

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

8 July to 14 July 2018, CDC Week 28

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Center for Vector Biology



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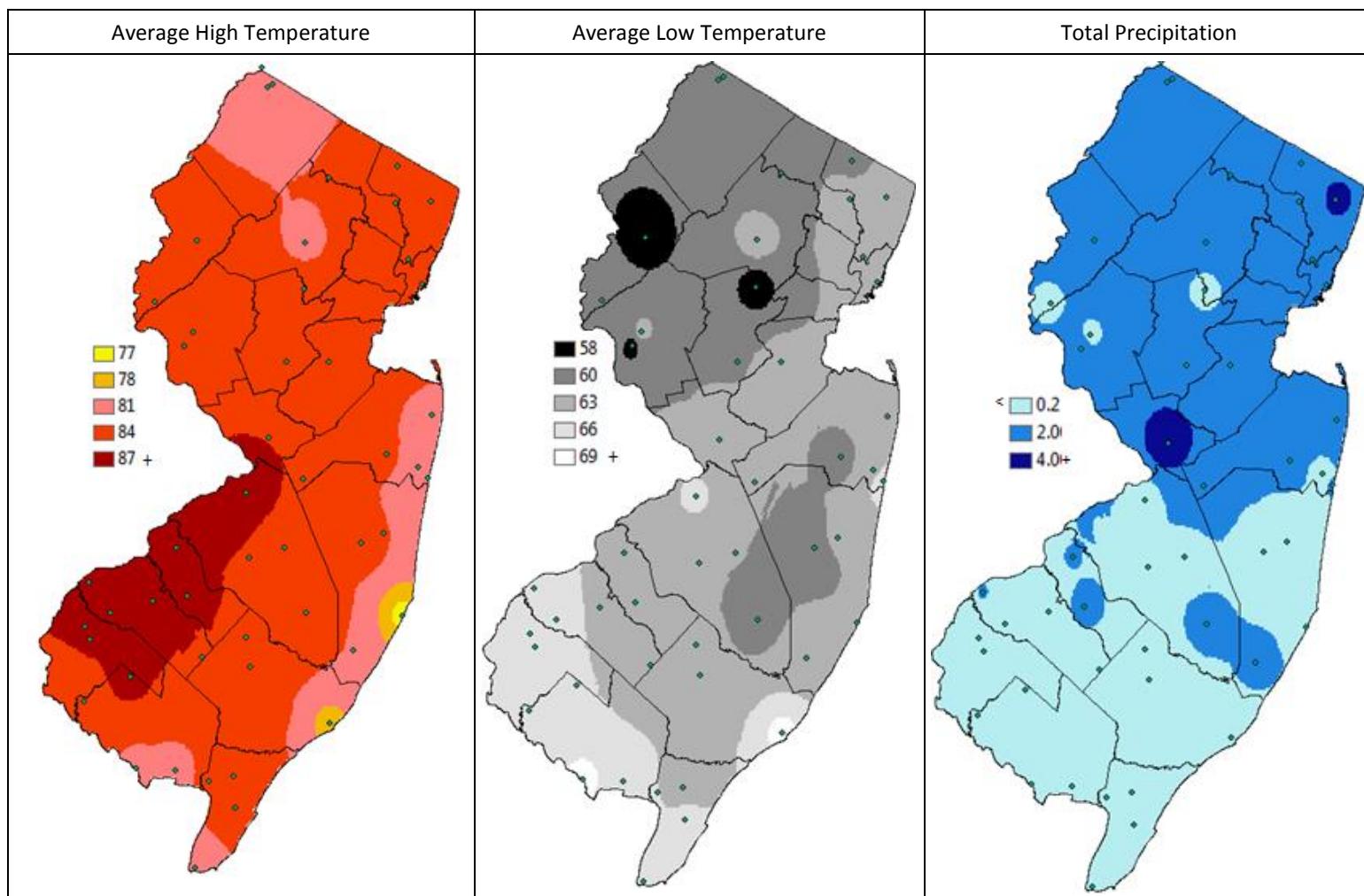
## Summary Table – Week 28

Region	Aedes vexans			Culex Mix			Coquillettidia perturbans			Aedes sollicitans		
	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase	This Week	Average*	Increase
Agricultural	<b>0.40</b>	<b>2.10</b>	0	<b>2.26</b>	<b>1.14</b>	2	<b>0.17</b>	<b>0.86</b>	0	<b>0.00</b>	<b>0.08</b>	0
Coastal	<b>0.35</b>	<b>1.23</b>	0	<b>1.79</b>	<b>4.10</b>	0	<b>0.03</b>	<b>0.12</b>	0	<b>1.57</b>	<b>3.53</b>	0
Delaware Bayshore	<b>0.00</b>	<b>1.39</b>	0	<b>0.00</b>	<b>9.72</b>	0	<b>0.00</b>	<b>0.86</b>	0	<b>0.00</b>	<b>0.67</b>	0
Delaware River Basin	<b>1.79</b>	<b>9.16</b>	0	<b>5.36</b>	<b>0.60</b>	4	<b>3.00</b>	<b>0.21</b>	4	<b>0.07</b>	<b>0.04</b>	2
New York Metro	<b>0.91</b>	<b>3.14</b>	0	<b>6.49</b>	<b>2.76</b>	3	<b>0.04</b>	<b>0.04</b>	0	<b>0.01</b>	<b>0.61</b>	0
North Central Rural	<b>0.02</b>	<b>1.27</b>	0	<b>0.05</b>	<b>0.42</b>	0	<b>0.57</b>	<b>0.09</b>	4	<b>0.00</b>	<b>0.00</b>	0
Northwest Rural	<b>2.37</b>	<b>17.88</b>	0	<b>1.71</b>	<b>2.40</b>	0	<b>5.98</b>	<b>1.35</b>	4	<b>0.00</b>	<b>0.00</b>	0
Philadelphia Metro	<b>0.64</b>	<b>5.86</b>	0	<b>2.21</b>	<b>1.97</b>	1	<b>0.07</b>	<b>0.53</b>	0	<b>0.00</b>	<b>0.00</b>	0
Pinelands	<b>0.31</b>	<b>0.99</b>	0	<b>0.64</b>	<b>1.80</b>	0	<b>0.91</b>	<b>1.10</b>	0	<b>0.00</b>	<b>&lt;0.01</b>	0
Suburban Corridor	<b>0.62</b>	<b>5.17</b>	0	<b>1.17</b>	<b>0.97</b>	1	<b>0.03</b>	<b>1.89</b>	0	<b>0.00</b>	<b>0.00</b>	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: As precipitation values decrease, *Aedes vexans* populations continue at low numbers. *Culex Mix* numbers continued to be significantly elevated in the Delaware River Basin with low to moderate activity in the New York Metropolitan, Agricultural, Philadelphia Metropolitan regions and the Suburban Corridor. *Coquillettidia* abundances were elevated in the Delaware River Basin, North Central Rural and Northwestern Rural regions. *Aedes sollicitans* numbers were highest in the Delaware River Basin (again at absolute low values).

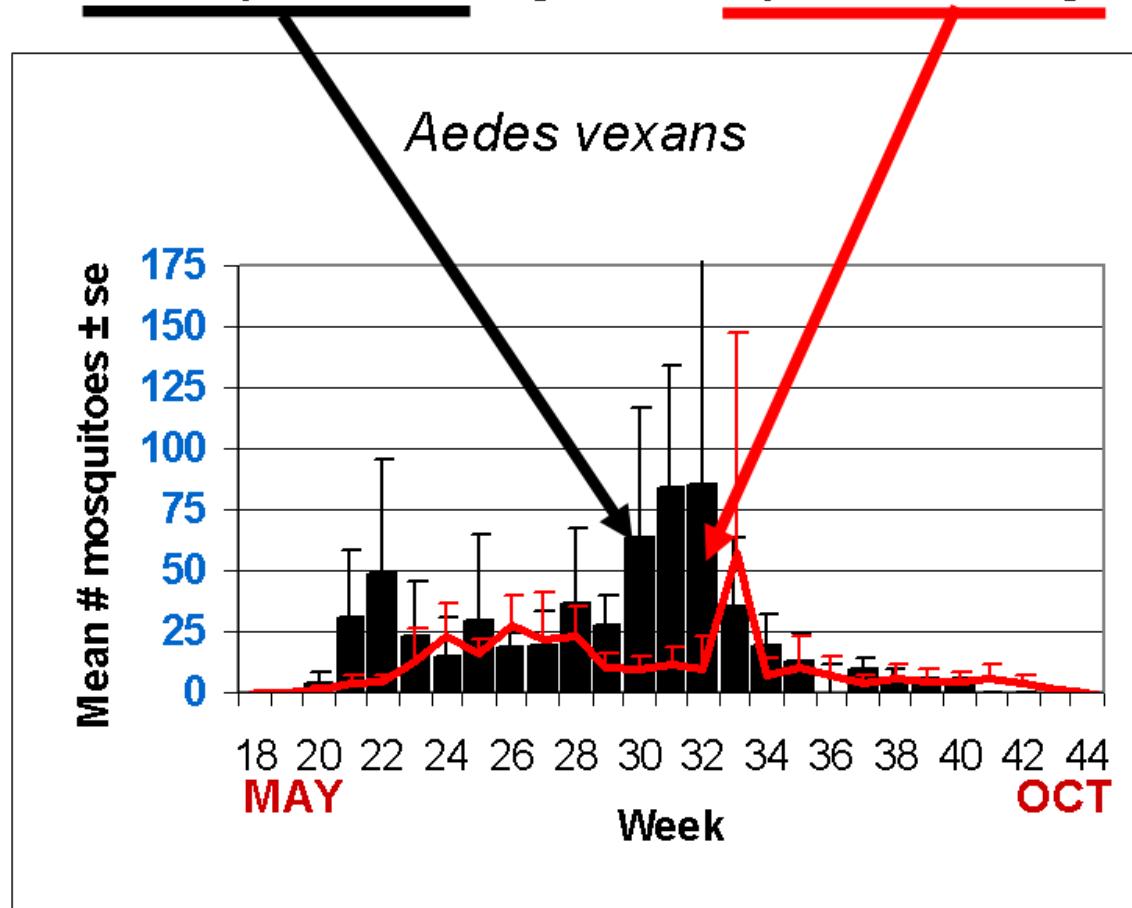
## Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 14 July 2018 in New Jersey. Data points are from about 53 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.1.

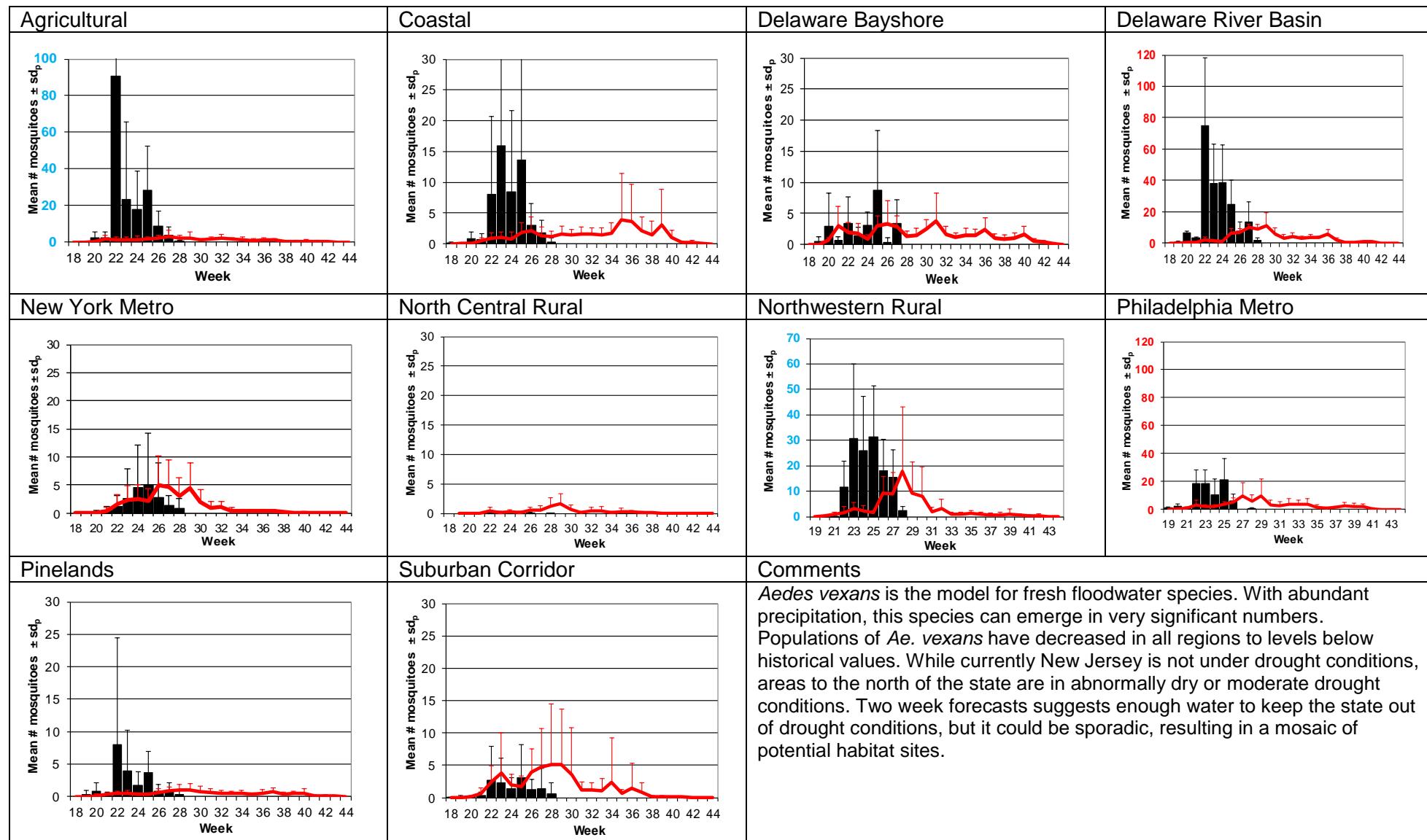
**The Species Graphs:** The species graph pages include a graph with two plots for each of the ten regions defined on the first page (Agricultural, Coastal, Delaware Bayshore, Delaware River, New York Metro, North-Central, Northwestern, Philadelphia Metro, Pinelands, and Suburban Corridor). Below is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

## Weekly Means Against 5-year Average



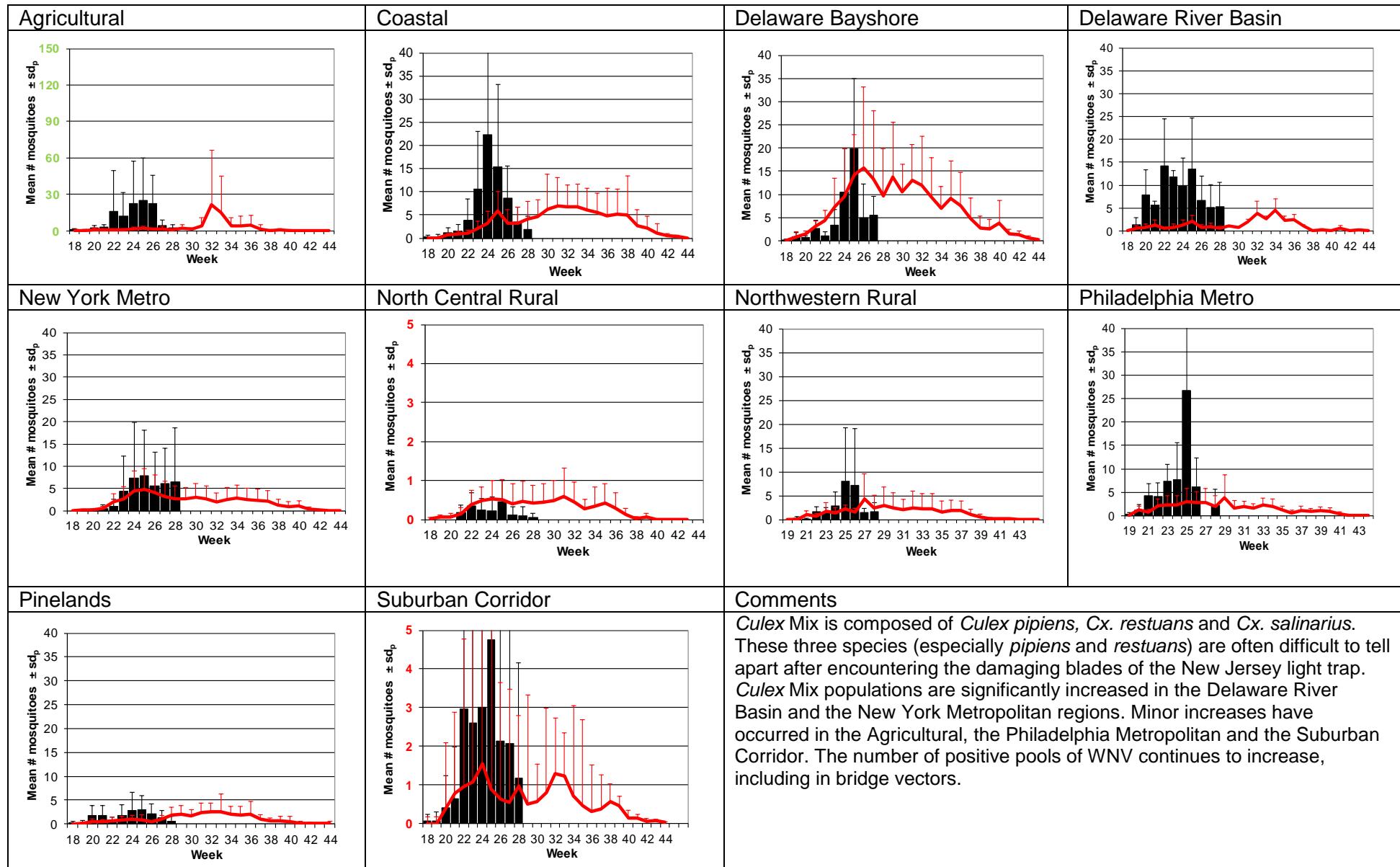
# Aedes vexans - Fresh Floodwater Species

## Multivoltine Aedine (Ae. vexans Type)



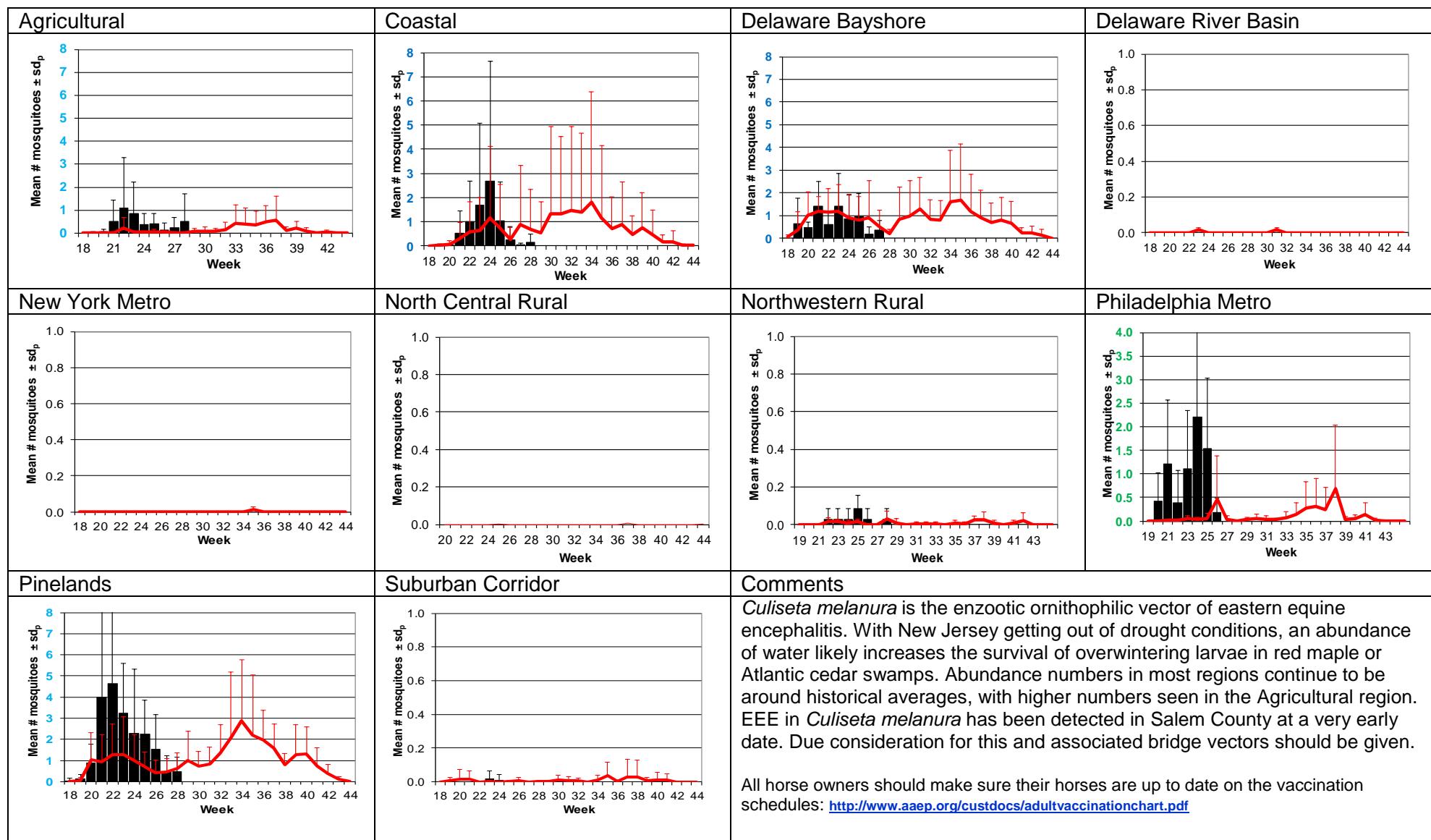
# Culex Mix – Permanent Water Species

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



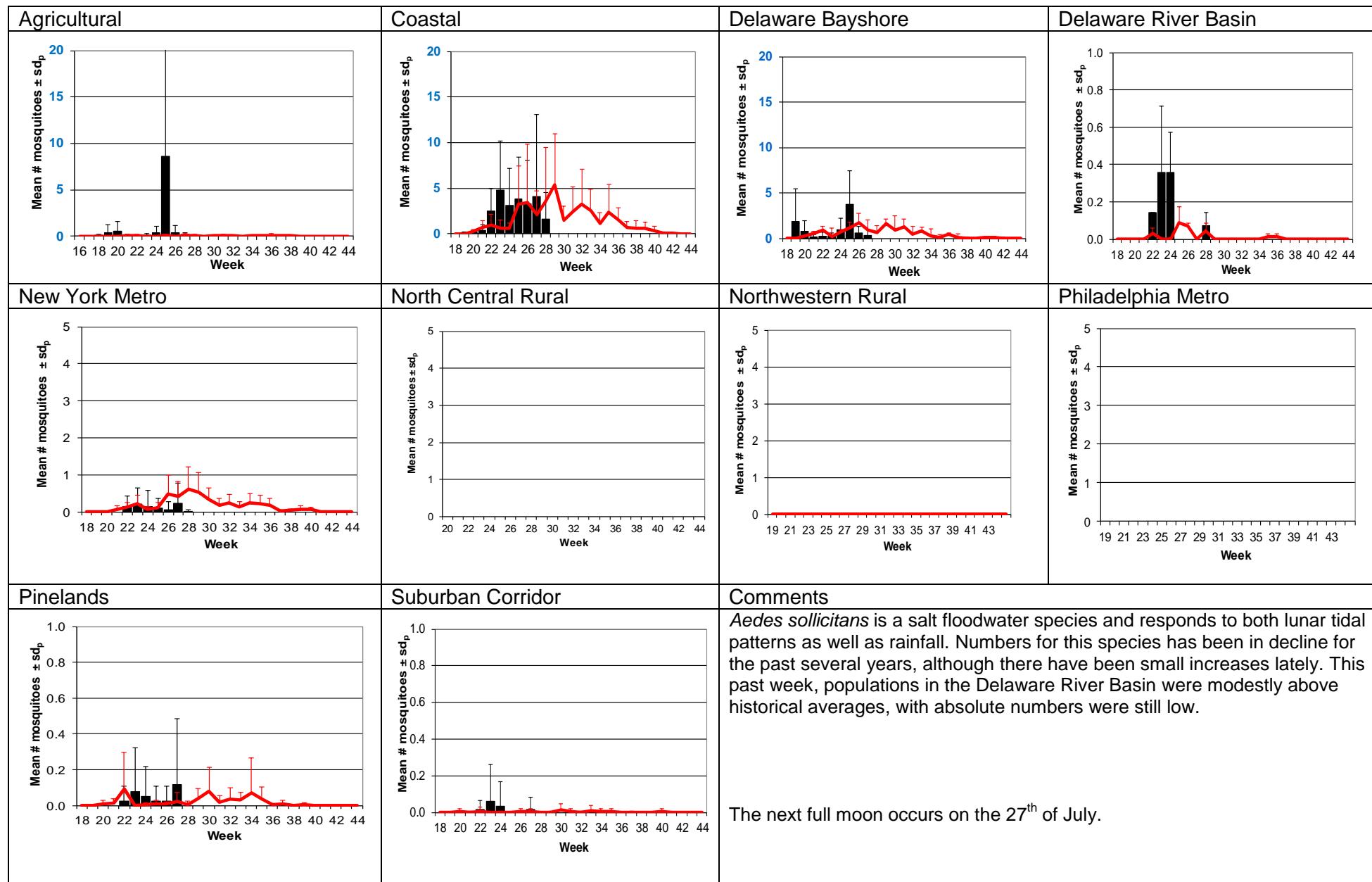
# *Culiseta melanura* – Miscellaneous Group

## Unique (*Cs. melanura* Type)



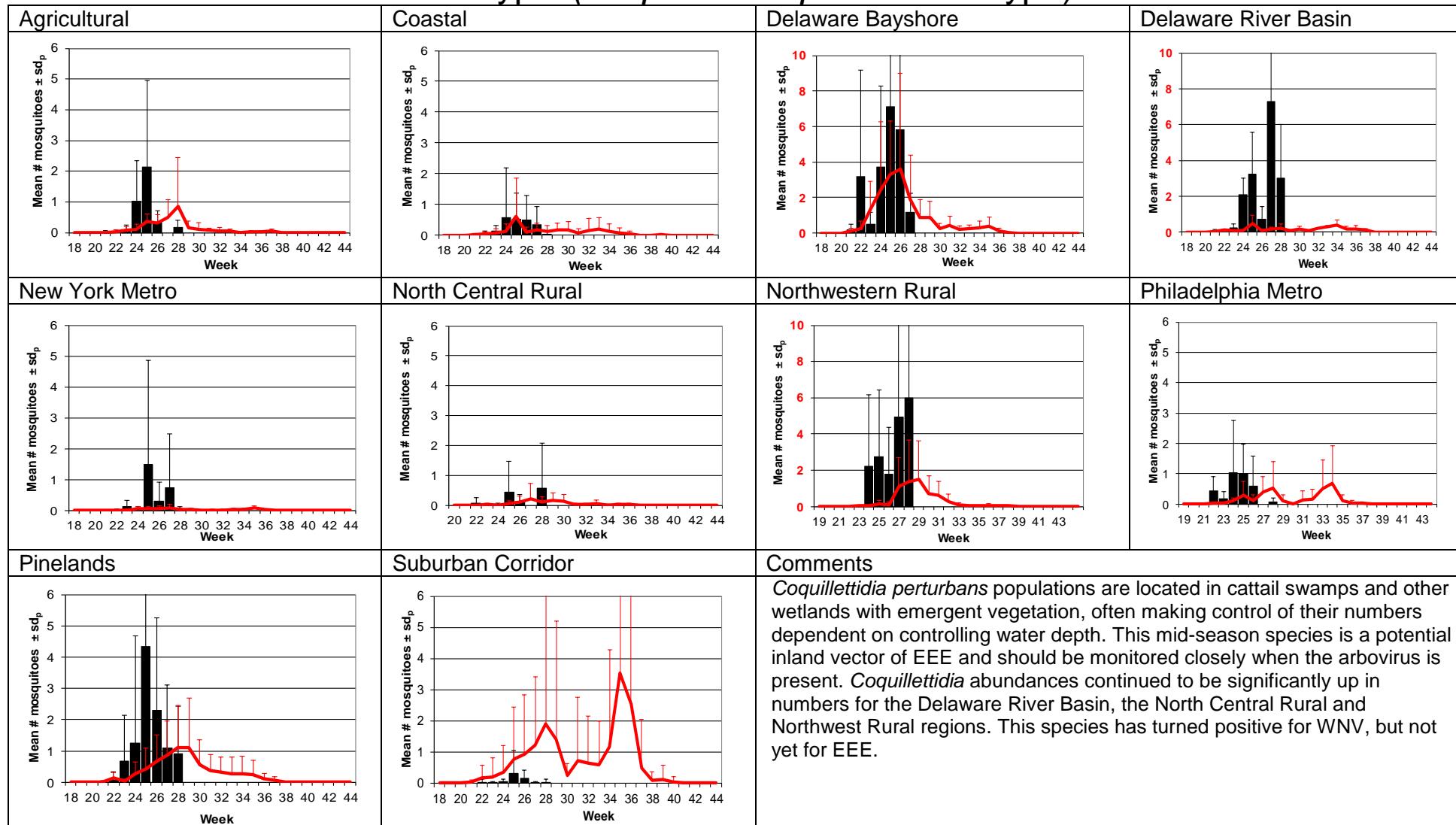
# *Aedes sollicitans* - Salt Floodwater Species

## Multivoltine Aedine (*Ae. sollicitans* Type)



# *Coquillettidia perturbans*

## Monotypic (*Coquillettidia perturbans* Type)

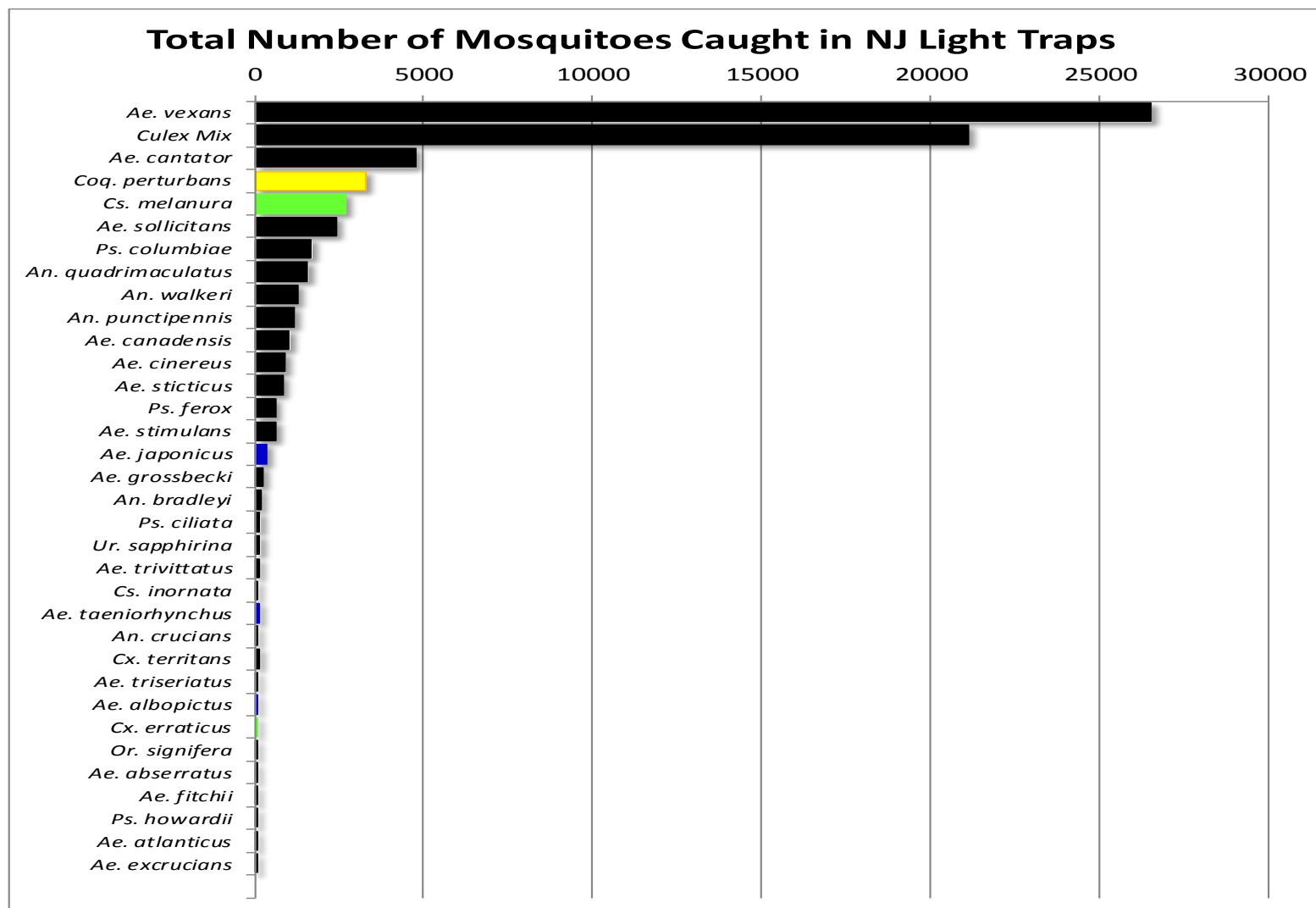


WNV

EEE

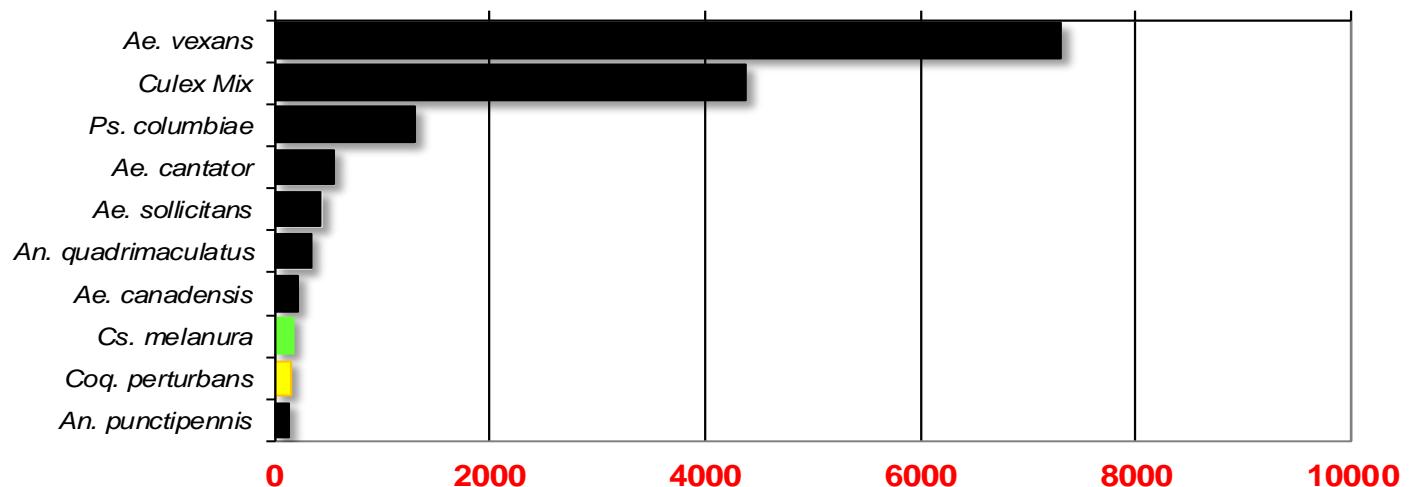
**Top Ten Mosquito Species/Region** - ■ Ae. albopictus, ■ Ae. japonicus (invasives); ■ Cs. melanura or Cx. erraticus ■ Coq. perturbans

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



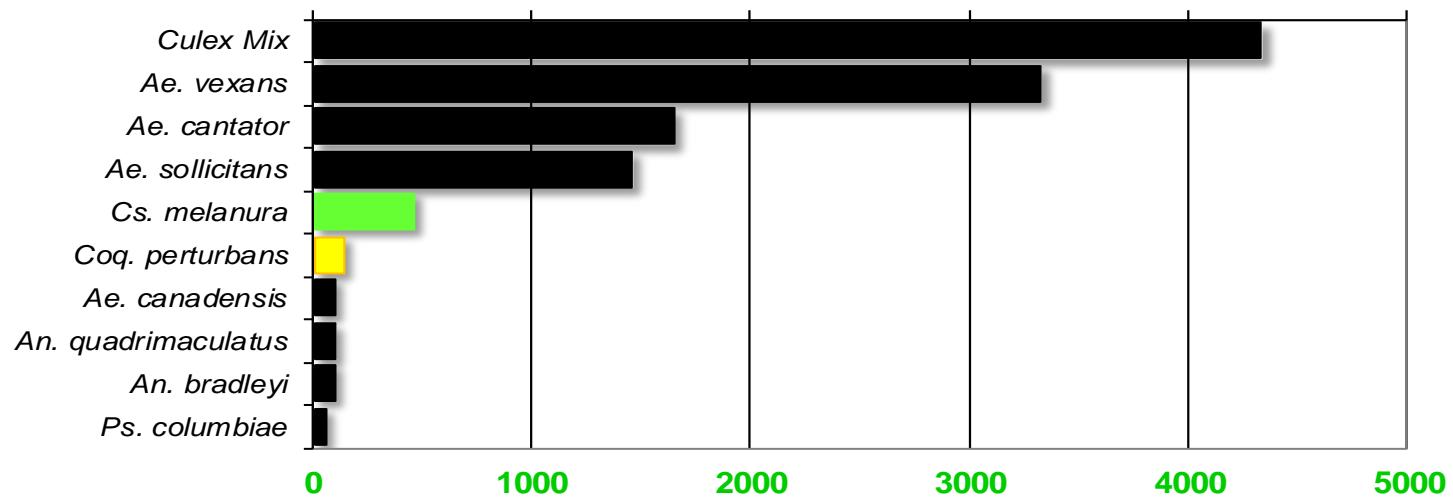
## Agricultural

Total # mosquitoes



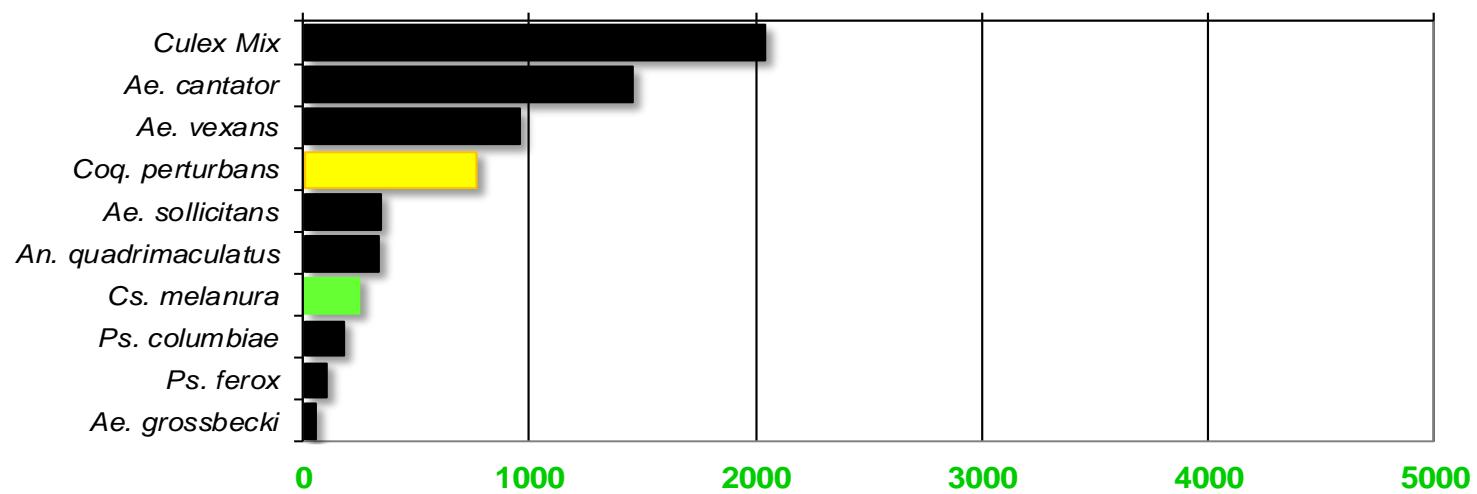
## Coastal

Total # mosquitoes



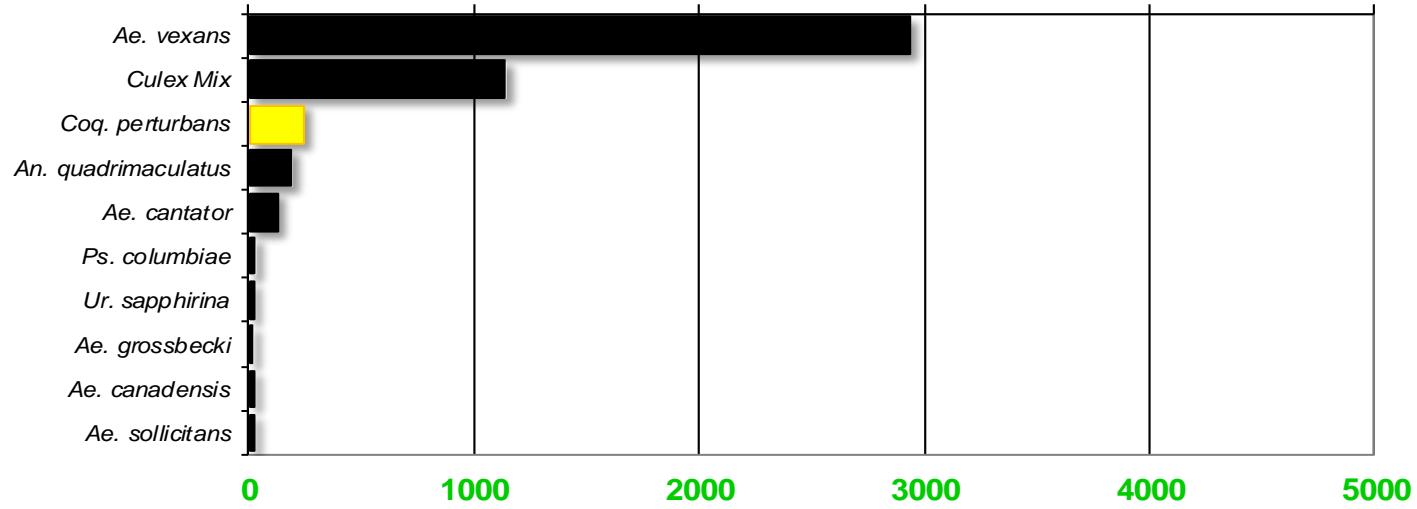
### Delaware Bayshore

#### Total # mosquitoes



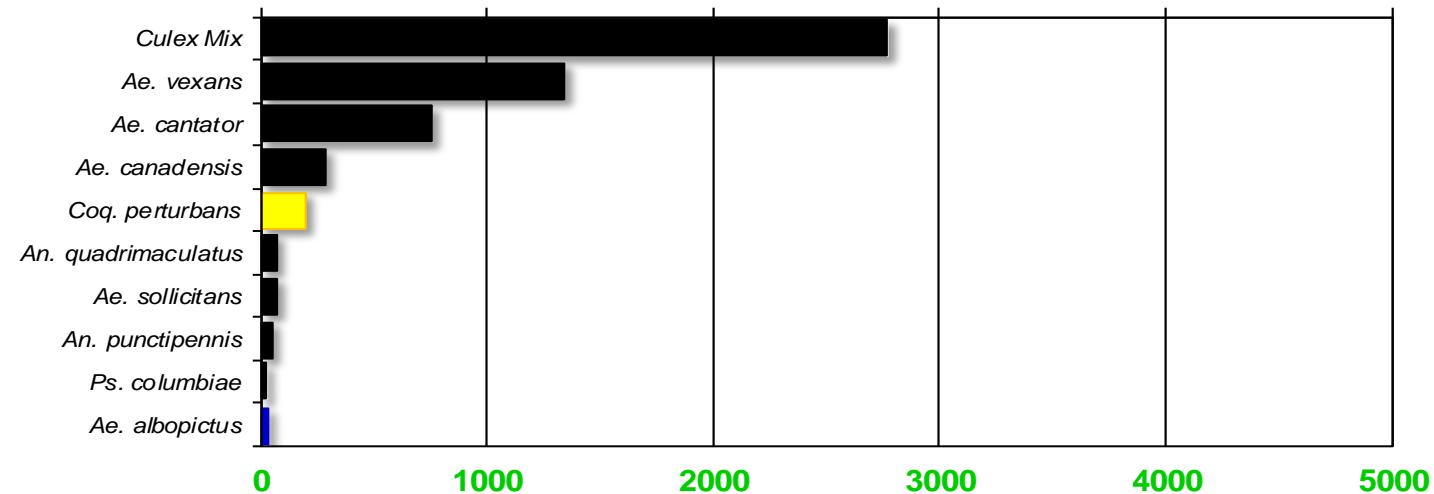
### Delaware River Basin

#### Total # mosquitoes



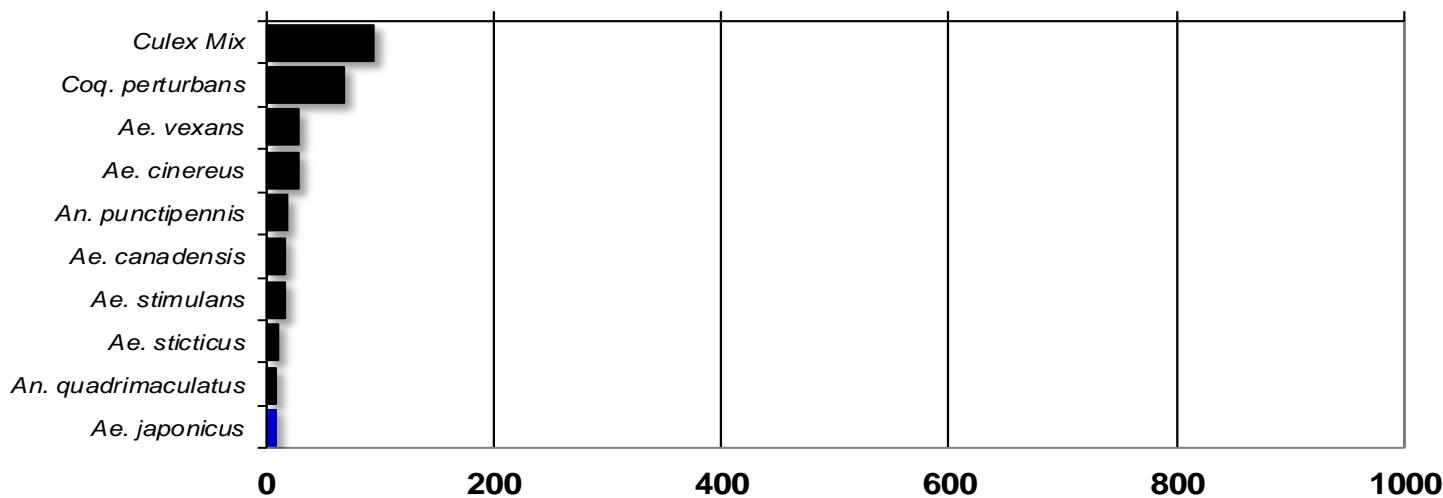
## New York Metropolitan

### Total # mosquitoes



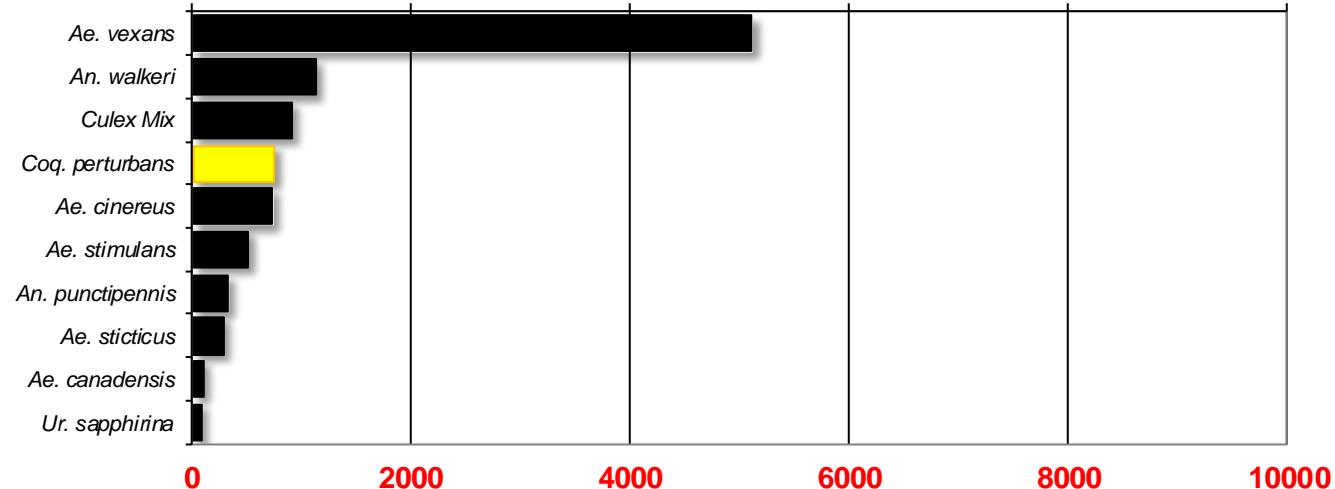
## North Central Rural

### Total # mosquitoes



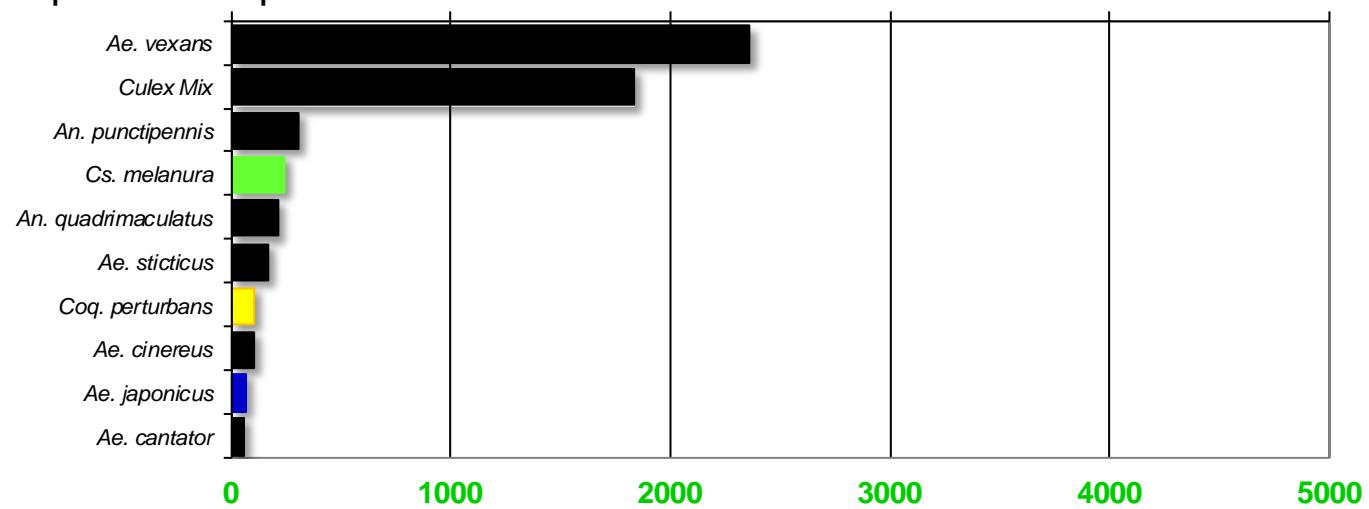
## Northwest Rural

Total # mosquitoes



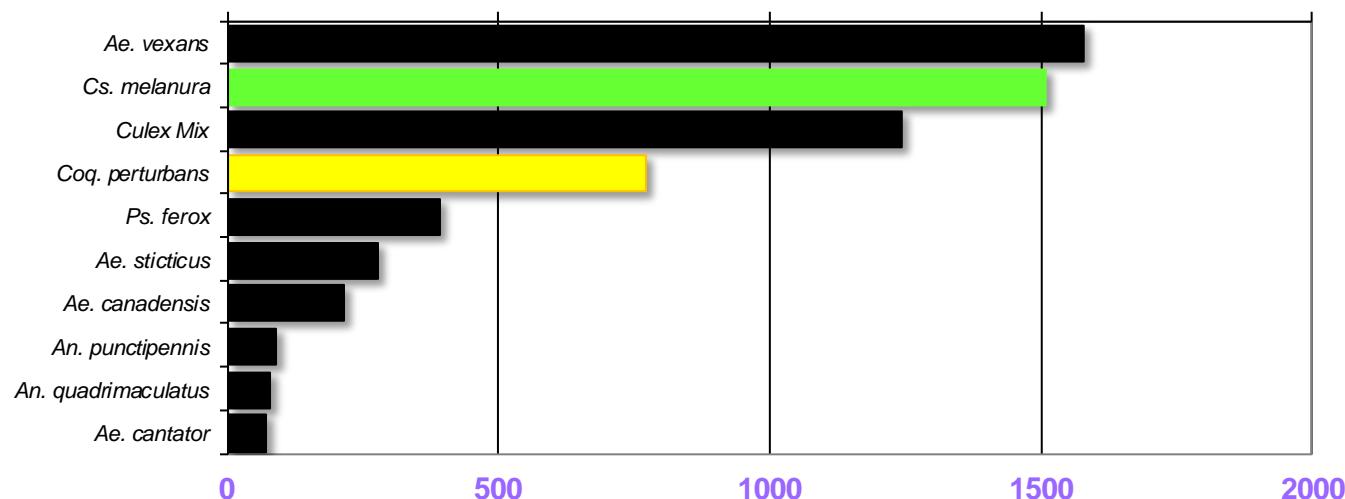
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

Total # mosquitoes



## Suburban Corridor

Total # mosquitoes

