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Additions to the Natural Enemy Complex of the Coconut Caterpillar *Opisina arenosella* Wlk.*

The cocount leaf eating caterpillar, *Opisina arenosella* Wlk. (= *Nephantis serinopa* Meyrick) (Lepidoptera : Cryptophasidae) supports over 24 species of parasitoids and six species of predators in India and Sri Lanka (Dharmaraju, 1962; Mohammed, Abdurahiman and Remadevi, 1982; Pillai and Nair, 1983). Of these, the larval parasitoids *Apanteles taragamae* Wilkinson, *Bracon brevicornis* Wesmael, *B. hebetor* Say, *Perisierola nephantidis* Muesebeck, *Spongiosia bezziana* (Baranoff) and *Elasmus nephantidis* Rohwer and the pupal parasitoids *Brachymeria nosatoi* Habu, *B. nephantidis* Gahan, *Trichospilus pupivora* Ferriere, *Xanthopimpla punctata* Fabricius

and *X. nana nana* Schulz. are the well known species which exert considerable check on pest population in nature.

In a survery carried out for the natural enemies of *O. arenosella* in the coastal and back water tracts of the Quilon and Alleppey districts of Kerala state during 1983 and 1984 six species of predacious beetles, a tachinid, an ichneumonid and a chalcidid were recorded as additions to the check list of the natural enemy complex of *O. arenosella*. Details of the newly recorded species of predators and parasitoids, their taxonomic status and the stage of the pest which these feed/parasitise are furnished in Table I.

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Table I. *Newly recorded predators and parasitoids of the coconut caterpillar Opisina arenosella and their taxonomic status*

Name of the predator/ parasitoid	Taxonomic status/ Determined by	Stage on which feeds/ Parasitises
<i>Micraspis discolor</i> (Fabricius)	Coleoptera: Coccinellidae (R. Madge det.)	Feeds on eggs
<i>Menochilus sexmaculatus</i> (Fabricius)	"	"
<i>Propylea fallax</i> (Khnzorian)	"	"
<i>Jauravia pubescens</i> (Fabricius)	"	"
<i>Idgia dimelaena</i> (Walker)	Coleoptera: Melyridae (R. Madge det.)	Larvae predacious on pupae
<i>Creagris labrosa</i> (Nietner)	Coleoptera: Carabidae (R. Madge det.)	Predacious on caterpillars
<i>Palexorista</i> sp.	Diptera: Tachinidae (K. M. Harris det.)	Larval-pupal parasitoid *
<i>Brachymeria megaspila</i> (Cameron)	Hymenoptera: Chalcididae (T. C. Narendran det.)	Pupal parasitoid
<i>Xanthopimpla</i> sp.	Hymenoptera: Ichneumonidae (I. D. Gauld det.)	Pupal parasitoid

Coccinellid beetles have not been recorded as egg predators of *O. arenosella* so far. However, *Menochilus sexmaculatus* was observed to be a useful predator feeding on the eggs and first instar caterpillars of the sorghum stem borer, *Chilo partellus* (Swinhoe) (Jotwani and Verma, 1969).

Xanthopimpla sp. reported here is the third species of the genus found in association with *O. arenosella*, the other two being *X. punctata* F. and *X. nana nana* Schulz. (Pillai and Nair, 1983). Apart from *Palexorista* sp. the only other tachinid recorded on *O. arenosella* from India is *Thelairodino* (= *Thelairosoma*) *gracilis* Mesnil (Rao, 1961). The other

tachinid, *Spoggosia bezziana* (Baranoff) is prevalent in Sri Lanka only.

It is possible that a survey of the *Opisina* infested coconut gardens in different tracts of the country would yield several other species of predators and parasitoids of the pest.

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Bioecology of *Bracon hebetor* Say (Hymenoptera: Braconidae),
an Indigenous Larval Parasitoid of the Coconut Leaf Eating
Caterpillar *Opisina arenosella* Wlk.
(Lepidoptera: Cryptophasidae)*

During a survey on the natural enemy complex of *Opisina arenosella*, cocoons and adults of a braconid parasitoid were collected from Eravipuram, Quilon District, Kerala. Subsequently, this was also collected from *Opisina*-infested gardens at Ponmana and Ayiromthengu (Quilon Dist.), Thottappally (Alleppey Dist.) and Nileswar (Cannanore Dist.). The specimens reared in the laboratory from field collected cocoons were determined as *Bracon hebetor* Say (= *Microbracon hebetor*) Say = *Habrobracon juglandis* Ashmead (Figs. 1 & 2) by Dr. G. Nixon, Commonwealth Institute of Entomology, London.

Biology, parasitic behaviour and intensity of natural parasitism of this parasitoid were studied during 1982 and

1983 and the results are reported in this report.

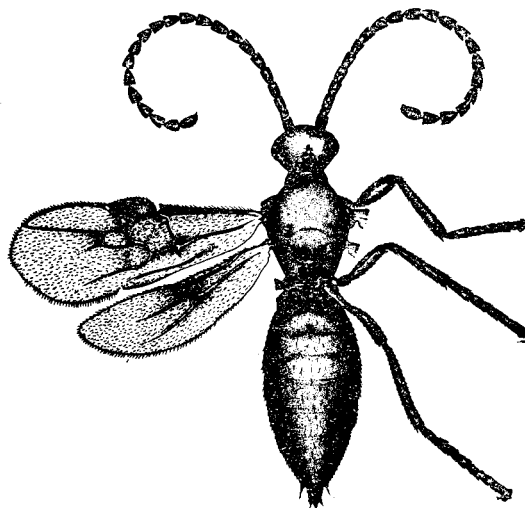


Fig. 1. *B. hebetor* - Male

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