

Galerucinae (Coleoptera: Chrysomelidae) of Socotra Island, with a review of taxa recorded from Yemen

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Abstract. First data on Galerucinae from Socotra Island (Yemen) are presented. Six species are reported, among them a new genus and five new species are described: *Beenenia* gen. nov. with *B. scanticola* sp. nov. as type species, *B. kabateki* sp. nov., *Monolepta suchomeli* sp. nov., *Monolepta hlavaci* sp. nov., and *Monolepta kmenti* sp. nov. A review of Galerucinae from continental Yemen based on the literature data and newly collected material is presented with five new records: *Aulacophora calva* Anand & Cox, 1986, *Galerudolphia arabica* (Medvedev, 1996), *Nymphius buettikeri* (Medvedev, 1996), *N. millingeni* (Pic, 1915) and *Madurasia obscurella* Jacoby, 1896.

Key words. Coleoptera, Chrysomelidae, Galerucinae, *Beenenia*, *Monolepta*, new genus, new species, taxonomy, new records, Yemen, Socotra

Introduction

The Galerucinae fauna of Yemen is insufficiently known. Until now, only 17 species of Galerucinae were recorded from continental Yemen, many of them by BRYANT (1957) and MEDVEDEV (1996). Present knowledge of the beetle fauna (not only of Chrysomelidae) of Socotra Archipelago is inadequate although many expeditions have been conducted in the last 150 years. So far only five species of Chrysomelidae were reported from Socotra Archipelago: *Eryxia socotrana* Gahan, 1903, *Colasposoma densatum* Fairmaire, 1887 (both Eumolpinae), *Melixanthus melanocephalus* Suffrian, 1857 (Cryptocephalinae), *Oulema* sp. (Criocerinae), and *Oxylepus deflexicollis* (Boheman, 1862) (Cassidinae) (see WRANIK 2003, SCHÖLLER et al. 2010). However, the records of *Colasposoma densatum* and *Oxylepus deflexicollis* are probably based on misidentification and refer to another species (ZOIA 2012, ŚWIĘTOJAŃSKA & BOROWIEC 2012).

The expeditions conducted by Mendel University in Brno within 2009–2012 supplemented with other recently collected material resulted in a series of papers dealing with various sub-families: Bruchinae with seven species known from Socotra (DELOBEL 2012), Eumolpinae

with 16 species or subspecies, 15 of them new to science (ZOIA 2012), Cassidinae with two species (ŚWIĘTOJAŃSKA & BOROWIEC 2012), Clytrinae with one species new to science (BEZDĚK 2012) and Alticinae with 17 species, four of them new to science (DÖBERL 2012).

The subfamily Galerucinae was never reported from Socotra Island. In recently collected material six species were found, including five species and one genus new to science. Their descriptions are given below.

Material and methods

All measurements were made using an ocular grid mounted on the MBS-10 stereomicroscope (at 16× magnification for the body length and 32× magnification for the remaining measurements). The photographs were taken by Canon EOS 550D with Macro Photo Lens MP-E65mm and mounted with Helicon Focus 5.1.

The examined material is housed in the following collections:

- BMNH The Natural History Museum, London, United Kingdom (Sharon Shute, Maxwell V. L. Barclay);
JBCB Jan Bezděk collection, Brno, Czech Republic;
JBCP Jan Batelka collection, Praha, Czech Republic;
NHMB Naturhistorisches Museum, Basel, Switzerland (Eva Sprecher-Uebersax, Isabelle Zürcher-Pfander, Michel Brancucci);
NMPC National Museum, Praha, Czech Republic (Jiří Hájek);
RBCN Ron Beenen collection, Nieuwegein, The Netherlands;
ZMHB Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Johannes Frisch, Joachim Wil-
lers).

Exact label data are cited for all type specimens; a double slash (//) divides data on different labels and a single slash (/) divides data in different rows. Other comments and remarks are placed in square brackets: [p] – preceding data are printed, and [w] – white label.

All Chrysomelidae have five tarsomeres on each leg but the fourth is almost invisible (pseudotetramerous tarsi). In this paper the tarsal formula is treated in older sense as 4-4-4, thus tarsomere V (the claw tarsomere) is indicated as IV.

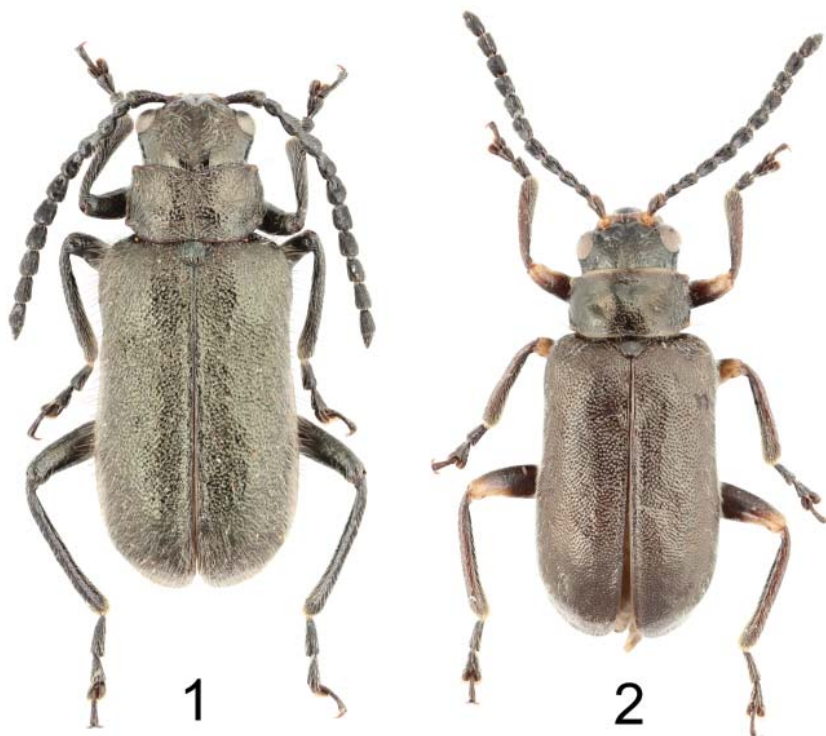
Taxonomy and faunistics of Galerucinae of Socotra Island

Beenenia gen. nov.

Type species. *Beenenia scanticola* sp. nov., by present designation.

Description. Body elongate, dorsum metallic dark greenish to black or brownish with distinct metallic tint, antennae black, legs black with metallic tint, with pale coxae and trochanters (in *B. kabateki* sp. nov. also with pale knees), dorsum densely pubescent, semiopaque to shiny.

Head large, measured with eyes slightly narrower or as wide as anterior margin of pronotum, eyes small, moderately projecting beyond head outline. Labrum transverse, with anterior margin shallowly incised, covered with several long setae. Anterior part of head very short, genae 0.30 times as long as diameter of eye. Nasal keel poorly developed but visible. Frontal tubercles large, convex, distinctly elevated, impunctate, with apices elongate, separated from each other by thin sulcus which continues through vertex. Frons shallowly depressed behind frontal tubercles but not grooved. Vertex large, moderately convex, densely covered with large



Figs. 1–2. Habitus. 1 – *Beenenia scanticola* sp. nov. (holotype, male, 6.0 mm); 2 – *B. kabateki* sp. nov. (holotype, male, 5.4 mm).

punctures and setae. Antennae relatively robust, short, reaching slightly behind midlength of body, antennomeres II–VI flattened and slightly impressed in basal part, apically extended, antennomeres VII–XI robust, gradually less flattened, last two antennomeres subtubular.

Pronotum transverse, 1.75–2.05 times as wide as long, narrower than base of elytra. Anterior margin thinly bordered only at sides or unbordered, lateral margin deeply and thinly bordered, posterior margin shallowly and thinly bordered. Surface of pronotum moderately convex, with shallow depressions laterally and in middle of both anterior and posterior part of pronotum, densely covered with fine to large punctures. All angles prominent, triangular, projecting laterally, anterior angles bearing 4 to 6 long pale setae, posterior angles with two or three long pale setae. Scutellum subtriangular, with widely rounded tip, subopaque, covered with microsculpture or indistinct fine punctures, and fine setae.

Elytra with well developed humeral calli. Surface very densely covered with small confused punctures and with one or two types of setae. Interspaces between punctures narrower than diameter of each puncture. Postscutellar area slightly depressed. Epipleura not developed. Basal part of elytral lateral slope inflexed down inwards, towards apex more or less vertical. Humeral calli well developed. Macropterous.

Legs moderately long and narrow, middle and posterior tibiae unarmed at apex. Tibiae even, without longitudinal ridges or furrows. Metatarsomere I as long as tarsomeres II–III combined. Anterior coxal cavities open posteriorly, prosternum very thinly visible between coxae. Claws bifid with inner branch shorter than outer one (Fig. 8).

Basal two third of aedeagus robust and more or less tubular, apical third slightly asymmetrical, flat and bent downwards, apex widely rounded with distinct small process (Figs. 3, 9). Spermatheca with C-shaped cornu, nodulus small, narrower than base of cornu, ductus receptaculi short (Figs. 7, 12). Vaginal palpi short and robust (Figs. 6, 11).

Sexual dimorphism. Weakly indicated. Males on average smaller. Last ventrite in male with posterior margin widely triangularly impressed but not incised (Fig. 4), in female evenly rounded.

Differential diagnosis. *Beenenia* gen. nov. belongs to the tribe Galerucini. Because of even tibiae without any longitudinal ridges or furrows, *Beenenia* gen. nov. has to be classified in the section Atysites (CHAPUIS 1875, SEENO & WILCOX 1982). From all genera of the Atysites, *Beenenia* gen. nov. can be distinguished by the complete absence of epipleura. Externally similar genera *Luperocella* Jacoby, 1900; *Galerucella* Crotch, 1873; *Pyrrhalta* Joannis, 1865; *Xanthogaleruca* Laboissière, 1934 and *Tarachodia* Weise, 1902 can be separated also by thin, almost filiform antennae.

In habitus, *Beenenia* gen. nov. is similar also to several genera from the section Coelomerites (characterized by tibiae with longitudinal ridges). However, only in the genus *Schematizella* Jacoby, 1888 epipleura are significantly reduced – visible in the basal fifth and than extremely narrow or vanishing (Jacoby 1888; R. Beenen, pers. comm. 2011). Antennomeres II–VI are not flattened in *Schematizella*. Other similar genera of Coelomerites differ in well developed epipleura and absence of pubescence on dorsal side of the body (*Arimetus* Jacoby, 1903) or in mucronate mid tibiae (*Dircemella* Weise, 1902; *Hemiphracta* Weise, 1902).

Etymology. Dedicated to Ron Beenen (Nieuwegein, The Netherlands), an excellent specialist in Galerucinae. Gender: feminine.

Beenenia scanticola sp. nov.

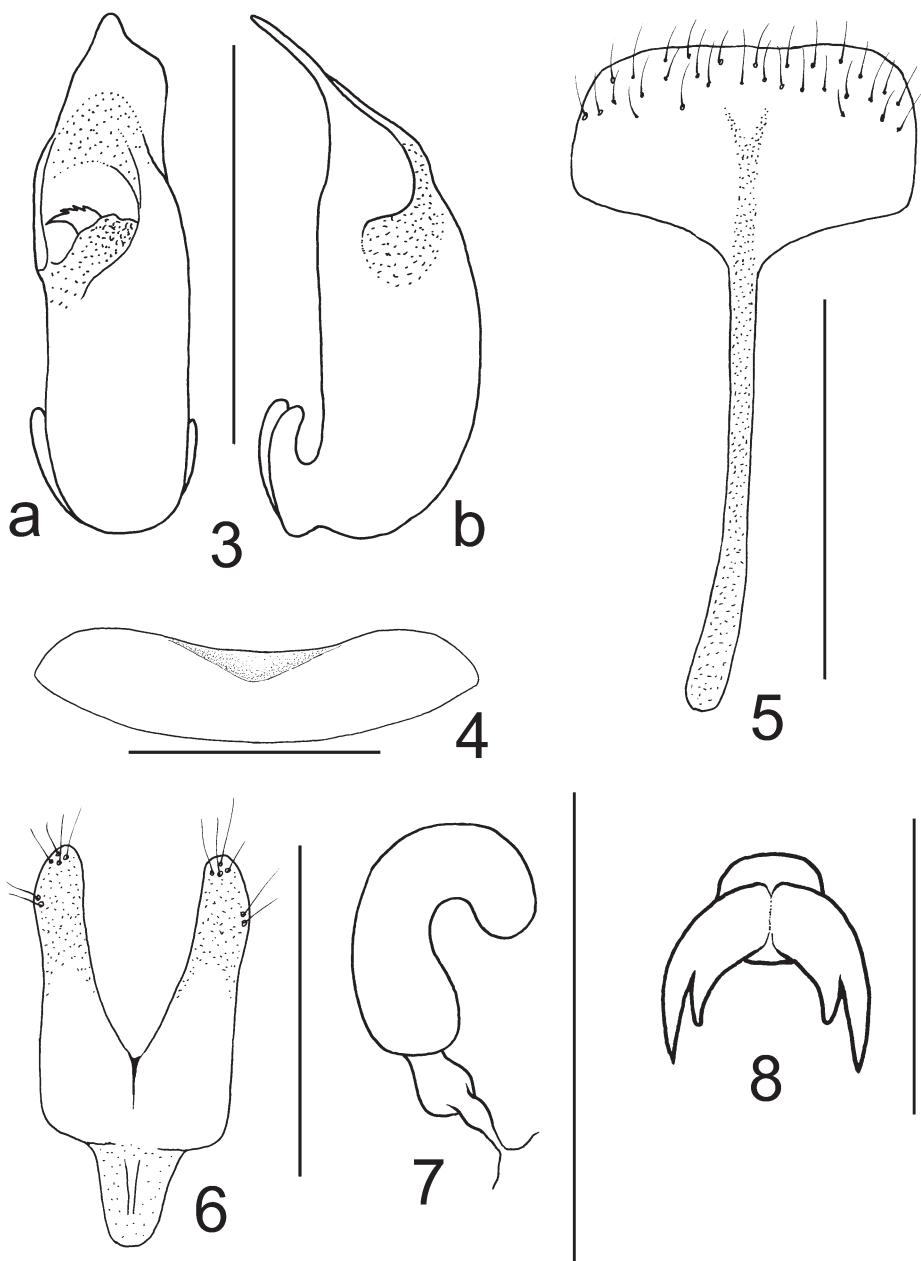
(Figs. 1, 3–8)

Type locality. Yemen, Socotra Island, Al Haghier Mts., wadi Madar, 12°33.2'N, 54°00.4'E.

Type material. HOLOTYPE: ♂, 'YEMEN, SOCOTRA Island / Al Haghier Mts. / wadi Madar, 1180-1230 m / 12°33.2'N, 54°00.4'E, / J. Bezděk leg., 12-14.xi.2010 [w, p]' (NMPC). PARATYPES: 3 ♂♂ 4 ♀♀, same data as holotype (JBCB); 12 ♂♂ 9 ♀♀, 'YEMEN, SOCOTRA Island / Al Haghier Mts. / wadi Madar, 1180-1230 m / 12°33.2'N, 54°00.4'E, / 13-14.xi.2010, L. Purchart lgt. [w, p]' (4 ♂♂ 2 ♀♀ in JBCB, 3 ♂♂ 3 ♀♀ in NMPC, 2 ♂♂ 1 ♀ in RBCN, 1 ♂ 1 ♀ in BMNH, 1 ♂ 1 ♀ in NHMB, 1 ♂ 1 ♀ in ZMHB). The specimens are provided with additional printed red label: 'HOLOTYPUS [or PARATYPUS], / *Beenenia* / *scanticola* sp. nov., / J. Bezděk det., 2011'.

Description. Body length: males 5.7–6.1 mm (holotype 6.0 mm); females 5.9–7.3 mm.

Male (holotype, Fig. 1). Body moderately flat, parallel, densely pubescent, semiopaque. Dorsum metallic black with slight dark green tint. Labrum with brownish anterior margin. Head anterolaterally, genae and small transverse spot on clypeus brown. Pronotum with anterior and posterior margins brownish. Elytra with apical and lateral margins in posterior third brownish. Antennae completely black. Underside black. Mouthparts partly brownish, mid part of head brown. Mesoventrite with two brown spots in front of mesocoxae. Metaventrite with



Figs. 3–8. *Beenenia scanticola* sp. nov. 3 – aedeagus (a – dorsal view, b – lateral view); 4 – last male ventrite; 5 – sternite VIII and tignum; 6 – vaginal palpi; 7 – spermatheca; 8 – claws. Scale bars: 1 mm for Figs. 3–5, 0.5 mm for Figs. 6–7, 0.25 mm for Fig. 8.

brown posterior margin. All ventrites with brown posterior margins. Legs black, trochanters and apical parts of coxae of all legs brownish.

Labrum transverse with lateral margins round and convergent, anterior margin widely shallowly concave, surface covered with 6–8 long pale setae in transverse row. Anterior part of head lustrous, impunctate, with long pale setae along anterior margin of antennal insertions. Interocular space wide, 3.70 times as wide as transverse diameter of eye. Frontal tubercles large, subtriangular, impunctate, moderately elevated, with anterior tips divergent. Tubercles separated from each other by thin sulcus, which shallowly continues through vertex. Frons slightly impressed behind frontal tubercles. Interantennal space 2.40 times as wide as transverse diameter of antennal socket. Vertex semiopaque, densely covered with large punctures, fine microsculpture and long pale setae adpressed on disc and erected near eyes. Lateral side of head behind eyes lustrous, covered with very fine wrinkles and sparsely with long pale setae. Antennae relatively robust, 0.60 times as long as body, length ratios of antennomeres I–IX equal 20-9-12-14-13-12-12-11-11-17. Antennomeres VI–X 1.20–1.30 times as long as wide. Antennomeres II–VI shiny, covered with long pale setae, with narrower bases, flattened, antennomeres VII–XI semiopaque, covered also with dense short setae and microsculpture, gradually less flattened, last two antennomeres almost tubular. Antennomeres IV–VII slightly impressed on inner side near base.

Pronotum transverse, 1.86 times as broad as long, widest in middle. Surface semiopaque, densely covered with large punctures and short pale setae. Pronotal disc with shallow depressions laterally and in middle of both anterior and posterior part of pronotum. Both anterior and posterior margins with row of dense short setae directed anteriorly (posteriorly, resp.). Anterior margin nearly straight, with mid part slightly concave, posterior margin nearly straight in middle, lateral parts of posterior margin oblique, lateral margins slightly rounded. Anterior margin thinly bordered only at sides, in middle unbordered, lateral and posterior margins shallowly thinly bordered. Anterior angles prominent, swollen, slightly produced laterally, nearly rectangular, posterior angles distinct, obtusangulate. Anterior angles bearing four to six very long pale setae, posterior ones with two or three long pale setae. Scutellum wide, subtriangular, with widely rounded apex, covered with fine microsculpture and distinct punctures, pubescent.

Elytra semiopaque, parallel, 0.70 times as long as body, 1.77 times as long as wide (measured at humeral calli), densely covered with small confused punctures and with two kinds of setae: shorter adpressed setae and longer semierected to erected setae. Humeral calli well developed. Elytral disc flattened, distinctly impressed in postscutellar area. Lateral margins slightly explanate. Epipleura missing. Macropterous.

Ventral surface semiopaque to shiny, covered with fine punctures and long pale setae, abdomen opaque covered also with microsculpture. Last ventrite wide and short, posterior margin widely shallowly concave, with wide and short triangular impression (Fig. 4).

Legs moderately long and narrow, semiopaque to shiny covered with pale setae. Protarsomere I elongate, apically slightly dilated, 0.70 times as long as two following tarsomeres combined, as wide as protarsomere II. Length ratios of protarsomeres I–IV equal to 12-10-7-15. Metatarsomere I elongate, apically slightly dilated, as long as two following tarsomeres combined, slightly narrower than metatarsomere II. Length ratios of metatarsomeres I–IV equal to 18-11-7-17.

Basal two thirds of aedeagus robust, tubular, apical third flat and bent downwards. Left side subapically with large lateral plate. Apex wide, slightly asymmetrical to right, with distinct small subtriangular tip (Fig. 3).

Female. Antennae slightly shorter than in male, 0.50 times as long as body. Interocular space wider, 5.00–5.10 times as wide as transverse diameter of eye. Interantennal space 2.80 times as wide as transverse diameter of antennal socket. Pronotum more transverse than in males, 1.90–2.05 times as broad as long. Elytra 1.75–1.85 times as long as wide. Last ventrite with evenly rounded posterior margin. Spermatheca with C-shaped cornu, nodulus small, narrower than base of cornu, ductus receptaculi short (Fig. 7). Tignum long with apical part slightly extended. Sternite VIII with posterior third covered with setae (Fig. 5). Vaginal palpi with wide base, anteriorly with subtriangular tip, posteriorly slightly divergent, each palp slightly narrowing posteriorly with rounded apex. Four setae placed at apex, additional 2 setae subapically (Fig. 6).

Variability. Pronotum in males 1.76–1.88 times as broad as long with lateral margins almost parallel to slightly rounded.

Differential diagnosis. *Beenenia scanticola* sp. nov. can be distinguished from *B. kabateki* sp. nov. by the metallic black colouration (dark brown with metallic tint in *B. kabateki* sp. nov.), by pronotum covered with deeper punctures, and by two kinds of setae on elytra (shorter adpressed and longer semierected to erected setae in *B. scanticola* sp. nov., while short pale setae in *B. kabateki* sp. nov.). The apical third of aedeagus of *B. scanticola* sp. nov. is less turned to the left and less bent downwards than in *B. kabateki* sp. nov. (Figs. 3, 9).

Etymology. Derived from Scant Mt., the highest mount of Hagher Mts. and of Socotra.

Collection circumstances. All the specimens were beaten from *Trichocalyx obovatus* Balfour (Acanthaceae) between 9 and 12 am.

Distribution. So far known only from the type locality in Hagher Mts., Socotra, Yemen.

Beenenia kabateki sp. nov.

(Figs. 2, 9–12)

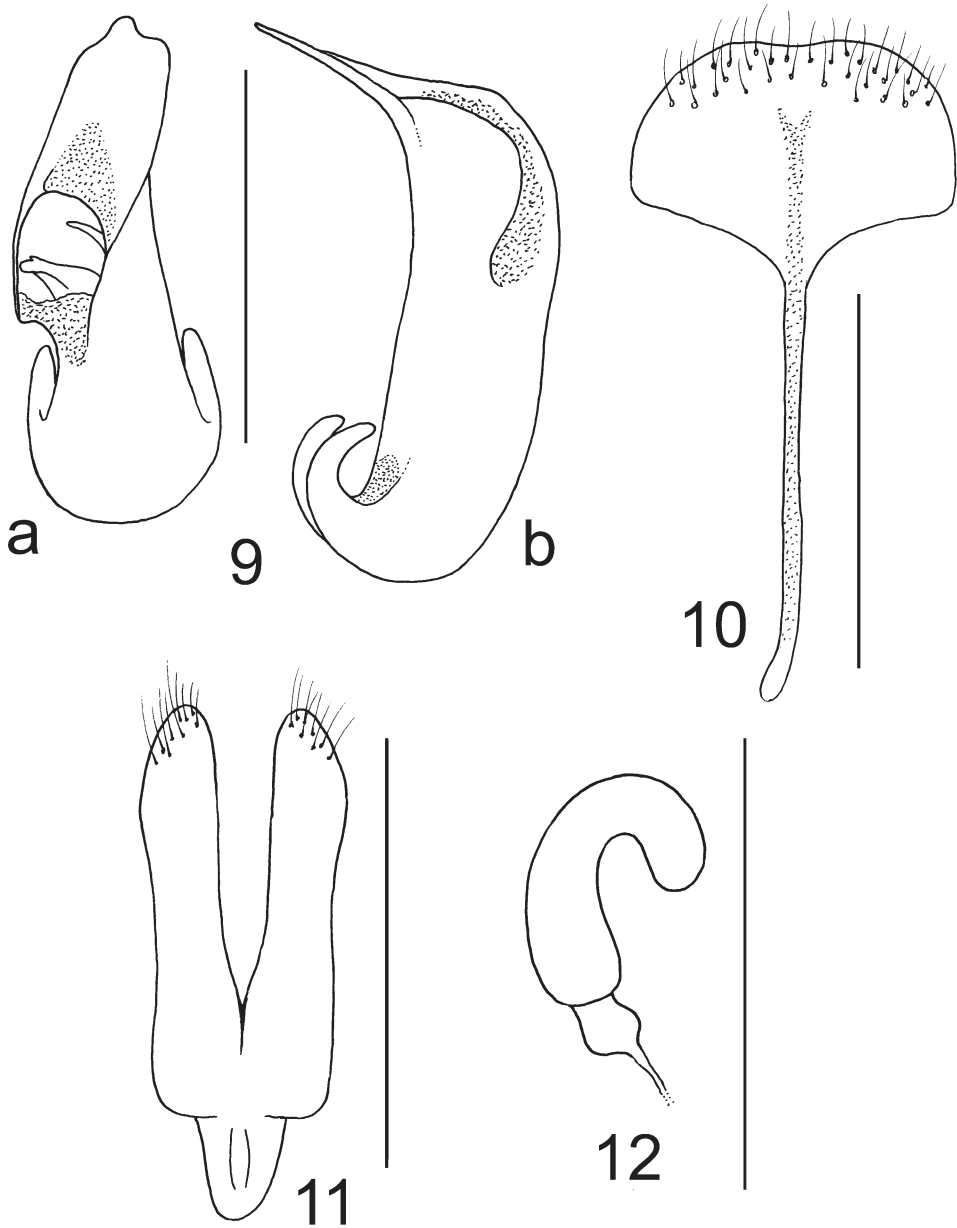
Type locality. Yemen, Socotra Island, Homhil protected area, 12°34'27"N, 54°18'32"E.

Type material. HOLOTYPE: ♂, 'Yemen, Soqotra Is., HOMHIL / protected area, 28.-29.xi.2003 / N 12°34'27" E 54°18'32"', 364 / m (GPS), leg. P. Kabátek leg. [w, p] // YEMEN – SOQOTRA / 2003 / Expedition; Jan Farkač, / Petr Kabátek & David Král [w, p]' (NMPC). PARATYPES: 1 ♂, 1 ♀, same data as holotype (♂ in JBCB, ♀ in NMPC). The specimens are provided with additional printed red label: 'HOLOTYPUS [or PARATYPUS], / *Beenenia / kabateki* sp. nov., / J. Bezděk det., 2011'.

Description. Body length: ♂♂ 4.7–5.4 mm (holotype 5.4 mm); ♀ 5.6 mm.

Male (holotype, Fig. 2) moderately flat, parallel, pubescent, semiopaque. Head black with metallic tint, mandibles, clypeus and antennal insertions pale brown, vertex dark brown. Pronotum, scutellum and elytra dark brown with metallic tint, anterior and posterior margins of pronotum pale brown. Underside dark brown to black with metallic tint, lateral margins of meso- and metasternum paler, abdomen dark brown. Antennomere I dark brown, antennomeres II–XI black. Legs dark brown to black with apices of all femora pale brown.

Labrum transverse with anterior margin widely shallowly concave, lateral margins rounded, surface covered with 6–8 long pale setae. Anterior part of head lustrous, impunctate, laterally, below antennal insertions and along nasal keel with several long pale setae. Interocular space



Figs. 9–12. *Beenenia kabateki* sp. nov. 9 – aedeagus (a – dorsal view, b – lateral view); 10 – sternite VIII and tignum; 11 – vaginal palpi; 12 – spermatheca. Scale bars: 1 mm for Figs. 9–10, 0.5 mm for Figs. 11–12.

wide, 3.00 times as wide as transverse diameter of eye. Frontal tubercles large, subtriangular, lustrous, impunctate, moderately elevated, with anterior tips divergent. Tubercles separated from each other by thin sulcus, which continues through vertex as indistinct impressed line. Frons slightly impressed behind frontal tubercles. Interantennal space 1.60 times as wide as transverse diameter of antennal socket. Vertex semiopaque, densely covered with large punctures, fine microsculpture and long pale setae. Lateral side of head behind eyes lustrous, covered with distinct wrinkles and sparsely with short pale setae. Antennae short, relatively robust, 0.60 times as long as body, length ratios of antennomeres I–XI equal 14-8-10-12-12-12-11-10-11-15. Antennomeres VI–X 1.20-1.40 times as long as wide. Antennomeres II–V shiny, covered with long pale setae, with bases slightly narrowed, flattened in their basal halves, antennomeres VI–XI semiopaque, covered also with dense short setae and microsculpture, gradually less flattened.

Pronotum transverse, 1.74–1.82 times as broad as long, widest at anterior third, subparallel. Surface lustrous, densely covered with small punctures and short pale setae. Pronotal disc with small shallow impressions in middle of both anterior and posterior part of pronotum and laterally with two shallow oblique impressions. Both anterior and posterior margins with row of dense short setae directed anteriorly (posteriorly, resp.). Anterior margin nearly straight, posterior margin nearly straight in mid part with small shallow incision in middle, lateral parts of posterior margin oblique, lateral margins subparallel. Anterior margin unbordered, lateral and posterior margins shallowly thinly bordered. Anterior angles prominent, swollen, slightly produced laterally, nearly rectangular, posterior angles distinct, obtusangulate. Anterior angles with four long pale setae, posterior ones with one or two pale setae. Scutellum wide, subtriangular, with widely rounded apex, covered with fine punctures and short pale setae (partly abraded in holotype).

Elytra shiny, 0.70 times as long as body, 1.78 times as long as wide (measured at humeral calli), very densely covered with small confused punctures (somewhat larger than on pronotum), and with short pale setae (partly abraded in holotype). Humeral calli well developed. Elytral disc flattened, slightly impressed in postscutellar area. Lateral margins slightly explanate. Epipleura missing. Macropterous.

Ventral surface shiny, covered with fine punctures and long pale setae, abdomen semiopaque covered also with microsculpture. Last ventrite wide and short, posterior margin widely shallowly concave, with wide and short subtriangular impression.

Legs moderately long and narrow, semiopaque, densely covered with pale setae. Protarsomere I relatively narrow, apically slightly dilated, 0.68 times as long as two following tarsomeres combined, as wide as protarsomere II. Length ratios of protarsomeres I–IV equal to 11-9-7-14. Metatarsomere I elongate, narrow, apically slightly dilated, 0.95 times as long as two following tarsomeres combined, slightly narrower than metatarsomere II. Length ratios of metatarsomeres I–IV equal to 16-10-7-15.

Basal two thirds of aedeagus robust, subtubular, apical third flat, straight and directed downwards. Left side subapically with large lateral plate, behind this plate left side of aedeagus distinctly constricted. Apex wide, distinctly asymmetrical to right, with distinct small subtriangular tip (Fig. 9).

Female. Antennae slightly shorter than in male, 0.55 times as long as body. Interocular

space wider, 3.90 times as wide as transverse diameter of eye. Interantennal space 2.15 times as wide as transverse diameter of antennal socket. Pronotum 1.80 times as broad as long. Elytra 1.85 times as long as wide. Last ventrite with evenly rounded posterior margin. Spermatheca with C-shaped cornu, nodulus small, narrower than base of cornu, ductus receptaculi short (Fig. 12). Tignum long, with apical part not extended, apex slightly bent laterally. Sternite VIII widest at base, with rounded lateral margins, posterior third covered with setae (Fig. 10). Vaginal palpi with wide base, anteriorly with subtriangular tip, posteriorly slightly divergent, each palp slightly extended subapically, apically narrowing with rounded apex. Several setae cumulated at apex (Fig. 11).

Variability. The only known female specimen is relatively pale having pronotum with anterior and posterior margins widely paler, elytra brown with metallic tint, abdomen brown and legs brown with black tarsi. The shape of pronotum in the holotype is subparallel, but in both paratypes lateral margins are straight and slightly convergent posteriorly.

Differential diagnosis. *Beenenia kabateki* sp. nov. is similar to *B. scanticola* sp. nov. but differs in the dark brown colouration with a metallic tint (metallic black in *B. scanticola* sp. nov.), in pronotum covered with fine punctures, and in elytra covered with short pale setae (in *B. scanticola* sp. nov. elytra are covered with two kinds of setae – shorter adpressed and longer semierected to erected setae). Apical third of aedeagus of *B. kabateki* sp. nov. is more turned to the left and more bent downwards than in *B. scanticola* sp. nov. (Figs. 3, 9).

Etymology. Dedicated to Petr Kabátek (Prague, Czech Republic), specialist in Cerambycidae, who collected the type series.

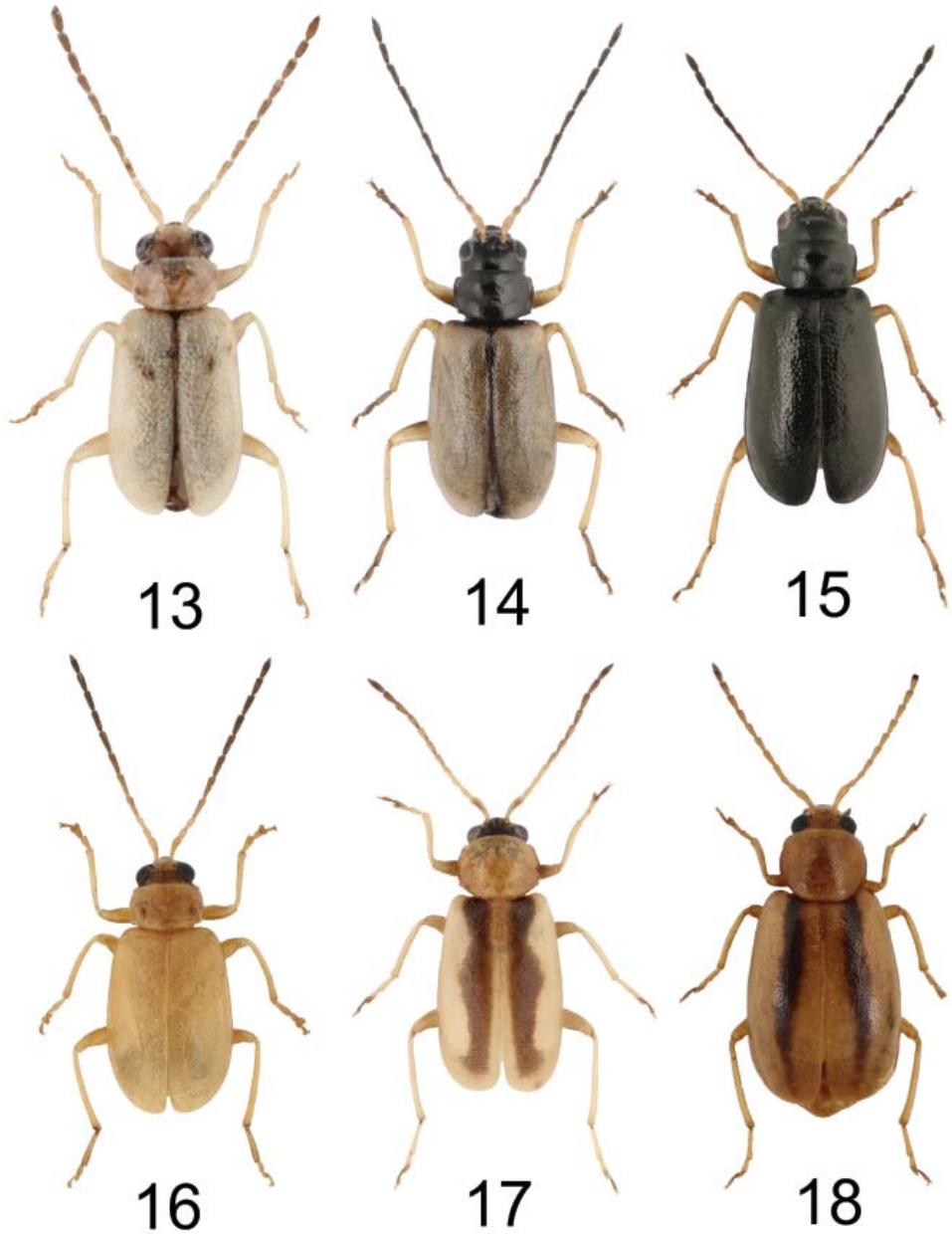
Distribution. So far known only from the type locality in Homhil area, Socotra, Yemen.

Monolepta suchomeli sp. nov.

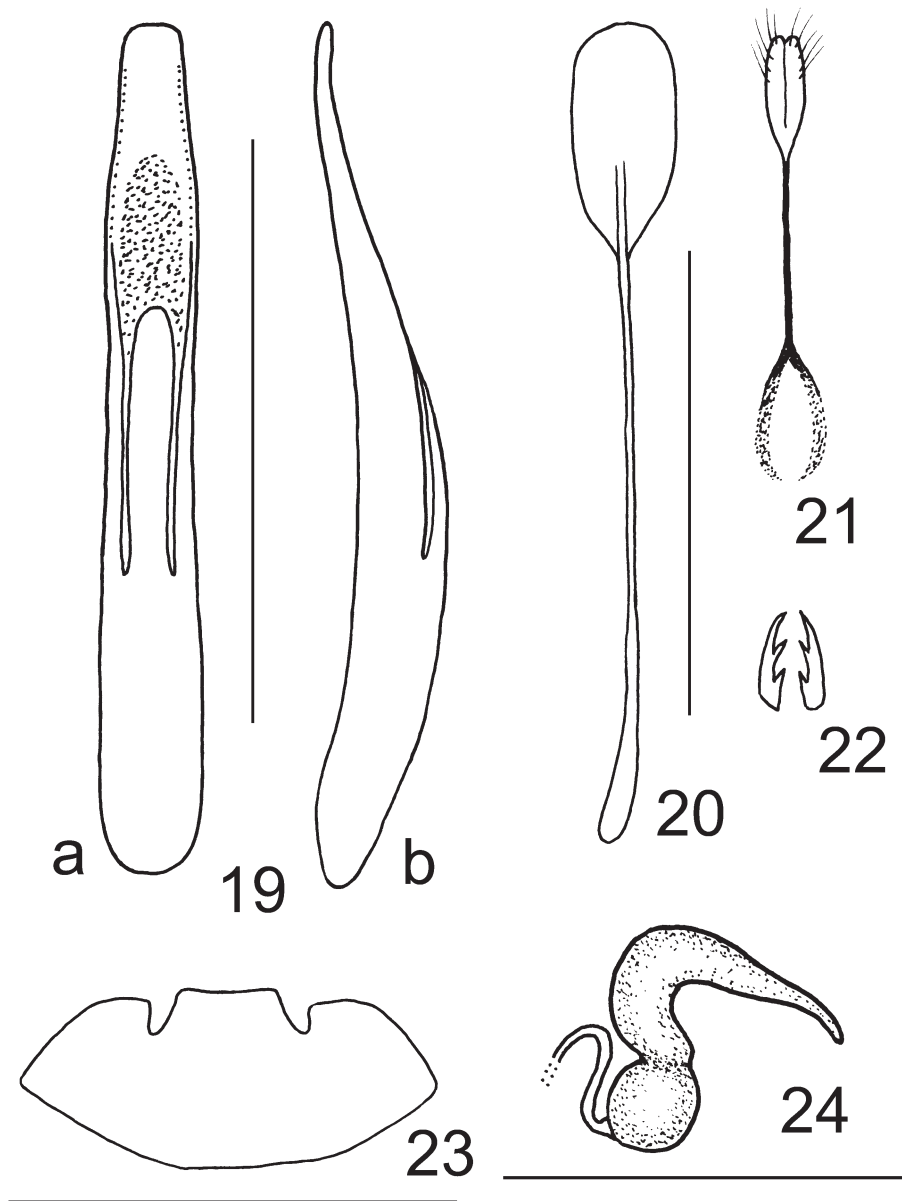
(Figs. 13, 19–24)

Type locality. Yemen, Socotra Island, Diksam plateau, 12°31'24"N 53°58'29"E.

Type material. HOLOTYPE: ♂, 'YEMEN, SOCOTRA Island / Diksam plateau, 850-920m / N 12°31'24", E 53°58'29" / 5.ii.2010 / L. Purchart & J. Vybíral lgt. [w, p]' (NMPC). PARATYPES: 2 ♂♂, same data as in holotype (NMPC); 11 ♂♂, 9 ♀♀, 'YEMEN, Socotra Island / wadi Ayhaft / 12°36.5'N, 53°58.9'E, 200 m / J. Bezděk leg., 7-8.xi.2010 [w, p]' (7 ♂♂ 5 ♀♀ in JBCB, 1 ♂ 1 ♀ in RBCN, 1 ♂ 1 ♀ in BMNH, 1 ♂ 1 ♀ in NHMB, 1 ♂ 1 ♀ in ZMHB); 1 ♀, 'YEMEN, SOCOTRA Island / Diksam plateau, Bidehor, Digeila / Cave env., 920m, 8.ii.2010 / N 12°30'31", E 53°56'18" / L. Purchart & J. Vybíral lgt. [w, p]' (JBCB); 3 ♂♂, 'YEMEN, Socotra Isl., / Deiqub cave env. / 20.vi.2010, / V. Hula & J. Niedobová leg. [w, p]' (JBCB); 1 ♂, 1 ♀, 'YEMEN, Socotra Isl. / Dgisfu valley, 2.vi.2010, / N 12°28.444", E 054°08.596" / V. Hula & J. Niedobová leg. [w, p]' (NMPC); 1 ♂, 1 ♀, 'YEMEN, Socotra Isl., / Zemhon area, 270-300 m, / N 12°20.58", E 054°06.39" / 16.-17.6.2010, V. Hula leg. [w, p]' (JBCB); 1 ♂, 'YEMEN, SOCOTRA Island E / Homhil area, 400-510 m / N 12°34'25", E 54°18'53" / 9.-10.ii.2010 / L. Purchart & J. Vybíral lgt. [w, p]' (NMPC); 1 ♀, 'YEMEN, SOCOTRA Island / 410 m, 3.ii.2010 / N 12°29'41", E 54°09'30" / L. Purchart & J. Vybíral lgt. [w, p]' (NMPC); 1 ♀, 'YEMEN, SOCOTRA Island NW / Di Hamri, 20 m / N 12°37'59", E 54°15'40" / 27.ii.2010, L. Purchart lgt. [w, p]' (NMPC); 1 spec. unsexed, 'Yemen, Soqotra Is., 2003 / 5-6/xii., Noked plain / QAAREH (waterfall), 57m / N 12°20'10" E 53°37'56" / (GPS), David Král lgt. [w, p] // YEMEN – SOQOTRA 2003 / Expedition; Jan Farkač, / Petr Kabátek & David Král [w, p]' (NMPC); 1 spec. unsexed, 'YEMEN, SOCOTRA ISLAND / Shibhon plateau, / ESERHE, 13.vi.2012 / Croton socotranus shrubland / 12°25.2'N 53°56.6'E, 547 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (NMPC). The specimens are provided with additional printed red labels: 'HOLOTYPE [or PARATYPE]', *Monolepta / suchomeli* sp. nov., / J. Bezděk det., 2012'; 1 spec. unsexed, 'YEMEN, SOCOTRA ISLAND / Dixam plateau 14.-15.vi.2012 / Firmihin, Dracaena woodland / 12°28.6'N, 54°01.1'E, 490 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (NMPC)



Figs. 13–18. Habitus. 13 – *Monolepta suchomeli* sp. nov. (paratype, male, 1.9 mm); 14 – *M. hlavaci* sp. nov. (paratype, male, 2.9 mm); 15 – *M. hlavaci* sp. nov. (black form) (paratype, female, 2.8 mm); 16 – *M. kmentii* sp. nov. (holotype, male, 3.1 mm); 17 – *Madurasia obscurella* Jacoby, 1896 (female, 2.7 mm); 18 – *Medythia* sp. (female, 3.3 mm).



Figs. 19–24. *Monolepta suchomeli* sp. nov. 19 – aedeagus (a – dorsal view, b – lateral view); 20 – sternite VIII and tignum; 21 – vaginal palpi; 22 – ventral bursa sclerites; 23 – last male ventrite; 24 – spermatheca. Scale bars: 0.5 mm for Figs. 19–23, 0.25 mm for Fig. 24.

Description. Body length: males 1.9–2.4 mm (holotype 2.3 mm); females 2.2–2.8 mm.

Male (holotype). Body slender, flattened, subparallel, glabrous. Body strawy yellow, labrum, maxillar palpi and apices of mandibles darkened, head behind frontal tubercles brownish, scutellum and extreme sutural margins darkened, last two tarsomeres of all legs infuscated, base of first metatarsomere black. Antennomeres I–III yellow, antennomeres IV–V gradually darkened, antennomeres VI–XI black.

Head as wide as anterior part of pronotum, lustrous, completely covered with microreticulation (including frontal tubercles). Labrum transverse, with four pale setae in transverse row, anterior margin almost straight. Anterior margin of clypeus with several long pale setae. Frontal tubercles subtriangular, slightly elevated, with anterior tips separated by even nasal keel. Both tubercles separated from each other by thin shallow furrow as well as posterior margin of frontal tubercles from frons. Interocular space wide, 2.10 times as wide as transverse diameter of eye. Frons slightly impressed just behind frontal tubercles. Frons and vertex with almost indistinct longitudinal median line. Antennae slender, 0.85 times as long as body, length ratios of antennomeres I–XI equal to 15-7-7-14-14-13-13-12-12-11-14.

Pronotum lustrous, glabrous, transverse, 1.66 times as broad as long, widest at anterior third, slightly narrowed anteriorly and posteriorly, 0.75 times as broad as elytral base (measured at humeral calli). Surface densely covered with fine punctures, with two shallow oblique depressions. Lateral margins moderately rounded, anterior margin almost straight, posterior margin rounded. Anterior margin unbordered, lateral and posterior margins distinctly bordered. All angles with setigerous pore bearing long pale seta. Anterior angles nearly rectangular, posterior angles obtusely angulate. Scutellum subtriangular with rounded apex, lustrous, glabrous, covered with microsculpture.

Elytra subparallel, lustrous, glabrous, very slightly divergent posteriad, with maximal width at apical third, 0.70 times as long as body and 1.86 times as long as wide. Humeral calli well developed. Elytral surface covered with small and very dense confused punctures. Epipleura wide in basal quarter, than gradually tapering and disappearing behind midlength of elytra. Macropterous.

Legs slender, densely covered with short pale setae. Protarsomere I elongated, triangular, 0.90 times as long as two following tarsomeres combined, length ratios of protarsomeres I–IV equal to 9-5-5-9. Metatarsomere I long, slender, twice as long as two following tarsomeres combined, length ratios of metatarsomeres I–IV equal to 20-6-4-9. Claws with small basal tooth.

Ventral surface semiopaque, finely punctate and covered with pale setae. Anterior coxal cavities open posteriorly. Last ventrite with two incisions (Fig. 23).

Aedeagus slender, parallel, slightly extended subapically, with apex widely rounded (Fig. 19).

Female. Sexual dimorphism weakly developed. Last ventrite regularly rounded, without incisions. Spermatheca with globular nodulus, cornu C-shaped with prolonged apex (Fig. 24). Sternite VIII elongated, tignum very long, apically slightly dilated and bent (Fig. 20). Vaginal palpi with several long setae apically, basally forming long thin projection bifurcated posteriorly (Fig. 21). Ventral bursa sclerites sharp with two teeth at inner side (Fig. 22).

Variability. Some specimens have completely yellow vertex or brown colour is reduced to the posterior part of vertex, scutellum and extreme sutural margins. Meso- and metaventrite sometimes infuscated. Antennae darkened from the fourth or fifth antennomere. The width/length ratio of pronotum varies between 1.60–1.70.

Differential diagnosis. According to SCHLICH & WAGNER (2010), the only entirely yellow *Monolepta* Chevrolat, 1836 from the Arabian Peninsula is *M. saudica* Medvedev, 1996. It can be distinguished from *M. suchomeli* sp. nov. by larger body size (3.7–4.9 mm) and by aedeagus gradually tapering towards the apex. In addition, *Monolepta suchomeli* sp. nov. is very similar to the yellow West Palearctic species with anterior coxal cavities open, metatarsomere I more or less as long as the two following tarsomeres combined and its extreme base black, which are traditionally classified in the genus *Calomicrus* Dillwyn, 1829 (see also Comments on classification below): *C. ophthalmicus* (Ogloblin, 1936) (Iran, 3.2 mm), *C. syriacus* (Weise, 1924) (Syria, Turkey, 3.3–4.2 mm), *C. wilcoxi* Lopatin, 1984 (Iran, 2.7–4.5 mm), *C. vanharteni* Lopatin, 2001 (Yemen, 4.0 mm), *C. arabicus* Lopatin & Nesterova, 2006 (United Arab Emirates, 3.5 mm), *C. fallax* (Joannis, 1865) (northern Africa, 3.0–4.0 mm). With the body length 1.9–2.8 mm, *M. suchomeli* sp. nov. is the smallest species among them. Aedeagus of *M. suchomeli* sp. nov. is slender, parallel, with apex widely rounded, while it is wide, parallel and with rounded apex in *C. fallax*, distinctly constricted subapically in *C. vanharteni*, with strongly narrowed apical half in *C. wilcoxi* and *C. arabicus*, with apical third wide and slightly narrowed in *C. syriacus*, or slender and gradually narrowed in *C. ophthalmicus*.

Comments to classification. Generic placement of *M. suchomeli* sp. nov. in the genus *Monolepta* is supported mainly by long first metatarsomere with extreme base black and structure of spermatheca (Fig. 24) typical for *Monolepta* species (cf. WAGNER 2007). On the other hand, the base of vaginal palpi of *M. suchomeli* sp. nov. (Fig. 21) lacks the wing-shaped base known in *Monolepta* species (cf. WAGNER 2007). Although anterior coxal cavities are usually described as closed in the species-rich genus *Monolepta* (e.g. KIMOTO 1989, WARCHALOWSKI 2010) (open in *M. suchomeli* sp. nov.), WAGNER (2003) doubted closed cavities as a constant character usable for identification of the genus *Monolepta*, as they are variable from widely open to closed. Variability in the shape of coxal cavities, as well as variability in the length of metatarsomeres (cf. BEZDĚK 2007) could lead to the confusions between genera *Calomicrus* and *Monolepta*. The genus *Calomicrus*, distributed in the Old World, cumulates a large number of species in several habitually different groups. It is highly probable that *Calomicrus* in its current concept is paraphyletic, and it will be necessary to transfer at least some of these groups to other genera (see also KIMOTO 1989, BEZDĚK 2005, BEENEN 2010, and BEENEN & WARCHALOWSKI 2010). Unfortunately, the study of relationships of yellow *Calomicrus* species to *Monolepta* has been insufficient, and although I presume that in the future some of the yellow Mediterranean and Arabian *Calomicrus* species could be transferred to *Monolepta*, I refrain from doing it without a comprehensive phylogenetic study.

Etymology. Dedicated to Josef Suchomel (Brno, Czech Republic), a participant in Socotra expedition.

Collection circumstances. The specimens collected by me in Wadi Ayhaft were beaten from *Croton sulcifructus* Balf.f. (Euphorbiaceae) between 9.00 and 13.00 of local time.

Distribution. Socotra Island, Yemen.

***Monolepta hlavaci* sp. nov.**

(Figs. 14–15, 25–31)

Type locality. Yemen, Socotra Island, Al Haghier Mts., wadi Madar, 12°33.2'N 54°00.4'E.

Type material. HOLOTYPE: ♂, 'YEMEN, SOCOTRA Island / Al Haghier Mts. / wadi Madar, 1180-1230 m / 12°33.2'N 54°00.4'E / J. Bezděk leg., 12-14.xi.2010 [w, p]' (NMPC). PARATYPES: 36 ♂♂, 15 ♀♀, 3 unsexed spec. (preserved in 96% alcohol) same data as in holotype (JBCB, specimens in 96% in NMPC); 16 ♂♂, 12 ♀♀, same data as holotype, but P. Hlaváč leg. (NMPC); 12 ♂♂, 4 ♀♀, 'YEMEN, SOCOTRA Island / Al Haghier Mts. / wadi Madar, 1180-1230 m / 12°33.2'N, 54°00.4'E, / 13-14.xi.2010, L. Purchart lgt. [w, p]' (3 ♂♂ 1 ♀ in RBCN, 3 ♂♂ 1 ♀ in BMNH, 3 ♂♂ 1 ♀ in NHMB, 3 ♂♂ 1 ♀ in ZMHB); 2 ♂♂, 5 ♀♀, 'SOCOTRA Is. (YE) / Al Haghier Mts. Scant Mt. env. / 12°34.6'N, 54°01.5'E, 1450 m / Jan Batelka leg. 12-13.xi.2010 [w, p]' (2 ♂♂ 1 ♀ in JBCB, 4 ♀♀ in JBCP); 2 ♀♀, 'YEMEN, SOCOTRA Island / Al Haghier Mts. / Scant Mt. env. / 12°34.6'N, 54°01.5'E, 1450 m / Jiří Hájek leg. 12-13.xi.2010 [w, p]' (NMPC); 15 spec. unsexed, 'YEMEN, SOCOTRA ISLAND / Dixam plateau, TUDHEN / shrubland with Commiphora / planifrons, 18.+22.vi.2012 / 12°32.7'N, 53°59.9'E, 1135 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (NMPC); 11 spec. unsexed, 'YEMEN, SOCOTRA Island / Hagher Mts., Scand Mt. env. / montane evergreen woodland / 16-18.vi.2012 / 12°34.6'N, 54°01.5'E, 1450 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (JBCB). The specimens are provided with additional printed red labels: 'HOLOTYPUS [or PARATYPUS], / *Monolepta / hlavaci* sp. nov., / J. Bezděk det., 2012'; 2 spec. unsexed, 'YEMEN, SOCOTRA ISLAND, 18.vi. / Hagher Mts., WADI MADAR, 2012 / montane shrubland with / Cephalocroton socotranus / 12°33.2'N, 54°00.4'E, 1170 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (NMPC)

Description. Body length: males 2.2–3.1 mm (holotype 2.7 mm); females 2.7–3.3 mm.

Male (holotype). Body slender, flattened, subparallel, almost glabrous. Body brownish black. Head black, scutellum and pronotum brownish black, elytra dark brown, distinctly paler than pronotum. Mandibles and anterior and lateral margins of clypeus brown. Legs yellow, two apical tarsomeres of all legs infuscated. Antennomeres I–III yellow, antennomeres IV gradually darkened, antennomeres V–XI black.

Head slightly narrower than anterior part of pronotum, lustrous, completely covered with very fine microreticulation (including frontal tubercles). Labrum transverse, with six pale setae in transverse row, anterior margin almost straight, with indistinct incision in middle. Anterior margin of clypeus with several long pale setae. Frontal tubercles subtriangular, distinctly elevated, with anterior tips separated by even nasal keel. Both tubercles separated from each other by thin shallow furrow as well as posterior margin of frontal tubercles from frons. Interocular space wide, 2.90 times as wide as transverse diameter of eye. Frons distinctly impressed just behind frontal tubercles. Frons with setigerous pore behind eye bearing long seta. Vertex with indistinct longitudinal median line. Antennae slender, 0.95 times as long as body, length ratios of antennomeres I–XI equal to 10-5-5-10-10-10-10-9-9-10.

Pronotum lustrous, glabrous, transverse, 1.68 times as broad as long, widest at anterior third, slightly narrowed anteriorly and posteriorly, 0.75 times as broad as elytral base (measured at humeral calli). Surface densely covered with fine punctures. Disc with large transverse, slightly rounded depression. Lateral margins moderately rounded, anterior margin almost straight, posterior margin rounded. Anterior margin unbordered, lateral and posterior margins distinctly bordered. Anterior angles nearly rectangular, posterior angles obtusely angulate. All angles with setigerous pore bearing long pale seta. Scutellum subtriangular with rounded apex, lustrous, glabrous, impunctate.

Elytra lustrous, subparallel, slightly divergent posteriorly, with maximal width at last third, 0.73 times as long as body and 1.77 times as long as wide. Humeral calli well developed. Elytral surface covered with small and very dense confused punctures and very sparsely with short setae, better visible in posterior third. Epipleura wide in basal quarter, then gradually tapering and disappearing behind midlength of elytra. Macropterous.

Legs slender, densely covered with short pale setae. Protarsomere I elongated, slender, 0.84 times as long as two following tarsomeres combined, length ratios of protarsomeres I–IV equal to 11-8-5-10. Metatarsomere I long, slender, 1.71 times as long as two following tarsomeres combined, length ratios of metatarsomeres I–IV equal to 24-9-5-10. Claws with small basal tooth.

Ventral surface semiopaque, finely punctate and covered with pale setae. Anterior coxal cavities open posteriorly. Last ventrite with two incisions, median lobe distinctly impressed (Fig. 30).

Aedeagus slender, apical part gradually narrowed, apex subtriangular (Fig. 25).

Female. Last ventrite regularly rounded, without incisions. Spermatheca with globular nodule, cornu relatively robust, C-shaped (Fig. 31). Sternite VIII almost circular, tignum very long, apically slightly bent (Fig. 26). Vaginal palpi with several long setae apically, base wing-shaped (Fig. 27). Ventral bursa sclerites with two larger teeth apically and 7–8 small teeth on surface (Fig. 28). Dorsal bursa sclerites narrow, with four small teeth (Fig. 29).

Variability. The colouration is variable. While head is almost always black, pronotum varies from dark brown to black, and elytra from pale brown (often with darker suture, anterior margin and epipleura) to completely black. The form with black head and pronotum and brown elytra is dominating. Only several specimens have completely black dorsum. The width/length ratio of pronotum varies between 1.62–1.69. Two females with black dorsum have distinctly shorter antennae (Fig. 15).

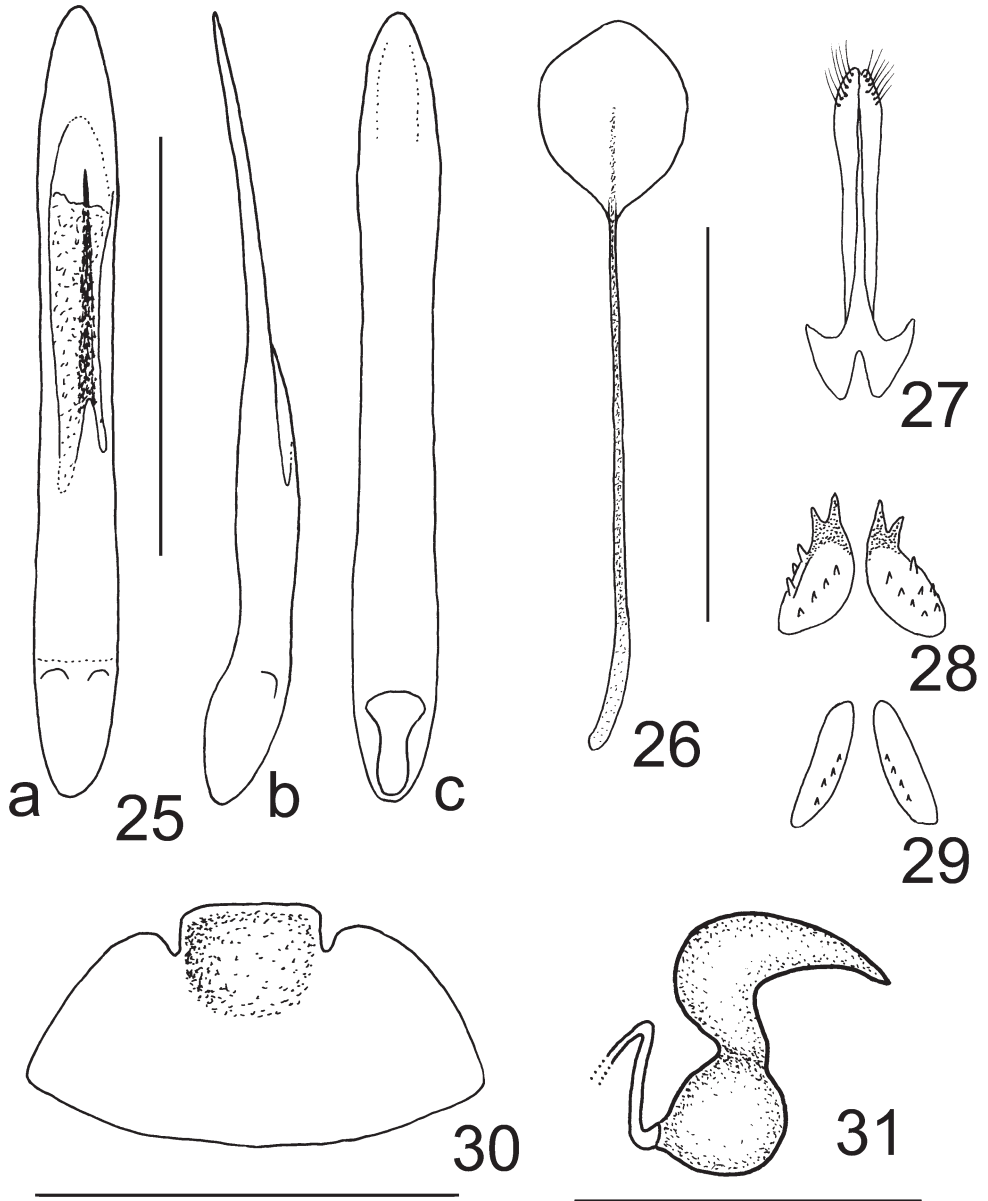
Differential diagnosis. Due to the anterior coxal cavities open, first metatarsomere slightly shorter than the two following tarsomeres combined, with its extreme base black, base of vaginal palpi wing-shaped, and the characteristic shape of spermatheca (Fig. 31), *M. hlavaci* sp. nov. is classified in the genus *Monolepta*. The combination of black head, brownish black or black pronotum, and pale to dark brown elytra in *M. hlavaci* sp. nov. is unique within all *Monolepta* from the Arabian Peninsula and northeastern Africa. See also Comments on classification under *M. suchomeli* sp. nov.

Having a transverse depression on pronotum, *Monolepta hlavaci* sp. nov. is similar to *Calomicrus foveolatus* Rosenhauer, 1856 from Spain, but the depression is deeper in *M. hlavaci* sp. nov. Dominating form of *M. hlavaci* sp. nov. with brown elytra can be easily distinguished from completely black *C. foveolatus*. Rare black form of *M. hlavaci* sp. nov. differs from *C. foveolatus* also in the structure of tarsi (first pro- and mesotarsomeres slender in *M. hlavaci* sp. nov., while more robust, subtriangular in *C. foveolatus*).

Etymology. Dedicated to Peter Hlaváč (Košice, Slovak Republic), specialist in Pselaphinae and Scydmaeninae (Staphylinidae) and participant in Socotra expedition who collected a part of the type series.

Collection circumstances. The specimens were collected by beating various shrubs and trees.

Distribution. Socotra Island, Yemen.



Figs. 25–31. *Monolepta hlavaci* sp. nov. 25 – aedeagus (a – dorsal view, b – lateral view, c – ventral view); 26 – sternite VIII and tignum; 27 – vaginal palpi; 28 – ventral bursa sclerites; 29 – dorsal bursa sclerites; 30 – last male ventrite; 31 – spermatheca. Scale bars: 0.5 mm for Figs. 25–30, 0.25 mm for Fig. 31.

***Monolepta kmenti* sp. nov.**

(Figs. 16, 32–38)

Type locality. Yemen, Socotra Island, Alooove vill. env., 12°31.2'N 54°07.4'E.

Type material. HOLOTYPE: ♂, 'YEMEN, SOCOTRA Island / Alooove area, ALOOOVE vill. env. / *Jatropha unicastata* shrubland with / *Boswellia elongata* trees, / 19.-20.vi.2012, / 12°31.2'N 54°07.4'E, 221 m [w, p] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg. [w, p]' (NMPC). PARATYPE: 1 ♀, 'YEMEN, Socotra Isl. / Zemhon area, 270-300 m, / N 12°20,58', E 054°06.39'E / 16.-17.6.2010, V. Hula leg. [w, p]' (JBCB). The specimens are provided with additional printed red labels: 'HOLOTYPUS [or PARATYPUS]', / *Monolepta kmenti* sp. nov., / J. Bezděk det., 2012'.

Description. Body length: male (holotype) 3.1 mm; female 3.8 mm.

Male (holotype, Fig. 16). Body elongate, glabrous, completely pale brown, mandibles and maxillar palpi dark brown. Legs pale brown, base of metatarsomere I black. Antennae gradually darkened from antennomere IV.

Head lustrous, covered with very fine microreticulation (including frontal tubercles). Labrum transverse, with four pale setae in transverse row, anterior margin with indistinct incision in middle. Frontal tubercles subtriangular, slightly elevated, with anterior tips separated by even nasal keel. Interocular space 2.25 times as wide as transverse diameter of eye. Frons distinctly impressed posteriorly to frontal tubercles, posteriorly to eye with setigerous pore bearing long seta. Antennae slender, 0.85 times as long as body, length ratios of antennomeres I–XI equal to 12-5-6-12-12-11-11-11-10-9-10.

Pronotum semiopaque, covered with fine punctures, transverse, 1.6 times as broad as long, widest in midlength, slightly narrowed anteriorly and posteriorly, 0.72 times as broad as elytral base (measured at humeral calli). Surface with two large lateral impressions. Lateral margins slightly rounded, anterior margin straight, posterior margin widely rounded. Anterior margin unbordered, posterior margin thinly bordered, lateral margins with border slightly wider than posterior one. Anterior angles rectangular, posterior angles obtusely angulate. All angles with setigerous pore bearing long pale seta. Scutellum triangular, lustrous, glabrous, impunctate.

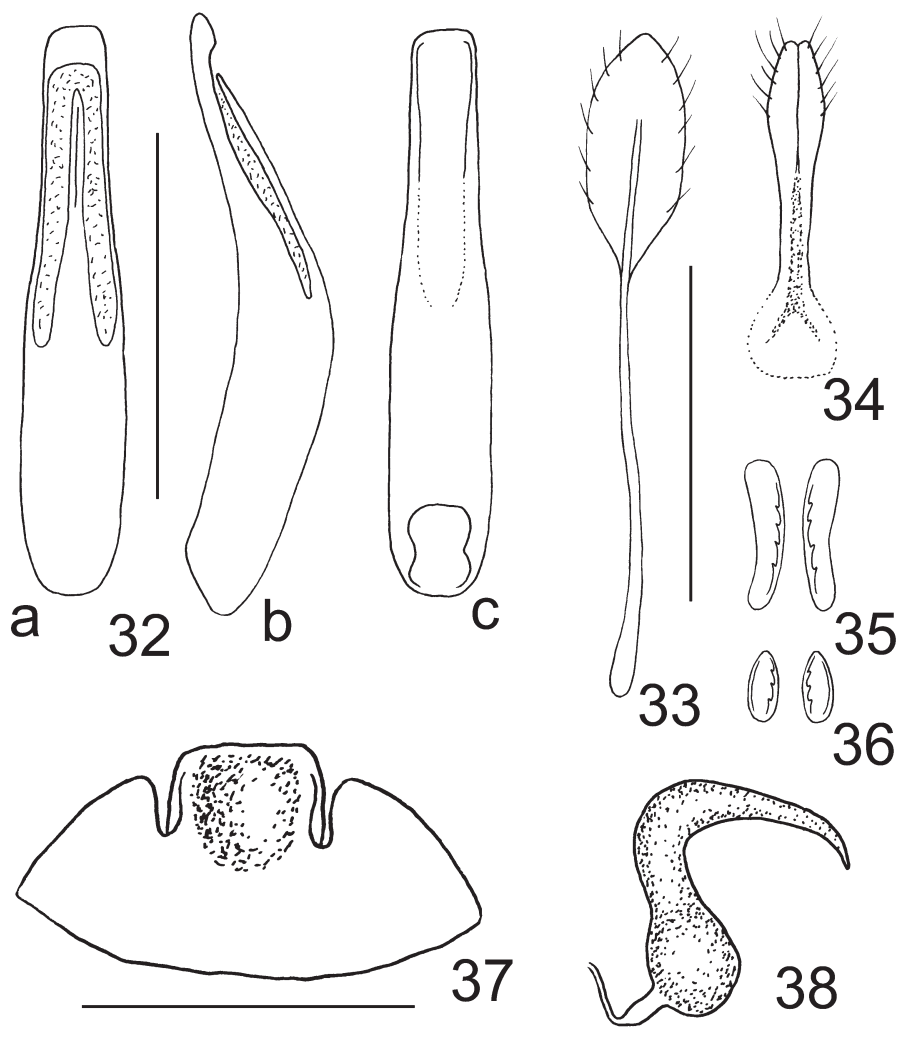
Elytra semiopaque, slightly divergent posteriorly, with maximal width behind middle, 0.71 times as long as body and 1.57 times as long as wide. Humeral calli developed. Elytral surface densely covered with small confused punctures and very fine microreticulation. Epipleura wide in basal third, before middle tapering and disappearing in apical third. Macropterous.

Legs slender, densely covered with short pale setae. Protarsomere I elongated, slender, slightly divergent, lateral margins straight, 0.9 times as long as two following tarsomeres combined, length ratios of protarsomeres I–IV equal to 9-6-4-6. Metatarsomere I long, slender, 1.6 times as long as two following tarsomeres combined, length ratios of metatarsomeres I–IV equal to 16-6-4-7. Claws with distinct basal tooth.

Ventral surface semiopaque, finely punctate and covered with pale setae. Anterior coxal cavities open posteriorly. Apical ventrite with two incisions, median lobe distinctly impressed (Fig. 37).

Apical half of aedeagus parallel, narrower than basal half, apex almost straight, ventral side apically with large impression disappearing in midlength of aedeagus (Fig. 32).

Female. Last ventrite regularly rounded, without incisions. Spermatheca with small subglobular nodulus, cornu relatively thin, C-shaped, with apex bent (Fig. 38). Sternite VIII elongate,



Figs. 32–38. *Monolepta kmenti* sp. nov. 32 – aedeagus (a – dorsal view, b – lateral view, c – ventral view); 33 – sternite VIII and tignum; 34 – vaginal palpi; 35 – ventral bursa sclerites; 36 – dorsal bursa sclerites; 37 – last male ventrite; 38 – spermatheca. Scale bars: 0.5 mm for Figs. 32–37, 0.25 mm for Fig. 38.

laterally with 6 setae, tignum very long, apically slightly bent (Fig. 33). Vaginal palpi with several long setae apically, base triangularly widened (Fig. 34). Ventral bursa sclerites large, elongate, kidney-shaped (Fig. 35). Dorsal bursa sclerites small, slightly elongate (Fig. 36).

Differential diagnosis. *Monolepta kmenti* sp. nov. is similar to *M. saudica* Medvedev, 1996 from Saudi Arabia, Oman and Yemen, and can be distinguished by the following characters:

colour pale brown (yellow in *M. saudica*), antennae darkened from antennomere IV (antennae yellow with darkened antennomere IX in *M. saudica*) and aedeagus with apical half parallel and apex almost straight (aedeagus gradually tapering towards the triangular apex in *M. saudica*) (cf. SCHLICH & WAGNER 2010).

Within the African species, *Monolepta kmenti* sp. nov. can be compared with *M. citrinella* Jacoby, 1899 described from the RSA but widely distributed through Africa and occurring also in Ethiopia, Eritrea and Somalia (T. Wagner, pers. comm. 2012). *Monolepta citrinella* differs in yellow body and yellow antennae with the last two antennomeres darkened apically (body pale brown and antennae darkened from antennomere IV in *M. kmenti* sp. nov.).

Etymology. Dedicated to Petr Kment (Prague, Czech Republic), specialist in Heteroptera and participant in Socotra expedition 2012 who collected the holotype of this new species.

Distribution. Socotra Island, Yemen.

Madurasia obscurella Jacoby, 1896

(Fig. 17)

Material examined (2 spec.). YEMEN: SOCOTRA ISLAND: Wadi Ayhaft, 12°36.5'N 53°58.9'E, 200 m, 7.–8.xi.2010, 1 ♂ 1 ♀, J. Bezděk leg. (JBCB).

Distribution. A species occurring in India (e. g. MAULIK 1936), Nepal (TAKIZAWA 1990), Sri Lanka (MOHAMEDSAID 1997), and continental Yemen (present paper). Recorded also from Sudan (LABOISSIÈRE 1926) under the name *Neorudolphia bedfordi* Laboissière, 1926. **First record from Socotra Island.**

Review of Galerucinae from continental Yemen with new faunistic data

Afromaculepta decemmaculata (Jacoby, 1886)

Distribution. African species. From Yemen listed by BEENEN (2010) without exact data.

Apophyllia cervenkai Bezděk, 2005

Material examined (1 spec.). YEMEN: Al Hudaydah gov., Jabal Bura valley forest NP (stream valley), 15°52.4–5'N 43°24.6–25.2'E, 240–350 m, at light, 4.xi.2010, 1 ♀, J. Hájek leg. (NMPC).

Distribution. Ethiopia, Oman, Yemen (BEZDĚK 2005).

Asbecesta cyanipennis Harold, 1877

Distribution. African species, reported from Yemen by BRYANT (1957) and MEDVEDEV (1996).

Asbecesta signata (Kirsch, 1866)

Distribution. African species, reported from Yemen by MEDVEDEV (1996) under the name *Asbecesta senegalensis* Allard, 1889.

Aulacophora calva Anand & Cox, 1986

Material examined (2 spec.). **YEMEN:** Al Mahrah gov., Jabal al Fatk, Hawf NE of Al Ghaydah, 16°40'N 53°05'E, 729 m, 12.–13.x.2005, 1 ♂, P. Kabátek leg. (JBCB); Al Hudaydah gov., Jabal Bura, NEE of Al Hudaydah, 14°52'N 43°24'E, 225–600 m, 30.x.–1.xi.2005, 1 ♀, P. Kabátek leg. (JBCB).

Distribution. India, Oman, Maldive Islands, Pakistan (ANNAND & COX 1986), Sri Lanka (ANNAND & COX 1986, MOHAMEDSAID 1997). **First record from Yemen.**

Aulacophora cf. foveicollis (Lucas, 1847)

(Figs. 39–41)

Material examined (3 spec.). **YEMEN:** Sana'a gov., Beni Mansour vill. env. (stream valley), 15°06.1–4'N 43°52.8–53.2'E, 1520–1550 m, 5.xi.2010, 1 ♂, J. Bezděk leg. (JBCB); Sana'a gov., Wadi Moor (waterfall), 15°08.0'N 43°36.4'E, 744 m, 5.xi.2010, 1 ♂, L. Purchart leg. (JBCB); Al Mahrah gov., Jabal al Fatk, Hawf NE of Al Ghaydah, 16°40'N 53°05'E, 729 m, 12.–13.x.2005, 1 ♂, P. Kabátek leg. (JBCB).

Distribution. *Aulacophora foveicollis* is widely distributed in southern Palearctic, African and Oriental Regions. It was reported from Yemen by BRYANT (1957). However, re-examination of those specimens is necessary to decide if his specimens belong to the true *A. foveicollis*, *A. calva* or unclear species of *Aulacophora* (see below).

Comments. All three recently collected specimens have yellow underside, only abdomen has black lateral margins. The median lobe of the male last visible ventrite is shallowly impressed but its apex has a deep transverse oval cavity (Fig. 40). The body length of three available males: 7.0–7.2 mm. The same colouration of underside was reported by MEDVEDEV (1996) for specimens of *A. foveicollis* from Saudi Arabia. Although the aedeagus of the Yemeni specimens is very similar to that of *A. foveicollis* as published by BERTI (1990) (see Figs. 41, 42), I have some doubts that my and Medvedev's specimens belong to *A. foveicollis* because this species has abdomen black with orange median lobe of the last male ventrite only. In my opinion specimens from the Arabian Peninsula may represent an undescribed species but I am unable to make a comprehensive revision of *Aulacophora foveicollis* material necessary for such decision at the moment. Moreover, I have not seen any female from the Arabian population whose structure of abdomen and pygidium can also help to unravel this problem.

Calomicrus vanharteni Lopatin, 2001

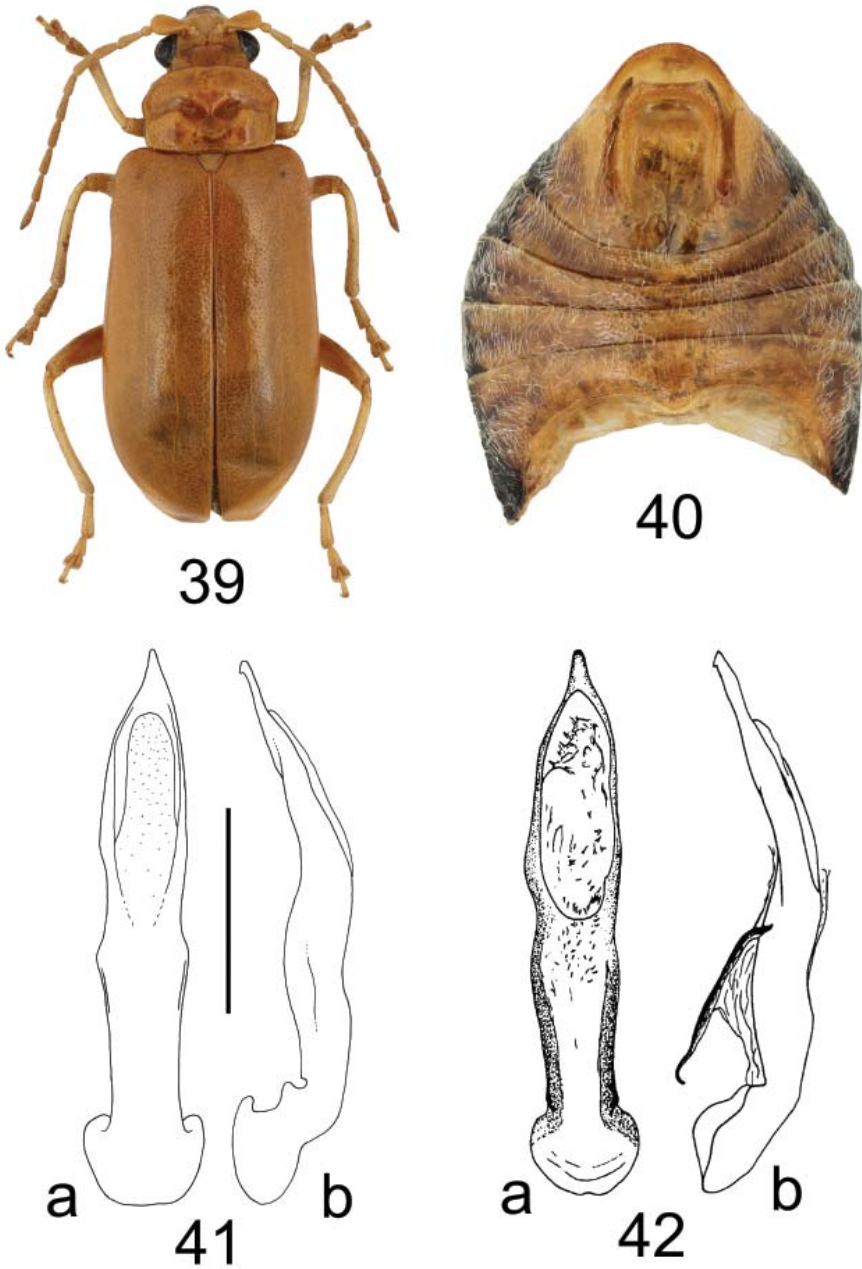
Distribution. A species endemic to Yemen (LOPATIN 2001).

Diacantha dubia Gahan, 1896

Distribution. A species endemic to Yemen (GAHAN 1896).

Diorhabda sublineata (Lucas, 1849)

Distribution. Iberian peninsula, North Africa, Yemen (TRACY & ROBBINS 2009).



Figs. 39–42. 32–34. *Aulacophora* cf. *foveicollis* (Lucas, 1847). 39 – habitus of male (7.1 mm); 40 – male abdomen; 41 – aedeagus (a – dorsal view, b – lateral view). 42 – aedeagus of *Aulacophora foveicollis* sensu BERTI (1990) (a – dorsal view, b – lateral view). Scale bar 1 mm for Fig. 41.

***Diorhabda octocostata* Gahan, 1896**

Distribution. Described from Yemen, Syria and Iraq (GAHAN 1896). From Yemen reported also by BRYANT (1957).

***Galerudolphia arabica* (Medvedev, 1996)**

Material examined (39 spec.). **YEMEN:** Sana'a gov., Bait Bows (tank), 15°16.398'N 44°11.634'E, 2300 m, 21.vi.2010, 14 ♂♂ 23 ♀♀, V. Hula & J. Niedobová leg. (JBCB, 3 ♂♂ 3 ♀♀ in NMPC); Sana'a gov., Bait Bows (tank), 15°16.3'N 44°12.1'E, 2410 m, 6.xi.2010, 1 ♀, J. Bezděk leg. (JBCB); Haraz Mts., S slope of Al-Ian Mt., 2600 m, 23.vi.2010, 1 ♀, V. Hula & J. Niedobová leg. (JBCB).

Distribution. Saudi Arabia (MEDVEDEV 1996, BOLZ & WAGNER 2005). **First record from Yemen.**

***Lamprocopa delata* (Erichson, 1843)**

Material examined (1 spec.). **YEMEN:** Al Hudaydah gov., Wadi Surdud (Sari), W of Sana'a, 15°15'N 43°30'E, 627 m, 2.xi.2005, 1 ♀, P. Kabátek leg. (JBCB).

Distribution. African species, reported from Yemen by BRYANT (1957) and LOPATIN (2001).

***Leptaulaca fissicollis* (Thomson, 1858)**

Distribution. African species, reported from Yemen by BRYANT (1957) under the name *Lep-
taulaca festiva* (Gerstaecker, 1862).

***Leptomona heydeni* (Joannis, 1865)**

Distribution. Described from Egypt. Reported from Yemen by MEDVEDEV (1996).

Comments. Generic position of this species is unclear. In the Catalogue of Palearctic Coleoptera, BEENEN (2010) followed opinions by BECHYNĚ (1958) and WILCOX (1973) who both classified it in the genus *Leptomona* BechynĚ, 1958. SCHLICH & WAGNER (2010) excluded it from the genus *Monolepta* with a notice that the correct generic placement will be published later.

***Madurasia obscurella* Jacoby, 1896**

Material examined (8 spec.). **YEMEN:** Al Hudaydah gov., Jabal Bura valley forest NP (stream valley), 15°52.4–5'N 43°24.6–25.2'E, 240–350 m, at light, 4.xi.2010, 6 ♀♀, J. Bezděk leg. (JBCB); same data, 1 ♀, L. Purchart leg. (NMPC); same data, 1 ♀, J. Hájek leg. (NMPC).

Distribution. A species occurring in India (e.g. MAULIK 1936), Nepal (TAKIZAWA 1990), Sri Lanka (MOHAMEDSAID 1997), and Socotra Island (present paper). Recorded also from Sudan (LABOISSIÈRE 1926) under the name *Neorudolphia bedfordi* Laboissière, 1926. **First record from Yemen.**

***Medythia quaterna* (Fairmaire, 1880)**

Distribution. Widely distributed in Africa (BERTI 1983). Reported from Yemen by BRYANT (1957).

***Medythia* sp.**

(Fig. 18)

Material examined (1 spec.). **YEMEN:** Al Hudaydah gov., Jabal Bura valley forest NP (stream valley), 15°52.4–5'N 43°24.6–25.2'E, 240–350 m, at light, 4.xi.2010, 1 ♀, J. Hájek leg. (NMPC).

Comments. Probably undescribed species, 3.3 mm long, characterised by completely orange body and legs (except of darkened apices of antennae and one longitudinal black stripe on each elytron). I am avoiding to describe it based on just one female.

All other Afrotropical *Medythia* Jacoby, 1887 species have a black head (or head and pronotum), usually bicolorous legs, and more extended black pattern on elytra (usually with black lateral margins or at least epipleura). Two widely distributed African *Medythia* occur also in Northeast Africa: *M. quaterna* (Fairmaire, 1880) recorded also from Yemen, and *M. exclamationis* (Jacoby, 1900) (known also from Ethiopia and Kenya). Both species differ from the Yemeni specimen in black antennae with yellow antennomeres IX–X and in subquadrate pronotum (in the Yemeni specimen lateral margins are slightly rounded, posterior margin is straight only in the middle, laterally it is widely rounded).

***Monolepta arvensis* Bryant, 1957**

Material examined (26 spec.). **YEMEN:** Sana'a gov., Jabal Haraz Mts., S of Manakhah vill., ca. 2510 m, 15°03.7'N 43°44.6'E, 3.xi.2010, 2 ♂♂ 10 ♀♀, J. Bezděk leg. (JBCB); same data, 9 spec. unsexed, J. Hájek leg. (NMPC); Sana'a gov., Wadi Anis, 60 km SW of Sana'a, 15°00'N 44°09'E, 1522 m, 7.x.2005, 1 spec., P. Kabátek leg. (JBCB); Lahij gov., N of Lahij, 13°10'N 44°49'E, 258 m, 23.x.2005, 2 spec., P. Kabátek leg. (JBCB); Ibb gov., Wadi Maytam, 12 km SE of Ibb, 13°53'N 44°18'E, 1595 m, 27.x.2005, 2 ♀♀, S. Kadlec leg. (JBCB).

Distribution. Saudi Arabia, Yemen (BRYANT 1957, SCHLICH & WAGNER 2010).

***Monolepta carsteni* Schlich & Wagner, 2010**

Distribution. Yemen, Saudi Arabia (SCHLICH & WAGNER 2010). As *M. bioculata* (Fabricius, 1781) published from Yemen also by BRYANT (1957) and LOPATIN (2001).

***Monolepta lepida* Reiche & Saulcy, 1858**

Material examined (14 spec.). **YEMEN:** Sana'a gov., Bait Bows (tank), 15°16.3'N 44°12.1'E, 2410 m, 6.xi.2010, 2 ♂♂ 4 ♀♀, J. Bezděk leg. (JBCB); Sana'a gov., Bait Bows (tank), 15°16.398'N 44°11.634'E, 2300 m, 21.vi.2010, 1 ♂ 1 ♀, V. Hula & J. Niedobová leg. (JBCB); Sana'a gov., Wadi Dhahr (wasted gardens), 15°26.4'N 44°07.5'E, ca. 2255 m, 2.xi.2010, 1 spec. unsexed, J. Bezděk leg. (JBCB); Al Mahrah gov., Jabal al Fatk, Hawf NE of Al Ghaydah, 16°40'N 53°05'E, 729 m, 12.–13.x.2005, 4 spec., P. Kabátek leg. (JBCB); Hadramaut gov., Wadi Daw'an, NW of Al Mukalla, 15°09'N 48°26'E, 946 m, 20.x.2005, 1 spec., P. Kabátek leg. (JBCB).

Distribution. Saudi Arabia, Oman, Yemen, Israel, Jordan, Egypt, Eritrea, Somalia (SCHLICH & WAGNER 2010). From Yemen published also by BRYANT (1957) under the names *Monolepta pygidialis* Jacoby, 1906 and *M. rubricosa* Gerstaecker, 1871.

***Monolepta saudica* Medvedev, 1996**

Distribution. Oman, Saudi Arabia, Yemen (MEDVEDEV 1996, SCHLICH & WAGNER 2010).

Nymphius buettikeri (Medvedev, 1996)

Material examined (17 spec.). **YEMEN:** Al Hudaydah gov., Jabal Bura valley forest NP (stream valley), 15°52.4–5'N 43°24.6–25.2'E, 240–350 m, 4.xi.2010, 1 ♂ 3 ♀♀, J. Bezděk leg. (JBCB); same data, 1 ♀, J. Hájek leg. (NMPC); Al Hudaydah gov., Jabal Bura, NEE of Al Hudaydah, 14°52'N 43°24'E, 225–600 m, 30.x.–1.xi.2005, 2 ♂♂, S. Kadlec leg. (JBCB); same data, 2 ♂♂ 4 ♀♀, S. Kadlec leg. (JBCB); Al Hudaydah gov., Wadi Surdud (Sari), W of Sana'a, 15°15'N 43°30'E, 627 m, 2.xi.2005, 2 ♀♀, P. Kabátek leg. (JBCB); Ta'izz gov., Suq ad Dabab, SWW of Ta'izz, 13°32'N 43°57'E, 1208 m, 26.x.2005, 1 ♀, S. Kadlec leg. (JBCB); Sana'a gov., Wadi Anis, 60 km SW of Sana'a, 15°00'N 44°09'E, 1522 m, 7.x.2005, 1 ♂, P. Kabátek leg. (JBCB).

Distribution. Saudi Arabia (MEDVEDEV 1996). **First record from Yemen.**

Nymphius millingeni (Pic, 1915)

Material examined (4 spec.). **YEMEN:** Hadramaut gov., Sunah, SE of Saywun, 15°41'N 48°52'E, 730 m, 10.x.2005, 1 ♂ 1 ♀, P. Kabátek leg. (JBCB); Abyan gov., Lawdar, NE of Aden, 13°53'N 45°48'E, 1145 m, 22.x.2005, 2 ♂♂, P. Kabátek leg. (JBCB).

Distribution. Oman (MEDVEDEV 2006, 2007), Saudi Arabia (PIC 1915, MEDVEDEV 2006, 2007). **First record from Yemen.**

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