

BIOLOGICAL STUDIES ON GUNDHI BUG, *LEPTOCORISA ORATORIUS* (FABRICIUS) (HEMIPTERA: ALYDIDAE) UNDER ALLAHABAD, UTTAR PRADESH (UP), INDIA CONDITIONS

VIVIANE BAHARALLY¹ & SOBITA SIMON²

¹Entomologist, Rice Research Station (Guyana Rice Development Board), Burma, Mahaicony, Guyana, South America

²Professor, Department of Plant Protection, Allahabad School of Agriculture, Sam Higginbottom Institute of Agriculture,
Technology and Sciences (Formerly Allahabad Agricultural Institute, Deemed-to-be-University),
Allahabad, Uttar Pradesh, India

ABSTRACT

This study on the biology of *Leptocorisa oratorius* was carried out in the laboratory so as to understand and chronicle the life-cycle of this notorious insect pest. The number of days between each stage for incubation and nymphal development through to adults was recorded. Each stage was photographed in order to present a pictorial demonstration of the different life stages. It was observed that the incubation period had a range of 3 to 5 days. There were five nymphal stages where the insects molted between each stage. The number of days for each molt was recorded when the same number of exo-skeleton as the number of surviving nymphs present in each culture was observed. The number of days ranged from 3 – 4, 2 – 3, 2 – 4, 2 – 5 and 7 – 8 for 1st, 2nd, 3rd, 4th and 5th nymphal instars, respectively. The shortest period was observed for the 2nd instar (2 to 3 days), while the longest period was recorded for the 5th instar (7 to 8 days). The 1st, 3rd and 4th instars had an average range of about 3 days for each instar. As such, the total nymphal development period ranged from 16 to 22 days with an average of 19.2 ± 2.28 days. Consequently, the total developmental period from egg to adult ranged from 19 – 27 days with an average range of 23.2 ± 2.86 days. Images presented for each growth stage showed eggs were laid singly, in clusters or in a linear fashion, with the latter being the most common, especially under field conditions. The nymphs had green body with outstanding long black legs. Their antennae were brown with visible white bands. The 1st, 2nd and 3rd instar nymphs, especially the 1st instar, appear similar to ant-like creatures. Wing pads, although not very visible to the naked eye, appeared on the 3rd instar nymphs. This became more visible at the 4th and 5th instars but remained under developed. Well developed wings appeared after the final molt from the 5th instar nymph into adults. The adults were brownish-green in color with more brown on the dorsal side, especially the wings. The ventro-lateral dark dots on the abdomen became visible at this stage, which is a key morphological feature for this species as described earlier. Both the nymphs and adults were slender but the adults were slender and robust. The demonstration of all the stages of *L. oratorius* development should make this notorious pest easy to be identified and this knowledge can allow for timely and effective management, thus a reduction in the qualitative and quantitative losses on the yield of rice.

KEYWORDS: Leptocorisa Oratorius, Gundhi Bug, Life-Cycle, Rice