



Research article

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Contribution to the knowledge of the Clytrini of the Eastern Mediterranean, the Near East and the Arabian Peninsula, with descriptions of four new species (Coleoptera: Chrysomelidae: Cryptocephalinae)

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Abstract. Four new species of the tribe Clytrini Kirby, 1837, *Labidostomis bcharrensis* sp. nov. (Lebanon), *Tituboea friedmani* sp. nov. (Israel), *Tituboea harteni* sp. nov. (United Arab Emirates) and *Tituboea radeki* sp. nov. (Yemen, Oman), and the formerly unknown females of *Labidostomis damavandensis* Rapilly, 1984 and *Saudiclytra wittmeri* Medvedev, 1979 are described. The following new synonyms are proposed: *Coptocephala coptocephaloides* (Lacordaire, 1848) = *Coptocephala furthi* Medvedev, 1992 syn. nov., *Labidostomis rufa* (Waltl, 1838) = *Labidostomis rufa* (Lacordaire, 1848) syn. nov., *Tituboea olivieri* (Lacordaire, 1848) = *Tituboea femoralis* Medvedev, 1962 syn. nov., *Saudiclytra wittmeri* (Medvedev, 1979) = *Saudiclytra spinifemorata* Medvedev, El Torkey & Al Dhafer, 2014 syn. nov. A neotype is designated for *Clythra* (*Tituboea*) *olivieri* Lacordaire, 1848. *Tituboea decemguttata* Walker, 1871 is considered as nomen dubium. The variability of the elytral pattern of *Afrophthalma arabica* (Bryant, 1957) is delimited. New country records and comments on distribution of Clytrini species from the eastern Mediterranean, the Near East and the Arabian Peninsula are presented.

Keywords. Arabian Peninsula, Near East, new synonymy, Mediterranean, taxonomy.

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Introduction

The tribe Clytrini Kirby, 1837 is one of the most popular groups amongst entomologists. However, many groups within Clytrini badly need a modern taxonomic revision. The taxonomy of the whole Cryptocephalinae Gyllenhal, 1813 is complicated due to the considerable variability of colouration and the unresolved status of varieties described prior to 1960. In Clytrini itself, there are additional problematic topics such as a wide range of body lengths, male characters strongly developed in large males and less developed in smaller ones, or the formation of local populations. Many local forms

have been described as varieties, which can be problematic since they can be ascribed to either colour aberrations or true species (Bezděk & Regalin 2015).

In arid areas of the western Palaearctic, many species of Clytrini are very rarely collected. The publication of modern taxonomic revisions of such taxa usually requires the accumulation of material from many institutions and collections. In the last decade, only a few papers on Clytrini based on the examination of primary type material have been published (e.g., Medvedev *et al.* 2014; Romantsov 2017; Bezděk 2016, 2018). Western Palaearctic Clytrini taxa described by Maurice Pic and Louis Kocher were revised by Bezděk & Regalin (2015).

During the examination of extensive material from various collections I discovered four new species described below. The formerly unknown females of *Labidostomis damavandensis* Rاپilly, 1984 and *Saudiclytra wittmeri* Medvedev, 1979 are also described. In connection with the preparation of the new edition of the Palaearctic catalogue of Chrysomelidae, I have supplemented this paper with a faunistic section, where some new country records of Clytrini are presented.

Material and methods

All measurements were made using an ocular grid mounted on MBS-10 stereo microscope (at 16× magnification for the body length and 32× magnification for the remaining measurements). Photographs of almost all the specimens were taken with Canon EOS 550D digital camera with Canon MP-E 65 mm objective. Images of the same specimen at different focal planes were combined using Helicon Focus 5.3 software.

The exact label data are cited for all type specimens; a double slash (//) divides the data on different labels and a single slash (/) divides the data in different rows. Type localities are cited in the original spelling. Other comments and remarks are placed in square brackets: [p] = preceding data are printed, [h] = preceding data are handwritten, [w] = white label, [r] = red label, [g] = green label.

The *terminus technicus* ‘kotpresse’ means the rectal apparatus for forming the faecal pellets covering the eggs.

Abbreviations for institutions and collections

BMNH	=	The Natural History Museum, London, UK (Michael Geiser, Maxwell V.L. Barclay)
CIUC	=	Centro Interdipartimentale dell’Università, Museo di Storia Naturale e del Territorio, Calci, Italy (Marco Dellacasa)
HNHM	=	Hungarian Natural History Museum, Budapest, Hungary (Ottó Merkl)
ISNB	=	Institut royal des Sciences naturelles de Belgique, Brussels, Belgium (Pol Limbourg)
JBCB	=	Jan Bezděk collection, Brno, Czech Republic
JPCH	=	Jan Pelikán collection, Hradec Králové, Czech Republic
KSMA	=	King Saud University, Museum of Arthropods, Riyadh, Saudi Arabia (Ashraf M. El-Torkey, Hathal M. Al Dhafer)
LMRM	=	Lev N. Medvedev collection, Moscow, Russia
LSCP	=	Lukáš Sekerka collection, Prague, Czech Republic
MNHN	=	Museum national d’Histoire naturelle, Paris, France (Antoine Mantilleri)
MZCK	=	Miroslav Zúber collection, Kosmonosy, Czech Republic
NMPC	=	Národní Muzeum, Praha, Czech Republic (Jiří Hájek, Lukáš Sekerka)
RRCA	=	Renato Regalin collection, Abbiategrosso, Milano, Italy
TAU	=	Tel Aviv University, Tel Aviv, Israel (Laibale Friedman)
USNM	=	National Museum of Natural History, Smithsonian Institution, Washington DC., USA (Alexander S. Konstantinov)

ZMHB = Stiftung Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Berlin, Germany (Johannes Frisch, Joachim Willers)

Results

Systematic treatment

Class Hexapoda Latreille, 1825
Order Coleoptera Linnaeus, 1758
Suborder Polyphaga Emery, 1886
Superfamily Chrysomeloidea Latreille, 1802
Family Chrysomelidae Latreille, 1802
Subfamily Cryptocephalinae Gyllenhal, 1813
Tribe Clytrini Kirby, 1837

Coptocephala coptocephaloides (Lacordaire, 1848)

Clythra (*Gynandrophthalma*) *coptocephaloides* Lacordaire, 1848: 310 (original description).

Coptocephala jaechi Warchalowski, 1991: 247 (original description).

Coptocephala furthi Medvedev, 1992: 55 (original description), syn. nov.

Material examined

Type material

ISRAEL: 1 ♂, holotype of *Coptocephala jaechi*, "ISRAEL 14.4. / Tiberias / leg. Jäch 1986 [w, p] // *Coptocephala / jaechi mihi* / det. A. Warchalowski [w, p] // HOLOTYPUS [r, p]" (BMNH); 1 ♂ 1 ♀, paratype of *Coptocephala jaechi*, "Tiberias [w, p] // *Coptocephala / jaechi mihi* / det. A. Warchalowski [w, p] // PARATYPUS [r, p]" (BMNH).

ISRAEL: 1 ♀, holotype of *Coptocephala furthi*, "ISRAEL [p] / Kadesh Barnea / 12.IV. [h] 19 [p] 74 [h] / D. Furth [w, p] // *Coptocephala / unifasciata* / Scop. [w, h] // [blank red label] // HOLOTYPUS [p] / *Coptocephala / furthi* m. [h] / L. Medvedev det. 199 [p] 1 [w, h]" (LMRM).

UNKNOWN COUNTRY: 1 ♀, syntype of *Coptocephala coptocephaloides*, "23220 [w, p] // Mesopotam. Helf. [w, h] // *Gynandrophthalma / coptocephaloides* / * / Lacord. [w, p] // LECTOTYPUS / *Clythra* / (*Gynandrophthalma*) / *coptocephaloides* / Lacordaire, 1848 / R. Regalin des. 1996 [r, p]" (ZMHB).

Other material

EGYPT: **Sinai**: 2 ♂♂, Wadi El Gedeirat, 13 Mar. 1937, A. Rabinovitsch leg. (USNM); 1 ♂, Wadi Um-Mitla, 21 Mar. 1937, A. Rabinovitsch leg. (USNM).

IRAQ: 1 ♂, Gaara, Fale, May 1978 (NMPC).

ISRAEL: 1 ♂, 1 ♀, NE of Arad, 7 Apr. 1981, Wewalka leg. (JBCB); 1 ♂, 2 ♀♀, Southern Negev, Har Quetura, 4 km SE of Shiz-zafon, 14 Apr. 1994, Volkovitsh and Dolgovskaya leg. (USNM); 1 ♀, Central Negev, Makhtesh Ramon, 8–14 km NE of Mizpe Ramon, 18 Apr. 1994, Volkovitsh and Dolgovskaya leg. (USNM); 1 ♂, Southern Negev, Zafit, 25 km ESE of Dimona, 13 Apr. 1994, Volkovitsh and Dolgovskaya leg. (USNM); 1 ♂, 1 ♀, Southern Negev, Zin, 14 km NW of En Hazeva, 11 Apr. 1994, Volkovitsh and Dolgovskaya leg. (USNM).

JORDAN: 1 ♀, Petra, 13–14 May 1995, P. Pucholt leg. (JBCB); 1 ♂, Tabaqat, 4 May 1995, P. Pucholt leg. (JBCB); 7 ♂♂, 3 ♀♀, Jarash, 20 Apr. 2002, M. Snížek leg. (NMPC); 4 ♂♂, 7 ♀♀, SW of Jarash,

Alhuna, 12 Apr. 2009, M. Snížek leg. (JBCB); 11 ♂♂, 8 ♀♀, Zai N. P., 30 km NW of Amman, 32°06,7' N, 35°34,6' E, 6 May 2006, F. Kantner and L. Kantner leg. (NMPC); 11 ♂♂, 8 ♀♀, 20 km NNW of Al Karak, 31°14,7' N, 35°42,5' E, 1000 m a.s.l., 27 Apr. 2006, F. Kantner and L. Kantner leg. (NMPC); 1 ♂, 3 ♀♀, Pella env., 30 km W of Ajlun, 32°26,7' N, 35°36,8' E, 29 Apr. 2006, F. Kantner and L. Kantner leg. (NMPC); 2 ♂♂, 30 km WNW of Ajlun, 32°27,4' N, 35°42,4' E, 30 Apr. 2006, F. Kantner and L. Kantner leg. (NMPC); 3 ♂♂, 3 ♀♀, Pella env., 30 km W of Ajlun, 32°26' N, 35°36' E, 3 May 2006, F. Kantner and L. Kantner leg. (NMPC); 3 ♂♂, 3 ♀♀, 3 km NNW of Rabba, 31°18,045' N, 35°43,534' E, 900 m a.s.l., 27 May 2007, F. Kantner and L. Kantner leg. (NMPC); 1 ♂, Wadi Ramm, 12 May 1995, K. Deneš leg. (NMPC).

SYRIA: 2 ♂♂, 5 ♀♀, 17 km W of Dara, Wadi Al-Harir, 18–20 May 1995, J. Chaloupek leg. (JBCB); 2 ♀♀, R'Sai, 1 May 1994, M. Modrý leg. (JBCB); 1 ♀, Syria, La Brulerie leg. (USNM); 5 ♂♂, 5 ♀♀, Wadi Al Harir, 18–20 May 1995, P. Svoboda leg. (NMPC); 3 ♂♂, 4 ♀♀, Wadi Al Harir, 18 May 1995, V. Němec leg. (NMPC); 1 ♀, Damascus env., 10 km N of Duma, 29 Mar. 1994, S. Bečvář leg. (NMPC).

Type localities

Clythra coptocephaloides

UNKNOWN COUNTRY: “Mesopotamie”.

Coptocephala jaechi

ISRAEL: Tveriya (Tiberias).

Coptocephala furthi

ISRAEL: Hadesh Barma [Kadesh Barnea].

Distribution

Egypt, Iraq, Israel, Jordan, Sinai, Syria (Medvedev 1962; Lopatin *et al.* 2003; Regalin and Medvedev 2010b; present study).

Comments

Medvedev (1992) described *Coptocephala furthi* based on one female with strong pronotal punctures. Lopatin (2002) synonymised *Coptocephala furthi* with *Coptocephala jaechi*. Regalin & Medvedev (2010a) synonymised *Coptocephala jaechi* with *Coptocephala coptocephaloides* and restored *Coptocephala furthi* as a valid species. I examined the primary type material of all three taxa, supplemented by numerous additional specimens. The pronotal punctation is very variable, usually feeble, but in some populations (primarily in females) the punctures are strong. I am convinced that all three taxa are conspecific, and I propose *Coptocephala furthi* as a new synonym of *Coptocephala coptocephaloides*.

Labidostomis bcharrensis Bezděk sp. nov.

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Fig. 1

Differential diagnosis

Labidostomis bcharrensis sp. nov. is characterised by the peculiar elytral colouration with a large blackish spot covering most of the disc of each elytron including the humeral calli. A similar colouration is known in the females of *Labidostomis limbata* (Lacordaire, 1848) from Syria and Israel but the suture is yellow in *Labidostomis bcharrensis* sp. nov. while the spots are united and the suture is metallic black in females of *Labidostomis limbata*. The males of *Labidostomis limbata* have a different elytral

colouration with separated small humeral spots (Bezděk 2018). Both species also differ in the punctation of the head pronotum (lustrous, covered with small fine punctures in *Labidostomis bcharrensis* sp. nov.; dull, densely covered with larger punctures in *Labidostomis limbata*).

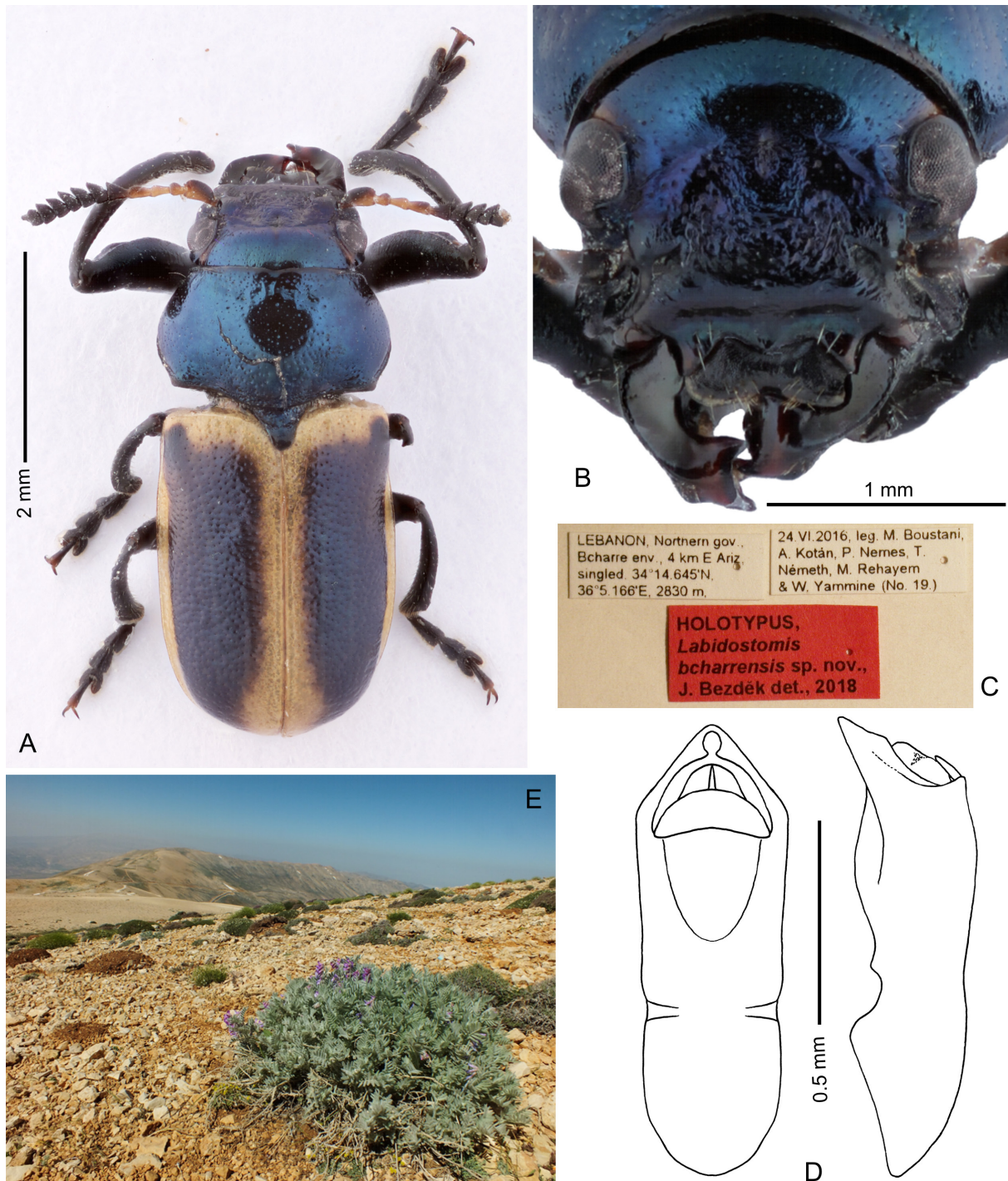


Fig. 1. *Labidostomis bcharrensis* Bezděk sp. nov., holotype, ♂, 5.6 mm (HNHM). **A.** Dorsal view. **B.** Head. **C.** Labels. **D.** Aedeagus in dorsal and lateral views. **E.** Habitat (photo by Tamász Németh).

Etymology

Named after the Lebanese city of Bcharre.

Material examined

Holotype

LEBANON: 1 ♂, “LEBANON, Northern gov., / Bcharre env., 4 km E Ariz, / singled, 34°14,645' N, / 36°5,166' E, 2830 m, [w, p] // 24.VI.2016, leg. M. Boustani, / A. Kotán, P. Nemes, T. / Németh, M. Rehayem / & W. Yammine (No. 19) [w, p] // HOLOTYPUS, / *Labidostomis / bcharrensis* sp. nov., / J. Bezděk des., 2018 [r, p]” (HNHM).

Type locality

LEBANON: Northern gov., Bcharre env., 4 km E Ariz, 34°14,645' N, 36°5,166' E.

Description

Male (holotype, Fig. 1)

BODY LENGTH. 5.6 mm (Fig. 1A).

COLOURATION. Metallic blue with small brownish spot behind each eye, labrum black with thinly pale anterior margin, mandibles black with dark brownish apices. Antennae: antennomeres I–IV yellow, I with largely darkened dorsal side, II–IV with infusate dorsal side, V black with yellow base, VI–XI black. Pronotum and scutellum metallic blue. Each elytron with large blackish spot covering most of the disc and widely connected with humeral spot, all margins narrowly yellow. Ventral side of body and legs black with slight metallic sheen.

HEAD AND MANDIBLES. Enlarged (Fig. 1B). Labrum covered with fine microsculpture, anterior margin almost straight with small notch in middle, several pale setae on anterior margin, several additional setae along anterior margin near medial notch. Clypeus laterally with small triangular processes, with divergent apices. Anterior clypeal margin between processes distinctly widely rounded. Clypeal surface almost impunctate and glabrous except several setigerous pores on base of each lateral process bearing long pale seta. Genae large, subtriangular, with large punctures and microsculpture. Frons wide, glabrous, slightly uneven but without any median impression, 4.6 times as wide as transverse diameter of eye, covered with a mixture of large and small punctures. Vertex moderately convex, around eyes with a thin furrow, in middle with an indistinct longitudinal impressed line, surface lustrous, covered with small sparse punctures, glabrous. Mandibles relatively short and robust, dorsal keels sharp and moderately elevated, lateral side distinctly rounded, surface of inner slopes concave, lustrous and impunctate. Lateral side of left mandible subtriangular with slightly rounded upper margin, surface lustrous, covered with small sparse punctures. Antennae short, 0.32 times as long as body, length ratios of antennomeres I–XI equal to 14–6–7–8–9–6–5–5–5–9, antennomere I club-shaped, distinctly flattened; II subglobular, III and IV elongate, subparallel, antennae serrated from antennomere V, apex of antennomere XI bidentate.

PRONOTUM. Pronotum lustrous, glabrous, transverse, 1.70 times as wide as long, covered with small punctures, punctation more intensive along anterior and posterior margins. Anterior margin straight, lateral margins slightly rounded, posterior margin slightly rounded and moderately thickened in scutellar area. Lateral and posterior margins narrowly bordered, anterior margin bordered only in lateral thirds, border in middle part form shallow rounded impression along the margin. Posterior angles nearly rectangular, distinctly elevated upon elytral level. All angles with setigerous pore with long pale seta. Scutellum subtriangular with widely rounded tip, lustrous, glabrous, in basal half covered with small punctures, apical half almost smooth, scutellar apex not elevated upon elytral level.

ELYTRA. Elytra semicylindrical, parallel, 0.57 as long as body, 1.45 times as long as wide, glabrous, semi-opaque, covered with dense confused small punctures and with microsculpture, elytral apices almost impunctate. Basal margin with border disappearing near scutellum. Epipleura glabrous, impunctate, wide in humeral area, suddenly disappearing in basal $\frac{1}{5}$ of elytral length. Lateral margin of elytra concave in lateral view.

LEGS. Protarsi and protibiae prolonged. Protarsi: protarsomere I elongate, almost parallel, narrowed in basal fifth, subparallel in apical half, 2.44 times as long as wide, protarsomere II subpentagonal, basal third narrowed, apical two thirds parallel, 1.45 times as long as broad, length ratios of protarsomeres I–IV equal to 22–16–14–17. Protarsomeres II and III distinctly wider than I. Length ratios of protarsomeres I–IV equal to 19–10–9–16. Claws narrow, simple, with angulate base.

AEDEAGUS. Aedeagus small (Fig. 1D), with apical part triangular with almost straight margins and obtuse tip. Dorsal median impression of shield-like shape, without median keel. Apex of aedeagus with inward triangular crooked folds and with small cavity between folds. Operculum transversely semicircular with basal margin slightly rounded. Non-everted anterior sclerite visible as thin process. In lateral view, ventral side distinctly vaulted.

Female

Unknown.

Distribution

Lebanon.

Labidostomis damavandensis Rapilly, 1984

Fig. 2

Labidostomis damavandensis Rapilly, 1984: 216 (original description).

Differential diagnosis

Labidostomis damavandensis is characterised by two spots on each elytron, one small on the humeral callus and one large in the outer part of the posterior half. In Iran and adjacent countries it can be compared only with *L. elegans*. The two species can be distinguished by the structure of the aedeagus, the structure of the male mandibles (dorsal keel obtuse and placed medially, lateral margins almost straight in *L. elegans*, dorsal keel sharp and placed along outer margins, lateral margins rounded in *L. damavandensis*), the structure of the spermatheca and the elytral colouration (each elytron with a large metallic spot placed medially, suture narrowly yellow in *L. elegans*, large spot placed in outer part of posterior elytral half in *Labidostomis damavandensis*) (compare Figs 2B, D and G with photographs and drawings of *L. elegans* in Bezděk 2018).

Material examined

Holotype

IRAN: 1 ♂, Fig. 2A, “IRAN Damavand (versant / sud), 3500 m., 15.VII.68 / P. MORVAN [w, h] // HOLOTYPE [r, p] // Museum Paris [p] / Coll. Générale [w, h] // *Labidostomis dama- / vandensis* Rapilly [h] / M. Rapilly dét. 19 [p] 82 [w, h]” (MNHN).

Other material examined

IRAN: 1 ♀, Isfahan prov., Khunsar env., 2550 m a.s.l., 3 Jun. 2000, M. Kalabza leg. (NMPC).

Type locality

IRAN: “Iran, Damavand (versant sud)” [southern slope of Damavand Mt., Mazandaran prov.].

Description of female

BODY LENGTH. 6.9 mm.

COLOURATION. Head, pronotum and scutellum dark metallic blue, labrum black with brownish anterior margin, mandibles black with base and apices brownish (Fig. 2E). Antennae: antennomeres I–IV orange,

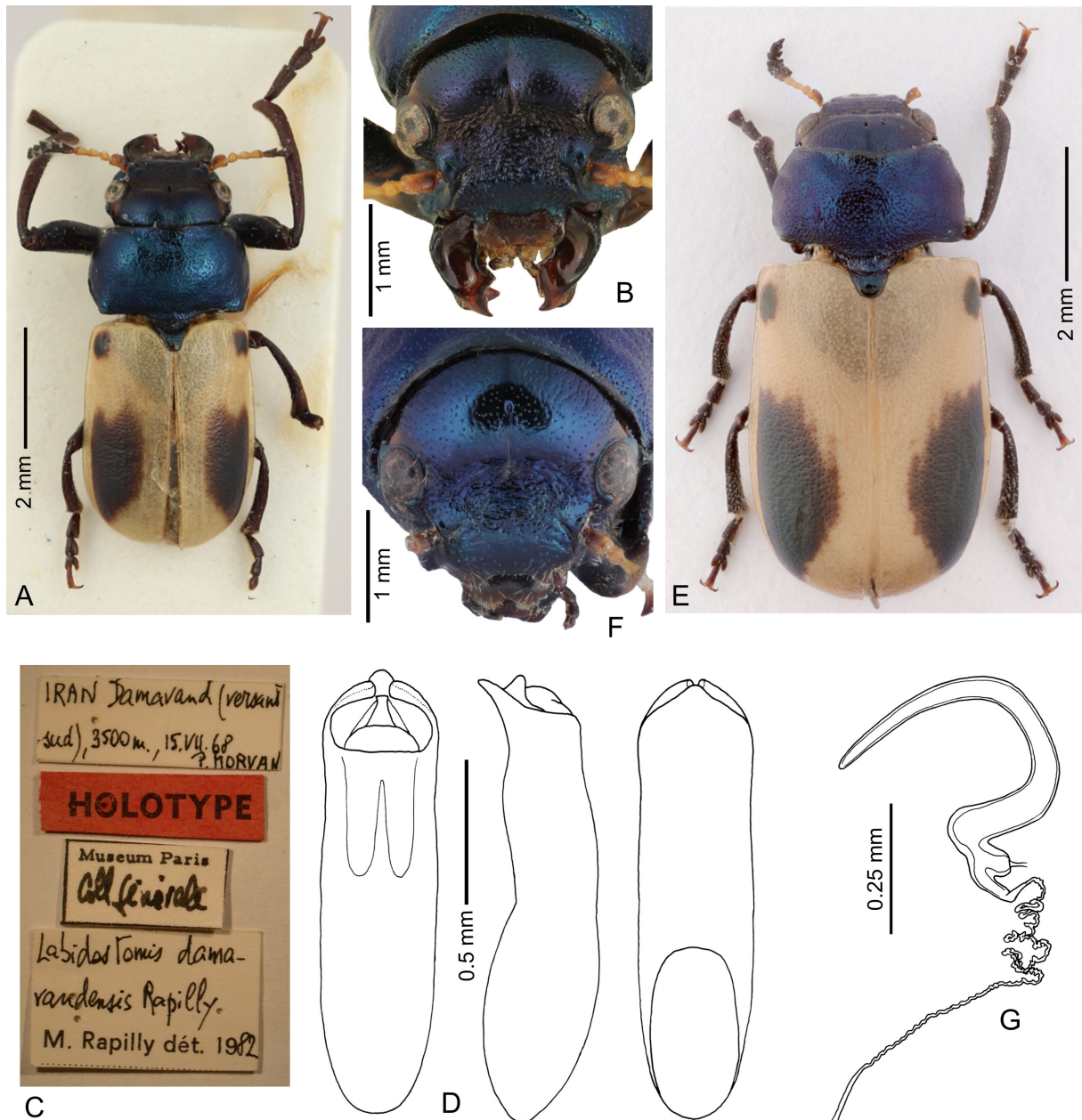


Fig. 2. *Labidostomis damavandensis* Rapilly, 1984. A–D. Holotype, ♂, 6.5 mm (MNHN). A. Dorsal view. B. Head. C. Labels. D. Aedeagus in dorsal, lateral and ventral views. E–G. ♀, 5.6 mm (NMPC). E. Dorsal view. F. Head. G. Spermatheca.

I darkened dorsally, V black with pale base, VI–XI black. Elytra yellow, each elytron with two black spots: small spot on humeral callus, larger elongate spot on outer side of posterior elytral half. Ventral side of body and legs black with slight metallic sheen, claws with paler base.

HEAD. (Fig. 2F). Anterior margin of labrum with wide shallow emargination and several short pale setae, additional longer pale setae placed on surface along anterior margin. Clypeus lustrous with sparse small punctures bearing pale setae, anterior clypeal margin with two small triangular divergent processes, margin between processes straight. Frons 4.33 times as wide as diameter of eye, with transversely elongate impression between eyes, covered with larger punctures mixed with transverse wrinkles and very short indistinct setae. Vertex moderately convex, around eyes with thin furrow, in middle with longitudinal impressed line, in middle of this line with one large elongate puncture, surface glabrous, lustrous, covered with sparse small punctures, basally tending to wrinkles. Antennae short, 0.22 times as long as body, length ratios of antennomeres I–XI equal to 10–5–6–6–6–5–5–5–5–10, antennomere I club-shaped, II subglobular, III and IV elongate, subparallel, antennae serrated from antennomere V, XI subapically emarginated from inner and outer sides.

PRONOTUM. Pronotum lustrous, glabrous, transverse, 1.96 times as wide as long, densely covered with small punctures. Anterior margin widely shallowly concave, lateral margins rounded, posterior margin nearly straight and moderately thickened in scutellar area. Lateral and posterior margins narrowly bordered, anterior margin bordered only in lateral thirds, border in middle part forming shallow rounded impression along the margin. Posterior angles nearly rectangular, distinctly elevated upon elytral level. Scutellum subtriangular with widely rounded tip, in basal half covered with small punctures and short setae, and with slightly elevated impunctate median line, apical half glabrous, with disappearing punctation towards apex, impressed along apex, scutellar apex not elevated upon elytral level.

ELYTRA. Elytra semicylindrical, parallel, 0.69 as long as body, 1.55 times as long as wide, glabrous, semiopaque, covered with dense confused small punctures mixed with very small punctures and with microsculpture, elytral apices almost impunctate. Basal margin with distinctly elevated sharp border disappearing near scutellum. Epipleura glabrous, impunctate, wide in humeral area, suddenly disappearing in basal $\frac{1}{5}$ of elytral length. Lateral margin of elytra concave in lateral view.

LENGTH RATIOS. Length ratios of protarsomeres I–IV equal to 8–5–5–8, of metatarsomeres I–IV equal to 7–4–4–8. Claws narrow, simple, with angulate base.

SPERMATHECA. Vasculum extremely long and thin, base somewhat wider, gradually narrowed to apex. Bulbus as wide as base of vasculum, divided into two parts. Ductus spermathecae ca 2.5 times as long as vasculum, with many small loops, only distal part without loops, proximal part tangled (Fig. 2G).

Distribution

Iran.

***Labidostomis rufa* (Waltl, 1838)**

Fig. 3

Clythra rufa Waltl, 1838: 472 (original description).

Clythra (Labidostomis) rufa Lacordaire, 1848: 43 (original description), syn. nov.

Material examined

Holotype

Not examined. Not traced in NMHW where large part of Waltl's collection is deposited.

Syntype

MACEDONIA: 1 ♂, syntype of *Clythra rufa* Lacordaire, 1848, “Macedonien / Frivaldsky, 12.8. [w, h] // Type [r, p] // not type ! [h] / L. N. Medvedev det. 19 [p] 69 [w, h] // Hist.-Coll. (Coleoptera) / Nr. 23068 / *Labidostomis rufa* Lac. x / Macedon., Frivaldsky / zool. Mus. Berlin [w, p] // SYNTYPE / *Labidostomis / rufa* Lacordaire, 1848 / labelled by MFNB 2017 [r, p]” (ZMHB).

Other material examined

ISRAEL: 8 ♂♂, 4 ♀♀, Haifa, without date of collecting, Reitter leg. (NMPC).

Type localities

Clythra rufa Waltl, 1838

TURKEY: “Turkey” [by the title].

Clythra rufa Lacordaire, 1848

TURKEY, GREECE: “environs de Constantinople, des provinces nord de la Grèce”.

Distribution

Bulgaria, Greece, Macedonia, Turkey (Regalin & Medvedev 2010b), Iran (Ghahari & Jedryczkowski 2012). New species for Israel.

Comments

Labidostomis rufa was described by Waltl (1838). Ten years later, Lacordaire (1848) published the description of *Clythra (Labidostomis) rufa* Lacordaire, 1848 attributed to Frivaldsky based on males only. At the end of the description, Lacordaire mentioned that Frivaldsky’s description was unknown to him and, moreover, *Labidostomis rufa* Waltl, 1838 is mentioned nowhere in the text. Despite the fact that all subsequent authors have referred Lacordaire’s description to Waltl’s *Labidostomis rufa*, I am convinced that Lacordaire’s *Clythra (Labidostomis) rufa* must be treated as a validly described

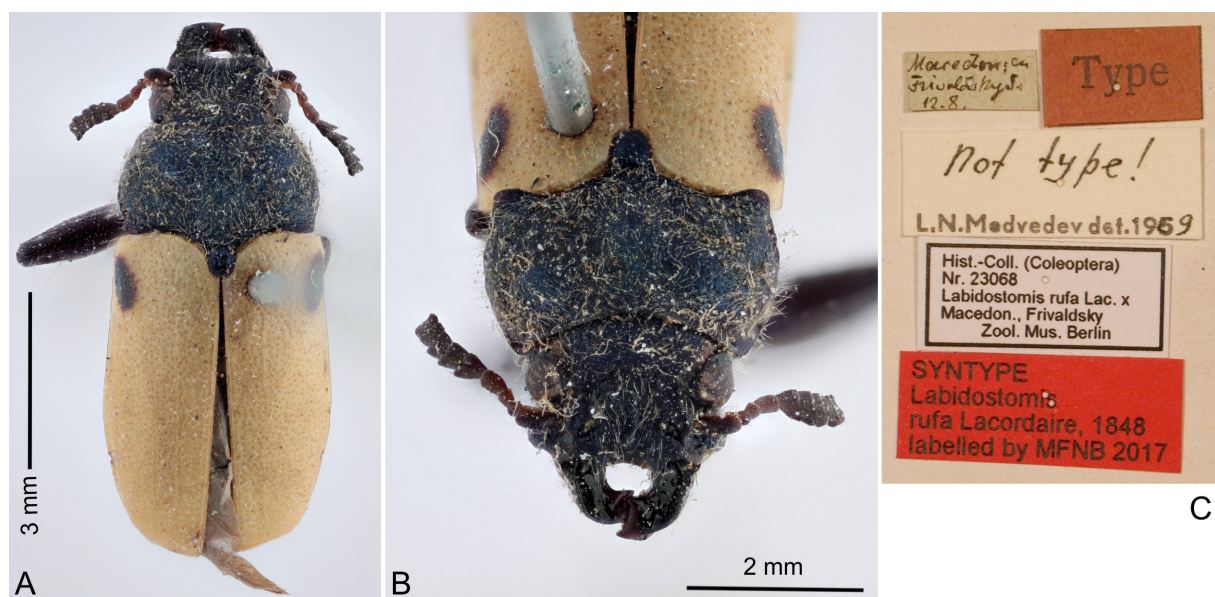


Fig. 3. *Labidostomis rufa* (Waltl, 1838), syntype of *Clythra (Labidostomis) rufa* Lacordaire, 1848, ♂, 9.0 mm (ZMHB). **A.** Dorsal view. **B.** Frontal view. **C.** Labels.

taxon. Based on one male syntype (Fig. 3A–C, deposited in ZMHB), I synonymize *Labidostomis rufa* Lacordaire, 1848 with *Labidostomis rufa* (Waltl, 1838).

***Tituboea decemguttata* Walker, 1871, nomen dubium**

Tituboea decemguttata Walker, 1871: 18 (original description).

Material examined

Type material not examined.

Type locality

EGYPT: Cairo.

Comments

Tituboea decemguttata Walker, 1871 was described from Cairo, Egypt (Walker 1871). Unfortunately, the collection of John Keast Lord, which included Walker's type material from his 1871 paper, was destroyed (Horn *et al.* 1990). As mentioned by Bezděk & Batelka (2011), no specimens were found in the institutions housing parts of Walker's collection: The Natural History Museum (London), University Museum of Natural History (Oxford), and Museum Victoria (Melbourne). The original description of *Tituboea decemguttata* is uninformative, predominantly based on colour characters, which are highly variable in the species of *Tituboea*.

Over the last 40 years, *Tituboea decemguttata* was published from various countries of the Near East and the Arabian Peninsula (Medvedev 1979, 1996; Katbeh-Bader & Medvedev 2000; Lopatin *et al.* 2003). Regalin & Medvedev (2010b) summarised the distribution as follows: Egypt, Israel, Jordan, Oman, Saudi Arabia and Yemen. However, almost all the specimens identified as *Tituboea decemguttata* which I have examined in various collections proved to be *Tituboea lacordairei* (Pic, 1929).

Due to the loss of the type material and the uninformative description, I cannot resolve the species' identity with certainty. It cannot be excluded that the original type specimen(s) really were conspecific with *Tituboea lacordairei* because the westernmost known locality of *Tituboea lacordairei* is in the Sinai Peninsula (Bezděk & Regalin 2015), relatively near to Cairo. However, *Tituboea decemguttata* may also be conspecific with another species of *Tituboea*, for example *Tituboea arabica* (Olivier, 1808) or *Tituboea olivieri* (Lacordaire, 1848). Unfortunately I have seen no specimens from Egypt with a colouration as described in the original description, which could be used for neotype designation. At present, the best course of action seems to me to consider *Tituboea decemguttata* as a nomen dubium.

***Tituboea friedmani* Bezděk sp. nov.**

[urn:lsid:zoobank.org:act:D338C720-288A-42B6-8CF2-625C02BBB640](https://zoobank.org/urn:lsid:zoobank.org:act:D338C720-288A-42B6-8CF2-625C02BBB640)

Figs 4, 5A–B

Differential diagnosis

Tituboea friedmani sp. nov. is similar to *Tituboea chobauti* (Pic, 1896) (Algeria, Egypt, Jordan, Morocco) and *Tituboea atriceps* Pic, 1924 (Egypt, Israel, Iraq) (Fig. 4G–H). All three species differ in the colouration of the legs: femora black and tibiae pale in *Tituboea chobauti*, femora and tibiae pale in *Tituboea atriceps*, femora and tibiae black (or basal half of tibiae pale) in *Tituboea friedmani* sp. nov. The pronotum of *Tituboea chobauti* is covered with very dense small punctures while the pronotal punctation in *Tituboea friedmani* sp. nov. and *Tituboea atriceps* is sparser and irregular. All the species can also be distinguished by the structure of the aedeagus. In lateral view, the ventral margin

of the aedeagus is almost straight and the apex turned dorsally in *Tituboea friedmani* sp. nov. while the ventral margin is distinctly rounded and the apex not turned in *Tituboea chobauti* and *Tituboea atriceps* (Fig. 5A, C, E). The spermatheca of all three species of similar shape (Fig. 5B, D, F).

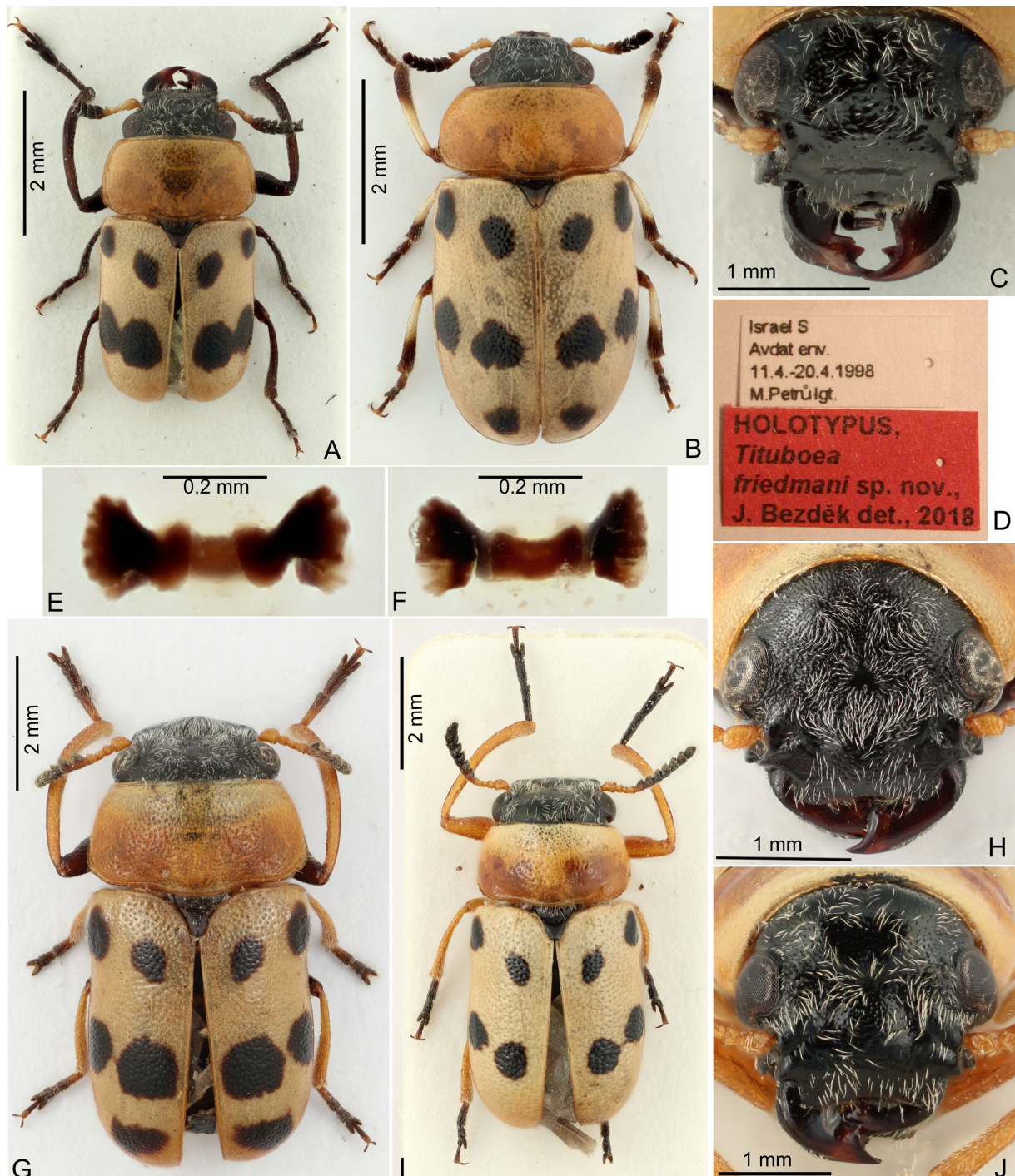


Fig. 4. A–F. *Tituboea friedmani* Bezděk sp. nov. A. Holotype, ♂, 4.8 mm (NMPC). B. Paratype, ♀, 4.6 mm (TAU). C. Male head. D. Labels of holotype. E. Kotpresse, ventral sclerites. F. Kotpresse, dorsal sclerites. G–H. *T. chobauti* (Pic, 1896). G. ♂, 6.1 mm. H. Head. I–J. *T. atriceps* Pic, 1924. I. ♂, 6.0 mm. J. Head.

Etymology

Dedicated to Ariel-Leib-Leonid Friedman (TAU), who collected most of the specimens of this new species.

Material examined

Holotype

ISRAEL: 1 ♂, “Israel S / Avdat env. / 11.4.–20.4.1998 / M. Petrů lgt. [w, p]” (NMPC).

Paratypes

ISRAEL: 1 ♂, “178157.ISRAEL: / ZometRotem, 6 km S / 410m, 1.iv.2014 / L. FRIEDMAN / on *Calligonum / comosum* [w, p]” (TAU); 1 ♂, 2 ♀♀, “ISRAEL: / Ashalim / 5.iv.1999 / V. CHIKATUNOV [w, p] // On *Polygonum* sp. / 5.iv.1999 / V. CHIKATUNOV [w, p] // *Antipa / decemguttata* / Walk. [h] / det. I. Lopatin, 19. [p] 99 [w, h]” (TAU); 1 ♀, “Jericho [h] / PALESTINE [p] / 23.ii [h] 19 [p] 41 [h] / leg. Bytinski-Salz [w, p] // *Antipa / Chobauti* Pic [h] / det. F. Stöcklein 195 [p] 2 [w, h] // *Antipa / decemguttata* / Walk. [h] / det. I. Lopatin, 19. [p] 99 [w, h]” (TAU). The type specimens are provided with one printed red label: “HOLOTYPUS, [or PARATYPUS, resp.] / *Tituboea / friedmani* sp. nov., / J. Bezděk det. 2018”.

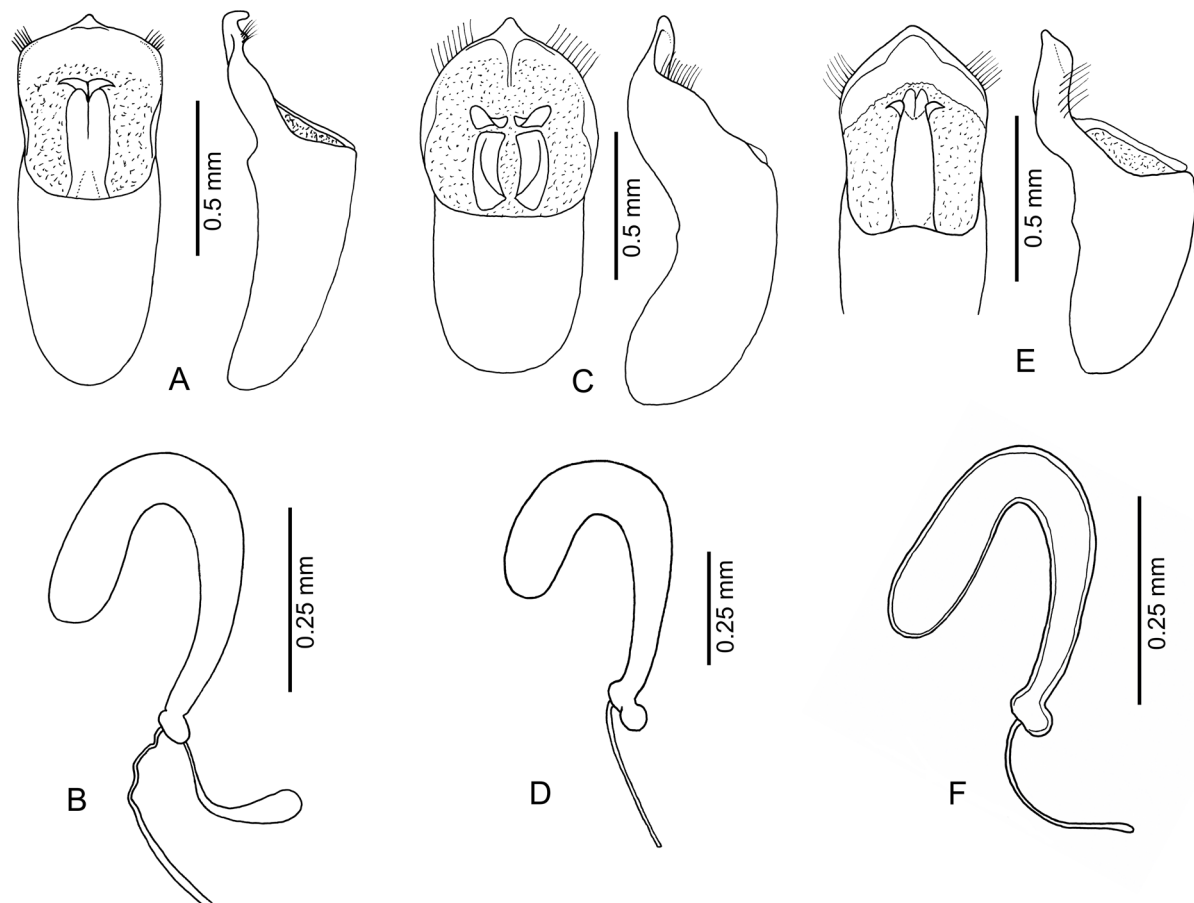


Fig. 5. A–B. *Tituboea friedmani* Bezděk sp. nov. A. Aedeagus in dorsal and lateral views. B. Spermatheca. C–D. *T. chobauti* (Pic, 1896). C. Aedeagus in dorsal and lateral views. D. Spermatheca. E–F. *T. atriceps* Pic, 1924. E. Aedeagus in dorsal and lateral views. F. Spermatheca.

Type locality

ISRAEL: Avdat env.

Description

BODY LENGTH. ♂♂: 4.6–5.1 mm (holotype 4.8 mm), ♀♀: 4.4–4.6 mm.

Male (holotype, Fig. 4)

COLOURATION. Head black, apical parts of mandibles reddish, antennomeres I–IV yellow, V brownish basally. Pronotum orange. Scutellum black. Elytra yellow, each elytron with four black spots (2, 2), posterior pair connected. Underside black. Legs black, knees brownish (Fig. 4A).

HEAD. Mandibles distinctly enlarged, dorsal side flat, almost even, lateral sides of both mandibles moderately concave (Fig. 4C). Labrum almost invisible, with a straight anterior margin. Clypeus with bisinuate anterior margin, surface transversely impressed, very finely punctate, with longer pale setae cumulated laterally. Eyes small. Frons very wide, 4.88 times as wide as diameter of eye, surface uneven, densely covered with small punctures and short pale setae. Frons not separated from vertex. Vertex lustrous, covered with small punctures (finer than on frons) and short pale setae, with indistinct median line. Antennae short, 0.28 times as long as body, antennomere I club-shaped, II small, subglobular, III very small, IV triangular with produced apical angle, antennae shortly serrated from antennomere V, antennomeres V–X wider than long.

PRONOTUM. Pronotum glabrous, lustrous, strongly transverse, 1.80 times as wide as long, widest at basal half, moderately convex, irregularly covered with small punctures, punctures larger on disc, finer in lateral parts. Anterior margin straight, lateral margins rounded, posterior margin nearly straight but shallowly bisinuate in scutellar area. Anterior angles obtusangulate, posterior angles widely rounded. Lateral and posterior margins thinly bordered, anterior margin bordered only at lateral parts, in middle border almost invisible. Posterior angles not elevated above elytral base.

SCUTELLUM. Scutellum subtriangular with rounded tip, in basal half punctate and covered with setae, towards apex becoming impunctate and glabrous, scutellar apex slightly elevated upon elytral level.

ELYTRA. Elytra short, subcylindrical, 0.55 times as long as body, 1.15 times as long as wide at humeral part, glabrous, lustrous, densely covered with small confused punctures, disappearing at elytral apices. Basal margin with complete thin border forming a narrow elevated keel, sharp in outer half, somewhat swollen in inner half. Epipleura impunctate, glabrous, wide in anterior fifth, suddenly narrowed and disappearing in anterior $\frac{1}{5}$ of elytral length. Lateral margin of elytra widely concave in lateral view.

LEGS. Protibiae moderately prolonged. Protarsomere I very thin, 5.0 as long as broad, parallel, protarsomere II wider as I, length ratios of protarsomeres I–IV equal to 10–7–5–7. Metatarsi short and thin, length ratios of metatarsomeres I–IV equal to 7–4–3–6. Claws simple.

MALE GENITALIA. Aedeagus 2.5 times as long as wide. In dorsal view, apex moderately rounded with pointed tip. In lateral view, the ventral margin of aedeagus is almost straight and apex forming small hook directed upwards (Fig. 5A).

Female

Head, mandibles and anterior legs not enlarged. Protarsomeres extremely short, length ratios of protarsomeres I–IV equal to 3–2–2–4. Spermatheca: *cornu* U-shaped, apical half wider and somewhat shorter than basal one, basal half gradually narrowed towards very small nodulus, proximal spermathecal duct ca 0.8 times as long as *cornu* (Fig. 5B). Kotpresse as in Fig. 4E–F.

Variability

Black spots on elytra slightly variable in size, posterior pair can be either separated or partially connected. One female paratype (Fig. 4B) with additional small black spot subapically on each elytron. Two specimens with pale basal halves of each tibiae.

Bionomy

Based on the label data, the specimens were collected on *Calligonum comosum* L'Hér. and on a species of *Polygonum* L. (Polygonaceae Juss.).

Distribution

Israel.

Tituboea harteni Bezděk sp. nov.

[urn:lsid:zoobank.org:act:714861E4-A62E-40A6-8CF3-1DFF75897B95](https://zoobank.org/act:714861E4-A62E-40A6-8CF3-1DFF75897B95)

Figs 6, 7A

Differential diagnosis

Tituboea harteni sp. nov. resembles three species distributed in the southern Arabian Peninsula: *Tituboea lacordairei* (Pic, 1929), *Tituboea pindai* Bezděk, 2011 and *Tituboea ogloblini* (Medvedev, 1962). *Tituboea harteni* sp. nov. can be easily distinguished by the shorter male protarsi and protarsomere I 3.2 times as long as wide (protarsi more prolonged and protarsomere I ca five times as long as wide in other three species) and in the structure of the aedeagus (tricuspidate in *Tituboea harteni* sp. nov., triangular in the other three species) (Fig. 7).

Etymology

Dedicated to Antonius van Harten, the collector of the new species.

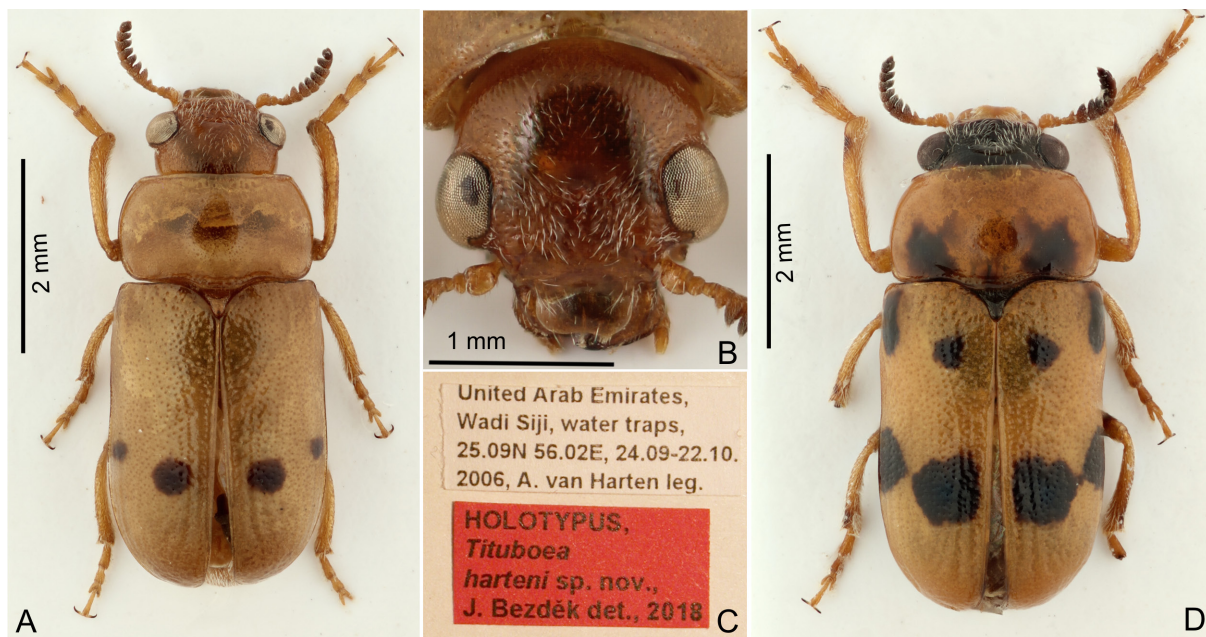


Fig. 6. *Tituboea harteni* Bezděk sp. nov. A–C. Holotype, ♂, 5.2 mm (NMPC). A. Dorsal view. B. Head. C. Labels. D. Paratype, ♂, 5.3 mm, dorsal view (JBCB).

Material examined

Holotype

UNITED ARAB EMIRATES: 1 ♂, “United Arab Emirates, / Wadi Siji, water traps, / 25.09N 56.02E, 24.09–22.10. / 2006, A. van Harten leg. [w, p]” (NMPC). The type specimens are provided with one printed red label: “HOLOTYPUS, [or PARATYPUS, resp.] / *Tituboea harteni* sp. nov., / J. Bezděk det. 2018”.

Paratypes

1 ♂, “United Arab Emirates, / Wadi Bih dam, / 19.ii.–30.iv.2008, light trap, / A. van Harten leg. [w, p]” (JBCB); 1 ♂, “N Oman, Al Batinah / North Gov., W of / Falaj Bani Rabiah / lgt. J. Pelikán 1.4.2018 [w, p] // 23°50'13.101"N / 57°4'55.710"E 101 m / kamenitá poušť [stony desert] / noč. lov na UV světlo [night collecting at UV light] [w, p] // COLLECTION / JAN PELIKÁN / Hradec Králové / Czech republic [w, p]” (JPCH).

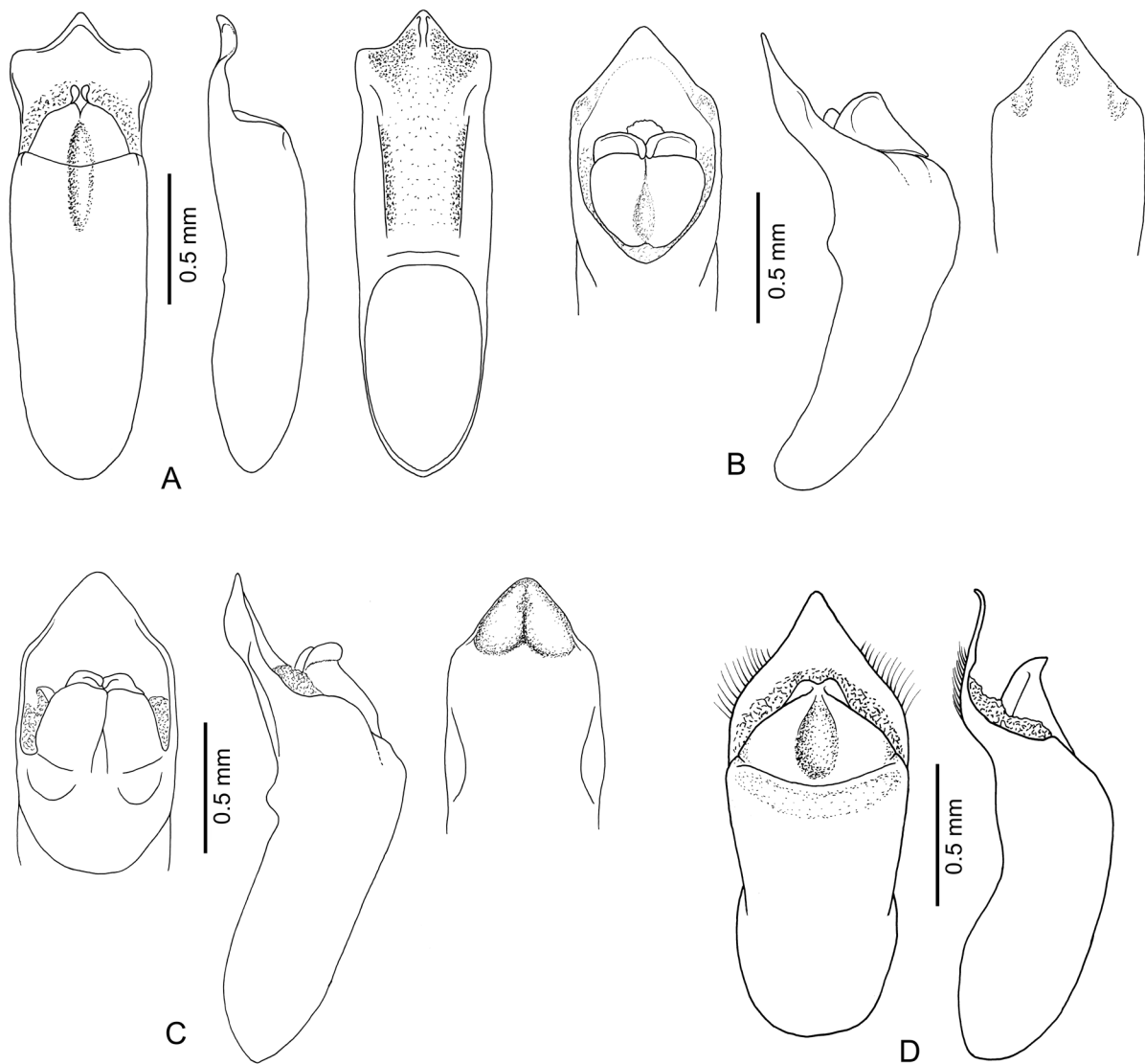


Fig. 7. Aedeagus in dorsal, lateral and ventral views. **A.** *Tituboea harteni* Bezděk sp. nov. **B.** *T. lacordairei* (Pic, 1929). **C.** *T. ogloblini* (Medvedev, 1962). **D.** *T. pindai* Bezděk, 2011.

Type locality

UNITED ARAB EMIRATES: Wadi Siji.

Description

BODY LENGTH. ♂♂: 3.8–5.3 mm (holotype 5.2 mm).

Male (holotype, Fig. 6)

COLOURATION. Body completely orange, except gradually darkened antennomeres VI–XI, black apices of mandibles, claws and two small black spots on each elytron behind middle (outer spot smaller and placed slightly more anteriorly).

HEAD AND MANDIBLES. Not enlarged (Fig. 6B). Mandibles small. Labrum semiopaque, transverse, with anterior angles widely rounded and anterior margin shallowly emarginated, surface with four long setae along anterior margin. Clypeus lustrous, almost impunctate, with longer pale setae cumulated laterally, anterior margin almost straight. Eyes moderately large. Frons wide, 3.18 times as wide as diameter of eye, surface uneven, densely covered with larger punctures and short pale setae, posteriorly in middle distinctly impressed. Frons indistinctly separated from vertex. Vertex lustrous, covered with small punctures and short pale setae, with indistinct median line. Antennae short, 0.21 times as long as body, antennomere I club-shaped, II small, subglobular, III very small, antennae serrated from antennomere IV, antennomeres V–X wider than long.

PRONOTUM. Pronotum glabrous, lustrous, strongly transverse, 1.86 times as wide as long, widest in middle, moderately convex, covered with irregular mixture of fine and very fine punctures. Anterior margin straight, lateral margins rounded, posterior margin nearly straight but moderately thickened in scutellar area. Anterior angles obtusangulate, posterior angles widely rounded. Lateral and posterior margins thinly bordered, anterior margin bordered only at lateral parts, in middle border is almost invisible. Posterior angles slightly elevated above elytral base.

SCUTELLUM. Scutellum subtriangular with rounded tip, in basal half punctate and covered with setae, towards apex becoming impunctate and glabrous, scutellar apex elevated upon elytral level.

ELYTRA. Elytra subcylindrical, 0.60 times as long as body, 1.41 times as long as wide at humeral part, glabrous, lustrous, densely covered with small confused punctures, in posterior half with indistinct traces of regular punctation. Basal margin with complete thin border forming narrow elevated keel. Epipleura impunctate, glabrous, wide in anterior quarter, suddenly narrowed and disappearing in anterior $\frac{1}{4}$ of elytral length. Lateral margin of elytra widely concave in lateral view.

LEGS. Protibiae moderately prolonged. Lateral margins of all protarsomeres covered with long setae. Protarsomere I moderately prolonged, narrow, 3.2 as long as broad, parallel except convergent basal part, protarsomere II elongate subtriangular, as wide as I, length ratios of protarsomeres I–IV equal to 8–6–5–7. Metatarsi short and slender, length ratios of metatarsomeres I–IV equal to 5–4–3–6. Claws simple.

GENITALIA. Aedeagus three times as long as wide, apical part tricuspidate, middle part triangular, sharp, lateral angles widely rounded. In ventral view, apex with short keel and two large impressions, middle part with two lateral sharp keels (Fig. 7A).

VARIABILITY. Paratype from UAE (Fig. 6D) with broad black band between eyes, pronotum with two black spots near basal margin, scutellum black, each elytron with four black spots (two, two), underside black, anterior legs with black coxae, middle and hind legs with black coxae and basal $\frac{2}{3}$ of femora,

outer margin of all tibiae near apex infuscate. The paratype from Oman is a very small male with a comparatively smaller and less developed aedeagus in comparison with the two males from UAE.

Female

Unknown.

Distribution

United Arab Emirates.

Tituboea olivieri (Lacordaire, 1848)

Fig. 8

Clythra (*Tituboea*) *olivieri* Lacordaire, 1848: 159 (original description).

Tituboea femoralis Medvedev, 1962: 335 (original description), syn. nov.

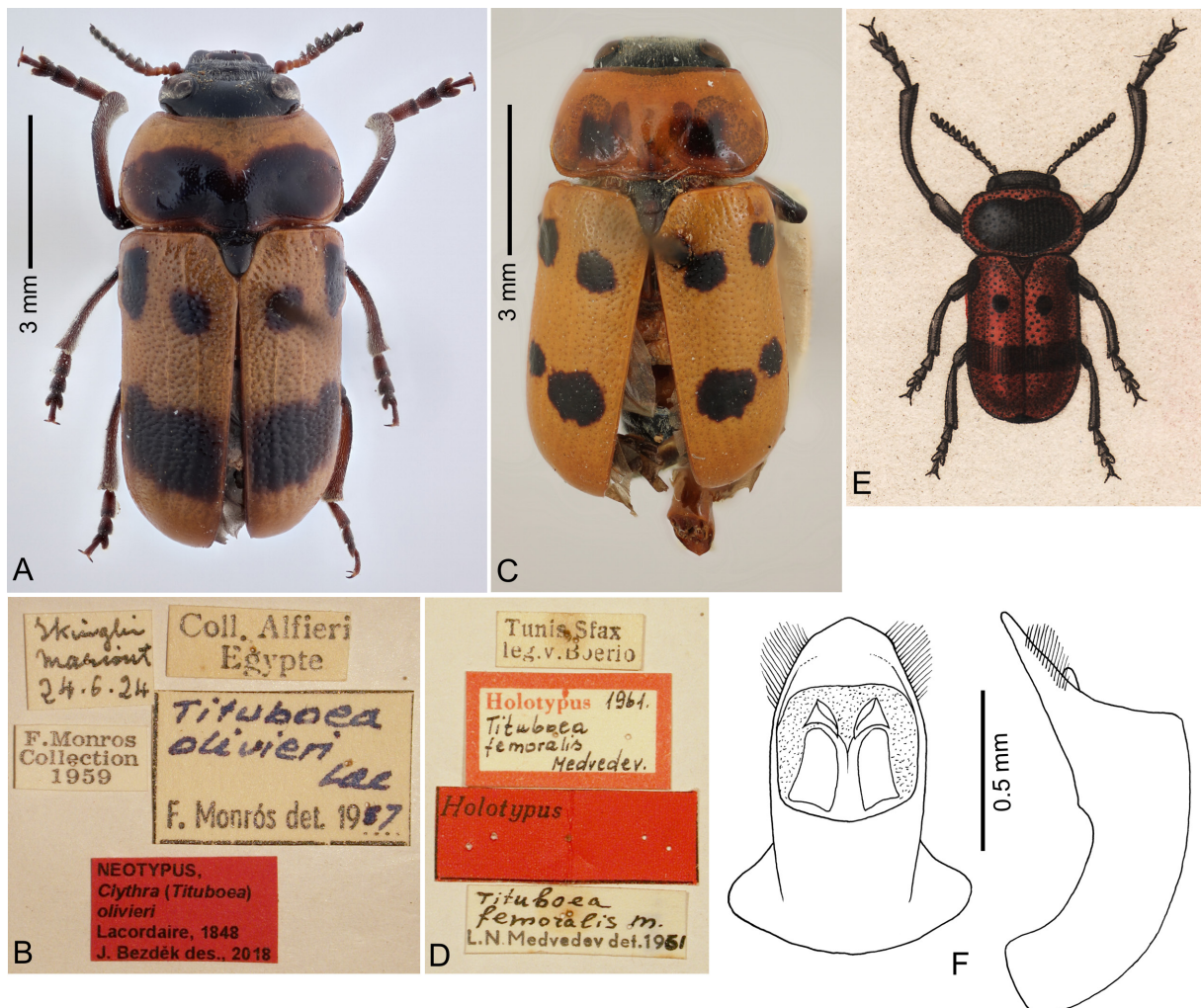


Fig. 8. *Tituboea olivieri* (Lacordaire, 1848). **A–B.** Neotype, ♂, 9.4 mm (USNM). **A.** Dorsal view. **B.** Labels. **C–D.** Holotype of *T. femoralis* Medvedev, 1962 (HNHM). **C.** Dorsal view. **D.** Labels. **E.** Drawing of *T. olivieri* from Lefèvre (1872). **F.** Aedeagus in dorsal and lateral views, ♂, Tunisia, Gabes (NMPC).

Material examined

Type material

TUNISIA: 1 ♂, holotype of *Tituboea femoralis*, “Tunis, Sfax / leg. V. Boerio [w, p] // Holotypus [red letters, p] 1961. / *Tituboea / femoralis* / Medvedev. [white label with red borders, h] // Holotypus [r, p] // *Tituboea / femoralis* m. [h] / L. N. Medvedev det. 19 [p] 61 [w, h]” (HNHM).

EGYPT: 1 ♂, neotype of *Tituboea olivieri*, “Ikinghi / Mariout / 24.6.24 [w, h] // Coll. Alfieri / Egypte [w, p] // F. Monros / Collection / 1959 [w, p] // *Tituboea / olivieri* / Lac. [h] / F. Monrós det. 19 [p] 57 [w, h] // NEOTYPUS, / *Clythra (Tituboea) / olivieri* / Lacordaire, 1848 / J. Bezděk des., 2018 [r, p]” (USNM).

Other material

EGYPT : 1 ♂, Ikinghi, Mariout, 28 May 1924, A. Alfieri leg. (USNM); 1 ♂, Ikinghi, Mariout, 12 Jun. 1925, A. Alfieri leg. (USNM).

LIBYA: 1 ♀, Misurata, 20 Jan. [without year of collecting], Bačovský leg. (JCB).

TUNISIA: 2 ♂♂, Gabes, without date of collecting, J. Obenberger leg. (NMPC).

Type localities

Clythra olivieri

EGYPT: “Égypte”.

Tituboea femoralis

TUNISIA: Sfax.

Comments

Lacordaire (1848) described *Tituboea olivieri* from Egypt based on material received from Chevrolat, but did not specify the number of specimens, only explicitly mentioning the unknown female. Lefèvre (1872) noted only one male in Chevrolat’s collection (presumably the holotype) and published a colour drawing of its habitus (Fig. 8E). Unfortunately, the type has not been traced in either the MNHN or BMNH, where Clytrini from Chevrolat’s collection are deposited now. I treat the holotype as lost.

Recently, I examined 3 specimens from Egypt deposited in USNM, which exactly match the colouration published in Lefèvre (1872). Surprisingly, these specimens are conspecific with *Tituboea femoralis* (Fig. 8C) but with the black pattern extended in comparison with the specimens from Tunisia and Libya. I decided to designate one of the males as a neotype (Fig. 8A) to fix the identity of *Tituboea olivieri* and, subsequently, to propose *Tituboea femoralis* as a new synonym of *Tituboea olivieri*.

Tituboea radeki Bezděk sp. nov.

[urn:lsid:zoobank.org:act:EE1F6A21-B8B8-4D0A-B613-6AA41BFA1E72](https://zoobank.org/act:EE1F6A21-B8B8-4D0A-B613-6AA41BFA1E72)

Figs 9, 10A–B

Differential diagnosis

Tituboea radeki sp. nov. is very similar to *Tituboea arabica* (Olivier, 1808) (Fig. 9G). The males of the two species differ in the shape of the protarsomeres. In *Tituboea radeki* sp. nov. protarsomere I is 1.65 times as long as wide and only slightly longer than subtriangular protarsomere II, while protarsomere I is 2.25 times as long as wide and 1.3 times longer than parallel protarsomere II in *Tituboea arabica*. The dorsal opening of the aedeagus of *Tituboea arabica* is subquadrangular, with a widely triangular apex while the apical part is regularly rounded towards the apex in *Tituboea radeki* sp. nov. In lateral view,

the apex of the aedeagus of *Tituboea arabica* is abruptly bent upwards at an angle of ca 40°, while it is only slightly and gradually bent in *Tituboea radeki* sp. nov. (Fig. 10A, C). The spermatheca is similar in both species; the proximal spermathecal duct is 0.9 times as long as the *cornu* in *Tituboea radeki* sp. nov., but 1.2 times as long in *Tituboea arabica* (Fig. 10B, D).

Etymology

Dedicated to the late Radek Červenka, specialist in Scarabaeidae and the collector of the holotype.

Material examined

Holotype

OMAN: 1 ♂, “OMAN mer., ca 0–50m, / Al Mughsayl env., / 21.–23.x.2005, / R. Červenka leg. [w, p]” (NMPC). The type specimens are provided with one printed red label: “HOLOTYPUS, [or PARATYPUS, resp.] / *Tituboea radeki* sp. nov., / J. Bezděk det. 2018”.

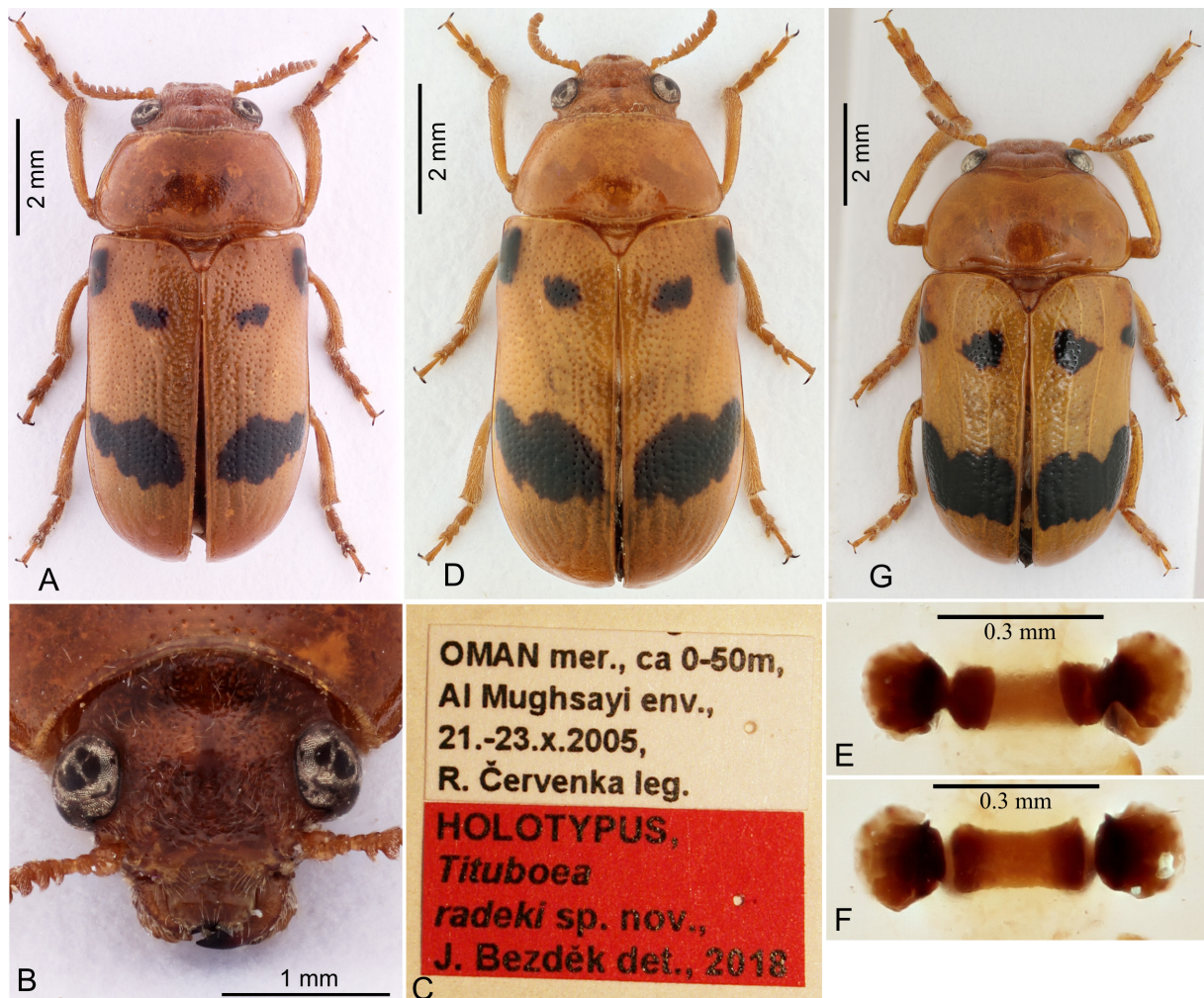


Fig. 9. A–C, E–F. Holotype of *Tituboea radeki* Bezděk sp. nov., ♂, 8.1 mm (NMPC). D. Paratype of *Tituboea radeki* Bezděk sp. nov., ♀, 7.4 mm (LSCP). A. Dorsal view. B. Head. C. Labels. D. Dorsal view. E. Kotpresse, ventral sclerites. F. Kotpresse, dorsal sclerites. G. *T. arabica* (Olivier, 1808), ♂, 8.0 mm (JBCB).

Paratypes

OMAN: 1 ♂, “Al Mughsayl dint. E / 16°52'53"N / 53°43'51"E / 08.III.2004 [w, p] // Oman / Dhofar Region / Leg. Dellacasa M. [w, p] // Museo di Storia / Naturale e del / Territorio / Universita di Pisa / Calci (Pisa) – Italia [g, p]” (CIUC); 2 ♂♂, “OMAN, Dhofar pr. / Jabal al Qamar / Wadi Al Mughsayl / N 16°52' E 53°43' / 2–3.10.2013 (10–120 m n. m.) / lgt. P. Kučera [w, p]” (LSCP, JBCB); 1 ♀, “OMAN, Dhofar province / Jabal al Qamar / W Al Mughsayl – Wádí / N 16.84497° E 53.68615° / 20–31.8.2012 / lgt. P. Kučera [w, p]” (LSCP).

YEMEN: 1 ♂, “YEMEN-W, Jabal Bura / NEE Al Hudaydah / 200–800m, 30.X.–1.XI. / N 14°52', E 43°24' / J. Halada lg., 2005 [w, p]” (NMPC).

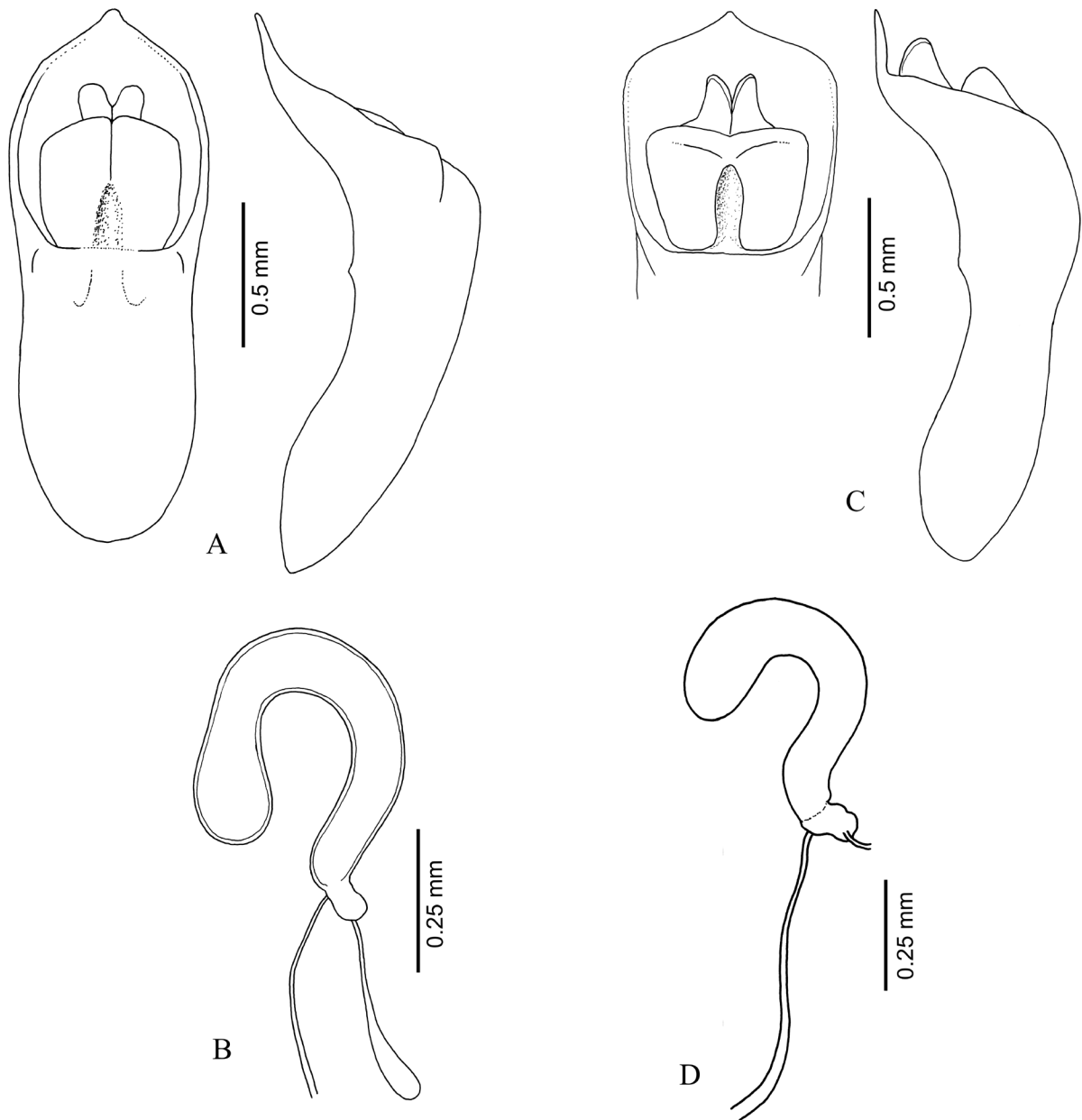


Fig. 10. A–B. *Tituboea radeki* Bezděk sp. nov. **A.** Aedeagus in dorsal and lateral views. **B.** Spermatheca. **C–D.** *T. arabica* (Olivier, 1808). **C.** Aedeagus in dorsal and lateral views. **D.** Spermatheca.

Type locality

OMAN: Al Mughsayl env.

Description

BODY LENGTH. ♂♂: 6.7–8.9 mm (holotype 8.1 mm), ♀: 7.3 mm.

Male (holotype, Fig. 9A)

COLOURATION. Body orange, apices of mandibles black, most of metasternum blackish, abdominal ventrites I–III infuscate, each elytron with three black spots (one on humeral callus, second subscutellar, third large, transverse, behind elytral midlength), apical halves of claws darkened (Fig. 9A).

HEAD. Mandibles small (Fig. 9B). Labrum with widely rounded anterior angles and slightly concave anterior margin, surface with several irregular large setigerous punctures on the surface, additional setae accumulated along anterior margin (particularly at sides). Clypeus with widely shallowly V-shaped anterior margin, surface transversely impressed, small setigerous punctures accumulated laterally. Frons wide, 2.77 times as wide as diameter of eye, surface covered with an irregular mixture of smaller and larger punctures and short setae, in middle distinctly impressed, with furrow along inner eye margin. Frons not separated from vertex. Vertex lustrous, densely covered with small punctures and short pale setae, with indistinct median line. Antennae short, 0.19 times as long as body, antennomere I club-shaped, II small, subglobular, III very small, antennae shortly serrated from antennomere IV, antennomeres V–X wider than long.

PRONOTUM. Glabrous, lustrous, strongly transverse, 1.97 times as wide as long, widest at basal quarter, moderately convex, covered with mixture of dense small feeble punctures and sparse larger punctures. Anterior margin shallowly concave, lateral margins rounded, posterior margin nearly straight but shallowly bisinuate in scutellar area. Anterior angles obtusangulate with rounded tip, posterior angles widely rounded. All margins thinly bordered, border in middle part of anterior margin feeble but visible. Posterior angles slightly elevated above elytral base.

SCUTELLUM. Scutellum subtriangular with rounded tip, in middle with elevated impunctate line, basal half punctate and covered with setae, towards apex becoming impunctate and almost glabrous, scutellar apex elevated upon elytral level.

ELYTRA. Elytra short, subcylindrical, 0.67 times as long as body, 1.50 times as long as wide at humeral part, glabrous, lustrous, densely covered with small confused punctures, disappearing at elytral apices, here and there tending to irregular puncture rows and 3–4 indistinct impunctate ribs. Basal margin with complete thin border forming narrow elevated keel. Epipleura impunctate, glabrous, wide in anterior fifth, suddenly narrowed and disappearing in anterior $\frac{1}{4}$ of elytral length. Lateral margin of elytra widely concave in lateral view.

LEGS. Protarsi moderately enlarged, protibiae moderately prolonged. Protarsomere I short and robust, 1.67 as long as broad, almost parallel, as wide as II, protarsomere II elongate subtriangular, only slightly shorter than I, length ratios of protarsomeres I–IV equal to 10–9–9–11. Metatarsi short and thin, length ratios of metatarsomeres I–IV equal to 9–6–6–9. Claws simple.

GENITALIA. Aedeagus 2.6 times as long as wide, apical part rounded towards to triangular apex, in lateral view apex only slightly and gradually bent upwards (Fig. 10A). Ventral side without impressions.

VARIABILITY. Pronotum 1.89–2.00 times as wide as long. One paratype with subscutellar elytral spot absent.

Female

Tarsomeres thinner than in male. Pronotum 1.90 times as wide as long. Spermatheca: *cornu* U-shaped with slightly wider apex, nodulus small, elongate, proximal spermathecal duct 0.9 times as long as *cornu* (Fig. 10B).

Distribution

Oman, Yemen.

Saudicytra wittmeri (Medvedev, 1979)

Fig. 11

Antipa wittmeri Medvedev, 1979: 296 (original description).

Saudicytra spinifemorata Medvedev, El Torkey & Al Dhafer, 2014: 7 (original description), syn. nov.

Material examined

Type material

SAUDI ARABIA: 1 ♂, holotype of *Saudicytra wittmeri*, “Abha Gizan km 28 [p] 22.4 [h] / Wadi Ad Dilla 700 m [w, p] // Saudi Arab. 1976 / Wittmer, Büttiker [w, p] // Holotypus [r, p] // *Antipa* 19 [p] 77 / *wittmeri* m. [h] / L. Medvedev det. [w, p]” (NHMB).

SAUDI ARABIA: 1 ♂, holotype of *Saudicytra spinifemorata*, “Saudi Arabia, Baha, Wadhi / Turubah 14.V.2011 A:918 m / Sweeping Net / N: 20°12.610' E: 41°17.056' / H. Al Fadly, A. El Torkey, M. / Sharaf & H. Setyaningrum [w, p] // HOLOTYPUS [p] / *Saudicytra / spinifemorata* [h] / L. Medvedev det [p] 2013 [r, h] // *Saudicytra spinifemorata* / Medvedev, El Torkey & Al Dhafer [w, p]” (KSMA).

Other material

OMAN: 1 ♂, Dhofar reg., 7 km after Tawi Atayr, 17°03'46" N, 54°36'15" E, 600 m, 9 Mar. 2004, M. Dellacasa leg. (CIUC); 1 ♂, Dhofar reg., Al Mughsayl, 16°52'53" N, 53°43'51" E, 8 Mar. 2004, M. Dellacasa leg. (CIUC); 1 ♂, Ad Dakhiliyah gov., near Subayb, 30 Mar. 2018, J. Pelikán leg. (JPCH); 7 ♂♂, 6 ♀♀, Jebel Shams Mt., 23°14'30.4" N, 57°09'05.4" E, 31 Mar. 2018, F. Pavel leg. (JPCH, NMPC).

Type localities

Antipa wittmeri

SAUDI ARABIA: Abha Gizan km 28, Wadi Ad Dilla.

Saudicytra spinifemorata

SAUDI ARABIA: Baha, Wadhi Turubah.

Description of females

BODY LENGTH. 5.9–7.0 mm. Colouration (Fig. 11D): head black with orange underside, labrum, anterior margin of clypeus, mouthparts and small spot on posterior eye margin; pronotum pale orange with wide transverse black band, posterior and lateral margins with thin orange border, anterior margin with wider orange stripe; scutellum black, often with pale extreme apical margin; elytra orange with four small black spots (one at humeral callus, one subscutellar, two placed behind elytral midlength often connected forming transverse stripe); antennae black with orange antennomeres I–IV; legs completely orange; prosternum orange with black posterior parts, meso-, metasternum and abdomen black.

HEAD. Labrum transverse with shallowly emarginated anterior margin, anterior angles rounded, surface dull, laterally covered with several large setigerous puncture bearing long setae. Clypeus and anterior part of head lustrous with sparse small punctures bearing pale setae, anterior clypeal margin with shallow wide V-shaped emargination. Frons and vertex semi-opaque with larger and denser puncture bearing longer setae more or less covering the surface. Frons slightly impressed, 2.8 times as wide as diameter of eye. Vertex moderately convex, in middle with longitudinal impressed and almost glabrous line. Vertex and frons separated by impressed line. Antennae short, 0.23 times as long as body, length ratios

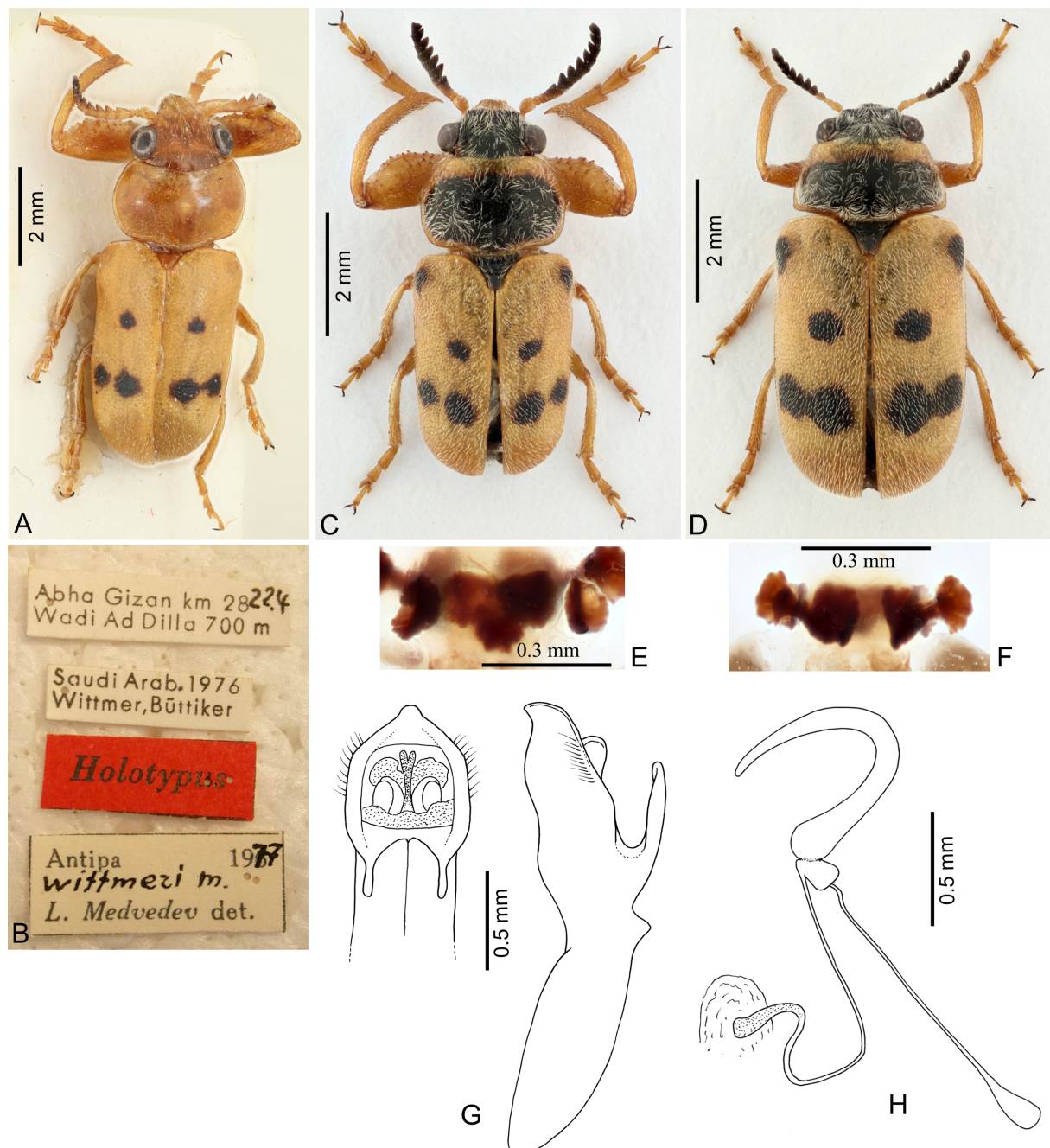


Fig. 11. *Saudicytra wittmeri* (Medvedev, 1979). **A.** Holotype, ♂, 7.5 mm (NHMB). **B.** Labels of holotype. **C.** ♂, 6.3 mm. **D.** ♀, 6.6 mm. **E.** Kotpresse, dorsal sclerites. **F.** Kotpresse, ventral sclerites. **G.** Aedeagus in dorsal and lateral views. **H.** Spermatheca.

of antennomeres I–XI equal to 11–5–4–6–7–7–6–6–6–8, antennomere I club-shaped, II subglobular, III very small, IV shortly elongate, antennae serrated from antennomere V.

PRONOTUM. Pronotum lustrous, transverse, 1.67 times as wide as long, covered with small punctures and long pale setae, in middle with perpendicular more or less glabrous line. Anterior margin widely shallowly concave, lateral margins rounded with anterior parts straight and convergent anteriorly, posterior margin moderately rounded and moderately thickened in scutellar area. Lateral and posterior margins narrowly bordered (border slightly wider in posterior angles), anterior margin bordered only in lateral quarters. Anterior angles obtusangulate, posterior angles widely rounded, slightly elevated but not upon elytral level.

SCUTELLUM. Scutellum subtriangular with transversely cut tip and slightly concave lateral margins, covered with small punctures and short setae, punctation and setae disappearing towards tip, in basal part with indistinct perpendicular glabrous line, scutellar apex elevated upon elytral level.

ELYTRA. Elytra dull, semicylindrical, slightly convergent posteriorly, 0.71 as long as body, 1.4 times as long as wide, covered with very dense confused small punctures and dense short pale setae. Basal margin from humeral callus to base of scutellum with elevated swollen keel, highest in middle, basal elytral border elevated upon pronotum level. Epipleura narrow, visible in basal quarter, then disappearing, covered with sparse setae, nearly impunctate. Lateral margin of elytra moderately concave in lateral view.

PROTARSOMERES. Protarsomeres I and II subtriangular, narrow. Length ratios of protarsomeres I–IV equal to 9–6–7–10, of metatarsomeres I–IV equal to 9–6–4–9. Claws narrow, simple.

SPERMATHECA. (Fig. 11H). Cornu U-shaped, thin, apical part gradually narrowed to apex, basal part slightly wider. Nodus small, cylindrical. Spermathecal duct twice as long as *cornu*, proximal half very thin and straight, distal half twice curved with wider terminal part. Kotpresse as in Fig. 11E–F.

Sexual dimorphism

Fore legs of females are not prolonged. Small denticles on profemora are less developed in females compared to well-developed denticles in males.

Distribution

Saudi Arabia (Medvedev 1979; Medvedev *et al.* 2014). Newly recorded from Oman.

Comments

Medvedev *et al.* (2014) gave only superficial characters, such as the colouration of dorsum and the intensity of punctation on the head, pronotum and elytra to separate *Saudicytra spinifemorata* and *Saudicytra wittmeri*. All these characters are very variable in many species of Clytrini occurring in arid areas. Also the drawing of the aedeagus of *Saudicytra spinifemorata* presented in the original description is inaccurate in comparison with the actual specimen. In reality, the aedeagus of *Saudicytra spinifemorata* is of exactly the same shape as that of *Saudicytra wittmeri* (Fig. 11G). Consequently, *Saudicytra spinifemorata* is proposed as a new synonym of *Saudicytra wittmeri*.

In one of my previous papers (Bezděk 2016) I tentatively accepted the placement of *Antipa wittmeri* in the genus *Tituboea* Lacordaire, 1848. At that time I was not aware of *Saudicytra* Medvedev, El Torkey & Al Dhafer, 2014. The main diagnostic characters of *Saudicytra* are propleura densely covered with long setae, short and strongly transverse second and third antennomere in male, numerous ventral

spines on anterior femora and unusual form of the aedeagus, shortly pubescent epipleura and the unusual structure of the aedeagus (Fig. 11G).

The colouration is variable throughout the distributional area (Fig. 11A, C–D). All the specimens from Oman represent darker aberrations with the black pattern more developed (particularly on the pronotum). The holotype of *Saudicytra wittmeri* is the palest aberration, with the black pattern reduced to small spots on the elytra.

Faunistics and comments

Afrophthalma antipaeformis Medvedev, 1993

Material examined

OMAN: 1 ♂ 1 ♀, Dhofar prov., Jabal al Qamar, Wadi al Mughsayl, 16°52' N, 53°43' E, 120 m a.s.l., 10 Apr. 2013, P. Kučera leg. (LSCP).

YEMEN: 1 ♂, Wadi Zabid, E of Zabid, 14°09' N, 43°31' E, 325 m a.s.l., 22 Mar. 2007, P. Kabátek leg. (NMPC); 1 ♀, Jabal Bura, NNE of Al Hudaydah, 14°52' N, 43°24' E, 261–600 m a.s.l., 9–11 Apr. 2007, P. Kabátek leg. (NMPC).

Distribution

Saudi Arabia (Regalin & Medvedev 2010b). New species for Oman and Yemen.

Afrophthalma arabica (Bryant, 1957)

Fig. 12

Material examined

Holotype

YEMEN: 1 ♀, “Type [round white label with red collar, p] // W. ADEN PROT. / Jebel Jihaf, / Wadi Lejj. / ca. 7,000 ft. / 1.x.1937. [w, p] // B. M. Exp. to / S. W. Arabia / H. Scott & / E. B. Britton / B. M. 1938–246. [w, p] // *Gynandrophthalma / arabica* / Bryant. [h] / G. E. Bryant det. 195 [h] 6 [w, h]” (BMNH).

Paratype

YEMEN: 2 ♀♀, “from edges of / terraced fields. [w, p] // W. ADEN PROT. / Jebel Jihaf, / Wadi Lejj. / ca. 7,000 ft. / 29.ix.1937. [w, p] // B. M. Exp. to / S. W. Arabia / H. Scott & / E. B. Britton / B. M. 1938–246. [w, p] // SYNTYPE / *Smaragdina / arabica* Bryant [w, p]” (BMNH).

Other material examined

OMAN: 1 ♂, Darbaat, 18–21 Sep. 2003, R. Červenka leg. (JBCB); Taqah env., ca 270–300 m a.s.l., 18–19 Oct. 2005, R. Červenka leg. (JBCB); Dhofar, Wadi Nashib, 1–3 Sep. 2007, Z. Košťál leg. (NMPC); 2 ♀♀, Dhofar, Jabal al Qamar, 15 km W of Al Mughsayl, 16.85591° N, 53.72375° E, 450 m a.s.l., 26 Sep. 2011, P. Kučera leg. (LSCP); 1 ♀, Dhofar, Jabal al Qamar, 5 km N of Dhalqut, 16.72291° N 53.27424° E, 300 m a.s.l., 23 Aug. 2012, P. Kučera leg. (LSCP); 1 ♀, Dhofar, Jabal al Qamar, Ajdarawt env., Ra’s Sajir-Wádí, 750 m a.s.l., 24 Sep. 2011, P. Kučera leg. (LSCP); 1 ♀, Dhofar, Jabal Samhán, AWadi Darbat, N of Taqah, 17°05' N, 54°26' E, 160 m a.s.l., 9 Oct. 2013, P. Kučera leg. (LSCP); 2 ♂♂, 1 ♀, Dhofar, Jebel Samhan, 900–1200 m a.s.l., 23–25 Sep. 2003, S. Jakl leg. (JPCH).

YEMEN: 1 ♂, 1 ♀, Haraz Mts., S slope of Al Ilan Mt., 2600 m a.s.l., 23 Jun. 2010, V. Hula and J. Niedobová leg. (JBCB).

Comments

The elytral colour pattern of *Afrophthalma arabica* is variable. The female holotype depicted in the original description has a metallic stripe starting on the humeral callus, narrow in the anterior half and widened in the posterior half on each elytron (Fig. 12A). The anterior part of the metallic stripe is missing in most of the examined specimens (Fig. 12C) including two female paratypes. On the contrary, two examined specimens from Yemen have an extended metallic pattern with only the sutural stripe orange (Fig. 12D). The males of pale and dark forms were dissected, and their aedeagi are exactly the same (Fig. 12E).

Distribution

Oman, Saudi Arabia, Yemen (Regalin & Medvedev 2010b).

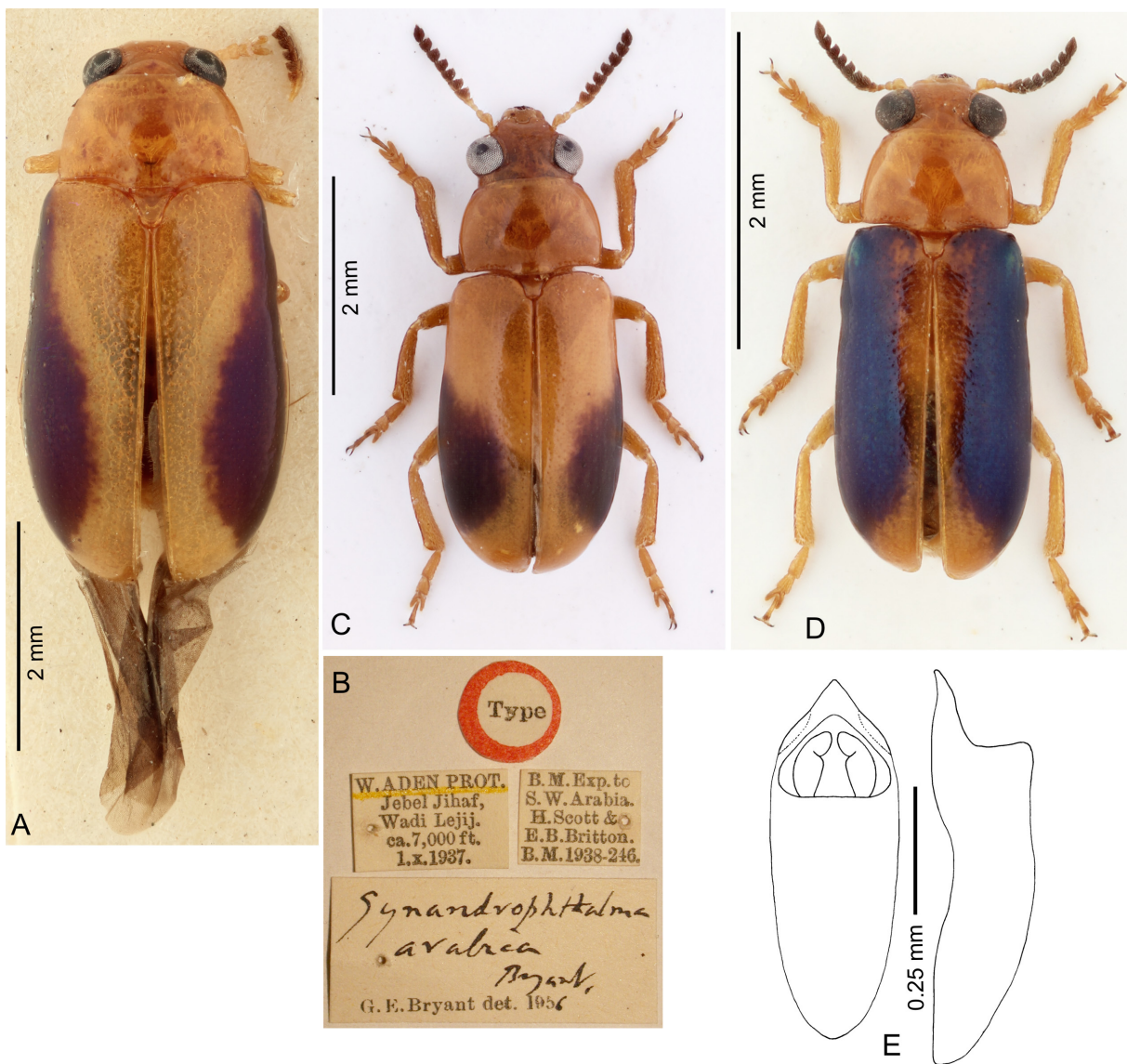


Fig. 12. *Afrophthalma arabica* (Bryant, 1957). A–B. Holotype, ♀, 4.5 mm (BMNH). A. Dorsal view. B. Labels. C. ♂, 4.2 mm, Oman (JBCB). D. ♂, 3.2 mm, Yemen (JBCB). E. Aedeagus in dorsal and lateral views.

Cheilotoma (Cheilotoma) musciformis musciformis Goeze, 1777

Material examined

GREECE: 1 ♀, Central Greece, Phthiotis, Parnassus, Saranduli, 1200 m a.s.l., 4 Jun. 2005, F. Angelini leg. (NMPC); 1 ♀, West Macedonia, Florina, 1200–1350 m a.s.l., 11 Jun. 2007, F. Angelini leg. (NMPC); 1 ♂, Thessaly, Larissa, Ossa Mts., 1500 m a.s.l., 1 Jun. 2006, V. Skoupý leg. (NMPC); 2 ♀♀, Thessaly, Trikala, Amaranto, 30 km E of Kalabaka, 1600 m a.s.l., 18–19 Jun. 2006, Bolm leg. (NMPC).

Distribution

Central, southern and eastern Europe, Turkey, eastern Siberia, Kazakhstan, Mongolia (Regalin & Medvedev 2010b). Confirmed occurrence in Greece.

Comments

Regalin & Medvedev (2010b) catalogued *Cheilotoma musciformis* from Greece without concrete data. As far as I know, the above listed specimens are the first concrete specimens published from Greece.

Clytra novempunctata Olivier, 1808

Material examined

LEBANON: 1 ♂, 3 ♀♀, Northern gov., Bcharre env., Quadisha valley, 970 m a.s.l., 34°14'57" N, 35°58'34" E, 27 May 2015, Boustani, Márkus, Németh and Rehayem leg. (HNHM); 2 ♂♂, Northern gov., Tanourine env., 2 km N of Harissa, Tanourine Cedars Nat. Res., 1750 m a.s.l., 34°12'34" N, 35°55'45" E, 23 May 2015, O. Akiki, M. Boustani, A. Márkus, N. Nemer, T. Németh, M. Rehayem and W. Yaminne leg. (HNHM).

Distribution

Widely distributed in South and East Europe, the Caucasus, Egypt, Cyprus, Turkey, Turkmenistan, and the Near East (Regalin & Medvedev 2010b). New species for Lebanon.

Clytra quadripunctata quadripunctata (Linnaeus, 1758)

Material examined

GREECE: 1 ♂, East Macedonia and Thrace, Xanthi, Petrochori, 12 May 2001, J. Schneider leg. (NMPC).

Distribution

Widely distributed in Palaearctic Region (Regalin & Medvedev 2010b). Confirmed occurrence in Greece.

Comments

Regalin & Medvedev (2010b) listed *Clytra quadripunctata quadripunctata* from Greece probably based on the specimens of *Clytra appendicina* Lacordaire, 1848 published by Rozner & Rozner (2008, 2014). *Clytra appendicina* is often treated as a synonym of *Clytra quadripunctata quadripunctata* but also as its subspecies or as valid species. The above mentioned specimen confirms the occurrence of true *Clytra quadripunctata quadripunctata* in Greece.

Coptocephala destinoi Fairmaire, 1884

Material examined

GREECE: 13 ♂♂, 10 ♀♀, Kos Island, Psalidi, 18–23 Jun. 2007, R. Regalin leg. (RRCA); 22 ♂♂, 18 ♀♀, Samos Island, Marathokambos, Votsalakia, 20–27 Jun. 2006, R. Regalin leg. (RRCA); 7 ♂♂, 2 ♀♀, Samos Island, Votsalakia env., 11–20 Jun. 2007, K. Schön leg. (NMPC).

Distribution

Caucasus, Turkey, Greece (Kos, Samos), Near East (Regalin & Medvedev 2010b).

Comments

Regalin & Medvedev (2010b) catalogued *Coptocephala destinoi* from Greek islands Kos and Samos without concrete data. The voucher specimens are listed above.

Coptocephala fallaciosa Fairmaire, 1884

Material examined

JORDAN: 1 ♂, 25 km S of At Tafila, 30°41,581' N, 35°37,446' E, 1500 m a.s.l., 27 May 2007, J. Bezděk leg. (JBCB); 1 ♂, 30 km W of Jarash, 32°19,877' N, 35°43,110' E, 850 m a.s.l., 2–3 Jun 2007, J. Bezděk leg. (JBCB); 1 ♂, 15 km S of Madaba, 31°40.8' N, 35°41.3' E, 760 m a.s.l., rock steppe, 28 Apr. 2006, F. Kantner and L. Kantner leg. (NMPC); 1 ♂, 3 km NNW of Rabba, 31°18.045' N, 35°43.534' E, 900 m a.s.l., 27 May 2007, F. Kantner and L. Kantner leg. (NMPC).

LEBANON: 4 ♂♂, 3 ♀♀, Northern gov., Bcharre env., Quadisha valley, 34°14'57" N, 35°58'34" E, 970 m a.s.l., 23 Jun. 2016, A. Kotán, T. Németh and W. Yammine leg. (HNHM); 1 ♀, Northern gov., Bcharre env., Quadisha valley, 34°14'57" N, 35°58'34" E, 970 m a.s.l., 22 Jun. 2016, M. Boustani, A. Kotán, P. Nemes, T. Németh and W. Yammine leg. (HNHM); 1 ♀, Northern gov., Tannourine env., 2 km N of Harissa, Fuvar, 34°12'22" N, 35°55'17" E, 1460 m a.s.l., 17 Jun. 2016, A. Kotán, P. Nemes & T. Németh leg. (HNHM); 1 ♀, Northern gov., Tannourine env., 2 km N of Harissa, Fuvar, 34°12'22" N, 35°55'17" E, 1460 m a.s.l., 27 Jun. 2016, A. Kotán, P. Nemes and T. Németh leg. (HNHM); 1 ♀, Northern gov., Tannourine env., 2 km N of Harissa, Tannourine Cedars Nature Reserve, 1750 m a.s.l., 6 May 2016, N. Nemer leg. (HNHM).

SYRIA: 1 ♂, 1 ♀, Qala'at Salah ad-Din, 35°36' N, 36°03' E, 370 m a.s.l., 30 Jun. 1998, J. Šobotník leg. (JBCB).

Distribution

Israel, Turkey (Regalin & Medvedev 2010b). New species for Jordan, Lebanon and Syria.

Comments

Previous records from Syria (Fairmaire 1884; Pic 1942) refer to Akbes, situated in Turkey today, and to the type locality Syria of *Coptocephala fallaciosa* var. *tambei* Pic, 1942 synonymised with *Coptocephala destinoi* by Bezděk & Regalin (2015).

Coptocephala rubicunda rubicunda (Laicharting, 1781)

Material examined

GREECE: 1 ♂, 1 ♀, Central Macedonia, Chalkidiki, Sikia, Jul. 1991, V. Novák leg. (MZCK).

Distribution

Middle and South Europe (Regalin & Medvedev 2010b). New species for Greece.

Coptocephala scopolina scopolina (Linnaeus, 1767)

Comments

This species has been published twice from Greece. Jolivet (1954) reported four specimens (3 ♂♂, 1 ♀) deposited in ISNB, and I was able to examine them. All three males (from Zagora and Koukouvitza) belong to *Coptocephala hellenica* Warchałowski, 1991, and the female from Litochoro is *Macrolenes dentipes* (Olivier, 1808). Rozner & Rozner (2014) published *Coptocephala scopolina* as new for Greece based on one female. The voucher specimen, now deposited in HNHM, was examined and is undoubtedly a female of *Coptocephala hellenica*. Consequently, *Coptocephala scopolina scopolina* is deleted from the fauna of Greece.

Coptocephala simillima Lodewyckx, 1995

Material examined

ARMENIA: 1 ♂, Khosrov reserve, 21 Jul. 1992, M. Kalashian leg. (JBCB); 1 ♂, Erevan env., valley of Razdan river, 7 Jun. 1988, J. Strejček leg. (NMPC).

TURKEY: 1 ♂ 1 ♀, Ilgaz Dagi, 7–9 Aug. 1996, S. Mihulka leg. (JBCB).

Distribution

Turkey (Regalin & Medvedev 2010b). New species for Armenia.

Labidostomis brevipennis Faldermann, 1837

Material examined

SYRIA: 1 ♀, von Bodemeyer leg. (NMPC).

Distribution

Caucasus, Turkey, Iran, Iraq (Regalin & Medvedev 2010b). Confirmed occurrence in Syria.

Comments

Regalin & Medvedev (2010b) listed *Labidostomis brevipennis* from Syria without any concrete data. The above mentioned female confirms the occurrence in Syria.

Labidostomis cyanicornis (Germar, 1822)

Material examined

GREECE: 1 ♂, East Macedonia and Thrace, Drama, Kato Nevrokopi, 4 Jun. 2007, Angelini leg. (NMPC).

Distribution

Europe except northern part, Turkey, Siberia, Kazakhstan, Mongolia (Regalin & Medvedev 2010b). New species for Greece.

Labidostomis karamanica Weise, 1900

Material examined

GREECE: 7 ♂♂, 3 ♀♀, Rhodes Isl., Emponas env., 400 m a.s.l., 7 May 1996, R. Borovec leg. (NMPC); 3 ♂♂, Rhodes Island, Koutsoútis near Emponas, 400 m a.s.l., 7 May 1996, R. Borovec leg. (NMPC).

LEBANON: 1 ♂, Northern gov., Ehden, Horsh Ehden Nat. Res., 1525 m a.s.l., 34°18'33" N, 35°59'14" E, 21 May 2015, M. Boustani, A. Márkus and T. Németh leg. (HNHM); 2 ♀♀, Northern gov., Bcharre env., 1 km E of Ariz, Horsh Arz el-Rab, ancient *Cedrus* forest, 34°14'33" N, 36°02'59" E, 1900 m a.s.l., 20 May 2015, A. Márkus and T. Németh leg. (HNHM); 2 ♂♂, 1 ♀, Northern gov., Bcharre env., Quadisha valley, 34°14'57" N, 35°58'34" E, 970 m a.s.l., A. Kotán, P. Nemes, T. Németh and C. Tanios leg. (HNHM).

Distribution

Cyprus, Israel, Syria, Turkey (Regalin & Medvedev 2010b), Iran (Ghahari & Jedryczkowski 2012). New species for Greece (Rhodes Island) and Lebanon.

Labidostomis propinqua Faldermann, 1837

Material examined

SERBIA: 1 ♀, Resavica, 30 May 1988, L. Kantner leg. (NMPC).

Distribution

Southeastern Europe, Turkey, Near East, Iran, Crimea, southern Russia, Caucasus (Regalin & Medvedev 2010b). New species for Serbia.

Lachnaia sexpunctata (Scopoli, 1763)

Material examined

LEBANON: 1 ♀, Northern gov., Bcharre env., Quadisha valley, 970 m a.s.l., 34°14'57" N, 35°58'34" E, 27 May 2015, Boustani, Márkus, Németh and Rehayem leg. (HNHM); 1 ♀, Northern gov., Tanourine env., 2 km N of Harissa, Tanourine Cedars Nat. Res., 34°12'34" N, 35°55'45" E, 1750 m a.s.l., 23 May 2015, O. Akiki, M. Boustani, A. Márkus, N. Nemer, T. Németh, M. Rehayem and W. Yaminne leg. (HNHM); 1 ♀, Northern gov., Bcharre env., Quadisha valley, 34°14'57" N, 35°58'34" E, 970 m a.s.l., 23 Jun. 2016, Kotán, Németh and Yammine leg. (HNHM); 3 ♀♀, Northern gov., Tannourine env., 2 km N of Harissa, Fuvar, 34°12'22" N, 35°55'17" E, 1460 m a.s.l., 17 Jun. 2016, A. Kotán, P. Nemes and T. Németh leg. (HNHM).

SYRIA: 1 ♂, 1 ♀, Latakia prov., Slunfeh, macchia-oak forest, 4 Jun. 2010, A. Kotán, E. Mizsei, T. Németh and N. Rahmé leg. (HNHM).

Distribution

Widely distributed in Middle, South and East Europe, Turkey, Israel (Regalin & Medvedev 2010b). New species for Lebanon and Syria.

Smaragdina xanthaspis (Germar, 1824)

Material examined

SYRIA: 1 ♂, 1 ♀, 10 km SSW of Masyaf, 2–3 Jun. 2009, F. Houška leg. (JBCB).

Distribution

Widely distributed in Europe, Turkey, Caucasus and Near East (Regalin & Medvedev 2010b). Confirmed occurrence in Syria.

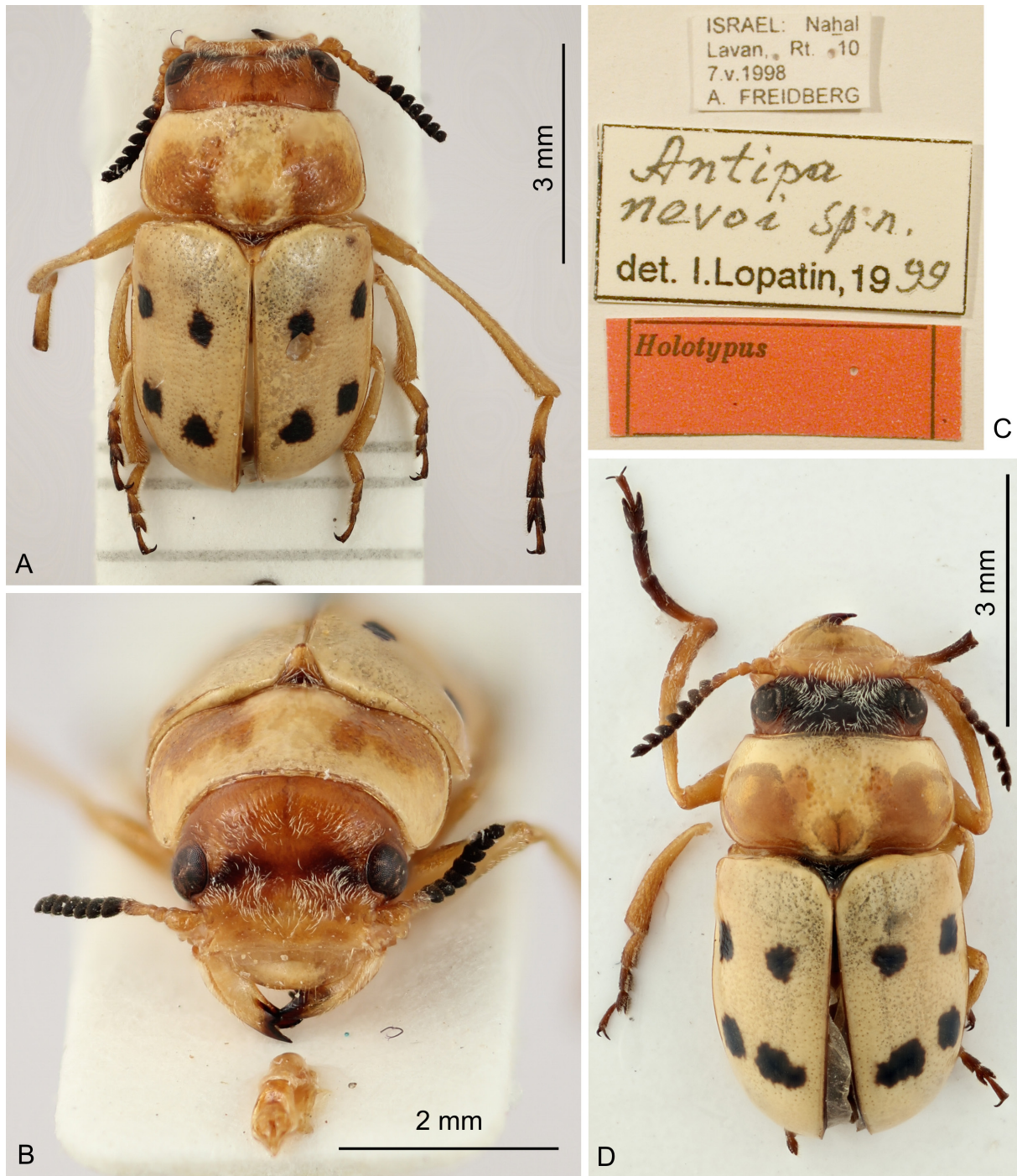


Fig. 13. *Tituboea nevoi* Lopatin & Chikatunov, 2001. A–C. Holotype, ♂, 6.2 mm (TAU). A. Dorsal view. B. Frontal view. C. Labels. D. ♂, 6.3 mm, Libya (JBCB).

Comments

Although *Smaragdina xanthaspis* is listed from Syria in some publications (e.g., Lopatin *et al.* 2003; Regalin & Medvedev 2010b), I do not know any concrete published specimens. The above mentioned specimens confirm the occurrence in Syria.

Tituboea nevoi Lopatin & Chikatunov, 2001
Fig. 13

Material examined

LIBYA: 1 ♂, Misurata, 7 May 1988, without collector's name (JBCB).

Distribution

Israel (Lopatin & Chikatunov 2001; Lopatin *et al.* 2003). New species for Libya.

Comments

The specimen from Libya (Fig. 13D) was compared with the holotype (Fig. 13A–C).

Discussion

Taking into consideration the present paper, the Old World genus *Tituboea* Lacordaire, 1848 contains about 75 species with the majority of the 55 species distributed in the Palaearctic region (Regalin & Medvedev 2010b; Bezděk & Batelka 2011; Bezděk 2012; Bezděk & Regalin 2015). The classification of some species in *Tituboea*, however, requires verification (e.g., Regalin 1997). The taxonomy of *Tituboea* is complicated by the considerable variability of colouration and sexually dimorphic characters as well as local populations often being described as varieties or species (Bezděk & Regalin 2015). Despite these problems, the increasing number of *Tituboea* species is expected particularly in arid areas of the western Palaearctic.

The exclusively Palaearctic genus *Labidostomis* Chevrolat, 1936 comprises about 95 species (Warchałowski 2004; Guskova 2006; Lopatin & Nesterova 2007; Regalin & Medvedev 2010b; Bezděk & Regalin 2017; Bezděk 2018). The taxonomically difficult species complexes are step by step revised based on the examination of the primary type material and the study of the internal aedeagus sclerites (Bezděk & Regalin 2017; Bezděk 2018).

Although the sclerites of the internal sac of the aedeagus are frequently studied in many families of Coleoptera, they can be found only occasionally in modern taxonomical literature on Chrysomelidae (for example, for Criocerinae: Tishechkin *et al.* (2011); Bezděk & Baselga (2015); for Galerucinae: Kortenhaus & Wagner (2010); Hazmi & Wagner (2013); Lee & Bezděk (2013); Bezděk & Lee (2014); Wagner (2016); for Cryptocephalinae: Leonardi & Sassi (2001); Sassi (2014)). In Clytrini, the sclerites of the internal sac were examined only sporadically in South American genera (Agrain *et al.* 2007; Agrain 2013), in the genera *Lachnaia* Chevrolat, 1836 (Baselga & Ruiz-García 2007) or *Labidostomis* Chevrolat, 1836 (Bezděk & Regalin 2017; Bezděk 2018). In the future, a comprehensive study of the aedeagus sclerites could help to resolve many problems in taxonomically difficult genera such as *Coptocephala* Chevrolat, 1836, *Clytra* Laicharting, 1781, *Smaragdina* Chevrolat, 1836 or *Aetheomorpha* Lacordaire, 1848.

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