

NEW JERSEY STATEWIDE SURVEILLANCE

Week 30 Report for 21 July to 27 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.

This is New Jersey Agricultural Experiment Station publication No. PT-08-40500-32-04 supported by Hatch funds and funding from the NJ State Mosquito Control Commission. Prepared by Lisa M. Reed and Wayne J. Crans.

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

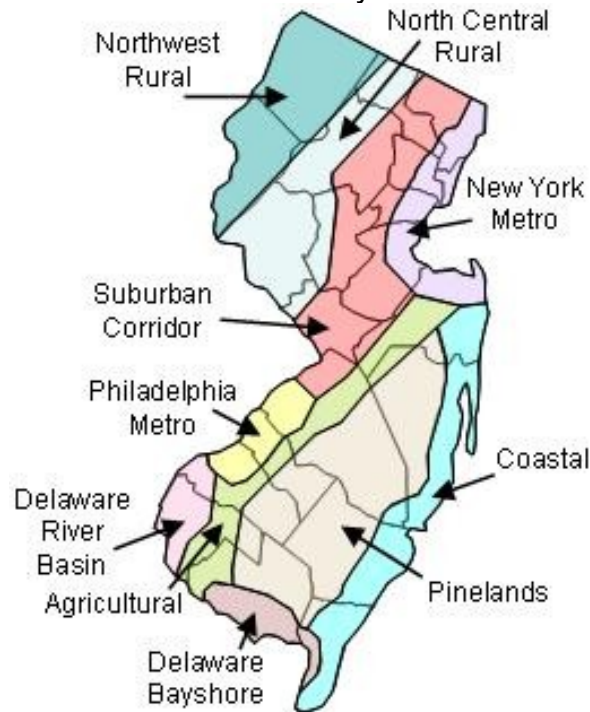


Figure 1b. Trap lat-long locations.



Summary table

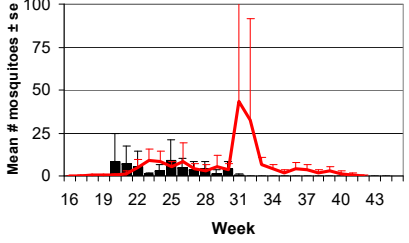
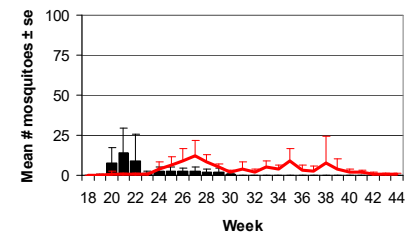
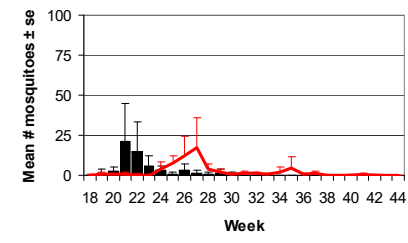
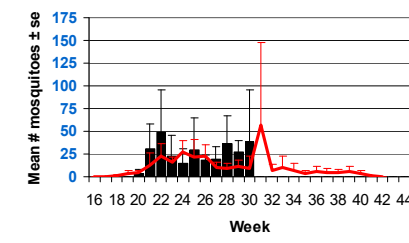
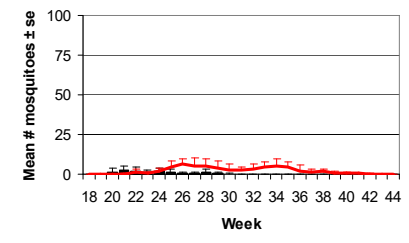
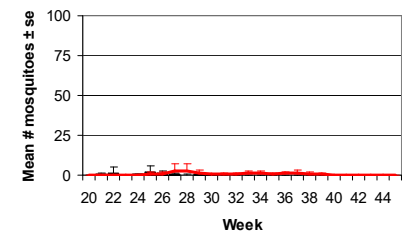
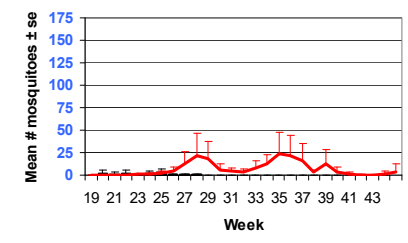
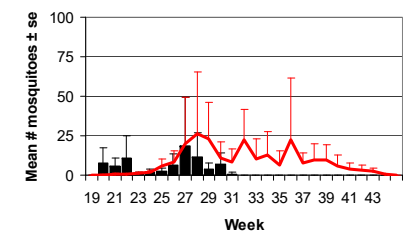
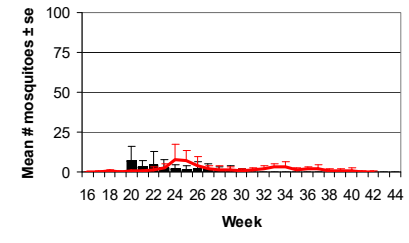
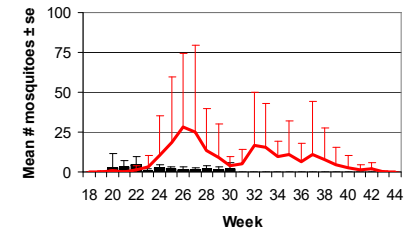
	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquilleltidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	4.40	3.16	7.81	12.22	0.19	0.56	2.21	0.30
Coastal	0.59	1.83	1.59	12.92	1.10	0.44	29.68	36.75
Delaware Bayshore	0.79	0.55	17.98	70.29	3.14	1.00	12.57	6.12
Delaware River Basin	38.61	9.13	2.36	9.18	0.21	0.09	0.00	0.09
New York Metro	0.17	2.49	0.50	8.51	0.00	0.42	0.11	0.82
North Central Rural	0.43	0.46	0.31	5.07	0.00	0.24	0.00	0
Northwest Rural	0.24	4.15	0.67	9.91	0.00	0.31	0.00	0
Philadelphia Metro	6.97	8.52	0.02	3.87	0.31	0.18	0.03	0
Pinelands	1.08	1.58	0.82	7.13	0.69	0.64	0.17	0.20
Suburban Corridor	1.75	3.54	1.05	6.60	0.45	2.83	0.00	0.10

- Complete data not yet available.

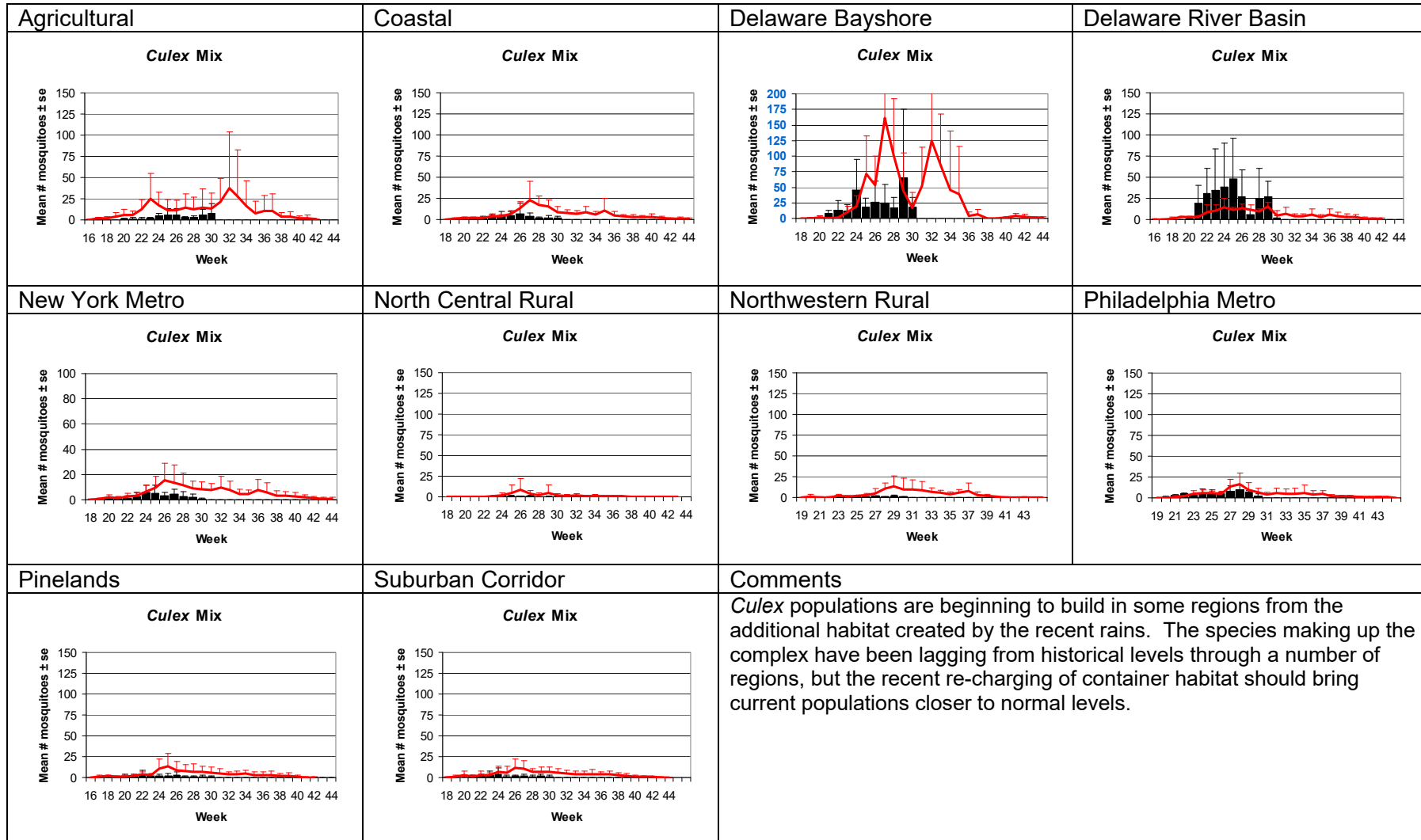
Additional Species, including *Cs. melanura* and *Ochlerotatus japonicus*. *Psorophora* is also featured.

17 Counties reporting (19 counties on week 26).

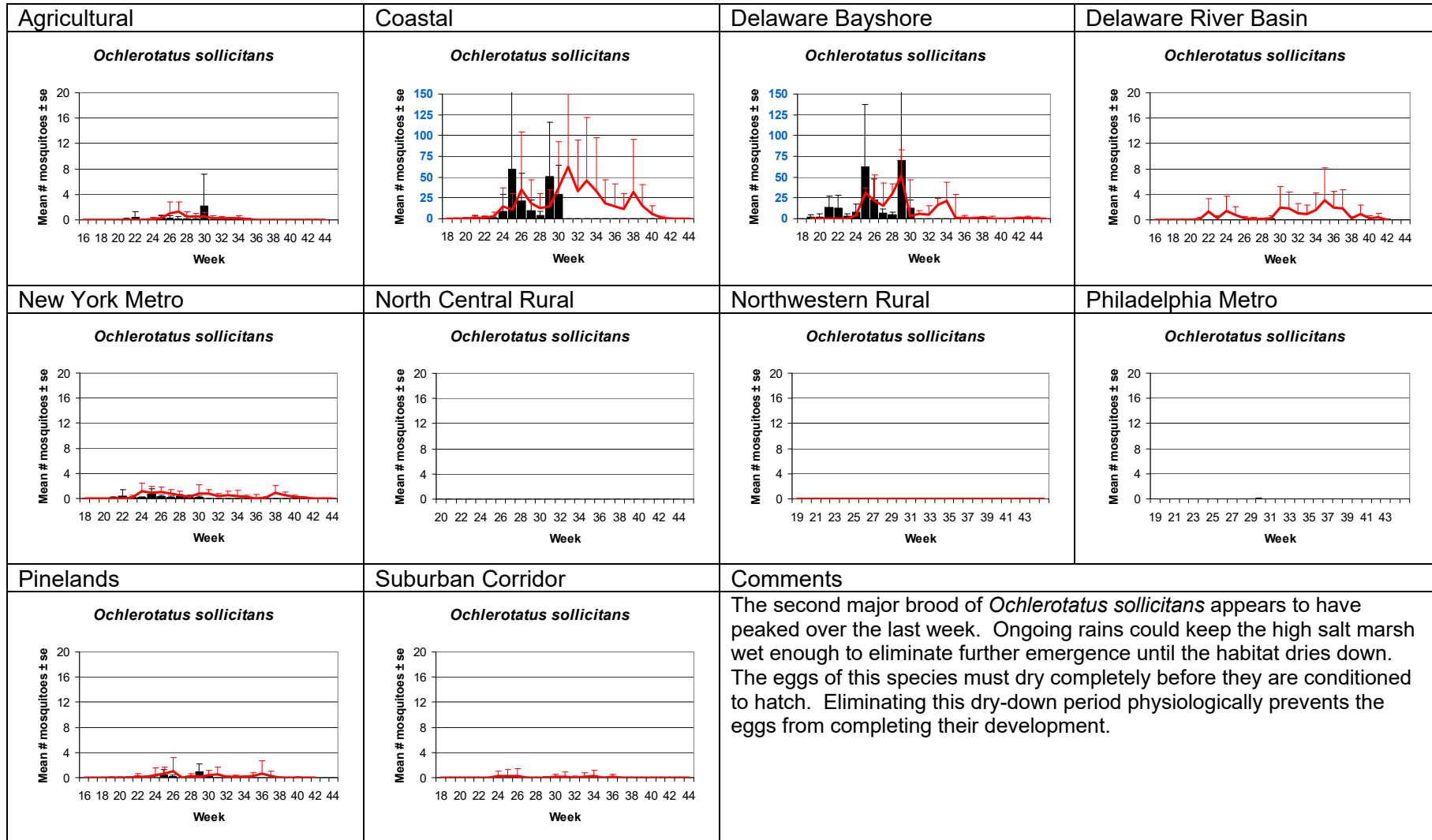
Aedes vexans - Fresh Floodwater Species

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Aedes vexans</i> 	<i>Aedes vexans</i> 	<i>Aedes vexans</i> are beginning to show up in light traps from areas of recent rains concentrated in mid to southern New Jersey (e.g., Delaware River Basin). Continuing rains throughout the rest of the state are creating additional floodwater habitat, and <i>Aedes vexans</i> is expected to continue to emerge on a statewide basis.	

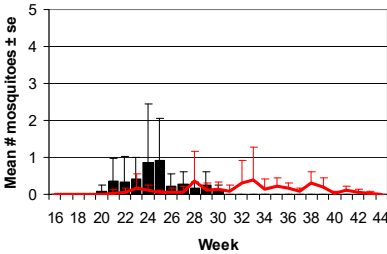
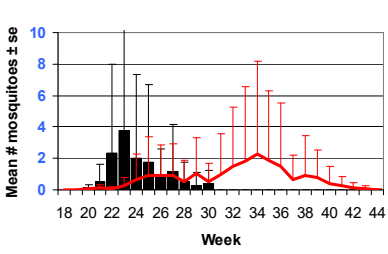
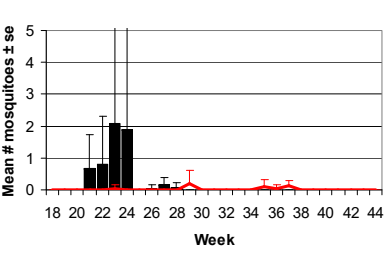
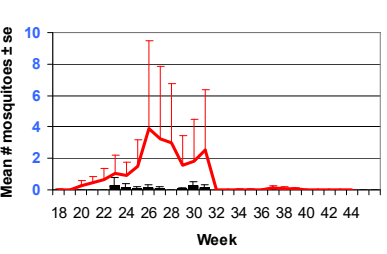
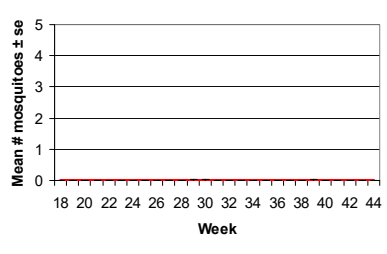
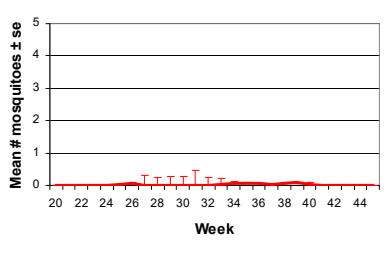
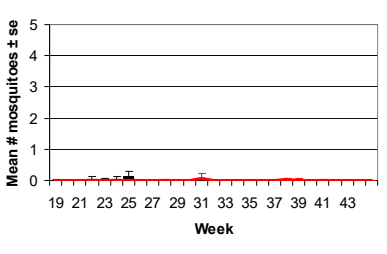
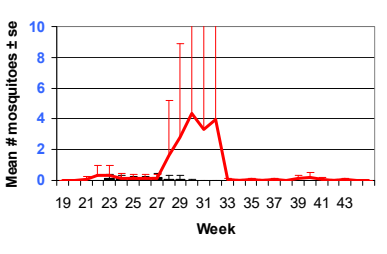
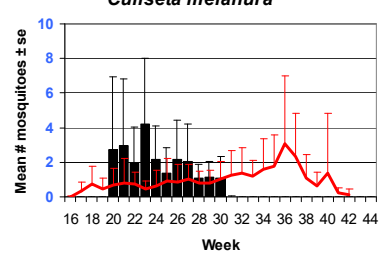
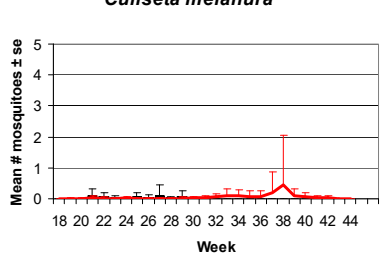
Culex Complex - Multivoltine Culex Species



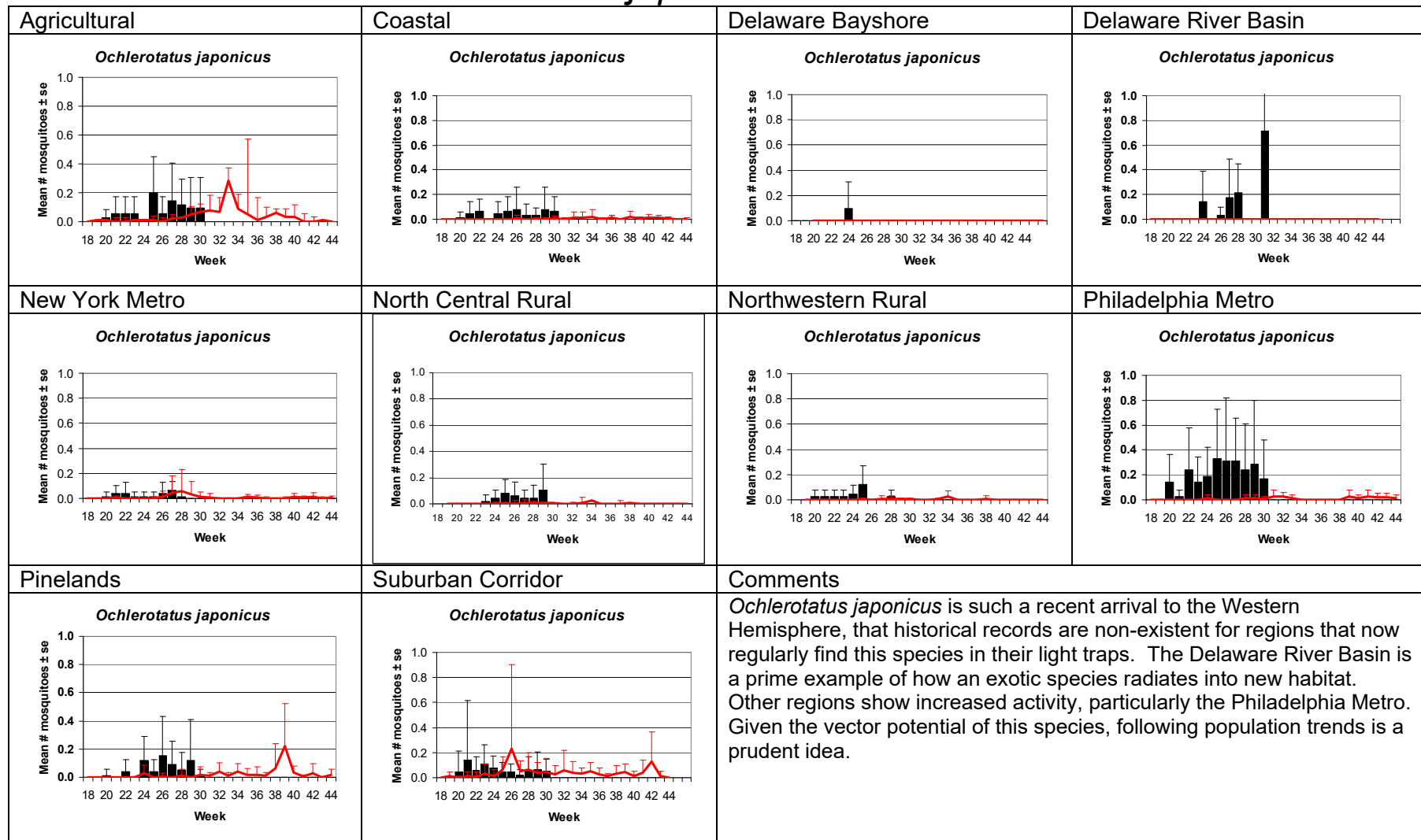
Ochlerotatus sollicitans - Salt Marsh Floodwater Species



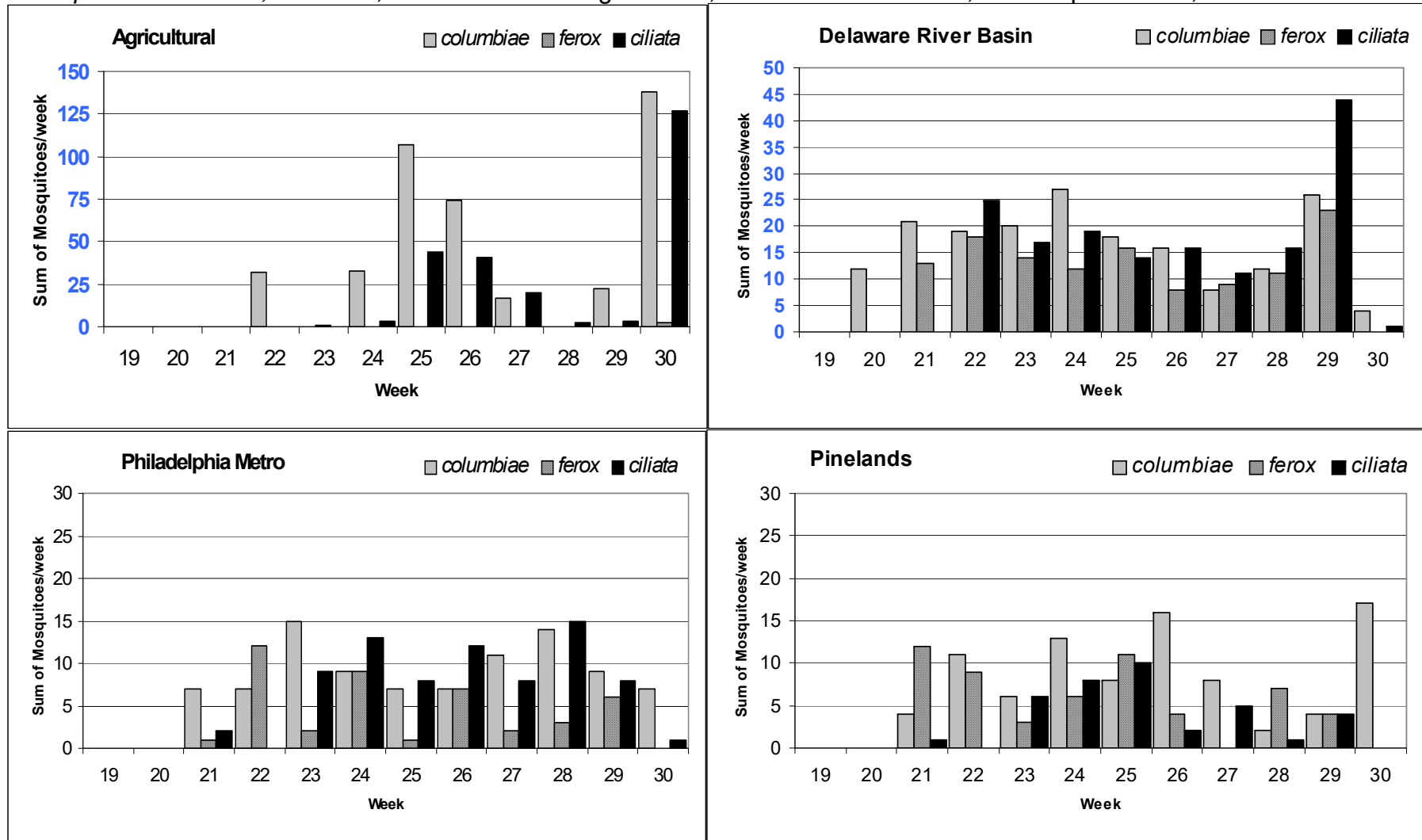
Culiseta melanura - Miscellaneous Group

Agricultural <i>Culiseta melanura</i> 	Coastal <i>Culiseta melanura</i> 	Delaware Bayshore <i>Culiseta melanura</i> 	Delaware River Basin <i>Culiseta melanura</i> 
New York Metro <i>Culiseta melanura</i> 	North Central Rural <i>Culiseta melanura</i> 	Northwestern Rural <i>Culiseta melanura</i> 	Philadelphia Metro <i>Culiseta melanura</i> 
Pinelands <i>Culiseta melanura</i> 	Suburban Corridor <i>Culiseta melanura</i> 	Comments <i>Culiseta melanura</i> populations were well above normal during the first half of the 2004 season. Historical data suggest that a second peak is probable in the Coastal and Pinelands regions as we advance from summer into fall. A positive EEE pool from Green Bank in Burlington County shows the virus is active fairly early in the season. Mosquito control agencies use <i>Culiseta melanura</i> as an indicator for virus activity and target bridge vectors (<i>Ochlerotatus sollicitans</i>, <i>Coquillettidia perturbans</i>) for vector control.	

Ochlerotatus japonicus – Multivoltine Aedine



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



Psorophora populations have escalated in the Agricultural and Delaware River Basin regions as a result of the rainfall in recent weeks. West Nile virus has been isolated from all three of these nuisance species on New Jersey's checklist.