

NEW JERSEY STATEWIDE SURVEILLANCE

Week 27 Report for 30 June to 06 July, 2004

Submitted by Lisa Reed and Wayne Crans

Mosquito Research and Control Unit

Rutgers University, New Brunswick, NJ 08901

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.

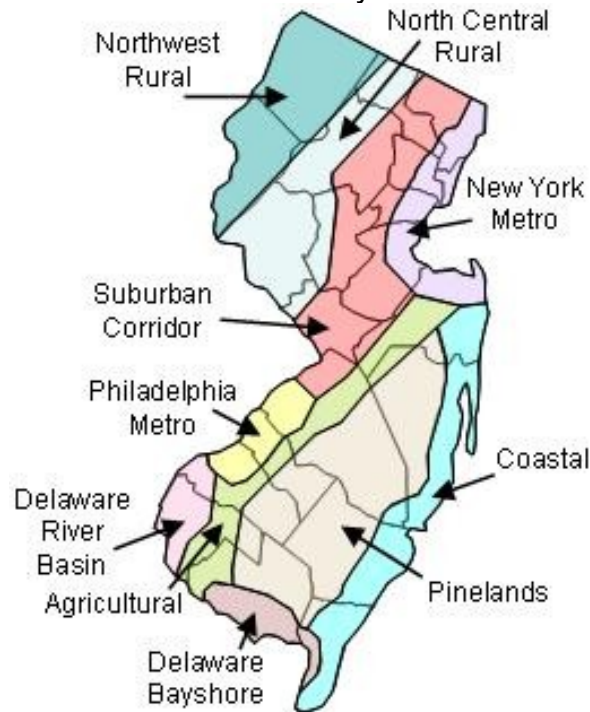


Figure 1b. Trap lat-long locations.



Summary table

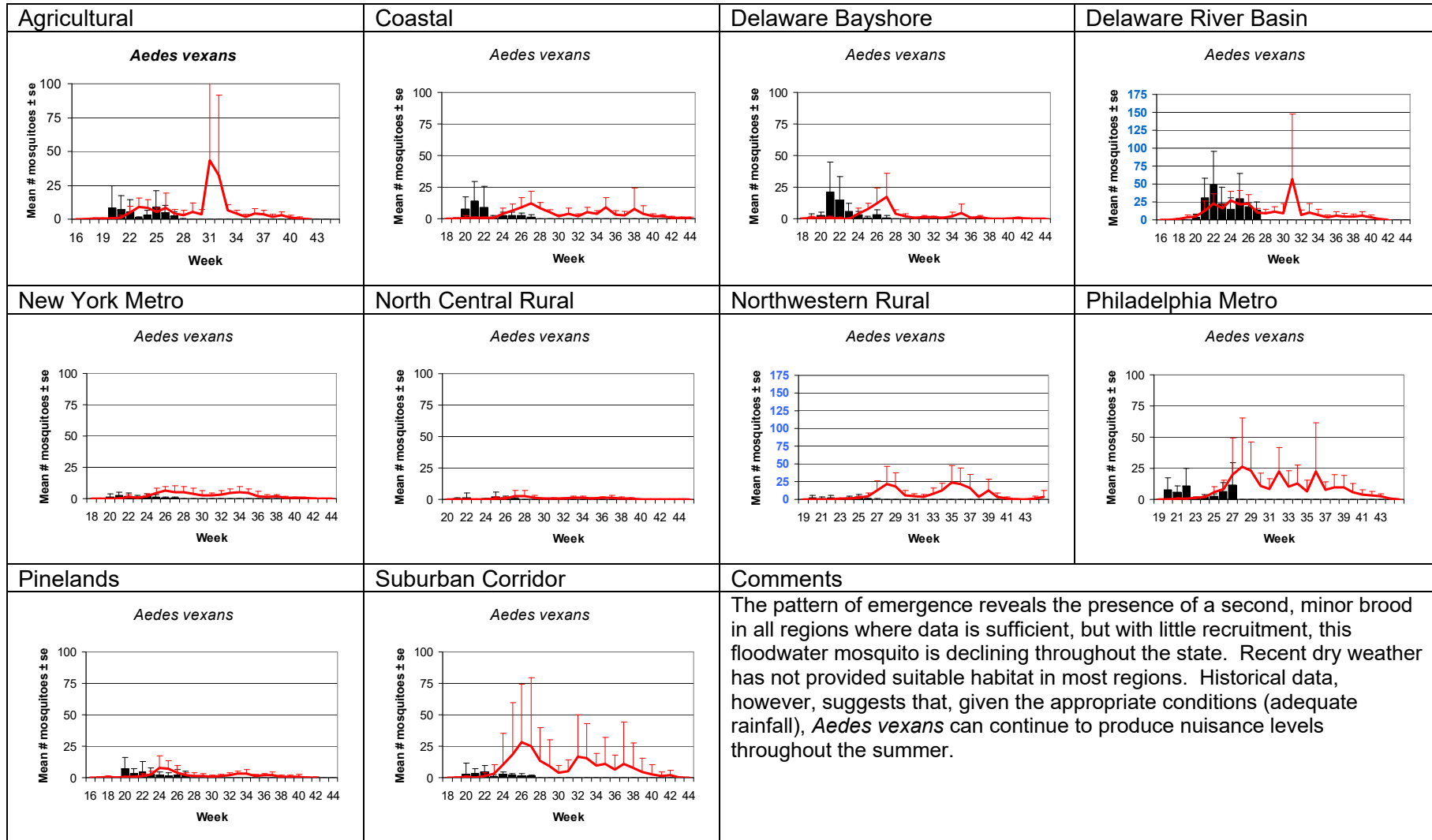
	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquillettidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	2.73	5.54	2.50	11.67	0.48	1.26	0.17	5.76
Coastal	1.22	11.88	2.13	23.34	0.49	1.48	5.41	18.42
Delaware Bayshore	0.86	17.33	15.19	160.60	2.48	5.31	6.02	29.81
Delaware River Basin	13.18	21.75	5.00	11.15	0.68	0.02	0.00	0.81
New York Metro	054	5.13	3.29	13.64	0.18	0.38	0.14	0.76
North Central Rural	0.47	2.87	0.63	8.95	0.10	0.13	0.00	0
Northwest Rural	1.10	21.76	1.10	13.22	0.00	0.20	0.00	0
Philadelphia Metro	5.64	26.36	5.64	16.72	1.88	0.61	0.00	0
Pinelands	1.62	6.79	0.82	13.02	0.95	0.82	0.01	0.64
Suburban Corridor	1.04	25.27	1.80	11.05	1.51	77.26	0.00	0.01

- Complete data not yet available.

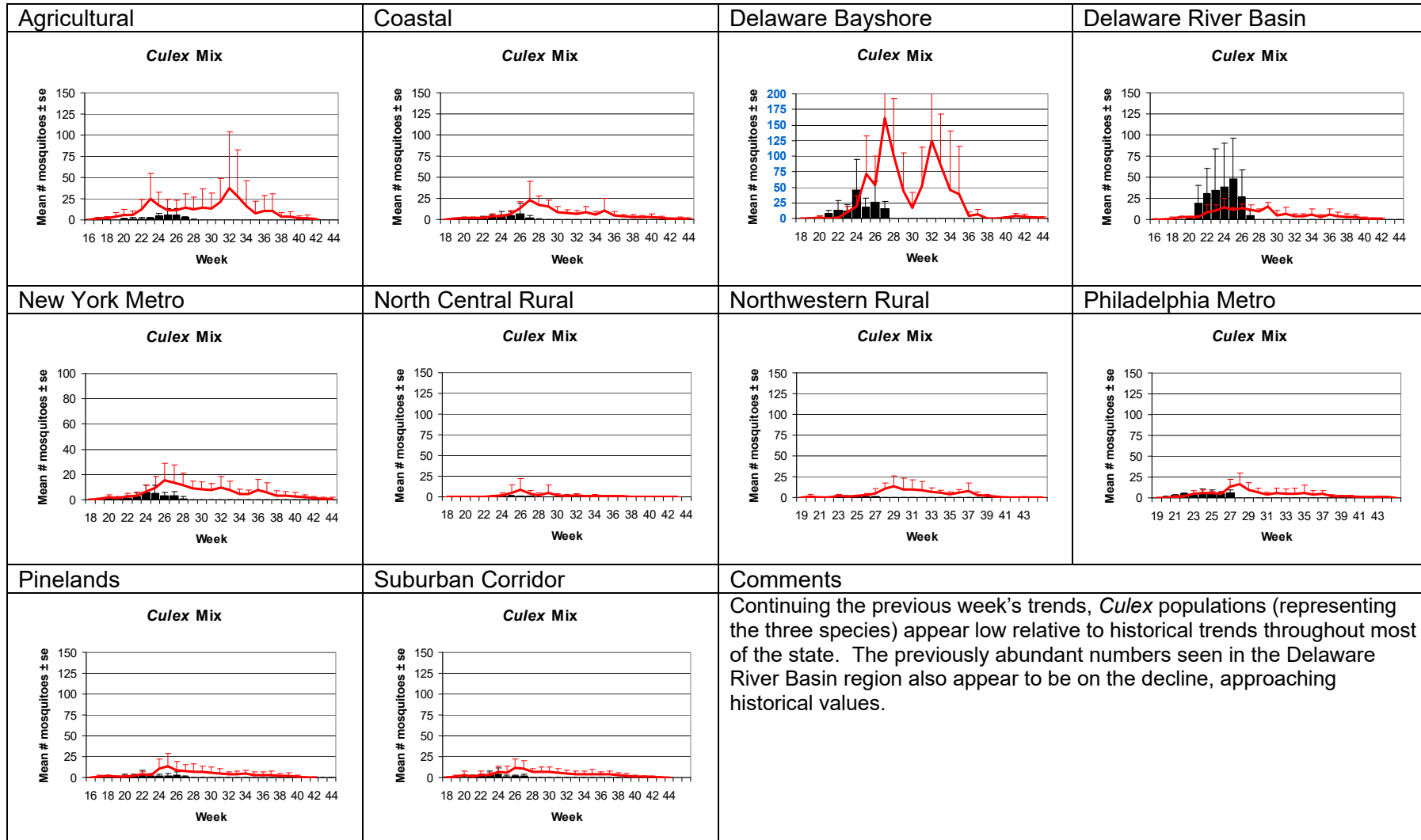
Additional Species, including *Cs. melanura*, *Ochlerotatus cantator*, and *Ochlerotatus japonicus*. *Psorophora* is also featured.

18 Counties reporting (20 counties on week 26).

Aedes vexans - Fresh Floodwater Species



Culex Complex - Multivoltine Culex Species



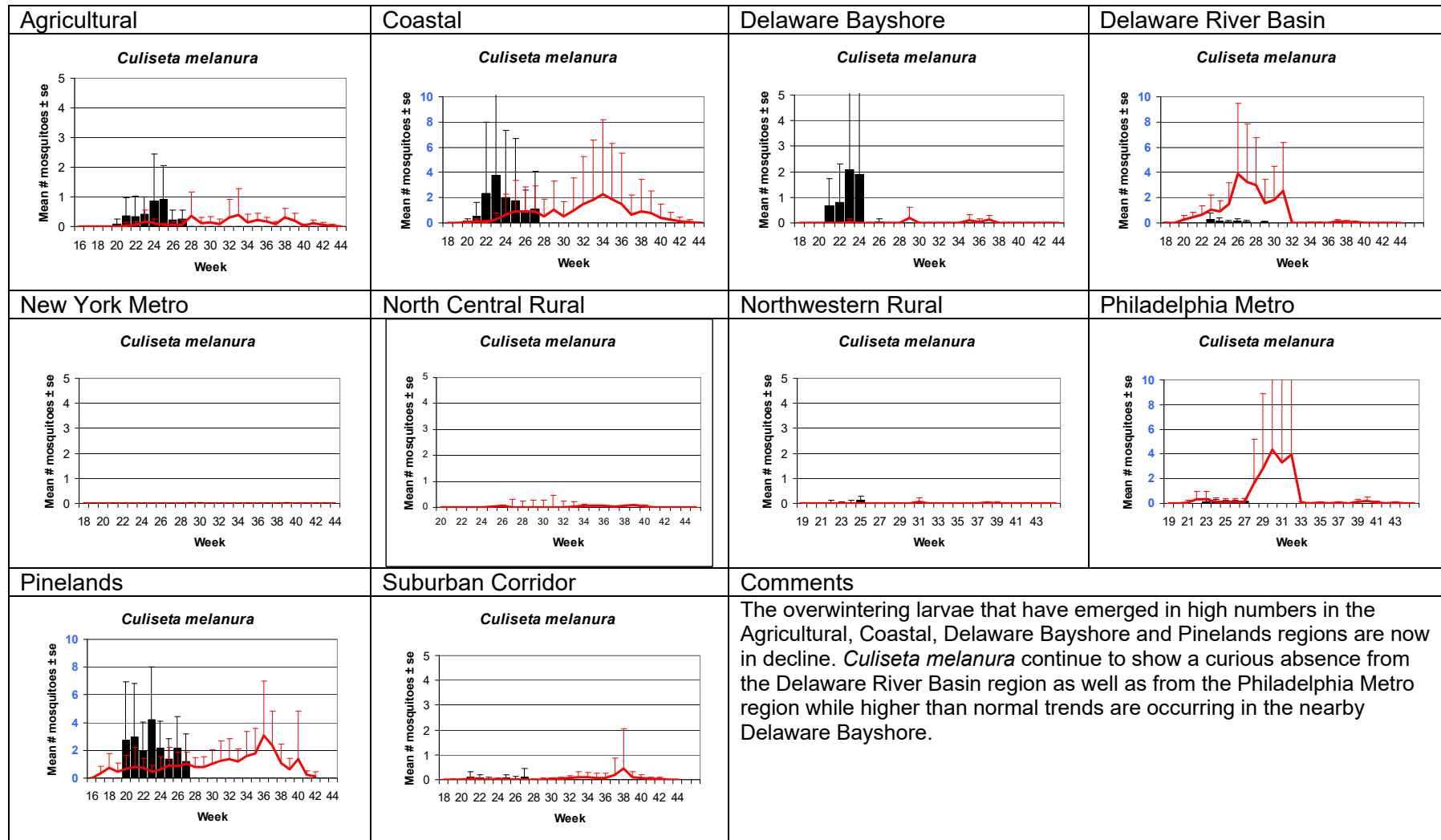
Coquillettidia perturbans - Unique Life Cycle

Agricultural <i>Coquillettidia perturbans</i>	Coastal <i>Coquillettidia perturbans</i>	Delaware Bayshore <i>Coquillettidia perturbans</i>	Delaware River Basin <i>Coquillettidia perturbans</i>
New York Metro <i>Coquillettidia perturbans</i>	North Central Rural <i>Coquillettidia perturbans</i>	Northwestern Rural <i>Coquillettidia perturbans</i>	Philadelphia Metro <i>Coquillettidia perturbans</i>
Pinelands <i>Coquillettidia perturbans</i>	Suburban Corridor <i>Coquillettidia perturbans</i>	Comments Population levels for <i>Coquillettidia perturbans</i> have reached the maximum for the season as larvae that overwintered as 4th and 3rd are on the wing. A possible emergence representing the 2nd instars can occur in some regions as indicated by minor population peaks recorded in August historical data (e.g., Delaware Bayshore and Coastal regions).	

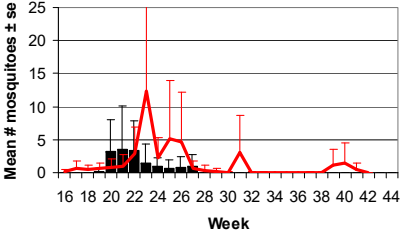
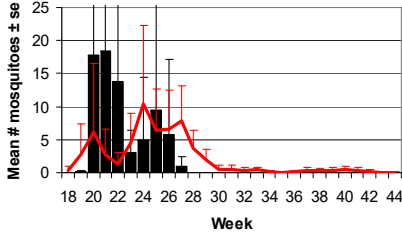
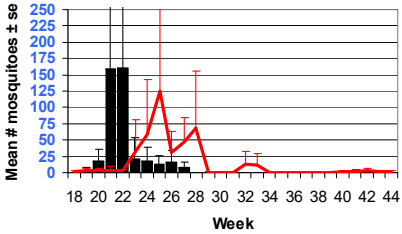
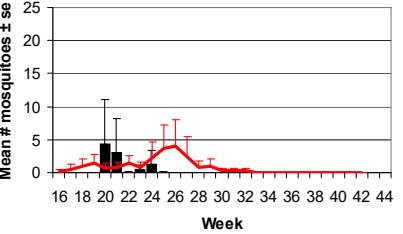
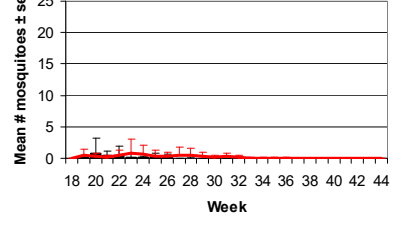
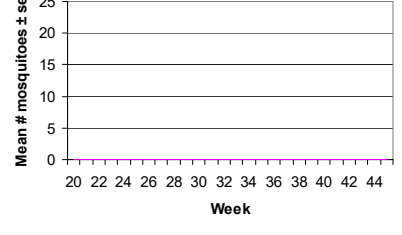
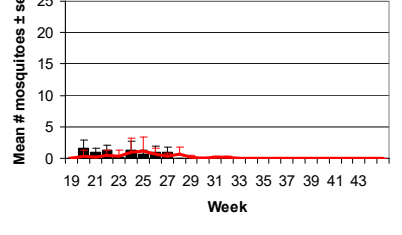
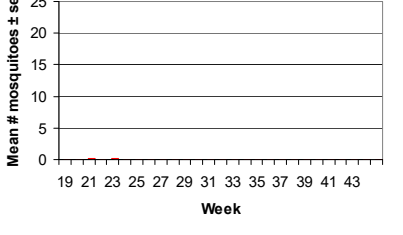
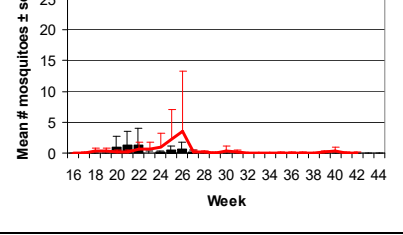
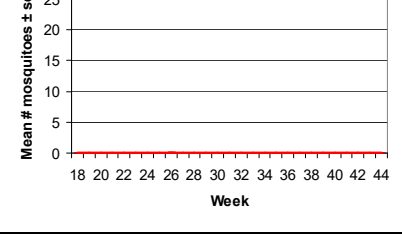
Ochlerotatus sollicitans - Salt Marsh Floodwater Species

Agricultural <i>Ochlerotatus sollicitans</i>	Coastal <i>Ochlerotatus sollicitans</i>	Delaware Bayshore <i>Ochlerotatus sollicitans</i>	Delaware River Basin <i>Ochlerotatus sollicitans</i>
New York Metro <i>Ochlerotatus sollicitans</i>	North Central Rural <i>Ochlerotatus sollicitans</i>	Northwestern Rural <i>Ochlerotatus sollicitans</i>	Philadelphia Metro <i>Ochlerotatus sollicitans</i>
Pinelands <i>Ochlerotatus sollicitans</i>	Suburban Corridor <i>Ochlerotatus sollicitans</i>	Comments The lunar tides on <i>Ochlerotatus sollicitans</i> emergences are particularly striking in the absence of flooding effects due to the recent dry weather. As such, we expect to see an increase in the populations over the next week or two if tidal waters have flooded <i>Spartina patens</i> habitat on the high marsh.	

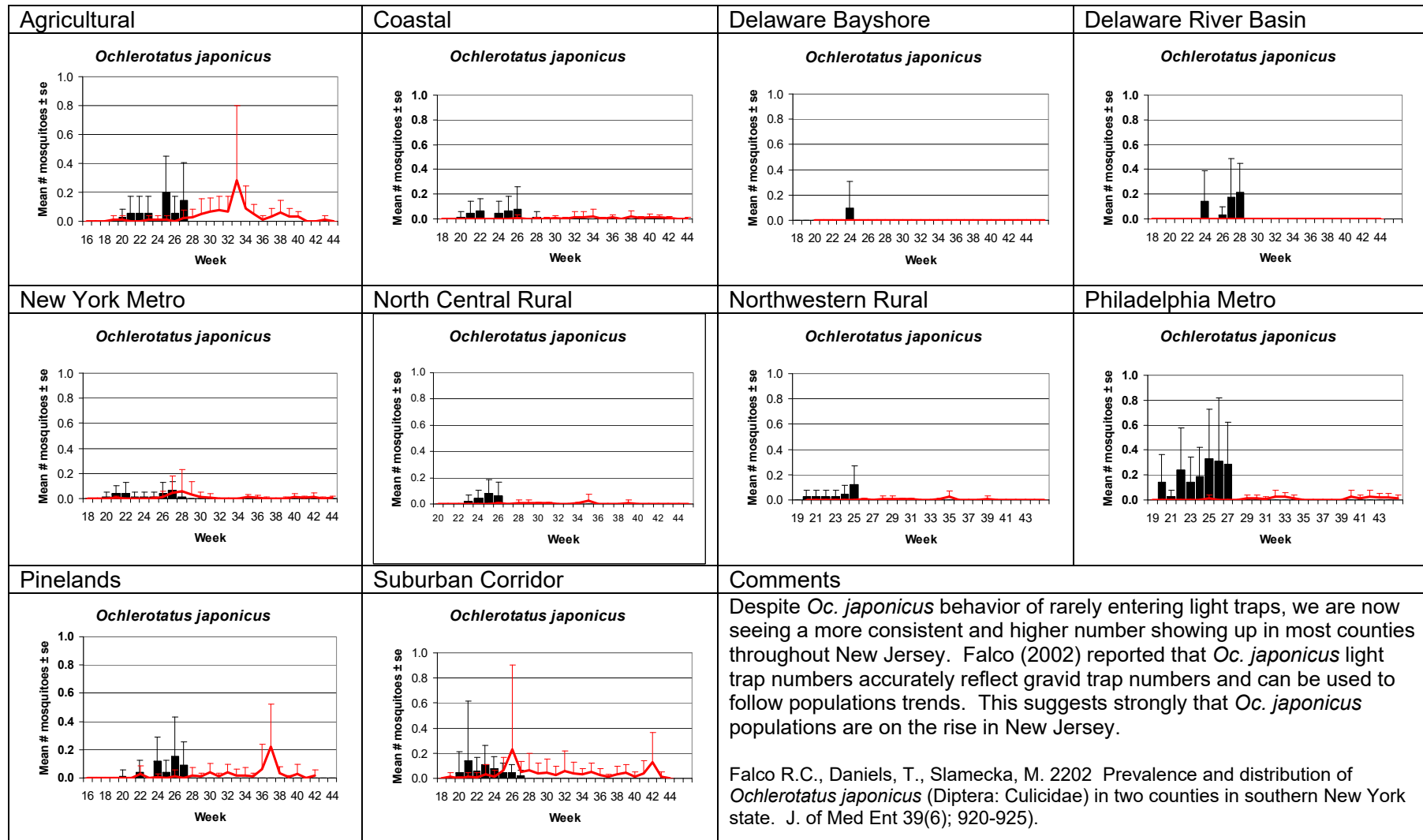
Culiseta melanura - Miscellaneous Group



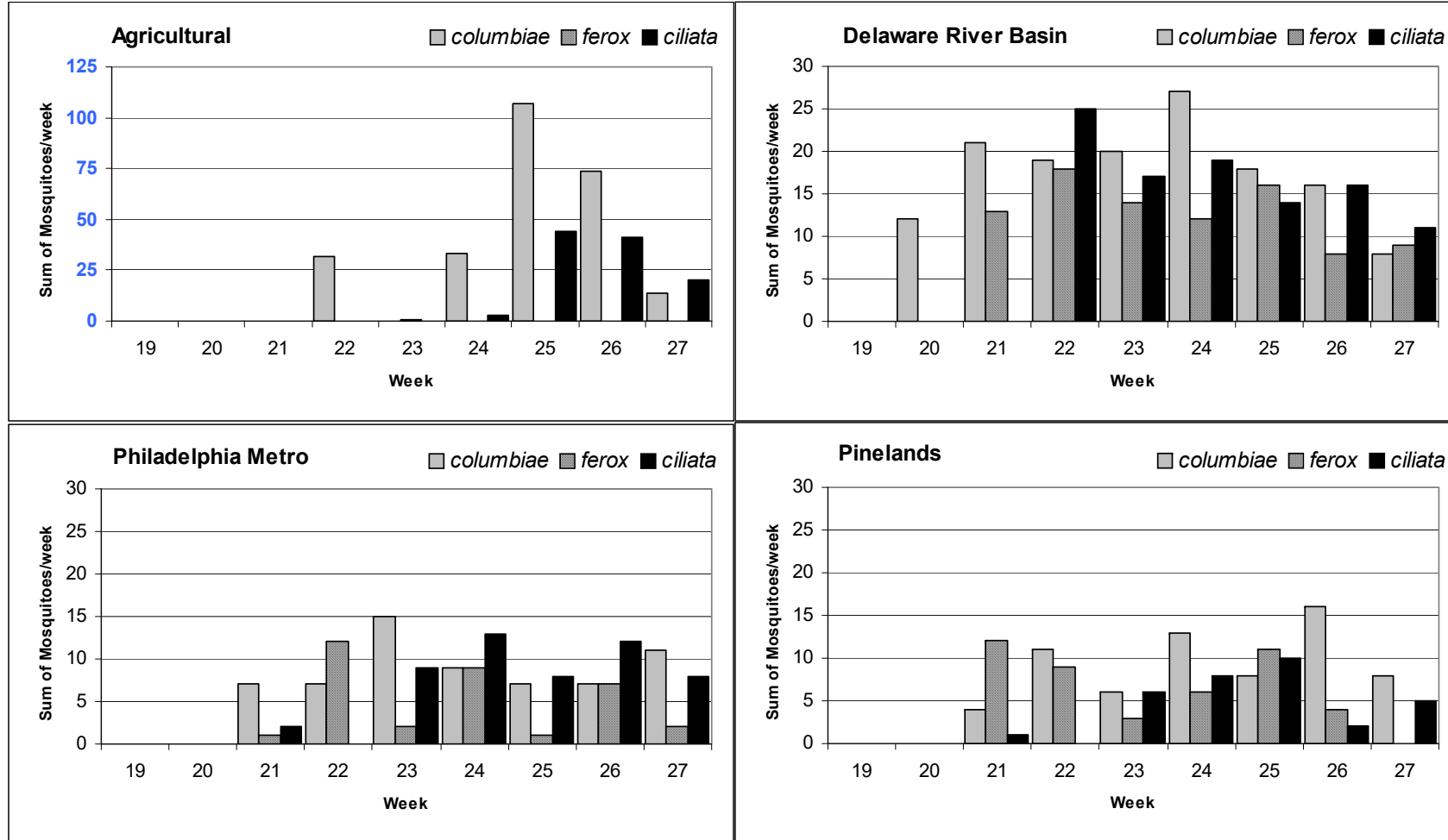
Ochlerotatus cantator - Multivoltine Aedine Species

Agricultural <i>Ochlerotatus cantator</i> 	Coastal <i>Ochlerotatus cantator</i> 	Delaware Bayshore <i>Ochlerotatus cantator</i> 	Delaware River Basin <i>Ochlerotatus cantator</i> 
New York Metro <i>Ochlerotatus cantator</i> 	North Central Rural <i>Ochlerotatus cantator</i> 	Northwestern Rural <i>Ochlerotatus cantator</i> 	Philadelphia Metro <i>Ochlerotatus cantator</i> 
Pinelands <i>Ochlerotatus cantator</i> 	Suburban Corridor <i>Ochlerotatus cantator</i> 	Comments <i>Ochlerotatus cantator</i> populations appear towards trends we'd expect of an early season species, with apparently the largest cohort emergence having already occurred. This year's population numbers appear to coincide with historical data for non-coastal regions of the state. Coastal regions had an elevated population early in the season, but numbers appear to approach normal. We expect that this species will decline as the season progresses.	

Ochlerotatus japonicus – Multivoltine Aedine



Psorophora columbiae, *Ps. ferox*, and *Ps. ciliata* in Agricultural, Delaware River Basin, Philadelphia Metro, and the Pinelands regions.



Psorophora species are floodwater mosquitoes that rarely become abundant before the month of June. Data from 2004 show that *Ps. columbiae* appeared first, followed by *Ps. ferox* and the predator *Ps. ciliata*. Larval *Ps. ciliata* are considerably larger than their prey, represented by *Ps. columbiae* and other floodwater species found in their habitat. *Ps. ferox* did not appear in the agricultural region, but *Ps. columbiae* and *Ps. ciliata* were extremely abundant.