

Study of prey consumption of *Exochomus nigromaculatus*, feeding on *Aphis nerii*

A. R. Nazari, J. Hajizadeh and A. Sahragard

Islamic Azad Arak University, Arak 38135-567, Iran, and Guilan University, Rasht 1581-3538, Iran, Nazariazad@yahoo.com

Daily and total prey consumption of each stages of *Exochomus nigromaculatus* fed on 4th and 5th instars of *Aphis nerii* have been determined under four constant temperatures, 20, 25, 30 and 35 and $35(\pm 1) \text{ }^{\circ}\text{C}$ and $65 \pm 5\%$ R.D. and 14L:10D photoperiod. Feeding capacity of adults counted at 30 $^{\circ}\text{C}$. Mean daily consumption of each larval stage of coccinellid, was increased by rising constant temperature from 20 to 35 $^{\circ}\text{C}$. Result were revealed that this predator consume approximately equal preys at four temperature by rising constant temperatures. Total consumption of preys at 20 to 25, 30 and 35 $^{\circ}\text{C}$, were 447.8, 436.4, 425.3 and 406.4 respectively. In each case, the 4th instar larvae of predator were the most voracious stage that at constant temperatures of 20 to 25, 30 and 35 $^{\circ}\text{C}$, have 42.1, 48.6, 63.5 and 58.6% of total consumption. In fact, total prey consumption was increased by rising of temperature. Mean daily and total consumption of nymphal prey by coccinellids were 28.68 ± 1.69 and 2527.6 ± 324.12 respectively. Mean consumption of prey by adult coccinellid in first and second weeks increased. Maximum of feeding was 56.4 preys in fourth week.

Key words: *Exochomus nigromaculatus*, prey consumption