

TAXONOMY OF *APENESIA* (HYMENOPTERA, BETHYLIDAE) FROM ESTAÇÃO BIOLÓGICA DE SANTA LÚCIA, ESPÍRITO SANTO, BRAZIL

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ABSTRACT

Apenesia aurita sp. nov., from southeastern Brazil, is described and illustrated. *Apenesia angusticeps* Evans, 1963, *A. tenebrosa* Evans, 1963, *A. pallidicornis* Evans, 1963, *A. quadrimera* Leal & Azevedo, 2001 and *A. crenulata* Kieffer, 1910 are recorded for the first time to the State of Espírito Santo.

KEYWORDS. *Apenesia*, Hymenoptera, Pristocerinae, southeastern Brazil.

INTRODUCTION

The genus *Apenesia* Westwood, 1874 belongs to subfamily Pristocerinae. Biological data suggest it is parasitoid of myrmecophagous larvae of beetles (EVANS, 1963). The structure of female suggests that they spend most of their time in the soil or in wood looking for bugs (EVANS, 1963). The genus has about 141 species, and it is more abundant in Neotropical region, with 88 species. In Brazil, 34 species are recorded, which range along the states of Amazonas, Pará, Mato Grosso, Minas Gerais, Rio de Janeiro to Rio Grande do Sul. *Apenesia* was recorded to Espírito Santo by CORRÊA & AZEVEDO (2001), which mentioned six species to Reserva Biológica de Duas Bocas. LEAL & AZEVEDO (2001) mentioned nine species to Paraná. AZEVEDO & BATISTA (2002) studied this genus in an area of Amazon rain forest in Parque Nacional da Serra do Divisor, State of Acre, when ten species were described.

The material studied was collected through sweeping of vegetation, in a trail of primary Atlantic rain forest in Estação Biológica de Santa Lúcia, Santa Teresa, Espírito Santo, and is deposited in Entomological Collection of Universidade Federal do Espírito Santo (UFES). Eight species were recognized, five of them recorded for the first time to Espírito Santo and one described as new.

The nomenclature of integument sculpture follows HARRIS (1979) and the general terminology EVANS (1963). Main measurements and indices used are: DAO, diameter of

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anterior ocellus; distance from posterior ocellus to vertex crest; HE, height of eye; LFW, length of fore wing; LH, length of head; OOL, ocello-ocular line; VOL, vertex-ocular line; distance from the eye top to vertex crest; WF, width of frons; WH, width of head; WOT, width of the ocellar triangle.

pilicornis species group

***Apenesia angusticeps* Evans, 1963**

Apenesia angusticeps EVANS, 1963:275, figs. 3, 10, type locality: Bolivia, holotype in Museum of Comparative Zoology.

Distribution. Bolivia; it is recorded for the first time to Espírito Santo, Brazil.

Variation. This species is characterized by having ventral ramus of the digitus short. In comparison to the type, head can be wider or longer, median clypeus straight or arched and lower or higher in profile.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 14 ♂, 30.I.-26.X.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

***Apenesia tenebrosa* Evans, 1963**

Apenesia tenebrosa EVANS, 1963:273, fig. 5, type locality: Rio de Janeiro, Brazil, holotype in Smithsonian Institution (USNM).

Distribution. Rio de Janeiro; it is recorded for the first time to Espírito Santo, Brazil.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 8 ♂, 30.I.-27.IX.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

columbana species group

***Apenesia pallidicornis* Evans, 1963**

Apenesia pallidicornis EVANS, 1963:289, fig. 21, type locality: Pará, Brazil, holotype in Carnegie Museum.

Distribution. Pará; it is recorded for the first time to Espírito Santo, Brazil.

Variation. In this series, legs and antennae can be light to dark castaneous or black.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 8 ♂, 23.IV-10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

brasiliensis species group

***Apenesia transversa* Evans, 1963**

Apenesia transversa EVANS, 1963:333, figs. 110, 115, type locality: Rio de Janeiro, Brazil, holotype in USNM.

Distribution. Espírito Santo, Rio de Janeiro, Paraná and Santa Catarina, Brazil.
Variation. In this series, antennae can be light to dark castaneous.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 10 ♂, 23.II.-27.IX.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

mexicana species group

***Apenesia quadrimera* Leal & Azevedo, 2001**

Apenesia quadrimera LEAL & AZEVEDO, 2001:674, figs. 1, 2, type locality: Paraná, Brazil, holotype in Universidade Federal do Paraná.

Distribution. Paraná; it is recorded for the first time to Espírito Santo, Brazil.

Variation. In comparison to the type, apical margin of the paramere can be slightly more truncate than rounded; median carina of the clypeus straight or angulate in profile.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 179 ♂, 30.I.-10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

***Apenesia distincta* Corrêa & Azevedo, 2001**

Apenesia distincta CORRÊA & AZEVEDO, 2001:171, figs. 13-16, type locality: Espírito Santo, Brazil, holotype in UFES.

Distribution. Espírito Santo and Paraná, Brazil.

Variation. In comparison to the type, metasoma can be lighter, body more robust, apex of ventral ramus of digitus more angulate.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 107 ♂, 30.I.-10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

laevigata species group

***Apenesia crenulata* Kieffer, 1910**

Apenesia crenulata KIEFFER, 1910:289, type locality: Pará, Brazil, holotype in California Academy of Science.

Distribution. Pará; it is recorded for the first time to Espírito Santo, Brazil.

Material examined. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), 3 ♂, 23.II.-10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

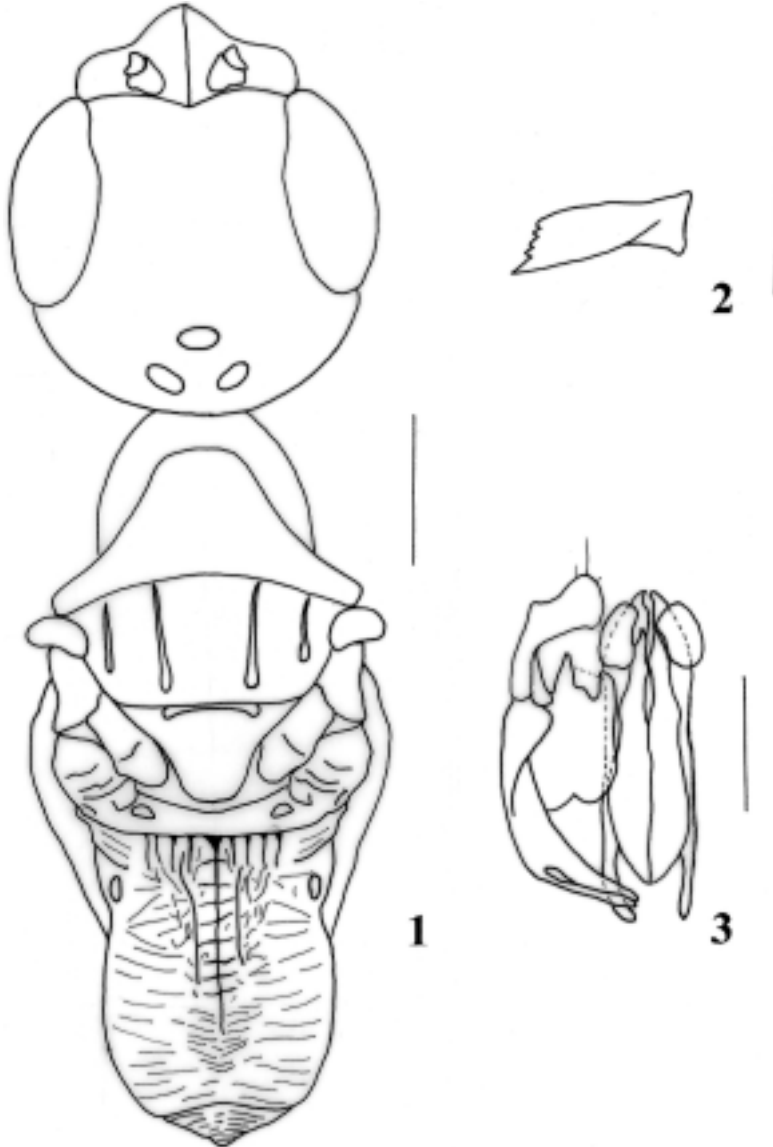
***Apenesia aurita* sp. nov.**

(Figs. 1-3)

Description. ♂, length 4.60 mm; LFW 3.42 mm. Head and mesosoma black; metasoma dark castaneous; mandibles, palpi, tegulae and legs light castaneous; antennae dark

castaneous, scape, pedicel and flagellomere I lighter, wings subhyaline.

Head (fig. 1): mandibles with five teeth, the lowest large and sharpened (fig. 2). Clypeus with median lobe much projected and angulate, side slightly convex, median carina high and arched profile. First four antennal segments in a ratio of 15:4:20:17;



Figs. 1-3. *Apenesia aurita* sp. nov.: 1, head and mesosoma, dorsal; 2, mandible, frontal; 3, male genitalia, ventral (scale bars = 0.25 mm).

segment III 4.40x longer than wide; segment XI 4.50x longer than wide; flagellar pubescence straight, as long as diameter of antennal segments. Eyes with some short hairs. Frons polished, weakly punctuated. WH 0.88x LH; WF 0.57x WH; WF 0.95x HE; OOL 1.22x WOT; frontal angle of ocellar triangle acute; posterior ocellus distant from the crest vertex 0.88x DAO. Vertex broadly rounded. VOL 0.39x HE. Mesosoma (fig. 1): thorax polished, without anterior transverse carina; notauli incomplete anteriorly. Propodeal disc 1.20x longer than wide, with median carina incomplete, without posterior transverse carina; basal triangle ill-marked off, with strong transverse striae behind; lateral of propodeum striate; declivity striate, without median carina. Metasoma: petiolate. Hypopygium with posterior margin straight.

Genitalia (fig. 3): paramere with base not so narrow, slightly less than 0.5x length of paramere, apex with rounded corners, apical margin concave, upper inner corner inclined, ventral apical area with hairs; volsella with ventral ramus of digitus small, less than a third of the length of paramere, rounded and hairy apex, basivolsella with ventral margin rounded; *aedeagus* evenly thick, apex rounded, slightly shorter than apex of paramere, with a pair of median lobes sharpened and a pair of lateral lobes laminar, somewhat subtriangular, wide, projecting beyond lateral margin of *aedeagus*.

Type material. BRAZIL, **Espírito Santo**: Santa Teresa (Estação Biológica de Santa Lúcia), holotype ♂, 10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES). Paratypes: same locality of holotype, 7 ♂, 27.IX.-10.XII.2001, sweeping, C.O. Azevedo & R. Kawada col. (UFES).

Remarks. *Apenesia aurita* belongs to *laevigata* group, and is similar to *A. crenulata*, which differs by having a pair of apical lobes of the *aedeagus* wide which projects beyond lateral margin of the *aedeagus* and head wider and punctuated.

Etymology. The specific name refers to apical lobes of *aedeagus*.

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