

6. POPULATION STUDIES OF *Habrochila laeta* DRAKE
(Tingidae — Hemiptera)

by

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This paper relates to studies made on *Habrochila laeta* Drake (Tingidae — Hemiptera), a pest of *Barlaria cristata*, and the effect of the weather factors like temperature, humidity and rainfall on their population. The trends of the adult and nymphal cycles varied in opposite directions. The temperature and rainfall had no significant effect on the population while the morning humidity had significant positive correlation with the population trends i. e., when the humidity was high the population increased considerably.

* There was a good deal of discussion on the effect of rainfall on the population fluctuation of the tingid, especially immediately after a heavy shower of rain.

The author explained the fact that most of the adult population is found on the upper surface of the leaves and the first three nymphal stages are usually confined to the under surfaces. During times of heavy rain, partial or sometimes even wholesale destruction of the adults take place and nymphs are also killed in large numbers. However, the eggs which are inserted in the leaf tissue hatch out in about 3-4 days time and there is a rapid build up of the nymphal population in the days following rainy weather. Counts were taken only at weekly intervals and represent only the cumulative population for the whole week. That is the reason why, eventhough heavy rain does kill all the adults and bring about steep fall in the tingid population immediately following a downpour, no significant correlation could be drawn between rainfall data for the whole season and the population fluctuation of the adults and nymphs.

7. STUDIES ON THE BIOLOGY OF *Gynencia affinis* DIST.

by

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The paper presents results of detailed investigations on the biology and life-cycle of *Gynencia affinis* Dist., a Pentatomid pest of *Crossandra*. Details of the life cycle, including mating habits, oviposition, fecundity, nymphal instars, longevity etc., have been given. The female laid 12-14 eggs in two parallel rows at a time. On an average 54 eggs were laid by a female in the course of 5 days. The incubation period is from 3-5 days and the duration of the five nymphal instars is 3, 3.5, 4.5, 6 and 6 days respectively for each instar. The entire development is completed in 23 to 28 days. The average longevity of the male was found to be 25 days and that of the female 19 days.

The injury done to the plants was studied under laboratory conditions. The affected plants failed to produce flowers in serious cases. Biometrical studies on different instars showed the gradual progression in growth towards the adult stage. The growth is from 1.15 mm. × 0.53 mm. in the first instar to 7.92 mm. × 3.31 mm. in the fifth instar.

* There was some discussion on the mating habits of the insect, on the extent of damage caused to *Crossandra*, on the hatching of the eggs etc., for which suitable answers were given.