

oviposition after they have been parasitised by *Epipyrops*.

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A Note on the Lady-bird Beetles (*Coccinellidae*) Predating upon the Cane White-Fly, *Aleurolobus barodensis* Mask.

THE cane white-fly, *Aleurolobus barodensis* Mask., is a serious pest in Banki which is an important sugarcane-growing tract in Orissa. The conditions which seem to favour the growth of the pest are:—

(i) The temperate-humid climate of the place, (ii) the practice of ratooning and (iii) the application of ammonium sulphate to the canes in order that they may quickly grow high up and escape the regular menace of floods. This practice, however, gives the crop a succulent leafy growth which finds favour with this pest, as with all other sucking insects.

The white-fly being thus abundant on the canes in that area it is not unusual to find its natural enemies like the parasitic hymenoptera and fungi and the coccinellid predators. While the former two categories of enemies have found, however meagre a place in the literature, one finds that practically no attention has been paid to the coccinellid predators. This appears to be due to the fact that the study of Indian *Coccinellidae* on the whole has been neglected.

During my short stay in the Banki sugarcane tract of Orissa in July and August 1939, I observed the following nine species of coccinellids actively predating upon the various stages of the cane white-fly. For the majority of these coccinellids a record of their preying upon the cane white-fly is new.

1. *Caelophora octo-signata* Muls.
2. *C. perroteti* Muls.
3. *C. unicolor* var. *romani* Muls.
4. *Caelophora* sp.
5. *Chilomenes sexmaculata* (Fab.)
6. *Chilocorus nigritus* (Fab.)

7. *Verania discolor* (Fab.)
8. *Scymnus nubilus* Muls.
9. *S. gracilis* Mots.

Of these *C. octosignata*, *C. perroteti*, *C. sexmaculata* and *V. discolor* were breeding in the fields and their grubs were also actively preying upon the pest. *S. gracilis* preyed upon younger stages of the white-fly and also on the mites which were found in certain fields but not very commonly.

I wish to record my thanks to Dr. H. S. Pruthi, Imperial Entomologist, for identifying certain species of coccinellids mentioned in the text and also to Dr. V. K. Badami, Deputy Director of Agriculture, Orissa, for his many acts of kindness during my stay in that Province.

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A Note on the Chemical Examination of *Celastrus paniculatus*

THE fixed oil from the seeds was examined by O. N. Kumaraswamy and B. L. Manjunath.¹ From the dark brown extract which they obtained with petroleum ether it appears that the 'rich orange coloured arillus' was rejected. They reported the presence of various saturated and unsaturated fatty acids and a sterol melting at 136°. In the course of this work they did not get 'satisfactory evidence for the presence of any alkaloid'.

Gunde and Hilditch² have also examined the oil from the husk and from the seeds. But from the dark brown colour that they have noted of the fruit coat extract, they appear to have investigated an old sample of the husk, as it has been noted by the present author that the bright red colour of the husk fades on being exposed to atmosphere. They have not investigated the unsaponifiable fraction besides noting the percentage yield.

The present author took up the examination of the bright orange coloured husk of the seeds