

COMUNICAÇÃO CIENTÍFICA

ANASTREPHA FRUIT FLIES (DIPTERA, TEPHRITIDAE) FROM TWO MUNICIPALITIES OF THE STATE OF RORAIMA, BRAZIL, WITH THREE NEW RECORDS

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ABSTRACT

We collected fruit flies in McPhail traps in two municipalities of the state of Roraima, Brazil. In Amajari we collected five *Anastrepha* species (including a probable new species) and in Boa Vista we collected 10 species. This is the first report of *Anastrepha fractura* Stone, *Anastrepha fraterculus* (Wiedemann) and *Anastrepha longicauda* Lima in the state of Roraima.

Key words: fruit flies, diversity, survey, Amazon

MOSCAS-DAS-FRUTAS DO GÊNERO ANASTREPHA (DIPTERA, TEPHRITIDAE) DE DOIS MUNICÍPIOS DO ESTADO DE RORAIMA, BRASIL, COM TRÊS NOVOS REGISTROS

RESUMO

Foram coletadas moscas-das-frutas em armadilhas McPhail em dois municípios do estado de Roraima, Brasil. Em Amajari foram coletadas cinco espécies de *Anastrepha* (incluindo uma provável espécie nova) e em Boa Vista foram coletadas 10 espécies. Este é o primeiro registro de *Anastrepha fractura* Stone, *Anastrepha fraterculus* (Wiedemann) e *Anastrepha longicauda* Lima no estado de Roraima.

Palavras-chave: moscas-das-frutas, diversidade, amostragem, Amazônia

Fruit fly surveys, their host plants and parasitoids in the Brazilian Amazon have been intensified in recent years (Marsaro Júnior *et al.*, 2011a). For the state of Roraima, located in the far north of the Brazilian Amazon, the first studies on *Anastrepha* species occurring in this state were conducted in the 1990s (Rafael, 1991; Ronchi-Teles *et al.*, 1995). Thereafter other researches were carried out and

currently 21 species of *Anastrepha* have been recorded in this State (Marsaro Júnior *et al.*, 2010, 2011a,b; 2012; Adaime *et al.*, 2012). Considerable knowledge on host plants and parasitoids of *Anastrepha* species was also produced and can be found in Marsaro Júnior *et al.*, 2011b.

The knowledge on diversity of *Anastrepha* (Diptera: Tephritidae) in the Brazilian Amazon was compiled by Zucchi

et al., (2011), totalizing 55 species for the region. Following that information, two other species were recently described from Amapá (Norrbom & Uchôa, 2011) and three new reports were published (Trindade & Uchôa, 2011). Therefore, currently 60 species of *Anastrepha* are reported for the Brazilian Amazon.

This work makes additional reports on *Anastrepha* for the state of Roraima. Two McPhail traps were hung in fruit trees, which could potentially be hosts of *Anastrepha* spp. in two municipalities: (1) Amajari, Serra do Tepequém (N 03°45'20.4"; W 61°42'58.5"), from April to June 2009, containing 5% hydrolyzed protein; and (2) Boa Vista (N 02°49'43.3"; W 60°39'44.0") from September 2001 to April 2004, containing 10% sugarcane molasses.

Four species of *Anastrepha* were collected in Amajari, besides a probable new species (*Anastrepha* sp.), and 10 species in Boa Vista (Table 1). *Anastrepha fractura* Stone, *Anastrepha fraterculus* (Wiedemann) and *Anastrepha longicauda* Lima are reported for the first time in Roraima. In Brazil, *A. longicauda* and *A. fractura* had only been previously reported in the state of Amazonas. In the Brazilian Amazon, *A. fraterculus* had only been observed in the states of Amapá, Maranhão, Pará, and Tocantins (Zucchi et al., 2011).

Voucher specimens of *A. fractura* and *A. longicauda* have been deposited in the Laboratório de Entomologia Econômica of the Instituto Biológico, in Campinas, state of São Paulo, Brazil.

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REFERENCES

- ADAIME, R.; MARSARO JÚNIOR, A. L.; SOUZA-FILHO, M. F.; CHAGAS, E. A.; LIMA, C. G. B. 2012. New host of *Anastrepha parishi* Stone (Diptera: Tephritidae) reported in Brazil. **Brazilian Journal of Biology**, v.72, n.1, p. 227.
- MARSARO JÚNIOR, A. L.; NASCIMENTO, D. B.; RONCHI-TELES, B.; ADAIME, R. 2012. Faunistic analysis of the species of *Anastrepha* Schiner (Diptera: Tephritidae) in three municipalities of the state of Roraima, Brazil. **Brazilian Journal of Biology**, v.72, n.4, p. 813-819.
- MARSARO JÚNIOR, A. L.; ADAIME, R.; RONCHI-TELES, B.; LIMA, C. R.; PEREIRA, P. R. V. S. 2011a. *Anastrepha* species (Diptera: Tephritidae), their hosts and parasitoids in the extreme north of Brazil. **Biota Neotropica**, v.11, n.4, p. 117-124.
- MARSARO JÚNIOR, A. L.; RONCHI-TELES, B.; BARBOSA, R. I.; SILVA JÚNIOR, R. J.; AGUIAR, R. M.; SILVA, R. A. 2011b. Conhecimento sobre moscas-das-frutas no Estado de Roraima, p. 279-290. In: SILVA, R. A.; LEMOS, W. P.; ZUCCHI, R.A. (eds.). **Moscas-das-frutas na Amazônia brasileira: diversidade, hospedeiros e inimigos naturais**. Embrapa Amapá, Macapá, 299 p.
- MARSARO JÚNIOR, A. L.; SILVA, R. A.; SILVA, W. R.; LIMA, C. R.; FLORES, A. S.; RONCHI-TELES, B. 2010. New records of *Anastrepha* (Diptera: Tephritidae), its hosts and parasitoids in the Serra do Tepequém, Roraima state, Brazil. **Revista de Agricultura**, v.85, n.1, p. 15-19.
- NORRBOM, A. L.; UCHÔA, M. A. 2011. New species and records of *Anastrepha*

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- (Diptera: Tephritidae) from Brazil. **Zootaxa**, v.2835, p. 61-67.
- RAFAEL, J. A. 1991. Insetos coletados durante o Projeto Maracá, Roraima, Brasil: lista complementar. **Acta Amazonica**, Manaus, v.21, n.4, p. 325-336.
- RONCHI-TELES, B.; ZUCCHI, R. A.; SILVA, N. M. 1995. Novos registros de espécies de *Anastrepha* (Dip. Tephritidae) e seus hospedeiros no Estado de Roraima. In: Congresso Brasileiro de Entomologia, 15. 1995, Caxambu. [Resumos...]. Caxambu: Sociedade Entomológica do Brasil, p. 239.
- TRINDADE, R. B. R.; UCHÔA, M. A. 2011. Species of fruit flies (Diptera: Tephritidae) in a transect of the Amazonian Rainforest in Oiapoque, Amapá, Brazil. **Zoologia**, v.28, n.5, p. 653-657.
- ZUCCHI, R. A.; SILVA, R. A.; DEUS, E. G. 2011. Espécies de *Anastrepha* e seus hospedeiros na Amazônia Brasileira, p.51-70. In: SILVA, R. A.; LEMOS, W. P.; ZUCCHI, R.A. (eds.). **Moscas-das-frutas na Amazônia brasileira: diversidade, hospedeiros e inimigos naturais**. Embrapa Amapá, Macapá, 299 p.

Table 1. *Anastrepha* species collected in McPhail traps in Amajari (April to June 2009) and Boa Vista (September 2001 to April 2004), state of Roraima, Brazil.

Species	Municipalities	
	Boa Vista	Amajari
<i>A. antunesi</i> Lima, 1938*	1	-
<i>A. atrigona</i> Hendel, 1914*	5	-
<i>A. distincta</i> Greene, 1934	1	10
<i>A. flavipennis</i> Greene, 1934	2	-
<i>A. fractura</i> Stone, 1942**	1	-
<i>A. fraterculus</i> (Wiedemann, 1830)**	3	-
<i>A. leptozona</i> Hendel, 1914*	1	-
<i>A. longicauda</i> Lima, 1934**	-	1
<i>A. obliqua</i> (Macquart, 1835)	85	-
<i>A. serpentina</i> (Wiedemann, 1830)	12	-
<i>A. sororcula</i> Zucchi, 1979	-	1
<i>A. striata</i> Schiner, 1868	6	11
<i>Anastrepha</i> sp.	-	1
Males	80	8
Total	197	32

* First record in Boa Vista, RR

** First record in the state of Roraima