

NEW JERSEY STATE SURVEILLANCE

Weekly Report for Week 34, 19 August – 25 August, 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.



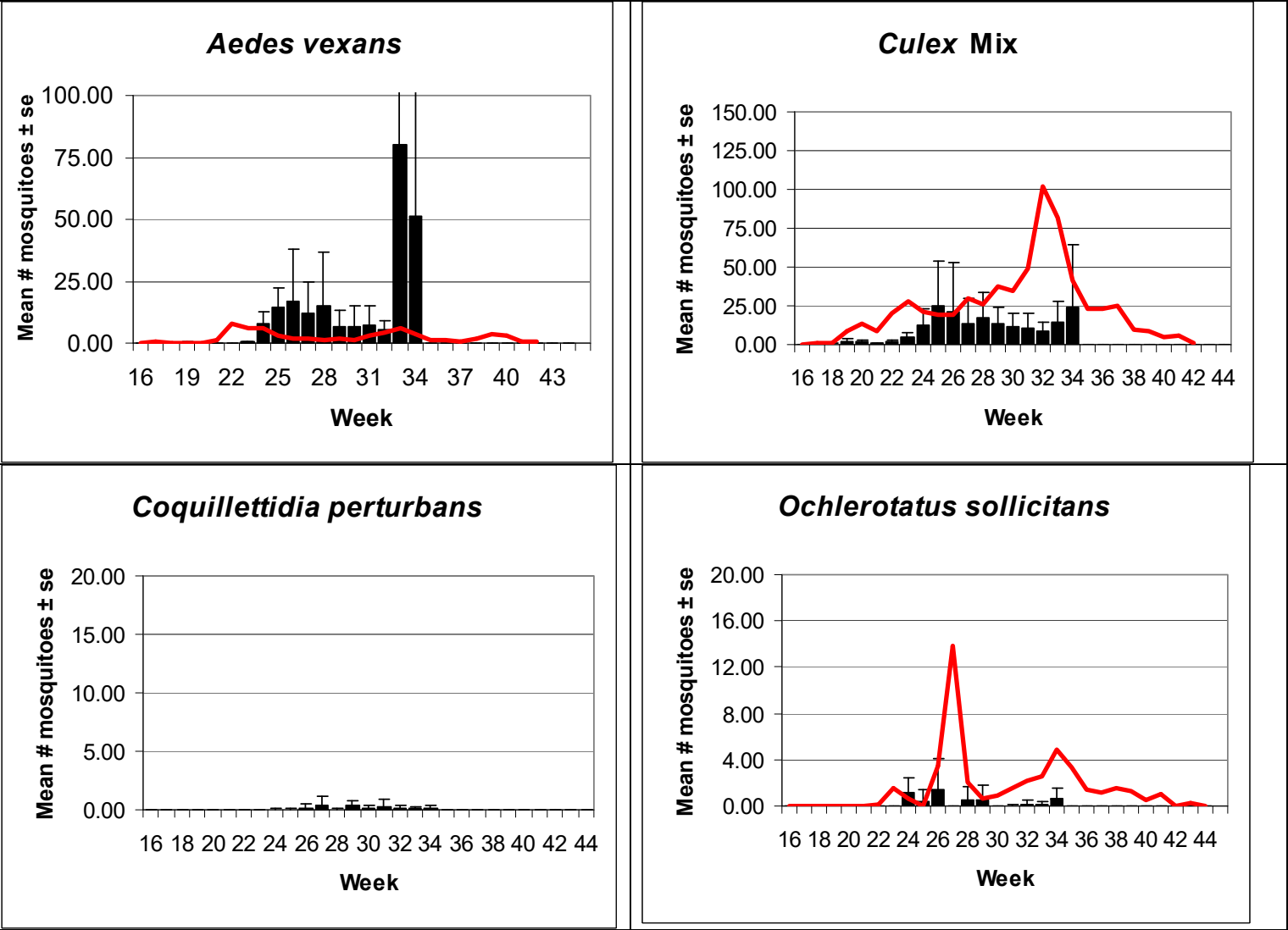
Summary table

	<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	51.53	3.94	24.02	102.19	0.12		4.88	2.57
Coastal	3.14	3.62	5.00	3.56	0.25		31.73	11.88
Delaware Bayshore	2.17		45.86		0.93		1.17	
Delaware River Basin	15.64	7.09	4.64	6.07	0.07		0.71	2.09
New York Metro	8.03	2.03	3.49	2.94	0.03		0.26	0.23
North Central Rural	0.57		1.37		0.04		0.00	
Northwest Rural	67.19		16.43		0.00		0.00	
Philadelphia Metro	3.34		1.69		0.02		0.00	
Pinelands	2.06	1.36	4.64	3.37	0.04		0.05	
Suburban Corridor	4.57	5.49	3.88	3.56	0.71		0.31	

- Complete data not yet available.

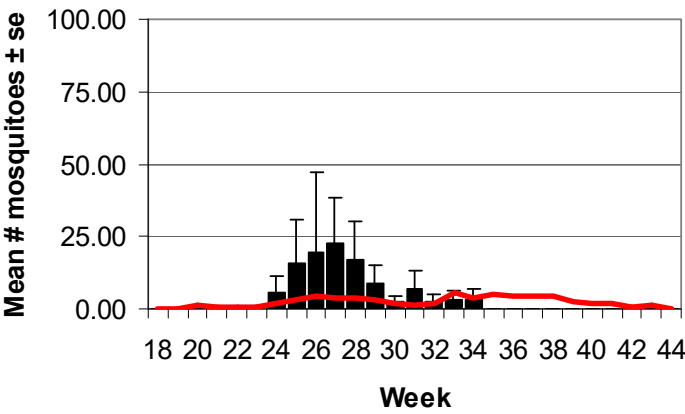
Please Note: Historical data is being entered and not yet complete. These values and graphics will change as more data is entered.

Agricultural

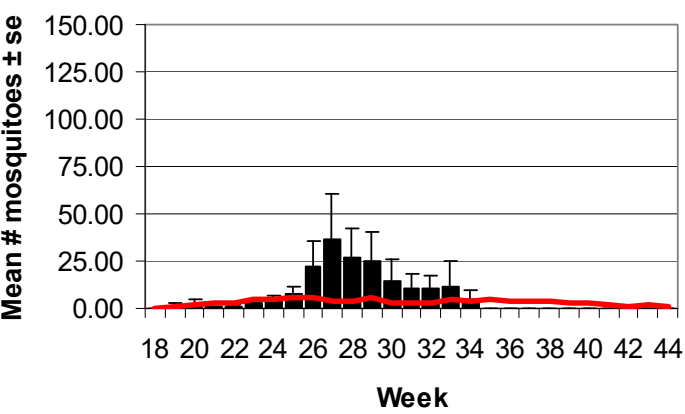


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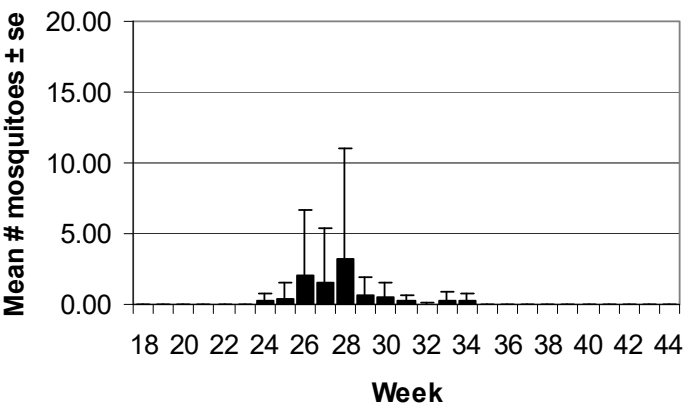
Aedes vexans



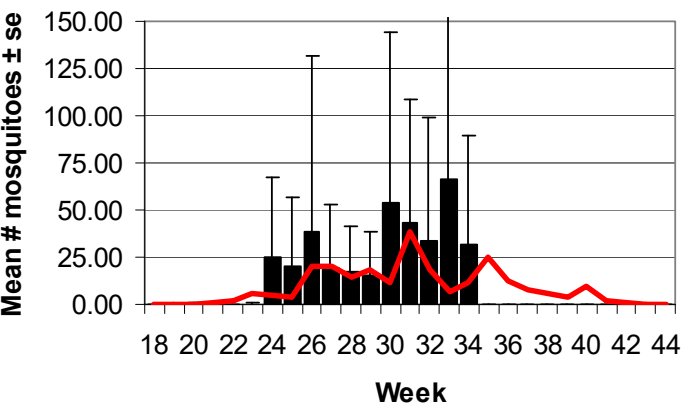
Culex Mix



Coquillettidia perturbans

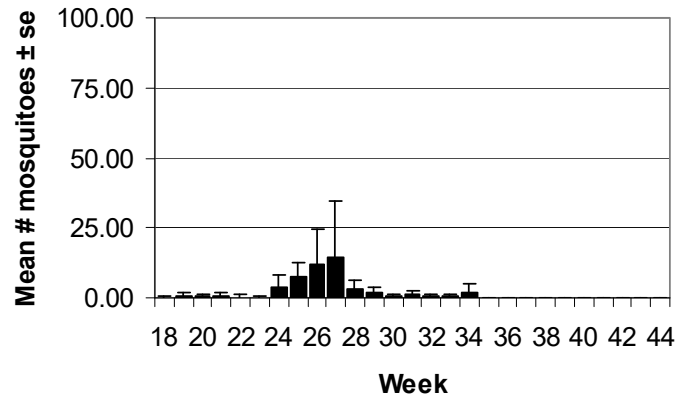


Ochlerotatus sollicitans

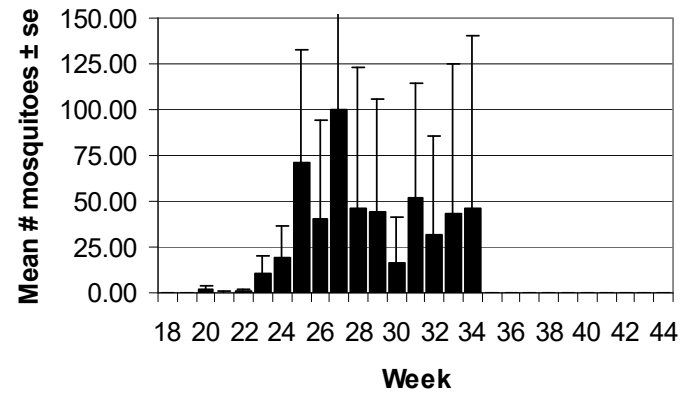


Delaware Bayshore

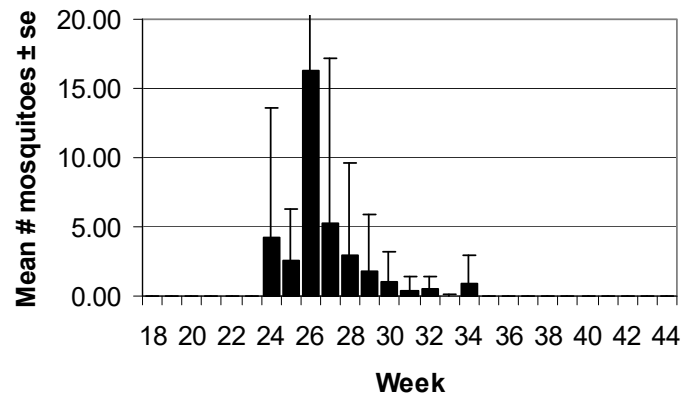
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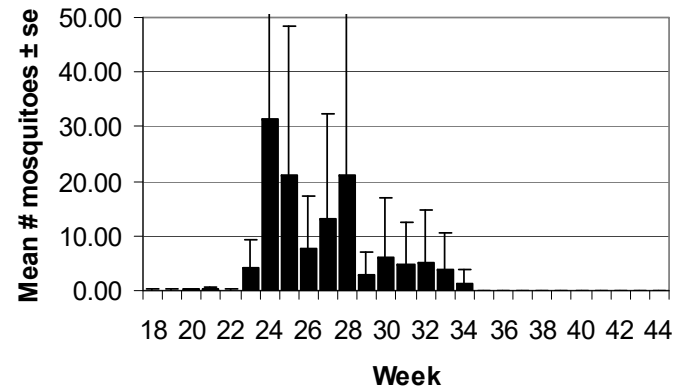
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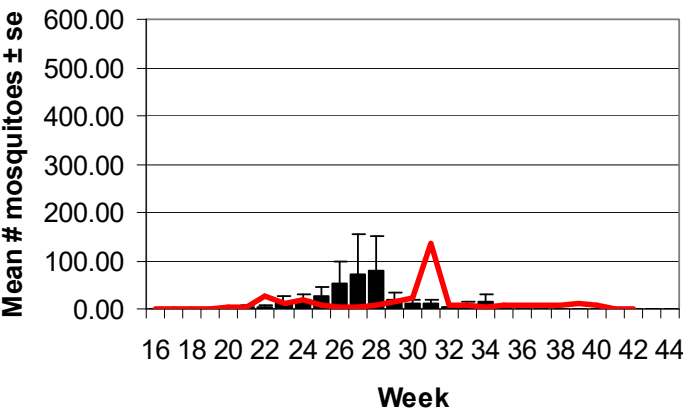


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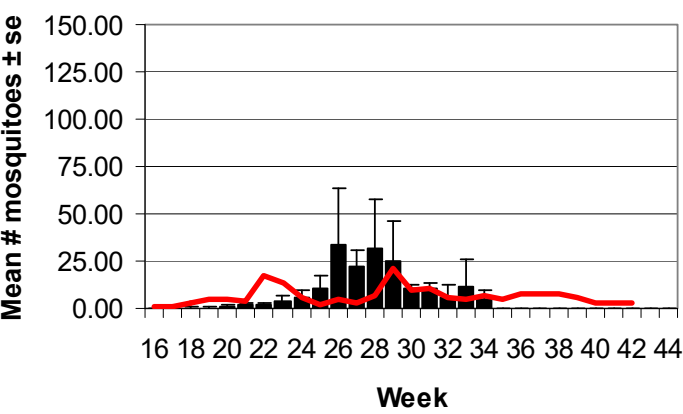


Delaware River Basin

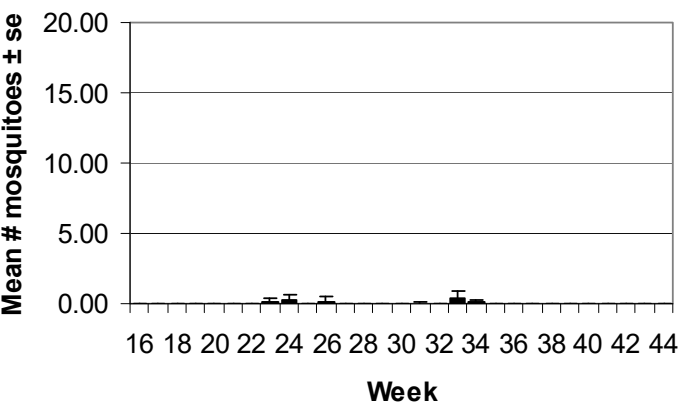
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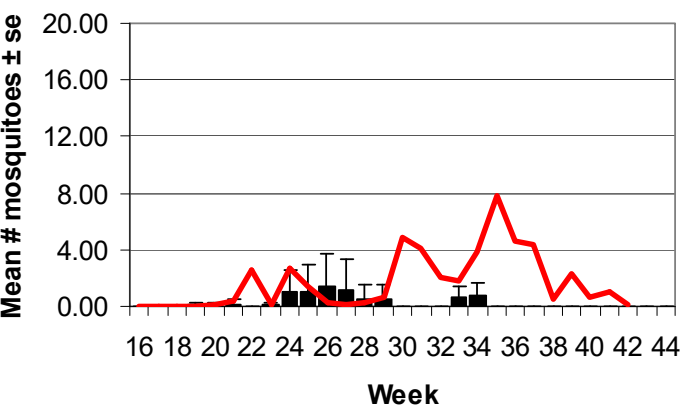
Culex Mix



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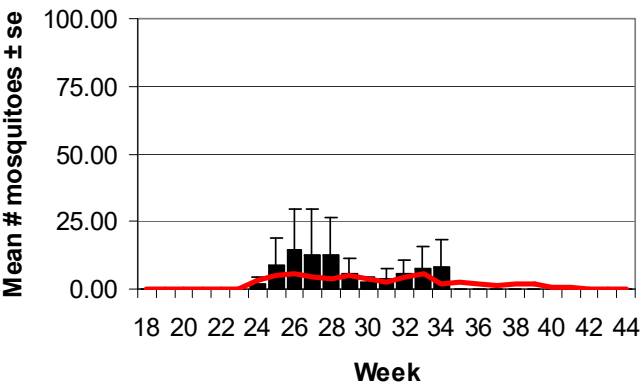


Ochlerotatus sollicitans

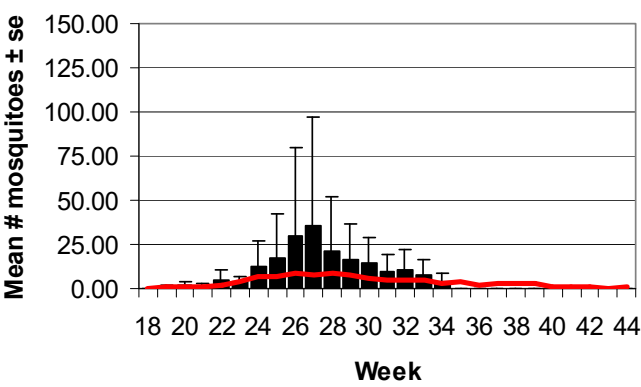


New York Metro

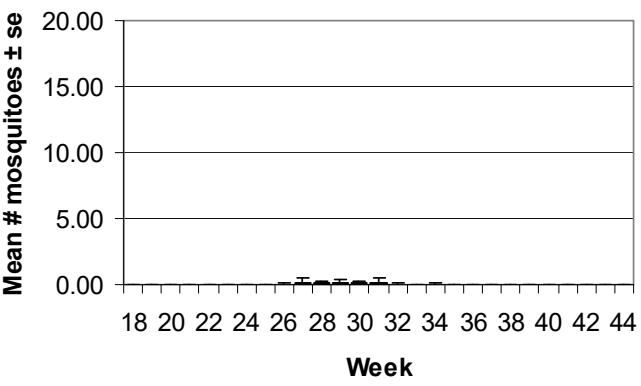
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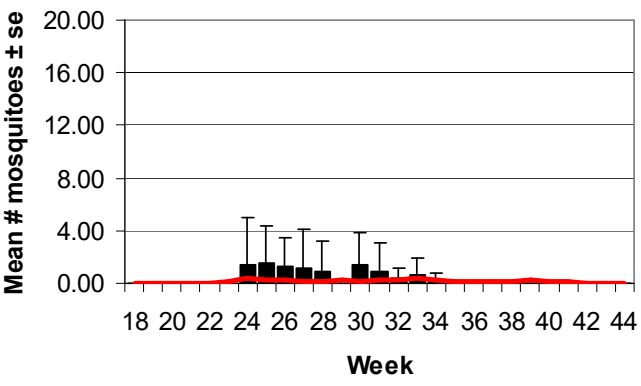
Culex Mix



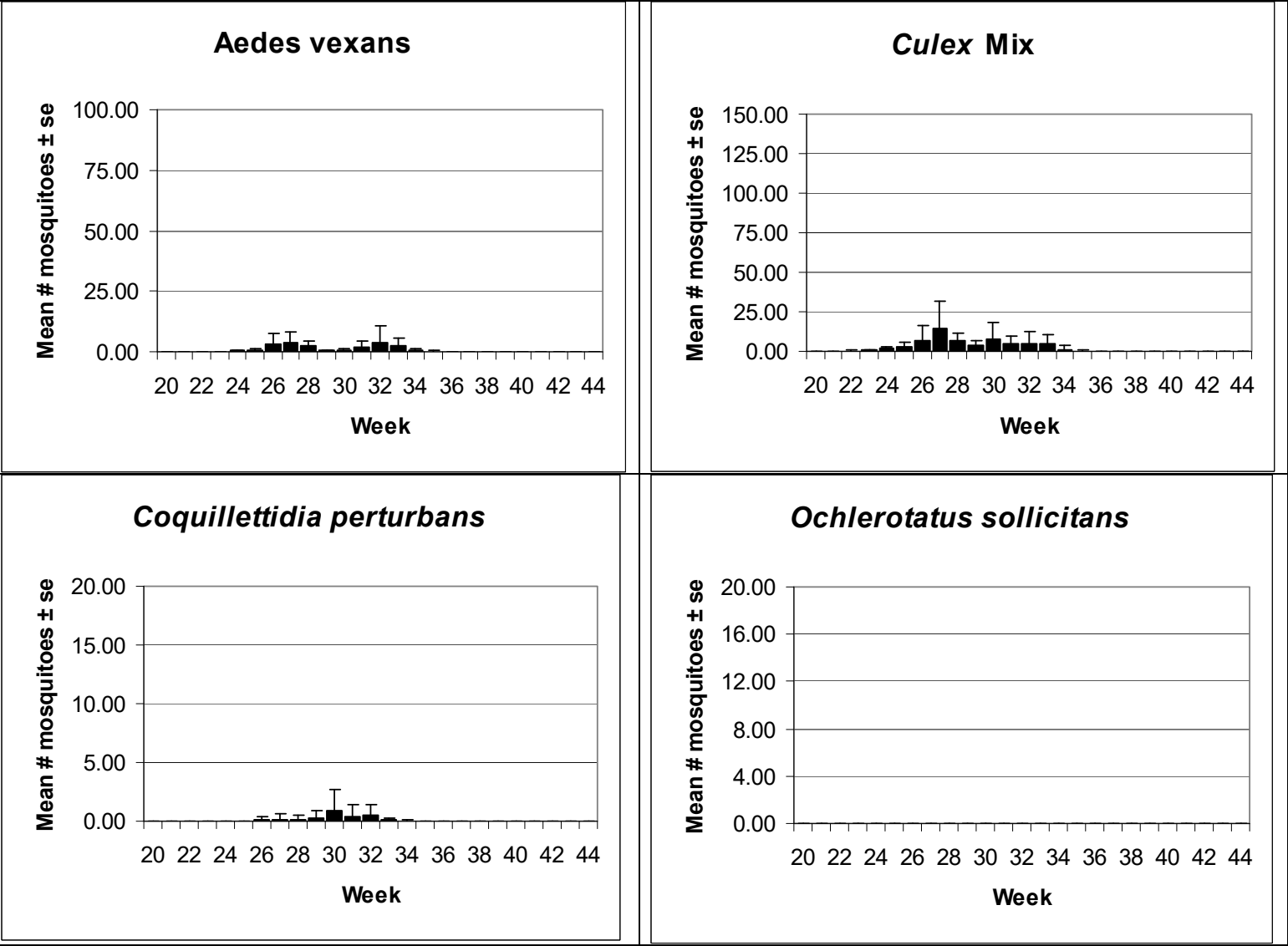
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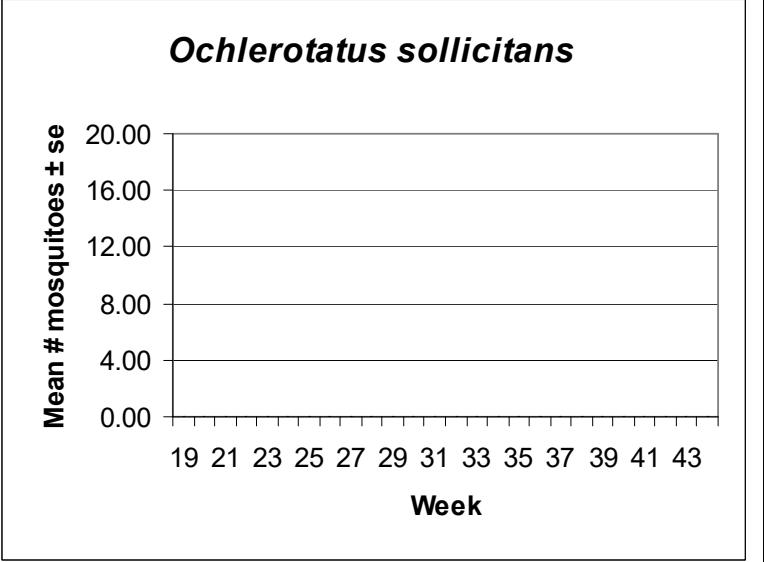
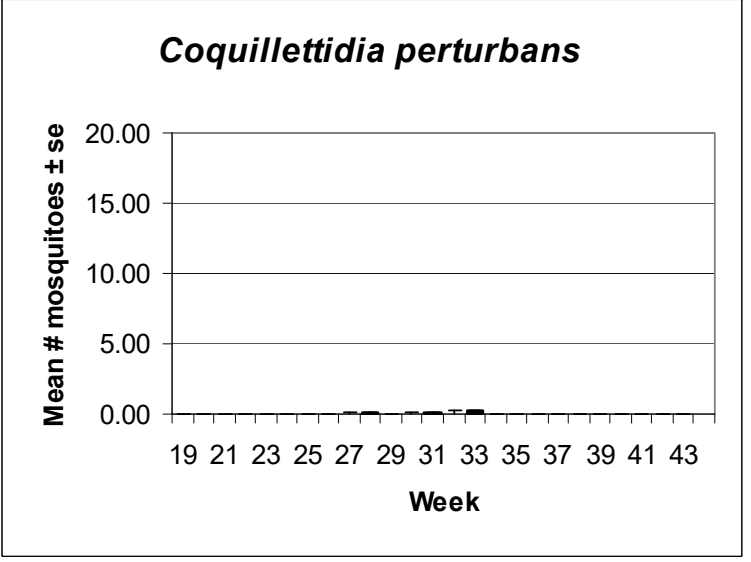
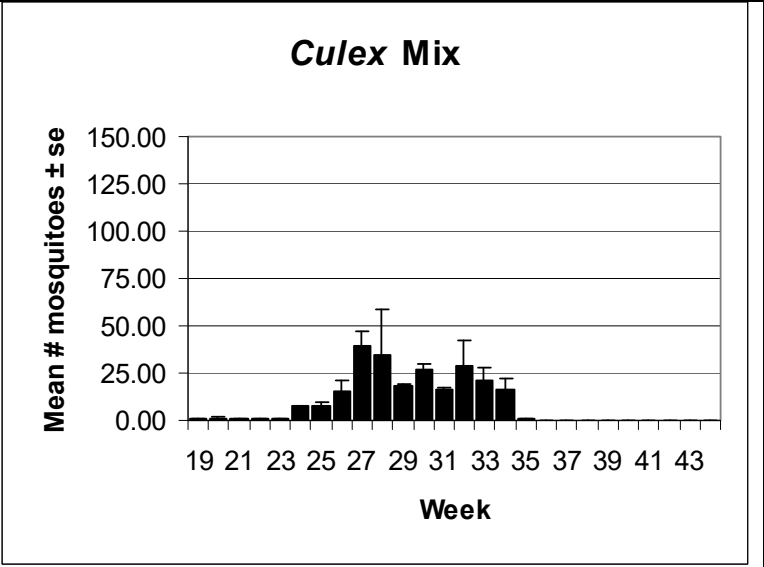
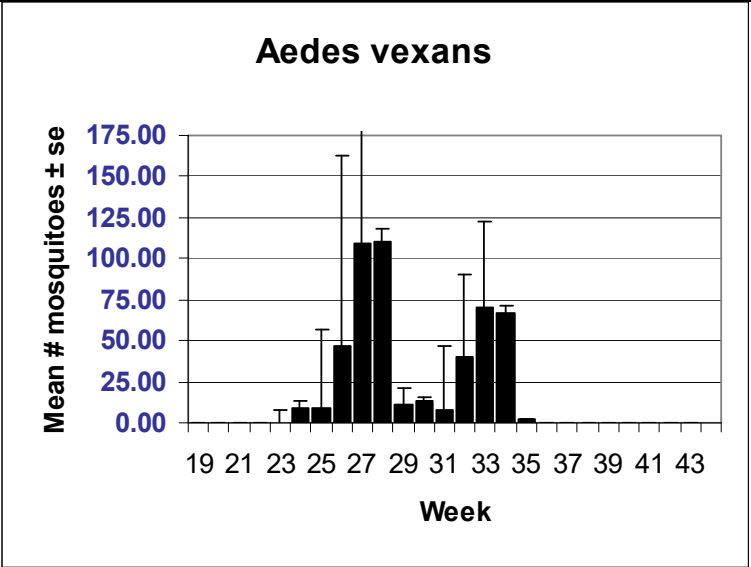
Ochlerotatus sollicitans



North Central Rural

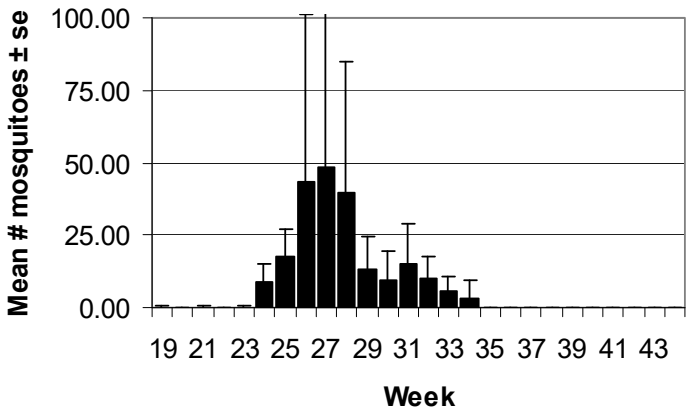


Northwestern Rural

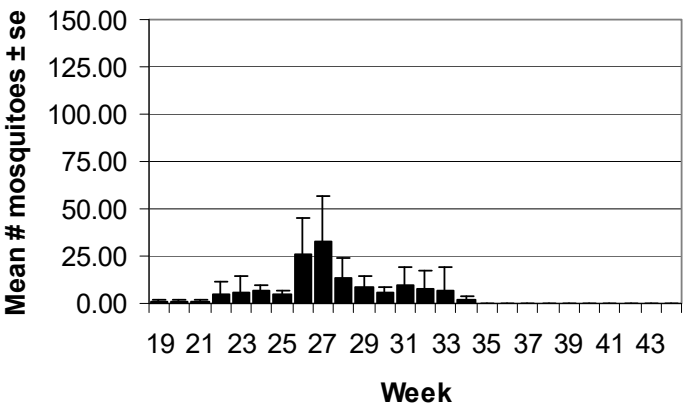


Philadelphia Metro

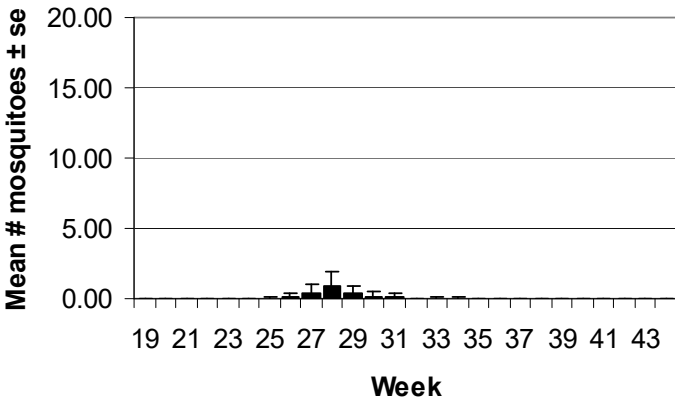
Aedes vexans



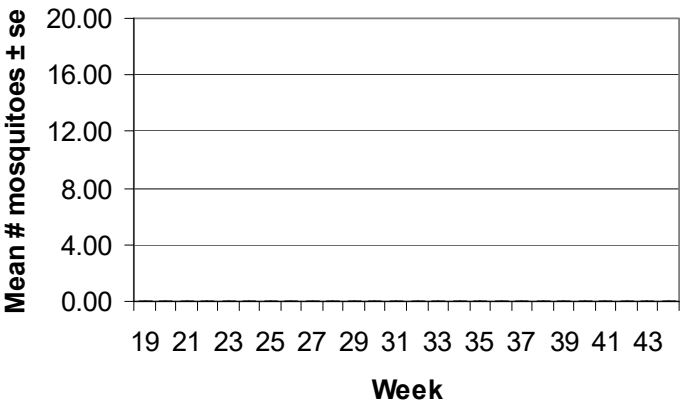
Culex Mix



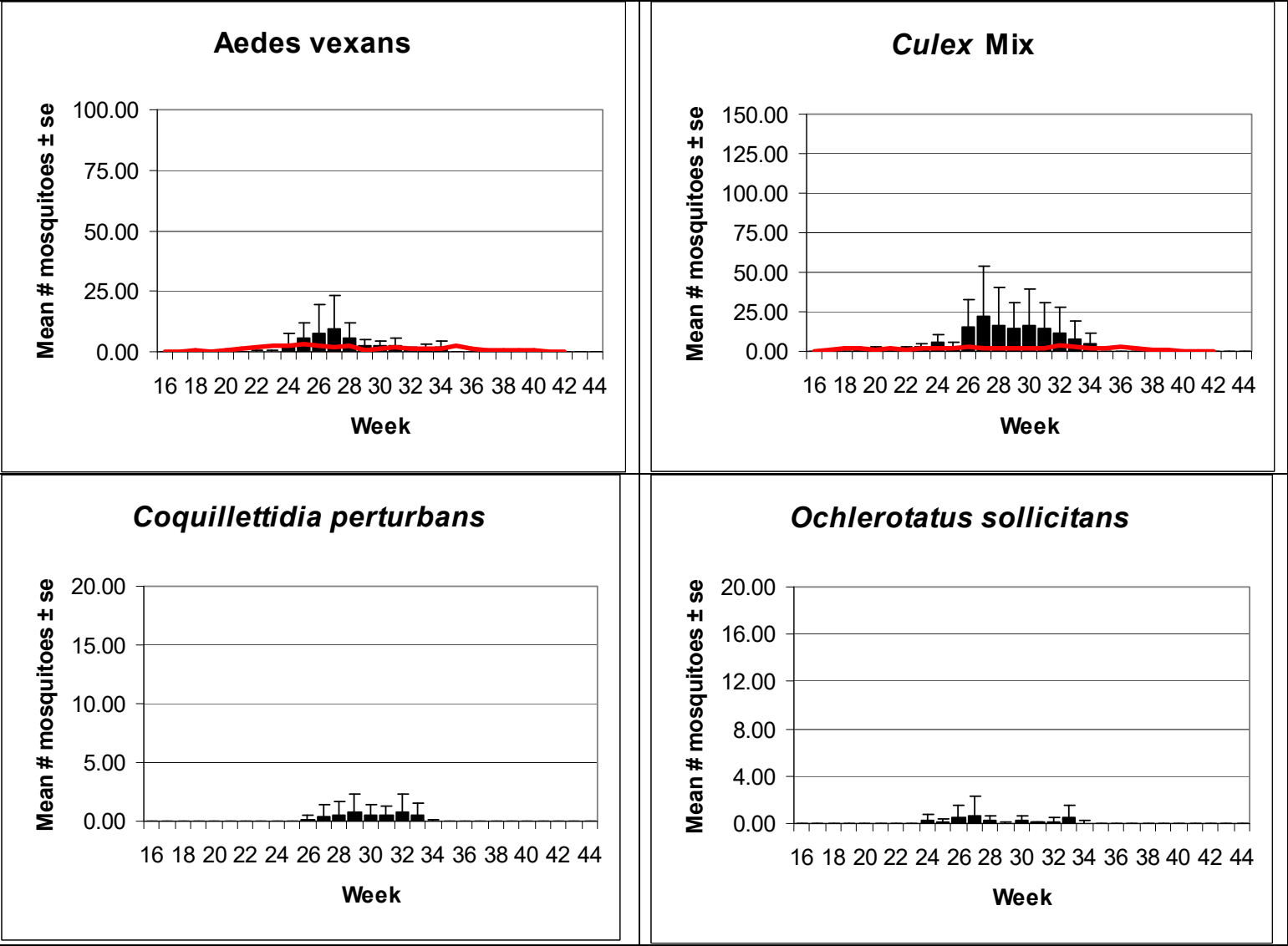
Coquillettidia perturbans



Ochlerotatus sollicitans

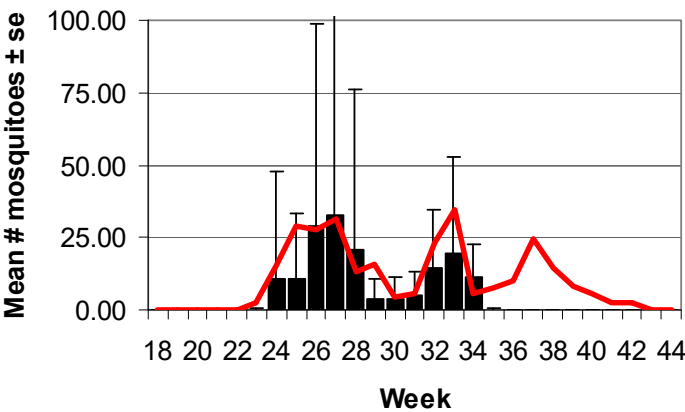


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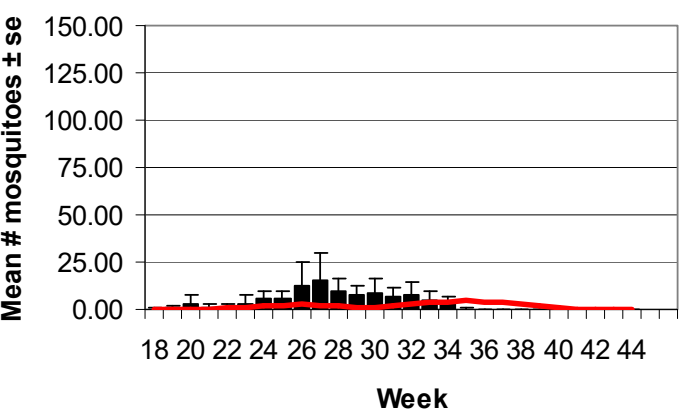


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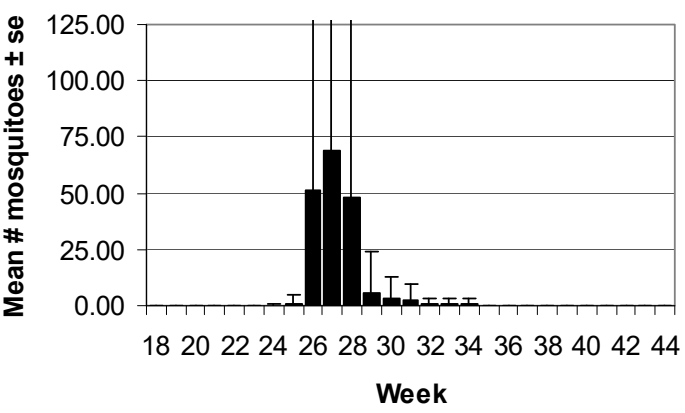
Aedes vexans



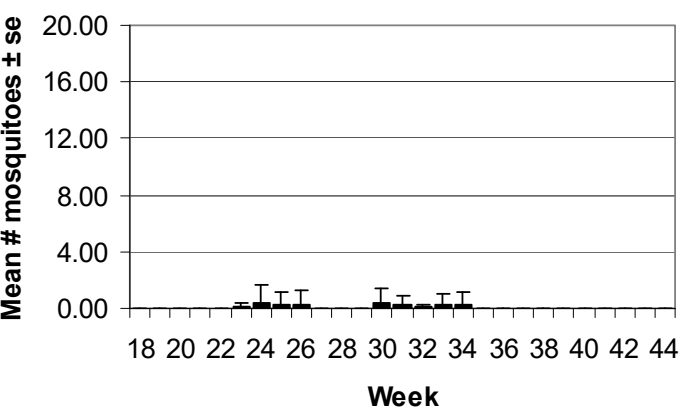
Culex Mix



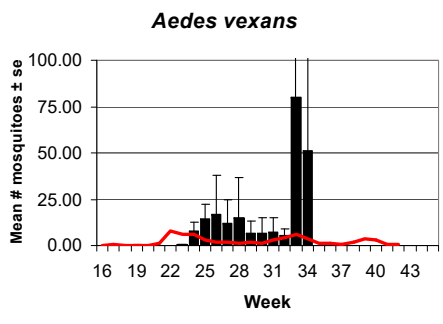
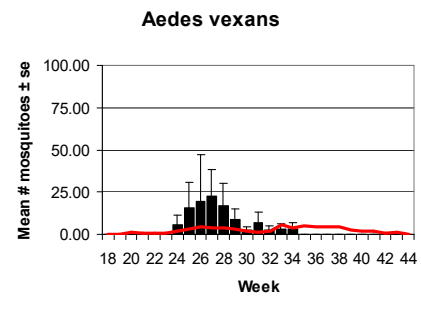
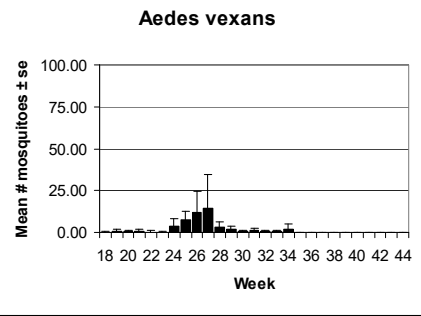
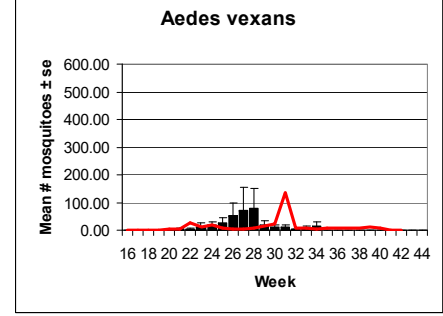
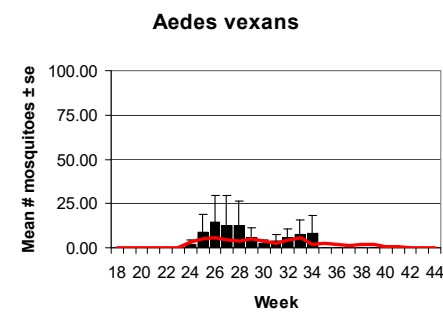
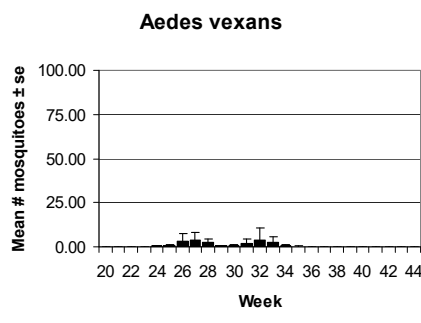
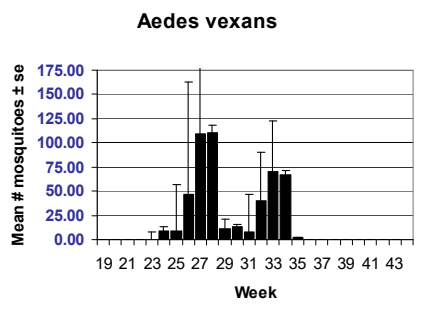
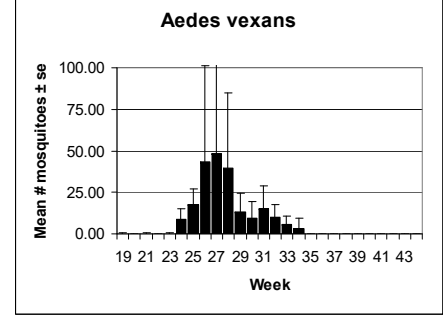
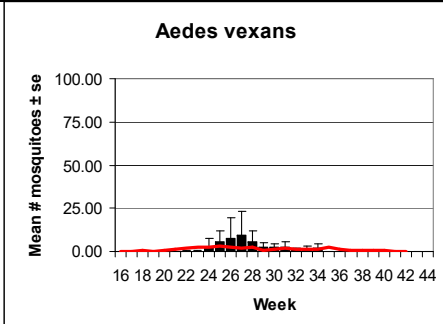
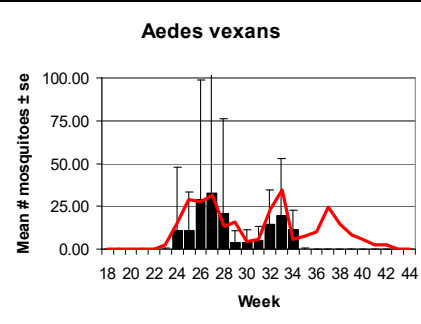
Coquillettidia perturbans



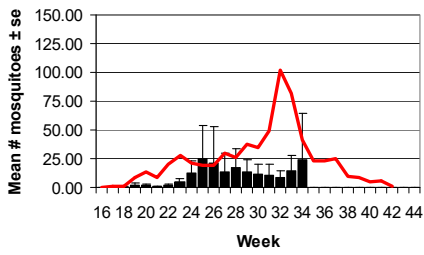
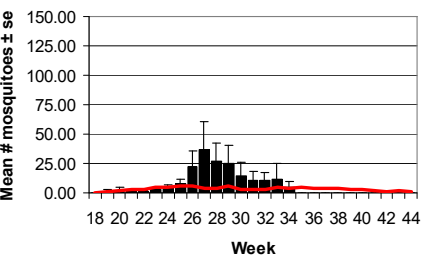
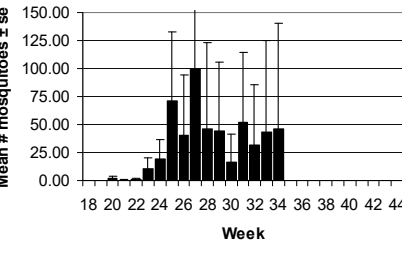
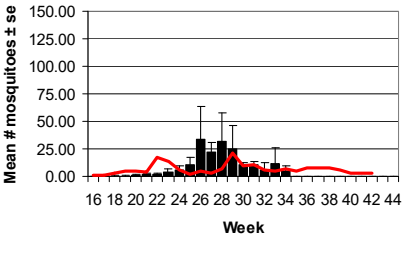
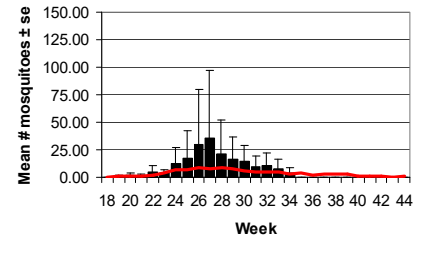
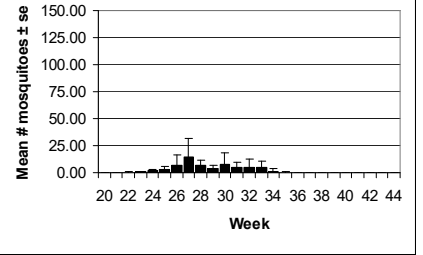
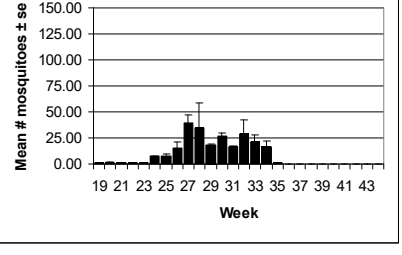
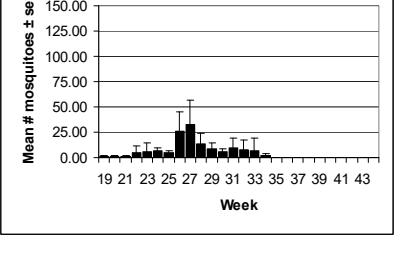
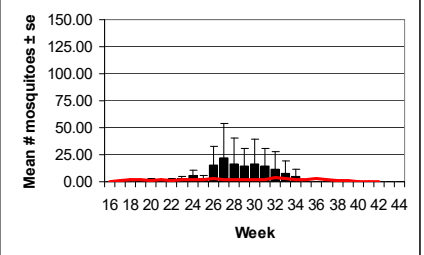
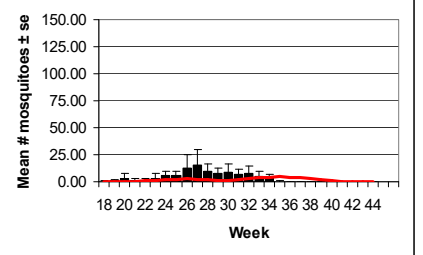
Ochlerotatus sollicitans



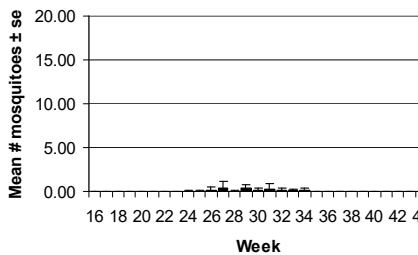
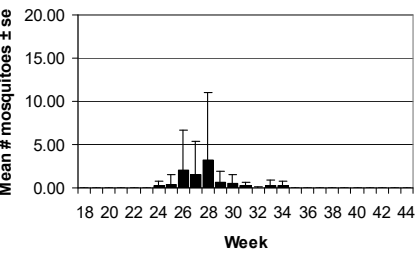
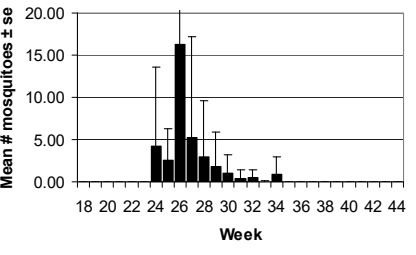
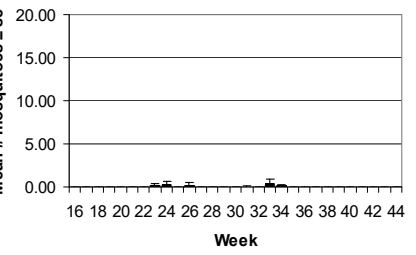
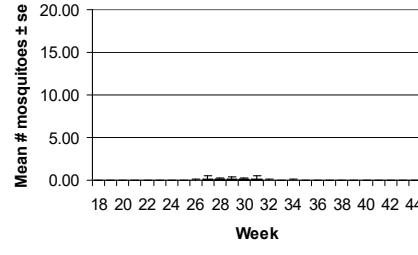
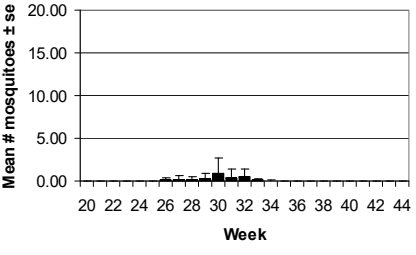
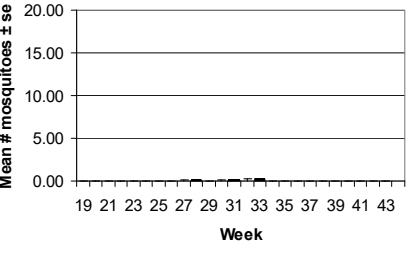
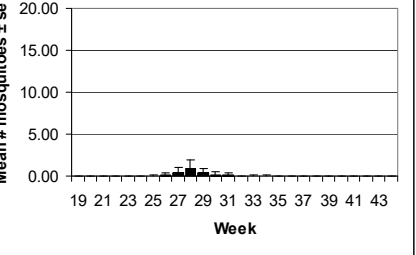
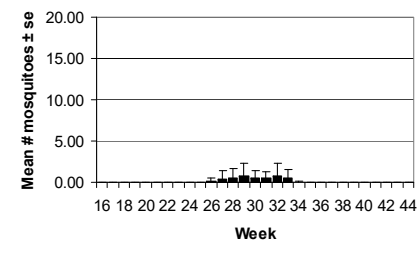
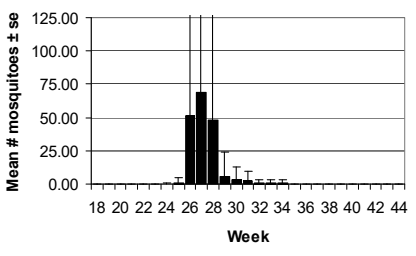
Aedes vexans

Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
			
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
			
Pinelands	Suburban Corridor	Comments	
		Ae. vexans – The second major brood of <i>Ae. vexans</i> is beginning to diminish in all of the regions monitored by this program. Populations in the Agricultural Region remain high as a result of the size of that brood. Equine cases of WNV appear to be associated with the appearance of floodwater mosquitoes in the Agricultural region. Several equine cases were confirmed from farms within that narrow band soon after State Surveillance light traps documented the size of that brood.	

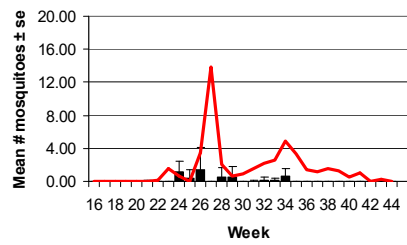
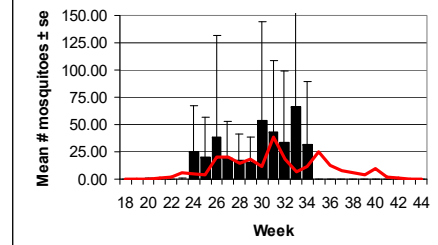
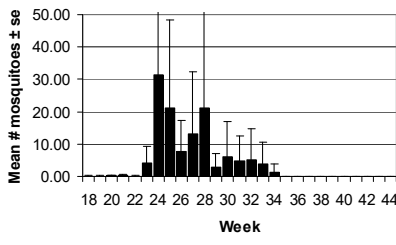
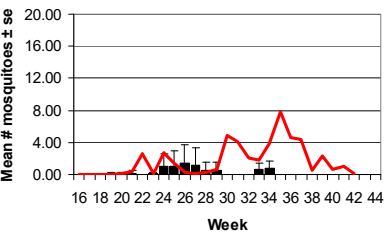
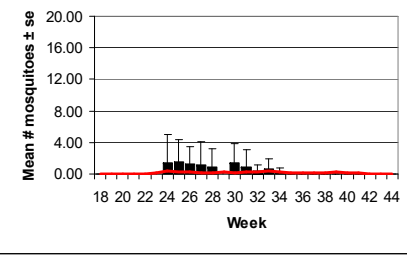
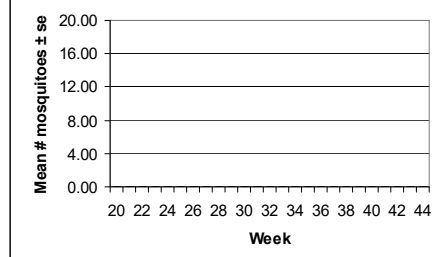
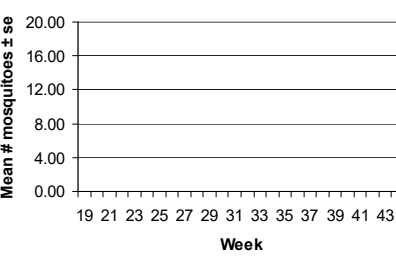
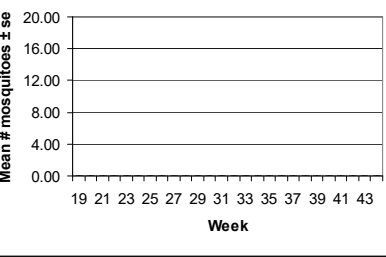
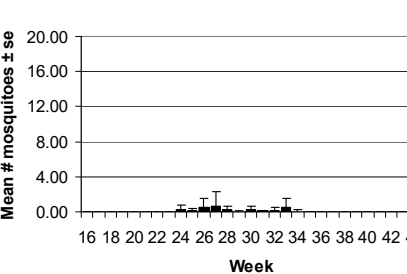
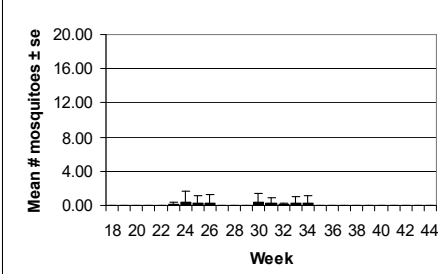
Culex Complex

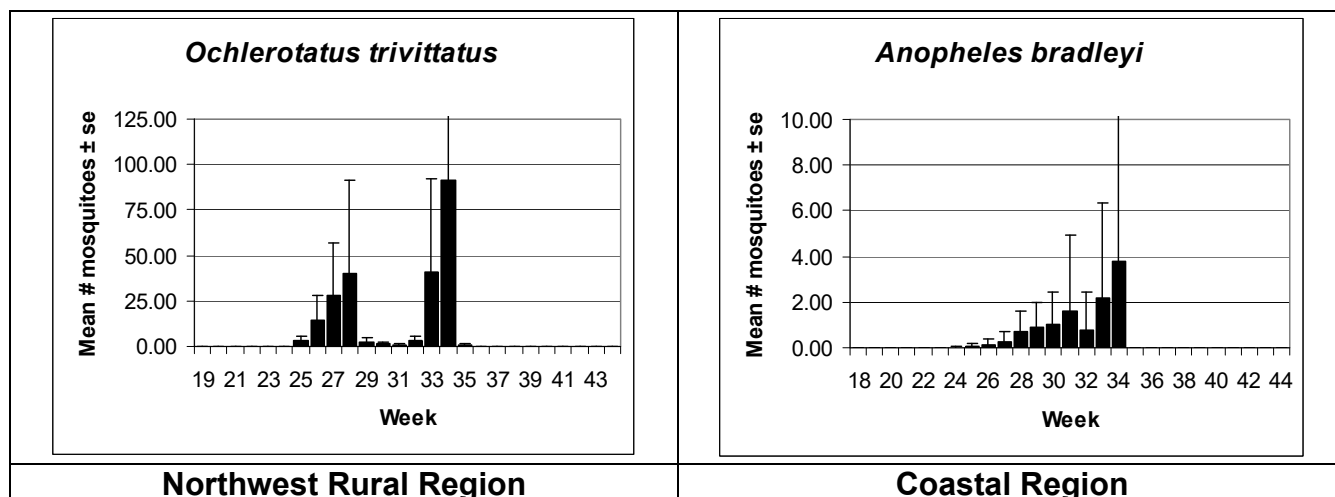
Agricultural	Coastal	Delaware Bayshore	Delaware River Basin
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
New York Metro	North Central Rural	Northwestern Rural	Philadelphia Metro
Culex Mix 	Culex Mix 	Culex Mix 	Culex Mix 
Pinelands	Suburban Corridor	Comments	
Culex Mix 	Culex Mix 	Culex Complex –<i>Culex</i> populations have gone down slightly in most of the geographic regions being monitored by this program. The Delaware Bayshore Region provides the exception but is likely composed of <i>Cx. salinarius</i> rather than domestic <i>Culex</i> species. This year's light trap data show that <i>Culex</i> numbers peaked in most regions during early summer and declined steadily through the months of July and August. It is possible that control efforts directed toward <i>Culex</i> as vectors of West Nile virus are partly responsible for the decline.	

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>Cq. perturbans</i> populations have dropped dramatically over the past month. This would indicate that very few larvae spent the winter in early instars. The lack of <i>Cq. perturbans</i> adults in August and September reduces the potential for equine cases of EEE at inland sites. However, floodwater mosquitoes could assume the role of bridge vectors this year if EEE is present at high enough levels in local birds.	

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> – Light trap data indicate that 3 broods of <i>Oc. sollicitans</i> have emerged in coastal areas to this point in the season. At least one more brood can be expected before the season is over. Populations along the Atlantic coast of the state have been somewhat higher than average. Penetration into inland areas appears minimal to date.	



Ochlerotatus trivittatus – *Oc. trivittatus* is a summer floodwater species that is restricted to the northern half of the state. The mosquito emanates from shaded woodland pools that flood after heavy summer rains. *Oc. trivittatus* is an aggressive biter that usually generates large numbers of complaints. Light trap data from the Northwest Rural Region show that 2 major broods emerged during the summer months this year. The August brood entered Northwest Rural Region light traps at nearly 100 mosquitoes per trap night during their peak period of abundance.

Anopheles bradleyi – *An. bradleyi* is an anopheline with salt tolerance that reaches greatest numbers in the same brackish water habitats that produce *Culex salinarius*. Light trap data from the Coastal Region show a steady increase in numbers from spring to fall which is typical for species that overwinter as mated females.

(Note the different scales used on the Y-axis.)