

RESEARCH NOTE

RECORD OF *Trichogramma* (HYMENOPTERA: TRICHOGRAMMATIDAE) SPECIES ON *Erinnyis ello* LINNAEUS (LEPIDOPTERA: SPHINGIDAE) EGGS IN MATO GROSSO DO SUL STATE, BRAZIL¹

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RESUMO

REGISTRO DE ESPÉCIES DE *Trichogramma* (HYMENOPTERA: TRICHOGRAMMATIDAE) EM OVOS DE *Erinnyis ello* LINNAEUS (LEPIDOPTERA: SPHINGIDAE), EM MATO GROSSO DO SUL

Erinnyis ello (Lepidoptera: Sphingidae) é uma das principais pragas da cultura da mandioca e, dentre seus inimigos naturais, destaca-se o parasitóide de ovos *Trichogramma* (Hymenoptera: Trichogrammatidae). Este trabalho registra a ocorrência de *Trichogramma manicobai*, *Trichogramma marandobai* e *Trichogramma pretiosum* em ovos de *E. ello*, encontrados em plantios de mandioca, no Mato Grosso do Sul.

PALAVRAS-CHAVE: Controle biológico; mandarová-da-mandioca; agricultura.

The *Erinnyis ello* (L. 1758) (Lepidoptera: Sphingidae) defoliator, known as “mandarová-da-mandioca”, in Brazil, is the main pest on cassava crops. It feeds on tender plants parts and can cause 100% defoliation on cassava plants (Ternes et al. 1984, Gallo et al. 2002). Such defoliation can have a high impact on cassava production, when it reaches 100%, in six month old plants of “Mantiqueira” and “Santa Catarina” cultivars. Defoliation reduces significantly the total weight production of roots and branches (Carvalho 1981). To control this pest, the parasitoid *Trichogramma* (Hymenoptera: Trichogrammatidae) is one of the best options. This natural enemy is a parasitoid egg, which has the advantage of controlling the pest before the damage occurs (Pinto & Southamer 1994, Pratisoli et al. 2002).

In Brazil, *Trichogramma atopovirilia* Oatman & Platner; *Trichogramma manicobai* Brun, Moraes & Soares; *Trichogramma marandobai* Brun, Moraes & Soares; *Trichogramma pretiosum* Riley; and *Trichogramma demoraesi* Nagaraja have been

ABSTRACT

Erinnyis ello (Lepidoptera: Sphingidae) is one of the main cassava crop pests and, among its natural enemies, the egg parasitoid *Trichogramma* (Hymenoptera: Trichogrammatidae) is the most important. This research records the occurrence of *Trichogramma manicobai*, *Trichogramma marandobai*, and *Trichogramma pretiosum* on *E. ello* eggs found in cassava crops, in Mato Grosso do Sul State, Brazil.

KEY-WORDS: Biological control; cassava hornworm; agriculture.

found parasitizing *E. ello* eggs (Zucchi & Monteiro 1997), being this last species often associated with the pest (Ronchi-Teles & Querino 2005). However, there is no record of *Trichogramma* species on *E. ello* eggs in Mato Grosso do Sul State, Brazil.

E. ello eggs were collected from January to March (2005), in areas cultivated with cassava, in the municipalities of Dourados, Glória de Dourados, Itaquiraí, and Ivinhema, Mato Grosso do Sul State. In the laboratory, eggs were placed in glass tubes, sealed with PVC plastic film, until the *Trichogramma* adults emergence (or not). The male specimens obtained from those eggs were separated for identification, because this is based on the male genitalia (Querino & Zucchi 2003), and killed in alcohol 70%.

Trichogramma species collected were *T. manicobai*, *T. marandobai*, and *T. pretiosum*. In Dourados, 31.4% of the collected eggs were parasitized by *T. marandobai*; 47.8% by *T. pretiosum*, in Glória de Dourados; and 36.4% by *T. marandobai*, in Itaquiraí. All three species occurred in Ivinhema, and 21.8% of the eggs showed parasitism (Table 1).

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Table 1. Number of *Erinnyis ello* eggs collected in cassava crops, parasitism percentage, and *Trichogramma* species (Mato Grosso do Sul State, Brazil, 2005).

Place	Number of eggs	Parasitism (%)	Species
Dourados	105	31.4	<i>T. marandobai</i>
Glória de Dourados	297	47.8	<i>T. pretiosum</i>
Itaquiraí	264	36.4	<i>T. marandobai</i> <i>T. manicobai</i>
Ivinhema	55	21.8	<i>T. marandobai</i> <i>T. pretiosum</i>

The occurrence of those natural enemies shows the potential of this parasitoid egg for the biological control of *E. ello* in cassava and increases the knowledge on its geographic distribution.

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