

NEW JERSEY STATE SURVEILLANCE

Weekly Report for Week 42, 14 – 21 October, 2003

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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.



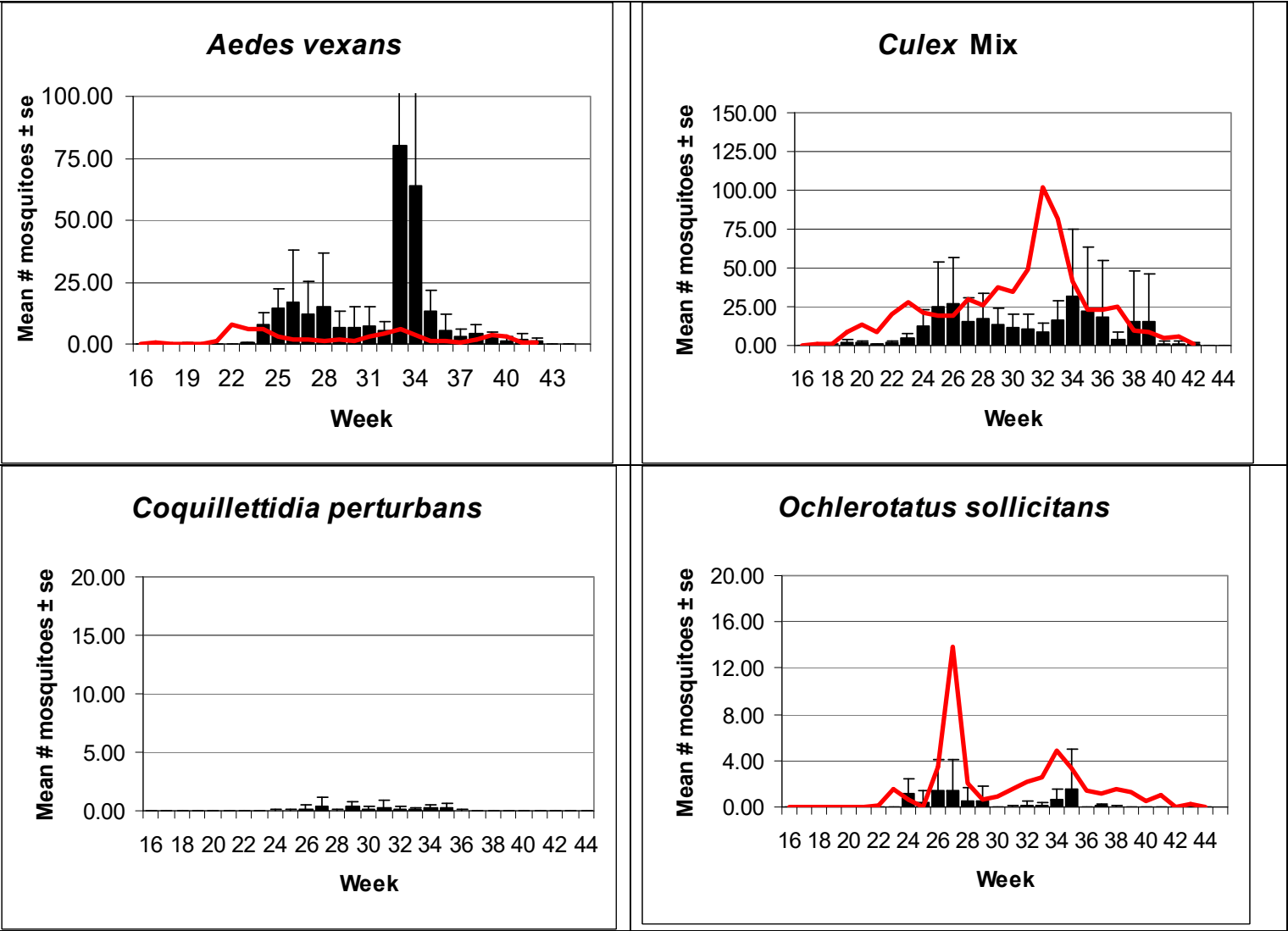
Summary table

	<i>Aedes vexans</i>		<i>Culex complex</i>		<i>Coquillettidia perturbans</i>		<i>Ochlerotatus sollicitans</i>	
Region	This Week	Average*	This Week	Average*	This Week	Average*	This Week	Average*
Agricultural	1.17	3.01	0.88	4.51	0.00		0.00	0.04
Coastal	1.92	0.88	0.90	1.04	0.00		0.29	0.87
Delaware Bayshore	0.00		0.00		0.00		0.00	
Delaware River Basin	2.96	6.95	0.75	2.86	0.00		0.00	0.59
New York Metro	0.01	0.26	0.10	0.67	0.00		0.00	0.00
North Central Rural	0.00		0.02		0.00		0.00	
Northwest Rural	0.00		0.00		0.00		0.00	
Philadelphia Metro	2.97		0.98		0.00		0.00	
Pinelands	2.14	0.35	1.49	0.21	0.00		0.00	
Suburban Corridor	0.47	2.81	0.34	0.17	0.00		0.00	

- Complete data not yet available.

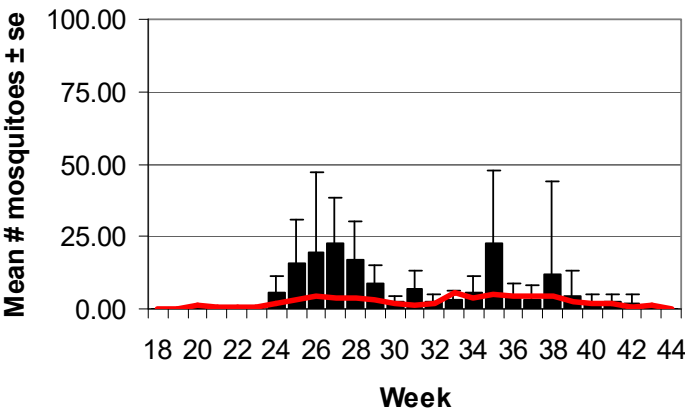
Please Note: Historical data is being entered and not yet complete. These values and graphics will change as more data is entered.

Agricultural

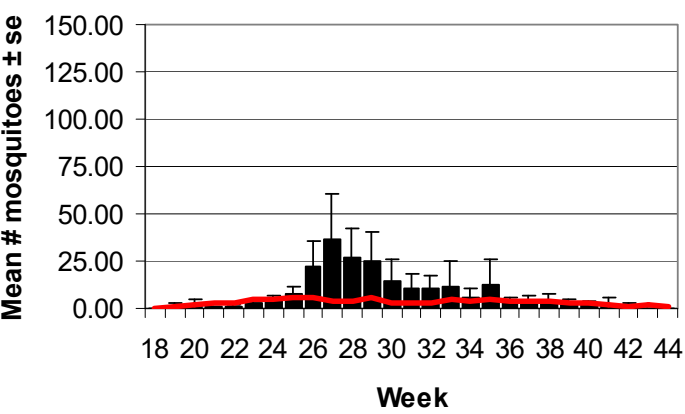


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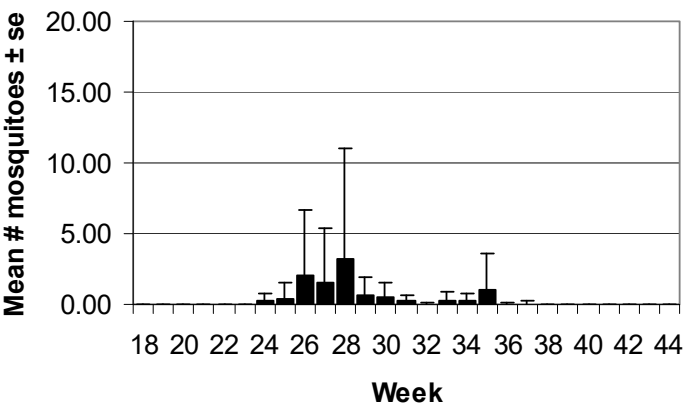
Aedes vexans



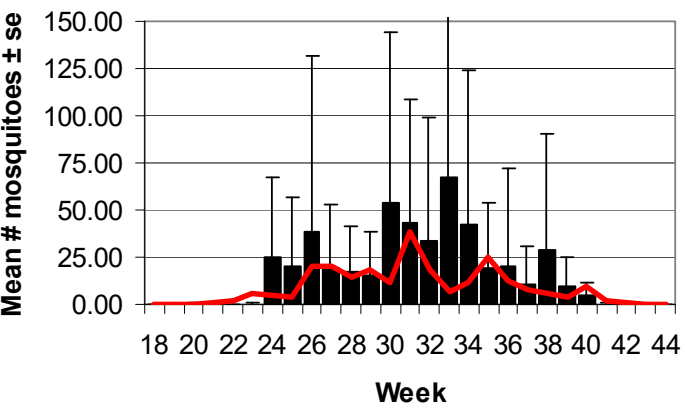
Culex Mix



Coquillettidia perturbans

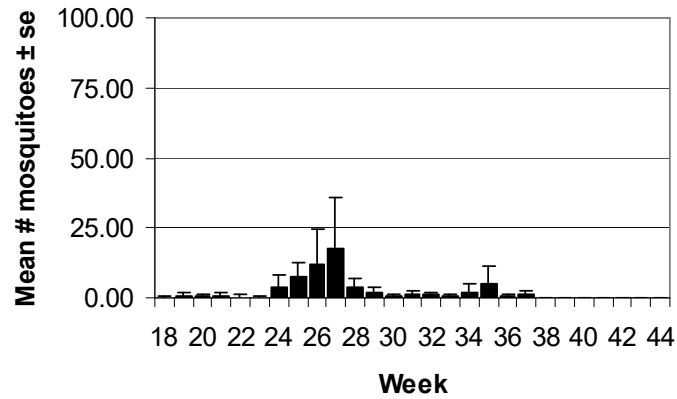


Ochlerotatus sollicitans

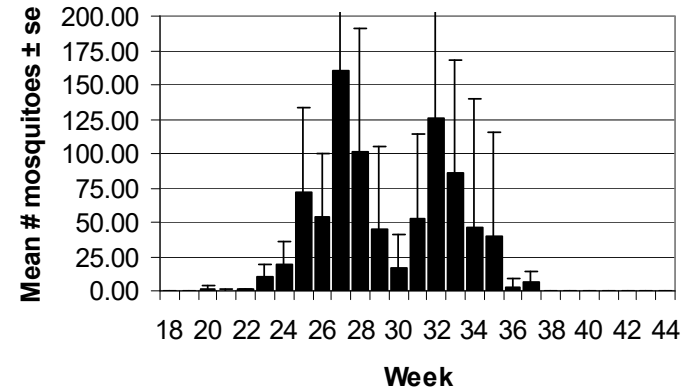


Delaware Bayshore

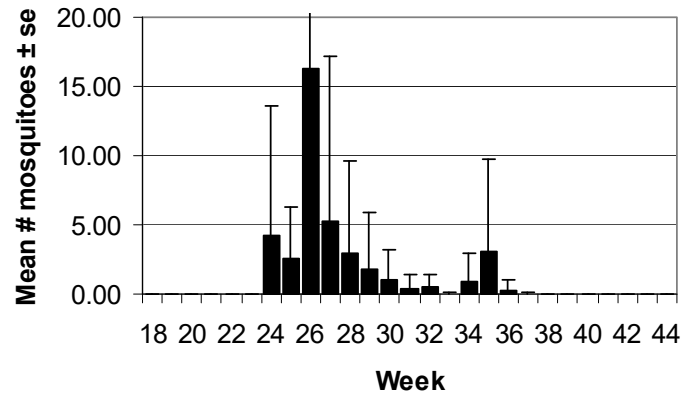
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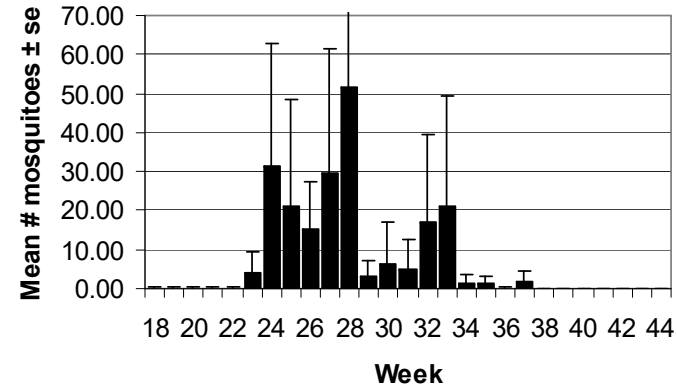
Culex Mix



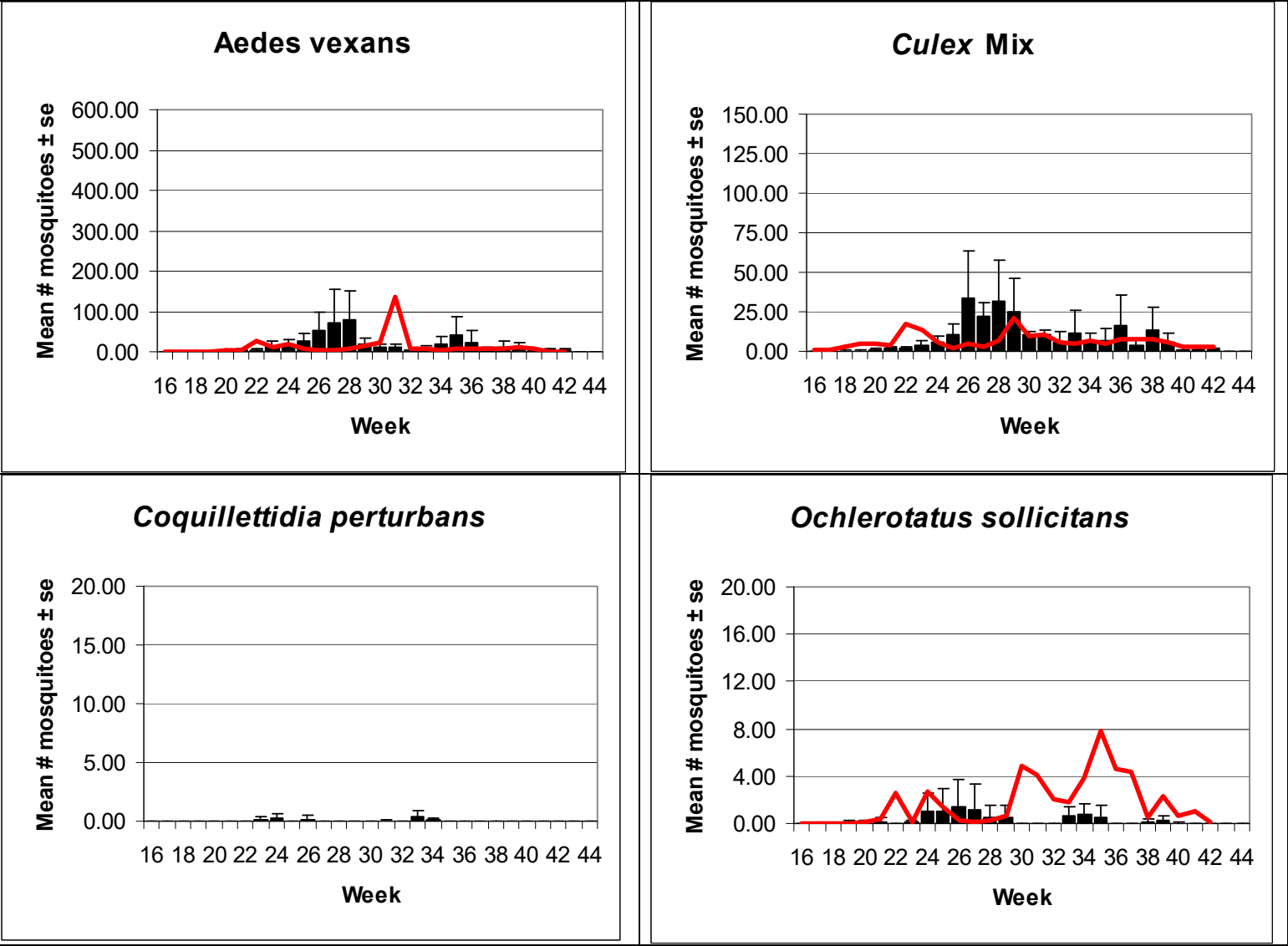
Coquillettidia perturbans



Ochlerotatus sollicitans

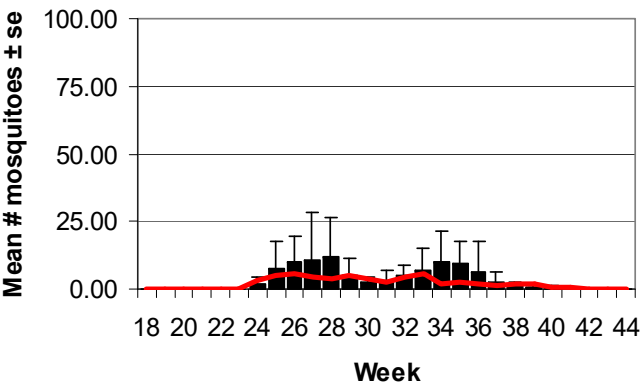


Delaware River Basin

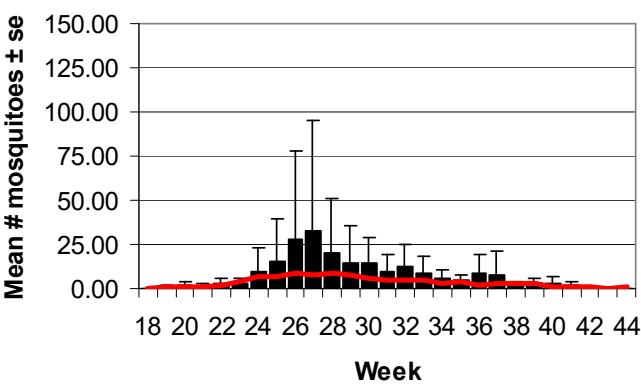


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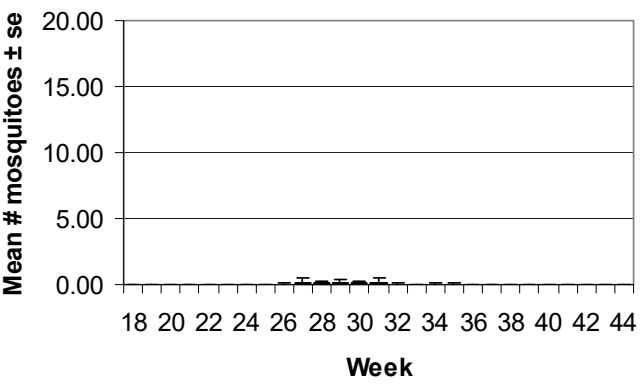
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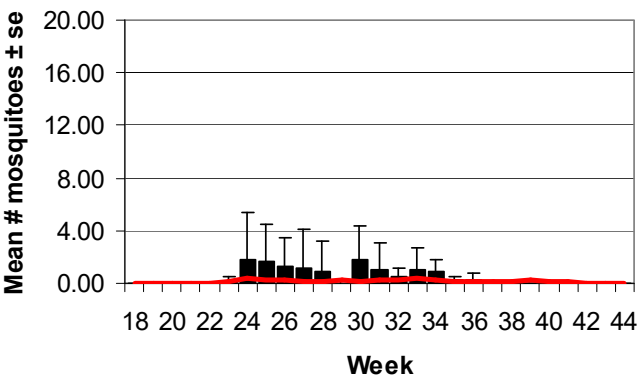
Culex Mix



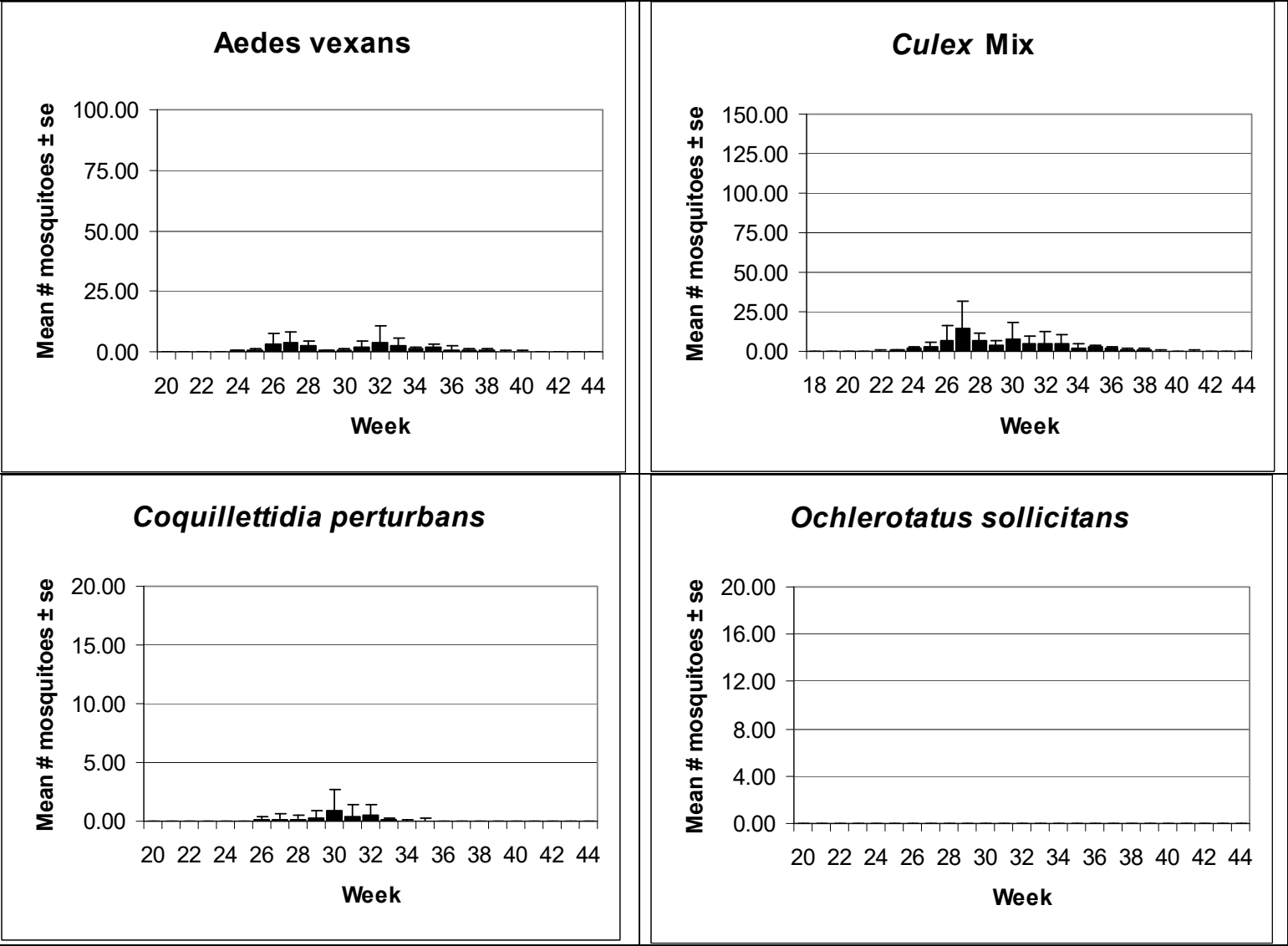
Coquillettidia perturbans



Ochlerotatus sollicitans

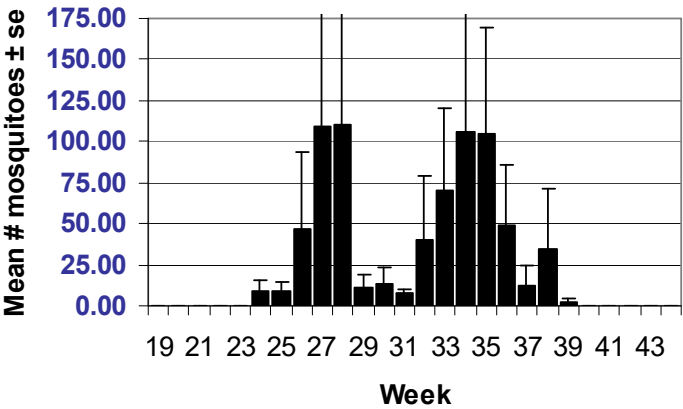


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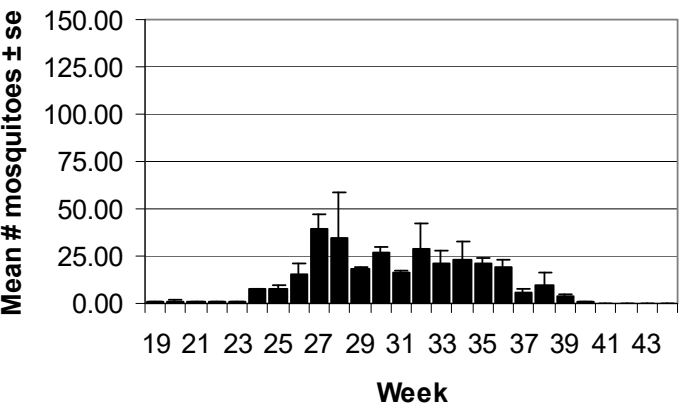


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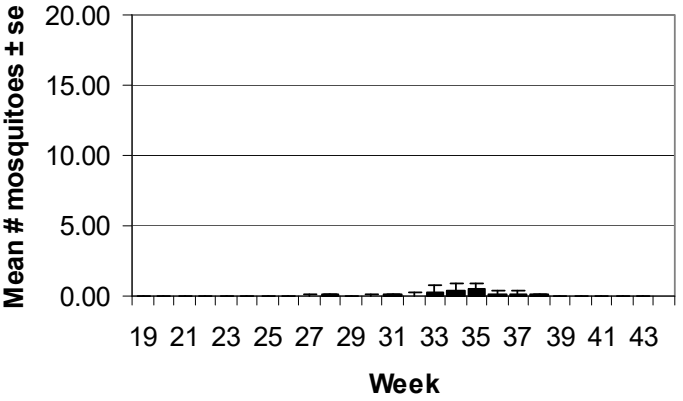
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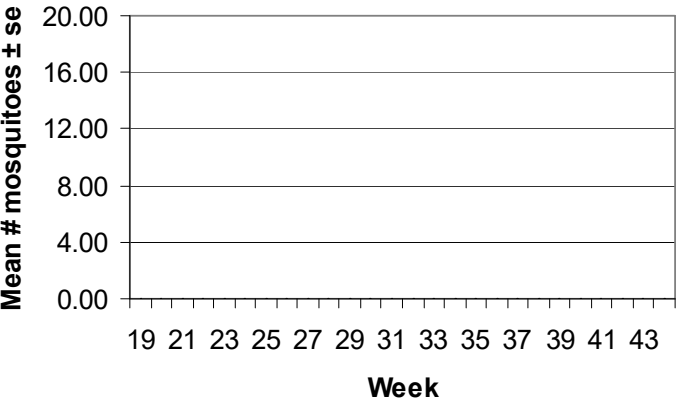
Culex Mix



Coquillettidia perturbans

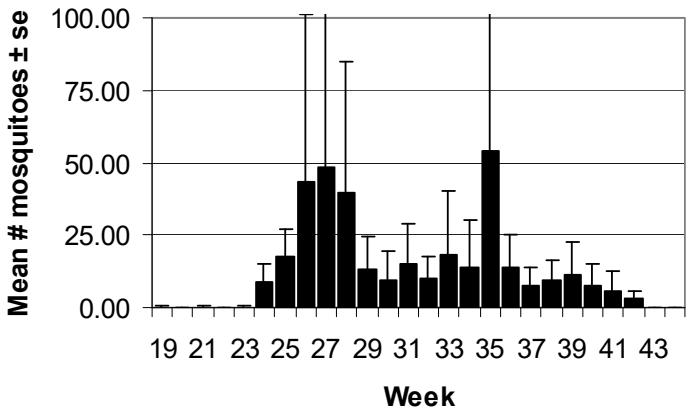


Ochlerotatus sollicitans

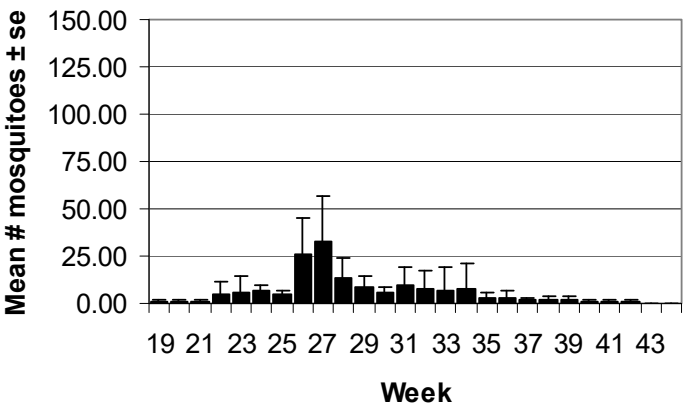


Philadelphia Metro

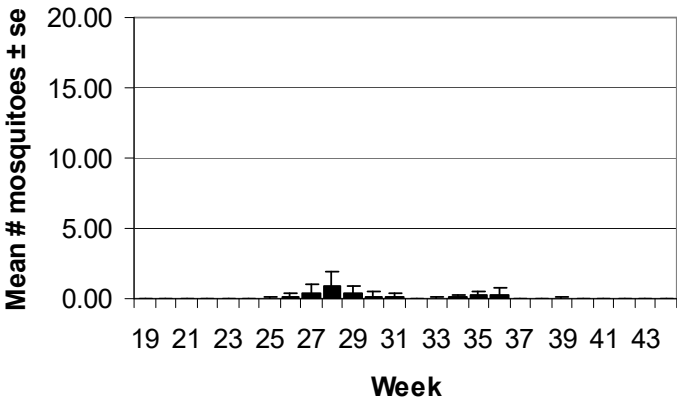
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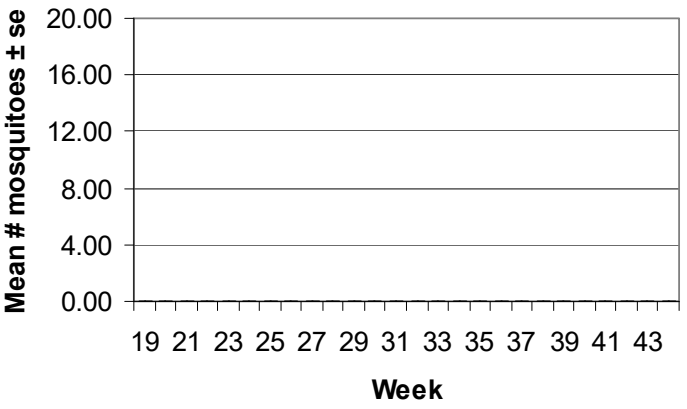
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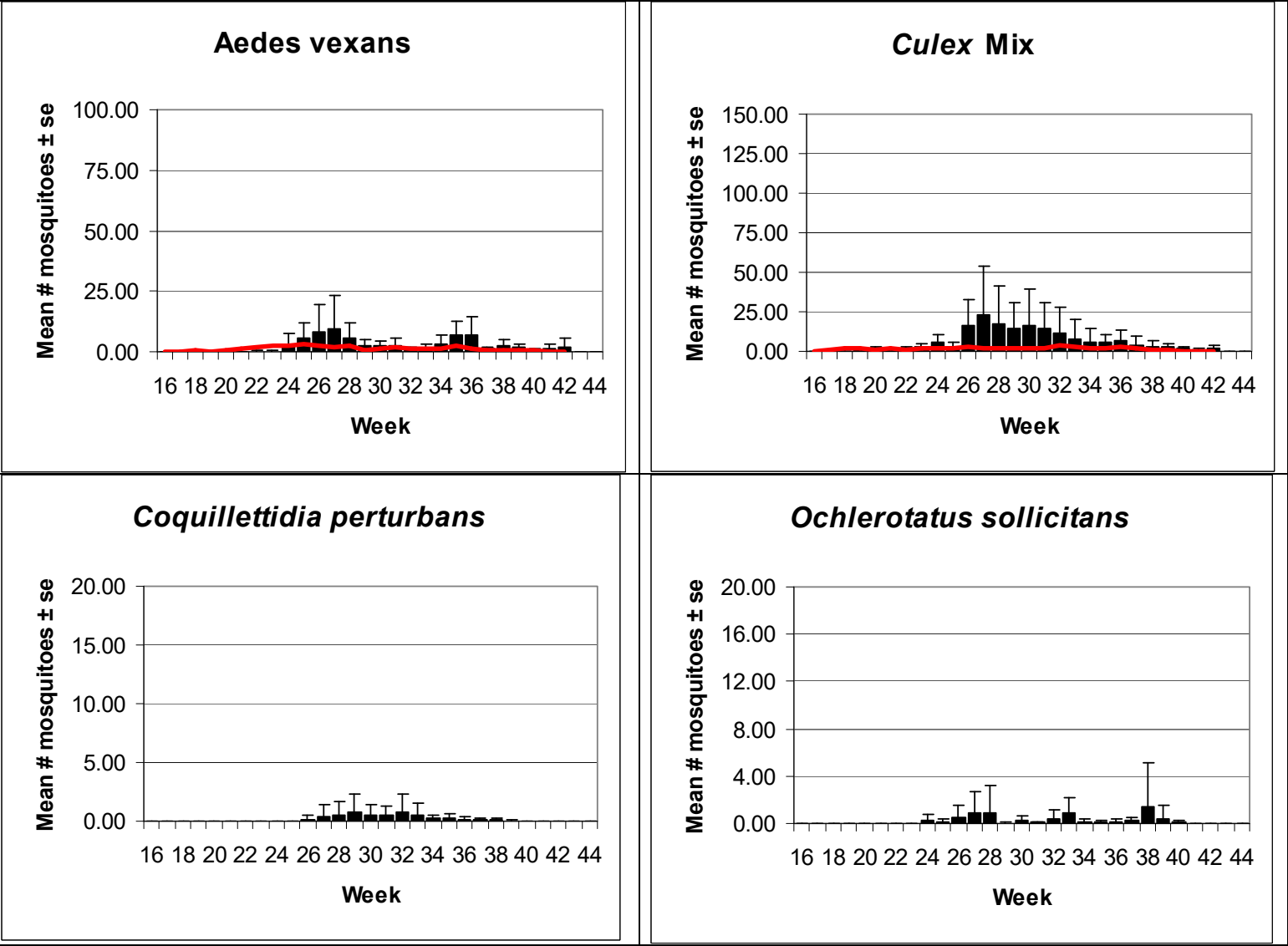
Coquillettidia perturbans



Ochlerotatus sollicitans

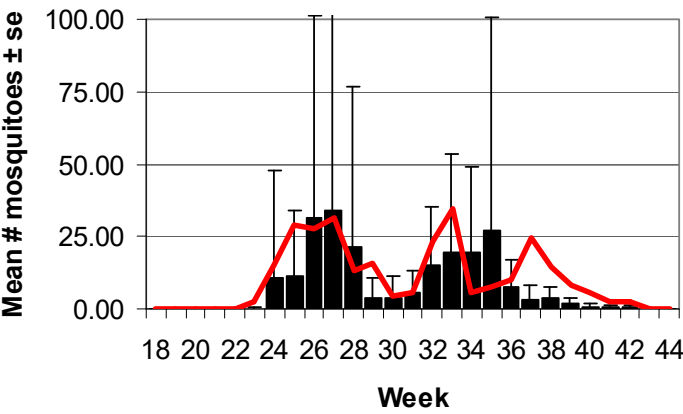


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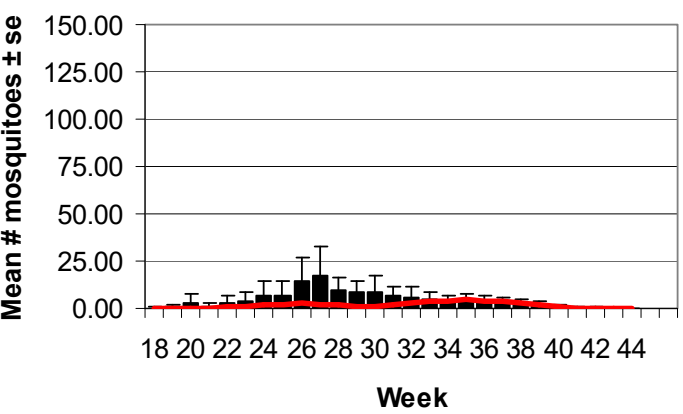


Suburban Corridor

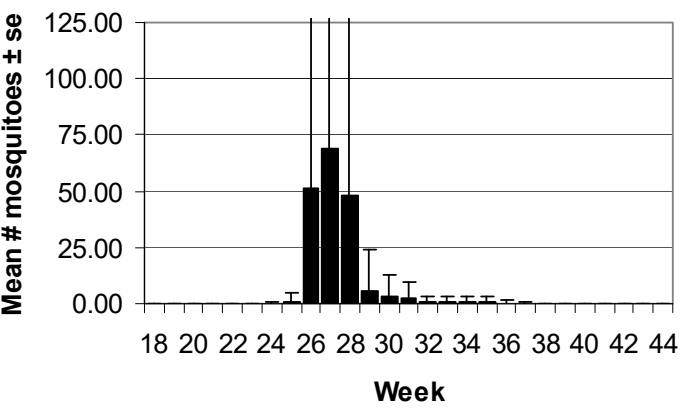
Aedes vexans



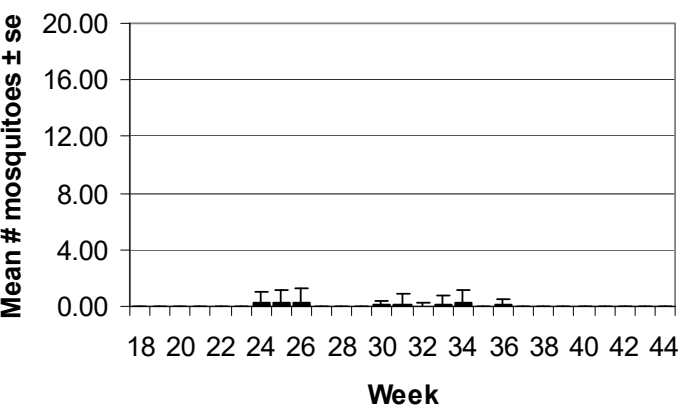
Culex Mix



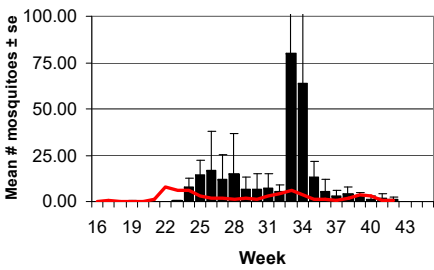
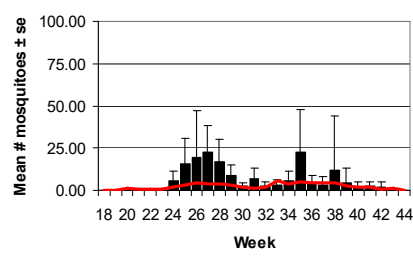
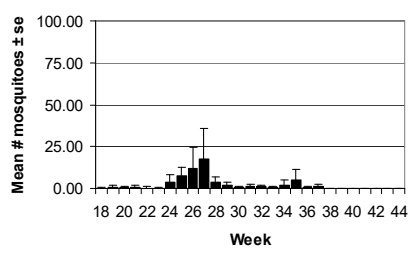
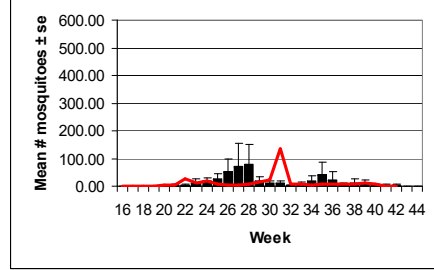
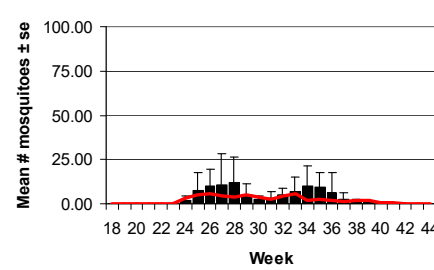
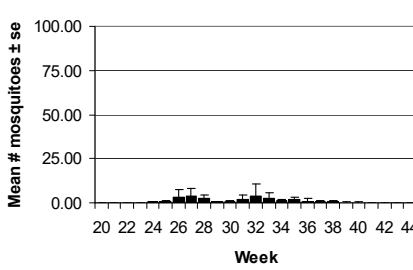
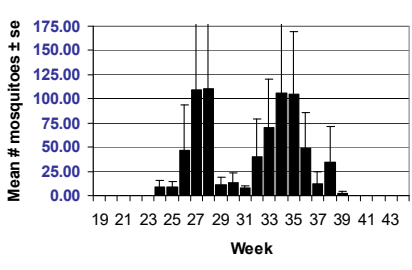
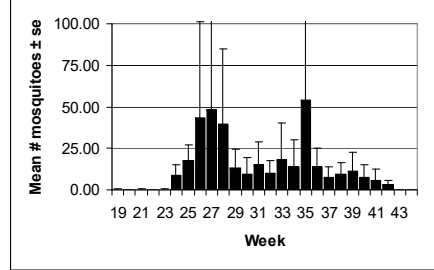
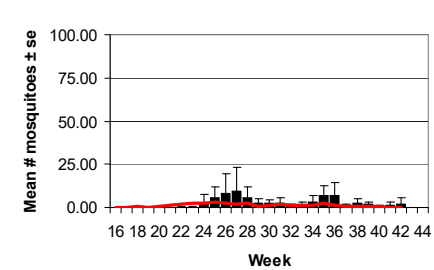
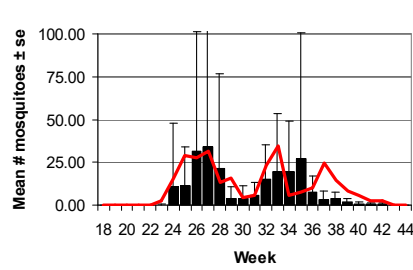
Coquillettidia perturbans



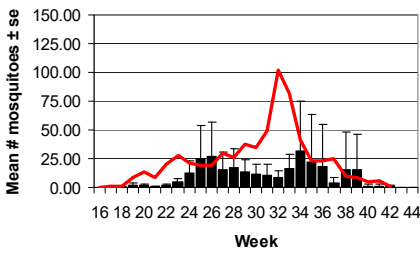
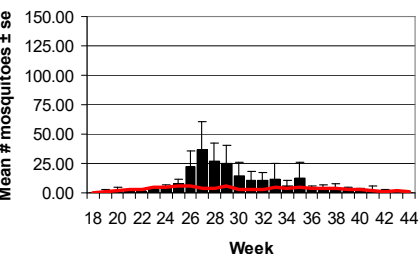
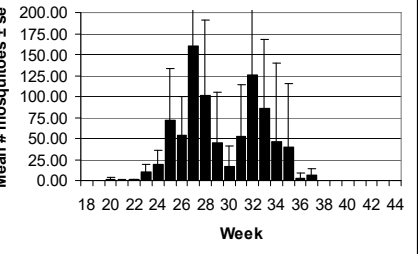
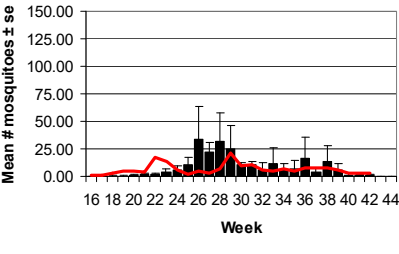
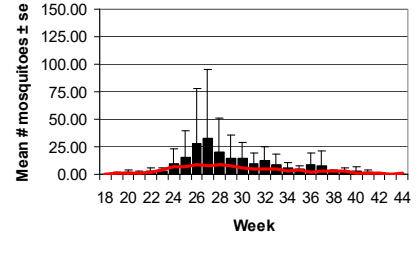
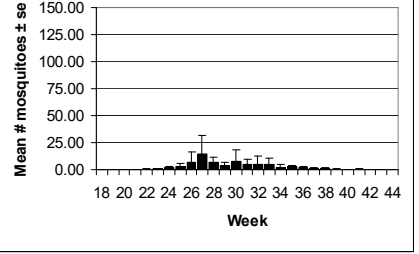
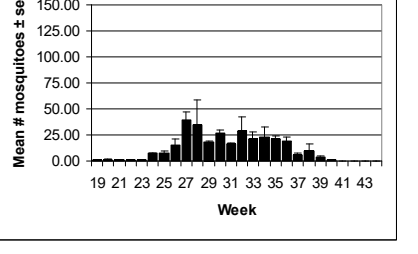
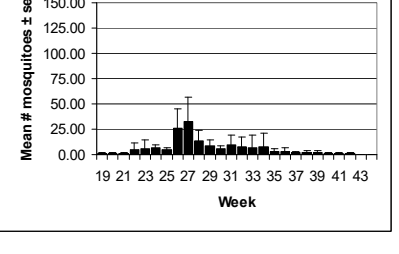
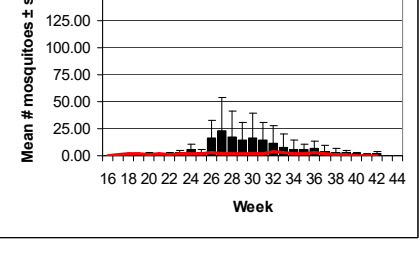
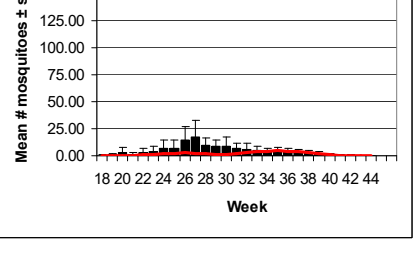
Ochlerotatus sollicitans



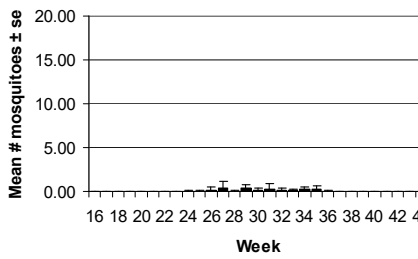
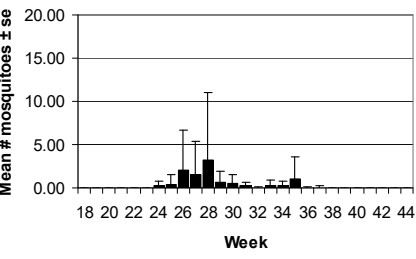
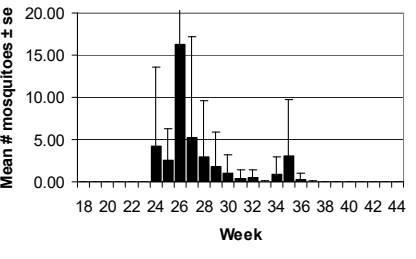
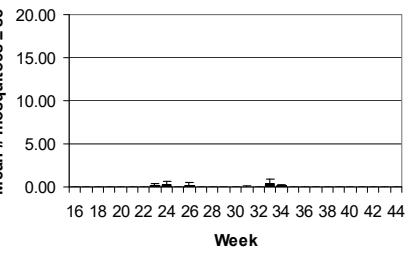
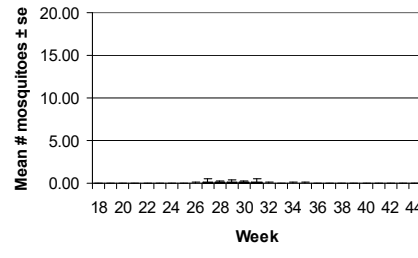
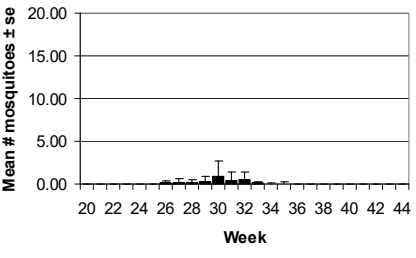
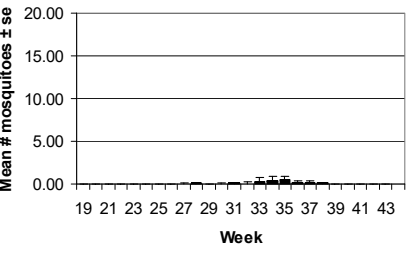
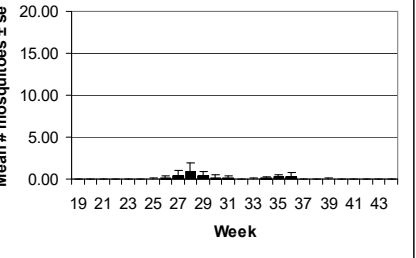
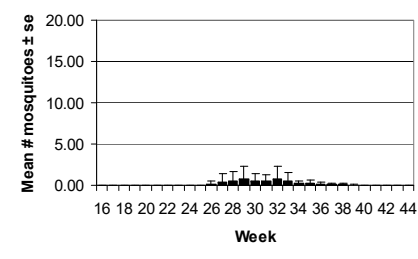
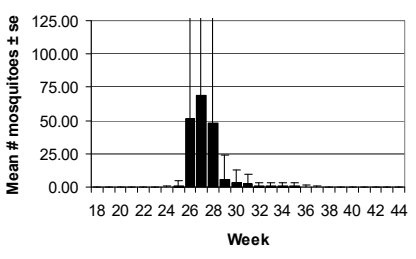
Aedes vexans

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>Ae. vexans</i> – The late season brood of <i>Ae. vexans</i> from hurricane Isabel has dissipated and very few adults remain at this point in time. Cool nighttime temperatures should prevent the few remaining adults that are still on the wing from entering light traps in most areas of the state. Daytime bite counts may still produce small numbers of host seeking adults in some areas but persistent nuisance from this species is not likely	

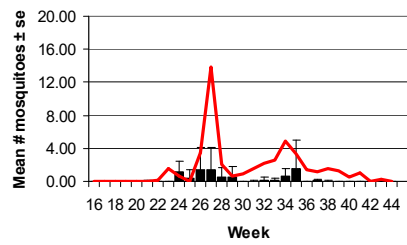
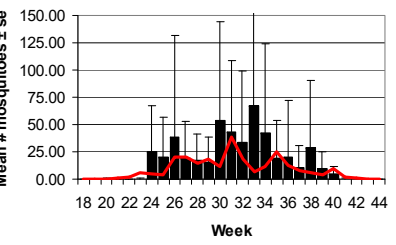
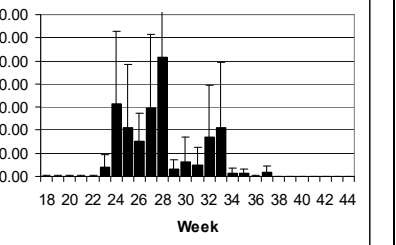
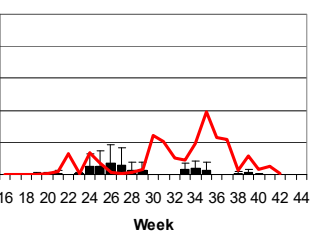
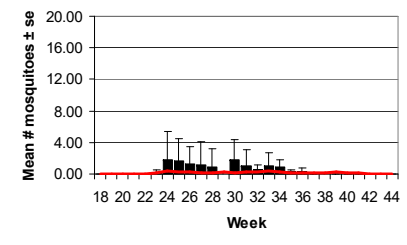
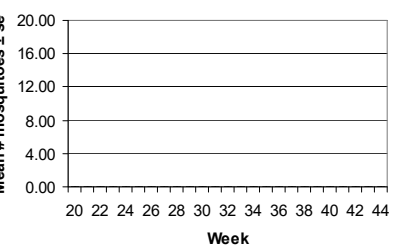
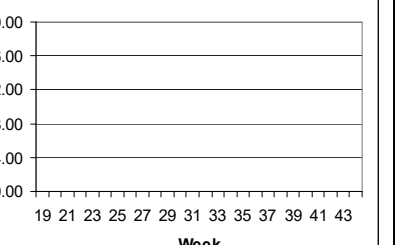
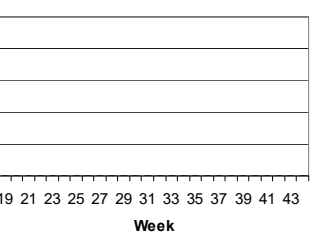
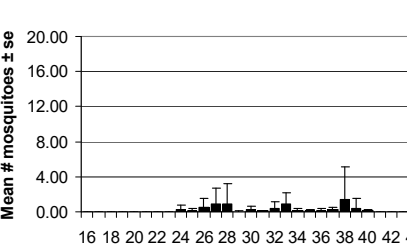
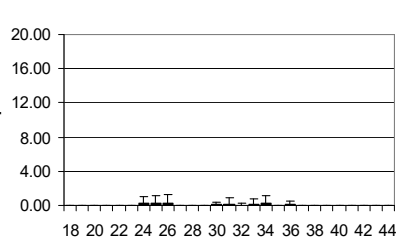
Culex Complex

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 	Culex Complex – Adults from the last generation of <i>Culex</i> mosquitoes are now in ovarian diapause and are resting in a state of semi-torpor in their overwintering hibernaculae. This final generation of the 2003 season fed on nectar, rather than blood, to build fat reserves to survive the winter months. Limited numbers of non-diapausing adult females that emerged earlier this fall may still be host-seeking and laying egg rafts. Some of these females may be forced to enter hibernation sites by cold weather but few, if any, will survive the winter to reproduce next spring.	

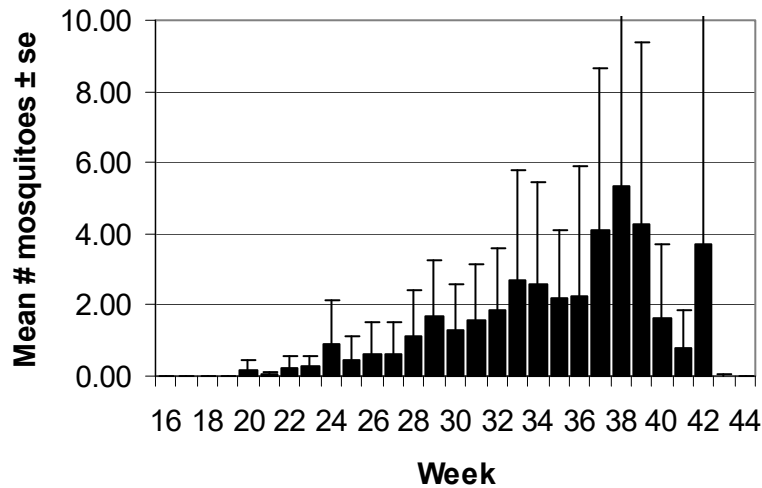
Coquillettidia perturbans

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 
Pinelands	Suburban Corridor	Comments	
<i>Coquillettidia perturbans</i> 	<i>Coquillettidia perturbans</i> 	<i>Cq. perturbans</i> – <i>Coquillettidia perturbans</i> have not appeared in light trap collections for more than a month. This species is overwintering in the larval stage and will not appear in numbers until sometime in June, 2004.	

Ochlerotatus sollicitans

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>Oc. sollicitans</i> – No <i>Oc. sollicitans</i> have appeared in light trap collections for the past several weeks even though some adult females may still be on the wing. This species shifts its activity period forward at this time of the year and host seeks during the warmest part of the day. Residual adult populations may still be present in some areas causing minor nuisance for individuals that invade their resting habitat. The species will survive the winter in the egg stage and reappear when lunar tides stimulate egg hatch in May, 2004.	

Culiseta melanura



Cs. melanura – *Culiseta melanura* is a cold hardy species that often remains active well into the fall. Light traps from the Pine Barrens Region collected a significant number of specimens during Week 42. The cool night-time temperatures New Jersey experience the following week limited nocturnal activity and produced fewer specimens. This species will continue to host seek and lay eggs until all of the residual adults die off. Larvae that hatch from the late season egg rafts will overwinter in the 1st or 2nd instar and resume development when water temperatures warm up next spring.

Pinelands Region