

NEW JERSEY ADULT MOSQUITO SURVEILLANCE Report

July 18 to July 24, CDC Week 29

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Center for Vector Biology



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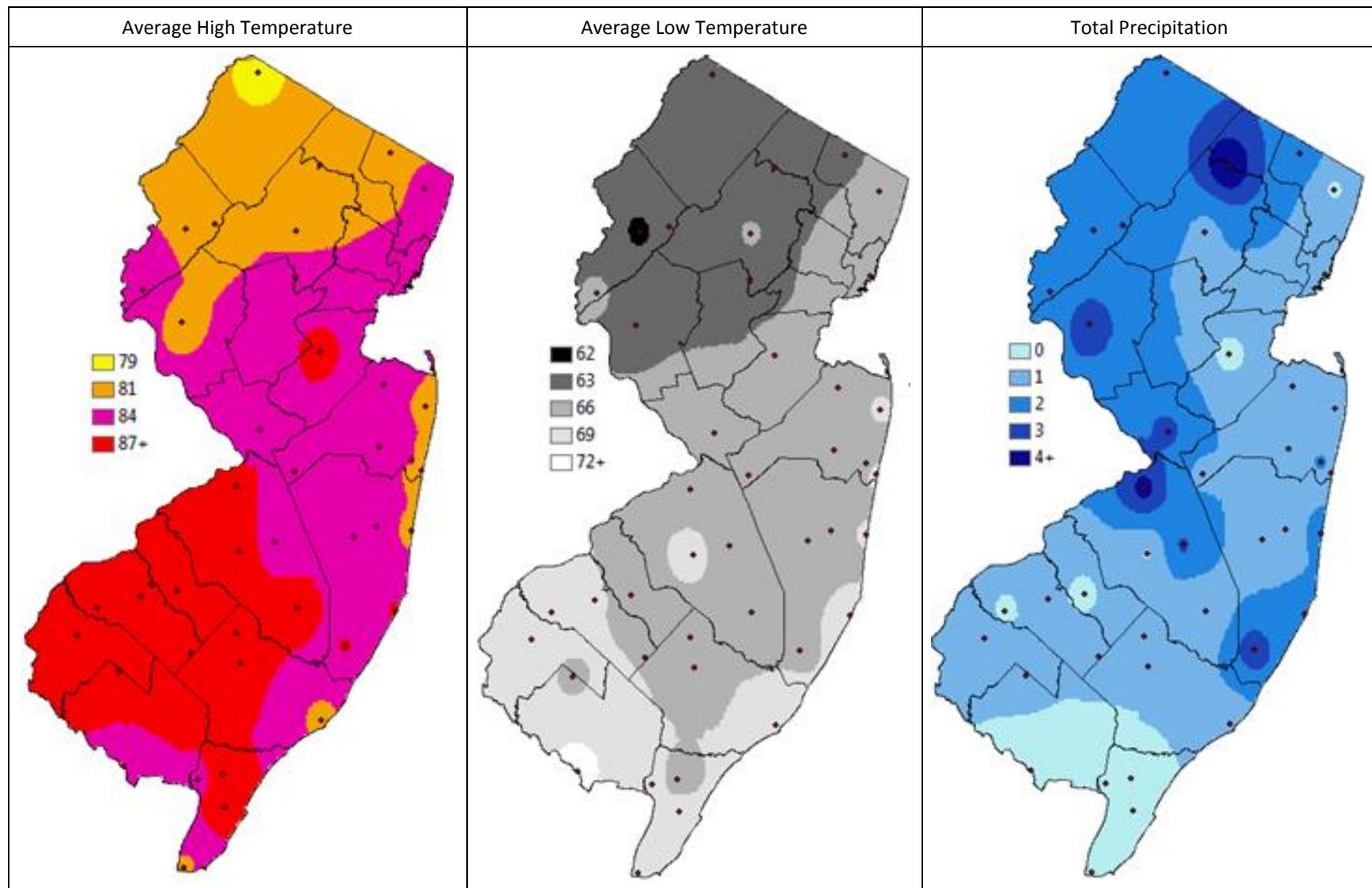
Summary Table – Week 29

| 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 | 0.38 | 3.14 | 0 | 3.05 | 7.64 | 0 | 0.07 | 0.69 | 0 | 0.62 | 0.16 | 4 |
| Coastal | 1.05 | 3.71 | 0 | 2.22 | 7.20 | 0 | 0.57 | 0.50 | 1 | 0.73 | 5.34 | 0 |
| Delaware Bayshore | 0.69 | 0.57 | 1 | 8.17 | 20.45 | 0 | 0.00 | 0.94 | 0 | 10.86 | 2.94 | 4 |
| Delaware River Basin | 121.8 | 8.91 | 4 | 8.57 | 10.43 | 0 | 3.57 | 2.99 | 1 | 0.43 | 0.00 | |
| New York Metro | 10.63 | 4.15 | 4 | 3.41 | 9.88 | 0 | 0.54 | 0.46 | 1 | 1.30 | 1.79 | 0 |
| North Central Rural | 1.20 | 0.10 | | 0.23 | 0.41 | 0 | 1.04 | 0.36 | 4 | 0.00 | 0.00 | 0 |
| Northwest Rural | 0.00 | 3.66 | 0 | 0.00 | 2.84 | 0 | 0.00 | 2.08 | 0 | 0.00 | 0.00 | 0 |
| Philadelphia Metro | 0.00 | 4.04 | 0 | 0.00 | 5.82 | 0 | 0.00 | 1.13 | 0 | 0.00 | 0.00 | 0 |
| Pinelands | 0.48 | 1.01 | 0 | 0.58 | 2.98 | 0 | 1.52 | 1.86 | 0 | 0.00 | 0.32 | 0 |
| Suburban Corridor | 2.15 | 2.01 | 1 | 1.21 | 2.09 | 0 | 0.82 | 0.43 | 2 | 0.00 | 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: Several populations, particularly floodwater species, were well above historical averages. For *Aedes vexans*, populations in the Delaware River Basin, New York Metropolitan and the North Central Rural regions were significantly above the running 5-year averages, with elevated populations also in the Delaware Bayshore region and the Suburban Corridor. *Aedes sollicitans*, another floodwater species, also showed significantly elevated numbers in the Agricultural and Delaware Bayshore regions. *Coquillettidia perturbans* populations were significantly elevated in the North Central Rural region, with above average populations also in the Coastal, Delaware River Basin, the New York Metropolitan and the Suburban Corridor.

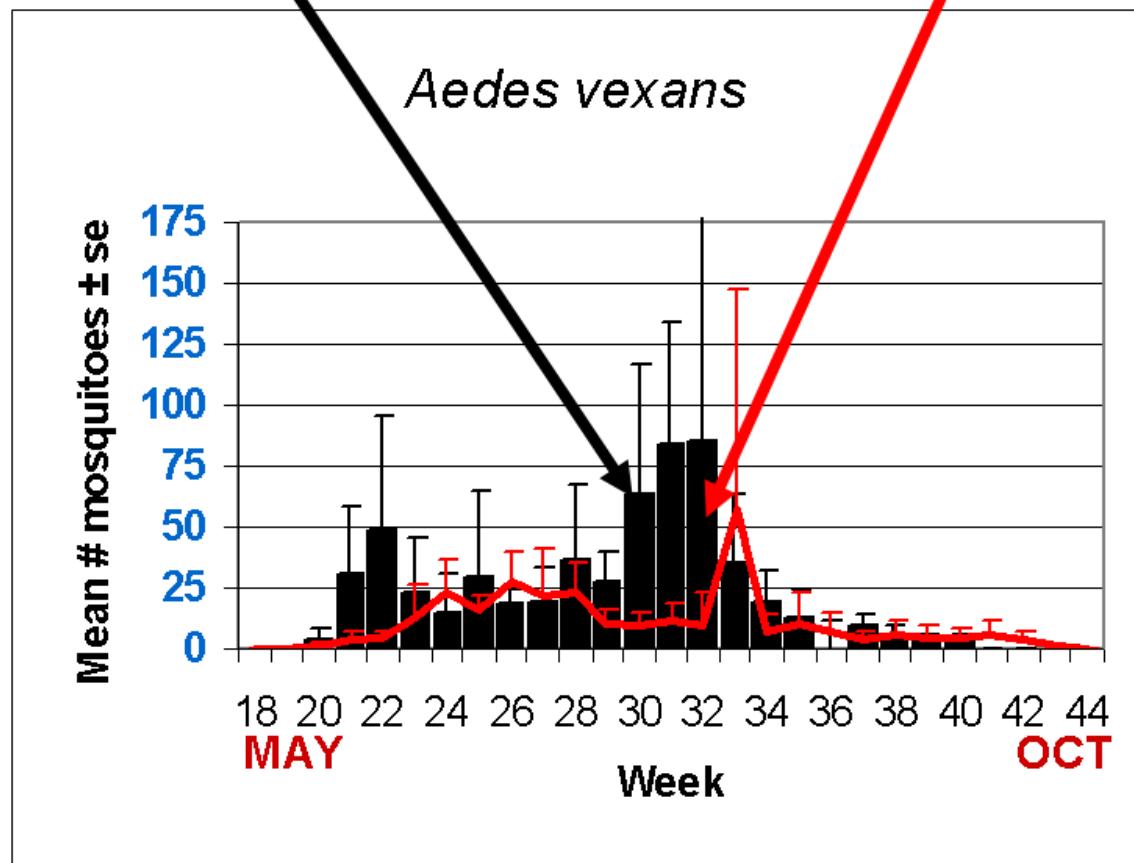
Climate Factors



The three figures show the interpolation of average maximum ($^{\circ}\text{F}$) and minimum temperature ($^{\circ}\text{F}$) and total precipitation (inches) for 14 days prior to 25 July 2021 in New Jersey. Data points are from about 45 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 10.1.

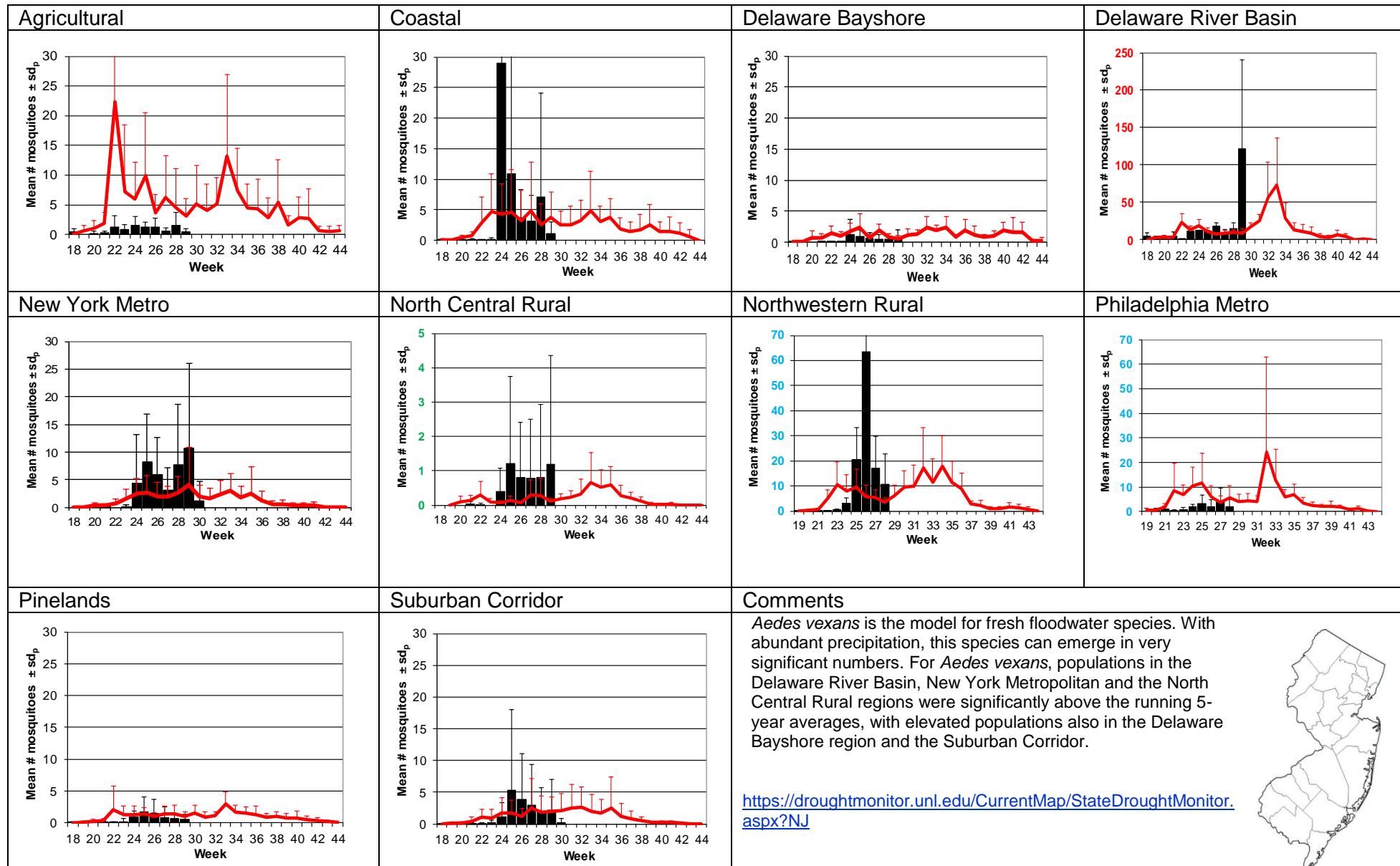
The Species Graphs: The species graph pages include a graph with two plots for each of the ten regions defined on the first page (Agricultural, Coastal, Delaware Bayshore, Delaware River, New York Metro, North-Central, Northwestern, Philadelphia Metro, Pinelands, and Suburban Corridor). Below is an example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

Weekly Means Against 5-year Average



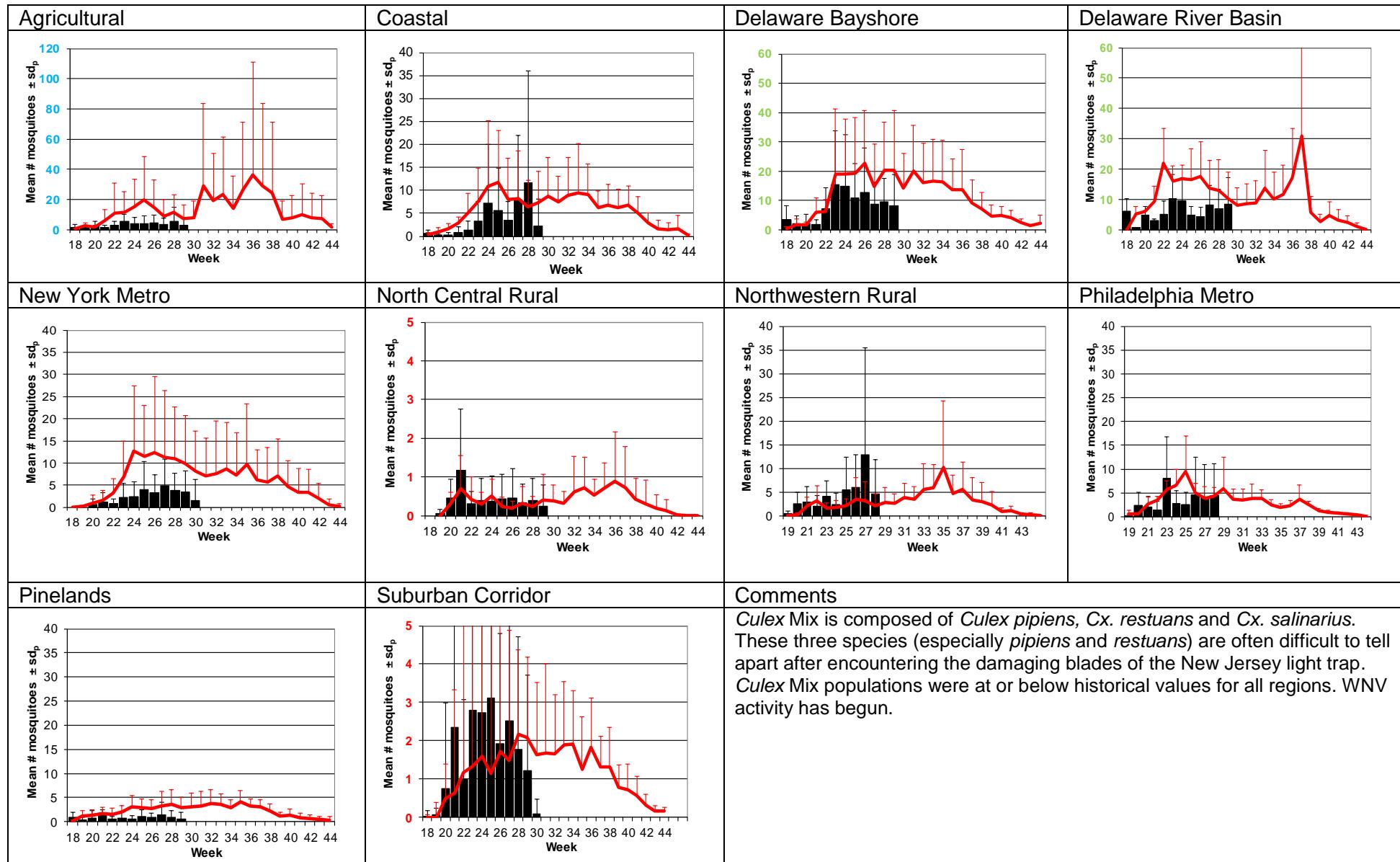
Aedes vexans - Fresh Floodwater Species

Multivoltine Aedine (Ae. vexans Type)



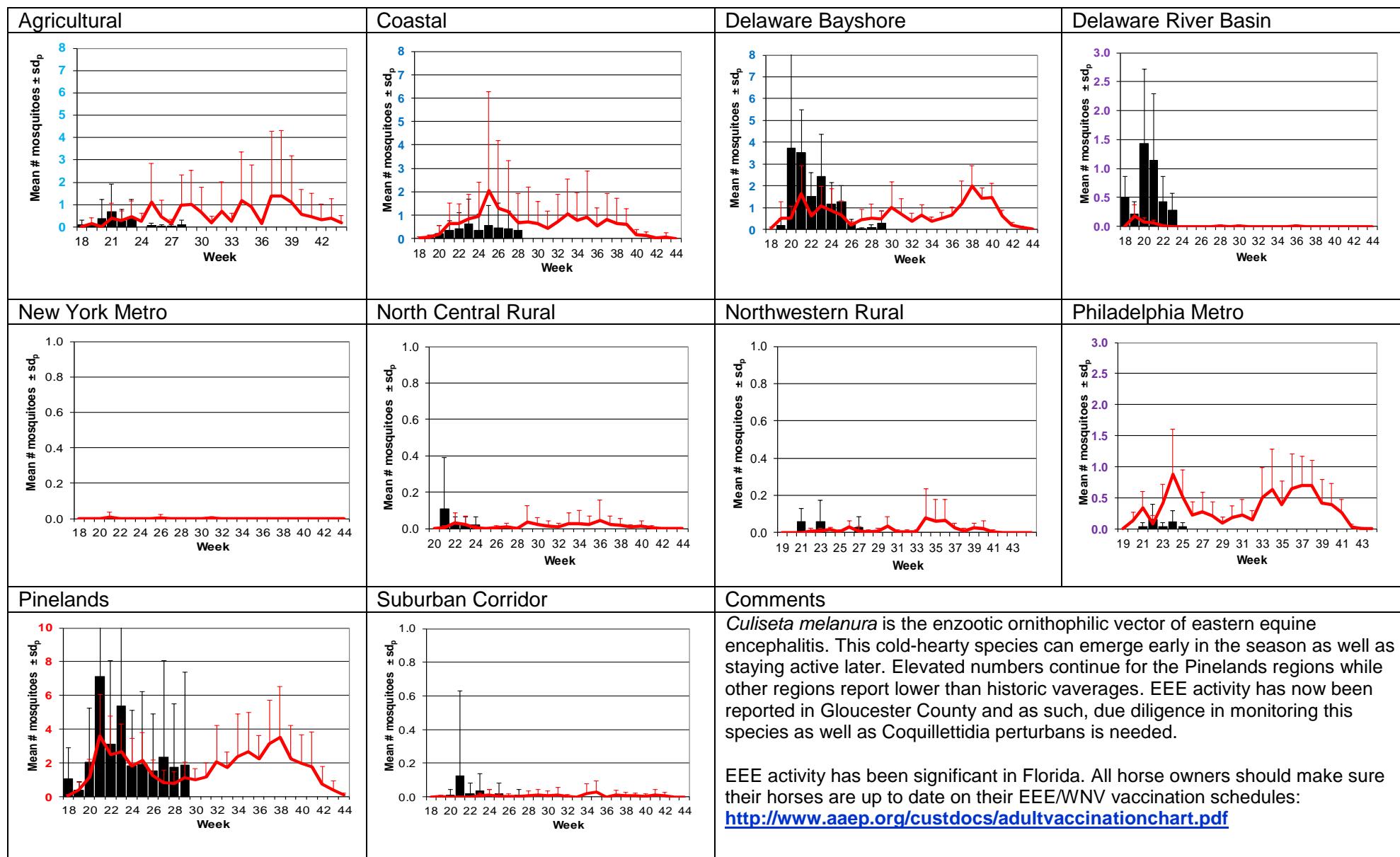
Culex Mix – Permanent Water Species

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



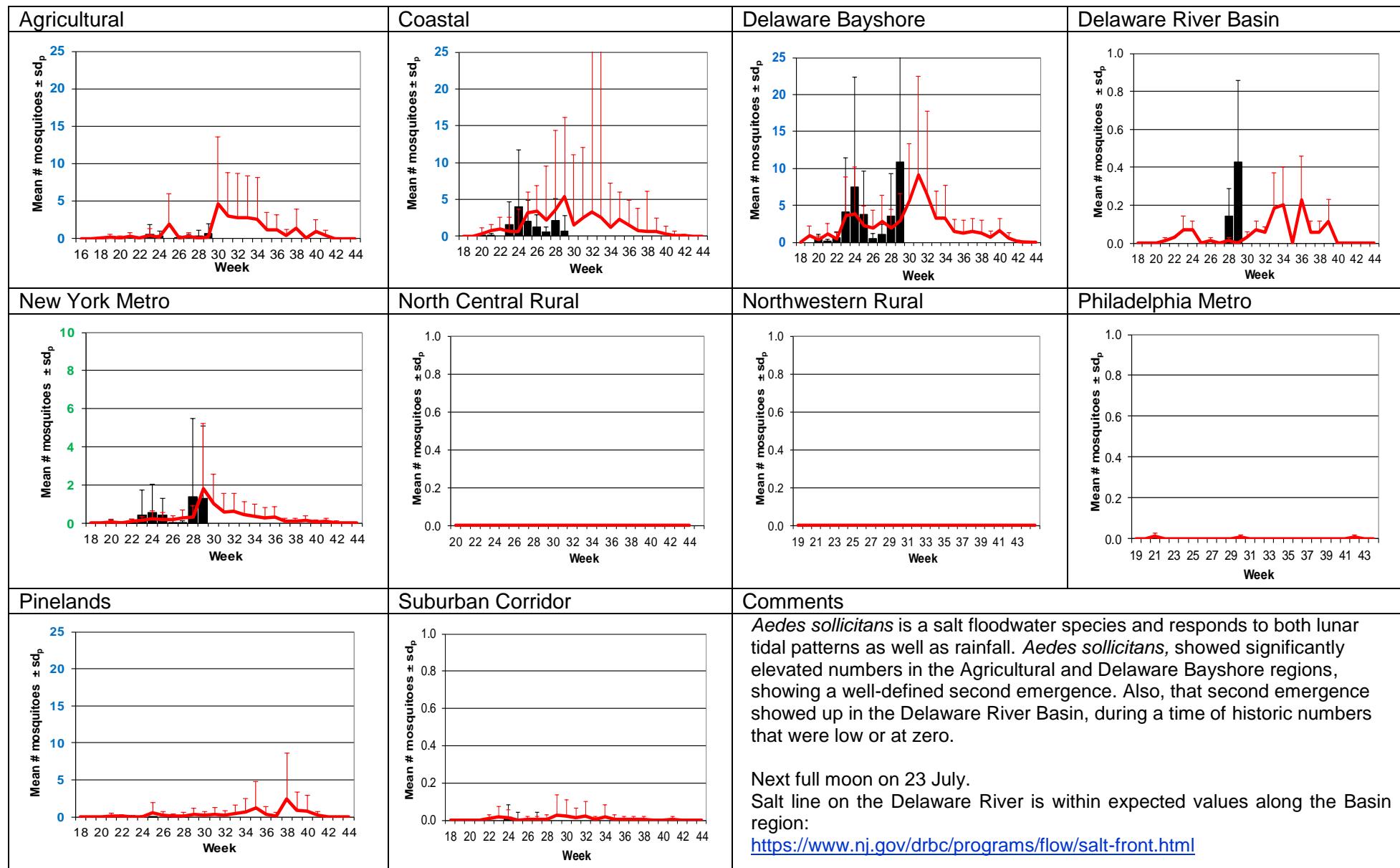
Culiseta melanura – Miscellaneous Group

Unique (*Cs. melanura* Type)



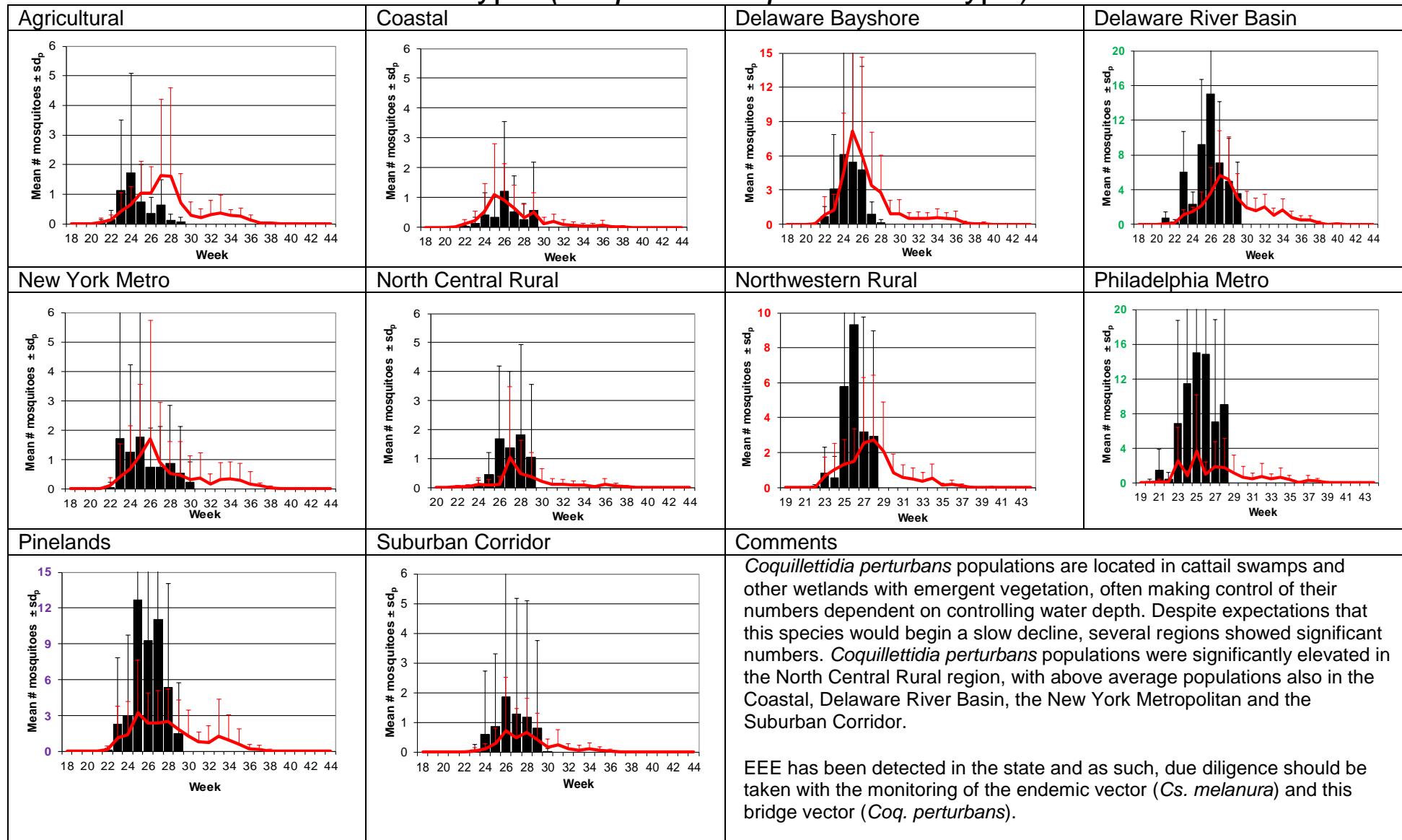
Aedes sollicitans - Salt Floodwater Species

Multivoltine Aedine (*Ae. sollicitans* Type)



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)

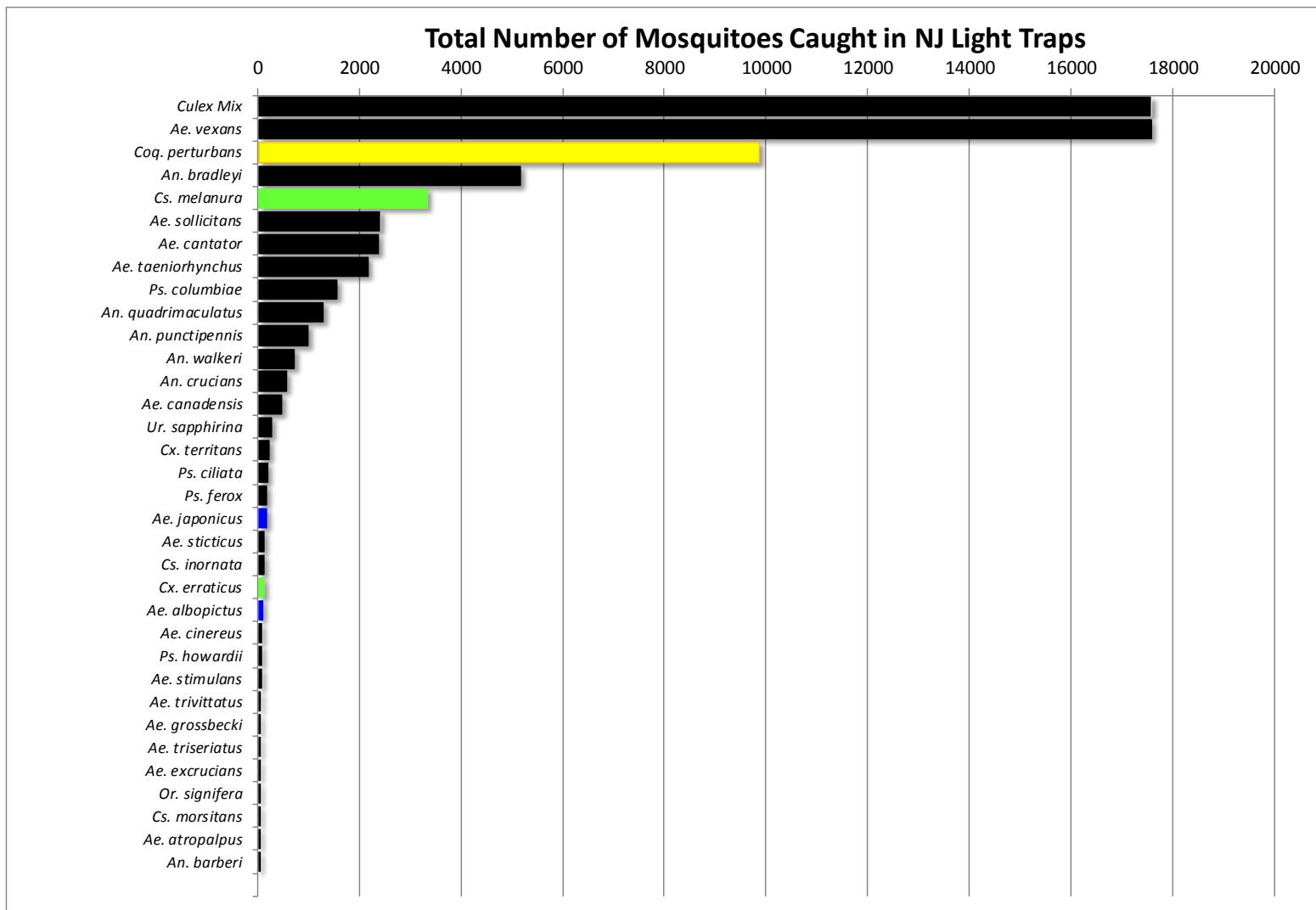


WNV

EEE

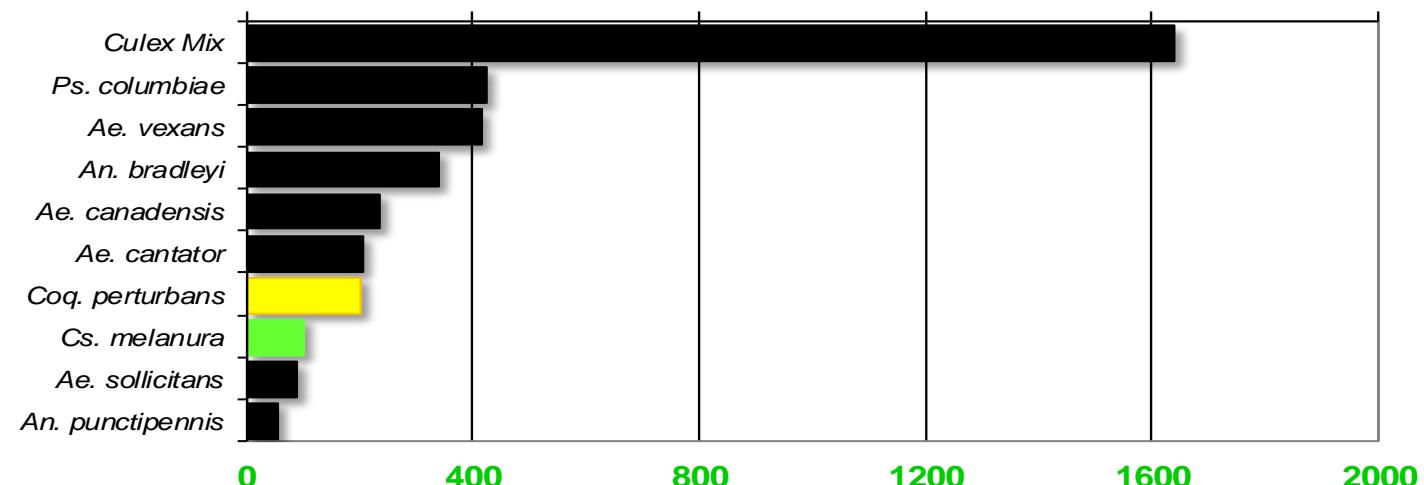
Top Ten Mosquito Species/Region - ■ Ae. albopictus, ■ Ae. japonicus (invasives); ■ Cs. melanura or Cx. erraticus ■ Coq. perturbans

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



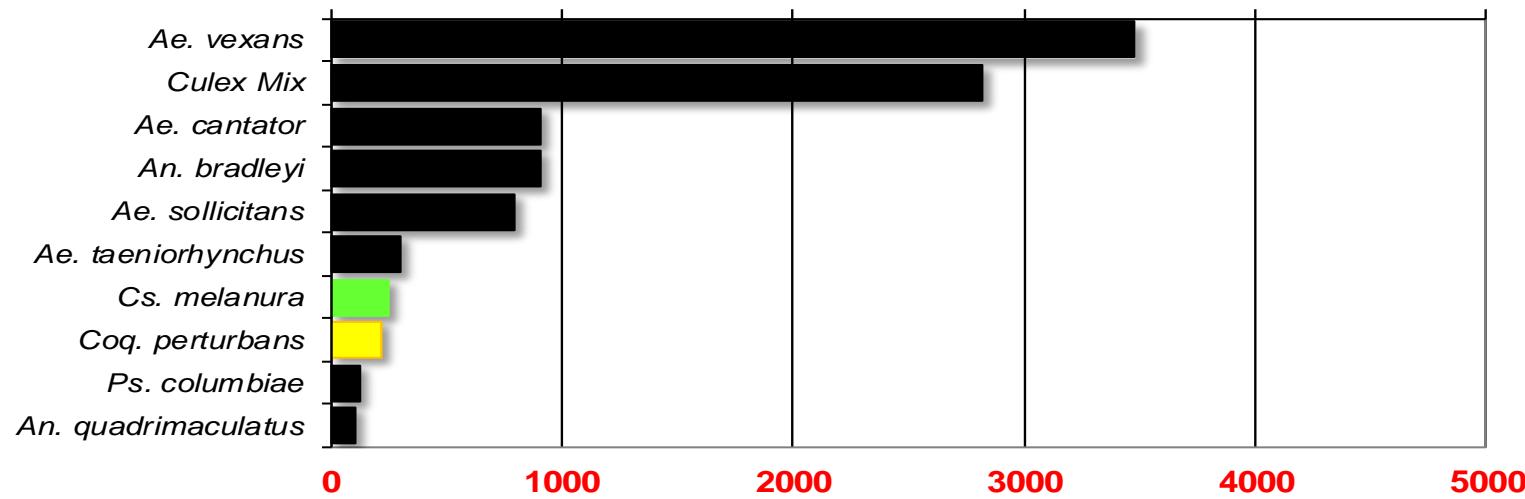
Agricultural

Total # mosquitoes



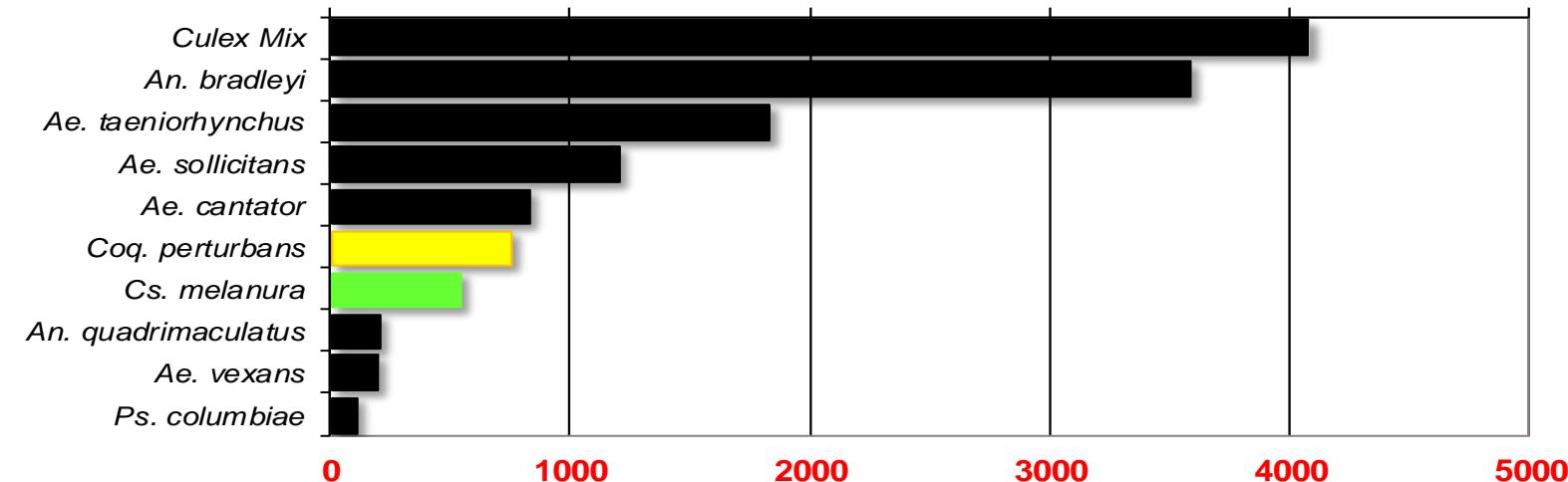
Coastal

Total # mosquitoes



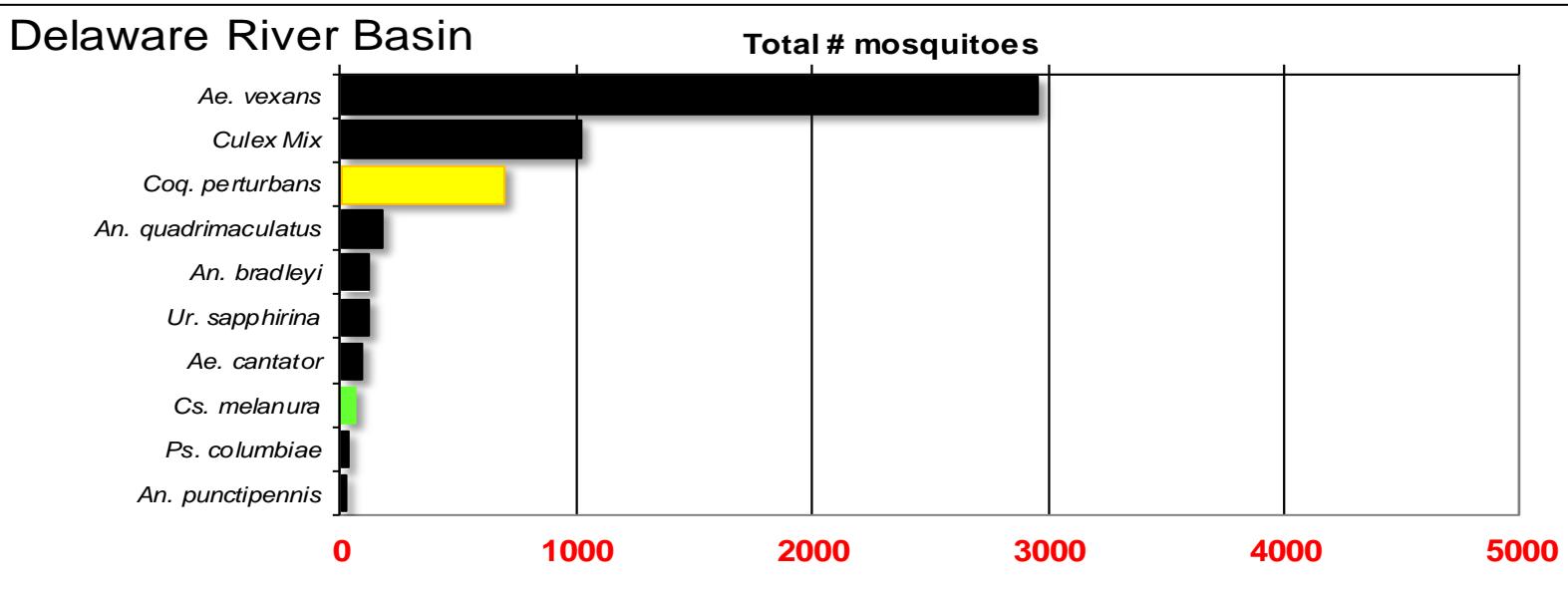
Delaware Bayshore

Total # mosquitoes



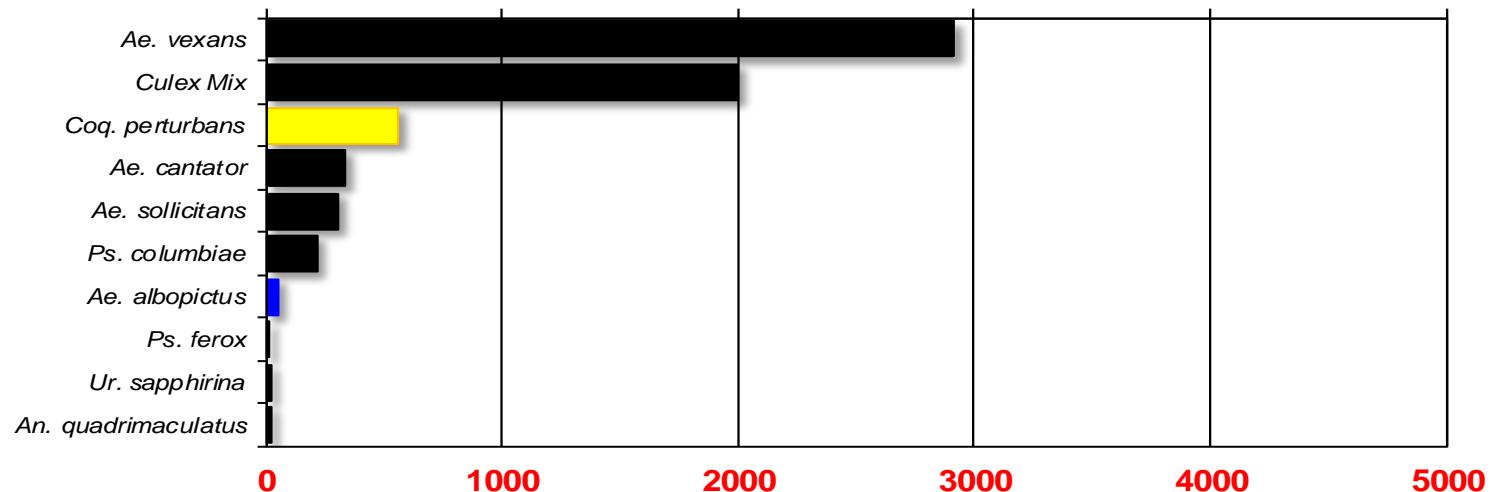
Delaware River Basin

Total # mosquitoes



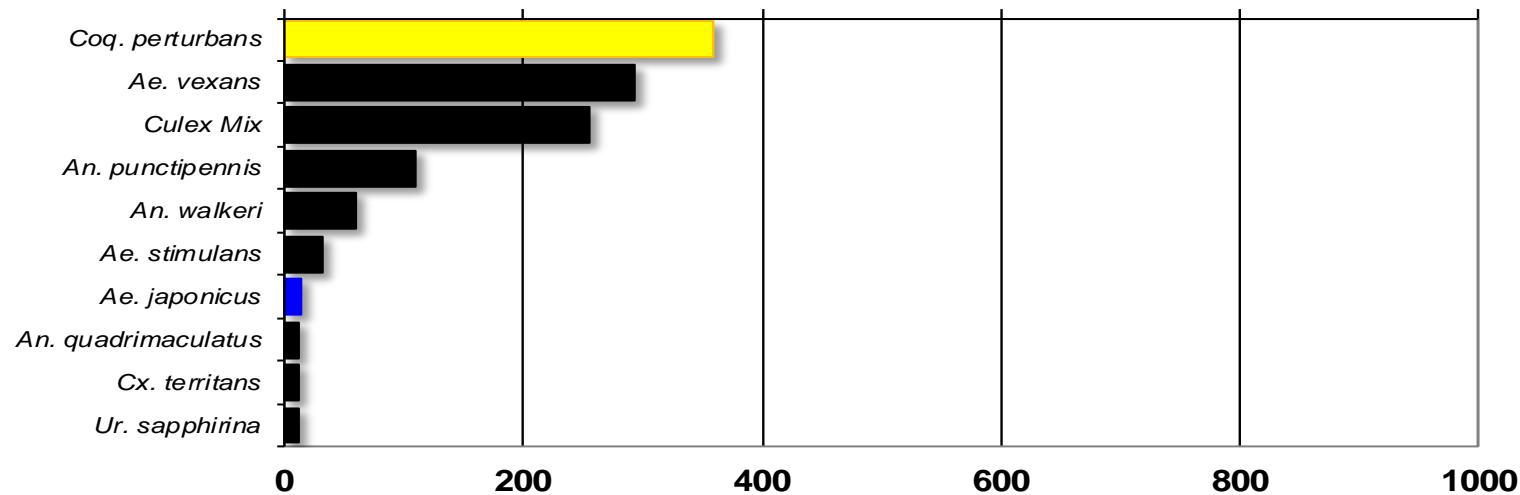
New York Metropolitan

Total # mosquitoes



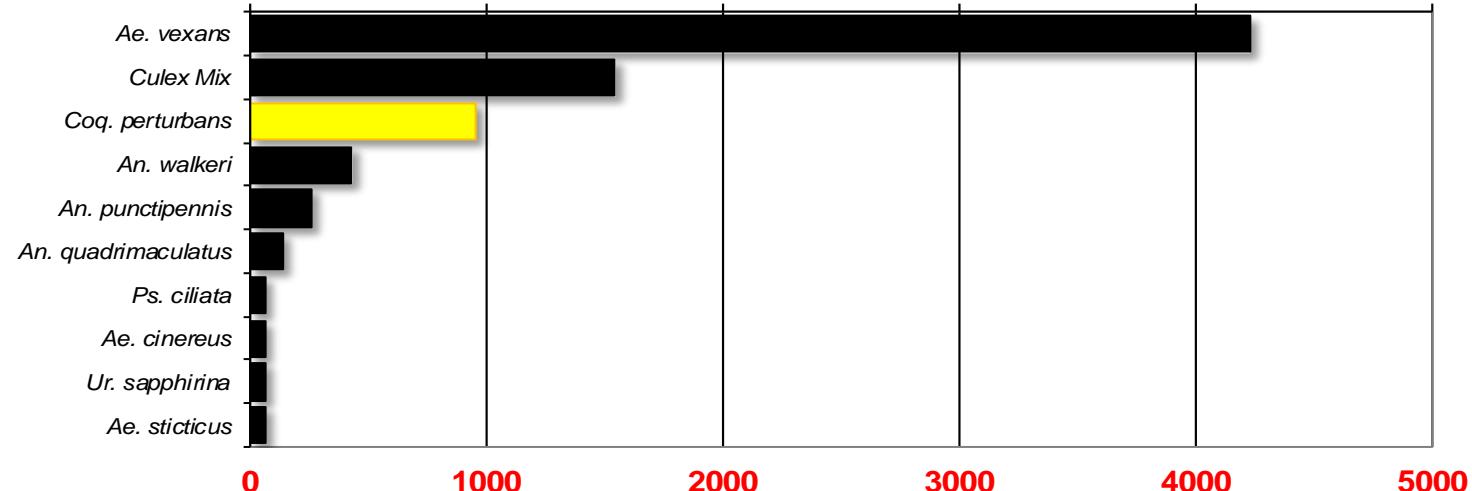
North Central Rural

Total # mosquitoes



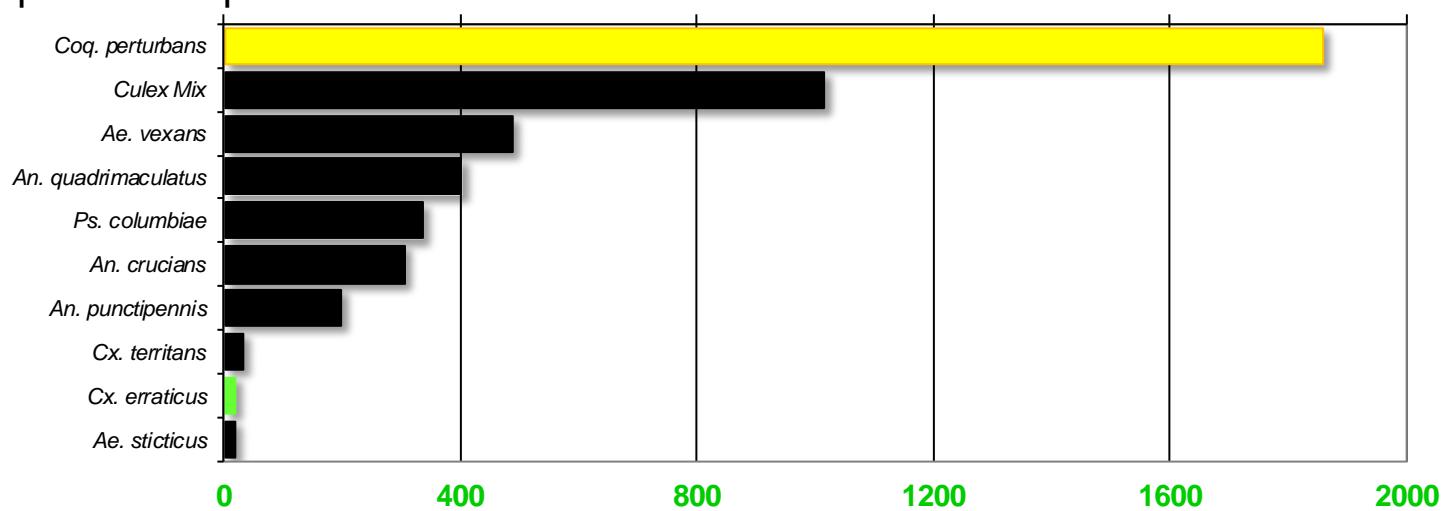
Northwest Rural

Total # mosquitoes



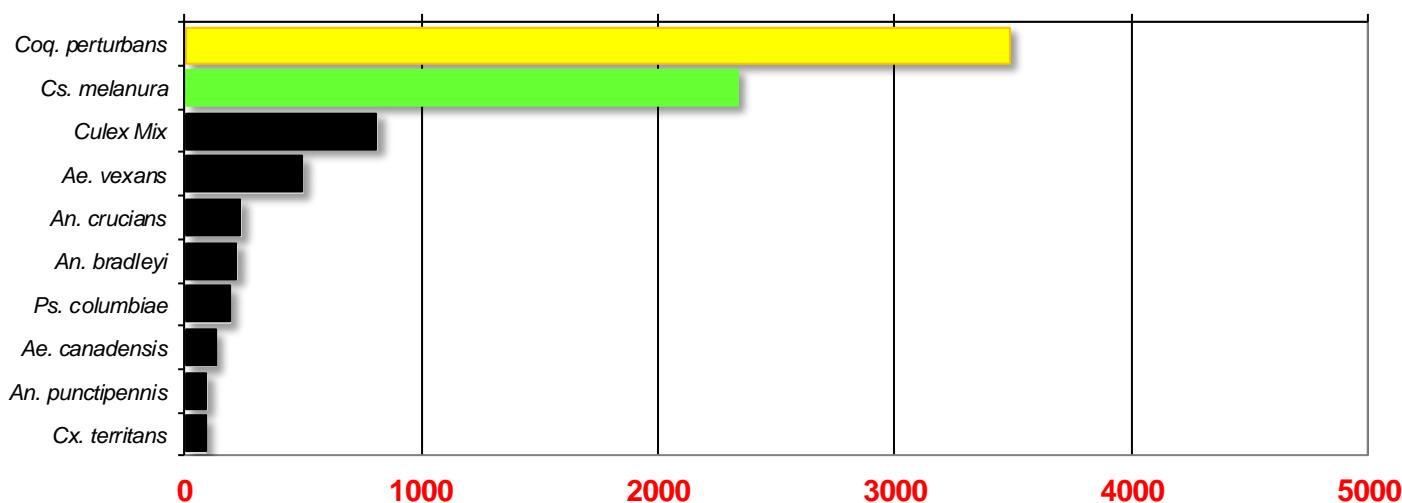
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

