

AEDES AEGYPTI IN NEW JERSEY

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Aedes aegypti (Linn.) is a mosquito found throughout most of the tropical and subtropical regions of the world (Carpenter and LaCasse 1955). In the United States, its distribution extends from the southeastern states of Georgia and Florida, west to Texas. Also, an extreme northern range exists from Kansas east to Maryland, with a documented report in southern New York state (Bell and Benach 1973, Darsie and Ward 1981).

On July 1, 1991, one female *Ae. aegypti* was discovered in our N.J. light trap collection box. The trap is located at the Stirling Sewer Plant in Stirling, NJ (40° 40' 30" N). Small numbers of *Ae. aegypti*, both females and males, kept appearing in the light trap collections through July. Although some larval collections were made at the plant in late July, this species was not found among them. It was not until August 8, that *Ae. aegypti* turned up both in landing counts and dipping samples. The adults were located within the buildings at the plant as well as outside. The larvae and pupae were taken from a tarpaulin and numerous discarded tires. Adult control included a one time ULV treatment with malathion on the plant's property. The material was applied at the rate of 88 ml per min, at a vehicle speed of 16 km/h, using a Leco machine mounted on a pickup truck. The total amount of malathion applied was 440 ml. Along with the ULV treatment, larvae and pupae were controlled with Flit. Flit was applied with a spray can to the discarded tires that were in the area. The total amount of Flit used was less than 147 ml. Surveillance of *Ae. aegypti* continued through August and into September with a final tally of 155 females and 80 males.

Although *Ae. aegypti* has been reported as far north as Boston 42° 27' N, as well as in New York 45° 52' N (Chandler 1945), its occurrence has been sporadic and never permanent in these

latitudes (Christophers 1960). Being so close to these latitudes it was not surprising that after returning to the plant the following summer and sampling previous breeding sites, no *Ae. aegypti* were to be found. Therefore, it is concluded that this encounter was the result of an out-of-state introduction to the site. This conclusion seems valid because the sewer plant had been undergoing major construction at the time and trucks from the south (Alabama) were bringing in materials. Adults or eggs could have been transported this way.

Specimens have been deposited in the collection of the New Jersey Agricultural Experiment Station, New Brunswick, New Jersey. The addition of *Ae. aegypti* to the New Jersey check list brings to 62 the number of confirmed mosquito species (McNelly 1989).

I wish to thank Linda McCuiston from the N.J. Agricultural Experiment Station for confirming the identification of this species.

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