



<http://dx.doi.org/10.11646/zootaxa.3893.4.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:ADE2E1EB-B462-46E1-95F6-B08C14E186AF>

***Torneuma penaensis* sp. n. from the Algarve, Portugal (Coleoptera, Curculionidae)**

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Abstract

A new species of the genus *Torneuma* Wollaston, 1860 is described from the Algarve region in Portugal. It is the third species of the genus known from Portugal besides *T. longipenne* Pic, 1910 and *T. serpentinum* Stüben, 2007.

Key words: Curculionoidea, Cryptorhynchinae, *Torneuma*, new species, taxonomy, Algarve, Portugal

Introduction

During an excursion from 6th to 16th April 2013 the Algarve region in the south of Portugal was visited. Apart from the discovery of two new species of Peritelini (Pierotti *et al.* 2013) in the same area, a new species of the genus *Torneuma* s. str. Wollaston, 1860 was sifted from leaf litter and plant debris and is described in the following. The genus *Torneuma* presently comprises 53 taxa, which are classified in three subgenera (Stüben 2013). *Torneuma* species are perfectly adapted to a subterranean lifestyle due to their torpedo-like habitus. In comparison with the other three genera in the tribe Torneumatini they show a completely deepened rostral canal (Stüben 2007).

From Portugal, only the two species *Torneuma longipenne* Pic, 1910 and *T. serpentinum* Stüben, 2007, were known until now. From Spain, the recently discovered *T. baeticum* Stüben, 2007 from Sierra Bermeja, and *T. torresi* Stüben, 2009 and *T. bensusani* Stüben, 2010 from the surroundings of Gibraltar are known, the latter location situated about 250 km east of the type locality of the present discovery.

Material and methods

Abbreviations:

NMBA Naturhistorisches Museum Basel

A standard beetle sifter (grid diameter 7 mm) was used and the extraction method applied follows Germann (2014).

The holotype is deposited in the general collection of the NMBA.

The pictures of the genital structures were taken with a 5-megapixel digital camera (Leica DFC425) under a stereomicroscope (Leica MZ16). The pictures are composites processed using the software Imagic Image Access (version 12) and then retouched using Adobe Photoshop version 10.0.1 (Adobe Systems Incorporated). The pictures of the habitus were taken with a 18-megapixel digital camera (Canon EOS 600 D) fixed on a stereomicroscope. A 50 mm objective was mounted in reverse position with extension tubes on the camera. The resulting pictures were stacked with Combine ZP. The general procedure follows the one described by Stüben (2011).

Bionomy. *Torneuma penaensis* **sp. n.** was sifted from leaf litter and plant debris in a low growing *Quercus ilex*-forest on limestone rock (Fig. 14). A thorough specific search with more sifted samples for gaining further specimens was not successful. Samples were also taken from the entrance of a nearby cave and from a meadow with *Asphodelus* spp.—possible host plants for Torneumatini. Both other members of *Torneuma* from Portugal are known from two localities north of the Algarve region, around Lissabon and from Evora (Fig. 15).

Discussion

It is unfortunate that no further specimens—especially males—were available for the description of *T. penaensis* **sp. n.** As Stüben (2007) mentioned, a preliminary division of the species into species groups might be possible using the shape of the rostrum, and the male genital organs with a focus on the internal sac. The same structure also allows for an unambiguous diagnosis in most cases. However, female genital organs also provide a source of useful differential characters and indeed may have been underestimated in Cryptorhynchinae. Based on the similarity of the external morphology to *T. longipenne*, we suppose that *T. penaensis* **sp. n.** also belongs to the *T. robustum*-species group within the “long nosed” *Torneuma* species according to Stüben (2007).

Acknowledgements

We cordially thank Eva Sprecher (NMBA) for the loan of specimens for comparison. For support and companionship during the excursion to the Algarve, we cordially thank the following members of Entomologischer Verein Bern (EVB): Daniel Bolt (Schiers), Ruedi Bryner (Biel), Bernhard Jost (Münsingen), Johanna Schoop (Zürich), Peter Sonderegger (Brügg near Biel), Salome Steiner (Thun), Hans-Peter und Sebastian Wymann (Jegenstorf), and Heiner Ziegler (Chur). We thank Elsa Obrecht (Natural History Museum, Bern) for checking the English, and the referees for their helpful remarks.

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