

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

October 16 to October 22 CDC Week 42

Prepared by Lisa M. Reed and Dina Fonseca
Center for Vector Biology



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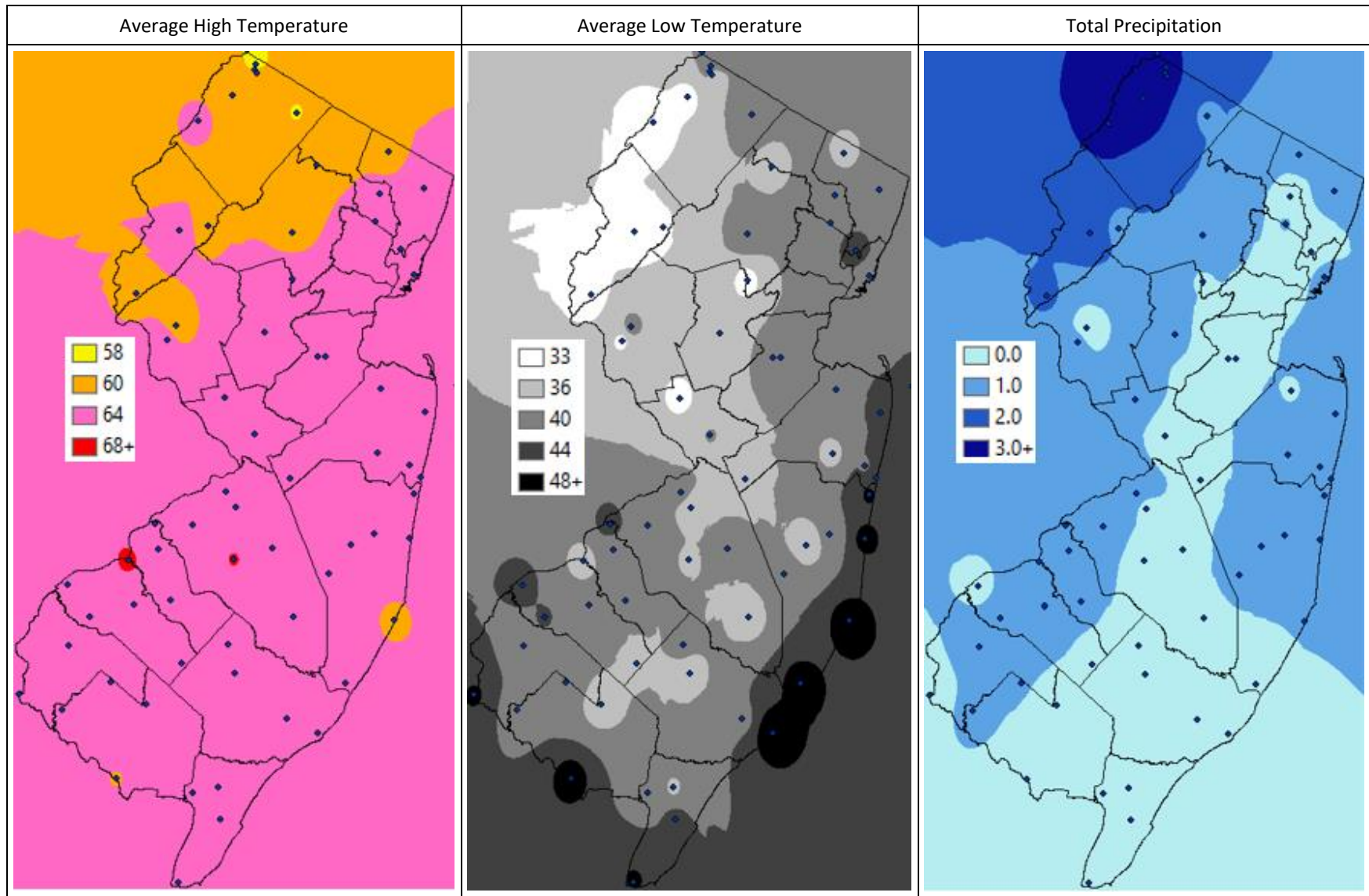
Summary Table – Week 42

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	0.96	0	0.95	8.87	0	0.00	0.00	0	0.00	0.00	0
Coastal	0.44	0.56	0	0.14	1.42	0	0.00	0.00	0	0.00	0.02	0
Delaware Bayshore	0.00	1.53	0	0.00	3.98	0	0.00	0.00	0	0.00	0.10	0
Delaware River Basin	0.07	0.49	0	0.29	2.56	0	0.00	0.00	0	0.00	0.00	0
New York Metro	0.00	0.14	0	0.17	2.08	0	0.00	0.00	0	0.00	0.00	0
North Central Rural	0.00	0.00	0	0.00	0.02	0	0.00	0.00	0	0.00	0.00	0
Northwest Rural	0.77	1.36	0	0.00	0.45	0	0.00	0.00	0	0.00	0.00	0
Philadelphia Metro	0.00	0.81	0	0.00	0.76	0	0.00	0.00	0	0.00	<0.01	0
Pinelands	0.03	0.27	0	0.00	0.77	0	0.00	0.00	0	0.00	0.00	0
Suburban Corridor	0.00	0.13	0	0.00	0.31	0	0.00	<0.01	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: As we come toward the end of the mosquito season, there were no populations of these pestiferous species found to be above the historical 5-year running averages. *Coquillettidia perturbans* and *Aedes sollicitans* are through for the season. Northern counties are bringing their traps in. Unless unusual activity occurs, this is the penultimate report for the 2022 season. *Aedes albopictus* trends in light trap and BG Sentinel traps are also presented, on pages 9 and 10.

Climate Factors

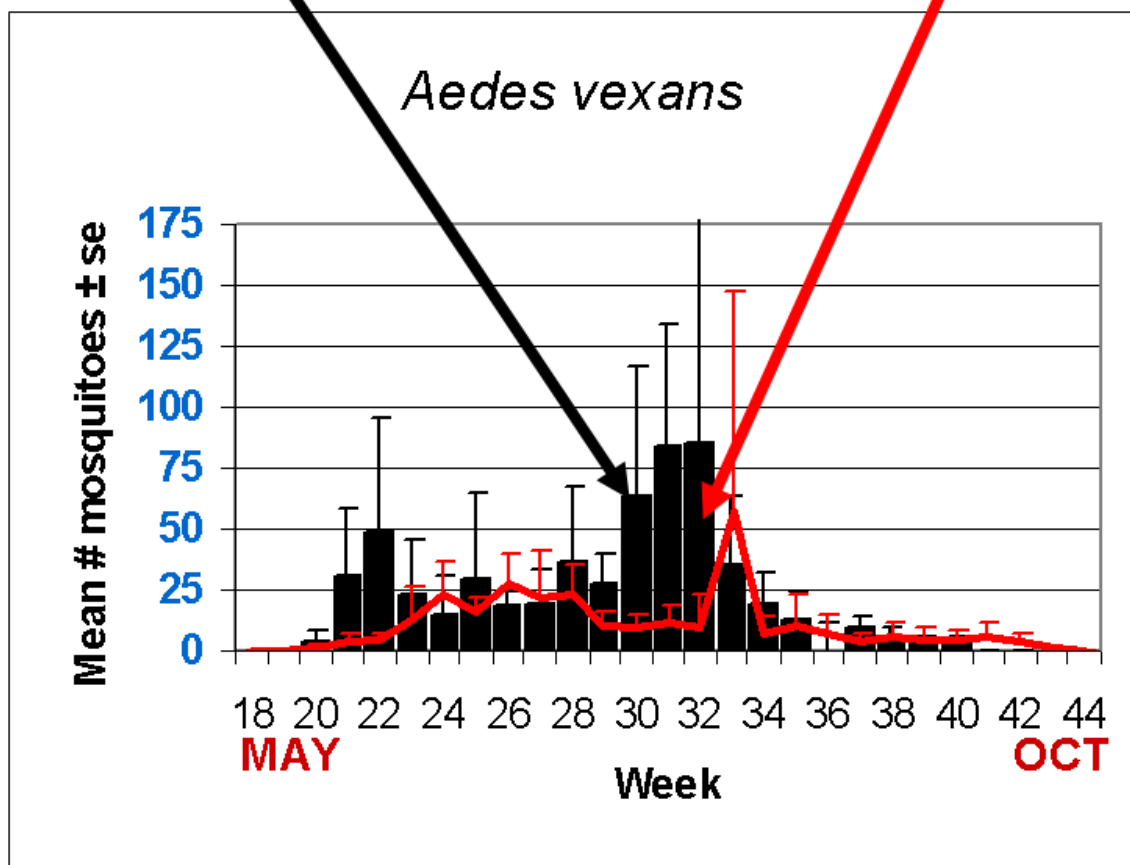


The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 23 October 2022 in New Jersey. Data points are from about 45 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. 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 shows 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, Hudson, Mercer, Middlesex, Morris, Passaic, Salem, and Sussex counties. Data for the previous week are from Atlantic, Bergen, Cape May, Cumberland, Hudson, Mercer, Middlesex, Morris, Ocean, Passaic, Salem, Somerset, Sussex, Union, and Warren counties.

Northern counties are bringing traps in.

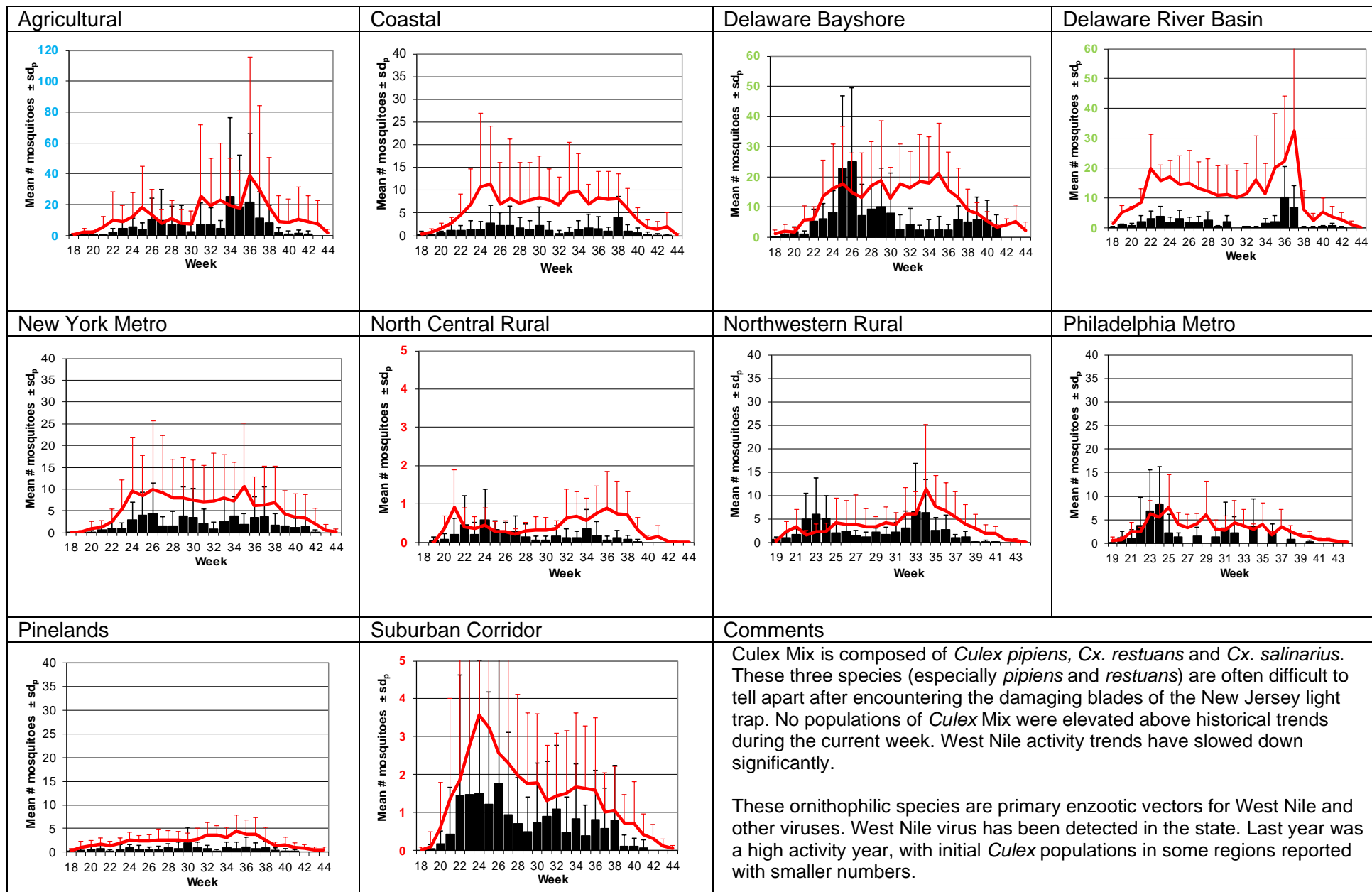
Weekly Means Against 5-year Average



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. Drought conditions eased significantly from the previous week with recent precipitation. However, no populations of <i>Aedes vexans</i> were above historical trends.</p> <p>Drought areas are classified as “abnormally dry” in yellow or “moderately dry” in orange. https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NJ</p>	

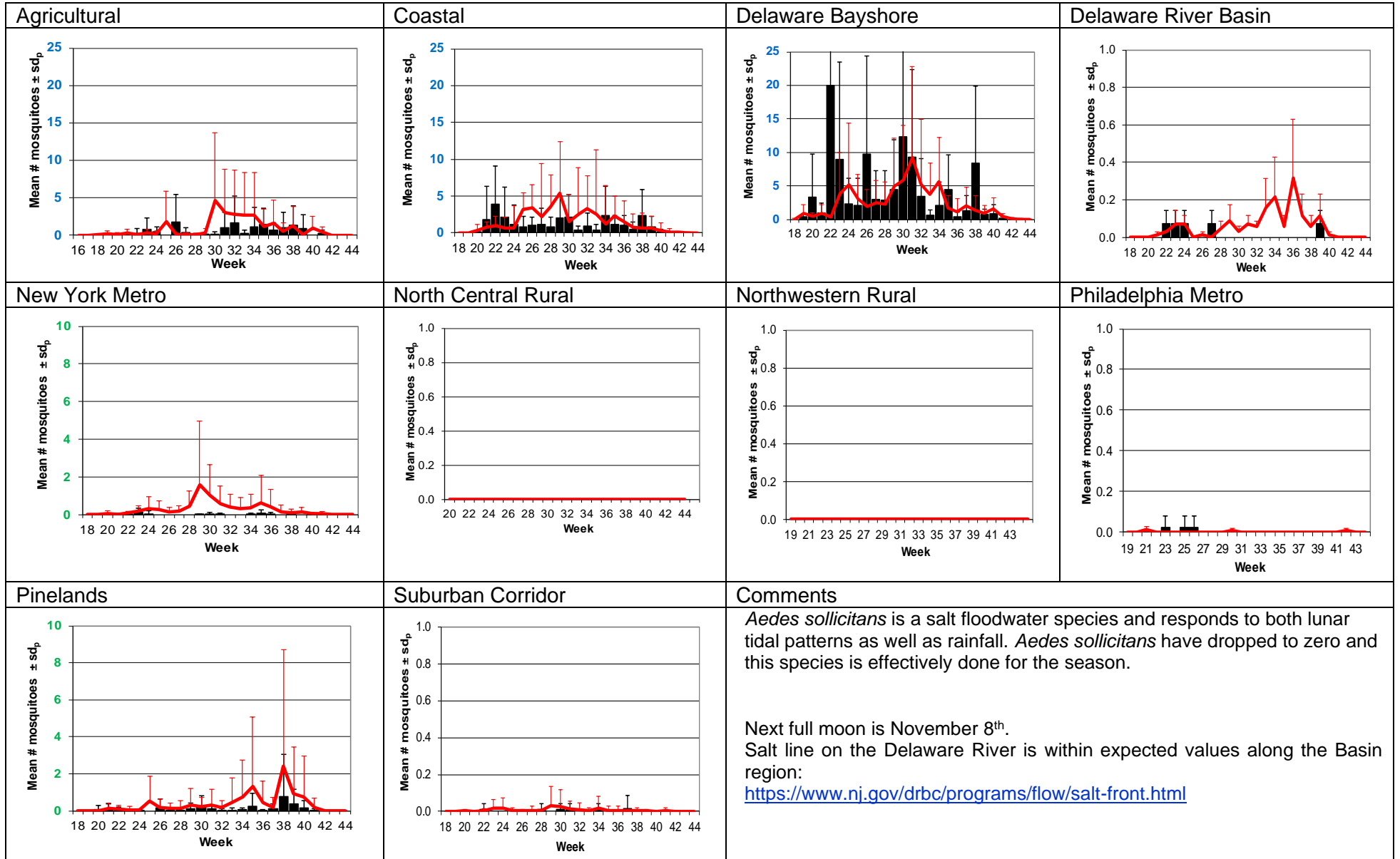
Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

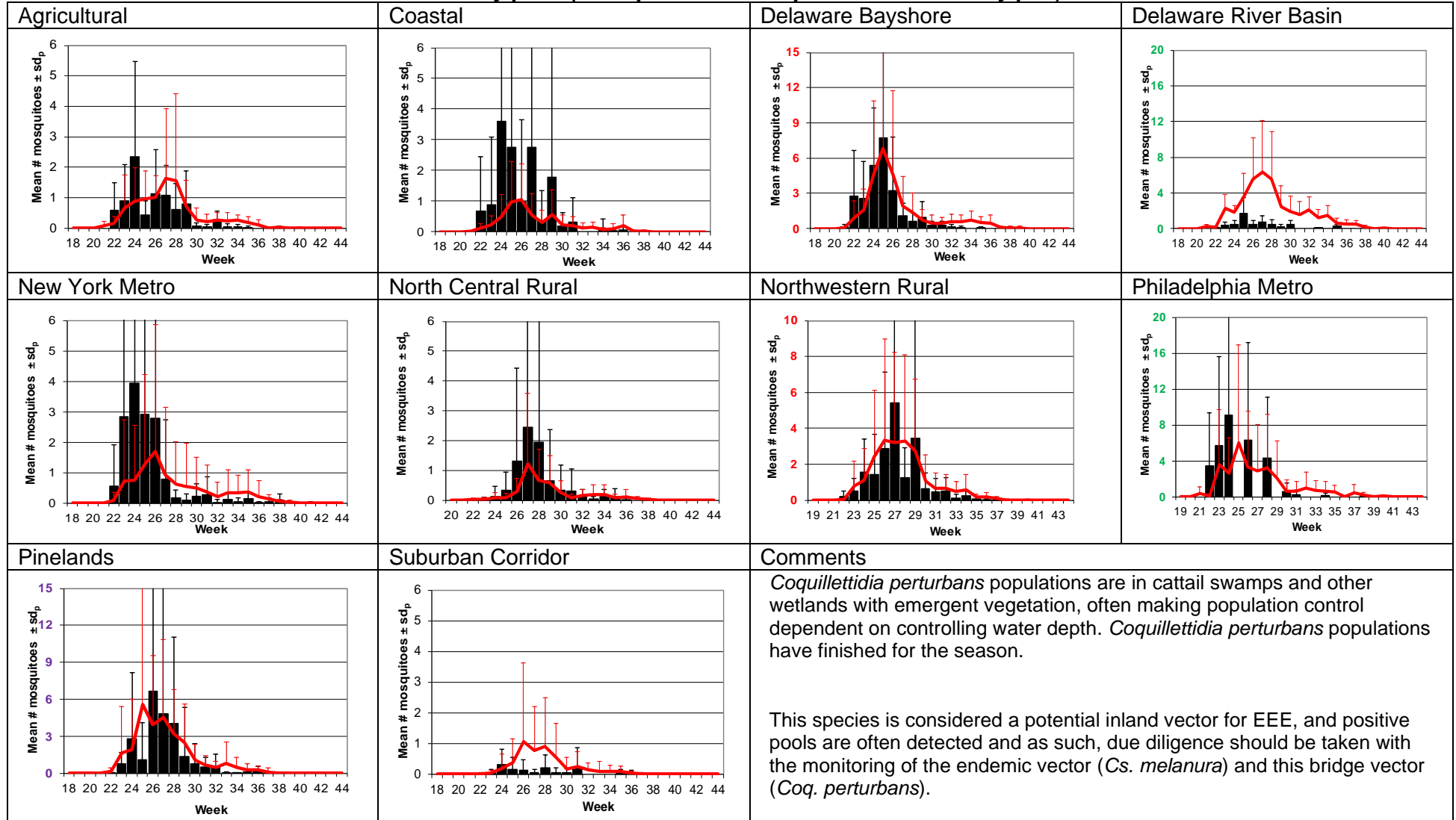
<p>Agricultural</p>	<p>Coastal</p>	<p>Delaware Bayshore</p>	<p>Delaware River Basin</p>
<p>New York Metro</p>	<p>North Central Rural</p>	<p>Northwestern Rural</p>	<p>Philadelphia Metro</p>
<p>Pinelands</p>	<p>Suburban Corridor</p>	<p>Comments</p> <p><i>Culiseta melanura</i> is the enzootic ornithophilic vector of eastern equine encephalitis. This cold-hardy species can emerge early in the season as well as staying active late into fall. EEE activity has been detected in the state, but in the northern region (Morris County) and in a pool of <i>Culex Mix</i>. Virus has not yet been detected in <i>Cs. melanura</i>. No populations of this species were found to above the historical trends during the current week.</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)

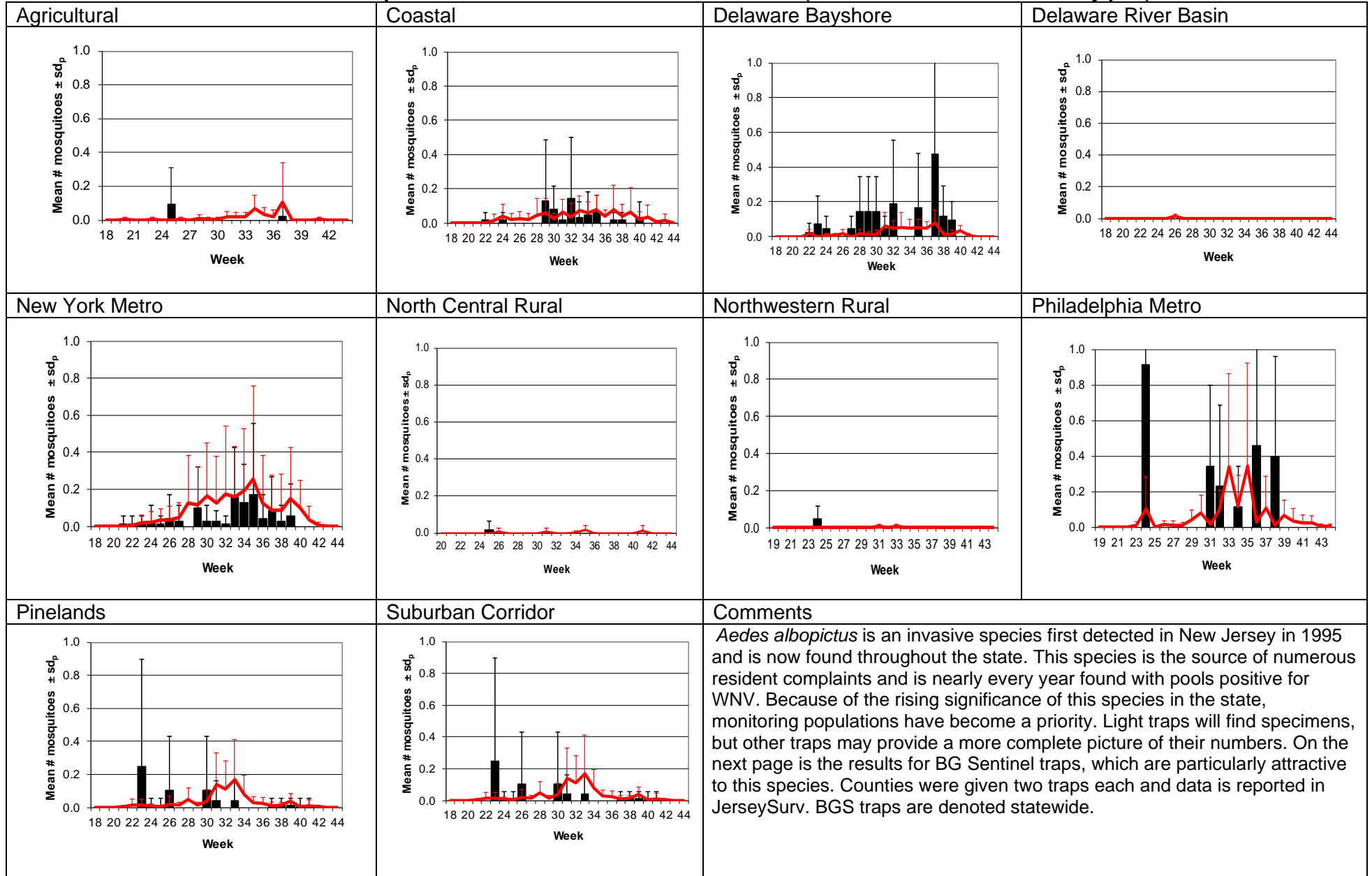


Coquillettidia perturbans

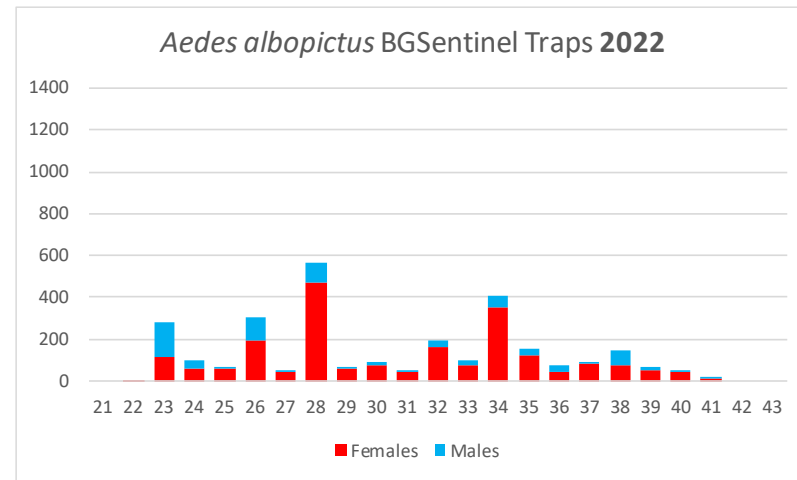
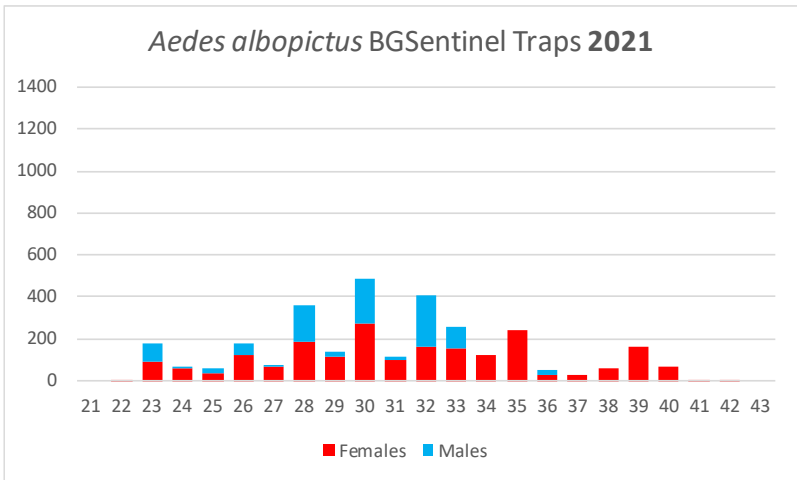
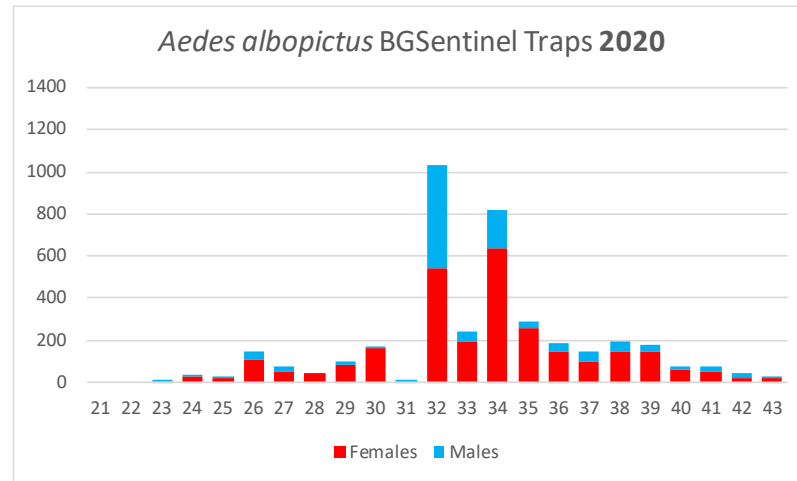
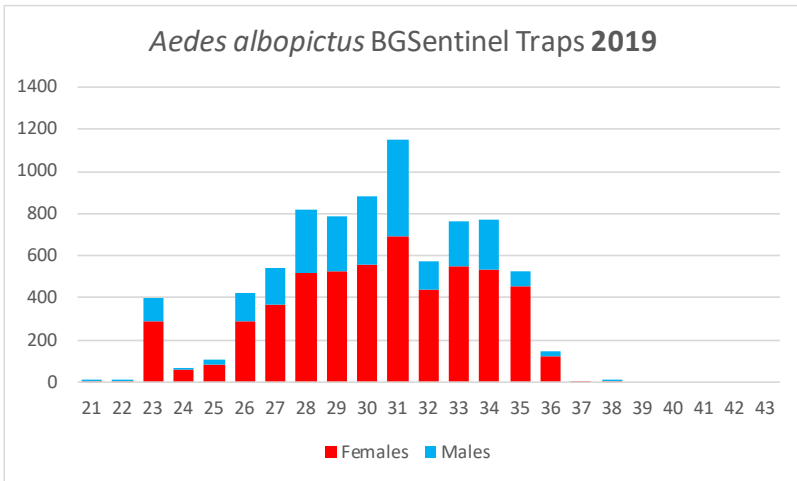
Monotypic (*Coquillettidia perturbans* Type)



Aedes albopictus – Multivoltine Aedine (*Aedes triseriatus* Type)



BGSentinel trapping of *Aedes albopictus*. Although data is limited, trends suggest that populations decreased during the past two years. **Note: this is ABUNDANCE data only, no vector numbers (will come in later graphics).*
 2019 include data from Bergen, Mercer, Monmouth, and Salem counties.
 2020 include data from Bergen, Cape May, Mercer, Middlesex, Monmouth, and Salem counties.
 2021 include data from Atlantic, Bergen, Mercer, Monmouth, Salem, and Warren counties,
 2022 include data from Atlantic, Bergen, Mercer, Monmouth, Salem, and Warren counties.

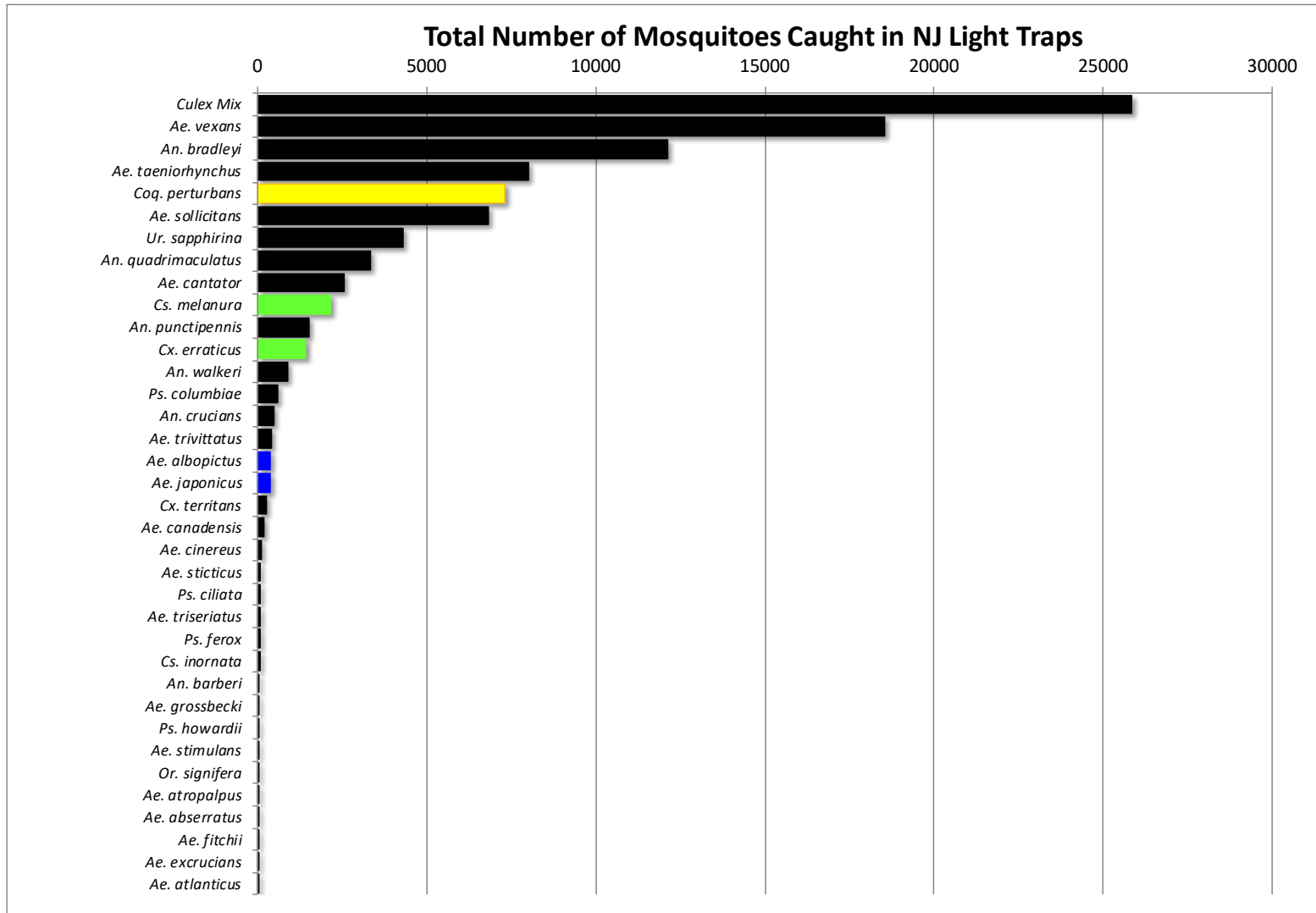


WNV

EEE

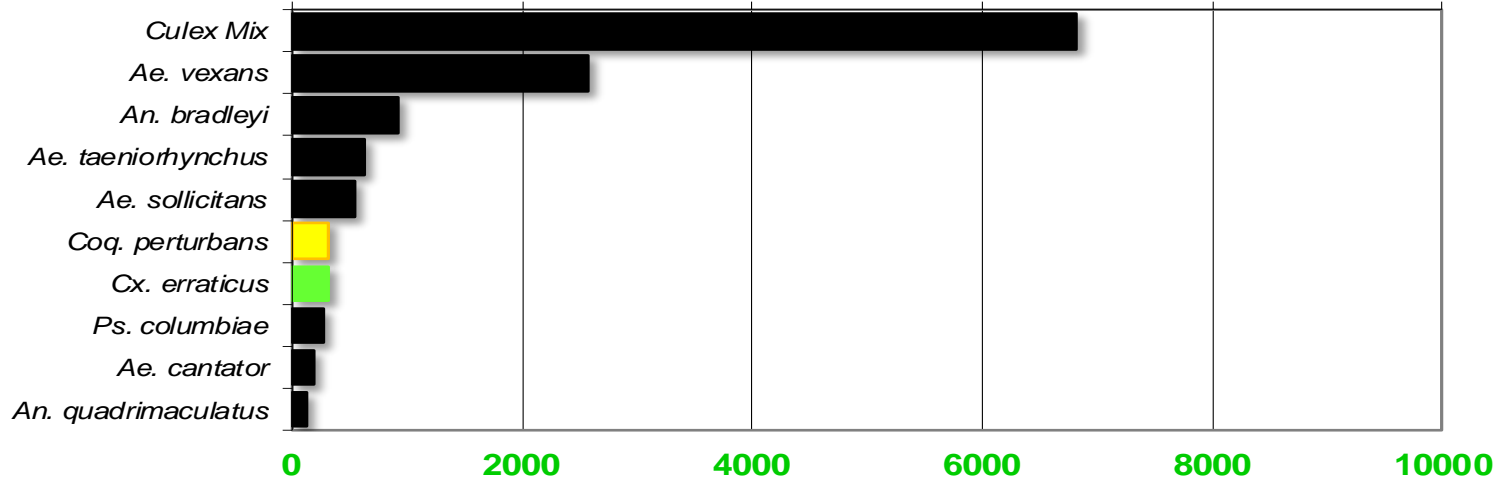
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



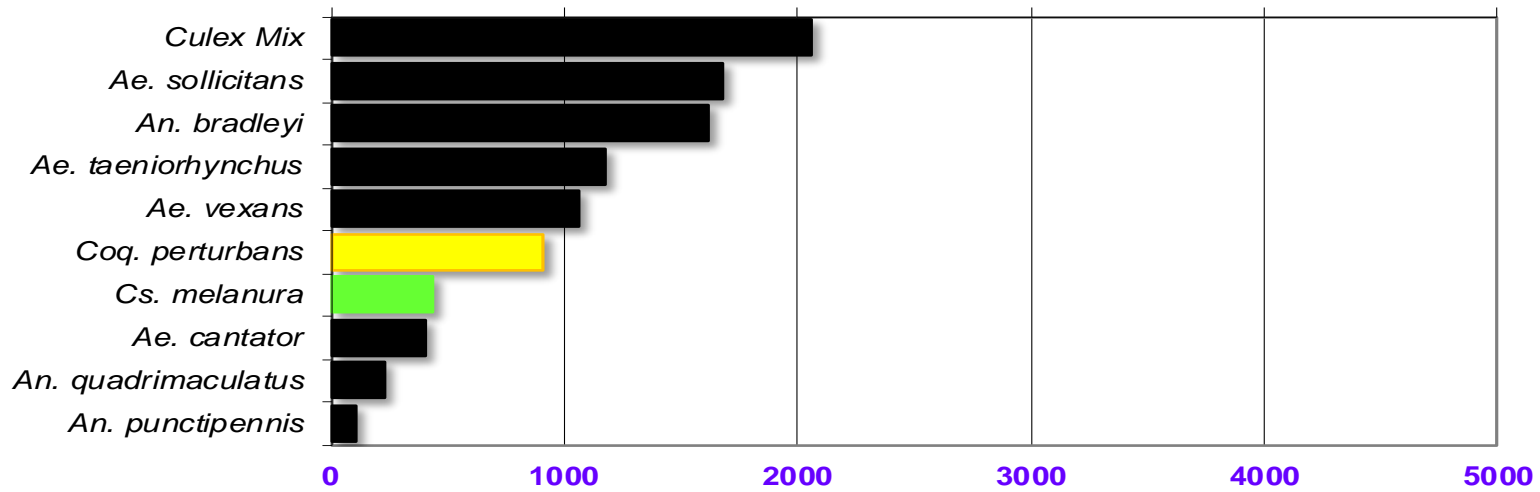
Agricultural

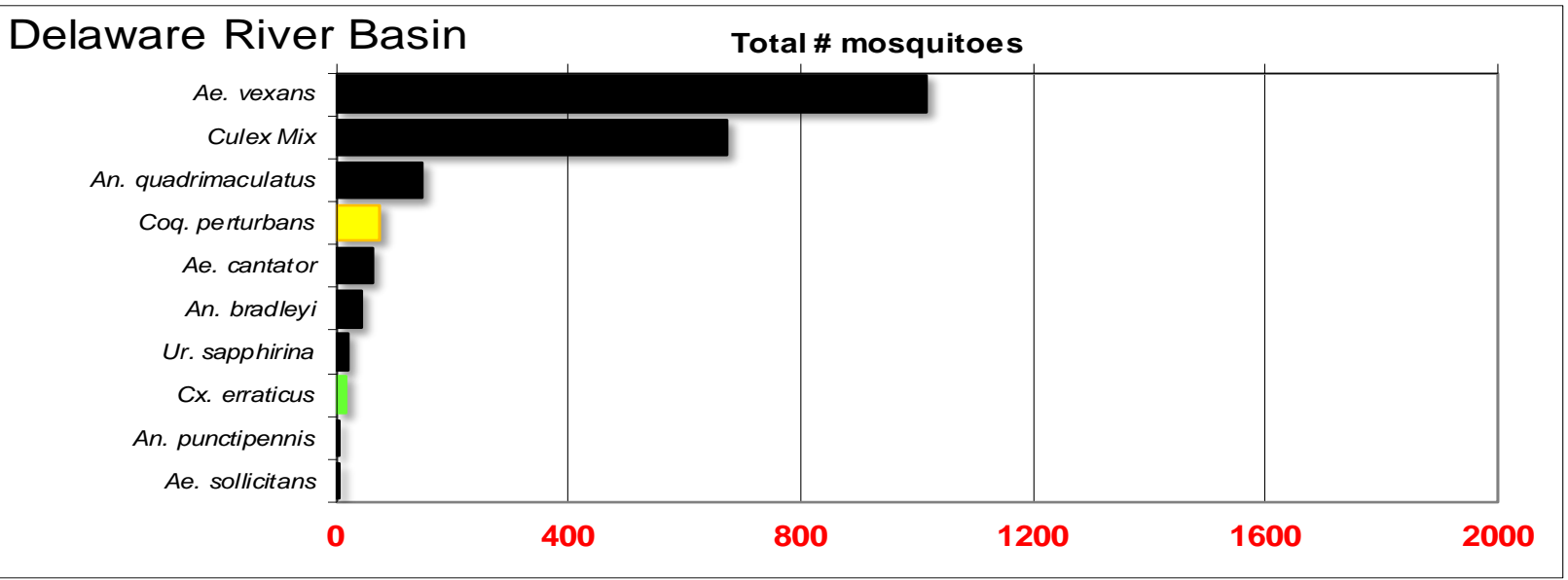
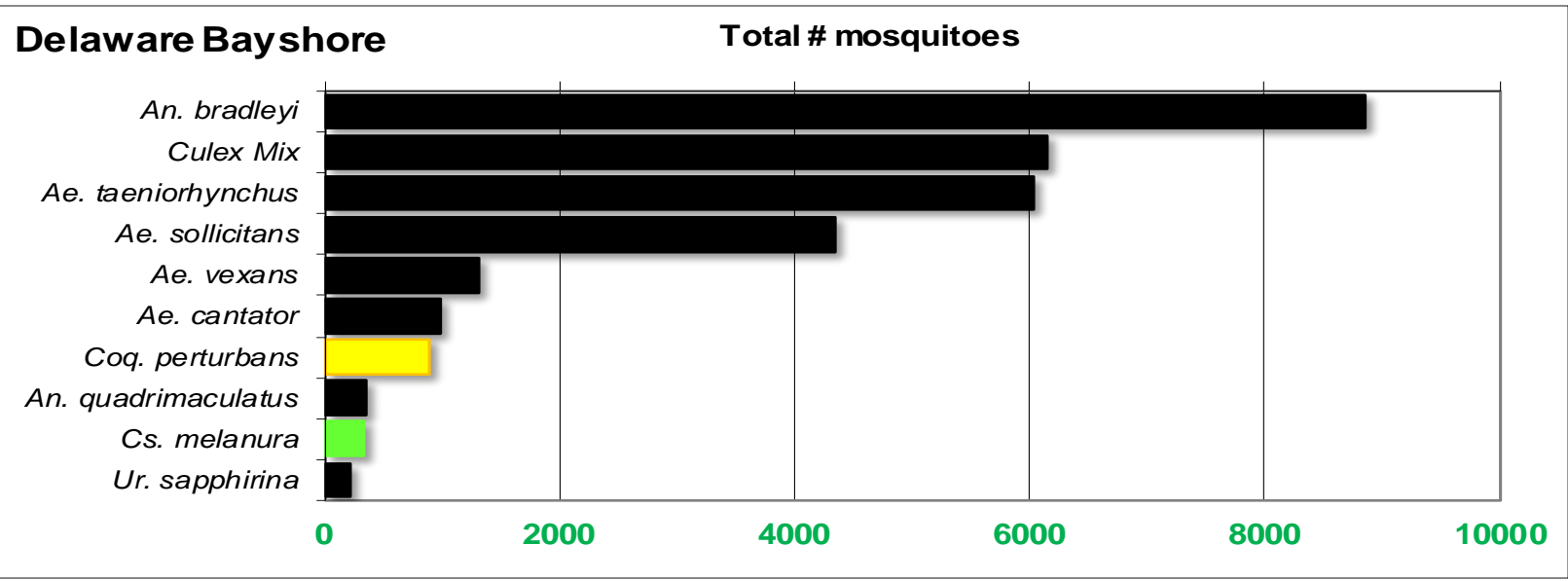
Total # mosquitoes



Coastal

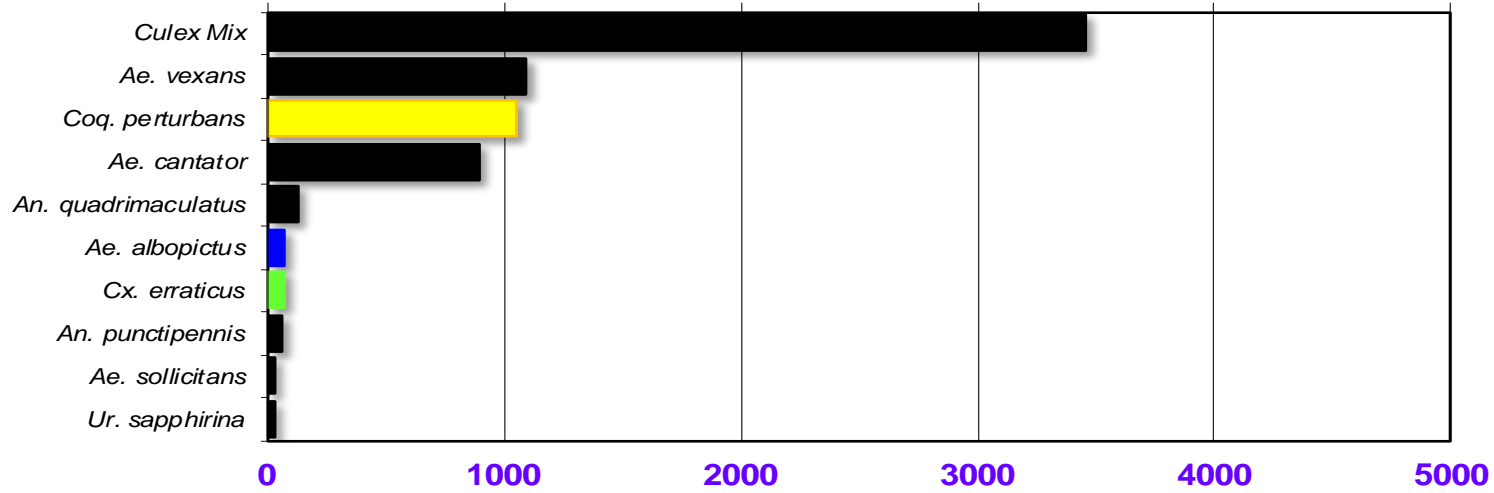
Total # mosquitoes





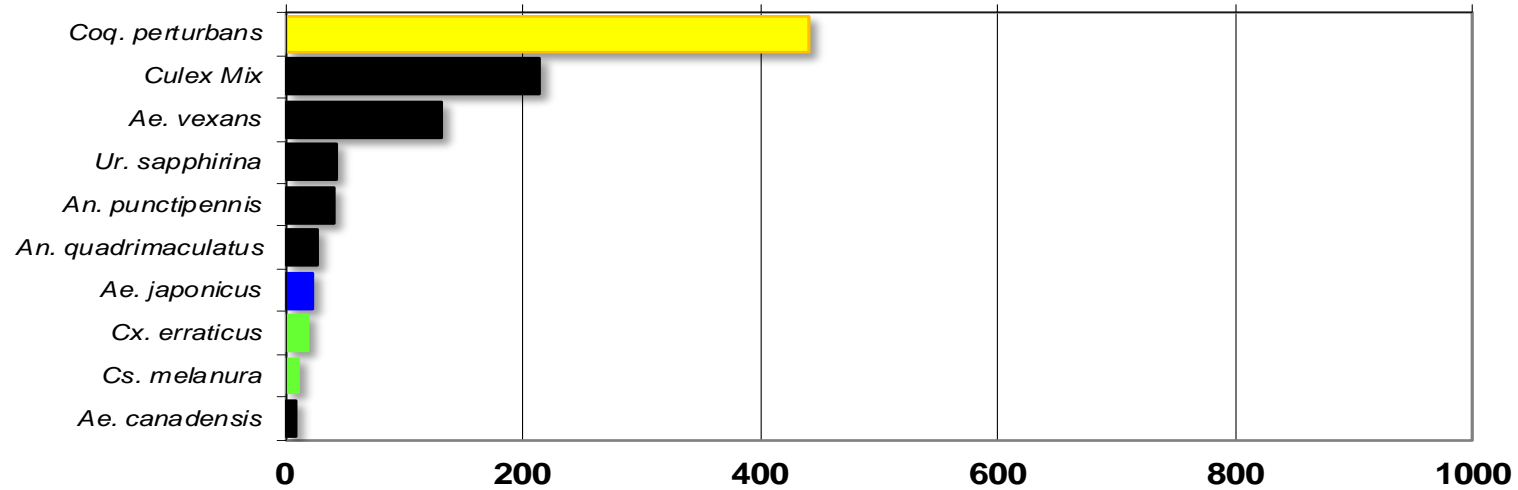
New York Metropolitan

Total # mosquitoes



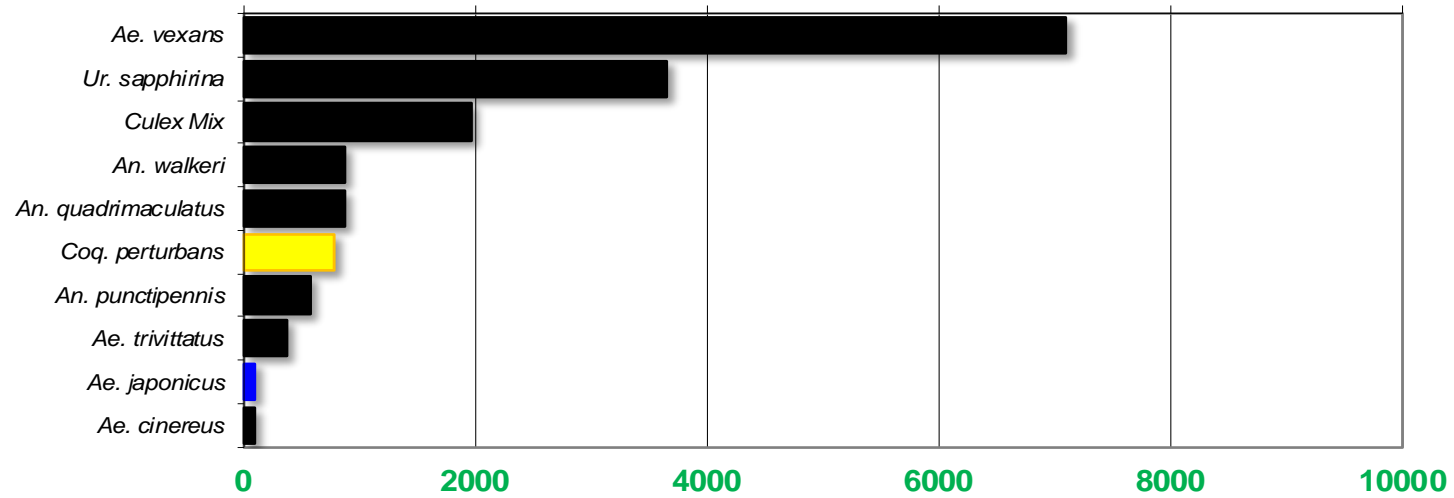
North Central Rural

Total # mosquitoes



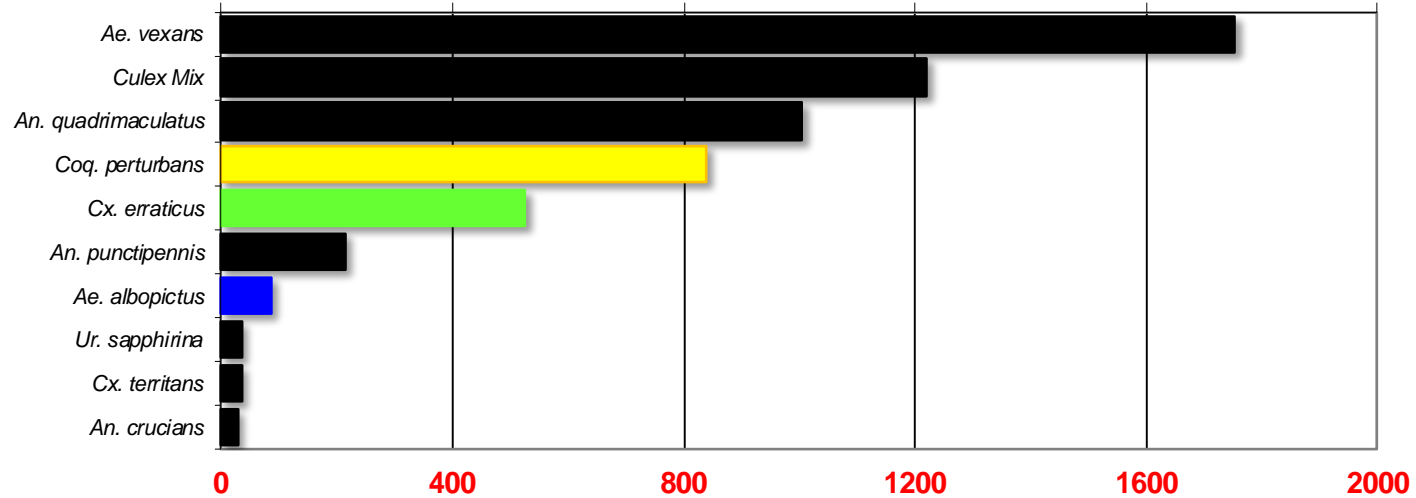
Northwest Rural

Total # mosquitoes



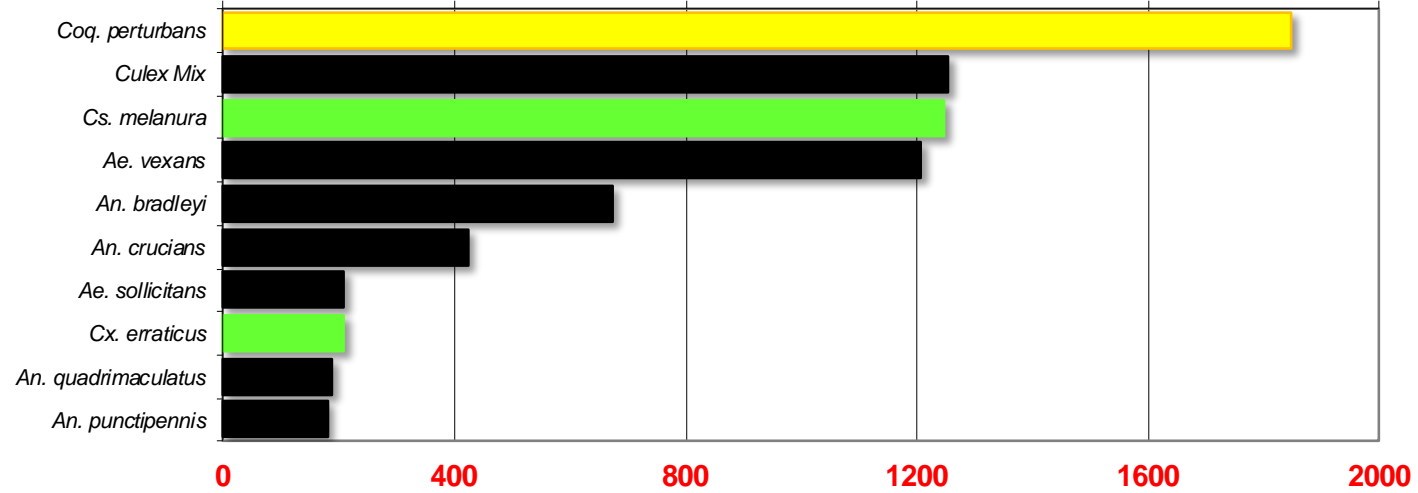
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

