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On the Palaearctic and Oriental species of *Scymbalium* and *Micrillus* (Coleoptera: Staphylinidae: Paederinae)

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Abstract: Types and additional material of the paederine genera *Micrillus* RAFFRAY 1873 and *Scymbalium* ERICHSON 1839 primarily from the East Palaearctic and Oriental regions are revised. Two species of *Scymbalium* and ten species of *Micrillus* are (re-)described and illustrated: *Scymbalium badium* (MOTSCHULSKY 1858); *S. nepalense* nov.sp. (Nepal), *Micrillus aethiopicus* (CAMERON 1947), nov.comb. (ex *Scymbalium*), *M. indicus* (EPPELSHEIM, 1890); *M. nigriceps* (CAMERON 1931), nov. comb., nov.stat. (ex *Scymbalium*), previously a subspecies of *M. indicus*; *M. siamensis* nov.sp. (Thailand); *M. intermedius* (CAMERON 1936), nov.comb. (ex *Scymbalium*); *M. sutteri* (SCHEERPELTZ 1957), nov.comb. (ex *Scymbalium*); *M. flavescens* (MOTSCHULSKY 1858), nov.comb. (ex *Scymbalium*); *M. distortus* nov.sp. (Laos, Vietnam, Thailand); *M. sumbaensis* (SCHEERPELTZ 1957), nov.comb. (ex *Scymbalium*); *M. suturalis* (CAMERON 1930), nov.comb. (ex *Scymbalium*). Five synonymies are proposed: *Scymbalium badium* (MOTSCHULSKY 1858) = *S. waageni* BERNHAUER 1928, nov. syn., = *S. brunneum* CAMERON 1931, nov.syn.; *Micrillus flavescens* (MOTSCHULSKY 1858) = *Scymbalium asperiventre* FAUVEL 1895, nov.syn.; *Micrillus suturalis* (CAMERON 1930) = *Scymbalium javanicum* CAMERON 1936, nov.syn. = *S. borneense* CAMERON 1941, nov.syn. Lectotypes are designated for *Scymbalium indicum* EPPELSHEIM 1890, *S. nigriceps* CAMERON 1931, *S. intermedium* CAMERON 1936, *S. asperiventre* FAUVEL 1895, and *Lathrobomorphus badius* MOTSCHULSKY 1895. The inter- and intrageneric affiliations of *Scymbalium* and *Micrillus* are discussed; the current assignment of both genera to the Lathrobiina is considered doubtful. Numerous additional records of previously revised species are reported, among them several new country records; one species is reported from the Palaearctic region for the first time. The distributions of ten species are mapped. A key to species and a checklist (including the unrevised species described from the Afrotropical region) are provided.

Key words: Coleoptera, Staphylinidae, Paederinae, *Micrillus*, *Scymbalium*, Palaearctic region, Oriental region, Afrotropical region, new species, new combinations, new synonymies, lectotype designations, new records, distribution, key to species, checklist

Introduction

The paederine genus *Micrillus* RAFFRAY 1873 previously included twelve species in two distinct lineages, the *M. testaceus* (eight species) and the *M. aegyptiacus* groups (four species). The distribution of the *M. testaceus* group is confined to the West Palaearctic

including Middle Asia, whereas the *M. aegyptiacus* group had been recorded from Northeast and East Africa, as well as from India (ASSING 2008). Most of the old names in *Micrillus* had originally been described in the genus *Scymbalium* ERICHSON 1839.

Nearly 50 species from the Afrotropical, Palaearctic, Oriental, and Australian regions are currently attributed to *Scymbalium* (HERMAN unpubl.). Except for the type species, *S. anale* (NORDMANN 1837), none of them has been subject to recent revisionary studies, and, with few exceptions, the male sexual characters are unknown.

According to COIFFAIT (1980, 1982), who separated *Micrillus* from *Scymbalium* as a distinct genus, the former differs from the latter by the simple, undilated protarsi, the more slender and glabrous fourth joint of the maxillary palpus, the position of the aedeagus in the abdomen, as well as the almost completely reduced parameres of the aedeagus. The distinguishing characters pointed out by ASSING (2008) are the smaller body size, simple protarsi, a narrower neck, finer punctation of the head and pronotum, longer valvulae of the abdominal segment IX, the strongly reduced size of tergite X and sternite IX, and the completely reduced parameres in *Micrillus*. Both *Scymbalium* and *Micrillus* are currently assigned to the Lathrobiina.

The primary objective of the present paper is to clarify the taxonomic and systematic status of the *Scymbalium* and *Micrillus* species distributed in the East Palaearctic and Oriental regions.

Material and methods

The material treated in this paper is deposited in the following public institutions and private collections:

BMNH	The Natural History Museum, London (R.G. Booth)
EU	Erzurum University Collection (E. Yildirim)
FMNH	Field Museum of Natural History, Chicago (vial L. Herman)
HNHM	Hungarian Natural History Museum, Budapest (Gy. Makranczy)
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Bruxelles (Y. Gérard)
MCSNM	Museo Civico di Storia Naturale, Milano (F. Rigato)
MCSNT	Museo Civico di Storia Naturale, Trieste (A. Colla)
MHNG	Muséum d'Histoire Naturelle, Genève (G. Cuccodoro)
MNHUB	Museum für Naturkunde der Humboldt-Universität, Berlin (J. Frisch)
NHMB	Naturhistorisches Museum Basel (M. Geiser, I. Zürcher)
NHMW	Naturhistorisches Museum Wien (H. Schillhammer)
NME	Naturkundemuseum Erfurt (M. Hartmann)
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg (L. Behne)
SMF	Senckenberg Naturmuseum Frankfurt (A. Hastenpflug-Vesmanis)
SMNS	Staatliches Museum für Naturkunde, Stuttgart (W. Schawaller)
SMTD	Staatliches Museum für Tierkunde, Dresden (O. Jäger)
ZMMU	Zoological Museum of the Moscow Lomonosov State University (A. A. Gusakov)
ZMUC	Natural History Museum Denmark/ University of Copenhagen Zoological Museum (A. Solodovnikov)
cApf	private collection Wolfgang Apfel, Eisenach
cAss	author's private collection
cBoh	private collection Jaroslav Boháč, Budejovice

cBor..... private collection Arnaldo Bordoni, Firenze
 cFel private collection Benedikt Feldmann, Münster
 cPüt private collection Andreas Pütz, Eisenhüttenstadt
 cSch..... private collection Michael Schülke, Berlin
 cSha..... private collection Alexey Shavrin, Daugavpils
 cVai..... private collection Dante Vailati, Brescia
 cVav private collection Jiří Vávra, Ostrava-Krásné Pole
 cWun..... private collection Paul Wunderle, Mönchengladbach

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used for the photographs. The maps were created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the mandibles (in resting position) to the abdominal apex, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, head length from the anterior margin of the frons to the posterior margin of the head, the length of the pronotum along the middle, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra (at the sutural angles), and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Results

Species groups and systematics

Based on the revision of the East Palaearctic and Oriental species of *Scymbalium* and *Micrillus*, most of the characters previously suggested suitable for a separation of these taxa at the generic level (ASSING 2008; COIFFAIT 1980, 1982) do not seem to be constant (vary between species groups) and are consequently of less taxonomic significance than believed earlier. This is true of body size, the width of the neck, the punctuation of the forebody, and the length of the valvulae of abdominal segment IX.

The *Scymbalium* and *Micrillus* fauna is represented in the Palaearctic and Oriental regions by four lineages. One of them is characterized by dilated protarsomeres I-IV and a symmetric aedeagus with at least rudimentary parameres (see comment in the section on *S. nepalense*) and without distinctly sclerotized internal structures. Since this species group includes the type species *S. anale*, it is referred to as *Scymbalium*. In the Palaearctic and Oriental regions, this genus is represented by two species pairs, one of them West Palaearctic and including *S. anale* and *S. persimile*, the other East Palaearctic and Oriental and comprising *S. badium* and *S. nepalense*. The former lineage is distinguished from the latter by the more distinct and denser punctuation of the head and pronotum, the larger tergite X and sternite IX of the abdomen, a larger aedeagus, and the less reduced parameres (male sexual characters of *S. persimile* unknown).

The remaining three lineages are attributed to *Micrillus* and distinguished from *Scymbalium* by the simple, undilated protarsomeres I-IV, the always strongly reduced tergite X and sternite IX, and the absence of parameres. One of the lineages includes the

species of the *Micrillus testaceus* group (see ASSING 2008), which share long and slender valvulae of the abdominal segment IX, a rather broad and not very deep posterior excision of the male sternite VIII, as well as a rather symmetric and slender aedeagus without sclerotized internal structures. A second lineage, the *M. suturalis* group, is characterized by a relatively large, slender, and somewhat asymmetric aedeagus with long series of sclerotized spines in the internal sac, and by a broad and shallow posterior excision of the male sternite VIII. The third lineage, the *M. aegyptiacus* group (see ASSING 2008), is distinguished from other species groups of *Micrillus* by the narrow and usually deep posterior excision of the male sternite VIII and by the small (in relation to body size), compact, and distinctly asymmetric aedeagus with sclerotized internal structures.

Admittedly, this generic concept is weakly supported and should be considered both tentative and preliminary, since the characters distinguishing *Scymbalium* from *Micrillus* may all represent symplesiomorphies. However, in view of the considerable number of unrevised species distributed in the Afrotropical and Australian regions, it is in the interest of the stability of nomenclature to adopt a conservative concept involving as few nomenclatural changes as possible. A thorough phylogenetic analysis of all the taxa of *Scymbalium* and *Micrillus* would be required to clarify the status of these genus-group names.

Similarly, the subtribal affiliations of *Scymbalium* and *Micrillus* require revision. Both taxa are currently attributed to the Lathrobiina, primarily based on the unmodified shape of the ligula, the broad neck, the reduced parameres, the unmodified palpi, and the short metatarsomere I (COIFFAIT 1982). However, except for the reduced parameres, these characters are probably all symplesiomorphies. Moreover, the morphology of the apical abdominal segments differs so significantly from that of *Lathrobium* GRAVENHORST 1802 and allied genera that a closer relationship seems rather unlikely. In particular, the presence of valvulae of segment IX in both sexes, which somewhat resemble those of females in many groups of Staphylininae, readily distinguish *Micrillus* and *Scymbalium* from all other genera currently assigned to the Lathrobiina.

Diversity and distribution

Scymbalium is represented in the Palaearctic and Oriental regions by five species, one of them undescribed. Two of these species are distributed in the West Palaearctic, two in the Himalaya (including North India), and one in Laos. *Micrillus* currently includes 22 species, one of them undescribed, from the Palaearctic, Oriental, and Afrotropical regions. The distribution of the *M. testaceus* group, which comprises eight species, is confined to the south of the West Palaearctic and Middle Asia. The single representative of the *M. suturalis* group is distributed in the Oriental region. The vast distribution of the *M. aegyptiacus* group ranges from the Afrotropical region across the south of the Palaearctic into the Oriental region. This group currently includes fourteen species, one of them undescribed. However, a significant number of the unrevised species currently in *Scymbalium* (see checklist at the end of the paper) most likely belong to this group, too.

Scymbalium* ERICHSON 1839**Scymbalium anale* (NORDMANN 1837) (Fig. 1)**

Material examined: France: 1 ex., "Grimont" (SDEI); 6 exs., inundation of Gers river (MHNG, SMTD); 1 ex., inundation of Gers river, XII.1866 (SMTD); 2 exs., Gard, leg. Puel (MHNG); 5 exs., locality not specified (SDEI, SMF, SMNS); 1 ex., "Gallia merid." (SMTD). French or Spanish territory: 1 ex., "Pyrenées" (cBor). Austria: 2 exs., Burgenland, Neusiedlersee (SMF). Italy: Lombardia: 3 exs., Rocca de Giorgi (PV), 14.IV.2000, leg. Monzini (ZMUC). Emilia - Romagna: 2 exs., Ferrara, IV.1970, leg. Bordoni (cBor); 1 ex., Argenta (FE), Oasi di Campotto, light trap, 4.-5.VI.2005, leg. Fabbri (cBor). Toscana: 2 exs., Firenze, Sesto Fiorentino, III.1912, leg. Boglione (MCSNT); 1 ex., Grosseto, Poggio Cavallo [42°46'N, 11°10'E], III.1906, leg. Moncini (MCSNM); 1 ex., Pistoia, NE Quarrata, La Querciola Caserana [ca. 43°51'N, 11°00'E], 27.IV.2001, leg. Bordoni (cBor). Lazio: 1 ex., Maccanese, leg. Luigioni (SMF). Basilicata: 2 exs., Policoro (MT), 25.I.1976, leg. Angelini (SMNS); 4 exs., Matera, Bosco Policoro, I.1976, leg. Montemurro (cBor, cAss); 2 exs., Matera, Gravina F. Bradano, light trap, 26.VII.1993, leg. Angelini (ZMUC, cAss). Calabria: 5 exs., Antonimina, 1905, leg. Paganetti (SMF, SMNS, SMTD); 1 ex., Brindisi, leg. Leder, Reitter (SMTD); 1 ex., Gerace, leg. Paganetti (SMTD). Puglia: 2 exs., Brindisi, leg. Reitter & Leder (SMF). Sardegna: 2 exs., Paulilatino, II.1943, leg. Falzoni (MCSNT); 2 exs., Sassari, Chilivani, 25.IV.1979, leg. Pavesi (MCSNM); 2 exs., Cagliari, Guspini, VI.1987, leg. Meloni (cBor); 1 ex., locality not specified (SMF). Sicilia: 1 ex., Bosco di Ficuzza (PA), 6.II.1970, leg. Aliquo (cBor). Locality not specified: 1 ex., "Italia" (HNHM). Slovakia: 5 exs., Kamen. most, 3.V.1955, leg. Smetana (cBoh, cAss). Romania: 1 ex., "Comana Vlasca", leg. Montandon (SMTD); 1 ex., locality not specified (SMTD). Croatia: 1 ex., Istria, "Val d. Quietto", 6.IV.1925 (SMF). Bulgaria: 1 ex., Pomorie env., 9.-18.V.1985, leg. Wrase (SMNS); 1 ex., Promorie env., 9.V.1985, leg. Jaeger (cAss). Albania: 13 exs., Kolonjë, 3 km ENE Leskovik, 40°10'N, 20°37'E, 990 m, flooded calcareous pasture with stones, under stones, 28.V.2010, leg. Assing (cAss). Greece: Mainland: 8 exs., ca. 20 km SSE Lamia, Oros Kallidromo, 38°44'N, 22°34'E, 1100m, partly flooded meadow, under stones, 2.IV.2001, leg. Assing (cAss); 24 exs., same data, but 6.IV.2001 (cAss); 28 exs., Oros Kallidromo, 38°45'N, 22°30'E, 990m, flooded meadow, under stones, 7.IV.2001, leg. Assing (cAss); 2 exs., Parnassos Oros, near Delfi, 1200 m, 11.IV.1989, leg. Karner (cAss). Lesbos: 1 ex., Megali Limni, 39°06'N, 26°20'E, meadows, under stones, 24.III.2005, leg. Lompe & Meybohm (cAss). Turkey: Istanbul: 1 ex., Istanbul (MHNG). Kocaeli / Sakarya: 1 ex., Goek Dağı, leg. Bodemeyer (SMF). Bursa: 1 ex., Karacabey, leg. Ajtai (NHMW). Kastamonu: 1 ex., ca. 65 km W Kastamonu, 20 km W Eflani, 41°28'N, 33°13'E, 1090 m, calcareous arable land, under stones, 25.III.2010, leg. Assing (cAss). Sinop: 1 ex., 15 km SW Sinop, S Kılıçlı, 41°57'N, 35°02'E, 80 m, grassy road margin, grass between shrubs, sifted, 3.IV.2009, leg. Assing (cAss). Çankırı: 2 exs., pass between Çankırı and Ilgaz, 1400 m, 3.V.1987, leg. Giachino (cAss, cVai). Manisa: 1 ex., Hamidiye, 8.IV.2007, leg. Anlaş (cAss); 1 ex., Hamidiye, 8.IV.2007 (cAss). Ankara: 277 exs., 57.5 km SE Bolu, ca. 20 km N Beypazarı, 40°18'N, 31°59'E, 1540 m, wet fallow near shallow pond, under stones, 28.III.2010, leg. Assing (cAss, cFel, cSch, MNHUB); 1 ex., Ankara, S Ankara, 3 km S Bezirhane, 24.IV.1993, leg. Slaven (cPüt). Muğla: 1 ex., 100 km W Antalya, 30 km SSE Gölhisar, 1600 m, meadow, 22.V.1993, leg. Schulz (cAss). Isparta: 4 exs., 10 km SE Sütçüler, 37°25'N, 31°02'E, 1520 m, moist meadow, under stones, 26.IV.2011, leg. Assing (cAss); 2 exs., 43 km ESE Eğirdir, Dedegöl Dağları, 5 km W Yenişarbademli, 37°43'N, 31°19'E, 1820 m, flooded pasture and calcareous slope, under stones, 25.IV.2011, leg. Assing (cAss). Antalya: 1 ex., Sarıcınar Dağı, near Beldibi, 300 m, 6.-18.VI.1994, leg. Pütz (cAss). Niğde: 1 ex., Çamardı env., Orhaniye, Ala Dağlar, 1800-2200 m, 19.V.2005, leg. Vávra (cVav). Karaman: 1 ex. [det. Feldmann], N Ermenek, Yıldızbel Geçidi, 36°49'N, 32°56'E, 1920 m, 24.V.2007, leg. Marggi & Huber (cFel). Israel: 1 ex. [det. Feldmann], S Hadera, Breikhat Ja'ar, 32°25'N, 34°54'E, 10 m, wet meadows, [date not specified] leg. Abmann (cFel). Ukraine: 1 ex., Odessa, Majaki, Dnestr river, at light, 18.-19.VIII.2005, leg. Cibulskis (cSha); 4 exs., Odessa, Kuyalnik Liman, under stones, 2.X.2002, leg. Gontarenko (cAss). Georgia: 1 ex., Gyandzha (=Kirovabad) ["Elisabethpol"], Babadjanides (SMF). Azerbaijan: 7 exs., Geok Tapa [39°11'N, 48°41'E] (MHNG, cAss); 3 exs., Tejen ["Tedschen", 37°23'N, 60°30'E], V.1903, leg. Hauser (NHMW, cAss). Turkmenistan: 2 exs., Ashkhabad (SMF); 2 exs., W Ashkhabad, Sulyukly

["Transcaspia, Neu-Saratow", 38°02N, 57°25E] (MNHUB, cAss). Kazakhstan: 1 ex., Charyn valley, W Chundza, 800 m, 10.-13.VI.1993, leg. Schawaller (cAss). Locality not specified or illegible: 1 ex., "Transcaspien" (SMTD); 4 exs. (SDEI, MNHUB, SMTD).

C o m m e n t : The vast distribution of *S. anale* ranges from southwestern France across the Mediterranean region to Iran and Middle Asia (Turkmenistan, Kazakhstan). In North Africa it has been reported only from Algeria (SMETANA 2004). The above specimens from Albania, Israel, Azerbaijan, Georgia, and Kazakhstan represent new country records; *S. anale* is not listed for these countries in SMETANA (2004). The species is usually collected from under stones in moist meadows, occasionally in large numbers particularly during spring inundations, often together with *Leptobium gracile* (GRAVENHORST 1802) and species of *Luzea* BLACKWELDER 1952 and/or *Achenium* LEACH 1819. On one occasion, as many as 277 specimens were found in a partly inundated fallow near a road margin in Turkey (Fig. 1). For illustrations of the male sexual characters see COIFFAIT (1982).



Fig. 1: Habitat of *Scymbalium anale* (NORDMANN) (Turkey: Ankara). As many as 277 specimens were collected in this locality within approximately two hours at the end of March.

***Scymbalium persimile* CAMERON 1940 (Figs 2-4)**

Type material examined: Holotype ♀: "Type [curator label] / Tanooma, Mesopotamia / *S. persimilis* Cameron Type / M. Cameron. Bequest B.M. 1955-147 / Holotypus *Scymbalium persimile* Cameron rev. V. Assing 2007" (BMNH).

C o m m e n t : The original description is explicitly based on a single "type" from "Mesopotamia: Tanooma" (CAMERON 1940). The species is distinguished from *S. anale*

especially by the finer and denser punctuation of the abdomen. For illustrations of the holotype see Figs 2-4. The male sexual characters of *S. persimile* are still unknown. This species has been recorded only from Iraq and South European Russia (SMETANA 2004).

***Scymbalium badium* (MOTSCHULSKY 1858) (Figs 56-60)**

Lathrobomorphus badius MOTSCHULSKY 1858: 646.

Scimbalium [sic] *waageni* BERNHAUER 1928: 13; **nov.syn.**

Scimbalium [sic] *brunneum* CAMERON 1931: 213 f.; **nov.syn.**

Type material examined: *S. badium*: Lectotype ♂, present designation: "Lathrobomorphus badius Motch. Ind. or. / Lectotypus ♂ *Lathrobomorphus badius* Motschulsky / Scymbalium badium (Motschulsky), det. V. Assing 2013" (ZMMU). Paralectotypes: 1 ♀: with small remains of yellow label; writing illegible (ZMMU); 1 ♀ [head and most of thorax missing]: "Lathrobomorphus badius Motch. Ind. or. Birma" (ZMMU).

S. waageni: Holotype ♀: "Calcutta / Coll. Waagen, don. Staudinger. / Waageni. Eppelsh. / Scimbalium / Scimbalium Waageni Brnh. Typus / Chicago NHMus, M. Bernhauer Collection / Holotypus Scymbalium waageni Bernhauer, rev. V. Assing 2013 / Scymbalium badium (Motschulsky), det. V. Assing 2013" (FMNH).

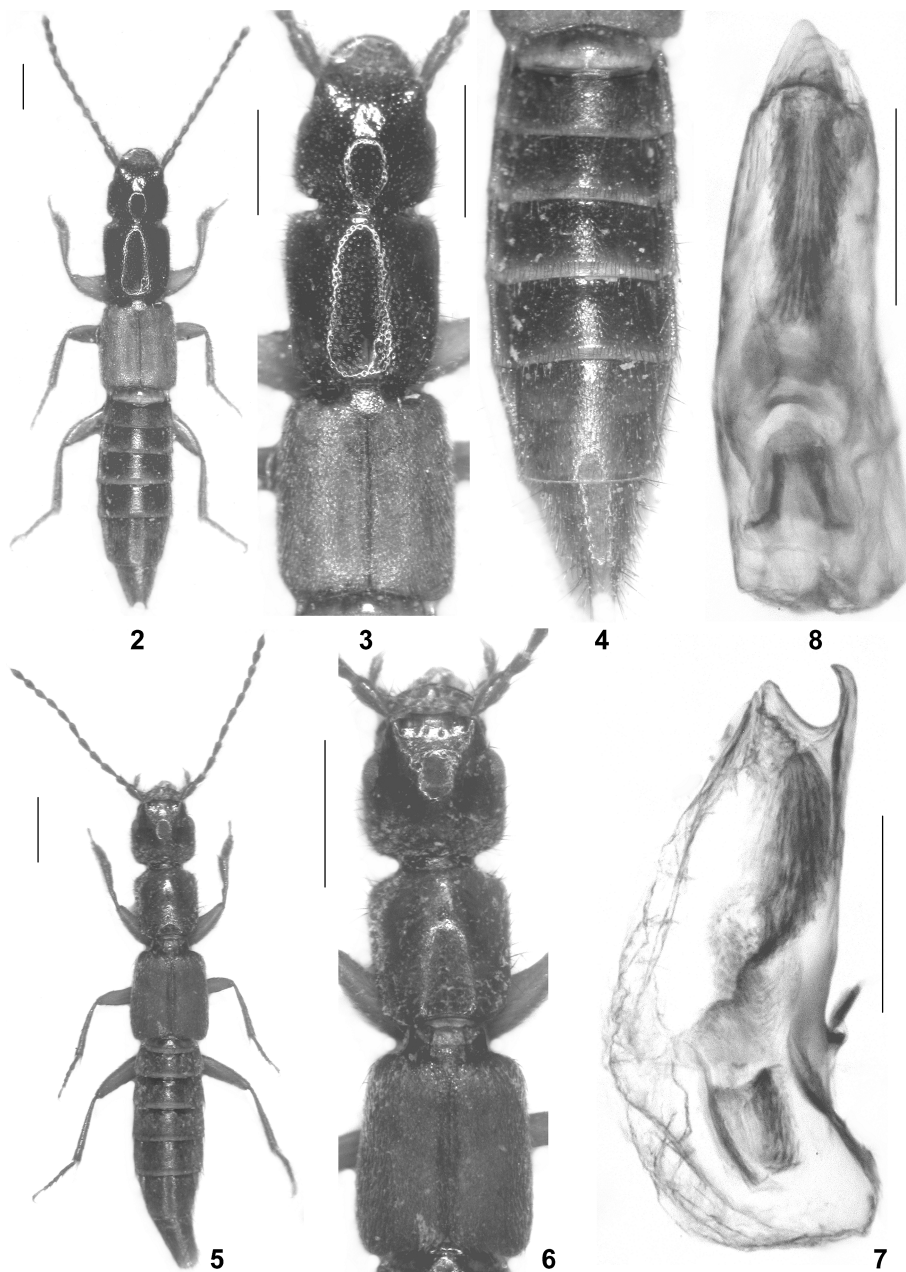
S. brunneum: Syntype ♀ [without antennae]: "India / Bowring 63.47* / Scimbalium badium. Mots. / Scimb. brunneum Cam / M. Cameron. Bequest. B.M. 1955-147. / Syntype / Scymbalium brunneum Cameron, det. V. Assing 2013" (BMNH).

C o m m e n t: The original description of *L. badius* is based on an unspecified number of syntypes from "Indes orientales" (MOTSCHULSKY 1858). Three syntypes were located in the Motschulsky collection at the ZMMU, a male and a female in moderate condition, and one female in very poor condition (parts of three legs, parts of the ventral structures of the thorax, and most of the abdomen present). The male is designated as the lectotype.

Scymbalium waageni was described from a holotype ("Das typische Stück") from "Calcutta" and a paratype ("Ein zweites Stück") from "Sumatra (Medan)" (BERNHAEUER 1928). The holotype, a female, was located in the Bernhauer collection at the FMNH. It seems rather likely that the unexamined paratype from Sumatra is not conspecific with the holotype.

The original description of *S. brunneum* is based on an unspecified number of females ("♂: unknown"), possibly a unique specimen, from "India (without further indication)" (CAMERON 1931). One syntype was located in the Cameron collection at the BMNH. When describing *S. brunneum*, CAMERON (1931) was evidently unaware of the description of *S. waageni*, as can be inferred from his mentioning the latter only in a preface to a subsequent work (CAMERON 1932). According to CAMERON (1931), *S. brunneum* is distinguished from *S. badium* by the darker coloration, a conclusion probably based on MOTSCHULSKY's (1858) statement that the body colour of *S. badium* was "d'un testacé roux". The type specimens of *S. badium*, however, are all brown. A study of the types of *S. badium*, *S. waageni*, and *S. brunneum* revealed no evidence suggesting that they should represent different species. Hence the new synonymies proposed above.

R e d e s c r i p t i o n: Body length 8.5-9.3 mm, length of forebody 4.8-5.1 mm. Coloration: body brown to dark-brown with reddish-brown elytra; legs brown to dark-brown.



Figs 2-8: *Scymbalium persimile* CAMERON, holotype (2-4) and *S. nepalense* nov.sp., paratype (5-8): (2, 5) habitus; (3, 6) forebody; (4) abdomen; (7) aedeagus in lateral view; (8) aedeagus in ventral view. Scale bars: 2-6: 1.0 mm; 7-8: 0.2 mm.

Head (Figs 56-57) 1.00-1.04 times as long as broad; posterior angles moderately marked; punctation fine, shallow, and moderately dense; interstices with very fine transverse microsculpture. Eyes shorter than postocular region. Antenna approximately 3.2-3.3 mm long and slender; all antennomeres longer than broad.

Pronotum (Fig. 56) 1.06-1.10 times as long as broad and 0.96-1.00 times as broad as head, widest near anterior angles; anterior margin weakly concave in the middle; posterior margin broadly concave; punctation very fine and dense; impunctate median band indistinct, narrow, present only in posterior half of midline, and not reaching posterior margin; interstices with or without shallow traces of microsculpture.

Elytra (Fig. 56) approximately as long as pronotum or slightly longer, with very dense, fine, and somewhat asperate punctation, and with distinct microsculpture, matt. Protarsomeres I-IV distinctly dilated in both sexes, without sexual dimorphism. Metatarsomere I longer than the combined length of II and III, nearly as long as the combined length of II-IV.

Abdomen with very fine and dense punctation, and with distinct microsculpture, nearly matt; posterior margin of tergite VIII with palisade fringe; tergite X and sternite IX very small.

♂: posterior margin with concave, nearly semi-circular posterior excision (Fig. 58); aedeagus (Figs 59-60) small in relation to body, 0.68 mm long, symmetric, and without distinctly sclerotized internal structures; parameres nearly completely reduced (see comment in the section on *S. nepalense*).

Distribution: *Scymbalium badium* has been reported, partly as *S. brunneum* or *S. waageni*, from India, Bhutan, and Myanmar (BISWAS & BISWAS 1995; CAMERON 1931; COIFFAIT 1978; FAUVEL 1904; SMETANA 2004).

***Scymbalium nepalense* nov.sp. (Figs 5-8, 61-66)**

Type material: Holotype ♂: "Nepal P: Mahakali, D: Kanchanpur, Mahendranagar, Hotel Sweet Dream / 210 m, N28°58'13", E80°11'01", 02.VII.2009, leg. M. Hartmann, LF ♂ 60 / Holotypus ♂ *Scymbalium nepalense* sp.n., det. V. Assing 2013" (NME). Paratype ♂: same data as holotype (cAss).

E t y m o l o g y : The specific epithet is an adjective derived from Nepal.

Description: Size rather variable; ody length 7.8-8.5 mm; length of forebody 3.9-4.7 mm. Habitus as in Figs 5, 63. Coloration: head reddish to blackish-brown; remainder of body, including appendages, reddish.

Head (Figs 6, 61) approximately as long as broad; lateral margins behind eyes subparallel; posterior angles marked; disc with sparse, barely noticeable micropunctuation, anteriorly, laterally, and posteriorly with scattered coarser punctures; integument with very shallow and very fine transverse microsculpture visible only at higher magnification. Antenna 2.9-3.3 mm long and slender, all antennomeres distinctly oblong.

Pronotum (Fig. 6) of rather variable shape, 1.08-1.14 times as long and 0.9-1.0 times as broad and as broad as head, widest at anterior angles; lateral margins straight, weakly converging in dorsal view; posterior margin distinctly concave; punctation dense and very fine; microsculpture indistinct.

Elytra (Fig. 6) approximately 1.05 times as long as pronotum; disc matt due to extremely dense punctation and microsculpture. Hind wings fully developed. Protarsomeres I-IV moderately dilated. Metatarsomere I approximately as long as combined length of II-IV.

Abdomen narrower than elytra; punctation very dense and very fine; interstices with microsculpture; posterior margin of tergite VII with palisade fringe; tergite X and sternite IX very small.

♂: posterior excision of sternite VIII weakly and broadly concave (Figs 62, 64); aedeagus (Figs 7-8, 65-66) of variable size, 0.6-0.7 mm long, symmetric, and with weakly sclerotized, membranous internal structures; parameres nearly completely reduced.

Comment: The short, in lateral view transverse plate above the ventral opening of the aedeagus is interpreted as a rudiment of fused ancestral parameres.

Intraspecific variation: The two type specimens differ considerably in body size, the size of the head (in relation to the pronotum), the shape of the pronotum, and the size of the aedeagus. However, the shapes of the aedeagus and of the male sternite VIII are practically identical. Also, both specimens were collected in the same sample, suggesting that the observed differences should be attributable to intra- rather than interspecific variation.

Comparative notes: From *L. badium*, the only other geographically close described *Scymbalium* species, the new species is distinguished by the finer and sparser punctation of the head, the shallower posterior concavity of the male sternite VIII, and by the differently shaped apex of the ventral process of the aedagus (lateral view).

Distribution and natural history: The type locality is situated in Mahakali province in the extreme southwest of Nepal, close to the borders with Uttaranchal and Uttar Pradesh. The holotype was collected with a light trap at an altitude of 210 m, suggesting that *S. nepalense* is widespread at least in the Himalayan region.

***Scymbalium* sp.**

Material examined: Laos: 1♀, S-Udomxai province, Pak Beng, 19°53'37"N, 101°07'51"E, 450 m, 18.-27.V.2001, leg. Kolibáč (NHMB).

Comment: The above female undoubtedly represents an undescribed species. It is of similar size and habitus as *S. badium*, but distinguished especially by a pronotum of different shape.

***Micrillus* RAFFRAY 1873**

***Micrillus testaceus* (ERICHSON 1840)**

Material examined: Tunisia: 1 ex., Kairouan, leg. Nordmann (MHNG); 2 exs. [det. Feldmann], Béja, Mt. Tebourouk, W Djebba, 36°28'N, 9°05'E, 640 m, wet field, under stones, 4.III.2012, leg. Hetzel (cFel). Algeria: 1 ex., Annaba (cAss). Spain: Murcia: 1 ex., Jumilla, Cañada del Aguila, 4.VI.2008, leg. Lencina (cAss); 1 ex., Jumilla, El Portichuelo, 38°31'N, 1°22'W, 575 m, 4.VI.2009, leg. J. Lencina (cAss). Andalucía: 4 exs., Cádiz, 4 km NNW Tarifa, 36°03'N, 5°37'W, 10 m, road margin, flooded meadow, under stone, 26.XII.2009, leg. Assing & Wunderle (cAss, cWun); 1 ex., Cádiz, 20 km NNE Tarifa, Pto. de Ojén, 36°11'N, 5°34'W, 190 m, loamy pasture, under stone, 30.XII.2009, leg. Assing (cAss); 2 exs., Cádiz, 20 km NNE Tarifa, Pto. de Ojén, 36°11'N, 5°34'W, 200 m, loamy pasture, under stones, 30.XII.2009, leg. Wunderle (cWun); 1 ex., Cádiz, 20 km NW Tarifa, Bolonia, 36°06'N, 5°48'W, 180 m, pasture, under stone, 1.I.2010, leg. Assing (cAss). France: 1 ex., Hérault, Palavas, XII.1953 (cBor); 1 ex.,

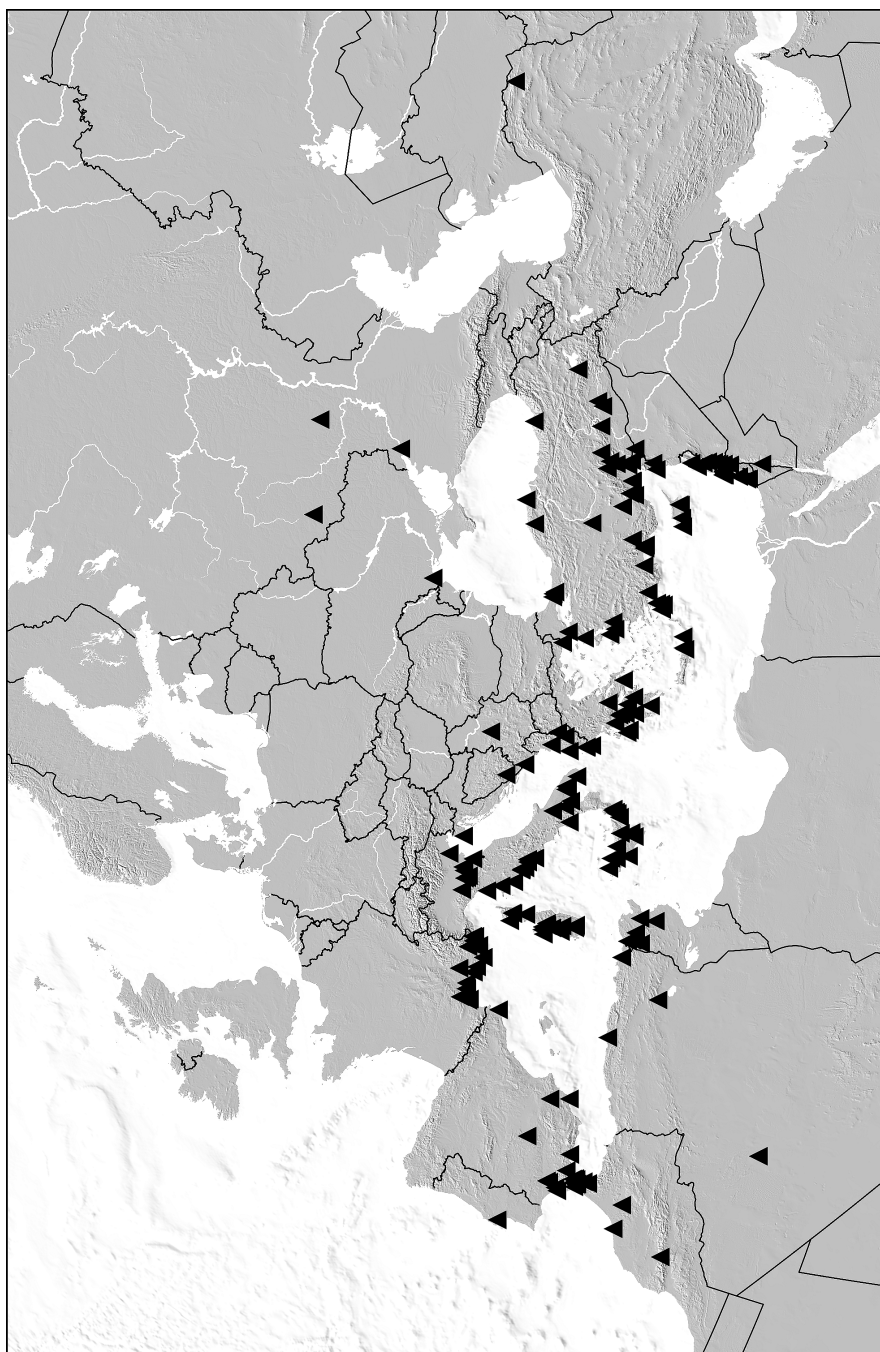
Hérault, Lattes (cBor); 2 exs., Var, Hyères (MHNG); 1 ex., Var, Roquebrune-sur-Argens, flood, IX.1960, leg. Bordoni (cBor); 1 ex., Béziers, Portiragnes Plage, 8.X.1996, leg. Ziegler (cAss); 1 ex., Corsica, locality not specified (MHNG). Italy: E m i l i a - R o m a g n a : 2 exs., Ferrara, IV.1970 (cBor). L a z i o : 1 ex., Roma, inundation of Aniene river, leg. Luigioni (MHNG); 1 ex., Roma, Monte della Tofa Rota, 16.III.1969, leg. Vigna (cBor). B a s i l i c a t a : 1 ex., Accettura (MT), Gallipoli-Coganto, 14.IV.1996, leg. Angelini (ZMUC). P u g l i a : 2 exs., estuary of Lato river, 14.IX.2003, leg. Angelini (ZMUC). C a l a b r i a : 2 exs., Africo (RC), meadow, 11.III.2000, leg. Angelini (ZMUC, cAss); 1 ex., San Luca (RC), 12.III.2000, leg. Angelini (ZMUC). S a r d e g n a : 1 ex., Sassari, Chilivani, 25.IV.1979, leg. Pavese (MCSNM); 1 ex., Cagliari, Elmas env., 26.I.1979, leg. Meloni (cBor); 1 ex., locality not specified, leg. Dodero (cBoh). S i c i l i a : 1 ex., Monti Iblei, Vizzini (CT), 650 m, 26.IV.2007, leg. Angelini (ZMUC); 1 ex., Maletto (ME), ctr. S. Venera, 8.V.2007, leg. Angelini (cAss); 1 ex., Lago di Lentini, 26.III.1942 (cAss); 1 ex., Castelbuono, 21.III.1942 (NHMW); 1 ex., locality not specified (MNHUB). L o c a l i t y a m b i g u o u s : 1 ex., "Bazzano", leg. Sekera (cBoh). Yugoslavia: 1 ex., Serbia, Rudnik, 1914, leg. Rambousek (cBoh). Albania: 1 ex., Lum i Tiranes, 1936, leg. Bischoff (MCSNT); 1 ex., Pogradec, 18 km NNW Pogradec, S Q. e Hanës, 41°03'N, 20°37'E, 1000 m, pasture, under stones, 24.V.2010, leg. Assing (cAss); 1 ex., Korçë, 35 km W Korçë, Mali i Ostrovikës, 40°41'N, 20°23'E, 520 m, pasture, under stones, 26.V.2010, leg. Assing (cAss). Greece: M a i n l a n d : 1 ex., Aitolioarkania ["Aetolia"] (cBoh). C o r f o u : 1 ex., locality not specified, leg. Reitter (MHNG). Z a k i n t h o s : 1 ex., Kalamaki, 1909, leg. Hilf (MHNG). R h o d o s : 1 ♂, 5 km SW Embonas, Attaviros, 36°12'N, 27°49'E, 600 m, calcareous pasture, under stones, 7.III.2013, leg. Assing (cAss). Turkey: S i n o p : 1 ex., 15 km SW Sinop, S Kılıç, 41°57'N, 35°02'E, 80 m, grassy road margin, grass between shrubs, sifted, 3.IV.2009, leg. Assing (cAss). K a s t a m o n u : 1 ex., 40 km NW Kastamonu, NE Azdavay, W Yeşilpınar, 41°42'N, 33°28'E, 1090 m, calcareous slope and flooded field, under stones, 9.IV.2009, leg. Assing (cAss). A n k a r a : 1 ex., S Ankara, E Kulu, Düden Gölü, 39°04'N, 33°08'E, 970 m, salty lakeshore, 2.VII.2005, leg. Schmitter (cApf). A d a n a : 1 ex., Adana, 1906 (cBoh); 3 exs., Adana (cBoh). G a z i a n t e p : 1 ex., Nurdağı geçidi, 1000 m, 16.V.1997, leg. Sama (MNHUB). D i y a r b a k i r : 3 exs., Diyarbakır, 26.VII.1977 (EU, cAss); 1 ex., Karacadağ, 28.V.1987, leg. Schönmann & Schillhammer (NHMW). Cyprus: 4 exs., Larnaka, Oroklini, salt lake, at light, 11.VI.2010, leg. Ziegler (cAss); 1 ex., Pafos, Arodes, 24.II.2011, leg. Ziegler (cAss). Syria: 1 ex., muh Al Ladhqiyah, Aqra mts., 6 km SW Al Basit, 35°49'N, 35°47'E, at light, 21.VI.2006, leg. Rahmé et al. (HNHM). Israel: 1 ex., Jordan Valley, Tirat Zvi, at UV-light, 17.VIII.-2.IX.1988, leg. Shahak (ZMUC); 1 ex., Haifa, leg. Reitter (cAss); 1 ex. [det. Feldmann], ca. 5 km SW Hadera, Ha-Sharon Park, 27.XI.2007, leg. Aßmann (cFel); 1 ex. [det. Feldmann], Golan Heights, Bental Reservoir, near Merom Golan, 33°08'N, 35°47'E, ca. 940 m, 25.III.2008, leg. Aßmann (cFel); 4 exs., Jordan Valley and Southern Golan, Bet Zaida Nat. Res., Bet haBek, 3.VII.2003, leg. Orbach (ZMUC, cAss); 1 ex., Lower Galilee, Allonim Hills, 8.VIII.2001, leg. Orbach (ZMUC); 1 ex., Allonim Hills, 19.VII.2000, leg. Orbach (ZMUC); 1 ex., Kiryat-Tivon, at light, 8.VIII.1997, leg. Orbach (ZMUC). Iran: 1 ex., Sah Jahan mts., Mareshk, 36°48'N, 59°33'E, 1800 m, 26.V.2006, leg. Frisch & Serri (MNHUB). Russia: 1 ex., Kurskaya oblast, Kursk-strel., steppe, leg. Arnoldi (cAss); 1 ex., Rostov/Dn, 27.VI.1972 (cBoh). Locality illegible: 1 ex. (MNHUB).

C o m m e n t : The vast distribution of *Micrillus testaceus* is of the Holo-Mediterranean type and ranges from the Iberian Peninsula and Morocco in the west to South European Russia and the Middle East in the east. The currently known distribution is illustrated in Map 1. For a detailed account of the taxonomy, distribution, and natural history see ASSING (2008).

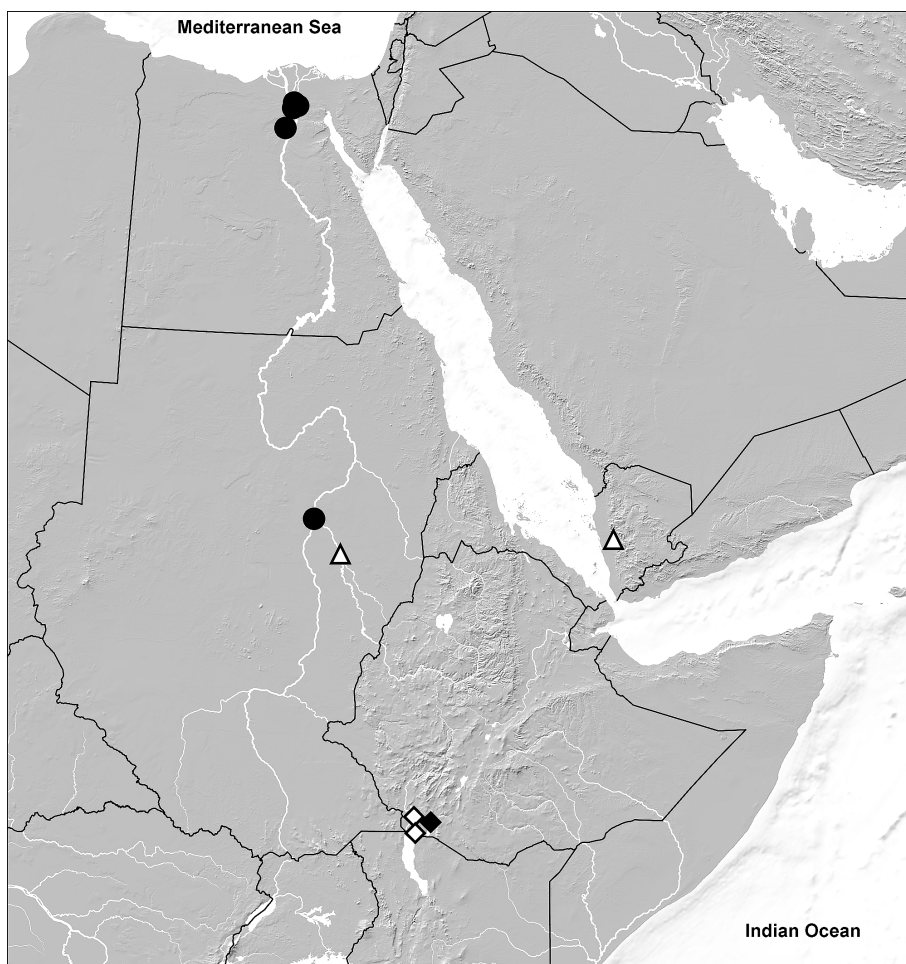
Micrillus scabrosus (FAUVEL 1875)

M a t e r i a l e x a m i n e d : Morocco: 1 ex., SE Tanger, Al-Hakkama, 35°38'N, 5°41'W, 100 m, 26.II.2004, leg. Starke (cAss); 1 ex., locality not specified (MHNG); 2 exs., locality not specified (SMF).

C o m m e n t : This micropterous species is endemic to northern Morocco (ASSING 2008).



Map 1: Distribution of *Micrillus testaceus* (ERICHSON), based on revised records.



Map 2: Distributions of *Micrillus aegyptiacus* (BERNHAUER) (circles), *M. sudanicus* ASSING (triangles), and *M. aethiopicus* (CAMERON) (diamonds; open diamonds unrevised records; unidentified locality "Nargi" omitted).

Micrillus pallidus (REITTER 1887)

Type material examined: Syntypes: 3 ♂ ♀: "[locality in Kyrillic] 3.V.927 / Type / Scimbalium rufotestaceum Cam. Type / Scimbalium rufotestaceum / Coll. W. Champman in Coll. P. Griveau, MHNG - 2007 / *Micrillus pallidus* (Reitter), det. V. Assing 2013" (MHNG).

Additional material examined: Armenia: 1 ex., Verin Dzhrashen ["Aresch", 40°03'N, 44°30'E], leg. Schelkownikov (cBoh). Azerbaijan: 5 exs., Geok Tapa [39°11'N, 48°41'E] (MHNG, cAss). Turkmenistan: 1 ex., Kisyl Arwat ["Transcaspia, Kisil-Arwat", 38°58'N, 56°16'E], 1898, leg. Hauser (cBoh); 1 ex., "Dortkuju" [ca. 37°37'N, 61°14'E], V.1900, leg. Hauser (cBoh); 1 ex., Dushak, V.1980 (cBoh); 1 ex., Karakum desert, Repetek, 10.IV.1983, leg. Kastcheev (cAss); 1 ex., Farab (Tchardjou), 15.-28.IV.1990, leg. Farkač (NHMB). Tajikistan: 1 ex., Tigrovaja Balka, 2.-6.VI.1966, leg. Jelinek (cBoh); 1 ex., Tigrovaja Balka, Džilikulja env., 23.VII.1948, leg. Ščjotkin (cBoh). Kazakhstan: 1 ex., Syrdaria river, Džetysai, 5.V.1980, leg. Kastcheev (cAss).

Comment: A female syntype of *Scymbalium rufotestaceum*, a junior synonym of *Micrillus pallidus*, from the BMNH had already been examined earlier (ASSING 2008). The species is reported from Tajikistan and Kazakhstan for the first time.

***Micrillus irakensis* (CAMERON 1940)**

Material examined: Iran: 23 exs., Kersiah, 29.-30.V.1973 (cBoh, cAss); 6 exs., 7 km W Kahkom, 27.-28.V.1973 (cBoh); 1 ex., Estahbanat, 8.-9.VII.1970 (cBoh); 1 ex., Bezan, 15 km NW Furk, 1000-1400 m, 28.-29.V.1973 (cBoh); 5 exs. locality not specified, (cBoh). Iraq: 4 exs., Basra, Tanoama, I.1919 (BMNH). Israel: 3 exs., Jordan Valley, Tirat Zvi, at UV-light, 17.VIII.-2.IX.1988, leg. Shahak (ZMUC, cAss); 1 ex., Jordan Valley and Southern Golan, Bet Zaida Nat. Res., Bet haBek, 3.VII.2003, leg. Orbach (cAss).

Comment: *Micrillus irakensis* was previously known only from Iraq and Israel (ASSING 2008). The above specimens from Iran represent new country records.

***Micrillus subterraneus* RAFFRAY 1873**

Material examined: Algeria: 2 exs., Medeah (MHNG, cAss); 2 exs., Massif des Mouzaïa (MHNG, cBoh); 1 ex., Massif de Mouzaïa, Zaonia des Mouzaïa (MHNG); 1 ex., Teniet-el-Had (MHNG).

Comment: The distribution of *M. subterraneus* is confined to the region to the south of Algier, northern Algeria (ASSING 2008).

***Micrillus hypogaeus* (PEYERIMHOFF 1907)**

Type material examined: Paralectotype ♂: "Dj. ben-Zegza, Algérie, Dr. Normand / Cotype / Scimb. hypogaeum Peyer. / Scimb. hypogaeum [sic] / Coll. P. Griveau, MHNG - 2007" (MHNG).

Comment: The above specimen was previously unrevised. A lectotype was designated by ASSING (2008)

***Micrillus aegyptiacus* (BERNHAEUER 1910) (Map 2)**

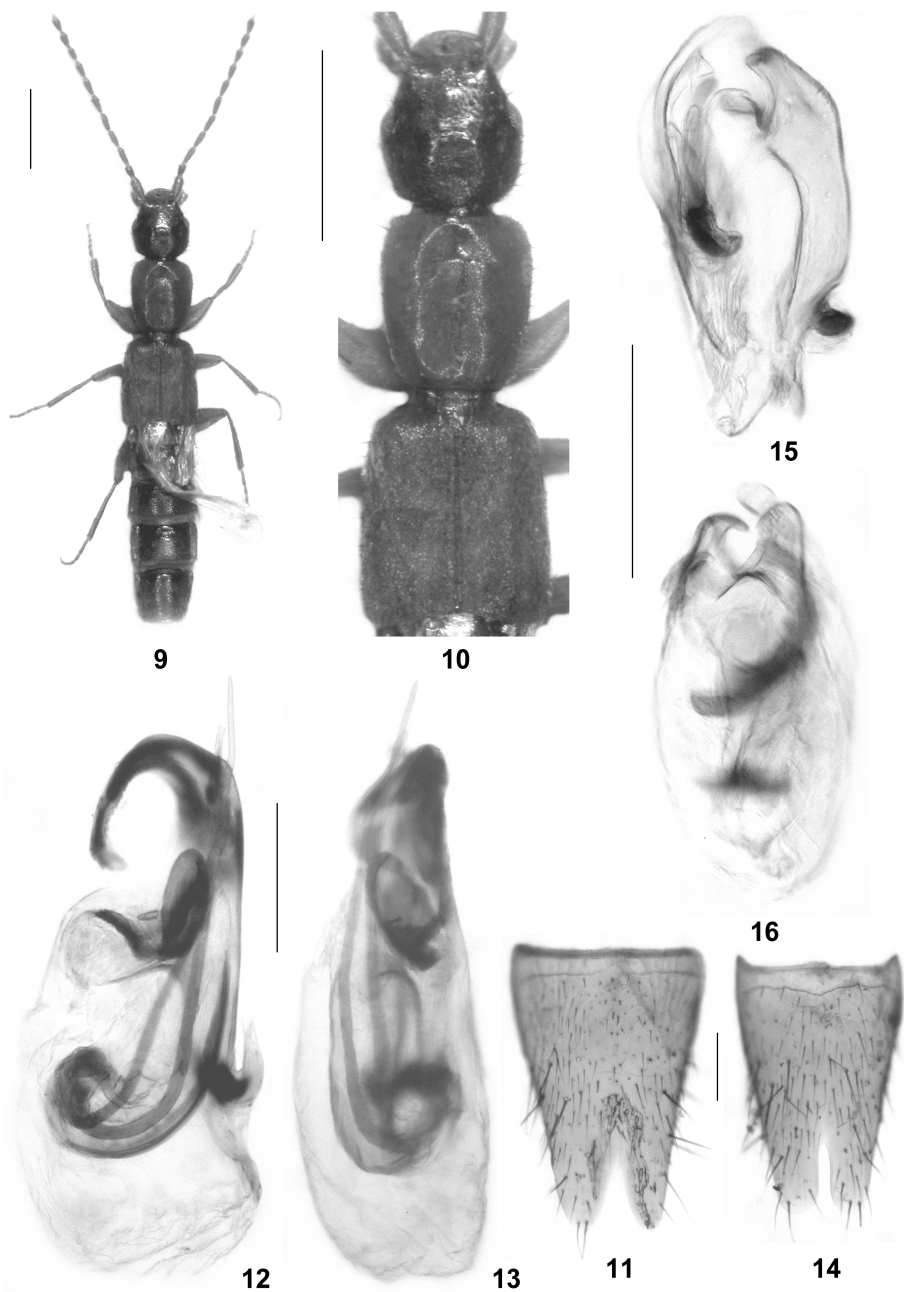
Material examined: Sudan: 2 exs., Khartoum, X.1967, leg. Stys (cBoh, cAss).

Comment: *Micrillus aegyptiacus* was previously known only from Egypt (ASSING 2008). The above specimens represent the first record from Sudan. The currently known distribution is illustrated in Map 2.

***Micrillus sudanicus* ASSING 2008 (Map 2)**

Material examined: Yemen: 2 exs., Jabal Bura', ENE Al Hudaydah, 14°53'N, 43°26'E, 560 m, light source, 9.-21.III.2007, leg. Rejzek (cSch, cAss).

Comment: The previously known distribution was confined to Sudan (ASSING 2008). The above specimens represent the first record from Yemen and the Palaearctic region sensu SMETANA (2004). The currently known distribution is illustrated in Map 2.



Figs 9-16: *Micrillus aethiopicus* (CAMERON), paratype (9-13) and *M. nigriceps* (CAMERON), lectotype (14-16): (9) habitus; (10) forebody; (11, 14) male sternite VIII; (12-13, 15-16) aedeagus in lateral and in ventral view. Scale bars: 9-10: 1.0 mm; 11-16: 0.2 mm.

***Micrillus aethiopicus* (CAMERON 1947), nov.comb.** (Figs 9-13, Map 2)

Scymbalium (*Schatzmayria*) *aethiopicum* CAMERON 1947: 54.

Type material examined: Paratypes: 1♂: "Nargi, 13-8.1939 / Miss. E. Zavattari, Sagan-Omo A.O.I. / M. Cameron. Bequest. B.M. 1955-147. / Paratypus *Scymbalium aethiopicum* Cameron, rev. V. Assing 2013 / *Micrillus aethiopicus* (Cameron), det. V. Assing 2013" (BMNH); 1♀: "Cotype / Gondaraba, Lago Stefania, 18 Giugno 1939 / Miss. E. Zavattari, Sagan-Omo A.O.I. / *Scymbalium aethiopicum* Cam. Cotype / M. Cameron. Bequest. B.M. 1955-147. / Paratypus *Scymbalium aethiopicum* Cameron, rev. V. Assing 2013 / *Micrillus aethiopicus* (Cameron), det. V. Assing 2013" (BMNH).

Comment: The original description is based on a holotype and an unspecified number of paratypes from "Gondaraba [type locality]...; Murle...; Elolo Lago Rodolfo...; Nargi" (CAMERON 1947). Two paratypes, a male and a female, are deposited in the Cameron collection at the BMNH.

Redescription: Body length 5.8-6.5 mm; length of forebody 3.0-3.1 mm. Habitus as in Fig. 9. Coloration: head reddish to blackish-brown; remainder of body, including appendages, reddish.

Head (Fig. 10) approximately 1.08 times as long as broad, broadest across eyes, narrowed behind eyes; posterior angles rather weakly marked, rounded; punctuation sparse and fine; integument with extremely shallow microsculpture. Eyes nearly as long as postocular region in dorsal view. Antenna long and slender, approximately 2.6 mm long; antennomere X approximately twice as long as broad.

Pronotum (Fig. 10) approximately 1.15 times as long as broad and 1.05-1.10 times as broad as head; punctuation very fine and very dense; interstices without distinct microsculpture.

Elytra (Fig. 10) approximately as long as pronotum; punctuation very fine and very dense; surface nearly matt. Hind wings fully developed. Protarsomeres I-IV not dilated. Metatarsomere I approximately as long as the combined length of II and III.

Abdomen distinctly narrower than elytra; punctuation fine and very dense; interstices with microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VIII (Fig. 11) strongly oblong, posterior excision narrowly V-shaped; aedeagus (Figs 12-13) approximately 0.7 mm long, strongly asymmetric, and of highly distinctive morphology; ventral process strongly inflected dorsad; internal sac with long, slender, and curved sclerotized spines, one of them apically extending beyond apex of ventral process.

Comparative notes: As can be inferred from the similar external characters and from the morphology of the male sexual characters, *M. aethiopicus* is closely allied to *M. aegyptiacus* (BERNHAEUER 1910) and *M. sudanicus* ASSING 2008. It is distinguished from both of them particularly by the morphology of the aedeagus and additionally as follows:

from *M. aegyptiacus* by larger eyes, the relatively smaller and narrower head, the much denser and more distinct punctuation of the pronotum, and the narrower posterior excision of the male sternite VIII;

from *M. sudanicus* by the relatively smaller head, the smaller eyes, and the less deep posterior excision of the male sternite VIII.

Distribution and natural history: This species is currently known only from several localities in southern Ethiopia (Map 2).

***Micrillus indicus* (EPPELSHEIM 1890) (Map 3)**

Scymbalium indicum EPPELSHEIM 1890: 277 f.

Type material examined: Lectotype ♂, present designation: "indicum Epp., Nagpore, India centr., D. Bomford. / c. Eppsh. Steind. d. / Typus / Lectotypus ♂ *Scymbalium indicum* Eppelsheim, desig. V. Assing 2012 / *Micrillus indicus* (Eppelsheim), det. V. Assing 2012" (NHMW). Paralectotypes: 1♂, 1♀: same data as lectotype (NHMW).

Additional material examined: India: 1♂, Uttaranchal, Haldwani Division, Kumaon, at light, VI.1923, leg. Champion (BMNH).

Comment: The original description of *S. indicum* is based on several syntypes ("pluries captum") from "India centrali, a D. Dr. Bomford prope Nagpore [= Nagpur]" (EPPELSHEIM 1890). Three type specimens, two males and one female, were located in the collections of the NHMW. The male in better condition is designated as the lectotype. Three specimens of uncertain type status from the type locality in the collections of the MNHUB were studied earlier (ASSING 2008).

Redescription: Body length 4.7-5.5 mm; length of forebody 2.5-3.0 mm. Coloration: whole body including appendages pale reddish, with the abdomen sometimes slightly darker and the elytra often somewhat paler.

Head weakly oblong at most, 1.00-1.07 times as long as broad; punctuation sparse, composed of some larger punctures and interspersed micropunctures on frons, as well as in posterior and lateral portions; median dorsal surface impunctate; integument with fine and shallow microsculpture. Eyes small, but of somewhat variable size, and weakly convex, one-third to one-half as long as postocular region in dorsal view. Antennae slender, 2.0-2.4 mm long; antennomeres III-VI approximately three times as long as broad or nearly so; VII approximately twice as long as broad; VIII-X at least 1.5 times as long as broad. Apical joint of maxillary palpus of conical shape and less than half the length of preapical joint.

Pronotum approximately 1.15 times as long as broad and 1.05 times as broad as head, widest a short distance behind anterior angles; posterior margin distinctly concave; dorsal surface with rather dense micropunctuation, on either side of midline with a series of five not very evident macropunctures; interstices with or without very shallow traces of microsculpture.

Elytra approximately 0.9 times as long as pronotum; punctuation fine, very dense, and somewhat asperate. Hind wings fully developed. Metatarsomere long, slightly longer than the combined length of II and III.

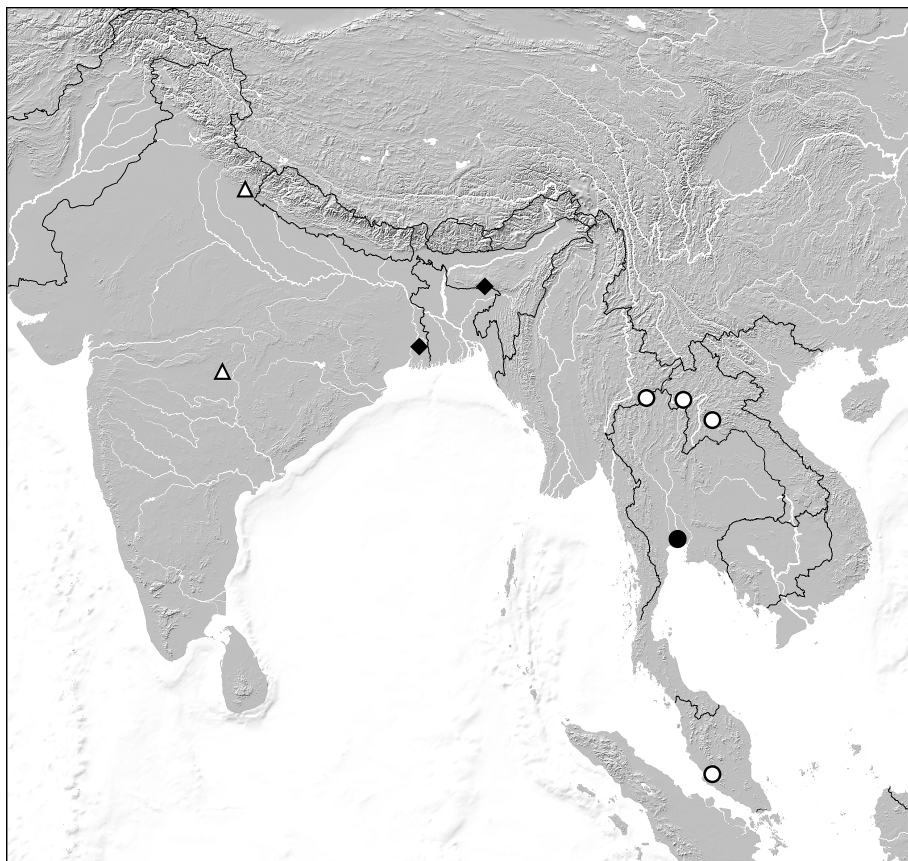
Abdomen approximately as broad as, or slightly narrower than elytra; punctuation moderately fine and moderately dense; microsculpture mostly distinct, occasionally almost obsolete on tergite VII; posterior margin of tergite VII with palisade fringe.

♂: sternite VIII distinctly oblong, posterior excision narrow and rather deep; aedeagus small, nearly 0.4 mm long, strongly asymmetric, and of distinctive shape.

Comparative notes: As regards the habitus and coloration, *M. indicus* somewhat resembles small specimens of the pale-coloured morph of *M. testaceus*, but the head is smaller, the antennae are more slender, the elytra are longer, the pronotal punctuation is denser, and the hind margin of the pronotum is more distinctly concave. Based on the morphology of the maxillary palpus, the structure of the abdominal segments IX-X, the shape of the male sternite VII (narrow and deep posterior excision), as well as on the morphology of the aedeagus (asymmetric; presence of distinctly sclerotised internal

structures), *M. indicus* undoubtedly belongs to the *M. aegyptiacus* group. It is readily distinguished from *M. distortus* (see below) by larger body size, the much longer and more slender antennae, the much longer and more slender tibiae and tarsi, the more slender pronotum, the broader and deeper posterior excision of the male sternite VIII, as well as by the completely different morphology of the aedeagus. The external and male sexual characters of *M. indicus* are illustrated in ASSING (2008). For characters distinguishing *M. indicus* from *M. nigriceps*, its closest relative, see the comparative notes in the following section.

Distribution and natural history: The known distribution is confined to two localities in North and Central India (Map 3). The additional specimen was collected at a light source.



Map 3: Distributions of *Micrillus indicus* (EPELSHEIM) (triangles), *M. nigriceps* (CAMERON) (diamonds), *M. intermedius* (CAMERON) (open and filled circles), and *M. siamensis* nov.sp. (filled circle) in the Oriental region, based on examined records.

***Micrillus nigriceps* (CAMERON 1931), nov.comb., nov.stat.** (Figs 14-16, Map 3)

Scymbalium indicum nigriceps CAMERON 1931: 214 f.

Type material examined: Lectotype ♂, present designation: "Calcutta. / Atkinson Coll. 92-3 / Syntype / M. Cameron. Bequest. B.M. 1955-147. / Lectotypus ♂ *Scymbalium nigriceps* Cameron, desig. V. Assing 2013 / *Micrillus nigriceps* (Cameron), det. V. Assing 2013" (BMNH). Paralectotypes: 3 ♀ ♀, 2 sex? [all glued on the same label; forebodies of two specimens missing]: same labels as lectotype, but with additional label "*Scimbalium indicum* Epp. v. *nigriceps* Cam." (BMNH).

Additional material examined: India: 1 ♀, Meghalaya, Cherrapunjee, 1200 m, 16.V.1976, leg. Wittmer & Baroni Urbani (NHMB).

Comment: *Scymbalium nigriceps* was originally described as a "variety" of *S. indicum* EPPELSHEIM. The description is based on an unspecified number of syntypes from "Calcutta" (CAMERON 1931). Six partly incomplete syntypes were located in the Cameron collection at the BMNH. A male is designated as the lectotype. An examination of the type material revealed that *S. nigriceps* represents a distinct species and belongs to the genus *Micrillus*.

Redescription: Body length 4.5-5.5 mm; length of forebody 2.7-2.9 mm. Coloration: body including appendages pale reddish, with the head somewhat darker.

External characters similar to those of *M. indicus*.

♂: sternite VIII distinctly oblong, posterior excision narrow and rather deep (Fig. 14); aedeagus (Figs 15-16) very small, 0.35 mm long, strongly asymmetric, and of distinctive shape.

Comparative notes: The similar external and male sexual characters suggest that *M. nigriceps* is closely related to *M. indicus*, from which it is distinguished by the darker head, the shape of the male sternite VIII (slightly more oblong), and the slightly different shape of the smaller aedeagus (apex of ventral process shorter, internal structure of different shape).

Distribution: This species is currently known only from northeastern India (Map 3).

***Micrillus siamensis* nov.sp. (Figs 17-22, Map 3)**

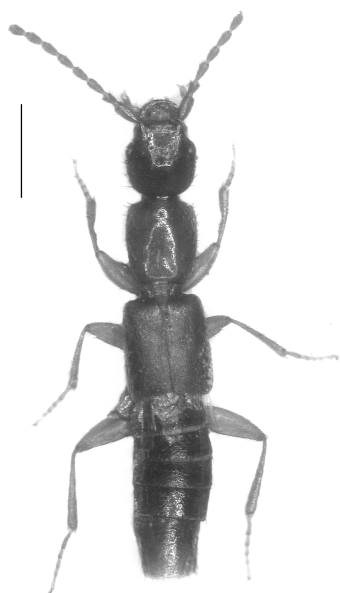
Type material examined: Holotype ♂ [apical portions of antennae missing]: "Bangkok / Bangkok / 159 / inconnu au = 158? / Sharp Coll, 1905-313 / Holotypus ♂ *Micrillus siamensis* sp.n., det. V. Assing 2013" (BMNH).

Etymology: The specific epithet is an adjective derived from Siam, the ancient name of the region where the type locality is situated.

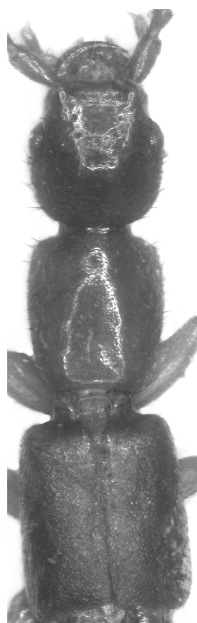
Description: Body length 5.7 mm; length of forebody 3.2 mm. Habitus as in Fig. 17. Coloration: body reddish; legs and antennae reddish-yellow.

Head (Fig. 18) 1.08 times as long as broad, widest across eyes, narrowed behind eyes; posterior angles rather weakly marked; punctuation fine and sparse, somewhat more distinct in lateral and posterior portions; microsculpture very shallow. Eyes somewhat shorter than postocular region in dorsal view. Antennomeres IV-VIII distinctly oblong; VIII nearly twice as long as broad.

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Figs 17-22: *Micrillus siamensis* nov.sp.: (17) habitus; (18) forebody; (19) male sternite VIII; (20) aedeagus in lateral view; (21) aedeagus in ventral view; (22) aedeagus in dorsal view. Scale bars: 17-18: 1.0 mm; 19-22: 0.2 mm.

Pronotum (Fig. 18) 1.14 times as long as broad and 1.02 times as broad as head; lateral margins subparallel in anterior two fifths and converging in posterior three fifths in dor-

sal view; posterior margin distinctly concave; punctation extremely fine and very dense.

Elytra (Fig. 18) approximately as long as pronotum; punctation extremely dense and fine; surface almost matt. Hind wings completely developed. Protarsomeres I-IV not dilated. Metatarsomere I nearly as long as the combined length of II-IV.

Abdomen with rather dense and fine punctation; interstices with iridescent microsculpture; posterior margin with palisade fringe.

♂: sternite VIII (Fig. 19) of similar shape as in *M. indicus*, with narrow and rather deep posterior incision; aedeagus (Figs 20-22) minute in relation to body size, 0.39 mm long, distinctly asymmetric; apex of ventral process in ventral view with short process on either side and concave in the middle; sclerotized internal structure curved and apically with three finger-shaped processes.

Comparative notes: In general appearance, *M. siamensis* somewhat resembles *M. indicus*, to which it is closely related, as can be inferred particularly from the similar male sexual characters (shape of male sternite VIII; minute aedeagus of similar general morphology). It differs, however, by distinctly larger body size, the more oblong head, the finer punctation of the pronotum, and by the shape of the aedeagus.

Distribution: *Micrillus siamensis* is currently known only from the type locality in Thailand (Map 3).

***Micrillus intermedius* (CAMERON 1936), nov.comb.** (Figs 23-28, Map 3)

Scimbalium intermedium CAMERON 1936a: 43.

Type material examined: Lectotype ♂, present designation: "Malaya Kuala Lumpur / M.Cameron. Bequest. B.M. 1955-147. Syntype / Lectotypus ♂ *Scymbalium intermedium* Cameron, desig. V. Assing 2013 / *Micrillus intermedius* (Cameron), det. V. Assing 2013" (BMNH). Paralectotypes: 4 ♀♀: same data as lectotype (BMNH); 1 ♀: "Scimbalium intermedium Cam. Type / Ex F.M.S. Museum. B.M.1955-354 / Syntype" (BMNH); 1 ♂: "Malaya, Kuala Lumpur / Scimbalium intermedium Cam / co-type / Coll. W. Champman in Coll. P. Griveau" (MHNG).

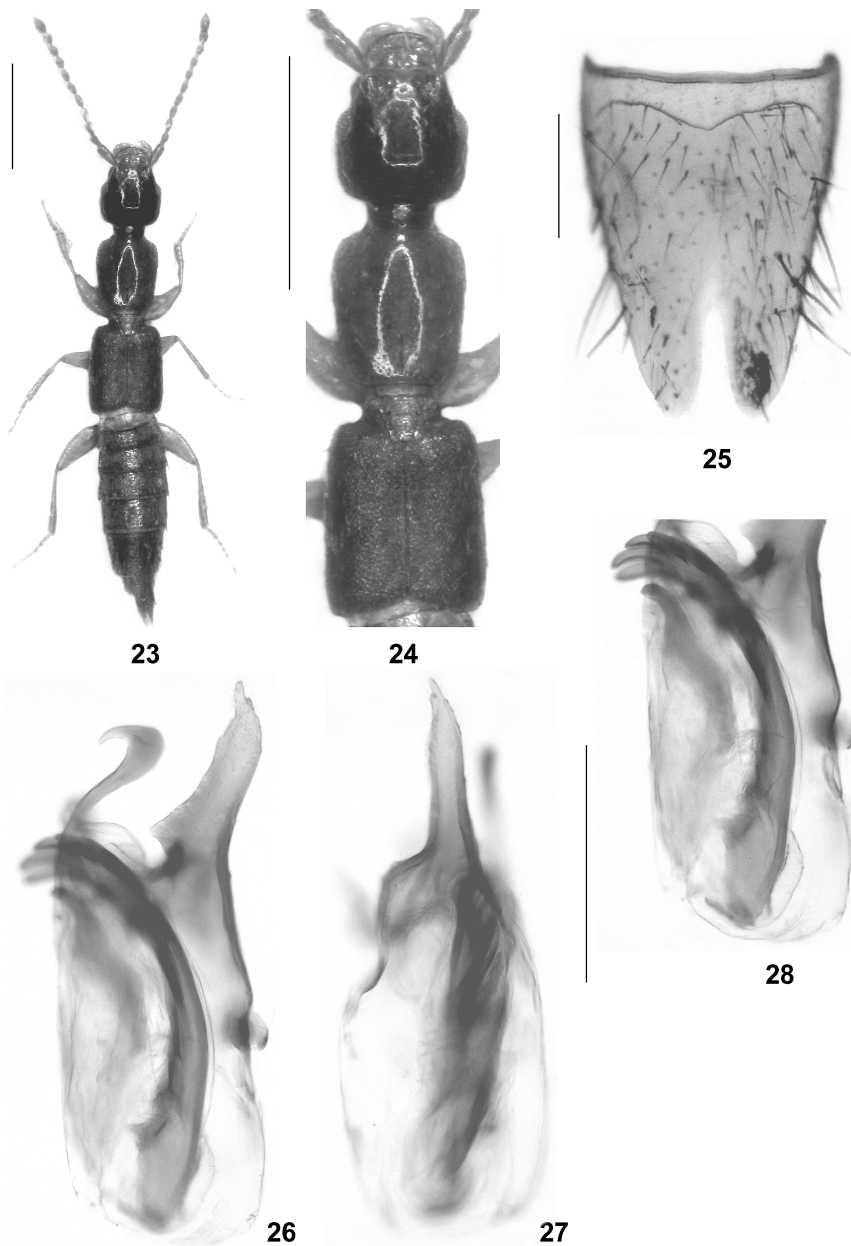
Additional material examined: Laos: 14 exs., Udomxai province, Pak Beng, 19°54'N, 101°08'E, 450 m, 18.-27.V.2001, leg. Kolibáč (NHMB, cAss); 35 exs., Vientiane province, Vang-Vieng, 18°55'N, 102°27'E, 300 m, 10.-15.V. & 1.-6.VI.2001, leg. Kolibáč (NHMB, cAss). Thailand: 1 ex., Chiang Mai province, Thaton, 20°04'N, 99°22'E, 450 m, riverside, at light, 22.VII.2006, leg. Mendel & Barclay (cAss); 4 ♂♂, 2 ♀♀, Bangkok (BMNH, cAss); 1 ♀, "Siam" (BMNH). Locality not identified: 5 exs., "F. [T? J?] Mo. S." (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "Selangor: Kuala Lumpur" (CAMERON 1936a). The male syntype from the Cameron collection at the BMNH is designated as the lectotype.

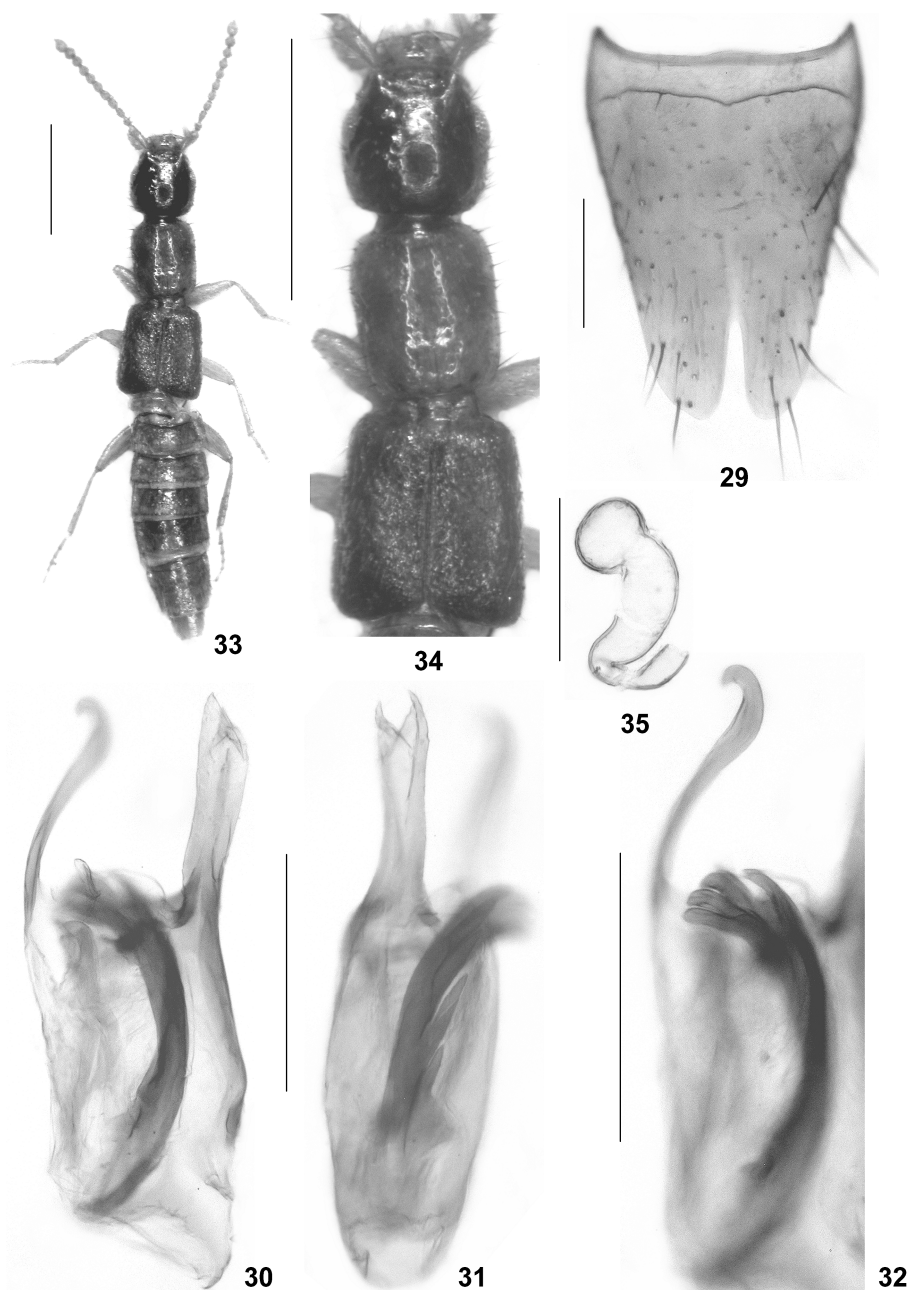
Redescription: Body length 4.2-5.0 mm; length of forebody 2.3-2.6 mm. Habitus as in Fig. 23. Coloration: body pale reddish, with the head brown to blackish-brown; legs and antennae dark-yellow.

Head (Fig. 24) approximately 1.05 times as long as broad, convex in cross-section, and with weakly marked posterior angles; dorsal surface with sparse punctation and with shallow, but distinct transverse microsculpture; eyes approximately 0.7 times as long as distance from posterior margin of eye to neck. Antenna approximately 1.8 mm long and slender, preapical antennomeres noticeably oblong.

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Figs 23-28: *Micrillus intermedius* (CAMERON): (23) habitus; (24) forebody; (25) male sternite VIII; (26) aedeagus in lateral view; (27) aedeagus in ventral view; (28) internal structure of aedeagus in lateral view. Scale bars: 23-24: 1.0 mm; 25-28: 0.2 mm.



Figs 29-35: *Micrillus sutteri* (SCHEERPELTZ), holotype (29-32) and *M. flavescens* (MOTSCHULSKY) (lectotype of *M. asperiventris* (FAUVEL)) (33-35): (29) male sternite VIII; (30-31) aedeagus in lateral and in ventral view; (32) internal and dorso-apical structures of aedeagus in lateral view; (33) habitus; (34) forebody; (35) spermatheca. Scale bars: 33-34: 1.0 mm; 29-33: 0.2 mm; 35: 0.1 mm.

Pronotum (Fig. 24) approximately 1.2 times as long as broad and 1.05 times as broad as head, distinctly tapering posteriorly, and flattened, i.e., weakly convex in cross-section; dorsal surface with fine micropunctuation, without appreciable macropunctuation.

Elytra (Fig. 24) 0.95 times as long as pronotum; punctuation very dense and fine. Hind wings fully developed.

Abdomen with rather dense and fine punctuation; interstices with shallow microsculpture.

♂: tergite VIII distinctly oblong and with strongly convex posterior margin; sternite VIII (Fig. 25) approximately 1.3 times as long as broad, posterior excision deep and narrow, its depth approximately 0.4 times the length of sternite; aedeagus (Figs 26-28) 0.45-0.50 mm long, distinctly asymmetric in ventral view; ventral process laterally compressed, furnished with numerous short marginal setae; dorsally with strongly apical sclerotized structure (modified dorsal plate?) of distinctive shape; internal sac with large and curved sclerotized structure, this structure apically with finger-shaped processes.

Comparative notes: In size, coloration, and other external characters, *M. intermedius* is similar to *M. nigriceps*, but distinguished by the male sexual characters. Its closest relative is *M. sutteri* (see the following section).

Distribution: *Micrillus intermedius* is currently known from Malaysia, Thailand (new record), and Laos (new record) (Map 3).

***Micrillus sutteri* (SCHEERPELTZ 1957), nov.comb. (Figs 29-32)**

Scimbalium sutteri SCHEERPELTZ 1957: 232, 302 ff.

Type material examined: Holotype ♂: "♂ / 582 W-Sumba, Waikarudi, 3.-7.9.49, Lichtfang / Sumba-Exped. d. Naturhist. Mus. Basel 1949 / Expedition Sühler-Sutter / Scimbalium Sutteri nov. sp. / Holotypus Scimbalium Sutteri O. Scheerpeltz / Micrillus sutteri (Scheerpeltz), det. V. Assing 2013" (NHMB). Paratypes: 1♂, 2♀: same data as holotype, but "Cotypos..." (NHMB, NHMW).

Comment: The original description is based on a male holotype and three paratypes, a male and two females, from Sumba (SCHEERPELTZ 1957). The specimens were located in the collections of the NHMB and the NHMW.

Redescription: Body length 5.0-6.0 mm; length of forebody 2.6-2.7 mm. Coloration: body pale reddish, with the posterior portion of the head indistinctly darker; legs and antennae dark-yellow.

Head approximately as long as broad, weakly convex in cross-section, and with moderately marked posterior angles; lateral margins behind eyes subparallel in dorsal view; dorsal surface with sparse punctuation and with shallow microsculpture; eyes approximately 0.6-0.7 times as long as postocular region. Antenna approximately 1.8 mm long and slender, preapical antennomeres noticeably oblong.

Pronotum approximately 1.15 times as long as broad and as broad as head, broadest near anterior angles, distinctly tapering posteriorly, and weakly convex in cross-section; dorsal surface with fine and rather sparse micropunctuation, without distinct macropunctuation, at most with a few scattered macropunctures; microreticulation absent.

Elytra approximately 0.95 times as long as pronotum; punctuation very dense and fine. Hind wings fully developed.

Abdomen with moderately dense and fine punctuation; interstices with shallow microsculpture.

♂: sternite VIII (Fig. 29) distinctly oblong, posterior excision narrow, its depth nearly one third the length of sternite; aedeagus (Figs 30-32) 0.5 mm long and weakly asymmetric; ventral process slender and apically bifid in ventral view; dorso-apical structure long, slender, and apically curved; internal sac with large and curved sclerotized structure, this structure apically with finger-shaped processes.

Comparative notes: Based on the similar external characters, the similar shape of the male sternite VIII, and particularly the similarly derived morphology of the aedeagus (slender ventral process, apically curved dorso-apical structure, presence of a large, curved, and apically finger-shaped internal structure), *M. sutteri* is undoubtedly closely allied to *M. intermedius*, from which it differs by larger body size, the paler head (only indistinctly darker than pronotum at most), and by the differently shaped ventral process and dorso-apical structure of the aedeagus. In *M. intermedius*, the ventral process is apically not bifid in ventral view, and the dorso-apical structure is much shorter and more strongly curved.

Distribution: *Micrillus sutteri* is currently known only from the type locality in Sumba, Indonesia.

***Micrillus flavescens* (MOTSCHULSKY 1858) (Figs 33-35)**

Lithocharis flavescens MOTSCHULSKY 1858: 643.

Scymbalium asperiventre FAUVEL 1895: 235, **nov.syn.**

Type material examined: *L. flavescens*: Syntype [apices of antennae, parts of legs, and abdominal segments VIII-X missing]: "Ind. or. / *Lithocharis flavescens* Motsch., Ind. or. / Syntypus *Lithocharis flavescens* Motschulsky, rev. V. Assing 2013 / *Micrillus flavescens* (Motschulsky), det. V. Assing 2013" (ZMMU).

S. asperiventre: Lectotype ♀, present designation: "Palon (Pegù), L. Fea. VIII.IX.87 / Birmanie Helfer / *flavescens* Mots. / *asperiventre* Fvl. / Ex-Typis / Lectotypus ♀ *Scymbalium asperiventre* Fauvel, desig. V. Assing 2013 / *Micrillus asperiventris* (Fauvel), det. V. Assing 2013" (IRSNB). Paralectotype ♀: "Telang 11 (Borneo) / Siam / Ex-Typis / ?*Micrillus* sp., det. V. Assing 2013" (IRSNB).

Comment: MOTSCHULSKY (1858) described *Lithocharis flavescens* from material collected in "Indes orientales" without specifying the number of specimens or designating a holotype. One syntype of unknown sex (apex of abdomen missing) and in poor condition was located in the Motschulsky collection at the ZMMU.

The original description of *Scymbalium asperiventre* is based on an unspecified number of syntypes from "Birmanie, Katha, VI; Pegu, Palon, VIII-IX (L. Fea). Siam (Laporte); Bornéo, Telang, XI (Eppelsheim)" (FAUVEL 1895). An examination of two syntypes deposited in the Fauvel collection, both females, revealed that they are not conspecific. Both of them have two different locality labels attached to them, a common phenomenon with Fauvel types. According to SCHILLHAMMER (pers. comm.), there is another female syntype from Borneo in the Eppelsheim collection at the NHMW. The generic affiliations of the specimen with the labels "Telang" and "Siam" are uncertain, so that the syntype labelled "Palon (Pegù)" and "Birmanie" is designated as the lectotype. The specimen belongs to *Micrillus* and, based on external characters, is conspecific with the syntype of *M. flavescens*.

Redescription: Body length 4.4-4.6 mm; length of forebody 2.3 mm. Habitus as in Fig. 33. Coloration: body pale reddish, with the head somewhat darker; legs and antennae yellowish.

Head (Fig. 34) weakly oblong, approximately 1.05 times as long as broad, weakly tapering posteriad, convex in cross-section, and with moderately pronounced posterior angles; dorsal surface with sparse punctation and with fine, but distinct transverse microsculpture. Eyes large, approximately 0.75 times as long as distance from posterior margin of eye to neck. Antenna short, approximately 1.3 mm long and with distinctly transverse preapical antennomeres.

Pronotum (Fig. 34) 1.15-1.20 times as long as broad, convex in cross-section, and with almost subparallel lateral margins in dorsal view (i.e., not distinctly tapering posteriorly); punctation in lateral portions dense and rather coarse, but shallow; micropunctation indistinct and sparse; midline broadly impunctate.

Elytra (Fig. 34) approximately as long as pronotum; punctation rather dense and very fine. Hind wings fully developed.

Abdomen with moderately fine and sparse punctation; interstices with transverse microsculpture; posterior margin of tergite VII with palisade fringe.

♂: unknown.

♀: spermatheca as in Fig. 35.

Comparative notes: This species is distinguished from other Oriental and East Palaearctic species of similar size and coloration (*M. nigriceps*, *M. intermedius*, *M. indicus*) particularly by the shorter antennae with transverse preapical antennomeres, the more convex and parallel pronotum with coarser and denser punctation, and the sparse punctation of the abdomen.

Distribution: The known distribution of *M. flavescens* is confined to Myanmar.

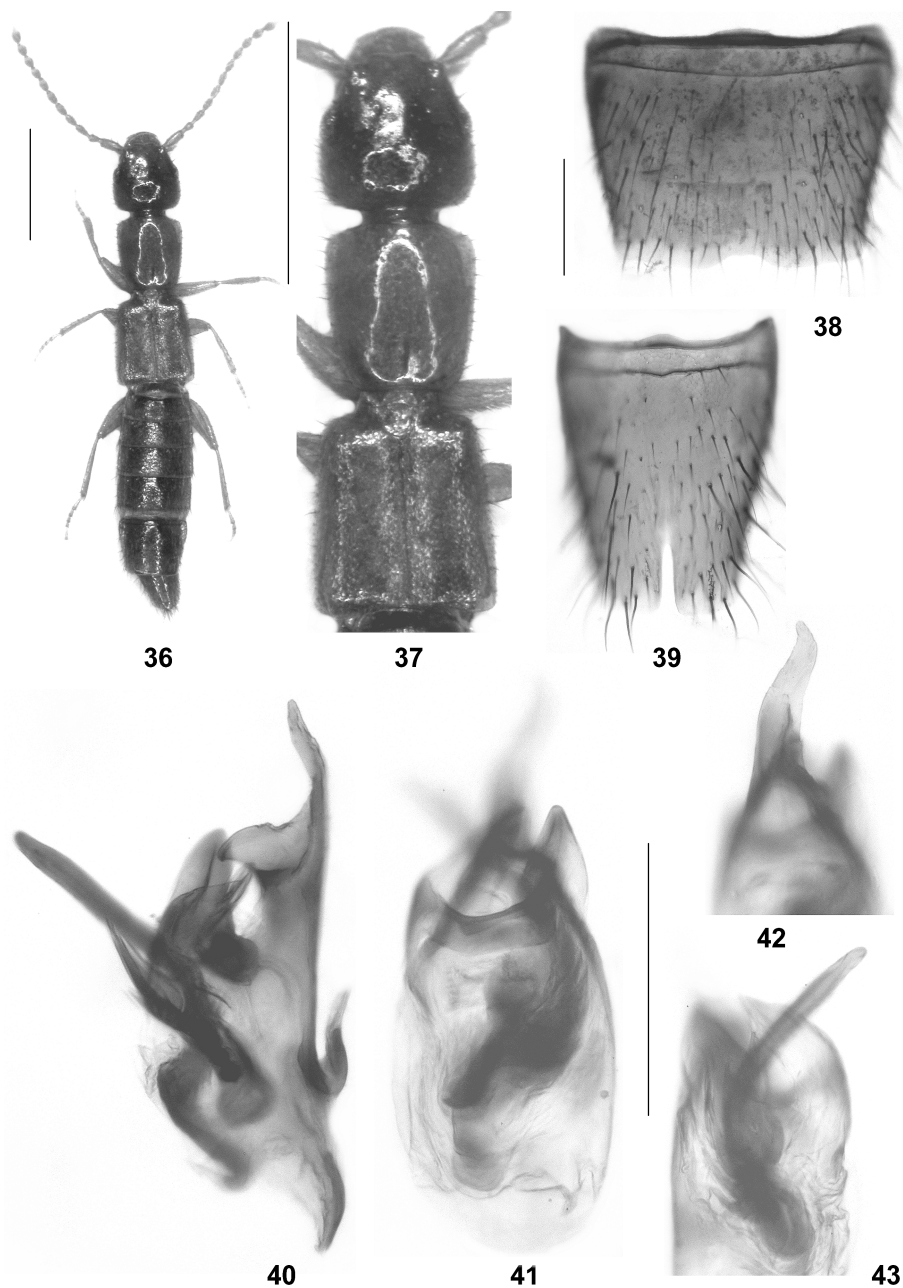
***Micrillus distortus* nov.sp.** (Figs 36-43, Map 4)

Type material examined: Holotype ♂: "Laos: Khammouane prov., Ban Khounkham (Nahin), 17-18.vi.2008, 300 m, 18°13.027'N 104°30.880'E / A. Solodovnikov & J. Pedersen leg. Disturbed primary rain forest; ZMUC collection / Holotypus ♂ *Micrillus distortus* sp.n., det. V. Assing 2012" (ZMUC). Paratypes: 1♂, 5♀♀: same data as holotype (ZMUC, cAss); 1♂: "Laos -C, Kham Mouan pr., Ban Khoun Ngeun, c200 m, 18°07'N 104°29'E, Pacholátko leg., 24.-29.iv.2001" (NHMB); 1♂: "Saigon, Indo-China / M. Cameron. Bequest. B.M. 1955-147." (BMNH); 1♂: "T-Thailand, Chiang.M., NW Chiang Mai, Pai City, 29.4.1993, Pacholátko & Dembicky" (NHMW).

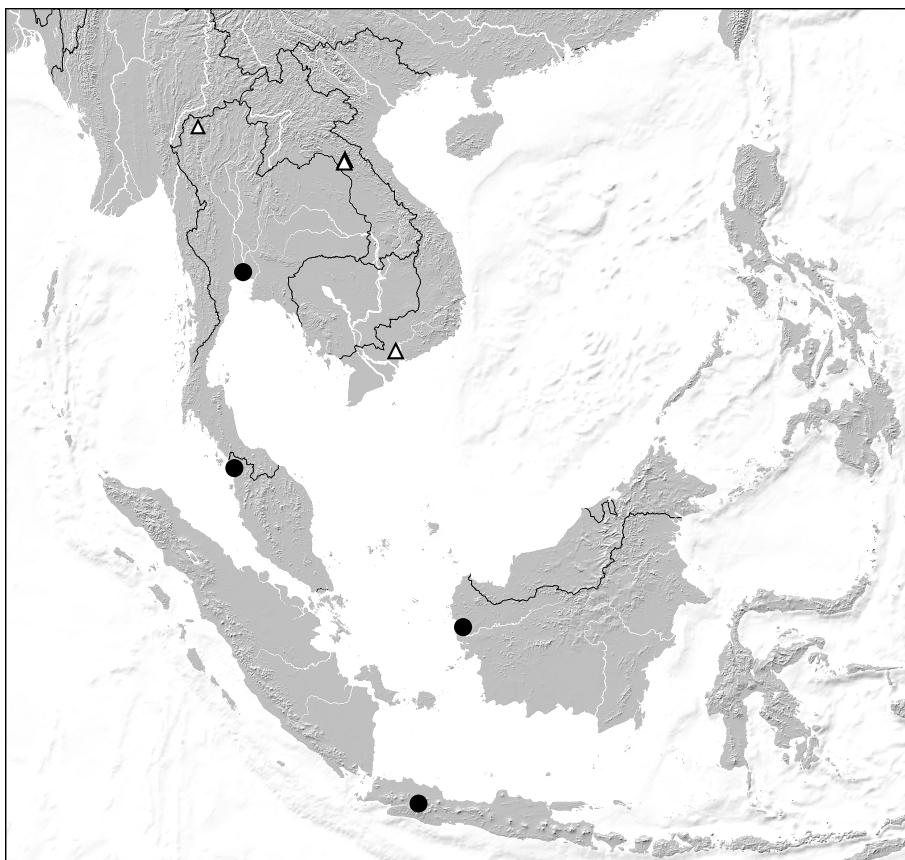
Etymology: The specific epithet (Latin, adjective: distorted) refers to the distinctly asymmetric aedeagus.

Description: Small species; body length 3.8-4.7 mm; length of forebody: 2.0-2.3 mm. Habitus as in Fig. 36. Coloration: head reddish-brown to dark-brown; remainder of body reddish; legs reddish-yellow; antennae reddish.

Head (Fig. 37) approximately as long as broad; punctation composed of sparse micropunctation and few interspersed macropunctures; interstices with very shallow microsculpture and glossy. Eyes 0.6-0.8 times as long as postocular region and weakly projecting from lateral contours of head in dorsal view. Apical joint of maxillary palpus of conical shape and distinctly less than half the length of preapical joint.



Figs 36-43: *Micrillus distortus* nov.sp.: (36) habitus; (37) forebody; (38) male sternite VII; (39) male sternite VIII; (40-41) aedeagus in lateral and in ventral view; (42) ventral process of aedeagus in ventral view; (43) internal structure of aedeagus in dorsal view. Scale bars: 36-37: 1.0 mm; 38-43: 0.2 mm.



Map 4: Distributions of *Micrillus distortus* nov.sp. (triangles) and *M. suturalis* (CAMERON) (circles) in the Oriental region, based on examined records.

Pronotum (Fig. 37) approximately 1.1 times as long as broad and almost as broad as head, noticeably tapering posteriad; surface glossy and with extremely fine, barely noticeable micropunctuation; on either side of midline with series of few (4-5) larger punctures.

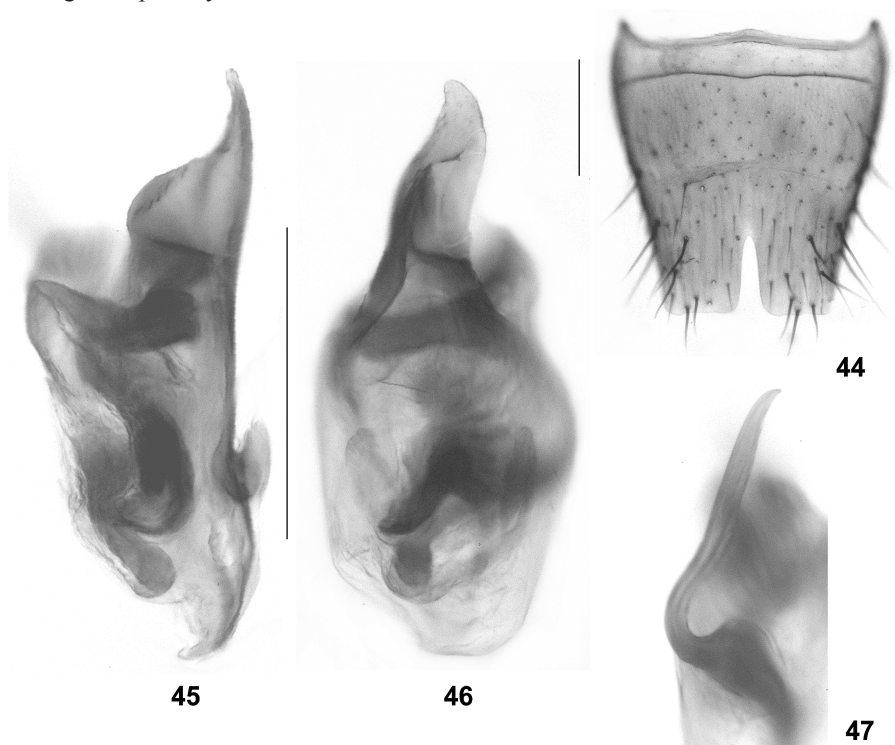
Elytra (Fig. 37) approximately as long as pronotum; punctuation dense and distinct. Hind wing fully developed. Metatarsomere I approximately as long as the combined length of II and III.

Abdomen slightly narrower than elytra; punctuation rather dense, fine, but distinct; interstices with very shallow microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex.

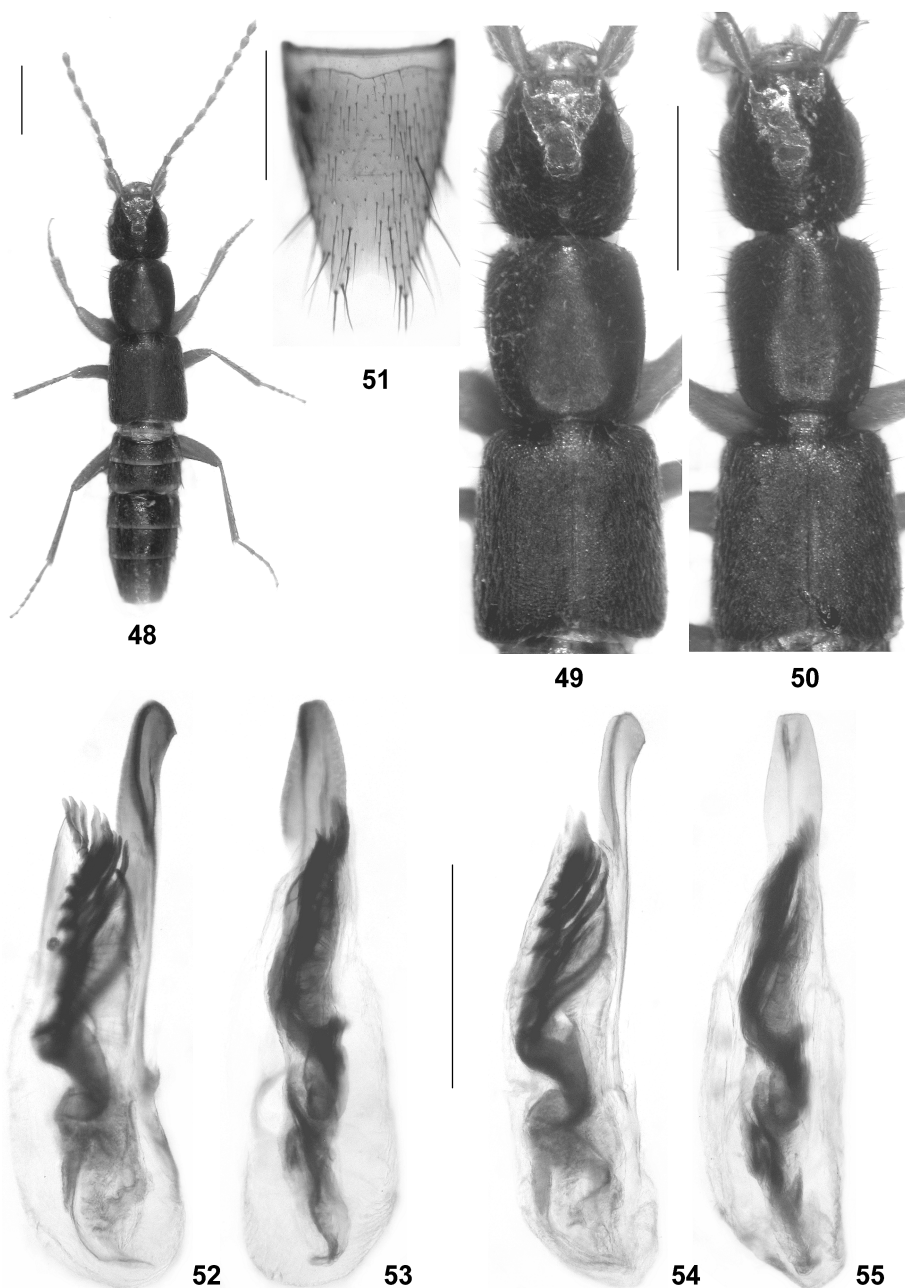
♂: sternite VII (Fig. 38) moderately transverse, posterior margin concave in the middle, pubescence unmodified; sternite VIII (Fig. 39) oblong, with deep and very narrow posterior excision; aedeagus 0.40-0.45 mm long, strongly asymmetric, and of distinctive shape; internal sac with long and asymmetric sclerotized structure.

Comparative notes: This species is characterized by the distinctive morphology of the aedeagus and additionally distinguished from *M. indicus*, *M. nigriceps*, and *M. flavescens* by different head shape (flattened, posteriorly not tapering, not oblong) and the almost obsolete microsculpture of the head, from *M. indicus* and *M. nigriceps* also by shorter antennae with less oblong preapical antennomeres, and from *M. asperiventris* by the less convex, posteriorly distinctly tapering pronotum with much sparser and finer punctation, the longer and more slender antennae (preapical antennomeres not distinctly transverse), and the denser punctation of the abdomen.

Distribution and natural history: *Micrillus distortus* was discovered in two localities in Khammouane province in central Laos, one in Vietnam, and one in northern Thailand (Map 4). The specimens from the type locality were collected in a degraded primary forest.



Figs 44-47: *Micrillus sumbaensis* (SCHEERPELTZ), holotype: (44) male sternite VIII; (45-46) aedeagus in lateral and in ventral view; (47) internal structure of aedeagus in dorsal view. Scale bars: 0.2 mm.



Figs 48-55: *Micrillus suturalis* (CAMERON) (holotypes of *Scymbalium borneense* CAMERON (48-49, 51, 54-55) and *S. javanicum* CAMERON (50-53)): (48) habitus; (49-50) forebody; (51) male sternite VIII; (52-55) aedeagus in lateral and in ventral view. Scale bars: 48-50: 1.0 mm; 51-55: 0.5 mm.

***Micrillus sumbaensis* (SCHEERPELTZ 1957), nov.comb.** (Figs 44-47)

Scimbalium sumbaense SCHEERPELTZ 1957: 232, 300 ff.

Type material examined: Holotype ♂: "♂ / Sumba, 7 - Melolo, 25.5.49 / Lichtfang / Sumba-Exped. d. Naturhist. Mus. Basel 1949 / Expedition Bühler-Sutter / *Scimbalium sumbaense* nov. sp. / Typus *Scimbalium sumbaense* O. Scheerpeltz / *Micrillus sumbaensis* (Scheerpeltz), det. V. Assing 2013" (NHMB). Paratypes: 1 ♀: same data as holotype, but "Cotypus..." (NHMB); 1 ♂, 1 ♀: same data as before, but "O-Sumba, 3 - Melolo, 24.5.49" (NHMB, NHMW).

Comment: The original description is based on a male holotype and three paratypes (one male and two females) (SCHEERPELTZ 1957) deposited in the NHMB and in the NHMW.

Redescription: External characters as in *M. distortus*, distinguished only by the male sexual characters.

♂: sternite VIII (Fig. 44) very weakly oblong, posterior excision narrow and rather deep, its depth approximately one third the length of sternite; aedeagus 0.38 mm long, shaped as in Figs 45-47.

Comparative notes: The similar external morphology and the similarly derived male sexual characters suggest that *M. sumbaensis* is the adelphotaxon of *M. distortus*, from which it differs by the less oblong and posteriorly more deeply incised male sternite VIII, the shape of the ventral process of the aedeagus both in lateral and in ventral view (broader in ventral view and subapically of different shape in lateral view), and by the shape of the apical internal structure.

Distribution and natural history: *Micrillus sumbaensis* is currently known only from Sumba, Indonesia. The type specimens were collected at a light source. According to SCHEERPELTZ (1957), the species is paludicolous.

***Micrillus suturalis* (CAMERON 1930), nov.comb.** (Figs 48-55, Map 3)

Scimbalium [sic] *suturale* CAMERON 1930: 155.

Scimbalium javanicum CAMERON 1936b: 53 f.; **nov.syn.**

Scimbalium (*Schatzmayria*) *borneense* CAMERON 1941: 230; **nov.syn.**

Type material examined: *S. suturale*: Holotype ♀: "Malay Penin., Kedah, Alor Star, / March 30th 1928. / *Scimbalium suturale* Cam. Type / Type / M. Cameron. Bequest. B.M. 1955-147. / Holotypus *Scymbalium suturale* Cameron, rev. V. Assing 2013 / *Micrillus suturalis* (Cameron), det. V. Assing 2013" (BMNH).

S. javanicum: Holotype ♂: "F. C. Drescher, Preanger, Bandoeng [today Bandung] Dago, 22.III.1929 / Java: F.C. Drescher, B.M. 1934-264. / *Scimbalium javanicum* Cam. Type / Type / Holotypus *Scymbalium javanicum* Cameron, rev. V. Assing 2013 / *Micrillus suturalis* (Cameron), det. V. Assing 2013" (BMNH).

S. borneense: Holotype ♂: "Pontianak, Borneo / *S. borneense* Cam. Type / Type / M. Cameron. Bequest. B.M. 1955-147. / Holotypus *Scymbalium borneense* Cameron, rev. V. Assing 2013 / *Micrillus suturalis* (Cameron), det. V. Assing 2013" (BMNH).

Additional material examined: Thailand: 1 ♀, Bangkok (BMNH).

Comment: The original description of *Scymbalium suturale* is based on a unique holotype from "Malay Peninsula. Kedah; Alor Star" (CAMERON 1930). The specimen, unfortunately a female in rather poor condition, was located in the Cameron collection at the BMNH.

The original description of *S. javanicum* is based on a unique holotype from "Bandoeng Dago, Preanger" (Java) (CAMERON 1936b), that of *S. borneense* on a unique holotype from "W. Borneo: Pontianak" (CAMERON 1941). Both holotypes were located in the

Cameron collection at the BMNH. In the description of *S. borneense*, CAMERON (1941) compares the species with *Scymbalium suturale* CAMERON 1930 from Malaysia, but there is no reference to *S. javanicum*. An examination of the type material, however, revealed that both holotypes are undoubtedly conspecific; the male primary and secondary sexual characters are identical (Figs 52-55), and no significant external differences were found either.

The types of *S. javanicum* and *S. borneense* are distinguished from the holotype of *S. suturale* only by the more pronounced microsculpture on the pronotum. However, the additional specimen seen from Thailand is intermediate in this respect. Since no additional evidence was found suggesting that *S. javanicum* represents a distinct species, both *S. javanicum* and *S. borneense* are placed in synonymy with *S. suturale*. Based on the undilated protarsomeres I-IV, *S. suturale* is moved to *Micrillus*.

Redescription: Body length 6.5-7.0 mm, length of forebody 3.5-3.6 mm. Habitus as in Fig. 48. Coloration: head blackish; pronotum and elytra dark-brown to blackish-brown, except for the narrowly and indistinctly dark-reddish posterior margins and suture of the elytra; abdomen blackish, with the paratergites, the posterior margins of segments III-VI, the posterior portion of segment VII, and segments VIII-X dark-reddish; legs and antennae pale reddish-brown.

Head (Figs 49-50) approximately 1.1 times as long as broad and with subparallel lateral margins; posterior angles moderately marked; punctation extremely fine, sparse, and barely noticeable in median dorsal portion, dense and more distinct in posterior and lateral portions; interstices with shallow microsculpture. Eyes slightly more than half the length of postocular region in dorsal view. Antennae slender, approximately 3 mm long; antennomeres IV-XI distinctly oblong; antennomere X approximately 1.5 times as long as broad.

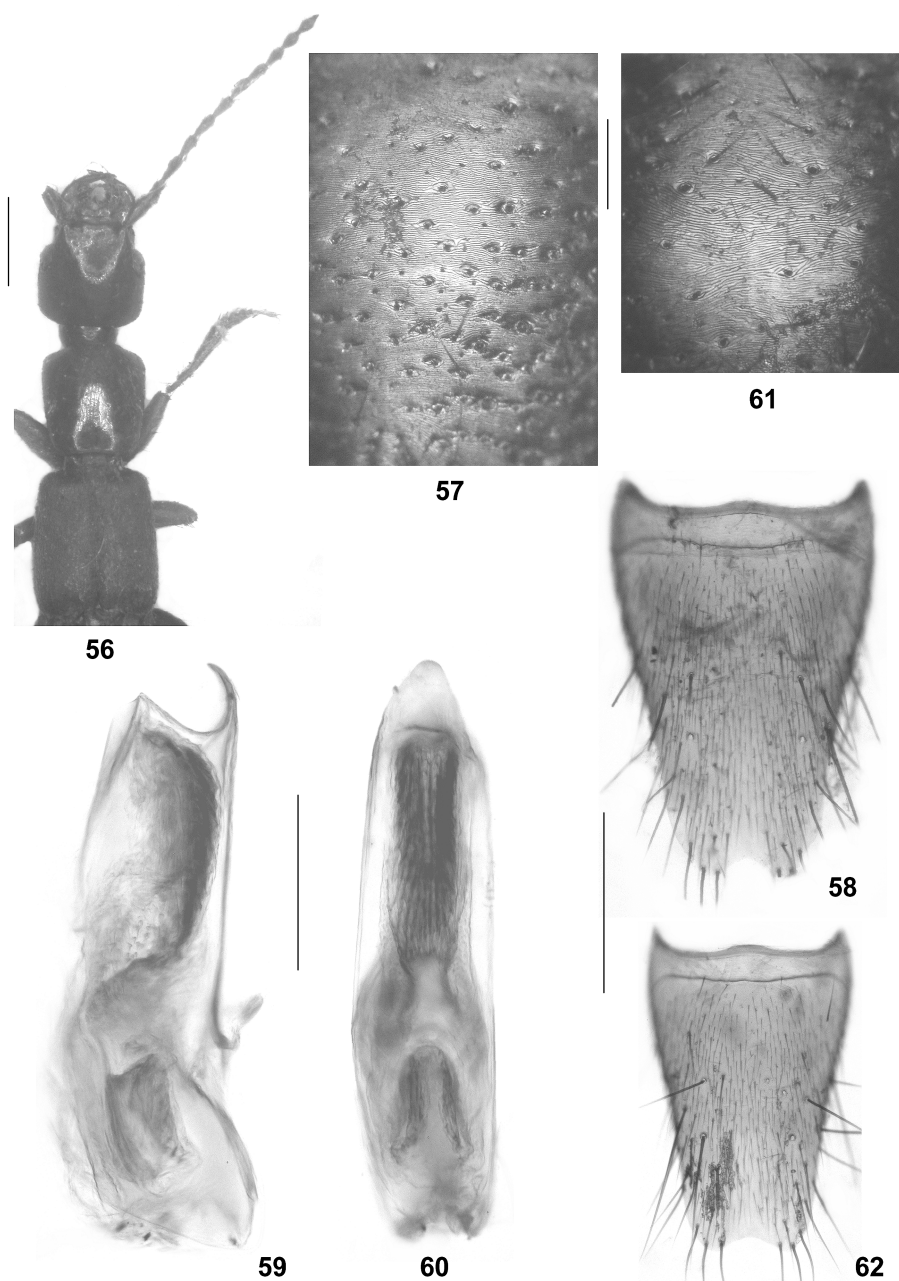
Pronotum (Figs 49-50) 1.11-1.14 times as long as broad and 1.05-1.09 times as broad as head; general shape rather variable: widest near anterior angles and converging posteriad from anterior fourth or with subparallel lateral margins in anterior half (dorsal view); posterior margin weakly to distinctly concave; punctation fine and very dense; interstices with microsculpture.

Elytra (Figs 49-50) 0.91-0.94 times as long as pronotum; surface matt and with microsculpture; punctation extremely fine and dense. Hind wings fully developed. Metatarsomere I longer than the combined length of II and III, but at least slightly shorter than the combined length of II-IV. Protarsomeres I-IV not distinctly dilated.

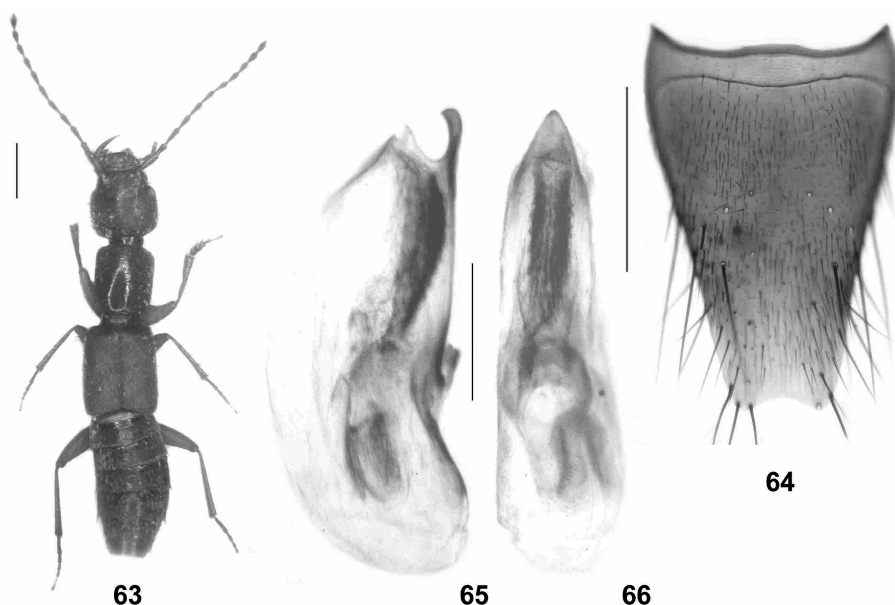
Abdomen narrower than elytra; punctation dense and rather fine; anterior tergites with distinct, posterior tergites with shallow to indistinct microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VIII (Fig. 51) strongly oblong, posterior excision broad and moderately deep; aedeagus (Figs 52-55) approximately 1.3 mm long, slender, distinctly asymmetric, and with conspicuously shaped spines in internal sac.

Comparative notes: This species is readily distinguished from other *Micrillus* species known from the Oriental region by distinctly larger body size, darker coloration, and by the completely different morphology of the aedeagus (much larger, more slender, internal sac with series of strongly sclerotized spines).



Figs 56-62: *Scymbalium badium* (MOTSCHULSKY), lectotype (56-60) and *S. nepalense* nov.sp., holotype (61-62): (56) forebody; (57, 61) median dorsal portion of head; (58, 62) male sternite VIII; (59-60) aedeagus in lateral and in ventral view. Scale bars: 56: 1.0 mm; 58, 62: 0.5 mm; 59-60: 0.2 mm; 57, 61: 0.1 mm.



Figs 63-66: *Scymbalium nepalense* nov.sp., holotype: (63) habitus; (64) male sternite VIII; (65-66) aedeagus in lateral and in ventral view. Scale bars: 63: 1.0 mm; 64: 0.5 mm; 65-66: 0.2 mm.

Distribution and natural history: *Micrillus suturalis* is apparently widespread, but not common in the Oriental region. It is currently known from Java, Borneo, Peninsular Malaysia, and Thailand (Map 4).

Micrillus sp.

Material examined: Thailand: 1 ♀, Fang, 19°55'N, 99°12'E, 300 m, 25.V.1991, leg. Král (NHMB).

Comment: The above female undoubtedly represents an undescribed species distinguished from all the described congeners recorded from the Oriental region, except *M. suturalis*, by larger body size alone (length of forebody 3.5 mm). It differs from *M. suturalis* by the much more sparsely punctate and much more glossy forebody.

Key to the Palearctic and Oriental species of *Micrillus* and *Scymbalium*

For convenience, *Micrillus aethiopicus*, a close relative of *M. aegyptiacus*, is included in the key, although this species has been recorded only from the Afrotropical region.

- 1 Protarsomeres I-IV dilated in both sexes. Species of moderately large to large size; body length > 7.0 mm; length of forebody > 3.8 mm. Genus *Scymbalium* ERICHSON2
- Protarsomeres I-IV not dilated. Small to moderately large species; body length 3.2-9.0 mm; length of forebody 1.8-4.0 mm. Genus *Micrillus* RAFFRAY5
- 2 Head and pronotum with distinct and moderately dense punctation (Fig. 3). West Palearctic region3

- Head and pronotum with very fine (sometimes except for some scattered macropunctures on frons), sparse or very dense punctation (Figs 6, 57, 61). East Palaearctic and Oriental regions.....4
- 3 Abdomen with very fine punctation (Fig. 4). Iraq, Russian South European territory.....*S. persimile* CAMERON
- Abdomen with distinctly coarser punctation. Widespread, from France and Algeria to Turkmenistan and Iran*S. anale* (NORDMANN)
- 4 On average larger species of more robust habitus (Fig. 56); body length 8.5-9.5 mm; length of forebody 4.8-5.1 mm. Head with rather dense and moderately fine punctation (Fig. 57). Male sternite VIII with deeper posterior concavity (Fig. 58). Ventral process of aedeagus apically more slender and more strongly bent dorsad in lateral view (Figs 59-60). Northeastern India; Bhutan; Myanmar*S. badium* (MOTSCHULSKY)
- On average smaller species of more slender habitus (Figs 5-6, 63); body length 7.5-8.5 mm; length of forebody barely 3.9-4.7 mm. Head with extremely fine and sparse punctation (Fig. 61). Male sternite VIII with shallowly concave posterior margin (Figs 62, 64). Aedeagus 0.6-0.7 mm long, ventral process apically stouter and less strongly bent dorsad in lateral view (Figs 7-8, 65-66). Nepal*S. nepalense* nov.sp.
- 5 Apical joint of maxillary palpus long and slender, at least half the length of preapical palpomere (ASSING 2008: figure 39). Aedeagus of simple morphology, symmetric, usually slender with ventral process apically more or less bent dorsad; internal structures amorphous and weakly sclerotised. West Palaearctic region (including Middle Asia); absent from Egypt (ASSING 2008: figure 2). *Micrillus testaceus* group6
- Apical joint of maxillary palpus of conical shape and usually shorter than half the length of preapical palpomere, only in one species from the Oriental region longer. Aedeagus of complex morphology, usually asymmetric and/or with more or less distinctly sclerotised internal structures. Afrotropical, East Palaearctic, and Oriental regions, in the West Palaearctic confined to Egypt and Yemen. *Micrillus aegyptiacus* and *M. suturalis* groups13
- 6 Eyes fully developed or of reduced size, but always composed of ommatidia. Posterior margin of abdominal tergite VII at least with narrow rudiment of a palisade fringe.7
- Eyes extremely reduced, without ommatidia. Abdominal tergite VII without palisade fringe. Distribution confined to North Africa.....11
- 7 Posterior margin of head distinctly concave in the middle (ASSING 2008: figure 61). Eyes, elytra, and hind wings not reduced (ASSING 2008: figures 59-60, 62). Posterior margin of male sternite VIII with deeply and broadly triangular excision (ASSING 2008: figure 64). Aedeagus as in ASSING 2008: figures 66-74. Known distribution confined to Iraq, Israel, and Iran*M. irakensis* (CAMERON)
- Posterior margin of head not distinctly concave, usually truncate. Aedeagus of different morphology.8
- 8 Species of pale (yellowish, reddish or pale brown) coloration. Eyes, elytra, and hind wings not reduced (ASSING 2008: figures 48-49). Posterior margin of male sternite VIII with shallow emargination (ASSING 2008: figure 50). Aedeagus of distinctive shape, rather broad in ventral view, ventral process apically not bent dorsad, and with two clusters of moderately sclerotised internal structures (ASSING 2008: figures 51-55). Caucasus region and Middle Asia*M. pallidus* (REITTER)
- Mature specimens usually (but not always!) of darker coloration, reddish to dark brown. Eyes, elytra, and hind wings often of reduced size or length, respectively. Aedeagus more slender, with one cluster of internal structures and with ventral process apically bent dorsad9
- 9 Wing-dimorphic, on average smaller species; eyes on average larger. Elytra and abdomen with finer punctation (ASSING 2008: figure 11). Posterior margin of male sternite VIII with deeper triangular emargination (ASSING 2008: figure 13). Widespread species with slender aedeagus with more weakly sclerotised ventral process (ASSING 2008: figures 16-26), or distribution confined to Algeria.....10

- Monomorphic brachypterous species (ASSING 2008: figures 34-35); eyes (ASSING 2008: figure 38) usually smaller. Elytra and abdomen with coarser and denser punctation (ASSING 2008: figures 35, 37). Posterior margin of male sternite VIII with shallow emargination (ASSING 2008: figure 56). Aedeagus relatively broad and with rather strongly sclerotised ventral process (ASSING 2008: figures 41-46). Endemic to northern Morocco..... *M. scabrosus* (FAUVEL)
- 10 Aedeagus longer (> 0.75 mm), slender, and with weakly sclerotised internal structures (ASSING 2008: figures 16-26). Widespread in the south of the West Palaearctic region (Map 1)..... *M. testaceus* (ERICHSON)
- Aedeagus shorter (< 0.70 mm), broader, and with distinctly sclerotised internal structures (ASSING 2008: figures 106-110). Known only from the surroundings of Biskra, Algeria..... *M. biskrensis* (FAUVEL)
- 11 Elytra slightly narrower than pronotum (ASSING 2008: figure 98). Eye rudiments (ASSING 2008: figure 99) slightly larger, 0.06 - 0.07 mm. Aedeagus apically pointed in ventral view (ASSING 2008: figures 102-103). Known only from two localities in Taza district, Morocco..... *M. tenuipennis* ASSING
- Elytra approximately as wide as pronotum. Eye rudiments smaller (ASSING 2008: figures 77, 88), eye length 0.03 - 0.05 mm. Aedeagus apically weakly to distinctly concave in ventral view. Distribution confined to Algeria..... 12
- 12 Smaller species; head length < 0.80 mm, head width < 0.80 mm, width of pronotum < 0.80 mm. Antennae shorter (ASSING 2008: figure 89), < 2.05 mm long. Eye rudiments smaller (ASSING 2008: figure 88), eye length 0.03 - 0.05 mm. Pronotum on average more oblong (ASSING 2008: figure 87). Head approximately as broad as long (ASSING 2008: figure 87) and smaller in relation to pronotum, approximately as wide as pronotum (ASSING 2008: figure 87). Head with coarser and denser punctation and with more pronounced microsculpture (ASSING 2008: figure 87). Aedeagus apically weakly concave in ventral view and less strongly bent dorsad in lateral view (ASSING 2008: figures 93-95). Algeria: surroundings of Algier..... *M. subterraneus* RAFFRAY
- Larger species; head length ≥ 0.90 mm, head width > 0.85 mm, width of pronotum > 0.80 mm. Antennae longer (Fig. 78), > 2.15 mm long. Eye rudiments slightly larger (ASSING 2008: figure 77), 0.05 mm long. Pronotum on average less oblong (ASSING 2008: figure 76). Head oblong (ASSING 2008: figure 76), larger in relation to pronotum, and wider than pronotum (ASSING 2008: figure 76). Head with finer and sparser punctation and with weaker microsculpture (ASSING 2008: figure 76). Aedeagus apically distinctly concave in ventral view and strongly bent dorsad in lateral view (ASSING 2008: figures 81-85). Algeria: Djebel Bou Zegz..... *M. hypogaeus* (PEYERIMHOFF)
- 13 Species from North Africa 14
- Species distributed in the East Palaearctic and Oriental regions 17
- 14 Smallest species of the genus; head length < 0.60 mm, head width < 0.60 mm, length of pronotum < 0.65 mm, width of pronotum < 0.55 mm. Wing-dimorphic (ASSING 2008: figures 128-129); brachypterous morph with very small eyes (ASSING 2008: figure 130), short elytra, and reduced hind wings (ASSING 2008: figure 129). Valvulae of abdominal segment IX relatively short (ASSING 2008: figure 136). Male sternite VIII posteriorly very deeply and very narrowly incised (ASSING 2008: figures 134-135). Aedeagus of distinctive morphology (ASSING 2008: figure 130-134). Egypt and Sudan..... *M. torretassoi* (KOCH)
- Distinctly larger, monomorphic macropterous species with distinctly larger eyes. Valvulae of abdominal segment very long. Male sternite VIII posteriorly with much less deep and broader excision. Aedeagus of completely different morphology..... 15
- 15 Abdomen with less dense and more distinct punctation and with less pronounced microsculpture. Head subparallel behind eyes. Eyes rather small and weakly convex (ASSING 2008: figures 112-113). Head oblong. Male sternite VIII without modified setae and with broader and less deep posterior excision (ASSING 2008: figure 116). Aedeagus shaped as in ASSING 2008: figures 118-123. Egypt, Sudan (Map 2) *M. aegyptiacus* (BERNHAEUER)

- Abdomen with dense and very fine punctation, and with pronounced microsculpture. Head tapering behind eyes, widest across the more convex eyes. Male sternite VIII with short stout modified setae in the middle and with deep and narrow posterior excision. Aedeagus of different morphology 16
- 16 Eyes larger and more bulging, strongly projecting from lateral contours of head (ASSING 2008: figures 155-156). Head as broad as long or indistinctly oblong. Male sternite VIII and aedeagus as in ASSING 2008: figures 159, 161-163. Sudan, Yemen (Map 2)..... *M. sudanicus* ASSING
- Eyes somewhat smaller and less bulging (Fig. 10). Head oblong. Male sternite VIII and aedeagus as illustrated in Figs 11-13. Ethiopia (Map 2) *M. aethiopicus* (CAMERON)
- 17 Larger species; body length 6.5-7.0 mm; length of forebody 3.5-3.8 mm. Coloration of body dark-brown to blackish-brown. Posterior excision of male sternite VIII broad and moderately deep (Fig. 51). Aedeagus 1.3 mm long and slender, with conspicuous series of long and strongly sclerotized spines in internal sac (Figs 52-55). Malaysia, Thailand, Borneo, Java (Map 4) *M. suturalis* (CAMERON)
- Distinctly smaller and paler species. Posterior excision of male sternite VIII deep and narrow. Aedeagus much smaller, compact, and with completely different internal structures 18
- 18 Preapical antennomeres (VII-IX) transverse (Fig. 33). Pronotum with broadly impunctate midline and laterally with coarser (though shallow) and dense punctation (Fig. 34). Head with fine but transverse microsculpture. Male sexual characters unknown. Myanmar. *M. flavescens* (MOTSCHULSKY)
- Preapical antennomeres not transverse, usually oblong. Punctuation of pronotum different..... 19
- 19 Head (Fig. 37) at least as broad as long, with marked posterior angles, subparallel behind eyes. Head and pronotum somewhat flattened (cross-section) and distinctly glossy, with sparse and rather distinct punctation. Posterior excision of male sternite VIII very narrow. Aedeagus with long, basally strongly curved, strongly sclerotized, spine-like internal structure in dorsal position 20
- Head usually oblong, rarely as broad as long, mostly more or less distinctly tapering behind eyes and with more broadly convex posterior angles. Head and pronotum not distinctly flattened, less glossy and with different punctation. Posterior excision of male sternite VIII less narrow. Aedeagus of different morphology 21
- 20 Male sternite VIII distinctly oblong; posterior excision distinctly less than one third the length of sternite (Fig. 39). Aedeagus shaped as in Figs 40-42. Laos, Vietnam, Thailand (Map 4) *M. distortus* nov.sp.
- Male sternite VIII very weakly oblong; posterior excision deeper, approximately one third the length of sternite (Fig. 44). Aedeagus shaped as in Figs 45-47. Indonesia: Sumba. *M. sumbaensis* (SCHEERPELTZ)
- 21 Larger species, length of forebody 3.2 mm. Male sternite VIII and aedeagus as in Figs 19-22. Thailand (Map 3). *M. siamensis* nov.sp.
- Smaller species; length of forebody < 3.0 mm. A reliable identification of the following species is possible only based on the morphology of the aedeagus. 22
- 22 Depth of posterior excision of male sternite VIII distinctly less than one third the length of sternite; aedeagus minute, ≤ 0.4 mm long, compact, without conspicuous dorso-apical structure, and with relatively small sclerotized internal structure. Species from India. 23
- Depth of posterior excision of male sternite VIII nearly one third the length of sternite; aedeagus > 0.45 mm long, more slender, with conspicuous curved dorso-apical structure, and with large, long, and apically finger-shaped sclerotized internal structure. Species from Thailand, Laos, Malaysia, and Indonesia 24
- 23 Head usually reddish; slightly darker than pronotum at most. Aedeagus as illustrated in ASSING 2008: figures 150-153. Central and northern India (Map 3). *M. indicus* (EPPELSHEIM)

- Head brown to dark-brown, darker than the pale-reddish pronotum. Aedeagus as in Figs 15-16. Northeastern India (Map 3) *M. nigriceps* (CAMERON)
- 24 Body smaller, length of forebody 2.3-2.6 mm. Head distinctly darker than remainder of body. Aedeagus with ventral process pointed and acute apically; dorso-apical structure short and strongly curved (Figs 26-28). Thailand, Laos, Malaysia (Map 3) *M. intermedius* (CAMERON)
- Body larger, length of forebody 2.6-2.7 mm. Head mostly reddish, only indistinctly darker than pronotum at most. Aedeagus with ventral process apically bifid in ventral view; dorso-apical structure long and only apically curved (Figs 30-32). Indonesia: Sumba *M. sutteri* (SCHEERPELTZ)

Checklist of the *Micrillus* and *Scymbalium* species of the world

The genera *Micrillus* and *Scymbalium* are currently represented in the Palaearctic, Afro-tropical, and Oriental regions by 21 and 41 described species, respectively. However, all the species recorded from the Australian, and most of the species from the Afrotropical region have not been revised (marked with an asterisk) and are of doubtful identity and systematic affiliations. All of them are currently in *Scymbalium*.

Taxon	Distribution
Genus <i>Micrillus</i> RAFFRAY 1873	
<i>aegyptiacus</i> (BERNHAEUER 1910) = <i>bernhaueri</i> (KOCH 1934)	Egypt, Sudan
<i>aethiopicus</i> (CAMERON 1947), nov.comb.	Ethiopia
<i>biskrensis</i> (FAUVEL 1898)	Algeria
<i>distortus</i> nov.sp.	Laos, Vietnam, Thailand
<i>hypogaeus</i> (PEYERIMHOFF 1907)	Algeria
<i>flavescens</i> (MOTSCHULSKY 1858) = <i>asperiventris</i> (FAUVEL 1895), nov.syn.	Myanmar
<i>indicus</i> (EPPELSHEIM 1890)	India
<i>intermedius</i> (CAMERON 1936), nov.comb.	Malaysia, Thailand, Laos
<i>irakensis</i> (CAMERON 1940)	Iraq, Israel, Iran
<i>nigriceps</i> (CAMERON 1931), nov.comb.	NE-India
<i>pallidus</i> (REITTER 1887) = <i>caucasicus</i> COIFFAIT 1980 = <i>rufotestaceus</i> (CAMERON 1939)	Caucasus region, Middle Asia
<i>scabrosus</i> (FAUVEL 1875)	Morocco
<i>siamensis</i> nov.sp.	Thailand
<i>subterraneus</i> RAFFRAY 1873	Algeria
<i>sudanicus</i> ASSING 2008	Sudan, Yemen
<i>sumbaensis</i> (SCHEERPELTZ 1957), nov.comb.	Indonesia: Sumba
<i>sutteri</i> (SCHEERPELTZ 1957), nov.comb.	Indonesia: Sumba
<i>suturalis</i> (CAMERON 1930), nov.comb. = <i>javanicus</i> (CAMERON 1936), nov.syn. = <i>borneensis</i> (CAMERON 1941), nov.syn.	Java, Borneo, Malaysia, Thailand
<i>tenuipennis</i> ASSING 2008	Morocco

Taxon	Distribution
<i>testaceus</i> (ERICHSON 1840) = <i>brekhovi</i> GREBENNIKOV 2001 = <i>calabricus</i> COIFFAIT 1980 = <i>corcyranus</i> COIFFAIT 1980 = <i>cypriacus</i> COIFFAIT 1980 = <i>graecus</i> COIFFAIT 1980 = <i>grandiceps</i> (JACQUELIN DU VAL 1853) = <i>hispanicus</i> COIFFAIT 1980 = <i>libanicus</i> COIFFAIT 1980 = <i>longicollis</i> (MULSANT & REY 1853) = <i>longipennis</i> (BRISOUT DE BARNEVILLE 1863) = <i>meridionalis</i> (GRIDELLI 1914) = <i>pubipennis</i> (FAIRMAIRE 1860) = <i>saintpierrei</i> (ALLARD 1869) = <i>syriacus</i> COIFFAIT 1980 = <i>tergestinus</i> (GRIDELLI 1914) = <i>trapezicollis</i> (UHAGON 1876) = <i>turcicus</i> COIFFAIT 1980 = <i>zacinthicus</i> COIFFAIT 1980 = <i>zuercheri</i> WANKA 1914	Southern West Palaearctic
<i>torretassoi</i> (KOCH 1934) = <i>collare</i> (SCHEERPELTZ 1962)	Egypt, Sudan
Genus <i>Scymbalium</i> ERICHSON 1839	
<i>*agreste</i> BLACKBURN 1888	Australia
<i>anale</i> (NORDMANN 1837) = <i>planicolle</i> ERICHSON 1840	Southern West Palaearctic; Middle Asia
<i>*arcuatum</i> FAUVEL 1895	Australia
<i>*australe</i> FAUVEL 1877	Australia
<i>badium</i> (MOTSCHULSKY 1858) = <i>waageni</i> BERNHAUER 1928, nov.syn. = <i>brunneum</i> CAMERON 1931, nov.syn.	India, Bhutan, Myanmar
<i>*congoense</i> FAGEL 1960	D. R. Congo
<i>*duplopunctatum</i> FAUVEL 1878	Australia
<i>*foveiceps</i> BERNHAUER 1935	Belgian Congo
<i>*gaboense</i> FAGEL 1960	Gabon
<i>*gibbiceps</i> FAGEL 1960	Gabon
<i>*hulstaerti</i> FAGEL 1960	D. R. Congo
<i>*ifanum</i> FAGEL 1961	Senegal
<i>*kabareense</i> FAGEL 1960	D. R. Congo
<i>*keiseri</i> SCHEERPELTZ 1961	Madagascar
<i>*kivuense</i> FAGEL 1960	D. R. Congo
<i>*laetum</i> BLACKBURN 1888	Australia, New Zealand
<i>*lathrobioides</i> BERNHAUER 1908	Tanzania
<i>*laticeps</i> FAGEL 1961	Senegal

Taxon	Distribution
* <i>leleupi</i> FAGEL 1960	D. R. Congo
* <i>microcephalum</i> FAUVEL 1877	Australia
* <i>micropterum</i> LEA 1923	Australia
* <i>minutissimum</i> BERNHAUER 1915	Tanzania
<i>nepalense</i> nov.sp.	Nepal
* <i>nitidiventre</i> (EPPELSHEIM 1885)	Ghana
* <i>nitidum</i> OKE 1933	Australia
* <i>opaculum</i> FAUVEL 1878	Australia
* <i>pallidulum</i> LEA 1923	Australia
* <i>peregrinum</i> (EPPELSHEIM 1885)	Ghana, D. R. Congo
<i>persimile</i> CAMERON 1940	Iraq, South European Russia
* <i>piceum</i> (MACLEAY 1873) = <i>ferrugineum</i> FAUVEL 1878	Australia
* <i>rufum</i> FAUVEL 1878	Australia
* <i>schoutedeni</i> BERNHAUER 1943	D. R. Congo
* <i>scintillans</i> HERMAN 2003 = <i>nitidum</i> BERNHAUER 1943	D. R. Congo
* <i>senegalense</i> FAGEL 1961	Senegal
* <i>simplarium</i> FAUVEL 1878	Australia
* <i>sparsicolle</i> FAUVEL 1878	Australia
* <i>subopacum</i> BERNHAUER 1935	D. R. Congo
* <i>uniformis</i> CAMERON 1955	Australia
* <i>usagarae</i> BERNHAUER 1910 = <i>longicolle</i> BERNHAUER 1908	Sudan, D. R. Congo, Tanzania

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Zusammenfassung

Typen und weiteres Material von Arten der Gattungen *Micrillus* RAFFRAY 1873 und *Scymbalium* ERICHSON 1839, insbesondere aus der Ostpaläarktis und Orientalis, werden revidiert. Zwei *Scymbalium*- und zehn *Micrillus*-Arten werden beschrieben bzw. redeskribiert und abgebildet: *Scymbalium badium* (MOTSCHULSKY 1858); *S. nepalense* nov.sp. (Nepal), *Micrillus aethiopicus* (CAMERON 1947), nov.comb. (ex *Scymbalium*), *M. indicus* (EPPELSHEIM, 1890); *M. nigriceps* (CAMERON 1931), nov. comb. nov.stat. (ex *Scymbalium*), bisher Unterart von *M. indicus*; *M. siamensis* nov.sp. (Thailand); *M. intermedius* (CAMERON 1936), nov.comb. (ex *Scymbalium*); *M. sutteri* (SCHEERPELTZ 1957), nov.comb. (ex *Scymbalium*); *M. flavescens* (MOTSCHULSKY 1858), nov.comb. (ex *Scymbalium*); *M. distortus* nov.sp. (Laos, Vietnam, Thailand); *M. sumbaensis* (SCHEERPELTZ 1957), nov.comb. (ex *Scymbalium*); *M. suturalis* (CAMERON 1930), nov.comb. (ex *Scymbalium*). Fünf Namen werden synonymisiert: *Scymbalium badium* (MOTSCHULSKY 1858) = *S. waageni* BERNHAUER 1928, nov.syn., = *S. brunneum* CAMERON 1931, nov.syn.; *Micrillus*

flavescens (MOTSCHULSKY 1858) = *Scymbalium asperiventre* FAUVEL 1895, nov.syn.; *Micrillus suturalis* (CAMERON 1930) = *Scymbalium javanicum* CAMERON 1936, nov.syn. = *S. borneense* CAMERON 1941, nov.syn. Für *Scymbalium indicum* EPPELSHEIM 1890, *S. nigriceps* CAMERON 1931, *S. intermedium* CAMERON 1936, *S. asperiventre* FAUVEL 1895 und *Lathrobomorphus badius* MOTSCHULSKY 1895 werden Lectotypen designiert. The inter- und intragenerischen systematischen Beziehungen von *Scymbalium* und *Micrillus* werden diskutiert; die derzeitige Zuordnung dieser Gattungen zur Subtribus Lathrobiina wird als zweifelhaft betrachtet. Zahlreiche weitere Nachweise bereits revidierter Arten werden gemeldet, darunter mehrere Erstnachweise; eine Art wird erstmals für die Paläarktis nachgewiesen. Die derzeit bekannten Verbreitungsgebiete von zehn Arten werden anhand von Karten illustriert. Eine Bestimmungstabelle und ein Katalog (einschließlich der unrevidierten Arten aus der Afrotropis) werden erstellt.

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