TWO NEW SPECIES OF *SISYRIDAE* (*NEUROPTERA*) FROM THE AMAZON BASIN

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Summary

Two new species of *Sisyridae, Sisyra elongata* and *Climacia bifasciata* are described from the Amazon Basin, and a revised key is presented to species known from this region.

Resumo

Apresenta-se a descrição de duas novas espécies de *Sisyridae, Sisyra elongata* e *Climacia bifasciata*, da Bacia Amazônica, e também uma chave revisada para as espécies conhecidas desta região.

Résumé

Deux nouvelles espèces de *Sisyridae, Sisyra elongata* et *Climacia bifasciata* sont décrites du bassin amazonien; par ailleurs, les auteurs présentent une clé mise à jour, des espèces connues de cette région.

INTRODUCTION

The family Sisyridae is a small one with Monserrat (1977) listing only 3 genera and 42 species for the entire world's fauna. However, Penny (1981) described 2 genera and 8 species from the Amazon Basin and recently two more species were encountered. Thus, the Amazon Basin continues to be one of the centers of distribution for this small group, and with intensive collecting in some of the more remote areas this number may increase even more.

*Climacia bifasciata* Penny & Rafael, n. sp.
(Figs. 1-3)

Holotype male and allotype female, in alcohol, in the Systematic Entomology Collections of INPA, Manaus.

Description based on types.

*Head*: Yellow with fuscous central mark on occiput. Antennae consisting of yellow scape and pedicel and more than 15 black moniliform flagellomeres (apex of all antennae broken off). Maxillary and labial palpi yellow.

*Thorax*: Notal region yellow with abundant dark setae. Pleural regions yellow.
Legs: Completely yellow.

Wings: Forewing (Fig. 1) yellow with two black streaks. The basal streak a uniformly wide band from subcosta to anal margin at level of first radial sector fork. Apical streak an oblong spot from costal margin to R₅ at level just basal of pterostigma. All longitudinal and transverse veins yellow.

Hindwing paler yellow with parlor brown indications of same two streaks as in forewing.

Abdomen of Male: Abdominal segments very lightly sclerotized. Male ectoprocts (Fig. 2) greatly expanded apically, forming triangular sclerite. Mesal surface (Fig. 3) bearing basal projection with three apical teeth. Ninth coxopodite with mesal projection at base of stylus and mediuncus each bearing three apical setae.

Body Length: male, 3.0 mm; female, 4.8 mm (ovipositor extended).

Forewing Length: male, 4.0 mm; female, 4.5 mm.

Temporal Distribution: The two known specimens were both collected on August 20.

Geographical Distribution: Both holotype and allotype were collected at Brazil: Amazonas, Reserva Ducke, AM-010, km 26, 20-VIII-1982, J. A. Rafael, 1 male, 1 female, Malaise trap (INPA).

Habitat: Both specimens were collected from a Malaise trap placed in the forest near Igarapé Barro Branco, a small, clear water stream which runs through the Reserve.

Species Relationships: This species is clearly related to C. bimaculata because of wing pigmentation and lateral projections of male ectoprocts. However, the basal streak of the forewing is much longer in C. bifasciata and the lateral projections of the tenth tergites much larger.

The Latin name bifasciatus is used to emphasize the distinctive band and elongate spot on the forewing.

Sisyra elongata Penny & Raphael, n. sp. (Figs. 4-6)

Holotype male, in alcohol, in the Systematic Entomology Collections of INPA, Manaus; paratype male, on a slide, in the Museu de Zoologia, Universidade de Sao Paulo. Description based on types.

Head: Yellowish on frons, dark brown on vertex. Maxillary palpi lost. Labial palpi short, three-segmented, pale fuscos. Antennae consisting of yellowish scape and pedicel, and 34 setiferous, moniliform flagellomeres- the basal 32 being fuscos and the last two pale yellow.

Thorax: Fuscos, with numerous setae pale yellow.

Legs: Fore and hindlegs (both mesothoracic legs lost) with dark fuscous femur and pale yellow tibia and tarsi.
Wings: In forewing, costal field with eight crossveins before pterostigmal area (Fig. 4). Two crossveins between R s and Rs. Three crossveins forming inner grade series. Forewing fuscous, with longitudinal veins bordered with pale yellow. Hindwing uniformly pale fuscous; with only two crossveins.

Abdomen of Male: Basal segments lightly sclerotized. Ninth sternite not projecting. Claspers (tenth tergites) in lateral view (Fig. 6) very elongate and apically expanded, bearing three small apical teeth. Basally, on medial surface (Fig. 5) a narrow, elongate, medially projecting protuberance with subapical seta. Ninth gonocoxites appear to articulate on the protuberance.

Female unknown.

Body Length: male, 2.7-3.0 mm.

Forewing Length: male, 3.9 mm.

Temporal Distribution: The two known specimens were collected on August 24 and September 21.

Geographical Distribution: The holotype was collected at BRAZIL: Amazonas, Reserva Ducke, AM-010, km 26, 24-VIII-1982, J. A. Rafael, 1 male, Malaise trap (INPA). The paratype bears the same data, except 21-IX-1981.

Habitat: This species was collected in the same habitat as C. bifasciata.

Species Relationships: S. elongata is most closely related to S. amazonica and S. apicalis because of the elongate male claspers. However, the apical expansion is found only in S. elongata. The antennal coloration also appears to separate these three species.

The Latin name elongata is used because of the length of male claspers, a very distinctive character state shared by few other species.

With the inclusion of these two species, there are now 10 species of Sisyridae known from the Amazon Basin, which can be separated using the following key:

**Key to known species of Sisyridae from the Amazon Basin (males)**

1a. A series of outer graduade crossveins present in fore and hind wings (Climacia) .......................................................... 2

1b. No series of outer gradate crossveins present in either wing (Sisyra) . 5

2a. A conspicuous radiomedial streak in forewing .................. 3

2b. No conspicuous radiomedial streak in forewing .................. C. townesi

3a. Forewing with basal radiomedial streak not accompanied by extensive spotting along longitudinal veins ............................................. 4

3b. Forewing with basal radiomedial streaks accompanied by extensive spotting along longitudinal veins .......................... C. negrense

4a. Radiomedial streak extending to anal margin; Male ectoprocts forming elongate triangle ............................................. C. bifasciatus
4b. Radiomedial streak not extending to anal margin of forewing; male ectoprocts extended caudally only as small ventral projection \textit{C. bimaculata}

5a. No longitudinal veins of forewing with pale streaks; antennae yellowish with basal two segments fuscous; male claspers beak-like, sharply curved dorso-ventrally to point \textit{S. minuta}

5b. All longitudinal veins of forewing broadly bordered with pale streaks; antennae variable

6a. Male claspers more than four times as long as wide; antennae yellow basally

6b. Male claspers only about twice as long as wide; antennae dark throughout

7a. Male claspers apically expanded \textit{S. elongata}

7b. Male claspers apically narrowed, or parallel-sided for entire length

8a. Male claspers with basal, ventral projection; antennae with first two segments yellowish, proximal 12 segments fuscous, and terminal segments yellowish \textit{S. apicalis}

8b. Male claspers without basal, ventral projection; antennae yellowish with basal two segments somewhat darker \textit{S. amazonica}

9a. Male claspers quadrangular, without ventral thumb-like lobe \textit{S. panama}

9b. Male claspers stout, thick and mitten-like \textit{S. ariasi}

Manuscrit reçu le 14 octobre 1982.

\textbf{Bibliography}


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\caption{Left forewing of \textit{Climacia bifasciata} Penny & Rafael, n. sp.}
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Fig. 2-3: Male genitalia of Climacia bifasciata Penny & Rafael, n.sp. 2) Dorsal view, 3) Lateral view.
Fig. 4: Right forewing of Sisyra elongata Penny & Rafael, n.sp.

Fig. 5-6: Male genitalia of Sisyra elongata Penny & Rafael, n.sp. 5) Dorsal view, 6) Lateral view.
Bibliography of the Neuropterida

Bibliography of the Neuropterida Reference number (r#):
5116

Reference Citation:

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Notes:

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