

NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 12 June to 18 June 2011, CDC Week 24

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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.

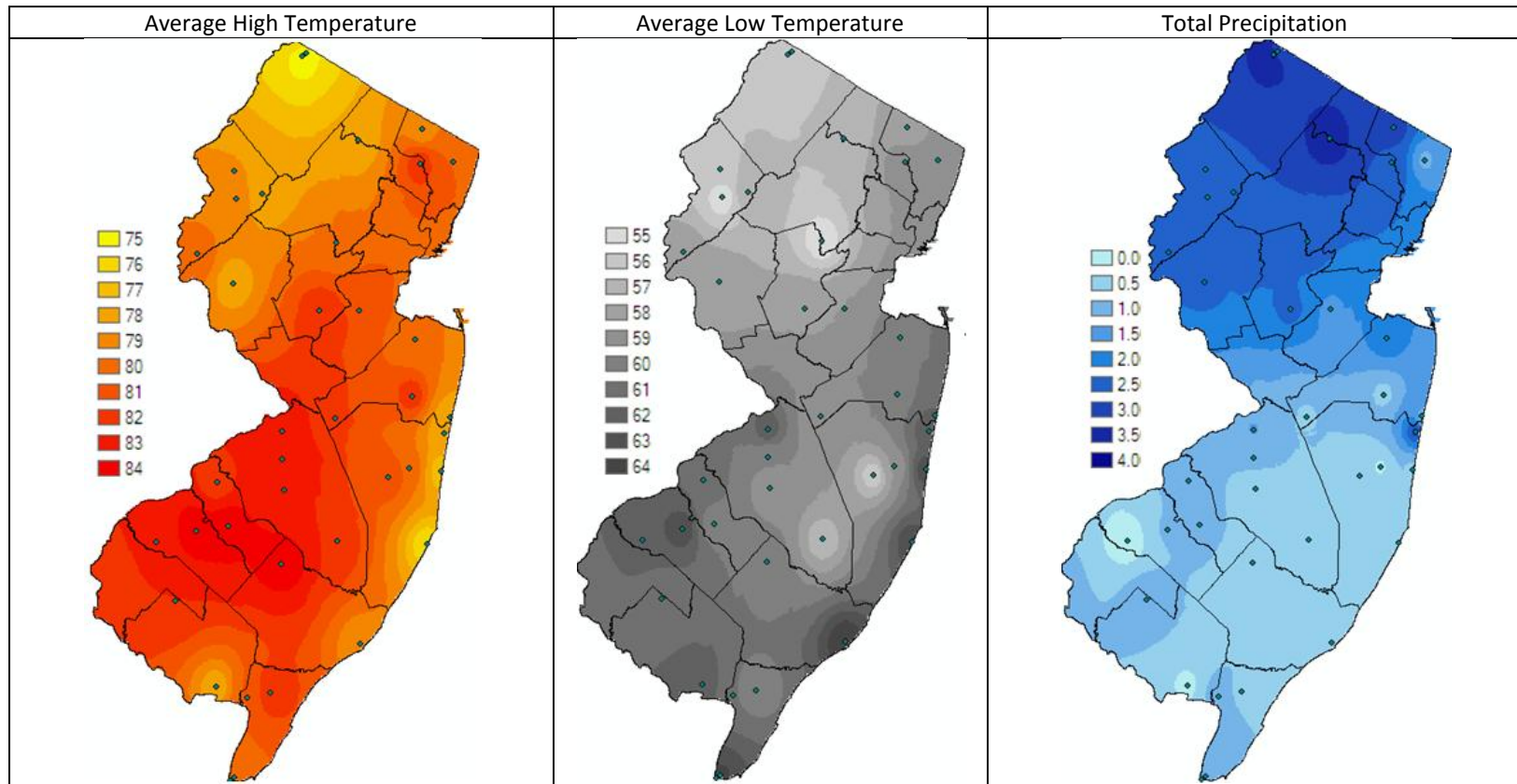
Summary Table – Week 24

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	0.74	1.48	0	0.83	3.81	0	0.26	0.20	1	0.09	0.12	0
Coastal	0.78	6.21	0	0.95	9.10	0	0.14	0.83	0	3.11	3.08	1
Delaware Bayshore	0.00	2.73	0	0.00	13.00	0	0.00	1.85	0	0.00	12.41	0
Delaware River Basin	2.79	7.91	0	0.50	5.53	0	0.29	0.21	1	0.00	0.07	0
New York Metro	2.59	1.99	1	3.73	7.40	0	0.31	0.36	0	0.04	0.89	0
North Central Rural	0.29	0.42	0	0.43	0.88	0	0.00	0.01	0	0.00	0.00	0
Northwest Rural	3.11	7.71	0	1.00	3.96	0	0.17	1.00	0	0.00	0.00	0
Philadelphia Metro	2.29	6.91	0	4.82	7.74	0	0.29	0.92	0	0.00	0.00	0
Pinelands	0.48	1.26	0	0.66	3.07	0	0.39	0.85	0	0.03	0.17	0
Suburban Corridor	0.87	2.99	0	0.63	3.60	0	0.11	0.54	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.

State Summary: Minor increases in the four species were seen this past week. *Aedes vexans* populations in the New York Metro, *Coquillettidia perturbans* in the Agricultural region as well as the Delaware River Basin and *Aedes sollicitans* along the Coast were somewhat above historical means.

Climate Factors

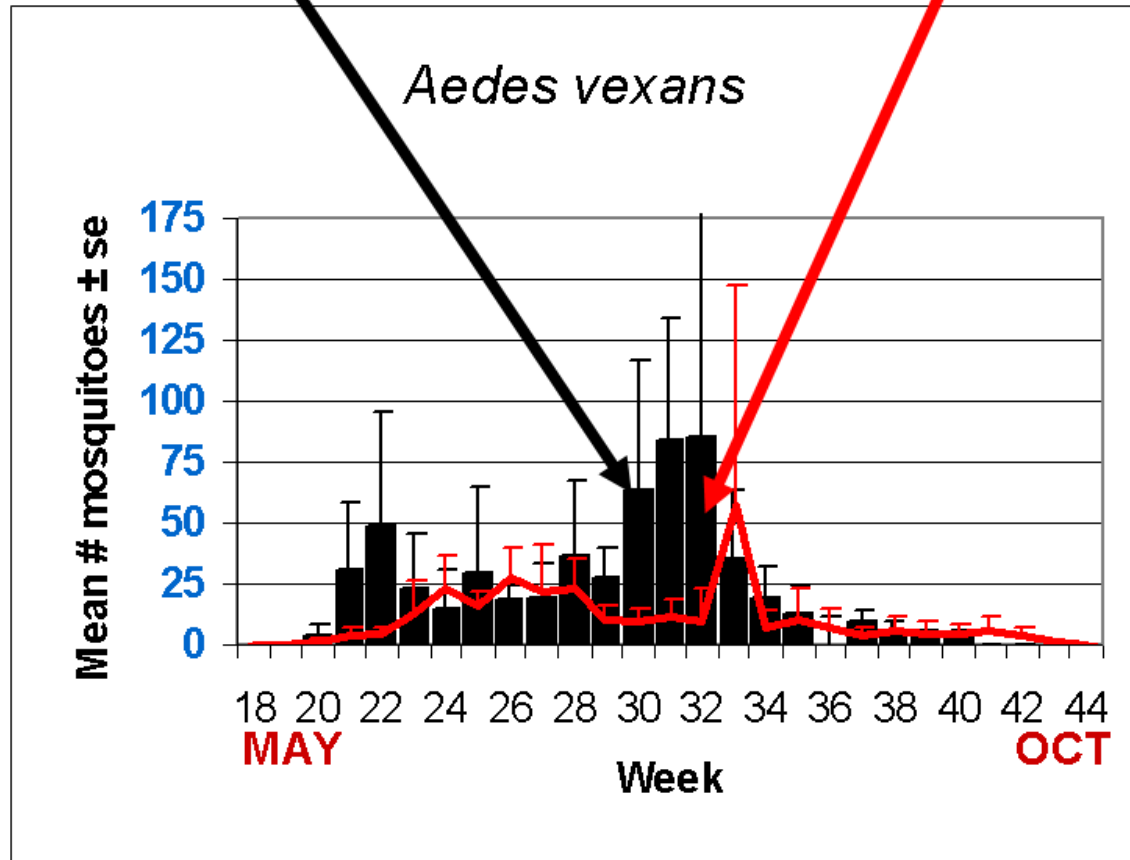


The three figures show the interpolation of average maximum and minimum temperature and total precipitation from 1 June to 22 June, 2011 in New Jersey. Data points are from about 38 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.

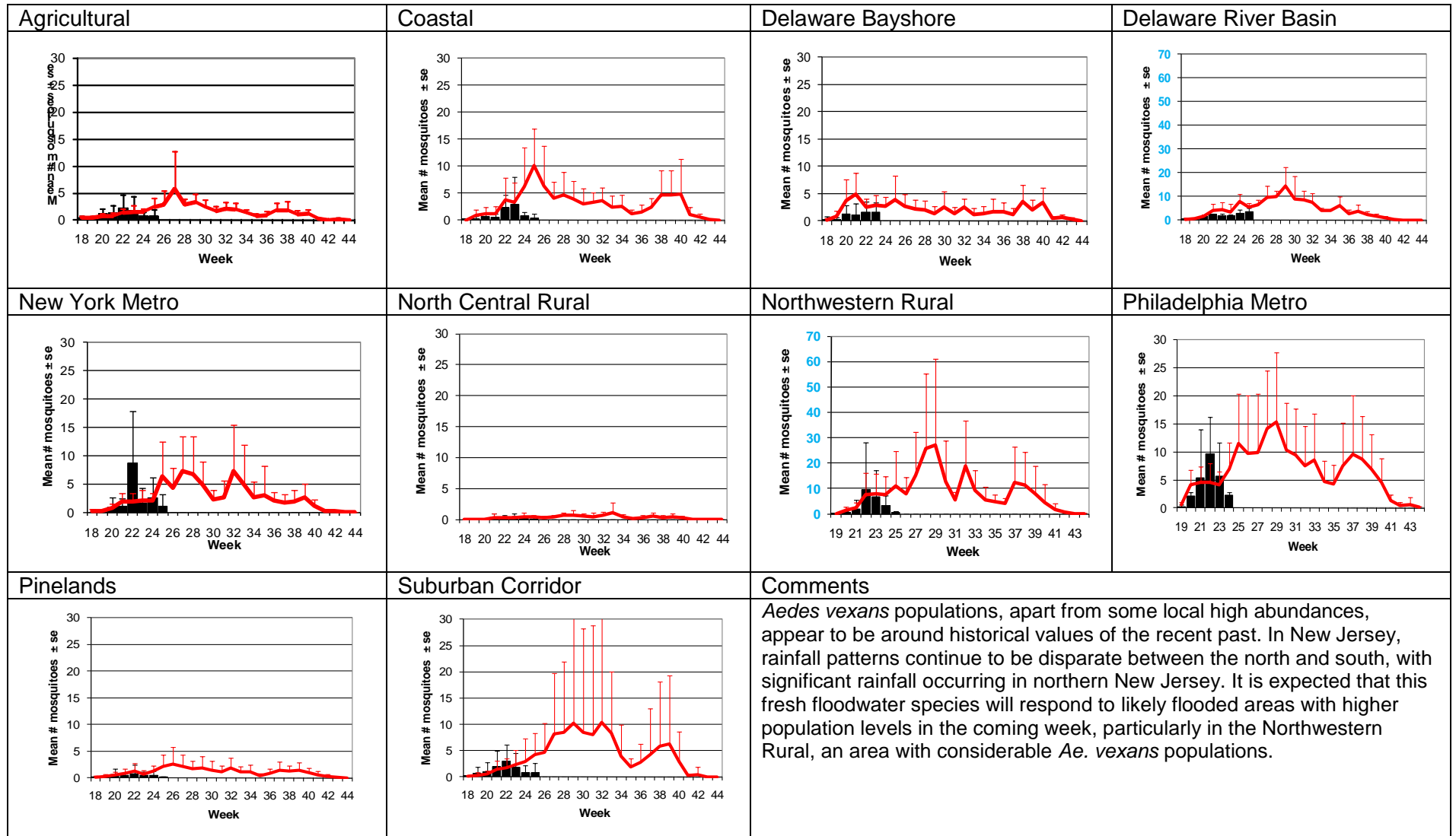
Average high temperatures remained much the same as last week. Average low temperatures were slightly warmer than last week and were highest along the coastal region (moderating effects of large bodies of water – i.e., the Atlantic Ocean) and interior toward the Delaware River. The northern half of New Jersey continued to experience higher rainfall and the difference between north and south in terms of precipitation continued to grow. In general, it was warmest in the urban/suburban areas during the day, warmer along the coast at night and wetter in the north.

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 these weeks are from Atlantic, Bergen, Burlington, Camden, Essex, Hudson, Hunterdon, Monmouth, Morris, Ocean, Salem, Somerset and Warren counties. Last week included Atlantic, Bergen, Camden, Cape May, Hudson, Hunterdon, Monmouth, Morris, Ocean, Salem, Somerset, Union and Warren counties. Note: County data is sent in at a variety of times during the week.

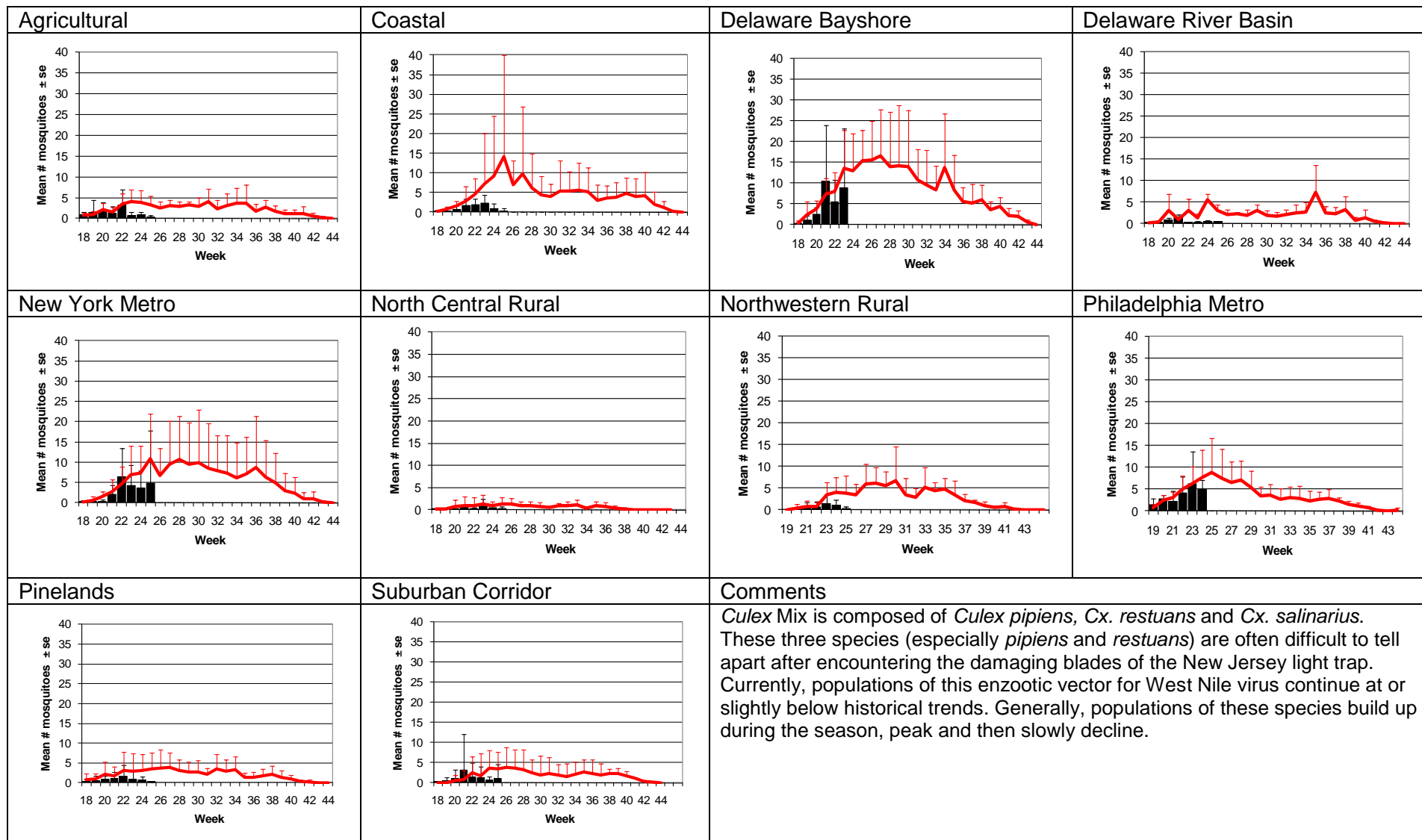
Weekly Means Against 5-year Average



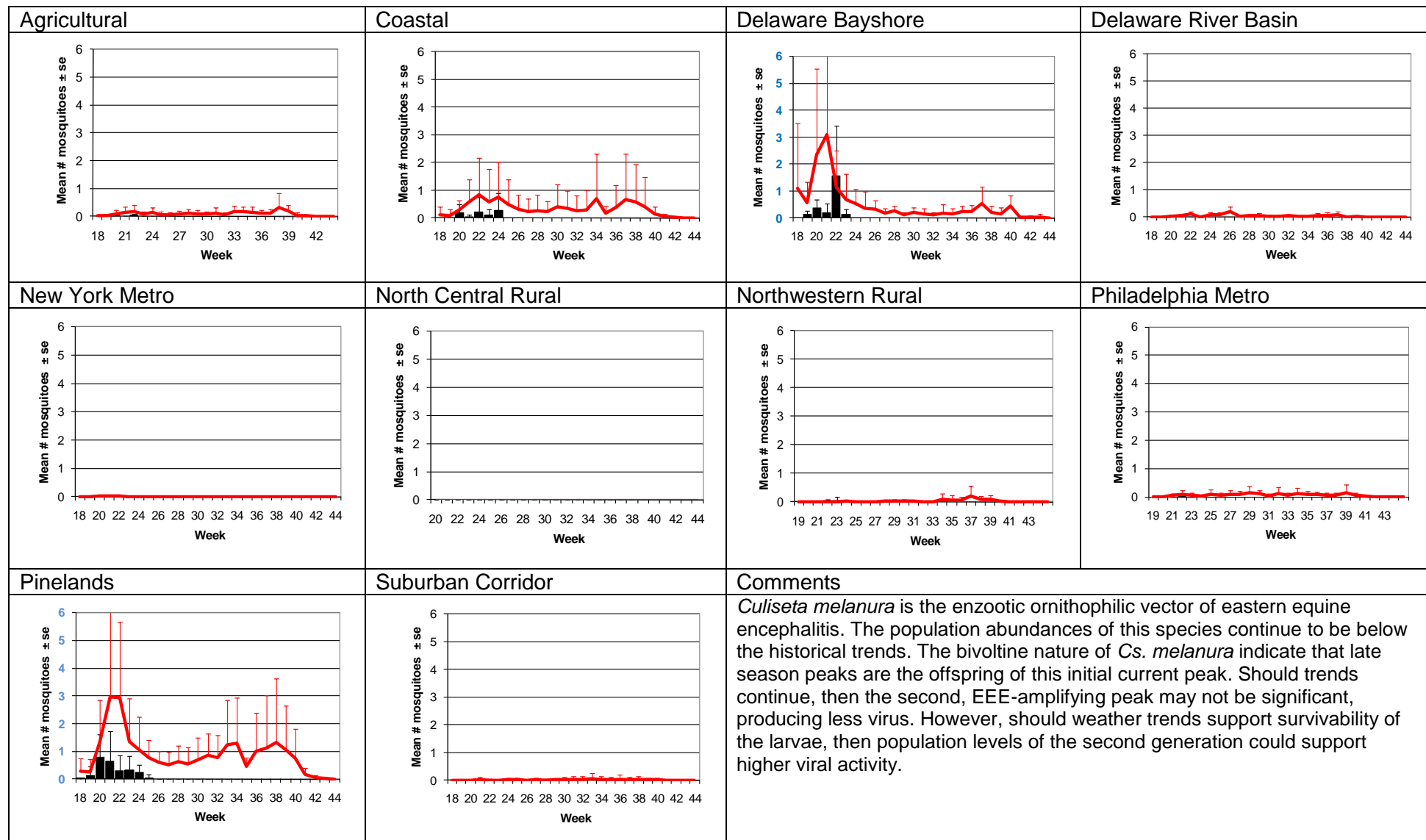
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)



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



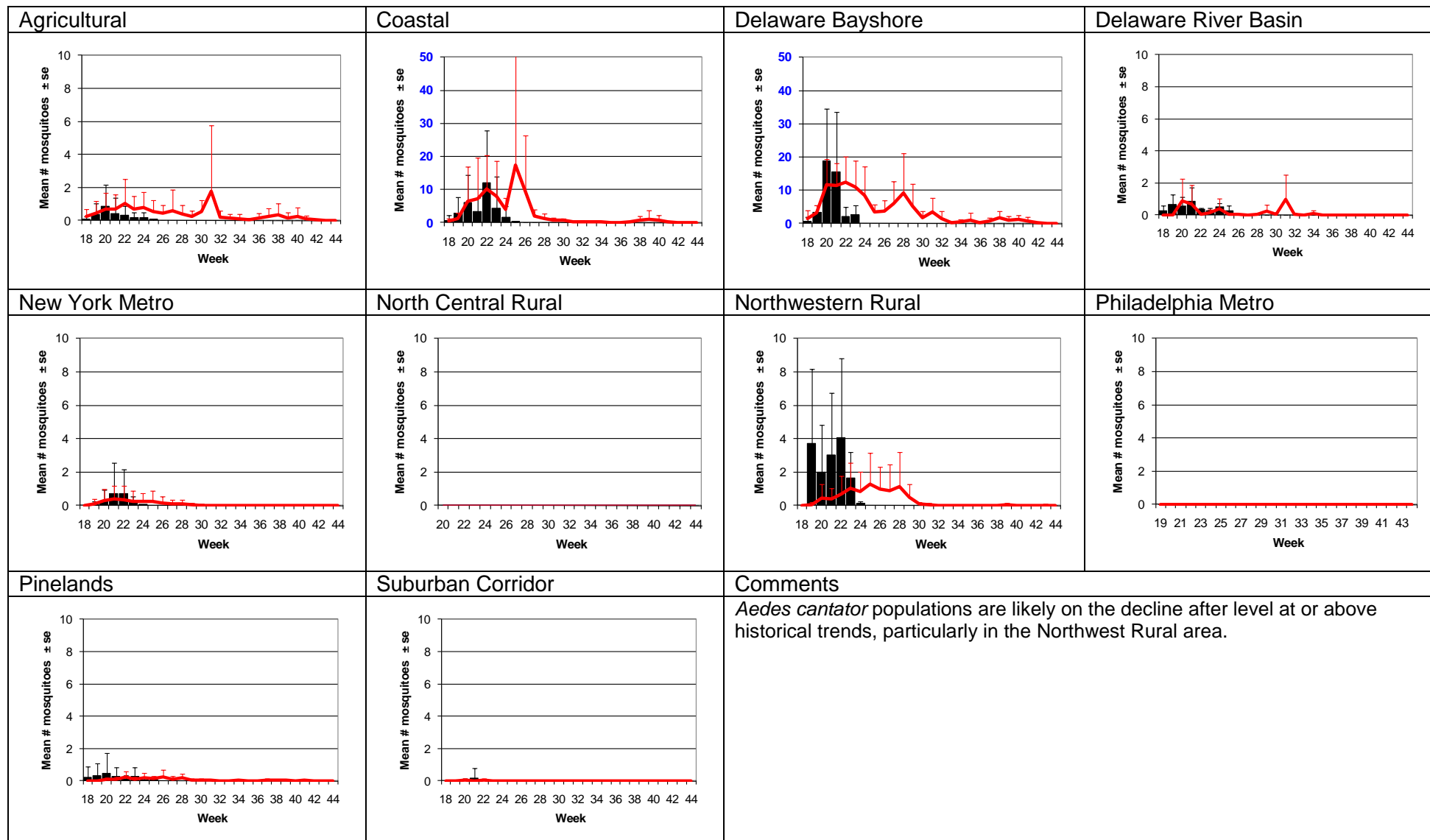
Culiseta melanura – Miscellaneous Group Unique (*Cs. melanura* Type)



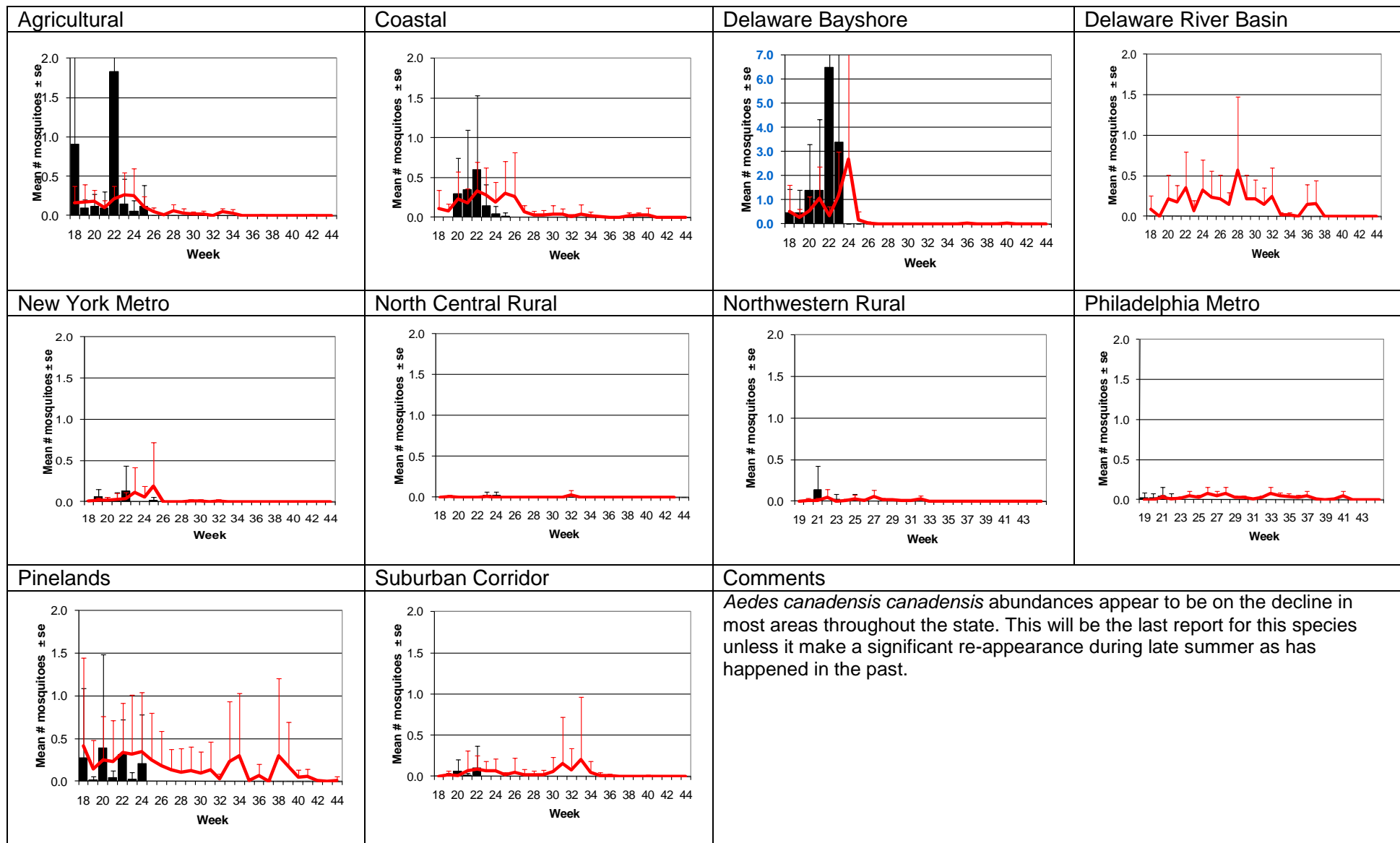
Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)

<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> first emergence appears to be over. There has been a lunar tidal event, which should have flooded higher marsh areas with suitable larval habitat. This should produce the next emergence in this upcoming week.</p> <p>Next Full Moon: 15 July.</p>	

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



Aedes canadensis canadensis – Spring Species Univoltine Aedine (*Ae. canadensis* Type)

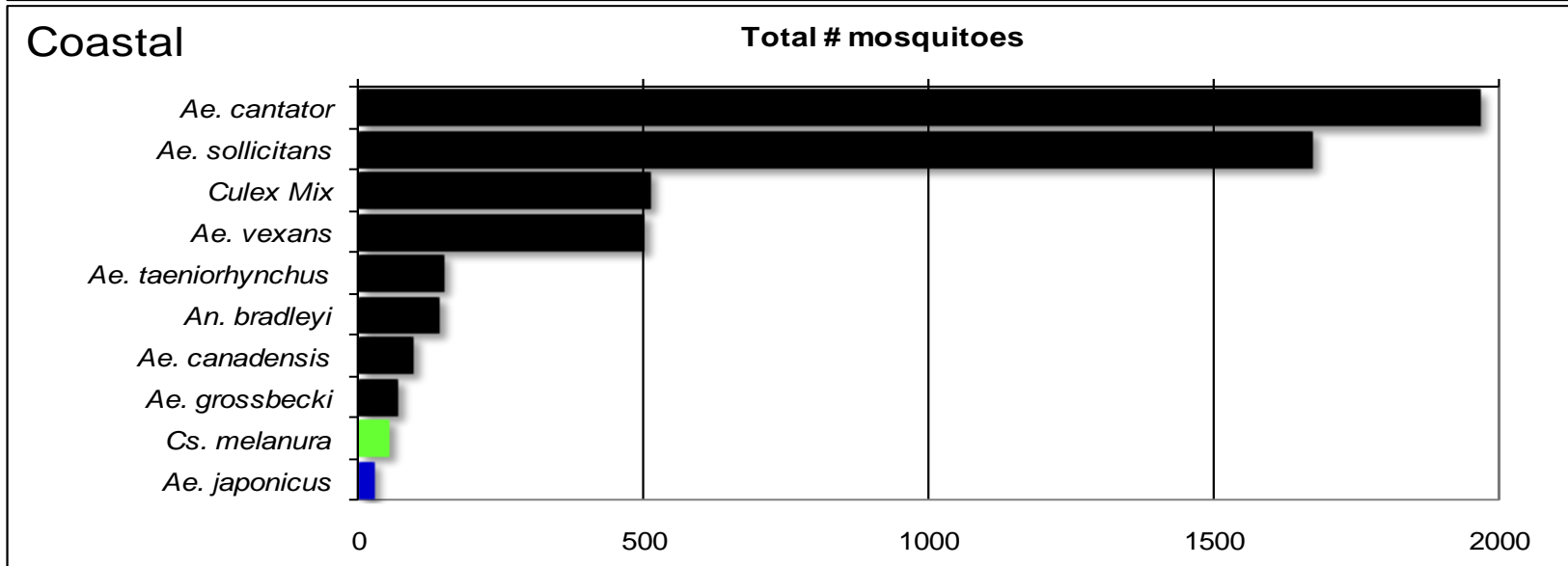
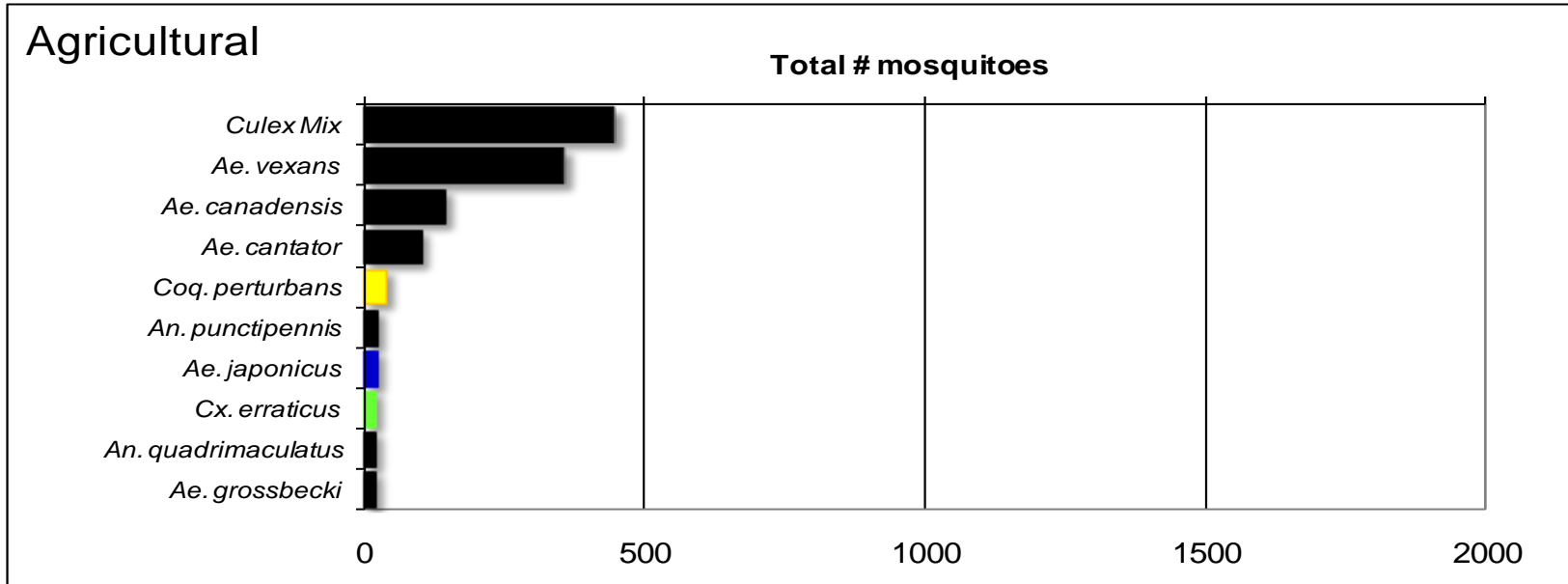


WNV

EEE

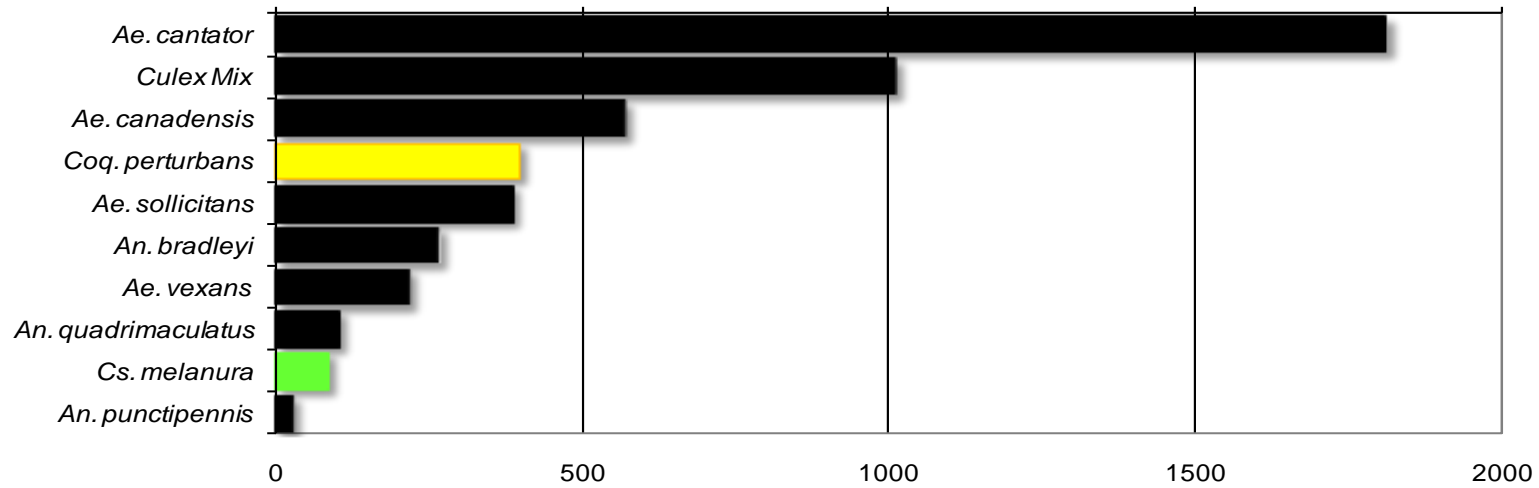
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

Note: In early season when fewer species are caught, graphs may show less than ten species listed.



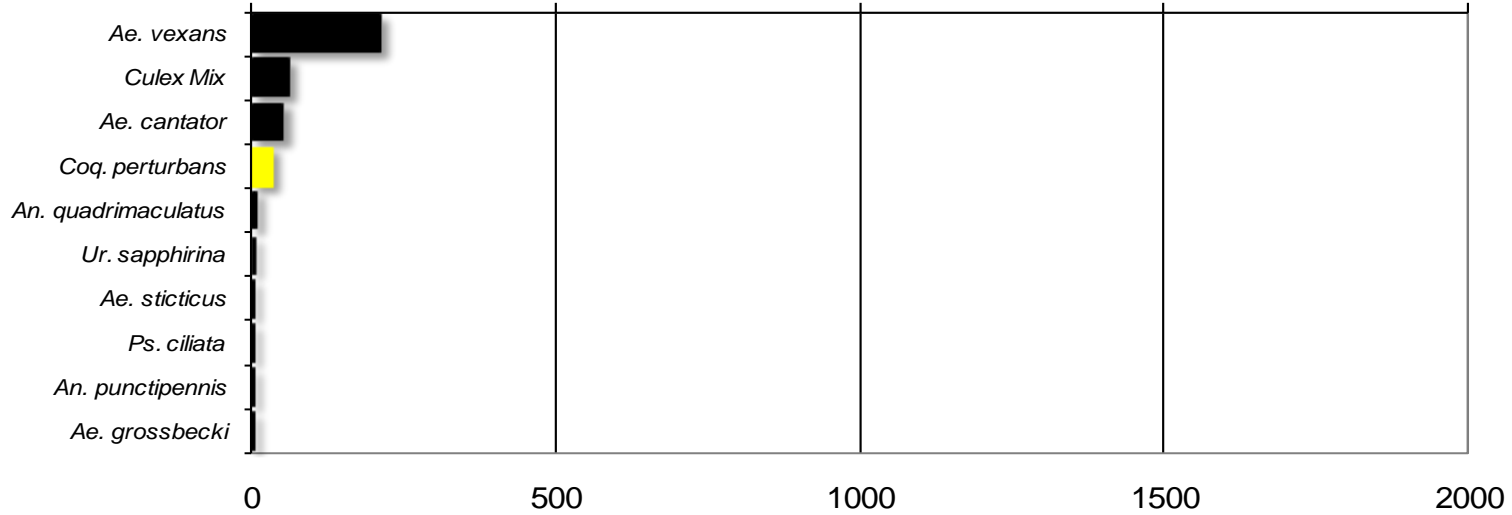
Delaware Bayshore

Total # mosquitoes



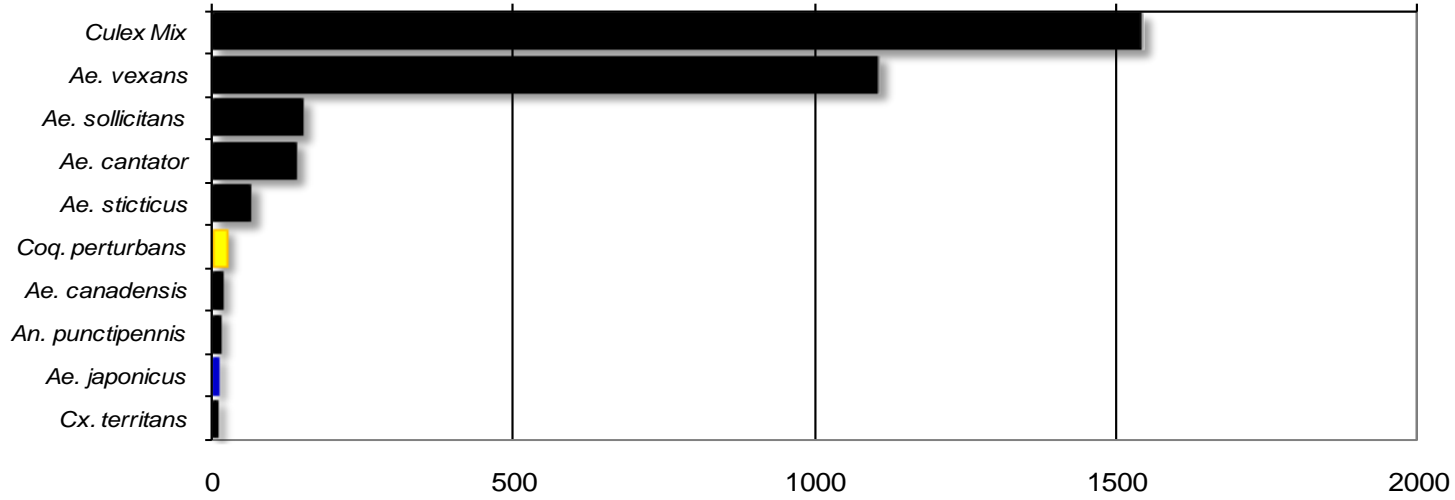
Delaware River Basin

Total # mosquitoes



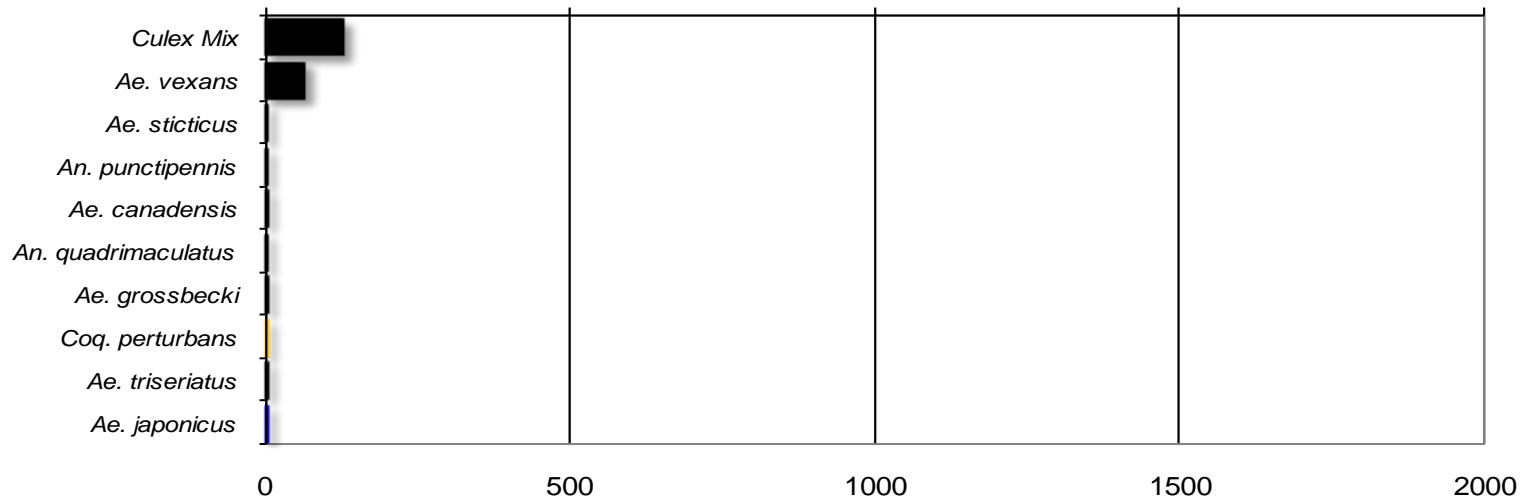
New York Metropolitan

Total # mosquitoes



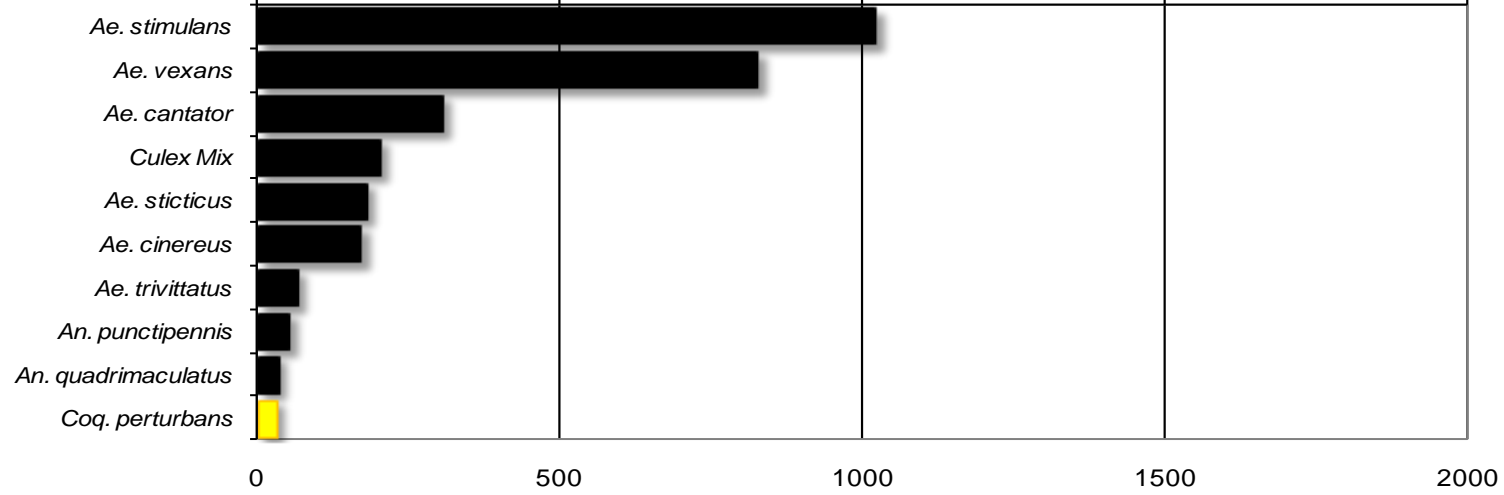
North Central Rural

Total # mosquitoes



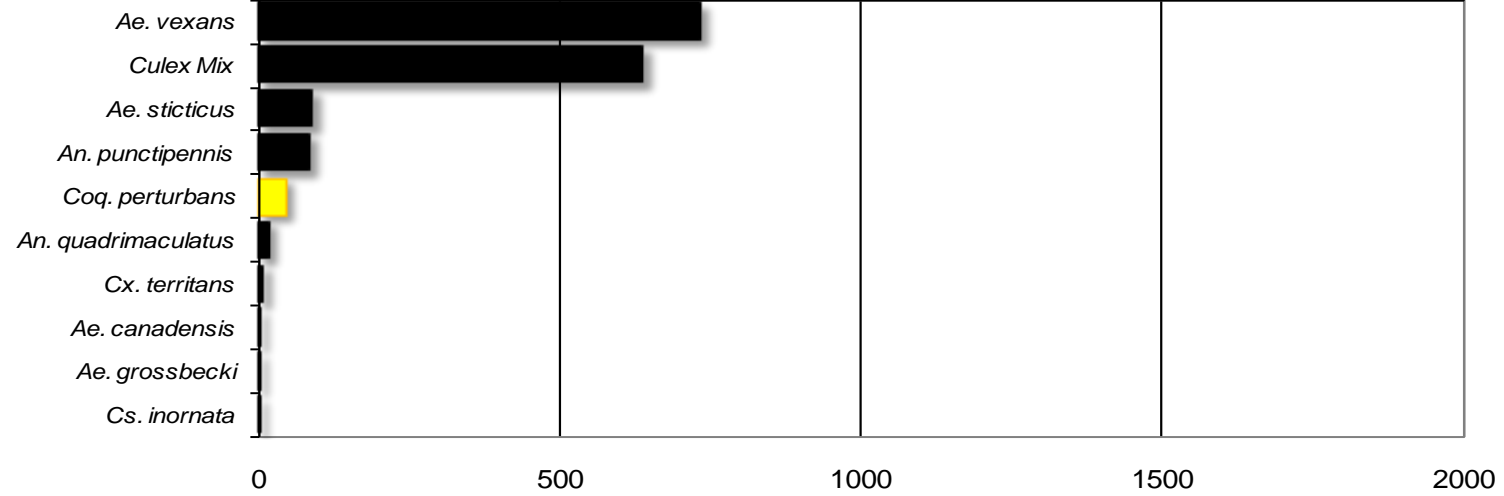
Northwest Rural

Total # mosquitoes



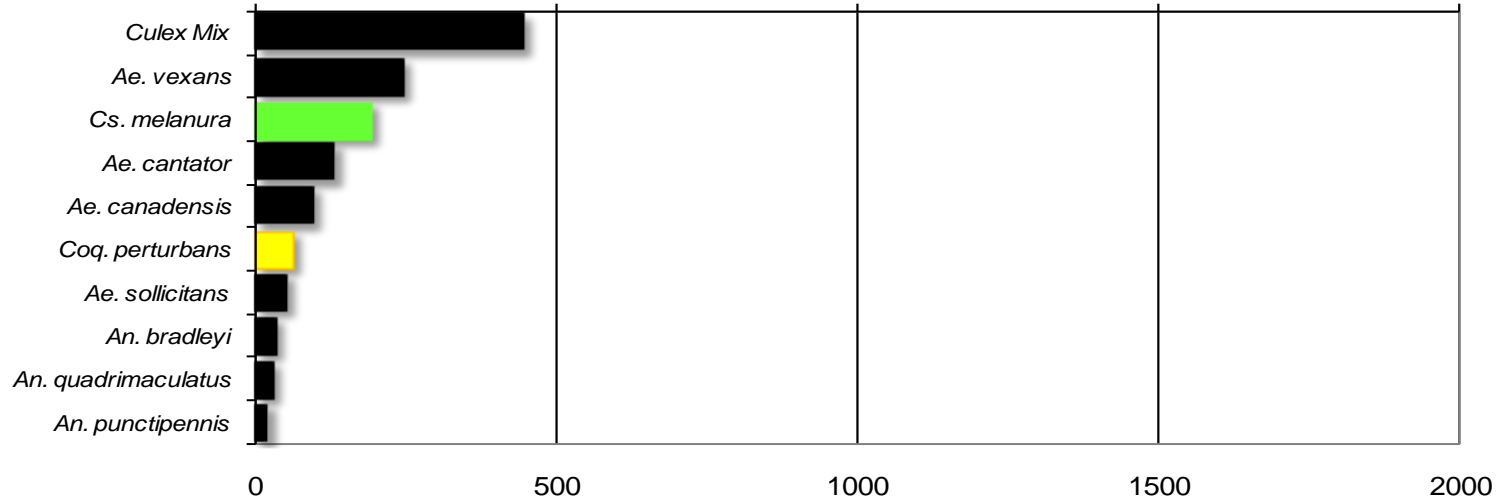
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

