Arabammobius gen. n. *buettikeri* sp. n. from Oman (Insecta: Coleoptera: Tenebrionidae: Opatrini)

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Abstract

Arabammobius gen. n. *buettikeri* sp. n. (Tenebrionidae: Opatrini) from Oman is described, illustrated, and compared with *A. tarsalis* (Grimm, 2012) comb. nov. which is transferred from *Ammobius* to *Arabammobius* in the present paper. An identifikation key of the genera of the *Ammobius* group is added and a catalogue of the group is provided.

Zusammfassung

Arabammobius gen. n. *buettikeri* sp. n. (Tenebrionidae: Opatrini) vom Oman wird beschrieben, illustriert und verglichen mit *A. tarsalis* (Grimm, 2012) comb. nov. der von *Ammobius* zu *Arabammobius* transferiert wird. Ein Gattungschlüssel der *Ammobius*-Gruppe und ein Katalog der Gruppe wird beigefügt.

Key words: Tenebrionidae, Opatrini, new genus, new species, new combination, Oman

Introduction

Grimm (2012) described a new *Ammobius* from the United Arab Emirates and not from Oman as the title of the paper erroneously indicating that. Grimm (2012) remarked that the characters of this species are so conspicuous that it could be justified to create a new genus. A more precise screening of the very similar genera decides us to do so.

Acronyms of depositories

CRG, Collection Dr. Roland Grimm, Neuenbürg, Germany; CML, Collection Dr. Martin Lillig, Saarbrücken, Germany; NHMB, Naturhistorisches Museum, Basel, Switzerland; NME, Naturkundemuseum Erfurt, Germany; SMNS, Staatliches Museum für Naturkunde, Stuttgart, Germany.

Arabammobius gen. n.

Etymology: Combination of *Arab* (Arabia) and *Ammobius*.

Diagnosis: Small (body length 2.9–5.2 mm), ovate, convex, brown, wingless. Epistoma shallowly emarginate. Eye conical in dorsal view. Pronotum transverse, lateral border baering long hairs; surface without keels and bumps, covered with granules bearing short, scalelike, recumbent bristles. Scutellum triangular. Elytra obovate, convex, of same width as pronotum; lateral borders not visible in dorsal view; surface with isolated granulation. Pseudopleura gradually narrowed towards apex, becoming evanescent near level of base of last visible ventrite. Last abdominal ventrite shorter than the three previous ventrites together. Legs of digger-type; protarsi strongly laterally compressed. Basal tarsomere of mesotarsus as long as the ungual tarsomere.

According to Español (1956) the systematic position of the new genus is near *Nesocaedius* Kolbe, 1915 and *Corinta* Koch, 1950 and not near to *Ammobius* Guérin-Méneville, 1844 and *Psammestus* Reichardt, 1936 because of the short mesosternum.

Type species: To this genus also belongs *Ammobius tarsalis* Grimm, 2012 which is the type species: *Arabammobius tarsalis* (Grimm, 2012) **comb. nov.**

Distribution (Fig. 6): Oman; United Arab Emirate (Grimm 2012). Remark: According to Prof. (em.) Hans J. Bremer (Osnabrück) the type locality of *Arabammobius tarsalis*, the offshore islet by Khor Fakkan exists no longer. Despite of more intensive searching onshore no specimen could find there (Bremer pers. com.).

Arabammobius buettikeri sp. n. (Fig. 1–6)

Material. Holotype ♂: Oman Eastern Sands Project, Oman, Quhayd, 21°09'N/58°55'E, camp, 15 m, 20.II.1986, leg. W. Büttiker, NHMB.

Paratypes: Oman Eastern Sands Project, Oman, 4 km S Ras Dhabdhub, 21°31'N/58°49'E, 185 m, 22.I.1986,

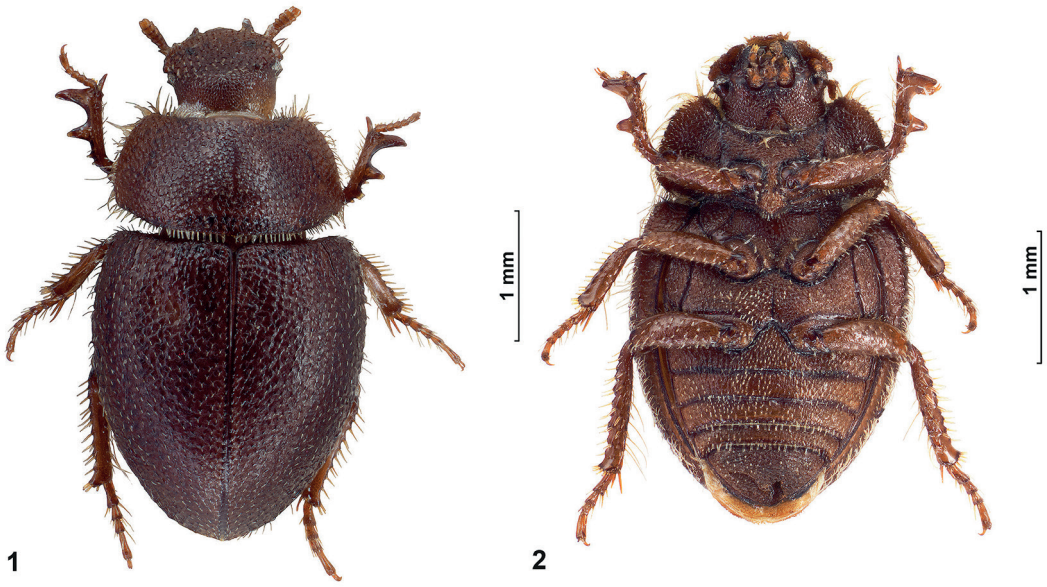

Fig. 1–2: *Arabammobius* gen. n. – Fig. 1. Dorsal view of holotype of *A. buettikeri* sp. n. – Fig.2. Ventral view of *A. buettikeri* sp. n.

leg. W. Büttiker, 6 ex. NHMB. – Oman Eastern Sands Project, Oman, Ras Dhabdhub, 21°32'N/58°49'E, dunes, 180 m, 19.II.1986, 72 ex. NHMB, 5 ex. CRG, 5 ex. CML 5 ex. SMNS. – Oman Eastern Sands Project, Oman, Quarhat Mu'ammar, 21°40'N/58°19'E, dunes, 135 m, 14.I.1986, leg. W. Büttiker, 5 ex. NHMB; 6.II.1986, leg. W. Büttiker, 1 ex. NHMB; 23.II.1986, leg. W. Büttiker, 3 ex. NHMB; 24.II.1986, leg. W. Büttiker, 1 ex. NHMB. – Oman Eastern Sands Project, Oman, Quhayd, 21°09'N/58°55'E, camp, 15 m, 20.II.1986, leg. W. Büttiker, 18 ex. NHMB – Oman Eastern Sands Project, Oman, Quhayd, 21°09'N/58°55'E, camp, 15 m, 18.II.1986, leg. W. Büttiker, 3 ex. NHMB. – Oman Eastern Sands Project, Oman, Quhayd, 21°09'N/58°56'E, dunes, 25 m, 19.II.1986, leg. W. Büttiker, 13 ex. NHMB, 1 ex. CRG. – Oman Eastern Sands Project, Oman, Quhayd, 21°09'N/58°56'E, dunes, 15 m, 19.II.1986, leg. W. Büttiker, 3 ex. NHMB, – Oman Eastern Sands Project, Oman, Quhayd, 21°10'N/58°59'E, Mesa, 15 m, 19.II.1986, leg. W. Büttiker, 1 ex. NHMB, – Oman Eastern Sands Project, Oman, W Quhayd, 21°12'N/58°55'E, dunes, 40 m, 23.II.1986, 2 ex. NHMB. – Oman Eastern Sands Project, Oman, Wahiba Sands, 21°38'N/59°18'E, 21.II.1986, leg. M. Gallagher, 21 ex. NHMB, 3 ex. CRG. – Oman Eastern Sands Project, Oman, Mintirib, 22°25'N/58°40'E, 268 m, Ass. Camp, 10.I.1986, 21.II.1986, leg. W. Büttiker, 1 ex. NHMB. – Oman, Eastern Sands Project, Mu'ammar, 29.II.1986, leg. W. Büttiker, 2 ex. NHMB. – Oman Ash-Sharqiyah prov., 10km S of Bidiyah, 310m, 22°20'0, 13"N/58°46'36,1"E, leg. L. Dembitzký, 21.XI.2017, 5 ex. CRG, 7 ex. CML, 38 ex. NME.

Additional material: Oman Eastern Sands Project, Oman, Warak, 21°44'N/55°48'E, 2.I.1986, leg. R. G. Whitcombe, 1 ex. NHMB. Not included in the type series, as the coordinates given are outside the Wahiba and therefore the locality is uncertain.

Etymology: The species is named in honour of the late Prof. Dr. Dr. h. c. Willi Büttiker (1921–2009), initiator of the "Oman Eastern Sands Project" of the Natural History Museum Basel, and collector of the holotype and many paratypes.

Description: Ovate, convex (Fig. 1), apterous, brown to dark brown, pilosity fuscous; integument dorsal feebly, ventral distinctly microreticulated. Body length 2.9–5.2 mm, width 1.55–3.3 mm.

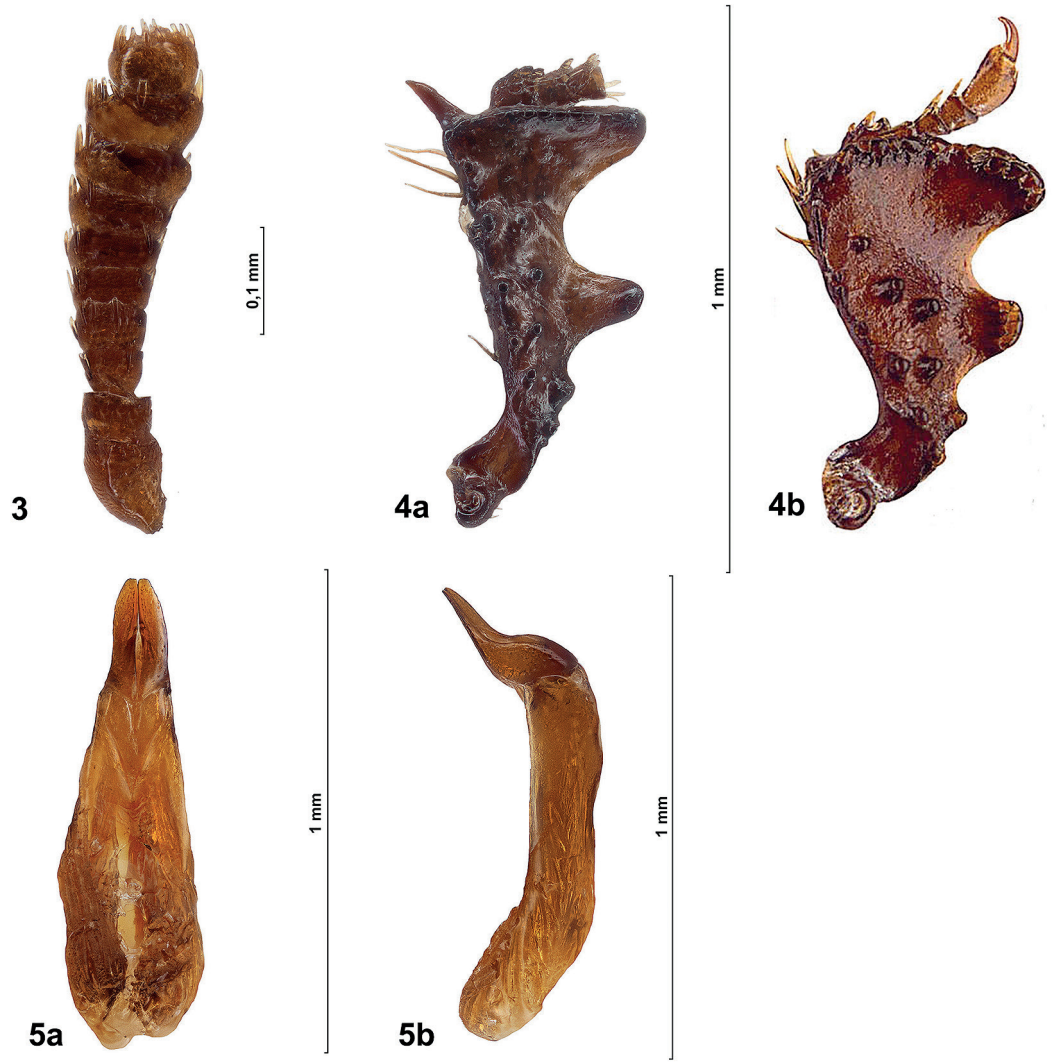

Fig. 3–5: *Arabammobius* gen. n. – Fig. 3. Antenna of *A. buettikeri* sp. n.. – Fig. 4. Ventral side of protibia, a. *A. buettikeri* sp. n., b. *A. tarsalis* (Grimm). – Fig. 5. Aedeagus of *A. buettikeri* sp. n., a. dorsal, b. lateral.

Head with anterior margin of epistoma straight or almost straight, very weakly emarginated. Surface covered with granules bearing short, scalelike, recumbent bristles. Geneae broader than eyes. Eyes small, constricted by thick genal canthus; slightly conical. Antennae 10segmented (Fig. 3), short with pedicel nearly square; third antennomere shortly pedunculate and all following antennomeres closely fitted into the other, transverse; the penultimate two antennomeres feebly broader than the previous antennomere but larger in size; last antennomere narrower, subquadrate.

Pronotum transvers, about twice as wide as long, widest about middle, densely covered with small, somewhat triangular granules; laterally with scale-like short setae like those on head. Anterior border widely and evenly emarginated between the anterior angles, anterior angles not protruding, subrectangular. Lateral borders slightly arcuate and weakly narrowed towards base and apex; with long ciliae. Basal border arcuate, feebly emarginated laterally, posterior corners arcuate.

Elytra obovate, widest approximately in the middle, covered with abraded granules, bearing recumbent

setae. Base broadly arcuate. Ciliae of sides as long as those of pronotum. Lateral borders not visible in dorsal view. Pseudopleura gradually narrowed towards apex, be-coming evanescent near level of base of last visible ventrite.

Ventral side (Fig. 2) strongly granulated; metasternum short, as long as the first abdominal ventrite; first ventrite behind metacoxae almost as long as second ventrite; last abdominal ventrite smaller than three previous ventrites together.

Legs of digger-type. Anterior tibiae (Fig. 4a) flattened; outer border with two teeth, one in the middle, one apically; apical tooth shorter than protarsus; apical border of apical tooth straight; ventral side with two irregular rows of tubercles, behind inner border without tubercles on tooth like dilations. Meso- and metatibiae triangular in cross section, finely dilated towards apex, bearing spines on outer and posterior sides. Protarsi laterally compressed but not keeled. Aedeagus see Fig. 5a,b).

Diagnosis: *Arabammobius* gen. n. *buettikeri* sp. n. is similar to *A. tarsalis* (Grimm, 2012) but differs by the different number of antennomeres (antennae in *A. tarsalis* 11semented), by the different shape of epistoma (reversely trapezoidal emerginate in *A. tarsalis*), by the different protibia (Fig. 4a, b), and by the different shape of aedeagus (Fig. 5a, c).

Key to genera of the *Ammobius*-group

Within the subtribe Ammobiina (see Iwan & Kamiński 2016) the *Ammbius*-group is characterized by:
Small Opatrini with protibae of the digger-type, wingless, short oval, strongly convex, setulose; pronotum and elytrae with long setae, elytra not striped (stripes in *Corinta* weakly visible); posterior corners of pronotum arcuate, base of pronotum not bisinuate.

1 Tarsi laterally not compessed **2**
– Pro- and mesotarsi laterally compressed. Antennae 10segmented in *A. buettigeri*, 11segmented in *A. tarsalis* ....***Arabammobius* nov. gen.**

2 Four to five antenomeres club of antennae badly defined. Last abdominal ventrite large, of almost the length of the three previous ventrites together. Antennae 11segmented. In the male apex of each elytron with a short horizontally produced digitate process ..... ***Cornopterus* Koch, 1950**
– Antennal club well defined **3**

3 Epistomal suture absent; apex of pronotum emarginate. Metaventrite short, the same length as the first abdominal ventrite; first abdominal ventrite behind metacoxa, almost as long as second ventrite ***Nesocaedius* Kolbe, 1915**
– Epistomal suture visible at least laterally **4**

4 Mesoventrite distinctly depressed. Metaventrite short, the same length as the first abdominal ventrite. First abdominal ventrite behind metacoxa almost as long as second ventrite. Last abdominal ventrite much smaller than the three previous ventrites together. Basal tarsomere of mesotarsus a little shorter than the ungual tarsomere .... ***Corinta* Koch, 1950**
– Mesoventrite only slightly depressed. Metaventrite much longer than the first abdominal ventrite; first abdominal ventrite short, behind the metacoxae shorter than metaventrite. Last abdominal ventrite large, of almost the length of the three previous ventrites together. Basal tarsomere of metatarsus longer than ungular tarsomere ....***Ammobius* Guérin-Méneville, 1844**

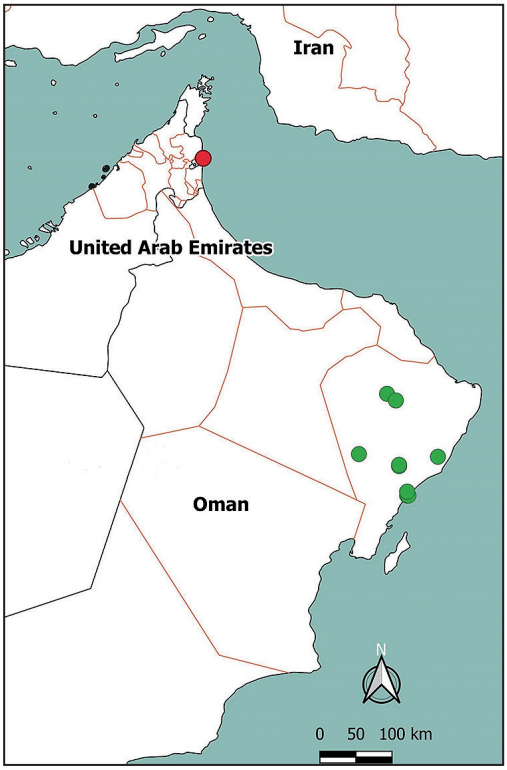

Fig. 6: Distribution of the species of genus *Arabammobius*. *A. büttigeri* green circle, *A. tarsalis* red circle.

Catalogue of the *Ammobius*-group:

***Ammobius* Guérin-Méneville, 1844**
Type species: *Trachyscelis rufus* Latreille (= *Trachyscelis rufus* Lucas, 1846)

asperatus Champion, 1894 (*Ammophthorus*): China
cyprius Grimm, 1991: Cyprus, Turkey
rufus Lucas, 1846 (*Trachyscelis*): coast of Mediterranean Sea and Black Sea

insularis Reitter, 1893
jakovlevi Semenov, 1905
minotaurus Obenberger, 1922
rugosus Rosenhauer, 1856

***Arabammobius* nov. gen.**
Type species: *Ammobius tarsalis* Grimm, 2012

buettigeri sp. nov.: Oman
tarsalis Grimm, 2012 (*Ammobius*): United Arab Emirates

***Corinta* Koch, 1950**
Type species: *Corinta litoralis* Koch, 1950

bremeri Grimm, 1991: Kenya
kochi Ferrer, 1996: Somalia
litoralis Koch, 1950: Mozambique

***Cornopterus* Koch, 1950**
Type species: *Cornopterus wykehami* Koch, 1950

wykehami Koch, 1950: East and Southern Africa

***Nesocaedius* Kolbe, 1915**
Type species: *Nesocaedius schultzei* Kolbe, 1915

insularis Ando & Yamasako, 2015: Indonesia/Bali
minimus M. T. Chûjô, 1966 (*Caedius*): Japan (Iriomote Is., Tanega-shima Is., Ryukyu Isls., Sata Cape, Kyushu), Taiwan, Palau Isls.
pardoi Español, 1956: Western Sahara
schultzei Kolbe, 1915: Philippines
taiwanus Shibata, 1979: Taiwan
vermiculatus Shibata, 1979: Lutao Is., Taiwan

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Fig. 7: Sampling side of paratypes of *A. buettigeri* sp. n. at 10 km S of Bidiyah (photo: Luboš Dembický.

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