

***Baeocera socotrana* sp. nov., the first species
of Scaphidiinae (Coleoptera: Staphylinidae)
reported from Socotra Island**

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Abstract. *Baeocera socotrana* sp. nov. is described from Socotra Island, Yemen. The new species is a member of the *B. lenta* group. It has reduced metathoracic wings, shortened elytral sutural striae, and in dorsal view abdomen almost completely covered by the elytra.

Key words. Staphylinidae, Scaphidiinae, *Baeocera*, new species, Yemen, Socotra

Introduction

The rove-beetle subfamily Scaphidiinae is one of the groups unknown from Socotra until now. A species of *Baeocera* Erichson, 1845 found to occur there is quite unexpected. The genus *Baeocera* comprises worldwide 258 species currently recognized as valid (see LÖBL 1997 and subsequent descriptions). According to available information, they are myxomycetophagous and mycetophagous, and found in moist habitats (LÖBL 1992, LESCHEN & LÖBL 2005). The genus is species-rich in the subtropics and tropics of Asia and New World but appears depauperate in Africa and the adjacent islands and archipelagos. *Baeocera* has not yet been reported from the Arabian Peninsula, Somalia or any of the East African areas north of Kenya. Therefore, the recent discovery of a species of this genus in Socotra is an event.

Material and methods

The material studied is housed in the collections of the Entomological Department of the National Museum in Prague, Czech Republic (NMPC) and in the Muséum d'histoire naturelle, Geneva, Switzerland (MHNG). The body length is measured from the anterior pronotal margin to the inner apical angle of the elytra. The first abdominal ventrite refers to the first exposed one, and the sides of the aedeagus refer to their morphological sides, rotated to 90°.

Taxonomy

Baeocera socotrana sp. nov.

(Figs. 1–8)

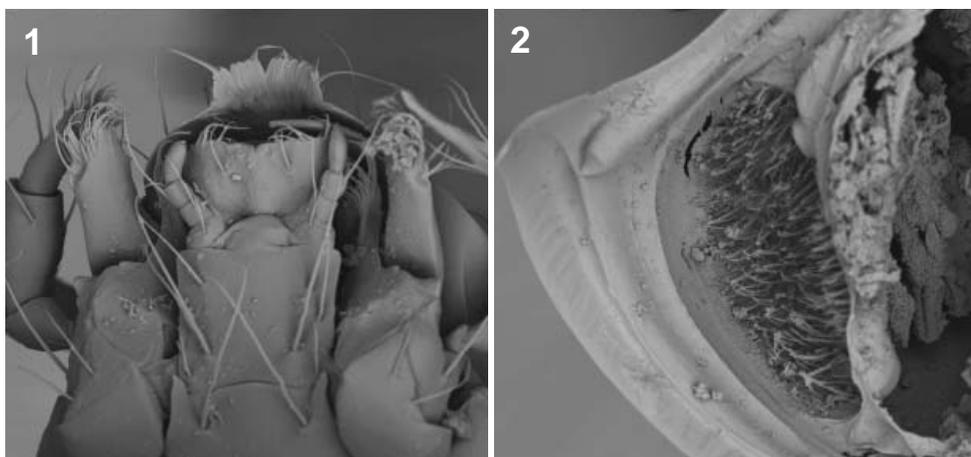
Type material. HOLOTYPE: ♂ (NMPC): ‘YEMEN, SOCOTRA Island, Al Haghier Mts., Scant Mt. env., 12°34.6'N, 54°01.5'E, 1450m, J. Bezděk leg., 12-13.xi.2010'. PARATYPES: 1 ♂, 3 ♀♀, and 4 unsexed specimens, with the same data as the holotype; 16 unsexed specimens, with the same data but ‘Jiří Hájek leg.’ (NMPC, MHNG); 2 ♂♂, 5 ♀♀, and 15 unsexed specimens, with the same data but: ‘P. Hlaváč leg.’ (NMPC, MHNG); 1 ♂, ‘YEMEN, Socotra, wadi Ayhaft, 12°36.5'N, 53°58.9'E, 200m, 7-8.xi.2010, P. Hlaváč leg.’ (NMPC).

Description. Length 1.05–1.31 mm, width 0.69–0.84 mm. Head and body black, apex of abdomen dark brown to blackish. Femora and antennomeres V to XI brown. Tibiae, tarsi, maxillary palpi and antennomeres I to IV lighter, ochraceous.

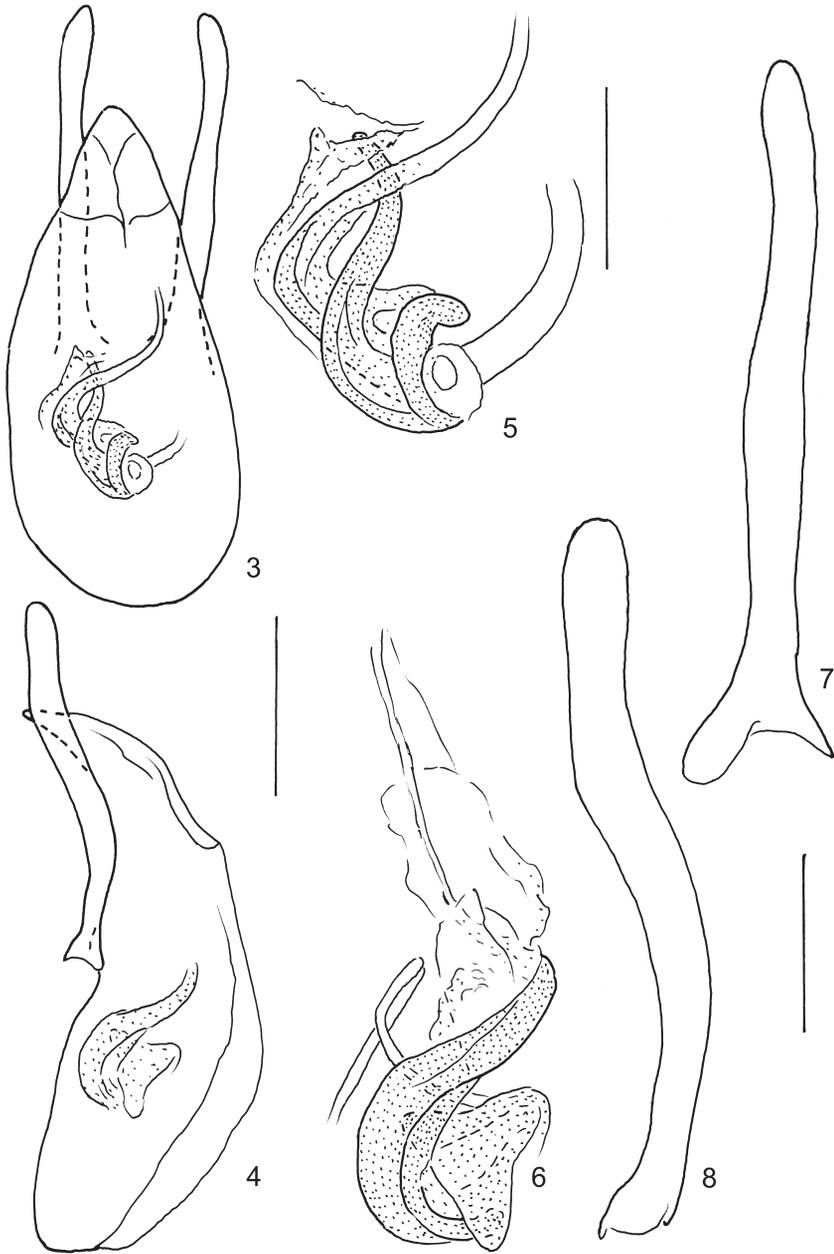
Labral brush well developed (Fig. 1). Antennae comparatively short, length ratio of antennomeres as III 6: IV 6: V 9: VI 6: VII 10: VIII 8: IX 10: X 10: XI 11. Segments III and IV even, each 3 times as long as wide; segments V and VI slightly wider than segment IV, segment V about 4 times as long as wide, VI almost 3 times as long as wide; segment VII about 2.5 times as long as wide; segment VIII about 3 times as long as wide; segment X 2 times as long as wide, distinctly wider than segment VII; segment X and XI each about 1.5 times as long as wide.

Lateral contours of pronotum and elytra continuously or almost continuously rounded. Pronotum not microsculptured, with sparse and very fine punctation, hardly visible at 50x magnification, setation well visible at 50x magnification. Lateral margins of pronotum strongly convex, anterior pronotal margin narrow, basal lobe wide and very short, inconspicuous. Exposed tip of scutellum minute.

Elytra lacking microsculpture, strongly narrowed apically, covering entirely or almost entirely tip of abdomen, with lateral margin keels concealed in dorsal view, sutural striae shortened, starting beyond basal fifth of sutural length, adsutural areas flat. Elytral punctation near



Figs. 1–2. *Baeocera socotrana* sp. nov. 1 – mouth-parts; 2 – prothoracic corbiculum.



Figs 3–8. *Baocera socotrana* sp. nov. 3, 4 – aedeagus in dorsal and lateral view, scale bar = 0.1 mm; 5, 6 – internal sac in dorsal and lateral view, scale bar = 0.05 mm; 7, 8 – paramere in dorsal and lateral view, scale bar = 0.05 mm.

base and along lateral stria similar to that on pronotum; punctation on most of discal surface much coarser than that on pronotum, consisting of punctures well delimited and separated by intervals about two to three times as large as puncture diameters. Lateral and epipleural striae impunctate. Prothoracic corbiculum containing setae-like structures (Fig. 2). Metathoracic wings strongly reduced, present as very narrow rudiments and obviously not functional.

Hypomera impunctate. Mesepimeron small, hardly 1.5 to 1.8 times as long as interval to mesocoxa. Metaventrite in middle very weakly convex, lacking impression, with punctation coarse and dense; punctures slightly elongate, about as large as their intervals. Lateral parts of metaventrite with punctures somewhat larger than those in middle, distinctly elongate and fairly irregular. Submesocoxal area about 0.03 mm long, shortest interval between submesocoxal line and metacoxa about 0.10–0.12 mm. Metepisternum parallel-sided, with inner suture indicated by row of punctures. Punctation on middle of abdominal ventrite I fairly coarse and dense, consisting of round punctures mostly smaller than their intervals. Punctation on lateral parts of abdominal ventrite I coarse and dense, near base clearly elongate, partly confluent and separated by elongate ridges, becoming finer apically, near apical margin consisting of round punctures smaller or about as large as their intervals. Protibiae straight, meso- and metatibiae hardly curved. Following ventrite finely, distinctly punctate.

Male characters. Protarsomeres hardly widened. Aedeagus (Figs. 3–8) 0.34–0.36 mm long, weakly sclerotized. Median lobe with basal bulb longer than apical process. Apical process inflexed ventrally, blunt at tip. Articular process weakly developed. Parameres long and narrow, in dorsal view slightly sinuate, almost evenly wide, except at base; parameres in lateral view distinctly sinuate, near base narrower than in apical half. Internal sac with flagellar guide-sclerite gradually narrowed and sinuate, accessory sclerite present, base of flagellum very narrow, scale-like or denticulate structures absent from membranes.

Differential diagnosis. This new species is a member of the *B. lenta*-group defined by symmetrical median lobe and parameres of the aedeagus, weakly sclerotized dorsal valves of the median lobe, and permanently extruded, very long ejaculatory duct forming circles above the median lobe. The group is species-rich in Asia but includes only two Afrotropical species, *B. umtalica* Löbl, 1987 and *B. africana* Löbl, 1987 (see LÖBL 1987). These African species may be easily distinguished from *B. socotrana* sp. nov. by having sutural striae starting at elytral base and by their conspicuous elytral punctation. Besides, their aedeagal characters are distinctive. In particular, *B. umtalica* has much longer apical process of the median lobe compared to the basal bulb, and *B. africana* has parameres straight and notched. *Baeocera socotrana* sp. nov. resembles and is possibly closer allied to *B. schreyeri* Löbl, 1990 and *B. crinita* Löbl, 1992 known from Thailand and the Himalayas, respectively. *Baeocera schreyeri* may be distinguished from *B. socotrana* sp. nov. by distinctly longer antennae, with the ultimate segment about 2.5 times as long as wide, and has finely denticulate membranes and distinctive shape of the sclerotized pieces of the internal sac of the aedeagus. *Baeocera crinita* has sutural striae of elytra much shorter, starting beyond the basal third, and the elytra and lateral parts of the abdominal ventrite I with much finer punctation.

Etymology. The new species is named after Socotra Island (Yemen), where it occurs.

Collection circumstances. Sifted from leafs and other debris accumulated under shrubs and trees in the summit area of the Hagher mountains, and in a wadi at low altitude.

Distribution. So far known only from two close localities on Socotra Island. The wadi Ayhaft, where a single specimen of this species was found, is below the Al Haghier range. Thus the presence of the species that cannot fly at both the highest elevation of the island and in that wadi suggests flood dispersal.

Acknowledgments

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