

**Description of *Selasia socotrana* sp. nov.
(Elateridae: Agrypninae: Drilini) from Socotra Island,
with notes on *S. homhilia***

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Abstract. *Selasia socotrana* sp. nov. is described from Socotra and compared with *Selasia homhilia* Geisthardt, 2003. *Selasia homhilia* is shown to differ in morphology of mandibles and aedeagus from all hitherto known representatives of Drilini. The diagnostic characters of both investigated species are figured and their relationships are briefly discussed.

Key words. Coleoptera, Elateroidea, Elateridae, Agrypninae, Drilini, *Selasia*, taxonomy, new species, Yemen, Socotra

Introduction

A coleopteran fauna of Socotra Archipelago has been intensively studied recently and, therefore, many new Socotran species have been described in the last few years (e.g., HÁVA 2007, LO CASCIO & GRITA 2011, PURCHART 2012, HÁJEK & BEZDĚK 2012). The soft-bodied elaterid Drilini (included in Agrypninae by KUNDRATA & BOČAK (2011)) had not been reported from Socotra until GEISTHARDT (2003) described *Selasia homhilia*. *Selasia* Laporte, 1836 is the most diverse genus of Drilini with about 50 species occurring in the Afrotropical Region (GEISTHARDT 2007). Eight species are distributed in the Indian subcontinent and the Himalayas (KUNDRATA 2012) and single species are known from Rhodes, Yemen and Socotra (GEISTHARDT 2003). Here, I describe a new *Selasia* species endemic to Socotra Island and discuss the morphological peculiarities of *S. homhilia*.

Material and methods

The morphology of male adults was examined. Male genitalia were dissected after short boiling in 10 percent aqueous solution of KOH and photographed in glycerol by a digital

camera attached to a stereoscopic microscope. The following measurements were taken using an eye-piece scale bar on a binocular microscope:

BL	body length, measured from the fore margin of head to the last abdominal segment;
EL	elytral length;
PL	pronotal length at midline;
PW	pronotal width at middle part;
Ediam	maximum eye diameter in lateral view;
Edist	minimum interocular distance in the frontal part of the head;
WH	elytral width at humeri.

Exact label data are cited for the type material. A forward slash (/) separates different lines on a label and a double slash (//) different labels of data. The specimens included in this study are deposited in the following institutional collections:

BMNH	The Natural History Museum, London, United Kingdom;
HLMD	Hessisches Landesmuseum, Darmstadt, Germany;
NMPC	Národní muzeum, Prague, Czech Republic.

Taxonomy

Selasia socotrana sp. nov.

(Figs. 1–2, 4, 8, 10)

Type material. HOLOTYPE: ♂, **YEMEN, SOCOTRA ISLAND** / Dixam plateau, TUDHEN / shrubland with *Commiphora planifrons* 18.–22.vi.2012 / 12°32.7'N, 53°59.9'E, 1135 m [printed] // SOCOTRA expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Puchart leg. [printed] (NMPC). PARATYPE: ♂, **SOCOTRA**: / Kishin. / 700 m. / 18.iv.1967 / K. Guichard [printed] / B.M.1967–455 [handwritten] (BMNH).

Description. Male. Body medium-sized, elongate, almost parallel-sided, 2.76–2.78 times as long as wide at humeri, moderately convex dorsally (Fig. 1). Head, prothorax and elytra brown, antennomeres 2–11, abdomen, meso- and metathorax black, legs brown to dark brown with apical parts of femora and basal parts of tibiae black, scapus and tarsomeres dark brown or black. Entire body covered by sparse, yellow pubescence.

Head including eyes slightly wider than anterior margin of pronotum. Cranium punctured, with depression between conspicuous antennal sockets, dorsally with long, sparse, erected pubescence; clypeus with frontal margin widely concave. Eyes medium-sized, hemispherically prominent, their frontal distance 1.98–2.04 times eye diameter. Mandibles slender, long, shiny, considerably curved, incisor margin with small tooth in middle part (Fig. 8). Maxillary palpi tetramerous, apical palpomere longest, narrow, obliquely cut, flattened apically. Labial palpi trimerous, tiny, apical palpomere pointed. Antennae robust, flabellate, reaching one third of elytral length, with flattened lamellae from antennomere 3; scapus long, robust, more than two times longer than pedicel; pedicel short, minute; antennomeres 3–10 flabellate, antennomere 3 longest; its lamella robust, almost half length of rest of lamellae, widely attached; base of lamella of antennomere 3 almost two times longer than base of lamella of antennomere 4, antennomeres 4–10 gradually shortened to apical part, with long, slender lamellae, apical antennomere long, simple, about same length as lamella of penultimate antennomere (Fig. 2).



Fig. 1. *Selasia socotrana* sp. nov., habitus of holotype. Scale bar = 2 mm.

Pronotum slightly convex, widest in middle part, 1.32–1.33 times wider than length at midline. Anterior margin slightly emarginate in middle part, lateral margins convex, posterior margin widely sinuate medially. Anterior angles obtuse, posterior angles prominent, acute; surface of disc finely punctured, with sparse, erected, long setae (Fig. 10). Prosternum transverse, prosternal process present, apically narrowed. Scutellum flat, triangle-shaped. Mesoventrite narrow, with emarginate frontal margin; both mesanepisternum and mesepimeron in contact with coxal pit. Metaventrite large, punctured sparsely; pubescence sparse in middle part and denser around margins. Elytra almost parallel-sided, widest at humeri, 1.76–1.84 times longer than width at humeri, tapered apically, punctured, covered by sparse pubescence.

Abdomen short, slender; ventrites with fine microstructure and sparse, long setae. Legs slender, slightly compressed, with sparse, long, erected setae, coxae long, robust, trochanters slender, obliquely attached to femora, tarsomeres 1–3 subequal in length, tarsomere 4 shortest, apical tarsomere long, narrow, claws simple, slender, slightly curved.

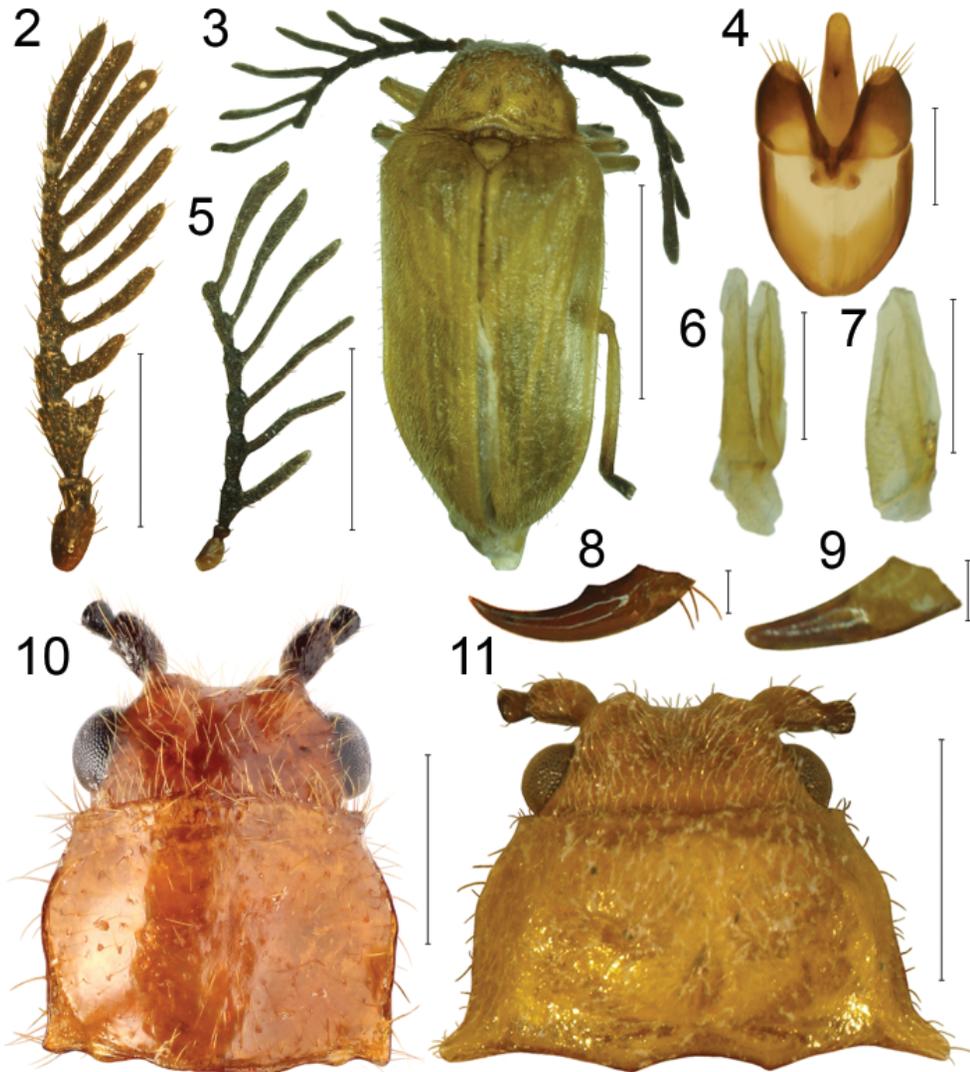
Male genitalia compact, with strong phallus; phallus longer than parameres, considerably curved, with hook in middle part; robust, wide parameres with membranous apical parts, with sparse setae apically; phallobase robust, longer than parameres (Fig. 4).

Measurements. BL 5.80–6.55 mm, EL 3.70–4.35 mm, WH 2.10–2.35 mm, PL 1.21–1.50 mm, PW 1.60–2.00 mm, Edist 0.81–0.94 mm, Ediam 0.41–0.46 mm.

Differential diagnosis. *Selasia socotrana* sp. nov. and *S. homhilia* can be distinguished by the following characters – *S. socotrana* sp. nov. has the black meso- and metathorax, mandibular incisor margin with tooth in middle part (Fig. 8), antennomere 3 with triangular lamella (Fig. 2), pronotum widest in middle part (Fig. 10), short parameres, and phallus curved with median hook (Fig. 4), while *S. homhilia* has light brown meso- and metathorax, mandibular incisor margin simple, without tooth (Fig. 9), antennomere 3 with narrow lamella (Fig. 5), pronotum widest in posterior angles (Fig. 11), parameres long (Fig. 7), and phallus straight, simple (Fig. 6). *Selasia arabica* Geisthardt, 2003 from the Arabian Peninsula differs from

S. socotrana sp. nov. by bicolor elytra, uniformly brown ventral body parts, more transverse pronotum and shorter parameres.

Etymology. The species name *socotrana* is derived from the type locality.



Figs. 2–11. 2, 4, 8, 10 – *Selasia socotrana* sp. nov.: 2 – antenna; 4 – aedeagus in ventral view; 8 – mandibular incisor margin; 10 – head and pronotum. 3, 5, 6–7, 9, 11 – *S. homhilia* Geisthardt, 2003: 3 – habitus of holotype; 5 – antenna; 6 – phallus with paramere (no phallobase has been preserved in holotype); 7 – paramere; 9 – mandibular incisor margin; 11 – head and pronotum. Scale bars = 0.1 mm (Figs. 8–9), 0.25 mm (Figs. 4, 6–7), 1 mm (Figs. 2, 5, 10–11), 2 mm (Fig. 3).

Biology and ecology. Larvae and females are unknown and no information about the life-history of *S. socotrana* sp. nov. is available. I suppose that larvae and neotenic females feed on land snails like other *Selasia* species (KUNDRATA & BOCAK 2007). *Selasia socotrana* sp. nov. lives in a limestone area of Dixam plateau so larvae and females may attack snails occurring in limestone rocks similarly to the Mediterranean drilines (SCHILTHUIZEN et al. 1994).

Distribution. *Selasia socotrana* sp. nov. is so far known only from two localities at the base of Hagher Mts., central Socotra.

Discussion

Recently, only four genera have been included in Drilini (KUNDRATA & BOCAK 2011). *Drilus* Olivier, 1790, *Malacogaster* Bassi, 1833 and *Selasia* share mandibular incisor margin with tooth in middle part and trilobate aedeagus with median hook in considerably curved phallus. *Selasia socotrana* sp. nov. apparently belongs to this group of genera and with compact general appearance and strongly flabellate antennae it is a morphologically typical representative of *Selasia* (Fig. 1). I have studied the holotype of *S. homhilia* and this species differs from other representatives of this genus in simple mandibular incisor (Fig. 9) and straight phallus without median hook (Fig. 6). These characters and rather ptilodactylid-like general appearance (Fig. 3) indicate that this species should not be included neither within *Selasia* nor *Drilus* and *Malacogaster*. *Paradrilus* Kiessenwetter, 1865 differs from *S. homhilia* by filiform antennae, length ratio of basal antennomeres and shape of hind pronotal angles. As there is only one specimen available (deposited in HLMD) and I cannot dissect the holotype to investigate several phylogenetically important characters, I provisionally keep *S. homhilia* in the present position as proposed by the author of the species (GEISTHARDT 2003).

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