



Phrixosoma concavifrons – a sexually dimorphic Phrixosomatini (Coleoptera: Curculionidae) from the Udzungwa mountains in Tanzania

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Abstract

A new species of *Phrixosoma* from Tanzania is described and illustrated. This is a unique species for the genus in having a strongly concave female frons. Several characters are described for the first time for this genus, including male and female genitalia, mouthparts, thoracic sutures, and several overlooked features of the meso- and metatibiae and sternal processes.

Keywords: *Phrixosoma*, Udzungwa, Tanzania, Afrotropical region

Introduction

Phrixosoma is a little known genus of Scolytinae found in the tropical parts of Africa and America. This is a peculiar distribution, as very few genera are exclusively found on these two continents. In Scolytinae, only Micracidini show similar patterns, but only at higher taxonomic levels (Wood, 1982). Species of *Phrixosoma* have a distinct preference for trees in the plant family Clusiaceae (Guttiferae *sensu* Wood, 2007). All species studied in detail have been found under relatively thick bark where they feed on inner phloem or cambium. Breeding behaviour is typical for a bark beetle, with a mating niche close to the entrance hole, and female laying eggs in small pits along a transversely cut biramous egg tunnel.

Blandford (1897) described *Phrixosoma* based on *P. rude*. There are currently 24 species known, 15 from the Neotropics and 9 from the Afrotropical region (Wood, 2007; Wood & Bright, 1992). Hagedorn (1909) described the African genus *Bothryperus* based on *B. psaltes*, and Eggers (1920, 1929) described the Neotropical genus *Sphaerosinus* and the African genus *Neohylesinus*, but all three genera were later synonymised with *Phrixosoma* due to a generally uniform morphological character variation across species on the two continents (see Wood, 1978). A typical *Phrixosoma* is readily recognised by having divided eyes and elytral striae narrowly and sharply impressed, and by the peculiar shape of their metatibiae. None of the species are known to be strongly dimorphic.

A new species collected from the Udzungwa Mountains in Tanzania deviates from a typical *Phrixosoma* by having a strongly dimorphic frons. This paper presents a description of the new species and a necessary emendation of the diagnosis and description of the genus.

Phrixosoma Blandford

Phrixosoma Blandford, 1897: 148; Wood 1986: 43. Type species: *Phrixosoma rude* Blandford, 1897, by monotypy.

Bothryperus Hagedorn, 1909: 742. Type species: *Bothryperus psaltes*. Synonymy by Schedl 1963: 258.

Neohylesinus Eggers, 1920: 118. Type species: *Neohylesinus quadrioculatus* Eggers. Synonymy by Eggers, 1927: 196.

Sphaerosinus Eggers, 1929: 40. Type species: *Sphaerosinus striatus* Eggers. Synonymy by Wood, 1982: 204.

Revised description: Head. Eyes divided. Male frons convex with an obscure to clearly elevated median carina from epistoma towards vertex; female frons either similar to male or deeply concave. Antennal club flattened with two or three sutures weakly marked by setae, suture 1 partly septate, funiculus (including pedicel) 6-segmented.