VECTOR SURVEILLANCE SUMMARY SHEET

WEEK: 3

Culiseta melanura Monitor

June 17 - 23, 2006

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.)	**3.0**	**0.2**	**73**	**11**	**0**	**Waterford (Camden Co.)**	**1.4**	**>0.1**	**7**	**4**	**0**
Corbin City (Atlantic Co.).	**1.3**	**1.1**	**89**	**15**	**0**	**Centerton (Salem Co.)**	**1.8**	**0.1**	**28**	**7**	**0**
Dennisville (Cape May Co.)	**5.5**	**0.6**	**847**	**22**	**0**	**Turkey Swamp (Monmouth Co.)**	**0.9**	**0.2**	**28**	**10**	**0**

Remarks: *Culiseta melanura* populations have been lower than normal at most of the sites being monitored by SMCC's Vector Surveillance program. Resting box collections at Green Bank, Waterford, Centerton, & Turkey Swamp have been well below the long-term mean all season. Collections at Dennisville were fairly high in early June but have declined steadily since that time. Collections at Corbin City have been less than 2 *Cs. melanura* per box but reflect the long term average at that site fairly closely. The mosquitoes depicted in each of the data sets represent adults that overwintered as late instar larvae in nearby permanent swamp habitat. There is still a possibility for an influx of adults that represent larvae that overwintered in earlier instars. The eggs of the specimens that have been host-seeking since May will produce the summer wave of adults that have the potential to amplify EEE virus later in the season. This program will continue collecting specimens for RT-PCR testing at the PHEL labs in Trenton. Data are not yet available on this year's WNV data set. County mosquito control agencies will accelerate gravid trap and CO_2-baited light trap collections for WNV tests during the month of July.

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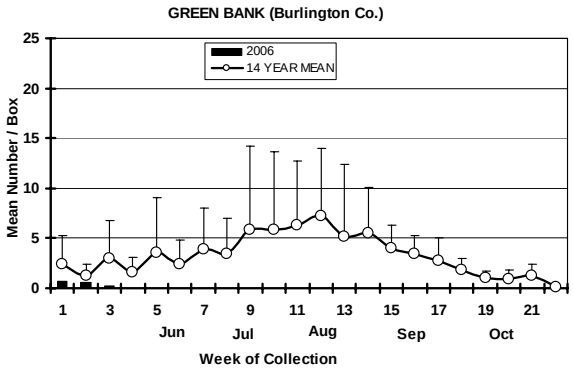
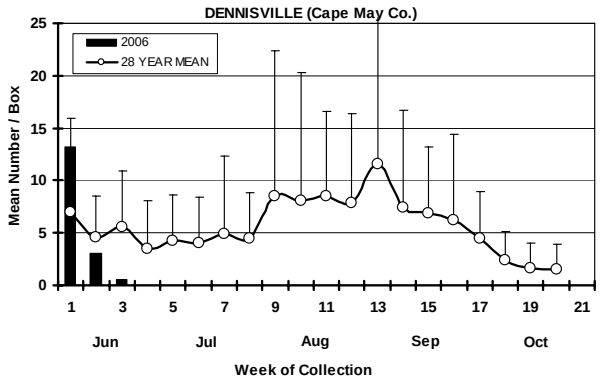
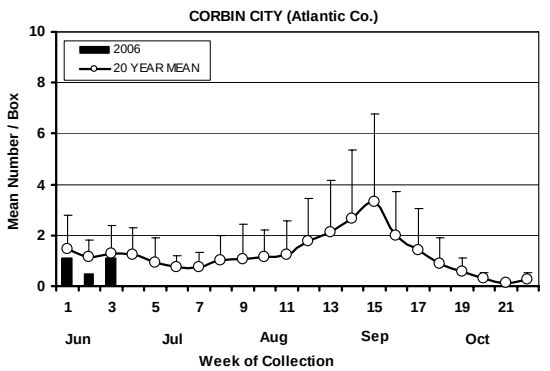
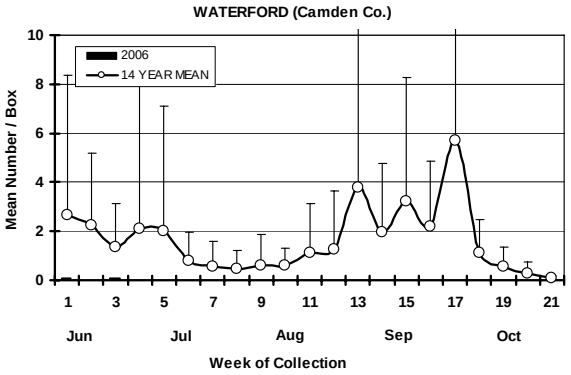
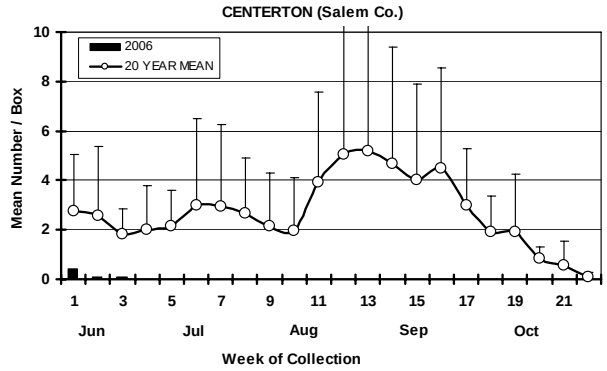
Culiseta melanura Population Graphs

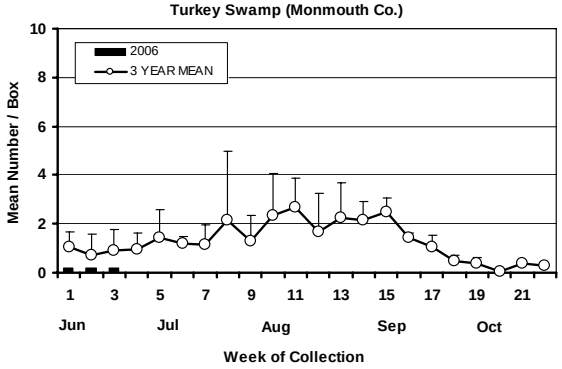












Collections at the Dennisville site suggest that a relatively large cohort of *Cs. melanura* emerged in May. These mosquitoes have been dying off steadily but are laying eggs that will produce the summer generation. The population peak in the long-term mean from late July through August at that site indicates when the summer cohort normally appears. The confidence intervals for that period show that *Cs. melanura* can be exceptionally abundant at that time of year. The earlier those adults emerge in 2006, the greater the potential for amplification of EEE. Long-term averages at the Corbin City site indicate that *Cs. melanura* populations generally double during the month of September. Current collections indicate that 2006 populations are typical, to date. Green Bank, Waterford, Centerton and Turkey Swamp collections reflect *Cs. melanura* populations that fall well below the long-term average. If that trend continues, the potential for late season amplification should be diminished at those sites. Green Bank could provide the exception to that rule because the Mullica River drainage has classically been an early season indicator for EEE over the years. In the recent past, lower than average populations of *Cs. melanura* have continually been capable of amplifying EEE and have provided a focus for early season virus activity.