ples from 30% of the sites were collected and analyzed in the laboratory. Crustacea were observed in 85% of these samples. Among the Crustacea identified were copepods, ostracods, amphipods, and cladocerans.

Tables 1 and 2 show the data obtained in this study arranged in two 2 x 2 contingency tables. These were analyzed to determine whether or not each insecticide had a significant effect on the occurrence of Crustacea when compared to controls. The table comparing chlorpyrifos and untreated sites had an X^2 value of 10.3 while the table comparing temephos and untreated sites had an X^2 value of 3.0. (X^2 is the usual Pearson Chi square statistic defined as $X^2 = \sum_{\text{all cells}} \frac{(O-E)^2}{E}$ where O stands for observed cell count and E stands for expected cell count.) Since the tables are correlated these X^2 values should be compared to $\chi^2(1, \alpha/2)$ (Morrison 1976, p33). Thus, for an $\alpha = .05$ level of significance χ^2 (1,05/2) = 5.02. The probabilities of these values occurring by chance, assuming that the treatments had no influence on occurrence of Crustacea, are $p < .01$ and $p < .15$ respectively. This is strong evidence that chlorpyrifos has some effect on the occurrence of Crustacea while there is little evidence that temephos affects the occurrence of Crustacea in the Metropolitan Mosquito Control District.

The results of this study are in general agreement with other laboratory and field experiments conducted with chlorpyrifos and temephos (Rubber and Baskar 1968, Cooney and Pickard 1974). It should be noted that only occurrence and not numbers of organisms was analyzed in the present study.

The authors wish to thank Sandra Brogren for her help in the laboratory identification of Crustacea.

Table 1. Comparison of the occurrence of Crustacea in chlorpyrifos treated and untreated Type I sites.

Crustacea	Chlorpyrifos	Untreated
Present	28	42
Absent	20	6
Total	48	48

Table 2. Comparison of the occurrence of Crustacea in temephos treated and untreated Type I sites.

Crustacea	Temephos	Untreated
Present	20	42
Absent	8	6
Total	28	48

Table 3. 95% confidence bounds for the probability of occurrence of crustacea in Type I sites

Treatment	Lower bound	Probability of occurrence	Upper bound
Chlorphyrifos	.42	.58	.72
Temephos	.52	.71	.86
Untreated	.76	.88	.95

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A GYNANDROMORPH OF *CULISETA MELANURA*

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One *Culiseta melanura* (Coquillett) collected from Toad Harbor Swamp, West Monroe, New York on July 17, 1977 had antennae of a male and genitalia of a female (Figure 1). Also, the left palpus was typical of a male and the right of a female. During the seven years 1971 through 1977 numerous *Cs. melanura* were collected from this area and no other aberrant adults were found. June 1977, however, was the hottest and driest June of the 7 years investigated,

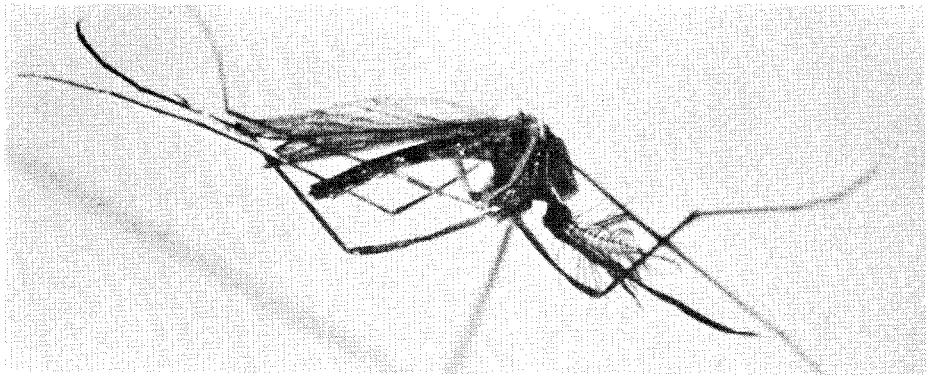

Fig. 1. A gynandromorph of *Culiseta melanura*.

and preceeded the collection of this specimen by 6 weeks. This raised the question of whether this phenotype was brought on by environmental stress of the larva (Horsfall and Anderson 1961) or was the expression of a genotype determined independently of the elevated environmental temperatures.

A gynandromorph is a phenotypic expression of a genotype with distinct male and female organs while an intersex, resulting in part or totally from environmental stress, has organs with sexual intergrades (Mayr 1969). In the *Cs. melanura* described above, the antennae, palpae and genitalia were distinctly male or female, and therefore a gynandromorph rather than an intersex is implied. This is the first published report of an abnormal *Cs. melanura*.

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SOME BENEFITS OF PUBLIC PARTICIPATION

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There are many occasions during the mosquito season when individuals have enough mosquitoes at a nuisance level during the evening hours, and still at midday there are not enough mosquitoes located to justify spraying. In order to reduce overtime (inspection during evening hours) the Jackson County Vector Control District started requesting mosquitoes in a container from individuals who requested service.

As these mosquitoes were collected the number, species, and location were recorded. The species would indicate the type of habitat where the mosquitoes originated, which would indicate to the operator what to look for when searching for the source area. Individuals who took the time and effort to collect mosquitoes in a container were given a high priority. Their calls were returned informing them what and where the mosquito source was, and what action the district would be taking to alleviate the problem.

The policy of requesting the public to collect mosquitoes, and put them in a container saves man hours, makes possible the identification of species, and provides evidence of number of mosquitoes. The policy of informing the person requesting service about the species captured