

A new species of the genus *Chalcogenia* from Socotra Island (Coleoptera: Buprestidae: Buprestinae: Anthaxiini)

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Abstract. A new species of the genus *Chalcogenia* Saunders, 1871, *Chalcogenia nana* sp. nov., from Socotra Island, Yemen is described, illustrated, compared with the most similar species and attributed to the *C. sulcipennis* (Gory, 1841) species-group. In addition, sexual dimorphism of *C. elongata* Kerremans, 1912 from the Democratic Republic of the Congo, known previously only from male specimens, is shortly described.

Key words. Coleoptera, Buprestidae, Buprestinae, Anthaxiini, *Chalcogenia*, new species, Yemen, Socotra

Introduction

The genus *Chalcogenia* Saunders, 1871 was recently revised by Bílý (2007). An additional species, *C. margotana* Novak, 2009, attributed to the *C. plicata* Bílý, 2007 species-group, was described by NOVAK (2009) from Ethiopia. At present, *Chalcogenia* comprises 38 species and 2 subspecies occurring in the Sub-Saharan Africa, the Arabian Peninsula and the Middle East.

The single specimen collected recently by the Czech expedition on Socotra Island represents another, so far the smallest member, of the genus, and I describe it below.

Material and methods

A Canon D-550 digital camera with attached Canon MP-E65mm f/2.8 1–5× macro lens was used to capture the colour images.

Data from locality label of the type in the taxonomy part are cited ‘verbatim’. Double-slash ‘//’ are used for separating data from different labels.

The following abbreviations are used in the text:

NMPC Národní muzeum, Prague, Czech Republic;
PLCF Philippe Léonard collection, Paris, France.

Taxonomy

Chalcogenia nana sp. nov.

(Figs. 1–3)

Type locality. Yemen, Socotra Island, Homhil protected area, 12°34.5'N 54°18.5'E, 360–500 m.

Type material. HOLOTYPE: ♂, 'Yemen, Socotra Island, Homhil protected area, shrubland with *Boswellia* & *Dracaena* trees, 12°34.5'N 54°18.5'E, 360–500 m // SOCOTRA expedition 2012, J. Bezděk, J. Hájek, V. Hula, P. Kment, I. Malenovský, J. Niedobová & L. Purchart leg.' Holotype is deposited in NMPC.

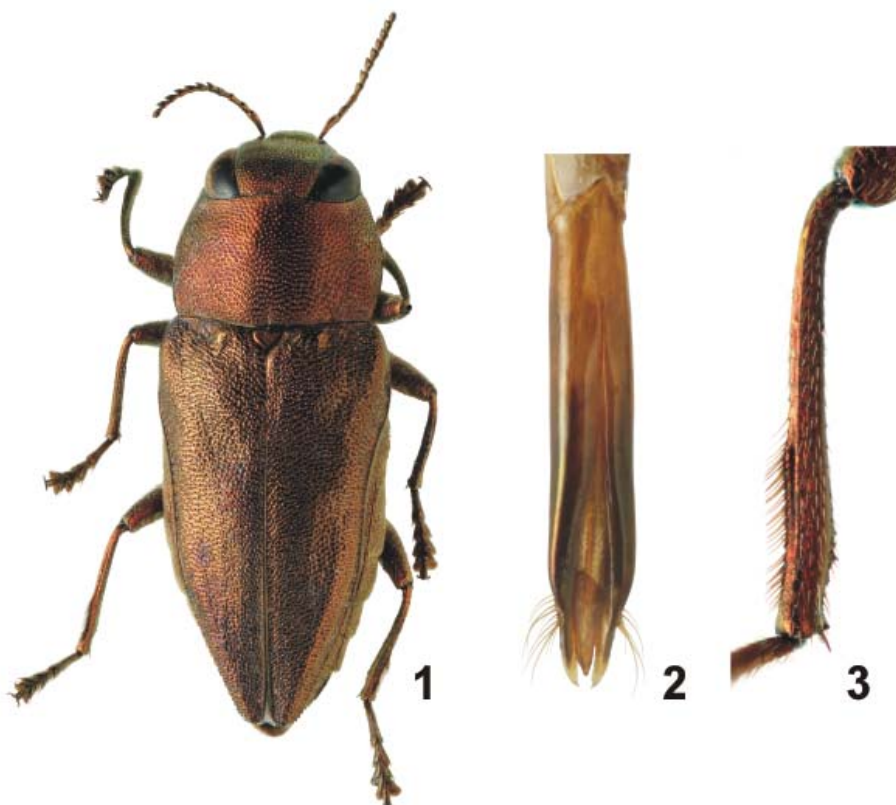
Description. Relatively small (8.4 mm), sphenoidal, lustrous (Fig. 1); entire body red-bronze, frons purple-bronze; head and pronotum asetose, elytra with extremely short, sparse, nearly indistinct white pubescence; ventral surface with short, sparse, recumbent white pubescence, lateral portions of abdominal ventrites with small patches of white tomentum; antennae and legs with short, semierect white pubescence, metatibiae with comb of short, rigid setae at distal half of outer margin.

Head large, as wide as anterior pronotal margin; frontoclypeus transverse, shallowly emargined anteriorly, separated from frons by shallow, wide depression; frontoclypeal suture missing; frons flat, slightly uneven; eyes large, reniform, slightly projecting beyond outline of head; antennae unicolorous, relatively long, reaching posterior third of lateral pronotal margins; scape four times as long as wide, slightly claviform, finely curved at distal half; pedicel 2.2 times as long as wide, slightly piriform; antennomere 3 twice as long as wide, slightly triangular; antennomeres 4–10 sharply triangular to trapezoidal, 1.0–1.2 times as long as wide; terminal antennomere rhomboid, twice as long as wide; sculpture of head consisting of wide, dense but shallow, rounded and polygonal cells with microsculptured bottoms.

Pronotum 1.9 times as wide as long, regularly convex with quite indistinct lateroposterior depressions; anterior margin deeply biarcuate, medial lobe rounded but rather prominent; posterior margin very slightly biarcuate, lateral margins nearly regularly rounded, maximum pronotal width just anterior midlength; pronotal sculpture consisting of fine, shallow, rounded to polygonal cells with distinct central granules at lateral portions of pronotum. Scutellum subcordiform, 1.3 times as wide as long, microsculptured.

Elytra twice as long as wide, distinctly sphenoidal, tapering from humeri to apex, nearly regularly convex, without any traces of longitudinal keels; humeral swellings small but distinct, basal transverse depression deep, wide but short, not reaching scutellum; epipleura narrow, nearly reaching elytral apex; each elytron narrowly, separately rounded, apical third of elytral margins with sharp, fine serration; elytral sculpture consisting of small, very dense punctures which are somewhat transversely widened at humeri and along elytral margins.

Ventral surface lustrous, with very dense punctation, punctures larger and rounded on sternal portion and smaller, less distinct on abdomen; prosternal process flat, strongly widened posterior to procoxae, sharply pointed apically. Anal ventrite apically truncate with very fine lateral serration.



Figs. 1–3. *Chalcogenia nana* sp. nov., male holotype. 1 – habitus; 2 – aedeagus; 3 – left metatibia. Not in scale.

Legs relatively long and slender, all femora normal, not swollen; protibiae slender, slightly curved, becoming wider distally; mesotibiae slender, nearly straight with slight, inner, preapical emargination; metatibiae (Fig. 3) straight, flattened, with inner, preapical emargination which bears several small teeth; tarsi relatively long, tarsomeres becoming wider distally, tarsomeres 1–4 with ventral adhesive pads; tarsal claws very small, slender, hook-shaped, slightly enlarged at base.

Aedeagus (Fig. 2) slender, nearly tubular, parameres very slightly enlarged preapically, narrowly pointed apically; median lobe sharply pointed apically, without lateral serration.

Sexual dimorphism. Female unknown.

Measurements. Length: 8.4 mm; width: 3.4 mm.

Etymology. Specific epithet is derived from the Latin adjective *nanus* (= small) since *Chalcogenia nana* sp. nov. is the smallest species of the genus.

Differential diagnosis. *Chalcogenia nana* sp. nov. resembles *C. theryi* Abeille, 1897 and *C. halperini halperini* Volkovitsh & Bílý, 1997 in its colouration and body shape but it differs

strongly in the smooth elytra (elytra with longitudinal keels in *C. theryi* and *C. halperini halperini*) and in the shape of the male genitalia and metatibiae (see BÍLÝ 2007: Figs. 64, 75, 108, 128). The only species with completely smooth elytra is *C. impressicollis* (Fåhræus, 1851) which differs from *C. nana* sp. nov. (except for its distribution – South Africa) in the suboval body-shape (see BÍLÝ 2007: Fig. 35); long frontal pubescence; much finer pronotal sculpture and in the form of the male genitalia and metatibiae (see BÍLÝ, 2007: Figs. 77, 109).

Comments to classification. *Chalcogenia nana* sp. nov. can be attributed to the *C. sulcipennis* species-group based on the body-shape, sculpture, form of antennae and male metatibiae, lateral serration of anal ventrite, form of parameres and on the general shape of male genitalia. However, completely smooth elytra without any traces of keels and median lobe without lateral serration do not correspond to the principal characters of the group.

Collection circumstances. The only specimen (holotype) was found sitting at about 11 a.m. on the bark of *Boswellia elongata* Balf. f. (Burseraceae) (J. Niedobová, pers. comm.), which could be the host plant of the species, although nearly all species of *Chalcogenia* develop in *Acacia* spp. (Fabaceae).

Distribution. Yemen: Socotra Island.

Chalcogenia elongata Kerremans, 1912

Chalcogenia elongata Kerremans, 1912: 6 (original description).

Chalcogenia elongata: BÍLÝ (2007): 134, Figs. 30, 72, 105 (revision, key).

Type locality. Democratic Republic of the Congo, Katanga prov., Bukama [ca. 09°12'S, 25°51'E].

Material examined. Democratic Republic of the Congo, Katanga prov., Lukafu [ca. 10°31'S, 27°33'E], 28.iv.–4.vi.2004, Th. Bouyer leg. (2 ♂♂ 1 ♀, NMPC; 1 ♂, PLCF).

Remarks. Only the male sex was known for this species. Quite recently I have obtained four specimens for determination, including one female collected near of the type locality. The sexual dimorphism is represented only weakly: the female differs only in the straight, unmodified meso- and metatibiae and in the slightly incised apical margin of the anal ventrite.

Distribution. Democratic Republic of the Congo.

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