**Biology of *Papilio demoleus*(lemon butterfly) from Hyderabad, sindh, Pakistan**

Lubabatulkubra, Mansoor Ali shah, Nadir Ali shah, Nasreen Memon

Department of Zoology University of Sindh, Jamshoro, Pakistan

Lubaba.kubra@gmail.com

The study aimed to investigate the ecology and biology of lemon butterfly reared on leaves of lemon plant and to determine the degree of lemon butterfly to different citrus cultivators. The lemon butterfly *Papilio* demoleus (Lepidoptera : Papilionidae) also known as, Citrus butterfly and lemon butterfly is a major Pest of Citrus trees in the sindh Pakistan. The color of the first three larval instar ranged from black to dark brown with numerous pale yellow green spot; the forewings are long and narrow, cream with green longitudinal medium wedges. Both sexes are like but the female is larger than the male in size. The study aimed to investigate the ecology and biology of lemon butterfly reared on leaves of lemon plant and to determine the degree of lemon butterfly to different citrus cultivators. Field surveys were conducted during the course of this study at the Hyderabad district while the experiment were conducted at the Entomology insectary Laboratory Department of Zoology University of sindh Jamshoro. The development of the immature stages were followed under laboratory condition, (20 T0 28 0C and R.H 44-63%). Egg incubation period lasted for 4 to 5 days (average 4.2 ≠ 0.42) .Larval duration lasted for 17 to 19 days with an average of 8.2 ≠ 0.42 days. Pupal period ranged from 8 to 9 days average of 8.2 ≠ 0.42 days. The whole life cycle lasted for 29 to 32 days averaging 30.2 ≠ 1.032 days. The egg is small round in shape, pale yellow but turns to dark brown before hatching; it shows a red mark on the top. The result showed that, in the nurseries, the larvae of the lemon butterfly preferred lemon to orange and the later to grapefruit.