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YUDTHANA SAMUNG: A BIOLOGICAL STUDY OF *PACHYCREPOIDEUS VINDEMMIAE* (RONDANI), A HYMENOPTEROUS PARASITOID OF MEDICAL IMPORTANCE. THESIS ADVISORS: SOMKIET VONGTANGSAWAD, Dr.P.H., JIRASAK ROJANAPREMSUK, Dr.P.H., CHAMNARN APIWATHNASORN, M.T.H., 80 p. ISBN 974-664-787-3

The biology of a hymenopteran parasitoid, *Pachycrepoideus vindemmiae* Rondani, and its efficiency in the control of flies of medical importance was investigated in the laboratory.

The life cycle study revealed that *Pachycrepoideus vindemmiae,* when developed in house fly puparia, the eggs, the first, second, third, fourth and fifth instar larvae, and prepupa and pupal stages lasted 1-2, 1-2, 2-3, 1-2, 2-3, 3-4, 1-2 and 9-12 days respectively. The average developmental period from egg to adult emergence was 20.35 ± 1.43 days for males and 21.30 ± 1.16 days for females. The characteristics of each developmental stage of the parasitoid were also described in this study.

Adult longevity, when reared with 10% sugar solution, averaged 13.63 ± 4.06 days in males and 18.22 ± 2.93 in females. The mean fecundity was 112.18 ± 25.24 offspring per female. The sex ratio, female per male, of offspring produced by mated females was 1.58:1, while only males were obtained from unmated females. The parasitism rate in *Musca domestica* was 75.12 ± 10.97%.

Regarding the host preference in the laboratory *Musca domestica* was preferred most, followed by *Chrysomya megacephala* and *Parasarcophaga orchidae,* respectively.