

NEW JERSEY STATEWIDE SURVEILLANCE

Week 24 Report for 09 June to 15 June, 2004

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Purpose: Data from 84 New Jersey light traps contributed by county mosquito control agencies are used to calculate trends in mosquito populations for species of nuisance or health concerns.

Calculations are based on regional distributions, with emphasis on mosquito habitat and land use. Trends will allow a statewide evaluation of changing mosquito populations, in response to control and/or changes in habitat.

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Figure 1a: Map of ten regions selected for the New Jersey Surveillance Program overlaid with county borders.

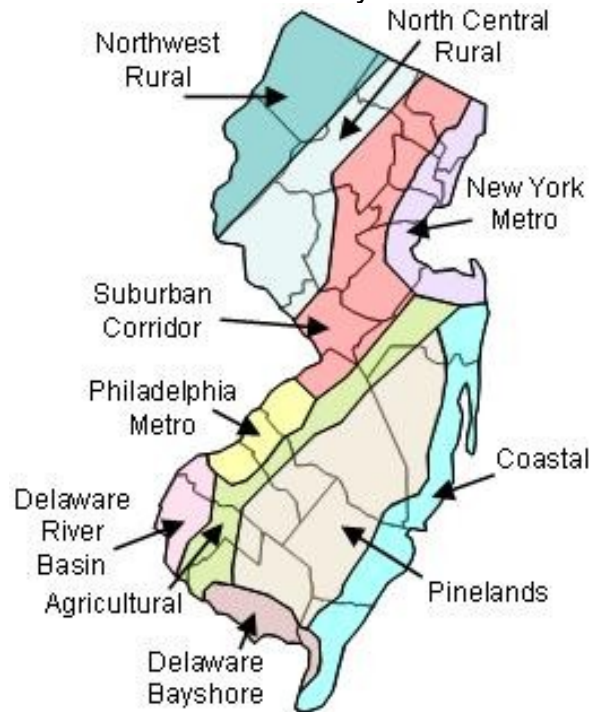


Figure 1b. Trap lat-long locations.



Summary table

	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquilleltidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	1.09	5.06	2.00	12.03	0.10	0.15	0.06	0.85
Coastal	0.32	3.62	0.89	3.90	0.73	0.22	0.51	14.18
Delaware Bayshore	0.12	3.98	12.09	19.02	0	4.19	0.24	31.31
Delaware River Basin	0.29	22.64	1.08	9.08	1.11	0.21	0	1.22
New York Metro	0.04	1.94	0.17	6.32	0	0.03	0	1.11
North Central Rural	0.16	0.66	0.43	0.98	0	0.01	0	0
Northwest Rural	0.14	2.43	0.18	1.57	0.05	0.04	0	0
Philadelphia Metro	0.03	5.65	0.21	5.58	0	0.09	0	0
Pinelands	0.73	1.53	0.43	3.70	0.57	0.20	0	0.19
Suburban Corridor	1.01	10.02	1.25	6.41	1.54	0.29	0	0.22

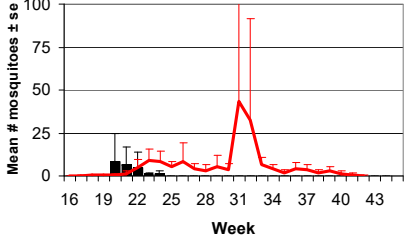
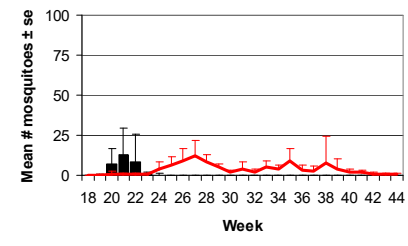
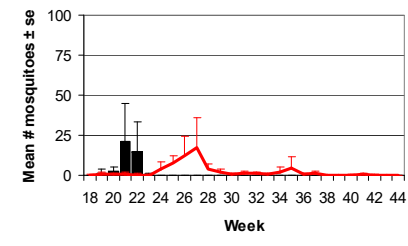
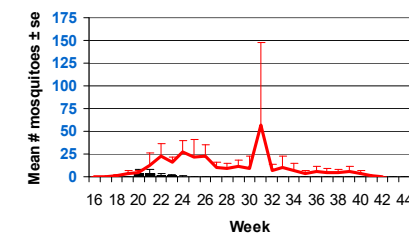
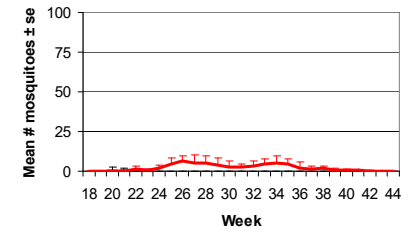
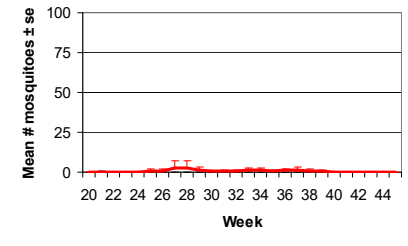
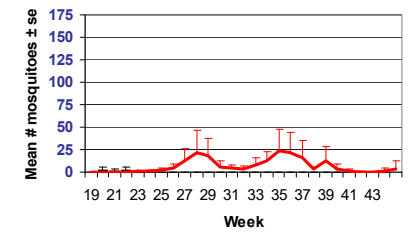
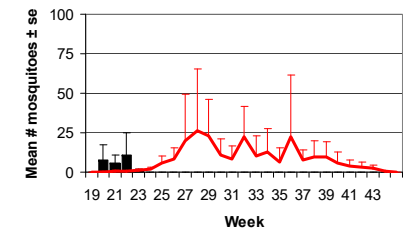
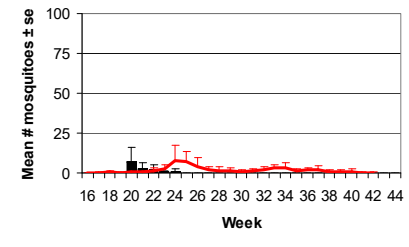
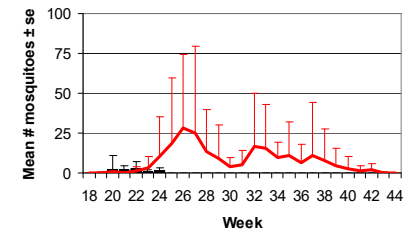
- Complete data not yet available.

Please Note: Historical data is being entered and not yet complete. These values and graphics will change as more data is entered.

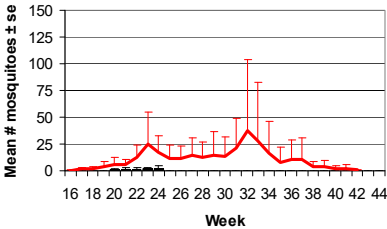
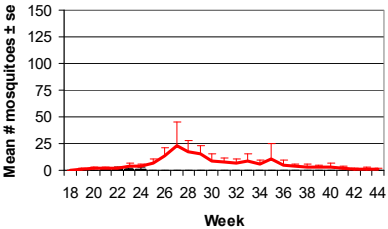
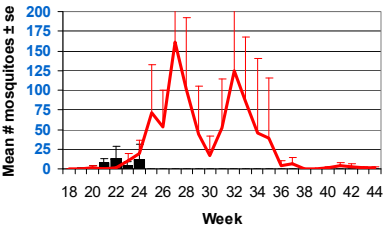
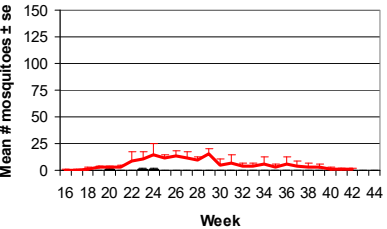
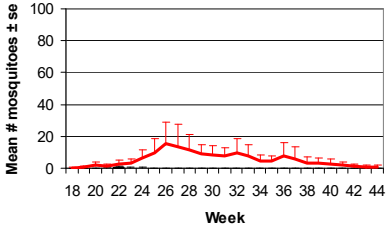
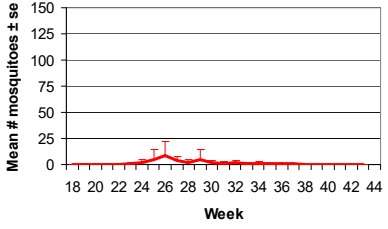
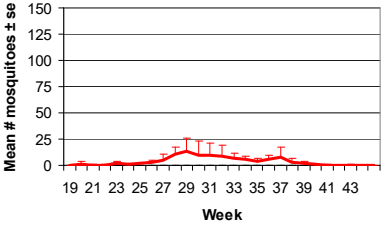
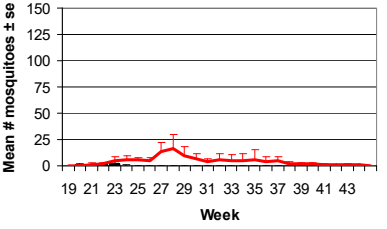
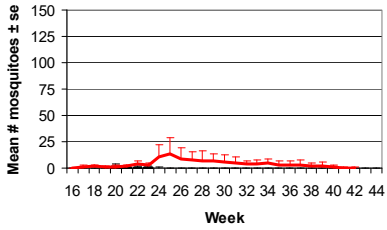
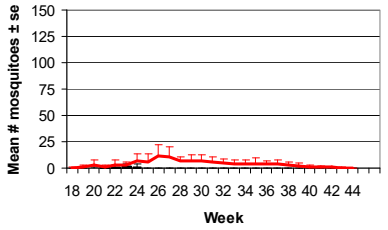
Additional Species, including *Cs. melanura*, *Oc. canadensis*, and *Oc. cantator*

Caution should still be used when interpreting these data for the current week as this data is represented by only 8 out of the 21 participating counties

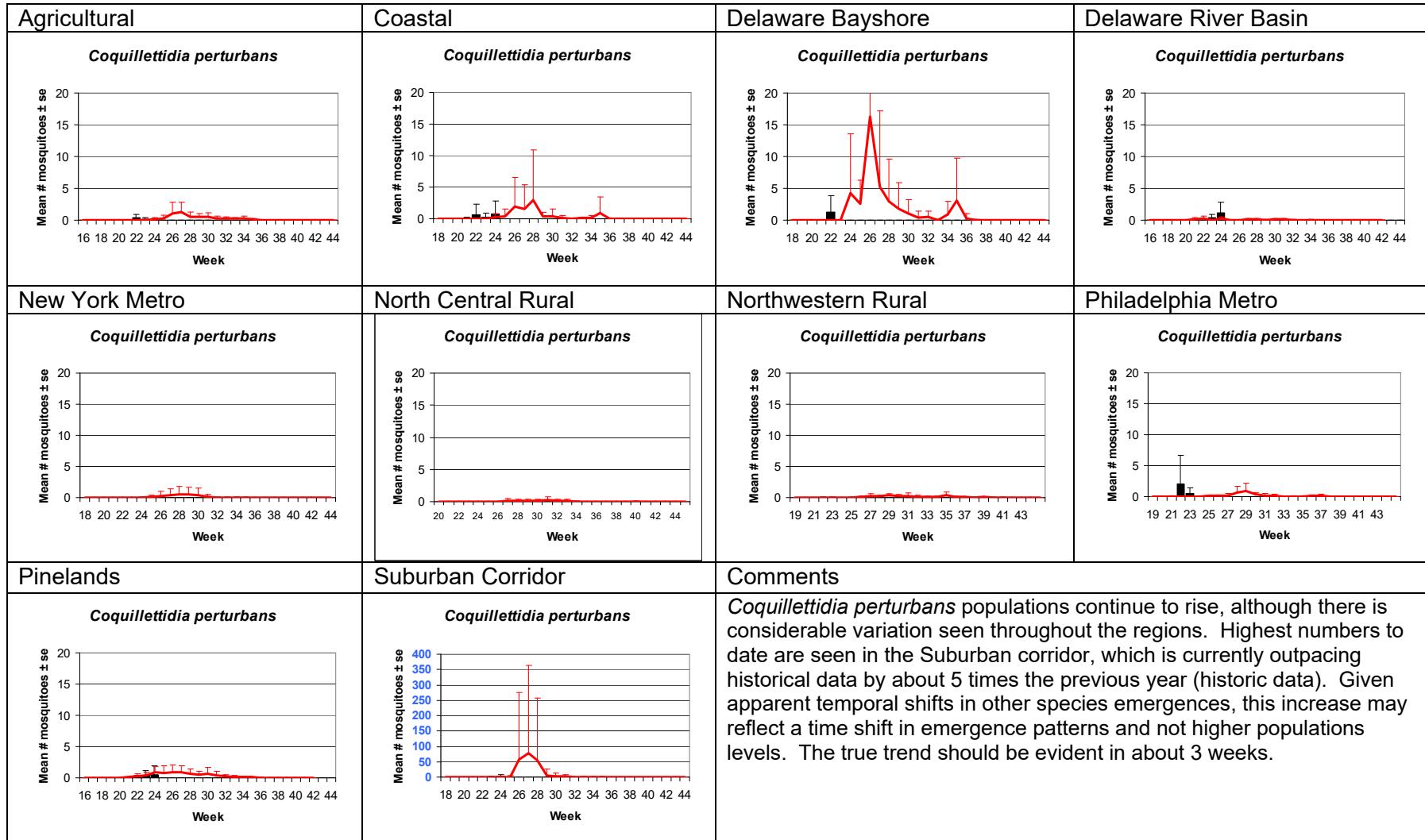
Aedes vexans - Fresh Floodwater Species

Agricultural <i>Aedes vexans</i> 	Coastal <i>Aedes vexans</i> 	Delaware Bayshore <i>Aedes vexans</i> 	Delaware River Basin <i>Aedes vexans</i> 
New York Metro <i>Aedes vexans</i> 	North Central Rural <i>Aedes vexans</i> 	Northwestern Rural <i>Aedes vexans</i> 	Philadelphia Metro <i>Aedes vexans</i> 
Pinelands <i>Aedes vexans</i> 	Suburban Corridor <i>Aedes vexans</i> 	Comments The early spring brood of <i>Ae. vexans</i> has begun to dissipate in most regions. This spring brood was well above the historical mean, particularly in the Agricultural, Coastal, Delaware Bayshore, and Philadelphia regions. Rainfall patterns coincide with this early emergence, according to data from the State Climatologist. As with all floodwater species, rainfall patterns will regulate population levels as the season advances.	

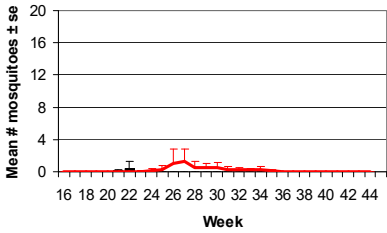
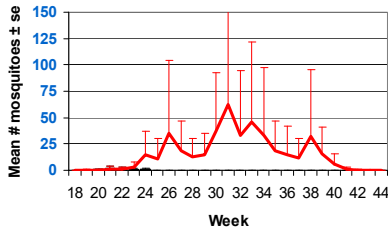
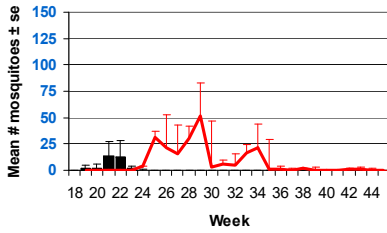
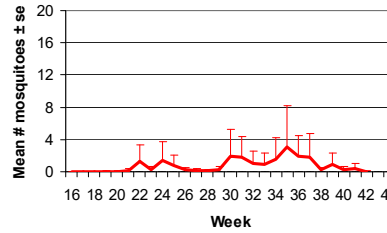
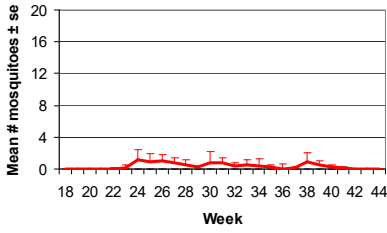
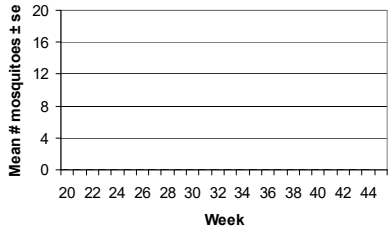
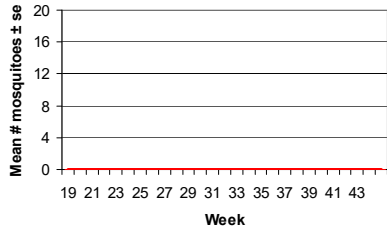
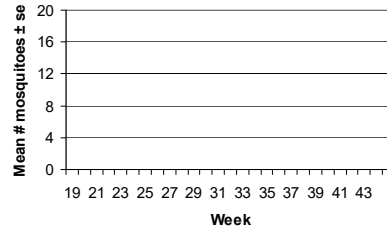
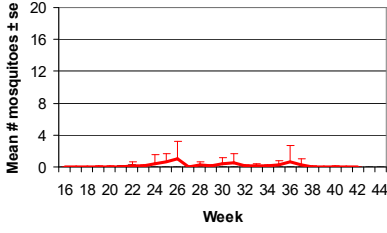
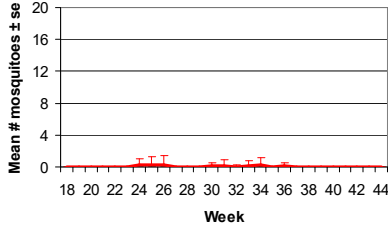
Culex Complex - Multivoltine Culex Species

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
Pinelands	Suburban Corridor	Comments	
Culex Mix 	Culex Mix 	<i>Culex</i> populations continue to be on target for these early season multivoltine species that overwinter as adult females and are therefore guided by degree days. Current levels in the Agricultural and Delaware River Basin appear lower than historical levels, however populations should increase as the season advances. The species of <i>Culex</i> involved at Agricultural habitat is likely to be either <i>Cx. pipiens</i> or <i>Cx. restuans</i> while at the Delaware River Basin (as with other coastal habitats) <i>Cx. salinarius</i> will contribute largely to the light trap numbers.	

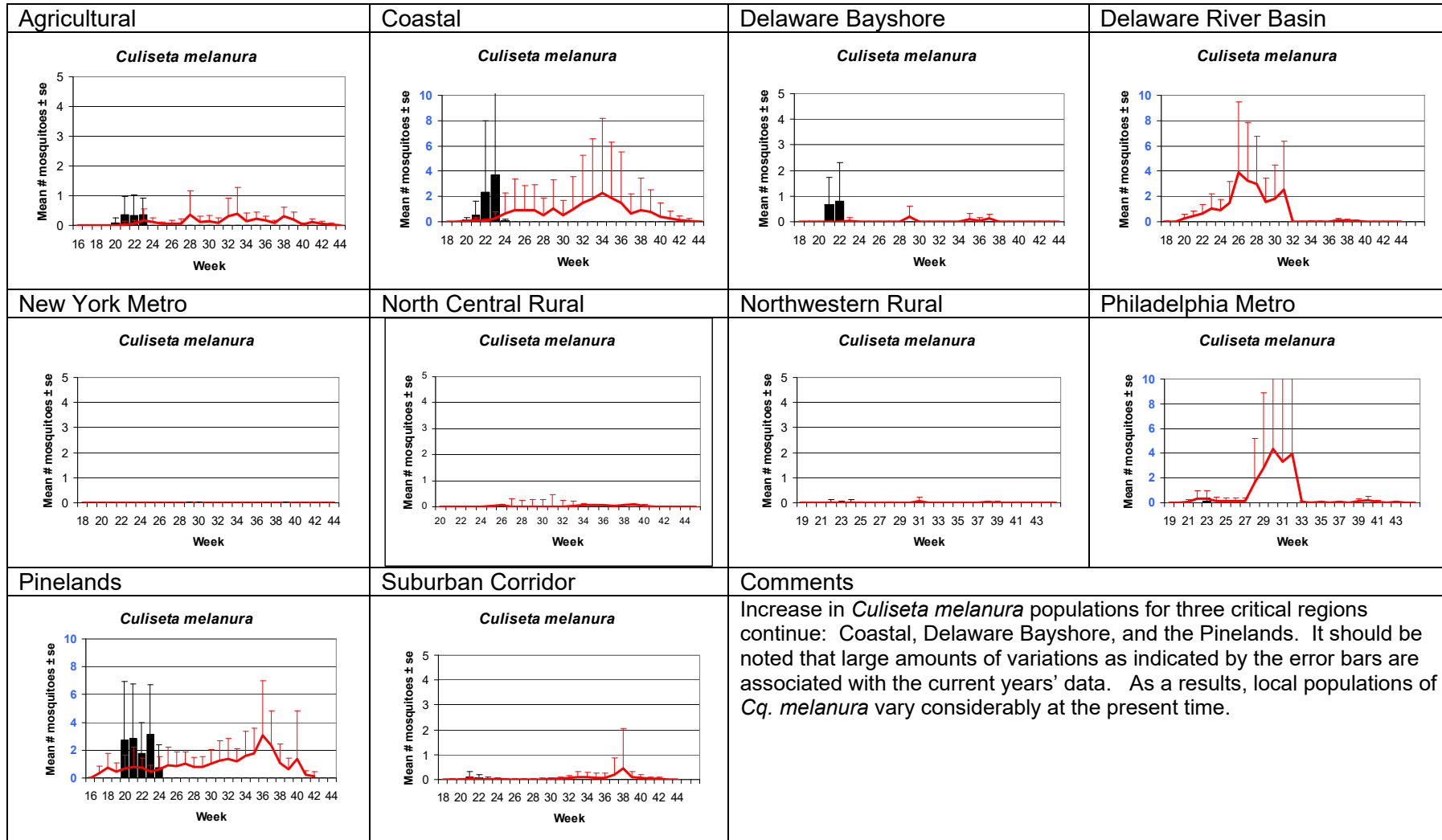
Coquillettidia perturbans - Unique Life Cycle



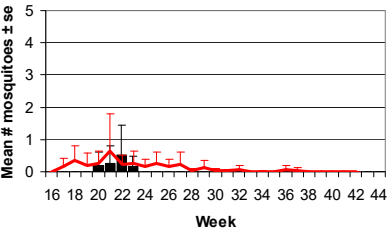
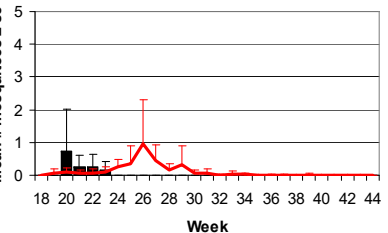
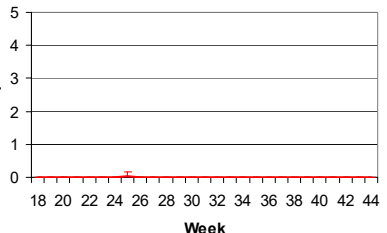
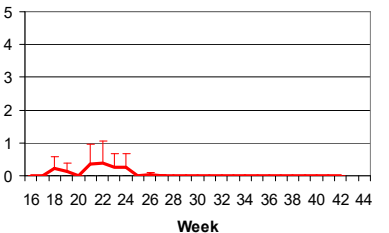
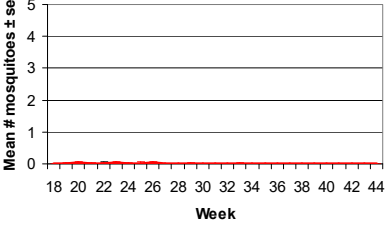
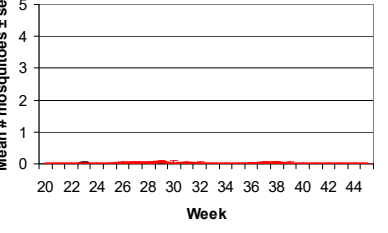
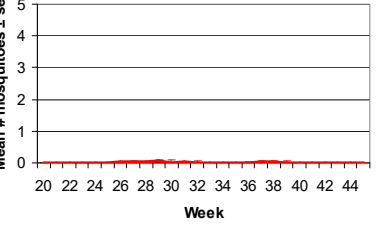
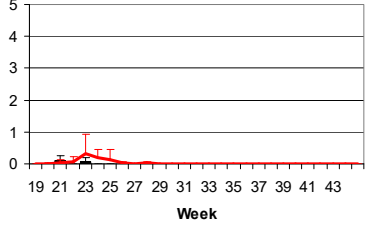
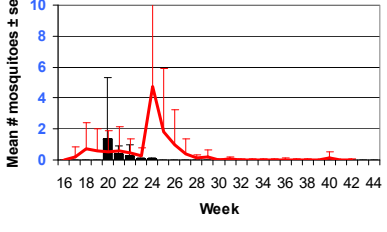
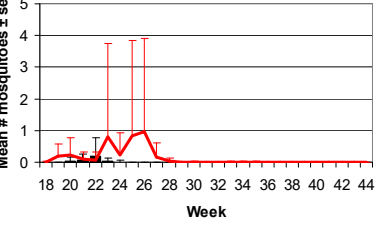
Ochlerotatus sollicitans - Salt Marsh Floodwater Species

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> 	<i>Ochlerotatus sollicitans</i> experienced their first brood emergence 3 weeks ago along the Delaware Bayshore and one week later, showed up in the Agricultural region. <i>Oc. sollicitans</i> has appeared in the Coastal regions, but numbers are currently at very low levels. As both flooding through either tidal activity or local showers precipitate brood emergences, differences in the degree of brood involvement are seen between different regions (Delaware Bayshore and Coastal). An increase in emergence can be expected with the next lunar tide.	

Culiseta melanura - Miscellaneous Group



Ochlerotatus canadensis Early Season Species

Agricultural <i>Ochlerotatus canadensis</i> 	Coastal <i>Ochlerotatus canadensis</i> 	Delaware Bayshore <i>Ochlerotatus canadensis</i> 	Delaware River Basin <i>Ochlerotatus canadensis</i> 
New York Metro <i>Ochlerotatus canadensis</i> 	North Central Rural <i>Ochlerotatus canadensis</i> 	Northwestern Rural <i>Ochlerotatus canadensis</i> 	Philadelphia Metro <i>Ochlerotatus canadensis</i> 
Pinelands <i>Ochlerotatus canadensis</i> 	Suburban Corridor <i>Ochlerotatus canadensis</i> 	Comments <i>Oc. canadensis</i> populations levels appear to be average in comparison to historical data for this time of year. Historical data also show that this early species often remains evident well into the month of July.	

Ochlerotatus cantator – Salt Marsh Floodwater Species

