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Revision of the genus *Ctenophilothis* Kryzhanovskij, 1987 (Coleoptera: Histeridae: Saprininae)

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Abstract

The Saharan genus *Ctenophilothis* Kryzhanovskij, 1987 is revised. Its two species, *C. chobauti* (Théry, 1900) and *C. altus* (Lewis, 1885), differ mainly by the shape of their mandibles, protibia, and elytral striae. *Ctenophilothis* is likely a monophyletic genus known so far only from the Algerian, Moroccan, and Egyptian Sahara. The neotype of *C. chobauti* and lectotype of *C. altus* are designated. The extremely rare *C. altus* is redescribed and both species are illustrated by SEM micrographs. The male genitalia of *C. chobauti* are also illustrated.

Key words: Histeridae, Saprininae, *Ctenophilothis*, Sahara desert, taxonomic revision

Introduction

The genus *Ctenophilothis* was erected by Kryzhanovskij (1987) based on *Xenonychus chobauti* Théry, 1900. This species has been previously classified in *Styphrus* (Bickhard 1910) and *Philothis* (Peyerimhoff 1936, Mazur 1984) before Kryzhanovskij (1987) established it as the type species of the genus *Ctenophilothis*. The likely monophyletic Saharan genus *Ctenophilothis* contains another species, *C. altus* (Lewis, 1885) from Egypt. Both species of the genus are very rare and absent in major European museums, with *Ctenophilothis altus* being extremely rare and currently known from two female specimens. This paper is another contribution to the ongoing revisionary work of the genera of the subfamily Saprininae (Lackner 2009a–c; 2010, 2011a,b; 2012; 2013; Tishechkin & Lackner 2012).

Material and methods

All dry-mounted specimens were relaxed in warm water for several hours or overnight, depending on the body size. After removal from their original cards, the beetles were side-mounted on triangular points and observed under a Nikon 102 stereoscopic microscope with diffused light. Some structures were studied using methods described by Ôhara (1994): the head and male genitalia were macerated in a hot 10% KOH solution for about 15 minutes, cleared in 80% alcohol, macerated in lactic acid with fuchsine, incubated at 60ºC for two hours, and subsequently transferred into a mixture of glacial acetic acid 1 part and methyl salicylate 1 part heated at 60ºC for 15 minutes and cleared in xylene. Specimens were then observed in α-terpineol in a small glass dish. Digital photographs of the male terminalia, mouthparts and antenna were taken by a Nikon 4500 Coolpix camera and edited in Adobe Photoshop CS4. Based on the photographs or direct observations, the genitalia were drawn using a light-box Hakuba klv-7000. SEM photographs were taken with a JSM 6301F microscope at the laboratory of Faculty of Agriculture, Hokkaido University, Sapporo, Japan. The habitus photograph of *C. chobauti* has been taken at the Entomology Department of the Moravian Museum (Brno, Czech Republic). All available specimens were measured with an ocular micrometer. Beetle terminology follows that of Ôhara (1994) and Lackner (2010). Separate lines of the same label are demarcated by a slash (/). The following acronyms of museums and private collections are used throughout the text:

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