

New species and new distributional data on Carabidae (Coleoptera) from the Socotra Archipelago

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Abstract. Three new species of carabid beetles of the tribe Lebiini are described: *Glycia socotrana* sp. nov., previously mentioned as *Glycia* cf. *spencei* (Gistel, 1838), from Socotra Island and Abd al Kuri Island; *Apristus dioscoridus* sp. nov. and *Mesolestes niger* sp. nov., both from Socotra Island. *Acupalpus* (*Stenolophidius*) *posticalis* (Putzeys, 1880), *Harpalus* (*Cryptophonus*) *tenebrosus* Dejean, 1829, and *Metadromius* sp. are recorded from the Socotra Archipelago for the first time. In addition, new distributional data from Socotra are given for several other carabid species.

Key words. Coleoptera, Carabidae, Lebini, new species, new records, Yemen, Socotra

Introduction

An extensive material of Carabidae collected during 12 Czech and two Dutch expeditions to the Socotra Archipelago between 1999 and 2012, was already processed by FELIX et al. (2012) and FELIX (2014) who mentioned altogether 46 species from the Socotra Archipelago, of which five were new to science and another 33 species represented first records from the Archipelago. Apart from this, GUÉORGUIEV et al. (2014) described *Parorthomus socotranus* Guéorguiev, Wrase & Farkač, 2014. FELIX (2014) also provided a list of taxa that need more study. A part of this list, that is still not complete, is the subject of the current publication. The total amount of known Carabidae for the Socotra Archipelago is increased to 51 species, of which nine are endemic.

Material and methods

All specimens were studied with a stereo microscope with magnifications from 12.6–80.0×. Males and some females of *Glycia socotrana* sp. nov., *Apristus dioscoridus* sp. nov. and

Mesolestes niger sp. nov. were dissected, aedeagi, if necessary, cleared with clover oil, then washed in alcohol and glued with Euparal on transparent plastic labels below the specimens. Photographs were taken by Jan Muilwijk with a Sony NEX 5N digital camera and Nikon 105 mm macrolens. Locality data are recorded verbatim from the data labels in the list of material examined.

Acronyms of institutional and private collections that were consulted or/and in which material is deposited:

BMNH	Natural History Museum, London, United Kingdom (Maxwell V. L. Barclay, Beulah Garner);
DWBG	David W. Wrase collection, Berlin, Germany;
HLMD	Hessisches Landesmuseum Darmstadt, Germany (Sabine Wamser);
IRSB	Institut royal des Sciences naturelles de Belgique, Brussels, Belgium (Alain Drumont);
KSMA	King Saud University, Museum of Arthropods, Riyadh, Saudi Arabia (Hathal bin Muhammad Al Dhafer);
NMPC	Národní muzeum, Prague, Czech Republic (Jiří Hájek);
RFBE	Ron F. F. L. Felix collection, Berkel Enschoot, The Netherlands;
RMNH	Naturalis Biodiversity Centre (formerly Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands (Hans Huijbregts);
WWCR	Wolfgang Wranik collection, Rostock, Germany (currently deposited in NMPC).

Taxonomy

Glycia socotrana sp. nov.

(Figs 1, 4, 7)

? *Calleida* sp.: GAHAN (1903): 264.

Glycia cf. *spencei* (Gistel, 1838): FELIX et al. (2012): 91.

Type locality. Yemen, Socotra Island, Noged plain, Sharet Halma village env., 12°21.9'N, 54°05.3'E.

Type material. HOLOTYPE: ♂ (NMPC), Yemen, Socotra Island, Noged plain, Sharet Halma village env. 12°21.9'N, 54°05.3'E, 20 m, 10.–11.xi.2010, J. Bezděk leg. PARATYPES: 15 ♂♂ 15 ♀♀, same data as holotype (NMPC, RFBE, RMNH); 1 ♂, Noged plain, Qaareh, 57 m, 12°20.10'N, 53°37.56'E, 5.–6.xii.2003, D. Král leg. (NMPC); 2 ♂♂, Dixam plateau, Firmihin, 12°28.6'N, 54°01.1'E, 490 m, 15.–16.xi.2010, J. Bezděk leg. (NMPC); 1 ♀, Firmihin, 400–500 m, 12°28.27'N, 54°0.54'E, 6.–7.ii.2010, L. Purchart & J. Vybíral leg. (NMPC); 1 ♂ 1 ♀, Firmihin plato, 400–500 m, 12°28.46'N, 54°00.89'E, 18.–19.vi.2010, V. Hula & J. Niedobová leg. (NMPC); 1 ♂ 1 ♀, Dixam plateau, Firmihin, 12°28.6'N, 54°01.1'E, 490 m, 14.–15.VI.2012, Socotra expedition 2012: J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. (NMPC); 1 ♂ 1 ♀, Delisha village env., 12°41.2'N, 50°07.7'E, 36 m, 8.vi.2012, Socotra expedition 2012: J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. (NMPC); 2 ♂♂, Qalansiyah env., Ditwah (lagoon), 12°41.42'N, 53°30.08'E, 23 m, 9.xii.2003, D. Král leg., Socotra expedition 2003: Jan Farkač, Petr Kabátek & David Král leg. (NMPC); 1 ♀, Wadi Ayaf, 12°36.5'N, 53°58.9'E, 200 m, 7.–8.xi.2010, P. Hlaváč leg. (NMPC); 1 ♀, Aloove area, Aloove village env., 12°31.2'N, 54°07.4'E, 221 m, 19.–20.vi.2012, Socotra expedition 2012: J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. (NMPC); 1 ♀, Hadiboh, Taj Socotra hotel, 16.xi.2010, J. Bezděk leg. (NMPC); 1 ♀, Noged plain, Wadi Ireh, N12°23'11"N, 53°59'47"E, D. Král leg., Socotra expedition 2003: Jan Farkač, Petr Kabátek & David Král leg. (NMPC); 2 ♂♂, Hadiboh env., ca. 10–100 m, 12°65.02'N, 54°02.04'E, 21.xi.–12.xii.2003, D. Král leg., Expedition Jan Farkač, Petr Kabátek, David Král (NMPC); 9 ♂♂ 5 ♀♀, Noged, Firmihin, 0 m, 12°24.41'N, 54°13.35'E, 24.–25.x.2000, H. Pohl leg. (HLMD, RFBE); 1 ♀, Hadiboh, Stadt und unmittelbare Umgebung, 12°39'N, 54°01'E, 2.–26.ii.1999, H. Pohl leg. (HLMD); 2 ♀♀, Hadiboh, camp house, 12°38'55.79"N, 54°00'46.79"E, 21.ii.2009, R. Felix leg. (RFBE); 2 ♀♀, Wadi Momi, 12°32'40.3"N, 54°17'41.1"E, 24.iii.2009, R. Felix leg. (RFBE); 1 ♀, Hadiboh plain, 0–300 ft, 16.iv.1967, K. Guichard leg. (BMNH); 1 ♂, same data, 3.v.1967, K. Guichard leg. (BMNH); 2 ♂♂ 1 ♀, Hills near Hadiboh, 29.ii.2008, A. Saldaitis leg. (IRSB); 2 ♂♂ 3 ♀♀, Qalansiya env., 12°41'N, 053°29'E, 22.ii.2008, A. Saldaitis leg. (IRSB); 1 ♀, Ayheft valley, 22.xi.2008, Saldaitiene & Saldaitis leg. (IRSB); 1 ♂, Wadi

Difourha, southside, 15.i.2010, Saldaitis leg. (IRSB); 1 ♀, Shuab location, 23.iii.2009, Saldaitis leg. (IRSB); Abd al Kuri Island, Towanie village env., 12 ♂♂ 10 ♀♀, 12°10'N, 52°13'E, 25.–27.ii.2008, Saldaitis leg. (IRSB, RFBE); 1 spec., without exact locality, ii.2000, W. Wranik leg. (WWCR); 2 spec., without exact locality, 6.ii.2000, W. Wranik leg. (WWCR); 1 ♂, Hadibú Umg., 100m “NN, 12°38.179'N 54°01.196'E, 02.ii.2001, V. Neumann leg. (DWBG).

Description. Male holotype: Habitus elongate, parallel-sided; dorsoventrally flattened (Fig. 1). Body length 9.0 mm; maximum width: 3.1 mm. Macropterous.

Colour. Head and appendices light red, only ridges of mandibles narrowly black. Pronotum light red, somewhat lighter than head. Pedoncule and scutellum red, dark red towards shoulders. Colour of elytra dark reddish with blue metallic lustre, except for suture and first interval red. Marginal gutter dark red. Epipleura red, darkened towards elytral apex. Whole underside red, except for ventrites. Legs light red, knees slightly darkened.

Sculpture and structures. Head. Clypeus bisetose, its anterior margin straight. Labrum weakly incised anteriorly, with six setae. Frons along eyes with diverging and branching furrows, between eyes smooth, shiny, with small punctures, which are more dense towards clypeus. Eyes big, protruding. Temples oblique. Apical labial palpomere strongly dilated and pubescent, penultimate palpomere with two large setae and some very small setae. Maxillary palpomeres smooth, except for some tiny setae. Mentum with broad mental tooth. Antennomeres pubescent from IV.

Pronotum somewhat transverse, 1.2× wider than long; anterior angles broadly rounded, not prominent, posterior angles more shortly rounded, strongly obtuse, slightly pronounced. Marginal gutter wide, margin raised; coarsely punctured, disc smooth, shiny, with scattered fine punctures, somewhat more dense along fine median line. Greatest width just posteriorly from anterior lateral seta. Second lateral setae in posterior angle. Both anterior and posterior margins ciliated.

Elytral striae distinctly punctured, intervals with distinct isodiametric microsculpture and disorderly punctured in 1–2 rows. Scutellar stria in first elytral interval, with scutellar pore. Intervals weakly convex. Apex almost straight, obliquely truncated. Lateral margins almost parallel. Basal line regularly rounded. Third interval with two pores.

Tarsomere IV of front legs semicircular incised at 1/3, claws pectinate. Metatarsomere I as long as III and IV together. Tarsomeres glabrous except for some apical and lateral setae. Onychium with two rows of four bristles.

Aedeagus, see Fig. 4.

Variability. Female. Without conspicuous differences from the male. Stylomeres, see Fig. 7.

In most male specimens of the new species, the flagellum is weakly waved, but straight in some and more strongly waved in others. The reticulate field in the median lobe in the new species is mostly situated laterally of the base of the flagellum (when observed in lateral view) and therefore not always visible, but in some cases this field is positioned ventrally of the flagellum as in *G. spencei* (Gistel, 1838) and *G. rufolimbata* Maindron, 1905. Apart from the variability in the shape of the aedeagus, there is some variation in length of the specimens (8.0–9.5 mm) and in shape of the pronotum: width/length ratio varies from 1.1–1.2 and in some cases sides are less narrowed and less sinuate towards the posterior angles. The dark parts of the elytra vary between blue and more or less violet.

The red colour of the suture varies from 0.5–1.5 interval and from base to apex or already vanished halfway the elytra. There seem to be no differences between the populations on Socotra Island and Abd al Kuri Island.

Differential diagnosis. *Glycia socotrana* sp. nov. was mentioned by FELIX et al. (2012) as *Glycia* cf. *spencei*. However, thorough comparative study of *Glycia* Chaudoir, 1842 material from North and East Africa, and the Arabian Peninsula revealed, that the population from the Socotra Archipelago shows unique characteristics, which appropriate its description as a distinct new species. When compared with other, rather similar species, *Glycia spencei* (Fig. 2) and *Glycia rufolimbata* (Fig. 3), the new species can be distinguished undoubtedly by its clearly convex intervals of the elytra, its much shinier appearance and its elytral design. In addition, the punctuation of the head and disc of the pronotum is finer than in *G. spencei* and *G. rufolimbata*. A third species known from northeastern Africa and the Arabian Peninsula, *Glycia unicolor* Chaudoir, 1848, differs from *G. socotrana* sp. nov. by being uniformly brown in the colouration of the elytra.

The aedeagus (Fig. 4) in the new species is rather variable. In most cases, the apex of the median lobe in the new species is somewhat longer and more parallel sided than in *G. spencei* (Fig. 5), and more broadly rounded than in *G. rufolimbata* (Fig. 6). In *G. spencei*, the flagellum is very strongly waved and in *G. rufolimbata* almost straight. However, because of the intraspecific variation in the flagellum (see above), it seems that the aedeagus is not discriminating the species.

Comments to classification. LORENZ (2005) mentioned additional *Glycia* species: *G. afgana* Jedlička, 1956 and *G. klapperichi* Jedlička, 1956. I did not see these species, but, according to the original description, these taxa surely belong to the genus *Merizomena* Chaudoir, 1872, which was confirmed by I. Kabak (pers. comm., 2016).

BEDEL (1907) established two colour varieties of *G. rufolimbata*: var. *brevivittis* Bedel, 1907 (currently treated as a subspecies of *G. unicolor*) in which the dark colour is restricted to the distal half of the elytra; and var. *bimaculata* Bedel, 1907 (currently regarded as valid species), see KABAK (2003). In the latter, the dark colour is reduced even more to a preapical spot. However, based on the description, both varieties differ significantly from both, *G. rufolimbata* and *G. socotrana* sp. nov.

BEDEL (1907) also mentioned an unnamed colour variety of *G. ornata* (Klug, 1832) (= *G. spencei*), in which the sutural band is restricted to the first interval. It is not clear whether this variation is regional or if it is intermingled within the specimens with the typical pattern. I could not find specimens of this variation. In the studied specimens of *G. spencei* and *G. rufolimbata* the pattern is highly consistent.

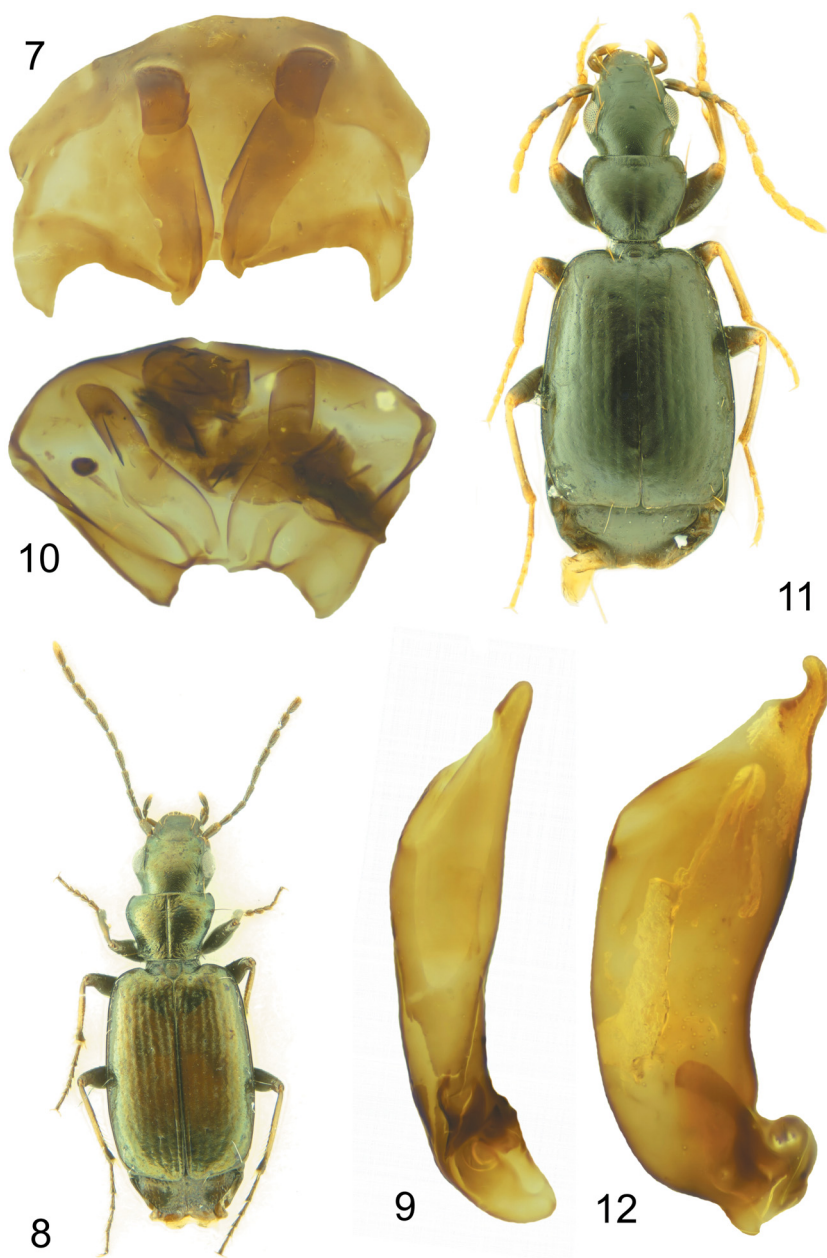
Etymology. The specific epithet refers to the presence of the species in the Socotra Archipelago; an adjective.

Collection circumstances. All specimens were collected at light in various habitats, like sand dunes, *Dracaena* forest, *Jatropha unicastata* shrubland with or without *Boswellia elongata* trees, mangroves or in villages.

Distribution. Endemic species to the Socotra Archipelago; recorded from Abd el Kuri and Socotra.



Figs 1–6. Details of *Glycia*. 1–3 – habitus; 4–6 – median lobe of aedeagus in lateral view. 1, 4 – *Glycia socotrana* sp. nov.; 2, 5 – *G. spencei* (Gistel, 1838); 3, 6 – *G. rufolimbata* Maindron, 1905. Not in scale.



Figs 7–12. 7 – *Glycia socotrana* sp. nov., female stylomeres. 8–10 – *Apristus dioscoridus* sp. nov.; 8 – habitus; 9 – median lobe of aedeagus is lateral view; 10 – female stylomeres. 11–12. *Mesolestes niger* sp. nov. 11 – habitus; 12 – median lobe of aedeagus is lateral view. Not in scale.

Key of *Glycia* from North and East Africa and the Arabian Peninsula

- 1 Head, pronotum and elytra unicoloured dull brown. *G. unicolor* Chaudoir, 1848
- Head and pronotum testaceous red; elytra bicoloured: major part blue or brown with weak or strong bluish or violet lustre. 2
- 2 Red colour of elytra at base 2.5 or more intervals wide. Elytra rather dull because of distinct microsculpture. Intervals nearly flat on disc. 3
- Only first interval or even only inner part of this interval (dark) red, often vanished already in midlength of elytra (Fig. 1). Intervals shiny and clearly convex. Striae distinctly punctured, much more than in following species. *G. socotrana* sp. nov.
- 3 Elytra dark blue to dark brownish blue, more shiny. Testaceous sutural band two-three intervals wide, substraight towards apex, only at scutellum and just before apex somewhat wider (Fig. 2). Apex of median lobe of aedeagus short, as wide as long, ventral margin (in lateral view) weakly but evenly curved (Fig. 5). *G. spencei* (Gistel, 1838)
- Elytra brownish violet blue to brownish blue, in general dark design much lighter. Testaceous sutural band near base at least five intervals wide, in fact never reaching basal border (there mostly dark red); narrowed to two or three intervals in elytral midlength, then straight for a while, afterwards gradually narrowed to apex (Fig. 3). Elytra somewhat duller. Tip of median lobe much longer than wide, ventral margin of aedeagus almost straight, only weakly bent near apex (Fig. 6). *G. rufolimbata* Maindron, 1905

***Apristus dioscoridus* sp. nov.**

(Figs 8–10)

Type locality. Yemen, Socotra Island, Wadi Mahabat, 12°38'53.2"N, 54°08'56.3"E.

Type material. HOLOTYPE: ♂ (RMNH), Yemen, Socotra Island, Wadi Mahabat, 12°38'53.2"N, 54°08'56.3"E, 25.ii.2009, R.F.F.L. Felix leg. PARATYPES: 8 ♂♂ 7 ♀♀, same data as holotype (RMNH, RFBE); 1 ♂ 1 ♀, Qalansiyah, 12°41'47.5"N, 53°29'02.8"E, 28.ii.2009, R.F.F.L. Felix leg. (RFBE); 1 ♀, Wadi Ayaf, 12°36'41.1"N, 53°58'05.9"E, 171 m, 26.x.2010, R.F.F.L. Felix leg. (RFBE); 1 ♀, Wadi Mōmi, 12°32'40.3"N, 54°17'41.1"E, 24.ii.2009, R.F.F.L. Felix leg. (RFBE); 1 ♀, Wadi di Negehen, 12°38'33.0"N, 54°03'18.5"E, 20.ii.2009, R.F.F.L. Felix leg. (RFBE); 1 ♀, Wadi Irih, 12°27'05.5"N, 54°09'16.6"E, 3.iii.2009, R.F.F.L. Felix leg. (RFBE); 6 ♂♂ 1 ♀, Wadi between Firmihin and Shibon, 23.vi.2009, L. Purchart leg. (NMPC).

Description. Male holotype. Macropterous. Length 3.2 mm. Pronotum transverse, 1.3× wider than long, strongly sinuate and narrowed towards posterior angles.

Colour. Head and pronotum black with greenish lustre. Palpi and antennae brown, gradually lighter apically. Labrum black with yellow borders. Elytra dark reddish brown with dark metallic lustre, especially along lateral margin and suture (Fig. 8). Epipleura red. Legs with brownish black tibiae, femora red with dark apex, tarsomeres red with somewhat darker apex.

Sculpture and structures. Head with isodiametric microsculpture distinct but suppressed, shiny, with dispersed micropunctures. Pronotum shiny, with rather suppressed isodiametric microsculpture and some micropunctures; base somewhat rugose, front part with few shallow wrinkles and bigger punctures. Elytra shiny, microsculpture consisting of slightly transverse meshes. Scutellum with very distinct isodiametric microsculpture.

Head with two supraocular setae bearing pores, second one posterior to eyes, which are rather flat. Temples oblique. Labrum with six setae, its anterior margin slightly incised.

Clypeus with two setae, frons border weakly concave. Antennomeres pubescent from III on, length/width ratio of antennomeres IV–VI = 3.5 each; antennomere I with usual preapical long seta and some additional tiny setae, antennomere II with few additional small setae as well. All maxillary palpomeres and apical labial palpomere multisetose, penultimate labial palpomere with two setae.

Pronotum. Front margin weakly concave, almost straight. Anterior angles very small, weakly but distinctly protruding. Posterior angles small and sharp, clearly protruding. Setae bearing pores in posterior angles and on widest point of pronotum. Base straight till shortly obliquely cutting to posterior angles. Basal furrows absent. Marginal gutter narrow throughout its length, narrower than median furrow which is wide and gutter like, not reaching base nor apex. Pronotum widest in its anterior fourth.

Elytra. Prescutellar pores present. Striae shallow, shallower towards sides, but still visible at apex. Intervals weakly convex, covered with scattered setae, less dense on disc, more towards sides and apex. Two seta bearing pores on interval III, mostly near stria III.

Tarsomeres pilose. Onychium with ventral bristles. Claws smooth. Meso- and metatarsomeres I as long as II and III together, apical meso- and metatarsomere as long as III and IV together. Tooth of mentum absent.

Aedeagus, see Fig. 9.

Variability. Female stylomeres, see Fig. 10. Paratypes vary in length from 3.2 mm to 3.5 mm. The greenish lustre on head and pronotum can vary a bit in intensity.

Differential diagnosis. In the adjacent regions, the following four species of *Apristus* Chaudoir, 1846 are known: *A. latipennis* Chaudoir, 1878 from Ethiopia till South Africa, *A. subovatus* Chaudoir, 1876 from Yemen mainland, Ethiopia and Somalia. *A. boldorii* (Straneo, 1943) (= *A. rudicollis* Basilewsky, 1948) from Yemen mainland, Egypt, Eritrea and Kenya and *A. arabicus* Mateu, 1986 from the Arabian Peninsula.

The new species differs from all species mentioned above by its all over shining appearance because of the less pronounced microsculpture. The length of both antennomere IV and metatarsomere I is longer than in other species. In addition, *A. dioscoridus* sp. nov. differs from *A. latipennis* and *A. subovatus* by its smaller eyes, longer temples and all over gutter-like median pronotal furrow; and from *A. boldorii* and *A. arabicus* by its more sharply delimited temples and neck, and its brown-red colour: *A. boldorii* is light red and *A. arabicus* is brownish yellow. Shape of the aedeagus in the new species differs from that in *A. arabicus*, as it has a less conical apex and somewhat different inner structure; in *A. latipennis* the ventral border of the median lobe of the aedeagus is almost straight and the length of the apex of the median lobe is twice or more as long as the width; the median lobe of the aedeagus of *A. boldorii* is slender and over all its length of almost equal width; in *A. subovatus* the apex of the median lobe is much shorter than in the new species: length almost equal as width.

The Socotran species was also compared with *A. reticulatus* Schaum, 1857, known from Italy, Bulgaria, Albania, Greece, Turkey, Uzbekistan, Kyrgyzstan and Iran (KABAK 2003), because of its resemblance. However, *A. dioscoridus* sp. nov. differs from *A. reticulatus* in the following aspects: head and pronotum black with more or less green metallic lustre (head and pronotum dark brown with very weak bronze lustre in *A. reticulatus*); anterior angles of

pronotum more or less pointed (broadly rounded in *A. reticulatus*) femora light brown with black apex, tibia black (femora brown with tibia somewhat lighter in *A. reticulatus*); antennomeres short; antennomere I somewhat reddish, other antennomeres black (antennomere I & II red brown, other antennomeres dark brown in *A. reticulatus*); upper side more shiny; apex of aedeagus narrower, ventral margin in lateral view of aedeagus straight (bulgy in *A. reticulatus*).

A key to distinguish the new species from the above mentioned taxa is provided.

Etymology. The specific epithet refers to the presence of the species in the island of Dioscoridus, an ancient name for Socotra; a noun in nominative case.

Collection circumstances. All specimens were collected in the gravel on the banks of streams.

Distribution. A species endemic to Socotra Island.

Key of *Apristus* in Socotra and adjacent countries

- 1 Median furrow of pronotum wide and gutter-like throughout. Eyes relatively small, temples long. 2
 - Median furrow over most of its length narrow and sharply engraved, only wider at base and there more or less gutter-like. Eyes rather big, temples short. 4
- 2 Microsculpture on head, pronotum and elytra very strong and deep, therefore duller in appearance. Transition from temples to neck gradual. Sinuation of sides of pronotum near base rather long. Elytra light red or light brownish yellow. Antennomere IV less than three times longer than wide. Metatarsomere I of equal or shorter than metatarsomeres II and III together. 3
 - Microsculpture on head, pronotum and elytra shallow and more less pronounced, therefore distinctly shiny in appearance. Transition from temples to neck well marked. Sinuation of sides of pronotum short. Elytra brown red. Antennomere IV 3.3 times longer than wide. Metatarsomere I longer than metatarsomeres II and III together. *A. dioscoridus* sp. nov.
- 3 Pronotum narrower, lateral border near anterior angles less curved, anterior angles strongly protruding, pointed. Basal border of elytra at shoulders evenly rounded. Eyes less protruding. Elytra light coppery red. Legs uniformly red. *A. boldorii* (Straneo, 1943)
 - Pronotum wider, lateral border of pronotum strongly curved inwards in apical part, anterior angles less protruding. Basal elytral border at shoulders nearly straight. Eyes more protruding. Elytra brownish yellow. Femur much lighter than tibia. *A. arabicus* Mateu, 1986
- 4 Pronotum without strong wrinkles. Posterior angles of pronotum obtuse, not pointed; sinuation of lateral margins longer. Elytral striae weaker, intervals nearly flat. *A. subovatus* Chaudoir, 1876
 - Pronotum strongly wrinkled. Posterior angles of pronotum rectangular and pointed, protruding; sinuation of sides near base shorter. Elytral striae deeper, intervals convex. *A. latipennis* Chaudoir, 1878

***Mesolestes (Mesolestes) niger* sp. nov.**

(Figs 11, 12)

Type locality. Yemen, Socotra Island, Hagher Mts, Wadi Madar, 12°33.2'N, 54°00.4'E.**Type material.** HOLOTYPE: ♂ (NMPC), Yemen, Socotra Island, Hagher Mts, Wadi Madar, 12°33.2'N, 54°00.4'E, 1170 m, 18.vi.2012, Socotra expedition 2012, J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. PARATYPES: 1 ♀, same data (NMPC); 2 ♂♂ 4 ♀♀, Hagher Mts., Skand Mt. env., 12°34.6'N, 54°01.5'E, 1450 m, 16.–18.vi.2012, Socotra expedition 2012, J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. (NMPC, RFBE); 1 ♀, same data, 12.–13.xi.2010, J. Bezděk leg.; 1 ♀, same data, J. Hájek leg. (NMPC); 1 ♀, same data, P. Hlaváč leg. (NMPC); 1 ♀, 12°34.557'N, 54°01.514'E, 7.–8.vi.2010, V. Hula & I. Niedobová leg. (NMPC).**Description of holotype.** Body length 2.6 mm. Apterous.

Colour. Head, pronotum, elytra and epipleura, and whole underside uniformly black without any lighter trace except for labrum dark brown with lighter margins (Fig. 11). Mandibles brownish-testaceous, with lighter apex. Antennae testaceous with antennomeres I–III partly darker. Tarsomeres and tibiae and knees yellow, femora infuscated.

Sculpture and structures. Head and pronotum with distinct isodiametric microsculpture. Elytra more shiny than pronotum, microsculpture transverse meshes.

Anterior margin of labrum regularly rounded, with six setae. Clypeus with straight anterior margin and two setae. Maxillary palpomeres smooth, penultimate labial palpomere with two setae. Eyes flat. Temples long, oblique. Antennae pubescent from III on. Mental tooth absent.

Anterior margin weakly concave. Front angles barely protruding. Lateral marginal gutter very narrow and fine. Anterior lateral setae at widest part of pronotum, basal lateral setae just before posterior angles. Median furrow fine. Basal furrows absent.

Striae very shallow, even weaker towards sides, vanished at apex. Intervals almost flat. Marginal gutter very narrow and fine. Basal margin broadly rounded and almost straight towards scutellum. Prescutellar pores present but no scutellar striae. Two punctures in interval III.

Legs. Protarsomeres widened. Apical metatarsomere almost as long as III plus IV, with two pairs of bristles underneath; metatarsomere I as long as II plus III.

Aedeagus, see Fig. 12.

Variability. There is no variation within the specimens of the type series, except in body length ranging between 2.6–2.8 mm.

Differential diagnosis. Based on the characteristically shaped apex of the aedeagus and pubescence of antennae beginning with antennomere III, the new species can be attributed to the subgenus *Mesolestes* s. str. *Mesolestes* s. str. species are found in western Mediterranean and Middle East, southern Asia and continental Africa and Madagascar.

There are no black *Mesolestes* s. str. known in the regions adjacent to Socotra. All species are Mediterranean and/or are bi-coloured, like *M. scapularis abyssinicus* Mateu, 1960 from Ethiopia. The only black species, *M. fuscus* Mateu, 1956, occurs in Lebanon. The new species fits in general the description of the latter *M. fuscus* which is also apterous, however, the aedeagus (Fig. 12) is slightly different from that of *M. fuscus* as depicted by MATEU (1956). Because both species are apterous, the slight difference in aedeagus, the huge gap between Lebanon and Socotra without any known *Mesolestes* s. str. and the rather isolated position of the Archipelago, it seems right to designate the taxon of Socotra a new species, although the type of *M. fuscus* was not seen.

Etymology. The specific epithet, the Latin adjective *niger* (-a, -um), refers to the overall black colour of the new species.

Collection circumstances. Sifted in montane shrubland with dominant *Cephalocroton socotranus* (Balf. f.) Pax (Euphorbiaceae).

Distribution. A species endemic to Socotra Island.

New records

Acupalpus (Stenolophidius) posticalis (Putzeys, 1880)

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Dixam plateau, Wadi Zerig, 1229.6N 5359.5E, 655 m, 13.–14.vi.2012, J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg. (NMPC).

Diagnosis. Length 3.5 mm. Dark brown, margins of pronotum and elytra lighter. Legs testaceous, antennomeres brown except for antennomeres I–II, which are testaceous. Basal furrows of pronotum coarsely punctured.

Distribution. Known from Senegal, Democratic Republic of Congo, Angola, Kenya, southern Zambia and Madagascar. **First record from Yemen (Socotra Island).**

Brachynus (Aploa) nobilis Dejean, 1831

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Ras Shuab, mangrove, 14.ii.2000, Wranik leg. (WWCR).

Chlaenius (Pachydinodes) conformis Dejean, 1831

Material examined. YEMEN: SOCOTRA ISLAND: 2 spec., Firmihin, ii.1999, Wranik leg. (WWCR).

Chlaenius (Chlaeniostenodes) cherensis Kirschenhofer, 1999

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Wadi Daneghan, ii.2000, Wranik leg. (WWCR).

Chlaenius (Chlaeniellus) laevioplaga laevioplaga Chaudoir, 1876

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Dixam, Wadi Zereg, 12.46868N 54.01091E, 279 m, 24.iv.2014, Sharaf leg. (KSMA).

Dyschirius (Dyschiriodes) zanzibaricus Chaudoir, 1878

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Qalansiya, Taisoh, 12.65880N 53.46988E, 67 m., 25.iv.2014, M. Sharaf leg. (KSMA); 1 spec., same data, 33 m, 29.iv.2014, M. Sharaf leg. (KSMA).

Harpalus (Cryptophonus) tenebrosus Dejean, 1829

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Momi area, 29.ix.1999, W. Wranik leg. (WWCR).

Diagnosis. Length 8.0–11.5 mm. Black; antennae, palpi, tarsi, sometimes tibiae reddish, middle antennomeres somewhat darker. Tarsi without pubescence. All intervals glabrous. Base of pronotum punctured. Ventrites glabrous except for the two obligatory setae.

FELIX et al. (2012) discussed and depicted the differences with the very similar *Harpalus (Cryptophonus) agnatus* Reiche, 1849, also known from Socotra.

Remarks. Mentioned in WRANIK (2003) as *Harpalus* sp.

Distribution. Widely distributed in western, central and southern Europe, North Africa, Middle East, Asia Minor to Middle Asia, also in the Yemen mainland. **First record from Yemen (Socotra Island).**

***Lipostratia distinguenda* (Fairmaire, 1886)**

Material examined. YEMEN: SAMHA ISLAND: 1 spec., 8.ii.2000, Wranik leg. (WWCR).

Remarks. This specimen was mentioned in WRANIK (2003) as *Callida* sp. First record from Samha Island.

***Metadromius* sp.**

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Homhil protected area, 12°34'27"N, 54°18'32"E, 364 m, 28.–29.xi.2003, P. Kabátek leg. (NMPC).

Diagnosis. Length 2.3–2.4 mm. Head and pronotum dark brown, the latter with light borders. Head, pronotum and elytra with microsculpture. Antennomeres very short. Eyes rather flat, temples rather long and flat.

Remarks. The genus *Metadromius* Bedel, 1907 needs a thorough revision. I compared the specimen with the type material of *M. arabicus* Mateu, 1979 and *M. somalicus* Mateu, 1986 as well as with the material of two different species (sic!) both identified by J. Mateu as *M. ephippiatus* (Fairmaire, 1884): one specimen from Algeria and one from Saudi Arabia, both are females. Unfortunately, the type of *M. ephippiatus* was not available. The specimen of '*M. ephippiatus*' from Algeria is smooth, without any microsculpture on the head, pronotum or elytra. The specimen from Saudi Arabia has distinct microsculpture on the head, and faint microsculpture on the pronotum and elytra. The specimen from Socotra resembles the specimen of '*M. ephippiatus*' from Saudi Arabia, but the design is in between that of *M. somalicus* and *M. arabicus*, and certainly not that of both '*M. ephippiatus*'. It differs from *M. somalicus* in having less protruding eyes and flatter temples. Since the male is not known yet, it seems inappropriate to describe the species based on one female.

***Parorthomus socotranus* Guéorguiev, Wrase & Farkač, 2014**

Material examined. YEMEN: SOCOTRA ISLAND: 2 spec., Momi area, 29.xi.1999, Wranik leg. (WWCR).

***Perigona (Trechicus) nigriceps* (Dejean, 1831)**

Material examined. YEMEN: SOCOTRA ISLAND: 2 spec., Dixam, Wadi Zereg, 12.46868N 54.01091E, 279 m, 24.iv.2014, Sharaf leg. (KSMA).

***Sphaerotachys lucasii* (Jacquelin du Val, 1852)**

Material examined. YEMEN: SOCOTRA ISLAND: 2 spec., Firmihin, ii.1999, Wranik leg.; 1 spec., Hadibo, x.1998, Wranik leg. (WWCR).

Remarks. This species was mentioned in WRANIK (2003: fig. 170s) as *Tachys* sp.

***Sphaerotachys pseudocomptus* (G. Müller, 1942)**

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Momi area, 29.xi.1999, Wranik leg. (WWCR).

Remarks. This specimen was mentioned in WRANIK (2003: fig. 170r) as *Tachys* sp.

***Tachyura (Amaurotachys) nigrolimbata nigrolimbata* (Péringuey, 1908)**

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., Hadibo, Erhenc, 12.65023N 54.04016E, 233 m, 19.iv.2014, M. Sharaf leg. (KSMA); 2 spec., same data, but 20.iv.2014 (KSMA).

***Tachyura (Tachyura) biblis* (Britton, 1948)**

Material examined. YEMEN: SOCOTRA ISLAND: 1 spec., W. Jo O, 12.54038N 54.17186E, 196 m, 21.iv.2014, M. Sharaf leg. (KSMA); 2 spec., W. Sakalof, 12.63311N 54.05632E, 48 m, Sharaf leg. (KSMA). New location on the island.

***Tachyura (Tachyura) ferrugata* (Reitter, 1895)**

Material examined. YEMEN: SOCOTRA ISLAND: 2 spec., W. Feriho, 12.44103N 54.15576E, 93 m, 21.iv.2014, M. Sharaf leg. (KSMA); 1 spec., Dehejamo, 12.59049N 54.05205E, 563 m, 22.iv.2014, M Sharaf leg. (KSMA).

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