

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

June 14 to June 20, CDC Week 25
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 Center for Vector Biology



This New Jersey Agricultural Experiment Station report is supported by Rutgers University, Hatch funds, funding from the NJ State Mosquito Control Commission and with the participation of the 21 county mosquito control agencies of New Jersey.

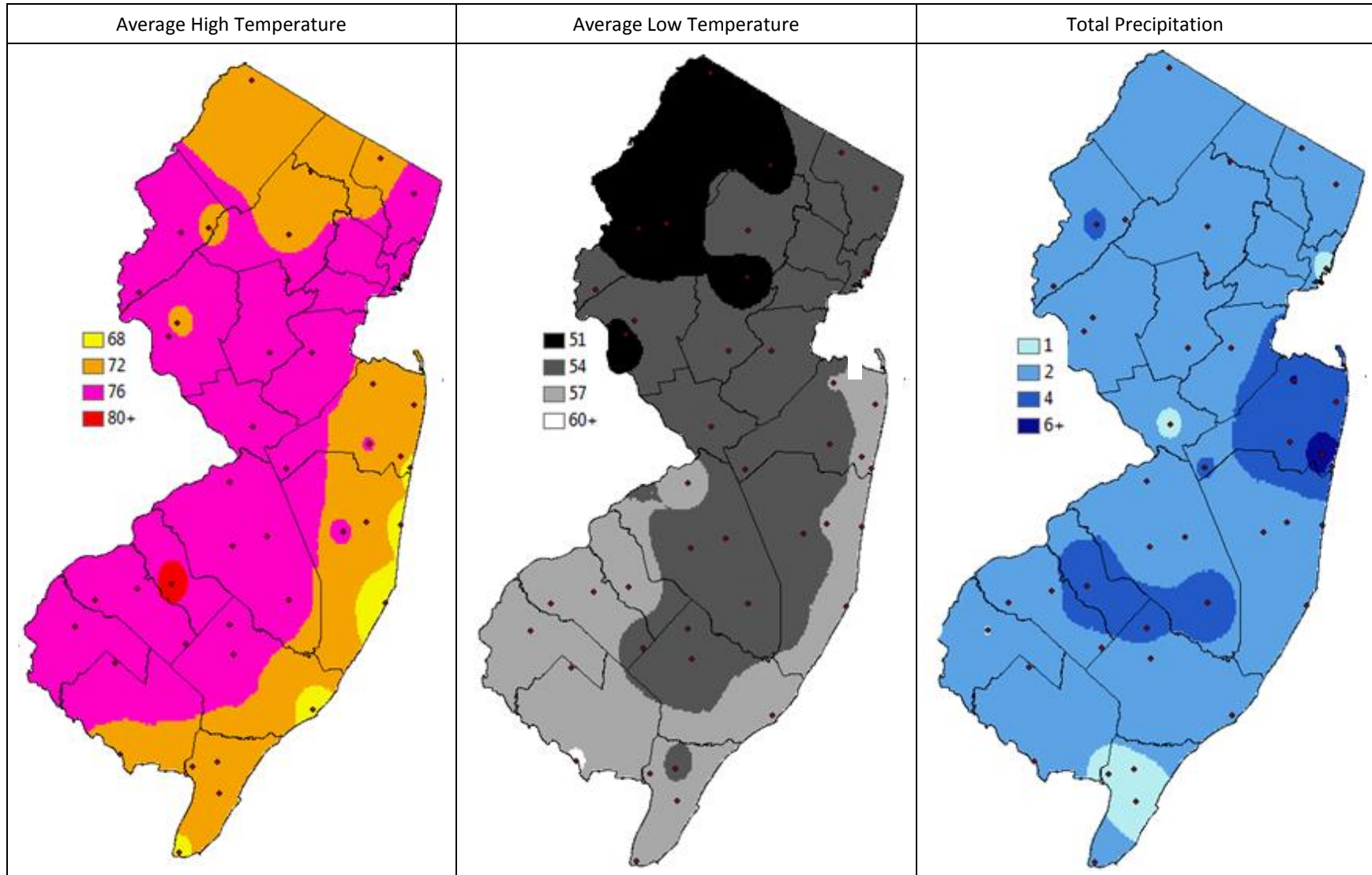
Summary Table – Week 25

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	0.24	15.44	0	4.38	15.34	0	0.07	1.22	0	0.00	2.21	0
Coastal	0.13	5.54	0	0.71	7.92	0	0.06	1.17	0	0.00	3.22	0
Delaware Bayshore	0.00	3.93	0	0.00	18.10	0	0.00	11.58	0	0.00	1.75	0
Delaware River Basin	1.21	14.34	0	29.86	7.60	4	1.29	1.49	0	0.00	0.00	0
New York Metro	0.13	4.53	0	3.46	9.32	0	0.74	0.75	0	0.50	0.13	4
North Central Rural	0.00	0.33	0	0.04	0.50	0	0.00	0.11	0	0.00	0.00	0
Northwest Rural	0.03	9.56	0	0.03	2.97	0	0.02	0.73	0	0.00	0.00	0
Philadelphia Metro	0.00	12.43	0	0.00	9.19	0	0.00	0.60	0	0.00	0.00	0
Pinelands	0.00	1.89	0	0.32	2.53	0	0.13	3.29	0	0.00	0.03	0
Suburban Corridor	0.04	2.84	0	0.82	1.46	0	0.05	0.55	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: The effects of Covid-19 practices continue to impact the reports of the counties. This week's data represents 7 out of 21 counties, and consequently, population levels are underestimated. At this time, significantly elevated populations are seen for *Culex Mix* in the Delaware River basin and for *Aedes sollicitans* in the New York Metropolitan regions.

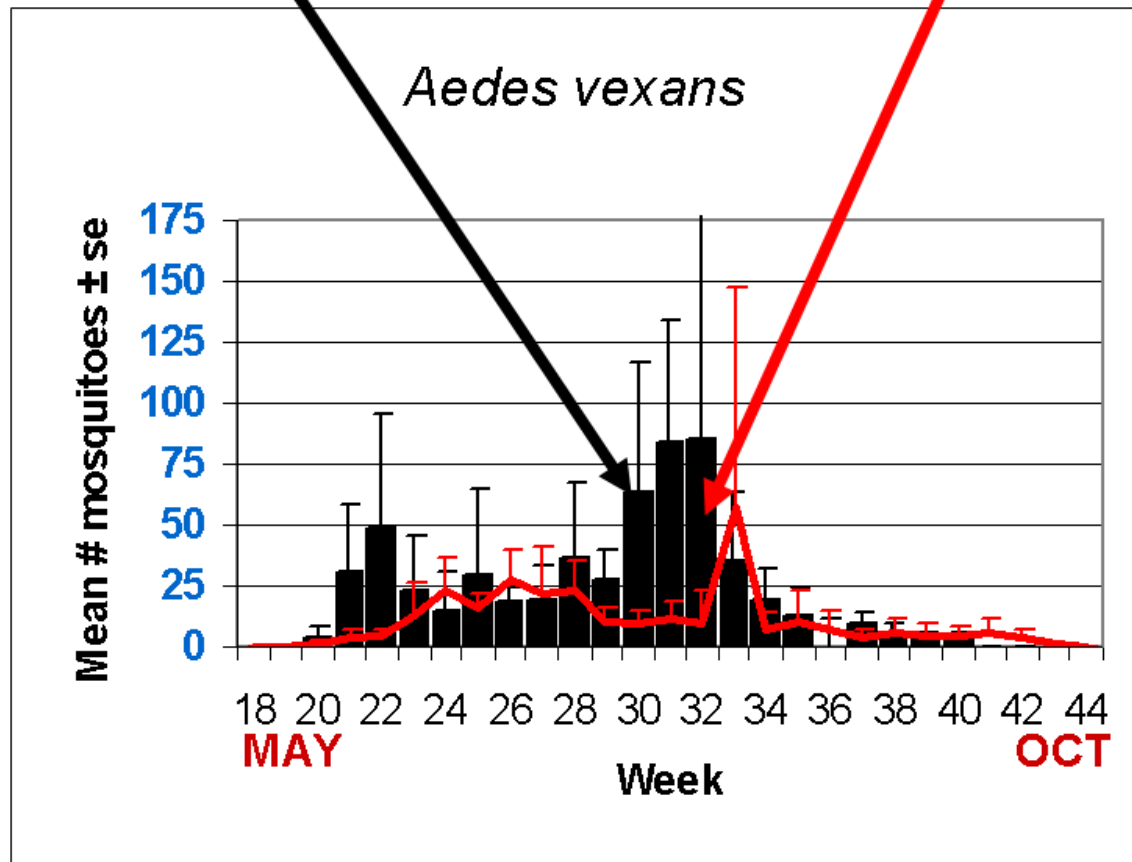
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 18 June 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, Hunterdon, Middlesex, Monmouth, Morris, Salem, and Warren counties. Data for the previous week are from Atlantic, Bergen, Cumberland, Hunterdon, Middlesex, Monmouth, Morris, Salem, and Warren counties.

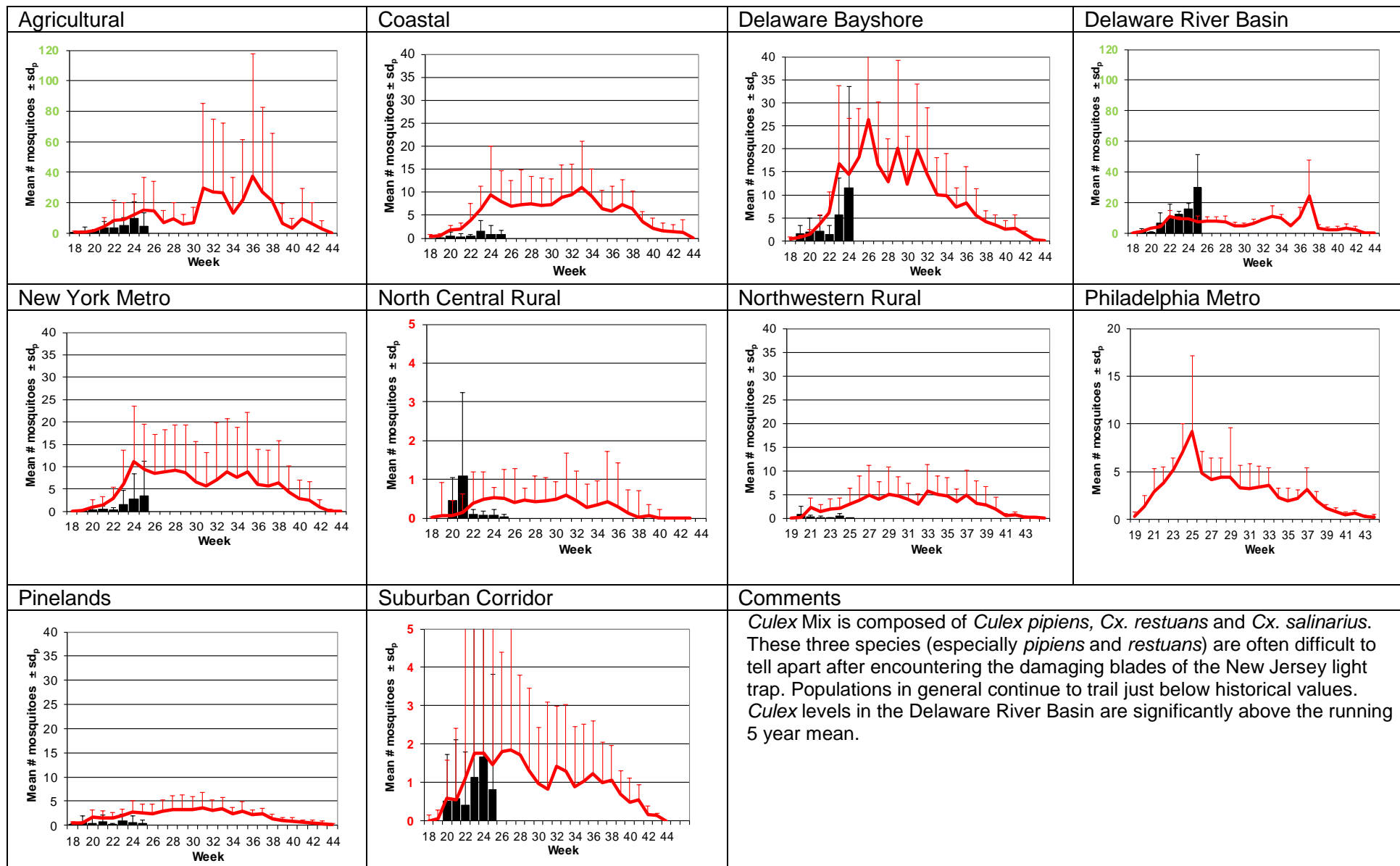
Weekly Means Against 5-year Average



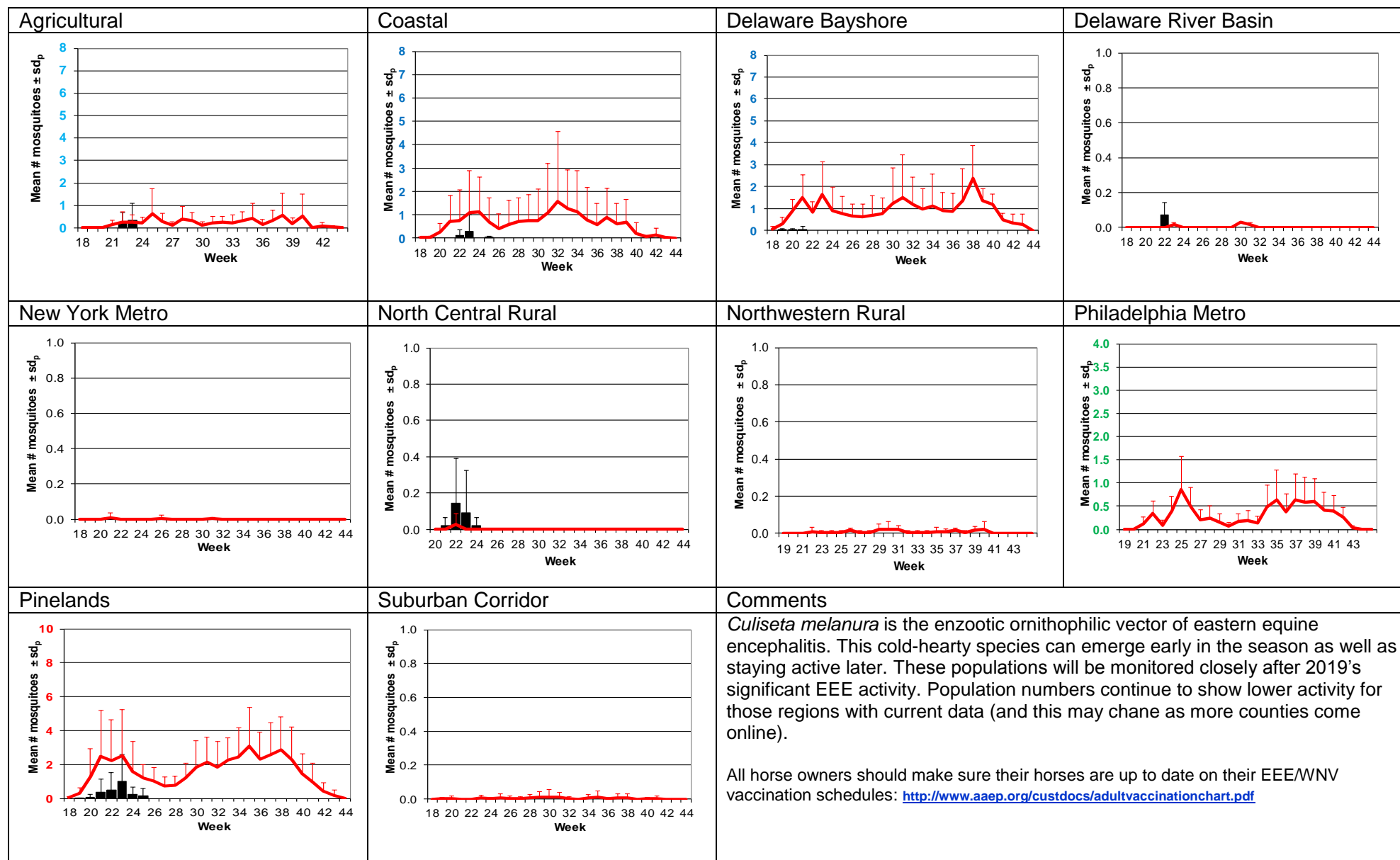
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

<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. Recent precipitation has been spotty through the state, but no drought conditions have been reported by the Drought Monitor. The reduced populations seen throughout the regions may be partially due to reduced county reporting (but see other species).</p> <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)

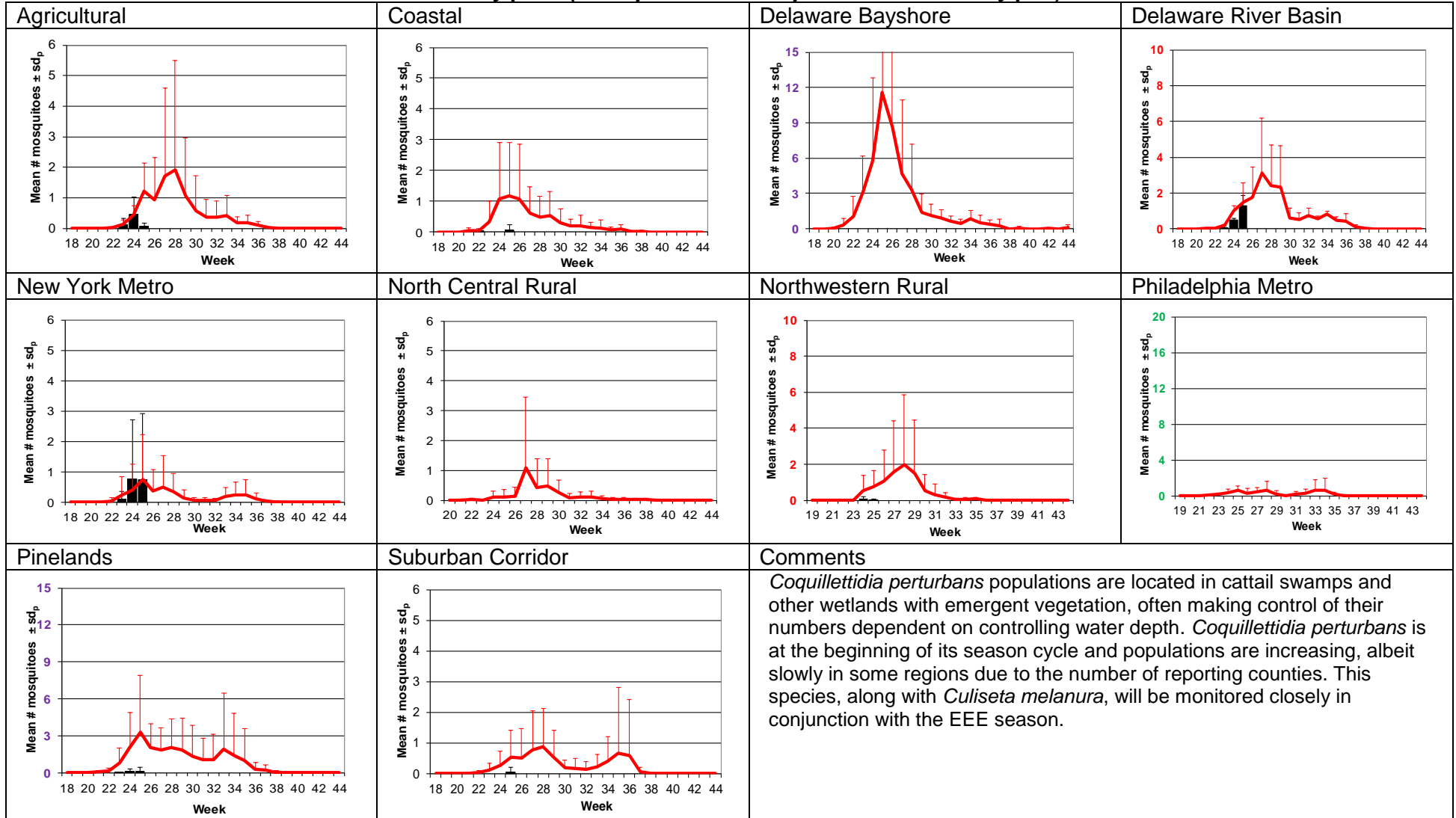


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)

<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 sollicitans</i> is a salt floodwater species and responds to both lunar tidal patterns as well as rainfall. Last full moon was on 5 June. <i>Aedes sollicitans</i> populations in the New York Metropolitan region are those only populations that are showing significantly elevated levels in comparison to historical trends.</p> <p>Next full moon on 5 July.</p>	

Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

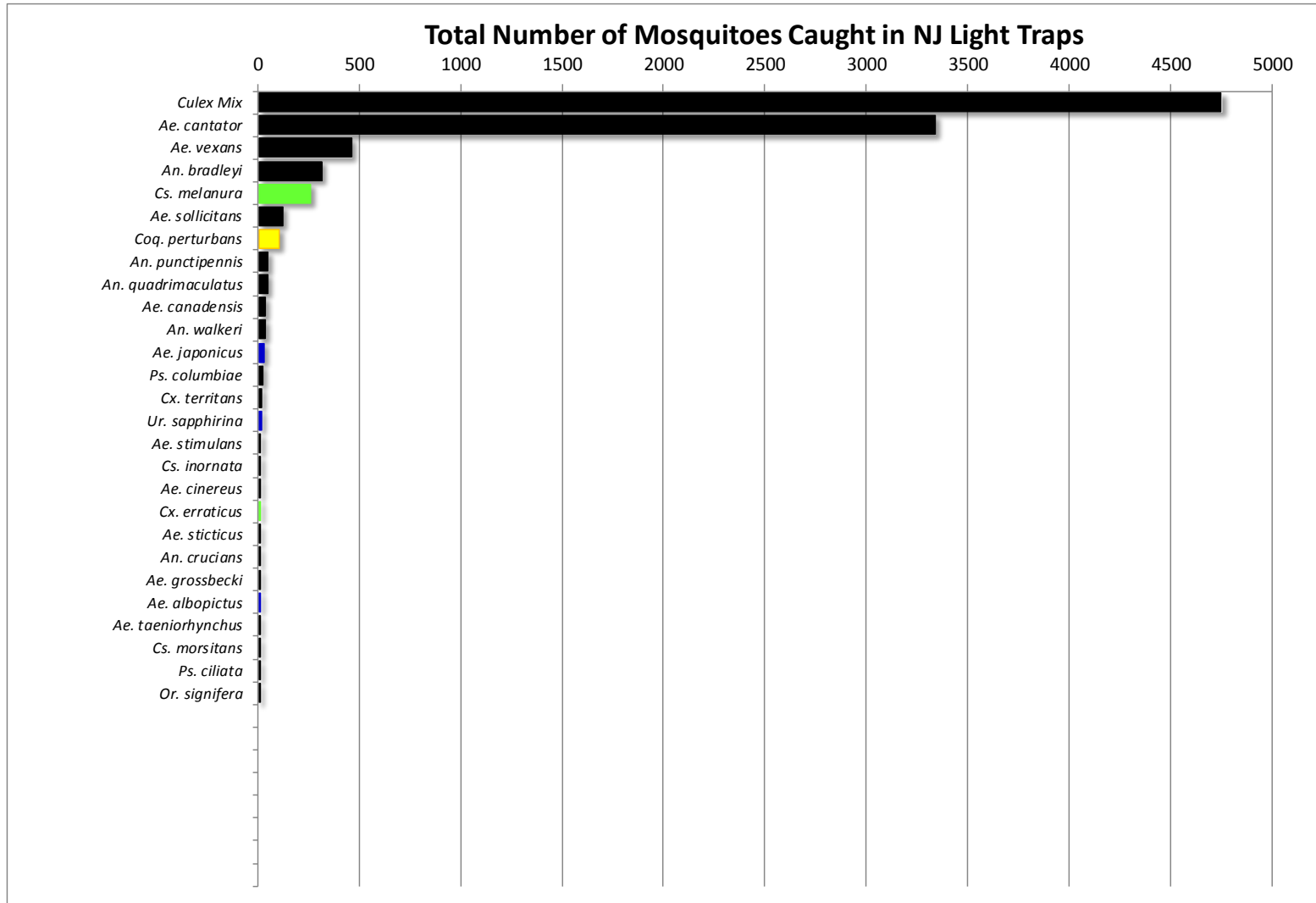


WNV

EEE

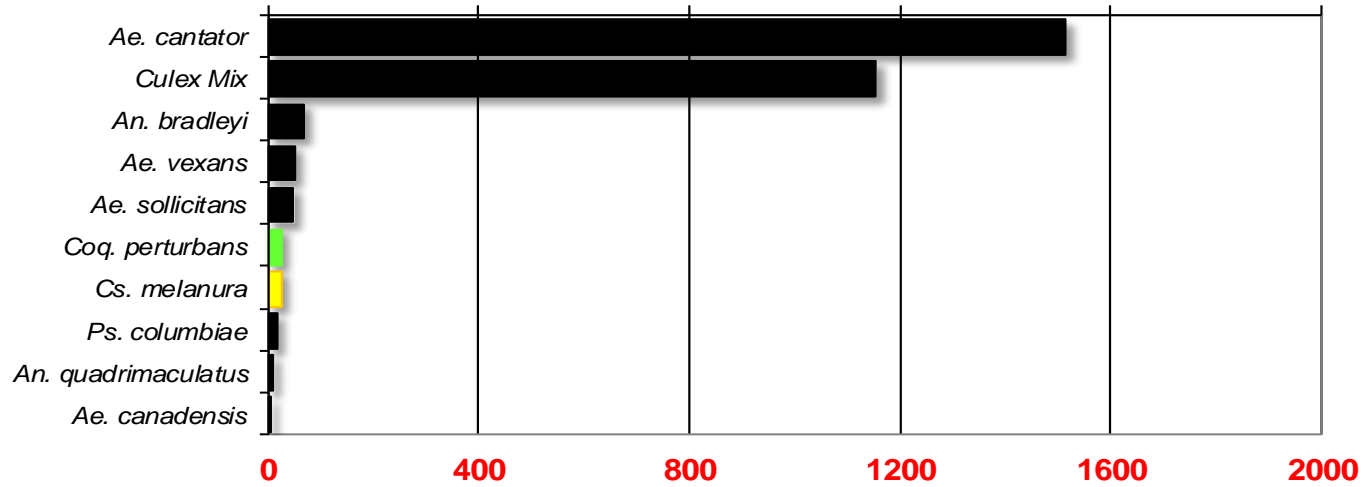
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



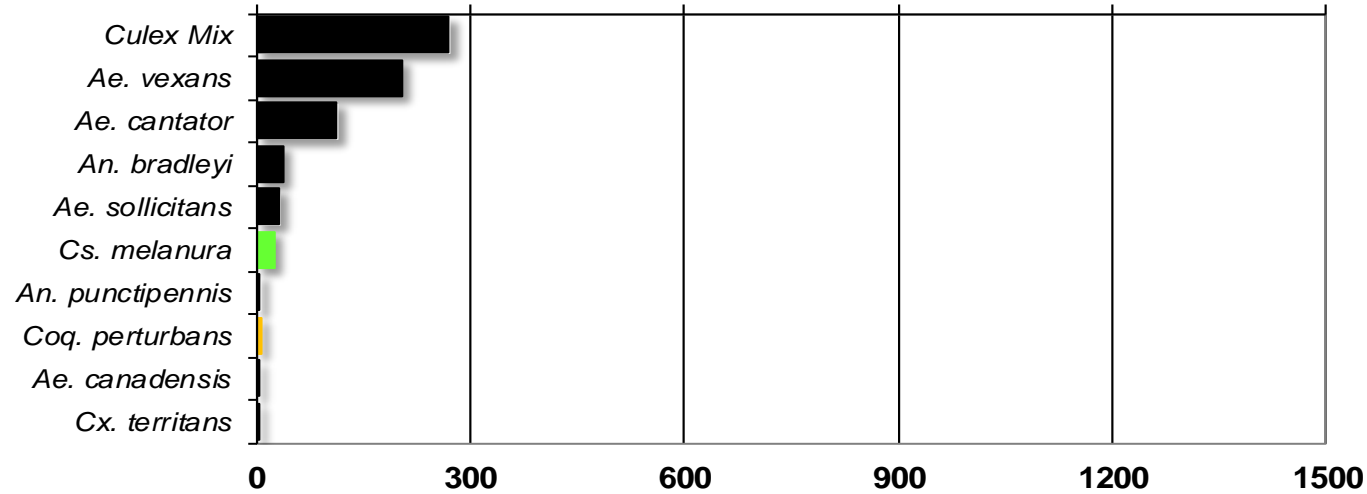
Agricultural

Total # mosquitoes



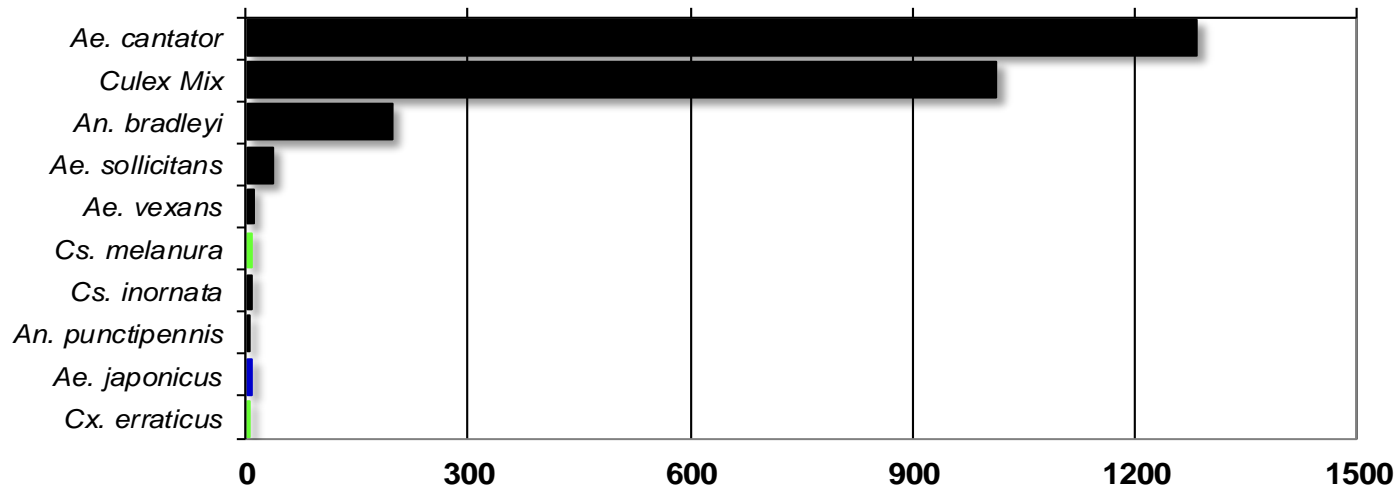
Coastal

Total # mosquitoes



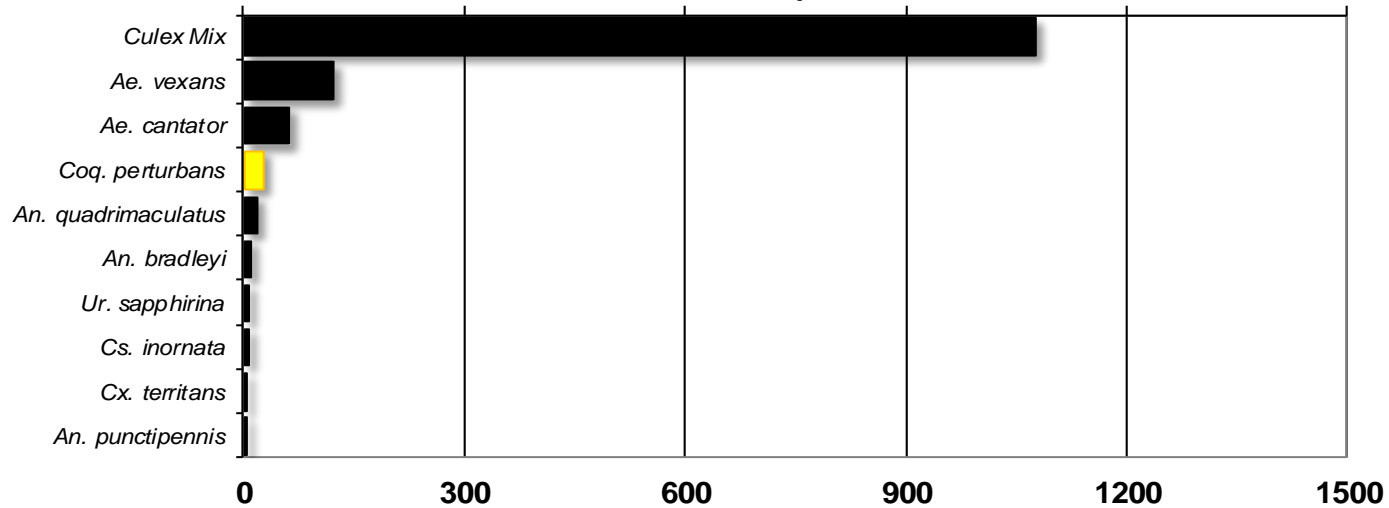
Delaware Bayshore

Total # mosquitoes



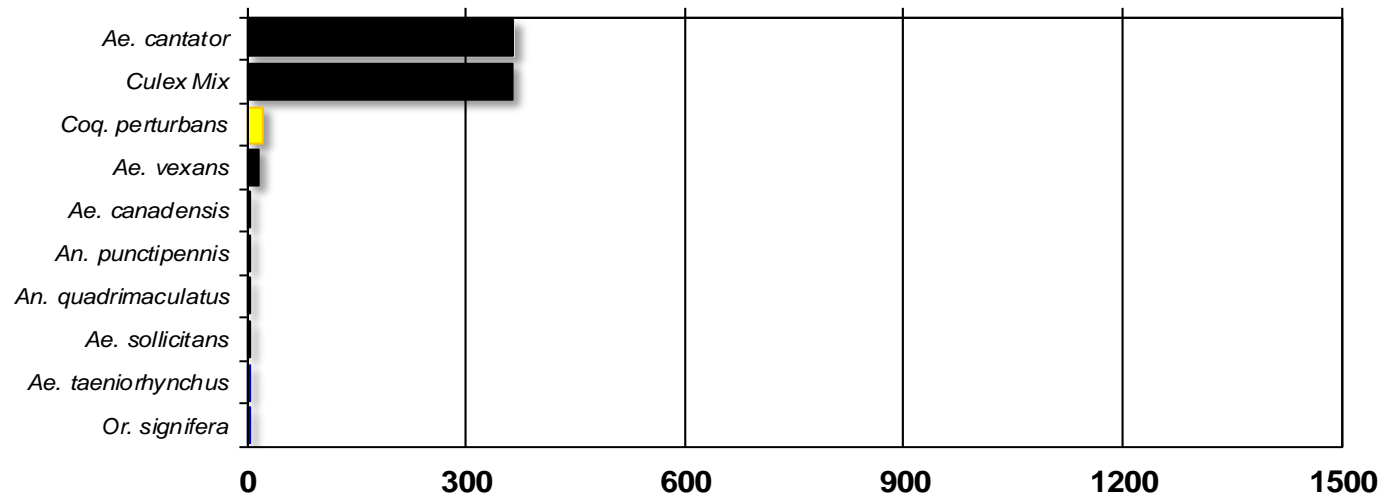
Delaware River Basin

Total # mosquitoes



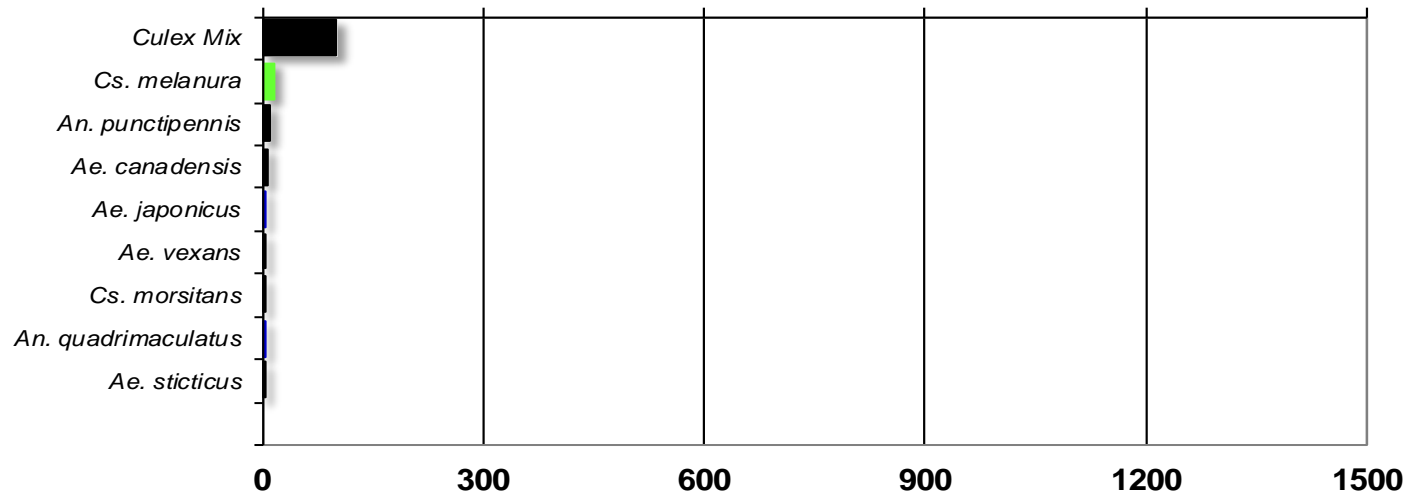
New York Metropolitan

Total # mosquitoes



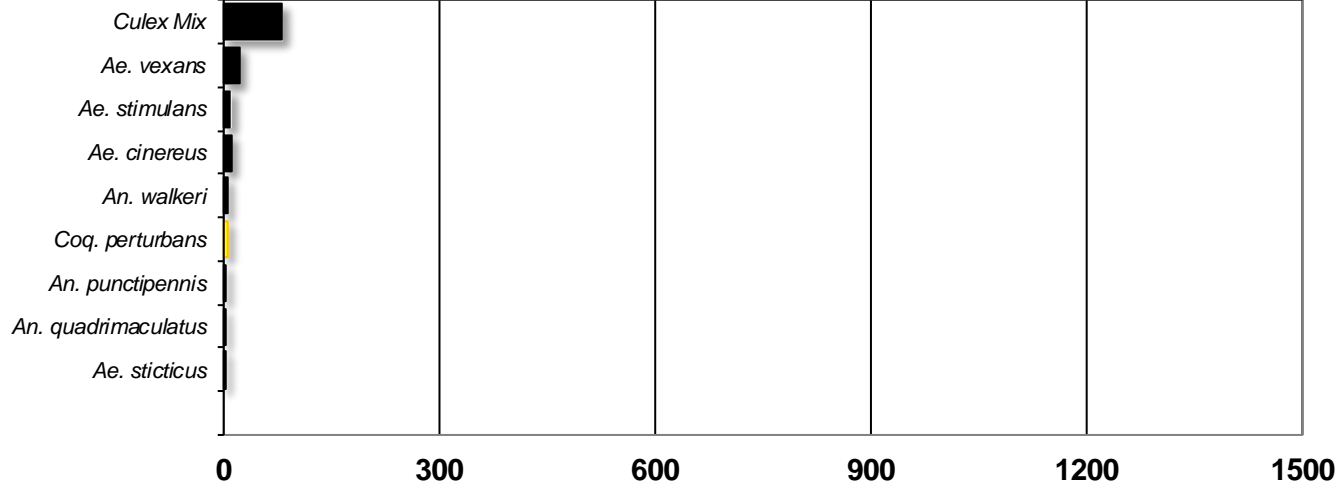
North Central Rural

Total # mosquitoes



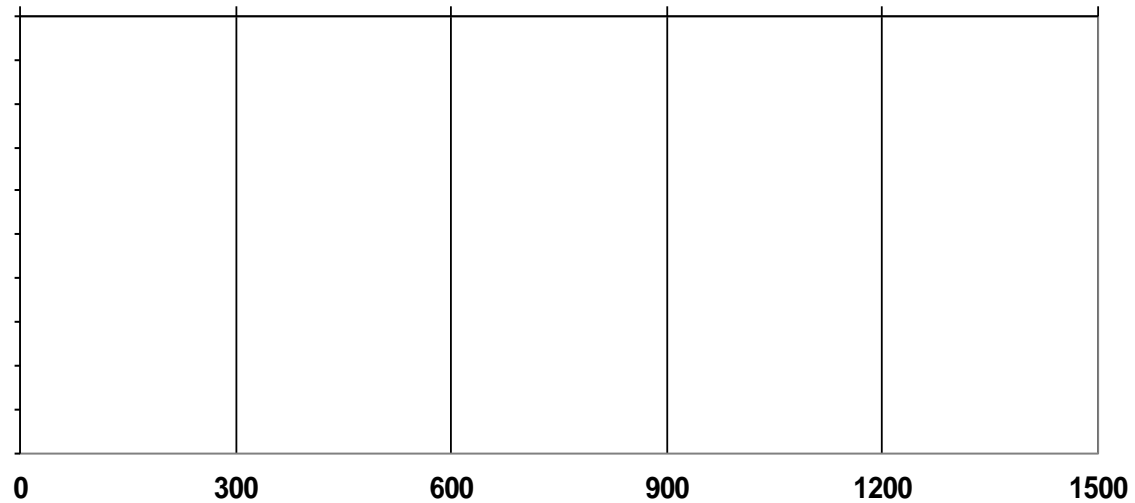
Northwest Rural

Total # mosquitoes



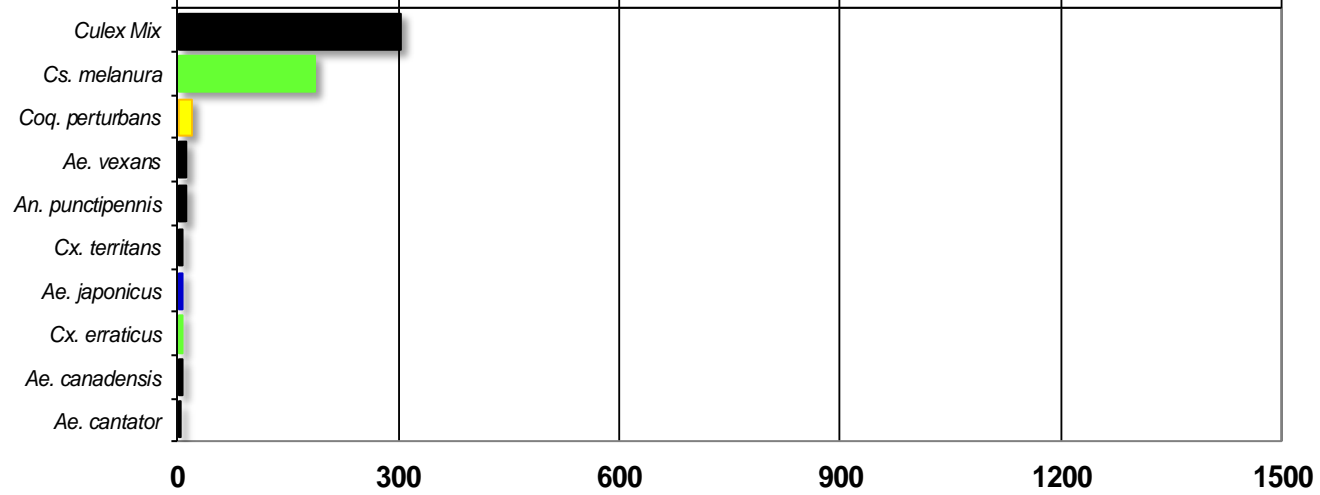
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

