

Revision of *Chitona* species (Coleoptera: Oedemeridae) from the eastern Mediterranean

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Abstract. Species of the genus *Chitona* W. Schmidt, 1844, occurring in the eastern part of the Mediterranean are revised, illustrated and keyed. Two species groups are proposed. *Chitona macedonica* sp. nov. is described from Macedonia, southern Bulgaria and northern Greece. *Chitona cretica* Fairmaire, 1863 is removed from synonymy of *C. incana* (Schmidt, 1846). *Chitona fucata tristis* (Faldermann, 1837) stat. nov. is downgraded to a subspecies. The following new synonymies are established: *Chitona* W. Schmidt, 1844 = *Dolichopyga* Seidlitz, 1899 syn. nov., *C. fucata tristis* (Faldermann, 1837) = *C. sieversi* Kiesenwetter, 1878 syn. nov., *C. cretica* Fairmaire, 1863 = *Probosca acuminata* Reitter, 1890 syn. nov. = *Dolichopyga balcanica* Pic, 1913 syn. nov. *Chitona fucata fucata* (Faldermann, 1837) comb. nov. is transferred from *Dolichopyga*.

Key words. Coleoptera, Oedemeridae, taxonomy, new species, new synonyms, new combination, new status, key, Palearctic region

Introduction

The genus *Chitona* W. Schmidt, 1844, consists of 13 known species occurring in the Mediterranean area. Their distribution is, as far as known, discontinuous. Eight species occur in the western Mediterranean (the Iberian Peninsula and Northern Africa from Morocco to Tunisia), while, according to the present paper, other five species are distributed in the eastern Mediterranean (the Balkan Peninsula, Aegean Islands, Turkey, Transcaucasia, northern Iran and western Turkmenistan). The whole genus was last revised by SEIDLITZ (1899).

The species occurring in the eastern Mediterranean have so far been interpreted without examinations of the type material, which caused some confusions and/or misinterpretations. Moreover, the validity of the genus group taxon *Dolichopyga* Seidlitz, 1899, is to be re-evaluated.

Material and methods

The studied specimens are deposited in the following collections:

CMSF	Cyrille VanMeer collection, Saint-Pée-sur-Nivelle, France;
HBTR	Hervé Brustel collection, Toulouse, France;
HNHM	Természettudományi Museum, Budapest, Hungary;
MHNL	Muséum d'Histoire Naturelle, Lyon, France;
MMHC	Marion Mantič collection, Hlučín, Czech Republic;
MNHN	Muséum d'Histoire Naturelle, Paris, France;
NMPC	Národní muzeum, Praha, Czech Republic;
RASF	Roland Allemand collection, Sainte-Foy-les-Lyon, France;
TNQF	Thierry Noblecourt collection, Quillan, France;
XVTS	Xavier Vázquez collection, Terassa, Spain.

Shades of colours used in the descriptions are classified according to PAULT (1958) and the names of integument structures follow HARRIS (1979). Morphological characters were observed under a 90x magnification. The handwritings of older authors were interpreted according to HORN et al. (1990). Parts of male terminalia drawn in lateral view have their ventral part facing to the left. Pubescence of the projections of urite VIII is omitted to reveal their shape. Locality labels of the type specimens are cited verbatim with standardized dates. Names of localities of the additional material are also standardized. Separate labels are divided in the text by a double slash (/).

The type specimens deposited in HNHM are labelled as holotype and paratypes. However, these labels are not original, so that the specimens are here classified as syntypes.

Taxonomy

Chitona W. Schmidt, 1844

Chitona W. Schmidt, 1844 in O. SCHMIDT (1844): 134.

Type species. *Stenostoma variegatum* Germar, 1824 = *Chitona connexa* (Fabricius, 1798), monobasic.

Dolichopyga Seidlitz, 1899: 832, **syn. nov.**

Type species. *Probosca acuminata* Reitter, 1890 = *Chitona cretica* Fairmaire, 1863 in JACQUELIN DU VAL (1863) designated by SEMENOV (1900).

Comments. The genus *Dolichopyga* was formerly distinguished from *Chitona* because of the long pygidium, reniform eyes and emarginate last visible sternite. In my revision of the oedermerid genera (ŠVIHLA 1986), I found these characters insufficient to justify the existence of two separate genera, so that I classified *Dolichopyga* as a subgenus of *Chitona*. Over time as more species of both *Chitona* and *Dolichopyga* were examined and revisions of other genera of the family were completed, it became evident that the shape of the eyes can be intermediate, e. g. in *C. innotaticollis* Pic, 1913, and *C. ganglbaueri* Reitter, 1889, in which the eyes are only very slightly emarginate. It also seems that the shape of the eyes depends on the more or less rostrate head in the species formerly classified in the subgenus *Chitona* s. str. Thus only the shape of the last abdominal segment remained as a distinguishing character. In comparison with other genera, e. g. *Nacерdes* Dejean, 1834, *Alloxantha* Seidlitz, 1899, and *Oedemera*

Olivier, 1789, the above mentioned characters do not justify the existence of two distinct genera. Nevertheless, they can be used to define species groups.

Based on available material, the Western Mediterranean species seem to belong to only one group, which is a sister group of all Eastern Mediterranean species. This group is characterized by a narrowly emarginate apex of the last sternite and tendency to create rostrate head. Unfortunately, I could not examine all the known species occurring in the western part of the Mediterranean. The material of North African species is very limited and some types are lost or not available. That is why the whole genus is not revised in this paper. The groups of Eastern Mediterranean species are defined below.

Bionomics. At least some but possibly all species occurring in eastern Mediterranean prefer saline biotopes, where their larvae develop in stems and roots of flowers.

Chitona fucata species group

Diagnosis. Parameres narrow preapically (Figs. 1 and 9), at most very slightly concave, pygidium only very slightly prolonged in female (Fig. 6). This group includes two species, *C. ganglbaueri* and the polytypic *C. fucata*.

Chitona fucata fucata (Faldermann, 1837) comb. nov.

(Figs. 1-8, 33-34)

Nacerdes fucata Faldermann, 1837: 139; type locality: 'Perse' [= Iran].

Probosca fucata: REITTER (1890): 153.

Dolichopyga fucata: SEIDLITZ (1899): 835.

Probosca cinerea Motschulsky, 1849: 134; type locality: 'Steppes des Kirguises' [= ca Caspian depression, not Kyrgyzstan], synonymised by REITTER (1890).

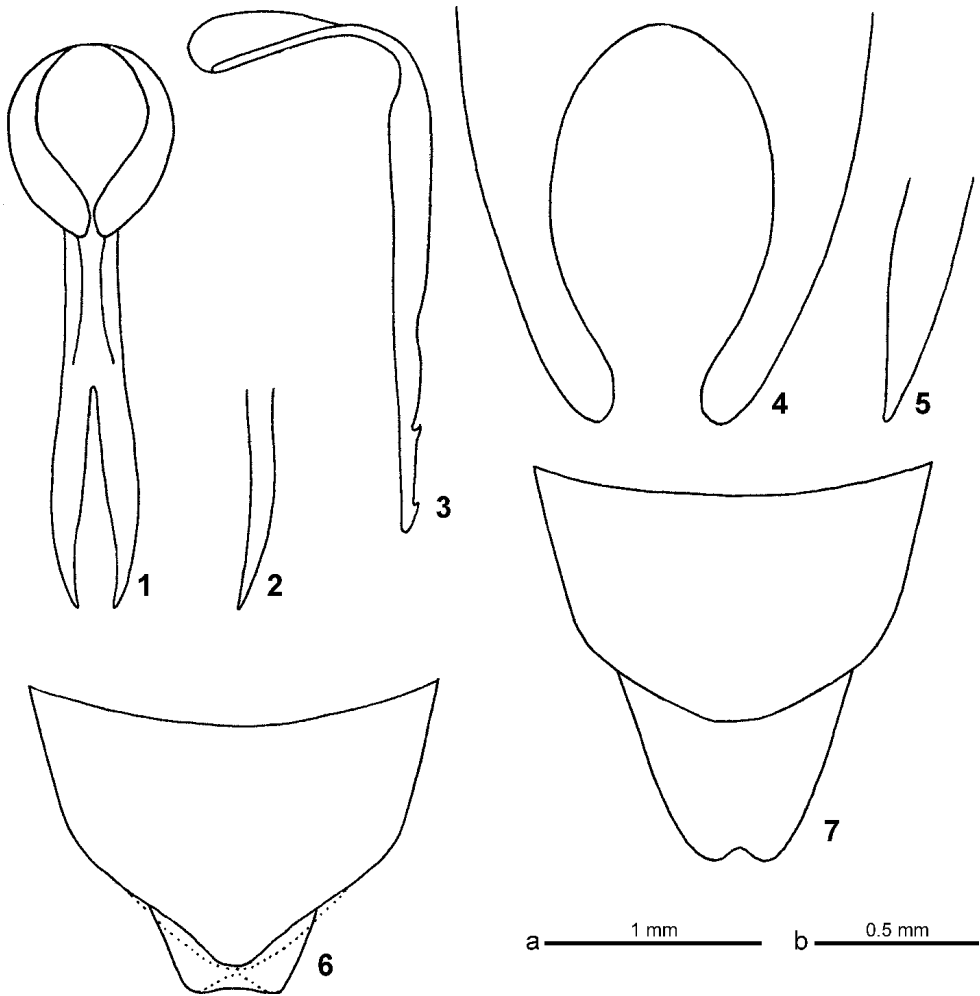
Type material examined. LECTOTYPE: ♂, 'fucata Fald., Perse, type [Oberthür's handwriting] // coll. Oberthür, Paris [printed] // LECTOTYPUS, *Nacerdes fucata* Faldermann, 1837, V. Švihla design. [red label, printed and handwritten]'. PARALECTOTYPE: ♀, same data (all MNHN).

Additional material examined. AZERBAIJAN: Ālät env., 60 km S Baku, 11.vi.1979, V. Švihla lgt., 9 ♂♂ 21 ♀♀; ditto, 13.-16.vi.1983, V. Kubáň lgt., 4 ♀♀; Yevlax, Babadjanides lgt., 1 ♀. IRAN: AZERBAIJAN-SHARQOI prov., Mákú, 19.-20.vi.1970, loc. no. 25, Exp. Nat. Mus. Praha, 1 ♂ 4 ♀♀; TURKMENISTAN: 15 km N of Iskander station, 15.vi.1953, Odincova lgt., 1 ♂ (all NMPC).

Redescription. Coloration (Figs. 33-34). Head iron grey, mouthparts sepia to rusty, antennae terra-cotta to sienna, antennomere 1 mostly somewhat darker. Prothorax iron grey, mostly with slight golden tinge, meso- and metathorax iron grey, ventral part of abdomen entirely iron grey in female, last abdominal segment of male rusty to sienna. Femora sienna to sepia, tibiae and tarsi terra-cotta. Scutellum and elytra dark slate blue to iron grey, with slight metallic blue tinge. Pronotum both in male and in female sometimes narrowly sienna bordered posteriorly, or with sienna spots in its posterior portion in female; in these cases also femora are paler and rusty, and only knees remain darker as in Fig. 34.

Male. Eyes comparatively large, slightly reniform, moderately protruding, head across eyes as wide or slightly narrower than pronotum, head behind eyes straight, moderately narrowed posteriorly, head before eyes ca 1.5 times as long as length of eyes in dorsal view.

Antenna reaching elytral midlength, last antennomere slightly constricted on one side at midlength. Frons very sparsely, vertex and head before eyes more densely punctate, covered by long recumbent white pubescence, semilustrous. Pronotum very slightly to moderately longer than wide, slightly to distinctly cordiform, its anterior margin straight to widely rounded, anterior corners rounded, lateral margins moderately to strongly sinuate, posterior corners rounded, posterior margin widely rounded, straight or shallowly emarginate in its middle part. Surface of pronotum punctate, disc very sparsely so, covered by white, recumbent pubescence,



Figs. 1-7. *Chitona fucata* (Faldermann, 1837). 1 – tegmen, ventral view; 2 – paramere, lateral view; 3 – aedeagus, lateral view; 4 – projections of urite VIII, ventral view; 5 – ditto, lateral view; 6 – last abdominal segment of female, ventral view (variability indicated by dotted line); 7 – ditto of male. Scale a – Figs. 1-3, 6-7; b – Figs. 4-5.

semilustrous to lustrous, with pair of rather deep depressions in its anterior portion. Elytra very slightly narrowing posteriorly, their surface imbricate-punctate, covered by white recumbent pubescence; matt, pubescence on scutellum and basal half of sutural margin of each elytron more or less distinctly denser. Last abdominal segment, tegmen and aedeagus as in Figs. 1-5 and 7.

Female. Eyes smaller and less protruding than in male, head across eyes distinctly narrower than pronotum, antenna shorter, reaching about one third of elytral length. Last abdominal segment as in Fig. 6.

Length ♂♀: 4.8-8.5 mm.

Distribution. SW Russia: Dagestan (ZAITZEV 1941), Azerbaijan, NW Iran, SW Turkmenistan (see also Fig. 8).

Comments. The type material of *Probosca cinerea* was not examined. However, the original description greatly agrees with the characters of *Chitona fucata fucata* and the locality is included in the range of this species.

Chitona fucata tristis (Faldermann, 1837) stat. nov.

(Figs. 8, 35)

Nacertes tristis Faldermann, 1837: 140; type locality: 'Transcaucasus'.

Nacerta tristis: SEIDLITZ (1899): 836.

Chitona (Dolichopyga) tristis: ŠVIHLA (1999): 383.

Chitona sieversi Kiesenwetter, 1878 in SCHNEIDER & LEDER (1878): 257; type locality: 'Armenia, Etschmiadsin' [= Ecmiadzin], **syn. nov.**

Type material examined. *Chitona sieversi*. SYNTYPE, ♂, 'Kaukasus, Armenia, leg. Schneider [printed] // Paratypus [sic!], *Chitona sieversi* Kiesenwetter [red bordered label, red printed and black handwritten]' (HNHM).

Additional material examined. ARMENIA: Dzhararat, Aras river valley, 30 km SW of Yerevan, 16.vi.1988, S. Bečvář, L. Skoupý, Z. Jindra, J. Střežek & J. Morozinski lgt., 39 ♂♂ 40 ♀♀; TURKEY: IGDIR prov., 30 km E of Igdir, 28.vi.1987, T. Osten lgt., 1 ♂ 1 ♀ (all NMPC).

Differential diagnosis. *Chitona fucata tristis* does not differ from the nominotypical subspecies in any morphological characters including the male terminalia. It differs only in the coloration and pubescence; the mouthparts and antennae are darker than in the nominotypical subspecies, chestnut brown to sooty, legs entirely sooty, elytra indigo to slate blue, and the elytral pubescence excluding that on suture is slightly shorter and sparser, so that elytra appear blue and not dark grey as in the nominotypical subspecies. On the other hand, the pubescence on the suture is slightly denser and reaching almost the apices of elytra, so that the suture is more conspicuous (see also Fig. 35).

Length ♂♀: 5.2-7.5 mm.

Distribution. S Armenia, NE Turkey. ZAITZEV (1941) mentioned this species as *Dolichopyga sieversi* from Azerbaijan: Naxçıvan (see also Fig. 8).

Comments. Given that only the coloration and pubescence differ, I regard *C. tristis* merely as a subspecies of *C. fucata*. The type material of *N. tristis* has not been found so far, however, FALDERMANN (1837) described *N. tristis* close behind *N. fucata* in the same publication and compared it with the latter species. Moreover, Faldermann's description fits very well with the material at my disposal.

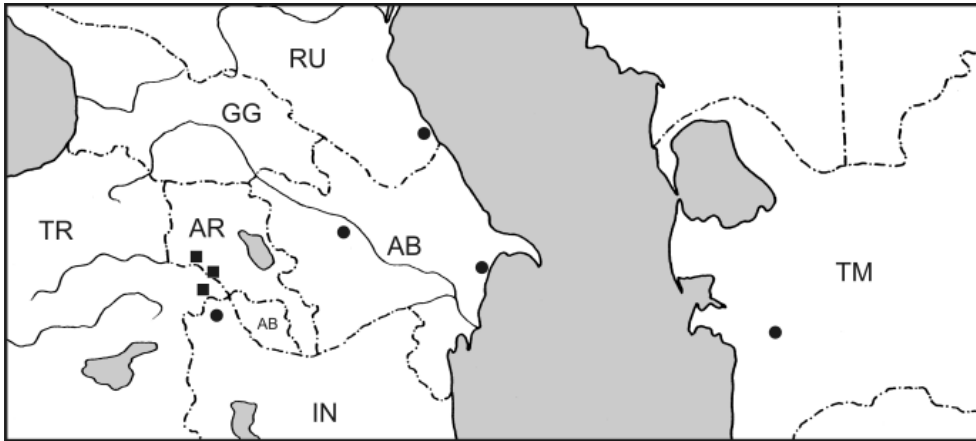


Fig. 8. Distribution of subspecies of *Chitona fucata* (Faldermann, 1837): *C. fucata fucata* (circles), *C. fucata tristis* (Faldermann, 1837) (squares). Abbreviations of countries: AB – Azerbaijan, AR – Armenia, GG – Georgia, IN – Iran, RU – Russia, TM – Turkmenistan, TR – Turkey.

Chitona ganglbaueri Reitter, 1889

(Figs. 9-14, 36)

Chitona ganglbaueri Reitter, 1889: 38; type locality: 'Araxesthal, bei Ordubad' [= Azerbaijan, Naxçıvan, Ordubad env.].

Dolichopyga ganglbaueri: SEIDLITZ (1899): 835.

Type material examined. ? SYNTYPES: 'Caucasus, Araxesthal, Leder Reitter [printed] // Holotypus [sic!], *Chitona ganglbaueri* Reitter [red bordered label, red printed and black handwritten] // 842 129 [handwritten] // Prob. *Ganglbaueri*, *Cauc. Reitt* [handwritten]' 1 ♂; 'Caucasus, Araxesthal, Leder Reitter [printed] // Paratypus [sic!], *Chitona ganglbaueri* Reitter [red bordered label, red printed and black handwritten]', 1 ♂ (all HNHM).

Additional material examined. AZERBAIJAN: NAXÇIVAN, Culfa, 26.v.1974, M. Volkovitsh lgt., 1 ♀ (NMPC).

Redescription. Coloration (Fig. 36). Head dark slate blue to black, mouthparts terra-cotta to chestnut brown, antennae sienna to sepia. Prothorax saffron yellow to orange, meso- and metasternum, ventral part of abdomen, scutellum and elytra dark slate blue. Legs sooty to black, femora with slight bluish tinge, knees more or less infuscate.

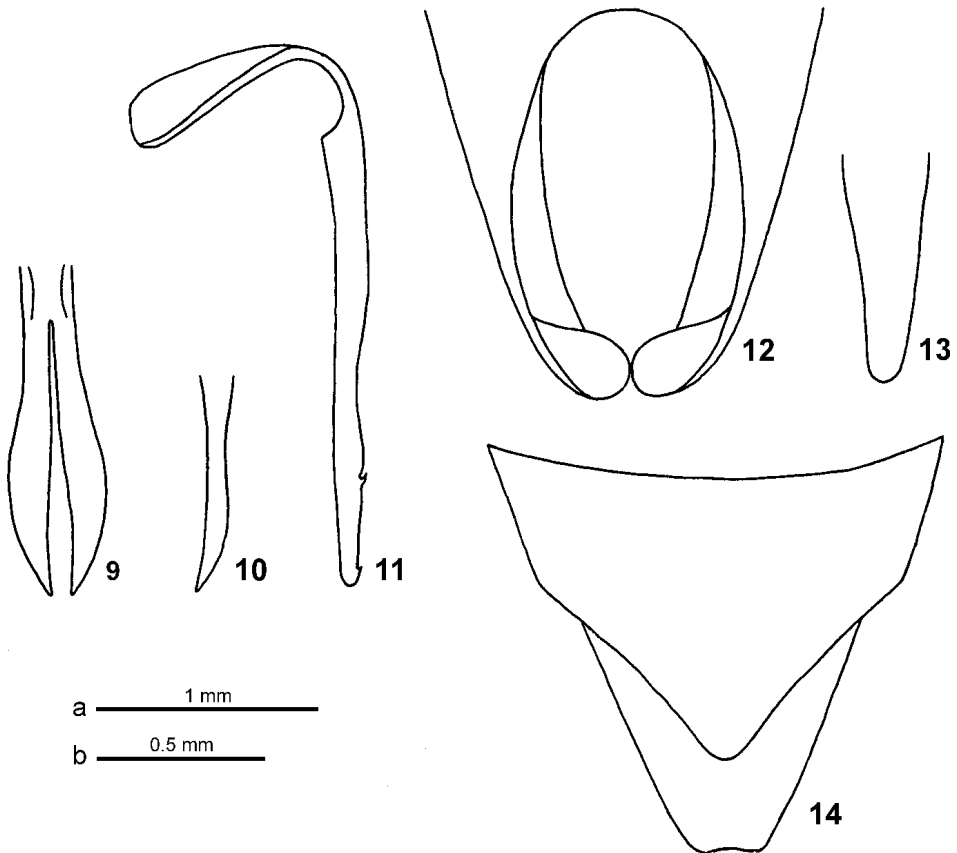
Male. Eyes only slightly protruding, slightly reniform, head across eyes moderately narrower than pronotum, head before eyes distinctly longer than length of eyes in dorsal view, head behind eyes straight, narrowed posteriorly. Antenna presumably not reaching elytral midlength (antennomeres 9-11 missing in the examined specimens). Surface of head finely punctate, covered by white, long, recumbent pubescence, semilustrous. Pronotum almost 1.25 times as long as wide, cordiform, its anterior margin straight, anterior corners rounded, lateral margins strongly sinuate, posterior corners rounded, posterior margin very shallowly emarginate in middle. Surface of pronotum finely and sparsely punctate, covered by sparse, white, long recumbent pubescence, lustrous. Pair of anterior pronotal depressions comparatively

deep, preapical one shallow, hardly visible. Elytra parallel-sided, narrowing only in apical fourth, each elytron rounded apically. Elytral nervation absent. Surface of elytra imbricate-punctate, covered by long, white recumbent pubescence, matt; sutural pubescence denser than that on the rest of elytra. Last abdominal segment and male terminalia as in Figs. 9-14; projections of urite VIII concave and turned apically.

Female. Comparatively more robust than male, antenna reaching ca one third of elytral length, last antennomere constricted closely behind its midlength. Pronotum shorter, moderately longer than wide, anterior pronotal depressions only slightly developed. Last abdominal segment very similar to that of *C. fucata* (Fig. 6).

Length ♂♀: 6.6-9.0 mm.

Distribution. Azerbaijan: Naxçivan.



Figs. 9-14. *Chitona ganglbaueri* Reitter, 1889. 9 – parameres, ventral view; 10 – ditto, lateral view; 11 – aedeagus, lateral view; 12 – projections of urite VIII, ventral view; 13 – ditto, lateral view; 14 – last abdominal segment of male, ventral view. Scale a – Figs. 9-11, 14; b – Figs. 12-13.

Chitona incana species group

Diagnosis. Parameres preapically widened (Figs. 15, 22, 28), concave, pygidium prolonged, strongly exceeding last sternite in both sexes (Figs. 20-21, 25). This group includes three species, *C. cretica*, *C. incana* and *C. macedonica* sp. nov.

Chitona macedonica sp. nov.

(Figs. 15-21, 37-38)

Type locality. Greece, Central Macedonia, Kateríni env., Paralía.

Type material. HOLOTYPE. ♂, 'Greece, Makedonia [= Central Macedonia], Paralia env. Katherini, 1.-10.viii.1997, slaniště-smyky [= saline meadow, sweeping], Mantič [lgt.] [printed] // HOLOTYPE, *Dolichopyga macedonica* sp. nov., V. Švihla det. 2006 [red label, printed]' (NMPC). PARATYPES: same data, 4 ♂♂ (NMPC, MMHC); '[Greece, Central Macedonia], Salonica [= Thessaloníki]', 1 ♂ 1 ♀ (NMPC); 'Greece, [Thessaly], Larissa, Stomio [= Stómi-on], 30.vi.2003, Hervé Brustel lgt.', 22 ♂♂ 42 ♀♀ (NMPC, HBTR, RASF, MHNL, CMSF, TNQF, XVTS); 'Graecia, [Aegean Islands], Naxos [I.]', 1 ♂; 'Naxos [I.], incana // Collectio A. Fleischer', 1 ♀; 'Macedonien [= Macedonia], Vardar [river], vi.-vii.1909, Schatzm.[ayr] // 87 // coll. Kouřil, P5/46/62', 3 ♂♂ 3 ♀♀; 'Mac. [= SW Bulgaria], Petrič [= Petrich], vii., Mař[an &] Táb[orský] [lgt.]', 2 ♀♀ (all NMPC); 'Rumelia [= S Bulgaria], Straldž.[ansko] bl.[ató] [= Straldzha env., ca 30 km E Sliven], 28.vi.1908, Rambousek [lgt.]', 1 ♂ 1 ♀ (HNHM); 'Balkán [?], 1908, R.', 1 ♂ 1 ♀ (NMPC).

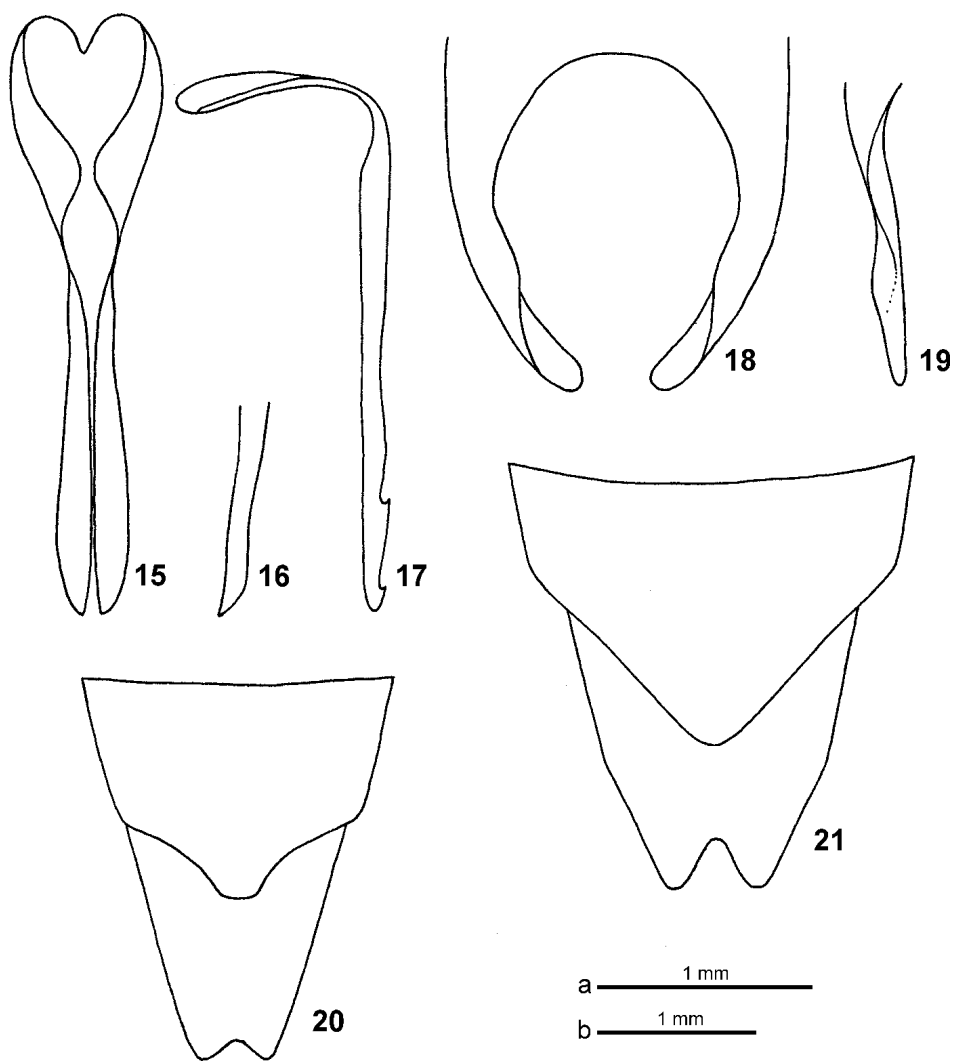
Description. Coloration (Fig. 37-38). Head iron grey to dark slate blue, mouthparts sienna to sooty, antennae sooty, bases of antennomeres 2 and 3 mostly paler, sienna. Prothorax, meso- and metasternum and abdomen iron grey to dark slate blue, last abdominal segment sometimes sienna. Femora iron grey to dark slate blue, anterior tibiae rusty, sometimes with darker tips, middle tibiae iron grey or rusty with darkened outer side, hind tibiae entirely iron grey or more or less infusate on its middle and/or outer side. All tarsi sepia to sooty. Scutellum and elytra iron grey to dark slate blue. Both sexes exist with alternative coloration dark greenish olivaceous body and yellow pubescence instead of white one.

Male. Eyes moderately protruding, head across eyes slightly narrower than pronotum, head before eyes ca 1.5 times as long as eyes in dorsal view, head behind eyes moderately arcuate, narrowed posteriorly. Eyes moderately reniform. Antenna reaching elytral midlength, last antennomere slightly constricted in ca two thirds of its length. Surface of head rather deeply imbricate-punctate, covered by long, recumbent white or yellow pubescence, matt. Pronotum distinctly longer than wide, narrowly cordiform, anterior margin widely rounded, anterior corners rounded, lateral margins sinuate, posterior corners rounded, posterior margin widely rounded or very shallowly emarginate in middle. Surface of pronotum densely and rather deeply imbricate-punctate, covered by long, recumbent white or yellow pubescence, matt. Two anterior depressions shallow but distinct, prebasal depression shallow but very wide. Elytra distinctly narrowing posteriorly, each elytron apically rounded, elytral nervation slight to well developed, more distinct in basal half of elytron. Surface of elytra rugulose-lacunose, covered by long, recumbent white or yellow pubescence, matt, sometimes semilustrous basally. Last abdominal segment, projections of urite VIII, tegmen and aedeagus as in Figs. 15-20.

Female. Antenna shorter than in male, not reaching elytral midlength. Pronotum as long as wide to moderately longer than wide, pronotal depressions shallower than in male, less distinct. Elytra narrowing posteriorly only in their posterior half. Last abdominal segment as in Fig. 21.

Length ♂♀: 6.2-10.0 mm.

Differential diagnosis. *Chitona macedonica* sp. nov. is closely related to *C. cretica* Fairmaire, 1863, and *C. incana* (W. Schmidt, 1846), from which it differs especially by the preapical part of paramere being not emarginate dorsally in lateral view and by the projections of urite VIII only slightly dilated preapically in lateral view.



Figs. 22-31. 22-27. *Chitona cretica* Fairmaire, 1863. 22 – parameres, ventral view; 23 – ditto, lateral view; 24 – aedeagus, lateral view; 25 – last abdominal segment of female, ventral view (variability indicated by dotted line); 26 – projections of urite VIII, ventral view; 27 – ditto, lateral view. 28-31. *C. incana* (W. Schmidt, 1846). 28 – paramere, ventral view; 29 – ditto, lateral view; 30 – projections of urite VIII, ventral view; 31 – ditto, lateral view. Scale a – Figs. 22-24, 28-31; b – Fig. 25.

Distribution. Greece: Central Macedonia, Thessaly, Naxos Island; Macedonia; southern Bulgaria.

***Chitona cretica* Fairmaire, 1863 sp. restit.**

(Figs. 22-27, 32)

Chitona cretica Fairmaire, 1863 in JACQUELIN DU VAL (1863): 199; type locality: 'Candia' [= Crete].

Dolichopyga cretica: SEIDLITZ (1899): 833.

Probosca acuminata Reitter, 1890: 152; type locality: 'Amasia' [= Turkey, Amasya prov., Amasya], **syn. nov.**

Dolichopyga balcanica Pic, 1913: 169; type locality: 'Balkans' [?], **syn. nov.**

Type material examined. *Chitona cretica*. SYNTYPE: ♂, 'Chitona cretica Fairm, Crète [Lethierry's handwriting] / / type [red label, printed] // Museum Paris [printed]' (MNHN). *Probosca acuminata*. SYNTYPE: ♂, 'Amasia [handwritten] // Holotypus [sic!], Probosca acuminata Reitter [red bordered label, red printed and black handwritten] // coll. Reitter [printed]' (HNHM). *Dolichopyga balcanica*. SYNTYPE: ♂, 'Balcan [handwritten] // type [red label, printed] // type [yellow label, Pic's handwriting] // Dolichopyga balcanica Pic [Pic's handwriting] // Museum Paris, coll. M. Pic [printed]' (MNHN).

Additional material examined. GREECE: without further data, 2 ♂♂ 2 ♀♀; THESSALY prov., Vólos, Stussiner lgt., 1 ♂; CENTRAL GREECE prov., Lamía, 23.-27.vi.1974, J. Horák & V. Švihla lgt., 3 ♂♂ 4 ♀♀; ATTICA prov., Athens, 1 ♂ 2 ♀♀; Néon Fáliron, 1909, Schatzmayr lgt., 29.vi.1915, 1 ♂; TURKEY: ANKARA prov., Ankara, Staněk lgt., 1 ♂; 95 km SW of Ankara, 17.-18.vi.1950, Museum Leiden Exp. Turkey, 1 ♀; Moğan Gölü, 15 km S of Ankara, 9.vii.1947, Exp. N. Mus. ČSR, 2 ♀♀ (all NMPC).

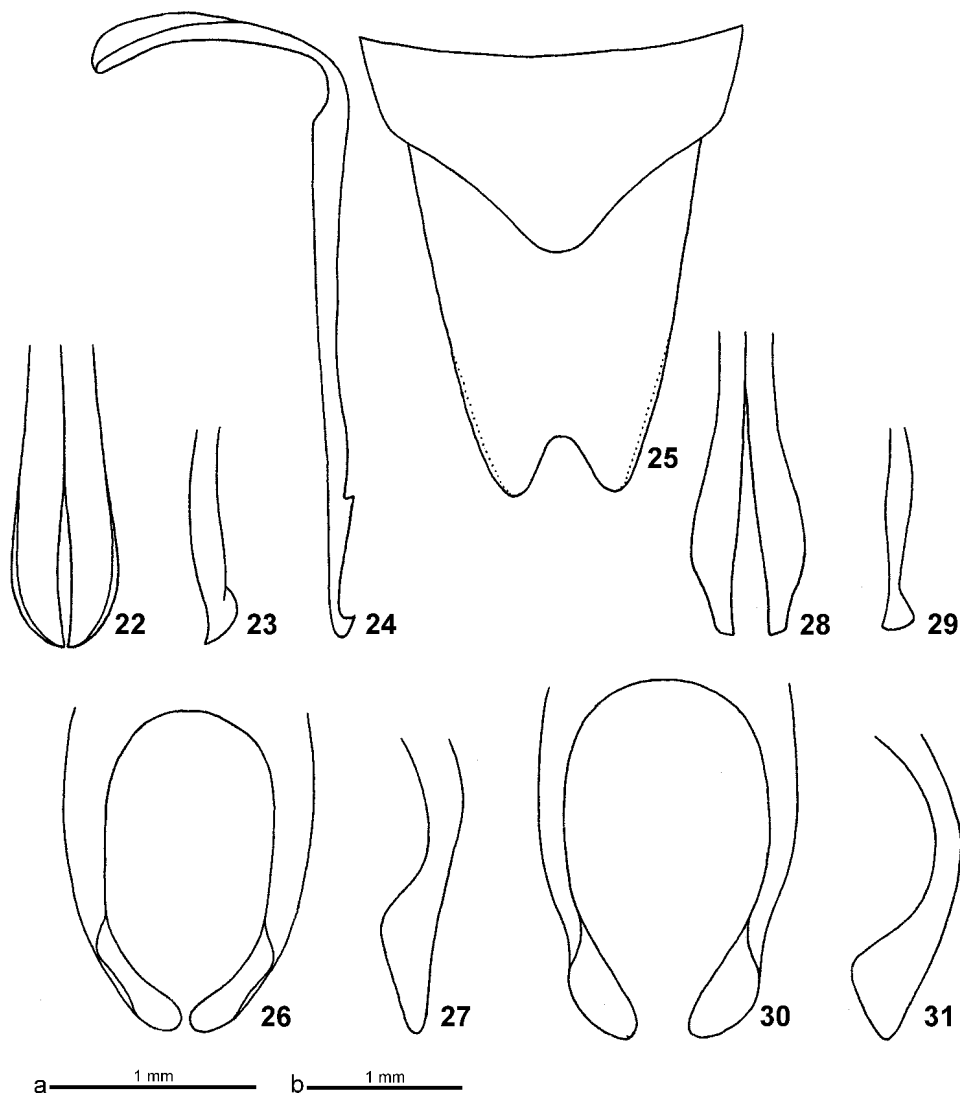
Differential diagnosis. Very similar and closely related to *C. macedonica* sp. nov., so that only the differences between them are mentioned (see also the key). Antennomere 1 rusty basally, sooty in its terminal part, antennomere 2 entirely rusty, 3-5 more or less rusty basally, sooty terminally. Middle tibiae mostly entirely terra-cotta, rarely darkened terminally or on its outer side, posterior tibiae mostly terra-cotta, darkened terminally, rarely, more or less darkened to entirely sooty. Colour forms similar as in *C. cretica* with white or yellow pubescence. Surface of head and pronotum more finely imbricate-punctate or punctate, almost semilustrous. Last abdominal segment very similar to that of *C. macedonica* sp. nov. in male, pygidium longer and at most very slightly angulate laterally (Fig. 25) in female, aedeagus, parameres and projections of urite VIII as in Figs. 22-24 and 26-27.

Length ♂♀: 7.0-10.4 mm.

Distribution. Eastern part of central Greece, Crete, northern and central Turkey (see also Fig. 32).

Comments. SEIDLITZ (1899) synonymized *Chitona cretica* with *Dolichopyga incana*. However, he did so without any explanation and was followed by other authors. After the examination of the types, *C. cretica* is here restituted as a valid species. The syntype of *C. cretica* (greenish, yellow-pubescent form) was somewhat damaged. Only the basal portions of both tegmen and aedeagus are preserved; fortunately, the projections of urite VIII are complete, allowing the determination of this specimen. The syntype of *Probosca acuminata* is extremely damaged, with the middle and hind legs and abdomen missing. The synonymy with *C. cretica* proposed here is based on the type locality, which is geographically more consistent with the known distribution of *C. cretica* than that of *C. incana* in Turkey (see Fig. 32). This synonymy should be fully confirmed or rejected when another male from the type locality

becomes available for study. The examination of the male terminalia of a syntype of *D. balcanica* confirmed its identity with *C. cretica*.



Figs. 22-31. 22-27. *Chitona cretica* Fairmaire, 1863. 22 – parameres, ventral view; 23 – ditto, lateral view; 24 – aedeagus, lateral view; 25 – last abdominal segment of female, ventral view (variability indicated by dotted line); 26 – projections of urite VIII, ventral view; 27 – ditto, lateral view. 28-31. *C. incana* (W. Schmidt, 1846). 28 – paramere, ventral view; 29 – ditto, lateral view; 30 – projections of urite VIII, ventral view; 31 – ditto, lateral view. Scale a – Figs. 22-24, 28-31; b – Fig. 25.

***Chitona incana* (W. Schmidt, 1846)**

(Figs. 28-32)

Probosca incana W. Schmidt, 1846: 132; type locality: 'Türkei' [= Turkey].*Dolichopyga incana*: SEIDLITZ (1899): 833.*Chitona (Dolichopyga) incana*: ŠVIHLA (1986): 232.

Type material examined. SYNTYPES: ♂, 'Incana Friv., Turcia [handwritten] // FRIV [printed] // Turcia, coll. E. Friv. [printed] // Holotypus [sic!], *Probosca incana* Schmidt [red bordered label, red printed and black handwritten]'; 'Turcia, coll. E. Friv. [printed] // Paratypus [sic!], *Probosca incana* Schmidt [red bordered label, red printed and black handwritten]', 2 ♀♀ (all HNHM).

Additional material examined. TURKEY: İZMİR prov., İzmir, 1 ♂ (NMPC); İzmir, J. Sahlberg lgt., 1 ♂ (HNHM); Ephesus, 9.-12.v.1979, B. Malkin lgt., 1 ♂ 1 ♀; Selçuk, 17.vi.1968, Ardö lgt., 1 ♂; MANİSA prov., Alaşehir, 10.vii.1975, 2 ♂♂; AYDIN prov., Güzelçamlı, 70 km S İzmir, 12.-20.vii.1996, M. Johanides lgt., 1 ♂ 2 ♀♀; Akköy, dry meadow, on flowers, 9.vii.1980, O. Merkl lgt., 1 ♂; DENİZLİ prov., Pamukkale, 7.vi.1986, S. Kadlec & J. Voříšek lgt., 1 ♂; MUĞLA prov., Patara, mouth of Eşen riv., 60 km S of Fethiye, 7.v.1991, Z. Jindra lgt., 1 ♂ 1 ♀; KONYA prov., Akşehir, 1900, Korb lgt., 5 ♂♂ 5 ♀♀ (all NMPC).

Differential diagnosis. *Chitona incana* is more similar to *C. cretica* than *C. macedonica* sp. nov. because of its aedeagus and the surface of the head and pronotum. It differs from both species by the shortly dilated apices of the projections of urite VIII (Figs. 30-31) and the form of the paramere in both dorsal and lateral view (Figs. 28-29, see also the key). The last abdominal segment in both sexes and the aedeagus are very similar to those of *C. cretica*. This species also has two colour forms as the two preceding species. No distinguishing characters between females of *C. cretica* and *C. incana* were found.

Length ♂♀: 5.5-9.3 mm.

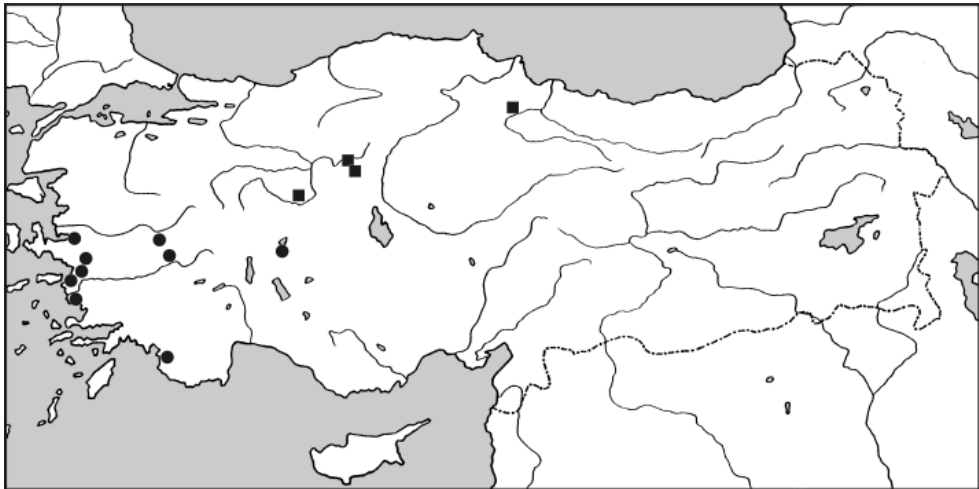
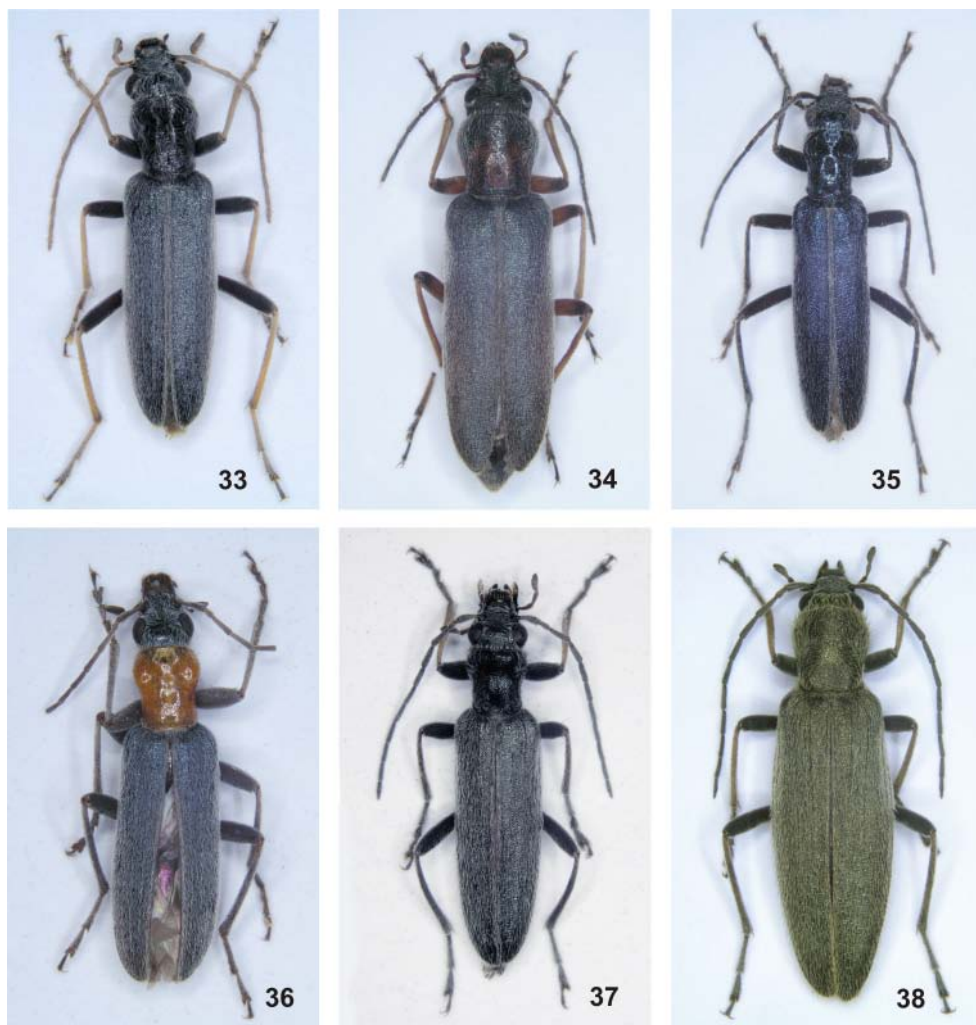


Fig. 32. Distribution of *Chitona cretica* Fairmaire, 1863 (squares) and *C. incana* (W. Schmidt, 1846) (circles) in Turkey.

Distribution. Southwestern Turkey (see also Fig. 32).

Comments. According to the present knowledge, the distribution of *C. incana* is restricted to southwestern Turkey. The data of its occurrence in Greece, published by previous authors, probably belong to either *C. cretica* or *C. macedonica* sp. nov.



Figs. 33-38. 33 – *Chitona fucata fucata* (Faldermann, 1837), male. 34 – ditto, female, variability. 35 – *C. fucata tristis* (Faldermann, 1837), male. 36 – *C. ganglbaueri* Reitter, 1889, male. 37 – *C. macedonica* sp. nov., male. 38 – ditto, female, variability.

Key to the *Chitona* species of eastern Mediterranean

- 1 Prothorax entirely saffron yellow to orange (Fig. 36). Last abdominal segment of male and male terminalia as in Figs. 9-14. Azerbaijan: Naxçıvan. *C. ganglbaueri* Reitter, 1889
- Prothorax dark, at most with sienna spots posteriorly (Figs. 33-35, 37-38). 2
- 2 Parameres narrow preapically (Fig. 1). Female pygidium only slightly exceeding last sternite (Fig. 6). 3
- Parameres widened preapically (Figs. 15, 22, 28). Female pygidium strongly exceeding last sternite (Figs. 21, 25). 4
- 3 Tibiae, tarsi and sometimes also bases of femora terra-cotta, elytral pubescence longer and denser such that elytra appear grey, sutural pubescence less dense, suture less pointed up (Figs. 33-34). Russia: Dagestan, Azerbaijan, NW Iran, SW Turkmenistan. *C. fucata fucata* (Faldermann, 1837)
- Legs entirely sooty, elytral pubescence shorter and sparser such that elytra appear indigo to slate blue, sutural pubescence denser, suture more pointed up (Fig. 35). Armenia, Azerbaijan: Naxçıvan, NE Turkey. *C. fucata tristis* (Faldermann, 1837)
- 4 Surface of pronotum more roughly and deeply punctate, almost rugulose-lacunose near anterior margin of pronotum; §: preapical part of paramere not emarginate dorsally in lateral view (Fig. 16), projections of urite VIII only very slightly dilated preapically in lateral view (Fig. 19). Macedonia, S Bulgaria, Greece: C Macedonia, Thessaly, Naxos I. *C. macedonica* sp. nov.
- Surface of pronotum more finely and less deeply punctate, not rugulose-lacunose near anterior margin of pronotum; ♂: preapical part of paramere emarginate dorsally in lateral view (Figs. 22, 28), projections of urite VIII strongly dilated preapically in lateral view (Figs. 27, 31). 5
- 5 ♂: dilated parts of projections of urite VIII longer (Fig. 27), apex of paramere rounded in ventral view and less dilated apically in lateral view as in Figs. 22-23. Eastern part of C Greece, Crete, N and C Turkey. *C. cretica* Fairmaire, 1863
- ♂: dilated parts of projections of urite VIII shorter (Fig. 31), apex of paramere roundly emarginate before apex in ventral view and more dilated apically in lateral view as in Figs. 30-31. SW Turkey. *C. incana* (W. Schmidt, 1846)

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