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Description of *Sibinia (Dichotychius) omanica* n. sp. from Oman (Coleoptera, Curculionidae, Curculioninae)

by

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Abstract - A new species of the weevil genus *Sibinia* Germar - *S. omanica* n. sp. - belonging to the subgenus *Dichotychius* Bedel, is described from Oman in the Arabian Peninsula. It is closely related to *S. exigua* Faust, 1885, from which it differs mainly by the vestiture of the elytral interstriae being formed by wide concave and narrow convex scales intermixed, and the shape of the penis ending with a distinct tip.

Riassunto - Viene descritta *Sibinia (Dichotychius) omanica* n. sp. della Penisola Arabica. La nuova specie è affine a *S. exigua* Faust, 1885, dalla quale differisce principalmente per il rivestimento delle interstrie elitrali, formato da squame sia larghe e concave che strette e convesse, e dalla forma del pene che termina all'apice con una distinta punta.

INTRODUCTION

Recently we had the opportunity to study a large series of specimens collected in Oman belonging to the weevil genus *Sibinia* Germar, 1817 (Coleoptera, Curculionidae, Curculioninae, Tychiini), and more specifically to the subgenus *Dichotychius* Bedel, 1885. After a careful comparison with all the species of this subgenus, we concluded that these specimens belong to a new species, which is described herein.

MATERIALS AND METHODS

Measurements of the specimens were taken as follows: body length, from the apex of pronotum to the apex of elytra; rostrum length (Rl), from its base to its apex excluding mandibles; rostrum width (Rw), at its widest point; pronotal length (Pl), from its anterior to its posterior margins; pronotal width (Pw), at its widest point; elytral length (El), from the basal margin of the scutellum to the elytral apex; elytral width (Ew), at its widest point.

Pictures of adults were taken using a Canon EOS 5D Mark II camera with Canon MP-E 65mm f/2.8 1-5× Macro lens, then composed using Zerene Stacker image-stacking software. Pictures at the locality were taken using a Panasonic DMC FZ-50 camera.

Genitalia, when dissected, were glued using DMHF (Dimethyl Hydantoin Formaldehyde resin) to the same label of the respective specimen.

The locality data are given using the original spelling, as written on labels; separate labels are indicated by a double slash. Additional comments and explanations are given in square brackets.

Abbreviations of the type and other specimens depositories: DFPC: David Frank private collection, Prague, Czech Republic; FPPC: Filip Pavel private collection, Vysoká nad Labem, Czech Republic; JKPC: Jiří Krátký private collection, Hradec Králové, Czech Republic; JPPC: Jan Pelikán private collection, Hradec Králové, Czech Republic; NMPC: Národní Muzeum, Prague, Czech Republic; RCPC: Roberto Caldara private collection, Milan, Italy; TKPC: Tomáš Kopecký private collection, Jablonné nad Orlicí, Czech Republic.

***Sibinia (Dichotychius) omanica* n. sp.**

Type series. Holotype, male: "N Oman, Al Batinah N. Gov., Farfarah (near Shinas), 24.3 lgt. Jan Pelikán 2019 / 24° 42' 45.697" N 1 m 56° 28' 37.627" E sea coast (saline) beating *Limonium* sp." (NMPC). Paratypes: same data as Holotype (15 males and 10 females; NMPC, JKPC, JPPC, RCPC); "N Oman, Al Batinah N. Govern., Farfarah (near Shinas), 2.4. lgt. Jan Pelikán 2018 / 24° 42' 45.697" N 1 m 56° 28' 37.627" E, saline (mangrove) beating *Limonium* sp." (10 males and 13 females; NMPC, JKPC, JPPC, RCPC); "sweeping *Limonium* sp. / "Oman, Al Batinah North. Gov., Farfarah env. saline, 24° 42' 45" N, 56° 28' 37" E 23.III.2019 leg. David Frank" (9 males and 6 females; DFPC); "Oman, 23.3.2019, Al Batinah North Gov., Farfarah (near Shinas), 24° 42' 45.697" N, 1 m, 56° 28' 37.627" E, saline, 1 m, Lgt. T. Kopecký" (3 males and 3 females; TKPC).

Other specimens examined. "Oman, S Al Ashkharah, Qurun [correctly "Qurum"] beach, 41 m, N 21°26'13,2" E 59°20'37,7", lgt. F. Pavel 27.3.2018" (6 males and 3 females; FPPC, JKPC, RCPC).

DIAGNOSIS. A *Sibinia (Dichotychius)* species 1.50-1.90 mm long, with scales arranged in single regular row on each elytral interstria, where they are of two different shapes, mostly wide and concave, and sparsely narrower flat to slightly convex. The wide scales can be unicolorous or of two distinct colors, brownish and white, both on pronotum and elytra. Tarsal claws unarmed. Body of penis pointed at its apex.

Description

Holotype (Figs. 1, 4): length 1.65 mm.

Integument dark brown, legs, antennae and rostrum reddish brown.

Head and rostrum in basal third very densely covered with overlapped broad elliptical to oval light brown and greyish scales. Head between eyes moderately wider than rostrum at base. Rostrum glabrous in apical two thirds, moderately robust, long (l/w 5.75), slightly longer than pronotum (Rl/Pl 1.07), in dorsal view parallel-sided from base to apex, distinctly striate-punctate, in lateral view distinctly curved in basal third, then almost straight to apex, almost of same width from base to apex. Antennae inserted at middle of rostrum. Antennal funicle 6-segmented, segment 1 remarkably thicker than and twice as long as segment 2, 2.5 times longer than wide, segment 2 1.8 times longer than wide, segments 3-6 almost as long as wide, gradually slightly more transverse. Antennal club oval, more than twice as long as wide. Eyes large and flat.

Pronotum 1.18 times wider than long, sides weakly rounded, widest at middle, moderately constricted at apex, weakly convex on disc, completely covered with mostly rounded and in minimal part elliptical, light brown and greyish intermixed scales, these close each other but not overlapped.

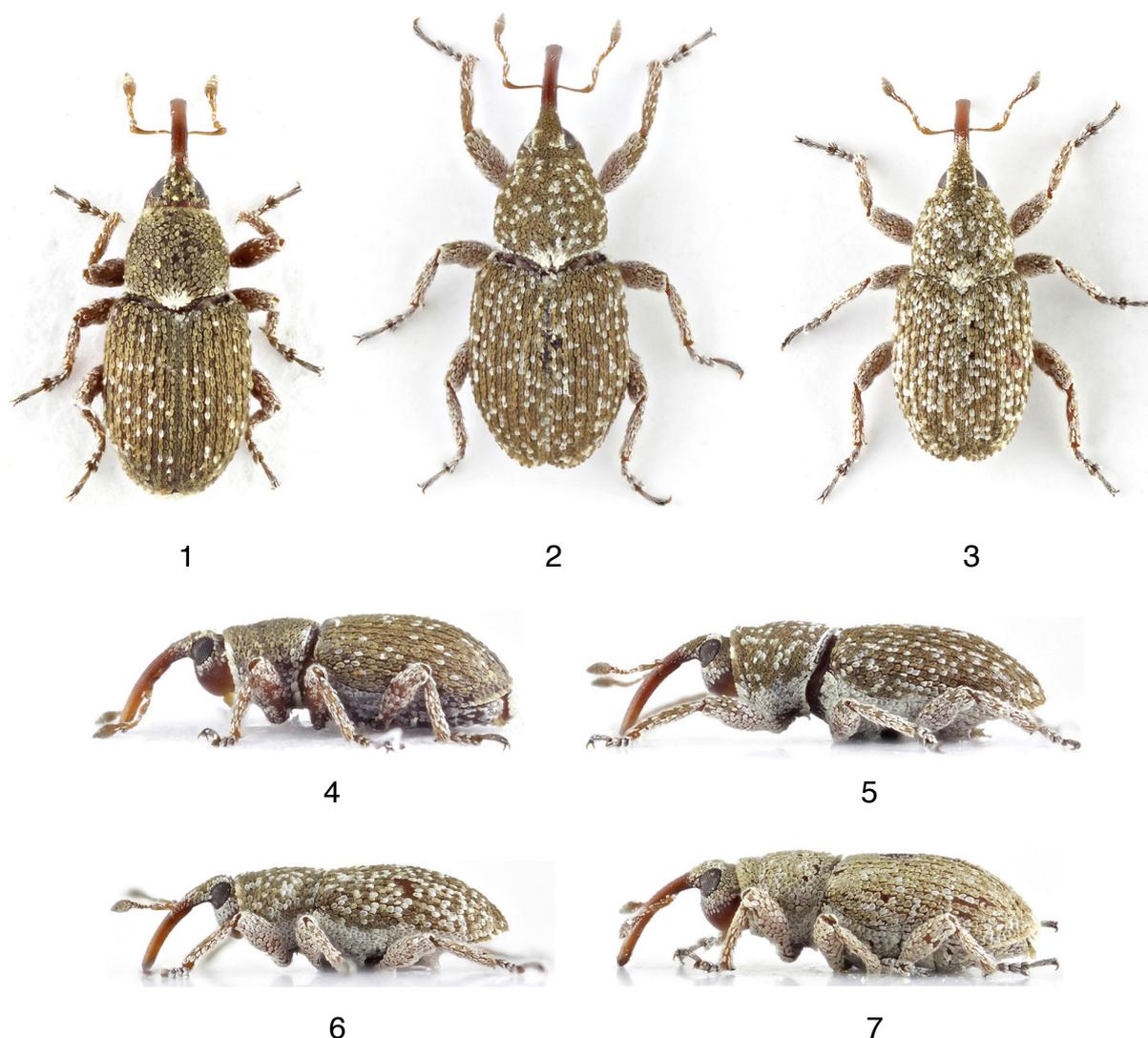
Elytra moderately elongate (l/w 1.36), parallel-sided in basal half, then rounded and gradually narrowed to apex, 1.42 times broader than pronotum, weakly convex on disc, completely hidden by scales: on striae all wide (l/w 1.25-1.50), similar in shape, oval, longitudinally concave, brown; on interstriae arranged in single regular row, irregular in shape, broad oval to rounded, longitudinally concave, mainly brown with a few white, scattered and longer (l/w 2.0), subelliptical, more-or-less convex, intermixed.

Legs completely covered with broad oval and narrower elliptical whitish grey scales. Tarsomere 3 bilobed, moderately wider than tarsomere 2. Onychium elongate, as long as tarsomeres 1-3 taken together. Claws without inner basal teeth.

Aedeagus (Figs. 8, 9). Body of penis distinctly pointed at apex, which is also slightly upturned.

Female (Figs. 2, 5). Rostrum on average slightly longer, antennae more basally inserted, a little before middle of rostrum length. Spiculum ventrale with arms joined from base to near apex (Fig. 10). Spermatheca with pronounced collum and indistinct ramus (Fig. 11).

Variability. Body length: 1.50-1.90 mm, rostrum (l/w): male 5.50-5.90, female 6.90-7.30; rostrum length / pronotum length: male 0.97-1.03, female 1.08-1.16, pronotum (w/l): 1.16-1.23, elytra (l/w): 1.30-1.37. The most variable character in the type series is in the dorsal vestiture: the colour of scales varies from almost light brown unicolorous to distinctly bicoloured brown and white intermixed, with the white ones more or less numerous; they can be more or less close both on pronotum and elytra, and finally those of pronotum can be



Figs. 1-7. *Sibinia omanica* n. sp., habitus in dorsal view of male, Holotype (1); female, Paratype (2) and male from Ashkharah (3). Habitus in lateral view of male, Holotype (4); female, Paratype (5) and male (6) and female (7) from Ashkharah (photos by P. Krásenský). All at the same scale.

more or less distinctly rounded. No significant variability in the shape of rostrum, pronotum and elytra. We did not include the specimens from Al Ashkharah (Fig. 3) in the type series, since they have a slightly longer and thinner rostrum, especially in the female (Figs. 6, 7) (l/w male 6.2-6.4, female 7.50-7.75), the insertion of the antennae placed more near the base and the head more gibbous than in the specimens from Farfarah, although the pattern of the dorsal vestiture, and moreover the shape of the body of the penis, are undoubtedly very similar.

Remarks. The Palearctic species of the weevil genus *Sibinia* are presently included in two subgenera: *Sibinia* s. str. and *Dichotychius*. According to KOROTYAEV (1996), the latter is mainly characterized by smaller size (length < 2.4 mm), dorsal vestiture dense and composed of broad scales including those on elytral striae, halophilous or psammophilous Plumbaginaceae host plants. This subgenus is arranged in two groups, which can be distinguished by the disposition of the scales covering the elytral interstriae: the *S. sodalis* Germar, 1824 group, with scales arranged in 2-4 irregular rows, and the *S. exigua* Faust, 1885 group, with scales arranged in single regular row (CALDARA, 1979).

Due to the unarmed claws, together with the arrangement of the elytral scales, *S. omanica* is more similar to *S. exigua* than to all the other species in the subgenus (CALDARA, 1979; CALDARA & KARASYOV, 1995; COLONNELLI, 2014). From this species, it is clearly distinguishable by the vestiture of the elytral interstriae being formed by wide concave and narrow convex scales intermixed, and the shape of the penis ending with a distinct tip. The female genitalia are also different, since in *S. omanica* the collum of the spermatheca is well pronounced, and the arms of the *spiculum ventrale* joined to each other from the base to near the apex.

Etymology. The Latin adjective refers to the name of the country where the species was collected, the Sultanate of Oman, in the south-eastern Arabian Peninsula.

Biology. All the type specimens were found in halophilous plant communities (Fig. 12) on *Limonium axillare* (Forssk.) Kuntze (Fig. 13) (det. Shahina Ghazanfar by photo), a species widely distributed in the Arabian Peninsula and also in Djibouti, Egypt, Eritrea, Sinai, Somalia, and Sudan (THE INTERNATIONAL PLANT NAMES INDEX AND WORLD CHECKLIST OF SELECTED PLANT FAMILIES, 2019). In order to try to understand the noticed subtle morphological differences, it would be very interesting to know whether the specimens collected at Al Ashkharah live on the same plant of the type series or on another *Limonium* sp.

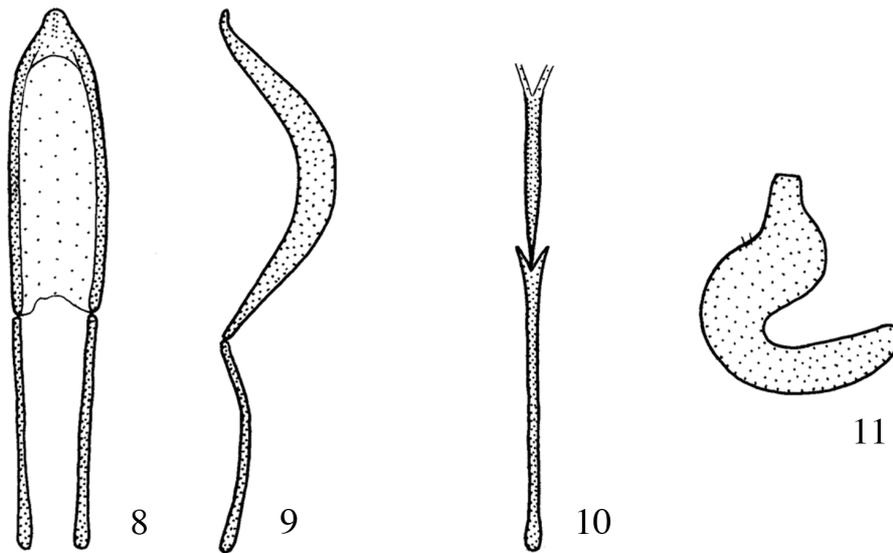
Distribution. North Oman.

ACKNOWLEDGMENTS

We are grateful to the Czech colleagues Jan Pelikán (Hradec Králové), David Frank (Prague), and Tomáš Kopecký (Jablonec nad Orlicí) for the loan of the studied material. Moreover, we thank Shahina Ghazanfar (Royal Botanic Gardens, Kew, Richmond, UK) for the identification of the host plant of the new species, and Pavel Krásenský (Chomutov, Czech Republic) for the beautiful pictures of the insect habitus.

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Figs. 8-11. *Sibinia omanica* n. sp., male, Holotype, penis in dorsal (8) and in lateral views (9); female, Paratype, spiculum ventrale (10) and spermatheca (11). Not at the same scale.



▲ Fig. 12. Salty habitat near Farfarah, type locality of *Sibinia omanica* n. sp. ▼ Fig. 13. *Limonium axillare*, host plant of *Sibinia omanica* n. sp. (photos by J. Pelikán).