Mosquito Surveillance Report*

Prepared by Dr. Wayne J. Crans

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Introduction

Hot, dry weather during the month of August kept mosquito populations well below normal in most areas of the State in the late summer period. Floodwater species, in particular, were influenced by the lack of rainfall and remained well below the 5-year mean in all of the monitoring areas. Rains during the last week of August reversed the trend for a brief period, but most species continue to remain below the levels anticipated for this time of year. Culex species, in urban areas of the State, provided the only exception with a late season increase that exceeded the 5-year mean. Weather data for the reporting period are listed at the end of this report.

Salt Marsh Mosquitoes

Tidal floodings of salt marsh habitat did not have a strong influence on Ae. sollicitans populations in most coastal areas. The new moon flooding of August 23 did not appear to increase light trap catches noticeably. Data indicate that the increase toward the later portion of the month was the result of rainfall rather than tidal action. Salt marsh mosquito annoyance has been minimal in most coastal areas all season long. Notable exceptions have been documented in areas where salt hay farming has resulted in local emergences.

Floodwater Mosquitoes

Ae. vexans populations have been severely limited by hot and dry conditions during the summer months. Reasonably heavy rainfall in mid-August failed to produce enough standing water to increase the light trap collections noticeably. The rainfall at the end of August did produce broods in most regions, but only raised catches to the average expected for that time of year. The late season rains also resulted in the appearance of a variety of floodwater species (Ae. trivittatus, Ae. atlanticus, Ps. columbiae) in most collections areas. Floodwater nuisance, however, has remained low througnout the State.

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Culex Mosquitoes

Culex populations have been sporadic all season long with numbers remaining at or below average in most reporting areas. The rains toward the later of August, however, restored enough habitat for a substantial upsurge in all the regions. At the present time, Culex species are well above average in each of the areas where the populations are being monitored. The increase should favor successful overwintering of the adult population and sufficient numbers for an early season buildup in 1984.

Table 1. Average Weekly Rainfall*

Week Ending	North	Central	South
Aug 8	0.323	0.483	0.061
Aug 15	2.112	1.835	1.162
Aug 22	0.157	0.82	0.053
Aug 29	0.928	1.383	0.823
Sep 5	0.214	0.5	0.181

Table 2. Average Departure from Normal Temperature*

Week Ending	North	Central	South
Aug 8	4.333	4.5	5.125
Aug 15	-0.8	-1.167	-1
Aug 22	3.833	2.667	2.857
Aug 29	5.4	3.3	3.125
Sep 5	5.4	4.0	5.0

*These data were gathered from 6-8 weather stations in each area and reported in the New Jersey Weekly Digest.

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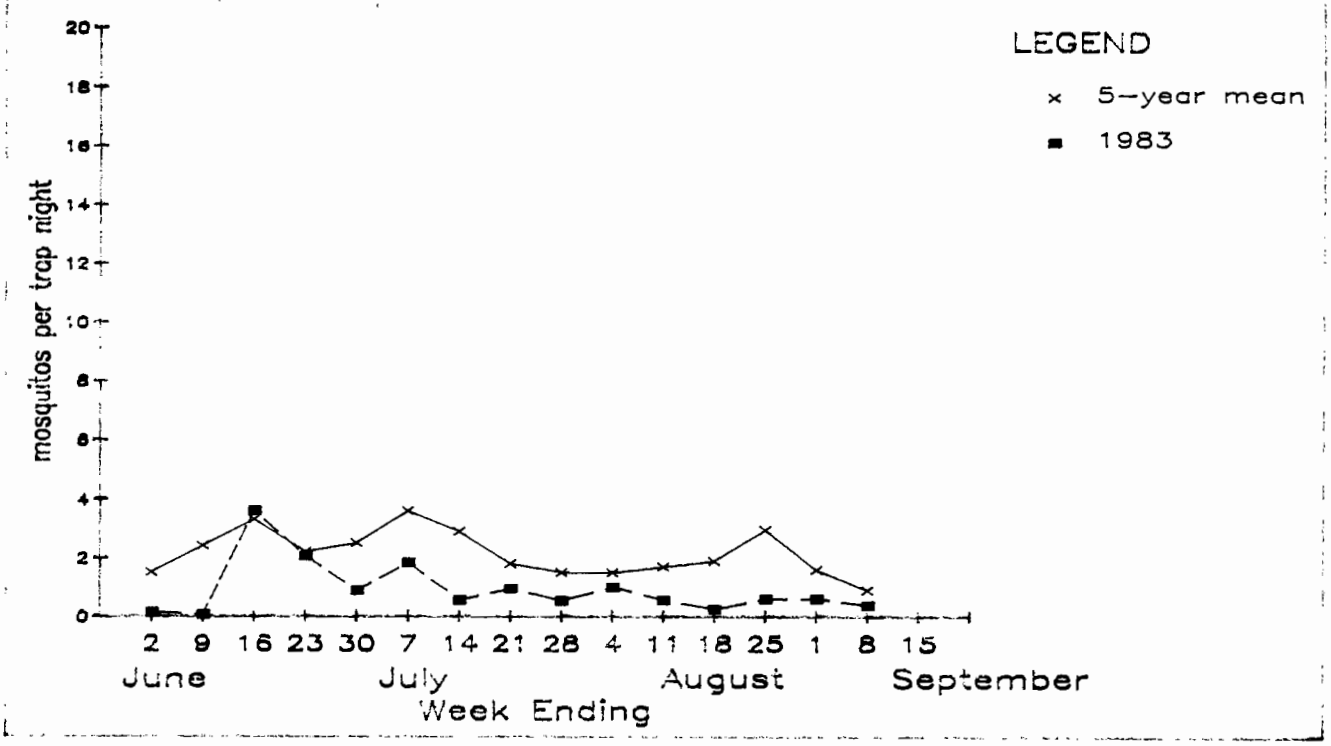
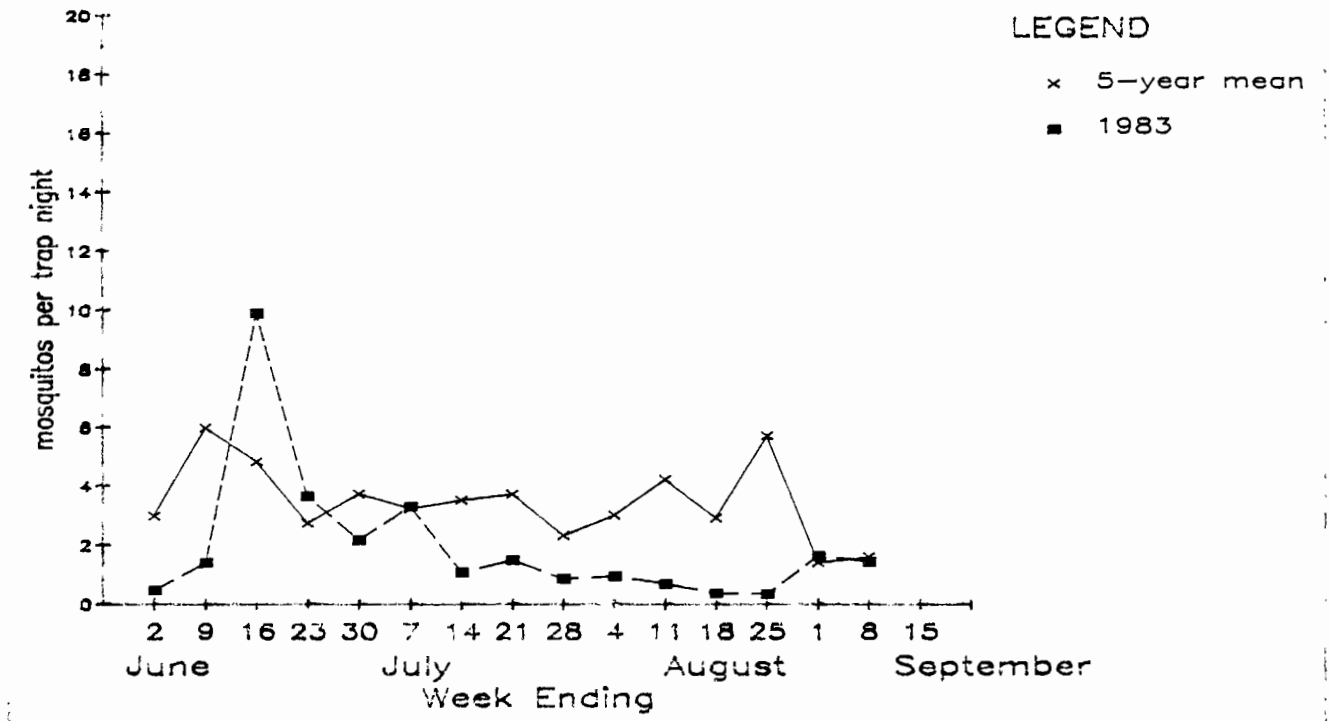
Region A
North Rural

Aedes vexans



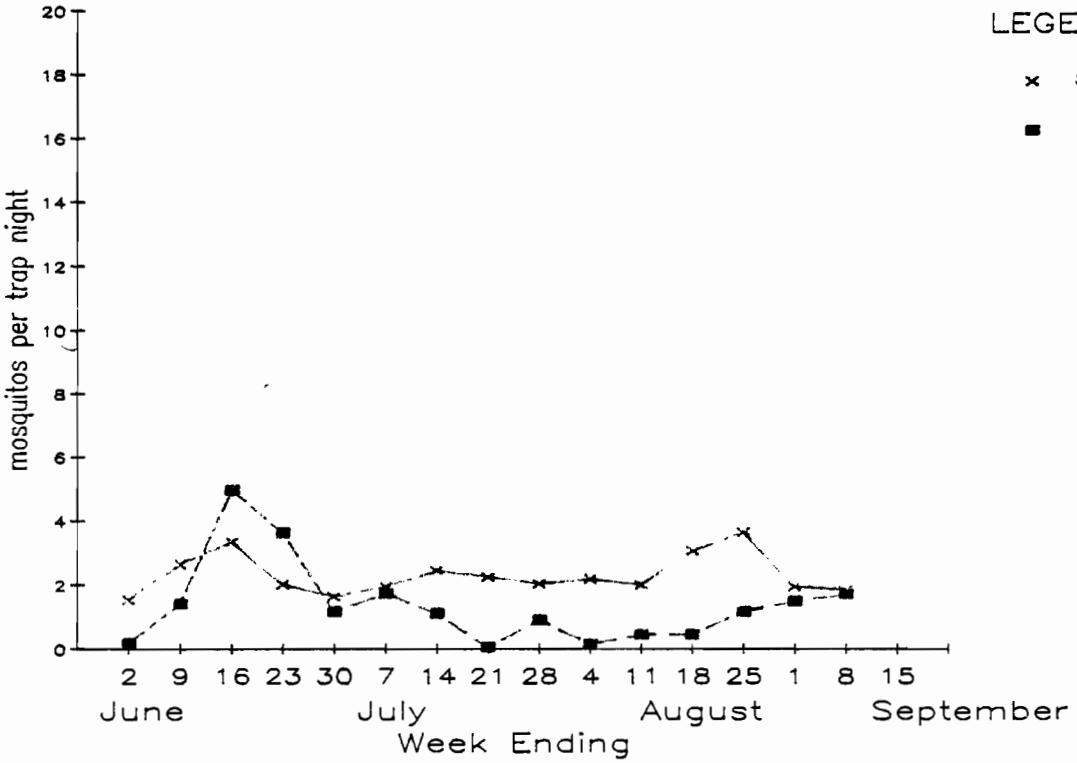
Region B
Passaic Valley

Aedes vexans



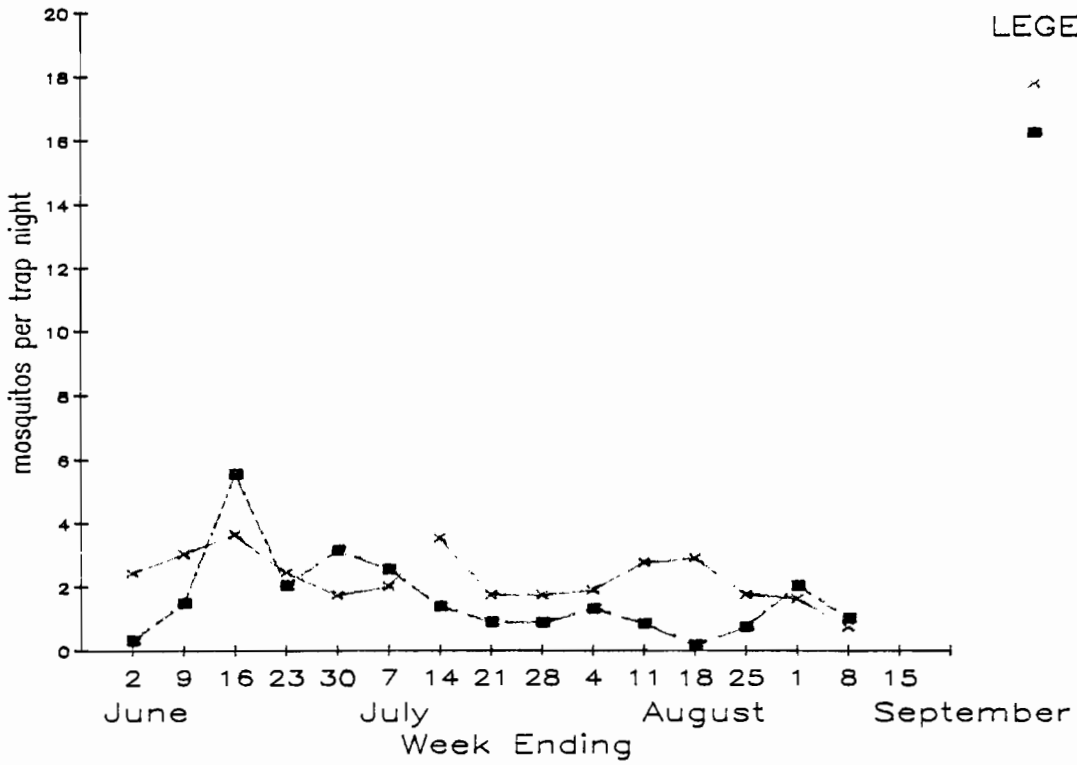
Region C
Central Rural

Aedes vexans



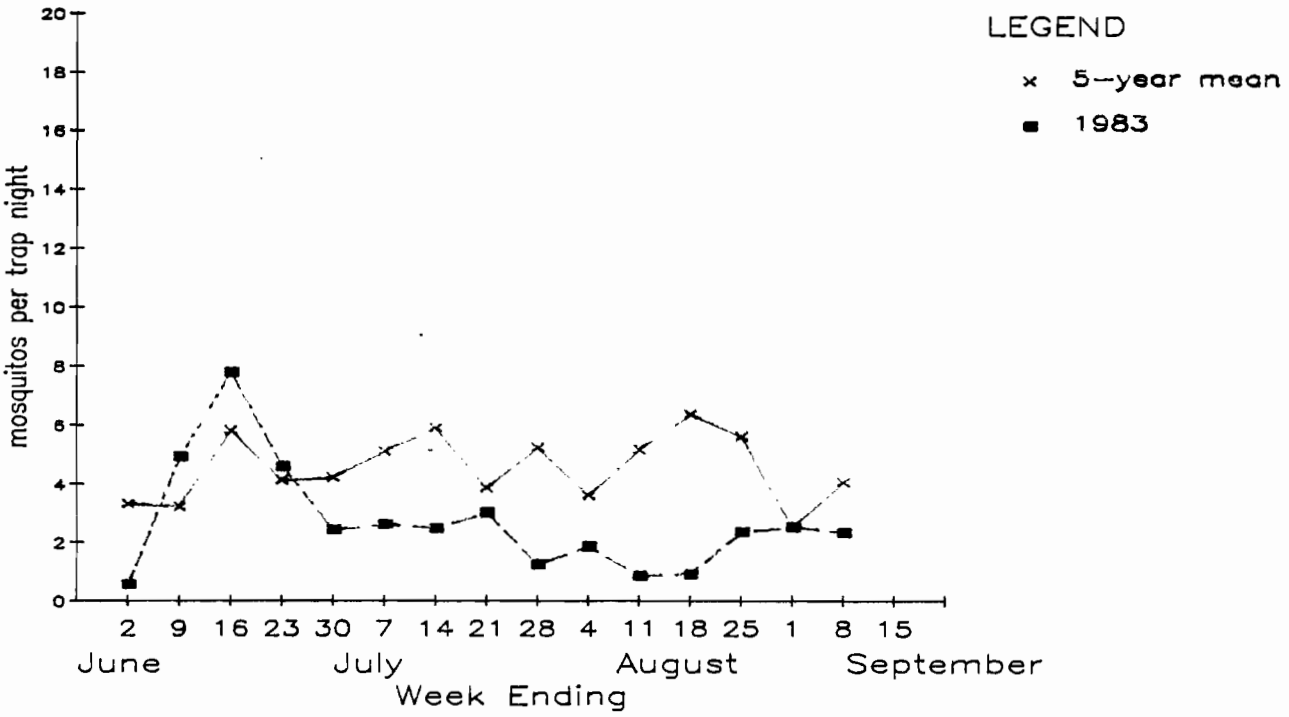
Region D
North Urban

Aedes vexans



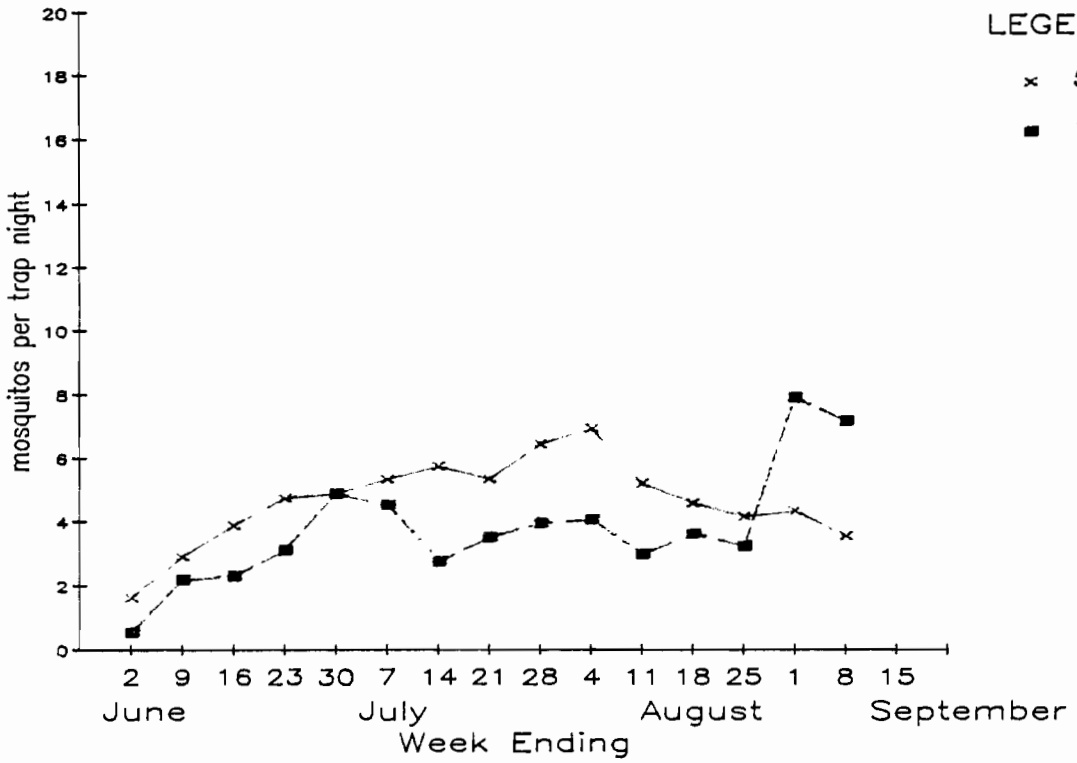
Region E
South Urban

Aedes vexans



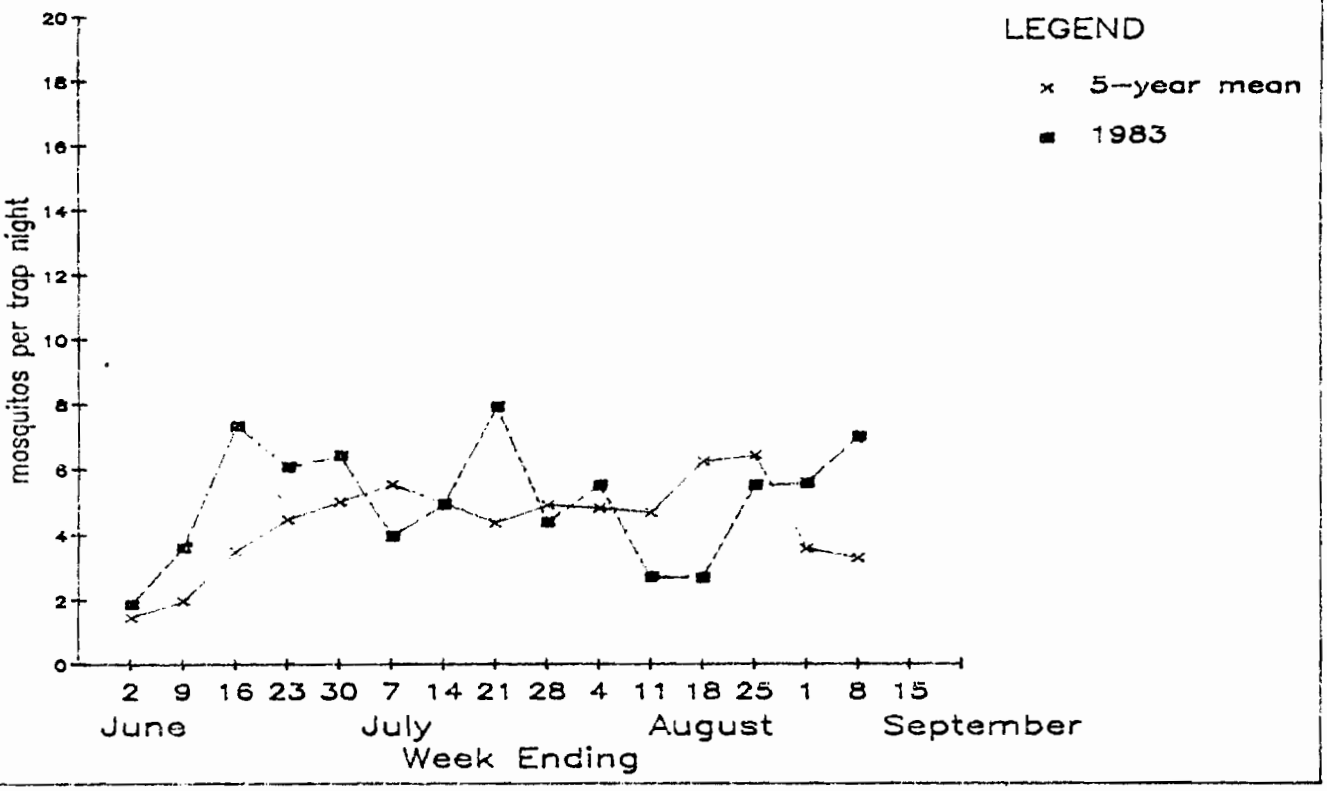
Region D
North Urban

Culex



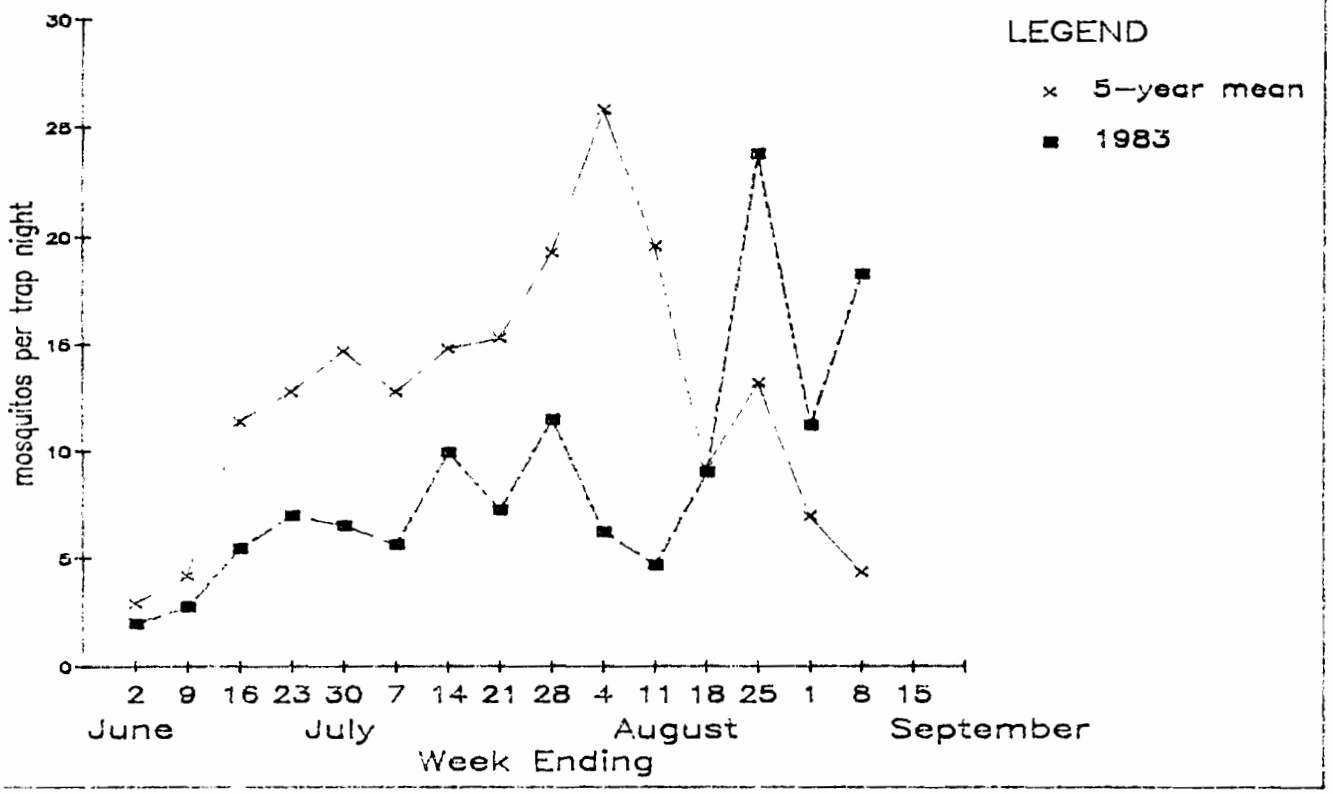
Region E
South Urban

Culex



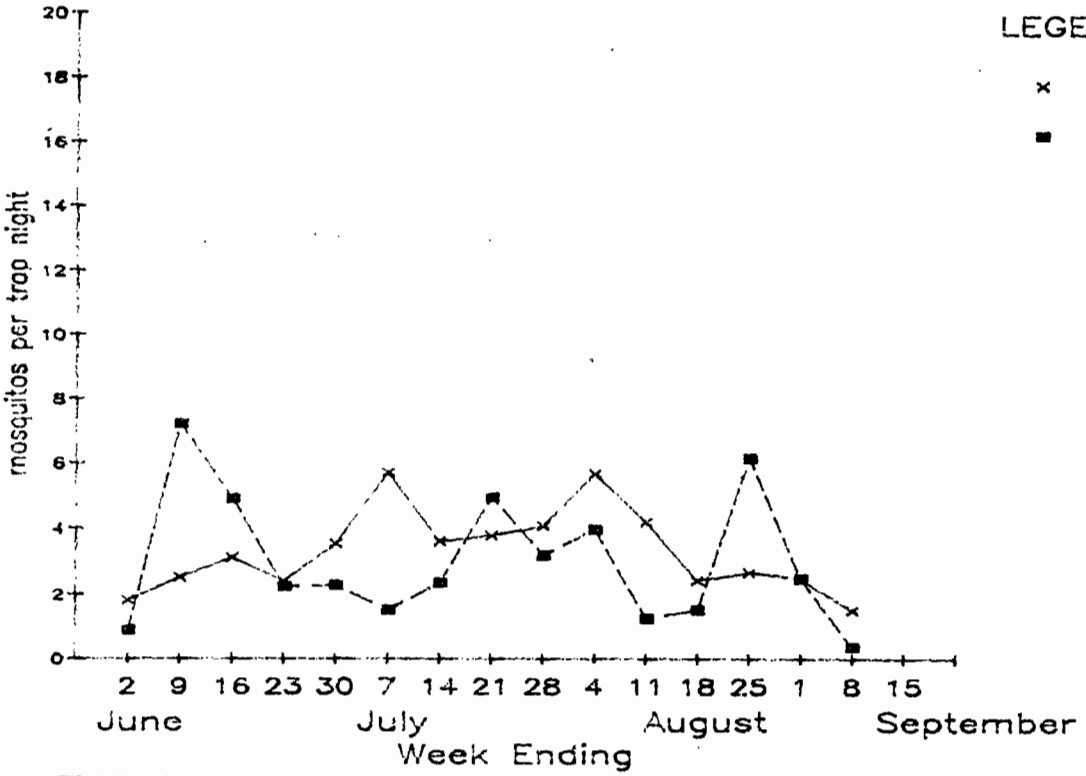
Region H
Delaware Bay

Culex



Region G
Atlantic Coast

Aedes sollicitans



Region H
Delaware Bay

Aedes sollicitans