

**STUDIES ON THE BIOLOGICAL CONTROL OF COCKROACH USING THE EGG PARASITE,
TETRASTICHUS HAGENOWII (HYMENOPTERA, EULOPHIDAE).**

P. Gamalath and D. Manawadu

(Dept. of Biological Sciences, Sri Jayawardenapura University, Nugegoda.)

Tetrastichus hagenowii (Ratz.) (Hymenoptera, Eulophidae) is an egg parasite in oothecae of the 3 common sp. of cockroach; *Periplaneta americana*; *P. anstrolasiae*, F., and *Blatta orientalis*, L. (Usman, 1949).

A study was carried out to find out the percentage of natural parasitism of *T. hagenowii* in the field in Sri Lanka. The survey indicated two slightly different levels of parasitism over the 13 month period (occurring from Nov. to April and from May to October). These are also the periods of the year in which fluctuations in the oothecal density was observed in the laboratory cultures.

Progressive parasitization of cockroach oothecae by the parasite was studied by releasing the parasite at six stations at regular intervals. Single and multiple releases of the parasite was carried out using five different techniques, from which the most effective method of release was determined.

The best method was found to be the release of 100-250 parasites (10:20) once a week over a period of 5 weeks.

A single release of female parasites in varying numbers in relation to the numbers of oothecae present indicated that at least 20 times as many female parasites as the number of oothecae have to be released for the proper establishment of the parasite.

References:

1. Usman, S. (1949) *Curr Sci*; 11, 407

The author wish to thank Professor A. C. J. Weerakoon for the encouragement and facilities given and to Dr. W. E. Ratnayake for helpful discussions.

This work was supported by the National Science Council on Research Grant No. PG/77/13