

Mosquito Fauna of Thailand

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OBJECTIVE: To collect, identify, catalogue and redescribe the mosquito species of Thailand. Information is also gathered on the distribution, larval habitats and other aspects of the bionomics of various species. The eventual goal is the production of monographs on the mosquitoes of the area, together with keys, handbooks and other identification aids, for use of workers in public health and associated fields.

DESCRIPTION: Mosquitoes are collected from many areas of Thailand in connection with various studies on malaria and other arthropod-borne diseases. Additional collections of a specialized nature are made to obtain a correlated series of larvae, pupae and adults for illustration and taxonomic studies. The majority of this material is shipped to the Smithsonian Institution for study by specialists in the Southeast Asia Mosquito Project (SEAMP).

PROGRESS: During the year 765 mosquito collections were made in three provinces of Thailand. The majority of the collections were made in Chiangmai province. These collections resulted in 5475 pinned adults, 6553 slide mounts of larvae, larval and pupal skins, 55 slide mounts of terminalia and 100 buccopharyngeal slide mounts. Results of the mosquito collections made during this period are given in detail in the following sections.

Anopheles: Collections of Anopheles nivipes and Anopheles philippinensis were made from Chiangmai and Choburi provinces. Siblings from females tentatively identified as either An. nivipes or An. philippinensis were found to be all An. nivipes. Thus, it appears probable that only An. nivipes occurs in Thailand.

Aedes: Taxonomic studies on this genus were concentrated during the period on species of the subgenus Stegomyia which contains such important vector species as Aedes aegypti, A. albopictus and A. scutellaris. The majority of the collections of Aedes (Stegomyia) were larval stages—both from natural habitats and water-filled bamboo oviposition cups set out at collection sites. Seven closely related species of Stegomyia including A. annandalei, A. craggi, A. desmotes, A. pseudalbopictus, A. gardnerii imitator, A. mediopunctatus, and A. patriciae were collected and the progeny reared in an effort to clarify the taxonomy of these species. Laboratory colonies of A. annandalei, A. craggi, A. pseudalbopictus, A. gardnerii imitator, and A. mediopunctatus have been established.

Culex: During this period study of the subgenus Culex was continued as part of a larger study on Japanese encephalitis in Chiangmai province. Data on the larval habitats of the 10 species of Culex (Culex) occurring in the Chiangmai area were collected. Culex annulus, C. pseudovishnui and C. tritaeniorhynchus were the three most common species of the subgroup collected.

SUMMARY: Taxonomic studies on mosquitoes belonging to the genera Anopheles, Aedes and Culex in Thailand were emphasized during this period. Laboratory colonies of five species of Stegomyia from Thailand were established. Data on the larval habitats of Culex species of Chiangmai province were collected in connection with studies of the ecology of Japanese encephalitis in Northern Thailand.

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