

NEW JERSEY ADULT MOSQUITO SURVEILLANCE

Report for 17 July to 23 July 2016, beginning to CDC Week 29

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Center for Vector Biology



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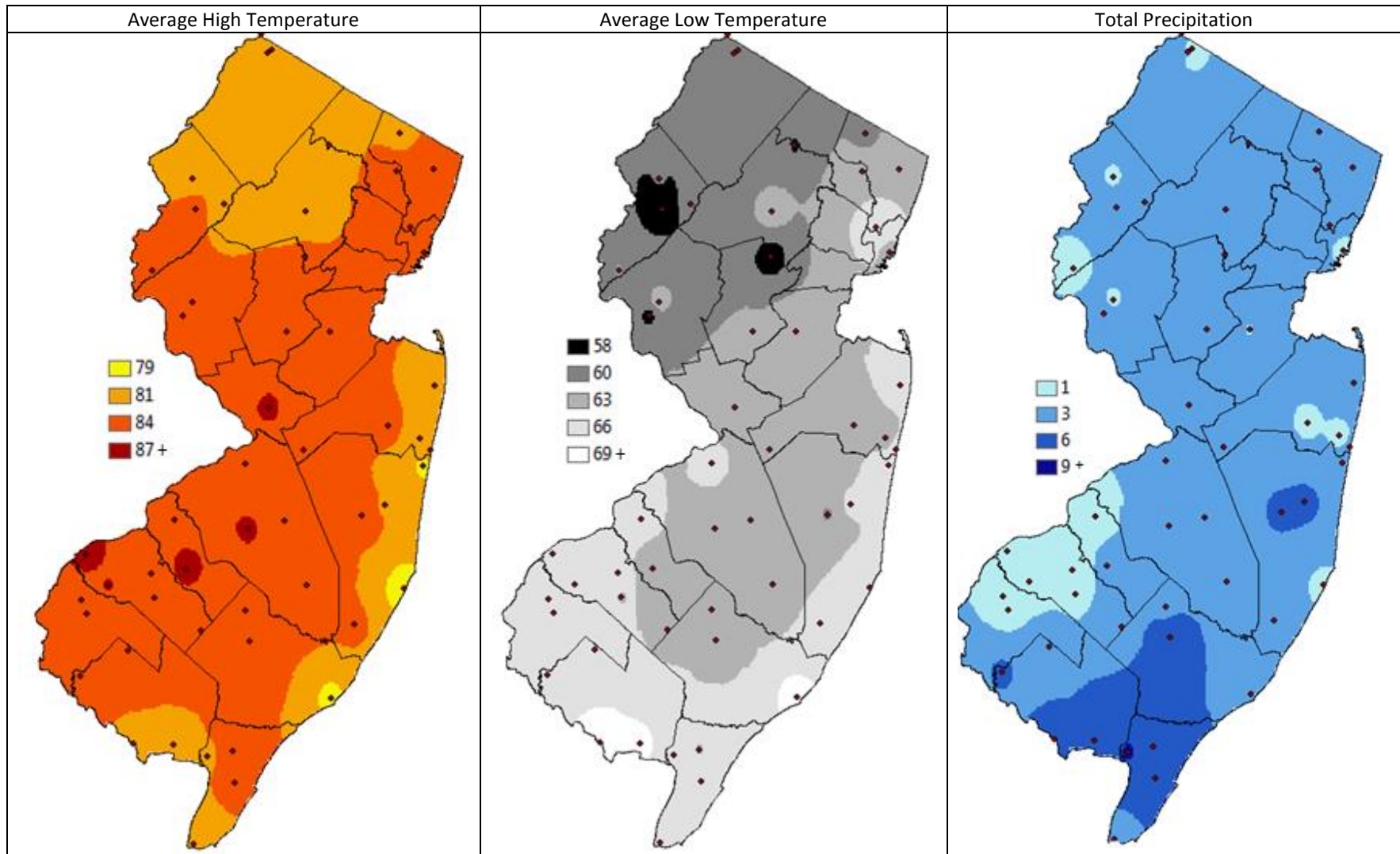
Summary Table – Week 29

| 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 | 0.05 | 3.09 | 0 | 0.07 | 2.47 | 0 | 0.00 | 0.41 | 0 | 0.00 | 0.07 | 0 |
| Coastal | 0.00 | 2.15 | 0 | 0.00 | 5.26 | 0 | 0.00 | 0.17 | 0 | 0.00 | 10.11 | 0 |
| Delaware Bayshore | 0.20 | 1.81 | 0 | 13.49 | 18.73 | 0 | 0.00 | 0.98 | 0 | 0.80 | 4.26 | 0 |
| Delaware River Basin | 0.00 | 12.76 | 0 | 0.00 | 1.19 | 0 | 0.00 | 0.14 | 0 | 0.00 | 0.00 | 0 |
| New York Metro | 0.59 | 4.87 | 0 | 2.53 | 4.15 | 0 | 0.00 | 0.05 | 0 | 0.44 | 1.04 | 0 |
| North Central Rural | 0.09 | 1.69 | 0 | 2.02 | 0.57 | 4 | 0.14 | 0.18 | 0 | 0.00 | 0.00 | 0 |
| Northwest Rural | 0.00 | 23.55 | 0 | 0.00 | 3.81 | 0 | 0.00 | 1.90 | 0 | 0.00 | 0.00 | 0 |
| Philadelphia Metro | 0.00 | 12.08 | 0 | 0.00 | 4.56 | 0 | 0.00 | 0.20 | 0 | 0.00 | 0.00 | 0 |
| Pinelands | 0.19 | 1.95 | 0 | 0.70 | 2.80 | 0 | 0.03 | 1.25 | 0 | 0.00 | 0.16 | 0 |
| Suburban Corridor | 2.01 | 6.55 | 0 | 1.18 | 0.91 | 1 | 0.18 | 1.54 | 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: With the current dataset, most pestiferous populations were not elevated above historical values, with the exception of *Culex Mix* in the North Central Rural region and Suburban Corridor.

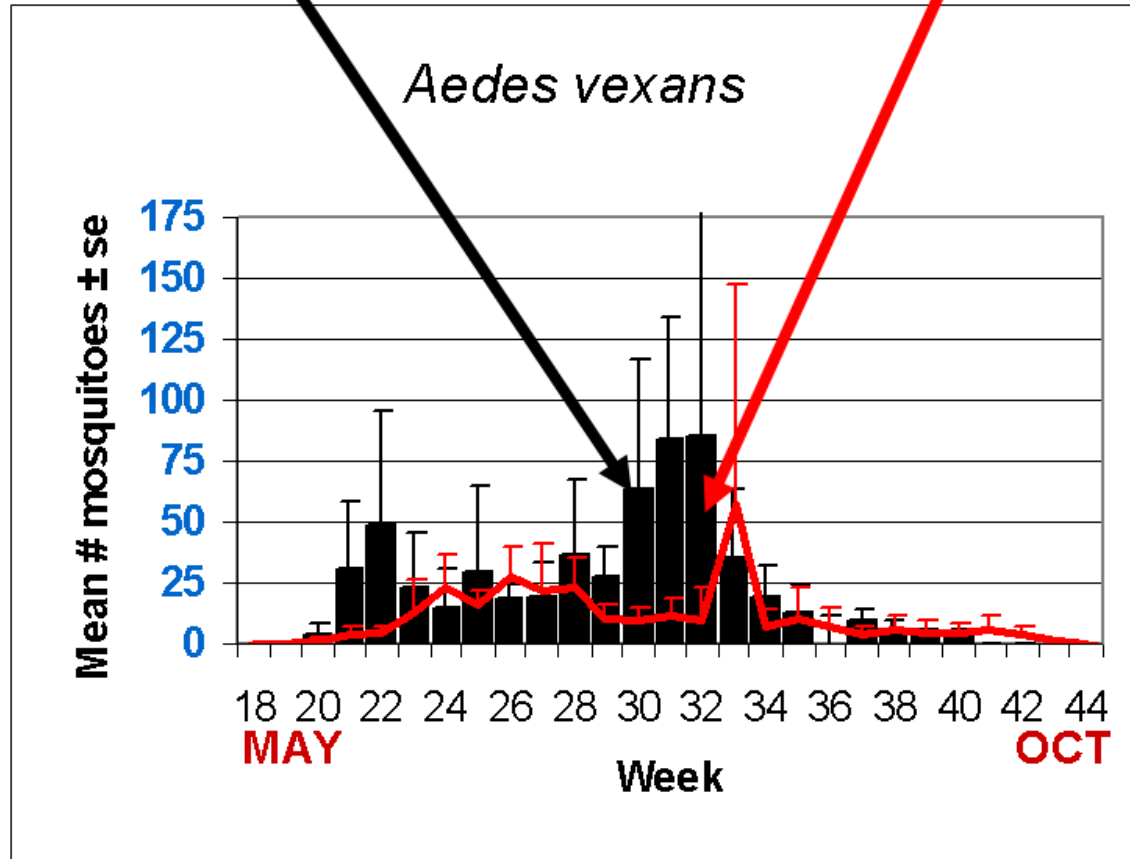
Climate Factors



The three figures show the interpolation of average maximum (°F) and minimum temperature (°F) and total precipitation (inches) for 30 days prior to 22 July 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 Cumberland, Morris, Passaic, and Union counties. Data for the previous week are from Atlantic, Bergen, Cape May, Cumberland, Essex, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Union and Warren counties.

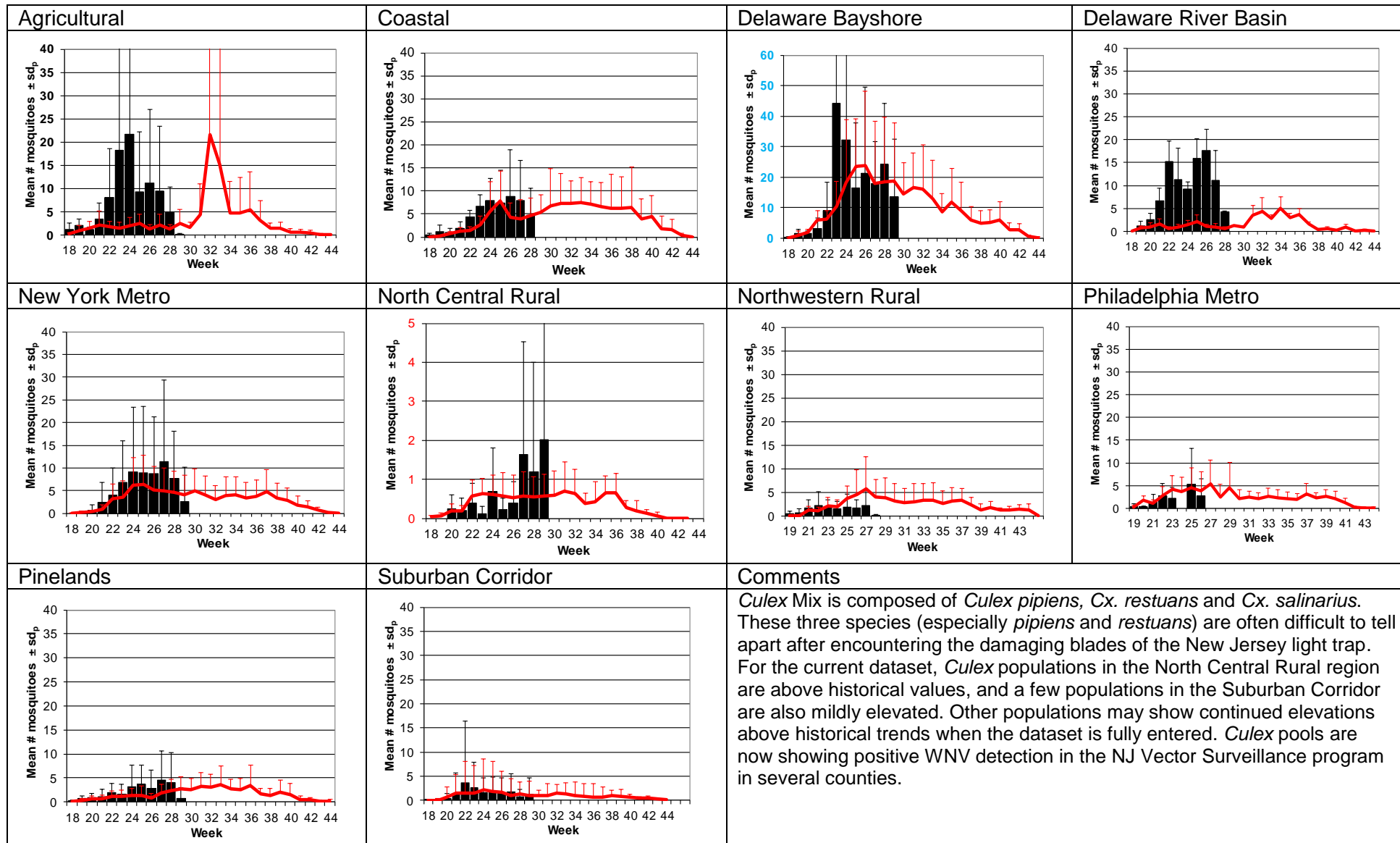
Weekly Means Against 5-year Average



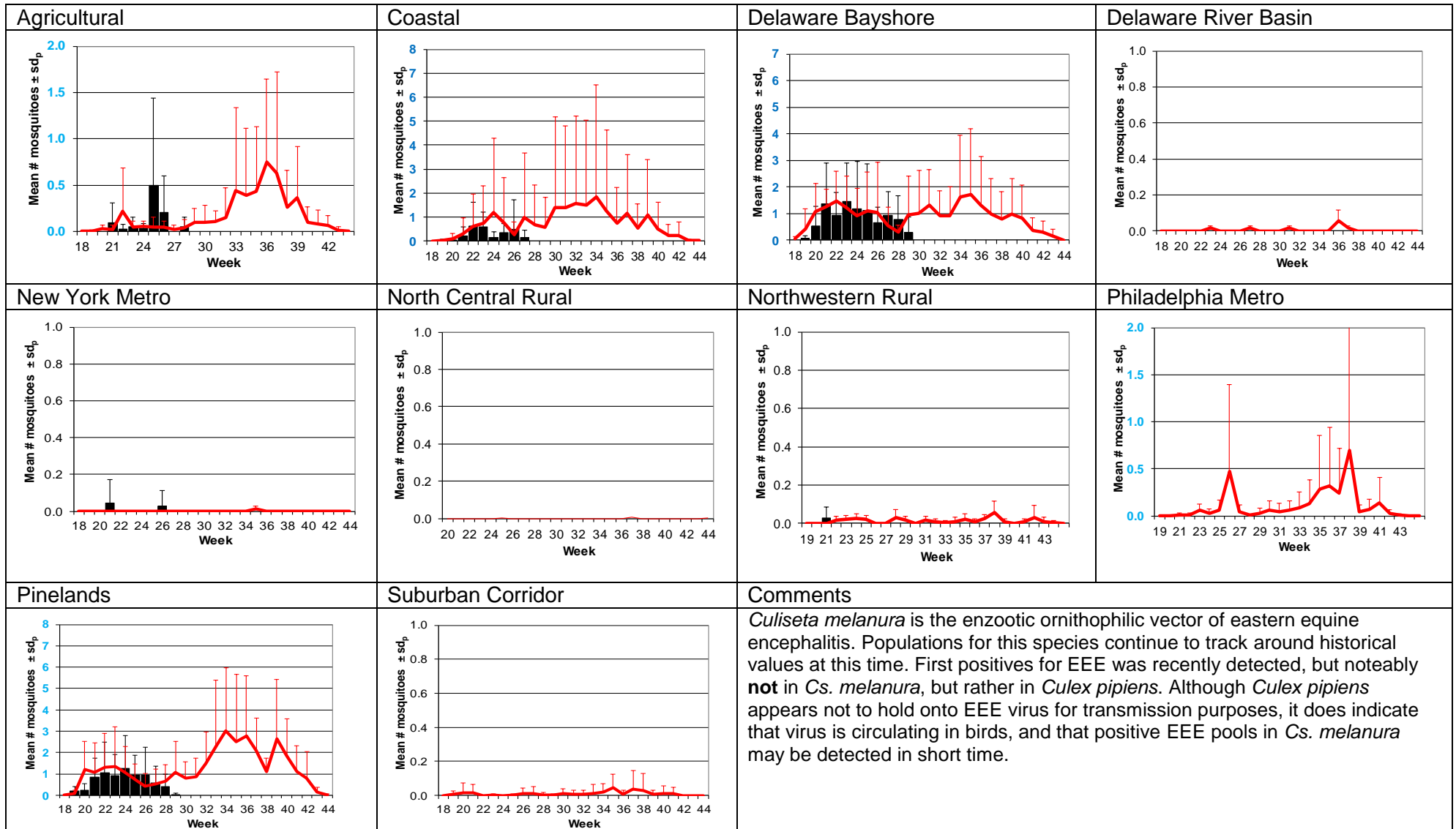
Aedes vexans - Fresh Floodwater Species Multivoltine Aedine (Ae. vexans Type)

| | | | |
|------------------------------|-----------------------------------|---|------------------------------------|
| <p>Agricultural</p> | <p>Coastal</p> | <p>Delaware Bayshore</p> | <p>Delaware River Basin</p> |
| <p>New York Metro</p> | <p>North Central Rural</p> | <p>Northwestern Rural</p> | <p>Philadelphia Metro</p> |
| <p>Pinelands</p> | <p>Suburban Corridor</p> | <p>Comments</p> <p>Drought and dry conditions continue for the northern half of New Jersey. Populations in those areas under reduced ground water show corresponding low populations of fresh floodwater species such as <i>Aedes vexans</i>.</p> <p>http://droughtmonitor.unl.edu/Home/RegionalDroughtMonitor.aspx?northeast</p> | |

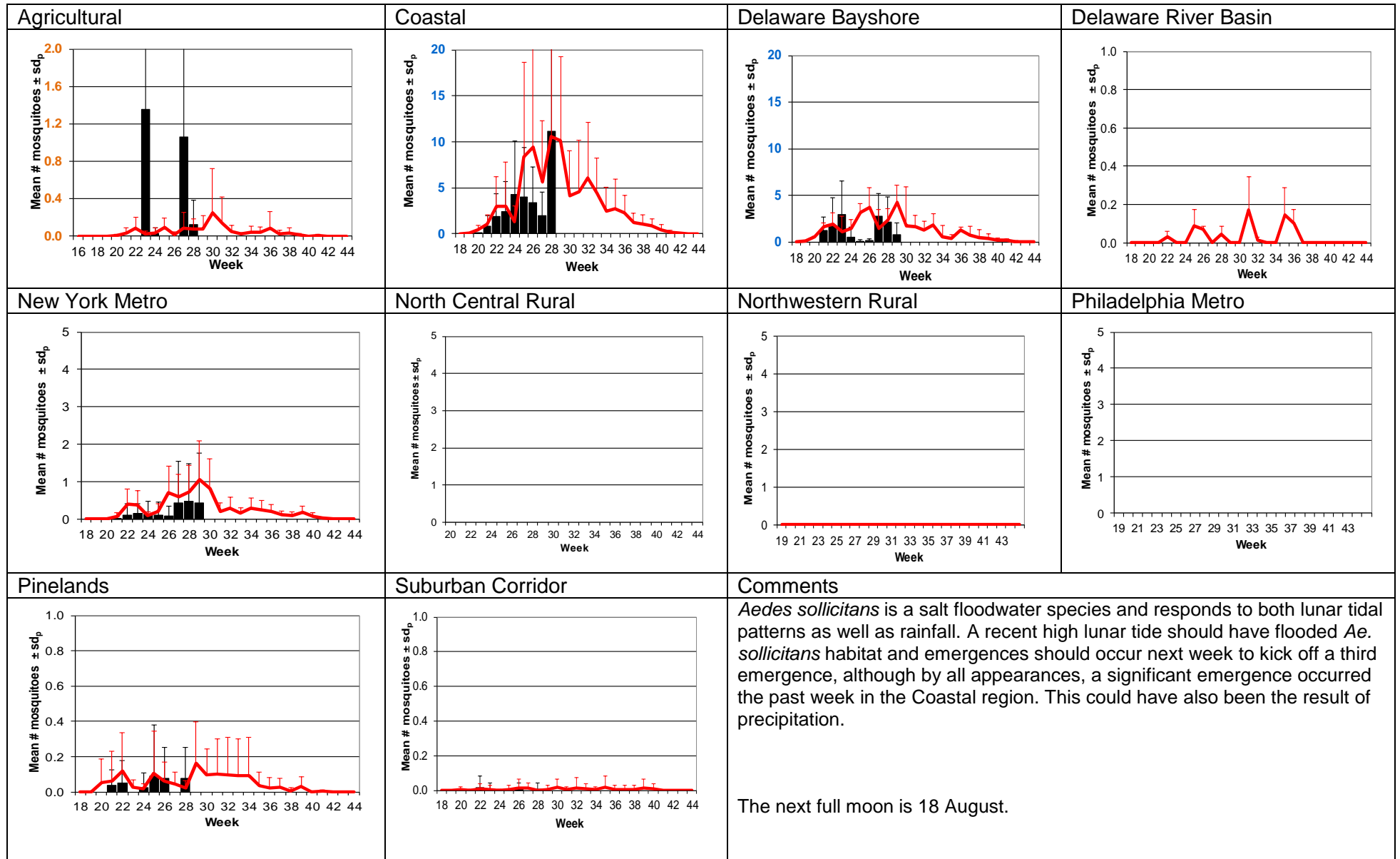
Culex Mix – Permanent Water Species Multivoltine *Culex/Anopheles* (*Cx. pipiens* Type)



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

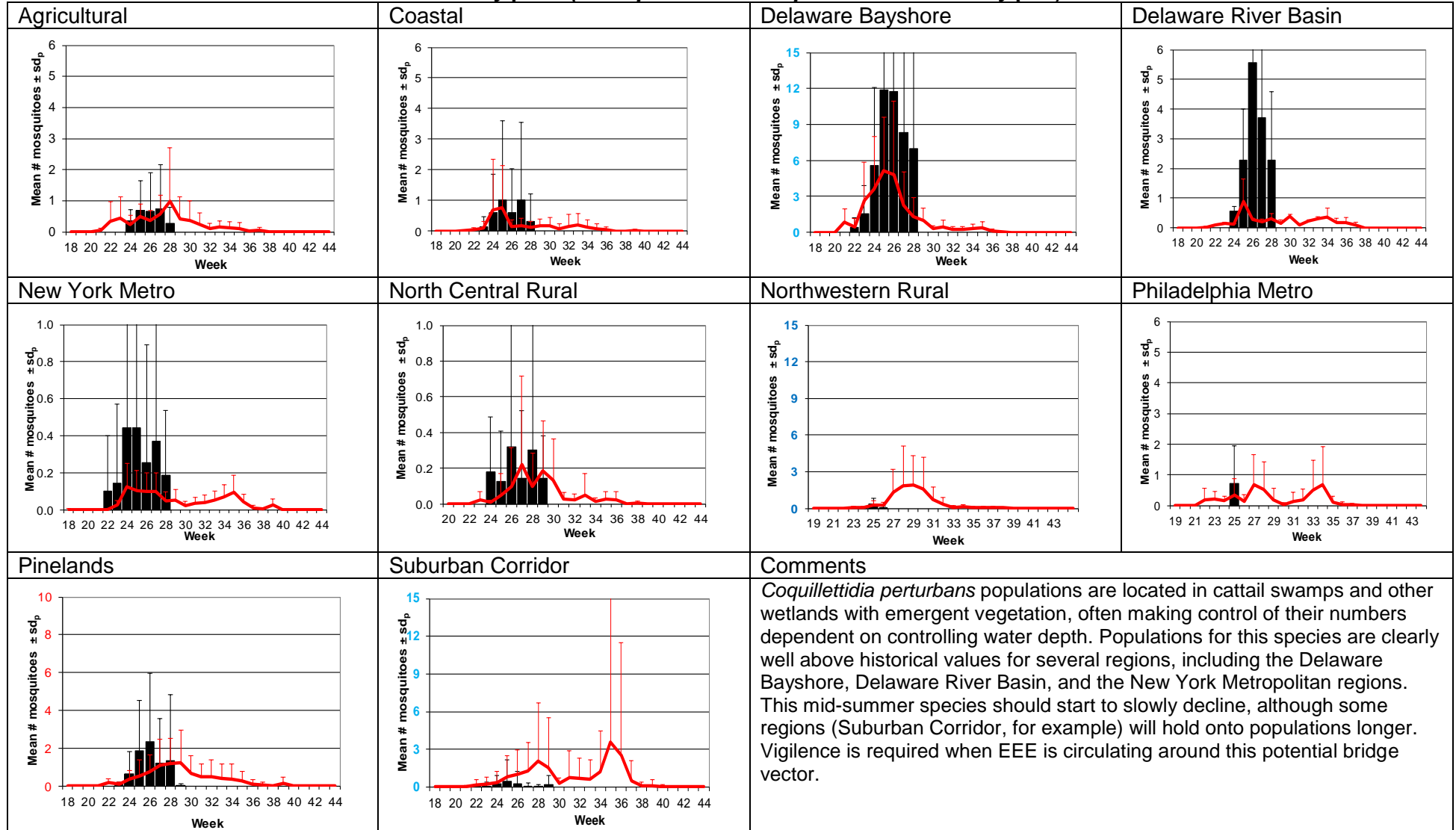


Aedes sollicitans - Salt Floodwater Species Multivoltine Aedine (*Ae. sollicitans* Type)



Coquillettidia perturbans

Monotypic (*Coquillettidia perturbans* Type)



WNV

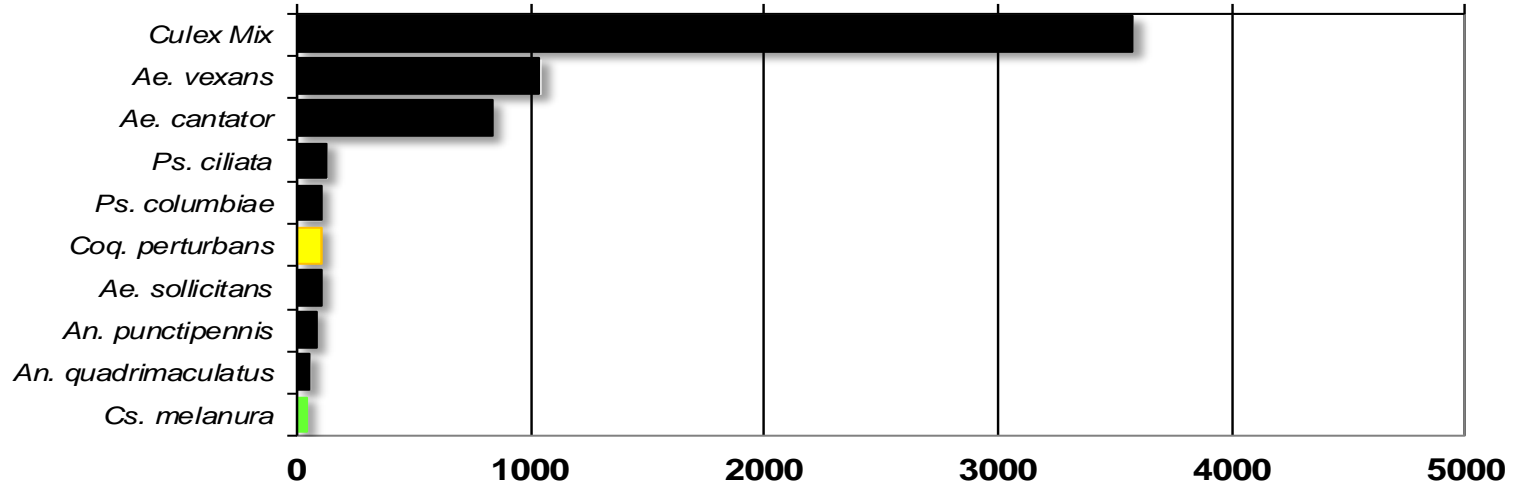
EEE

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.

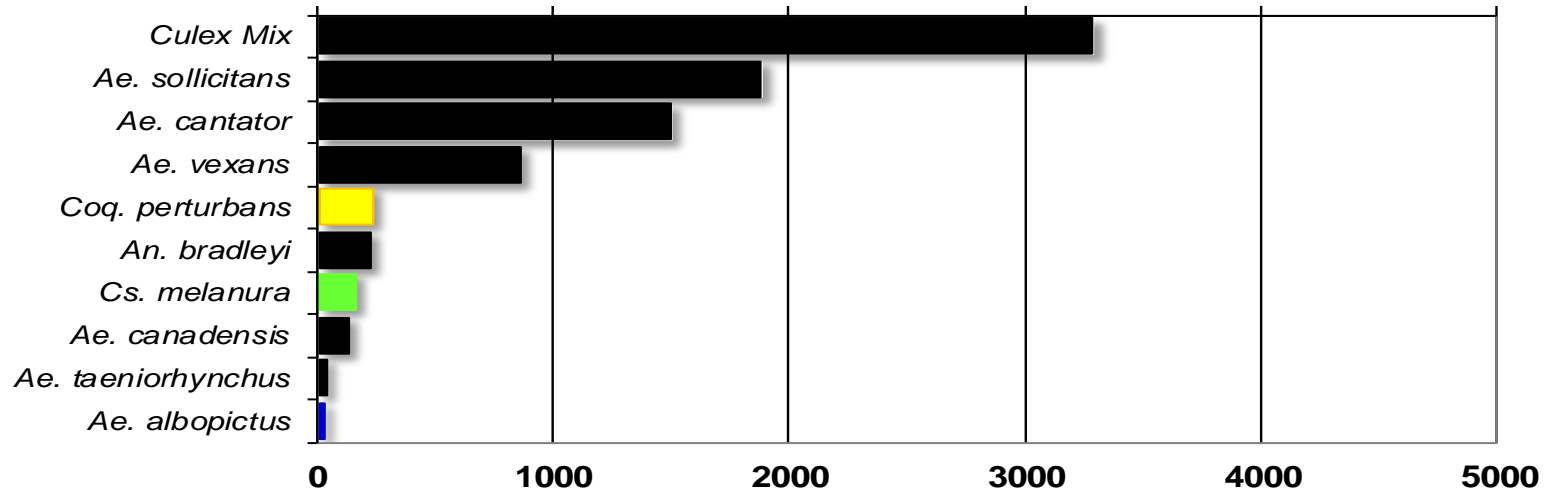
Agricultural

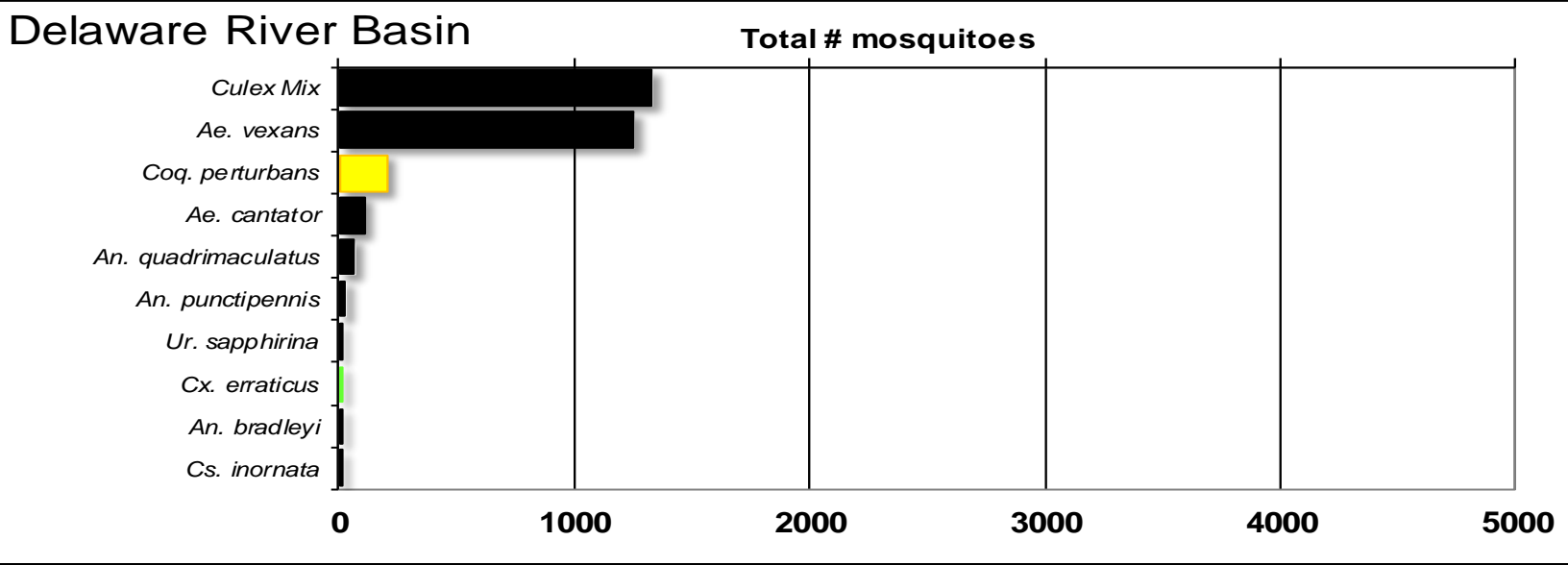
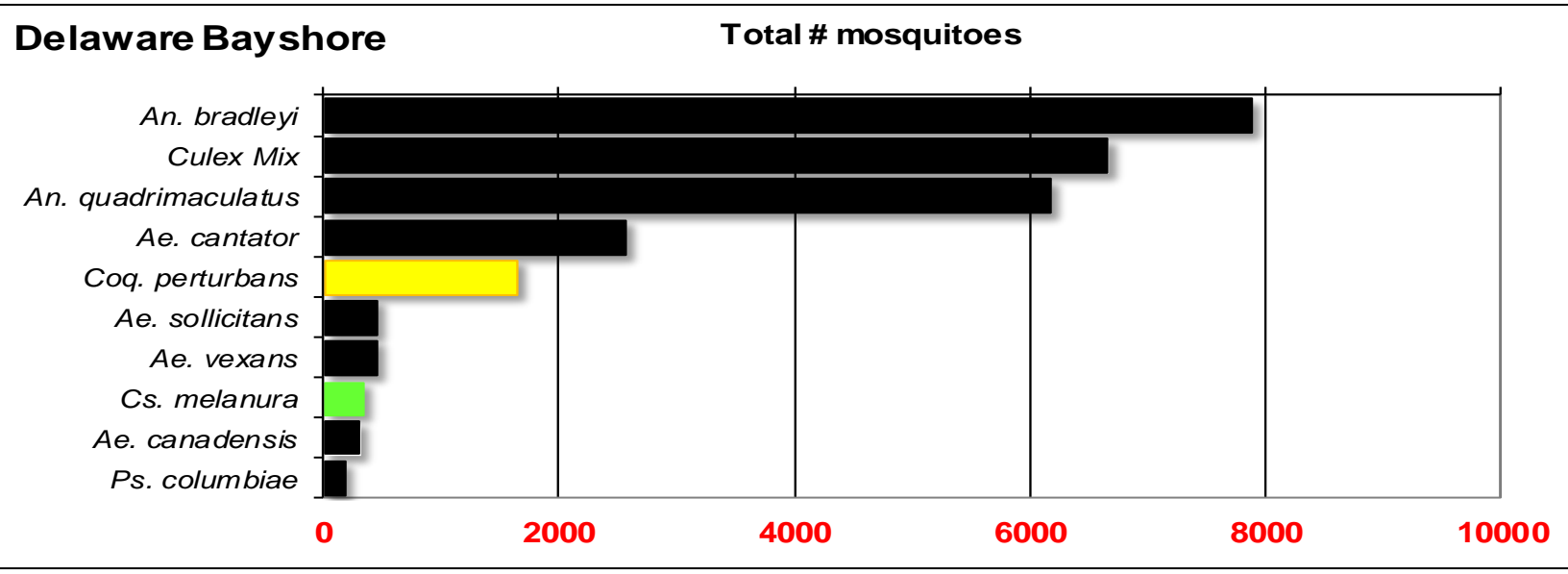
Total # mosquitoes



Coastal

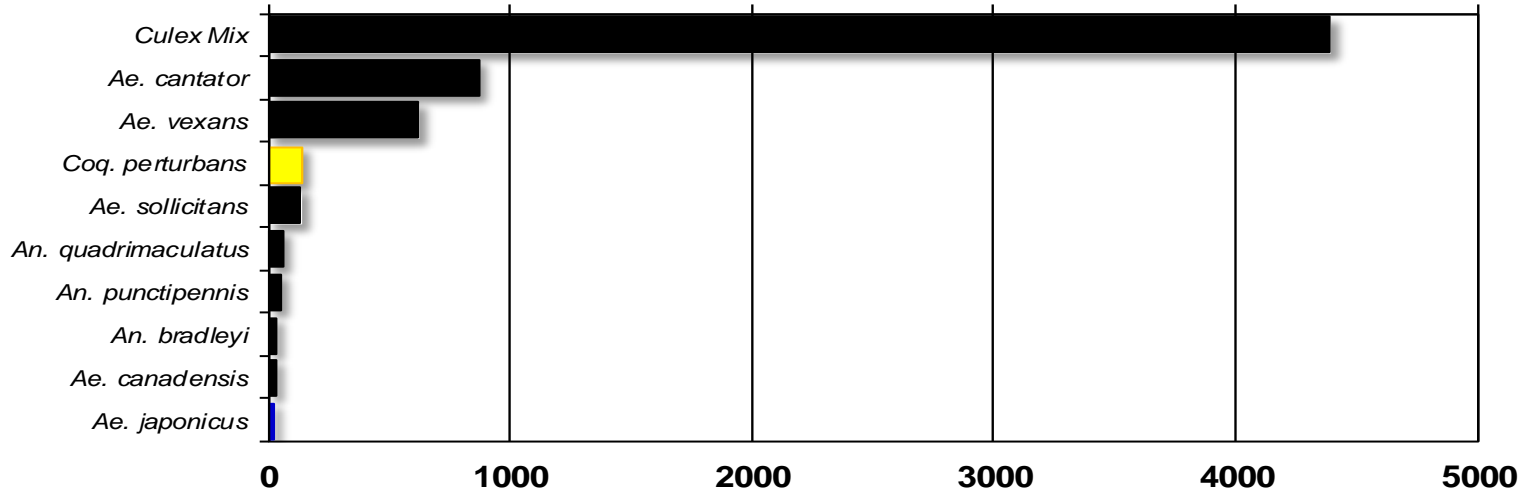
Total # mosquitoes





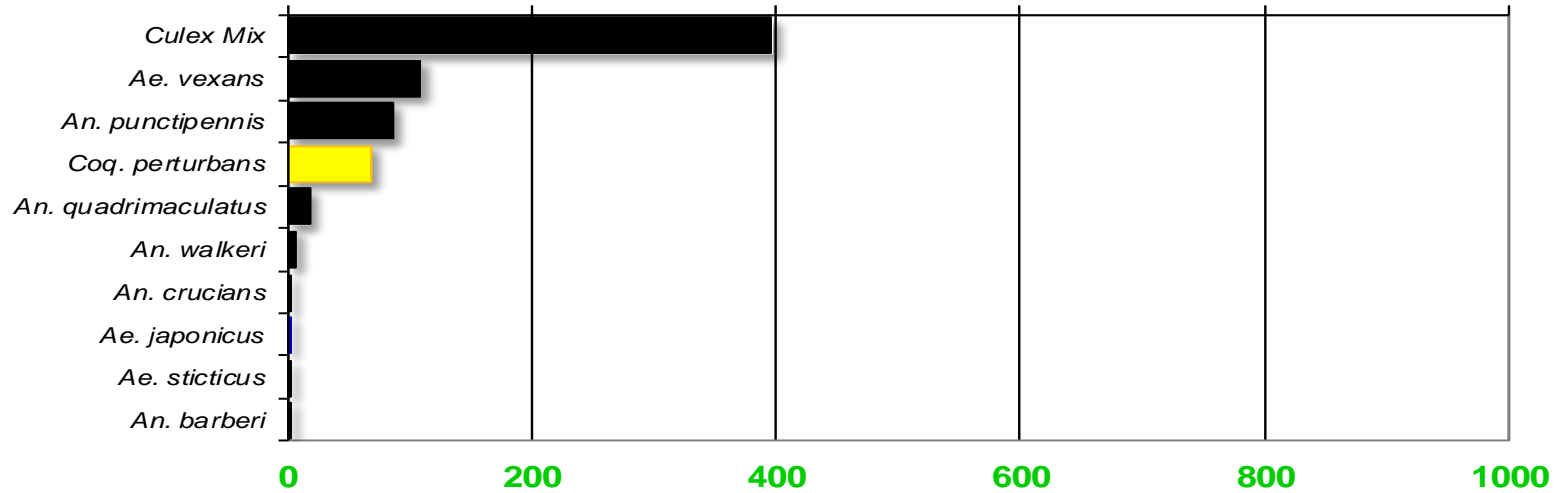
New York Metropolitan

Total # mosquitoes



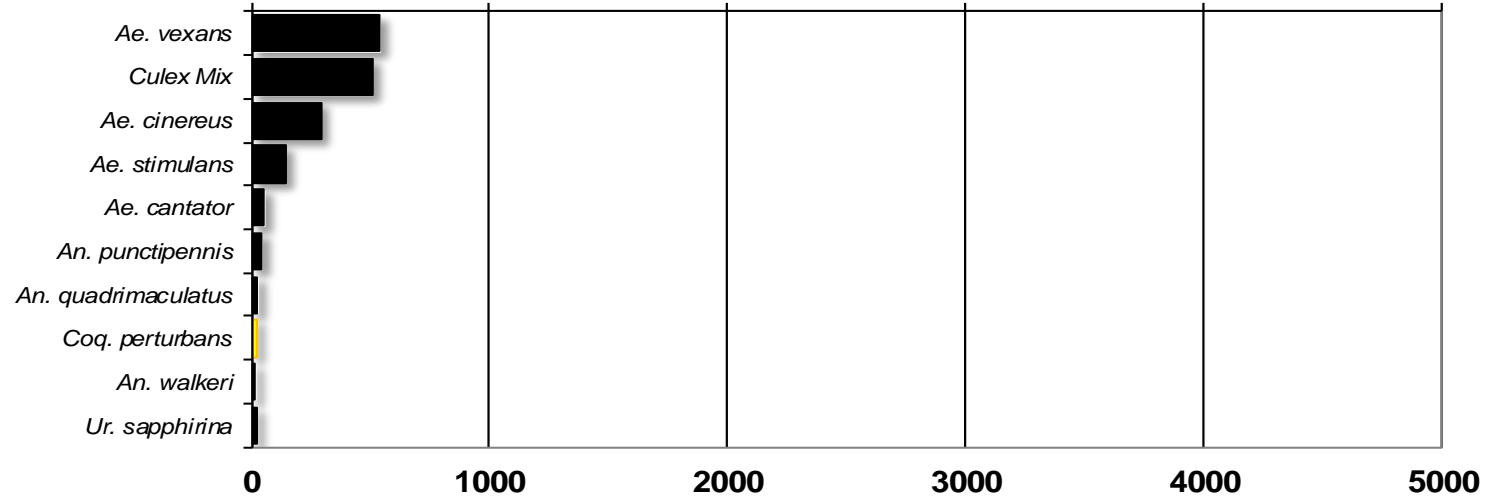
North Central Rural

Total # mosquitoes



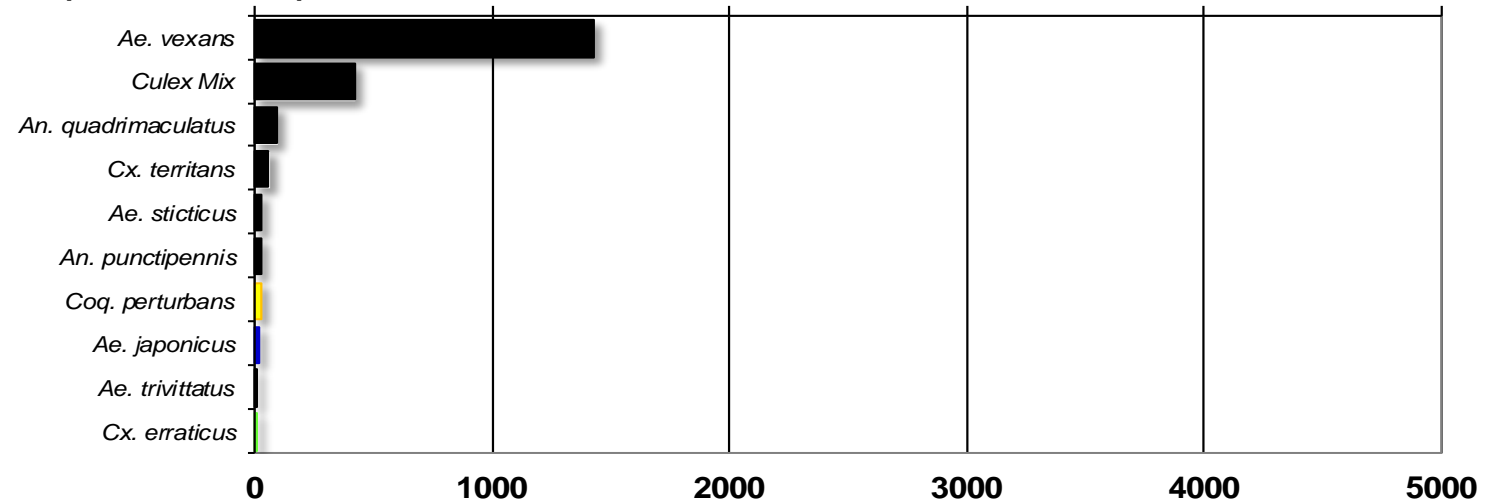
Northwest Rural

Total # mosquitoes



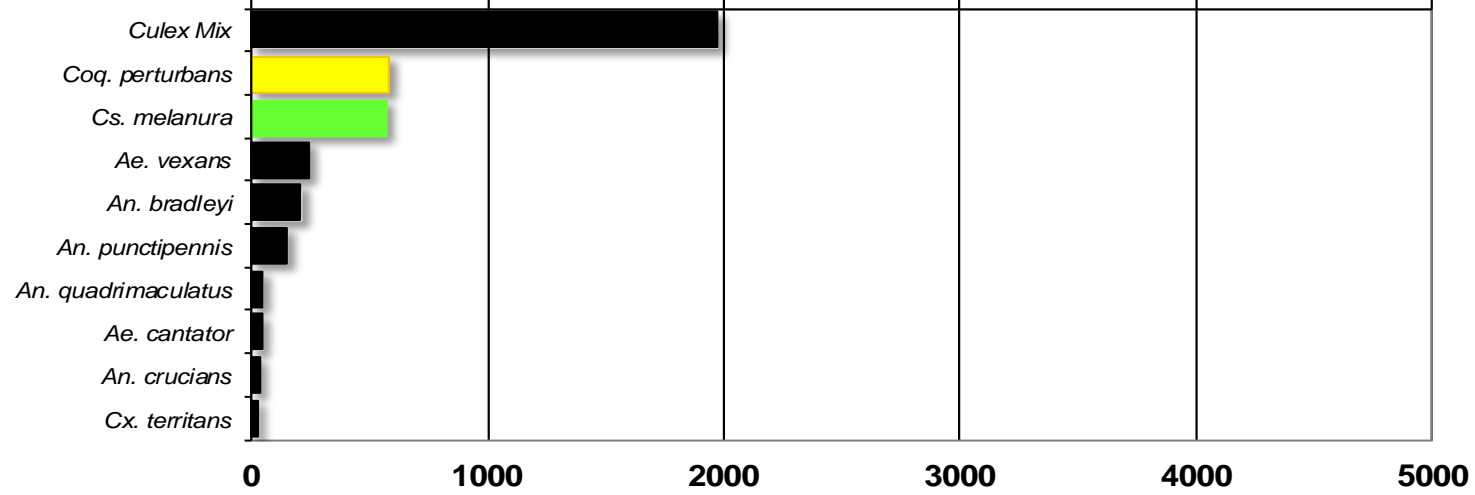
Philadelphia Metropolitan

Total # mosquitoes



Pinelands

Total # mosquitoes



Suburban Corridor

Total # mosquitoes

