

- MAQUART, P. O. & MALEC, P., 2017. - On the distribution and natural history of a rarely encountered species: *Goliathus (Fornasinus) klingbeili* Zöller, Fiebig & Schulze, 1995 (Coleoptera: Scarabaeidae: Cetoniinae). *Zootaxa*. 2017 Nov 1;4341(3): 441-444.
- MOSER, J., 1909. - Eine neue Lokalfarm von *Goliathus giganteus* Lam.. *Deutsche Entomologische Zeitschrift*. 1909: 238.
- NAGAI, K., & SAKAI, S., 1998. - The Cetoniine Beetles of the World. Tokyo: *Mushi-Sha*. 421 pp.
- PREISS, P., 1933. - Neue und bekannte afrikanische Cetoniinen mit besonderer Berücksichtigung der Fauna von Mongoumba. *Verh Naturhist Ver Preuss RheinlWestfalens*. 90:70-92.
- SJÖSTEDT, Y., 1927. - *Goliathus meleagris* n. sp., *Entomologisk Tidskrift* 48(2):23.
- SJÖSTEDT, Y., 1928. - Über einen neuen Risenkäfer (*Goliathus meleagris*) aus Süd-Kongo. Nebst einer Revision der Gattung *Goliathus*. *Arkiv För Zoologi* 19A(24):1-30.
- TAMURA, K., et al., 2013. - MEGA6: Molecular Evolutionary Genetics Analysis Version 6.0. *Mol Biol Evol*. 30(12): 2725-2729.
- WEIBES, J. T., 1968. - Catalogue of the Coleoptera Cetoniidae in the Leiden Museum: 1. *Goliathus* Lamarck, *sensu lato*. *Zoologische Mededelingen* 43(3): 19-40.

Two new species of *Oxyhammus* Kolbe, 1894 from the Eastern Arc Mountains of Tanzania (Cerambycidae, Lamiinae, Monochamini)

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Summary. Two new species of *Oxyhammus* Kolbe, 1894, *Oxyhammus smithi* n. sp. and *Oxyhammus teocchii* n. sp. are described from the South Pare Mountains and West Usambara Mountains of Tanzania, respectively. The distribution of the genus *Oxyhammus* is discussed and comparative figures for diagnosis are provided.

Résumé. Deux nouvelles espèces d'*Oxyhammus* Kolbe, 1894, *Oxyhammus smithi* n. sp. et *Oxyhammus teocchii* n. sp. sont décrites des Monts Pare méridionaux et des Monts Usambara occidentaux en Tanzanie. La distribution du genre *Oxyhammus* est discutée et des illustrations comparées sont fournies pour la diagnose.

Keywords. Coleoptera, Cerambycidae, Lamiinae, Monochamini, *Oxyhammus*, Tanzania, Eastern Arc Mountains, nova species.

Acronyms

ANHRT: African Natural History Research Trust, Leominster, UK

BMNH: The Natural History Museum, London, United Kingdom

USNM: Smithsonian National Museum of Natural History, Washington D.C., USA

ZSM: Zoologische Staatssammlung München, München, Munich, Germany

Introduction

The genus *Oxyhammus* was described by KOLBE in 1894 to include a new species of Monochamini from Tanzania, *Oxyhammus scutellaris*. Currently, four species are recognised in the genus distributed mainly in Eastern Africa. One species, *O. scutellaris* Kolbe, 1894 appears to be widespread throughout Tanzania and has also been recorded in Cameroon (TÉOCCI, JROUX & SUDRE, 2007). The other species are restricted to highland regions in Tanzania and Malawi, of which two species are known solely from two isolated mountains in the Eastern Arc Mountains of Tanzania: *Oxyhammus rubriceps* Breuning, 1978 from the Uluguru Mountains and *Oxyhammus allardi* Téocchi, 1996 from the Nguru Mountains. The fourth species, *Oxyhammus zanguebaricus* Breuning, 1960 was described from Usagara in Tanzania but has recently been found in Malawi (SUDRE & TÉOCCI, 2002).

TÉOCCI (1996) outlines the bibliographic history and synonymy of *O. scutellaris* and states that *O. zanguebaricus* and *O. rubriceps* are likely to

only be varieties (...qui ne doivent constituer que des morphes) of *O. scutellaris*. Although the type specimens of the two Breuning species have not been studied, from their original descriptions and Téocchi's comments, these two species are almost certainly allied to *O. scutellaris* rather than to the distinctive *O. allardi*, this latter species differing considerably with the pubescence of the elytra limited only to the elytral sutures.

Two new species pertaining to the genus *Oxyhammus* from the closed-canopy forests of the Eastern Arc Mountains in Tanzania are herein described.

Materials and methods

Primary label data has been transcribed verbatim with “/” denoting a different label and “/” denoting a line break followed by a comment for each label in square brackets. If no indication is given, the label is printed on white card. Specimens were photographed using a Canon EOS 5D SR with a Canon Macro 100mm lens. Images were stacked using Helicon Focus 6.0.

Oxyhammus smithi n. sp. (Figs 1-2)

Holotype ♂ (BMNH): “// TANZANIA 1635m / Gonja, Chome NR / South Pare Mountains / S04°15'07"; E37°58'24" / 2-4.xii.11 General Coll. / leg. Smith, R & Takano, H // BMNH{E} / 2011-88 // BMNH(E) / #1031132 //”. **Paratypes**: 3 ♂♂, 5 ♀♀ (ANHRT, BMNH & USNM): *idem*, but 1 ♂ and 2 ♀♀ caught at light.

Description

Total length: 18 mm. Body dark brown to black, sparsely coated in pale cream pubescence. Vertex sulcate longitudinally, the surface either side of the sulcus with minute punctures and alutaceous microsculpture. The regions directly to the posterior of the upper eye lobes and longitudinally along the sulcus covered in fine pale cream setae. The interocular distance twice as long as the width of the upper eye lobe. The frons subquadrate and sulcate longitudinally in frontal view, the surface with alutaceous microsculpture. The genae elongate and finely punctate. Antennae nearly three times the length of the body, finely punctate and sparsely covered in pale cream setae. The scape shorter than antennomere IV; antennomere III longer than both and antennomere XI over twice as long as the scape. Pronotum transverse, the lateral spines long and slightly curved back at their apices. The pronotal disc with two circular protuberances, one on each side of the midline and a subquadrate tubercle medially to the posterior of these protuberances. Surface with alutaceous microsculpture throughout and setae laterally. Mesosternum covered in white setae; mesosternal process flattened. Metasternum and abdominal sternites with alutaceous microsculpture throughout and sparsely punctate. Scutellum large, parallel-sided and densely covered in a creamy white pubescence. Elytral surface shiny black with alutaceous microsculpture in parts. The humeral callus and basal sixth of each elytrum covered in large granules; the rest of the elytrum smooth with coarse punctures becoming finer and sparser towards the apex. The apex obliquely truncate with a sharp and pointed spine. Elytral suture with creamy white band of thick setae starting half

way along the length of the elytrum and becoming brighter towards the apex. Meso- and metathia with yellow pubescence becoming thicker towards the tarsomeres.

Female similar in appearance to male but larger, the spine at the apex of the elytra shorter and both antennomere IV and XI are only marginally longer than the scape.

Variation: males: 10–18 mm; females: 17–22 mm.

Diagnosis

This species is most closely allied to *O. allardi* but can be readily distinguished by the heavily punctured elytra, the very limited creamy band along the elytral suture, lack of a band along the epipleura and the flattened mesosternal process.

Derivatio nominis

It is with great pleasure that this species is dedicated to Richard SMITH, chairman of the African Natural History Research Trust, Leominster, UK, and collector of the type series; in admiration of his great passion and continued dedication to African entomology and taxonomy, without whom the discovery of a great many new insect species would otherwise not have been possible.

Distribution

Currently known only from the South Pare Mountains in Tanzania where it is likely to be endemic.

Oxyhammus teocchi n. sp. (Fig. 4)

Holotype ♂ (BMNH): “// TANZANIA W-Usambara / Mts. Mazumbai for. res. / canopy-trap, 1800m / 25.XI.-4.XII.1996 // Exp. O. Biström, / M. Nieminen, J. Terhivuo / & P. Viikmaa 1996 // P. Téocchi coll. / BMNH-E-2019-37 / NHMUK013870564 [QR code] //”.

Description

Total length 12 mm. Body dark maroon, coated in pale cream pubescence. Vertex sulcate longitudinally. The interocular distance twice as long as the width of the upper eye lobe. The frons subquadrate and sulcate longitudinally in frontal view. The genae subquadrate. Antennae less than twice the length of the body, finely punctate and covered in pale cream setae. The scape slightly shorter than antennomere IV and antennomere III longer than both. The holotype is missing antennomere X and XI on the left and antennomere XI on the right. Pronotum transverse, the lateral spines long and slightly curved back at their apices. The pronotal disc with two circular protuberances, one on each side of the midline and a subquadrate tubercle medially to the posterior of these protuberances. Surface completely covered in setae except for a small region of alutaceous microsculpture medially. Mesosternal process with a longitudinally ovaline tubercle. Scutellum large, trapezoidal, tapering towards the apex; surface densely covered in yellow pubescence. Elytral surface covered in pale cream pubescence. The humeral callus and basal sixth of each elytrum covered in large granules; the rest of the elytrum foveolate becoming sparser towards the apex. The apex truncate with a long, pointed spine. Elytral

margin between spine and suture emarginate. Meso- and metatibia with pubescence becoming more yellow and dense towards the tarsomeres.

Diagnosis

This species lies intermediately between *O. scutellaris* and *O. smithi* but can be readily distinguished by the dark maroon colour, foveolate elytra, the long spine and emarginate margin of the elytral apex.

Derivatio nominis

This species is named in memory of the late Pierre TÉOCCHI, in whose collection the holotype specimen was found, who over the many years made an extraordinary contribution to the knowledge of the African Cerambycid fauna.

Distribution

Currently known only from the West Usambara Mountains in Tanzania where it is likely to be endemic.

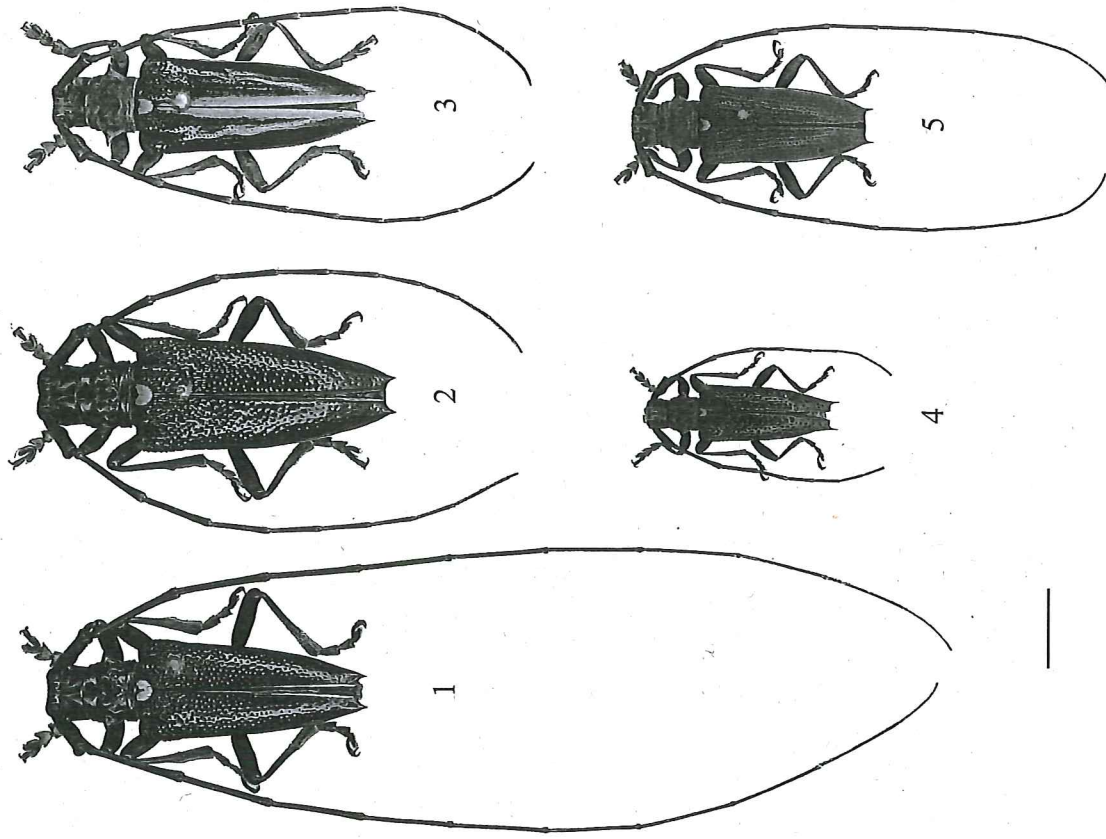
Remarks

Oxyhammus smithi n. sp. and *O. teocchii* n. sp. are likely to be restricted to the high-elevation forests of the South Pare Mountains and West Usambara Mountains, respectively, both sets of mountains being well-established biodiversity hotspots (MYERS *et al.*, 2000). In the case of *O. smithi*, the majority of specimens were caught beating low, dead, overhanging branches of trees within the closed-canopy submontane forest, with the rest of the series having been attracted to light. The holotype of *O. allardi*, which is illustrated in the original description, is a female rather than a male as stated by TÉOCCHI. A male specimen collected beating similar vegetation in the submontane forests of the Nguru Mountains is figured (Fig. 3).

Comparative material examined (all BMNH unless otherwise stated):

Oxyhammus scutellaris Kolbe, 1894 (4 ♂♂, 10 ♀♀)

TANZANIA: Syntype ♀ (ZMHB) – “// Type [orange card] // 65128 // Usambara / Derema 850m / August 91 / Conradt S. [dark blue card] // 136 [handwritten] // Oxyhammus / scutellaris / sp. n. Kolbe [handwritten in Kolbe's hand] // Zool. Mus. / Berlin //”; Syntype ♀ (ZMHB) – “// Type [orange card] // Usambara / Derema 850m / October 91 / Conradt S. [dark blue card] // 573 [handwritten] // Zool. Mus. / Berlin //”; Syntype ♀ (ZMHB) – “// Type [orange card] // Usambara / Derema 850m / December 91 / Conradt S. [dark blue card] // 963 [handwritten] // Zool. Mus. / Berlin //”; 1 ♀ – “// Usambara / Nguelo //”; 4 ♂♂ 2 ♀♀ – “// TANZANIA xi.11 / Nyakagomba Forest / Geita, Mwanza Prov. / Local Collector / leg. Smith, R & Takano, H // BMNH{E} / 2012-92 //” (Fig. 5); 1 ♀ – “// TANZANIA - AMANI / 27.VI.74 - Beating / B.A. Valentine leg. [handwritten] //”; **KENYA:** 1 ♀ – “// Kenya / Shimba For. / 17/3 70 Palm //”; 1 ♀ – “// van Someren / Shimba Hills / March 1941 // Pres. by / Com.Inst.Ent. / B.M.1948-556 //” 1 ♀ – “// Shimba



Figs. 1-5: Dorsal view of *Oxyhammus* spp. Fig. 1: *O. smithi* n. sp., holotype ♂. Fig. 2: *O. smithi* paratype ♀. Fig. 3: *O. allardi* Teocchi, 1998 ♂. Fig. 4: *O. teocchii* n. sp., holotype ♂. Fig. 5: *O. scutellaris* Kolbe, 1894 ♂. Scale is equal to 5 mm.

HILL. / 1000 ft. 7-39. // COM. INST. ENT. / COLL.NO. 19053 // Pres. by / Com. Inst. Ent. / B.M.1948-556 //".

Length: males: 13-14 mm; females: 11-18 mm.

Oxyhammus allardi Téocchi, 1996 (2 ♂♂, 1 ♀)

TANZANIA: Holotype ♀ - "4-85 TANZANIA / NGURU / 1900m / leg. Kielland / Coll. Allard [handwritten] // HOLOTYPE [red card] // Oxyhammus / allardi / nov. / P. TÉOCCHI det. 1993 [partially handwritten] // P. Téocchi coll. / BMNH-E-2019-37 / NHMUK013869961 [QR code] //"; 2 ♂♂ - "4-7.viii.10 TANZANIA 1759m / Maskati, Nguru Mountains / S06°03'29.3"; E37°29'08.4" / 4-7.viii.10 General Collection / leg. Smith, R & Takano, H // BMNH{E} / 2010-91 //".

Length: males: 16-19 mm; female: 20 mm.

Acknowledgements

My thanks go to Dr Gino NEARNS (USNM) for taking photographs of the type series of *O. scutellaris* during his visit to ZMHB, and to Max BARCLAY and Keita MATSUMOTO (BMNH) for assistance with the Téocchi collection. My thanks also go to the Tanzania Wildlife Research Institute (TAWIRI) and in particular Dr Victor KAKENGI for permissions to undertake research in Tanzania and to Salim ZABURI for assistance in the field.

Bibliography

- BREUNING, S. 1961. - Nouveaux Cerambycidae des Collections du Muséum de Paris. *Bulletin du Muséum National d'Histoire Naturelle de Paris, 2ème série*, 32(6): 536-548.
- BREUNING, S. 1978. - Descriptions de Lamiaires africains nouveaux (Coleoptera Cerambycidae). *Revue de Zoologie et de Botanique Africaines*, 92(1): 93-116.
- KOLBE, H.J. 1894. - Beiträge zur Kenntniss der Longicornier (Coleoptera). II. Über die von Herrn Leopold Conradt in Deutsch-Ostafrika auf der Plantage Derema in Usambara und in der benachbarten gesammelten Arten. *Stettiner Entomologische Zeitung*, 54: 241-290.
- MYERS, N., MITTERMEIER, R.A., MITTERMEIER, C.G., DA FONSECA, G.A.B. & KENT, J. 2000. - Biodiversity hotspots for conservation priorities. *Nature* 403: 853-858.
- SUDRE, J. & TÉOCCHI, P. 2002. - Contribution à la connaissance des longicornes du Malawi et description de nouveaux taxa. *Les Cahiers Magellanes*, 14: 38 pp.
- TÉOCCHI, P. 1998. - Notes concernant la tribu des Agniini Thomson (Coleoptera Cerambycidae Lamiinae). *Giornale Italiano di Entomologia, Cremona*, 8: 79-85.
- TÉOCCHI, P., JIROUX, E. & SUDRE, J. 2007. - Synonymies, diagnoses et bionomie de quelques Lamiaires africains (XIème note). *Les Cahiers Magellanes*, 65: 25 pp.