



***Socotraxis kleukersi* n. gen. n. sp., a new troglobitic cricket from Socotra (Yemen) (Orthoptera: Grylloidea, Phalangopsidae)**

LAURE DESUTTER-GRANDCOLAS¹ & ROB P.W.H. FELIX²

¹Muséum national d'Histoire naturelle, Département Systématique et Évolution, UMR 7205 CNRS, case postale 50, 57 rue Cuvier, F-75231 Paris cedex 05, France. E-mail: desutter@mnhn.fr

²Bijleveldsingel 42, 6524 AD Nijmegen, The Netherlands. E-mail: robfelix1@gmail.com

Abstract

The cricket *Socotraxis kleukersi* n. gen., n. sp., collected in a cave at Wadi Zerik, Diksam Plateau, Socotra, Yemen is described. The genus and species are characterized by male and female genitalia and external morphology.

Key words: New species, Cave life, Indian Ocean

Introduction

Socotra (Yemen) is the main island of the Socotra Archipelago, situated 230 km out off the coast of Somalia. The island is 135 km long, 42 km wide and consists of a granite core which emerges through karstified limestone and forming the Haggeher Mountains in the east, reaching a maximum elevation of 1,530 m. The limestone forms a plateau over much of the rest of the island at an average elevation of 300–700 m (Wranik 2003).

Originally part of the Gondwana supercontinent, it was later attached to the Afro-Arabian tectonic plate and became isolated since Oligocene–Miocene times (Macey *et al.* 2008, Van Damme 2009, Borth *et al.* 2011). The Haggeher massif is considered to always have been emerged above sea level since the Mesozoic (Wranik 2003, Van Damme 2009). As a consequence, it may have acted as a biogeographical refuge for Cenozoic fauna, in the same way as Madagascar (Nagy *et al.* 2003).

Socotra is well known for its high degree of endemism in both flora and fauna (Mies & Biehl 1998, Sagheir & Porter 1998, Joger 1999). For example, 37% of its plant species, 90% of its reptile species and 95% of its land snail species are endemic to the territory, according to UNESCO World Heritage Center (<http://whc.unesco.org/en/list/1263>).

The Orthopteran fauna of Socotra has been studied extensively by Uvarov and Popov (1957), who refer to all previous literature. Subsequent reports are from Kevan (1973), Popov (1997), Wranik (2003) and Massa (2009). Up to now 27 of the 50 species, and 8 out of 38 genera of Orthoptera recorded from Socotra are endemic and mostly belong to Acridoidea (grasshoppers) (Felix *et al.* in prep). Within crickets (Orthoptera Grylloidea), few species have been reported. Apart from the widespread *Trigonidium cicindeloides* Rambur, 1838 (Massa 2009), *Gryllotalpa africana* Beauvois, 1805 (Uvarov & Popov 1957), *Gryllus bimaculatus* De Geer 1773, *Gryllodes supplicans* (Walker, 1859) and *Modicogryllus perplexus* Otte & Cade, 1964 (Wranik 2003), only three endemic species, i.e. *Acheta rufopictus* Uvarov, 1957, *Oecanthus chopardi* Uvarov, 1957 and *Ectatoderus guichardi* Gorochoy, 1993 are known from Socotra.

In 2009 and 2010 one of us (RF) carried out a field study of Orthopteran fauna on the island. In 2009 and 2010 a small cave at Wadi Zerik, Diksam Plateau was visited and a clearly troglobitic cricket species was found. Morpho-anatomical observations and taxonomic comparisons revealed that this species is new to science and belongs to a new genus, *Socotraxis* n. gen. Their descriptions are the subject of the present paper.