

RECORD OF NEW HOST PLANTS OF *OXYCARENUS LAETUS* KIRBY
(LYGAEIDAE : HETEROPTERA) WITH NOTES ON ITS
ECOLOGY FROM EASTERN INDIA.

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ABSTRACT

The dusky cotton bug, (*Oxycarenus laetus* Kirby) is reported from two new malvaceous host plants, *Hibiscus mutabilis* L. and *H. abelmoschus* L. Short ecological notes on the mode of infestation of the capsules of *H. abelmoschus* primarily by a noctuid moth and then by *O. laetus* in the winter season of Eastern India are provided.

Maxwell-Lefroy (1906, 1907, 1909) first reported the dusky cotton bug, *Oxycarenus laetus* Kirby as a minor pest of cotton and described its habitat and nymphal instars. It is reported from almost all the cotton cultivating regions of India (Khan and Rao, 1960). Observation on its life history (Misra, 1921 ; Pillai, 1921 ; Fletcher, 1922), morphology (Prasad, 1956), feeding behaviour (Thangavelu, 1978a), host plant and factors influencing host specificity (Thangavelu, 1978 b) and population dynamics in relation to climatic variation (Thangavelu, 1978 c) are well documented.

Cotton is not conventionally cultivated in Eastern India, therefore the occurrence of the dusky cotton bug and its host plants from this region are of some interest. Capsules of *Hibiscus mutabilis* L. containing dry seeds were found heavily infested during the winter months, November and December at Saharanpur and adjoining areas of Uttar Pradesh (North India). A heavy infestation of the adults and nymphs were also noticed in feeding and breeding condition on the capsule bearing stalks, stored for use as fire wood.

In Eastern India, particularly in southern West Bengal *O. laetus* was recorded at a low incidence on the capsules of *Sida rhombifolia* L. which appears to be one of the alternative host plants in this region, however *Hibiscus abelmoschus* L. (Mushkdana), the seed of which are used as flavouring agent and medicine, appears to be the most favoured host plant. Besides infestation of the ripe seeds of the dehisced capsules of *H. abelmoschus* the undehisced capsules are also attacked, particularly when caterpillars of the noctuid moth, *Earias fabia* Stoll bore through the capsular wall and thereby leaving the passage for the dusky cotton bug to infest. Once inside the capsule bugs feed on ripe, as well as unripe seeds.

O. laetus could be successfully and easily reared on the dry seeds of *H. abelmoschus* through several generations in the laboratory and the seeds of the host plant could be stored for long without any fungal attack or decay. In southern West Bengal the maximum incidence of the dusky cotton bug could be recorded on the above host plant in the winter season (November—January) when tempera-

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ture and relative humidity range between 12.8 C.—26.3 C. and 38%—99% respectively in contrast to the earlier reports of peak population in summer and very low incidence in winter in South India.

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