

A new species of the genus *Xanthomicrogaster* Cameron (Hymenoptera: Braconidae: Microgastrinae) from Brazil

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Key words: Braconidae; Microgastrinae; *Xanthomicrogaster maculatus*; new species; Neotropical; Brazil; Suriname; key.

One new *Xanthomicrogaster* species from Brazil is described, and *X. fortipes* Cameron, 1911, is redescribed and reported from Brazil and Suriname for the first time. A key to the species is presented as well as data about the geographical distribution in Brazil.

Introduction

The subfamily Microgastrinae Foerster, 1862, comprises the largest number of species within the Braconidae, with approximately 2,500 described species though little is known from the Neotropical fauna. These parasitoids are distinguished by having antenna with 18 segments, the apical venation of the fore wing reduced and the spiracles of the first metasomal segment located in the laterotergites. They are solitary or gregarious koinobionts parasitoids attacking virtually all groups of Lepidoptera and are very important in the natural regulation of lepidopteran populations.

The members of the genus *Xanthomicrogaster* Cameron, 1911, have a Neotropical distribution, up to Central America. Up to now three species are known (Nixon, 1965): *X. fortipes* Cameron, 1911, *X. seres* Nixon, 1965, and *X. pelides* Nixon, 1965. This genus is characterised by having the setose part of the ovipositor sheath 0.3–1.0 times as long as hind tibia, the hypopygium of female evenly sclerotised and apically folded, the first tergite about as wide as long and apically distinctly broadened, and with a deep median furrow, and the second tergite rectangular, without oblique grooves, but both anterior and posterior edges defined by deep crenulate grooves. The propodeum is usually smooth, except for some strong sculpture near lateral carinae and a longitudinal median carina. The hind tibial spurs are large and the hind coxae very large (fig. 2). The antenna is dark brown but scape and pedicel yellow and outer side of scape black or dark brown.

The type specimens are deposited in the collections of DCBU (= Departamento de Ecologia e Biologia Evolutiva da Universidade Federal de São Carlos, São Carlos, São Paulo, Brazil) and RMNH (= National Museum of Natural History, Leiden, The Netherlands).

The genera of Microgastrinae can be identified with keys provided by Whitfield

(in Wharton et al., 1997) and Mason (1981). Terms for body morphology and wing venation follow Mason (1981).

Key to species of the genus *Xanthomicrogaster* Cameron

1. Mesosoma completely yellow (but sometimes propodeum with pair of dark spots apico-laterally); propodeum largely smooth near lateral carinae; Brazil, Guyana, Suriname *X. fortipes* Cameron, 1911
- Mesosoma partly black; propodeum strongly sculptured near lateral carinae (unknown of *X. pelides* and *seres*) 2
2. Mesosoma and hind coxa completely black; Brazil *X. pelides* Nixon, 1965
- Mesosoma and hind coxa partly yellow (figs 1, 2) 3
3. Hind coxa yellow ventrally; second metasomal tergite completely yellow (fig. 2); Brazil *X. maculatus* spec. nov.
- Hind coxa blackish ventrally; second tergite blackened; Mexico *X. seres* Nixon, 1965

Xanthomicrogaster maculatus spec. nov. (figs 1, 2)

Material.— Holotype, ♀, (DCBU), **Brazil**, MG, Sete Lagoas, 27.vii.-8.viii.2000, W. Matrangolo, Malaise trap. Paratypes (DCBU, RMNH): 1 ♀, Brazil, SP, Fazenda Canchim, São Carlos, 14.x.2000, L.A. Joaquim, Malaise trap; 1 ♀, id., but 30.ix.2000; 3 ♀ ♀, id., but 13.x.1998; 1 ♀, id., but 26.x.2000; 1 ♀, id., but 24.iii.1983, A. S. Soares.

Holotype, ♀. Head yellow; flagellomeres dark brown.

Mesosoma partly yellow (fig 1); lateral and central lobes of mesoscutum, scutellum laterally ("lunules"), lower half of mesopleuron, mesosternum, metanotum and some areas of propodeum black (fig 2). Propodeum strongly sculptured along lateral carinae, but polished medially. Legs yellow, but hind trochanter, trochantellus, apex of hind tibia and hind tarsus more or less brownish.

Fore wing hyaline; pterostigma brown with central area paler.

Metasoma: first, second and most of third tergites yellow, remainder of metasoma largely black (fig. 1), shiny and smooth. First and second tergites coarsely punctate and rugulose. First tergite with complete median furrow. Second tergite 2.2-3.2 times wider than long. Central area of hypopygium brown. Ovipositor sheath black.

Body length: 3.7 mm.

Male.— Unknown.

Distribution.— Brazil (states of São Paulo and Minas Gerais).

Etymology.— The name refers to the black colour pattern of the body.

Xanthomicrogaster fortipes Cameron, 1911 (figs 3, 4)

Xanthomicrogaster fortipes Cameron, 1911: 325.

Material (DCBU, RMNH).— 4 ♀ ♀, Universidade Federal de São Carlos, São Carlos SP, Brazil,



Figs 1,2, *Xanthomicrogaster maculatus* spec. nov., ♀, paratype; figs 3, 4, *X. fortipes* Cameron, ♀, Brazil. 1, habitus, dorso-lateral aspect; 2, id, but detail of mesosoma; 3, id., lateral aspect; 4, habitus, dorsal aspect.

8.ix.1998, Malaise trap, L.A. Joaquim; 1 ♀, id., but 4.ix.1981; 1 ♀, São Carlos, SP, Fazenda Canchim, 11.iv.1989, L.A. Joaquim; 1 ♀, Brazil, Pará, Santarém, 2.ix.1998, Malaise trap, A.R. Lisboa; 1 ♀, id., but 1.iv.1999; 1 ♀, Brazil, MG, Sete Lagoas, 6-17.ix.1999, W. Matrangolo, Malaise trap; 1 ♀, id., but 24.x.-12.xi.1999; 1 ♀, id., but 9-23.xii.1999; 1 ♀, id., but 29.v.-12.vi.2000; 1 ♀, Brazil, SP, Fazenda Cambuhy, Matão, 18.xi.1999, L.A. Joaquim, Malaise trap;.

Head and mouth parts yellow. Flagellomeres pale brown or dark brown.

Mesosoma yellow. Humeral plate yellow, dark brown or blackish (fig. 4). Propodeum shiny and smooth, sometimes with pair of dark spots apico-laterally, lateral carinae of propodeum straight, forming an "Y". All legs yellow except for brown hind tarsus.

Fore wing hyaline with pterostigma brown to yellow with brown borders.

Metasoma yellow. First tergite finely punctate posteriorly smooth; second tergite 2.5-3.4 times wider than long, finely punctate, sometimes with a shiny and smooth central area. Second metasomal tergite medially coarsely punctate. Following tergites shiny and smooth, with an apical row of setae. Ovipositor sheath black.

Body length: 3.3 mm.

Male.— Unknown.

Distribution.— Guyana; *Suriname (in collection of RMNH), *Brazil (states of Pará, Minas Gerais and São Paulo). (*= new record for the species.)

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