

Studies of New Experimental Intermediate and Paratenic Hosts and Modes of Transmission
of *Gnathostoma spinigerum* and *G. hispidum*

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OBJECTIVE: To continue study on locating new experimental host animals susceptible to *Gnathostoma spinigerum* and *G. hispidum* as reported in the Annual Progress Report, April 1971 to March 1972.

DESCRIPTION: Young as well as adult fresh water prawns (*Macrobrachium rosebergi*, De Mann) were obtained from the Chao Phraya river, ponds in and around the Bangkok area, and from the experimental shrimp farm of Department of Fisheries, for testing as possible intermediate and/or paratenic hosts of *G. spinigerum*. One hundred young shrimp and approximately 20,000 *G. spinigerum* newly hatched first stage larvae were placed together in a two liter glass beaker containing about 1.8 liters of fresh water. In addition 100 young shrimp were placed in another 2 liter glass beaker with 1000 *G. spinigerum* fully developed larvae (early third stage) in cyclops.

To test the possibility of fresh water shrimp and prawns being a paratenic host, advanced third stage *G. spinigerum* larvae obtained from experimentally infected laboratory white mice will be used to attempt infection. Adult shrimp and prawns are being kept in laboratory aquaria for a period of time to familiarize them with the laboratory environment and food before commencing the experiment. In order to determine the possible presence of natural infection, 100 young shrimp and 5 adult shrimp and prawns, obtained from the same source as the experimental crayfish, were autopsied for the presence of gnathostomes. The study on *G. hispidum* was not done during this reporting period because of time limitation.

PROGRESS: The experiments are still in progress. The result of autopsies to date to determine natural infection of shrimp and prawns with gnathostomes is negative.