



<http://dx.doi.org/10.11646/zootaxa.3637.1.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:0872BF7E-6BD2-465C-869D-A68CB87909D6>

A new species of *Pachytrechodes* Jeannel, 1960 (Coleoptera: Carabidae: Trechinae) from Tanzania, with a key to species

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Abstract

Pachytrechodes brevis Belousov & Nyundo, **new species**, is described from the Udzungwa Mountains, Tanzania. This species is the first member of the genus found outside of the Uluguru Mountains. A key to the four currently known species of *Pachytrechodes* is included, based on Uéno's (1987) key. The distribution of all species is mapped.

Key words: Carabids, Trechodina, Udzungwa Mountains, Eastern Arc Mountains, Tanzania

Introduction

Systematic exploration of the Carabidae in Tanzania goes back to the late 1950s–early 1970s when teams of scientists from the former Institute for Scientific Research in Central Africa (*Institut pour la Recherche Scientifique en Afrique Centrale*) and the Royal Museum for Central Africa, Tervuren, Belgium, carried out two major expeditions in East Africa (Basilewsky 1962; Berger & Leleup 1975). During these surveys a wide variety of invertebrates were collected from selected East African highlands, including carabid beetles (Trechinae (Jeannel 1960), Pterostichinae (Straneo 1960) and other subfamilies (Basilewsky 1962)). During the two expeditions the only Eastern Arc mountains visited were the Ulugurus, where a total of 111 species of Carabidae belonging to 14 subfamilies were collected, including 43 new species (Berger & Leleup 1975). Among these, there was *Pachytrechodes basilewsky* Jeannel, 1960, a small trechine beetle, distinct enough to be placed in its own genus (Jeannel 1960). Later, two more species of the genus were described by Uéno (1987).

The genus *Pachytrechodes* Jeannel, 1960 is closely related to *Trechodes* Blackburn, 1901 but members of *Pachytrechodes* are distinct in having smaller body size, more ovate and convex body shape, smaller eyes, reduced hind wings, first elytral stria nearly parallel to the suture of elytra and less elongate aedeagus. Here we present the description of a new *Pachytrechodes* species and provide a key to the four species of this genus.

Material and methods

Beetles were collected during several visits to the Udzungwa Mountains National Park, between 1998 and 2001, aiming at investigating the distribution and seasonal occurrence of carabid beetles in the area. The ecological results were reported by Nyundo and Yarro (2007a, b).

Measurements used in the present work were taken as follows. The total body length was measured from the anterior margin of the labrum (i.e. without mandibles) to the apex of elytra, the length of the elytra from the level of the anterior termination of the lateral gutter to their apex. The length of antennomere 3 was measured from the narrowest part at its base to the apex, that of antennomere 2 from the emargination on its anterior surface to the apex. The hind tibia was measured along its maximum length, the hind tarsus from the midpoint of the tibia sole.