

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 1 May to 28 May 2016, beginning to CDC Week 21

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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.

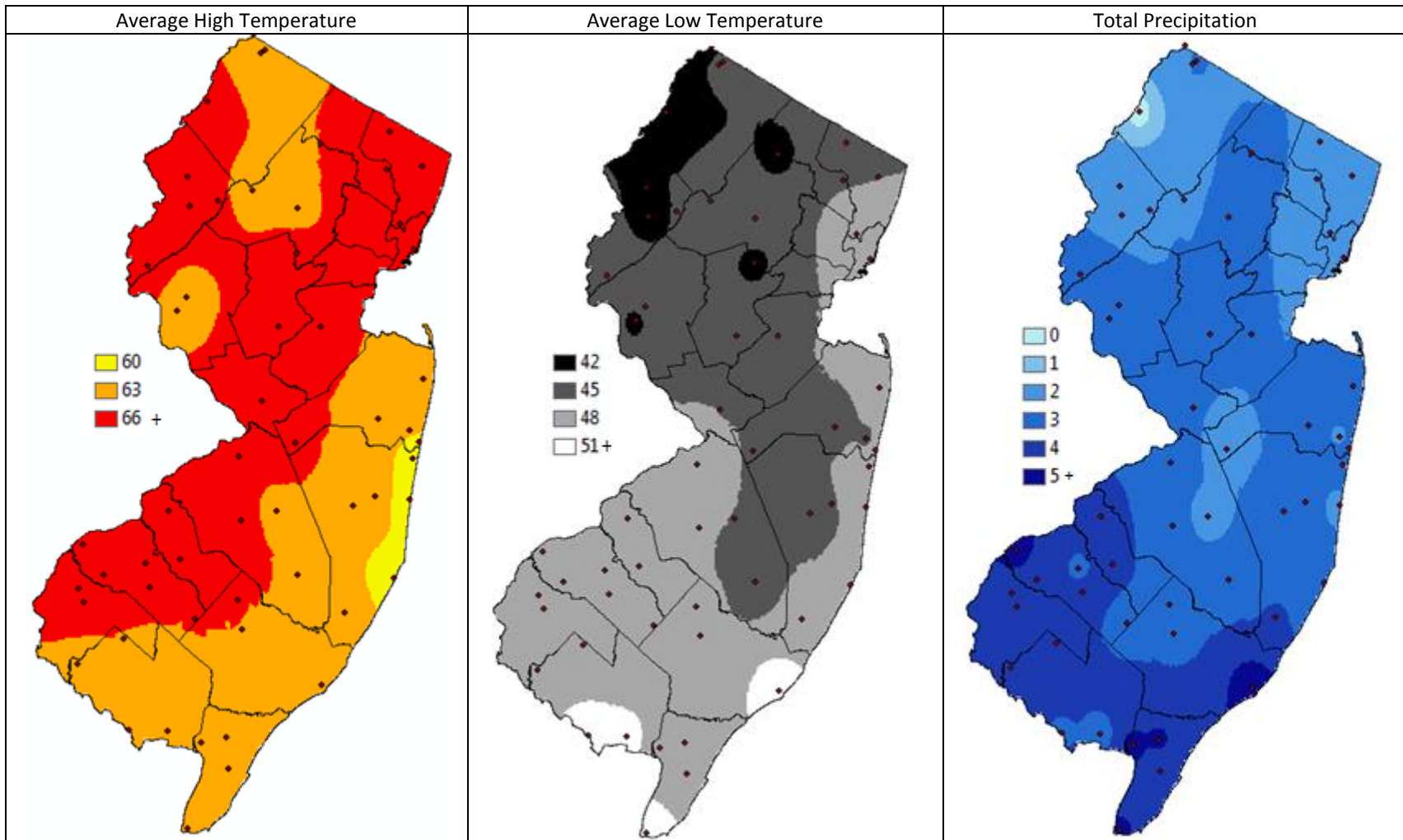
**Summary Table – Week 21**

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	0.00	2.92	0	0.17	2.37	0	0.00	0.06	0	0.00	0.03	0
Coastal	0.00	0.66	0	0.14	1.67	0	0.00	0.01	0	0.21	1.16	0
Delaware Bayshore	0.00	3.70	0	0.00	8.05	0	0.00	1.71	0	0.00	1.95	0
Delaware River Basin	0.00	0.94	0	0.00	1.60	0	0.00	0.03	0	0.00	0.00	0
New York Metro	0.00	1.40	0	0.51	1.35	0	0.00	0.01	0	0.00	0.09	0
North Central Rural	0.00	0.10	0	0.20	0.35	0	0.00	0.00	0	0.00	0.00	0
Northwest Rural	nd	1.41	0	nd	1.15	0	nd	0.00	0	nd	0.00	0
Philadelphia Metro	0.00	2.17	0	0.00	1.74	0	0.00	0.06	0	0.00	0.00	0
Pinelands	0.00	0.45	0	0.00	1.32	0	0.00	0.06	0	0.00	0.09	0
Suburban Corridor	0.01	1.39	0	0.05	1.57	0	0.00	0.08	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. nd=no data reported.

**State Summary:** This is the first report for the 2016 season – some northern counties are yet to submit. Reports by counties suggest that this season began a bit earlier, perhaps by two weeks. An abnormally warm March was followed by a dry April. Recent temperatures have been elevated, with more mosquitoes on the wing.

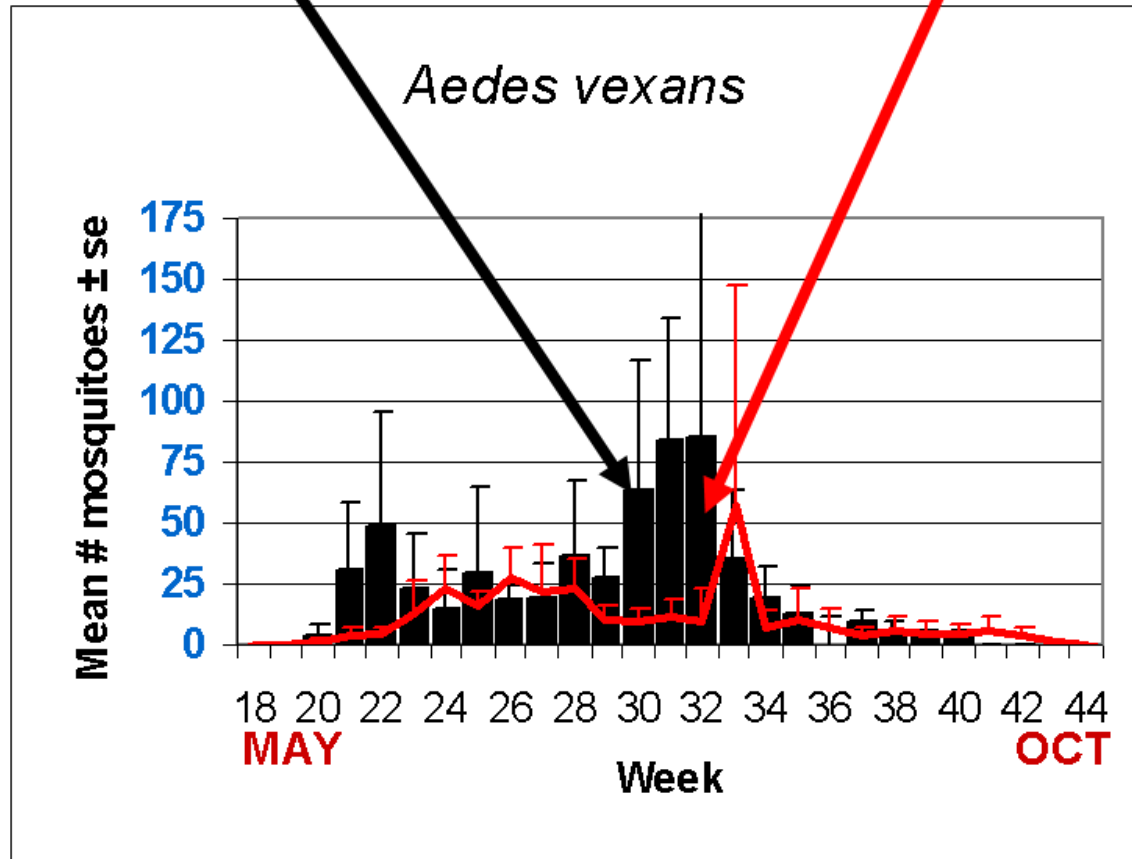
## Climate Factors



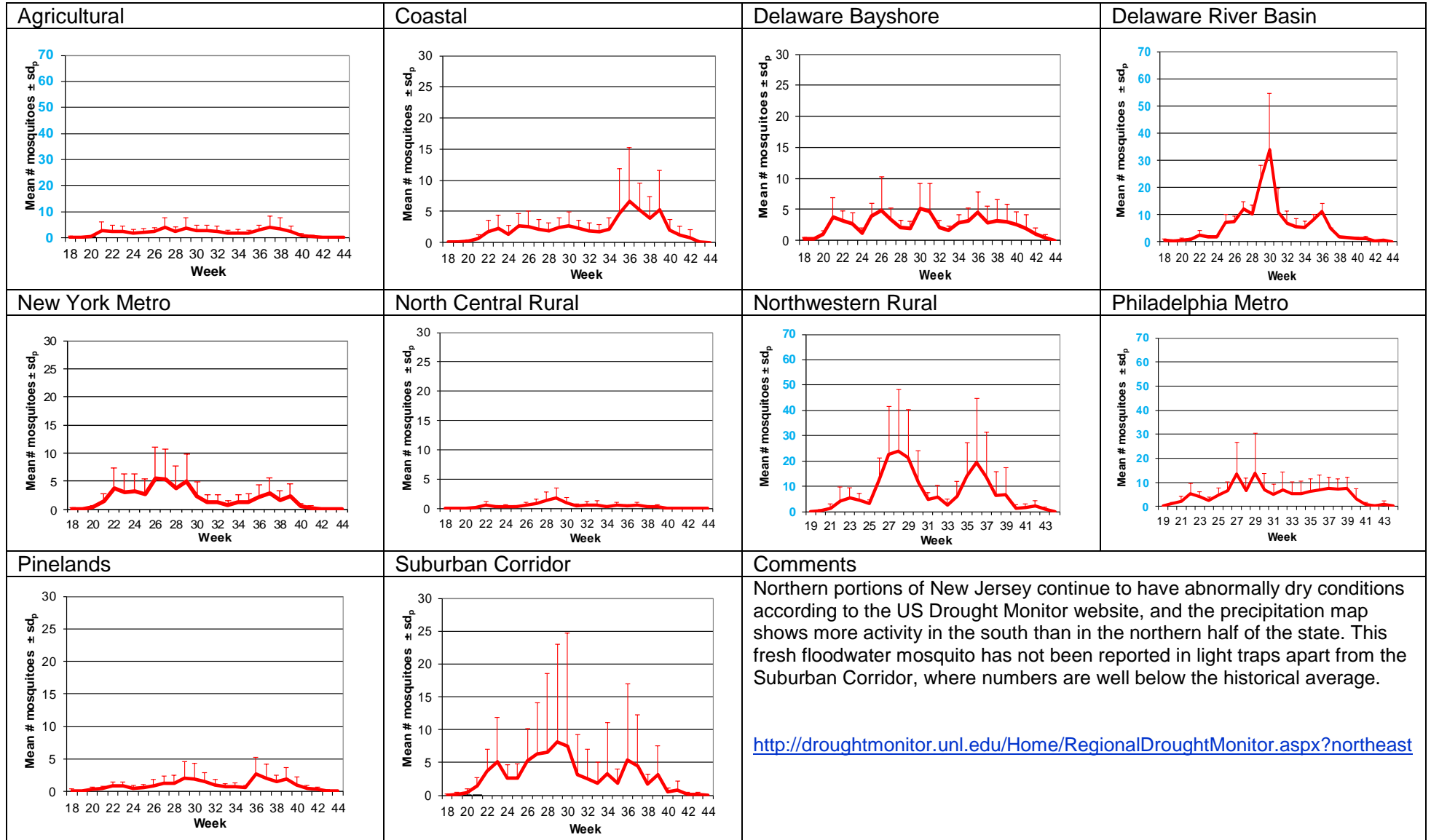
The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 27 May 2016 in New Jersey. Data points are from about 58 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. 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, Middlesex, Monmouth and Salem counties. Data for the previous week are from Atlantic, Burlington, Cape May, Mercer, Middlesex, Monmouth, and Salem counties. Several of the northern counties have already ended their surveillance programs.

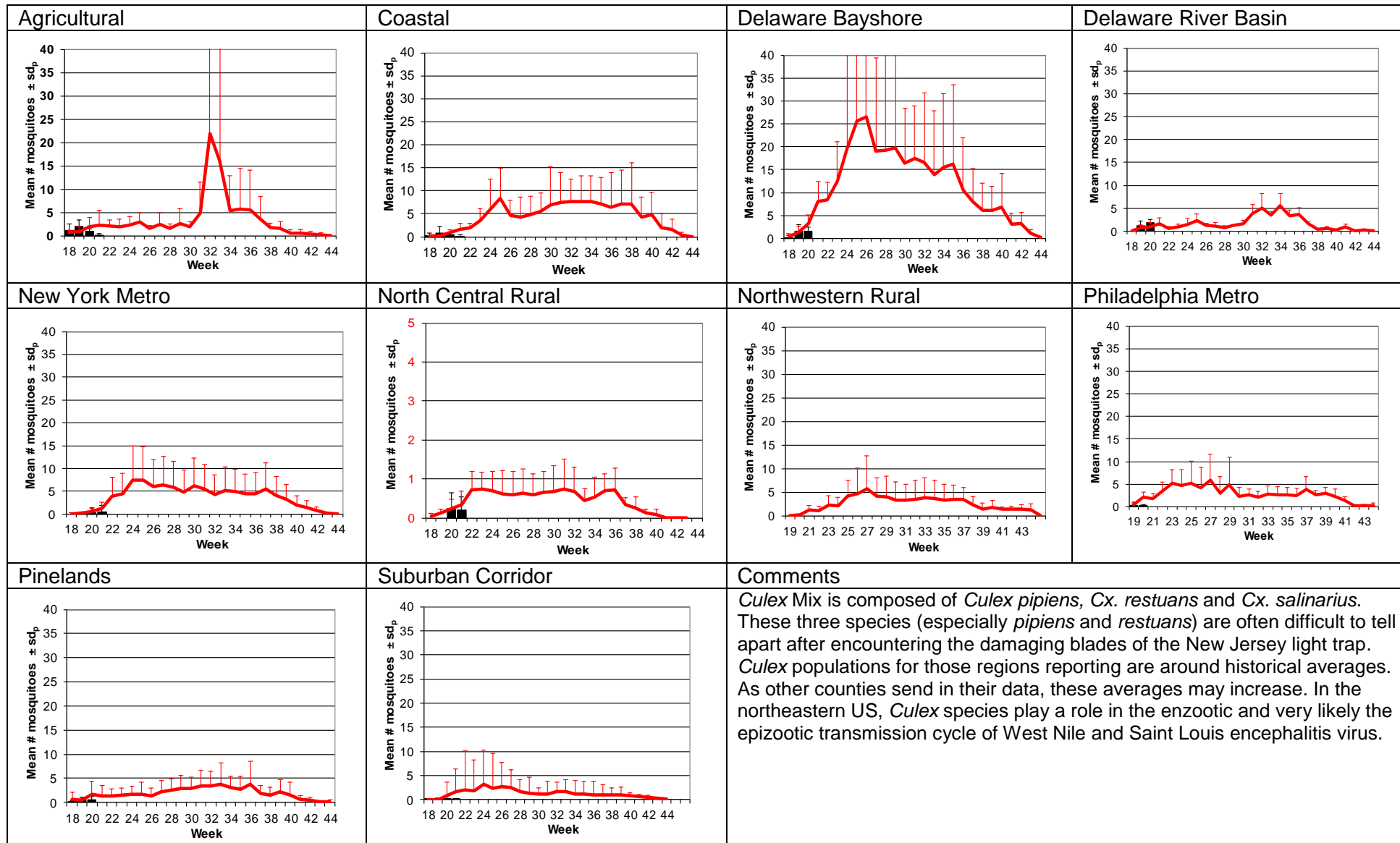
## Weekly Means Against 5-year Average



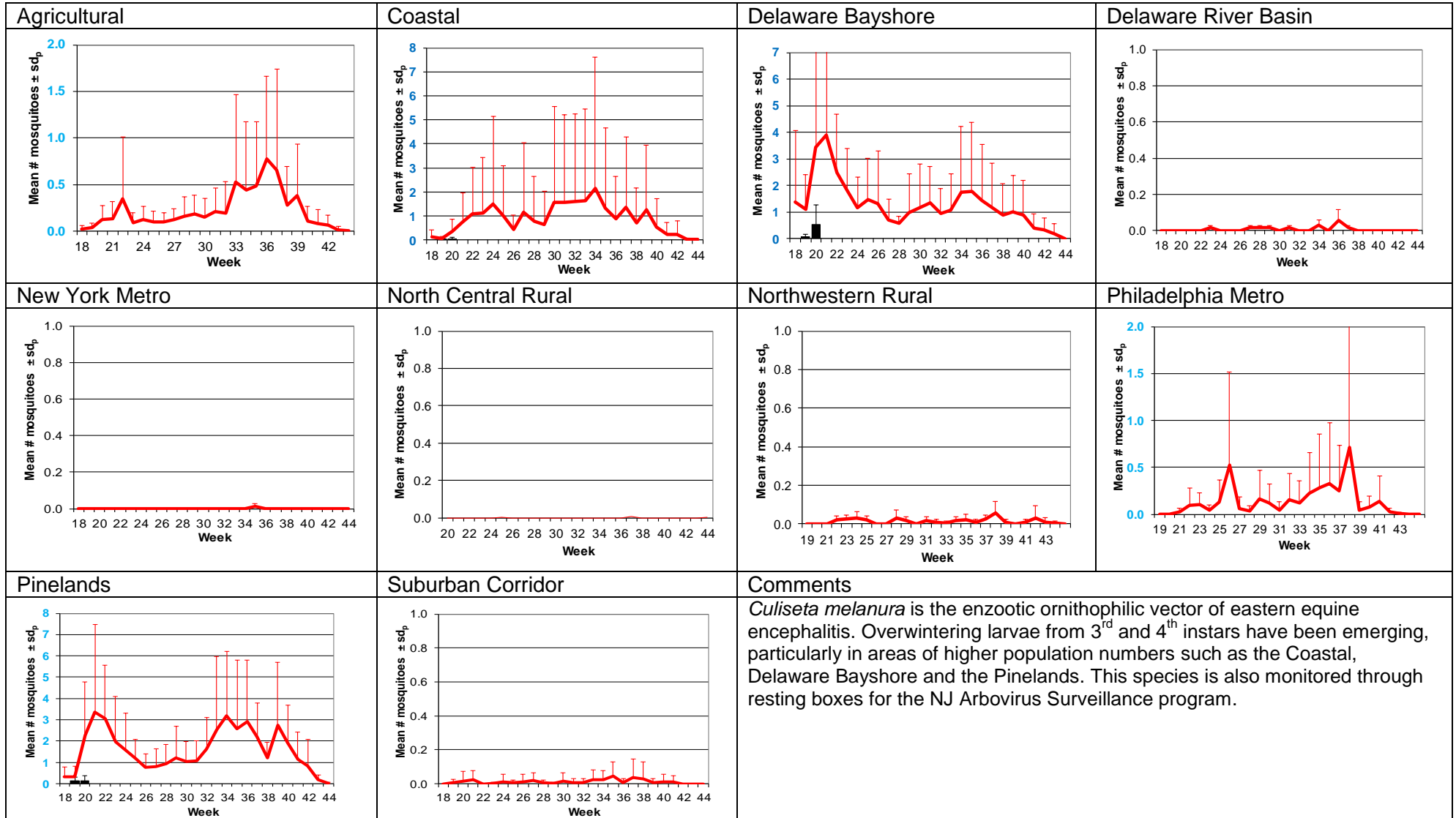
# Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)



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



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

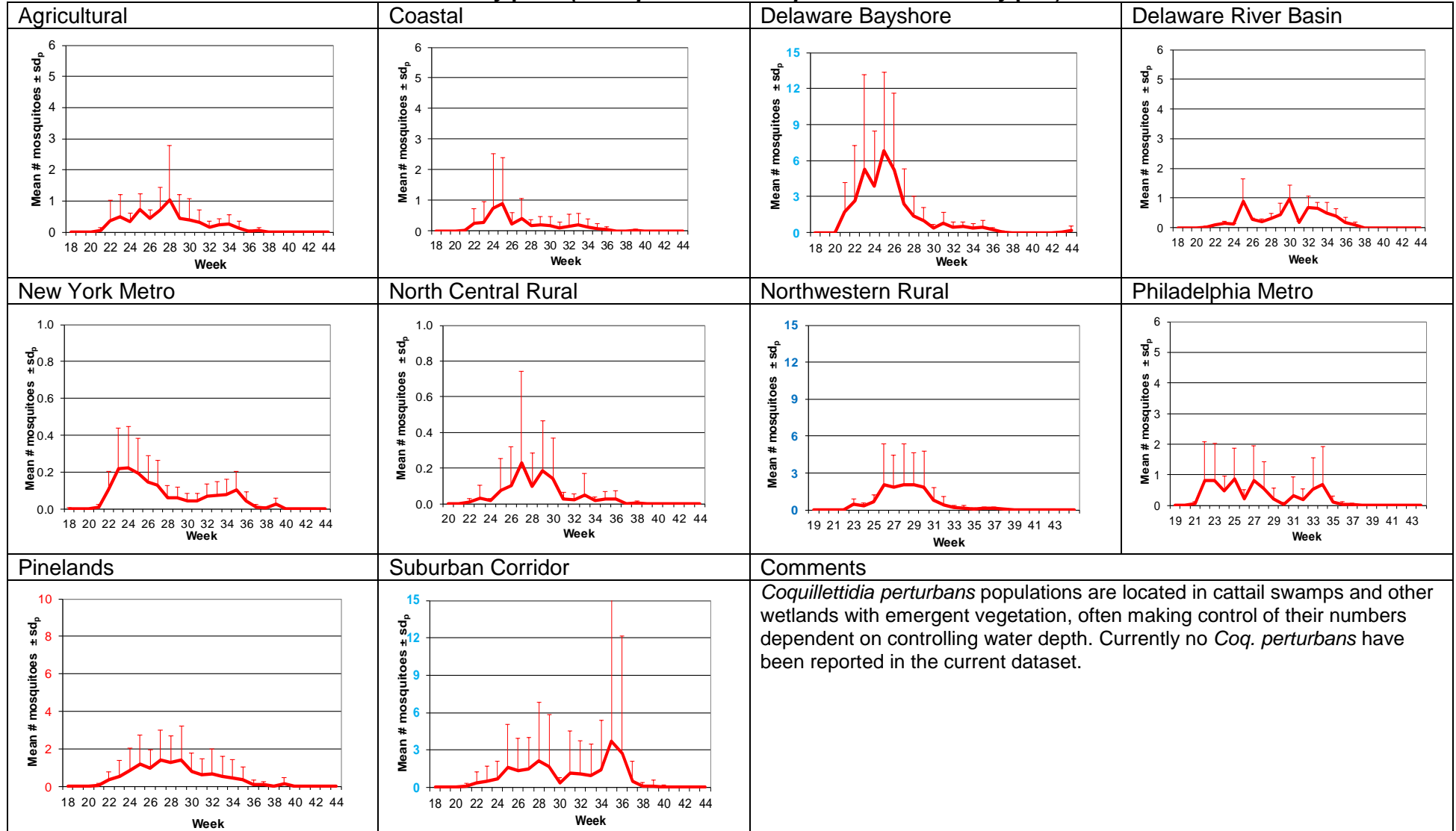


# Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (Ae. sollicitans Type)

<p><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. This species has recently shown lower than expected numbers for a few years, but may be on the rebound. Currently, very low numbers have been reported in the Coastal region only.</p> <p>The next full moon is 20 June.</p>	

# Coquillettidia perturbans

## Monotypic (*Coquillettidia perturbans* Type)



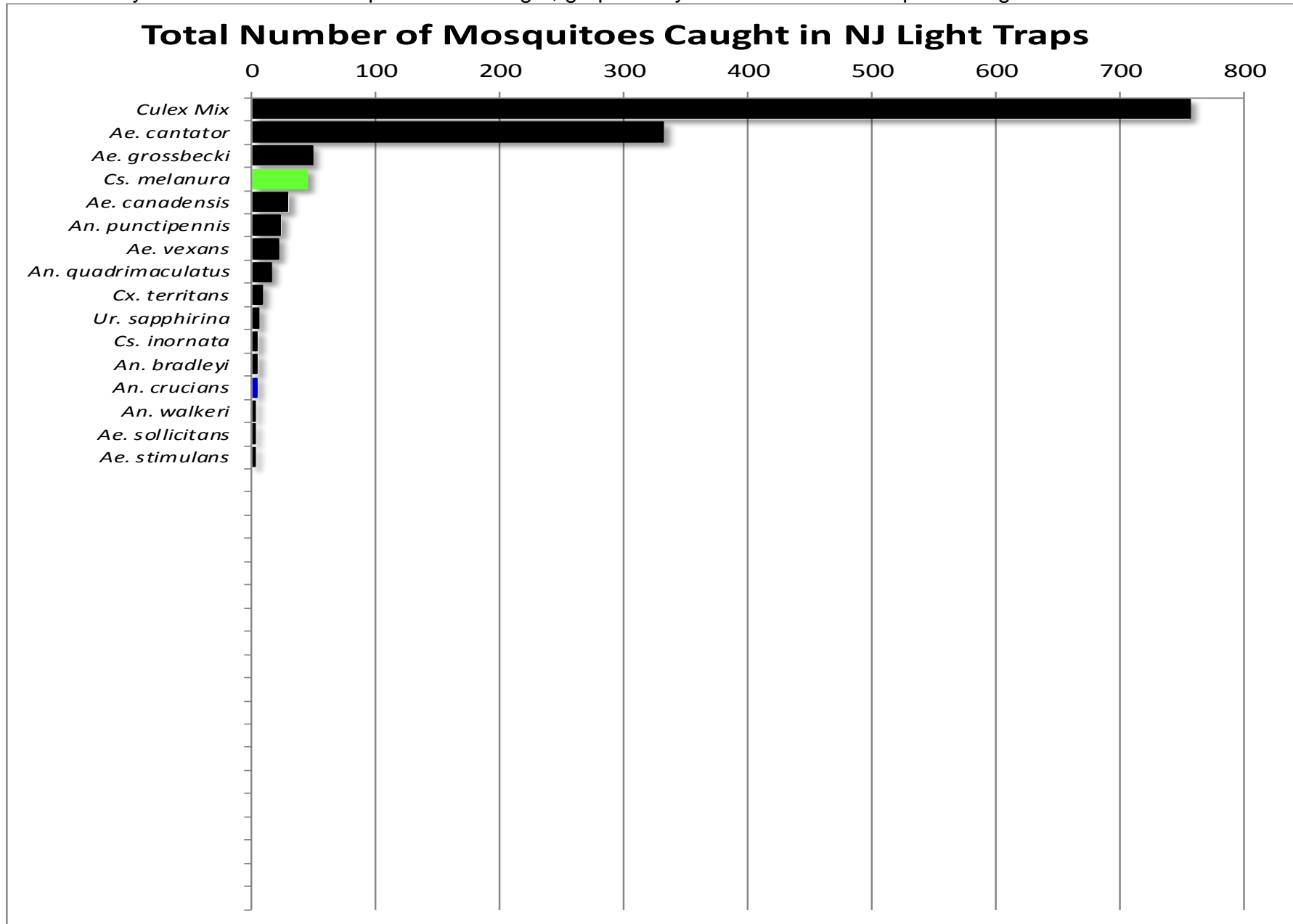


WNV

EEE

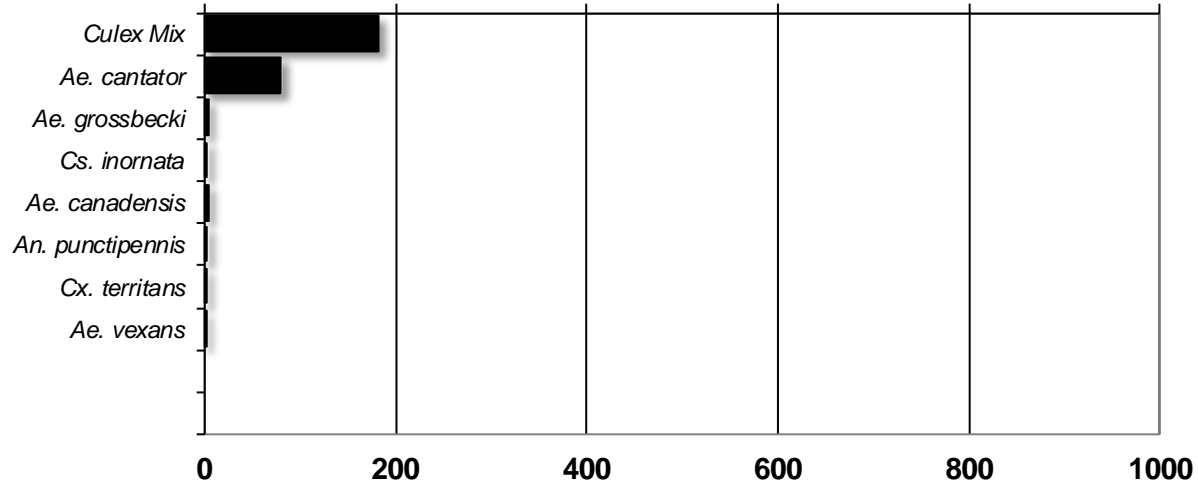
**Top Ten Mosquito Species/Region** - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



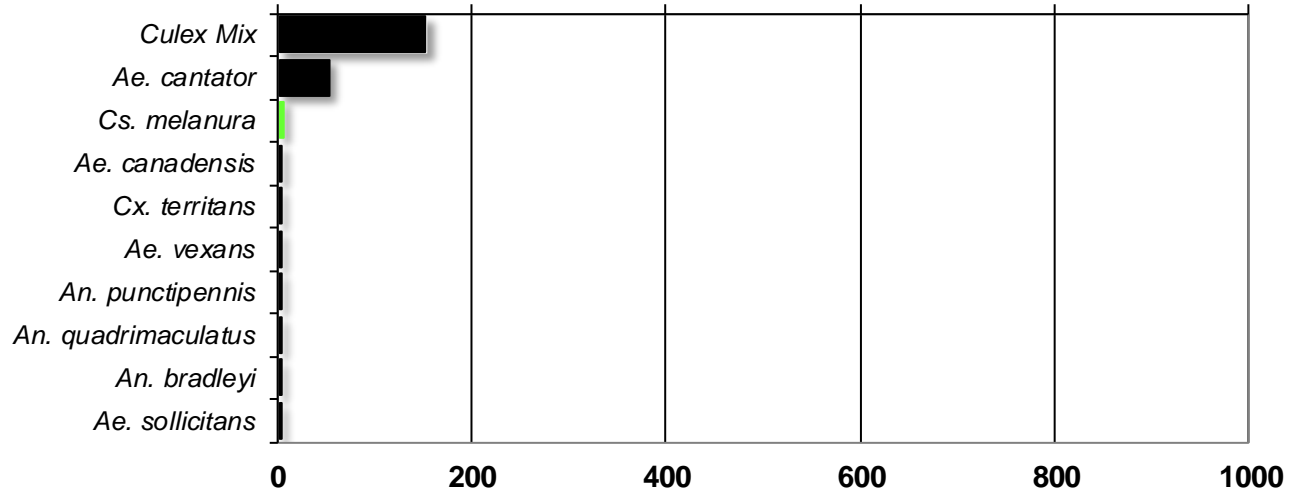
## Agricultural

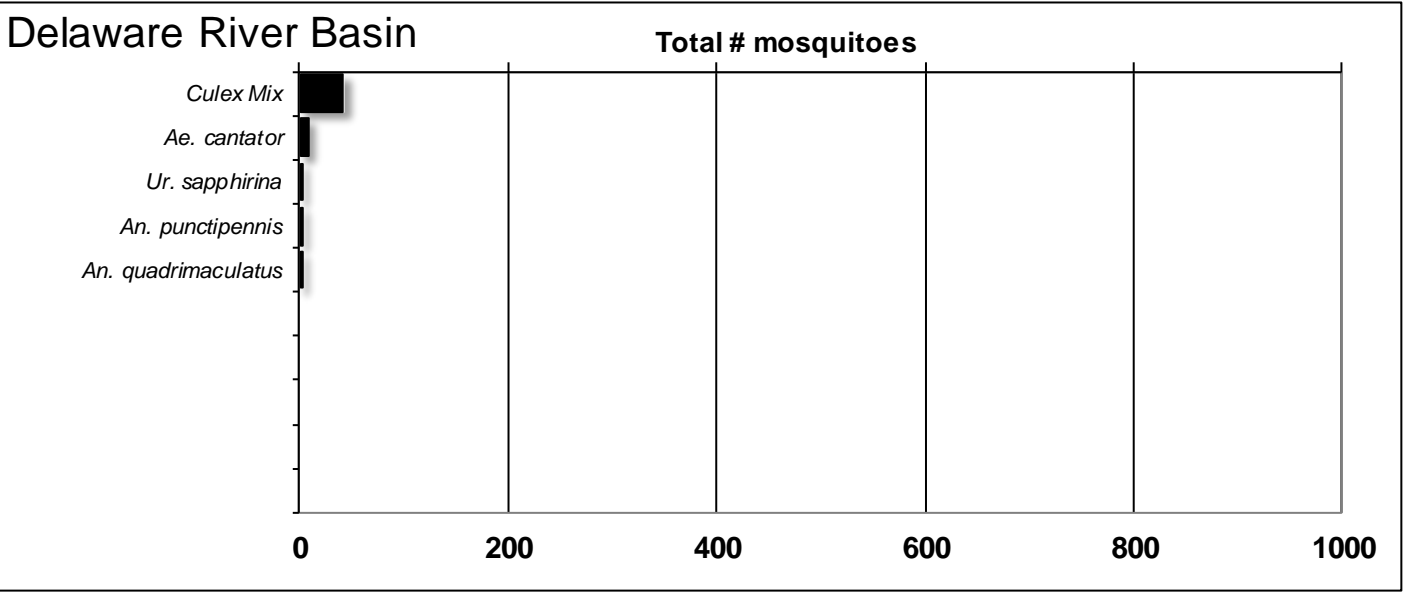
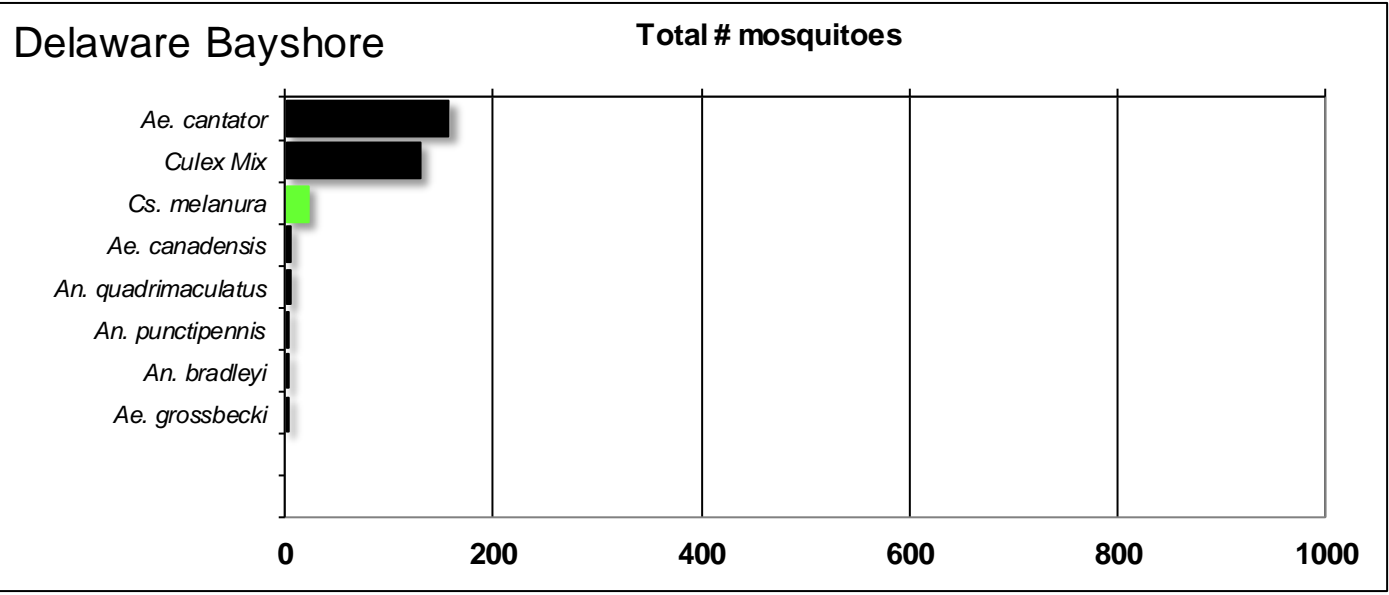
Total # mosquitoes

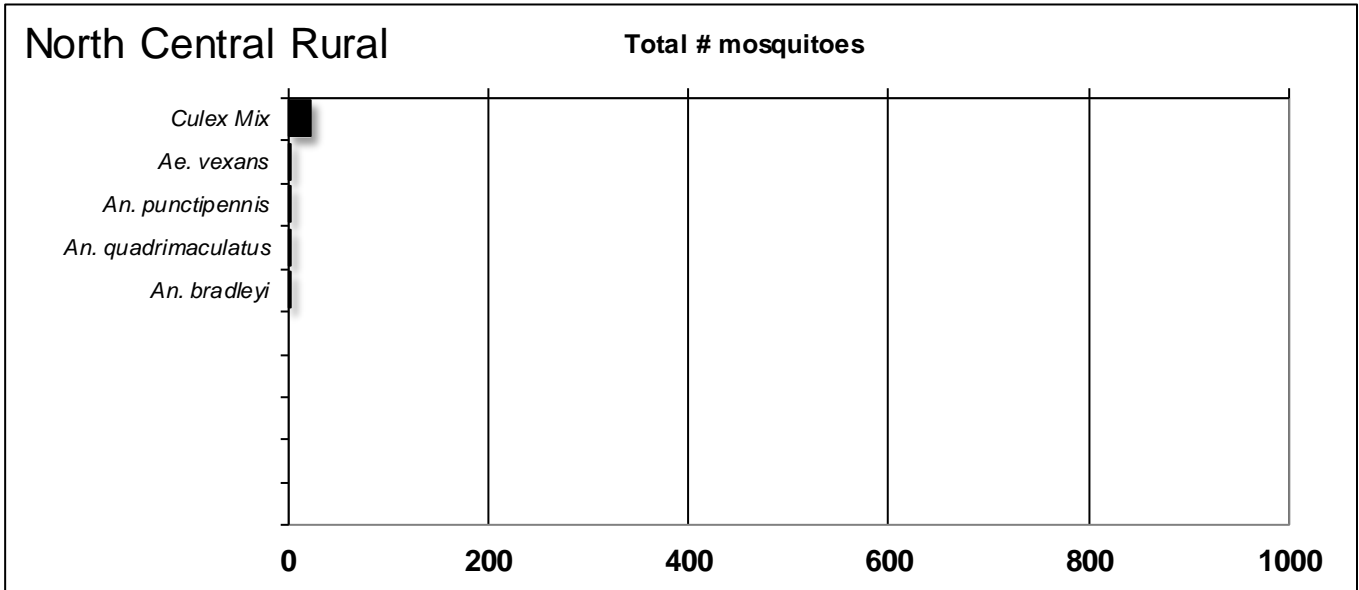
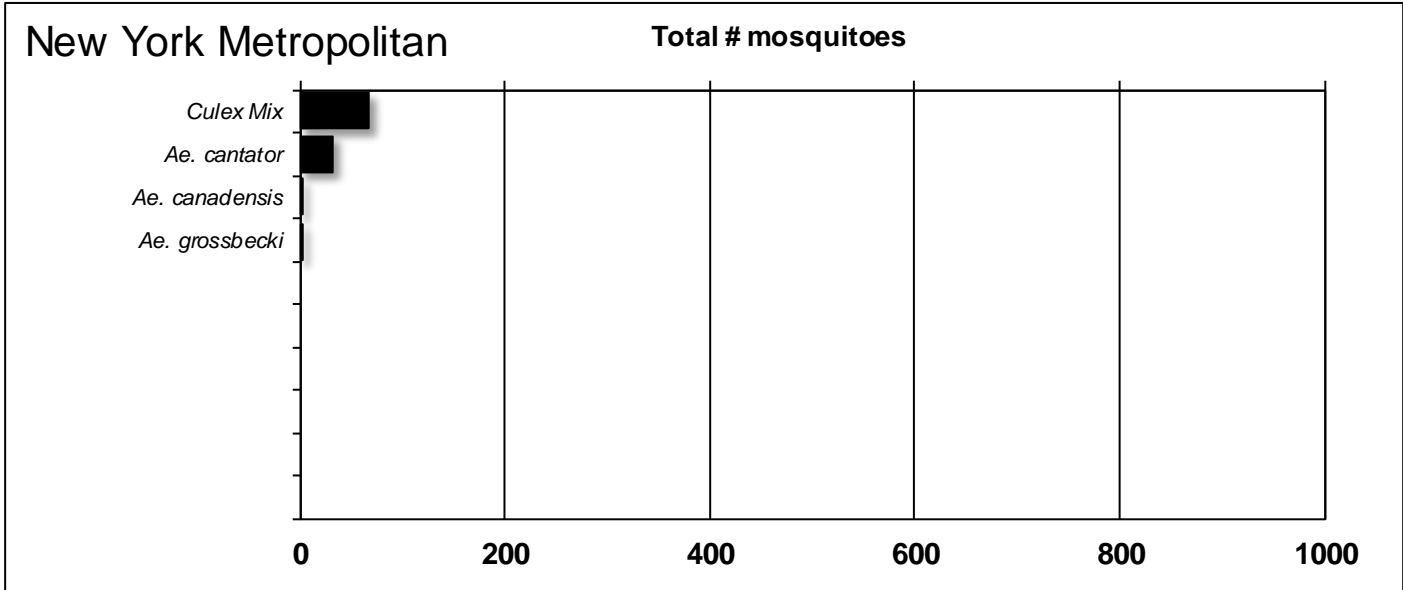


## Coastal

Total # mosquitoes

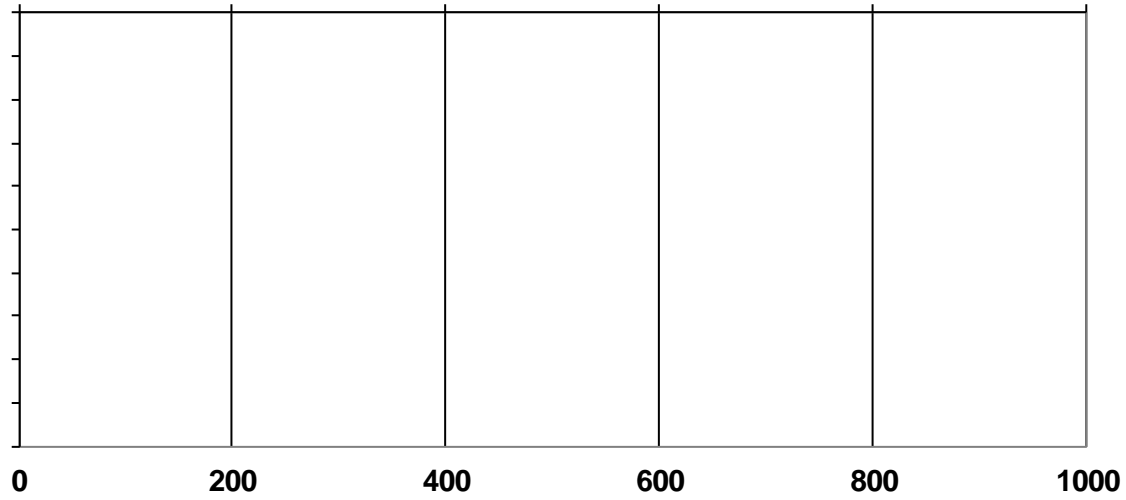






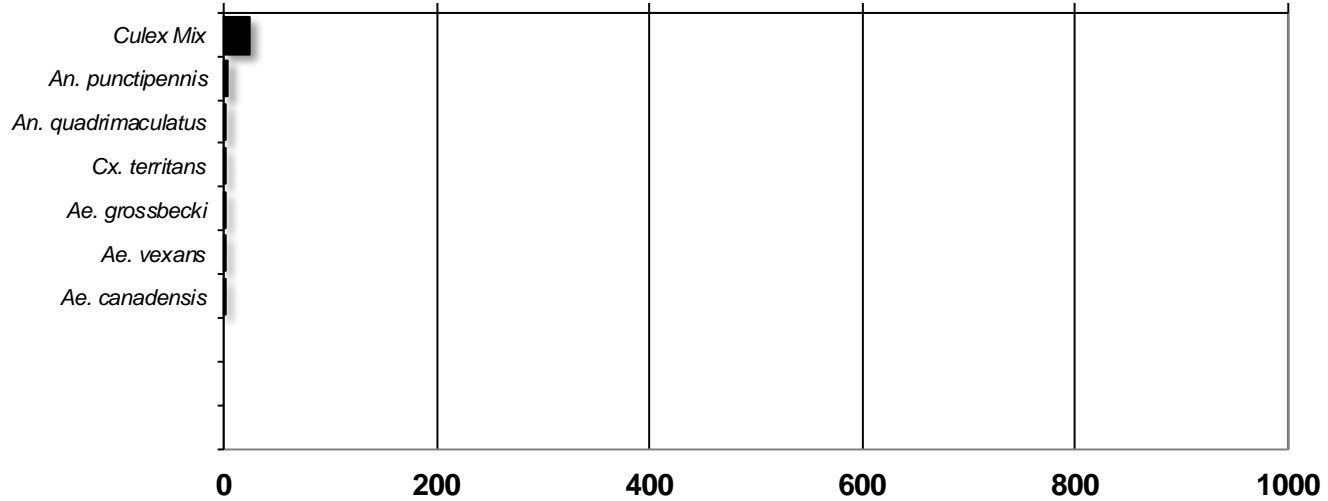
## Northwest Rural

Total # mosquitoes



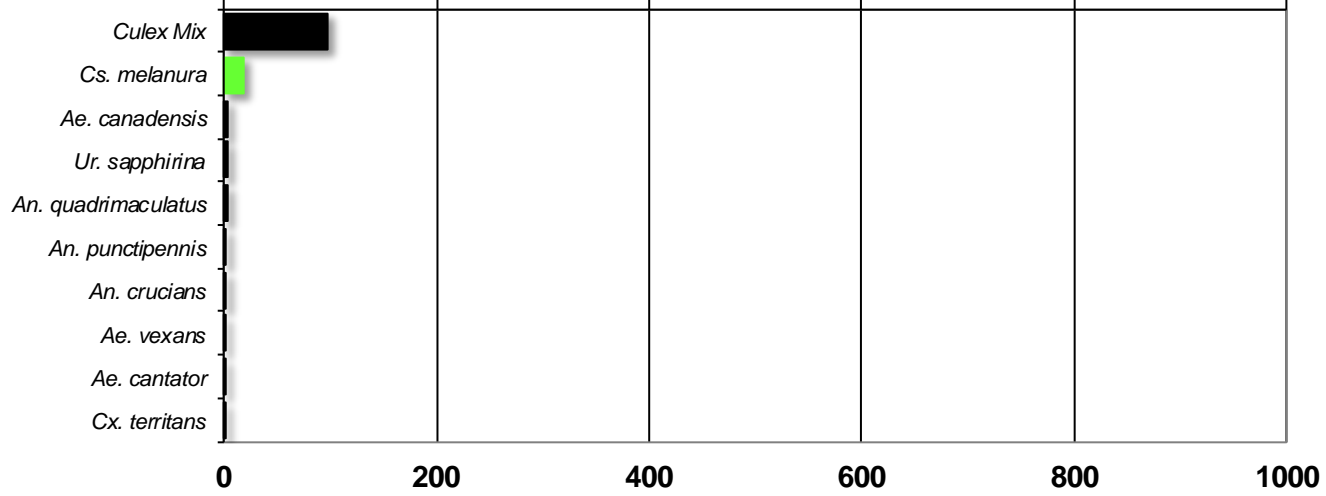
## Philadelphia Metropolitan

Total # mosquitoes



# Pinelands

Total # mosquitoes



# Suburban Corridor

Total # mosquitoes

