

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

June 13 to June 20, CDC Week 24
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 Center for Vector Biology



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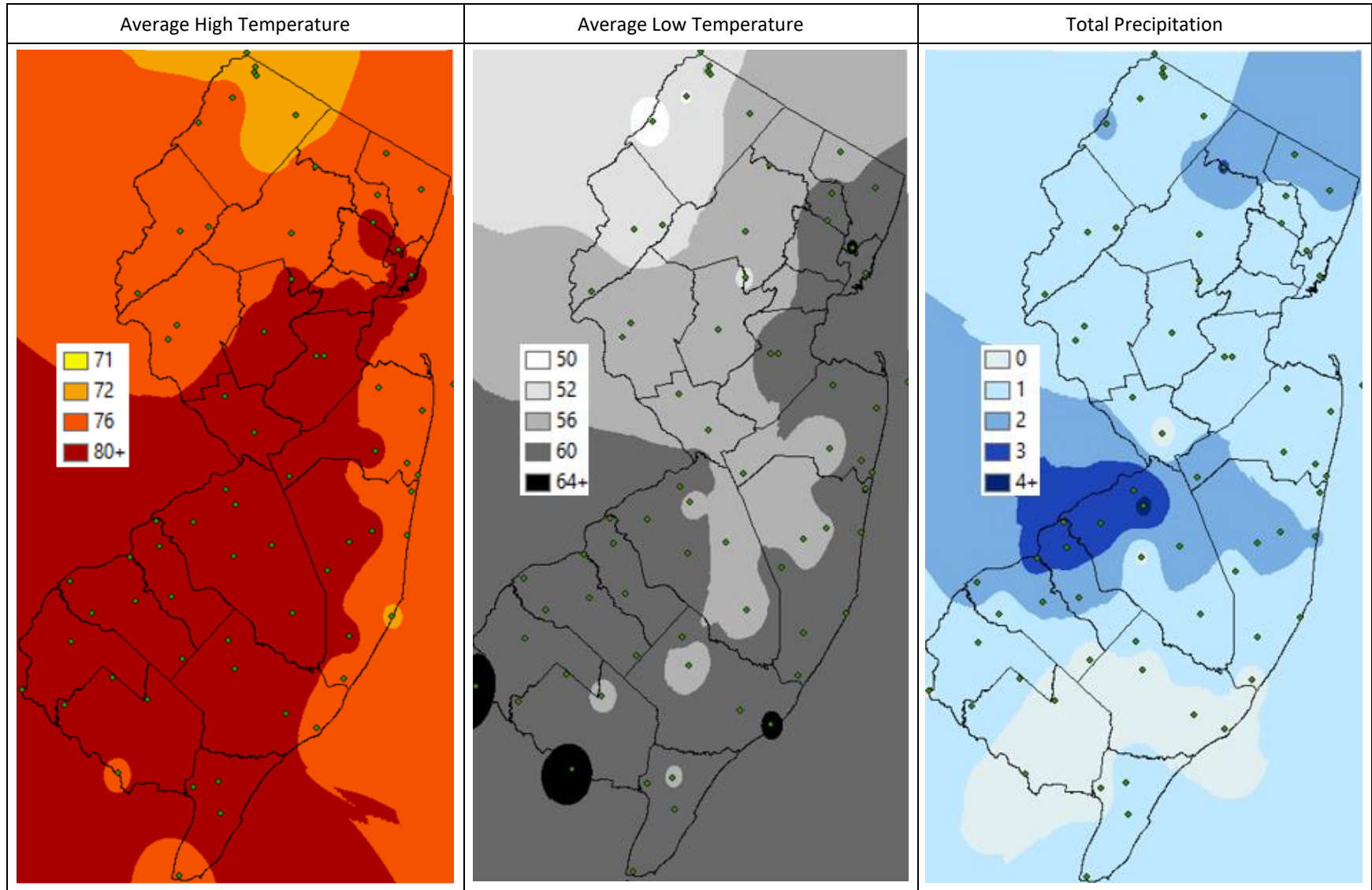
Summary Table – Week 24

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	4.60	5.79	0	2.20	12.28	0	0.00	0.88	0	0.06	0.19	0
Coastal	0.44	9.32	0	1.06	10.79	0	3.59	0.49	4	1.02	0.59	2
Delaware Bayshore	0.26	1.86	0	3.21	16.01	0	2.43	4.53	0	0.03	5.22	0
Delaware River Basin	4.00	19.46	0	1.79	16.93	0	0.50	1.80	0	0.07	0.07	0
New York Metro	0.40	2.97	0	0.66	9.54	0	0.26	0.76	0	0.00	0.31	0
North Central Rural	0.20	0.11	2	0.02	0.44	0	0.00	0.09	0	0.00	0.00	0
Northwest Rural	2.91	8.19	0	1.06	2.27	0	0.05	1.10	0	0.00	0.00	0
Philadelphia Metro	0.00	10.02	0	0.00	5.51	0	0.00	2.61	0	0.00	0.00	0
Pinelands	0.17	1.41	0	0.45	2.57	0	0.19	1.95	0	0.00	0.03	0
Suburban Corridor	1.05	1.90	0	0.37	3.56	0	0.14	0.19	0	0.00	0.02	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 overall, populations for these four pestiferous species are reported under the running 5 year means within the regions, a few populations stand out. Significantly above the historical average are numbers of *Coquillettidia perturbans* in the Coastal region, with more modest increases over the average of *Aedes sollicitans* also in the Coastal region and *Aedes vexans* in the North Central Rural region.

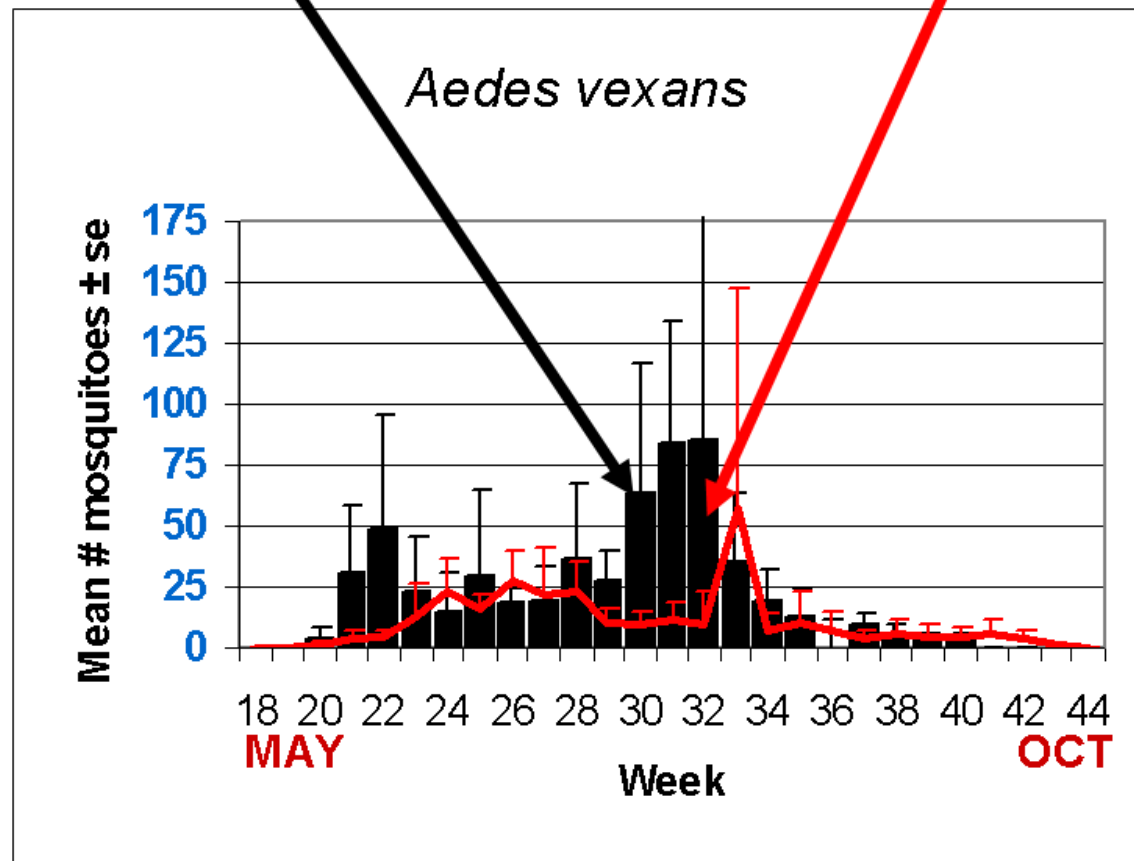
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 20 June 2022 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, Bergen, Cumberland, Hudson, Hunterdon, Morris, Somerset, Salem, and Warren counties. Data for the previous week are from Atlantic, Bergen, Cape May, Cumberland, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Salem, Somerset, Sussex, and Warren counties.

Weekly Means Against 5-year Average

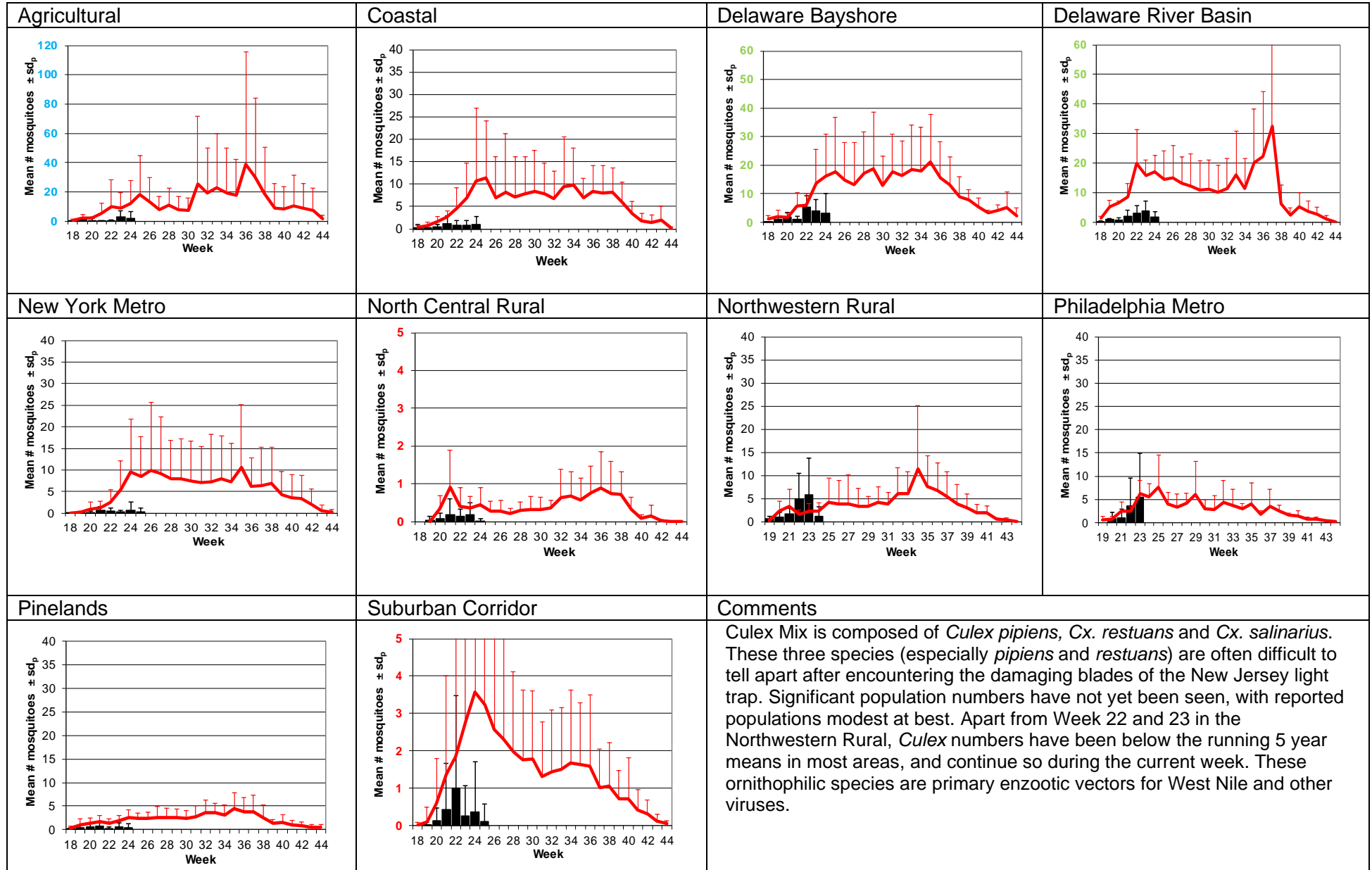


Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (*Ae. vexans* Type)

<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. Most <i>Aedes vexans</i> populations currently are near or below historical average while a modest increase (with absolute low values) is seen in the North Central Rural region. Also note the significant increase in numbers that occurred in the previous week in the Agricultural region.</p> <div style="text-align: right;"> </div> <p>https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NJ</p>	

Culex Mix – Permanent Water Species

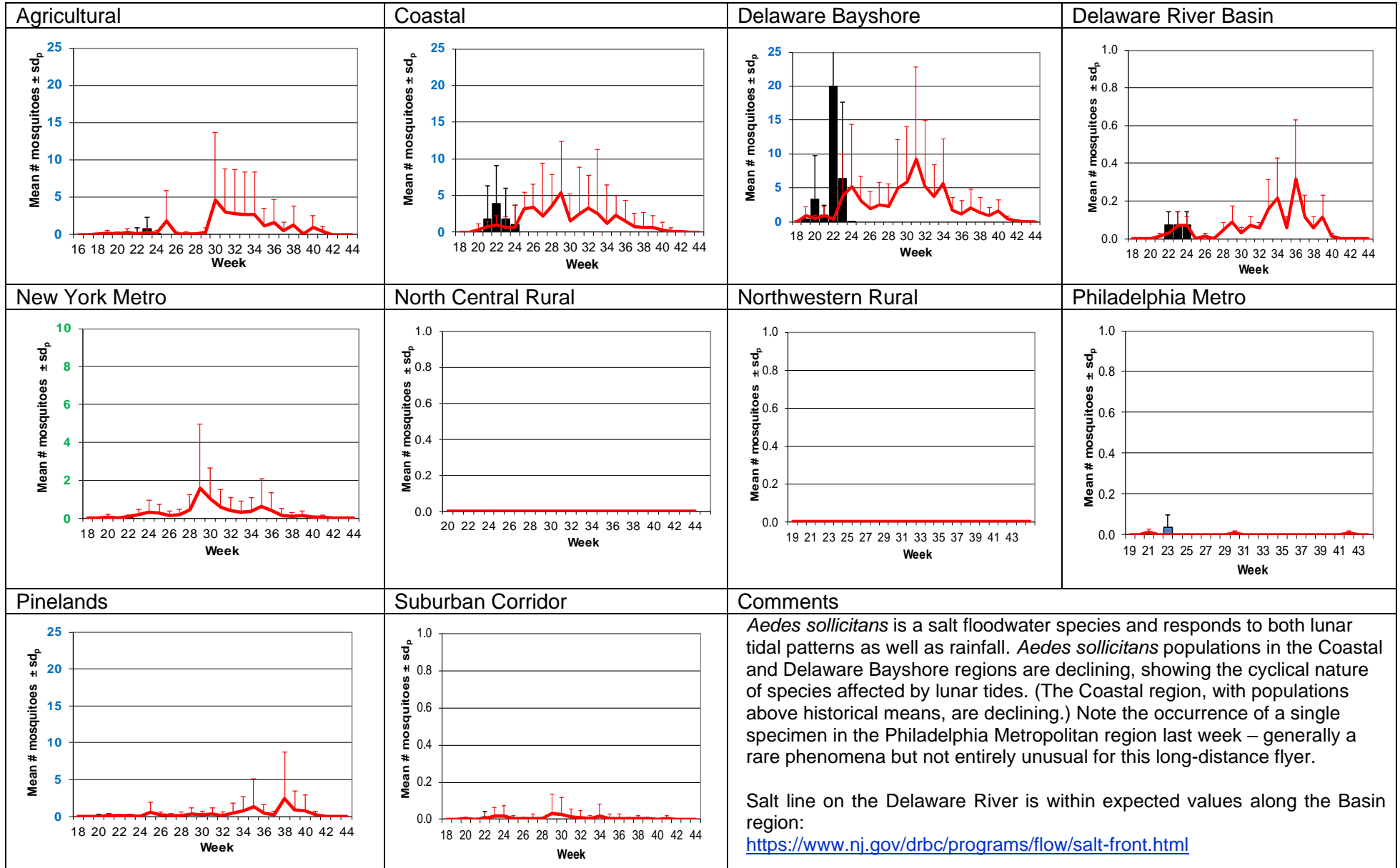
Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

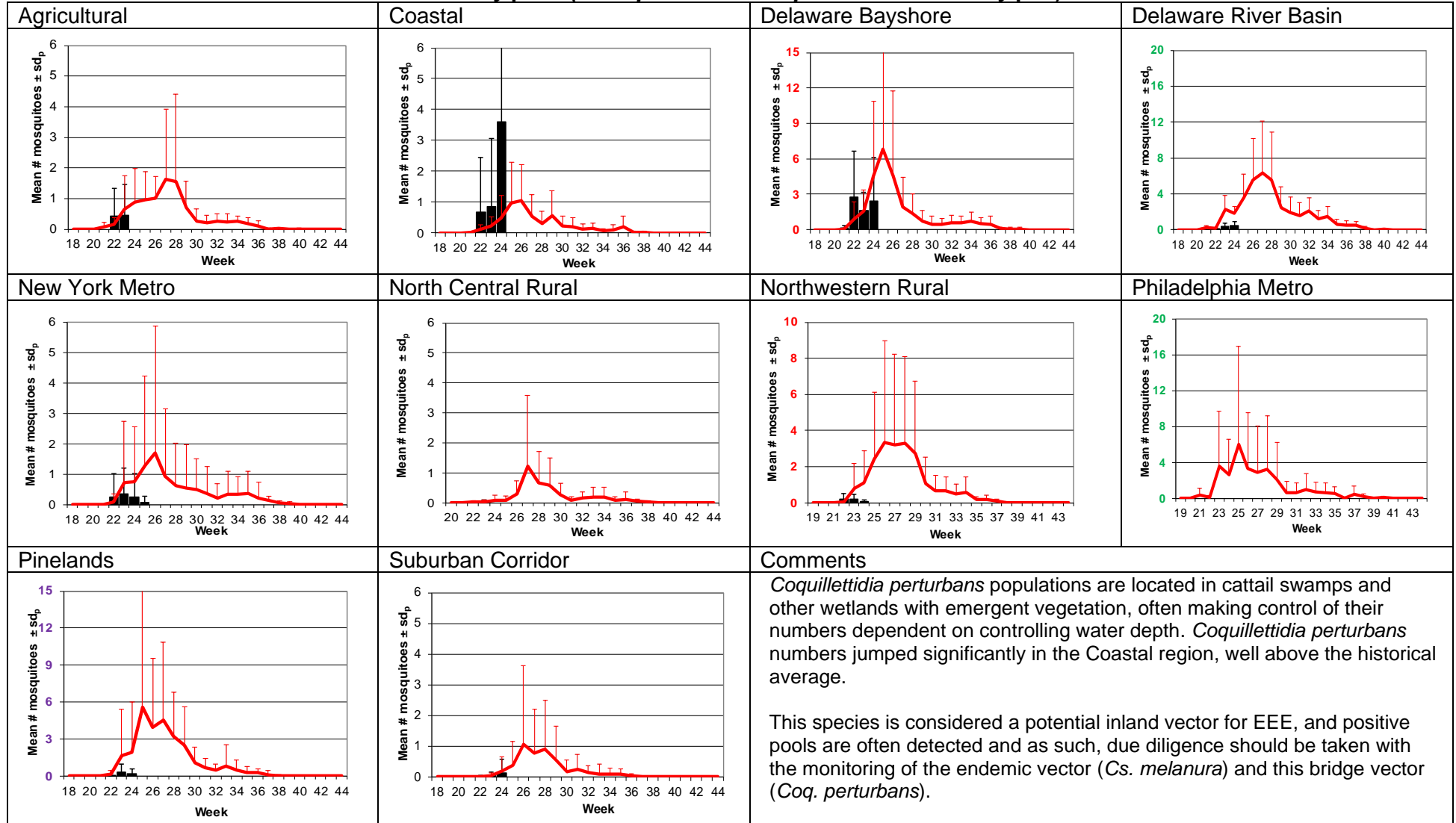
<p>Agricultural</p>	<p>Coastal</p>	<p>Delaware Bayshore</p>	<p>Delaware River Basin</p>
<p>New York Metro</p>	<p>North Central Rural</p>	<p>Northwestern Rural</p>	<p>Philadelphia Metro</p>
<p>Pinelands</p>	<p>Suburban Corridor</p>	<p>Comments</p> <p><i>Culiseta melanura</i> is the enzootic ornithophilic vector of eastern equine encephalitis. This cold-hardy species can emerge early in the season as well as staying active late into fall. Current populations appear near or below the 5 year running mean. Most activity is seen in the Delaware Bayshore region while the Pinelands (where larger populations tend to be found) are trending below the 5 year historical average.</p> <p>All horse owners should make sure their horses are up to date on their EEE/WNV vaccination schedules: http://www.aep.org/custdocs/adultvaccinationchart.pdf</p>	

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



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

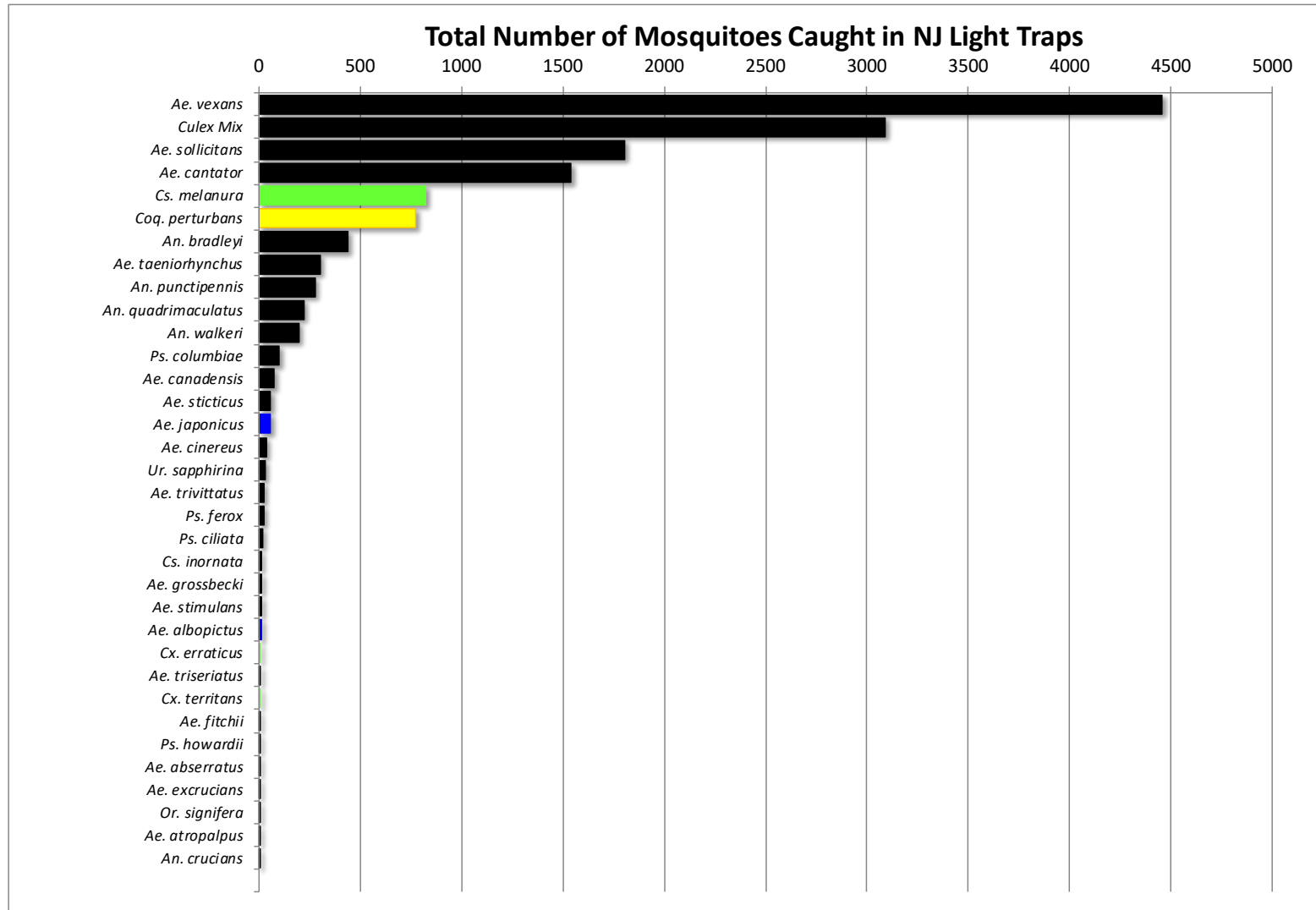


WNV

EEE

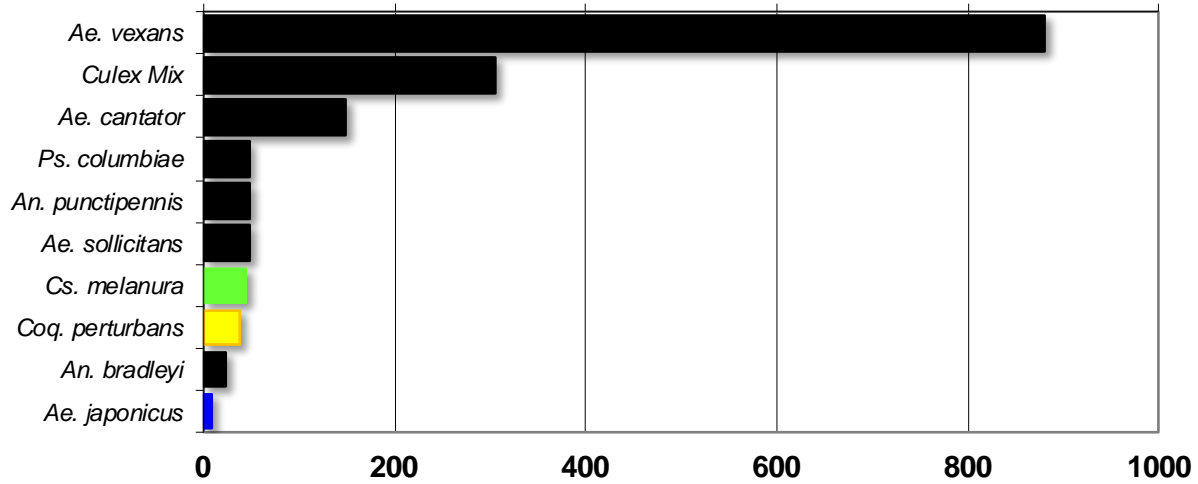
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



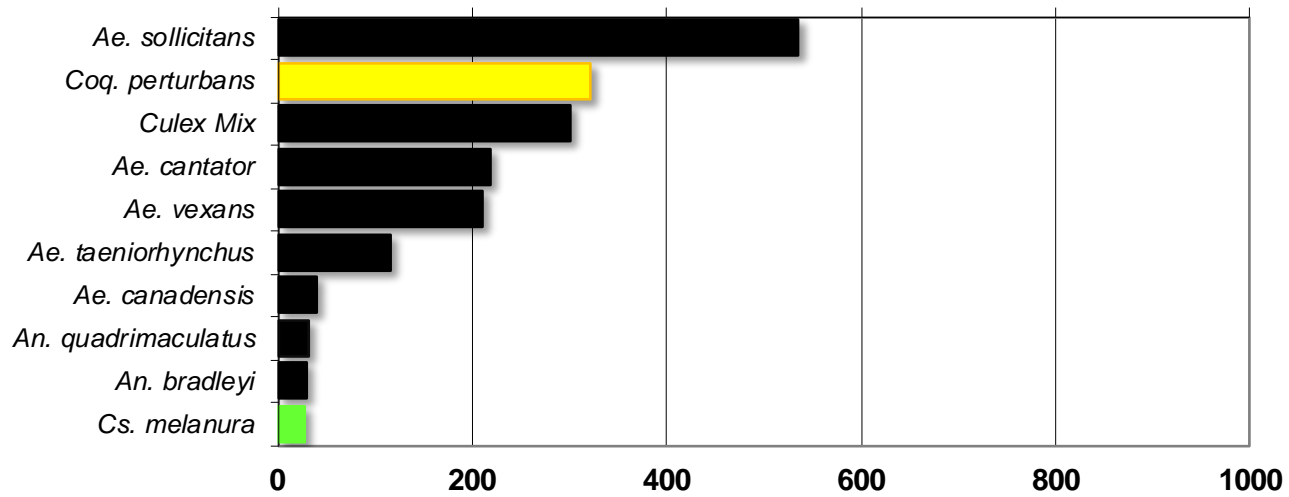
Agricultural

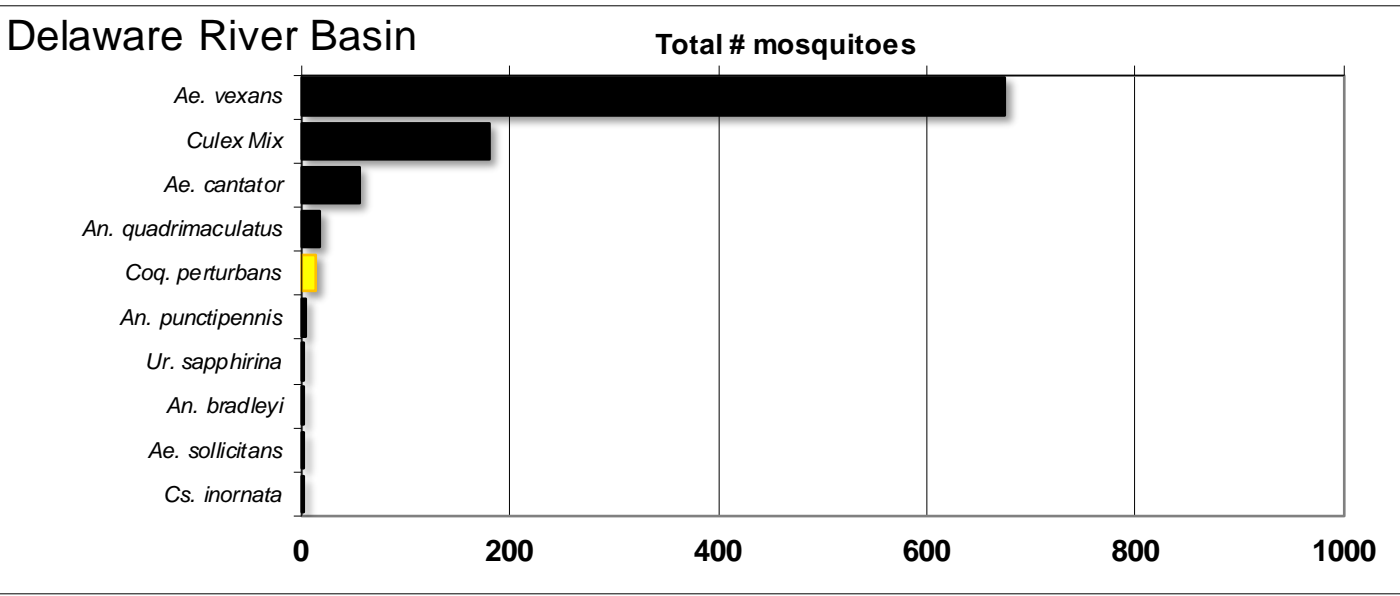
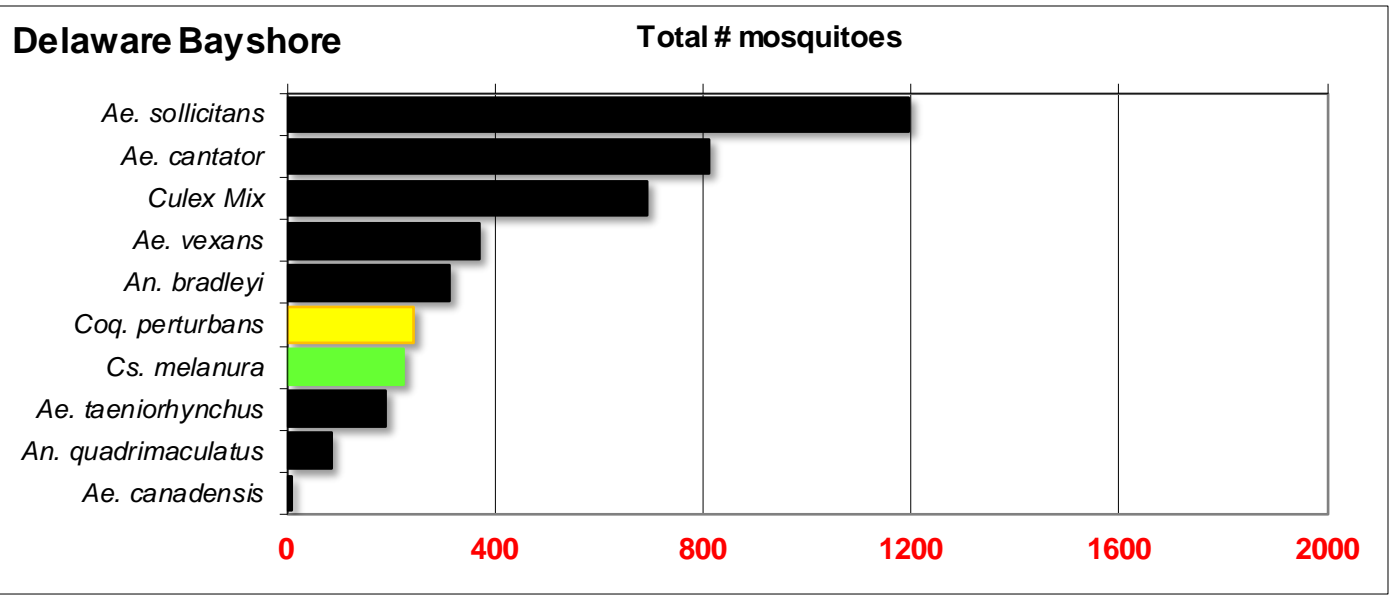
Total # mosquitoes



Coastal

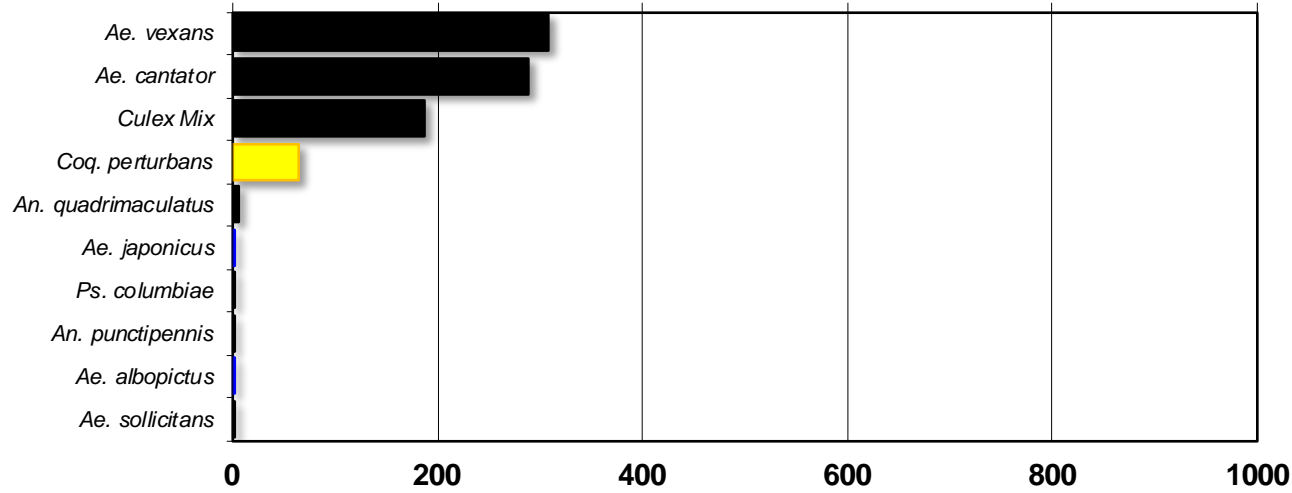
Total # mosquitoes





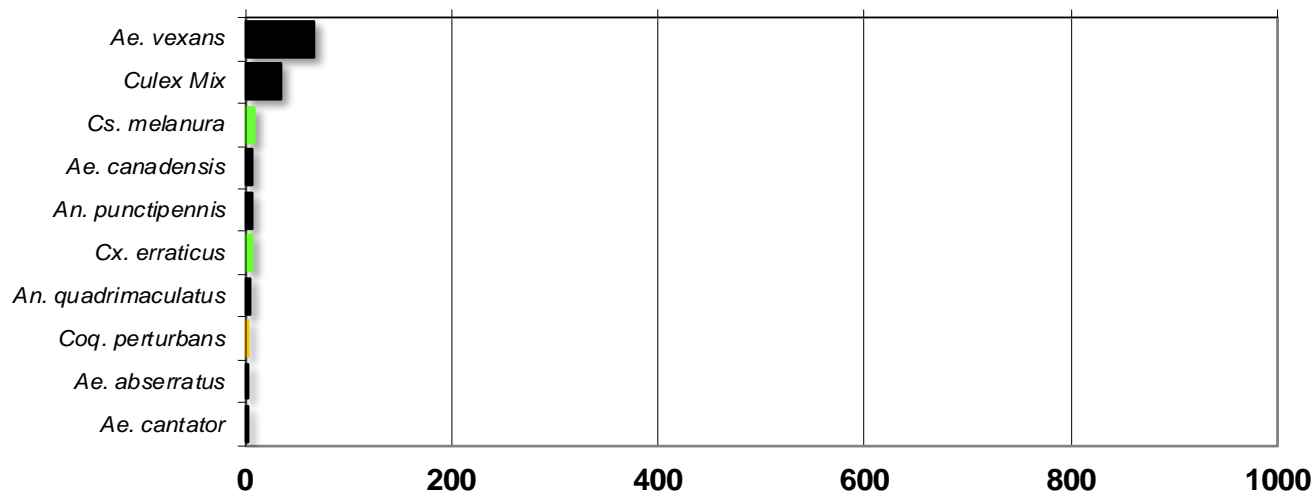
New York Metropolitan

Total # mosquitoes



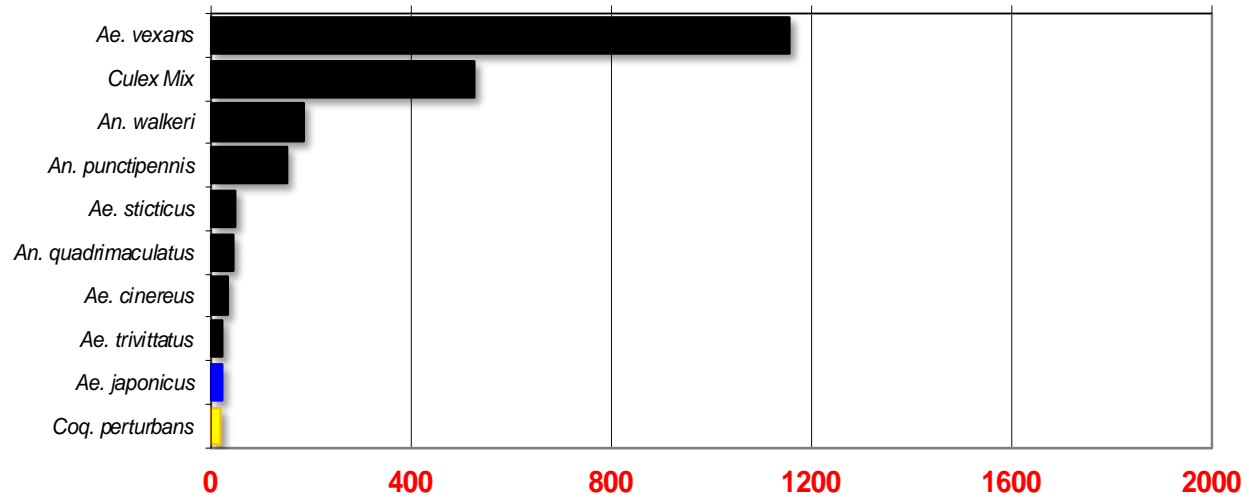
North Central Rural

Total # mosquitoes



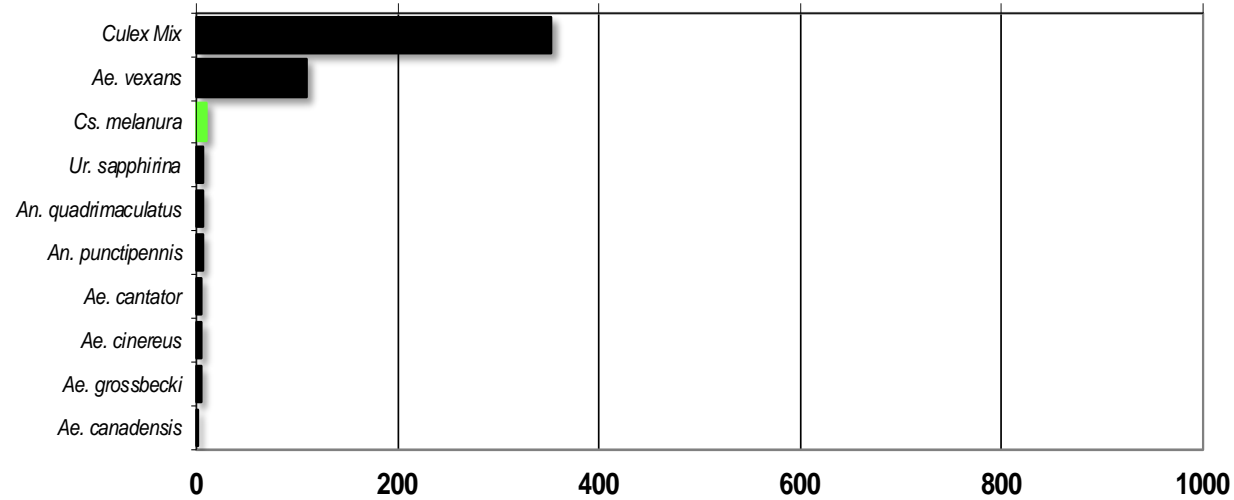
Northwest Rural

Total # mosquitoes



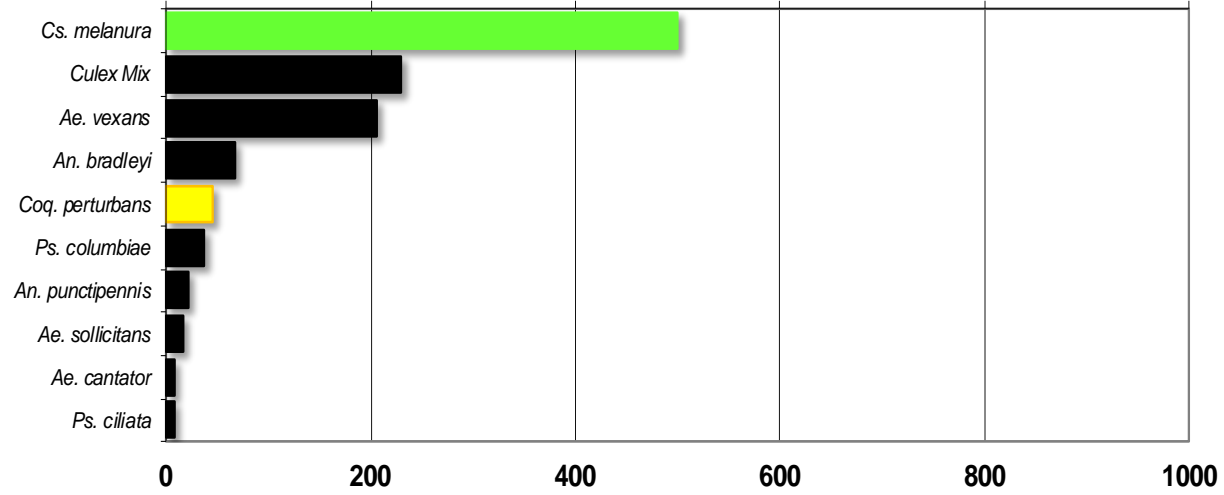
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

