

**First record of *Xanthozona melanopyga* (Diptera: Tachinidae)
on *Brassolis astyra* (Lepidoptera: Nymphalidae) for Rio Grande do Sul, Brazil**

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SALGADO-NETO, G. **First record of *Xanthozona melanopyga* (Diptera: Tachinidae) on *Brassolis astyra* (Lepidoptera: Nymphalidae) for Rio Grande do Sul, Brazil.** *Biota Neotrop.* 11(3): <http://www.biotaneotropica.org.br/v11n3/en/abstract?short-communication+bn01711032011>

Abstract: *Xanthozona melanopyga* (Wiedmann, 1830) (Diptera: Tachinidae) is recorded here as a parasitoid of *Brassolis astyra* Godart, 1824 (Lepidoptera: Nymphalidae). Dipteran endoparasitoids have been recorded as pupal endoparasitoids of *Brassolis sophorae* (L.), due to the scientific and economic importance of these interespecific relationships, and aiming to increase the knowledge on natural and conservative biological control, I hereby record *Xanthozona melanopyga* (Wiedmann) as larval-pupal parasitoid of *Brassolis astyra* Godart for the State of Rio Grande do Sul, Brazil. For the first time.

Keywords: *biological control, distribution, natural enemy, parasitoid flies.*

SALGADO-NETO, G. **Primeiro registro de *Xanthozona melanopyga* (Diptera: Tachinidae) em *Brassolis astyra* (Lepidoptera: Nymphalidae) para o Rio Grande do Sul, Brasil.** *Biota Neotrop.* 11(3): <http://www.biotaneotropica.org.br/v11n3/pt/abstract?short-communication+bn01711032011>

Resumo: *Xanthozona melanopyga* (Wiedmann, 1830) (Diptera: Tachinidae) é registrada como parasitóide de *Brassolis astyra* Godart, 1824 (Lepidoptera: Nymphalidae). Representantes de Diptera têm sido registrados como endoparasitóides de pupas de *Brassolis sophorae* (L.). Diante da importância científica e econômica desse tipo de relação interespecífica, visando à ampliação de conhecimentos relacionados ao controle biológico natural e conservativo, o presente registra no Estado do Rio Grande do Sul, a ocorrência de parasitismo por *Xanthozona melanopyga* (Wiedmann, 1830) como parasitóide larva-pupa em *Brassolis astyra* Godart, 1824. Pela primeira vez.

Palavras-chave: *controle biológico, distribuição geográfica, inimigo natural, moscas parasitóides.*

Species of Diptera (Tachinidae and Sarcophagidae) (Ferreira & Lins 2002, Ruszczyk & Ribeiro 1998) have been recorded as pupal or larvipupal endoparasitoids, acting therefore as biological control agents of *Brassolis sophorae* (L.), a pest in coconut crops (Ferreira et al. 1998). The present note reports *Xanthozona melanopyga* (Wiedmann, 1830) parasitizing pupae of *Brassolis astyra* Godart, 1824, for the State of Rio Grande do Sul, Brazil.

Brassolis astyra Godart, 1824 is widespread in Brazil but is most commonly found between the States of Rio de Janeiro and São Paulo (Southeastern Region) and Eastern Brazilian Amazonia (Northern Region) (Stichel 1932, Costa Lima 1936, Bondar 1940, Travassos Filho & Carrera 1941, Silva et al. 1968). In Rio Grande do Sul (Southern Region) this species was registered by Biezanko & Freitas (1938), Biezanko (1960), Link & Alvarez Filho (1979), Link et al. (1980) and Lamas (2004). Mariconi (1952) reported the occurrence of this species for South America (Argentina). More recently, Betancourt & Scatoni (2002) reported this species for Uruguay.

Five species of Tachinidae have been recorded as parasitoids of *Brassolis* (pupal or larvipupal stages): *Winthemia pinguis* (Fabricius, 1805), *Winthemia analis* (Macquart, 1846), *Lespesia haywardi* (Blanchard, 1942), *Belvosia williamsi* (Aldrich, 1928) and *Xanthozona melanopyga* (Wiedmann, 1830). Previously only *Xanthozona melanopyga* (Wiedmann) was recorded as endoparasitoid of species of *Brassolis* (Cleare & Squire 1934, Travassos Filho & Carrera 1941, Piza & Zamith 1944, Lepesme 1947, Costa Lima 1950, Lordello 1952, Silva et al. 1968, Guimarães 1971, Ruszczyk 1996, Ruszczyk & Ribeiro 1998, Marciano et al. 2009).

Between March 2006 and March 2007, we collected “cartuchos” (nest, larvae communal shelter) of *Brassolis astyra* on native palms *Syagrus romanzoffianum* (Cham.) Becc. (Arecaceae; Gerivá) in Tupanciretã (53° 50' W; 29° 04' S) and Santa Maria (53° 42' W; 29° 43' S), Rio Grande do Sul, Brazil.

Upon collecting, larvae were kept in an environmental chamber (25 ± 1 °C; 70% UR; photoperiod of 14 hours of light) and observed daily until the emergence of the butterflies or parasitoids, which were preserved in 70% ethanol. Voucher specimens were deposited in the collection of the Laboratório de Biologia Evolutiva of the Universidade Federal de Santa Maria (UFSM). All parasitoids were identified as *Xanthozona melanopyga* (Wiedmann, 1830), a species that is known from Central and South America (Brazil, Colombia, Costa Rica and Suriname) (Wiedmann 1830, Townsend 1908, Townsend 1939, Gómez 1998, Bustillo Pardey 2011). In Brazil, the species is known from the States of São Paulo (Travassos Filho & Carrera 1941, Piza & Zamith 1944, Costa Lima 1950, Lordello 1952, Mariconi & Zamith 1954, Silva et al. 1968, Guimarães 1971, Ruszczyk 1996, Ruszczyk & Ribeiro 1998), Minas Gerais (Clark & Anjos 1977), Goiás (Mariconi 1971), and Paraná (Santos & Rocha 1981).

X. melanopyga female flies oviposit directly into the larvae during early stage of development, and their larvae subsequently feed on pupal tissues (pupal or larvipupal endoparasitoid). This species is known to be associated to the following butterfly species: *Rachiplusia nu* (Guenée 1852) (Noctuidae); *Hemiceras pallidula* (Guenée 1852) (Notodontidae) (Silva et al. 1968) and Brassoliniinae (Nymphalidae): *Caligo illioneus* (Gómez 1998, Bustillo Pardey 2011); *Opsiphanes invirae* (Silva et al. 1968); *Brassolis sophorae* (Piza & Zamith 1944, Lepesme 1947, Costa Lima 1950, Lordello 1952, Mariconi & Zamith 1954, Silva et al. 1968, Guimarães 1971, Mariconi 1971, Clark & Anjos 1977, Guimarães 1977, Santos & Rocha 1981, Ruszczyk 1996, Ruszczyk & Ribeiro 1998).

Although, *X. melanopyga* has already been recorded as an endoparasitoid of *Brassolis astyra* in Brazil (State of São Paulo,

Piracicaba, Campinas) (Travassos Filho & Carrera 1941, Costa Lima 1950, Mariconi & Zamith 1954, Silva et al. 1968, Guimarães 1971, Guimarães 1977) this constitutes the first record of this species in the State of Rio Grande do Sul.

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