

NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 1 May to 31 May 2012, CDC Weeks 18-22

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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 21 (last full week)

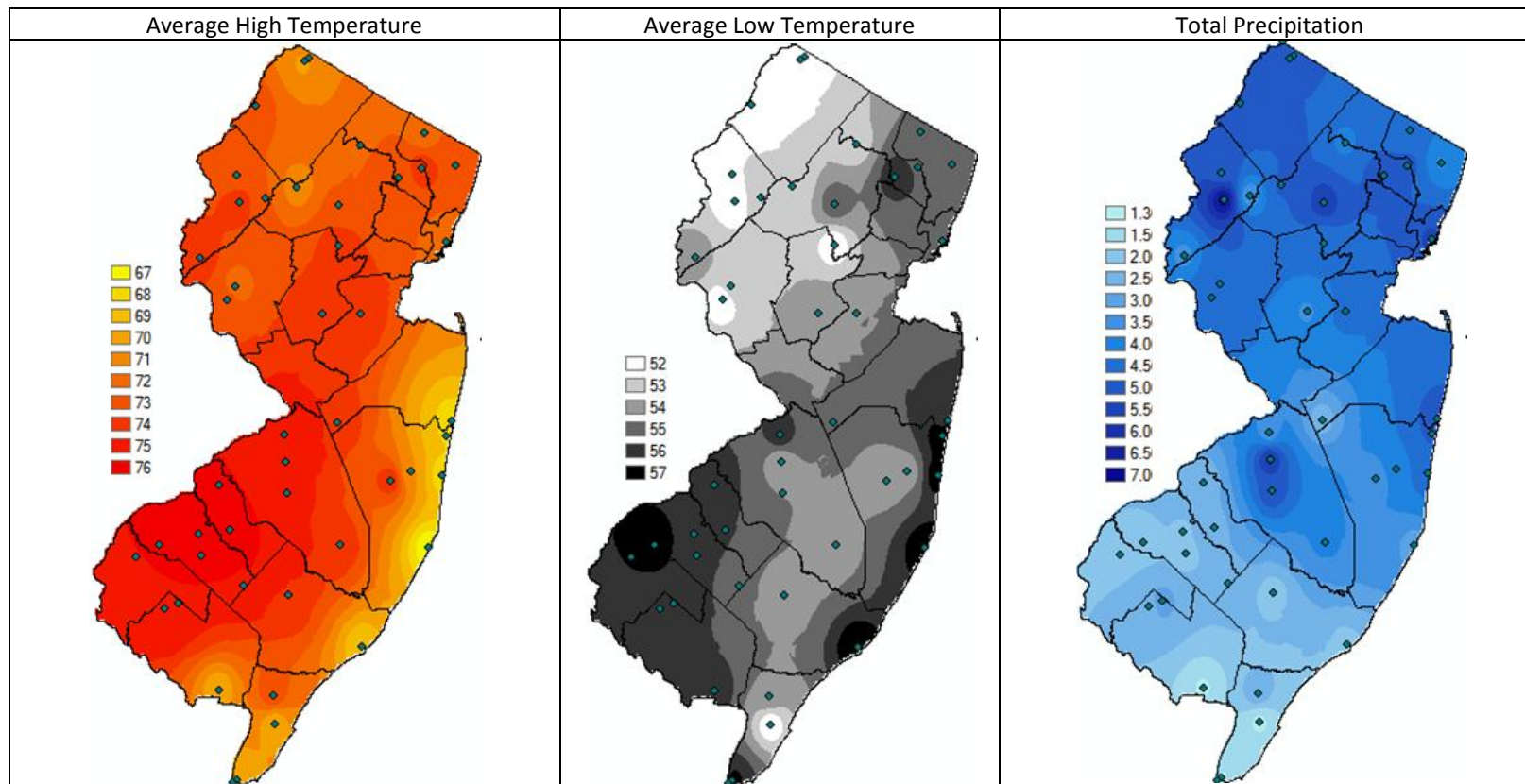
| Region | <i>Aedes vexans</i> | | | <i>Culex Mix</i> | | | <i>Coquillettidia perturbans</i> | | | <i>Aedes sollicitans</i> | | |
|----------------------|---------------------|----------|----------|------------------|----------|----------|----------------------------------|----------|----------|--------------------------|----------|----------|
| | This Week | Average* | Increase | This Week | Average* | Increase | This Week | Average* | Increase | This Week | Average* | Increase |
| Agricultural | 0.38 | 2.00 | 0 | 0.71 | 2.66 | 0 | 0.00 | 0.06 | 0 | 0.14 | 0.01 | 4 |
| Coastal | 0.17 | 1.23 | 0 | 2.40 | 2.70 | 0 | 0.00 | 0.03 | 0 | 1.63 | 1.29 | 1 |
| Delaware Bayshore | 6.74 | 5.19 | 1 | 8.14 | 9.10 | 0 | 0.31 | 1.44 | 0 | 1.43 | 2.87 | 0 |
| Delaware River Basin | 0.00 | 4.51 | 0 | 5.64 | 1.12 | 4 | 0.07 | 0.04 | 2 | 0.00 | 0.01 | 0 |
| New York Metro | 0.10 | 2.03 | 0 | 0.10 | 2.99 | 0 | 0.00 | 0.01 | 0 | 0.00 | 0.04 | 0 |
| North Central Rural | 0.00 | 0.34 | 0 | 0.18 | 1.02 | 0 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | 0 |
| Northwest Rural | 0.31 | 6.72 | 0 | 0.60 | 1.00 | 0 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | 0 |
| Philadelphia Metro | 0.75 | 5.30 | 0 | 1.64 | 3.04 | 0 | 0.04 | 0.07 | 0 | 0.00 | 0.00 | 0 |
| Pinelands | 0.09 | 0.94 | 0 | 0.83 | 1.82 | 0 | 0.00 | 0.04 | 0 | 0.05 | 0.07 | 0 |
| Suburban Corridor | 0.18 | 1.82 | 0 | 0.27 | 1.20 | 0 | 0.04 | 0.05 | 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: The mosquito season in New Jersey began back in March and April, with reports of early season species on the wing. As mosquito control agencies submit their data, activity can now be seen in *Aedes vexans* in many regions with numbers slightly above average historical trends in the Delaware Bayshore. *Culex* populations in the Delaware River Basin are above historical trends as are *Coquillettidia*

perturbans in the same region. *Aedes sollicitans* are higher (although at low overall numbers) in the agricultural regions while numbers are climbing in their most typical habitat, the coastal region.

Climate Factors

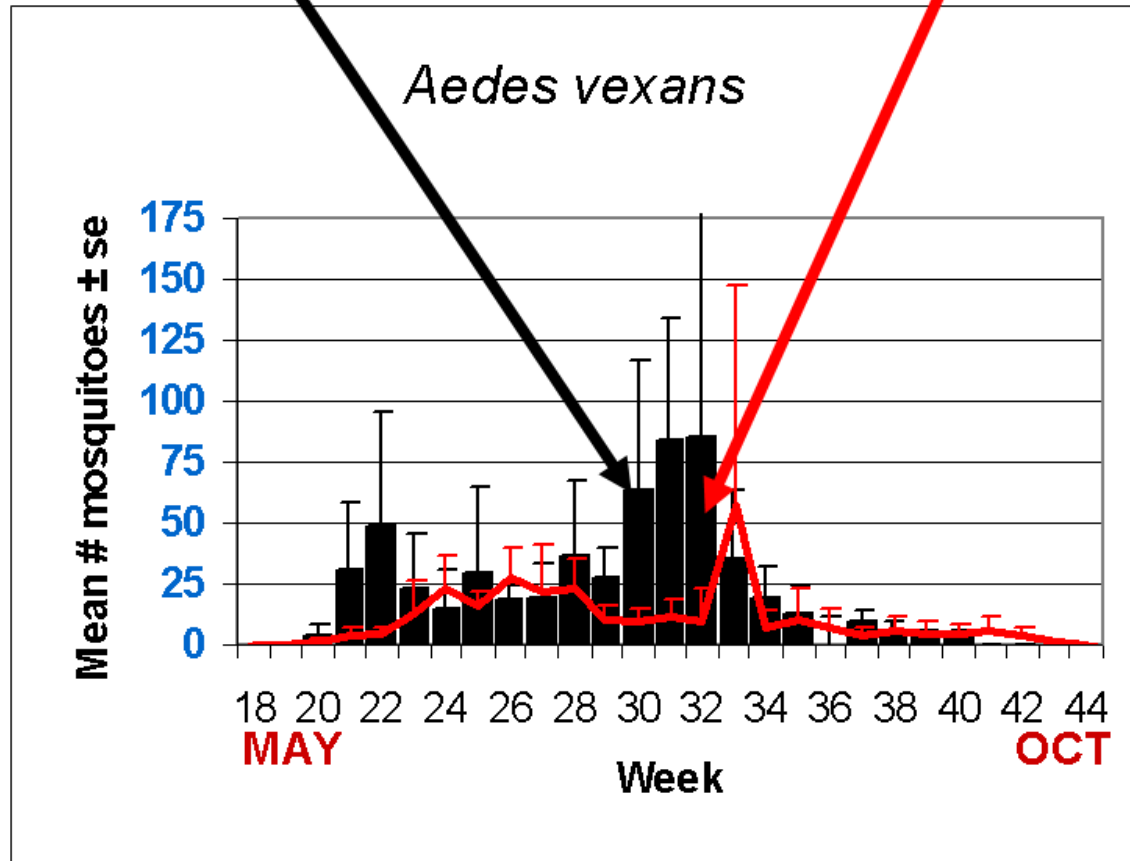


The three figures show the interpolation of average maximum and minimum temperature and total precipitation through 1 May to 30 May, 2012 in New Jersey. Data points are from about 46 weather stations maintained through the New Jersey Weather & Climate Network and the State Climatologist. Interpolation between points was performed using ArcMap 9.2/10.

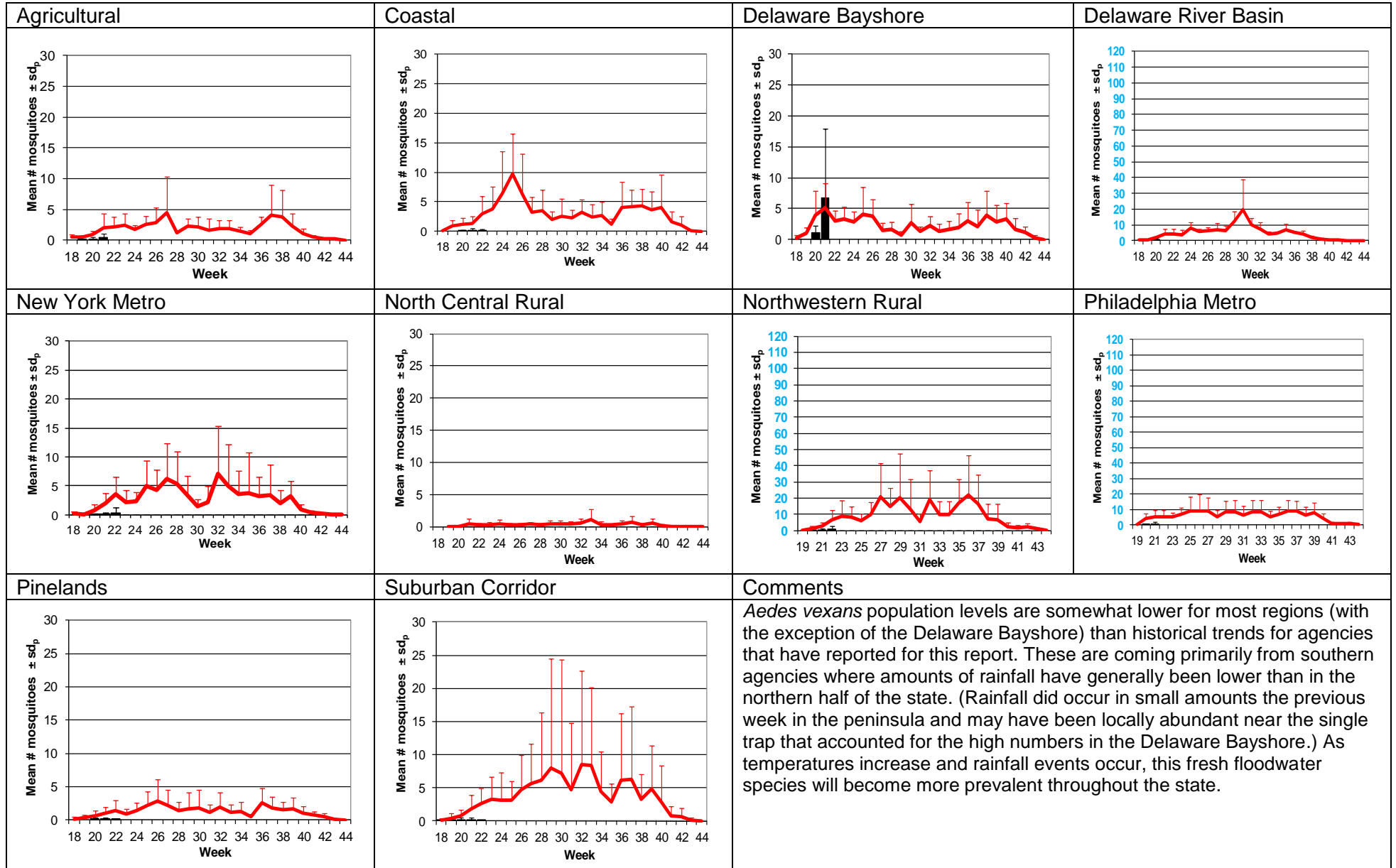
Average high, low temperatures and precipitation for the month of May is presented.

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 report are from Burlington, Cape May, Essex, Mercer, Ocean, Salem and Warren counties. Note: County data is sent in at a variety of times during the week.

Weekly Means Against 5-year Average

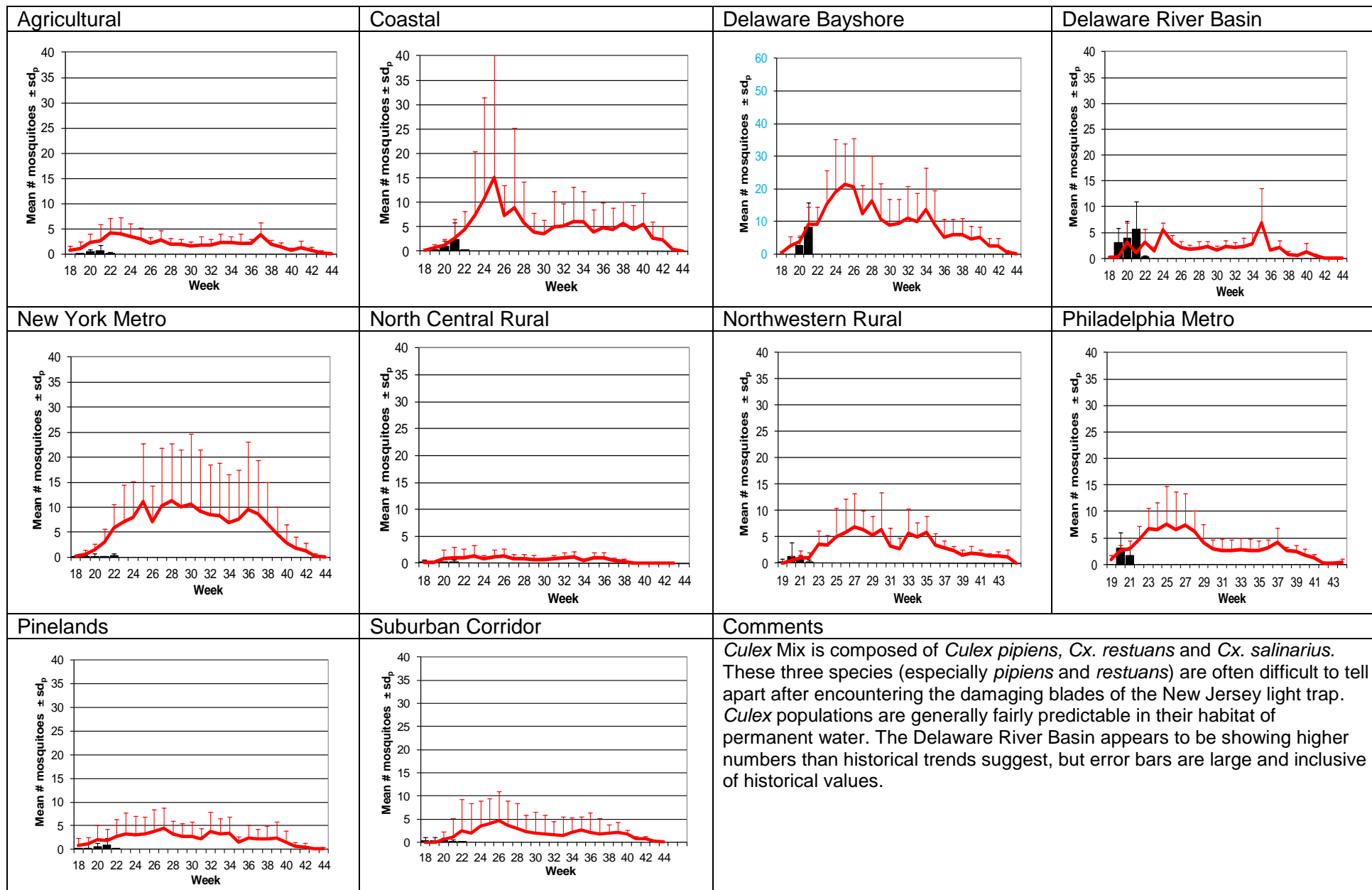


Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

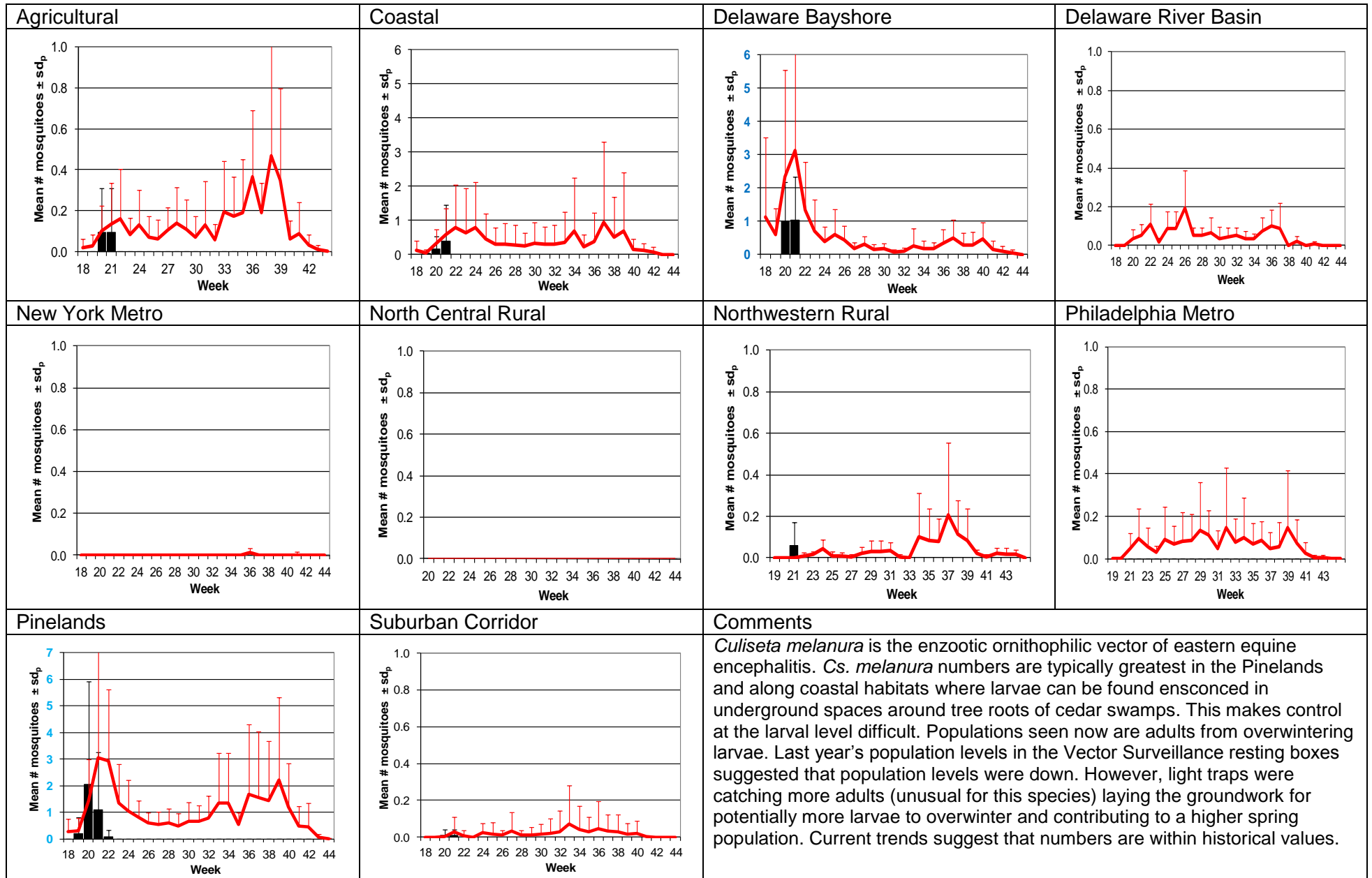


Culex Mix – Permanent Water Species

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

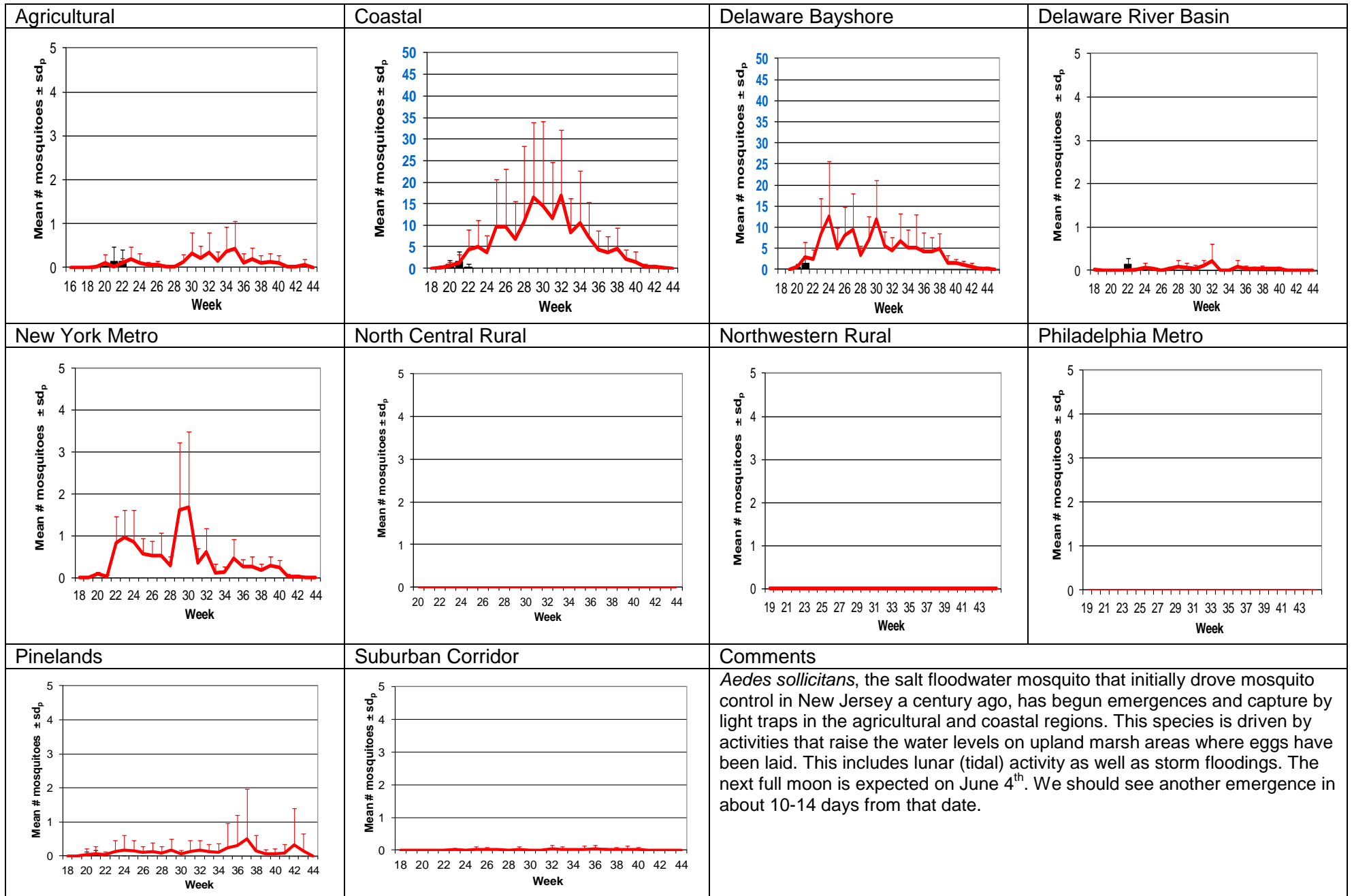


Culiseta melanura – Miscellaneous Group Unique (*Cs. melanura* Type)



Aedes sollicitans - Salt Floodwater Species

Multivoltine Aedine (*Ae. sollicitans* Type)

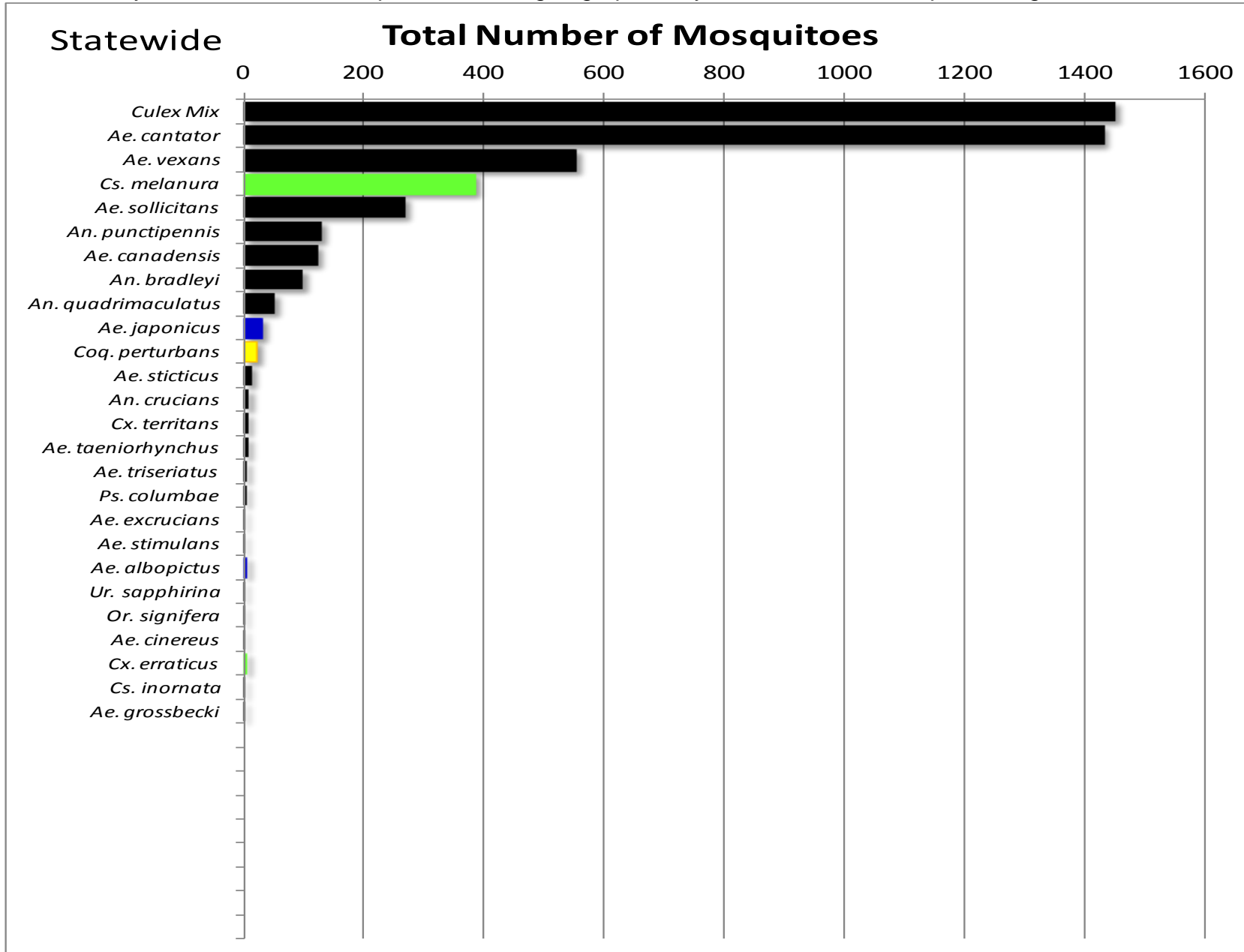


WNV

EEE

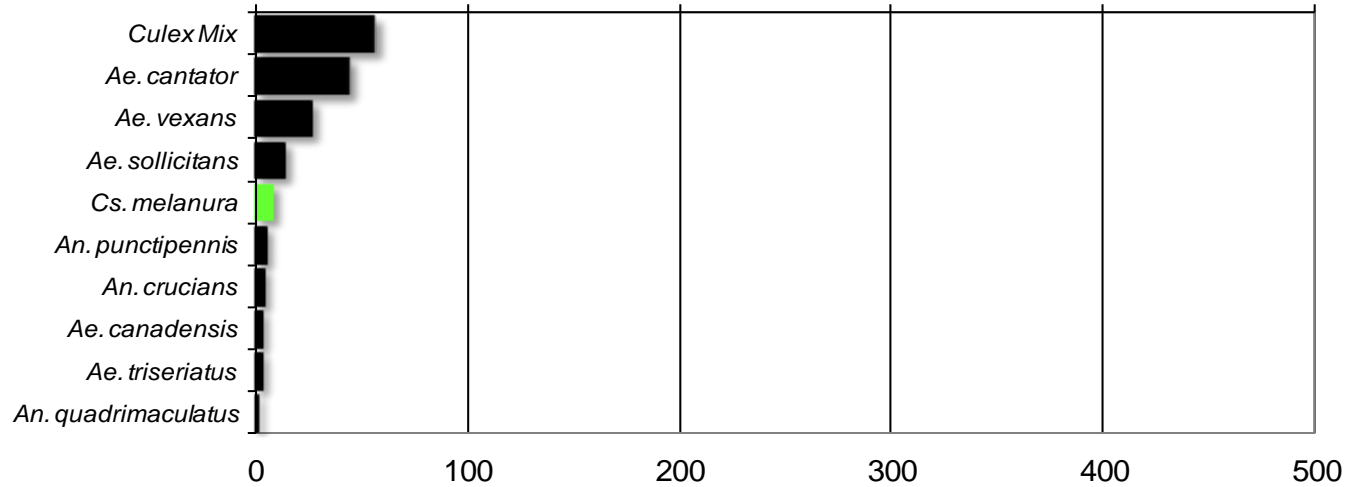
Top Ten Mosquito Species/Region - ■ *Ae. albopictus*, ■ *Ae. japonicus* (invasives); ■ *Cs. melanura* or *Cx. erraticus* ■ *Coq. perturbans*

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



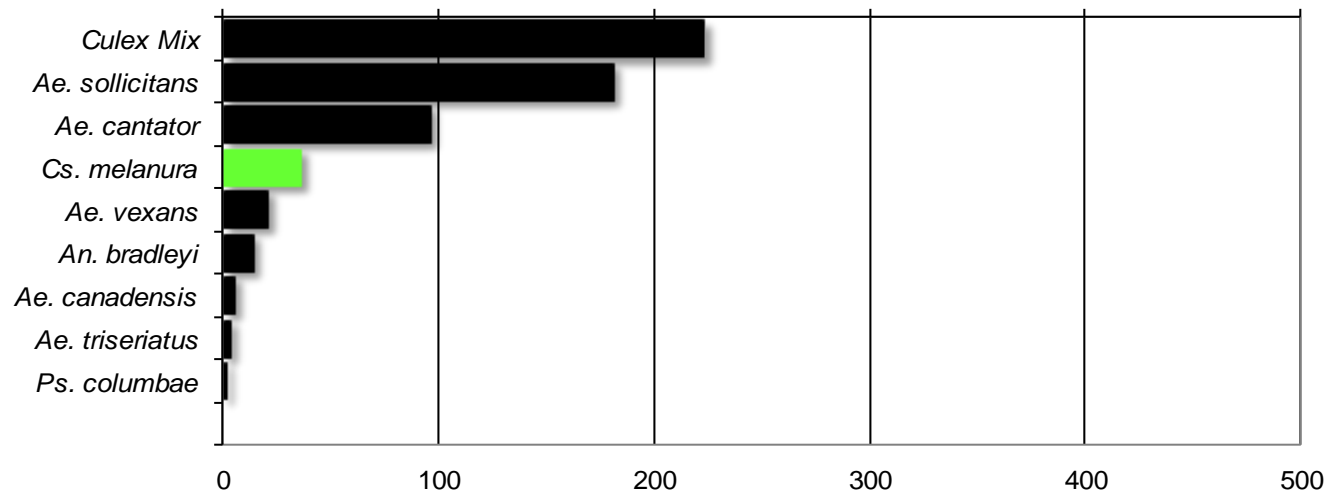
Agricultural

Total # mosquitoes



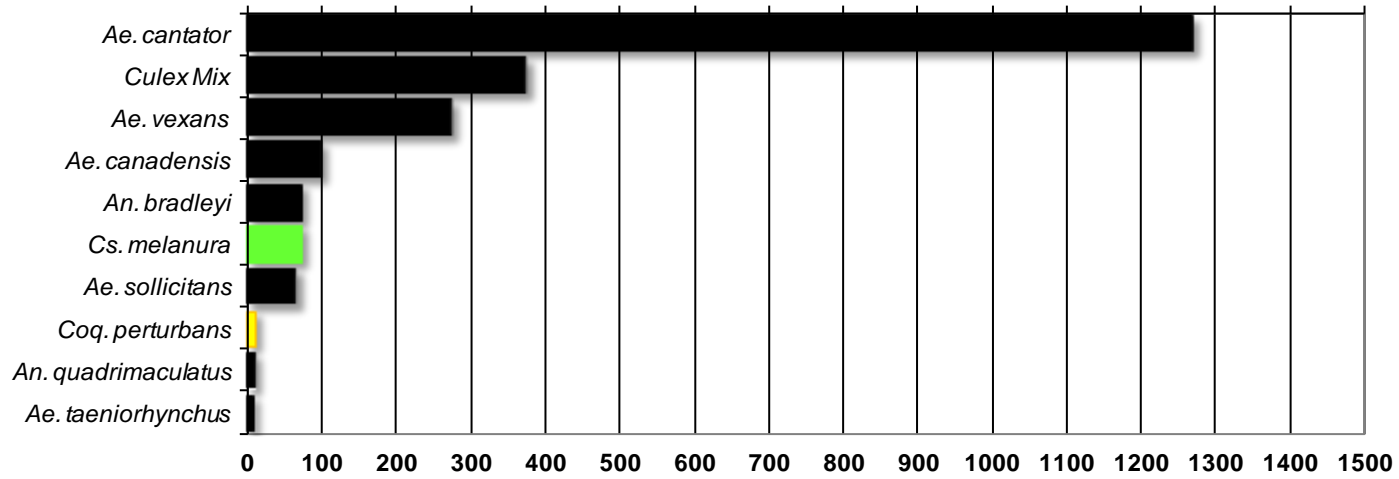
Coastal

Total # mosquitoes



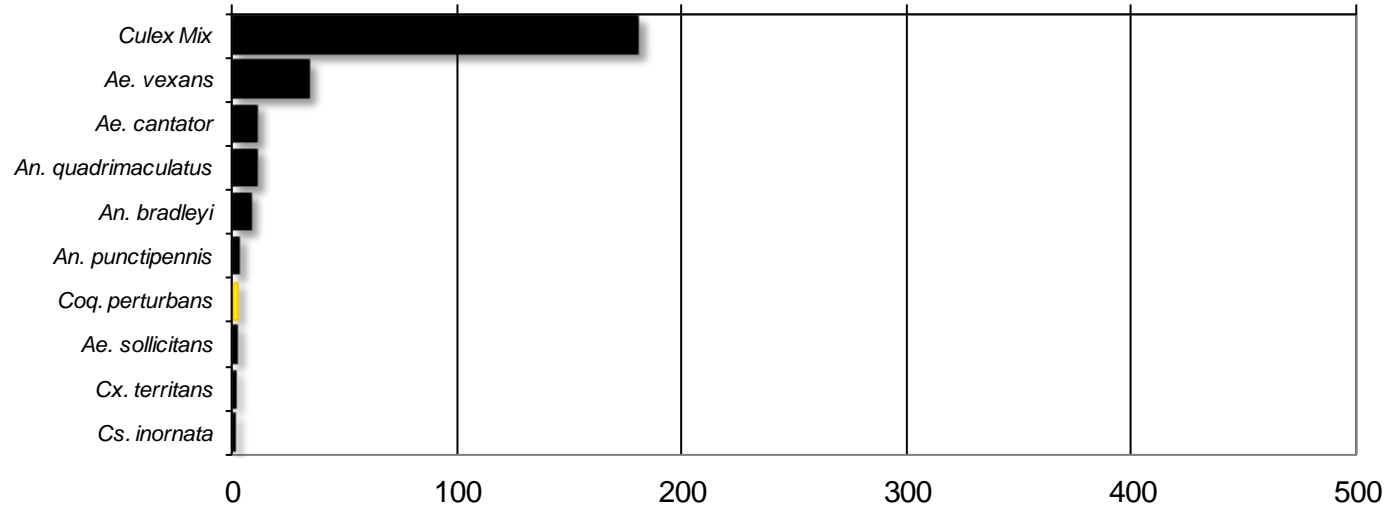
Delaware Bayshore

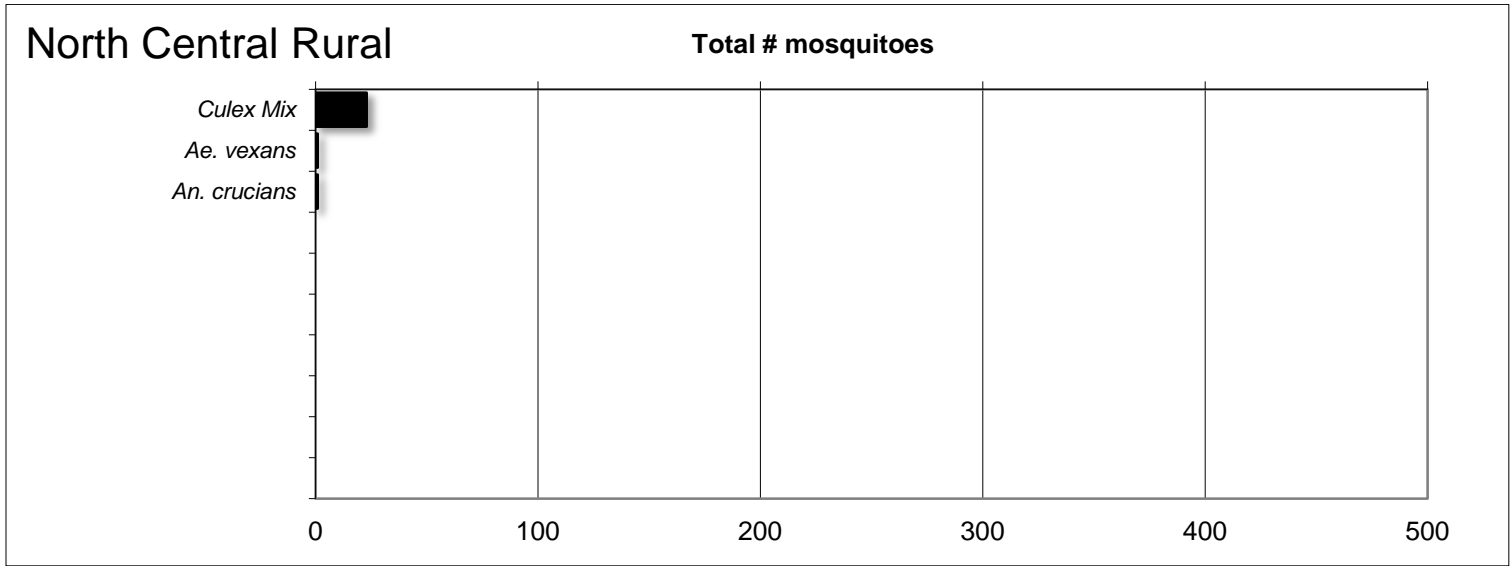
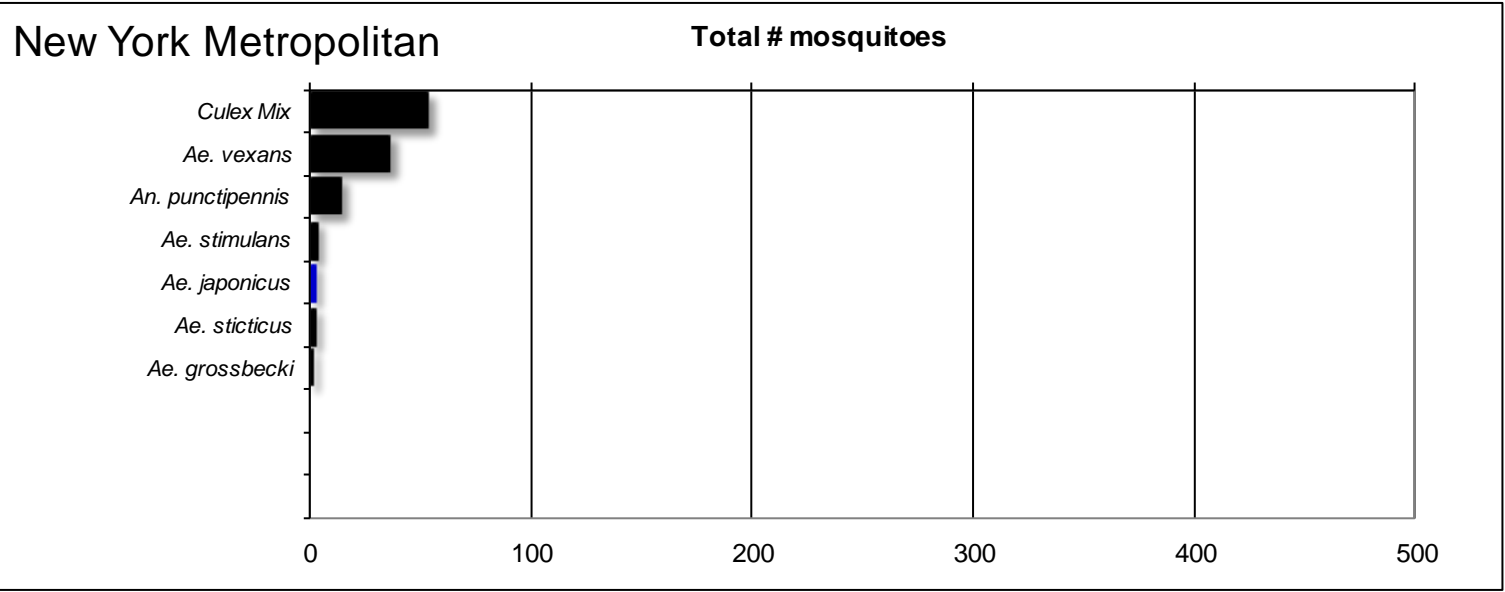
Total # mosquitoes



Delaware River Basin

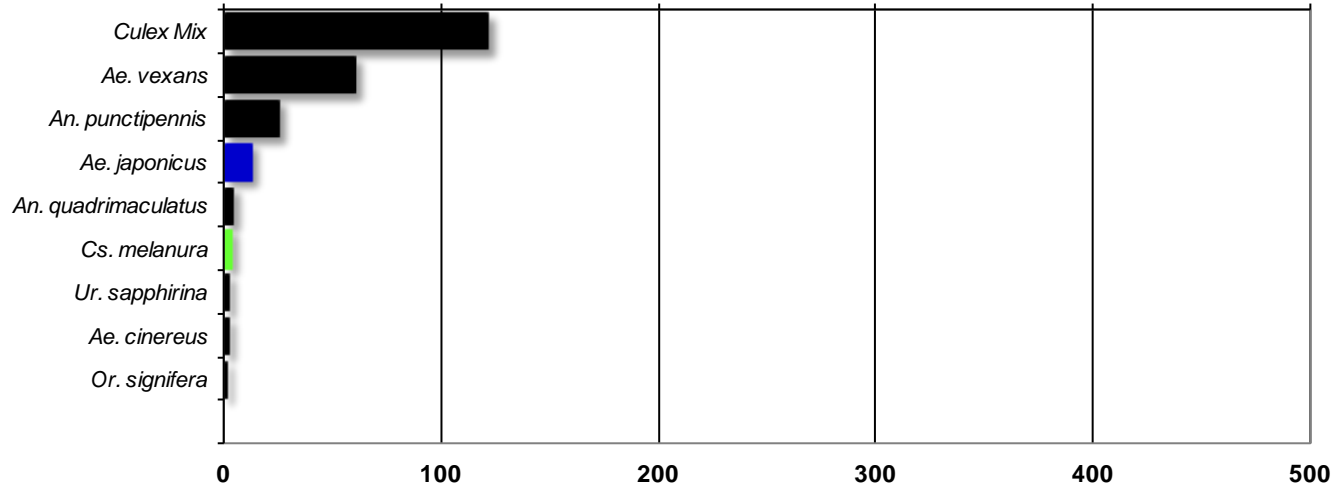
Total # mosquitoes





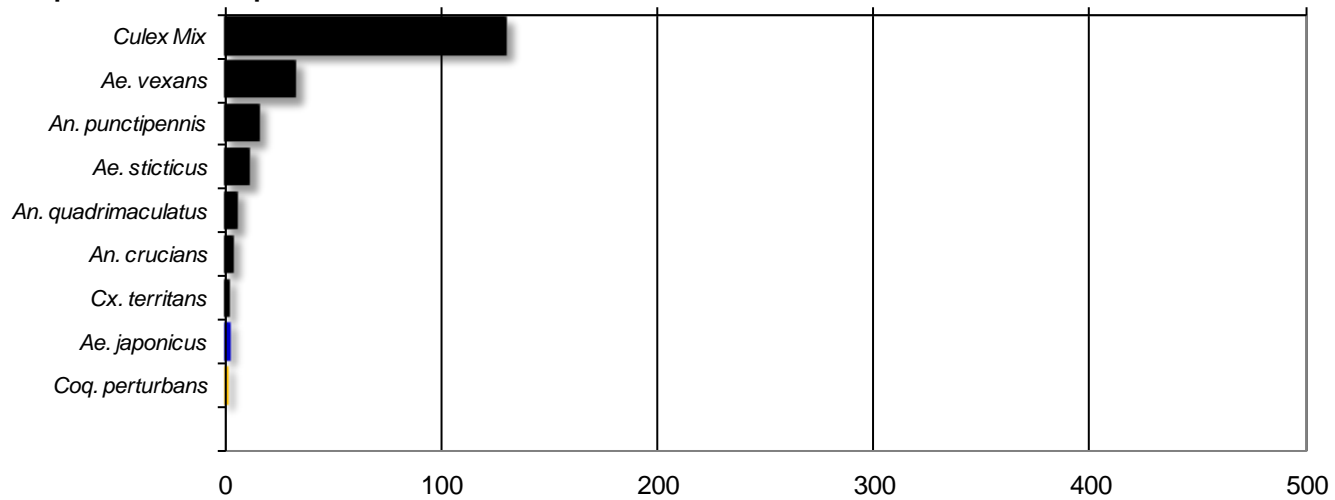
Northwest Rural

Total # mosquitoes



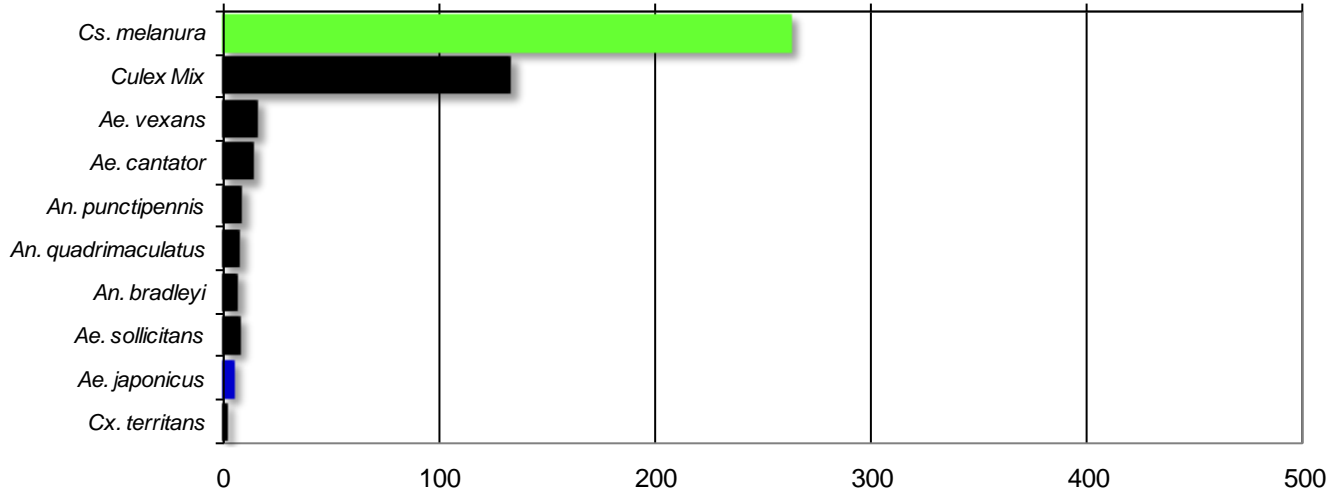
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

