

VECTOR SURVEILLANCE SUMMARY SHEET

WEEK: 20
(Preliminary Season Summation)

Culiseta melanura Monitor October 10 - 16, 2005

Coastal Resting Boxes						Inland Resting Boxes					
Sites	Mean From Previous Years	No. Per Box For This Collection	Total Collected to Date	Total Pools Submitted to Date	EEE Isolations To Date	Sites	Mean From Previous Years	No. Per Box For This Collection	Total Collected to Date	Total Pools Submitted to Date	EEE Isolations To Date
Green Bank (Burlington Co.)	1.0	0	1,183	69	5	Waterford (Camden Co.)	0.3	0	199	29	0
Corbin City (Atlantic Co.)	0.3	0.3	649	69	0	Centerton (Salem Co.)	0.9	0.4	974	75	3
Dennisville (Cape May Co.)	1.7	0	5,067	138	2	Turkey Swamp (Monmouth Co.)	0.1	0	1,019	75	5

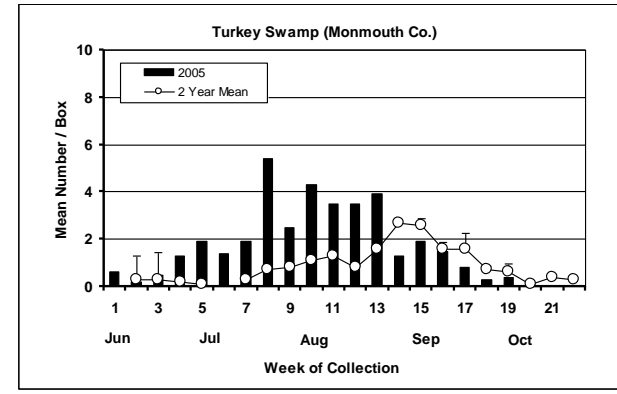
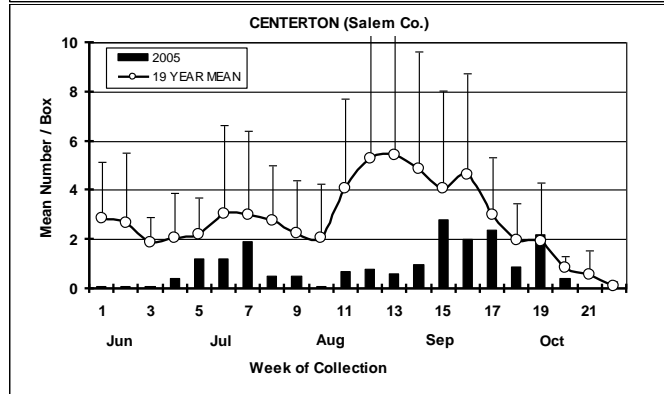
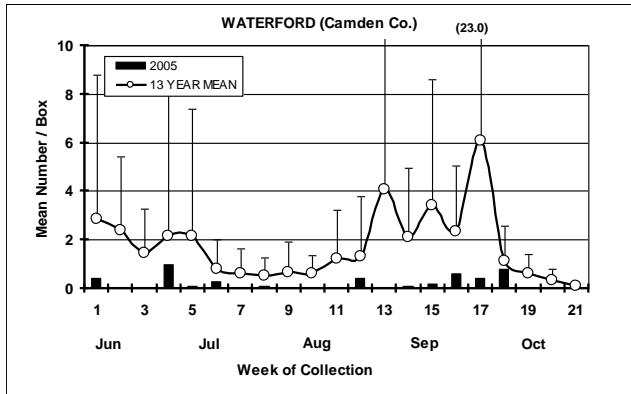
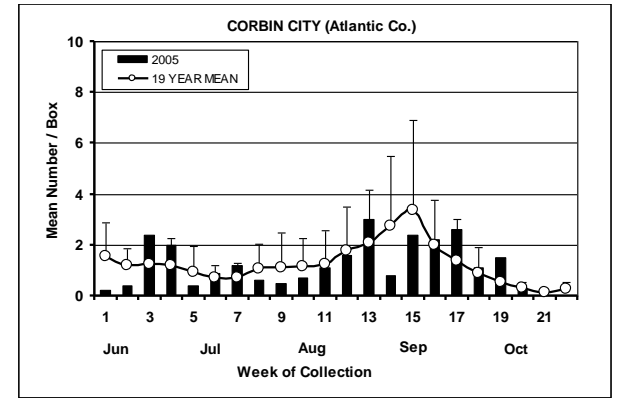
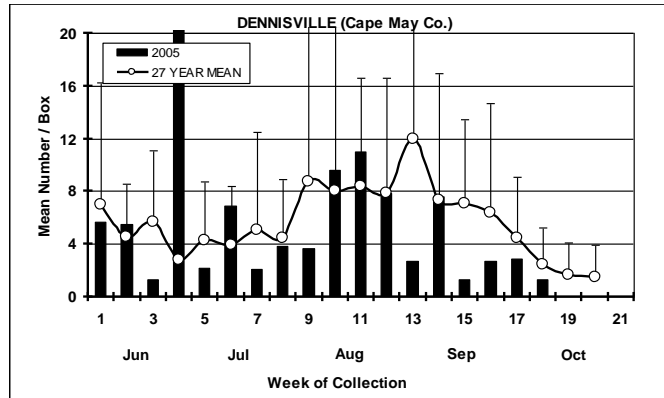
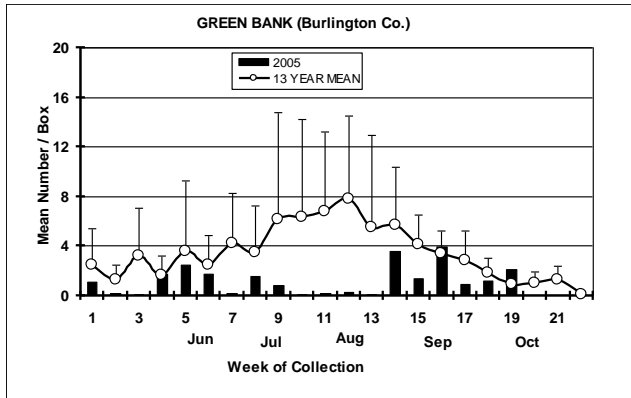
Collections submitted to PHEL for West Nile Virus testing

Species	<i>Cx. pip</i>	<i>Cx. rest</i>	<i>Cx. sal</i>	<i>Cx. spp.</i>	<i>Cs. mel</i>	<i>Ae. vex</i>	<i>Oc. cana</i>	<i>Oc. triv</i>	<i>Oc. tris</i>	<i>Oc. soll.</i>	<i>Oc. jap</i>	<i>Ae. albo</i>	Other	TOTALS
No. Pools	541	193	109	2,044	614	162	30	13	262	77	512	304	711	5,572
Total Specimens	15,572	2,298	2,209	71,486	11,141	2,344	365	363	1,012	2,529	2,576	2,330	10,377	122,272
No. Positive Pools	71	4	0	191	1	1	0	0	0	0	1	0	1	271

Remarks: The 2005 Vector Surveillance season began with lower than normal levels of *Cs. melanura* suggesting limited activity for the year. An unexpected influx of nulliparous specimens appeared at most sites in late June which significantly increased the potential for EEE amplification in local birds. Virus, however, did not appear until July 26 despite earlier activity in much of the northeast. Four (4) equine cases took place immediately after EEE was first detected; available data point toward *Cq. perturbans* as the probable vector. Hot dry conditions minimized floodwater mosquito populations for the rest of the season and no further equine involvement was documented. EEE was eventually detected at 4 of the 6 study sites monitored by this program and persisted at low levels in *Cs. melanura* well into the fall. Two (2) alpacas contracted EEE in Burlington Co. late in the season with onset dates of September 12 & 20. WNV was first documented from collections made in Bergen and Mercer counties during the 1st week of July. The virus was contained in bird feeding *Culex* until late in the season when single pools of *Ae. vexans*, *Oc. triseriatus*, *Oc. japonicus* and *An. quadrimaculatus* tested positive. Three confirmed human cases followed and 3 more are currently being investigated. No equine cases of WNV were reported in 2005.

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Culiseta melanura Population Graphs



**Mosquito Species Submitted for West Nile Virus Testing through
October 14, 2005**

Species	Pools	Mosquitoes	Positives
Ae. albopictus	304	2330	
Ae. cinereus	2	7	
Ae. vexans	162	2344	1
An. atropos	1	10	
An. barberi	4	6	
An. bradleyi	48	624	
An. crucians	2	3	
An. earlei	1	16	
An. punctipennis	124	666	
An. quadrimaculatus	118	2280	1
An. walkeri	2	6	
Cq. perturbans	91	1317	
Cs. inornata	2	2	
Cs. melanura	614	11141	1
Cs. morsitans	1	4	
Cx. erraticus	64	1475	
Cx. mix	2044	71486	191
Cx. pipiens	541	15572	71
Cx. restuans	193	2298	4
Cx. salinarius	109	2209	
Cx. territans	32	115	
Oc. abserratus	1	11	
Oc. atlanticus	11	27	
Oc. atropalpus	1	7	
Oc. canadensis	30	365	
Oc. cantator	24	54	
Oc. grossbecki	6	11	
Oc. japonicus	512	2576	1
Oc. mitchellae	1	1	
Oc. punctor	1	1	
Oc. sollicitans	77	2529	
Oc. sticticus	8	36	
Oc. stimulans	2	21	
Oc. taeniorhynchus	49	499	
Oc. triseriatus	262	1012	1
Oc. trivittatus	13	363	
Or. signifera	8	9	
Ps. ciliata	8	26	
Ps. columbiae	39	343	
Ps. cyanescens	1	1	
Ps. ferox	38	356	
Ps. howardii	4	24	
Ur. sapphirina	17	89	
Grand Total	5572	122272	271

Submissions by County through October 14, 2005

County	Species	Pools	Mosquitoes	Positives
Atlantic		349	8354	13
	Ae. albopictus	31	400	
	Ae. vexans	16	174	
	An. bradleyi	2	4	
	An. punctipennis	2	2	
	An. quadrimaculatus	3	8	
	Cq. perturbans	14	404	
	Cs. melanura	80	738	
	Cx. erraticus	23	837	
	Cx. mix	90	3706	13
	Cx. pipiens	3	48	
	Cx. restuans	1	1	
	Cx. salinarius	7	219	
	Cx. territans	3	4	
	Oc. atlanticus	2	11	
	Oc. cantator	1	5	
	Oc. japonicus	13	65	
	Oc. sollicitans	33	1431	
	Oc. sticticus	1	5	
	Oc. taeniorhynchus	3	15	
	Oc. triseriatus	14	63	
	Or. signifera	1	2	
	Ps. ferox	6	212	
Bergen		356	18465	95
	Ae. albopictus	11	78	
	Ae. vexans	14	210	
	An. punctipennis	4	6	
	Cq. perturbans	3	7	
	Cs. melanura	4	72	
	Cx. mix	201	14438	76
	Cx. pipiens	64	2864	18
	Cx. restuans	11	96	1
	Cx. salinarius	16	591	
	Oc. cantator	1	2	
	Oc. japonicus	13	71	
	Oc. sollicitans	3	3	
	Oc. triseriatus	8	23	
	Ps. ferox	1	1	
	Ur. sapphirina	2	3	
Burlington		305	4541	3
	Ae. albopictus	27	301	
	Ae. cinereus	2	7	
	Ae. vexans	25	979	
	An. barberi	1	1	
	An. bradleyi	3	33	
	An. crucians	1	2	
	An. punctipennis	8	80	
	An. quadrimaculatus	8	25	1
	Cq. perturbans	10	34	

	Cs. inornata	1	1	
	Cs. melanura	78	1335	
	Cx. erraticus	8	31	
	Cx. mix	35	621	2
	Cx. pipiens	5	107	
	Cx. restuans	1	1	
	Cx. salinarius	5	96	
	Cx. territans	3	7	
	Oc. abserratus	1	11	
	Oc. atlanticus	1	2	
	Oc. atropalpus	1	7	
	Oc. canadensis	4	12	
	Oc. cantator	1	3	
	Oc. grossbecki	3	8	
	Oc. japonicus	19	154	
	Oc. mitchellae	1	1	
	Oc. sollicitans	4	275	
	Oc. sticticus	2	9	
	Oc. stimulans	2	21	
	Oc. taeniorhynchus	1	3	
	Oc. triseriatus	19	146	
	Oc. trivittatus	1	4	
	Or. signifera	1	1	
	Ps. ciliata	3	4	
	Ps. columbiae	12	151	
	Ps. cyanescens	1	1	
	Ps. ferox	2	22	
	Ps. howardii	3	23	
	Ur. sapphirina	2	22	
Camden		135	1481	3
	Ae. albopictus	17	90	
	Ae. vexans	7	94	
	An. crucians	1	1	
	An. punctipennis	5	17	
	An. quadrimaculatus	7	15	
	Cs. melanura	29	200	
	Cx. mix	43	954	3
	Cx. pipiens	1	1	
	Oc. japonicus	18	69	
	Oc. triseriatus	2	2	
	Or. signifera	2	2	
	Ur. sapphirina	3	36	
Cape May		466	12376	2
	Ae. albopictus	30	152	
	Ae. vexans	1	8	
	An. bradleyi	15	468	
	An. punctipennis	2	79	
	An. quadrimaculatus	20	1062	
	Cq. perturbans	10	143	
	Cs. melanura	191	6585	1
	Cx. erraticus	6	107	
	Cx. mix	17	527	1
	Cx. pipiens	73	1595	

	Cx. restuans	48	605	
	Cx. salinarius	23	646	
	Cx. territans	7	53	
	Oc. cantator	1	2	
	Oc. japonicus	4	13	
	Oc. sollicitans	6	169	
	Oc. taeniorhynchus	5	137	
	Oc. triseriatus	7	25	
Cumberland		224	1043	0
	Ae. albopictus	4	4	
	Ae. vexans	11	15	
	An. bradleyi	14	62	
	An. punctipennis	6	8	
	An. quadrimaculatus	8	10	
	Cq. perturbans	2	2	
	Cs. melanura	55	179	
	Cx. mix	52	390	
	Oc. atlanticus	6	8	
	Oc. canadensis	3	3	
	Oc. cantator	5	6	
	Oc. grossbecki	1	1	
	Oc. sollicitans	5	10	
	Oc. sticticus	3	3	
	Oc. taeniorhynchus	37	323	
	Oc. triseriatus	2	2	
	Ps. ferox	9	16	
	Ur. sapphirina	1	1	
Essex		207	3482	15
	Ae. albopictus	25	70	
	Ae. vexans	15	234	
	An. quadrimaculatus	4	8	
	Cq. perturbans	1	1	
	Cx. mix	127	3011	15
	Oc. japonicus	22	126	
	Oc. sticticus	1	3	
	Oc. triseriatus	5	12	
	Oc. trivittatus	1	2	
	Ps. ciliata	1	9	
	Ps. ferox	4	5	
	Ur. sapphirina	1	1	
Gloucester		195	4358	4
	Ae. albopictus	14	44	
	Ae. vexans	2	2	
	An. punctipennis	4	6	
	An. quadrimaculatus	2	2	
	Cx. mix	1	45	
	Cx. pipiens	146	4161	4
	Oc. japonicus	19	89	
	Oc. triseriatus	6	8	
	Ps. columbiae	1	1	
Hudson		200	5912	24

	Cx. mix	200	5912	24
Hunterdon		256	8729	4
	Ae. albopictus	1	4	
	Ae. vexans	4	40	
	An. bradleyi	1	10	
	An. punctipennis	7	13	
	An. quadrimaculatus	1	3	
	Cx. mix	186	7937	4
	Cx. pipiens	25	517	
	Cx. restuans	17	174	
	Cx. salinarius	1	4	
	Cx. territans	2	3	
	Oc. japonicus	9	22	
	Oc. triseriatus	1	1	
	Ps. columbiae	1	1	
Mercer		370	8748	52
	Ae. albopictus	36	293	
	Ae. vexans	19	246	1
	An. bradleyi	1	2	
	An. punctipennis	12	49	
	An. quadrimaculatus	7	44	
	Cq. perturbans	3	72	
	Cs. melanura	4	13	
	Cx. erraticus	6	53	
	Cx. mix	42	2268	7
	Cx. pipiens	119	4539	41
	Cx. restuans	52	688	2
	Cx. salinarius	7	126	
	Oc. japonicus	39	146	1
	Oc. triseriatus	11	44	
	Oc. trivittatus	1	4	
	Or. signifera	1	1	
	Ps. ciliata	1	6	
	Ps. columbiae	6	97	
	Ps. ferox	2	56	
	Ps. howardii	1	1	
Middlesex		414	8068	23
	Ae. albopictus	27	157	
	Ae. vexans	9	38	
	An. bradleyi	1	2	
	An. punctipennis	3	24	
	An. quadrimaculatus	4	24	
	Cq. perturbans	3	105	
	Cs. melanura	2	6	
	Cx. erraticus	1	1	
	Cx. mix	174	6064	17
	Cx. pipiens	66	900	5
	Cx. restuans	26	318	
	Cx. salinarius	9	99	
	Cx. territans	1	1	
	Oc. japonicus	42	164	
	Oc. sollicitans	4	9	

	Oc. triseriatus	28	81	1
	Or. signifera	2	2	
	Ps. ciliata	1	1	
	Ps. columbiae	8	58	
	Ps. ferox	1	2	
	Ur. sapphirina	2	12	
Monmouth		450	5548	10
	Ae. albopictus	28	65	
	Ae. vexans	18	143	
	An. barberi	1	1	
	An. punctipennis	10	28	
	An. quadrimaculatus	3	19	
	Cq. perturbans	5	9	
	Cs. melanura	80	1006	
	Cx. erraticus	4	10	
	Cx. mix	152	3089	7
	Cx. pipiens	21	197	3
	Cx. restuans	6	13	
	Cx. salinarius	4	5	
	Cx. territans	5	21	
	Oc. atlanticus	1	1	
	Oc. canadensis	13	121	
	Oc. cantator	10	27	
	Oc. japonicus	33	129	
	Oc. sollicitans	16	461	
	Oc. taeniorhynchus	3	21	
	Oc. triseriatus	28	153	
	Ps. columbiae	4	6	
	Ps. ferox	5	23	
Morris		173	3348	1
	Ae. vexans	2	17	
	An. punctipennis	4	10	
	An. quadrimaculatus	2	2	
	Cq. perturbans	2	5	
	Cx. mix	93	2826	
	Cx. pipiens	2	115	
	Cx. restuans	2	47	1
	Oc. japonicus	44	248	
	Oc. triseriatus	21	74	
	Ps. ferox	1	4	
Ocean		336	6199	5
	Ae. albopictus	43	644	
	Ae. vexans	9	40	
	An. barberi	1	1	
	An. bradleyi	2	6	
	An. punctipennis	2	2	
	An. quadrimaculatus	2	6	
	Cq. perturbans	8	76	
	Cs. melanura	14	49	
	Cs. morsitans	1	4	
	Cx. erraticus	1	1	
	Cx. mix	108	3985	5

	Cx. pipiens	3	186	
	Cx. restuans	15	101	
	Cx. salinarius	36	422	
	Cx. territans	3	5	
	Oc. atlanticus	1	5	
	Oc. canadensis	8	206	
	Oc. cantator	5	9	
	Oc. japonicus	40	180	
	Oc. sollicitans	6	171	
	Oc. triseriatus	24	70	
	Ps. columbiae	1	19	
	Ps. ferox	3	11	
Passaic		161	4097	11
	Ae. albopictus	5	16	
	Ae. vexans	1	4	
	An. punctipennis	3	10	
	Cx. mix	128	3736	11
	Oc. japonicus	20	310	
	Oc. triseriatus	4	21	
Salem		300	3615	0
	Ae. vexans	1	1	
	An. bradleyi	9	37	
	An. punctipennis	14	210	
	An. quadrimaculatus	28	956	
	Cq. perturbans	8	18	
	Cs. melanura	76	957	
	Cx. erraticus	14	428	
	Cx. mix	87	899	
	Cx. restuans	2	2	
	Cx. salinarius	1	1	
	Cx. territans	6	18	
	Oc. japonicus	32	55	
	Oc. triseriatus	9	10	
	Ps. ciliata	2	6	
	Ps. columbiae	6	10	
	Ps. ferox	4	4	
	Ur. sapphirina	1	3	
Somerset		171	3960	1
	Ae. vexans	1	55	
	An. barberi	1	3	
	An. punctipennis	5	20	
	Cx. mix	106	3319	1
	Oc. japonicus	35	230	
	Oc. triseriatus	19	95	
	Oc. trivittatus	4	238	
Sussex		217	1937	0
	Ae. vexans	4	40	
	An. atropos	1	10	
	An. earlei	1	16	
	An. punctipennis	26	89	
	An. quadrimaculatus	11	42	

	An. walkeri	2	6	
	Cq. perturbans	19	408	
	Cs. melanura	1	1	
	Cx. mix	53	812	
	Cx. pipiens	1	11	
	Cx. restuans	1	1	
	Oc. canadensis	2	23	
	Oc. grossbecki	1	1	
	Oc. japonicus	49	232	
	Oc. sticticus	1	16	
	Oc. triseriatus	35	140	
	Oc. trivittatus	5	80	
	Ur. sapphirina	4	9	
Union		78	1077	3
	Ae. albopictus	5	12	
	Ae. vexans	2	3	
	An. punctipennis	3	6	
	An. quadrimaculatus	7	37	
	Cq. perturbans	1	1	
	Cx. erraticus	1	7	
	Cx. mix	17	392	3
	Cx. pipiens	12	331	
	Cx. restuans	11	251	
	Cx. territans	2	3	
	Oc. grossbecki	1	1	
	Oc. japonicus	9	19	
	Oc. punctor	1	1	
	Oc. triseriatus	4	10	
	Or. signifera	1	1	
	Ur. sapphirina	1	2	
Warren		208	6932	2
	Ae. vexans	1	1	
	An. punctipennis	4	7	
	An. quadrimaculatus	1	17	
	Cq. perturbans	2	32	
	Cs. inornata	1	1	
	Cx. mix	132	6555	2
	Oc. japonicus	51	252	
	Oc. triseriatus	15	32	
	Oc. trivittatus	1	35	
Grand Total		5571	122270	271