

# A further new species of *Caenis* Stephens from Guinea (Insecta: Ephemeroptera)

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## Abstract

*Caenis pugiata* **n. sp.** (Ephemeroptera: Caenidae) from Guinea is described.

**Key words:** *Caenis*, new species, Guinea, biotic community.

## Zusammenfassung

*Caenis pugiata* **n. sp.** (Ephemeroptera: Caenidae) aus Guinea wird beschrieben.

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## 1 Introduction

In 2011 I contributed on West African species of the mayfly genus *Caenis* (MALZACHER 2011). Additional material yielded a single male specimen of a yet undescribed species, which is described herein as a supplement to the above mentioned paper.

## Acknowledgements

I am grateful to Dr. ARNOLD STANICZEK (Stuttgart) and Dr. MICHEL SARTORI (Lausanne) who read the manuscript.

## 2 Description of *Caenis pugiata* **n. sp.**

**Holotype**, ♂ (on microslide): Guinea, River Niandan, Sassambaya, 17.–18.VI.1986 [collectors see MALZACHER 2011: 44]. – The type is stored in the Musée Cantonal de Zoologie, Lausanne, Switzerland.

## Etymology

The species epithet refers to the apical part of the forceps forming a long spine shaped like a stiletto, in Latin pugio.

## Male imago

### Measurements, ratios and colouration

Body length 2.0 mm; wing length 1.7 mm; length of fore leg 1.2 mm. – Ratios: fore femur to fore tibia length = 0.76–0.77; fore tibia to fore tarsus length = 1.23–1.41; fore leg to hind leg length = 1.30–1.40; 1<sup>st</sup>: 2<sup>nd</sup>: 3<sup>rd</sup>: 4<sup>th</sup>: 5<sup>th</sup> fore tarsal segments length = 1: 1.8–1.9: 0.7–0.8: 0.7: 0.8–1.0; fore tarsal segments length 1+2 to 3–5 = 1.2–1.3.

Colouration of cuticle: Mesonotum yellowish-orange, head and pronotum lighter, abdomen white.

Epidermal pigmentation: Vertex and abdominal tergites slightly greyish shaded.

## Morphology

**Head:** Fore margin between lateral and frontal ocelli bowed. Eyes small and relatively flat. Base of antennal flagellum moderately dilated, dilated part slightly longer than pedicel and one-third as wide (Fig. 1c).

**Thorax:** Prosternal ridges thin, forming an isosceles triangle with straight sides and rounded tip (Fig. 1d). Segments III and IV of fore tarsus unusually short, each of them shorter than segment V.

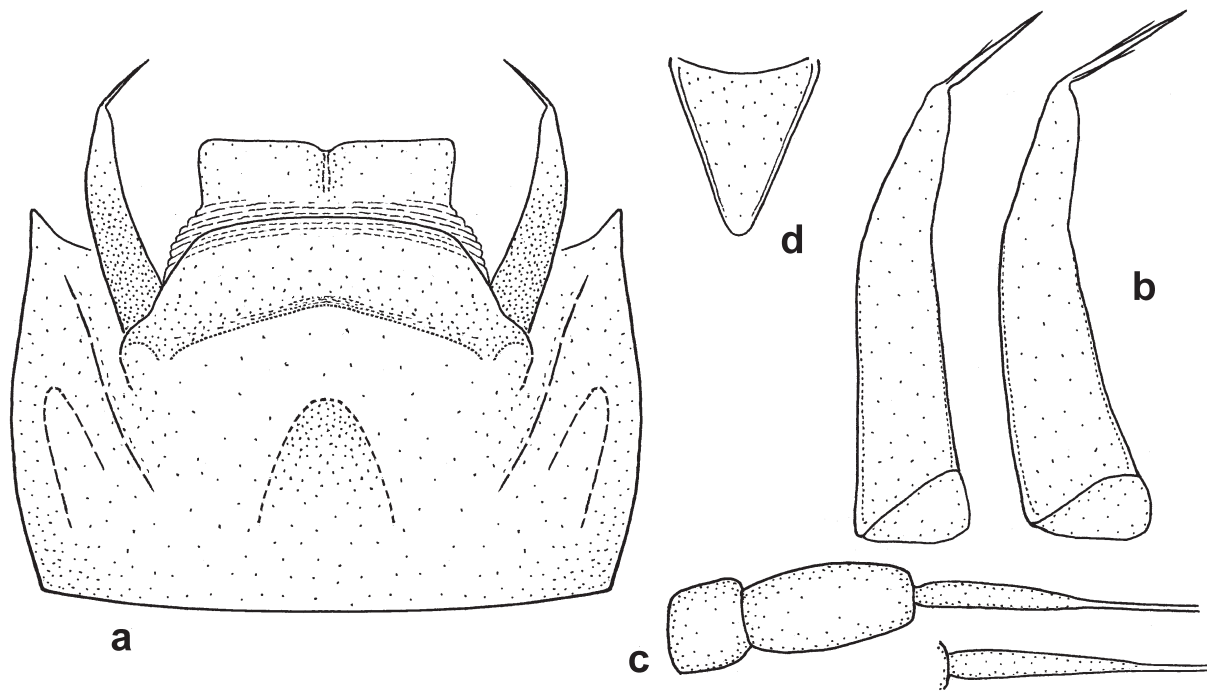
**Abdomen:** Lateral filaments of abdominal segments very short. Without finger-like process on tergum II.

**Genitalia and sternum IX** as in Fig. 1a. Penis broadly rectangular with a small median incision on hind margin; shaft strongly broadened, with a couple of transverse folds. Styliger plate broad. Anterior margin of styliger sclerite concave, angled. Apophyses very short, close to the forceps base. Apical part of forcipes narrowed, slightly bent laterally; each forceps with an apical long and thin spine which is accompanied by one or two hair-like setae (Fig. 1b).

Female imago and larva unknown.

## Differential diagnosis

*Caenis pugiata* **n. sp.** can be distinguished from all other *Caenis* species by the following combination of characters: Forcipes relatively short, with an long apical



**Fig. 1.** *Caenis pugiata* n. sp., ♂. – **a.** Genitalia. – **b.** Forcipes. – **c.** Antennal scape, pedicel and base of flagellum. – **d.** Prosternal triangle.

spine and one or two hair-like setae. Fore tarsal segments III and IV each shorter than segment V. Anterior margin of styliger sclerite concave, angled. Penis broadly rectangular, ventrally with transverse folds.

The latter character is similar to *Caenis antelucana* Malzacher, 1990 (compare Fig. 1a with figs. 7a-c in MALZACHER 2011), hence the two species are possibly related.

#### Biotic community

*Caenis pugiata* n. sp. is the fourteenth recorded species of *Caenis* from West Africa. The locus typicus, the river Niandan near Sassambaya houses more species of *Caenis* than in all other investigated locations. *Caenis pugiata* is accompanied by nine other *Caenis* species (*C. elouardi*

Malzacher, 1990, *C. cibaria kunda* Malzacher, 1993, *C. gilliesi* Malzacher, 1990, *C. nigricola* Malzacher, 2011, *C. jinjana* Kimmins, 1956, *C. antelucana*, Malzacher, 1990, *C. jinjanoides* Malzacher, 2011, *C. brevipes* Kimmins, 1956, and *C. bernerii* Kimmins, 1955), two other Caeninae (*Aenigmocaenis morgensterni* Malzacher, 2009 and *Clypeocaenis afrosetosa* Soldán, 1983), *Afrocerus guinensis* Malzacher, 2006 (Madecocercinae) and *Niandancus alienus* Malzacher, 2009 (Brachycercinae).

#### 3 References

- MALZACHER, P. (2011): The West African species of *Caenis* Stephens (Insecta: Ephemeroptera) – Stuttgarter Beiträge zur Naturkunde A, Neue Serie 4: 43–74.

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Manuscript received: 18.VII.2013, accepted: 23.VII.2013.

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Zeitschrift/Journal: [Stuttgarter Beiträge Naturkunde Serie A \[Biologie\]](#)

Jahr/Year: 2014

Band/Volume: [NS\\_7\\_A](#)

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