

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

September 25 to October 1 CDC Week 39

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Center for Vector Biology



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Summary Table – Week 39

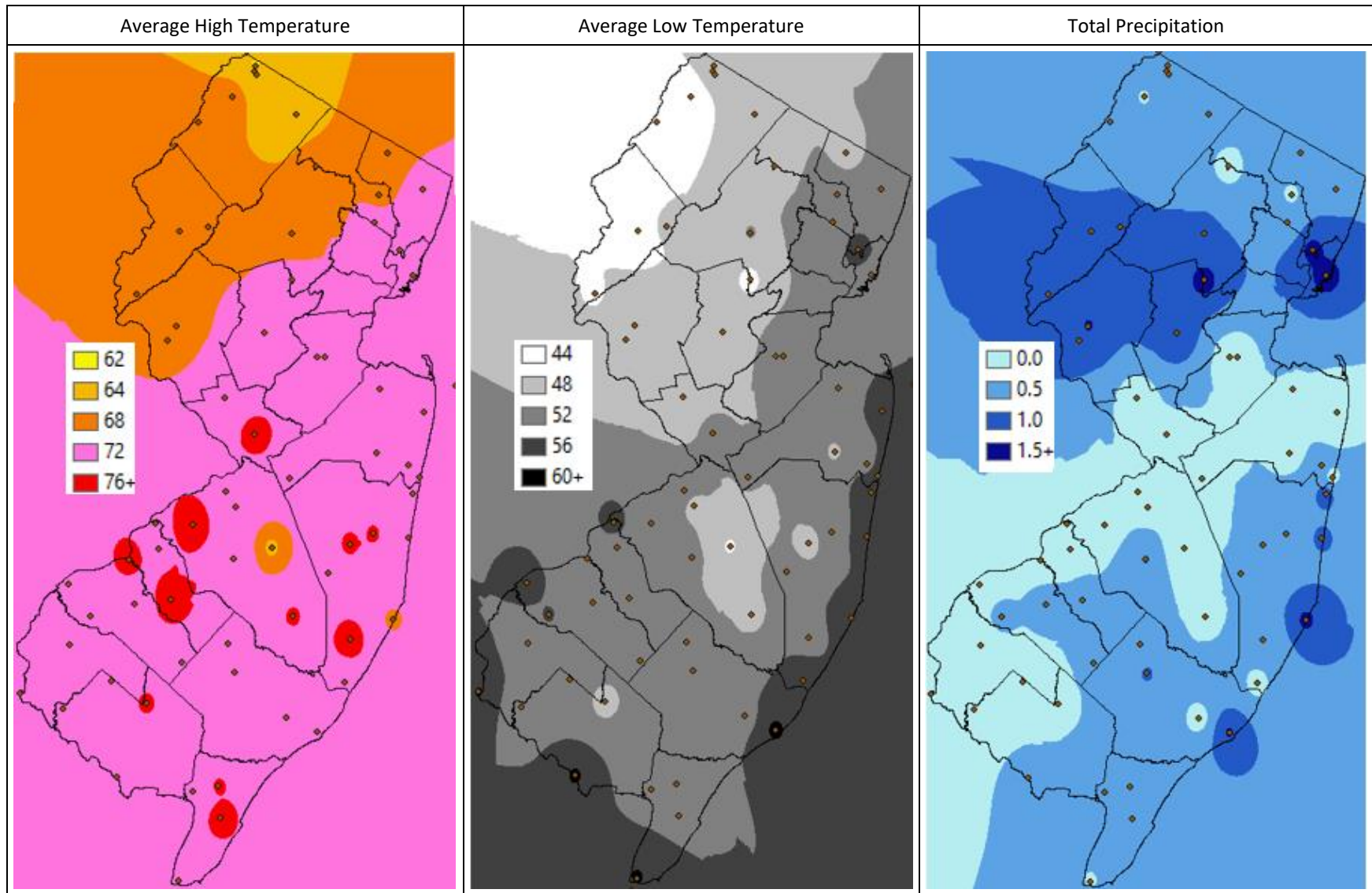
Region	<i>Aedes vexans</i>			<i>Culex Mix</i>			<i>Coquillettidia perturbans</i>			<i>Aedes sollicitans</i>		
	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase
Agricultural	1.81	2.32	0	2.10	9.12	0	0.00	0.00	0	0.86	0.09	4
Coastal	2.27	3.01	0	0.59	5.94	0	0.00	<0.01	0	0.78	0.62	1
Delaware Bayshore	3.79	2.62	1	5.74	7.90	0	0.00	0.06	0	0.69	0.85	0
Delaware River Basin	0.36	3.17	0	0.21	2.46	0	0.00	0.01	0	0.07	0.11	0
New York Metro	0.49	0.56	0	1.29	4.33	0	0.00	0.03	0	0.00	0.14	0
North Central Rural	0.00	0.09	0	0.00	0.31	0	0.00	0.00	0	0.00	0.00	0
Northwest Rural	0.09	2.89	0	0.00	2.90	0	0.00	0.01	0	0.00	0.00	0
Philadelphia Metro	0.57	2.72	0	0.00	1.53	0	0.00	0.05	0	0.00	0.00	0
Pinelands	0.82	0.84	0	0.44	1.39	0	0.00	0.02	0	0.38	0.93	0
Suburban Corridor	0.13	0.40	0	0.09	0.71	0	0.00	0.01	0	0.00	<0.01	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: Continuing the trends from last week, several populations of pestiferous mosquitoes were above historical averages after a season of low abundances. For the fresh floodwater *Aedes vexans*, the Delaware Bayshore populations were mildly elevated over historical trends. For the salt floodwater species *Aedes sollicitans*, significantly elevated populations were seen in the Agricultural region and mildly elevated in the Coastal region. *Coquillettidia perturbans* is through for the season.

Aedes albopictus trends in light trap and BG Sentinel traps are also presented, on pages 9 and 10.

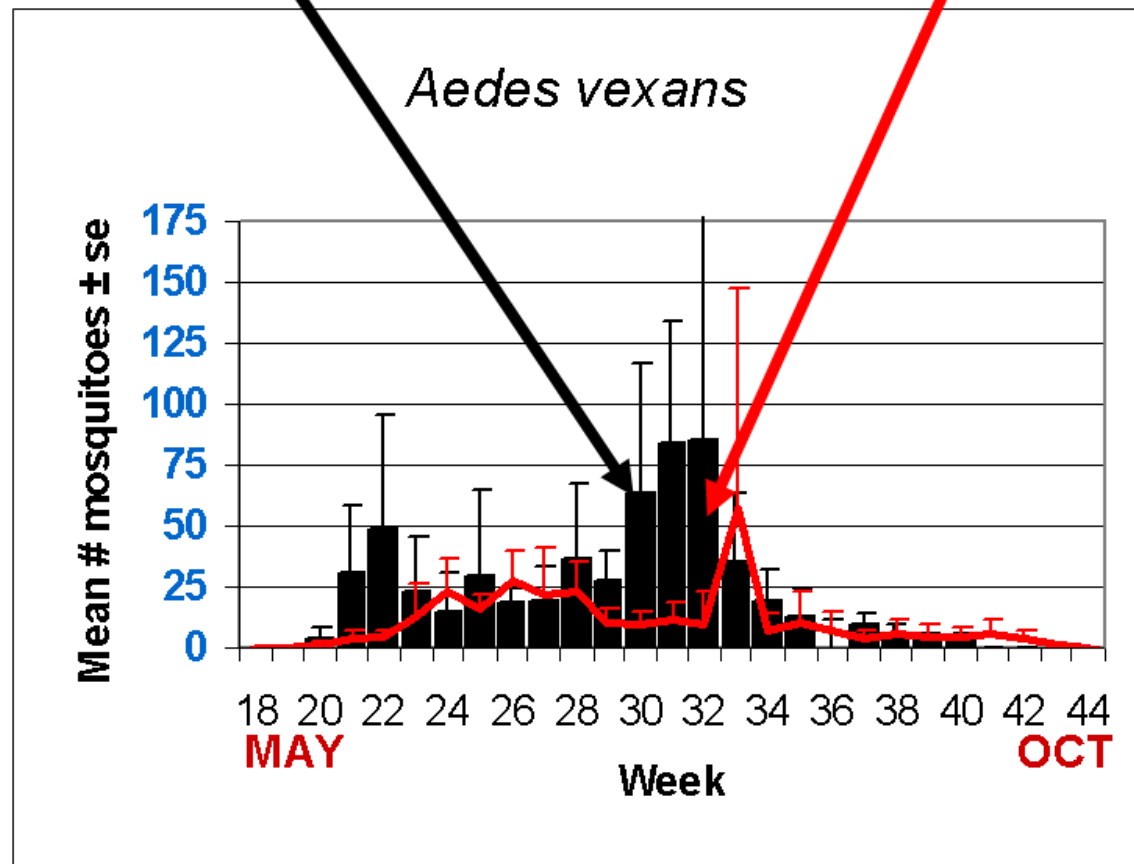
Climate Factors



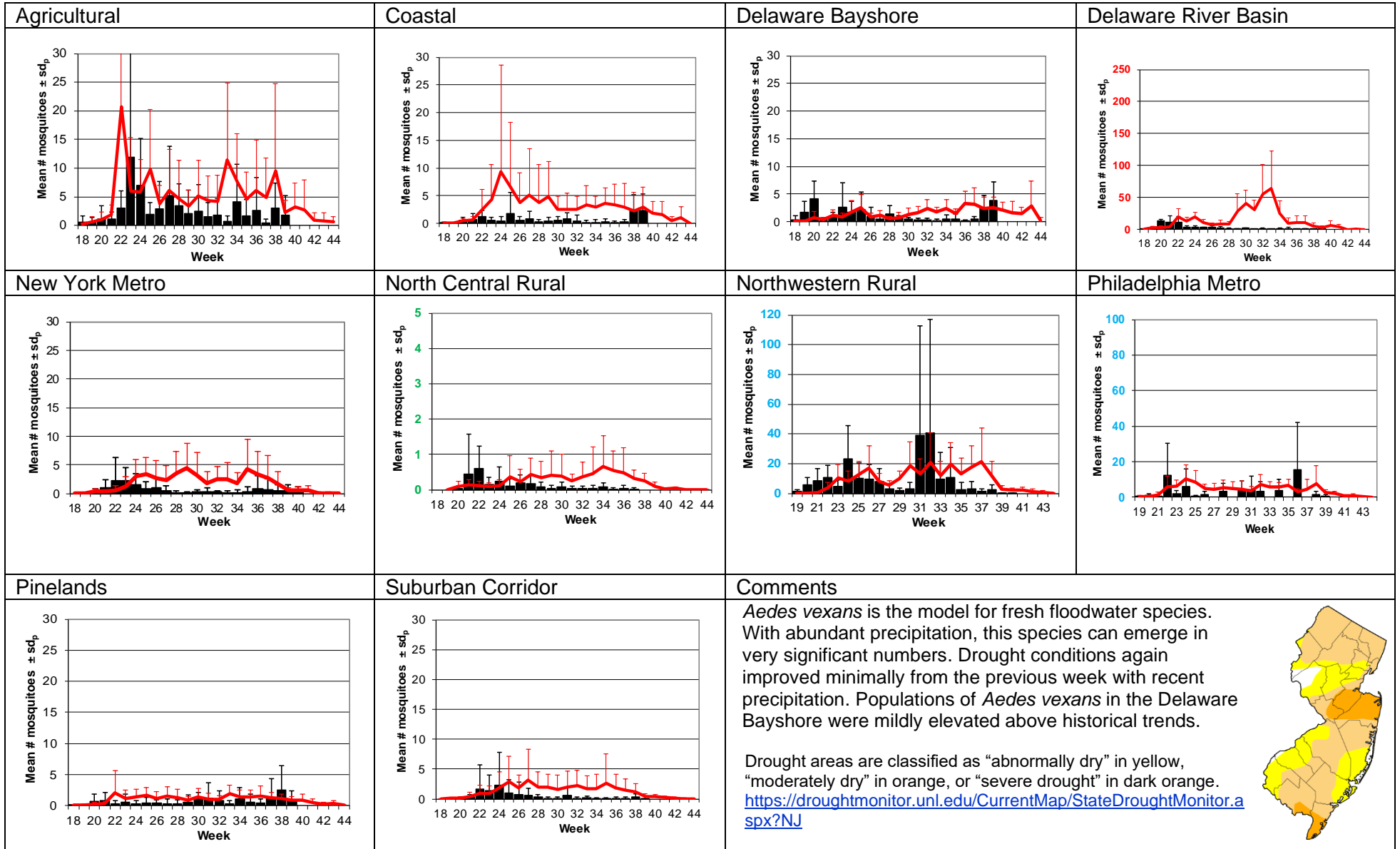
The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 2 October 2022 in New Jersey. Data points are from about 45 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. 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, Burlington, Cape May, Cumberland, Hudson, Middlesex, Morris, Salem, Somerset, Union, and Warren counties. Data for the previous week are from Atlantic, Bergen, Burlington, Cape May, Cumberland, Hudson, Mercer, Middlesex, Morris, Ocean, Passaic, Salem, Somerset, nion, and Warren counties.

Weekly Means Against 5-year Average

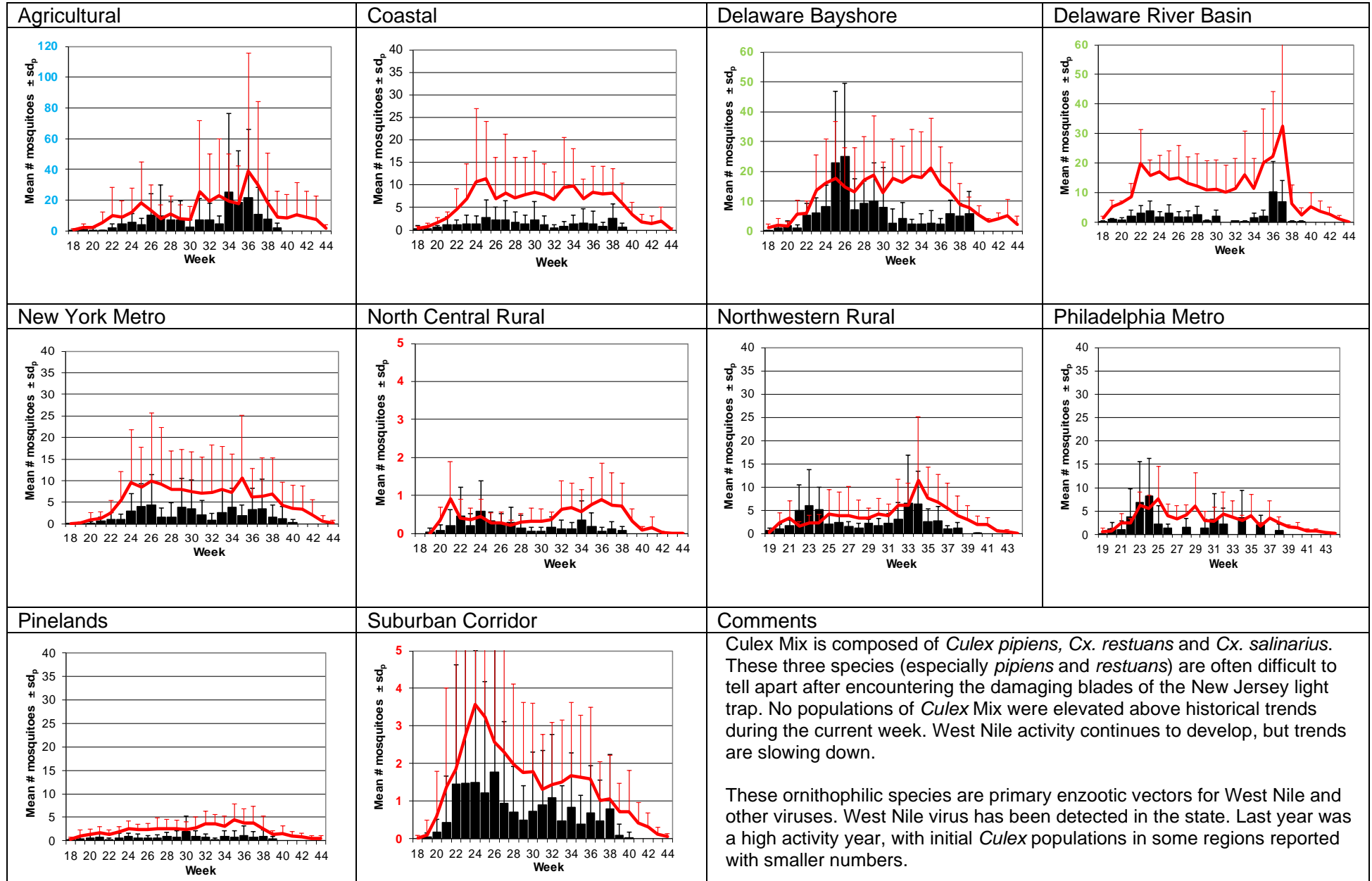


Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (*Ae. vexans* Type)



Culex Mix – Permanent Water Species

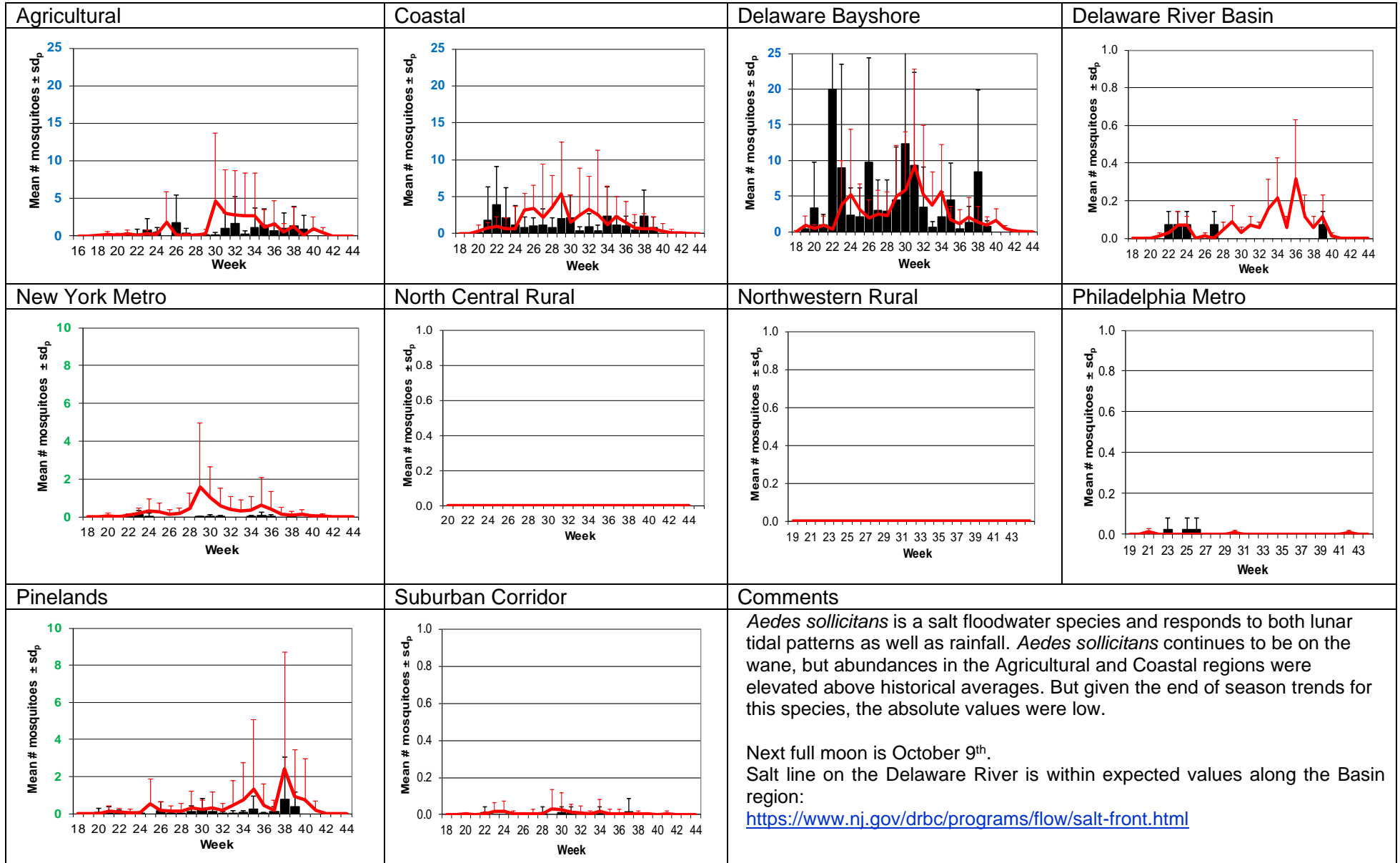
Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

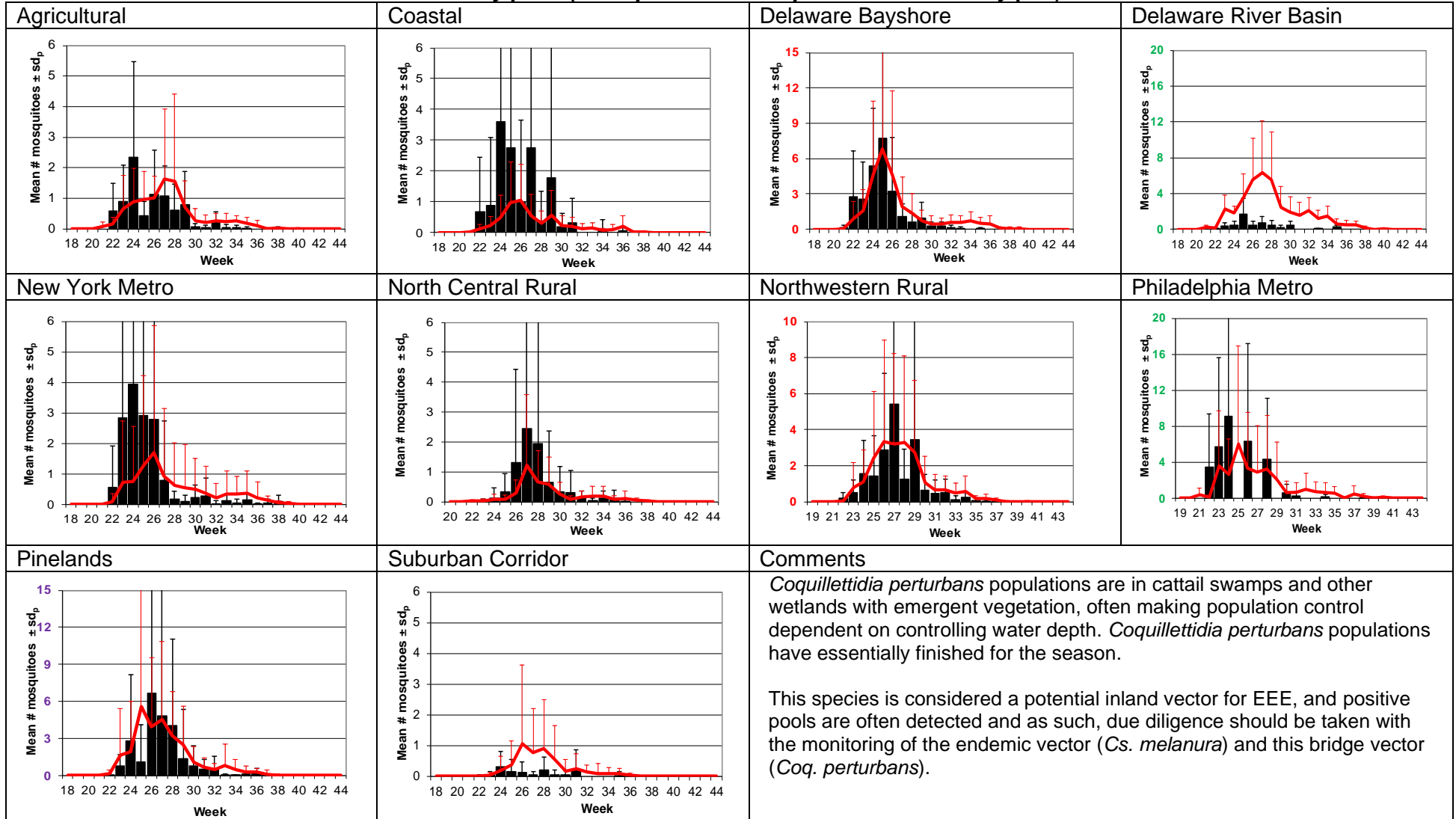
<p>Agricultural</p>	<p>Coastal</p>	<p>Delaware Bayshore</p>	<p>Delaware River Basin</p>
<p>New York Metro</p>	<p>North Central Rural</p>	<p>Northwestern Rural</p>	<p>Philadelphia Metro</p>
<p>Pinelands</p>	<p>Suburban Corridor</p>	<p>Comments</p> <p><i>Culiseta melanura</i> is the enzootic ornithophilic 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 continue to be well below the historical trends. 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)

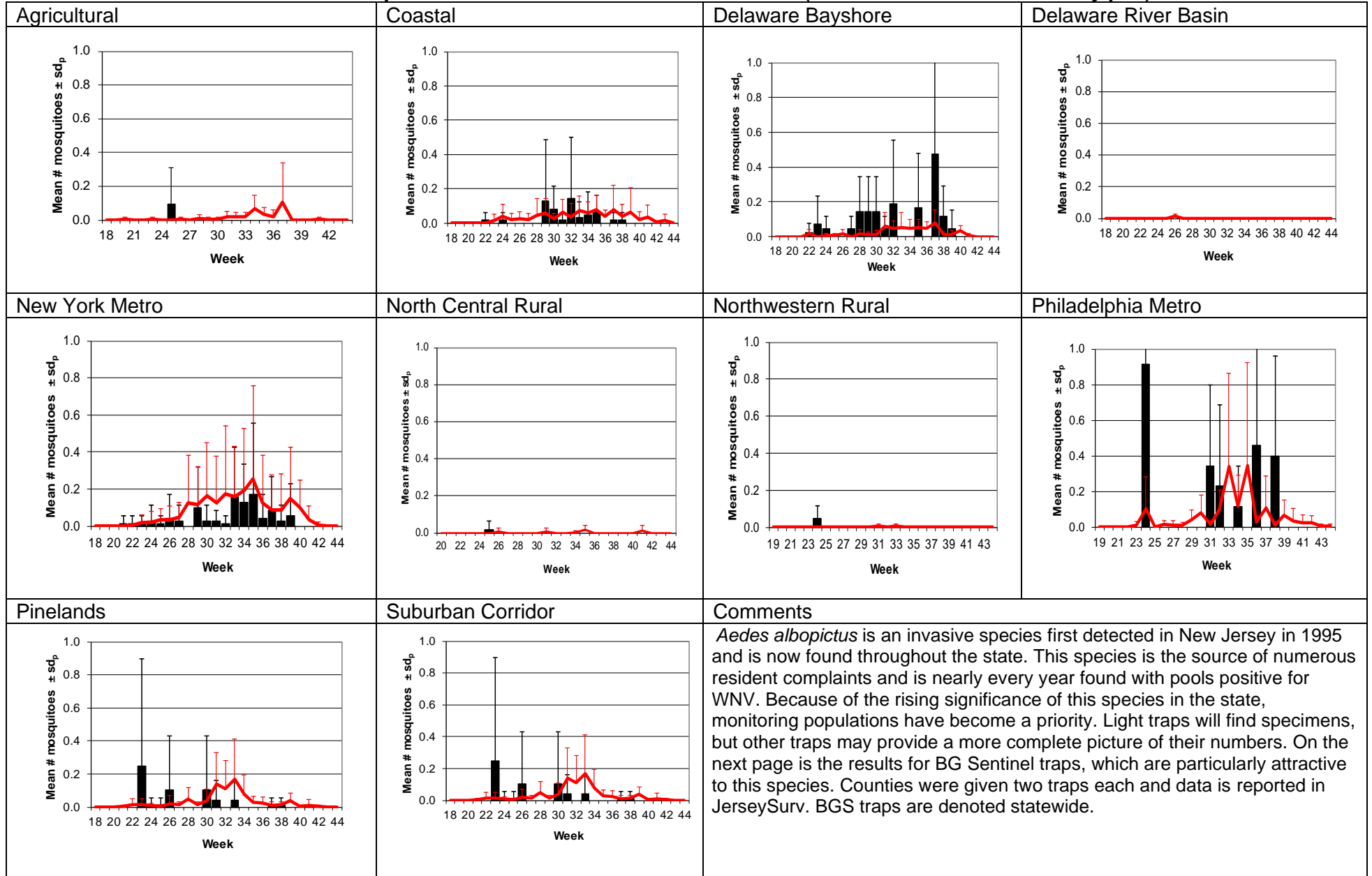


Coquillettidia perturbans

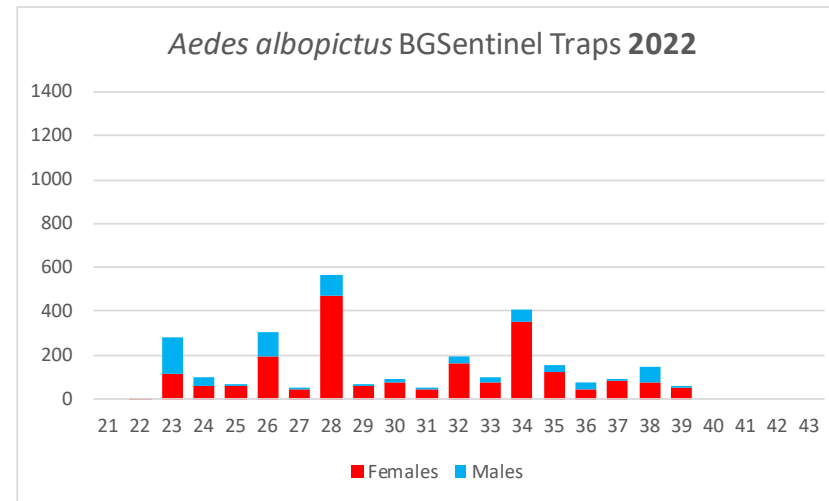
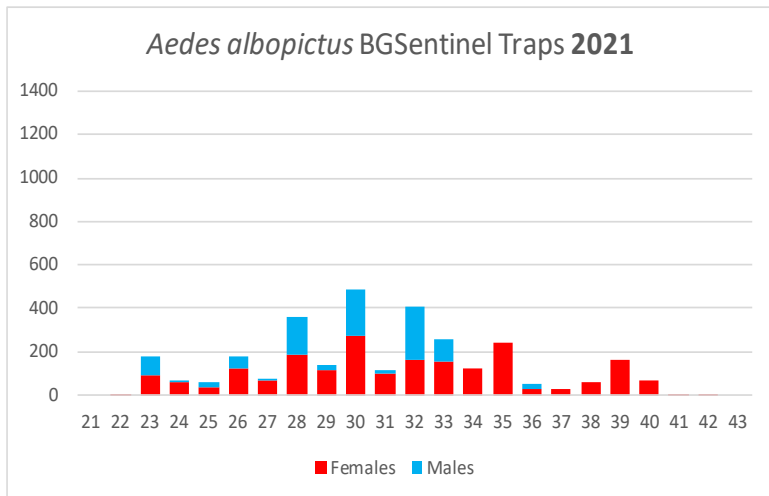
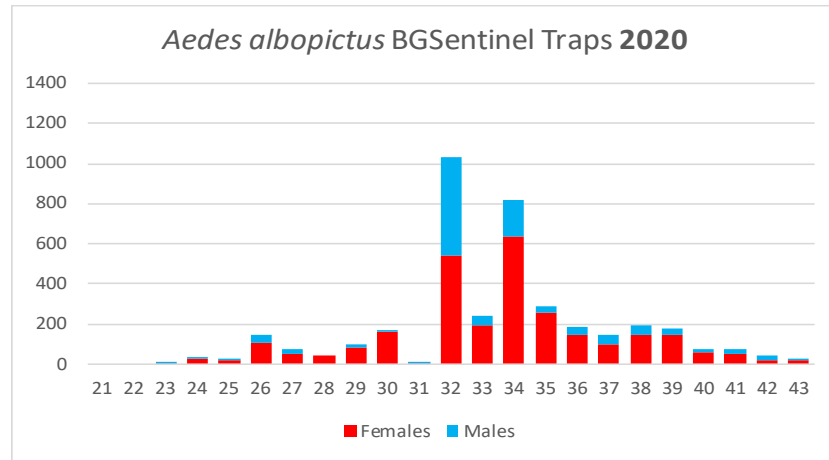
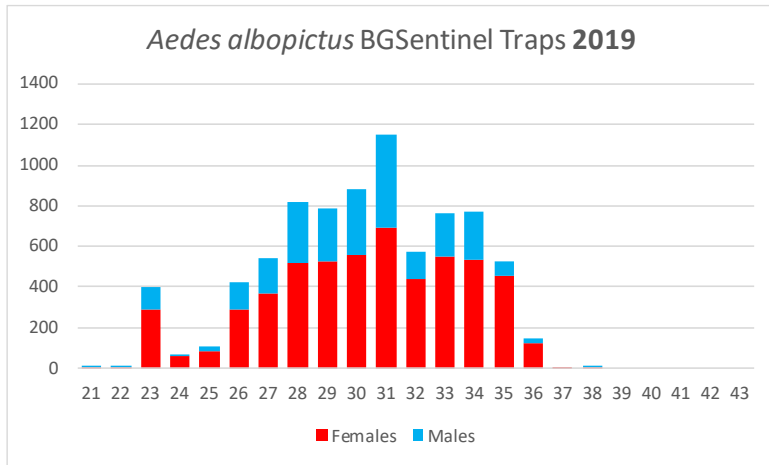
Monotypic (*Coquillettidia perturbans* Type)



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.

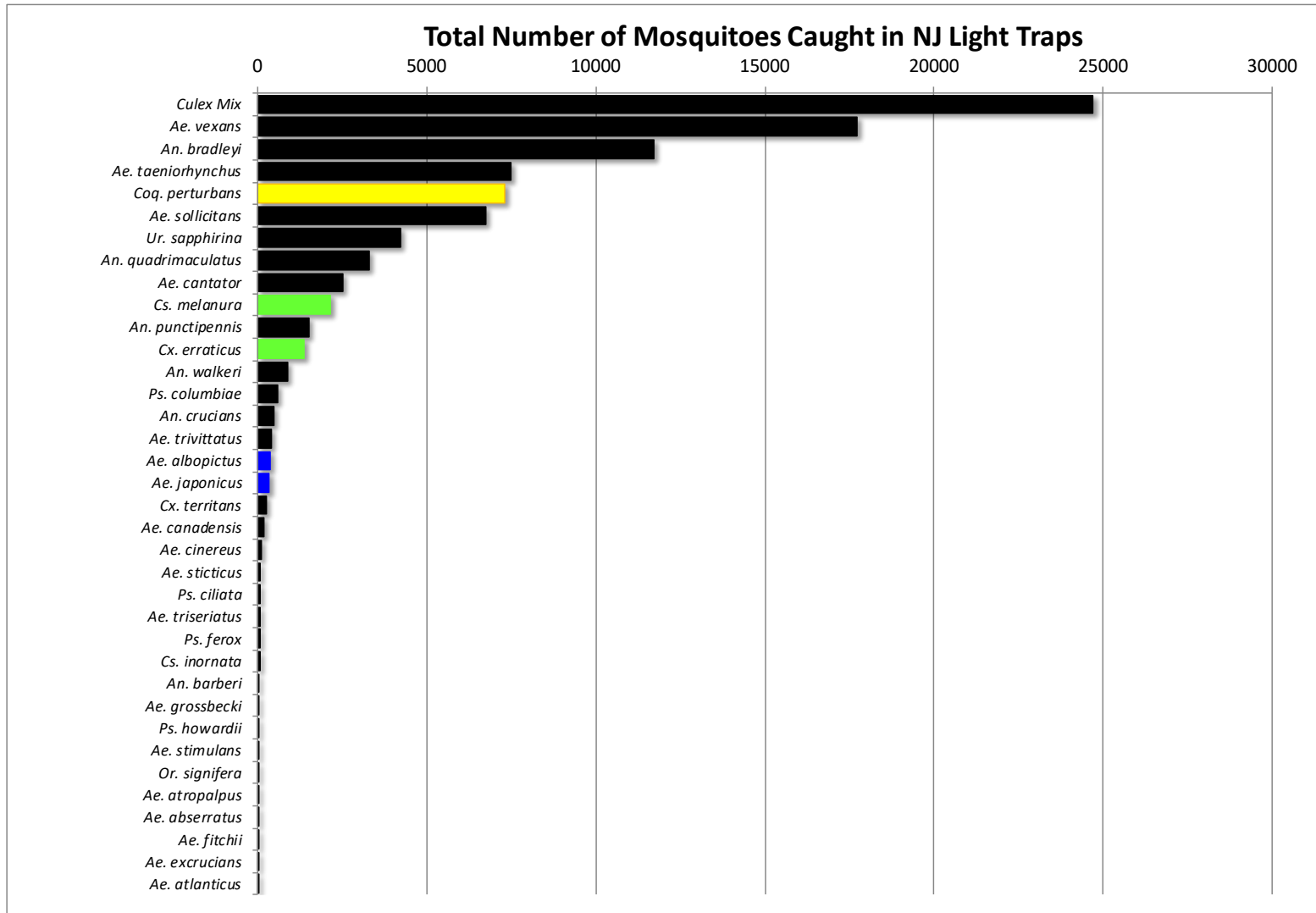


WNV

EEE

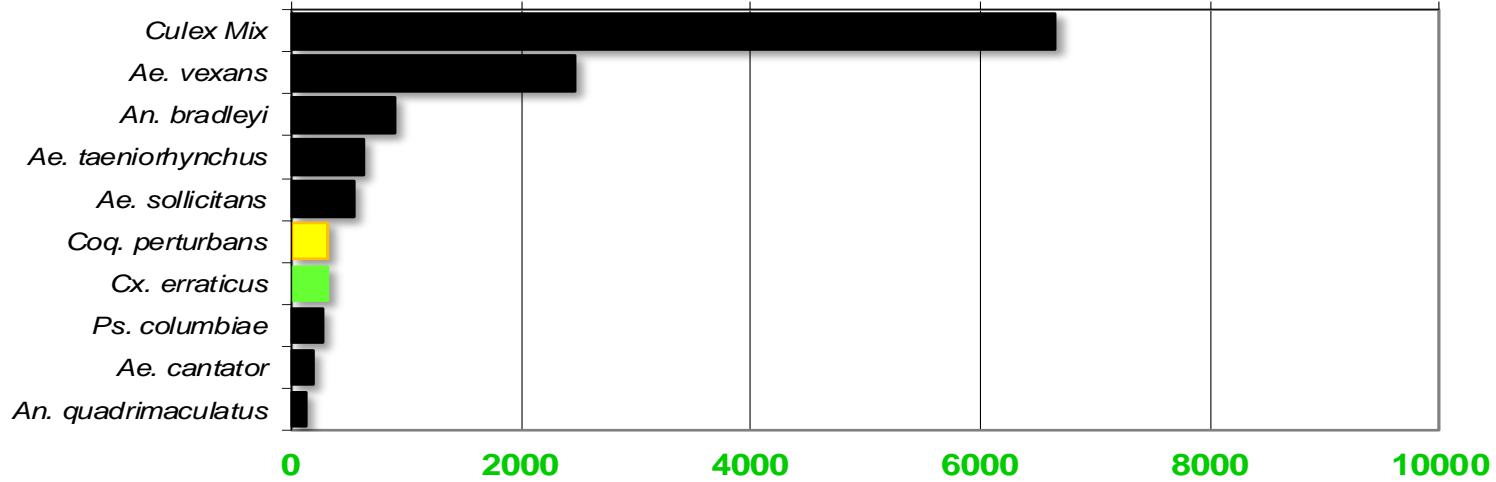
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



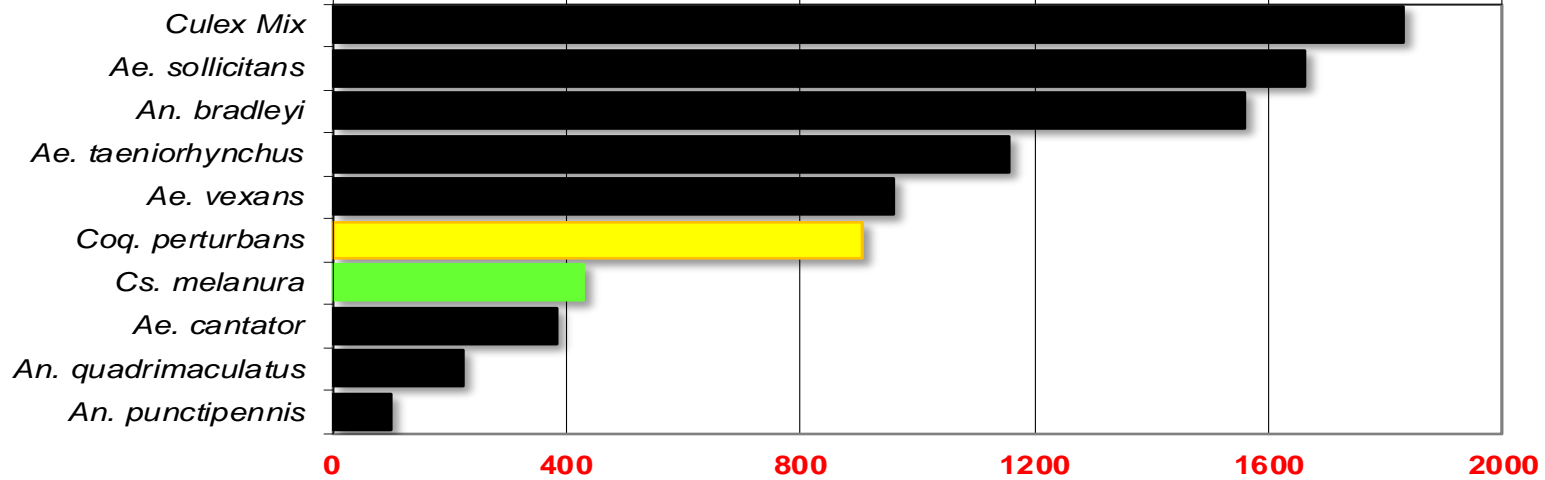
Agricultural

Total # mosquitoes



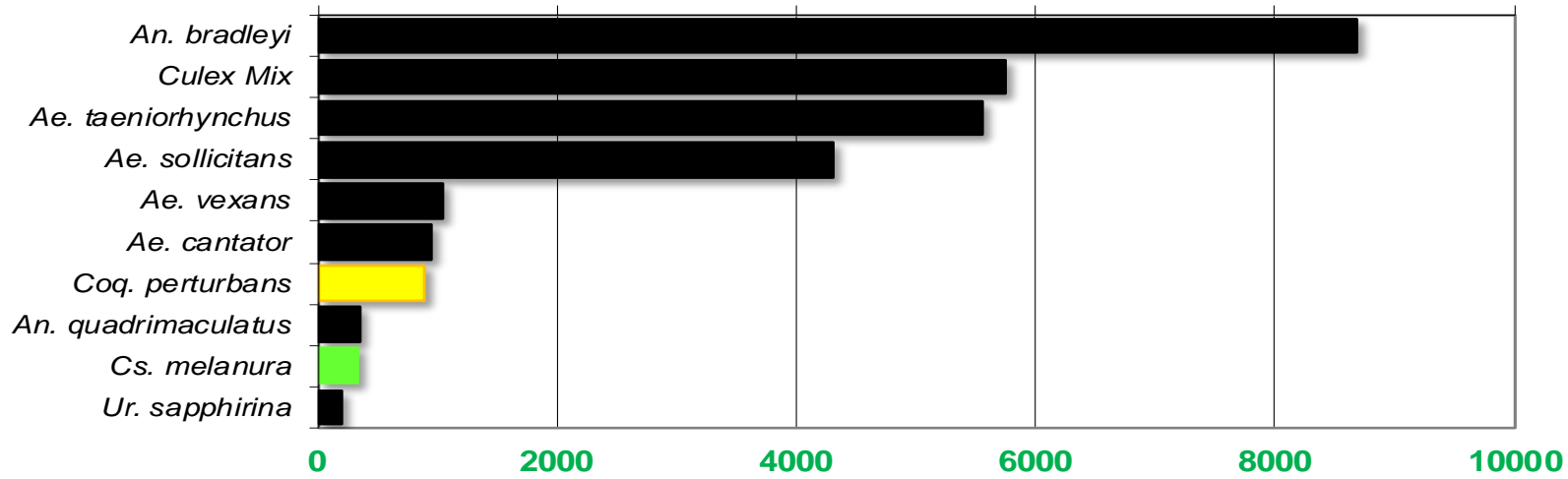
Coastal

Total # mosquitoes



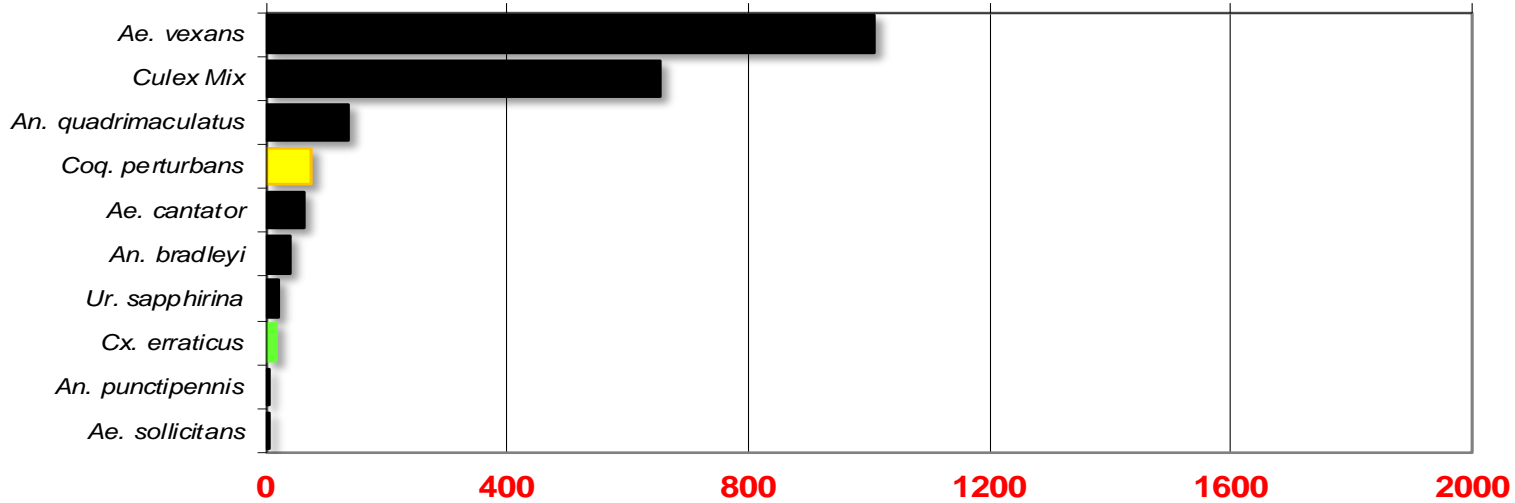
Delaware Bayshore

Total # mosquitoes



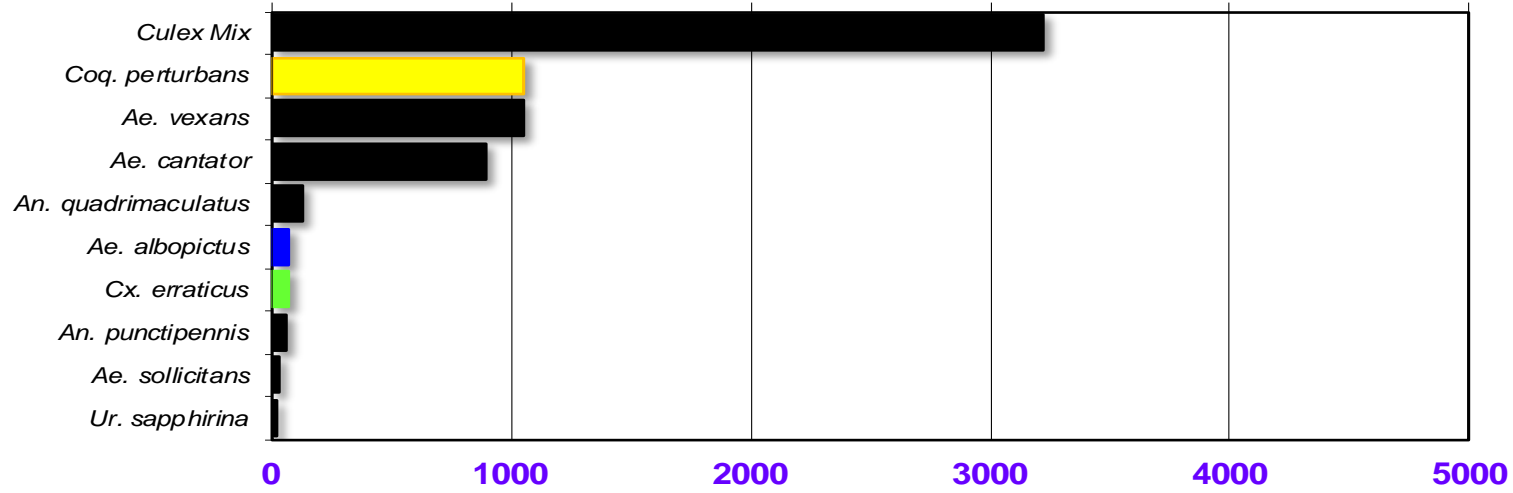
Delaware River Basin

Total # mosquitoes



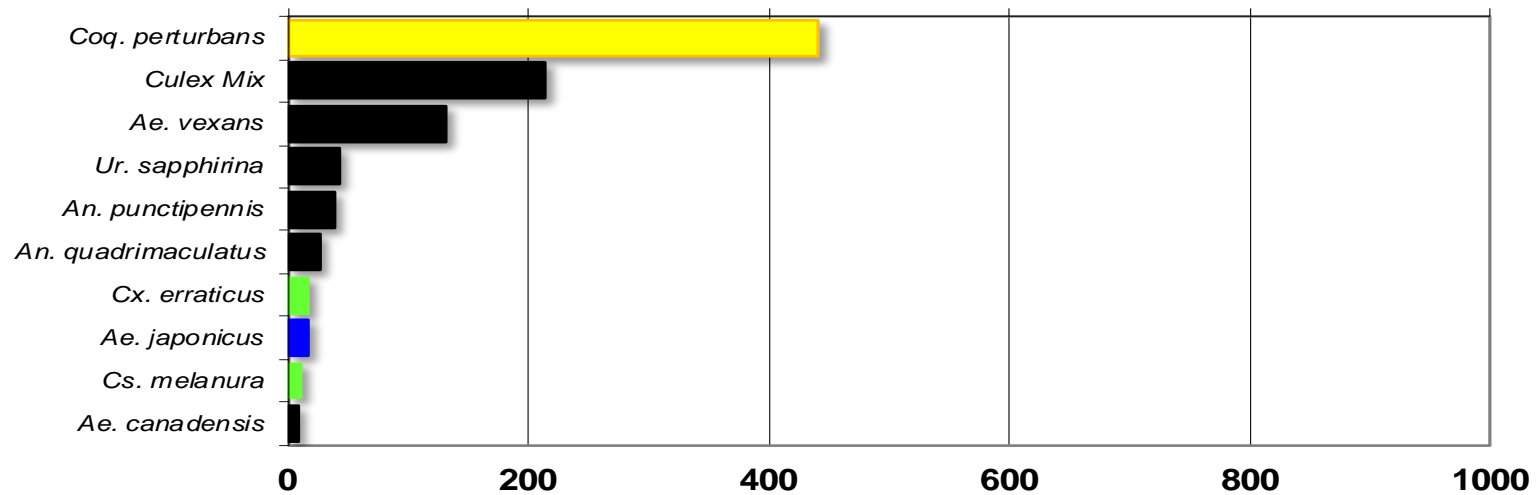
New York Metropolitan

Total # mosquitoes



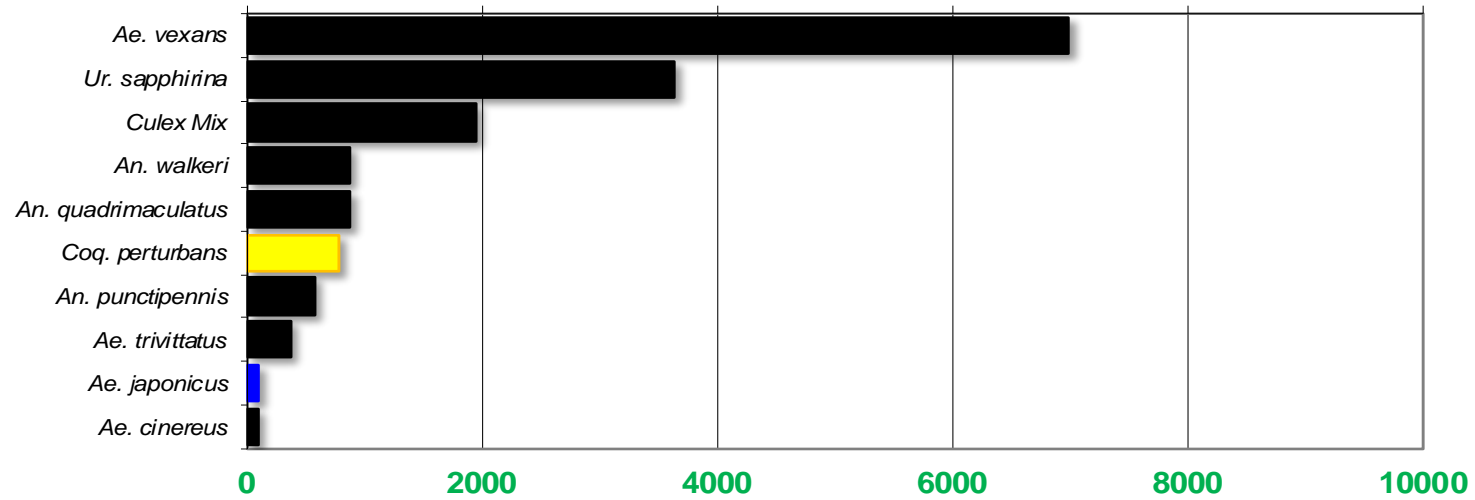
North Central Rural

Total # mosquitoes



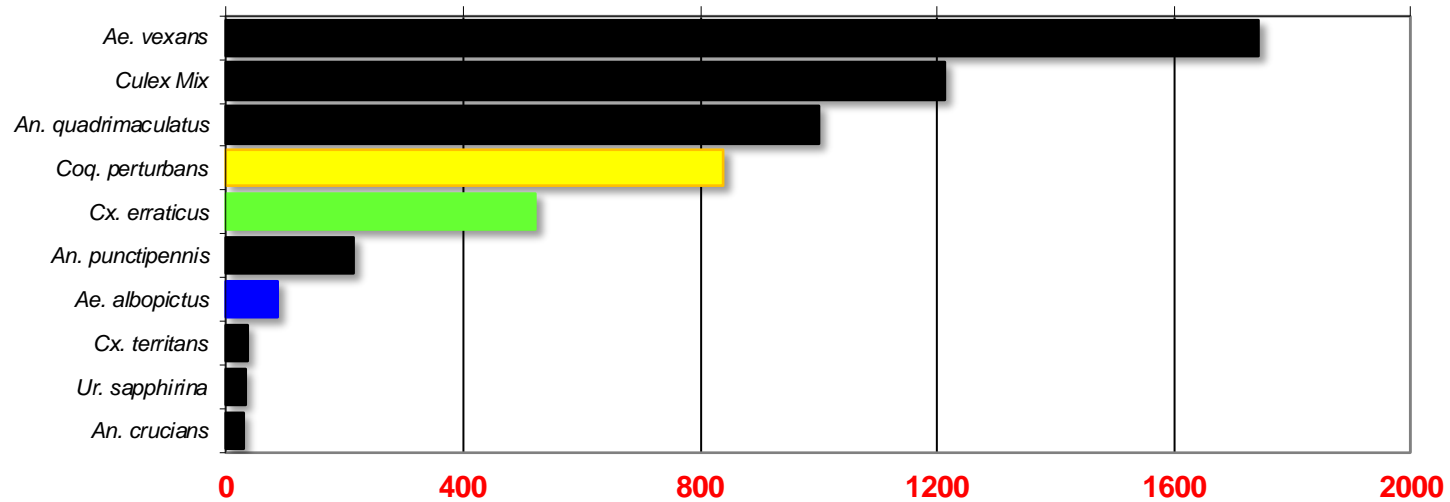
Northwest Rural

Total # mosquitoes



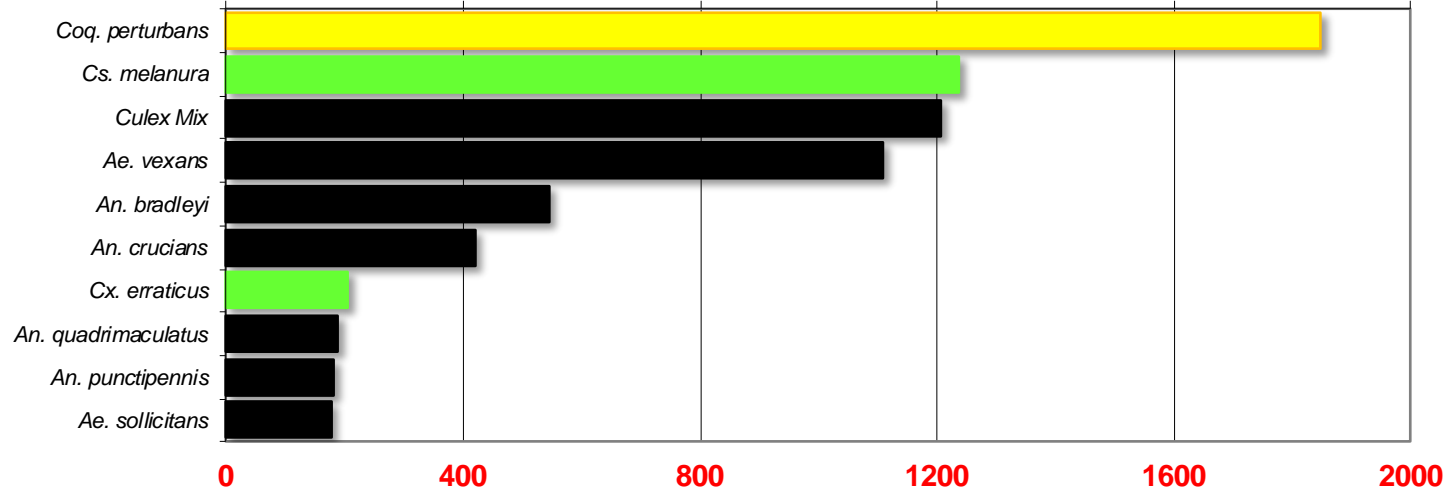
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

