Description of a new genus of Doryctinae wasps (Hymenoptera: Braconidae) from Brazil

S.A.G. Gomes & A.M. Penteado-Dias

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S.A.G. Gomes, Programa de Pós-Graduação em Ecologia e Recursos Naturais da Universidade Federal de São Carlos. Cx. Postal 676. CEP 13565-905, São Carlos, SP, Brasil (e-mail: silvanagg@ig.com.br).
A.M. Penteado-Dias, Departamento de Ecologia e Biologia Evolutiva da Universidade Federal de São Carlos. Cx. Postal 676, CEP 13565-905, São Carlos, SP, Brasil (e-mail: angelica@power.ufscar.br).

Key words: Braconidae; Doryctinae; *Lianus*; new genus; Brazil.
The new genus *Lianus* of subfamily Doryctinae (Hymenoptera: Braconidae) is described and illustrated. The differences from other genera of Doryctinae are discussed. Both included species originate from the Atlantic forest at Campos do Jordão, São Paulo State, Brazil.

Introduction

The subfamily Doryctinae is one of the most diverse groups in the family Braconidae with about 140 described genera worldwide, especially in the Old and New World tropics (Marsh, 1993). Studies for the Neotropics (Marsh, 1993; Barbalho et al., 1999) and for the Old World (Belokobylskij, 1994a+b, 1995) have shown the incredible diversity at the generic level and have lead to revised concepts of previously described genera.

The Doryctinae is a member of the cyclostome braconids and it is distinguished from other cyclostomes by the following combinations: fore tibia with a row of stout spines or chaetobothria along the anterior edge which are usually shorter and distinct from normal setae or hairs; presence of a flange at the apico-lateral edges of the propleuron just above the fore coxae and extending slightly over the ventral-lateral corner of the pronotum; the presence of a transcutal articulation between the scutellum and the mesonotum; and the dorsal valve of the ovipositor which has a double node at its apex (Marsh, 1993).

The material was collected in the Atlantic forest area, in Campos do Jordão, São Paulo State, Brazil, using Malaise traps, from November to December 2001 and September to October, 2002, to 800 (22°45'11"S 45°26'77"W), 1300 (22°45'0"S 45°26'93"W), 1700 (22°44'1"S 45°26'90"W) and 1800 m of altitude (22°43'86"S 45°27'36"W). The specimens were deposited in DCBU (Universidade Federal de São Carlos - Departamento de Ecologia e Biologia Evolutiva) and RMNH (Nationaal Natuurhistorisch Museum, Leiden, Netherlands). For morphological terms see Marsh (1997).

Addition to key of the New World genera of Doryctinae by Marsh (1997)

81 (80). Sculpture at base of second metasomal tergite alveolate; first tergite only slightly longer than its apical width ..... ***Hemidoryctes*** Belokobyl'skij, 1933 (= ***Atopodoryctes*** Marsh, 1993)

- Sculpture at base of second metasomal tergite not alveolate; first tergite distinctly longer than apical width 82

82 (81). First tergite nearly twice as long as apical width; first subdiscal cell of fore wing moderately wide; vein m-cu of fore wing distinctly antefurcal; vein 1r-m of hind wing medium-sized; fore wing moderately wide; propodeal areola present ..... ***Cyphodoryctes*** Marsh, 1993

- First tergite about 3 times as long as apical width; first subdiscal cell of fore wing narrow (figs 1, 2); vein m-cu of fore wing interstitial; vein 1r-m of hind wing short (figs 1, 2); fore wing narrow (figs 1, 2); propodeal areola absent ..... ***Lianus*** gen. nov.

Lianus gen. nov.
(figs 1-4)

Type species. *Lianus flavus* spec. nov.

Diagnosis.— Body length, 5.0-5.7 mm; oral opening circular, diameter about equal to length of malar space; eye moderate, malar space ½ eye height, temple ¾ width of eye; antenna with 26-29 segments; occipital carina meeting hypostomal carina; middle mesonotal lobe few swollen at anterior corners and strongly declivous, meeting pronotum at acute angle; notauli scrobiculate; sternaulus scrobiculate; propodeum coriaceous without distinct carina forming areola; first metasomal segment about 3 times longer than apical width, apical width about 3 times longer than basal width; ovipositor about equal to length of body; hind coxa with distinct basal tooth; fore wing with vein r-m present and spectral, cell 2-CU closed at apex, vein 2cu-a present; hind wing with vein M+CU 0.5 times length of 1M or less.

Distribution.— Usina Santa Izabel, Campos do Jordão city, São Paulo State, Brazil.

Notes.— This genus will run to the genus *Cyphodoryctes* in the key by Marsh (1997) but it is distinguished by the absence of the areola of the propodeum, by the length of ovipositor sheath (about equal to length of body) and by having the first metasomal segment about 3 times longer than its apical width.

Etymology.— Named after one of the collectors, Mr Liano Centofante.

Key to species of the genus *Lianus* nov.

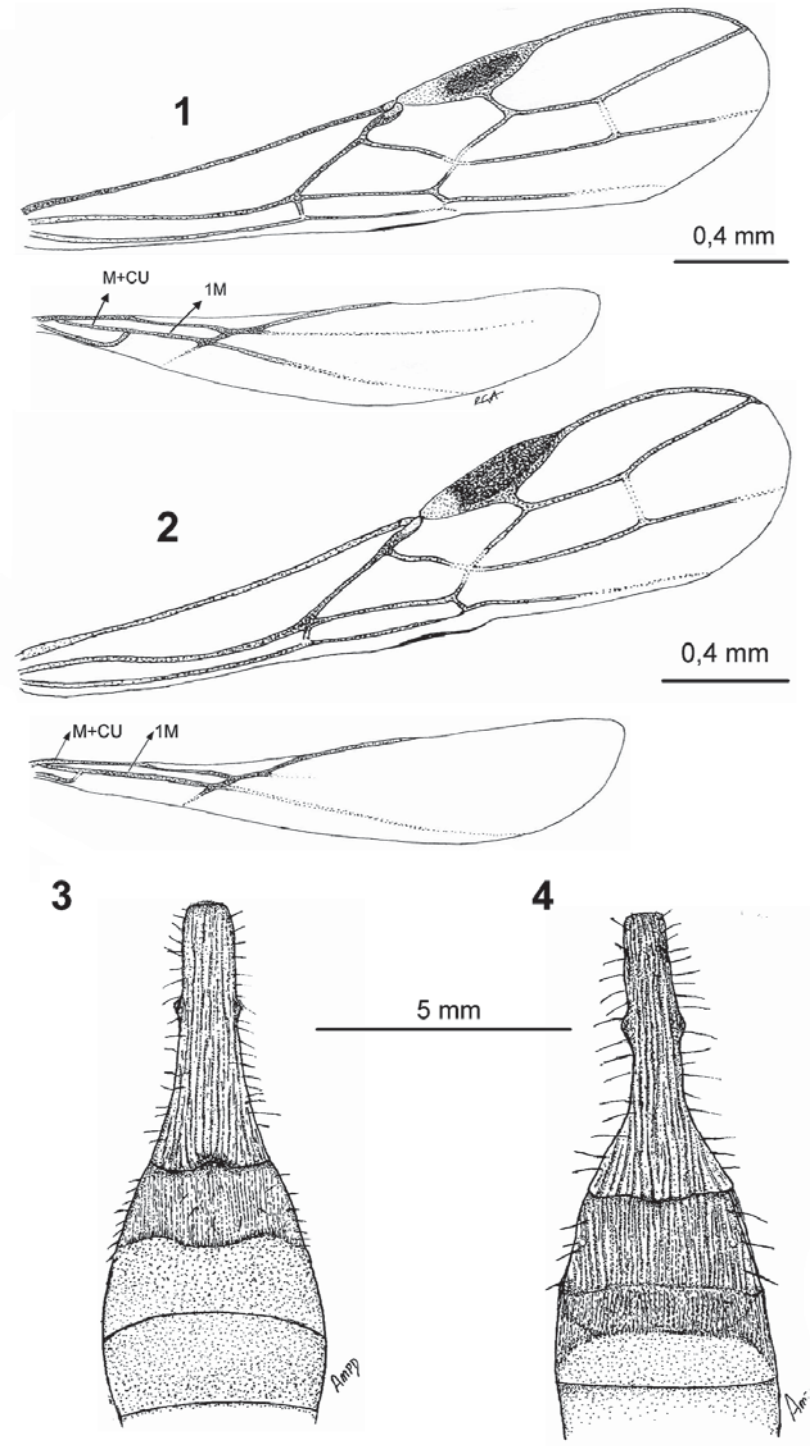
1. First and second metasomal tergites striate (fig. 3), remaining terga smooth and shining; vein M+CU of hind wing 0.5 times length of vein 1M (fig. 1) ..... ***L. flavus*** spec. nov.

- First, second and basal half of third metasomal tergites striate (fig. 4); vein M+CU of hind wing 0.3 times length of vein 1M (fig. 2) ..... ***L. brasiliensis*** spec. nov.

Lianus flavus spec. nov.
(figs 1, 3)

Material.— Holotype, ♀ (DCBU), "**Brasil**, SP, Usina Santa Izabel, Campos do Jordão, Malaise [trap], 1300 m altitude, 22°45'00"S 45°26'93"W, 23.xi-10.xii.2001, S.A.G. Gomes & team coll.". Paratype. 1 ♀ (RMNH), id., but 1700 m altitude, 22°44'1"S 45°26'90"W.

Figs 1, 3, *Lianus flavus* gen. nov. & spec. nov., ♀, holotype; figs 2, 4, *L. brasiliensis* gen. nov. & spec. nov., ♀, holotype. 1, 2, wings; 3, 4, metasoma, dorsal aspect. ▶


1
0,4 mm
M+CU
1M
2
0,4 mm
M+CU
1M
3
4
5 mm

Female.— Body length 5.3-5.5 mm, ovipositor sheath 5.0-5.7 mm; fore wing 3,6 mm.

Colour.— Head dark yellow; antenna yellow; mesosoma and metasomal tergites orange, sternites yellow; fore and middle legs yellow; hind coxa and femur orange, hind trochanter, tibia and tarsus yellow; ovipositor sheaths yellow with apex black; fore wing with pair of infuscate bands, veins and pterostigma brown but base of pterostigma yellow, tegula light yellow.

Head.— Smooth except frons, face and vertex striate; antenna with 29 segments; ocelli small, ocellocular distance three times diameter of lateral ocellus; POL:OD:OOL = 3.2.6.

Mesosoma.— Pronotum punct-crenulate; mesonotum punctate; mesopleuron crenulate; propodeum coriaceous.

Wings.— Fore wing: r:3RSa:3RSb = 6.16.28; (RS+M)b absent. Hind wing: M+CU:1M: 1r-m = 8.16.4; vein M+CU 0.5 times length of vein 1M (fig. 1).

Legs.— Hind coxa rugose; femur, tibia and basitarsus of hind leg 5.5, 14 and 6 times their width, respectively; length hind leg 4.2 mm.

Metasoma.— Length first tergite 1.4 mm, 2.8 times its apical width; first and second metasomal terga striate (fig. 3); metasomal terga remaining smooth; length of ovipositor 1.3 times fore wing.

Variation.— Mesopleura black posteriorly; first tergite orange, remainder yellow; middle femur, tibia and tarsus orange; hind tibia orange with 1/5 yellow and hind tarsus orange.

Male.— Unknown.

Etymology.— The specific name (from Latin: *flavus* meaning yellow) refers to the main body colour.

Lianus brasiliensis spec. nov.
(figs 2, 4)

Material.— Holotype. ♀ (DCBU), "**Brasil**, SP, Usina Santa Izabel, Campos do Jordão, Malaise [trap], 1800 m altitude, 22°43'86"S 45°27'36"W, 23.xi-10.xii.2001, S.A.G. Gomes & team coll.". Paratype. 1 ♀ (DCBU), id., but 800 m altitude, 22°45'11"S 45°26'77"W, 27.ix.-12.x.2002.

Female.— Body length 5.1 mm; ovipositor sheath 5.0-5.1 mm; fore wing 3,7 mm.

Colour.— Head brown; scape and pedicel dark yellow with brown lateral stripe, flagellum 1-9 dark yellow, remaining brown; mesosoma brown; metasomal terga brown, sterna brown; fore and middle legs with coxae and trochanters brown, femur brown, tibiae yellow with brown longitudinal stripe dorsally and ventrally, tarsi brown; hind leg with coxa brown, trochanter brown, femur brown, tibia yellow with brown mark, tarsus brown; ovipositor sheath yellow with apex black; fore wing with pair of infuscate bands, veins brown, base of pterostigma yellow, tegula brown.

Head.— Smooth except frons, face and vertex striate; antenna with 26 segments; ocelli small, ocellocular distance three times diameter of lateral ocellus; POL:OD:OOL = 2.2.4.

Mesosoma.— Pronotum punct-crenulate; mesonotum punctate; mesopleuron crenulate; propodeum coriaceous.

Wings.— Fore wing: r:3RSa:3RSb = 4.17.24; (RS+M)b absent. Hind wing: M+CU:1M: 1r-m = 7.21.3; vein M+CU 0.3 times length of vein 1M (fig. 2).

Legs.— Hind coxa rugose; femur, tibia and basitarsus of hind leg 6, 11 and 6 times their width, respectively; length hind leg 4.1 mm.

Metasoma.— Length first tergite 1.5 mm, 3 times its apical width; first, second and basal half of third metasomal terga striate (fig. 4); metasomal terga remainig smooth; length of ovipositor 1.2 times fore wing.

Variation.— Head dark yellow; 29 antennomeres, flagellomeres 1-12 yellow, remainder brown; mesosoma reddish brown; first-third metasomal tergites orange, remainder of metasoma brown; fore and middle coxae and trochanters yellow, femora and tibiae yellow with a brown mark, tarsi dark yellow; hind coxa brown, hind trochanter yellow; hind femur brown with a yellow mark; hind tarsus dark yellow; tegula reddish brown.

Male.— Unknown.

Etymology.— The name of the species refers to the country of origin.

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