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BIOLOGICAL STUDIES ON *DICYPHUS TAMANINII* WAGNER (HETEROPTERA: MIRIDAE) AS A PREDATOR OF *APHIS GOSSYPHII* GLOVER. Azzam Saleh, Cetin Sengonca. Dept. of Entomology and Plant Protection, Institute of Phytopathology, University of Bonn, Nussallee 9, D-53115 Bonn, Germany. Tel. 0049-228-732939, Fax. 0049-228-739040, E-mail: a.saleh@uni-bonn.de

The cotton aphid *Aphis gossypii* GLOVER (Homoptera: Aphididae) is a polyphagous pest attacking a wide range of field and greenhouse grown crops and ornamental plants throughout the world. In Germany, it was reported that *A. gossypii* is a serious pest on greenhouse-growing crops since late 1980s. *A. gossypii* was able to develop resistance to many insecticides used to control it, including Pirimicarb, the selective insecticide which has been usually used in IPM in greenhouses. This has stressed the need to develop a suitable biological control program of *A. gossypii* in greenhouses. One promising natural enemy of *A. gossypii* seems to be the predatory bug *D. tamaninii* WAGNER (Heteroptera: Miridae). The goal of the present work was to investigate the biological features of *D. tamaninii* in the laboratory with *A. gossypii* on cucumber leaves as a prey. All experiments were conducted at two different constant temperatures of $18\pm 1^{\circ}\text{C}$ and $30\pm 1^{\circ}\text{C}$, $60\pm 10\%$ RH and a photoperiod of 16:8 (L:D).

Results revealed considerable variations in the biological features of *D. tamaninii* in relation to temperature, however, *D. tamaninii* developed fully on *A. gossypii* at both temperatures tested. The mean total developmental time from oviposition to adult eclosion was significantly longer at 18°C than 30°C , where it was 67 and 30 days at both temperatures, respectively. The egg stage required a relatively long developmental time of 22.5 (18°C) and 9.6 (30°C) days. Between the five nymphal instars of *D. tamaninii*, the last one lasted longest with a mean of 13.5 (18°C) and 6.5 (30°C) days. Nymphal mortality was considerably higher in the first two nymphal instars and valued 11% (18°C) and 30% (30°C). Feeding activity of *D. tamaninii* increased continuously during development and reached a mean of 22, 39 killed *A. gossypii* per day for N₅ nymph and 23, 42 for adult females at 18°C and 30°C , respectively. At both temperatures, the predatory efficiency of females was significantly higher than males.