

FILAROID NEMATODES IN FIELD-COLLECTED MOSQUITOES IN MARYLAND¹

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While investigating transmission of *Dirofilaria immitis* (Leidy) by mosquitoes during the past few years many mosquitoes have been collected with CDC traps at a hunt club near Upper Marlboro, Maryland where the incidence of dog heartworm disease was known to be high (Mallack et al. 1971). Females were dissected and examined for the presence of filariae in various parts of the body. The number of specimens dissected is given after the name of each species as follows: *Anopheles crucians* Wiedemann (5), *An. punctipennis* (Say) (54), *An. quadrimaculatus* Say (3), *An. walkeri* Theobald (8), *Aedes vexans* (Meigen) (20), *Culex pipiens pipiens* Linnaeus (45), *C. salinarius* Coquillett (142), *Coquillettidia perturbans* (Walker) (35), *Psorophora fonninis* (Lynch Arribáizaga) (10), and *P. ferox* (Humboldt) (2). The following were found to be positive for the presence of filaroid nematodes in the sausage stage in the Malpighian tubules or in a more advanced (infective) stage in the head and/or mouthparts: *Anopheles punctipennis* (1 specimen), *Aedes vexans* (1 specimen), and *Culex salinarius* (2 specimens). The parasites observed were believed to be *D. immitis*, but the precise identification of the immature stages of filariae is not easily accomplished (Nelson 1959). The occurrence of complete larval development of *D. immitis* in these 3 mosquito species has been reported previously (Ludlam et al. (1970)).

References Cited

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RESIDUAL EFFECTIVENESS OF FOUR NEW INSECTICIDES AGAINST ADULT MOSQUITOES¹

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We previously reported on the residual effectiveness of new synthetic pyrethroids for the control of mosquitoes (Haskins et al. 1974). We have continued to evaluate new materials for insecticidal activity, in an attempt to find biodegradable compounds as replacements for non-effective and non-degradable insecticides now in use for residual treatments. This paper compares the residual toxicity of resmethrin (standard), 1 new synthetic pyrethroid, and 2 new organophosphate compounds against mosquitoes.

Resmethrin⁴ [(5-benzyl-3-furyl)methyl *cis*, *trans*-(±)-2,2-dimethyl-3-(2-methylpropenyl)cyclopropanecarboxylate] and NRDC-147⁵ [*m*-phenoxybenzyl *trans*-(+)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate] were the 2 pyrethroid compounds evaluated. San I 197⁶ [O-(6-ethoxy-2-ethyl-4-pyrimidinyl)O,O-dimethyl phosphorothioate] and San I 201⁶ [O-(6-ethoxy-2-(1-methylethyl)-4-pyrimidinyl) O,O-dimethyl phosphorothioate] were the 2 organophosphate compounds evaluated.

Studies to determine the residual life of the compounds were conducted using 929.03 cm² (1 ft²) canvas tent panels. The panels were treated at the rate of 1 g actual chemical per m², using a 2.0% concentration of insecticide formulated directly in Freon 11 and 12 (1:1). Application was accomplished with aerosol cans fitted with fine spray valves. After treatment, the panels were maintained in a controlled, dark environment with a temperature of 101° F and a relative humidity of 84%.

A minimum of 20 DDT-susceptible adult fe-

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