SYSTEMATICS, MORPHOLOGY AND PHYSIOLOGY

First Record and Description of a New Species of *Sycorax* Curtis (Diptera: Psychodidae, Sycoracinae) from the Brazilian Amazon

FREDDY BRAVO

Depto. Ciências Biológicas, Univ. Estadual de Feira de Santana, Av. Universitária s/n, 44031-460, Feira de Santana, BA
fbravo@uefs.br

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Primeiro Registro e Descrição de uma Espécie Nova de *Sycorax* Curtis (Diptera: Psychodidae, Sycoracinae) da Amazônia Brasileira

RESUMO - *Sycorax longispinosa* sp. nov. é descrita da Serra do Cachorro, estado do Pará. Essa espécie nova constitui o primeiro registro do gênero na Amazônia brasileira. É apresentada uma chave de identificação para machos das espécies neotropicais de *Sycorax*.

PALAVRAS-CHAVE: Taxonomia, díptero, Neotropical, *Sycorax longispinosa*

ABSTRACT - *Sycorax longispinosa* sp. nov. is described from Serra do Cachorro, Pará State, Brazil. This new species is the first record of the genus from the Brazilian Amazon. An identification key for males of species of *Sycorax* from the neotropical region is presented.

KEY WORDS: Taxonomy, dipterous, Neotropical, *Sycorax longispinosa*

There are 32 recently described species in the genus *Sycorax* Curtis from around the world (Ježek 1999, Bravo 2003), with eight from the Neotropics (Barretto 1956, Duckhouse 1972, Young 1979, Bravo 2003), one from Chile (*S. chilensis* Tonnoir), four from Colombia (*S. andicola* Young, *S. colombiensis* Young, *S. fairchildi* Young & *S. trispinosa* Young) and three from Brazil (*S. assimilis* Barretto and *S. satchelli* Barretto from São Paulo State in southeastern Brazil and *S. bahiensis* Bravo from Bahia State in northeastern Brazil). This paper describes for the first time a new species of *Sycorax s. s.* from the Brazilian Amazon.

Materials and Methods

The specimens of *Sycorax* were obtained from the Coleção de Invertebrados do Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Amazonas State, Brazil. All specimens were mounted in Canada balsam. Terminology used for the description of dipteran wings is according to Colles & McAlpine (1991). Morphologic terminology follows the proposal of McAlpine (1981). Specimens were deposited in the INPA collection and in the Coleção Entomológica do Museu de Zoologia da Universidade Estadual de Feira de Santana (MZUEFS), Feira de Santana, Bahia State, Brazil.

Sycorax longispinosa Bravo, sp. nov

(Figs. 1-12)

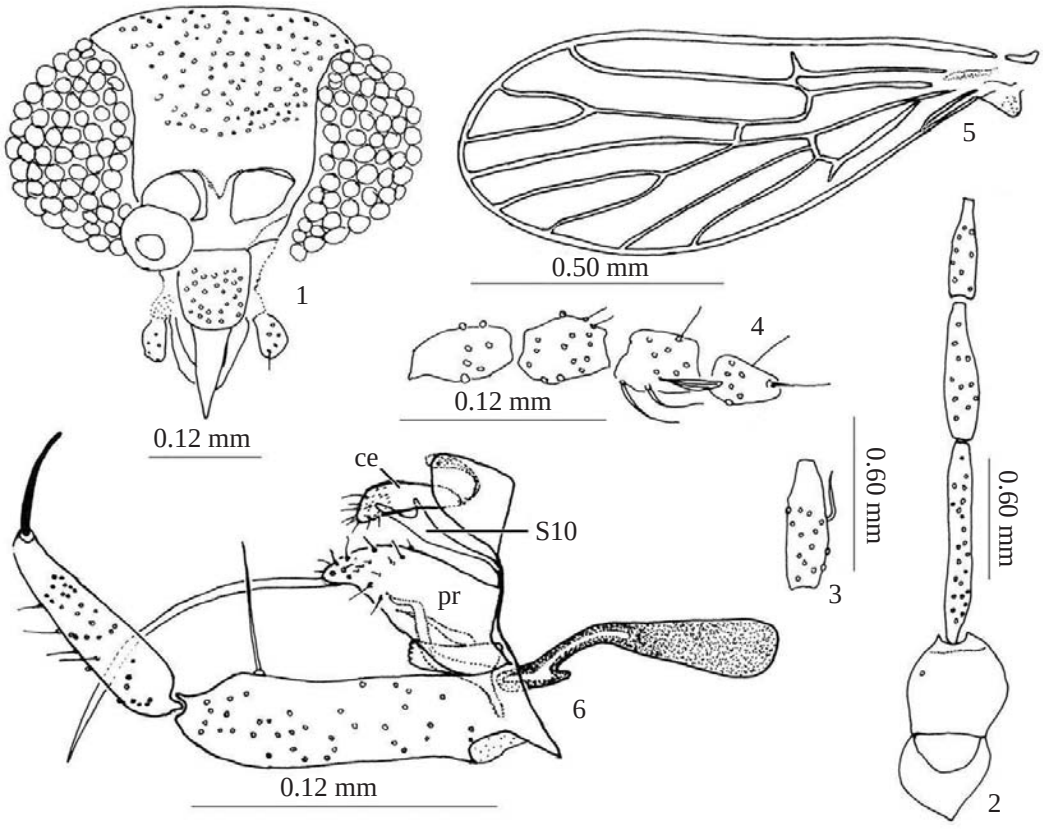
Type material. BRAZIL, Pará State, Serra do Cachorro, holotype male, 21.V.1998, TVB/RQ/FLS cols; five paratype males and one paratype female, with same locality, date and collectors as holotype (INPA); four paratype males and one paratype female, with same locality, date and collectors as holotype (MZUEFS).

Type locality. Serra do Cachorro, Pará. For a description of the Serra do Cachorro see Freitas & Barrett (1999).

Etymology. *longispinosa* refers to the long bristle of the paramere.

Diagnosis. This species can be distinguished from the other species of *Sycorax* by the following combination of characteristics: paramere with acute medial internal projection; paramere with a long, thick bristle near the apex, 1.5x the length of the paramere; apex of the subgenital plate of the female (sternite 8) rectangular in lateral view.

Description. Male. Eyes separated, without eye bridge; clypeus rectangular; labrum triangular and the same length as the clypeus (similar to the female head, Fig. 1); antenna



Figs. 1-6. *S. longispinosa* Bravo, sp. nov. Female: 1. Head (paratype). Male, holotype, except fig. 3 (paratype): 2. Base of antenna (scape, pedicel and three flagellomeres). 3. Flagellomere 4 with ascoids. 4. Maxillar palpi. 5. Wing. 6. Terminalia, lateral. (ce = cerci; pr = paramere; S10 = sternite 10).

incomplete in all specimens; scape and pedicel cylindrical (Fig. 2); pedicel 1.2x the length of the scape (Fig. 2); basal flagellomeres cylindrical (Fig. 2); 1st flagellomere 1.5x the length of the 2nd (Fig. 2); two ascoids observed only in the 4th flagellomere of a male paratype (Fig. 3); palpus formula = 1.7:1.5:1.3:1.2 (Fig. 4). Wing (Fig. 5) with Sc not reaching the C vein; CuA short, not reaching the margin of the wing. Tergite 9 pilose (Figs. 6, 8), wider than long (Fig. 8); cerci short, 0.3x the length of the gonocoxite, with micropilosity on the entire surface and few bristles at the apex (Fig. 6). Sternite 10 short, with the apex narrower than the base and with apical micropilosity (Fig. 6). Gonocoxite pilose, cylindrical, 1.3x the length of the gonostylus (Figs. 6, 7); gonocoxites fused basally with sternite 9 (Fig. 7). Gonostylus pilose with a long, thick bristle (= spine) at the apex (Figs. 6, 7). Parameres 0.5x the length of the gonocoxite (Fig. 7), with small bristles distally (Figs. 9, 10) and with a long and thick apical bristle, 2x the length of the paramere (Fig. 10); parameres with middle acute internal projection (Fig. 9). Aedeagus bifid with a pair of lateral sclerotized projections (Fig. 9). Aedeagal apodeme 0.8x the length of the gonocoxite, narrow dorsally, wide laterally (Figs. 7, 9).

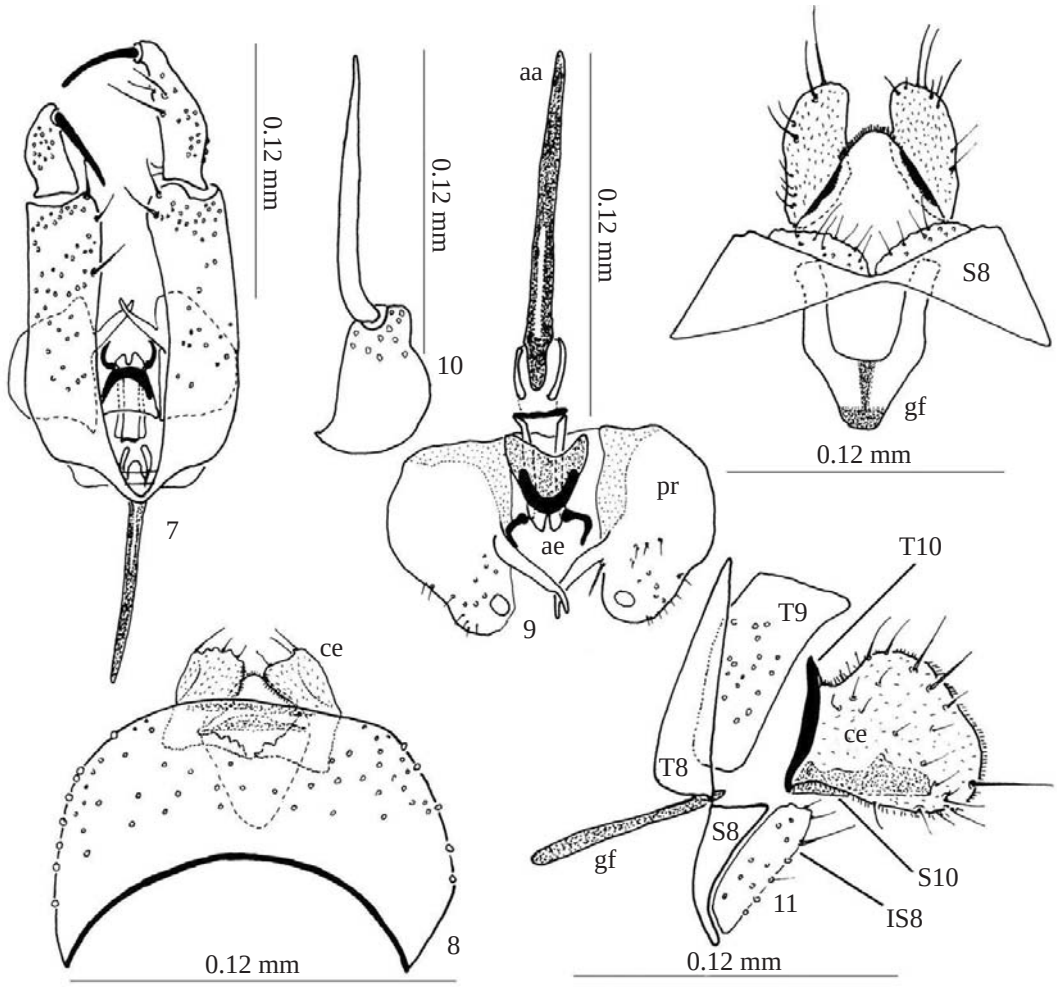
Female. Similar to males except as follows: Sternite 8 fused to tergite 8 (= sintergosternite) (Fig. 11); lobes of sternite 8 sub-rectangular in lateral view (Fig. 11), jointed in ventral view (Fig. 12). Tergite 9 wide (Fig. 11); internal genital fork (= sternite 9) V-shaped (Fig. 12). Tergite 10 narrow, sclerotized (Fig. 11); sternite 10 triangular (Fig. 12); cerci short and wide in lateral view (Fig. 11).

Comments. *S. longispinosa* Bravo sp. n. can be distinguished from the other species of *Sycorax* by the long bristle on the paramere. Most of the species of *Sycorax* have a bristle on the paramere but it is small, never larger than the length of the paramere, or absent in some neotropical species (*S. bahiensis* Bravo 2003), or reduced to an enlarged campaniform sensilla as in *S. autralis* Duckhouse from Australia.

Key to Males of *Sycorax* from the Neotropical Region

1. Cerci with an apical spine and two or three basal spines 2
- Cerci with only apical spine without basal spines.....6

2. First flagellomere 1.1 or 1.2x the length of the second; ascoids long, 2x the length of the flagellomere; Sc incomplete, not reaching the C vein.....*S. satchelli*
- First flagellomere 2x the length of the 2nd; ascoids small, 1/3



Figs. 7-12. *S. longispinosa* Bravo, sp. nov. 7-10 (holotype) male. 11-12 (paratype) female. 7. Male terminalia ventral. 8. Male terminalia dorsal. 9. Male terminalia, parameres, aedeagus and Aedeagal apodeme. 10. Male terminalia, paramere with long and thick bristle. 11. Female terminalia lateral. 12. Female terminalia ventral. (aa = aedeagal apodeme; ae = aedeagus; ce = cerci; gf = genital fork; lS8 = lobe of sternite 8; pr = paramere; S8 = sternite 8; S10 = sternite 10; T8 = tergite 8; T9 = tergite 9; T10 = tergite 10).

the length of the flagellomere; Sc complete, reaching the C vein.....3

3. Gonostylus with apical spine and three basal spines..... .....*S. andicola*
- Gonostylus with apical spine and two basal spines.....4

4. Gonocoxite without long subterminal hair; median process of aedeagus with basal two-thirds expanded and terminal one-third slender in dorsal view.....*S. trispinosa*
- Gonocoxite with long subterminal hair; median process of aedeagus parallel-sided in dorsal view; lower distal projection of paramere pointed at tip.....5

5. Aedeagal ducts relatively long, sinuous, exceeding the length of the aedeagal apodem; tip of aedeagus rounded in lateral view.....*S. colombiensis*
Aedeagal ducts short, less than length of aedeagal apodem and not sinuous; tip of median process of aedeagus angular in lateral view.....*S. fairchildi*

6. Gonostyle with long subterminal bristle.....7
- Gonostyle without long subterminal bristle.....8

7. Paramere with long, thick bristle, 2x the length of the paramere; apex of aedeagus straight..... .....*S. longispinosa* sp. nov.
- Paramere without long, thick bristle; apex of aedeagus curved.....*S. assimilis*

8. Parameres wide and long in dorsal view, the same length as the gonopods (gonocoxite + gonostylus)..... .....*S. bahiensis*
- Parameres narrow and short in dorsal view, 0.5x the length of the gonocoxites, with an internal medial process bifurcate at apex.....*S. chilensis*

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