

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

June 6 to June 12, CDC Week 23

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Center for Vector Biology



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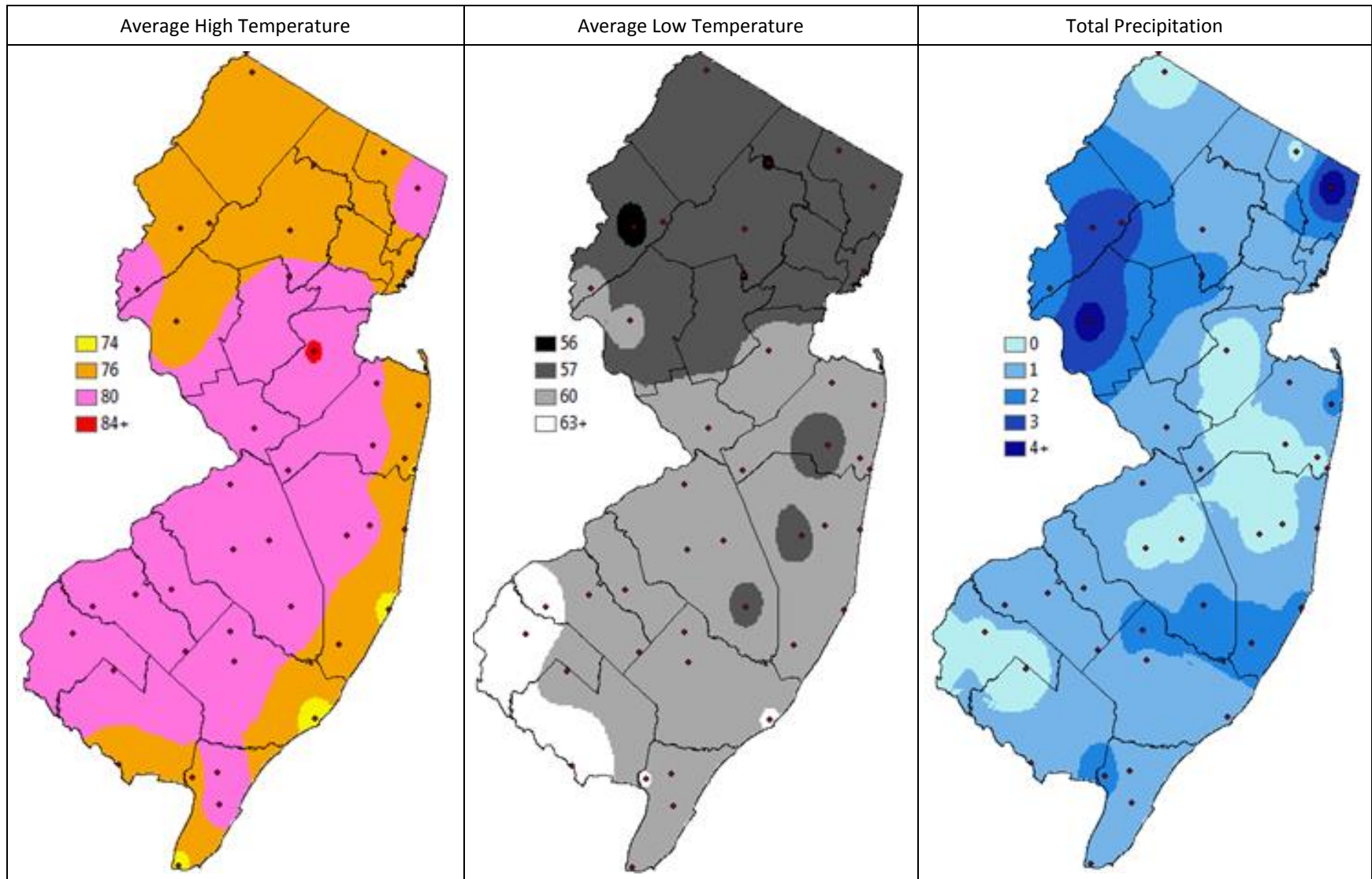
Summary Table – Week 23

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	0.14	7.26	0	2.60	11.52	0	0.00	0.41	0	0.00	0.43	0
Coastal	0.06	4.66	0	1.27	7.63	0	0.08	0.23	0	0.65	0.62	1
Delaware Bayshore	0.00	1.06	0	0.83	18.99	0	0.40	1.27	0	0.00	3.57	0
Delaware River Basin	4.43	13.71	0	8.50	16.09	0	3.50	1.10	4	0.00	0.07	0
New York Metro	0.01	1.63	0	0.61	6.96	0	0.06	0.42	0	0.00	0.13	0
North Central Rural	0.00	0.09	0	0.32	0.30	1	0.02	0.02	0	0.00	0.00	0
Northwest Rural	0.00	10.40	0	0.29	1.50	0	0.00	0.64	0	0.00	0.00	0
Philadelphia Metro	0.57	6.95	0	6.29	5.78	1	6.86	2.51	4	0.00	0.00	0
Pinelands	0.13	1.21	0	0.56	2.10	0	2.18	1.15	2	0.00	0.05	0
Suburban Corridor	0.03	0.97	0	0.19	1.34	0	0.03	0.05	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: Currently, early populations of *Coquillettidia perturbans* continue to emerge in significant numbers in the Delaware River Basin and the Philadelphia Metropolitan regions as well as with moderate numbers in the Pinelands. Mildly elevated populations of *Aedes sollicitans* in the Coastal region and *Culex Mix* in the North Central Rural and Philadelphia Metropolitan regions are also observed. See also *Culiseta melanura* numbers on page 6.

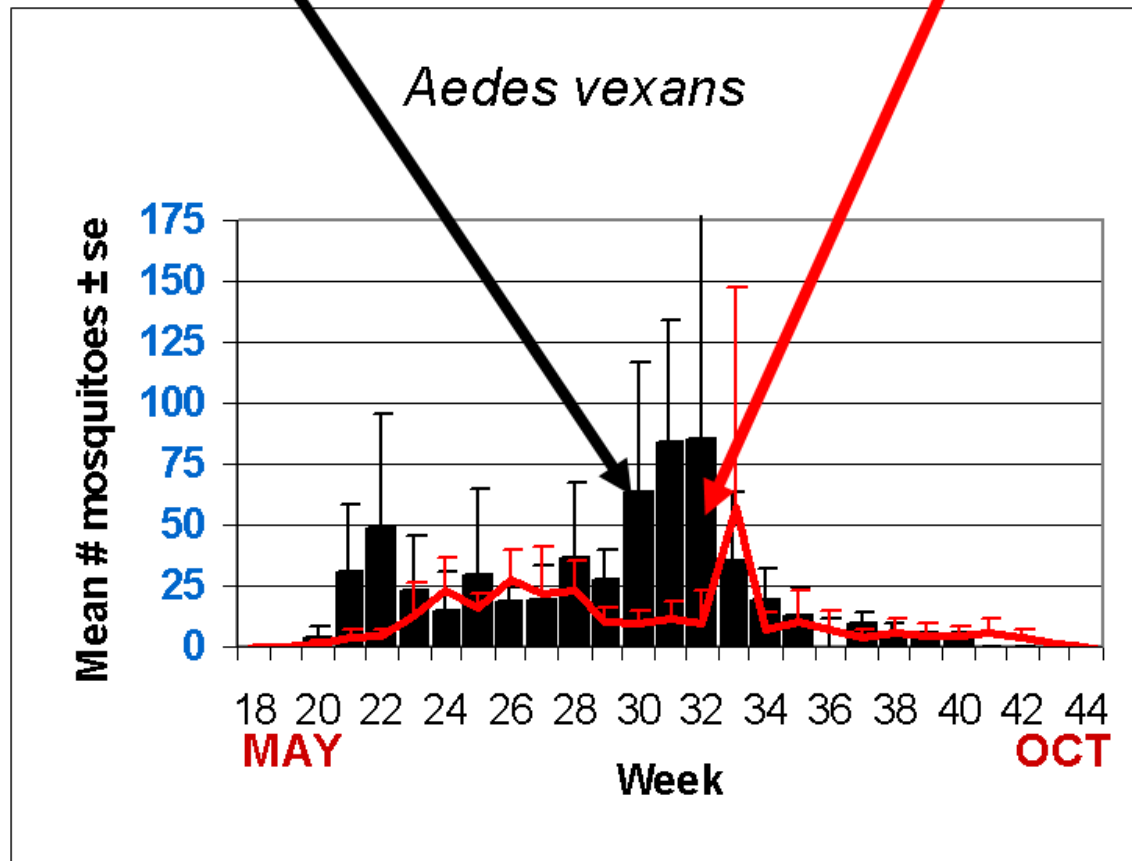
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 14 days prior to 14 June 2021 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, Burlington, Cape May, Hudson, Hunterdon, Mercer, Morris, Passaic, Salem, and Warren counties. Data for the previous week are from Atlantic, Bergen, Burlington, Cape May, Hudson, Hunterdon, Mercer, Morris, Ocean, Passaic, Salem, and Warren counties.

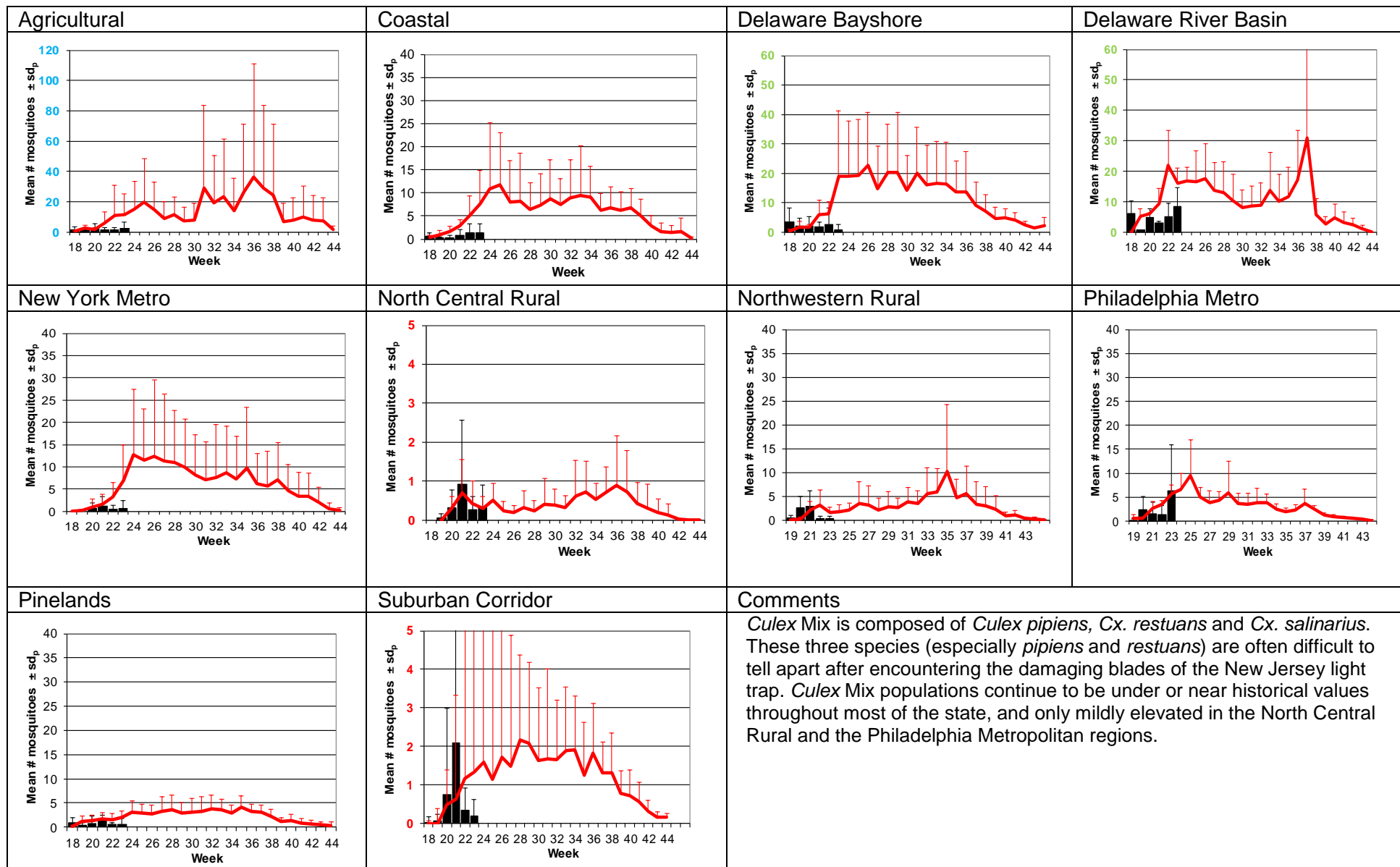
Weekly Means Against 5-year Average



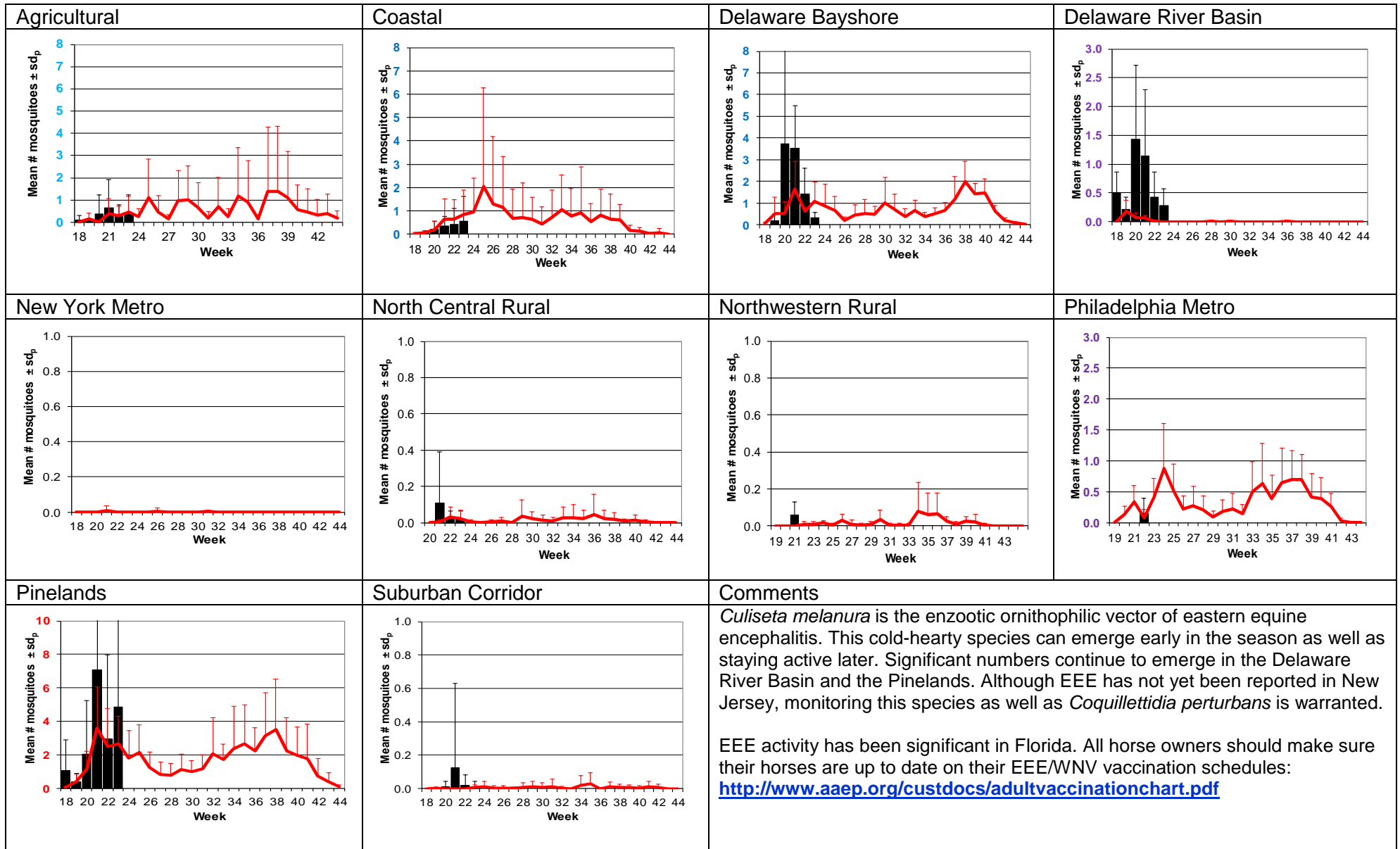
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

<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. Again, no populations were reported above historical averages despite significant rainfall that alters the drought maps each week. Floodwater species such as <i>Ae. vexans</i> and <i>Ae. sollicitans</i> should show up in number after such events, but only <i>Ae. sollicitans</i> were mildly affected.</p> <p>https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?N</p>	

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



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

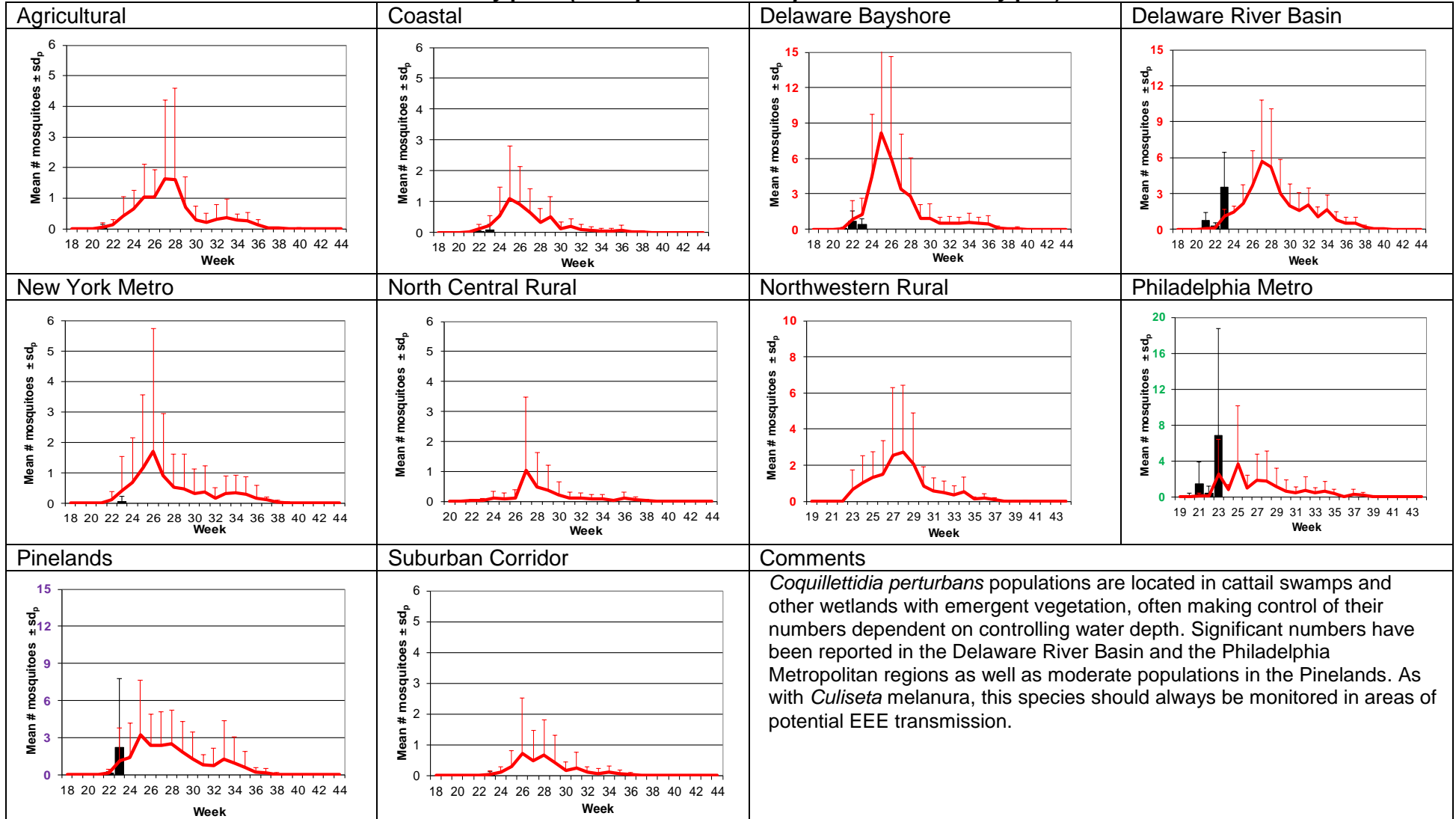


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)

<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. Although rainfall in the past two weeks have been significant in many areas of the state, this appears to have only minor effects on the Coastal populations, with other regions reporting low numbers of adults on the wing. It is possible that delays in reporting may also explain the low averages seen.</p> <p>Next full moon on 24 June.</p>	

Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

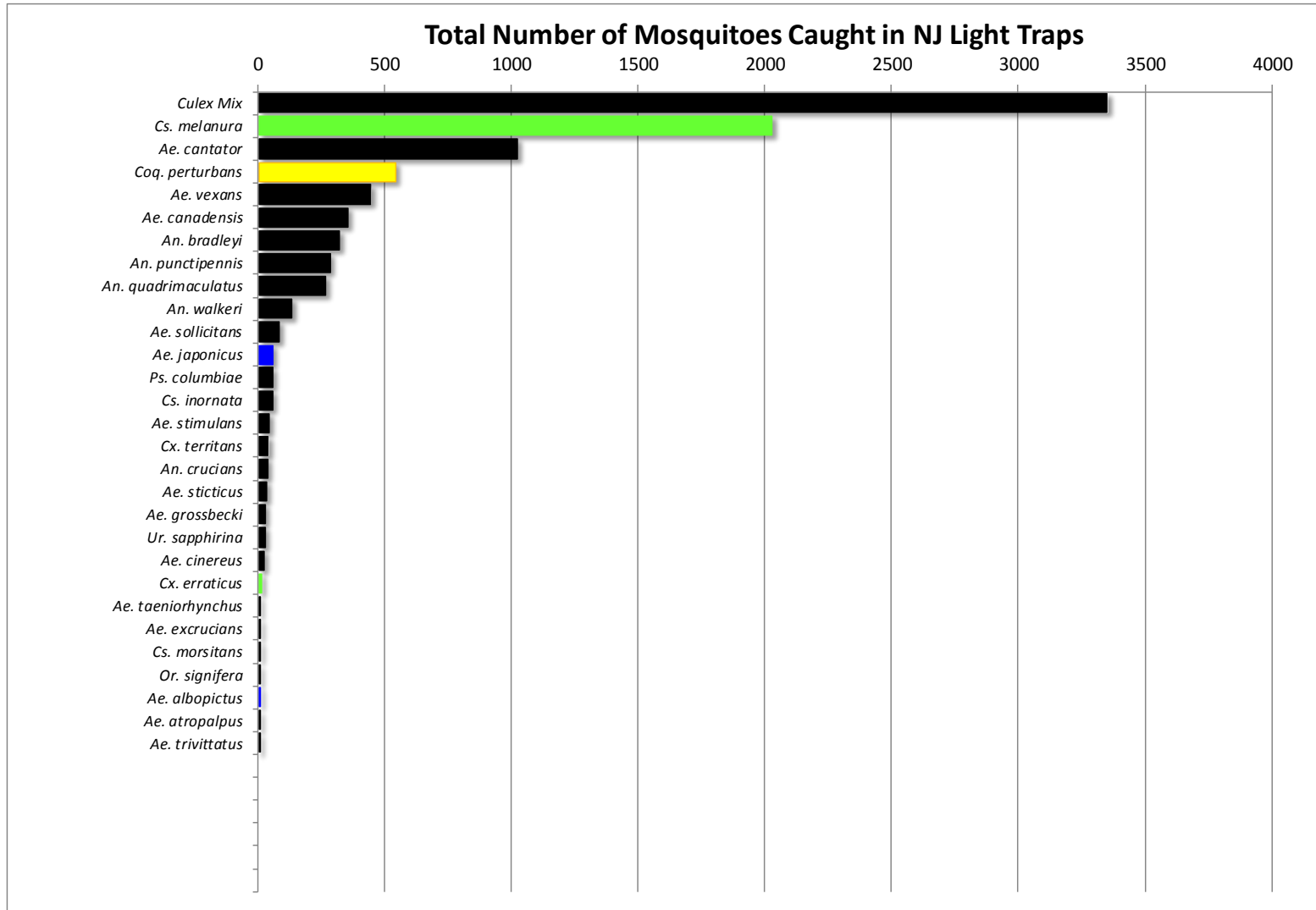


WNV

EEE

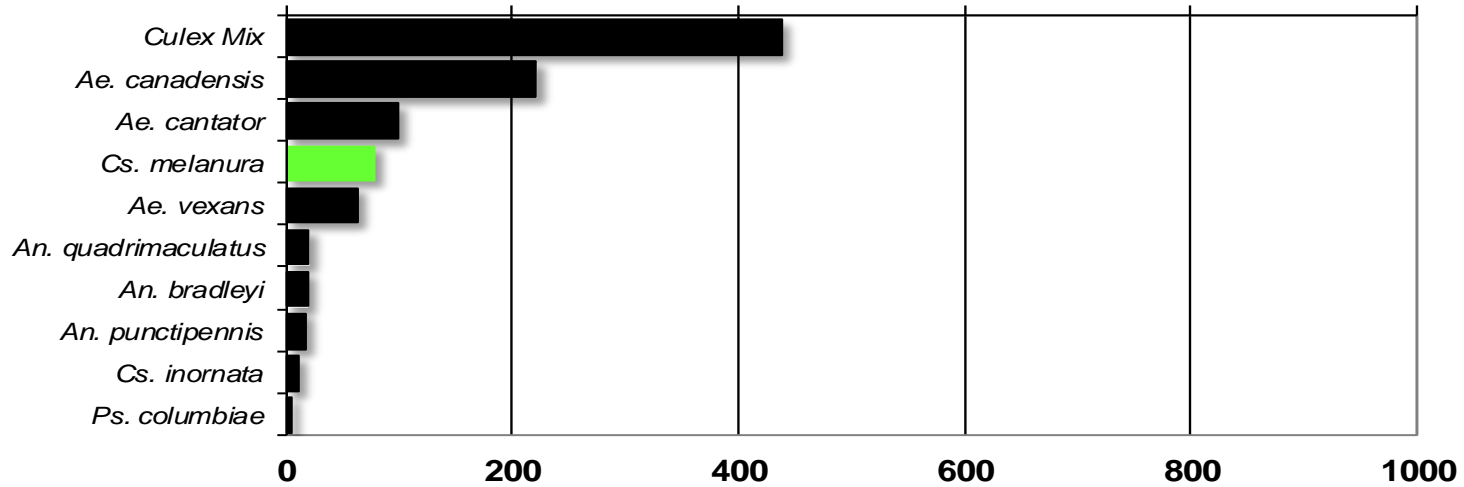
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



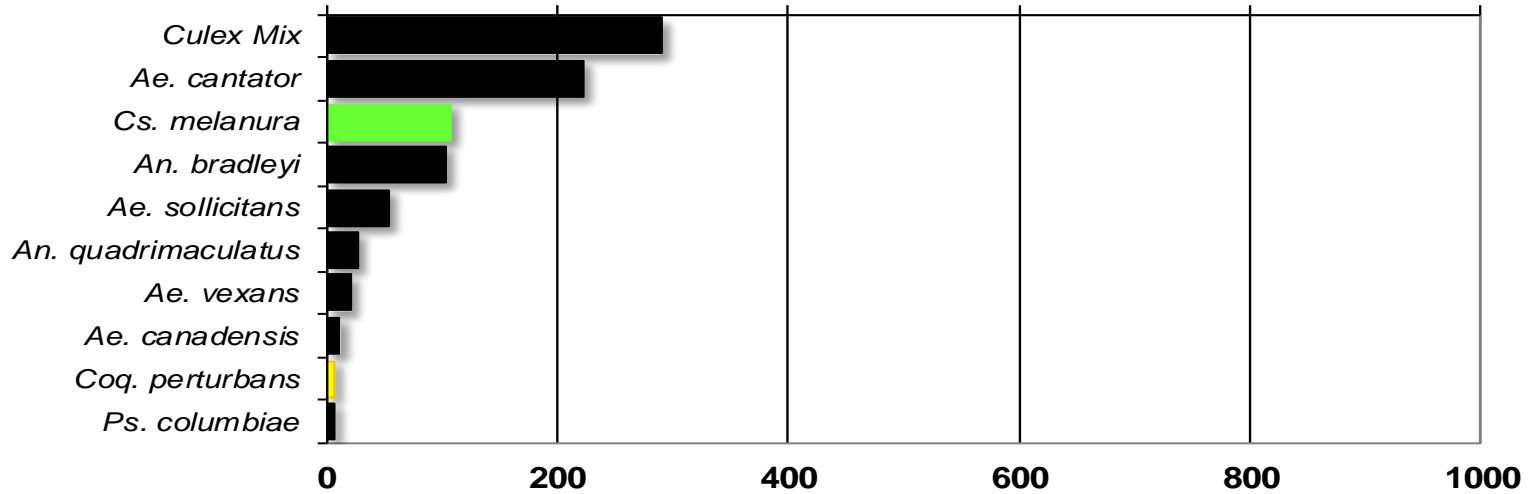
Agricultural

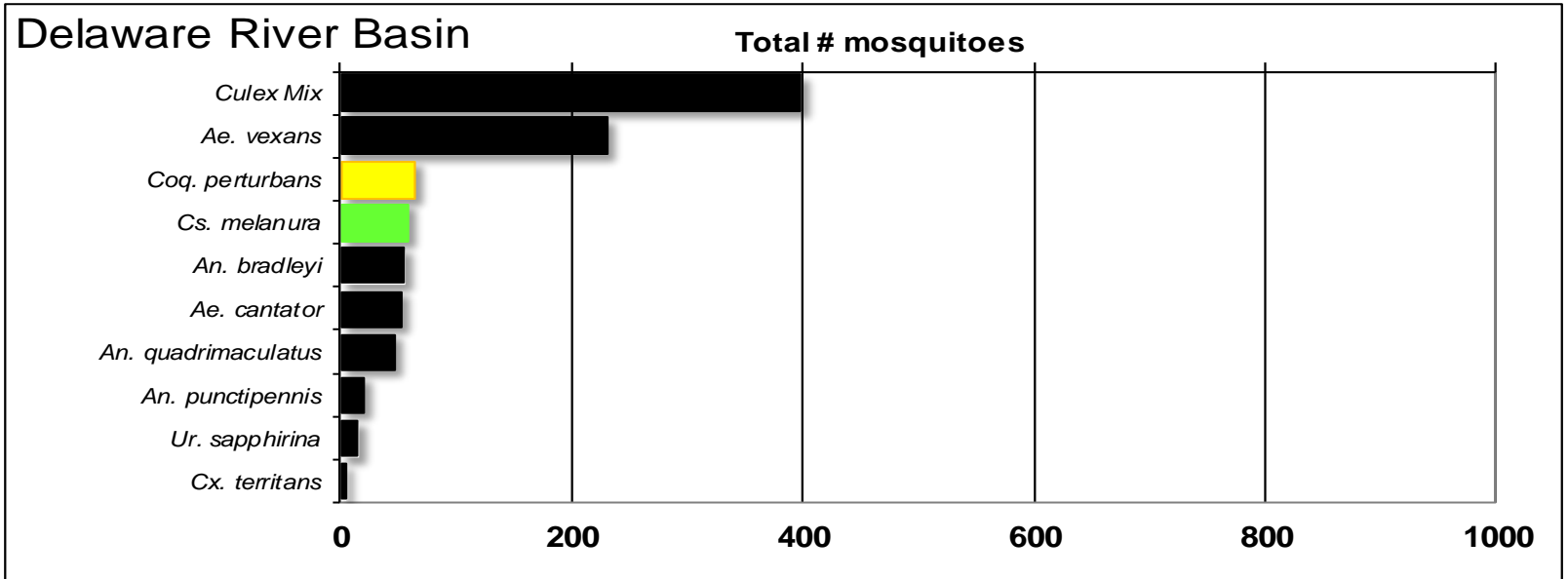
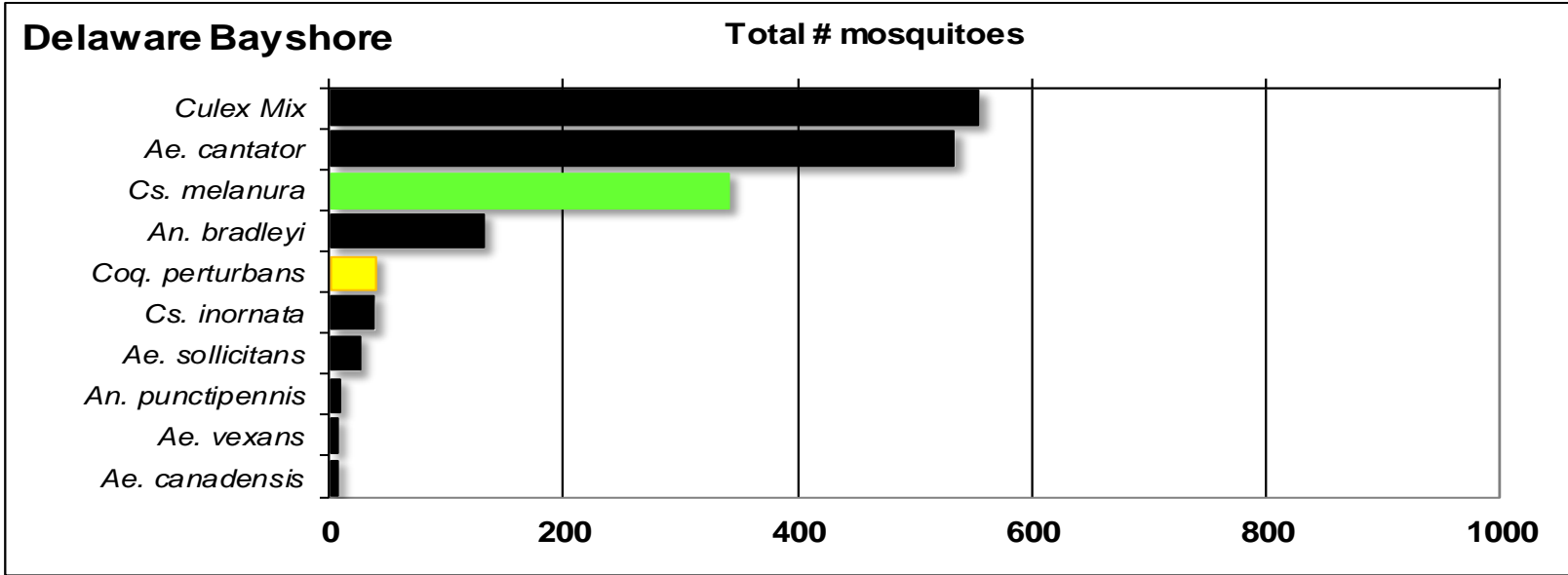
Total # mosquitoes



Coastal

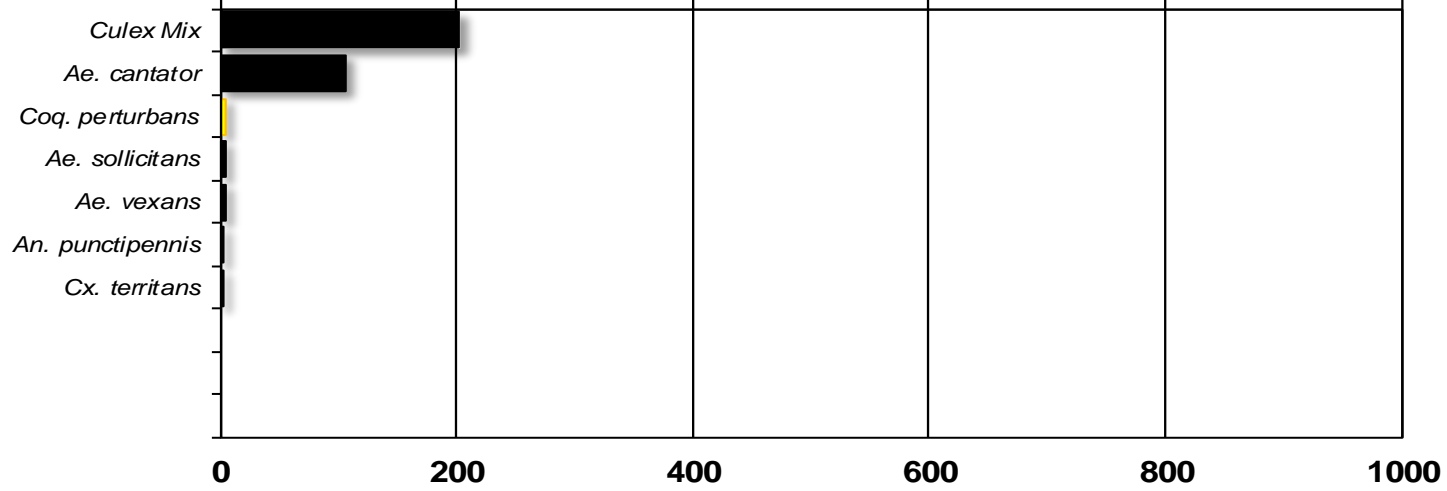
Total # mosquitoes





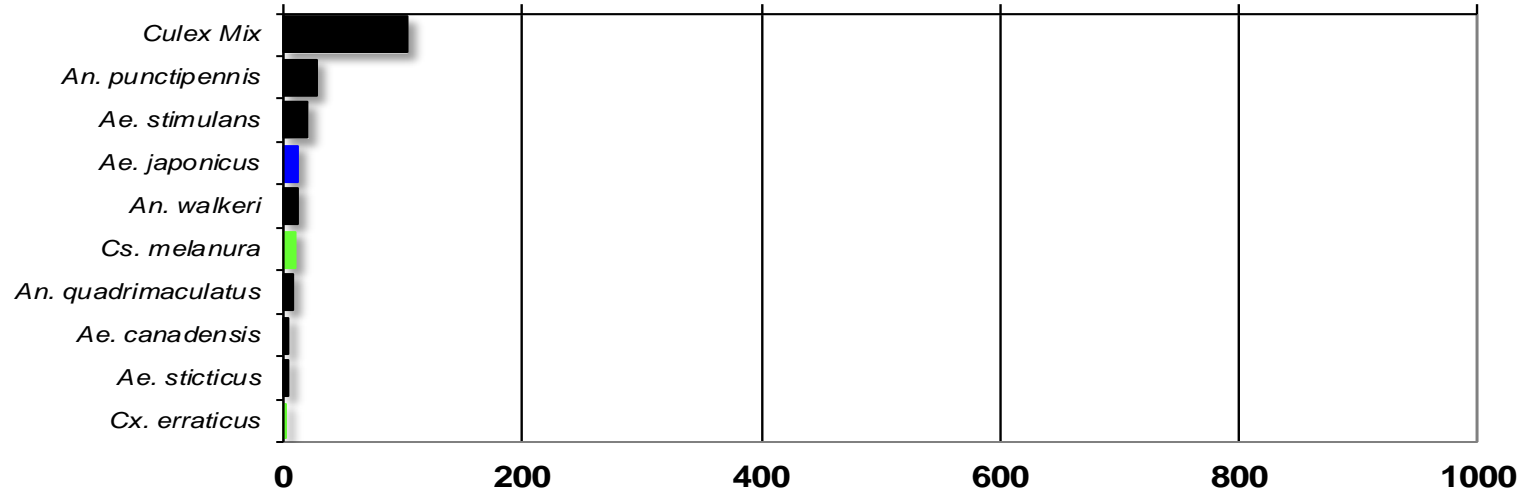
New York Metropolitan

Total # mosquitoes



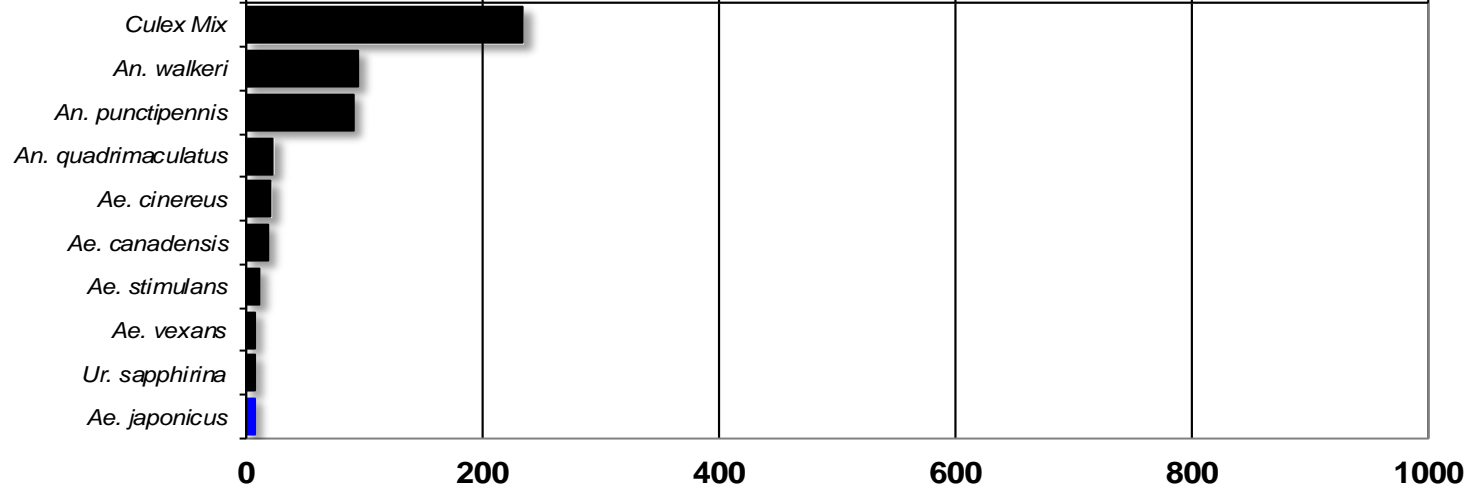
North Central Rural

Total # mosquitoes



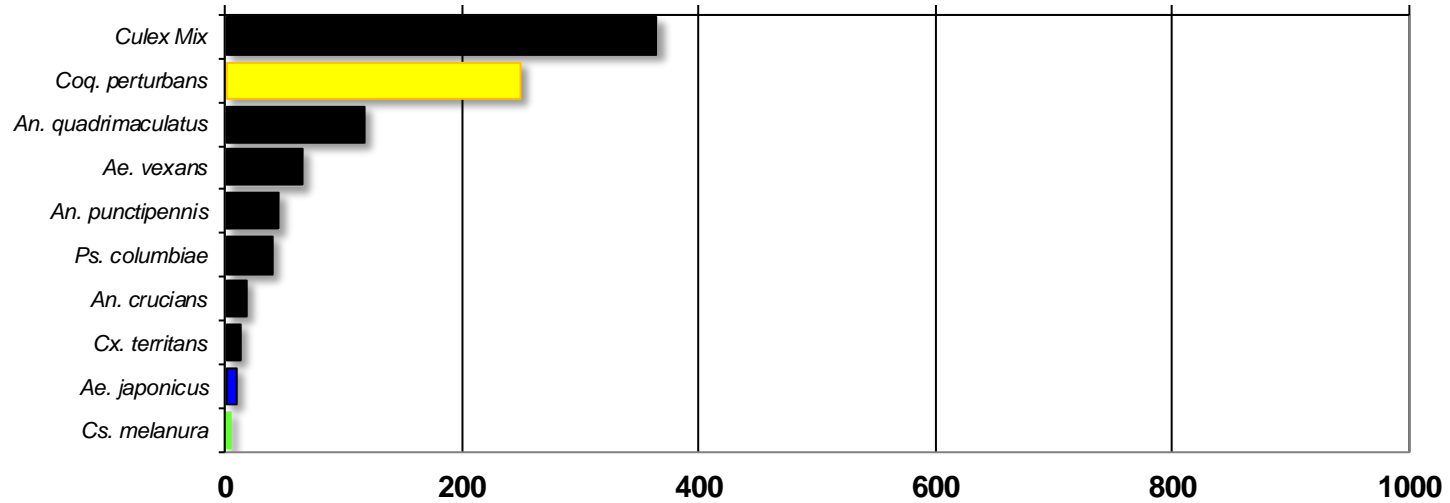
Northwest Rural

Total # mosquitoes



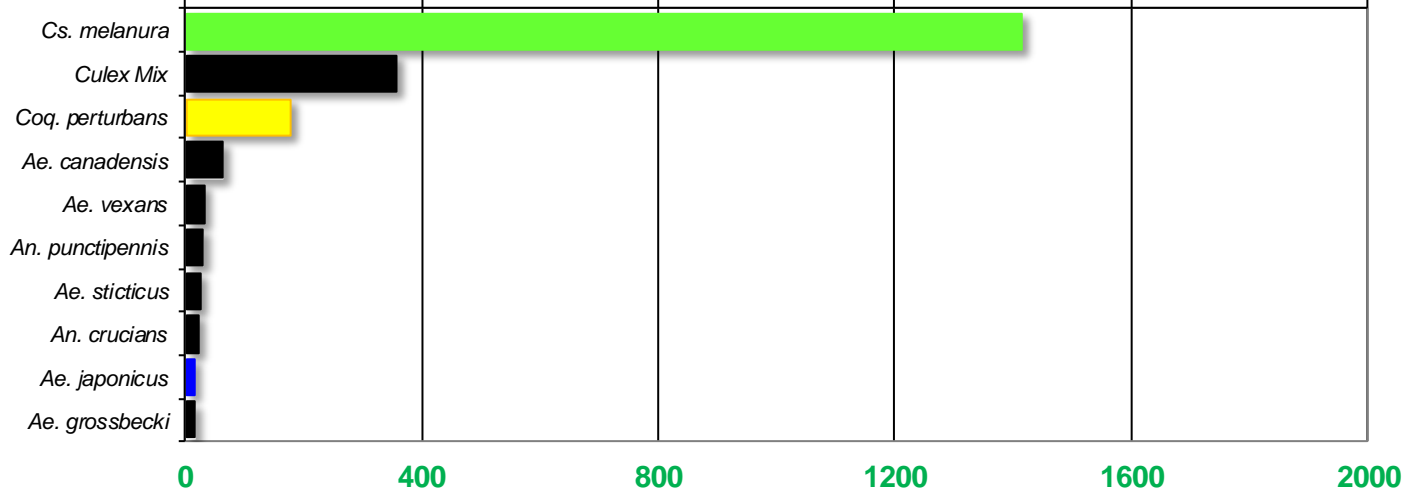
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

