

NEW JERSEY STATEWIDE SURVEILLANCE

Week 28 Report for 07 July to 13 July, 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.

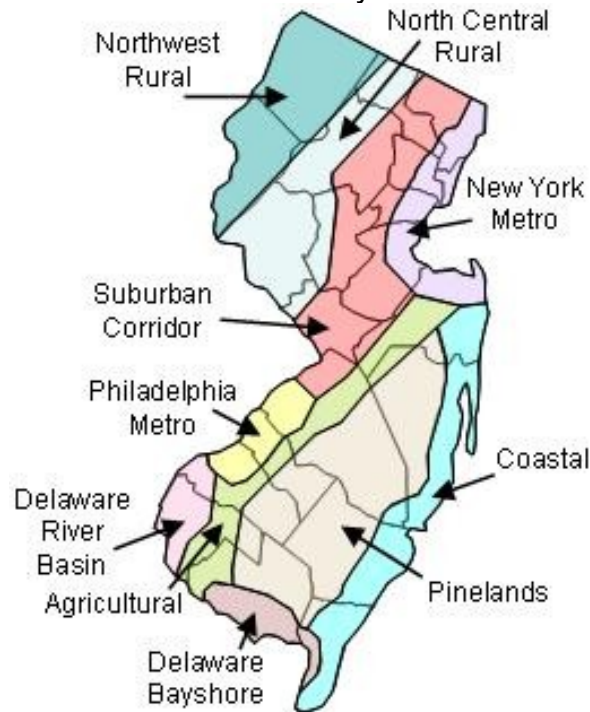


Figure 1b. Trap lat-long locations.



Summary table

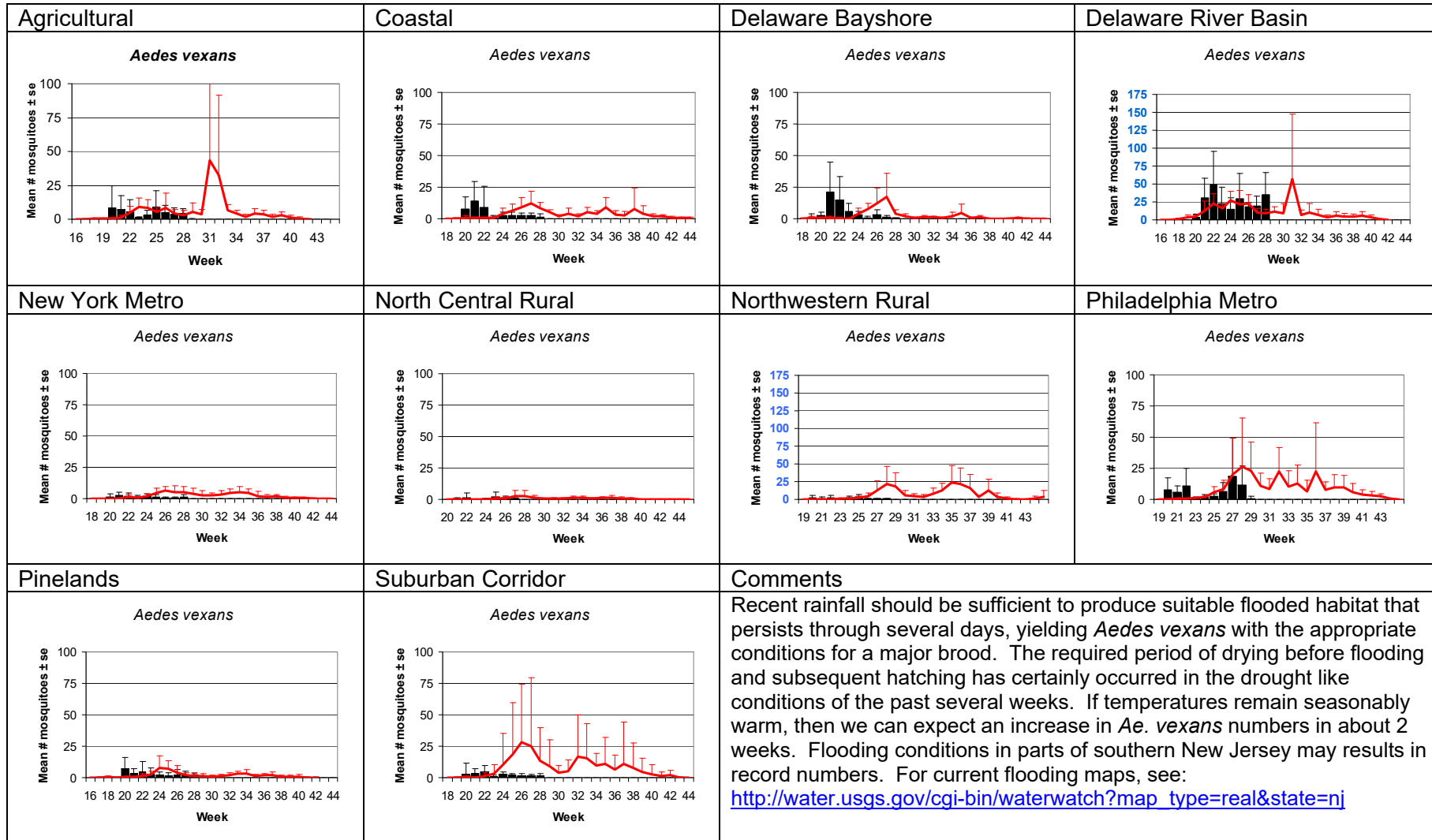
	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquilleltidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	3.93	8.36	1.83	11.67	0.64	0.58	0.17	0.93
Coastal	1.48	8.09	1.27	16.83	0.68	2.97	2.84	12.64
Delaware Bayshore	0.43	3.74	8.86	101.88	0.38	2.95	2.71	51.45
Delaware River Basin	34.79	23.10	22.89	13.30	0.89	0.01	0.00	0.21
New York Metro	1.09	4.99	2.60	11.08	0.12	0.50	0.24	0.55
North Central Rural	0.06	1.57	0.84	3.64	0.12	0.13	0.00	0
Northwest Rural	0.62	17.68	0.90	13.22	0.05	0.36	0.00	0
Philadelphia Metro	11.43	22.83	9.76	9.82	1.38	0.89	0.00	0
Pinelands	1.68	4.01	0.84	8.87	2.40	0.86	0.01	0.01
Suburban Corridor	1.52	13.74	1.13	6.46	2.63	54.48	0.00	0.01

- Complete data not yet available.

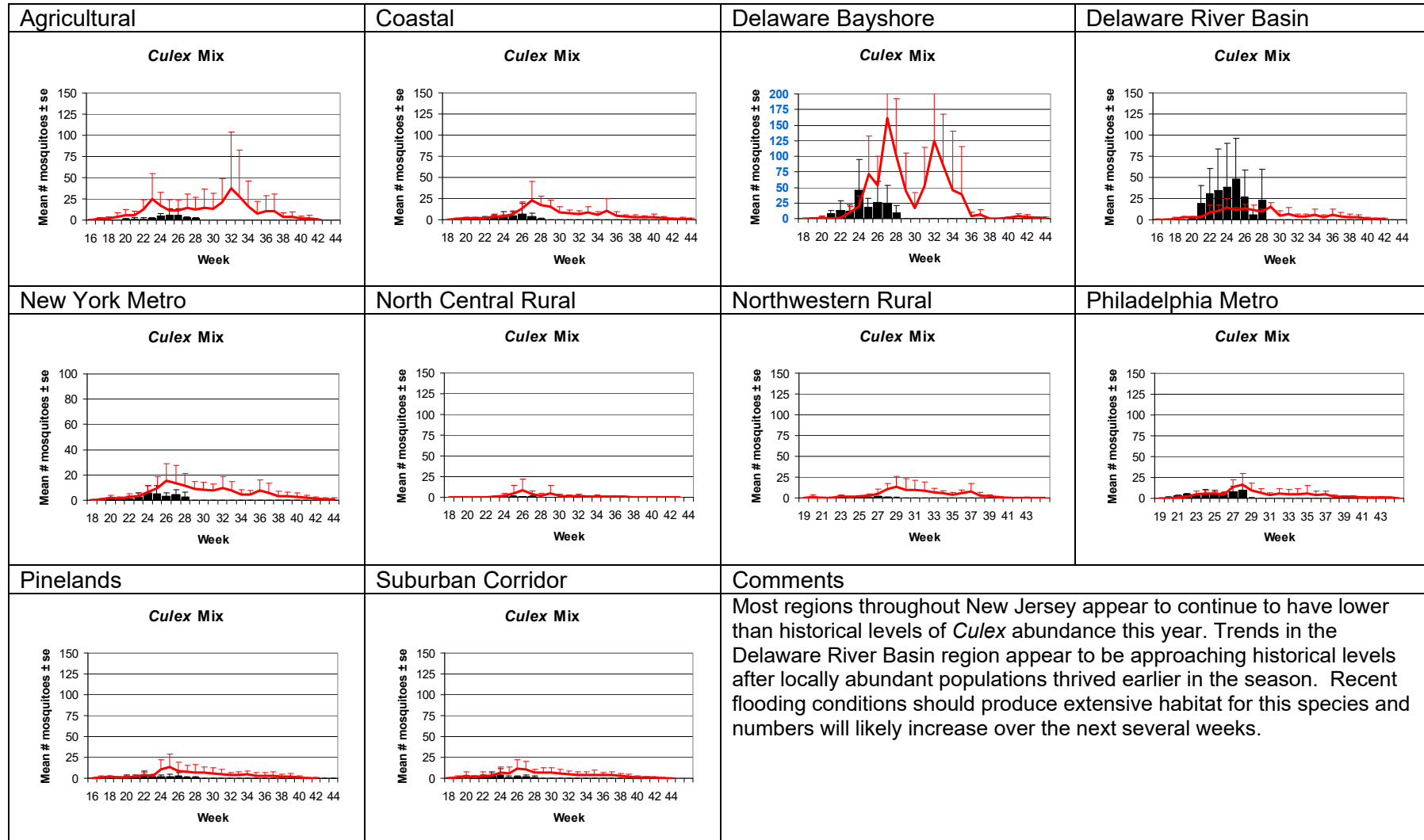
Additional Species, including *Cs. melanura* and *Ochlerotatus japonicus*. *Anopheles walkeri* is also featured.

20 Counties reporting (20 counties on week 27).

Aedes vexans - Fresh Floodwater Species



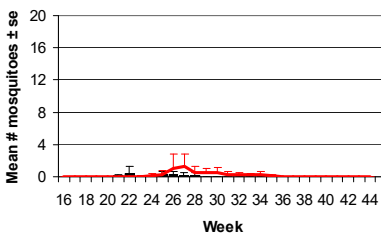
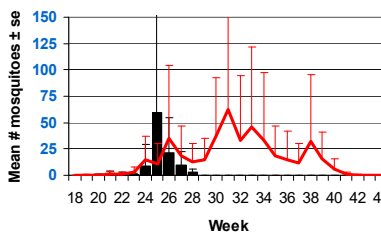
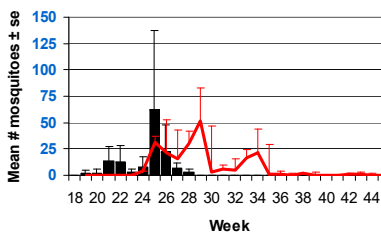
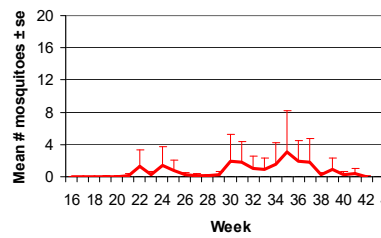
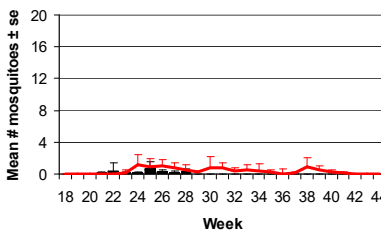
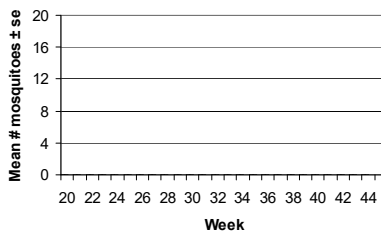
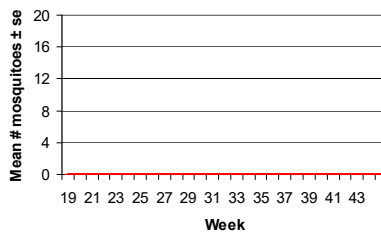
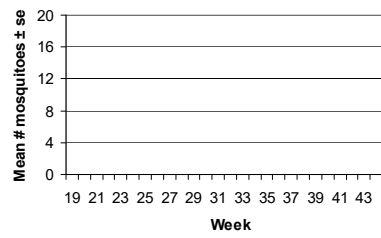
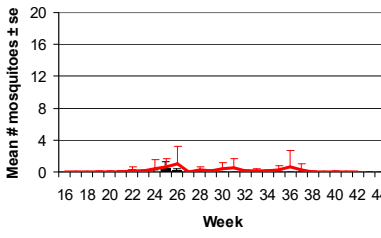
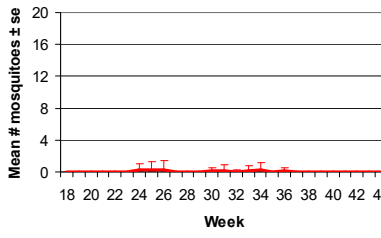
Culex Complex - Multivoltine Culex Species



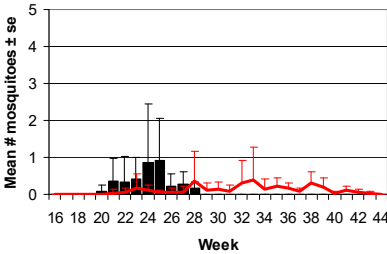
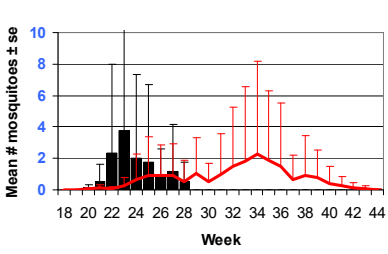
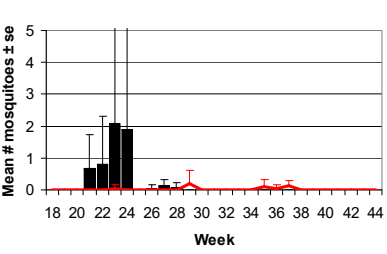
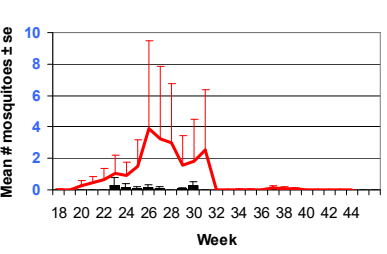
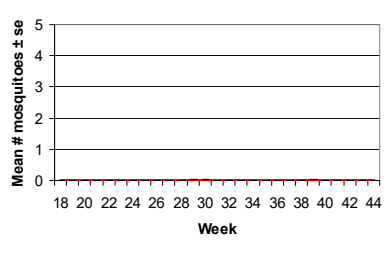
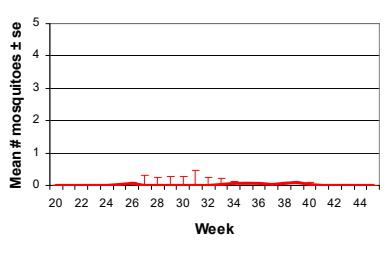
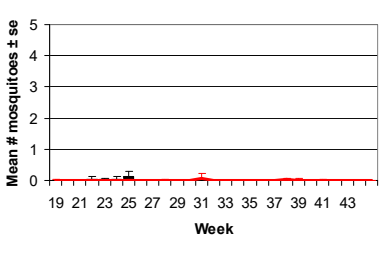
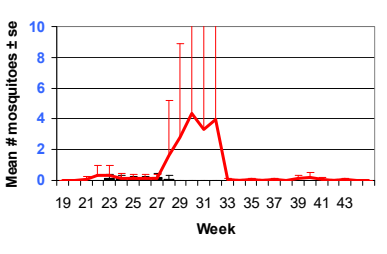
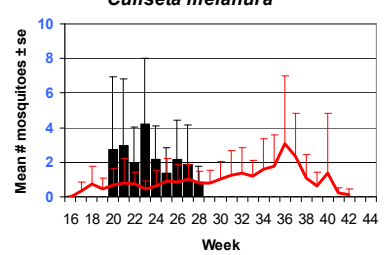
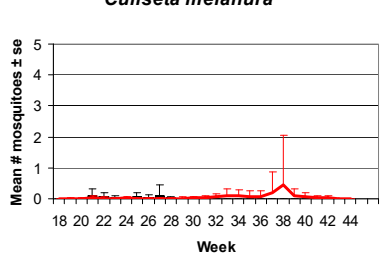
Coquillettidia perturbans - Unique Life Cycle

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 <i>Coquillettidia perturbans</i> trends will likely continue to decline throughout the state. A second minor emergence in August may occur. Unless unusual trends are spotted, this species will now be reported only in the Averages table at the beginning of the report.	

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> appears to be at the nadir of their cycle, with lowest population levels reported this season so far. Both recent rains and the lunar cycle will bring water levels up through the high marsh habitat where this floodwater species has laid eggs. This coming week should produce a respectable population level for coastal and Bayshore regions. The possible exception to this is the Delaware River Basin, where <i>Oc. sollicitans</i> has been notably absent.	

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 Population levels of <i>Culiseta melanura</i> have returned to normal in those regions that experienced high abundance early in the season. <i>Cs. melanura</i> continues to be present in very low numbers in both the Delaware River Basin and Philadelphia Metro regions. Resting box data suggests that the second generation is beginning to emerge. These mosquitoes should begin entering light traps over the next couple of weeks.	

Anopheles walkeri in the Suburbs. This species is a good example of locally abundant populations that rarely show up in other traps. Out of the 17 traps included in this regions, only one trap show any substantial population levels, ranging in the 50 to 100 individuals cumulative for the week. This trap happened to be near a wildlife area located within the suburban region. The large variability (the standard errors) reflects the influence of the high values of this unusual trap. The large number of traps involved in calculating the region's weekly average results in low numbers that are appropriate for the region.

An. *walkeri* is an unusual anopheline in that this species overwinters as eggs and not in the usual anopheline strategy as mated adult females.

Anopheles walkeri

