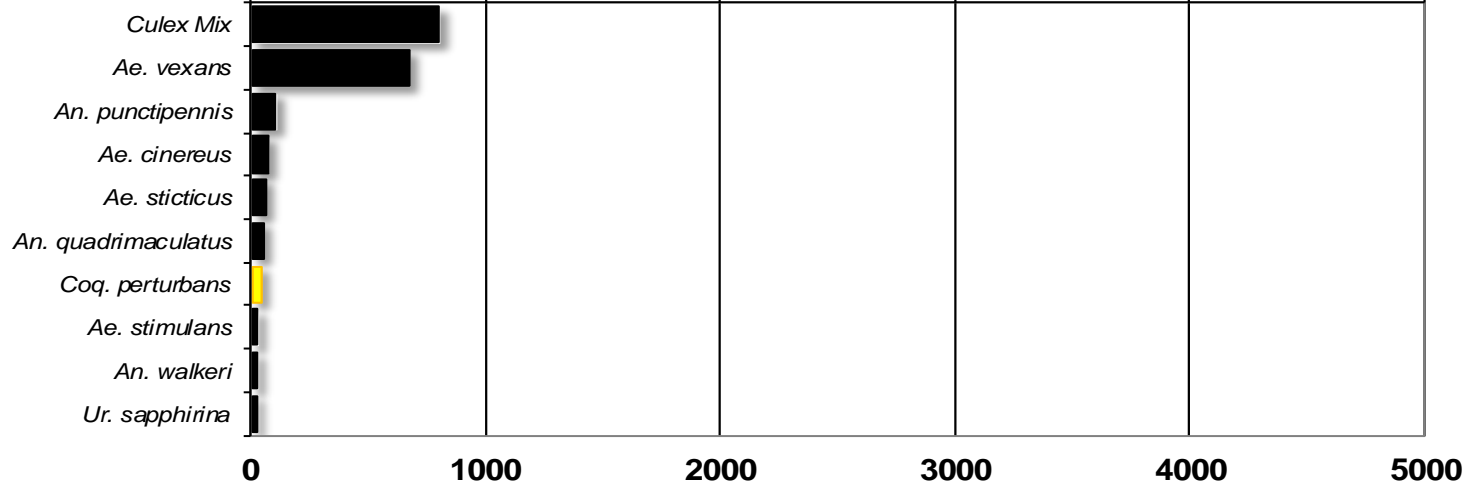
## North Central Rural

Total # mosquitoes



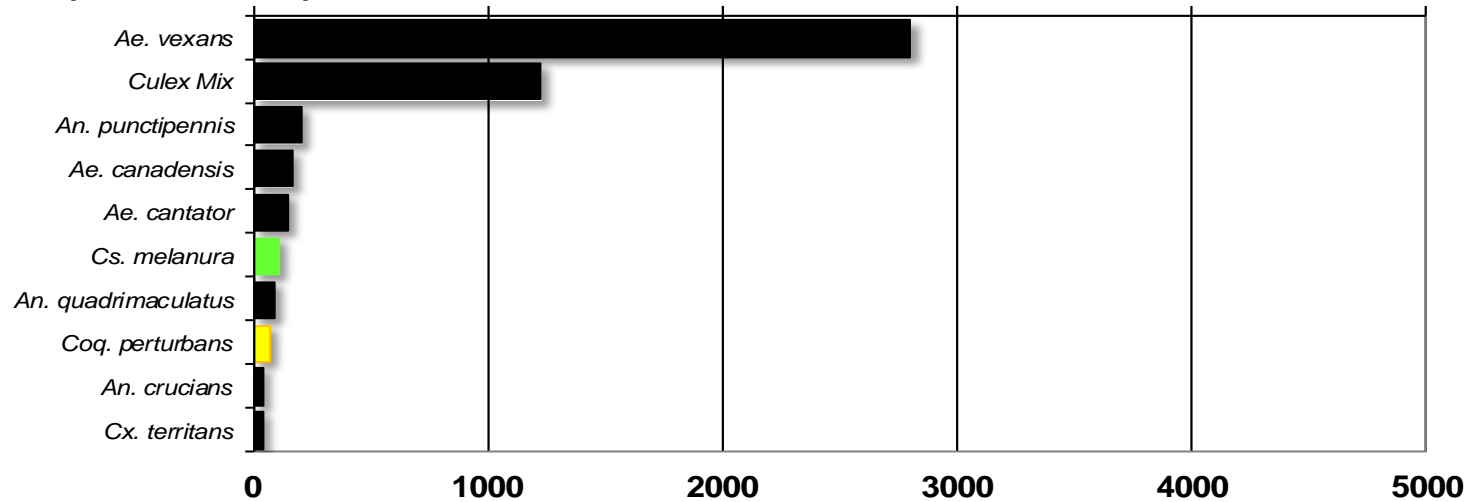
## Northwest Rural

Total # mosquitoes



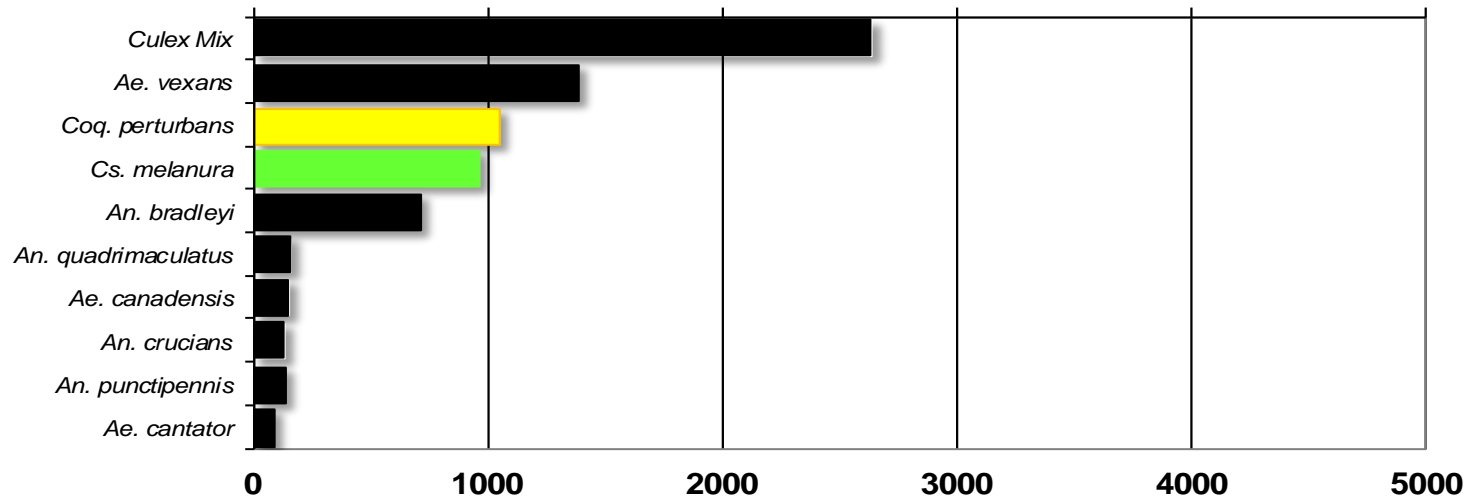
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

