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Description of the male of *Ctenophilothis altus* (Lewis, 1885): supplement to the revision of the genus *Ctenophilothis* Kryzhanovskij, 1987 (Coleoptera, Histeridae, Sapriniinae)

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Abstract

A description of the male, including illustrations of the male genitalia, and a colour image of the habitus of the extremely rare species *Ctenophilothis altus* (Lewis, 1885) are provided for the first time. Further support for the monophyly of the genus *Ctenophilothis* Kryzhanovskij, 1987 is given.

Key Words

Coleoptera
Histeridae
Sapriniinae
Ctenophilothis

In 2013 I published a revision of the genus *Ctenophilothis* Kryzhanovskij, 1987 (Lackner 2013). At the time of that revision this genus consisted of only two psammophilous Saharan species, both very rare. Although *C. chobauti* (Théry, 1900) has been found several times in the Moroccan and Algerian Sahara (Olexa 1990, Gomy et al. 2014), the other species, *C. altus* (Lewis, 1885) was known only from the female holotype and another female, collected in upper Egypt (Lackner 2013). During my recent visit to the Zoological Museum of the Humboldt University Berlin, Germany (ZMHUB) I discovered in the collection a male of this species, collected in Asyut, central Egypt.

In this short correspondence I publish the discovery of the third specimen of the extremely rare *C. altus*, together with the color image and illustration of its hitherto unknown male genitalia. Both Egyptian localities of this species are likewise mapped herein. As already noted by Lackner (2013) the genus *Ctenophilothis* is most probably monophyletic, sharing e.g. the absence of the antennal cavity, shortened or strongly reduced

lateral costa of the antennal groove or the peculiar shape of protibia (Lackner 2013: 281). The comparison of the male genitalia of both species reveals their striking similarities as well (compare figs 2–10 with those of Lackner 2013, figs 11–17) suggesting further support for the genus' monophyly. The main difference between the male terminalia lies in the shape of spiculum gastrale that in *C. chobauti* belongs to the most common type found in the Sapriniinae, having both 'head' and 'stem' sensu Caterino and Tishechkin (2013). On the other hand, the spiculum gastrale of *C. altus* is of a rather peculiar type, lacking typical 'head' or 'stem' (compare figs 7–8 with those of Lackner 2013, figs 14–15). Especially seen from the lateral view, the spiculum gastrale of *C. altus* is extremely flat, almost without projections (Fig. 8). According to my studies on the morphology of the Sapriniinae, the shape of the spiculum gastrale is very diverse and it was very difficult to parse this extraordinary diversity into discrete character states (Lackner in press).

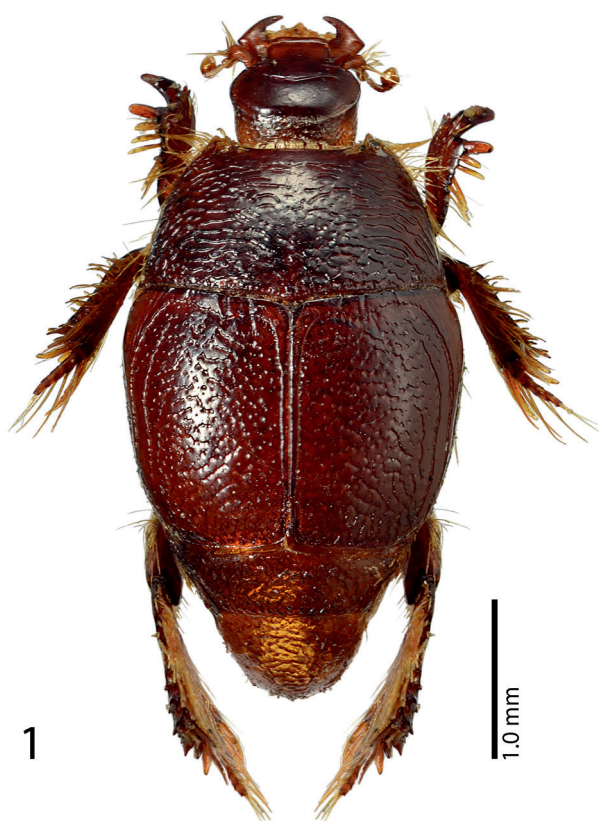
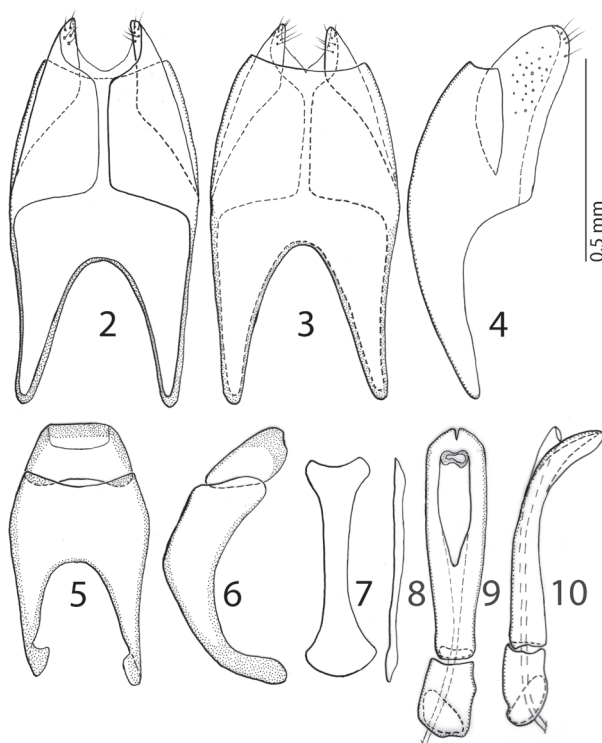


Figure 1. *Ctenophilothis altus* (Lewis, 1885) habitus, dorsal view.



Figures 2–10. *Ctenophilothis altus* (Lewis, 1885) 2 – eighth sternite and tergite, ventral view; 3 – ditto, dorsal view; 4 – ditto, lateral view; 5 – ninth and tenth tergites, dorsal view; 6 – ditto, lateral view; 7 – spiculum gastrale, ventral view; 8 – ditto, lateral view; 9 – aedeagus, dorsal view; 10 – ditto, lateral view.

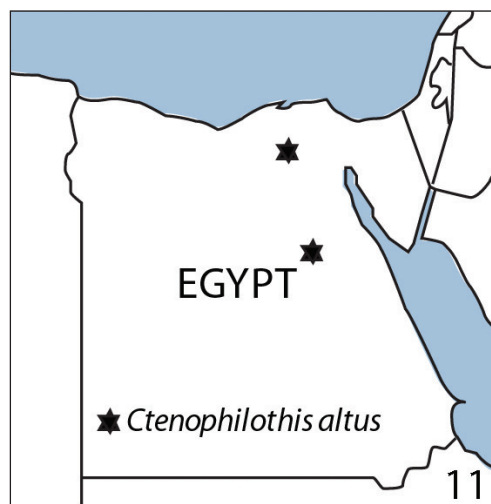


Figure 11. Distribution of *Ctenophilothis altus* (Lewis, 1885) in Egypt.

The second known locality of *C. altus* (Asyut, 27°11'00"N 31°10'00"E) lies more south than the single one published previously (Fig. 11). The presumed rarity of the species can be most likely ascribed by the insufficient collection aimed at the psammophilous Histeridae in Egypt. While efforts aimed at collecting psammophilous Sapriniinae of the Algerian and Moroccan Sahara yielded remarkable results (see e.g. Olexa 1990 or Gomy et al. 2014), there has been practically no such activity performed in Egypt.

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