

# NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 3 September to 9 September 2017, CDC Week 36

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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.

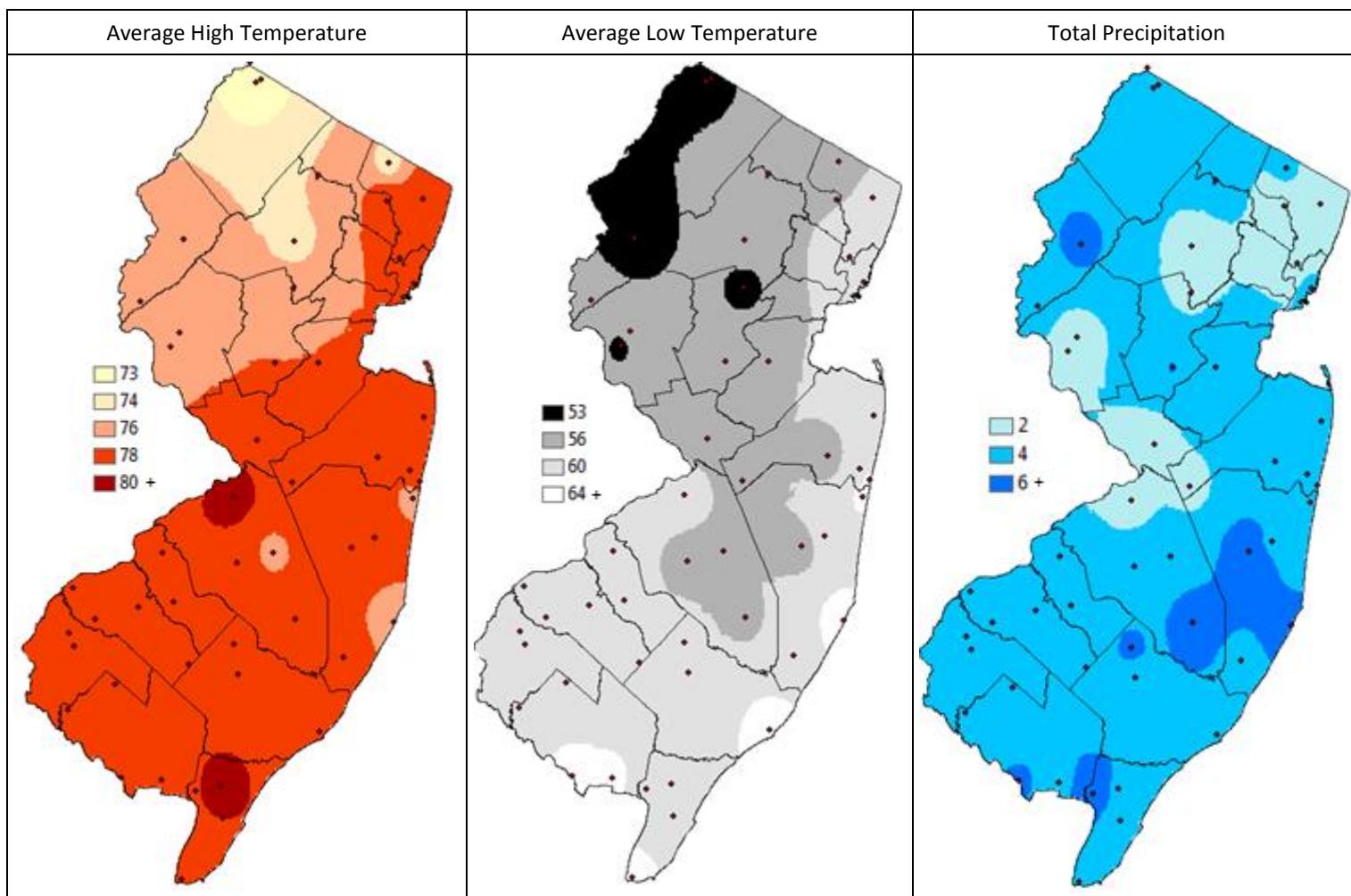
## Summary Table – Week 36

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>2.79</b>	<b>1.09</b>	<b>4</b>	<b>19.60</b>	<b>4.50</b>	<b>4</b>	<b>0.00</b>	<b>0.03</b>	<b>0</b>	<b>0.95</b>	<b>0.09</b>	<b>4</b>
Coastal	<b>0.70</b>	<b>3.61</b>	<b>0</b>	<b>4.90</b>	<b>4.80</b>	<b>1</b>	<b>0.00</b>	<b>0.03</b>	<b>0</b>	<b>0.10</b>	<b>1.54</b>	<b>0</b>
Delaware Bayshore	<b>0.66</b>	<b>2.44</b>	<b>0</b>	<b>7.60</b>	<b>7.54</b>	<b>0</b>	<b>0.00</b>	<b>0.12</b>	<b>0</b>	<b>0.86</b>	<b>0.42</b>	<b>3</b>
Delaware River Basin	<b>2.57</b>	<b>5.77</b>	<b>0</b>	<b>7.43</b>	<b>2.47</b>	<b>4</b>	<b>0.29</b>	<b>0.17</b>	<b>2</b>	<b>0.00</b>	<b>0.01</b>	<b>0</b>
New York Metro	<b>0.47</b>	<b>0.37</b>	<b>1</b>	<b>10.29</b>	<b>2.43</b>	<b>4</b>	<b>0.03</b>	<b>0.03</b>	<b>0</b>	<b>0.13</b>	<b>0.19</b>	<b>0</b>
North Central Rural	nd	<b>0.18</b>	<b>0</b>	nd	<b>0.30</b>	<b>0</b>	nd	<b>0.02</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>
Northwest Rural	<b>1.77</b>	<b>0.90</b>	<b>2</b>	<b>6.23</b>	<b>1.84</b>	<b>4</b>	<b>0.00</b>	<b>0.06</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>
Philadelphia Metro	nd	<b>0.70</b>	<b>0</b>	nd	<b>0.65</b>	<b>0</b>	nd	<b>0.05</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>
Pinelands	<b>0.43</b>	<b>0.53</b>	<b>0</b>	<b>1.01</b>	<b>2.11</b>	<b>0</b>	<b>0.00</b>	<b>0.11</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>
Suburban Corridor	<b>0.07</b>	<b>1.49</b>	<b>0</b>	<b>0.80</b>	<b>0.31</b>	<b>4</b>	<b>0.00</b>	<b>2.55</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>

\*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: A number of pestiferous populations were significantly above historical averages, mostly from *Culex Mix* (Agricultural, Delaware River Basin, New York Metropolitan, Northwest Rural and the Suburban Corridor) but also including *Aedes vexans* and *Aedes sollicitans* in the Agricultural region. *Aedes sollicitans* in the Delaware Bayshore region was also elevated and minor increases were observed in *Aedes vexans* New York Metropolitan and Northwest Rural regions) and *Coquillettidia perturbans* (Delaware River Basin).

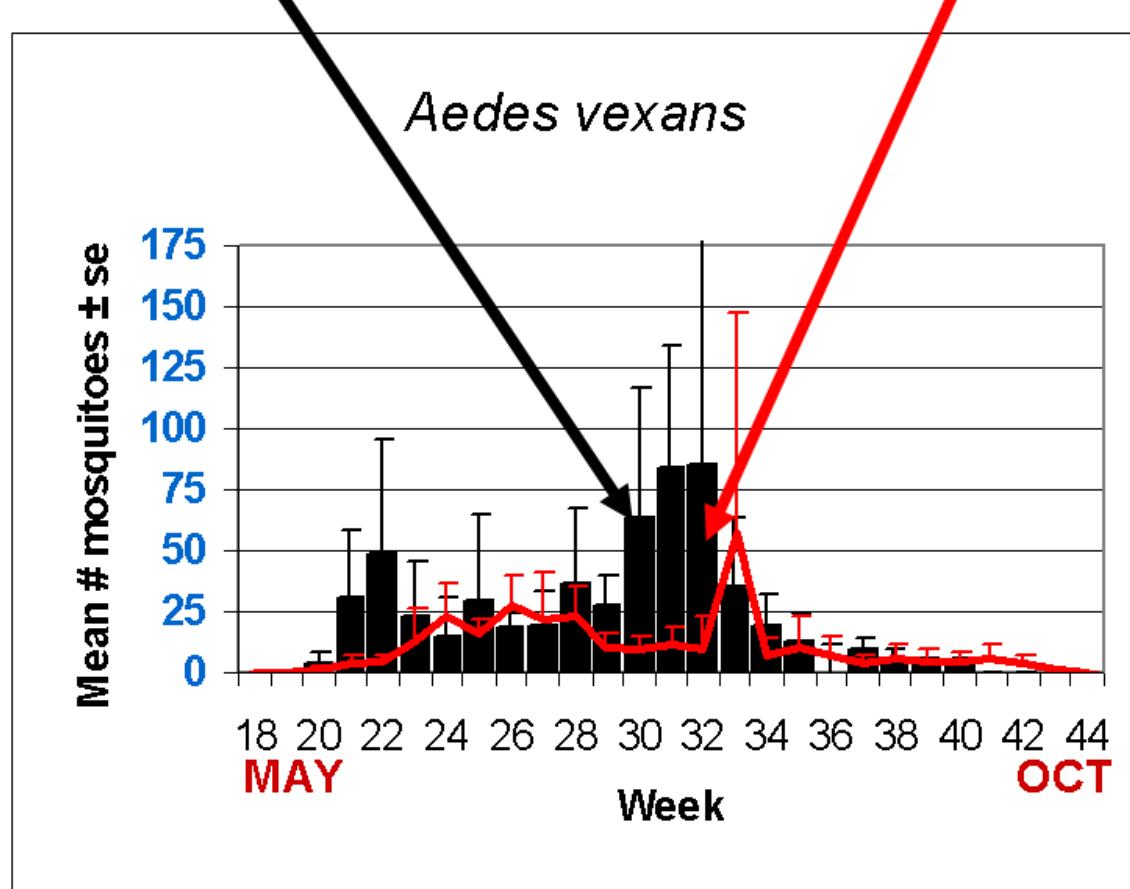
## Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 9 September 2017 in New Jersey. Data points are from about 55 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.1.

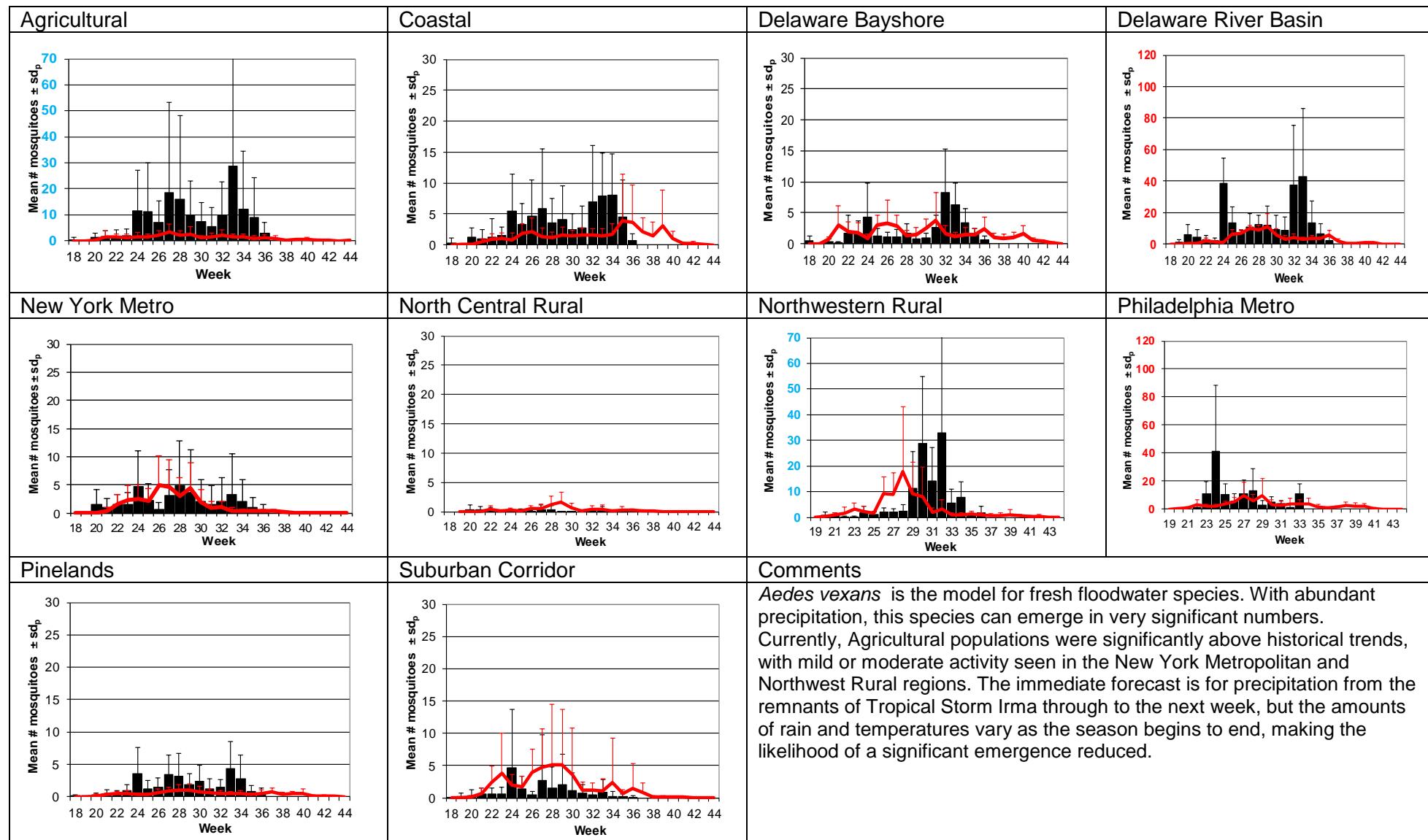
**The Species Graphs:** The species graph pages include a graph with two plots for each of the ten regions defined on the first page (Agricultural, Coastal, Delaware Bayshore, Delaware River, New York Metro, North-Central, Northwestern, Philadelphia Metro, Pinelands, and Suburban Corridor). Below is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

## Weekly Means Against 5-year Average



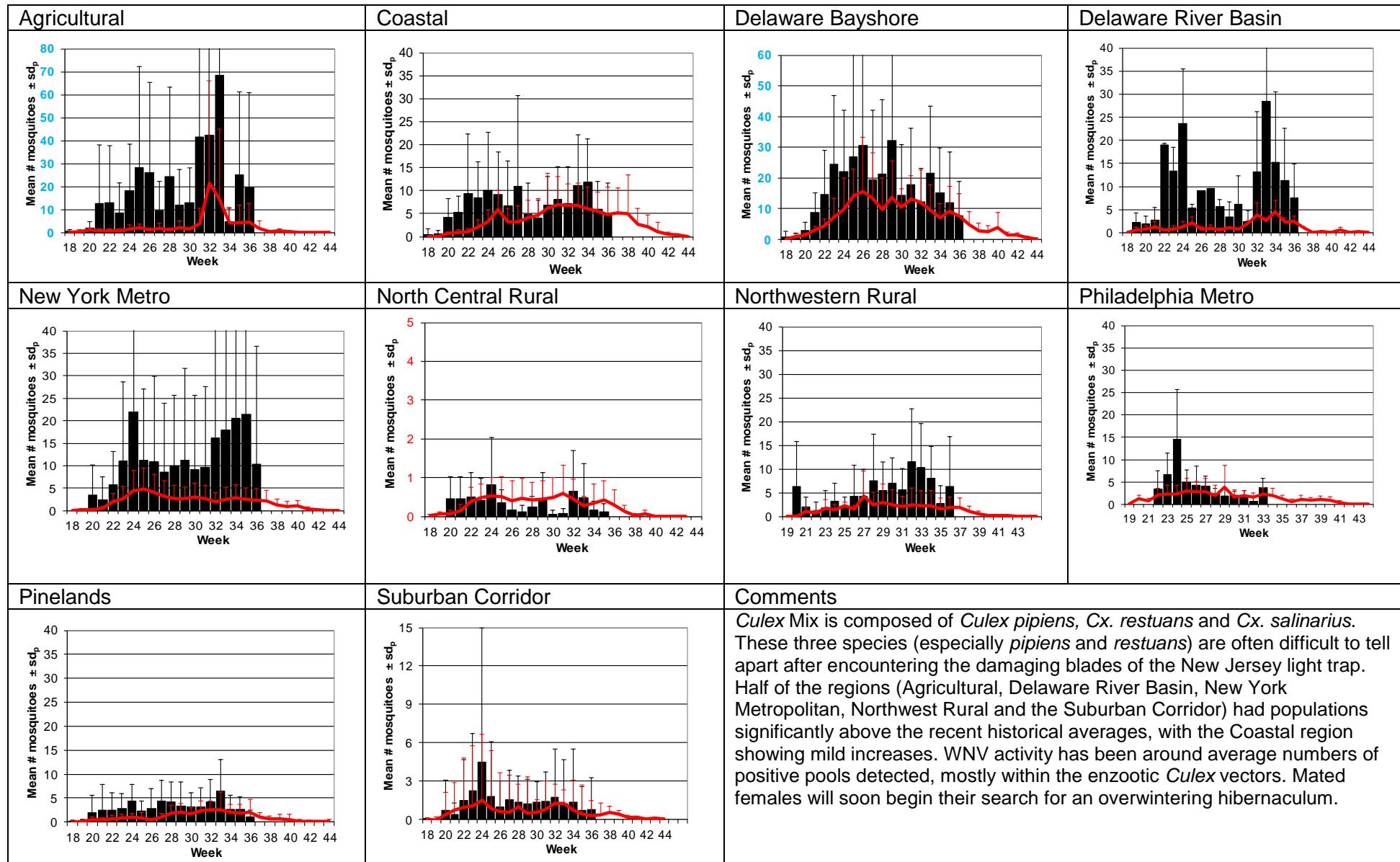
# Aedes vexans - Fresh Floodwater Species

## Multivoltine Aedine (Ae. vexans Type)



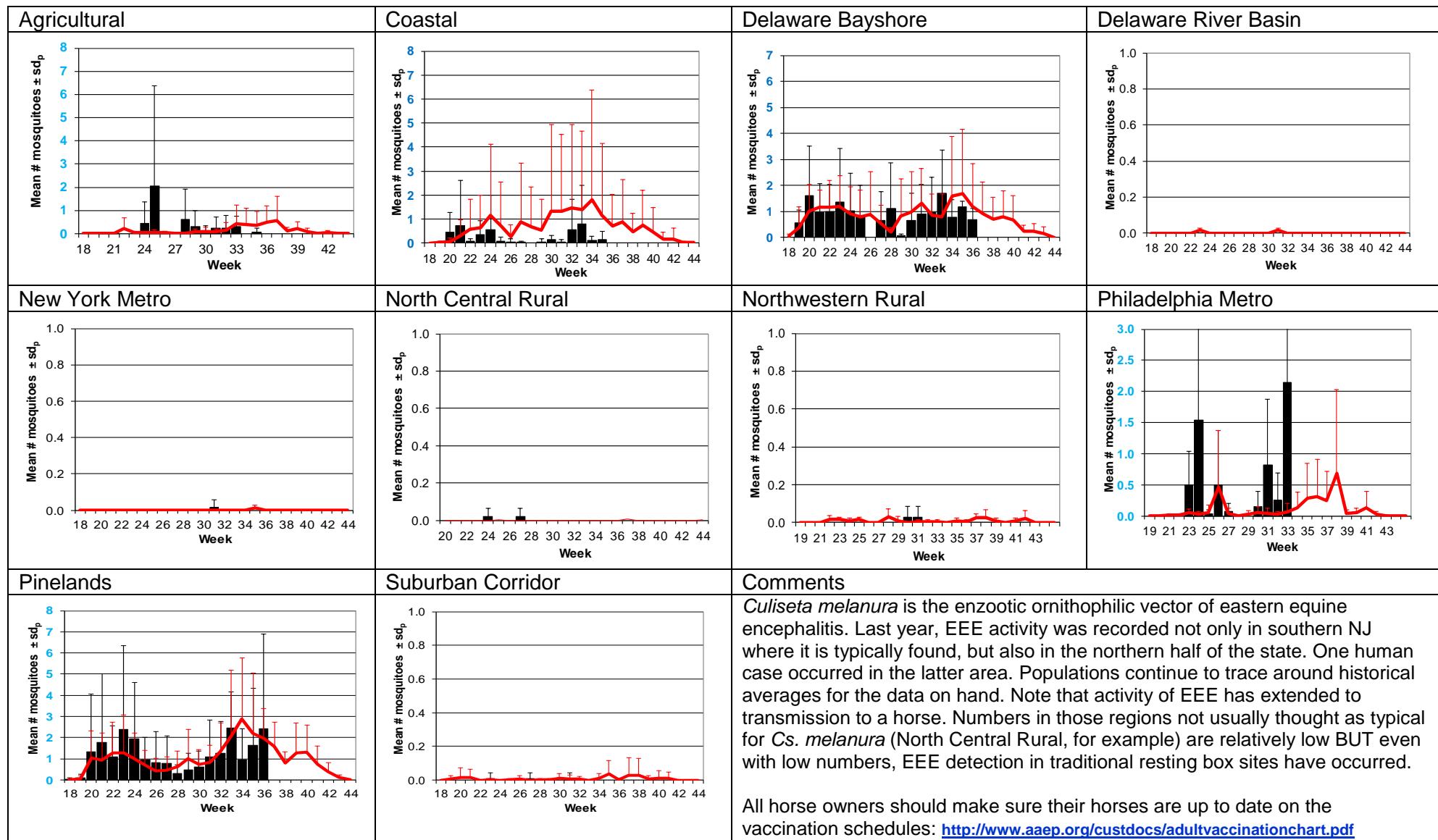
# Culex Mix – Permanent Water Species

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



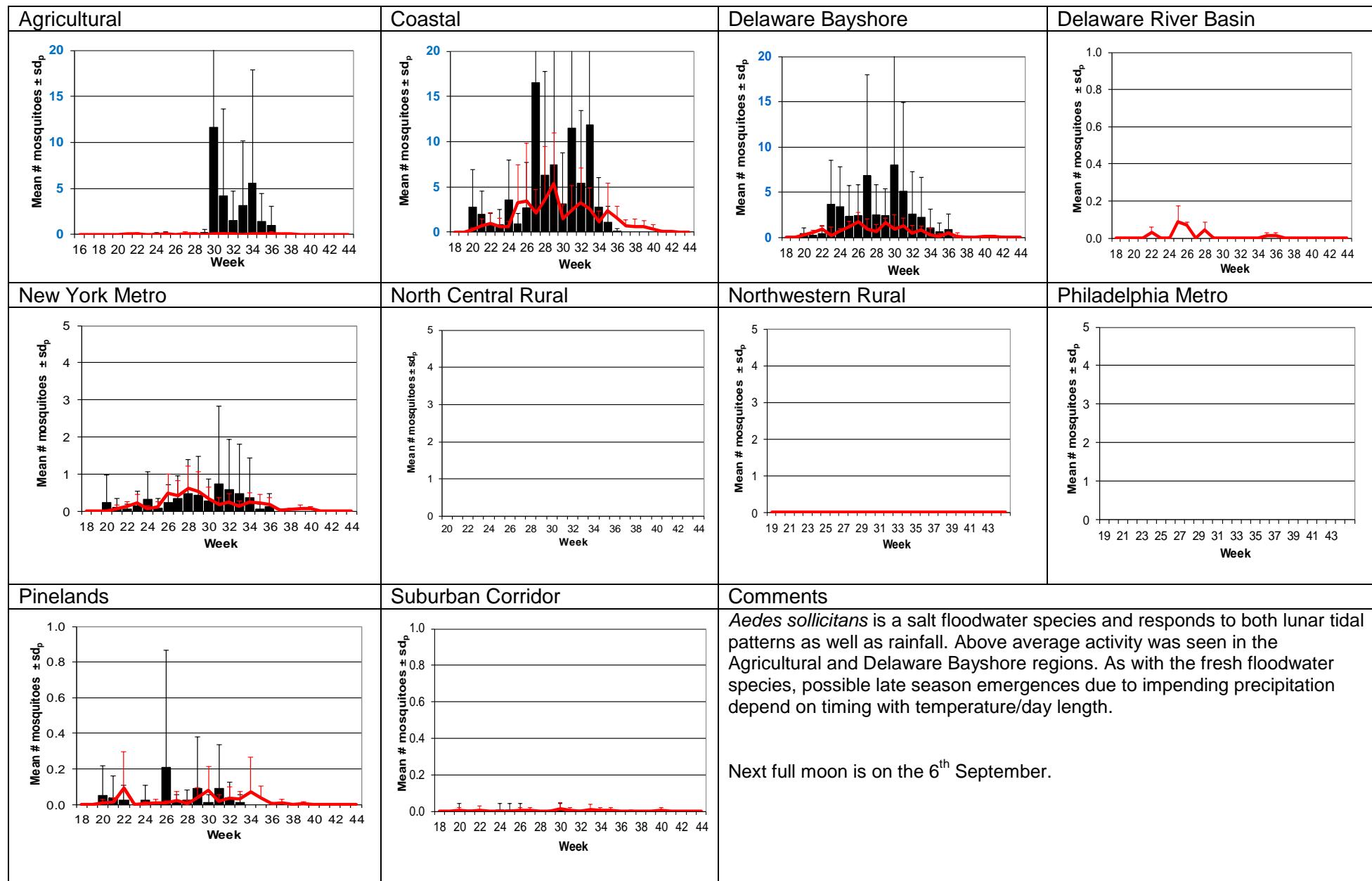
# *Culiseta melanura* – Miscellaneous Group

## Unique (*Cs. melanura* Type)



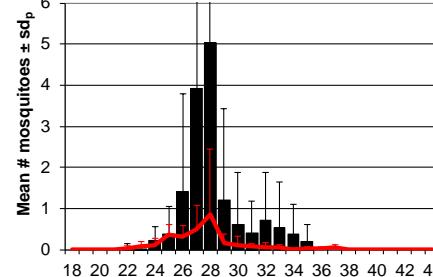
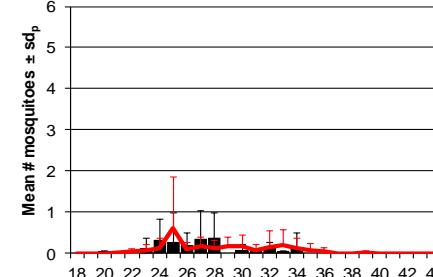
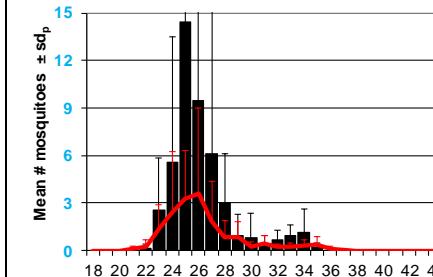
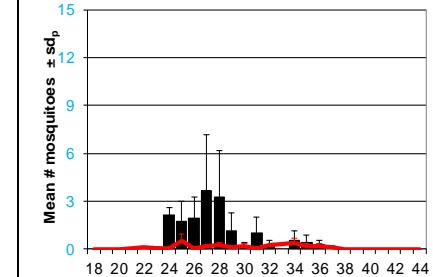
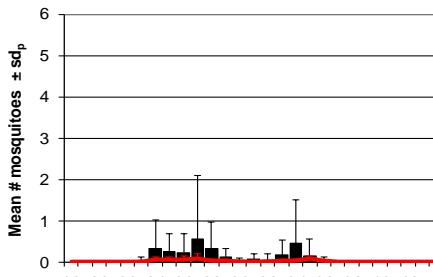
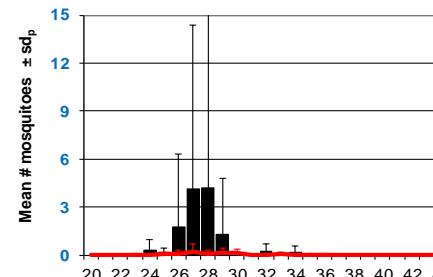
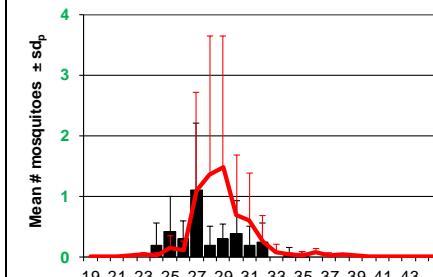
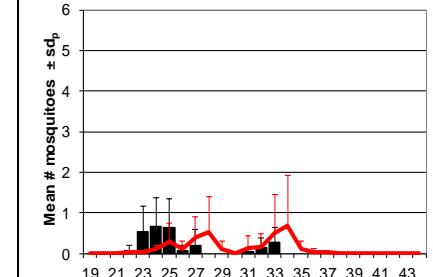
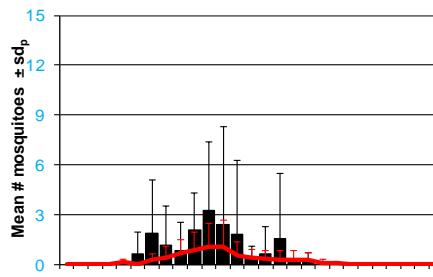
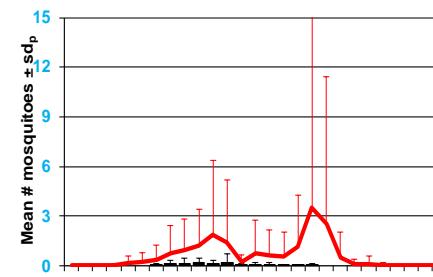
# *Aedes sollicitans* - Salt Floodwater Species

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



# *Coquillettidia perturbans*

## Monotypic (*Coquillettidia perturbans* Type)

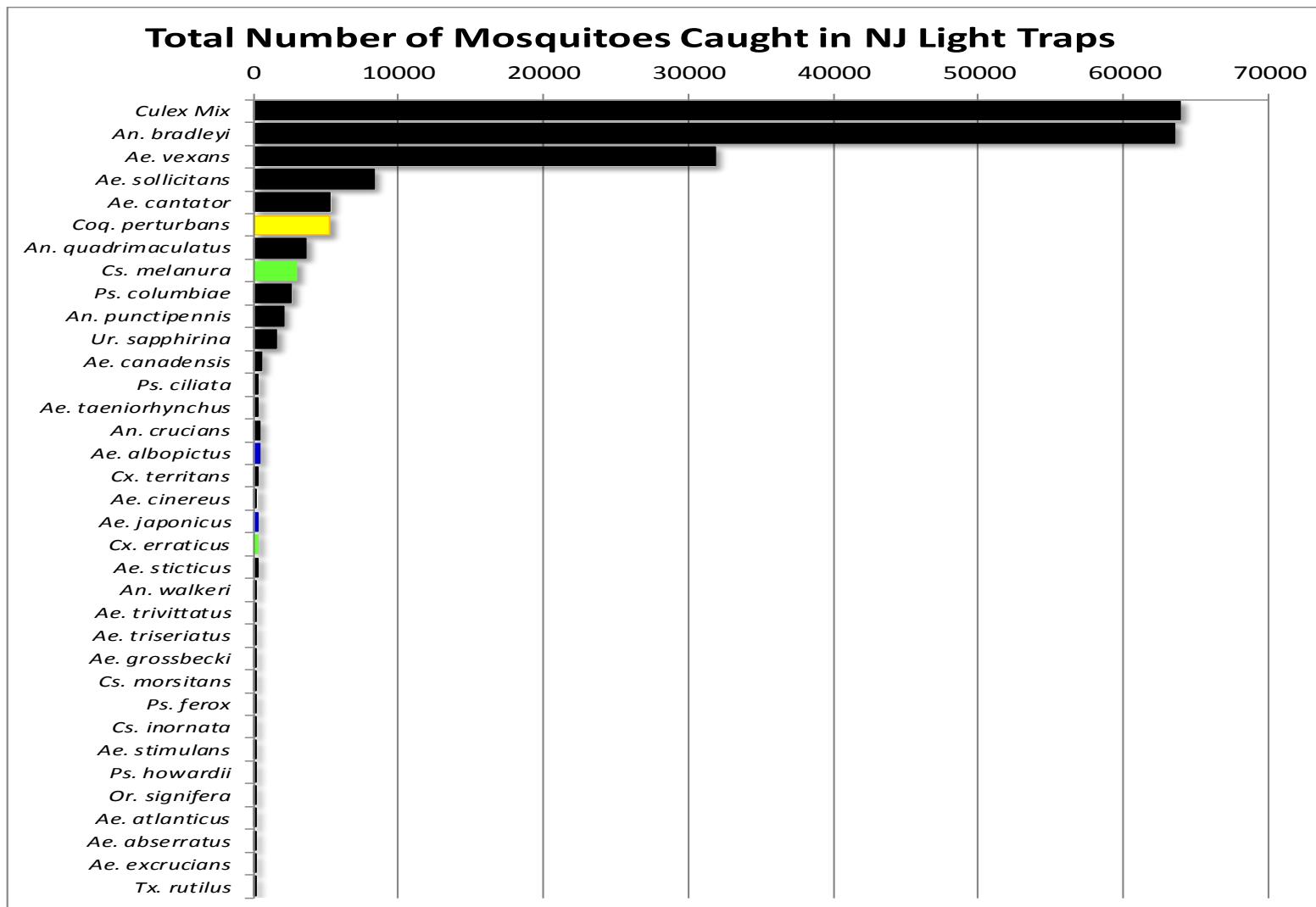
Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
			
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
			
Pinelands	Suburban Corridor	Comments	
		<p><b>Comments</b></p> <p><i>Coquillettidia perturbans</i> populations are located in cattail swamps and other wetlands with emergent vegetation, often making control of their numbers dependent on controlling water depth. This mid-season species is a potential inland vector of EEE and should be monitored closely when the arbovirus is present. The only populations to show above average activity were in the Delaware River Basin and those were at low absolute numbers compared to the middle of the season. But given a potential EEE presence, due diligence for this species is always recommended.</p>	

WNV

EEE

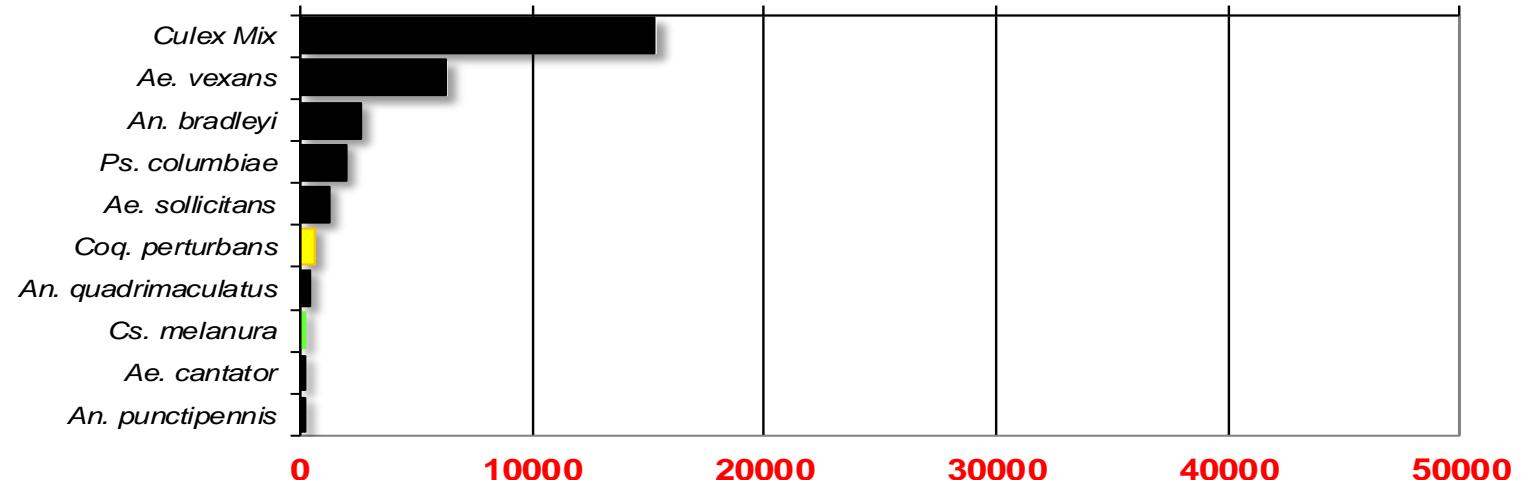
**Top Ten Mosquito Species/Region** - ■ Ae. albopictus, ■ Ae. japonicus (invasives); ■ Cs. melanura or Cx. erraticus ■ Coq. perturbans

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



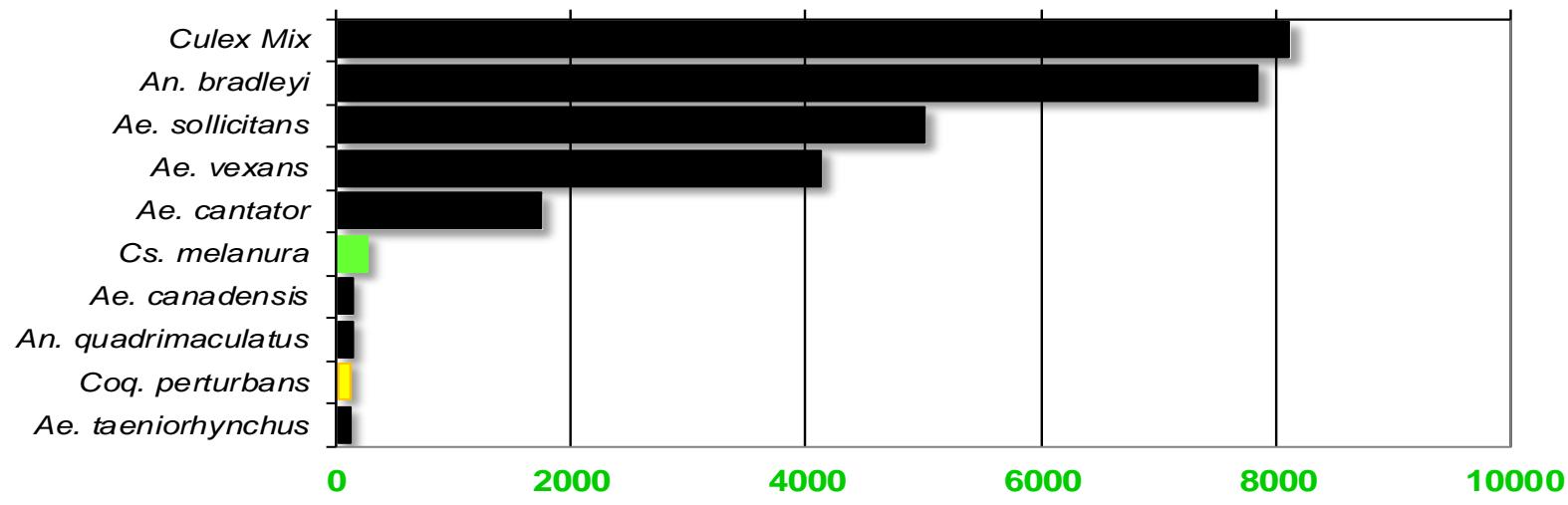
## Agricultural

Total # mosquitoes



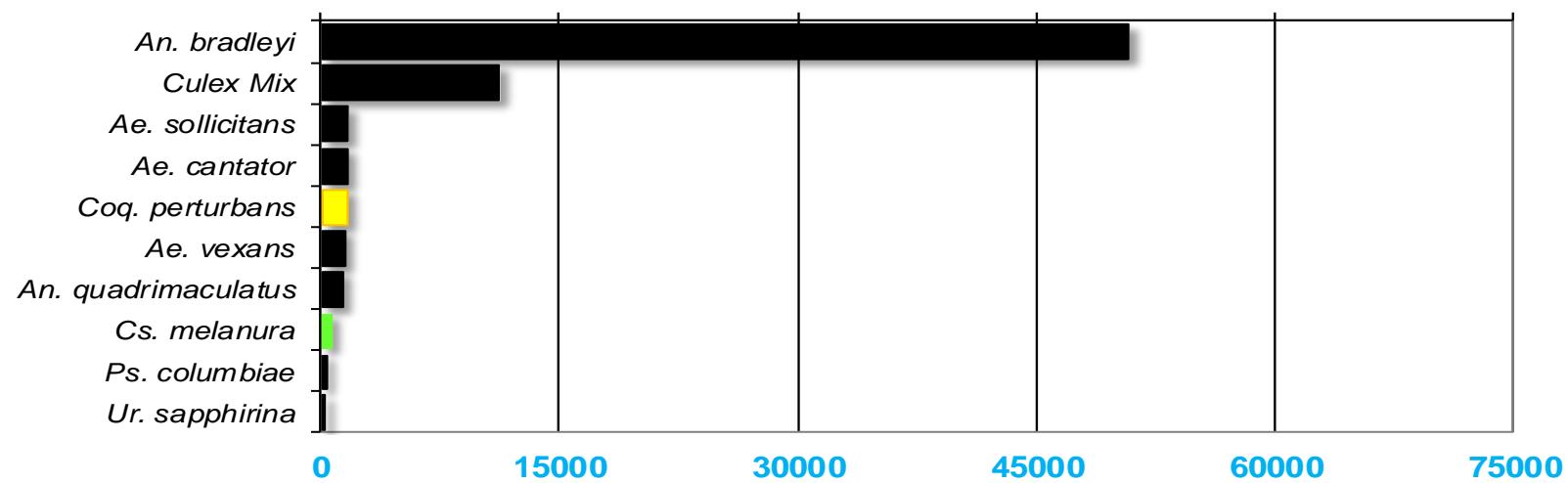
## Coastal

Total # mosquitoes



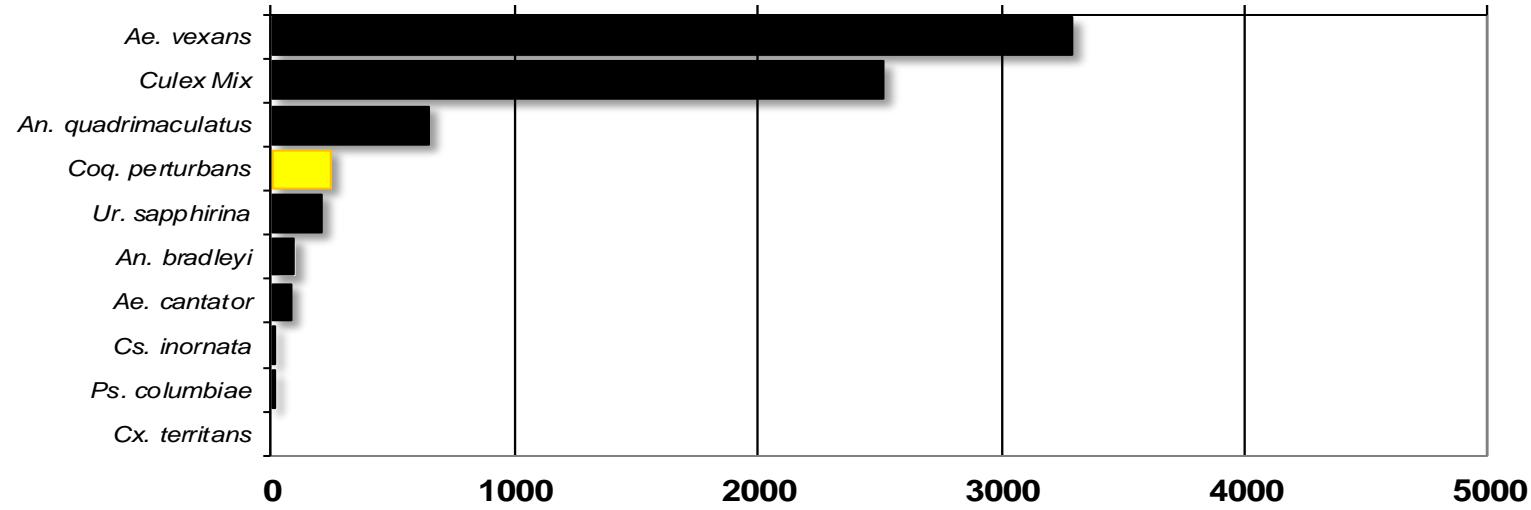
## Delaware Bayshore

### Total # mosquitoes



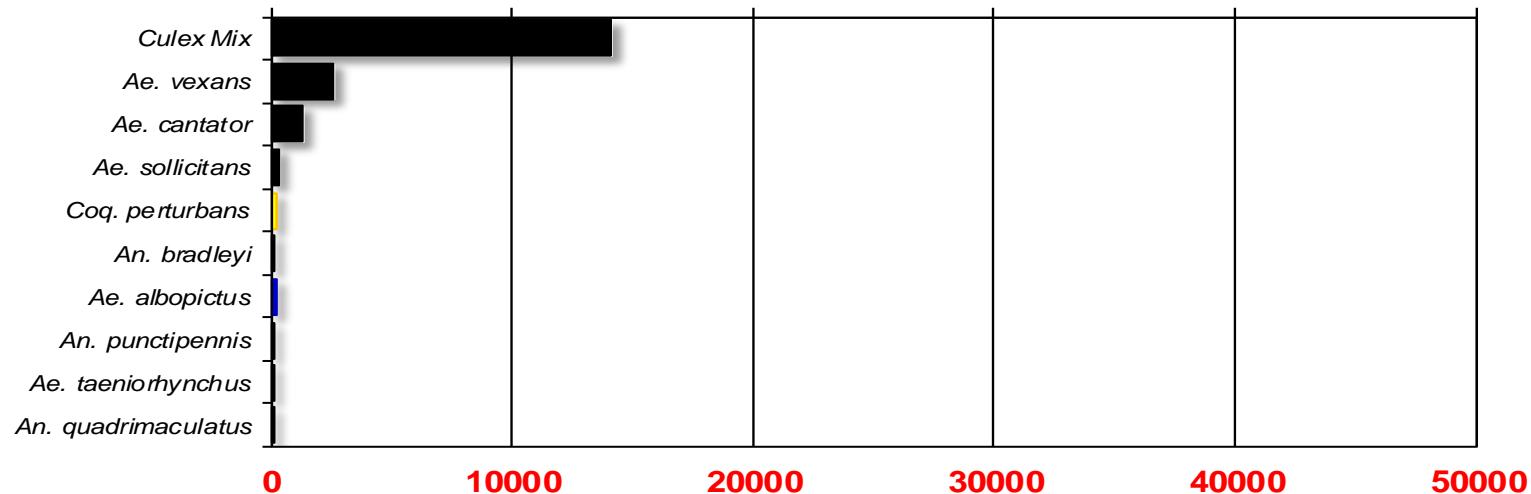
## Delaware River Basin

### Total # mosquitoes



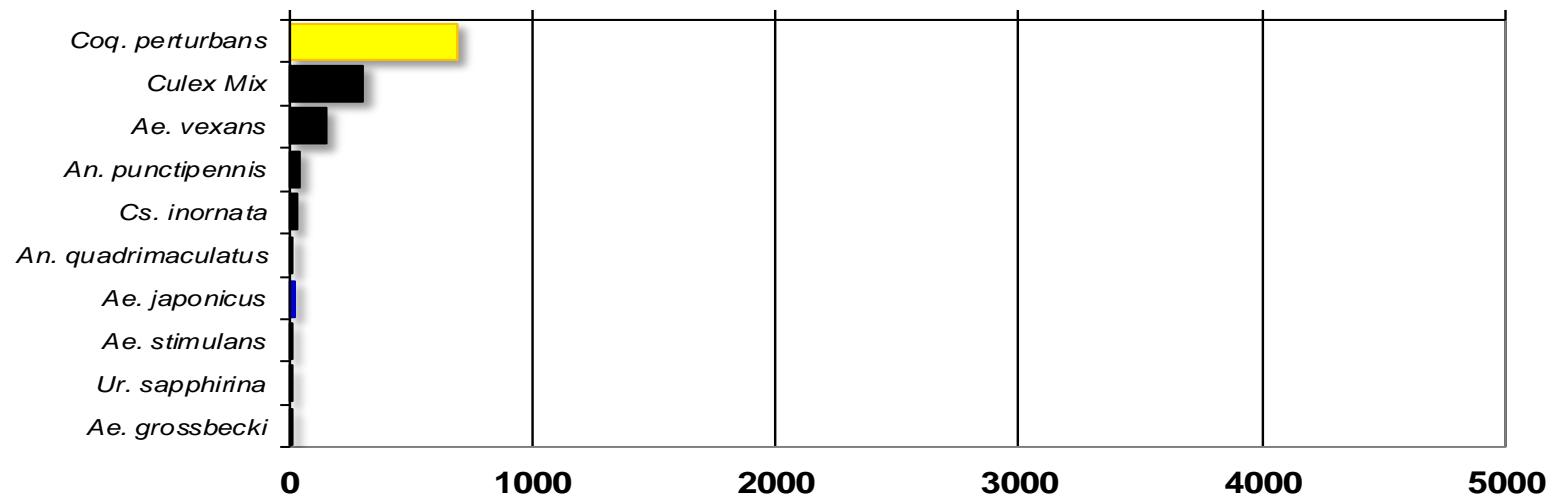
## New York Metropolitan

Total # mosquitoes



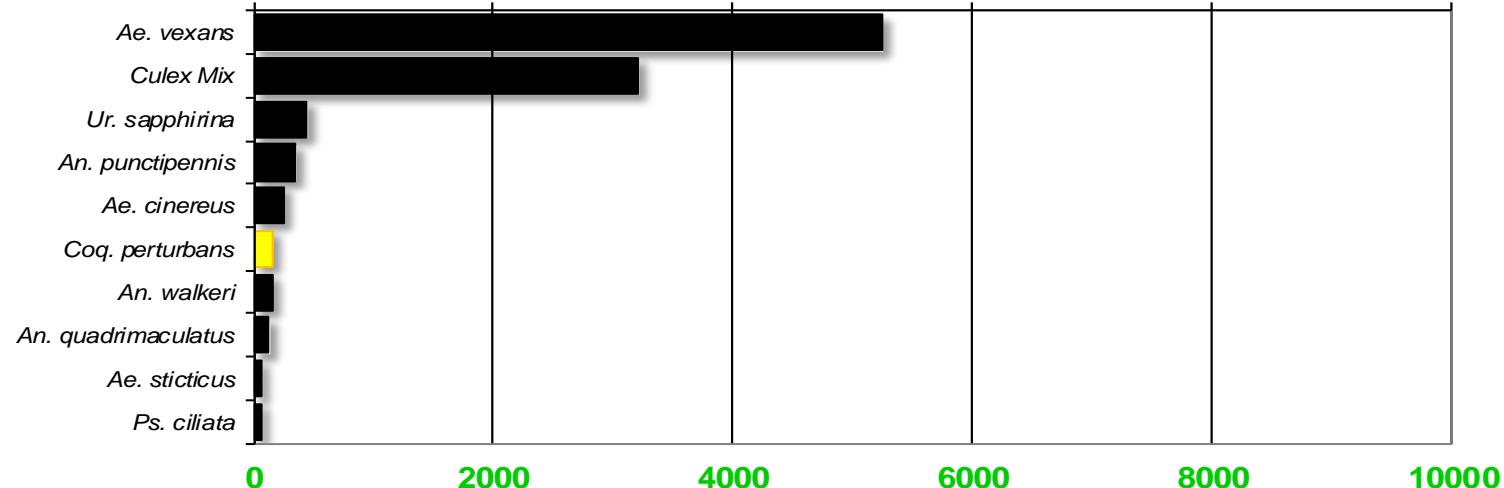
## North Central Rural

Total # mosquitoes



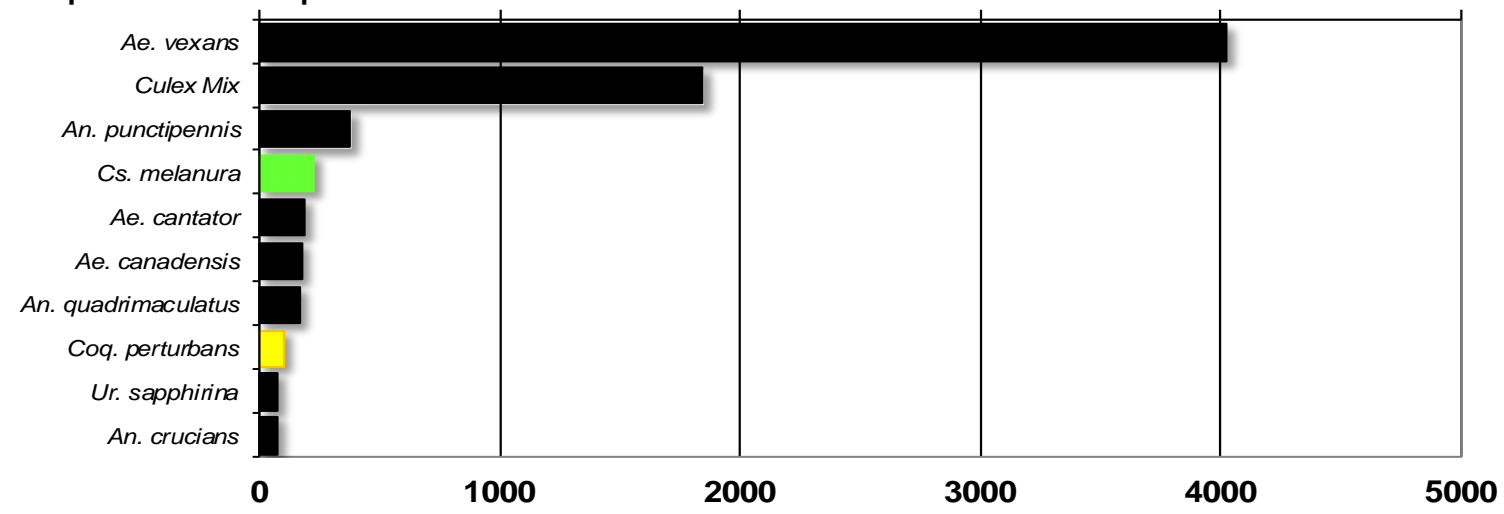
## Northwest Rural

Total # mosquitoes



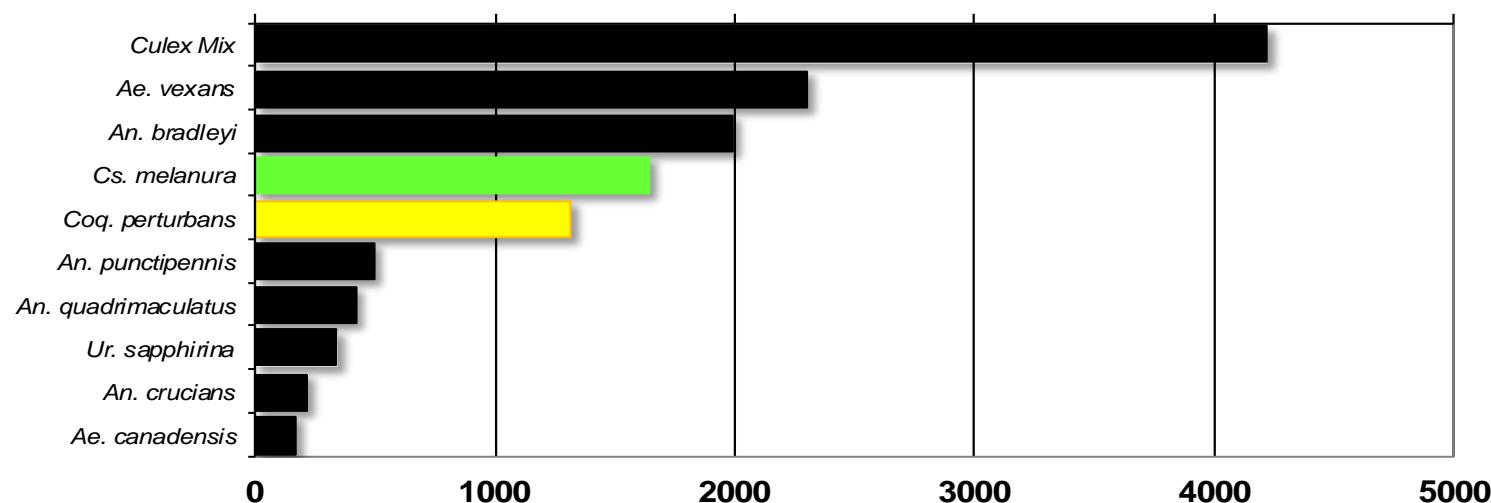
## Philadelphia Metropolitan

Total # mosquitoes



## Pinelands

### Total # mosquitoes



## Suburban Corridor

### Total # mosquitoes

