Choroterpes (Choroterpes) lindrothi, a New Species of Mayfly from Morocco (Ephemeroptera: Leptophlebiidae)

William L. Peters

Received: 1980-01-31
Accepted: 1980-03-01


Choroterpes (Choroterpes) lindrothi Peters 1980 a new species of Leptophlebiidae is described from the O imago from the savanna of Morocco. The relationships of this new species to African and European members of the subgenus Choroterpes Eaton 1881 are discussed.

1 Introduction

At present, four species of Choroterpes (Choroterpes) Eaton 1881 have been described from the Eastern Hemisphere. They are C. ndebele Agnew 1962 and C. nigrescens Barnard 1932 from southern Africa, C. picteti Eaton 1871 from Europe, and C. proba Ulmer 1940 from Sumatra (known only from the nymph). Described herein is a new species of Choroterpes s.s. from Morocco. Venational terminology is as given in Peters & Edmunds [1970].

2 Description

Choroterpes (Choroterpes) lindrothi n.sp.

♂ imago (in alcohol): Length: body, 6.5 mm; praecoxae, 7.1 mm. Upper portion of eyes separated on meson of caput by distance equal to 3/4 width of median ocellus; upper portion yellowish-gray, lower portion black. Basal half of ocelli dark brown, apical half brownish-white. Scapus and pedicellus of antennae dark brown, flagellum of antennae broken off and missing. Caput dark brown, carinæe darker. Thorax dark brown, sutura palaer, carinæe darker. Coxæ of pedes dark brown washed with black, remainder of pedes-II and pedes-III yellowish-brown except femora lightly washed with darker brown, remainder of pedes-I broken off and missing. Alæ (Fig. 1–3): longitudinal veins of praecoxae and postcoxae light brown except veins C, Sc, and R₁ brown basally, cross veins pale; membrane of praecoxae and postcoxae transparent except apical 1/3 of cell C of praecoxae translucent, base of praecoxae light brown. Abdomen: light brown, segments 1–7 translucent, segment 8 and 9 opaque; terga 1–9 washed with blackish-brown, lateral and posterolateral margins darker; terga 1–8 with a pale, longitudinal, median bar running entire length of tegum (Fig. 6); spiracula dark brown, tracheæ pale (Fig. 5); anterolateral corners of sternum 9 darker. Genitalia (Fig. 4): pale, length of exposed penæ about 1/3 length of forceps, apex of penæ rounded. Caudal filaments pale, darker annulations at alternate articulations.

♀ imago: Unknown.

Mature nymph: Unknown.

Fig. 1–6: Choroterpes (s.s.) lindrothi n. sp., ♀ imago: 1 praeala; 2 postala; 3 postala enlarged; 4 genitalia, ventral view; 5 lateral view of abdominal segment 5; 6 dorsal view of abdominal terga 5–6 [Ephemeroptera: Leptophlebiidae].

Biology: The Qued Massa where the collection was made runs through a dry savanna with some agriculture. The river contained much water at the time with normal river vegetation on the banks and sandbanks.

Etymology: Species is named in dedication to the late Swedish entomologist Professor Dr. Carl H. Lindroth.

3 Discussion

C. lindrothi n.sp. can be distinguished from all known species of Choroterpes s.s. in Africa and Europe by the following combination of ♀ imaginal characters: (1) femora are yellowish-brown and lightly washed with darker brown, (2) abdominal terga 1–8 are washed with blackish-brown and possess a pale, longitudinal, median bar running entire length of each tergum (Fig. 6); (3) exposed length of penes of genitalia is about 1/3 length of forceps and apex of penes is rounded (Fig. 4), and (4) caudal filaments are pale with darker annulations at alternate articulations.
As is documented by Eaton [1899] and Lestage [1925], much of the mayfly fauna of Morocco and Algeria consists of European species. In fact, Lestage [1925] lists C. (s.s.) picteti from Algeria. Based on study of specimens of C. picteti from Portugal, C. lindrothi n.sp. does not appear closely related to C. picteti. C. picteti can be readily distinguished by the dark brown membrane in cells C and Sc of the prealae, the pale triangular-shaped marks on the abdominal terga, and the relatively long, apically acute penes. Of the three described species, C. lindrothi n.sp. appears most closely related to C. (s.s.) nigrescens from southern Africa based on the similar tergal color patterns, relatively short penes, and the annulated caudal filaments. However, the species can be distinguished by the four specific characters given above.

4 Acknowledgments

I would like to thank Dr. P. Ohm, Zoologisches Museum der Christian-Albrechts-Universität, Kiel, for the gift of the specimen used in this study and Dr. I. Müller-Liebenau, Max-Planck-Institut für Limnologie, Plön, for bringing this specimen to my attention. Appreciation is given Engenheiro Luiz S. Whytton da Terra, Estação Aquicola, Vila do Conde, Portugal, for sending me reared specimens of C. picteti. Janice G. Peters prepared all illustrations herein.

This research was supported by a research program (FLAX 79009) of the Science and Education Administration/Cooperative Research, United States Department of Agriculture, to Florida A & M University, William L. Peters, Research Leader.

5 References


Anschrift des Verfassers — Author’s address: Dr. William L. Peters, Laboratory of Aquatic Entomology, Florida A&M University, Tallahassee, Florida 32307; U.S.A.
