Thesis Title Isoenzyme Electrophoresis and Morphological Identifications of Anthropophilic *Aedes (Finlaya) niveus* Sub-group in a Filariasis Endemic Area of Thailand

Name Chaiyaphruk Pilakasiri

Degree Doctor of Philosophy (Biology)

Thesis Supervisory Committee

Suchart Upatham, Ph.D.

Visut Baimai, Ph.D.

Prasert Sobhon, Ph.D.

Vithoon Viyanant, Ph.D.

Ronald Rosenberg, Sc.D.

Date of Graduation 15 October B.E. 2535 (1992)

ABSTRACT

Polyacrylamide gel electrophoresis of isoenzymes employing malic enzyme, isocitrate dehydrogenase and glucosephosphate isomerase systems was used to study isoenzyme variations in F_1 progeny of the wild-caught populations of *Ae. (Fin.) niveus* sub-group in filariasis endemic areas of Thailand. The combination of the electromorphs of three enzyme systems indicated the sympatric occurrence of homozygotes and the deficiencies of heterozygotes. There was an indication of the possible presence of two isomorphic species within the taxon *Aedes (Finlaya) harinasutai*. Scanning electron microscope study also revealed a new distinct form of the aedeagal spicules of phallosome.