

# VECTOR SURVEILLANCE SUMMARY SHEET

WEEK: 18

## *Culiseta melanura* Monitor September 27 - October 3, 2004

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.)	1.7	2.9	1,804	82	3	Waterford (Camden Co.)	0.8	5.3	1,688	73	1
Corbin City (Atlantic Co.)	0.7	4.6	1,111	71	1	Centerton (Salem Co.)	1.9	3.2	3,429	107	7
Dennisville (Cape May Co.)	2.5	2.8	2,547	94	4	Turkey Swamp (Monmouth Co.)	0.7	0.5	634	64	0

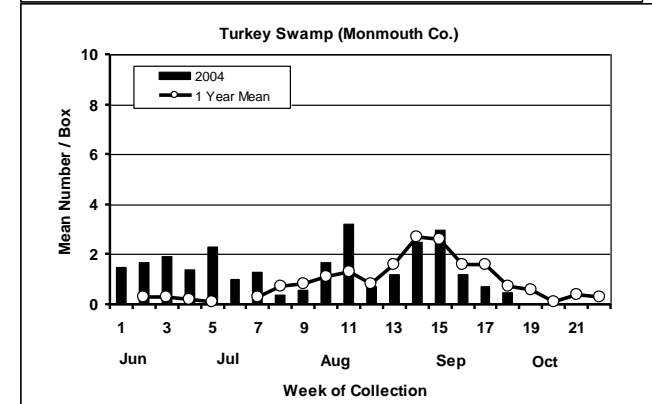
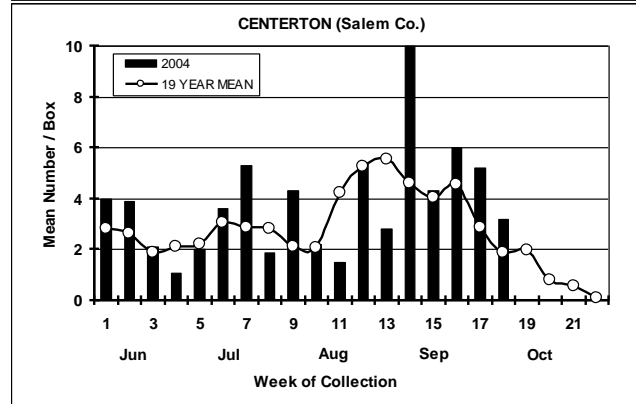
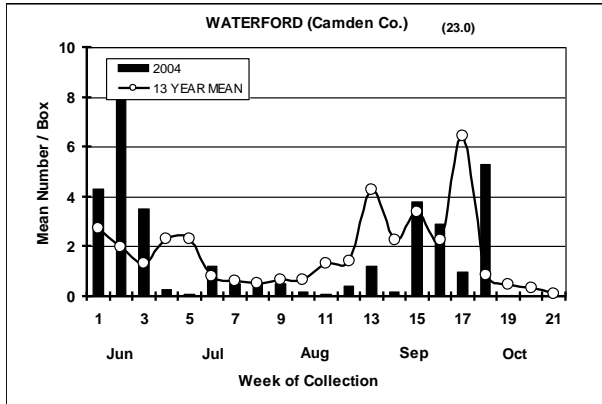
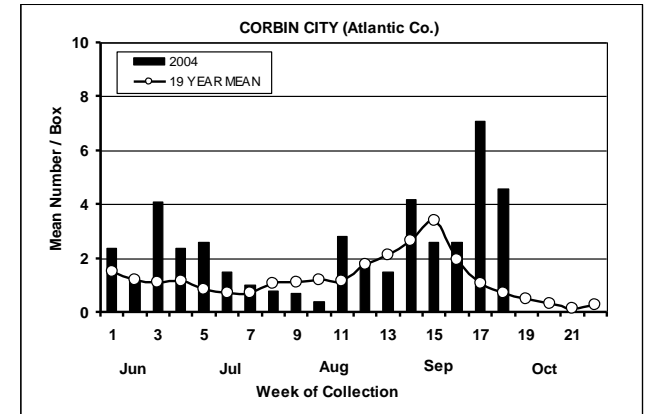
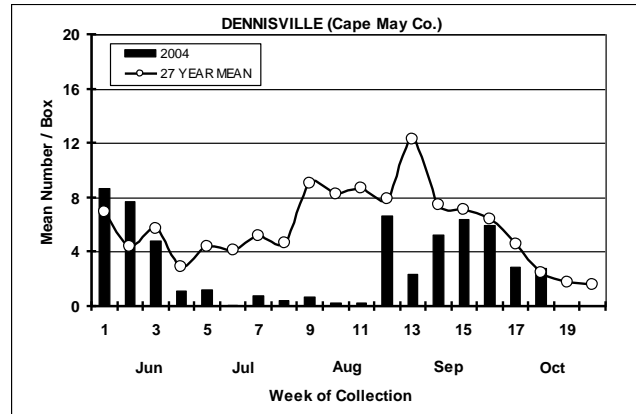
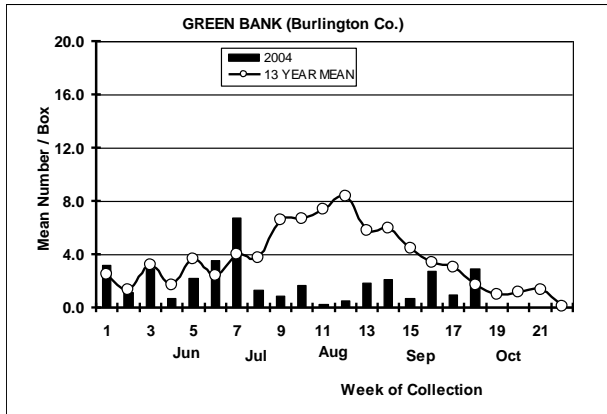
### Collections submitted to PHEL for West Nile Virus testing

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	339	264	185	1,798	690	338	163	79	255	108	581	152	1,029	5,981
Total Specimens	9,531	4,651	5,127	59,622	13,636	4,956	1,915	1,272	1,025	2,338	3,377	877	13,416	121,743
No. Positive Pools	42	9	1	193	6	0	0	0	0	0	0	0	0	251

**Remarks:** *Culiseta melanura* populations remain surprisingly high for this time of year. The resting box counts at Waterford and Corbin City represent the second highest seen this season. EEE is still active as evidenced by one additional *Cs. melanura* positive from the Dennisville site. Cool night time temperatures, however, are beginning to diminish nocturnal mosquito activity and this year's encephalitis season is rapidly coming to an end. Historical data indicate that late season equine cases can occur during years of accelerated virus activity. No one has been able to identify any of the cold hardy bridge vector(s) responsible for this atypical form of late season transmission. West Nile virus activity remains minimal compared to past years. Surveillance data indicates that virus has been largely confined to bird feeding mosquitoes with limited evidence of vector involvement beyond the amplification phase of the cycle. WNV has been found in *Culex* species from 19 counties to date. The Minimum Infection Rates in *Culex* have been highest from Gloucester (6.6), Hudson (6.2) Mercer (5.7), Burlington (4.9) and Bergen (4.7) Co. this year.

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## *Culiseta melanura* Population Graphs



Historical data from the Vector Surveillance Program show that *Cs. melanura* typically build in numbers with an August peak in most years. The *Cs. melanura* population curves from Green Bank and Dennisville were atypical this season with unexplained drops in numbers during the warmer months of the year. *Cs. melanura* at Corbin City and Centerton followed typical population trends but were well above average for most of the season. *Cs. melanura* at Waterford normally drop off during July and August before increasing sporadically during the latter part of the year. The Turkey Swamp site is following a relatively typical *Cs. melanura* seasonal trend but the data from that site are limited to only 2 collection seasons.

**Mosquito Species Submitted for West Nile Virus Testing through October 1, 2004**

<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>
Aedes albopictus	152	877	
Aedes cinereus	12	99	
Aedes vexans	338	4956	
Anopheles barberi	7	8	
Anopheles bradleyi	41	413	
Anopheles crucians	1	3	
Anopheles punctipennis	186	1175	
Anopheles quadrimaculatus	173	4252	
Anopheles walkeri	11	171	
Coquillettidia perturbans	115	1503	
Culex erraticus	46	645	
Culex pipiens	339	9531	<b>42</b>
Culex restuans	264	4651	<b>9</b>
Culex salinarius	185	5127	<b>1</b>
Culex spp.	1798	59622	<b>193</b>
Culex territans	60	266	
Culiseta melanura	690	13636	<b>6</b>
Culiseta morsitans	1	1	
Ochlerotatus abserratus	2	13	
Ochlerotatus atlanticus	6	13	
Ochlerotatus atropalpus	2	11	
Ochlerotatus canadensis	163	1915	
Ochlerotatus cantator	53	983	
Ochlerotatus excrucians	3	4	
Ochlerotatus grossbecki	13	26	
Ochlerotatus japonicus	581	3377	
Ochlerotatus mitchellae	3	4	
Ochlerotatus punctor	1	4	
Ochlerotatus sollicitans	108	2338	
Ochlerotatus sticticus	16	140	
Ochlerotatus stimulans	8	38	
Ochlerotatus taeniorhynchus	20	198	
Ochlerotatus thibaulti	1	1	
Ochlerotatus triseriatus	255	1025	
Ochlerotatus trivittatus	79	1272	
Orthopodomyia signifera	6	10	
Psorophora ciliata	36	277	
Psorophora columbiae	64	807	
Psorophora discolor	1	1	
Psorophora ferox	93	1852	
Psorophora howardii	4	15	
Uranotaenia sapphirina	44	483	
<b>Grand Total</b>	<b>5981</b>	<b>121743</b>	<b>251</b>

Submissions by County through October 1, 2004

<b>County</b>	<b>Species</b>	<b>Pools</b>	<b>Mosquitoes</b>	<b>Positives</b>
<b>Atlantic</b>		<b>423</b>	<b>8858</b>	<b>10</b>
	Aedes albopictus	19	129	
	Aedes cinereus	1	35	
	Aedes vexans	34	593	
	Anopheles bradleyi	10	32	
	Anopheles punctipennis	3	6	
	Anopheles quadrimaculatus	4	6	
	Coquillettidia perturbans	11	158	
	Culex erraticus	8	127	
	Culex pipiens	8	192	1
	Culex restuans	14	134	
	Culex salinarius	4	41	
	Culex spp.	90	3194	9
	Culex territans	4	21	
	Culiseta melanura	91	1668	
	Ochlerotatus canadensis	17	331	
	Ochlerotatus cantator	22	791	
	Ochlerotatus japonicus	17	99	
	Ochlerotatus sollicitans	32	1043	
	Ochlerotatus taeniorhynchus	11	78	
	Ochlerotatus triseriatus	18	138	
	Ochlerotatus trivittatus	2	4	
	Orthopodomyia signifera	1	4	
	Psorophora ferox	2	34	
<b>Bergen</b>		<b>262</b>	<b>15075</b>	<b>58</b>
	Aedes albopictus	3	49	
	Aedes cinereus	1	11	
	Aedes vexans	12	508	
	Coquillettidia perturbans	1	69	
	Culex pipiens	22	1171	7
	Culex restuans	4	37	
	Culex salinarius	27	1795	1
	Culex spp.	170	10876	50
	Culiseta melanura	1	1	
	Ochlerotatus canadensis	1	3	
	Ochlerotatus cantator	1	1	
	Ochlerotatus japonicus	3	105	
	Ochlerotatus sollicitans	10	410	
	Ochlerotatus triseriatus	6	39	
<b>Burlington</b>		<b>341</b>	<b>5492</b>	<b>13</b>
	Aedes albopictus	22	110	
	Aedes cinereus	1	3	
	Aedes vexans	30	708	

Anopheles barberi	1	1	
Anopheles bradleyi	1	5	
Anopheles crucians	1	3	
Anopheles punctipennis	12	50	
Anopheles quadrimaculatus	12	48	
Coquillettidia perturbans	7	49	
Culex erraticus	6	17	
Culex pipiens	13	607	2
Culex restuans	4	190	1
Culex salinarius	4	8	
Culex spp.	38	1043	6
Culex territans	4	12	
Culiseta melanura	98	2057	4
Ochlerotatus abserratus	1	9	
Ochlerotatus atlanticus	1	2	
Ochlerotatus atropalpus	1	3	
Ochlerotatus canadensis	5	20	
Ochlerotatus cantator	1	2	
Ochlerotatus grossbecki	1	6	
Ochlerotatus japonicus	27	73	
Ochlerotatus mitchellae	3	4	
Ochlerotatus sollicitans	6	106	
Ochlerotatus sticticus	2	13	
Ochlerotatus stimulans	1	4	
Ochlerotatus taeniorhynchus	1	7	
Ochlerotatus triseriatus	10	42	
Ochlerotatus trivittatus	4	19	
Orthopodomyia signifera	1	2	
Psorophora ciliata	5	26	
Psorophora columbiae	9	201	
Psorophora ferox	5	17	
Psorophora howardii	1	7	
Uranotaenia sapphirina	2	18	
<b>Camden</b>	<b>245</b>	<b>2549</b>	<b>1</b>
Aedes albopictus	14	71	
Aedes cinereus	1	1	
Aedes vexans	11	75	
Anopheles barberi	1	1	
Anopheles bradleyi	5	17	
Anopheles punctipennis	19	58	
Anopheles quadrimaculatus	13	32	
Coquillettidia perturbans	8	26	
Culex erraticus	1	1	
Culex pipiens	6	7	
Culex restuans	5	14	
Culex spp.	19	208	1

	Culex territans	5	14	
	Culiseta melanura	88	1769	
	Ochlerotatus atlanticus	1	1	
	Ochlerotatus canadensis	7	17	
	Ochlerotatus japonicus	14	40	
	Ochlerotatus triseriatus	7	11	
	Ochlerotatus trivittatus	3	3	
	Psorophora columbiae	1	1	
	Psorophora ferox	10	111	
	Uranotaenia sapphirina	6	71	
<b>Cape May</b>		<b>475</b>	<b>9841</b>	<b>6</b>
	Aedes albopictus	20	85	
	Aedes vexans	2	10	
	Anopheles bradleyi	11	321	
	Anopheles punctipennis	5	29	
	Anopheles quadrimaculatus	59	3291	
	Coquillettidia perturbans	6	120	
	Culex erraticus	10	300	
	Culex pipiens	100	1503	<b>2</b>
	Culex restuans	63	382	<b>2</b>
	Culex salinarius	24	300	
	Culex territans	11	69	
	Culiseta melanura	130	3179	<b>2</b>
	Ochlerotatus cantator	4	17	
	Ochlerotatus japonicus	15	48	
	Ochlerotatus sollicitans	8	83	
	Ochlerotatus taeniorhynchus	4	95	
	Ochlerotatus triseriatus	3	9	
<b>Cumberland</b>		<b>310</b>	<b>2531</b>	<b>2</b>
	Aedes albopictus	1	1	
	Aedes vexans	60	416	
	Anopheles bradleyi	3	7	
	Anopheles punctipennis	9	14	
	Anopheles quadrimaculatus	2	2	
	Coquillettidia perturbans	4	4	
	Culex erraticus	3	3	
	Culex pipiens	21	591	<b>2</b>
	Culex restuans	17	140	
	Culex salinarius	26	778	
	Culex spp.	17	43	
	Culiseta melanura	14	21	
	Ochlerotatus canadensis	64	306	
	Ochlerotatus cantator	13	17	
	Ochlerotatus grossbecki	7	8	
	Ochlerotatus japonicus	19	54	

	Ochlerotatus sollicitans	5	10	
	Ochlerotatus triseriatus	7	9	
	Ochlerotatus trivittatus	2	2	
	Psorophora ciliata	1	4	
	Psorophora columbiae	14	100	
	Uranotaenia sapphirina	1	1	
<b>Essex</b>		<b>196</b>	<b>2727</b>	<b>1</b>
	Aedes albopictus	7	24	
	Aedes vexans	14	79	
	Anopheles punctipennis	1	1	
	Anopheles quadrimaculatus	2	2	
	Coquillettidia perturbans	10	77	
	Culex pipiens	1	4	
	Culex spp.	92	1590	<b>1</b>
	Ochlerotatus abserratus	1	4	
	Ochlerotatus canadensis	1	4	
	Ochlerotatus japonicus	18	78	
	Ochlerotatus sticticus	8	64	
	Ochlerotatus triseriatus	9	23	
	Ochlerotatus trivittatus	4	94	
	Psorophora ferox	28	683	
<b>Gloucester</b>		<b>312</b>	<b>6364</b>	<b>38</b>
	Aedes albopictus	18	105	
	Aedes vexans	11	96	
	Anopheles bradleyi	1	1	
	Anopheles punctipennis	9	26	
	Anopheles quadrimaculatus	3	5	
	Coquillettidia perturbans	1	1	
	Culex pipiens	13	537	<b>3</b>
	Culex restuans	8	126	<b>1</b>
	Culex salinarius	7	87	
	Culex spp.	169	5068	<b>34</b>
	Culex territans	1	1	
	Culiseta melanura	8	101	
	Ochlerotatus canadensis	1	1	
	Ochlerotatus japonicus	40	144	
	Ochlerotatus sollicitans	1	1	
	Ochlerotatus triseriatus	11	26	
	Psorophora columbiae	3	15	
	Psorophora ferox	7	23	
<b>Hudson</b>		<b>173</b>	<b>4998</b>	<b>31</b>
	Culex spp.	173	4998	<b>31</b>

<b>Hunterdon</b>	<b>215</b>	<b>9611</b>	<b>15</b>
Aedes vexans	2	87	
Anopheles punctipennis	2	19	
Anopheles quadrimaculatus	1	16	
Culex spp.	196	9250	<b>15</b>
Ochlerotatus japonicus	6	35	
Ochlerotatus trivittatus	3	150	
Psorophora ciliata	3	31	
Psorophora columbiae	1	8	
Psorophora ferox	1	15	
<b>Mercer</b>	<b>325</b>	<b>7851</b>	<b>31</b>
Aedes albopictus	8	18	
Aedes cinereus	2	22	
Aedes vexans	17	361	
Anopheles punctipennis	11	152	
Anopheles quadrimaculatus	6	41	
Coquillettidia perturbans	7	181	
Culex erraticus	1	2	
Culex pipiens	70	2350	<b>12</b>
Culex restuans	50	939	<b>2</b>
Culex salinarius	7	54	
Culex spp.	43	2139	<b>17</b>
Culex territans	6	14	
Culiseta melanura	11	112	
Ochlerotatus atropalpus	1	8	
Ochlerotatus canadensis	10	458	
Ochlerotatus excrucians	2	3	
Ochlerotatus japonicus	34	139	
Ochlerotatus sticticus	1	40	
Ochlerotatus triseriatus	13	36	
Ochlerotatus trivittatus	4	92	
Orthopodomyia signifera	1	1	
Psorophora ciliata	1	8	
Psorophora columbiae	2	24	
Psorophora ferox	7	383	
Psorophora howardii	2	7	
Uranotaenia sapphirina	8	267	
<b>Middlesex</b>	<b>57</b>	<b>803</b>	<b>0</b>
Aedes albopictus	2	2	
Aedes vexans	4	35	
Anopheles punctipennis	4	7	
Culex pipiens	7	300	
Culex restuans	3	24	
Culex spp.	16	338	
Ochlerotatus japonicus	5	21	



	Ochlerotatus sollicitans	4	50	
	Ochlerotatus triseriatus	6	9	
	Ochlerotatus trivittatus	3	14	
	Orthopodomyia signifera	1	1	
	Psorophora columbiae	2	2	
<b>Monmouth</b>		<b>564</b>	<b>7375</b>	<b>11</b>
	Aedes albopictus	5	10	
	Aedes vexans	39	554	
	Anopheles barberi	3	3	
	Anopheles punctipennis	26	201	
	Anopheles quadrimaculatus	21	86	
	Coquillettidia perturbans	8	17	
	Culex erraticus	6	16	
	Culex pipiens	37	1536	<b>10</b>
	Culex restuans	26	654	<b>1</b>
	Culex salinarius	33	1672	
	Culex spp.	75	459	
	Culex territans	9	33	
	Culiseta melanura	75	615	
	Ochlerotatus atlanticus	3	8	
	Ochlerotatus canadensis	18	125	
	Ochlerotatus cantator	5	13	
	Ochlerotatus grossbecki	1	2	
	Ochlerotatus japonicus	63	388	
	Ochlerotatus sollicitans	17	281	
	Ochlerotatus sticticus	1	3	
	Ochlerotatus taeniorhynchus	2	3	
	Ochlerotatus triseriatus	47	318	
	Ochlerotatus trivittatus	9	30	
	Orthopodomyia signifera	1	1	
	Psorophora ciliata	11	60	
	Psorophora columbiae	12	242	
	Psorophora ferox	9	40	
	Uranotaenia sapphirina	2	5	
<b>Morris</b>		<b>190</b>	<b>6260</b>	<b>3</b>
	Aedes cinereus	1	10	
	Aedes vexans	6	69	
	Anopheles punctipennis	6	15	
	Anopheles quadrimaculatus	1	1	
	Coquillettidia perturbans	5	55	
	Culex pipiens	2	6	
	Culex restuans	1	1	
	Culex spp.	99	5046	<b>3</b>
	Ochlerotatus canadensis	3	87	
	Ochlerotatus japonicus	36	213	

	Ochlerotatus sticticus	1	13	
	Ochlerotatus stimulans	2	5	
	Ochlerotatus triseriatus	12	34	
	Ochlerotatus trivittatus	6	271	
	Psorophora ferox	9	434	
<b>Ocean</b>		<b>457</b>	<b>5521</b>	<b>8</b>
	Aedes albopictus	27	259	
	Aedes vexans	32	631	
	Anopheles bradleyi	2	2	
	Anopheles punctipennis	18	156	
	Anopheles quadrimaculatus	11	32	
	Coquillettidia perturbans	16	303	
	Culex pipiens	19	560	<b>3</b>
	Culex restuans	23	647	<b>2</b>
	Culex salinarius	37	308	
	Culex spp.	56	679	<b>3</b>
	Culex territans	4	8	
	Culiseta melanura	57	662	
	Ochlerotatus atlanticus	1	2	
	Ochlerotatus canadensis	18	340	
	Ochlerotatus cantator	1	50	
	Ochlerotatus grossbecki	4	10	
	Ochlerotatus japonicus	39	156	
	Ochlerotatus sollicitans	24	353	
	Ochlerotatus sticticus	2	2	
	Ochlerotatus taeniorhynchus	2	15	
	Ochlerotatus thibaulti	1	1	
	Ochlerotatus triseriatus	22	49	
	Ochlerotatus trivittatus	4	8	
	Orthopodomyia signifera	1	1	
	Psorophora ciliata	13	144	
	Psorophora columbiae	8	33	
	Psorophora ferox	7	90	
	Psorophora howardii	1	1	
	Uranotaenia sapphirina	7	19	
<b>Passaic</b>		<b>159</b>	<b>3127</b>	<b>8</b>
	Aedes albopictus	1	1	
	Aedes vexans	2	11	
	Anopheles punctipennis	2	4	
	Culex spp.	107	2711	<b>8</b>
	Ochlerotatus japonicus	40	372	
	Ochlerotatus triseriatus	7	28	

<b>Salem</b>	<b>366</b>	<b>6319</b>	<b>3</b>
Aedes albopictus	1	1	
Aedes vexans	19	83	
Anopheles bradleyi	8	28	
Anopheles punctipennis	19	187	
Anopheles quadrimaculatus	25	632	
Anopheles walkeri	3	15	
Coquillettidia perturbans	7	13	
Culex erraticus	11	179	
Culex pipiens	4	6	
Culex restuans	16	597	
Culex salinarius	1	1	
Culex spp.	72	636	3
Culex territans	11	84	
Culiseta melanura	109	3433	
Ochlerotatus canadensis	1	1	
Ochlerotatus cantator	4	37	
Ochlerotatus japonicus	24	113	
Ochlerotatus sollicitans	1	1	
Ochlerotatus triseriatus	8	8	
Psorophora ciliata	1	3	
Psorophora columbiae	11	180	
Psorophora ferox	2	2	
Uranotaenia sapphirina	8	79	
<b>Somerset</b>	<b>228</b>	<b>4396</b>	<b>6</b>
Aedes vexans	6	36	
Anopheles punctipennis	5	10	
Anopheles quadrimaculatus	1	1	
Coquillettidia perturbans	2	6	
Culex pipiens	6	109	
Culex restuans	10	291	
Culex salinarius	1	2	
Culex spp.	115	3379	6
Culex territans	1	1	
Culiseta melanura	1	1	
Ochlerotatus canadensis	5	57	
Ochlerotatus japonicus	44	366	
Ochlerotatus sticticus	1	5	
Ochlerotatus triseriatus	20	89	
Ochlerotatus trivittatus	8	40	
Psorophora ciliata	1	1	
Psorophora ferox	1	2	

<b>Sussex</b>	<b>372</b>	<b>4970</b>	<b>1</b>
Aedes cinereus	5	17	
Aedes vexans	26	568	
Anopheles barberi	1	1	
Anopheles punctipennis	25	227	
Anopheles quadrimaculatus	11	50	
Anopheles walkeri	8	156	
Coquillettidia perturbans	20	422	
Culex pipiens	10	52	
Culex restuans	19	472	
Culex salinarius	14	81	
Culex spp.	84	1742	<b>1</b>
Culex territans	4	9	
Culiseta melanura	7	17	
Culiseta morsitans	1	1	
Ochlerotatus canadensis	11	90	
Ochlerotatus japonicus	69	526	
Ochlerotatus stimulans	5	29	
Ochlerotatus triseriatus	25	110	
Ochlerotatus trivittatus	14	363	
Psorophora columbiae	1	1	
Psorophora ferox	2	13	
Uranotaenia sapphirina	10	23	
<b>Union</b>	<b>74</b>	<b>2261</b>	<b>5</b>
Aedes albopictus	4	12	
Culex spp.	52	2153	<b>5</b>
Ochlerotatus japonicus	13	90	
Ochlerotatus triseriatus	3	4	
Ochlerotatus trivittatus	1	1	
Psorophora discolor	1	1	
<b>Warren</b>	<b>237</b>	<b>4814</b>	<b>0</b>
Aedes vexans	11	36	
Anopheles barberi	1	2	
Anopheles punctipennis	10	13	
Anopheles quadrimaculatus	1	7	
Coquillettidia perturbans	2	2	
Culex restuans	1	3	
Culex spp.	115	4070	
Ochlerotatus canadensis	1	75	
Ochlerotatus cantator	2	55	
Ochlerotatus excrucians	1	1	
Ochlerotatus japonicus	55	317	
Ochlerotatus punctor	1	4	
Ochlerotatus triseriatus	21	43	

Ochlerotatus trivittatus	12	181	
Psorophora ferox	3	5	
<b>Grand Total</b>	<b>5981</b>	<b>121743</b>	<b>251</b>