

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

July 24 to July 30 CDC Week 30

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Center for Vector Biology



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**Summary Table – Week 30**

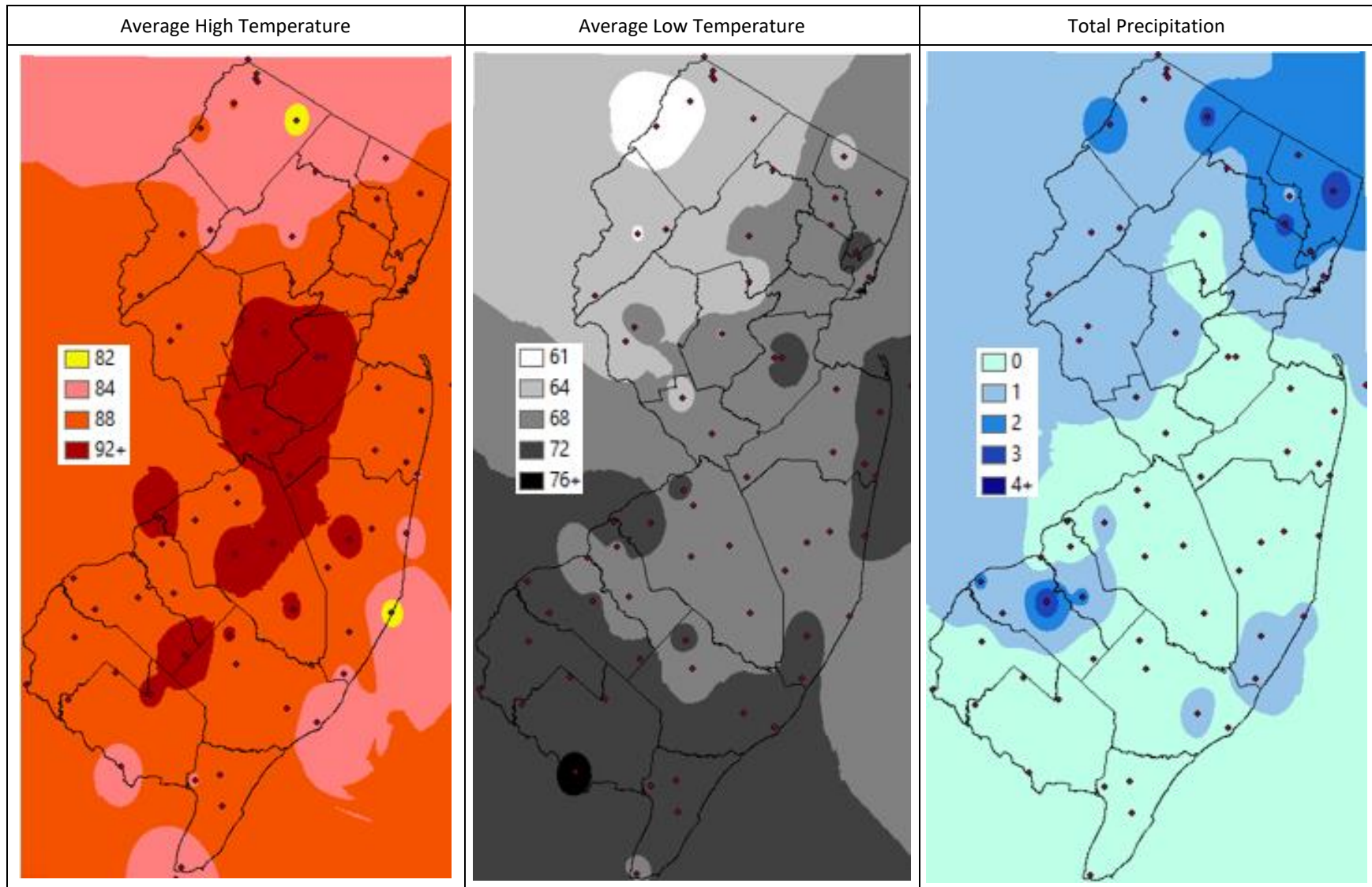
Region	<i>Aedes vexans</i>			<i>Culex Mix</i>			<i>Coquillettidia perturbans</i>			<i>Aedes sollicitans</i>		
	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase
Agricultural	0.19	5.20	0	0.19	7.48	0	0.00	0.27	0	0.00	4.58	0
Coastal	0.38	2.52	0	1.54	8.39	0	0.16	0.23	0	0.41	1.51	0
Delaware Bayshore	0.19	1.31	0	1.05	12.74	0	0.00	0.46	0	12.00	5.83	3
Delaware River Basin	nd	41.27	0	nd	11.27	0	nd	1.90	0	nd	0.03	0
New York Metro	0.26	3.25	0	3.34	7.49	0	0.20	0.37	0	0.00	1.00	0
North Central Rural	nd	0.39	0	nd	0.33	0	nd	0.25	0	0.00	0.00	0
Northwest Rural	0.17	18.23	0	0.11	4.08	0	0.07	1.07	0	0.00	0.00	0
Philadelphia Metro	nd	4.46	0	nd	2.99	0	nd	0.68	0	0.00	<0.01	0
Pinelands	0.39	1.45	0	1.26	2.39	0	0.05	1.04	0	0.16	0.23	0
Suburban Corridor	0.08	1.63	0	0.18	1.79	0	0.02	0.18	0	0.01	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: For the current week, population levels for most of the above pestiferous species continued to be near or below historic trends. However, earlier data has been coming in, and although trends are still below historic levels, the differences are diminishing. The only population with significant above historical trends were found in *Aedes sollicitans* of the Delaware Bayshore region.

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

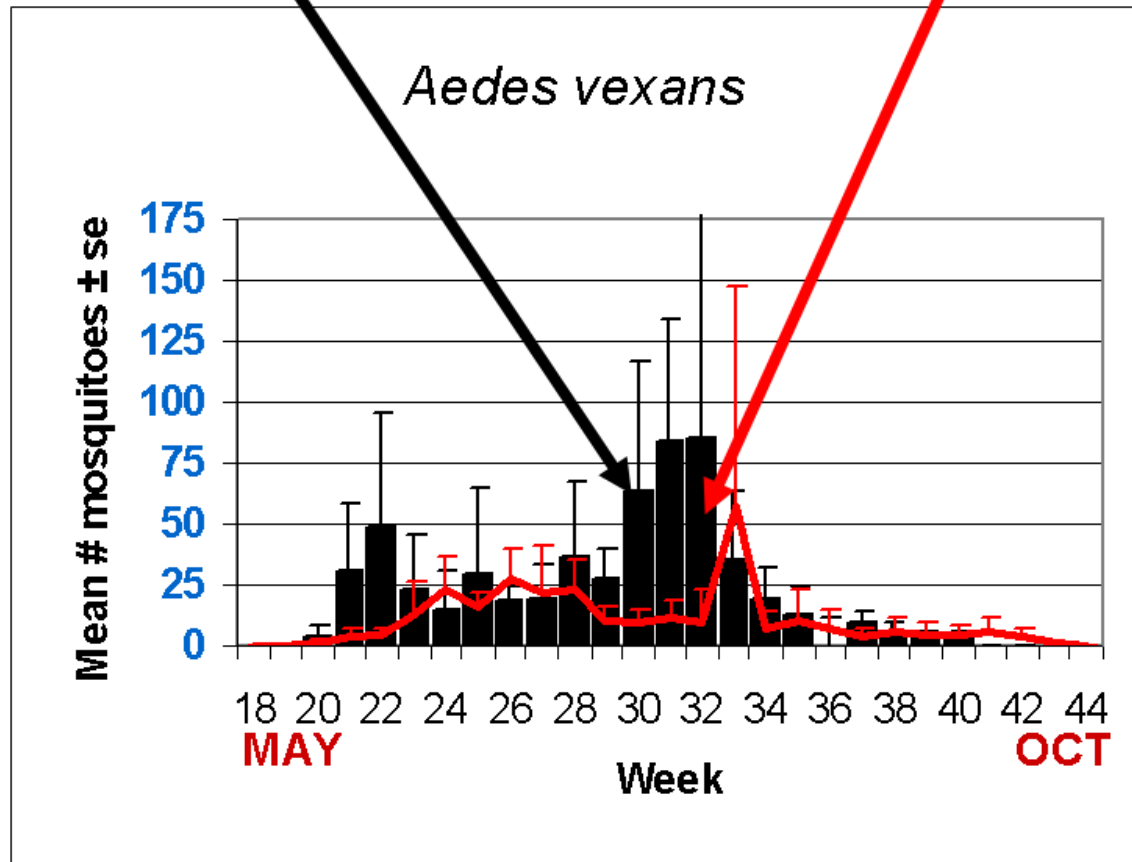
# Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 31 July 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, Cumberland, Hudson, Mercer, Middlesex, Somerset, Union, and Warren counties. Data for the previous week are from Atlantic, Cape May, Cumberland, Hudson, Hunterdon, Mercer, Middlesex, Ocean, Passaic, Somerset, Union, and Warren counties.

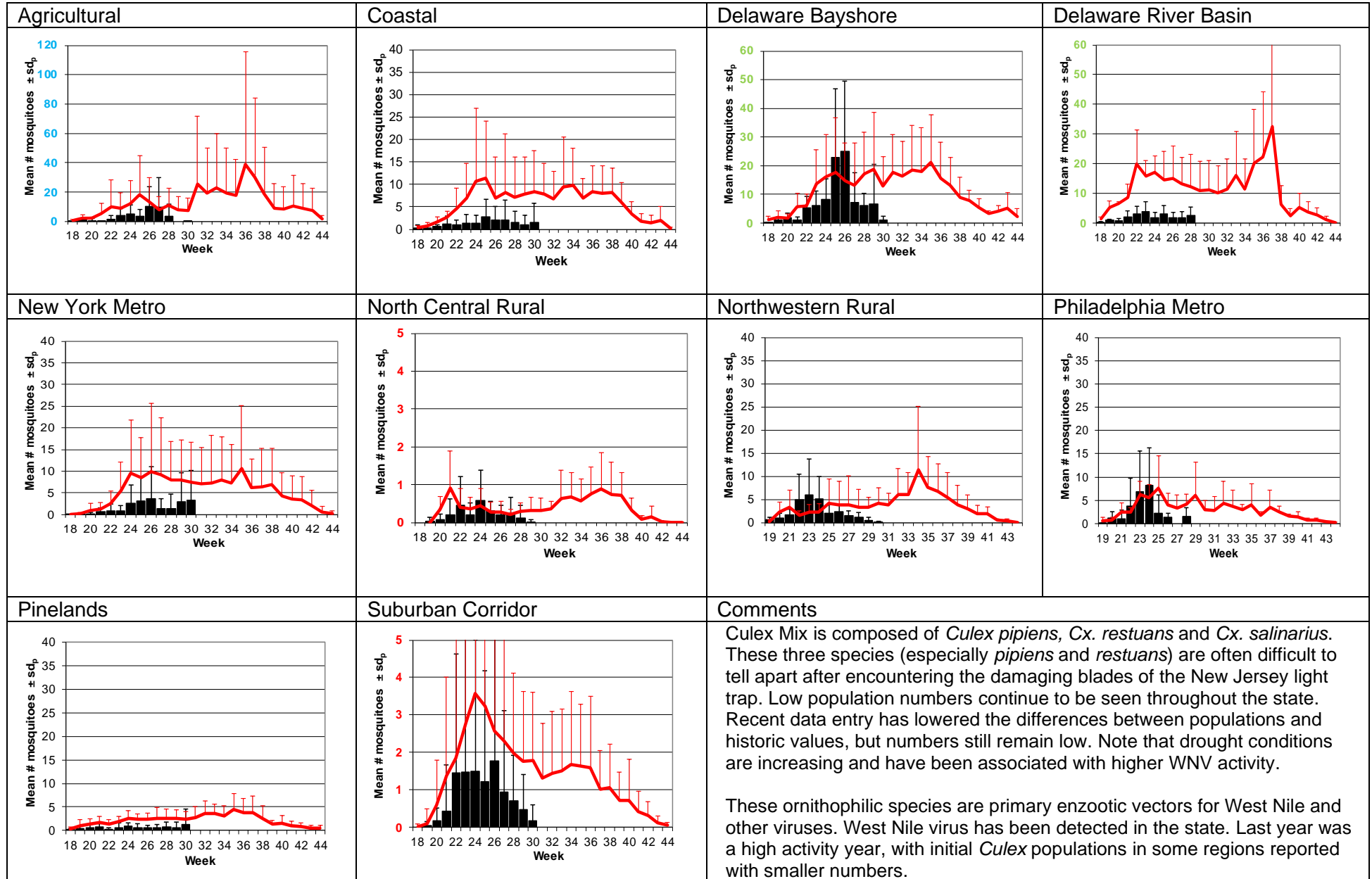
## Weekly Means Against 5-year Average



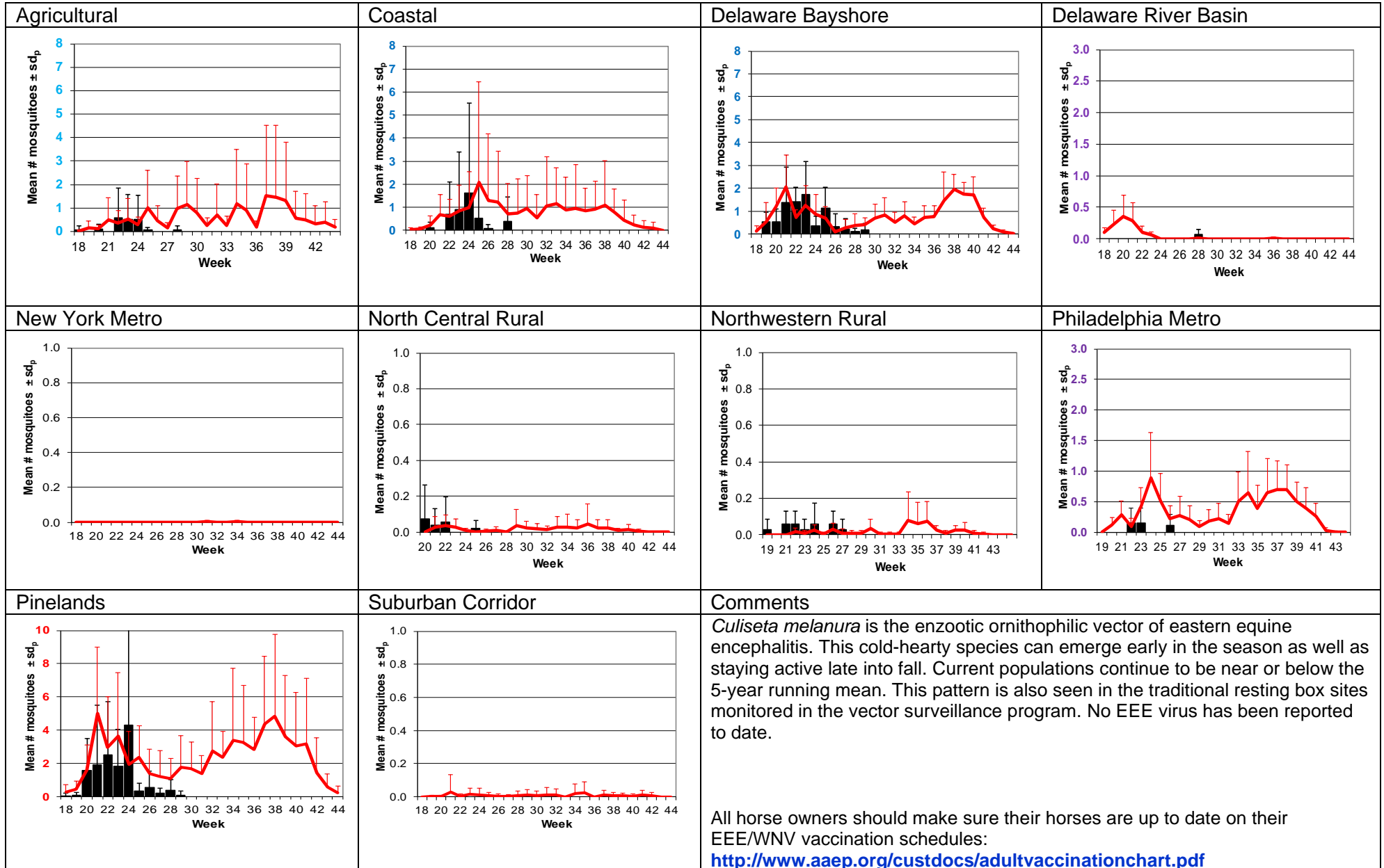
# *Aedes vexans* - Fresh Floodwater Species Multivoltine Aedine (*Ae. vexans* Type)

<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. Drought conditions continue to worsen, and now includes areas in the north that are classified as “moderate drought” (orange). Not surprisingly, this floodwater species <i>Aedes vexans</i> continue to be near or well below historical averages.</p> <p>Drought areas are classified as “abnormally dry” in yellow or “moderately dry” in orange.  <a href="https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NJ">https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NJ</a></p>	

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



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



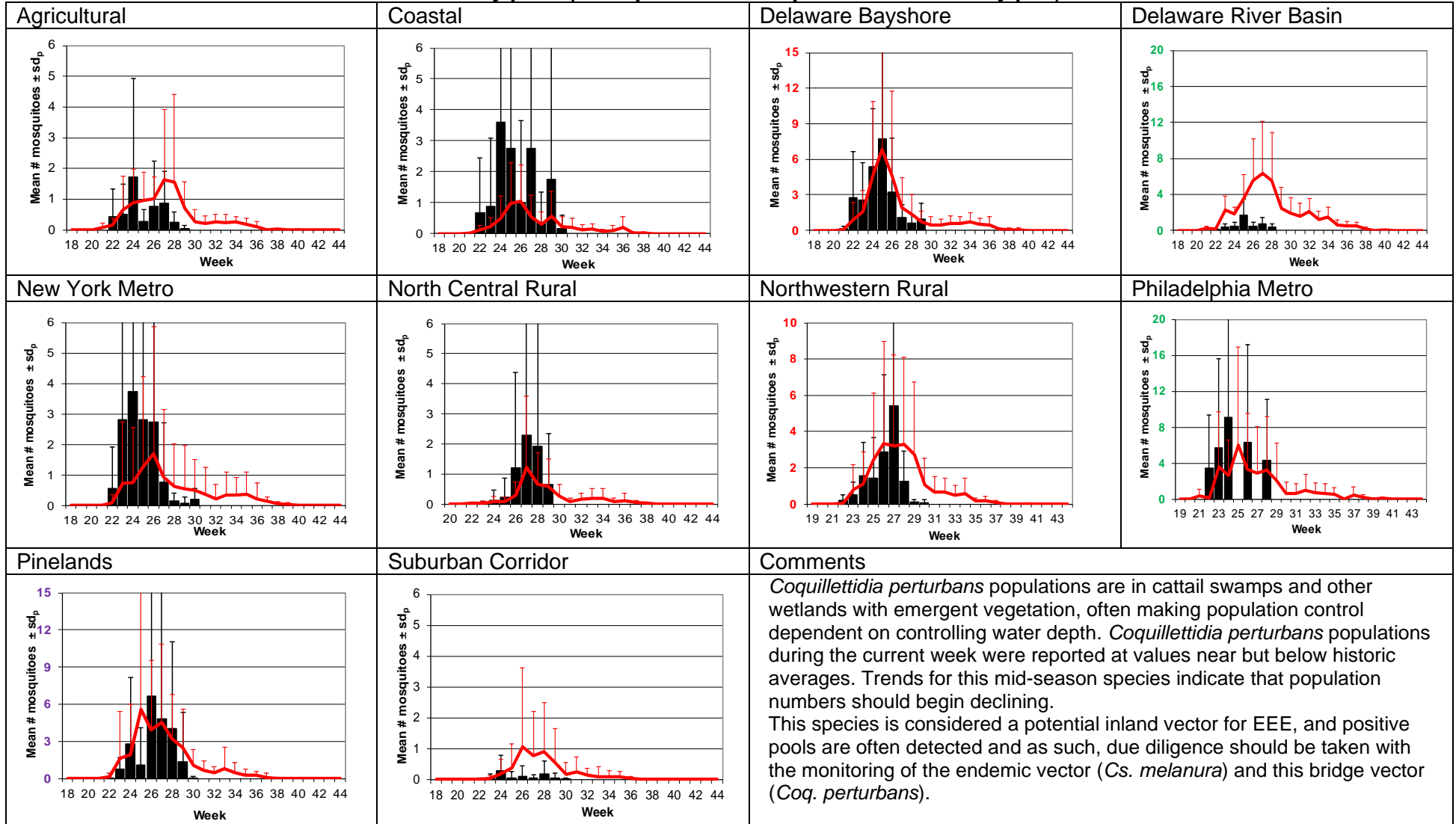
# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)

<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 sollicitans</i> is a salt floodwater species and responds to both lunar tidal patterns as well as rainfall. <i>Aedes sollicitans</i> populations in the Delaware Bayshore region were significantly above historic values and appear to be associated with a third emergence.</p> <p>Next full moon is August 11<sup>th</sup>. Salt line on the Delaware River is within expected values along the Basin region: <a href="https://www.nj.gov/drbc/programs/flow/salt-front.html">https://www.nj.gov/drbc/programs/flow/salt-front.html</a></p>	



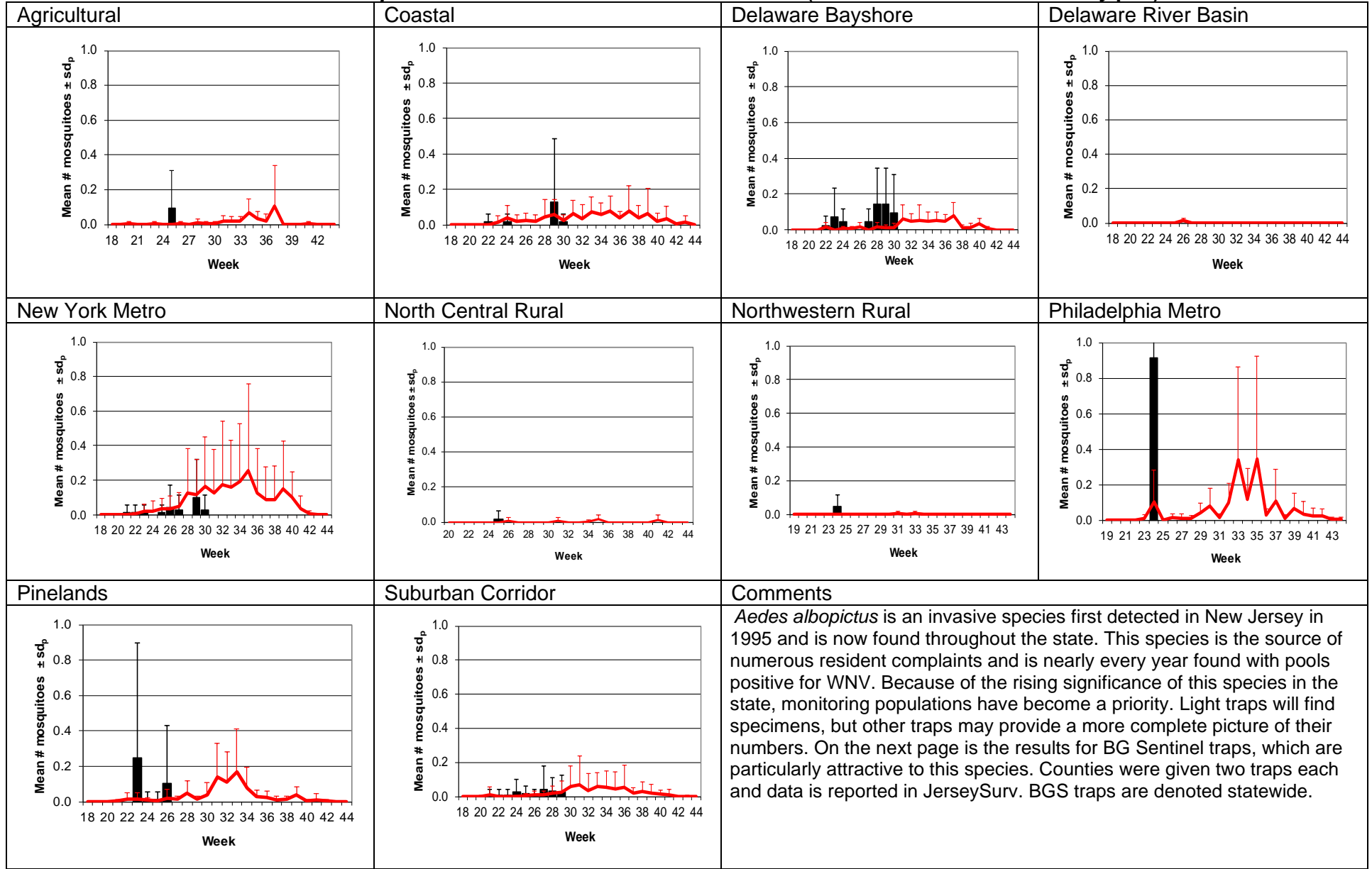
# *Coquillettidia perturbans*

## Monotypic (*Coquillettidia perturbans* Type)

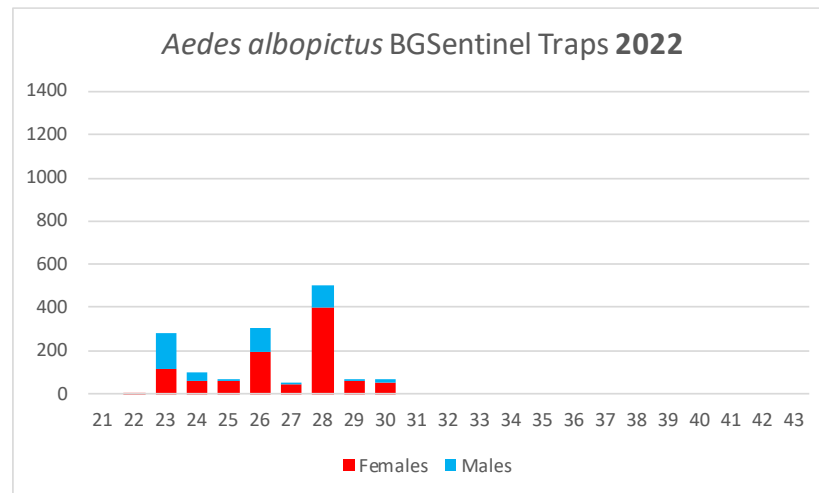
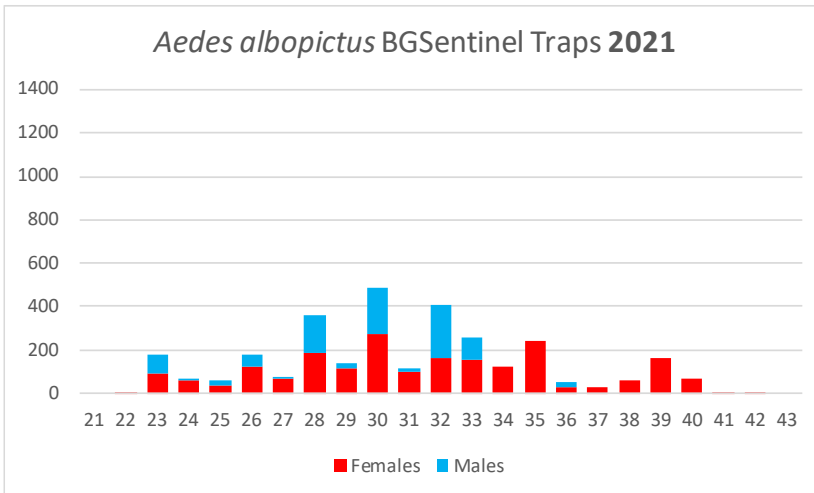
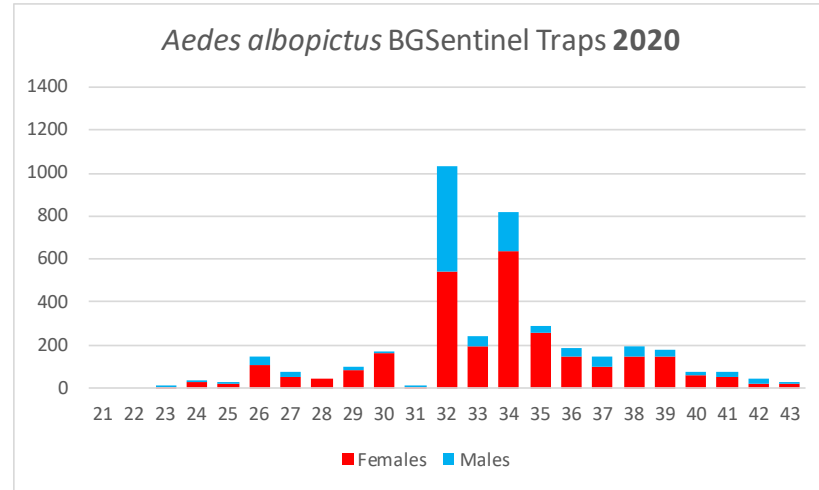
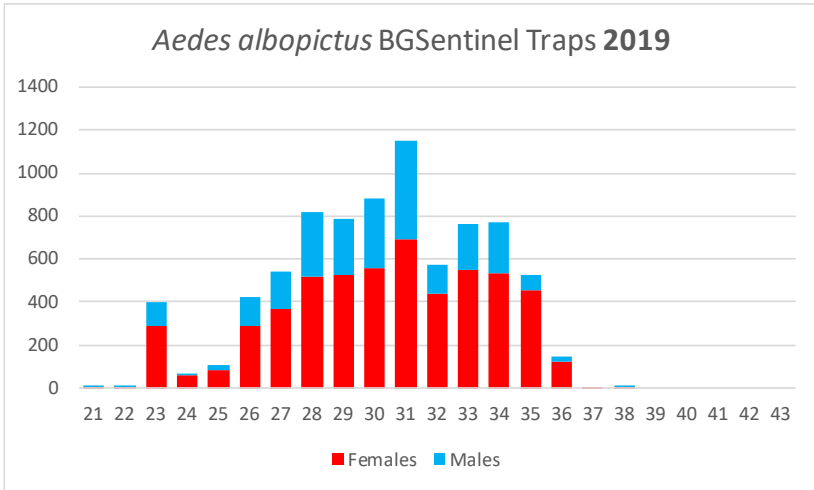




## *Aedes albopictus* – Multivoltine Aedine (*Aedes triseriatus* Type)



**BGSentinel trapping of *Aedes albopictus*.** Although data is limited, trends suggest that populations decreased during the past two years. 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 Bergen, Mercer, Monmouth, and Warren counties.

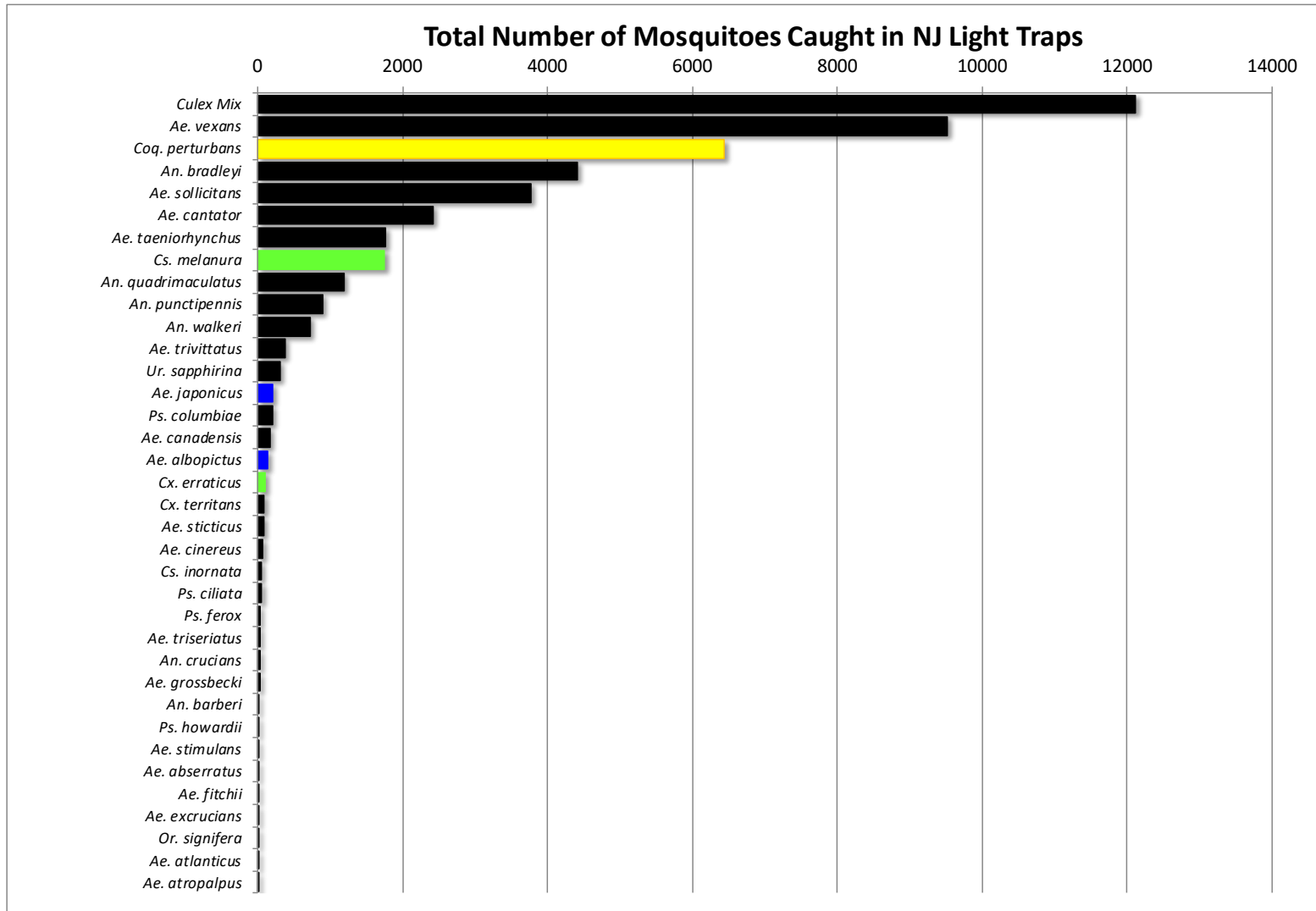


WNV

EEE

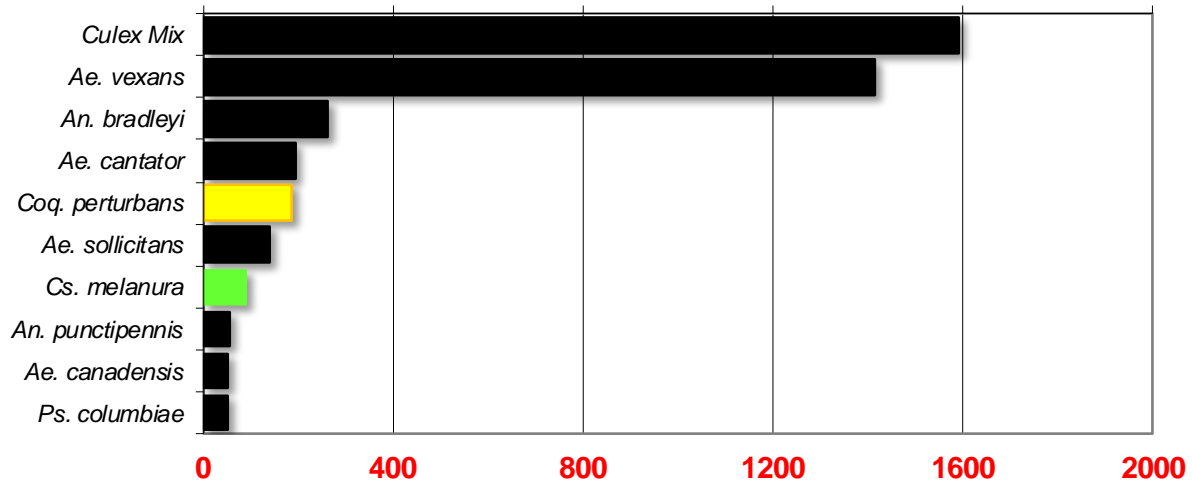
**Top Ten Mosquito Species/Region -** ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



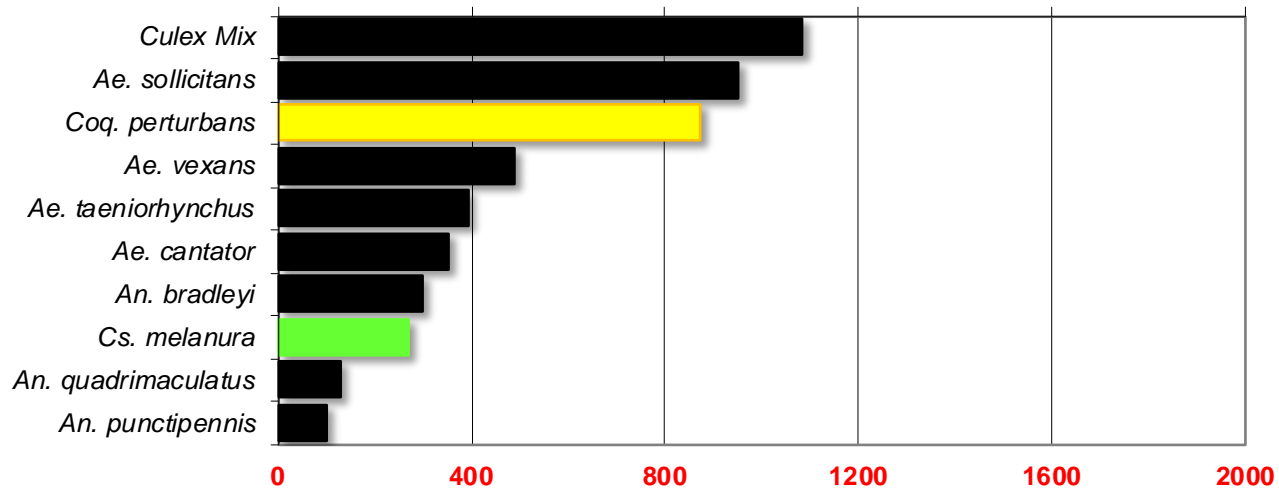
## Agricultural

Total # mosquitoes



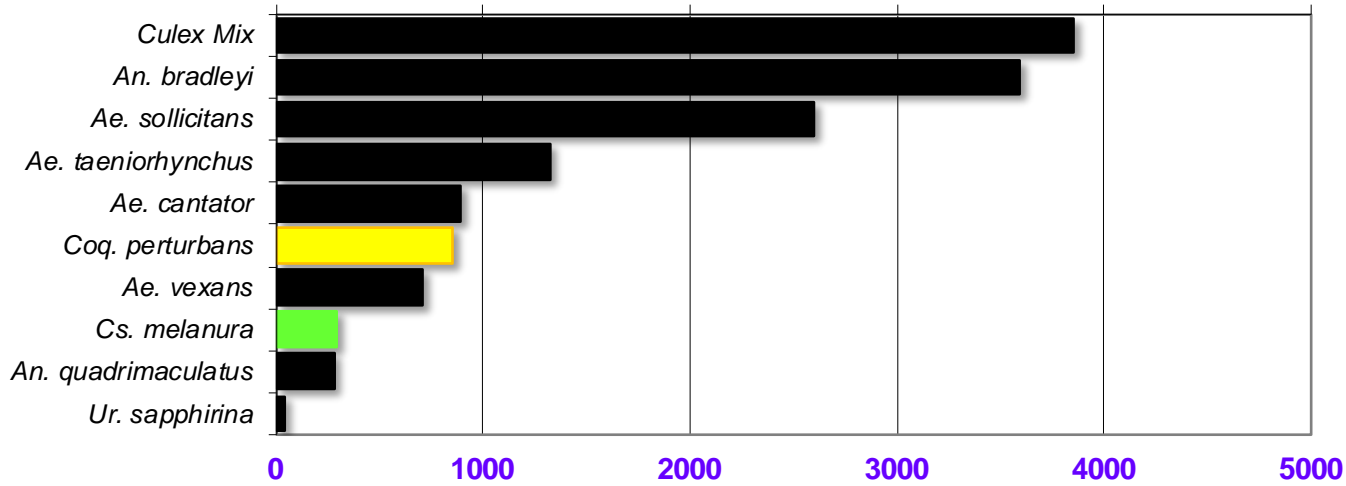
## Coastal

Total # mosquitoes



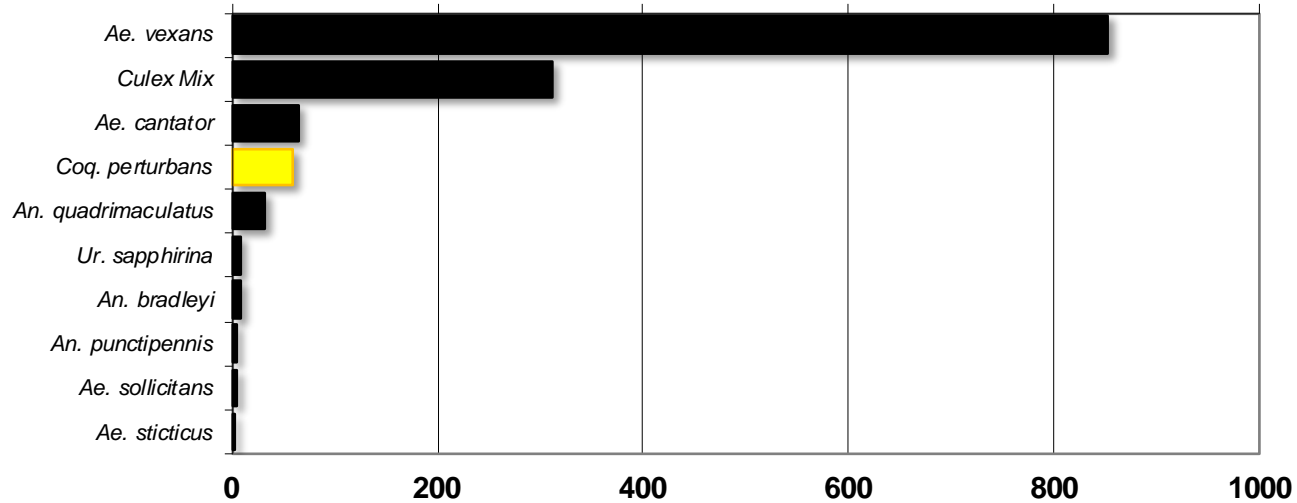
### Delaware Bayshore

Total # mosquitoes



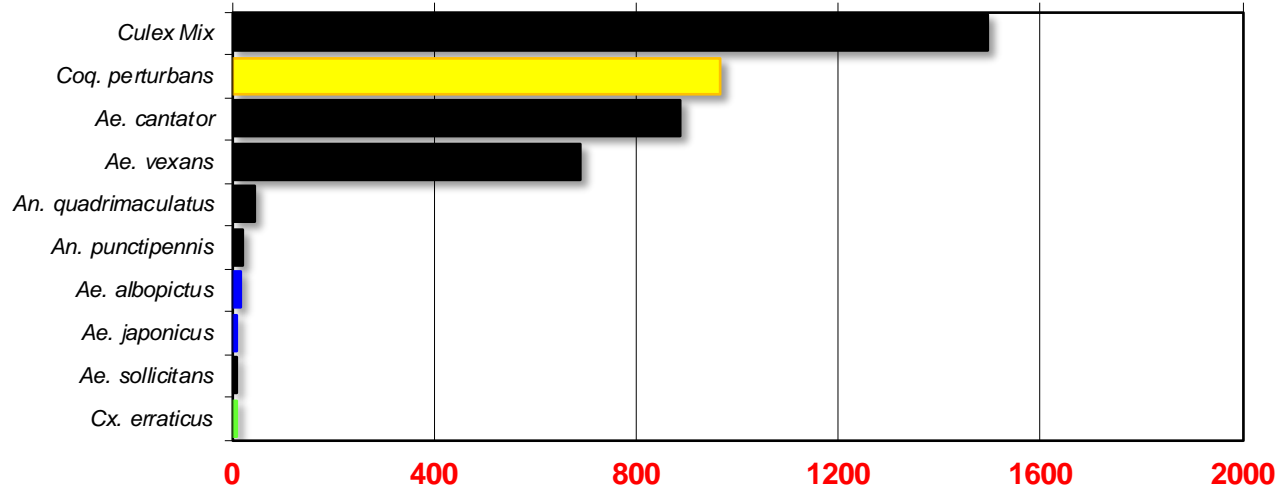
### Delaware River Basin

Total # mosquitoes



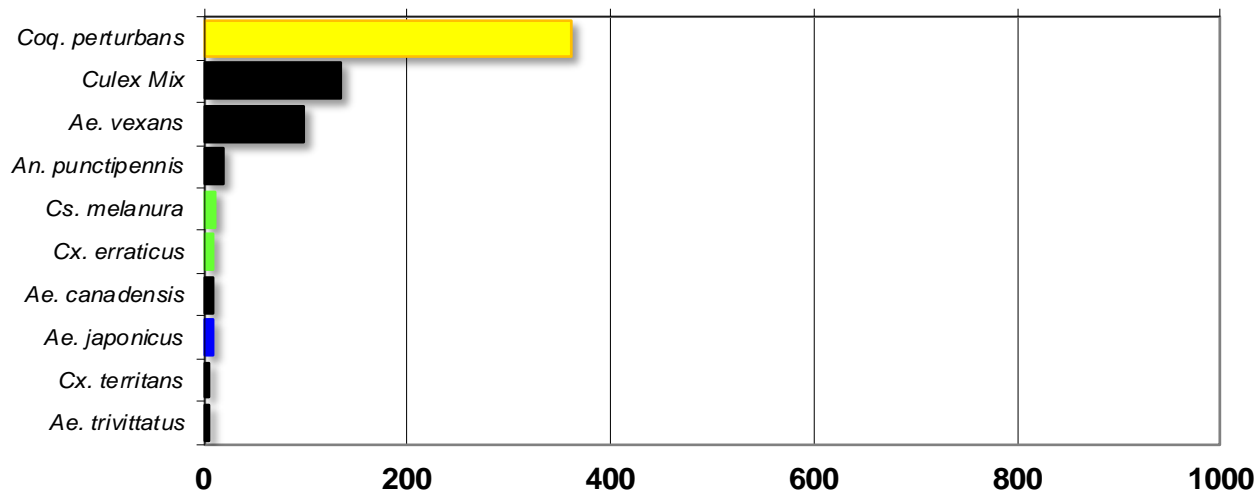
## New York Metropolitan

Total # mosquitoes



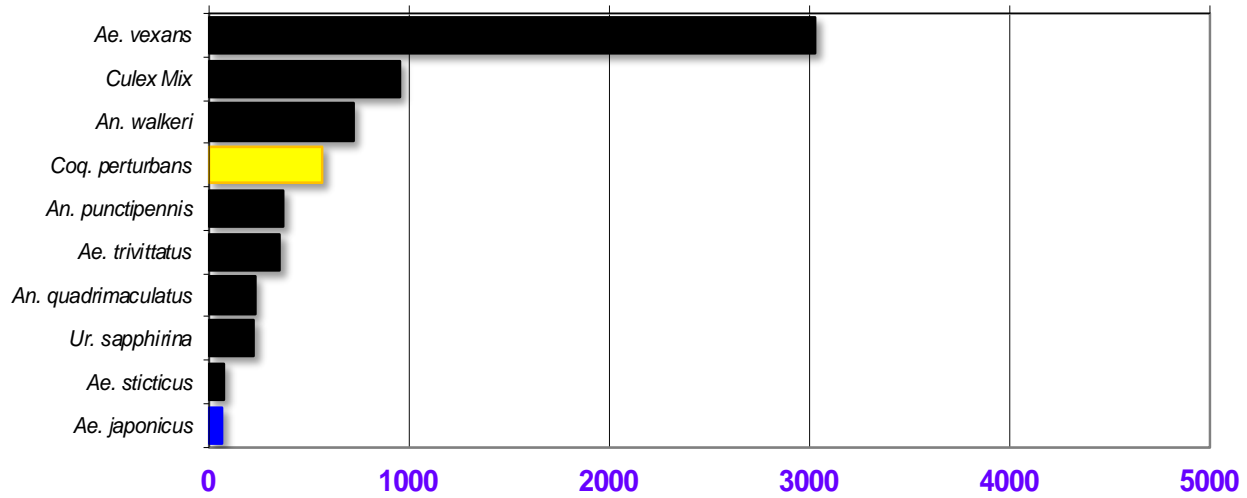
## North Central Rural

Total # mosquitoes



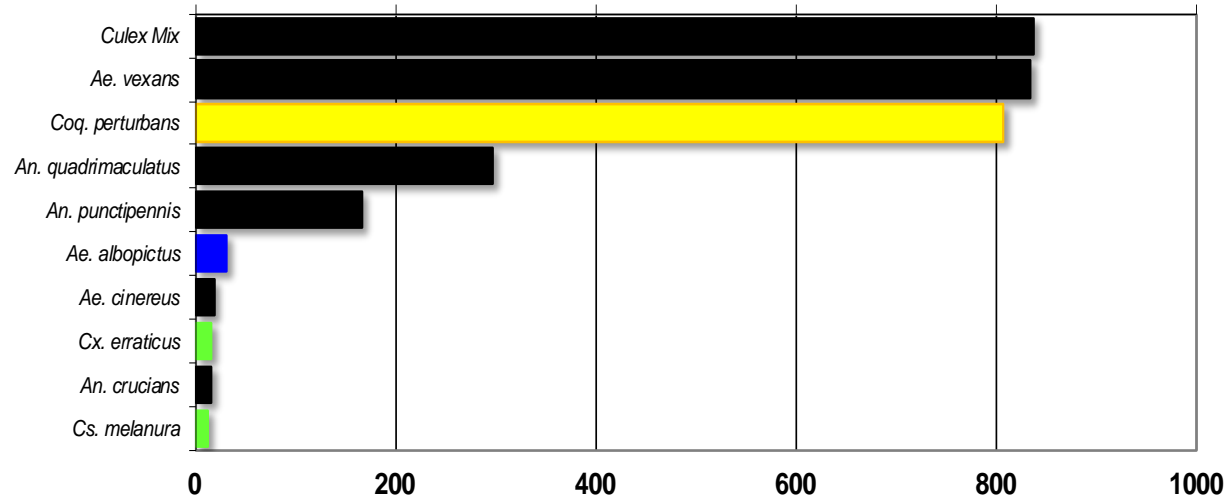
## Northwest Rural

Total # mosquitoes



## Philadelphia Metropolitan

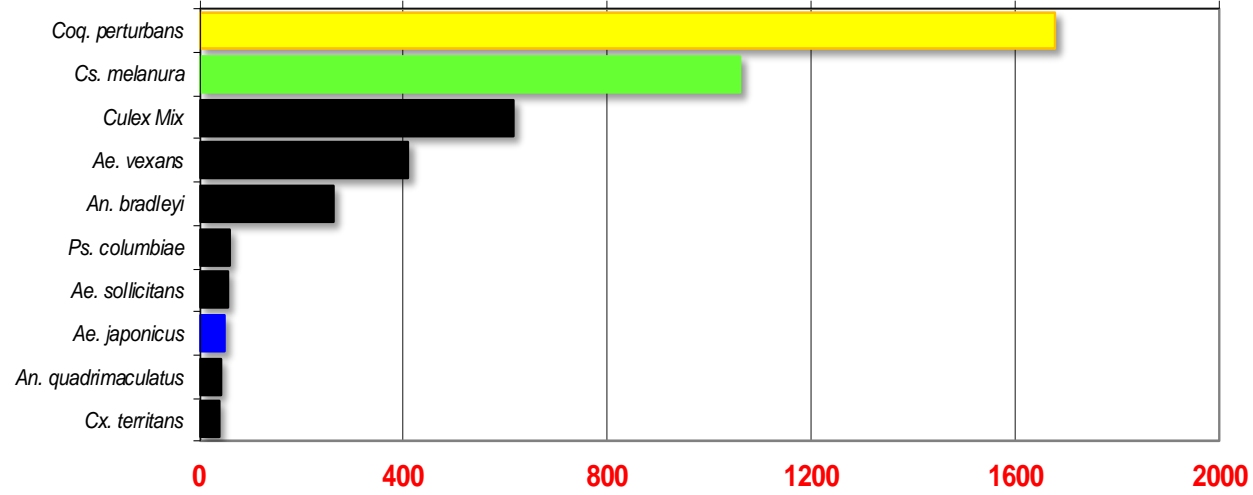
Total # mosquitoes





## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

