

Effect of the Sex of the host (*Bagrada cruciferarum*) on the Sex of its Parasite, *Alophora* sp. (Tachinidae)

Salt (1941) has reviewed the literature on the effect of hosts upon their insect parasites, but he has not touched on the subject of the influence of the host in determining the sex of its parasite. In fact I have not come across any record mentioning such an effect.

Alophora sp. is an endoparasite of *Bagrada cruciferarum* Kirk. While the author (1949) was making a study of the biology of *B. cruciferarum*, he noted the emergence of maggots of *Alophora* from some of the specimens of the bug collected from the field. From each host individual, was found emerging only a single maggot, which pupated outside the body of the host. The puparia thus formed were of two types: some were small and light-brown, while others were large and dark-brown. The maggots emerging from the male hosts developed into the former type of pupae, while those from the female hosts were of the latter type. Further studies revealed the circumstance that the small pupae give rise to male flies, while the large ones produced the female flies. Thus it is seen that from a male host only a male parasite came out and from a female host only a female. This phenomenon was observed in all the 37 cases so far studied. As it is not conceivable that any discrimination could be made by the female fly at the time of egg-laying on the host, it may perhaps be inferred that the discrimination is introduced only at a later stage, i.e., during the development of the maggot inside the host. The determination of sex may be due perhaps to the influence of the sex-hormones of the host, so that in this case the sex of the parasite can be predicted as soon as the egg is laid. This interesting phenomenon has not so far been recorded among any of the Insecta.

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A Note on the Incidence of Caterpillars of *Estigmene* (*Amsacta*) *lactinea* in the "Diara" lands of Shahabad Dt. (Bihar)

Compared with the Black-headed Bihar Hairy Caterpillar—*Diacrisia obliqua*, which is met with on various crops, more or less all through the year in Bihar, the Black Hairy Caterpillar—*Estigmene* (*Amsacta*) *lactinea*, appearing on Maize soon after the commencement of the monsoon rains, is somewhat less familiar. But of late, it has assumed considerable importance, especially in "Diara" lands and is proving a serious menace to growers of maize and paddy.

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