

# First Report of *Phanerotoma bennetti* Muesebeck (Hymenoptera, Braconidae, Cheloninae) Parasitizing *Hypsipyla grandella* (Zeller) and *Hypsipyla ferrealis* Hampson (Lepidoptera, Pyralidae) in Crabwood in Brazil

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Crabwood [*Carapa procera* DC. (Meliaceae)] is an Amazonian species with great commercial potential. Plants in the Meliaceae family are widely used by insects, which often become serious forest pests. Infestation by *Hypsipyla* Ragonot (Lepidoptera, Pyralidae) makes it unfeasible to cultivate these Meliaceae. *Hypsipyla* larvae apparently feed exclusively on Meliaceae, subfamily Swietenioideae, including plants of high economic value such as those in the genera *Swietenia* Jacquin, *Khaya* A.Juss., *Toona* Endlicher, and *Cedrela* P. Browne (Griffiths, 2001).

Biological control of *Hypsipyla* is an important strategy to be implemented as part of the integrated management of these pests in Meliaceae. s. However, little is known about their native natural enemies.

This is the first report of the parasitoid *Phanerotoma bennetti* Muesebeck, 1955 (Hymenoptera, Braconidae) attacking *Hypsipyla grandella* (Zeller) and *Hypsipyla ferrealis* Hampson (Lepidoptera, Pyralidae) in the crabwood *Carapa procera* DC. (Meliaceae), State of Amazonas, Brazil.

Thirty-eight specimens of *P. bennetti* were collected on larvae and pupae of *H. grandella* and *H. ferrealis* in *Carapa procera* in the Ducke Forest Reserve (02° 55' -03° 01' S and 59° 53' -59° 59' W), in fifteen samples collected in April-May 2006. *Voucher specimens* were deposited in the Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia (INPA) Manaus, Brazil and in the Collection of the Departamento de Ecologia e Biologia Evolutiva (DCBU), Universidade Federal de São Carlos in São Carlos, São Paulo, Brazil.

Several families of parasitoids (Braconidae, Ichneumonidae, Chalcididae, Trichogrammatidae) have been reported as natural enemies of the immature stages of *H. grandella* in Central America, North America, South America, and Africa, including *Hypomicogaster hypsipylae* (Hymenoptera, Braconidae, Microgastrinae) (Desantis, 1973) and *Trichogramma semifumatum* Perkins (Hymenoptera,

Trichogrammatidae) on *H. grandella* eggs (Grijpma, 1973). For *H. ferrealis*, the only parasitoids reported to date are Trichogrammatidae in Costa Rica, Trinidad, and Venezuela (Sands and Murphy, 2001).

In Brazil, *Podogaster townesi* (Graf 1983) (Hymenoptera, Ichneumonidae, Anomaloniinae) has been reported on pupae of *H. robusta* (Sands and Murphy 2001), and *Trichogrammatomyia tortricis* Girault, 1916 (Hymenoptera, Trichogrammatidae) has been reported on eggs of *H. grandella* (Ohashi et al., 2005). There have been reports of the introduction of the parasitoids *Trichogrammatoidea nana*, *T. robusta*, and *Phanerotoma* sp. for biological control (Sands and Murphy, 2001). However, these need to be confirmed, as the information is vague.

As yet, there is no efficient means for the control of *Hypsipyla* pest species through the use of natural enemies in commercial plantations (Newton et al., 1993). The discovery of *Phanerotoma bennetti* as a parasitoid of *Hypsipyla* represents a possibility for the biological control of these species in seeds of *C. procera*.

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