

# Neotropical Entomology

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## SCIENTIFIC NOTE

### First Record of the Fruit Fly Parasitoid *Doryctobracon crawfordi* (Viereck) (Hymenoptera: Braconidae) in Brazil

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#### Keywords

Amapá, *Anastrepha atrigona*, *Anastrepha serpentina*, host plant, Opiinae, Roraima

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#### Abstract

*Doryctobracon crawfordi* (Viereck) was recorded in the states of Amapá and Roraima, Brazil. This is also the first time that this parasitoid is associated with *Anastrepha atrigona* Hendel from *Geissospermum argenteum*.

Only three out of nine species of *Doryctobracon* which parasitize fruit flies have been recorded in Brazil, namely *D. areolatus* (Szépligeti), *D. brasiliensis* (Szépligeti) and *D. fluminensis* (Lima) (Canal & Zucchi 2000). However, from fruit fly surveys carried out in the Brazilian states of Amapá and Roraima, a fourth representative of the genus, *Doryctobracon crawfordi* (Viereck), was collected. This species was identified using the taxonomic keys to species of *Doryctobracon* by Wharton (n.d.).

*Doryctobracon crawfordi* differs from *D. areolatus* by having a non-areolated propodeum, and from *D. brasiliensis* by having the stigma of the forewing dark. Furthermore, it may be confused with *D. trinidadensis* (Gahan), which has also a black head and a mesosoma that is usually orange or reddish-orange, but this species is known only from Trinidad (Wharton & Marsh 1978, Wharton, n.d.).

*Doryctobracon crawfordi*, together with *D. areolatus*, is one of the two most commonly surveyed parasitoids of fruit-infesting flies in the Neotropical region (Wharton n.d.). It has been reared from seven *Anastrepha* species

from eight host plants (Ovruski *et al* 2000) and is widely distributed, ranging from the central part of Mexico to Argentina (the southernmost record) (Ovruski *et al* 2005). However, despite of numerous surveys on parasitoids of tephritids carried out in most of the Brazilian states since 1995, and recently in the states of the Brazilian Amazon (Marinho *et al* 2011), our data revealed that *D. crawfordi* is limited to the northern parts of the country as no specimens of this parasitoid have been collected in any other region.

Material studied. Brazil. State of Amapá: Laranjal do Jari ( $00^{\circ}47'26.4"S$   $52^{\circ}27'2.6"W$ ), from *Anastrepha atrigona* Hendel on quina (*Geissospermum argenteum*, Apocynaceae), one male, iv.2006. State of Roraima: Pacaraima ( $04^{\circ}29'19.2"N$   $61^{\circ}07'51.8"W$ ), from *Anastrepha serpentina* (Wied.) on abiu (*Pouteria caitito*, Sapotaceae), nine males and four females, ix.2008. Amajari ( $03^{\circ}45'20.5"N$   $61^{\circ}42'59.2"W$ ), from larvae of *Anastrepha* on abiu, acaçá (*Psidium guineense*, Myrtaceae) and from one species of Melastomataceae, 13 males and 11 females, iv.2009. Voucher specimens are deposited

at the collection of the Departamento de Entomologia e Acarologia, Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ), Universidade de São Paulo, Piracicaba, SP, and at the insect collection of the Embrapa Amapá, Macapá, AP, Brazil.

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## References

- Canal NA, Zucchi RA (2000) Parasitóides – Braconidae, p.119-126. In Malavasi A, Zucchi RA (eds) Moscas-das-frutas de importância econômica no Brasil – conhecimento básico e aplicado. Ribeirão Preto, Holos Editora, 327p.
- Marinho CF, Silva RA, Zucchi RA (2011) Chave de identificação de Braconidae (Alysiinae e Opiinae) parasitoides de larvas frugívoras na Região Amazônica, p.91-101. In Silva RA, Lemos WP, Zucchi RA (eds) Moscas-das-frutas na Amazônia Brasileira: diversidade, hospedeiros e inimigos naturais. Macapá, Embrapa Amapá, 299p.
- Ovruski SM, Aluja M, Sivinski J, Wharton RA (2000) Hymenopteran parasitoids on fruit-infesting Tephritidae (Diptera) in Latin America and the southern United States: diversity, distribution, taxonomic status and their use in fruit fly biological control. Int Pest Manage Rev 5: 81-107.
- Ovruski SM, Wharton R, Schliserman P, Aluja M (2005) Abundance of *Anastrepha fraterculus* (Diptera: Tephritidae) and its associated native parasitoids (Hymenoptera) in feral guavas growings in the endangered northernmost Yungas forests of Argentina with an update on the taxonomic status of Opiinae parasitoid previously reported in this country. Environ Entomol 34: 807-818.
- Wharton RA (n. d.) Key to species of *Doryctobracon* reared from fruit-infesting Tephritidae. In Wharton RA, Yoder MJ Parasitoids of fruit-infesting Tephritidae, paroffit. org. <http://paroffit.org>. Accessed on April 13, 2011.
- Wharton RA, Marsh RM (1978) New World Opiinae (Hymenoptera: Braconidae) parasitic on Tephritidae (Diptera). J Wash Acad Sci 68: 147-167.