

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

9 June to 15 June 2019, CDC Week 24

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Center for Vector Biology



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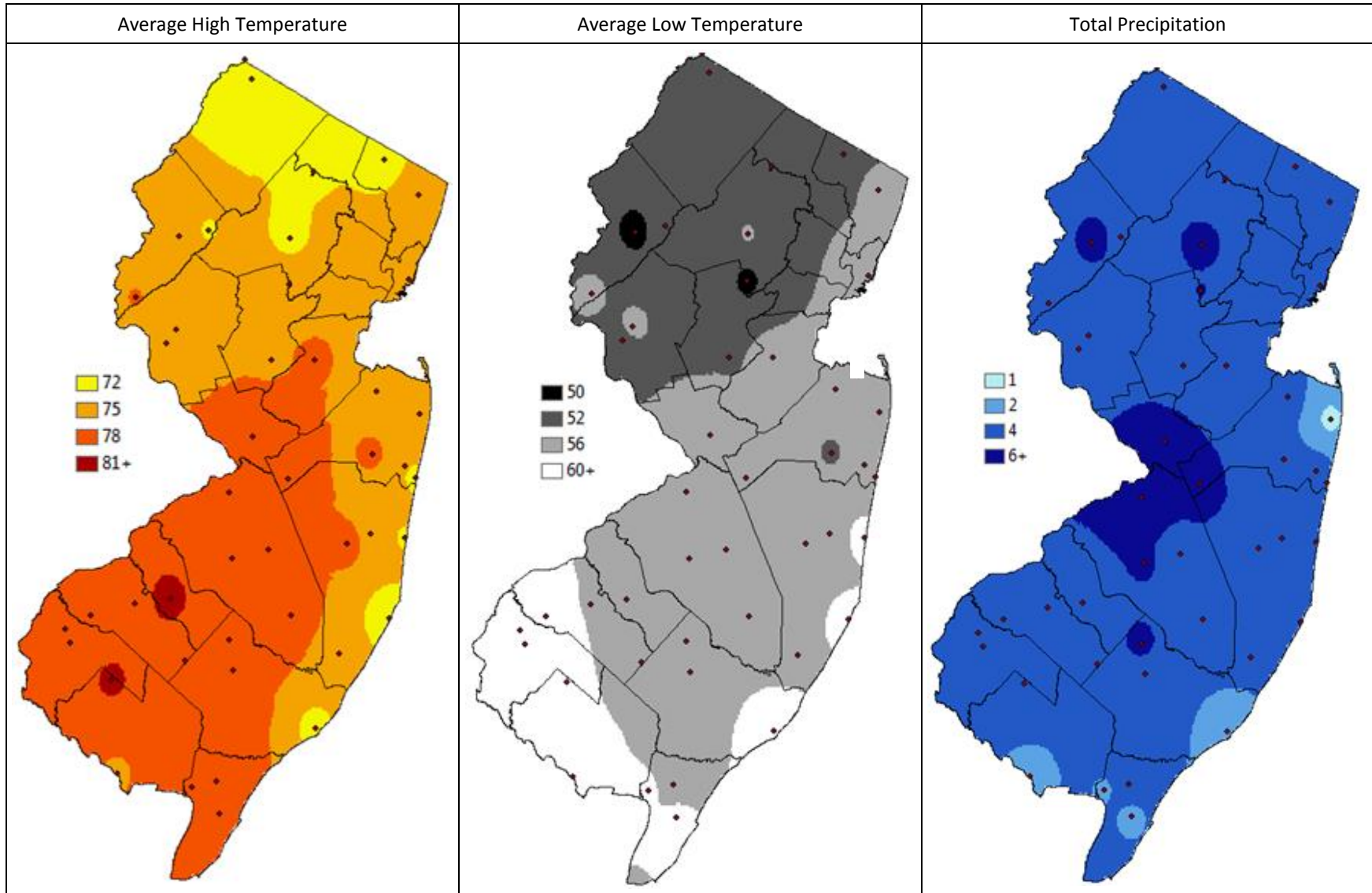
Summary Table –begin to Week 24

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	0.49	7.51	0	5.20	12.10	0	0.29	0.45	0	0.00	0.44	0
Coastal	1.29	4.48	0	2.29	9.49	0	0.38	1.06	0	0.60	0.59	1
Delaware Bayshore	nd	3.02	0	nd	14.48	0	nd	11.58	0	nd	1.65	0
Delaware River Basin	3.86	30.61	0	25.14	9.30	4	1.93	1.01	2	0.00	0.16	0
New York Metro	0.93	4.43	0	10.17	11.07	0	1.27	0.40	4	0.00	0.23	0
North Central Rural	0.02	0.21	0	0.07	0.52	0	0.00	0.11	0	0.00	0.00	0
Northwest Rural	0.29	7.83	0	0.06	2.03	0	0.07	0.53	0	0.00	0.00	0
Philadelphia Metro	0.00	12.50	0	0.00	6.94	0	0.00	0.39	0	0.00	0.00	0
Pinelands	0.09	1.78	0	0.88	2.70	0	2.31	3.29	0	0.00	0.03	0
Suburban Corridor	0.54	2.99	0	2.74	1.77	2	0.02	0.27	0	0.01	0.03	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: Abundances have decreased in general, but significantly higher than historical averages were still seen in *Culex Mix* of the Delaware River Basin and *Coquillettidia perturbans* from the New York Metropolitan area. Lesser increases in abundances were also seen in *Culex* in the Suburban Corridor, *Coquillettidia perturbans* in the Delaware River Basin and *Aedes sollicitans* in the Coastal region.

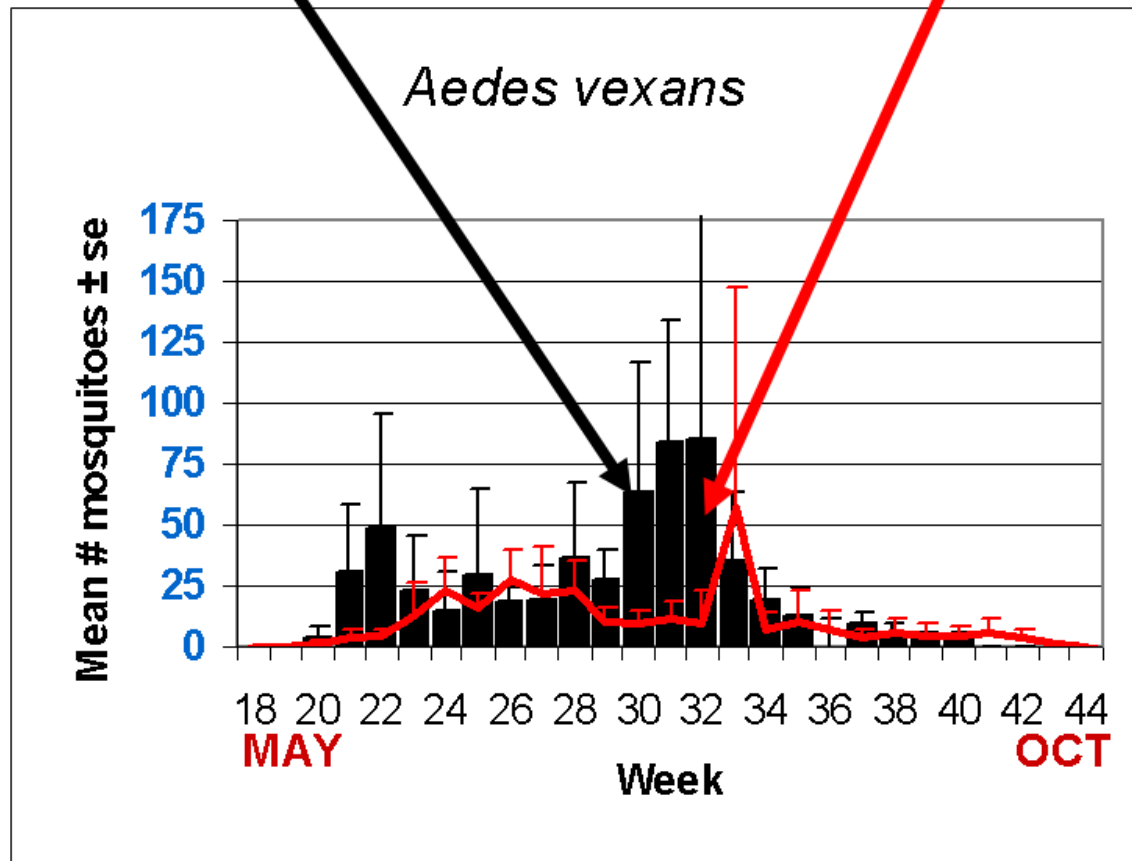
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 17 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.

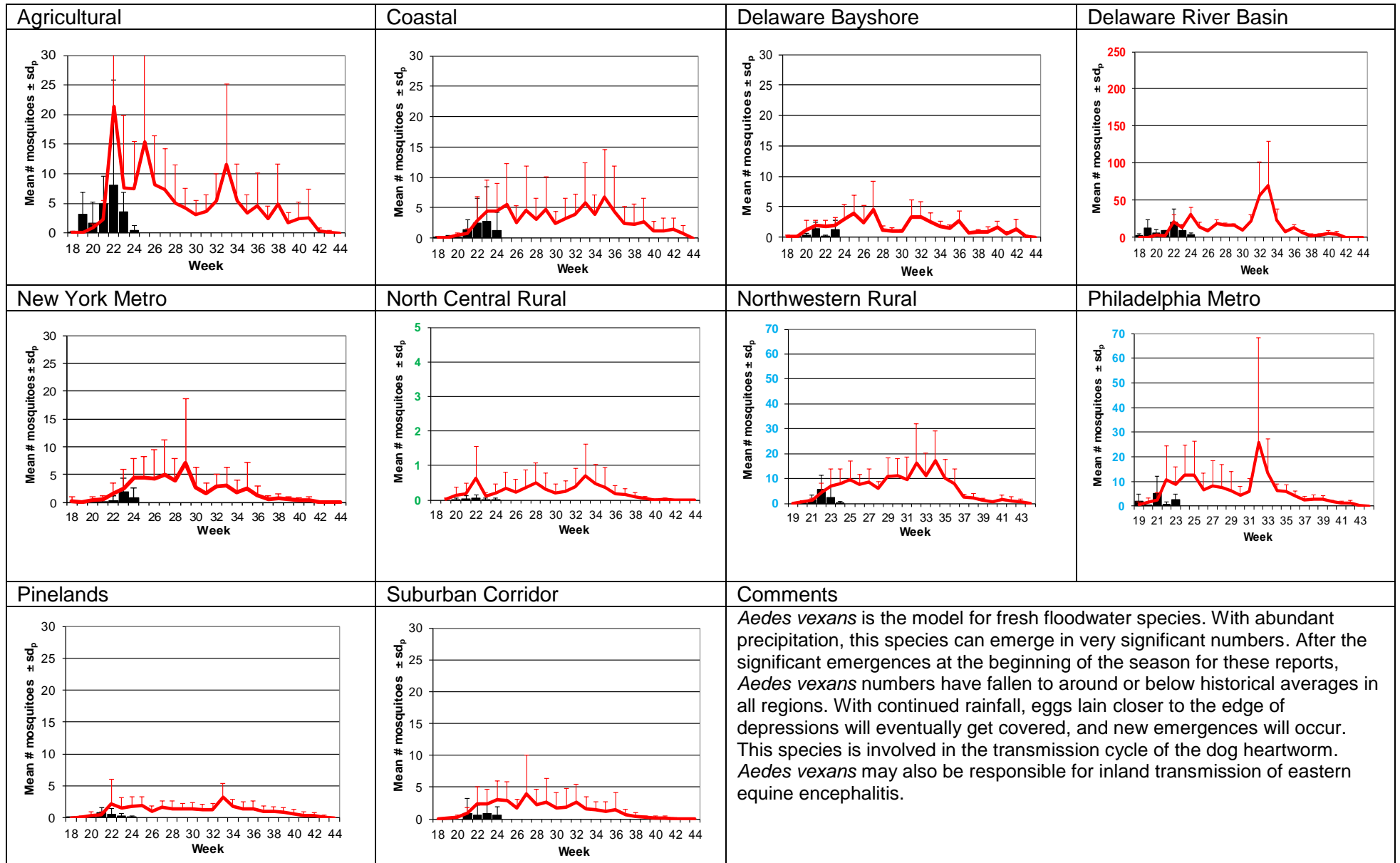
The Species Graphs: The species graph pages include a graph with two plots for each of the ten regions defined on the first page (Agricultural, Coastal, Delaware Bayshore, Delaware River, New York Metro, North-Central, Northwestern, Philadelphia Metro, Pinelands, and Suburban Corridor). Below is an example 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, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem, Somerset, Union, and Warren counties. Data for the previous week are from Atlantic, Burlington, Cape May, Cumberland, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Ocean, Passaic, Salem, Somerset, Union, and Warren counties.

Weekly Means Against 5-year Average



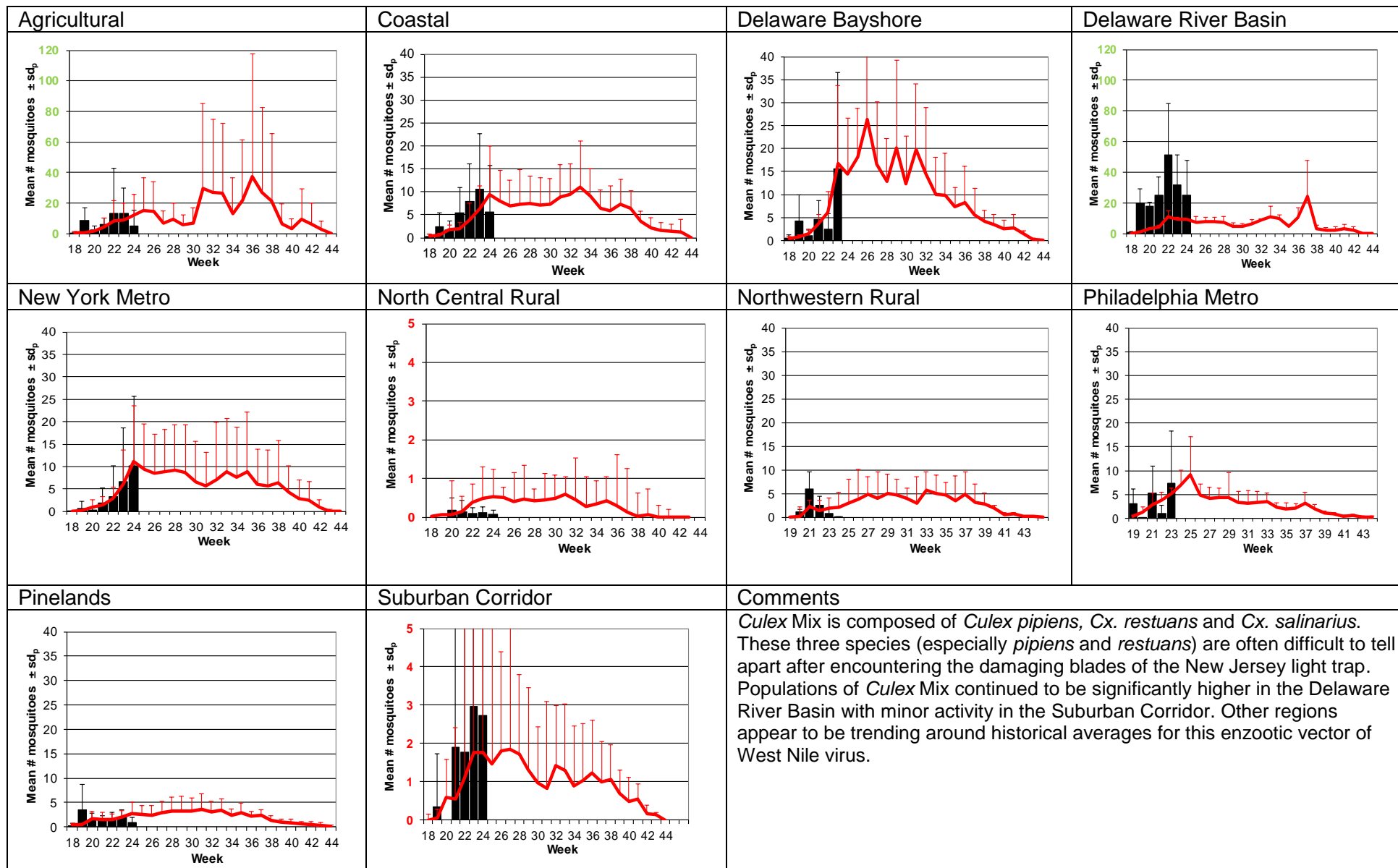
Aedes vexans - Fresh Floodwater Species

Multivoltine Aedine (Ae. vexans Type)

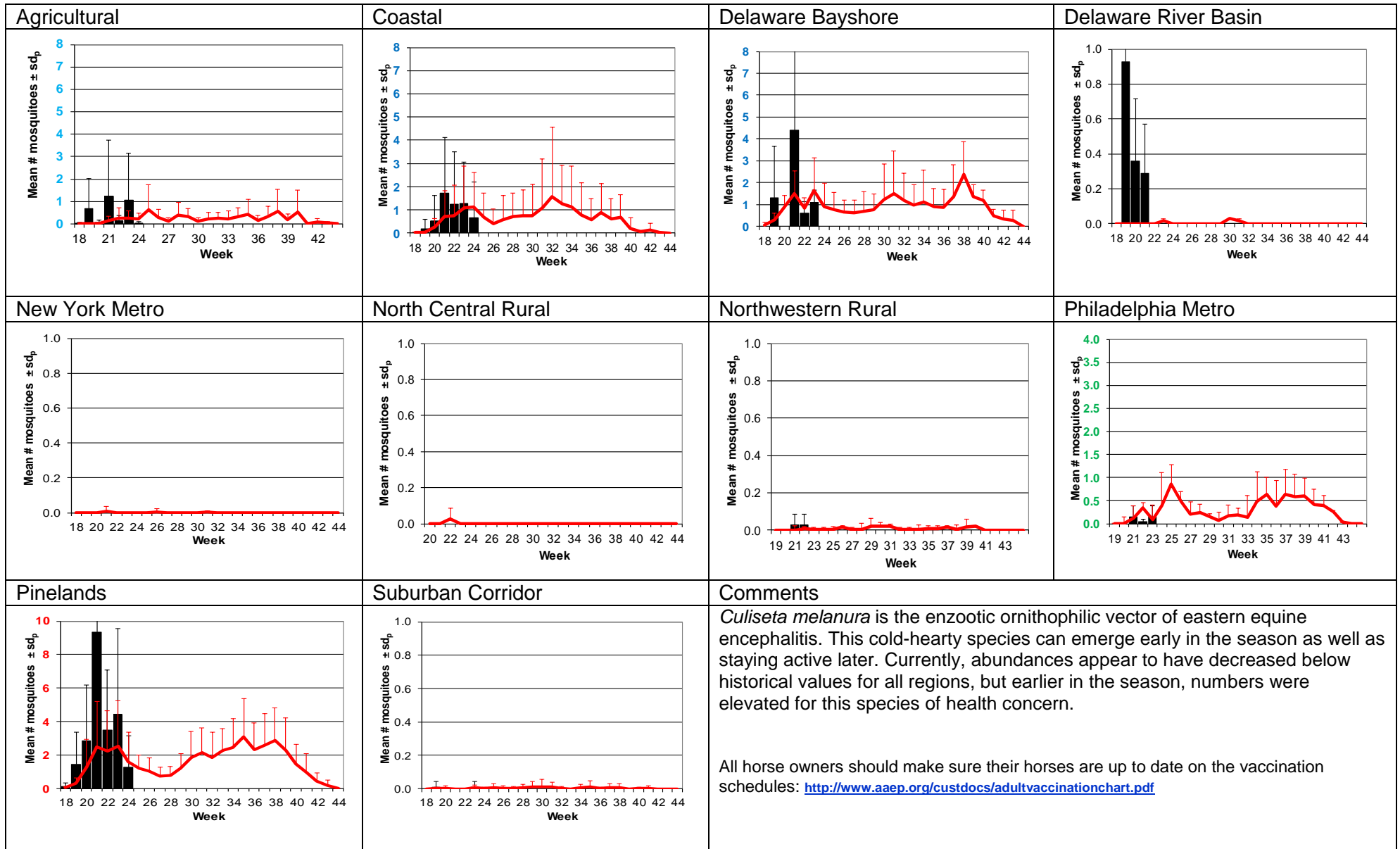


Culex Mix – Permanent Water Species

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



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

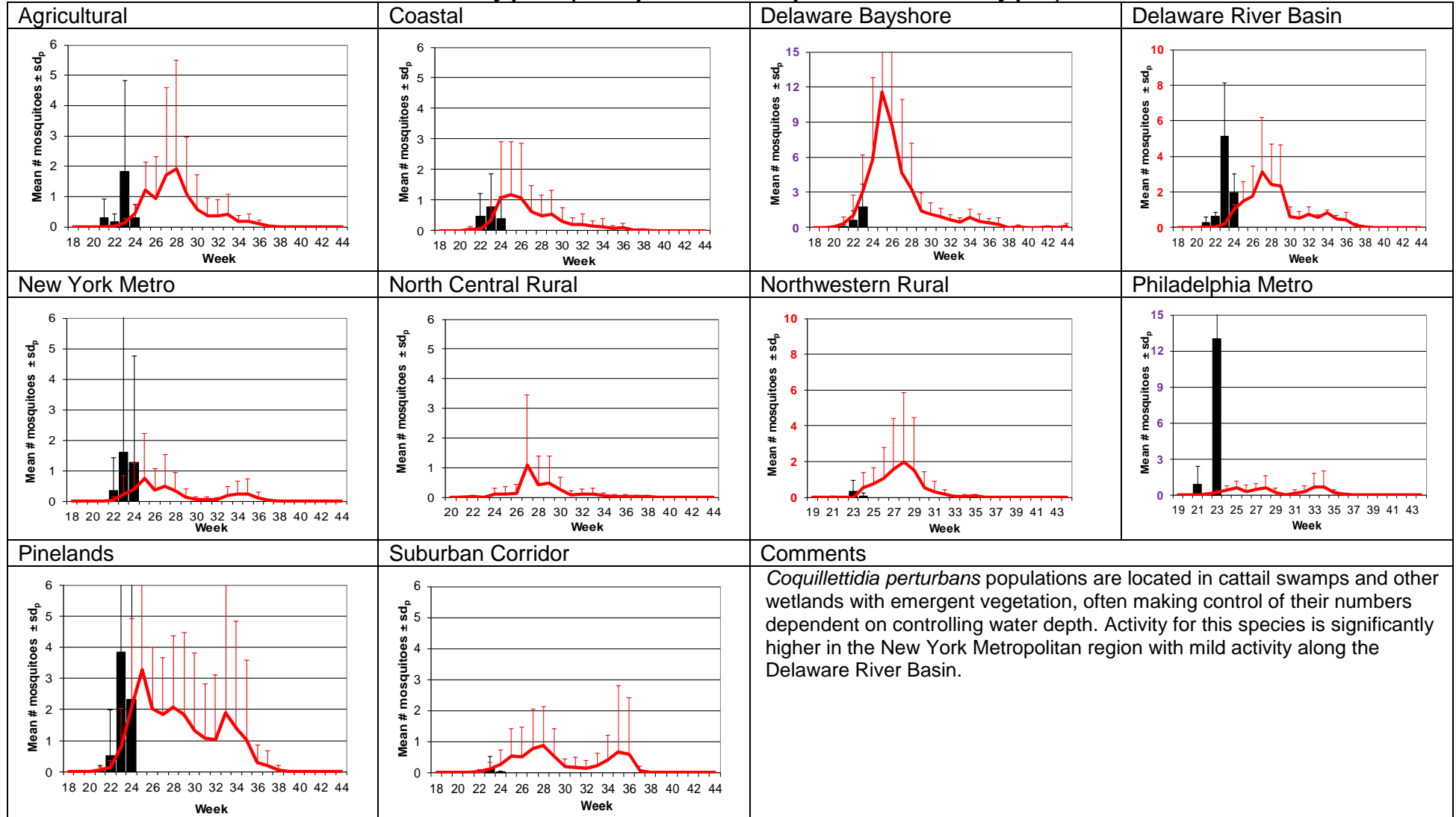


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)

<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. Currently, the Coastal region shows populations mildly above historical averages. A full moon just occurred, and any rainfall will also contribute to the flooding of this saltwater version of <i>Aedes vexans</i>. With tidal influences, periodic emergences are seen throughout the summer. This species should be kept in mind when EEE activity is high and/or near coastal populations as it is a likely bridge vector.</p> <p>Next full moon on 16 July.</p>	

Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

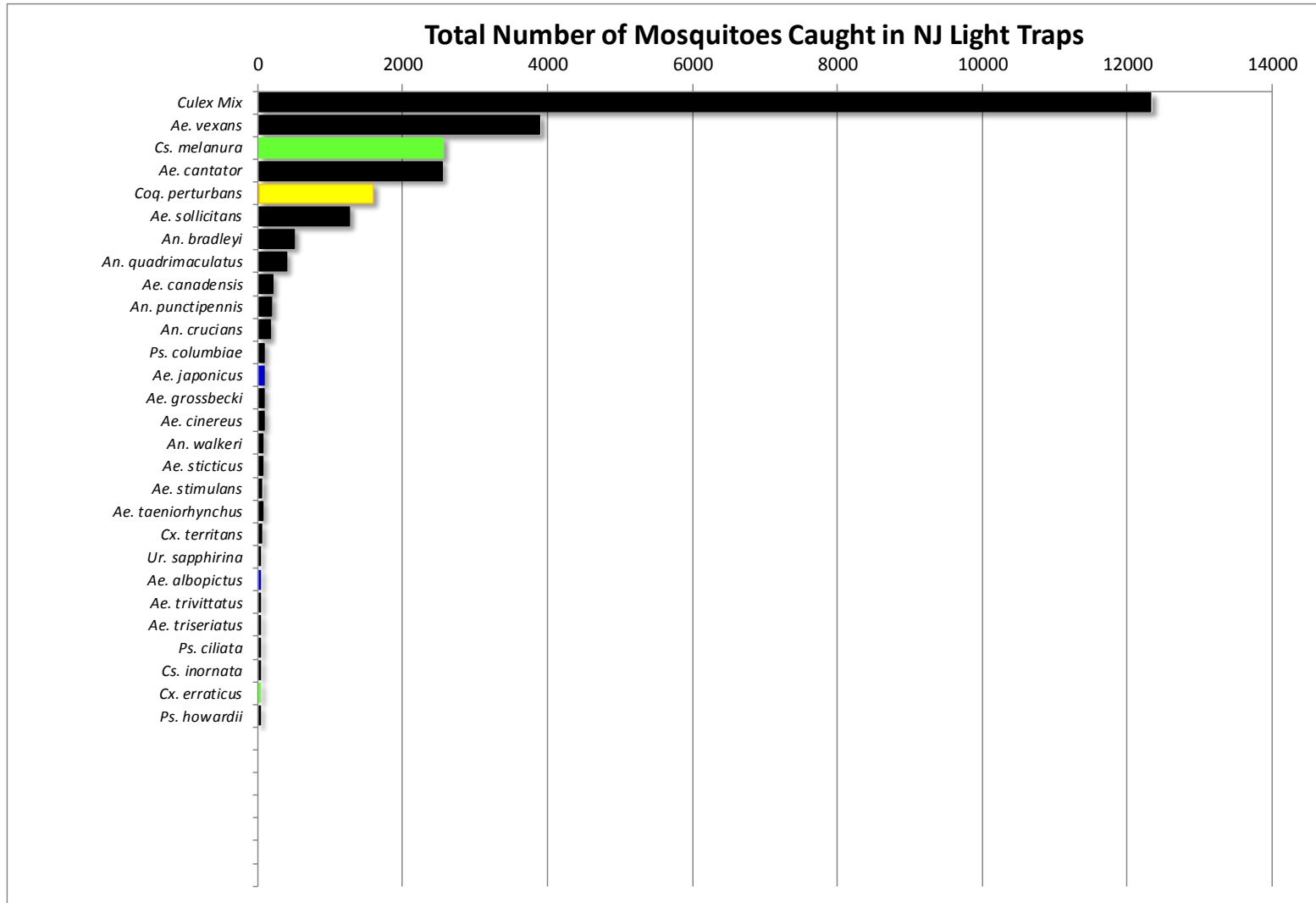


WNV

EEE

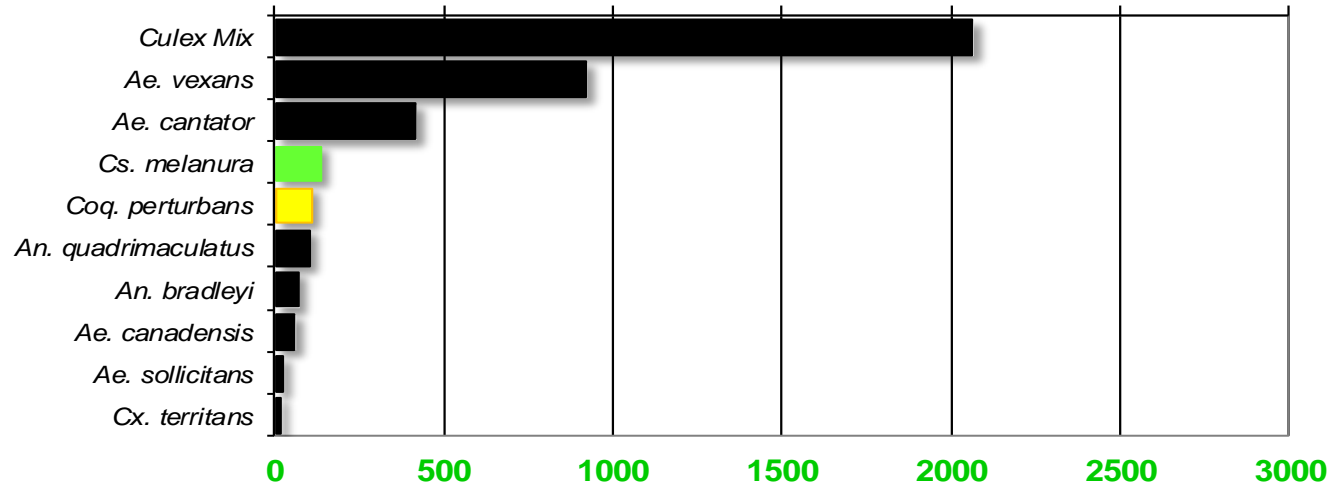
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



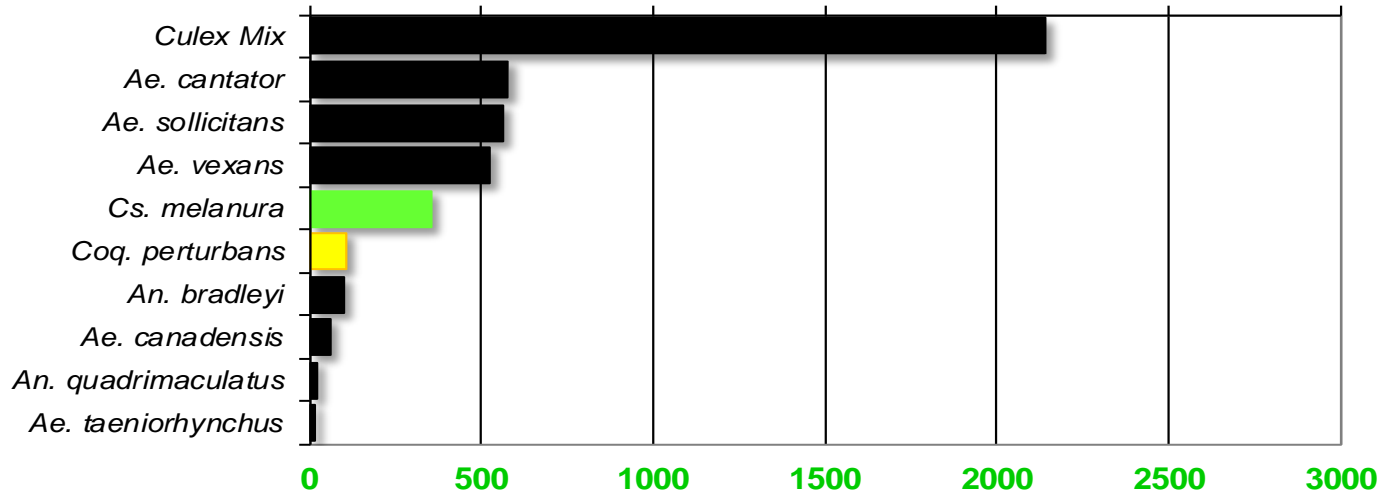
Agricultural

Total # mosquitoes



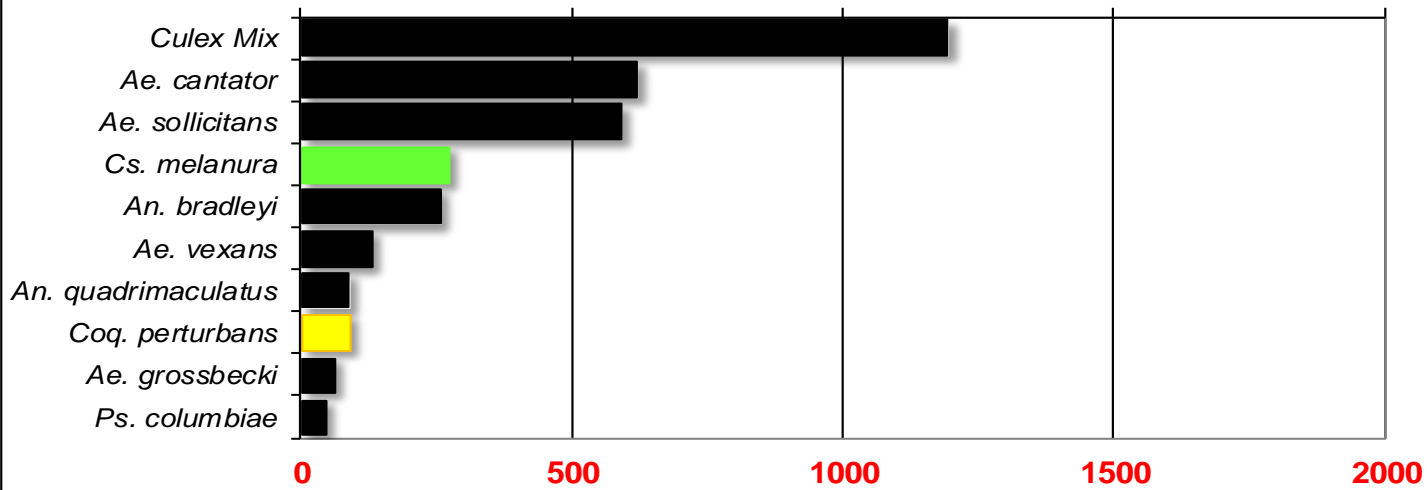
Coastal

Total # mosquitoes



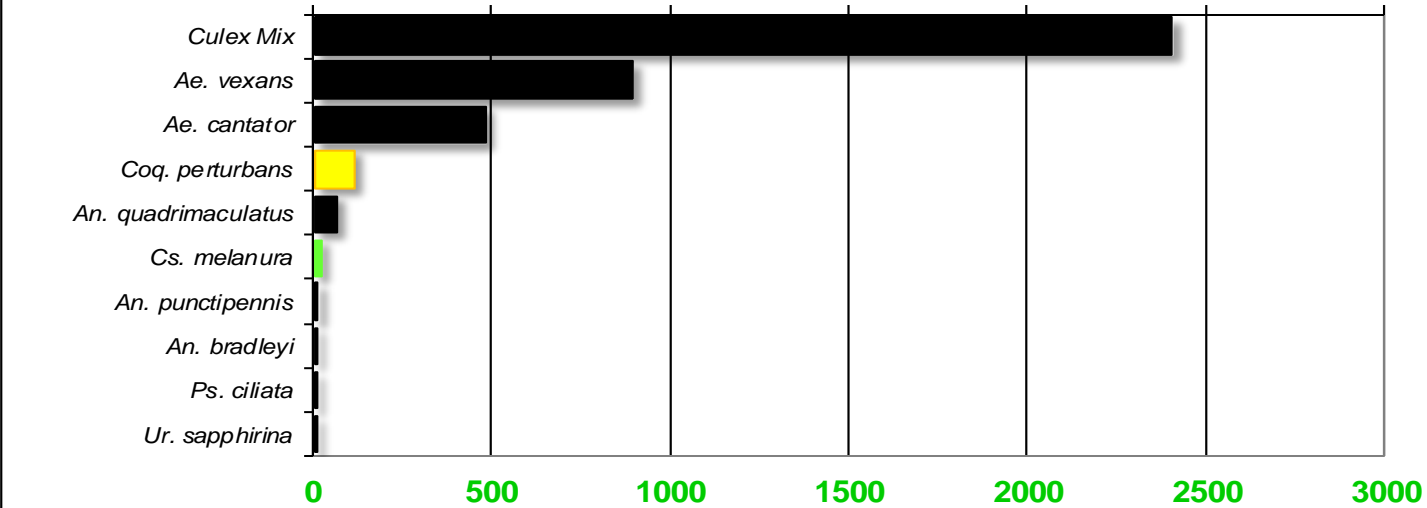
Delaware Bayshore

Total # mosquitoes



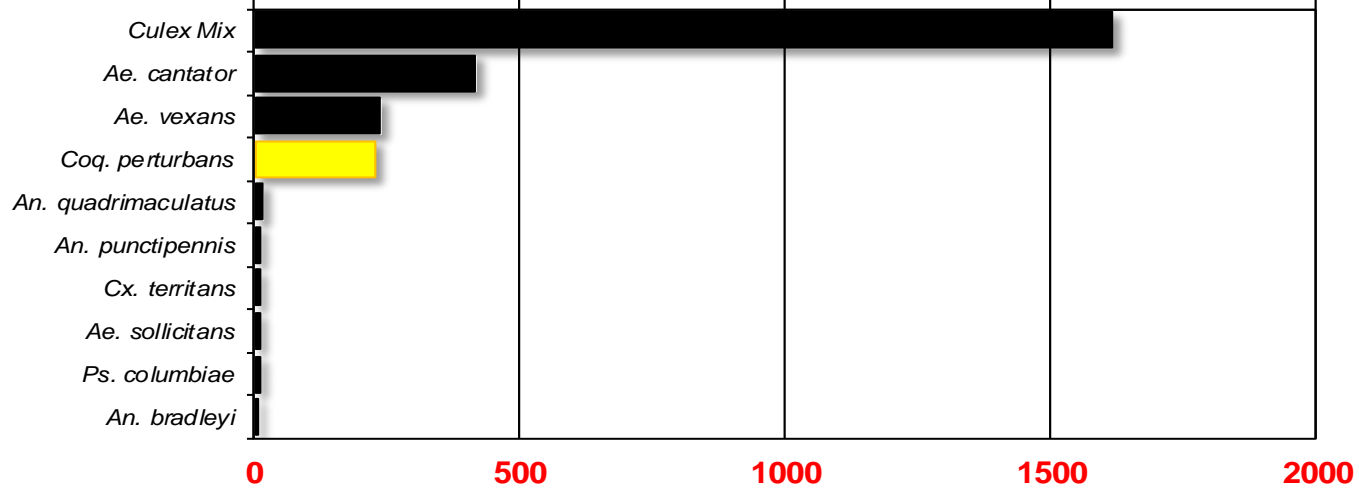
Delaware River Basin

Total # mosquitoes



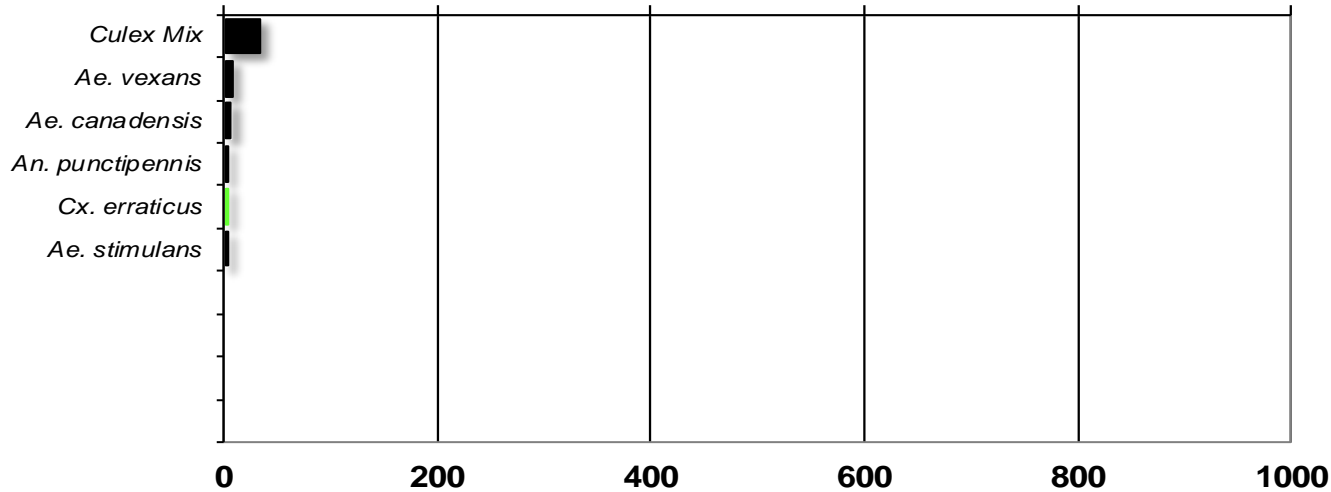
New York Metropolitan

Total # mosquitoes



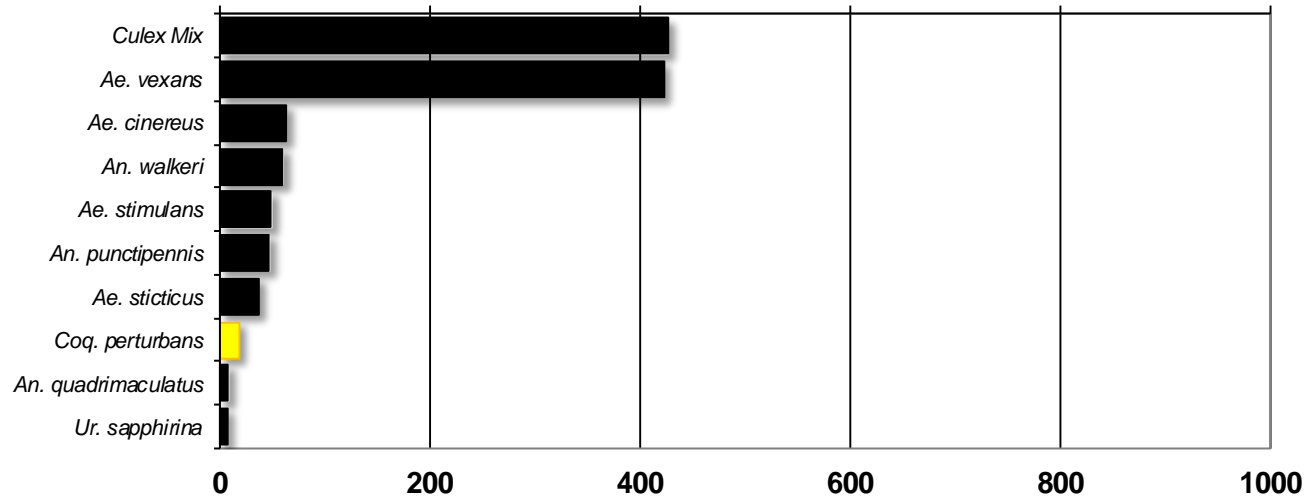
North Central Rural

Total # mosquitoes



Northwest Rural

Total # mosquitoes



Philadelphia Metropolitan

Total # mosquitoes

