

## Record of parasitoids of some scale and mealybug pests of mango from West Bengal, India

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ABSTRACT: A survey of parasitoids of scale and mealybug pests of mango was conducted in Malda district of West Bengal, India during 1999-2000. Chartocerus sp., Azotus sp. and Gyranusoidea tebygi Noyes was recorded on Rastrococcus invadens Williams. On Rastrococcus iceryoides Green, Chartocerus walkeri Hayat, Aprostocetus sp., Promuscidea unfasciativentris Girault, Anagyrus pseudococci Girault and Anagyrus mirzai Agarwal and Alam were recorded. Two species of Aprostocetus, Encyrtus sp. and Austroterobia maldica Narendran and Das were recorded on Icerya minor Green. Coccophagus ceroplastae (Howard) and Promuscidea unfasciativentris were recorded from Pulvinaria polygonata (Cockll.).

KEYWORDS: Icerya minor, mango pests, parasitoids, Pulvinaria polygonata, Rastrococcus spp.

Several parasitoids of coccid and pseudococcid pests of mango have been reported earlier (Tandon and Lal, 1978; Hayat, 1979; Tandon and Srivastava, 1980; Narasimhan and Sankaran, 1985; Srivastava and Verghese, 1987; Noyes, 1988 and 1990; Narasimhan and Chacko, 1988; Dinesh and Sinha, 1991). While studying pests of mango at Malda, a survey of parasitoids of scale and mealybug pests of mango was conducted at mango orchard of Regional Research station, Manikchak, Malda, West Bengal during the year 1999-2000. The orchard was not sprayed with any insecticide.

The parasitoid recorded on Rastrococcus invadens Williams were Chartocerus sp. (Signiphoridae) and Gyranusoidea tebygi Noyes (Encrytidae). Noyes (1988) recorded G. tebygi from Rastrococcus sp. on mango from India and it was

utilized as a potential biocontrol agent against *R. invadens* in West Africa (Moore *et al.*, 1998). An aphelinid, *Azotus* sp. was recorded for the first time on *R. invadens*.

Aprostocetus sp. (Eulophidae) was recorded for the first time from India on Rastrococcus iceryoides Green. Other parasitoids recorded from this host were Promuscidea unfasciativentris Girault (Aphelinidae), Chartocerus walkeri Hayat (Signiphoridae) and Anagyrus pseudococci Girault and Anagyrus mirzai Agarwal and Alam (Encyrtidae). Tandon and Lal (1978) recorded four species of parasitoids on R. iceryoides from Uttar Pradesh parasitizing up to 42 per cent in group and reported P. unfasciativentris and A. pseudococci the major species. A pteromalid parasitoid, Austroterobia maldica Narendran and Das was

recorded from Malda on *Icerya minor* Green (Narendran and Das, 2000). From the same host, two species of *Aprostocetus* and one encrytid, *Encyrtus* sp. were recorded.

Two parasitoid *Coccophagus ceroplastae* (Howard) and *P. unfasciativentris* were recorded from *Pulvinaria polygonata* (Cockll.).

All these above parasitoids are new records on the respective hosts in West Bengal.

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