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Development, Survival and Reproduction of Three Coccinellids Feeding on Hyalopterus pruni (Geoffer) (Homoptera: Aphididae)

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Abstract: The development, survival and fecundity of three aphidophagus coccinellid species, Scymnus apetzi (Mulsant), Scymnus subvillosus (Goeze) and Exochomus nigromaculatus (Goeze), were studied under laboratory conditions (25 ± 1, 65 ± 5% RH and 16 L/8D). Development time from egg to adult was 20.4, 17.1 and 16.7 days for S. apetzi, S. subvillosus and E. nigromaculatus, respectively. Mortality rate from egg to adulthood was highest for S. apetzi (37.9%) followed by S. subvillosus (36.3%) and E. nigromaculatus (25.7%). Duration of the oviposition period was 58.6, 64.9 and 75.3 days, and the total number of eggs per female was 492.8, 224.9 and 428.5 for S. apetzi, S. subvillosus and E. nigromaculatus, respectively. According to the life table parameters, net reproduction rate per female (R_0), the intrins rate of increase (r_m), and mean generation time (T_0) were 137.5, 0,121 and 40.7 for S. apetzi; 69.9, 0.110 and 38.3 for S. subvillosus, and 157.2, 0.134 and 37.7 for E. nigromaculatus. The results obtained here provide information about the biology of three coccinellids that might be useful for the utilization of these predators in IPM programs against H. pruni.

Key Words: Scymnus apetzi, Scymnus subvillosus, Exochomus nigromaculatus

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