



Six unusual *Cladotanytarsus* Kieffer: towards a systematics of the genus and resurrection of *Lenziella* Kieffer (Diptera: Chironomidae: Tanytarsini)

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Abstract

Following the inclusion of *Lenziella* Kieffer, 1922 into *Cladotanytarsus* Kieffer, 1921, the genus consists of two subgenera: *Cladotanytarsus s. str.* (type species: *C. pallidus* Kieffer, 1922) and *Lenziella* Kieffer, 1922 (type species: *L. bicornuta* Kieffer, 1922). Six species of the subgenus *Lenziella* known from the Holarctic region are diagnosed and reviewed. Lectotype of *Cladotanytarsus wexionensis* Brundin, 1947 is designated, and the name is treated as a **synonym** of *Cladotanytarsus (L.) bicornutus* Kieffer, 1922 in a **new combination**. *Cladotanytarsus (L.) amandus* Hirvenoja, 1962 (male) and *C. (L.) cruscus* (Sæther, 1971) (male, female, pupa) are redescribed. *Cladotanytarsus (L.) latissimus* **sp. nov.** (male, female, pupa), *C. (L.) piniger* **sp. nov.** (male), and *C. (L.) subletteorum* **sp. nov.** (male, female, pupa) are described. Keys to adults and pupae of *Lenziella* as well as data on biology of the species are presented.

Key words: Diptera, Chironomidae, *Cladotanytarsus*, *Lenziella*, taxonomy, new species, synonymy, keys, biology

Introduction

Kieffer (1922a) introduced the name *Lenziella* for a single species, *L. bicornuta*. Later on, Sæther (1971) described another unusual species, *L. cruscula*, and suggested the subgeneric position for *Lenziella* in *Cladotanytarsus* Kieffer, 1921, the concept supported primarily by Sublette and Sublette in their technical report (1979). *Lenziella* and *Cladotanytarsus* were also treated as synonyms (e.g. Cranston 1989, Oliver *et al.* 1990). Unfortunately, the location of the type material for *L. bicornuta* is unknown (probably lost during a fire in Budapest), thus the name, with a cursory description of the relevant taxa, had to be regarded as doubtful (Ashe & Cranston 1990). Consequently, *Cladotanytarsus* and *Lenziella* could not be synonymised formally, and a systematic status of *Lenziella* had to remain open until the time when the type species would be precisely defined.

This interesting question, of which species has actually been used by Kieffer for his designation of the type for *Lenziella*, was raised again some years ago (Spies, pers. comm.). A subsequent examination of a rich material and re-examination of Professor Brundin's collection revealed *Cladotanytarsus wexionensis* to fit Kieffer's description well, thus the name is here proposed as a synonym of *Lenziella bicornuta* [for details see remarks for *Cladotanytarsus (L.) bicornutus*]. In Professor Sublette's collection of *Cladotanytarsus*, I found three other species similar to *L. bicornuta* and *L. cruscula*, and labelled as '*Cladotanytarsus (Lenziella)*'. Further records showed *Cladotanytarsus amandus* Hirvenoja, 1962 to be also a member of the same peculiar group of species, and confirmed the concept of *Lenziella*, herein presented as a subgenus of *Cladotanytarsus*.

Materials and methods

The materials were collected with a sweep net, Malaise, tent, UV, emergence and funnel traps, and with Surber samplers. The specimens were slide-mounted in Canada balsam or in Hoyer's mixture. The illustrations, descriptions (except for body colouration taken from fresh specimens preserved in alcohol and/or not cleared), and measurements were taken from slide-mounted individuals. The wing was measured from the arculus to the tip. Lengths of leg segments were rounded off to the nearest 5 µm, and antennal and leg ratios (AR, LR) were calculated to 0.01. The dimensions are given as ranges, followed by the mean (in parentheses) when three or more specimens were measured. The head structures, wing and legs were not measured in pharate specimens. The morphological terminology and abbreviations follow Sæther (1980) and Langton (1991). The illustrations were prepared using the technique described by Gilka (2008). The type specimens of new species and the individuals *Cladotanytarsus (L.) cruscus* examined for this study have been deposited at the Department of Entomology, University of Minnesota, St. Paul, USA. The type series of *Cladotanytarsus wexionensis* and other specimens collected by Professor L. Brundin are housed in the Swedish Museum of Natural History, Stockholm, Sweden. Other specimens examined are available on request from the Department of Invertebrate Zoology, University of Gdańsk, Poland.