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Seasonal Abundance of Some Mosquito Species in Israel During a Survey 1965 - 8*

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During a mosquito survey in Israel in the years 1965 - 68, 95, 000 adult mosquitoes were caught. Data of monthly catches of the three most prevalent species Culex pipiens molestus Forskal, Culex univittatus Theobald and Anopheles coustani Laveran in 1966 have been reported elsewhere (Nir et al. 1968). However, data on the seasonal abundance of other species were also obtained and are given here.

The mosquitoes were caught by means of miniature light traps (Sudia & Chamberlain 1962) with dry ice (Newhouse et al. 1968). In each locality six traps were suspended at a height of 11/2 meters from sunset to dawn once every month throughout the year. Mosquitoes were identified under light carbon dioxide anesthesia on the day of the catch.

The collection sites were: Nahal Soreq near Palmahim in the Southern Coastal Plain, Gan Shmuel in the Central Plain, Kefar Masaryk in Emek Zevulun, the Hula Nature Reserve, and Ne'ot Hakikar in the Dead Sea Area. The last locality was visited only from March till October.

The Table shows average monthly catches of the various species in the different localities for the 4-year period. While Culex p. molestus, C. univittatus and An. coustani comprised 93% of all the mosquitoes identified, data were also obtained on the seasonal abundance of the less common species. Culex theileri Theobald,

Aedes detritus (Haliday) and Culiseta annulata (Schrank) occur in Israel mainly in winter. Mansonia richiardii (Ficalbi) found only at the Hula Nature Reserve, Culex tritaeniorhynchus Giles and Uranotaenia unguiculata Edward occur mainly during the warmer months. Aedes caspius (Pallas) and Culiseta longioreolata (Macquart) are prevalent throughout the year, but since these species do not enter light traps easily, they cannot be studied by this method.

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Table I. Number of mosquitoes collected per visit according to species, locality and month

| Month | <u>Culex pipiens molestus</u> | <u>Culex theileri</u> | | <u>Culex tritaeniorhynchus</u> | <u>Culex univittatus</u> | <u>Aedes caspius</u> | <u>Aedes detritus</u> | |
|-------|-------------------------------|-----------------------|------------|--------------------------------|--------------------------|---|-----------------------|--------------|
| | Total of all places | Kefar Masaryk | Gan Shmuel | Hula | Total of all places | Total of Masaryk, Gan Shmuel, Nahal Soreq | Kefar Masaryk | Neot HaKikar |
| Jan | 220 | 14 | 1 | 0 | 7 | 5 | 19 | - |
| Feb | 64 | - | 0 | 0 | 4 | 5 | - | - |
| Mar | 594 | 14 | 15 | 0 | 67 | 115 | 91 | 58 |
| Apr | 2167 | 6 | 1 | 1 | 19 | 64 | 292 | 83 |
| May | 4465 | 3 | 1 | 117 | 469 | 144 | 0 | 0 |
| June | 5118 | 7 | 0 | 303 | 350 | 575 | 0 | 0 |
| July | 1949 | 0 | 0 | 843 | 891 | 33 | 0 | 0 |
| Aug | 1014 | 0 | 0 | 253 | 514 | 294 | 0 | 0 |
| Sept | 2890 | 1 | 0 | 12 | 885 | 114 | 0 | 0 |
| Oct | 1579 | 8 | 0 | 9 | 425 | 44 | 0 | 0 |
| Nov | 459 | 24 | 7 | 0 | 40 | 16 | 2 | - |
| Dec | 498 | 79 | 0 | 0 | 17 | 41 | 53 | - |
| Total | 21,017 | 156 | 26 | 1638 | 3678 | 1450 | 457 | 141 |

| Month | <u>Culiseta annulata</u> | | <u>Uranotaenia unguiculata</u> | | <u>Mansonia richiardii</u> | <u>Anopheles algeriensis</u> | <u>Anopheles coustani</u> | |
|-------|---|------|--------------------------------|------|----------------------------|------------------------------|---------------------------|------|
| | Total of Masaryk, Gan Shmuel, Nahal Soreq | Hula | Gan Shmuel | Hula | Hula | Hula | Masaryk | Hula |
| Jan | 6 | - | 0 | - | - | - | 0 | - |
| Feb | 0 | 3 | 2 | 2 | 0 | 2 | - | 227 |
| Mar | 5 | 10 | 0 | 0 | 0 | 45 | - | 168 |
| Apr | 12 | 7 | 27 | 28 | 0 | 8 | 18 | 21 |
| May | 5 | 41 | 46 | 16 | 42 | 21 | 12 | 720 |
| June | 0 | 3 | 39 | 58 | 17 | 1 | 3 | 305 |
| July | 0 | 0 | 95 | 16 | 11 | 0 | 49 | 867 |
| Aug | 0 | 4 | 136 | 13 | 7 | 0 | 9 | 1019 |
| Sept | 0 | 3 | 137 | 14 | 0 | 0 | 12 | 301 |
| Oct | 0 | 2 | 7 | 15 | 1 | 1 | 21 | 405 |
| Nov | 2 | 3 | 0 | 0 | 0 | 1 | 1 | 285 |
| Dec | 3 | 14 | 0 | 0 | 0 | 0 | 0 | 251 |
| Total | 33 | 100 | 489 | 162 | 78 | 79 | 125 | 4569 |

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