

New species and records of *Chimarra* Stephens (Trichoptera, Philopotamidae) from Central Amazonia, Brazil¹

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ABSTRACT. New species and records of *Chimarra* Stephens (Trichoptera, Philopotamidae) from Central Amazonia, Brazil. *Chimarra (Curgia) paucispina* sp. nov., of the *aurivittata* group Flint, 1998 is described and illustrated from specimens collected in Amazonas State. The key to species of *Chimarra (Curgia)* Walker, 1860 presented by Flint was modified to include the new species. *Chimarra (Chimarrita) chela* Blahnik, 1997 and *Chimarra (Curgia) jugescens* Flint, 1998 are for first time reported for the Amazonas State. This is the first record of *C. chela* in Brazil.

KEYWORDS. Amazon Basin; *Curgia*; new species; Philopotamidae; Trichoptera.

RESUMO. Nova espécie e registros de *Chimarra* Stephens (Trichoptera, Philopotamidae) da Amazônia Central, Brasil. *Chimarra (Curgia) paucispina* sp. nov., do grupo *aurivittata* Flint, 1998 é descrita e figurada a partir de exemplares provenientes do Estado do Amazonas. A chave para as espécies de *Chimarra (Curgia)* Walker, 1860 apresentada por Flint foi modificada para inclusão da nova espécie. *Chimarra (Chimarrita) chela* Blahnik, 1997 e *Chimarra (Curgia) jugescens* Flint, 1998 são pela primeira vez registradas para o Estado do Amazonas, sendo também o primeiro registro de *C. chela* para o Brasil.

PALAVRAS-CHAVE. Bacia Amazônica; *Curgia*; nova espécie; Philopotamidae; Trichoptera.

Three genera are recognized in the subfamily Chimarrinae: *Chimarra* Stephens, 1829, *Chimarrhodella* Lestage, 1925, and the monotypic and poorly known genus *Edidiehlia* Malicky, 1993 (Blahnik 2004). *Chimarra* is the largest genus in the family Philopotamidae, and one of the largest genera in the order Trichoptera (Blahnik 1997). The genus is found in all regions of the world, but seems to be much more diverse in warmer tropical and subtropical areas (Flint *et al.* 1999). *Phryganea marginata* Linnaeus, 1767 was described from Sweden and later transferred to the new established genus *Chimarra* by Stephens, becoming the type species of the genus (Flint 1998). Walker (1860) described the first Neotropical species of *Chimarra*, as *Curgia braconoides* Walker, 1860. Recent taxonomic revisions of *Chimarra* (Blahnik 1997, 1998, 2002; Flint 1998) defined accurately the subgenera *Chimarra* and *Curgia* Walker, 1860, and two other subgenera, *Chimarrita* Blahnik, 1997 and *Otarrha* Blahnik, 2002, were erected.

Currently, 92 species are recognized in the subgenus *Curgia*, with distribution ranging from the southwestern United States through Central America and much of South America. In Brazil, 40 species of *Chimarra* are recorded, 26 in the subgenus *Curgia*. Based on material collected in the Central Amazonia, a new species of *Chimarra (Curgia)* is here described. *Chimarra (Curgia) jugescens* Flint, 1998 and *Chimarra (Chimarrita) chela* Blahnik, 1997 are newly recorded for the Amazonas State, and this is also the first report of *C. chela* in Brazil.

The types are deposited in the entomological collection of

the Instituto Nacional de Pesquisas da Amazônia, Manaus, Brazil (INPA).

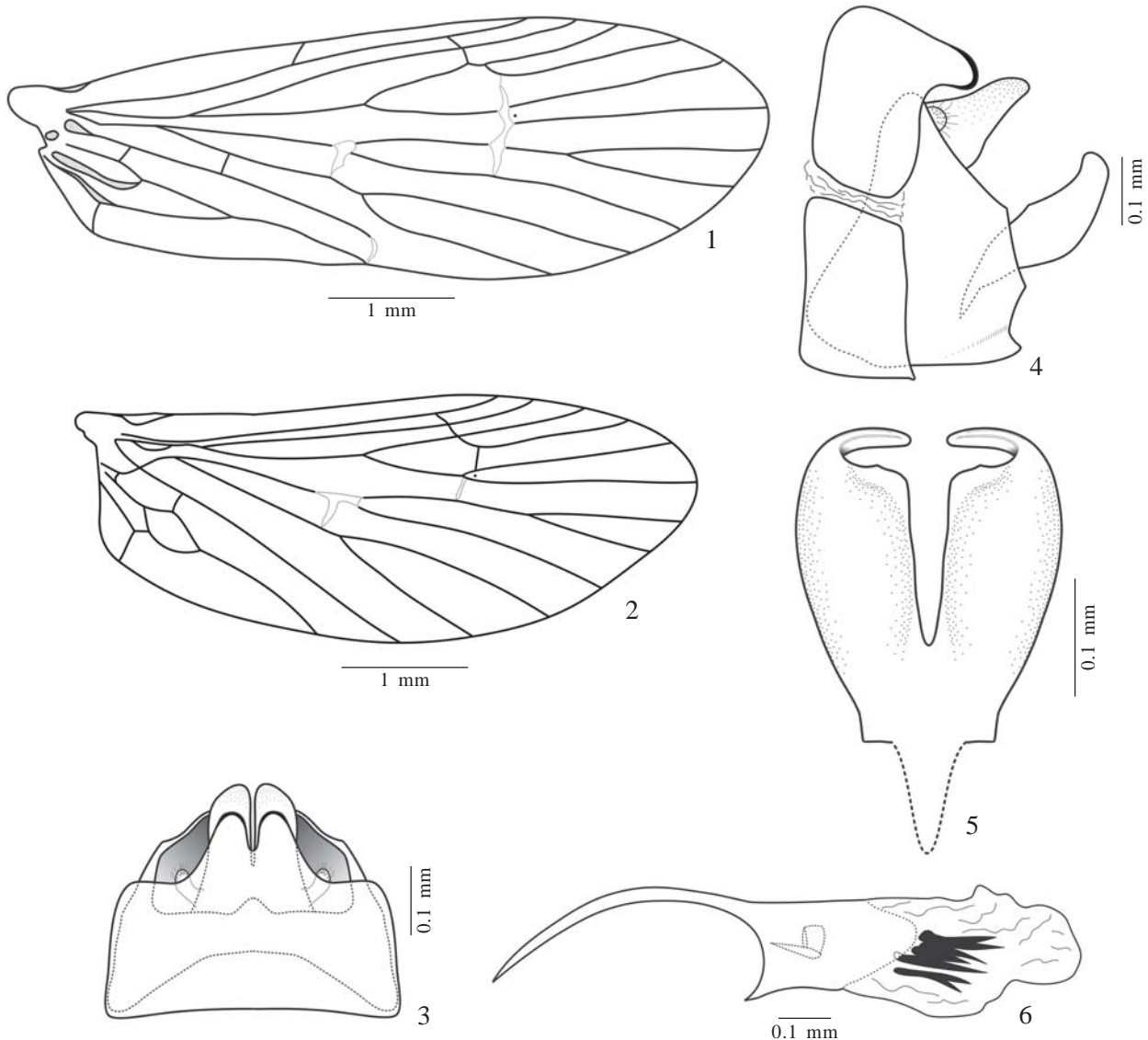
Chimarra (Curgia) paucispina sp. nov. (Figs. 1–6)

Male. Forewing length 5.5 mm. Wing venation typical for subgenus (Figs. 1 and 2). General color (in alcohol), including wings, dark brown. Setal warts on dorsum of the head with setae pale brown. Legs pale brown, with spurs dark brown. Abdomen brown dorsally and pale ventrally.

Male Genitalia. Eighth tergum with posterior margin projecting as a large lobe, in dorsal aspect with a deep, U-shaped mesal incision (Fig. 3). Ninth sternum with a thin median longitudinal keel on the posterior third (Fig. 4). Tenth tergum broad basally, narrowing to the apex, in dorsal aspect with a deep, U-shaped mesal incision, with scattered sensillae (Fig. 3). Preanal appendages small and ovoid. Inferior appendages elongate, in ventral aspect, fused mesally for basal third, internal apical area flattened dorsoventrally with margin forming a right angle, apicolateral process spatulate anteroposteriorly and strongly curved inwards, with rounded apex (Fig. 5). Phallus tubular, short and inflated basally, internally with phallosomal sclerite as a ring-like structure with a small ventral rod, and with seven dark spines (Fig. 6).

Female. Unknown.

Material. Holotype male: BRAZIL, Amazonas State, Manaus.



Figs. 1-6. *Chimarra paucispina* sp. nov. 1, forewing; 2, hindwing; 3, eighth, ninth, and tenth terga and preanal appendages, dorsal; 4, male genitalia, lateral; 5, inferior appendages, ventral; 6, phallus, lateral.

Tributary of the Rio Cuieiras, 2°33'46.4"S, 60°19'03.4"W, 22.viii.2004, J.L. Nessimian & L. Fidelis (INPA). Paratype: same data as holotype, 1 male (INPA).

Etymology. From the Latin *pauci* ("few") and *spina* ("spine"), in allusion to the few number of dark spines present in the phallus.

The new species belongs to the *aurivittata* group Flint, 1998, with *Chimarra aurivittata* Flint, 1971 and *C. jugescens* Flint, 1998. This group is characterized by the presence of a bright orange spot on the forewings, the fusion of the inferior appendages and the mesal division of the eighth and tenth terga. Material preserved in alcohol usually loses the setae, discharacterizing the pattern of coloration. The specimens here described are preserved in alcohol and it is not possible to identify the original color pattern, but the new species shows characteristics of the *aurivittata* group, e.g. eighth and tenth

terga with mesal incision and fused inferior appendages. The three species occur in the Central Amazonia, Brazil, and they can be distinguished only by male genitalia. In *Chimarra paucispina* sp. nov. the inferior appendages are more elongate, fused only in the basal third, with apicolateral process strongly curved inwards and spatulate anteroposteriorly, and the phallus bears fewer internal spines (12-18 in *C. aurivittata* and 26-29 in *C. jugescens*).

The entry to *aurivittata* group in the key to species of *Chimarra* (*Curgia*) presented by Flint (1998) was modified to include the new species, as below.

1. Forewing with a large, circular golden spot centrally (still not confirmed in the new species); inferior appendages in ventral aspect fused mesally or fused for basal third(*aurivittata* group)...2

2. Inferior appendages in ventral aspect broadly fused mesally *C. aurivittata*
 Inferior appendages only fused for basal third of length .. 3
3. Inferior appendages with apicolateral process caliper-like; phallus with 26 to 29 short, dark spines *C. jugescens*
 Inferior appendages with apicolateral process spatulated, strongly curved inwards and rounded apex; phallus with seven dark spines *C. paucispina* **sp. nov.**

New records of *Chimarra*

Chimarra (Chimarrita) chela Blahnik, 1997

Two specimens of *Chimarra (Chimarrita) chela* (male and female) were collected in the Amazonas State. This is the first record of *C. chela* in Brazil, previously reported only to Venezuela (Blahnik 1997).

Material. BRAZIL, Amazonas State, Manaus. Tributary of the Rio Branquinho, 2°29'35.1"S, 60°20'03.1"W, 26.viii.2004, J.L. Nessimian & L. Fidelis, 1 female (INPA); tributary of the Rio Cuieiras, 2°42'25.1"S, 60°22'28.2"W, 19.viii.2004, J.L. Nessimian & L. Fidelis, 1 male (INPA).

Chimarra (Curgia) jugescens Flint, 1998

A male of *Chimarra (Curgia) jugescens* was collected in Amazonas State. *C. jugescens* was reported to Para State, Brazil (Flint 1998), now it is recorded to Amazonas State, Brazil.

Material. BRAZIL, Amazonas State, Rio Preto da Eva. Rio Preto da Eva, 2°32'09.4"S, 59°49'59.3"W, 20.viii.2004, J.L. Nessimian, 1 male (INPA).

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