

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

8 September to 14 September 2019, CDC Week 37

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Center for Vector Biology



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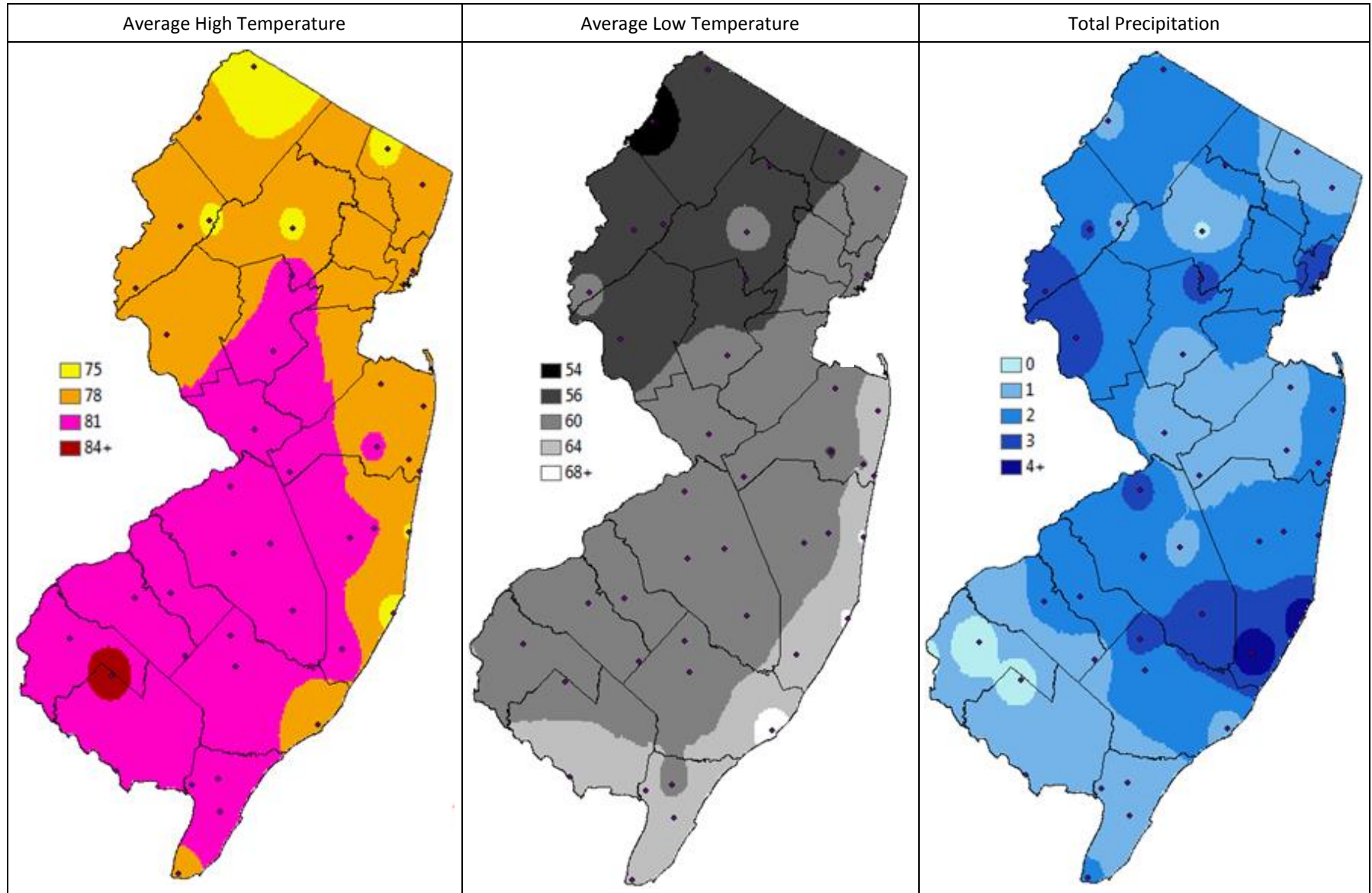
Summary Table – Week 37

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	0.10	2.44	0	1.86	26.82	0	0.02	0.01	3	0.07	0.19	0
Coastal	0.16	2.41	0	6.14	7.35	0	0.05	0.01	4	2.68	0.68	4
Delaware Bayshore	0.02	0.71	0	0.62	5.53	0	0.00	0.27	0	0.00	0.72	0
Delaware River Basin	1.50	6.56	0	5.07	24.27	0	0.14	0.11	1	0.14	0.00	0
New York Metro	0.27	0.62	0	3.30	5.71	0	0.20	0.03	4	0.03	0.07	0
North Central Rural	0.00	0.16	0	0.16	0.13	1	0.04	0.02	3	0.00	0.00	0
Northwest Rural	0.20	2.59	0	0.06	4.86	0	0.02	0.01	3	0.00	0.00	0
Philadelphia Metro	0.71	2.44	0	4.57	3.10	1	0.00	0.01	0	0.00	0.00	0
Pinelands	0.05	1.04	0	0.68	2.46	0	0.00	0.20	0	0.22	0.08	4
Suburban Corridor	0.17	0.59	0	0.53	1.00	0	0.02	0.07	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: While populations of *Aedes vexans* continue at levels below historical values, other pestiferous species show various regions with elevated populations. *Culex Mix* are mildly elevated in the North Central Rural and Philadelphia Metropolitan regions while *Aedes sollicitans* shows significantly higher abundances in the Coastal and Pinelands regions. *Coquillettidia perturbans* populations show the most variation, with significantly higher populations in the Coastal and New York Metropolitan regions, higher populations in the Agricultural, North Central Rural and Northwestern Rural regions and mildly higher numbers in the Delaware River Basin.

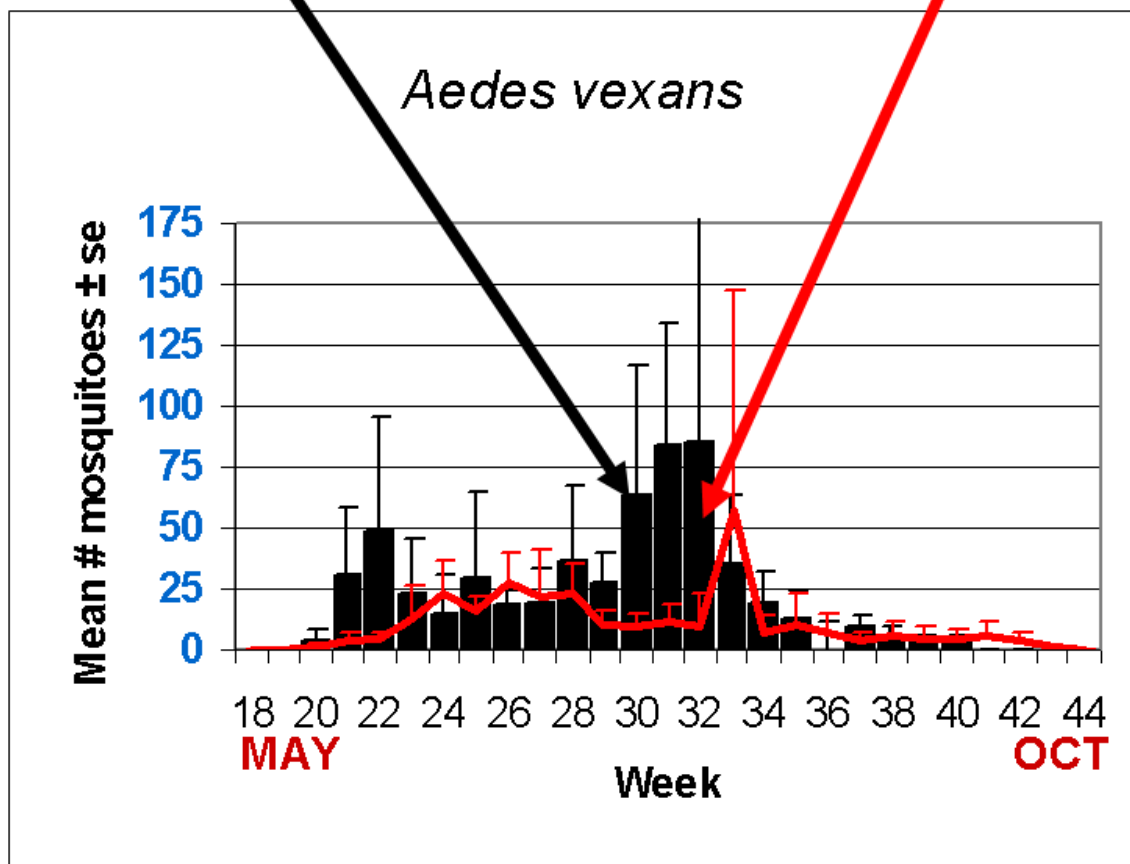
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 16 August 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, Burlington, Cape May, Hudson, Hunterdon, Middlesex, Monmouth, Ocean, Passaic, Salem, Somerset, Sussex, Union, and Warren counties. Data for the previous week are from Atlantic, Burlington, Cape May, Cumberland, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem, Somerset, Sussex, Union, and Warren counties.

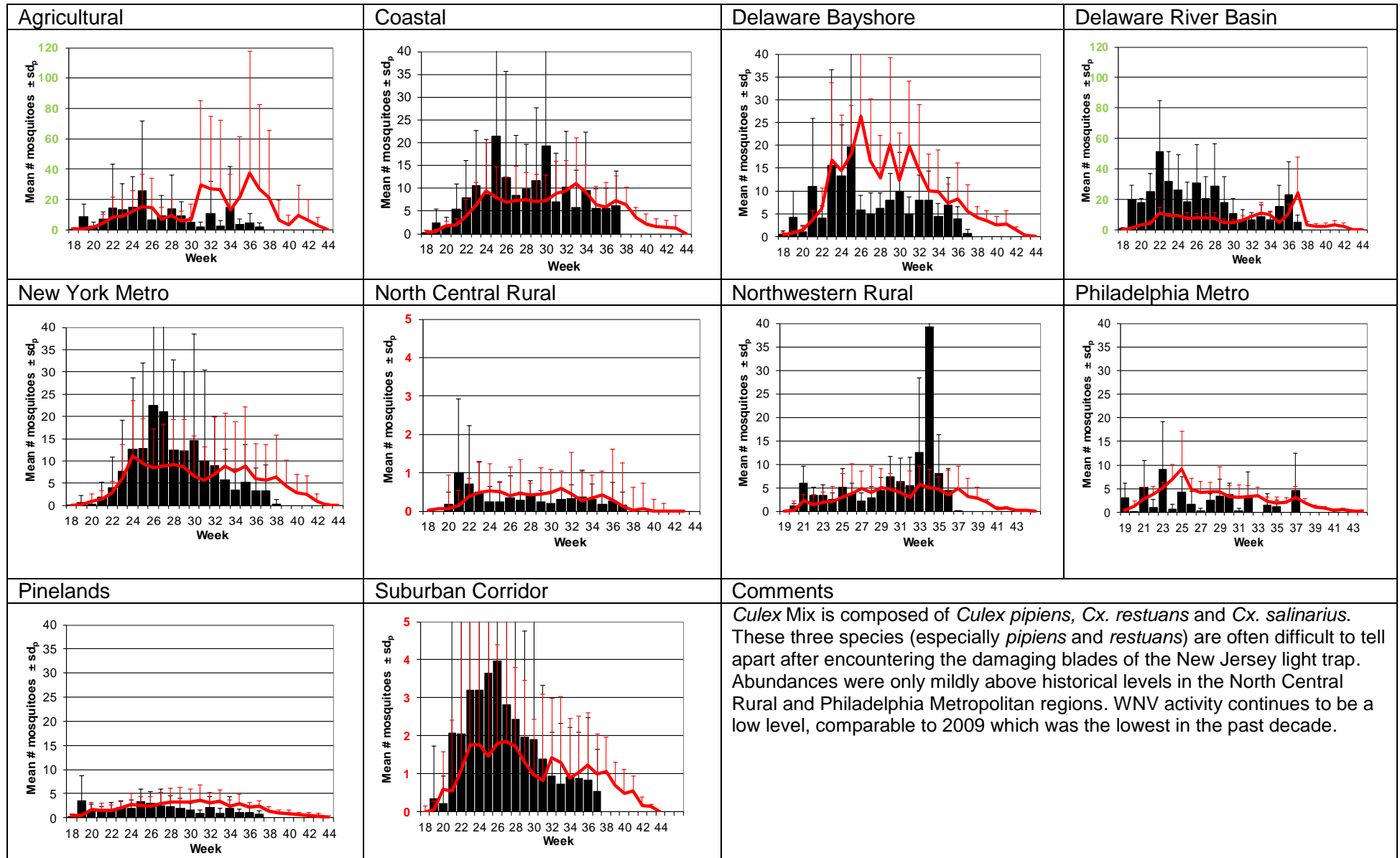
Weekly Means Against 5-year Average



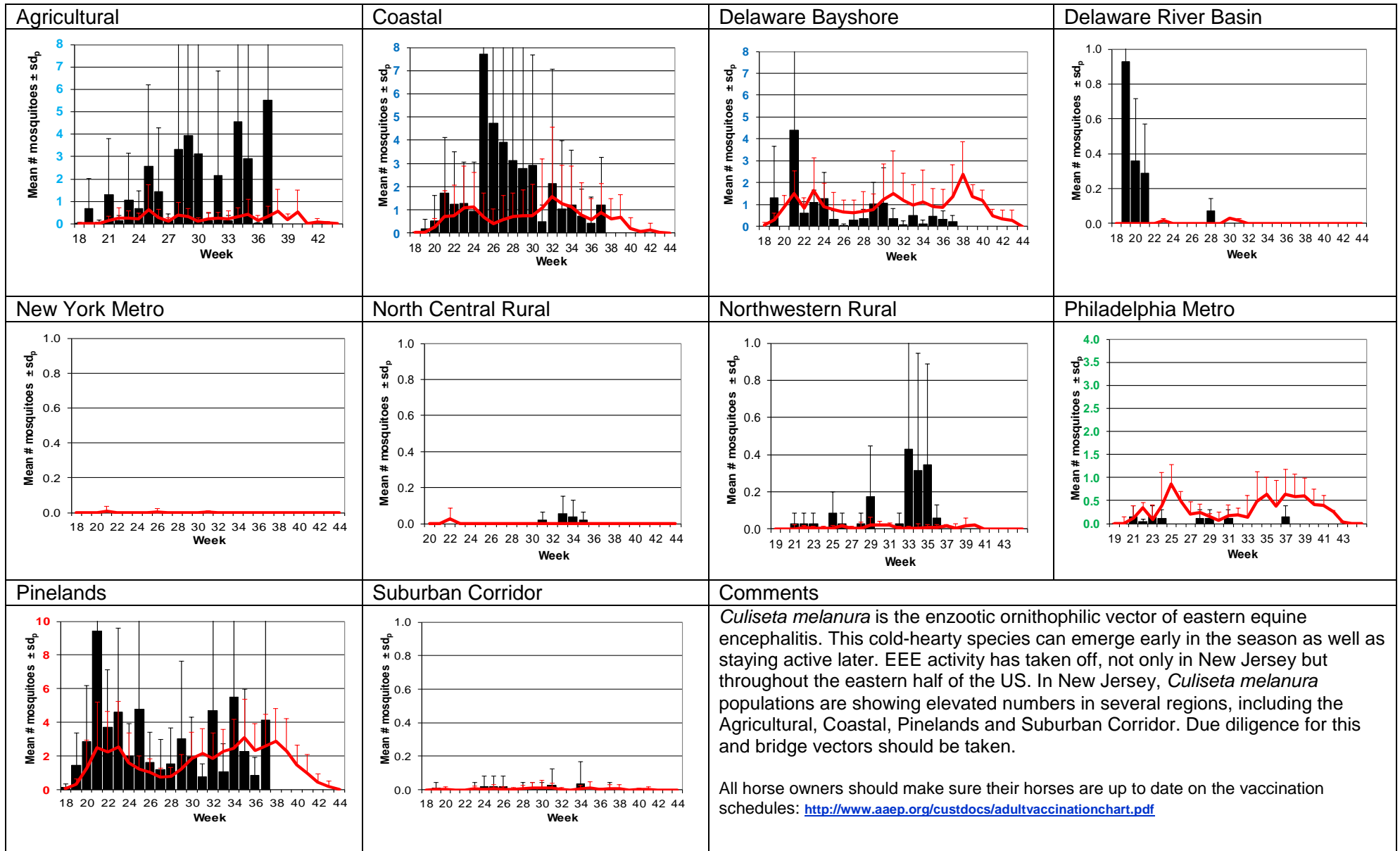
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

<p>Agricultural</p>	<p>Coastal</p>	<p>Delaware Bayshore</p>	<p>Delaware River Basin</p>
<p>New York Metro</p>	<p>North Central Rural</p>	<p>Northwestern Rural</p>	<p>Philadelphia Metro</p>
<p>Pinelands</p>	<p>Suburban Corridor</p>	<p>Comments</p> <p><i>Aedes vexans</i> is the model for fresh floodwater species. With abundant precipitation, this species can emerge in very significant numbers. Again, as we have seen for much of the season, no region had populations that were above historical levels.</p>	

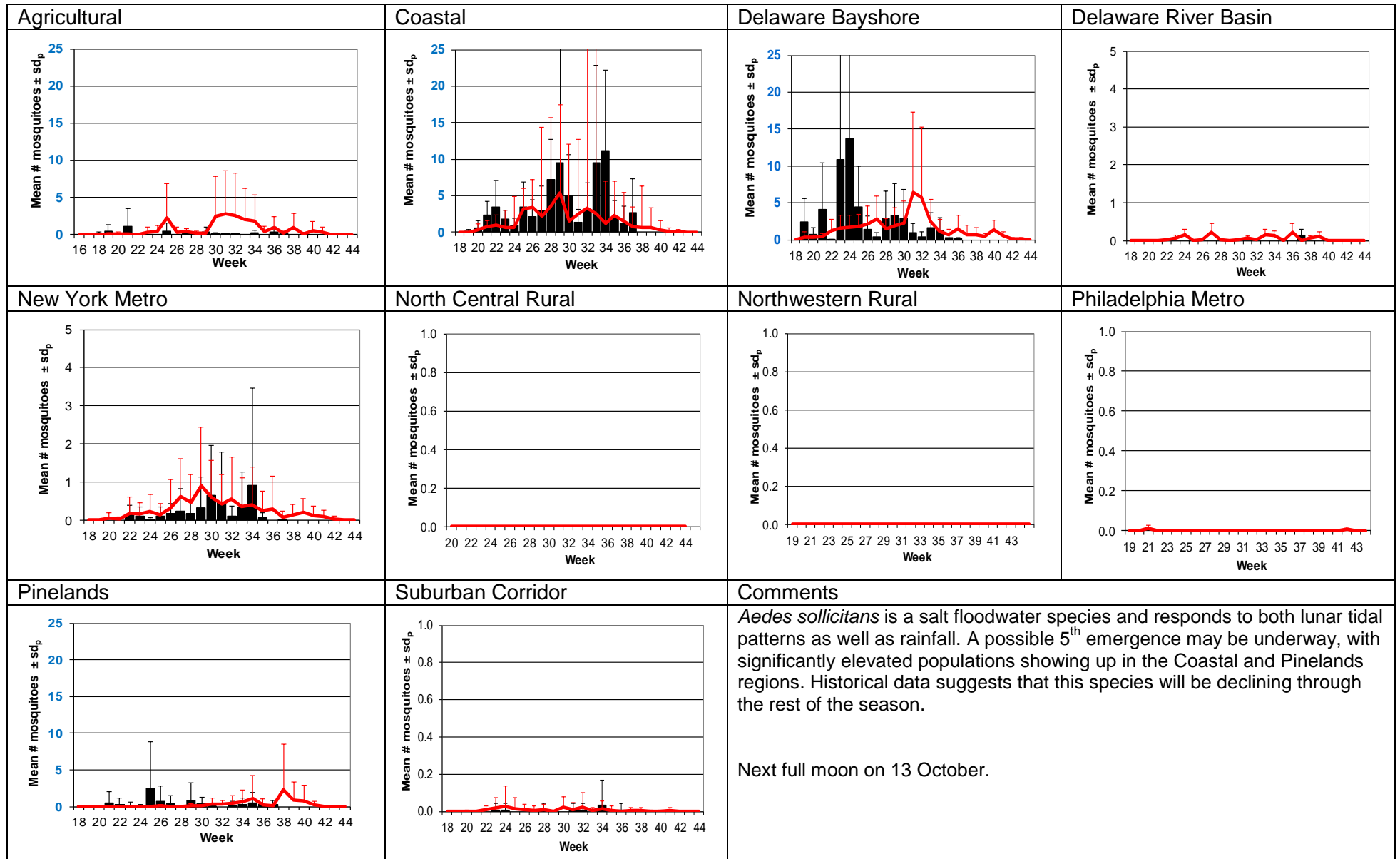
Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

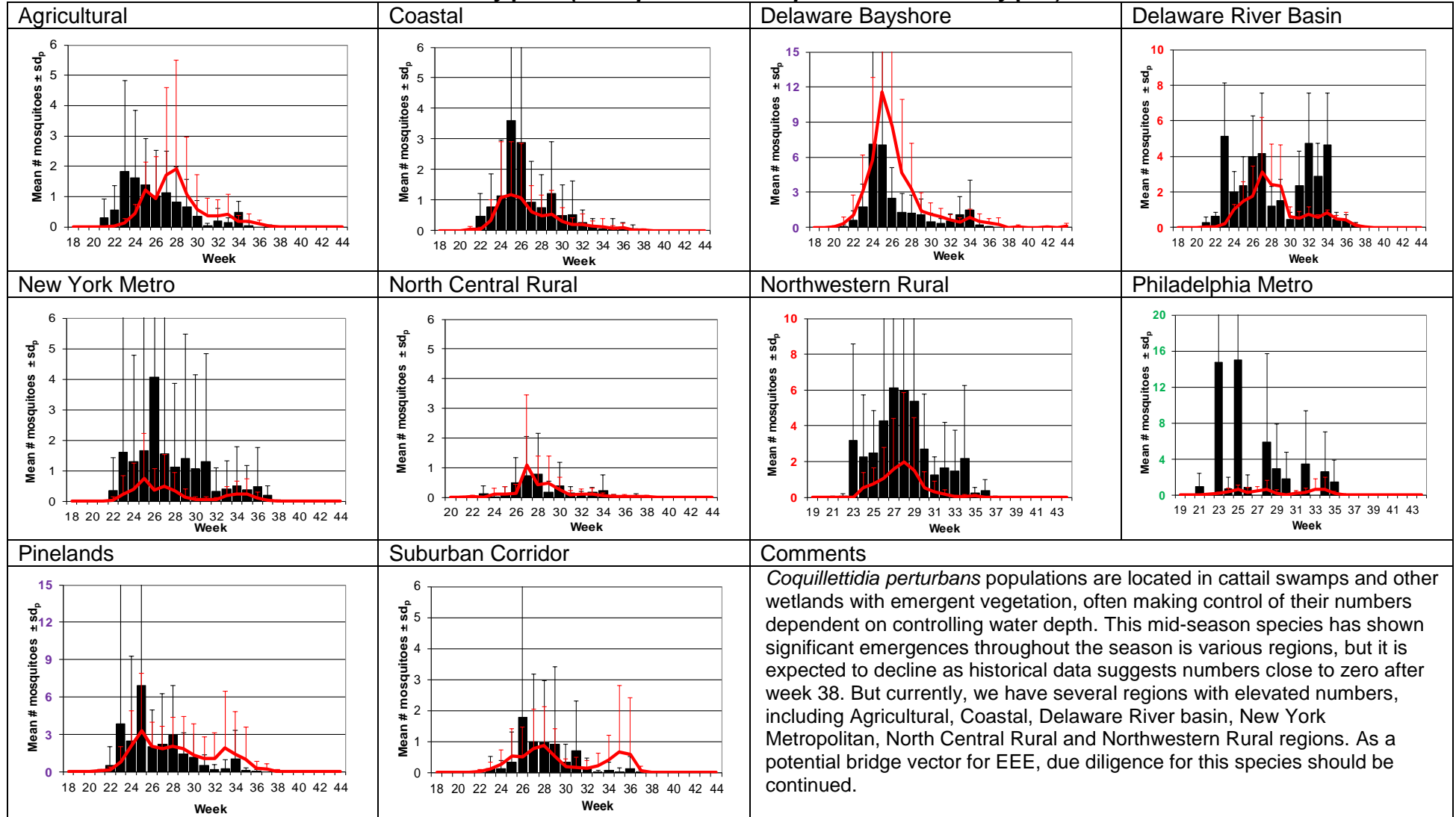


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

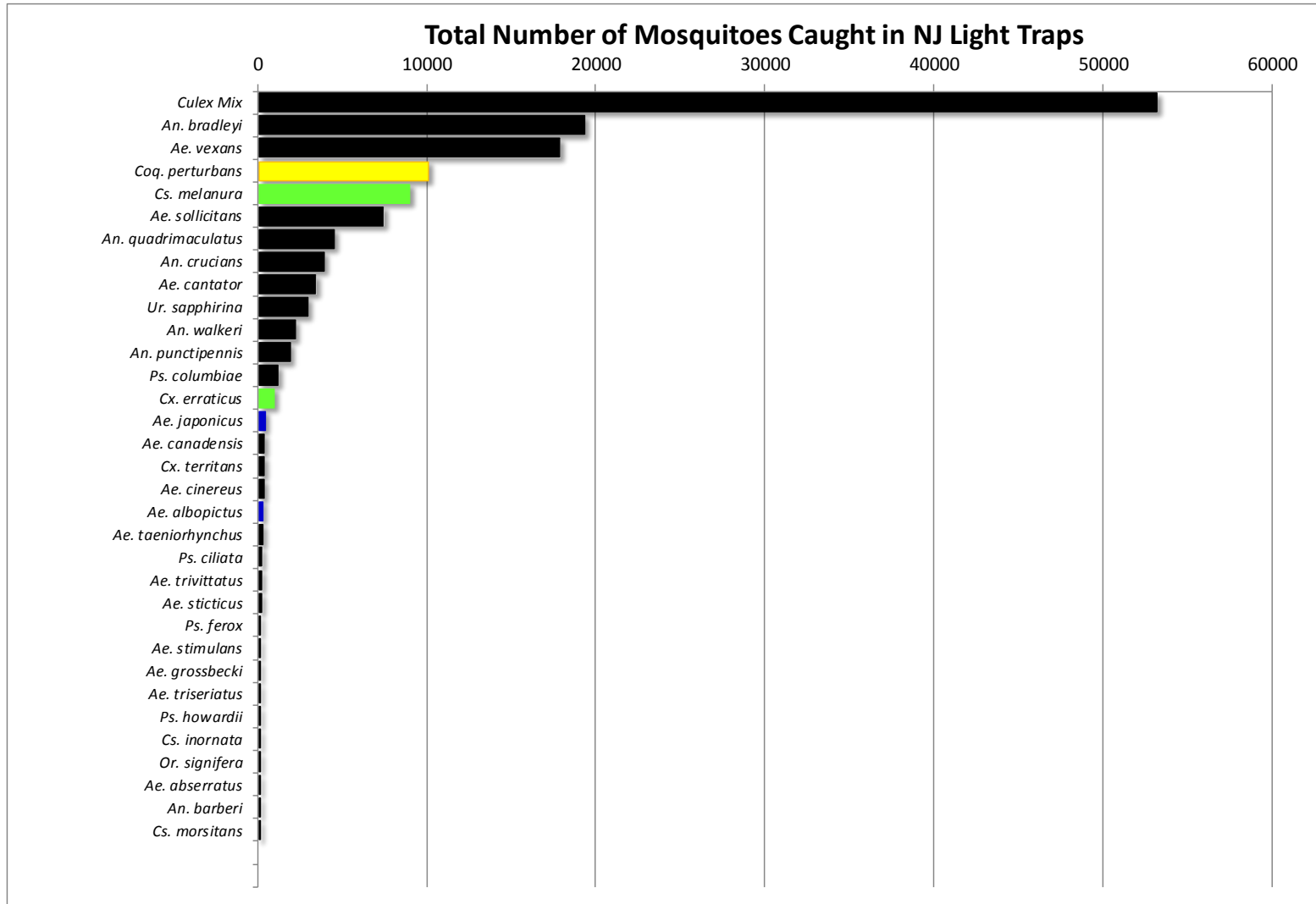


WNV

EEE

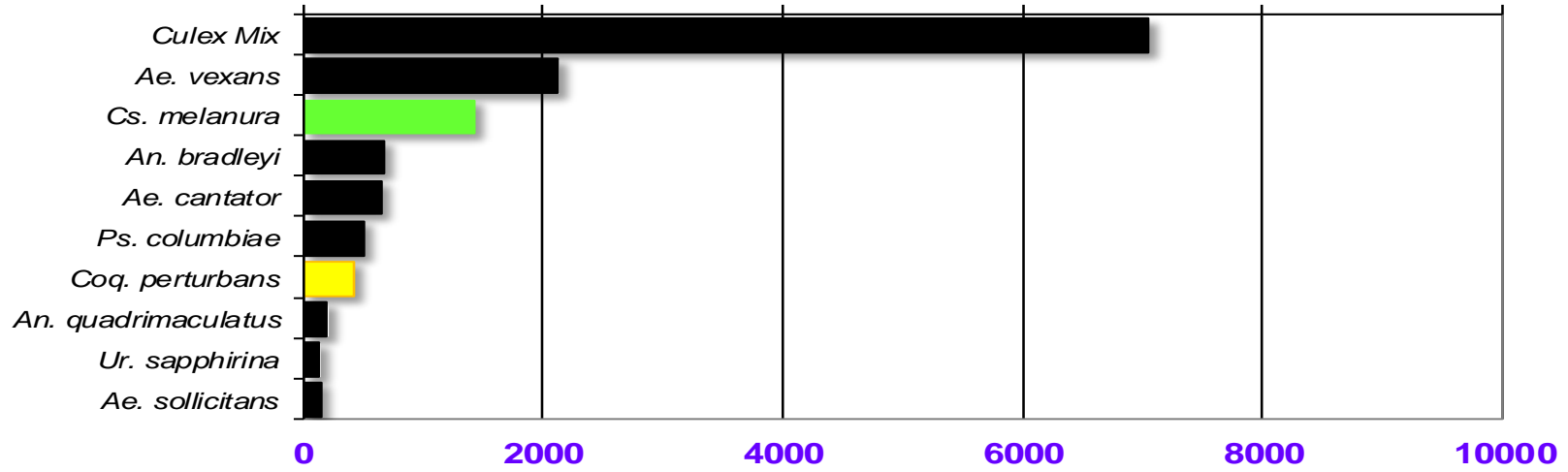
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



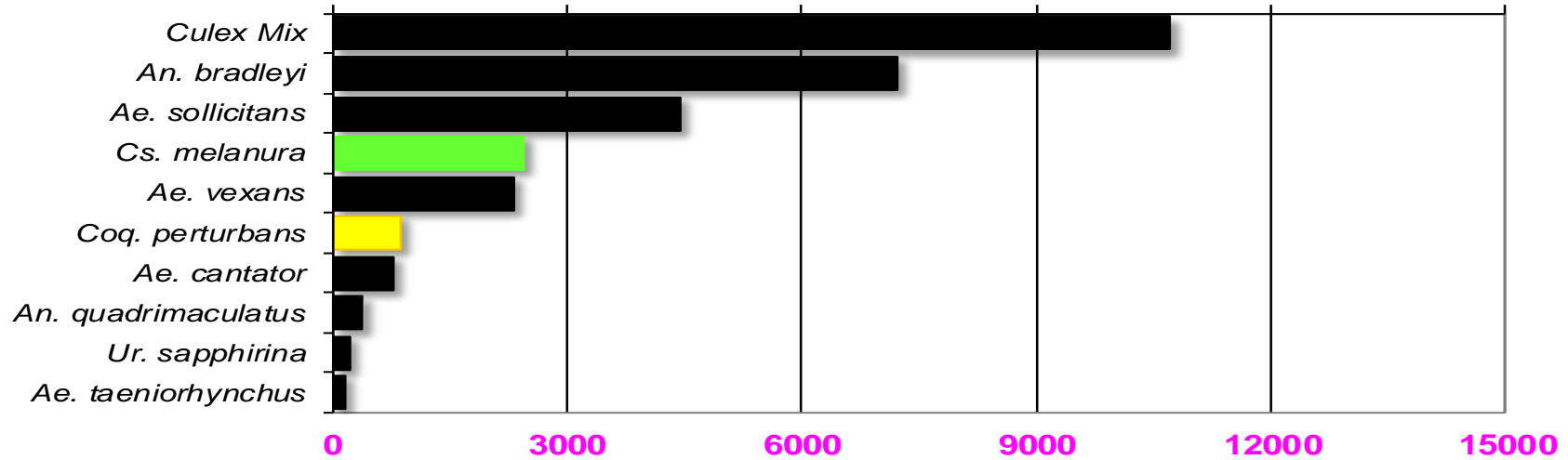
Agricultural

Total # mosquitoes



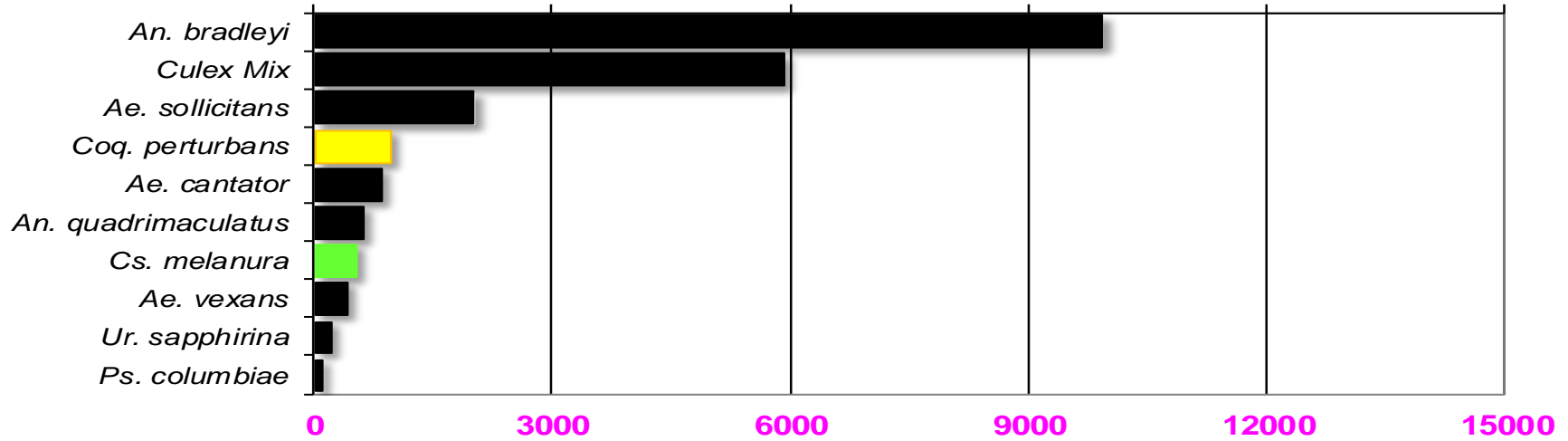
Coastal

Total # mosquitoes



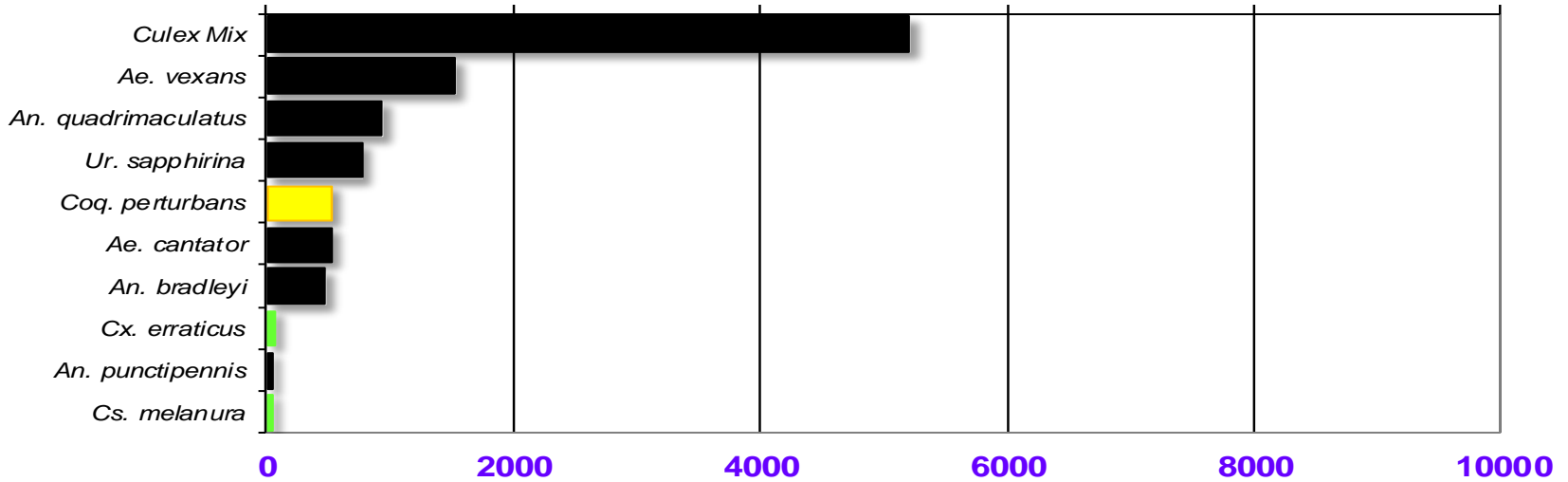
Delaware Bayshore

Total # mosquitoes



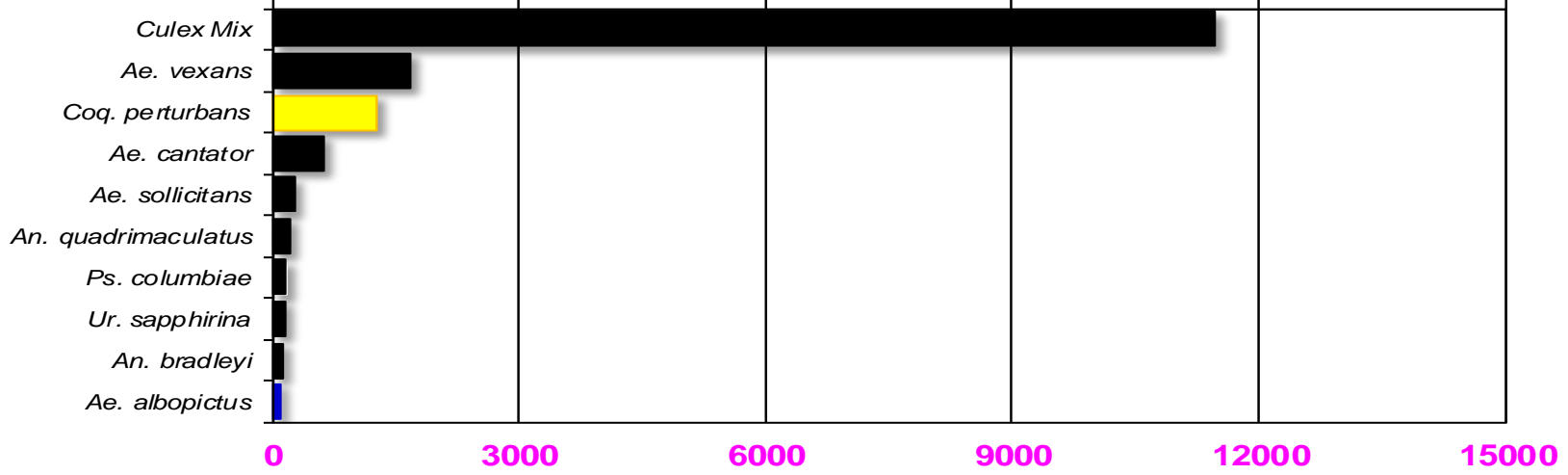
Delaware River Basin

Total # mosquitoes



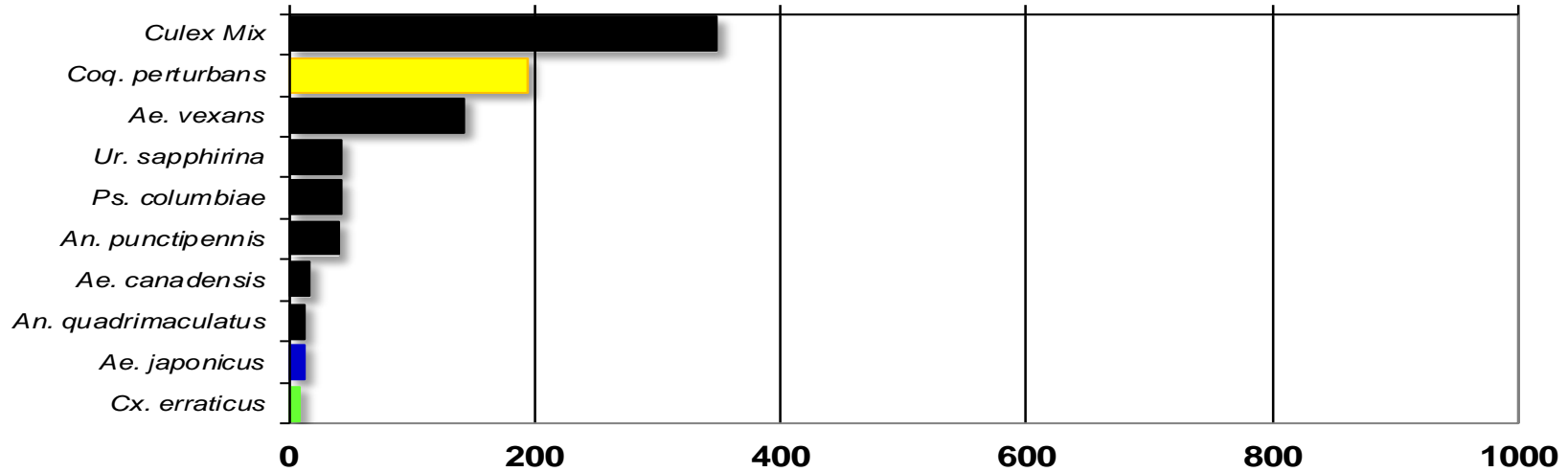
New York Metropolitan

Total # mosquitoes



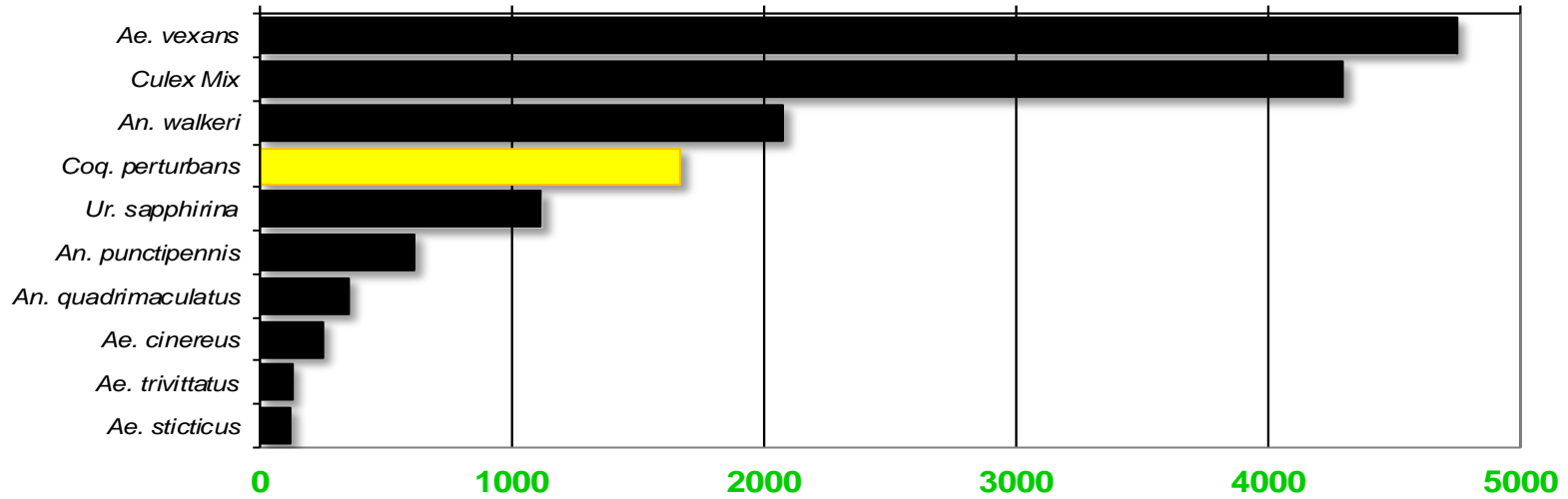
North Central Rural

Total # mosquitoes



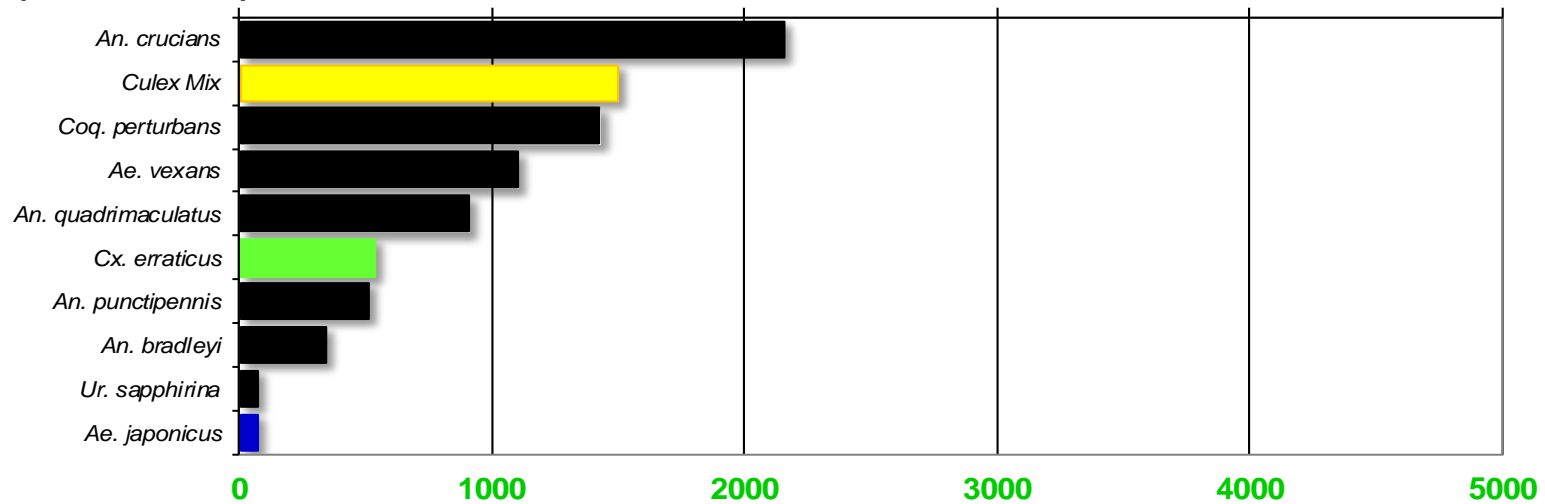
Northwest Rural

Total # mosquitoes



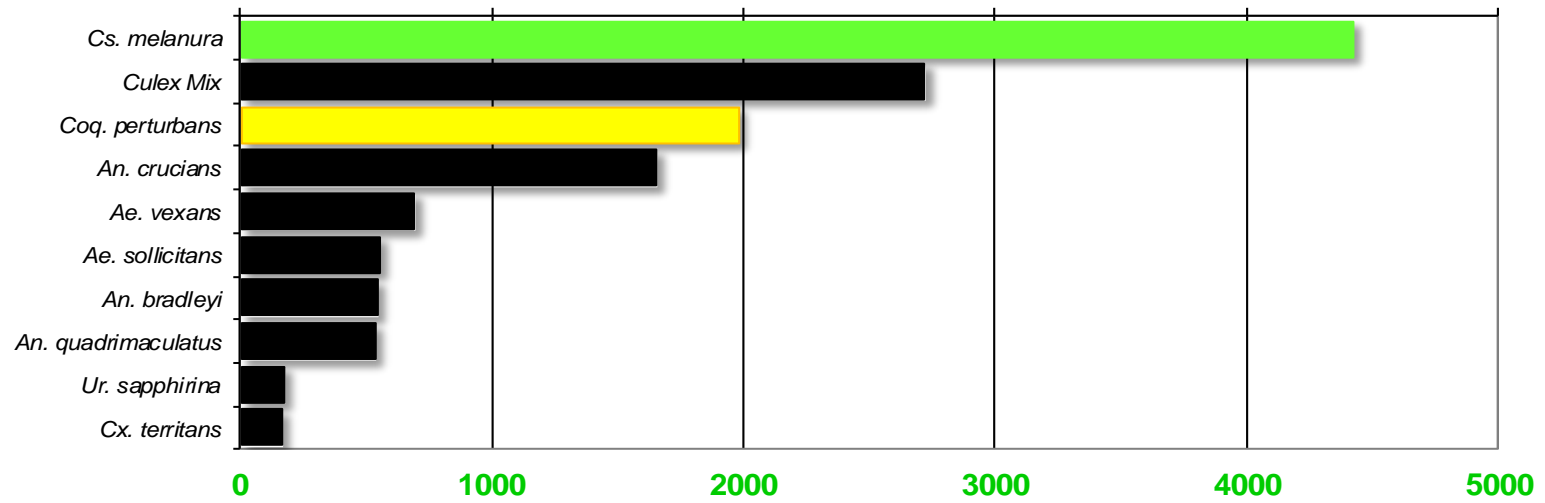
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

