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A study on the biological characteristics of *Telenomus acrobates* (Hym.: Scelionidae), an egg parasitoid of *Chrysoperla carnea* (Neu.: Chrysopidae)

A. A. TALEBI*, S. SHAHPOURI ARANI, Y. FATHIPOUR and S. MOHARRAMIPOUR

Tarbiat Modarres University, Tehran

ABSTRACT

In this research morphology and some biological and behavioral characteristics of the parasitoid wasp, *Telenomus acrobates* Giard (Hym.: Scelionidae) as an egg parasitoid of *Chrysoperla carnea* (Steph.) (Neu.: Chrysopidae) were studied. Experiments were conducted in a growth chamber at constant temperature of 25 ± 0.5 ºC and 65 ± 5 % relative humidity with a 16:8 h (L:D) photoperiod. The results indicated that mean developmental time of female and male wasps were 11.54 ± 0.054 and 11.41 ± 0.027 days, respectively. The adult longevity of *T. acrobates* was 26.92 ± 1.59, 16.75 ± 0.69 and 1.04 ± 0.05 days in female and 12.77 ± 1.27, 6.5 ± 0.62 and 1.01 ± 0.04 day in male in three conditions with food, host egg and food, and without host egg and food respectively. In the host preference experiment, it was found that *T. acrobates* prefers one and two-day old eggs to three-day old ones. The functional response of *T. acrobates* was of type II. The handling time and searching efficiency estimated 0.059 and 1.675 respectively and the maximum parasitism showed to be 14.33. The seasonal egg parasitism of *C. carnea* was studied from May to September 2002. The percentage of parasitism and the percentage of female wasp to the whole collected eggs were 52.93 and 64.9 respectively.

Key words: *Telenomus acrobates*, *Chrysoperla carnea*, Functional response, Host preference, seasonal parasitism

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* Corresponding author: Talebia@modares.ac.ir

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Address of the authors: A. A. TALEBI, S. SHAHPOURI ARANI, Y. FATHIPOUR and S. MOHARRAMIPOUR, Dept. of Entomology, College of Agriculture, Tarbiat Modarres University, P. O. Box 14115-336, Tehran, Iran.