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A review of the *Tychobythinus algericus* species group from North Africa (Coleoptera: Staphylinidae: Pselaphinae)

GIORGIO SABELLA¹, FABIO MASSIMO VIGLIANISI¹, VERA D'URSO¹ & SAID NOUIRA²

¹Dipartimento di Scienze Biologiche, Geologiche ed Ambientali – sezione Biologia Animale – Università di Catania, via Androne 81, I – 95124 Catania, Italia. E-mail: sabellag@unict.it; fabiovgl@unict.it; dursove@unict.it

²U.R. Biodiversité et Biologie des populations, Faculté des Sciences, Université Tunis el Manar. E-mail: said.nouira@fst.rnu.tu

Abstract

The species belonging to the *Tychobythinus algericus* group are revised and the group is characterized and defined. *Tychobythinus algericus* (Raffray, 1871) is redescribed, illustrated and its distribution and its synonymic framework discussed, establishing that *Tychobythinus occidentalis* Besuchet, 1962 is a junior synonym of *Tychobythinus algericus* (**syn. nov.**). A key for species identification is provided.

Key words: Pselaphinae, Bythinini, *Tychobythinus algericus* species group, taxonomy, new synonymy, North Africa

Introduction

In North Africa, the genus *Tychobythinus* Ganglbauer, 1896 is represented by 12 species, 8 of which are eyeless and wingless and belonging to the *theryi* group which was recently revised (Sabella *et al.* 2013)¹. The remaining four species: *Tychobythinus algericus* (Raffray, 1871), *T. escaleraei* Besuchet, 1962, *T. occidentalis* Besuchet, 1962 and *T. atlanticus* Besuchet, 1963 have well-developed eyes, and we propose to include them in a new species group, the *T. algericus* species group, here characterized. However, most probably the two species groups do not represent two phylogenetically homogeneous units, since their external morphology is a close reflection of the species biologies. *T. algericus* is redescribed, some aspects of the external and aedeagical morphology are discussed as is its distribution and synonymic framework, establishing that *T. occidentalis* Besuchet, 1962 is a junior synonym of *Tychobythinus algericus* (**syn. nov.**). A key for species identification is also provided.

Materials and methods

The study is based on the material from museum collections listed below. The depositories of the material, their acronyms used in text, and the colleagues who kindly provided the material for the study, are as follows:

MHNG	Muséum d'Histoire Naturelle, Genève, Switzerland (G. Cuccodoro)
MNHN	Muséum National d'Histoire Naturelle, Paris, France (A. Taghavian)
MNHL	Musée d'Histoire Naturelle, Lyon, France (H. Labrique)
INAT	Institut National Agronomique, Tunis, collection Normand, Tunisia (S. Boulahia Kheder, S. Fraj)
DBAC	Dipartimento di Biologia Animale “M. La Greca”, Università di Catania, Italy
MSNM	Museo di Storia Naturale di Milano (M. Pavesi)
CCo	Robert Constantin collection, Saint-Lô, France

1. We take this opportunity to report that the second female of *T. bordei* (Peyerimhoff 1919: 72), that was mentioned in the original description, is not lost (as written in our previous contribution), but was found in the general collection of the Museum of Natural History of Milan (Italy) (MSNM).

atlanticus), ventral side of male antennomere 2 prolonged into a distinct rounded tubercle (not modified in *T. atlanticus*), antennomeres 6 and 7 slightly wider than 5 and 8 (as wide as 5 and 8 in *T. atlanticus*), and protochanters without tubercles (with two tubercles in *T. atlanticus*).

Distribution (Fig. 3). This species is known only from the type locality (Morocco, Tangier) where 2 males were collected.

***Tychobythinus atlanticus* Besuchet, 1963**

(Figs. 1F, 2B, 3)

Tychobythinus atlanticus Besuchet 1963b: 218, fig. 1 (aedeagus); Kocher 1969: 5; Löbl & Besuchet 2004: 314.

Material examined. NORTHERN MOROCCO: Taza-Al Hoceïma-Taounate region: Djebel Tazzeka, 1.700 m, 1 male (holotype) (R. Mussard) (MHNG).

Comparative notes. The characters that distinguish this species from *T. escaleraei* and *T. algiricus* have already been discussed above.

Distribution (Fig. 3). The species is known only from the type locality (Morocco, Djebel Tazzeka) where 1 male was collected.

Key to identification of *Tychobythinus algiricus* species group

1. Head with frontal lobe 0.11 mm wide, punctate in its posterior region, occipital region with slight impressed median sulcus, antennal scape at least 3.5 times longer than wide, antennomere 2 distinctly longer than wide, pronotum without pleural carina, ventral margin of profemora with some tubercles. 2
- Head with frontal lobe 0.12–0.13 mm wide, impunctate in its posterior region, occipital region with short median carina, antennal scape at most 3 times longer than wide, antennomere 2 slightly longer than wide, pronotum with pleural carina, ventral margin of profemora without tubercles. *T. algiricus*
2. Posterior region of frontal lobe strongly punctate, lateral margins of male head with stout and truncated median tooth, antennal scape 4 times longer than wide, antennomere 2 of male as wide as scape and not modified, antennomeres 6 and 7 as wide as 5 and 8, protochanters with 2 tubercles *T. atlanticus*
- Posterior region of frontal lobe slightly punctate, lateral margins of male head without median tooth, antennal scape 3.5 times longer than wide, antennomere 2 of male slightly wider than scape, its ventral margin prolonged into rounded well-marked protrusion, antennomeres 6 and 7 slightly wider than 5 and 8, protochanters without tubercles *T. escaleraei*

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