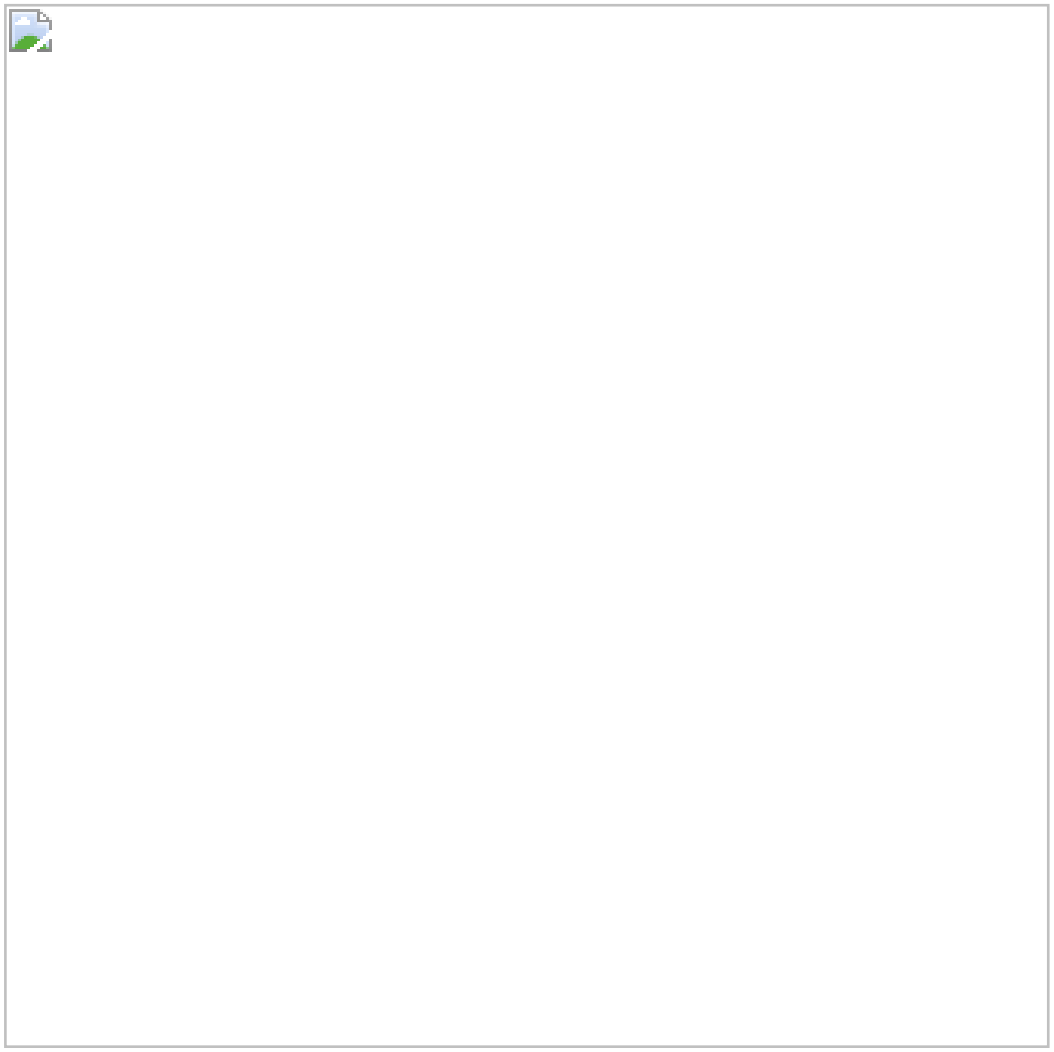

New taxonomic and faunistic data on species of the genus Toxocnema Fåhraeus (Tenebrionidae: Tenebrioninae: Ulomini) from South Africa and Mozambique1

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New taxonomic and faunistic data on species of the genus *Toxocnema* Fåhraeus (Tenebrionidae: Tenebrioninae: Ulomini) from South Africa and Mozambique[1]

Wolfgang Schawaller[1]

Abstract

New synonyms of the genus *Toxocnema* Fåhraeus, 1870 (Tenebrionidae: Tenebrioninae: Ulomini) are established: *Toxocnema fungicola* Koch, 1953 (*Toxocnema fungicola* Schawaller, 2009 n. syn.), *Toxocnema quintanilhai* Koch, 1953 (*Toxocnema leleupi* Schawaller, 2009 n. syn.), *Toxocnema rufitarsis* Fåhraeus, 1870 (*Toxocnema neopsectropis* Koch, 1953 n. syn.), and *Toxocnema thornei* Koch, 1953 (*Toxocnema ruthmuellerae* Schawaller, 2009 n. syn.). New locality data are added. The ground dwelling species of *Toxocnema* are elements in arboreal habitats in eastern South Africa, Swaziland, and southern Mozambique.

Keywords: Coleoptera, Tenebrionidae, Ulomini, *Toxocnema*, new synonyms, South Africa, Swaziland, Mozambique.

Zusammenfassung

Neue Synonyme der Gattung *Toxocnema* Fåhraeus, 1870 (Tenebrionidae: Tenebrioninae: Ulomini) werden errichtet *Toxocnema fungicola* Koch, 1953 (*Toxocnema fungicola* Schawaller, 2009 n. syn.), *Toxocnema quintanilhai* Koch, 1953 (*Toxocnema leleupi* Schawaller, 2009 n. syn.), *Toxocnema rufitarsis* Fåhraeus, 1870 (*Toxocnema neopsectropis* Koch, 1953 n. syn.), und *Toxocnema thornei* Koch, 1953 (*Toxocnema ruthmuellerae* Schawaller, 2009 n. syn.). Neue Funddaten werden beigefügt. Die bodenbewohnenden Arten von *Toxocnema* sind Elemente von Waldhabitaten im östlichen Südafrika, Swaziland, und im südlichen Mozambique.

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1 Introduction

When describing five new species of the genus *Toxocnema* Fåhraeus, 1870 (Schawaller 2009), some older specimens were also found in the Ditsong National Museum of Natural History in Pretoria, which the late Carl Koch already recognised and named as new. However, Schawaller (2009) assumed that these were not published before Koch's death in 1970. It was not unusual that Koch named and designated type specimens of different genera in the collection of the former named Transvaal Museum in Pretoria, without having published them. Only recently, I came across with a hidden paper of Koch (1953), treating some new tenebrionids from Mozambique. In contrary to the title of that paper, also some species of *Toxocnema* from South Africa were described therein. Therefore, some species names have to be synonymised in the present paper. New locality data are also added. Figures of all six species, identification key, and map of distribution are included in Schawaller (2009).

Fåhraeus (1870) placed his monotypic genus *Toxocnema* in the „Misolampides". Koch (1953) reexamined the type species *rufitarsis* Fåhraeus, 1870, and placed *Toxocnema* in Neopsectropini Kaszab, 1941. This tribe was synonymised by Bouchard et al. (2005) with Ulomini Blanchard, 1845, subfamily Tenebrioninae Latreille, 1802.

The six known species of *Toxocnema* are obligatory inhabitants of the soil litter in forest habitats and are endemic in the eastern parts of South Africa, in Swaziland, and in southern Mozambique (compare map in Schawaller 2009). The species have partly overlapping areals, eventually even syntopic occurrence (*T. minima* and *T. rufitarsis* in the Ongoye Forest, KwaZulu-Natal). The so far known southernmost species is *T. thornei* (*T. ruthmullerae* n. syn.) in Eastern Cape, the northernmost species is *T. quintanilhai* (*T. leleupi* n. syn.) in Swaziland and southern Mozambique.

[1] Contributions to Tenebrionidae, no. 163. – For no. 162 see: Integrative Systematics 2, 2019.

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For the loan of specimens from collections under their care I cordially thank Max Barclay (London), and Ruth Müller (Pretoria).

2 Material and methods

Acronyms of depositories

BMNH	The Natural History Museum, London
SMNS	Staatliches Museum für Naturkunde, Stuttgart
TMSA	Ditsong National Museum of Natural History, Pretoria, South Africa

3 Taxonomy

Toxocnema fungicola Koch, 1953

Toxocnema fungicola Schawaller, 2009 n. syn.

Examined type specimen: South Africa, Eastern Cape (labelled as central part of Southern Cape Province), Grahamstown, ♂ holotype TMSA.

Synonymy: The holotype of *T. fungicola* Koch, 1953 fully coincides with type specimens of *Toxocnema fungicola* Schawaller, 2009, thus the latter is considered as a junior synonym.

Toxocnema kochi Schawaller, 2009

New material: South Africa, Eastern Cape, Nquadu Forest, 16.I.2006, leg. J. Janák, 3 ex. SMNS. – South Africa, KwaZulu-Natal, Umtavuna NR, 13.I.2006, leg. J. Janák, 1 ex. SMNS.

Toxocnema minima Schawaller, 2009

New material: South Africa, KwaZulu-Natal, Ongoye Forest, 294 m, 4.–5.XII.2010, leg. R. Müller, 6 ex TMSA, 4 ex. SMNS. – South Africa, KwaZulu-Natal, Ongoye Forest, 11.I.2006, leg. J. Janák, 2 ex. SMNS. – South Africa, KwaZulu-Natal, Entumeni, Nkangala Forest, 6.I.2011, leg. J. Janák, 1 ex. SMNS. – South Africa, Eastern Cape, Cata Forest, 19.I.2006, leg. J. Janák, 3 ex. SMNS.

Toxocnema quintanilhai Koch, 1953

Toxocnema leleupi Schawaller, 2009 n. syn.

Type locality: Mozambique (labelled as Port. East Africa), Lourenço Marques (= Maputo).

New material: Mozambique, Lourenço Marques (= Maputo), Villa Luisa, 5.I.1953, leg. A. Cabral, 1 ex. TMSA. – Mozambique, Pomene, 4.V.1974, leg. A. Strydom, 1 ex. SMNS.

Synonymy: The holotype was deposited in the Centro de Investigação Cientifica Algodoeira at Maputo and could not be exmined, but the examined above listed non-type specimen from the type locality Maputo of *T. quintanilahai* Koch, 1953 fully coincide with type specimens of *T. leleupi* Schawaller, 2009 from Swaziland, thus the latter is considered as a junior synonym.

Toxocnema rufitarsis Fåhraeus, 1870

Toxocnema neopsectropis Koch, 1953 n. syn.

Examined type specimens: South Africa, Eastern Cape (labelled as Natal), mouth of Umkomaas River, IX.1897, leg. G. A. K. Marshall, ♂ holotype, 1 ♀ paratype of *T. neopsectropis* BMNH. –

Type locality: South Africa, Eastern Cape, Durban.

New material: South Africa, KwaZulu-Natal, Ngome Forest, 26.II.1997, leg. S. Endrödy-Younga, 2 ex. TMSA, 2 ex. SMNS. – South Africa, KwaZulu-Natal, Ngome Forest, 27.I.2008, leg. P. Schüle, 1 ex. SMNS. – South Africa, KwaZulu-Natal, Ngome Forest, 24.–27.XI.2006, leg. J. Janák, 2 ex. SMNS. – South Africa, KwaZulu-Natal, Ongoye Forest, 294 m, 4.–5.XII.2010, leg. R. Müller, 4 ex TMSA, 3 ex. SMNS. – South Africa, KwaZulu-Natal, Ongoye Forest, 11.I.2006, leg. J. Janák, 1 ex. SMNS. – South Africa, KwaZulu-Natal, Vryheid NR, 1280 m, 20.I.2010, leg. J. Janák, 4 ex. SMNS. – South Africa, Eastern Cape, Mkambathi Reserve, 25.I.2018, leg. R. Müller, 1 ex. TMSA.

Synonymy: Koch (1953) separated *T. neopsectropis* from *T. rufitarsis* by the shape of the pseudopleural crest, by the shape of the pronotum, and by the shape of the anterior tibia in males, not by the shape of the aedeagus. The newly collected specimens show a certain variability in these characters, eventually depending from sex, and a distinct separation by these characters seems not possible. Therefore, *T. neopsectropis* Koch, 1953 is considered as a new synonym of *T. rufitarsis* Fåhraeus, 1870.

Toxocnema thornei Koch, 1953

Toxocnema ruthmuellerae Schawaller, 2009 n. syn.

Examined type specimens: South Africa, Western Cape (labelled as central part of Southern Cape Province), George Distr., 2 paratypes TMSA.

Synonymy: Both examined paratypes of *T. thornei* Koch, 1953 fully coincide with type specimens of *T. ruthmuellerae* Schawaller, 2009, thus the latter is considered as a junior synonym.

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