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Two new species of *Sphenoptera* from South-West Asia (Coleoptera: Buprestidae: Chrysochroinae)

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Abstract. Two new species of *Sphenoptera* Dejean, 1833: *S.* (*Deudora*) *peninsulae* sp. nov. from the Arabian Peninsula (Saudi Arabia and Yemen) and *Sphenoptera* (*Deudora*) *svatopluki* sp. nov. from Iraq are described, figured and compared with closely related species.

Key words. Coleoptera, Buprestidae, Entomology, taxonomy, new species, Arabian Peninsula, Iraq, Palaearctic Region

Introduction

The present work is a part of comprehensive study of the genus *Sphenoptera* Dejean, 1833 (Coleoptera: Buprestidae: Chrysochroinae: Sphenopterini) carried out by the senior author of this paper during recent decades (Kalashian 1990, 1994, 2005, 2014; Kalashian & Sakalian 2007; Kalashian & Volkovitsh 1993, 2006; Kalashian et al. 2005a,b; Volkovitsh & Kalashian 2003, 2006). During examination of the material of *Sphenoptera* from numerous museums and private collections several undescribed species were revealed. Descriptions of two of them belonging to the subgenus *Deudora* Jakovlev, 1898 are presented below.

Material and methods

In citations of labels below the following abbreviations are used: [h] – handwritten, [p] – printed; lines as they appear on each label are separated by slash '/' and data on different labels are separated by double slash '//'. Additional comments on label data, in particular, regarding current geographical names are given in square brackets. Our labels with the type status designation (Holotype, Paratype) are not cited in the text.

The studied material is deposited in the following collections:

BMNH The Natural History Museum, London, United Kingdom;
MKCY Mark Kalashian collection, Yerevan, Armenia;
NMPC National Museum, Prague, Czech Republic.

Taxonomy

Sphenoptera (*Deudora*) *peninsulae* sp. nov.

(Figs 1, 3–4)

Type locality. Saudi Arabia, Hejaz.

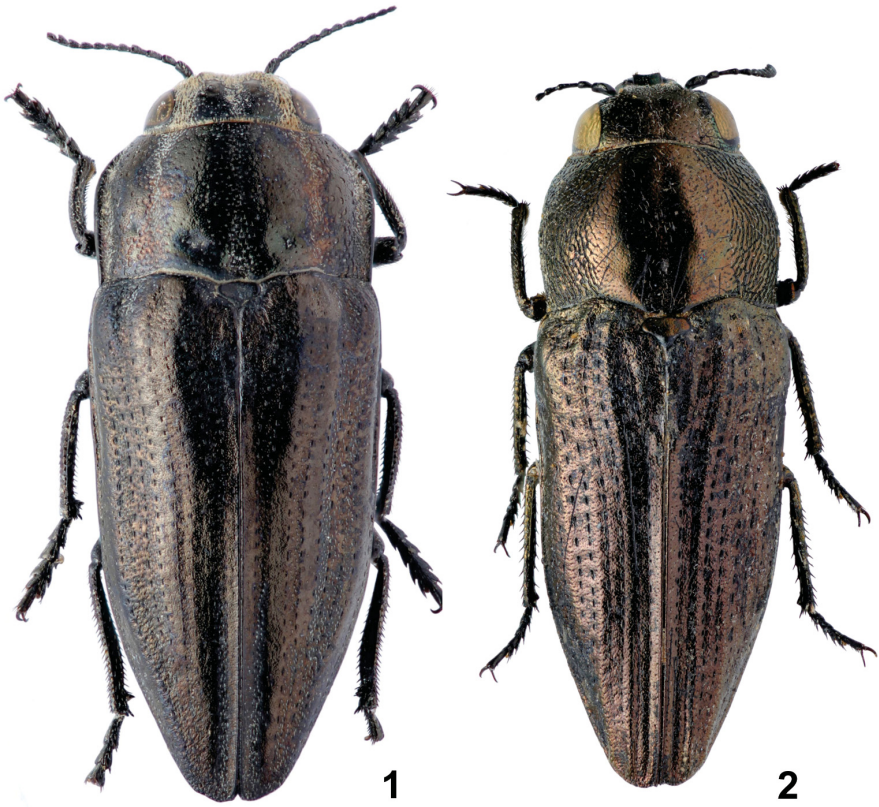
Type material. Holotype: ♂, '[Saudi Arabia] Hedjaz [Hejaz], Millingen [leg.] [h] // Sharp Coll. / 1905-13 [p]' (BMNH). Allotype: ♀, with the same data (BMNH). Paratypes: 2 ♂♂ 2 ♀♀, with the same data (BMNH, MKCY, NMPC); 1 ♂, 'Yemen, Jebel Samara / top of pass / ca. 9700 ft., 3.i.1938 [p] // B.M. Exp. to S.W. Arabia / H. Scott & E.B. Britton / B.M. 1938-246 [p]' (BMNH).

Description. Body moderately elongate, 2.45–2.60× as long as wide, strongly convex, black with slight bronzy reflection. Body length 8.75–12.00 mm, width 3.40–4.70 mm.

Head rather broad, slightly narrower than pronotum anteriorly; eyes large, moderately convex, slightly projecting beyond contour of head; vertex in male 2.00–2.15, in female 2.10–2.30 times as wide as transverse diameter of eye. Clypeus with arc-shaped incision, in shape of rather wide semicircle. Frons with almost straight sides, very weakly converging posteriorly, flattened or very slightly convex, with pair of slightly separated reliefs approximately at the level of mid-length of eyes. Supraantennal carinae anteriorly strong, posteriorly gradually disappearing and not reaching inner margins of eyes. Surface with rather sparse and inconspicuous micropunctation, reliefs with single small macropunctures, rest of surface of frons with dense and coarse, somewhere confluent macropunctures toward vertex becoming weaker and thinned out. Punctate portions of surface with short dense setae, reliefs with single setae. Antennae in male 1.85–2.05, in female 1.75–1.85 times as long as vertical diameter of eye, serrated from antennomere IV which is nearly equilateral, following antennomeres moderately transverse.

Pronotum 1.60–1.75× as wide as long, widest approximately near anterior 1/3 and/or near acute-angled basal angles. Sides in anterior 1/3 arcuate, posteriorly subparallel, nearly straight or very weakly emarginate. Lateral carinae wide, almost extending to anterior angles of pronotum, visible from above along whole of their length. Anterior margin slightly bisinuate, bordered with indistinct sulcus widely interrupted medially (extending approximately to inner margins of eyes); basal margin bisinuate, with median projection moderately broad with almost rectilinearly truncated apex. Pronotal disc convex, flattened or very slightly depressed along middle in posterior 1/2–2/3, and with two distinct longitudinal depressions situated approximately behind eyes, becoming slightly weaker anteriorly. Pronotal depressions with rough dense macropunctures, medial portion of disc with irregular sparse punctures smaller than in depressions and slightly more dense along middle, laterally macropunctures large, rather flat, somewhere rasp-shaped, near posterior angles of pronotum partly coalescent; micropunctures rather dense and distinct. Scutellum transverse with sides widely arcuate, nearly flat, with few micropunctures.

Elytra 1.76–1.94× as long as wide, near humeri slightly wider than pronotal base, their sides subparallel or very slightly convergent to posterior 2/5, then very slightly arcuate, distally nearly rectilinearly converging to apex. Elytral apices angularly irregularly arcuate, suture with indistinct obtuse tooth. Disc strongly convex, along sides with rather distinct depression, approximately continuing as lateral depression of pronotum, surface with micropunctation similar to that of pronotum, disc with rows of narrow hyphen-like punctures, intervals with irregular rather sparse and small macropunctures, in depressions macropunctures very dense,



Figs 1–2. 1 – *Sphenoptera* (*Deudora*) *peninsulae* sp. nov. (holotype); 2 – *S.* (*D.*) *svatopluki* sp. nov. (holotype).

punctures of rows deeper, parts of surface with few irregular transverse wrinkles. Odd intervals very slightly convex, even intervals flat or very weakly depressed.

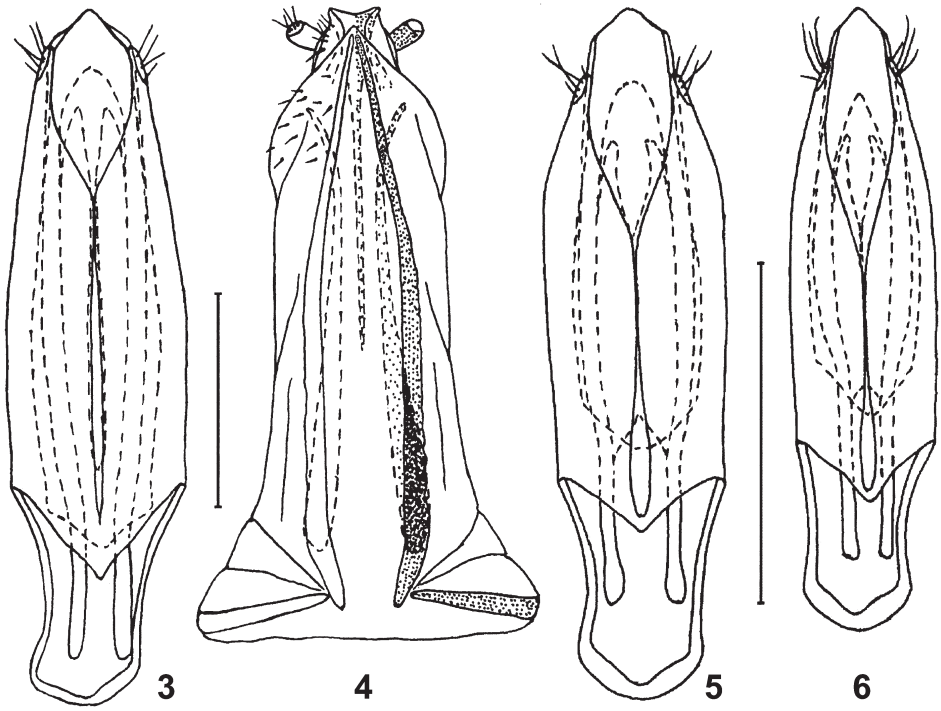
Ventral surface laterally with wide stripes of dense whitish setae hiding sculpture which consist of network of thin irregular wrinkles. Prosternal process slightly convex, with few irregular coarse punctures, laterally forming rows near border. Middle portion of sternum with coarse and rather dense irregular punctures posteriorly this structure becoming weaker and on anal ventrite nearly inconspicuous. Metacoxae with hind margin slightly emarginate medially and moderately laterally. Anal ventrite slightly irregularly rounded distally in both sexes, in female slightly narrower than in male.

In male protibiae slightly incurved, meso- and metatibiae nearly straight, all tibiae with inner margin before apex with tooth, rather small in protibiae, strong in meso- and metatibiae. In female tibiae nearly straight, only metatibiae with inner margin slightly emarginate.

Aedeagus as in Fig. 3.

Ovipositor as in Fig. 4.

Differential diagnosis. Closely resembling *S. vittaticollis* Lucas, 1844 known from North Africa and Israel and to *S. ventrisculpta* Obenberger, 1916 from Algeria and Tunisia. Both species can be easily distinguished by having pronotal sides nearly regularly arcuate, with



Figs 3–6. 3–4 – *Sphenoptera* (*Deudora*) *peninsulae* sp. nov. 3 – aedeagus, 4 – ovipositor; 5 – *S.* (*D.*) *svatopluki* sp. nov., aedeagus; 6 – *S.* (*D.*) *misella* Jakovlev, 1900, aedeagus. Scale bars = 1 mm.

narrower lateral carinae, and, especially, by uneven surface of elytra with odd interstriae distinctly convex, rather shiny, almost without macropunctures or wrinkles and even interstriae flattened or depressed, with rough sculpture of macropunctures and irregular wrinkles. In addition, *S. ventrisculpta* differs in having a more oval body and in nearly indistinct micropunctures of head and pronotum. *Sphenoptera vittaticollis* differs also in narrower body (2.65–2.90× as long as wide).

Etymology. Named after the Arabian Peninsula where the type material comes from, noun in genitive case.

Distribution. Saudi Arabia and Yemen.

Sphenoptera (*Deudora*) *svatopluki* sp. nov.

(Figs 2, 5)

Type locality. Iraq, Diyala Province, Kanakin.

Type material. Holotype: ♂, '[Iraq] Kanakin Irak / 9.IV.39 Frey [p] // Typus [p, on red paper] // Deudora / kanakina m. Type [h] / Det. Dr Obenberger [p]' (NMPC). Paratype, 1 ♂, the same locality data, but without type and identification labels (NMPC).

Description. Body rather elongate, 2.7 times as long as wide, dark bronzy, rather shiny, body

above nearly glabrous with very few inconspicuous setae, ventrally with short white setae slightly more dense laterally. Length 3.28–4.25 mm, width 1.18–1.58 mm.

Head rather broad, very slightly narrower than pronotum anteriorly; eyes large, moderately convex, slightly projecting beyond contour of head; vertex 2.07–2.09 times as wide as transverse diameter of eye. Clypeus in shape of rather narrow semicircle. Frons with almost straight sides, very weakly diverging posteriorly, flattened or very slightly convex, with pair of small weak reliefs approximately at the level of mid-length of eyes. Supraantennal carinae anteriorly strong, posteriorly gradually disappearing rather far from inner margins of eyes. Surface with sparse superficial micropunctures and with rather big macropunctures dense anteriorly, towards vertex becoming weaker and more sparse, reliefs with only micropunctures. Punctate portions of surface with short dense setae, reliefs with single setae. Antennae 1.50–1.80 times as long as vertical diameter of eye, serrated from antennomere IV which is slightly longer than wide, antennomere V nearly equilateral, more distal antennomeres moderately transverse.

Pronotum 1.35–1.40× as wide as long, widest approximately in middle, with sides nearly regularly arcuate, only very slightly emarginate before acute-angled posterior angles. Lateral carinae extending to approximately anterior 1/4 of pronotum, visible from above in approximately posterior 1/3. Anterior margin very feebly bisinuate, bordered with indistinct sulcus narrowly interrupted medially; basal margin bisinuate, with median projection moderately broad with almost rectilinearly truncated apex. Pronotal disc nearly regularly moderately convex, flattened or very slightly depressed along middle in posterior 1/2–2/3. Medial portion of disc with irregular sparse rather small macropunctures slightly more dense along middle, laterally pronotum with distinct concentric wrinkles; micropunctures like on frons. Scutellum transversally triangular with rounded lateral angles, nearly flat, with micropunctation similar to that of pronotum.

Elytra 1.85–1.95× as long as wide, near humeri distinctly wider than pronotal base, their sides subparallel or very slightly convergent to posterior 2/5, then very slightly arcuate, distally nearly rectilinearly converging to apex. Elytral apices angularly irregularly arcuate. Elytra convex, odd intervals slightly convex, even intervals flat or very weakly depressed, suture distinctly convex in posterior 3/4. Surface with micropunctation similar to that on pronotum, disc with rows of rather long and distinct hyphen-like punctures, intervals with irregular rather sparse and small macropunctures, part of surface with few irregular transverse wrinkles.

Prosternal process nearly flat, laterally and apically bordered with rather coarse sulcus, with few irregular coarse punctures medially. Metasternum and abdominal ventrite I with large and rather coarse rasp-shaped punctures laterally, medially and posteriorly, but distinct until anal ventrite. Metacoxae with hind margin slightly emarginate medially and moderately laterally. Anal ventrite distally trisinuate, with acute lateral angles.

Protibiae slightly incurved, meso- and metatibiae nearly straight, all tibiae with inner margin before apex with tooth, rather small in protibiae, strong in meso- and metatibiae.

Aedeagus as in Fig. 5.

Female unknown.

Differential diagnosis. Closely resembling *S. misella* Jakovlev, 1900 known from Southern Transcaucasia (Armenia, Georgia), Turkey and Iran. *Sphenoptera misella* differs from the new

species in smaller and sparser macropunctation and denser and more distinct micropunctation of the head and pronotum, in more delicate wrinkles on lateral parts of pronotum, nearly equally flattened elytral intervals, hyphen-like punctures of elytral rows finer, lateral keels of pronotum visible from above nearly in the whole length. Aedeagus in *S. misella* (Fig. 6) is slenderer than in the new species.

Etymology. The new species is dedicated to the famous coleopterist, one of the leaders in buprestological studies all over the world, Dr. Svatopluk Bílý, on the occasion of his 70th birthday.

Distribution. Iraq (Diyala Province).

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