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Research article

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Annotated review of Cryptocephalinae (Clytrini), Synetinae and part of Galerucinae (Coleoptera, Chrysomelidae) described by Carl Peter Thunberg

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Abstract. The taxa of Cryptocephalinae (Clytrini), Synetinae and part of Galerucinae introduced by Carl Peter Thunberg are reviewed based on the examination of primary type specimens deposited in the Museum of Evolution, Uppsala University. The following taxonomic changes are proposed: *Coptocephala unifasciata unifasciata* (Scopoli, 1763) = *Cryptocephalus melanocephalus* Thunberg, 1787 syn. nov.; *Melitonoma decemnotata* (Thunberg, 1787) comb. nov. (from *Cryptocephalus* Geoffroy, 1762); *Miopristis flexuosa* (Thunberg, 1821) = *Miopristis namaquensis* Medvedev, 1993 syn. nov.; *Protoclytra* (*Lacordairella*) *taeniata* (Thunberg, 1821) comb. nov. (from *Camptolenes* Chevrolat, 1836) = *Camptolenes fastuosa* (Lacordaire, 1848) syn. nov.; *Smeia undata* (Thunberg, 1821) comb. nov. (from *Miopristis* Lacordaire, 1848) = *Smeia virginea* (Lacordaire, 1848) syn. nov. = *Melitonoma pictipennis* Jacoby, 1898 syn. nov.; *Teinocera catenata* (Thunberg, 1821) comb. nov. (from *Miopristis*) = *Teinocera subclathrata* (Lacordaire, 1848) syn. nov.; *Exosoma lusitanica* (Linnaeus, 1767) = *Crioceris haemorrhoea* Thunberg, 1827 syn. nov.; *Megalognatha festiva* (Fabricius, 1781) = *Crioceris virens* Thunberg, 1827 syn. nov.; *Monolepta bioculata* (Fabricius, 1781) = *Cryptocephalus bioculatus* Thunberg, 1827 syn. nov.; *Monolepta melanogaster* (Wiedemann, 1823) = *Cryptocephalus capensis* Thunberg, 1827 syn. nov.; *Palaeophylia tricolor* (Fabricius, 1781) = *Crioceris tetrapuncta* Thunberg, 1787 syn. nov. = *Crioceris dimidiata* Thunberg, 1827 syn. nov. Lectotypes are designated for *Cryptocephalus bioculatus* Thunberg, 1827 and *Crioceris dimidiata* Thunberg, 1827. *Melitonoma decemnotata* comb. nov. is redescribed. *Labidostomis insidiosa* Péringuey, 1888 is resurrected from synonymy with *Teinocera catenata* comb. nov. and provisionally placed as a valid species in the genus *Miopristis* Lacordaire, 1848. *Crioceris betulina* Thunberg, 1787 is proposed as nomen oblitum for *Syneta betulae* (Fabricius, 1792) (nomen protectum). Colour photographs of the type specimens of all taxa are provided.

Keywords. New synonymy, new combination, lectotype designation, taxonomy, Carl Peter Thunberg.

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Introduction

The famous Swedish botanist and naturalist Carl Peter Thunberg (1743–1828), one of the pupils of Linnaeus, travelled widely from 1771–1779, visiting other European countries, South Africa, Sri Lanka, Java and Japan. Although Thunberg is usually described as a botanist, he also published important contributions on mammals, birds and insects (Muller & Roomaaker 1992). He is the author of nearly 90 entomological publications and his insect collection of about 25 000 specimens was donated to the University of Uppsala where it is still maintained in very good condition. For the catalogue of his collection see Wallin & Wallin (2001). Thunberg's collection also includes the type specimens of Clytrini species described by Forsberg (1821) which were already revised by Bezděk (2016).

Altogether Thunberg described about 100 species of Chrysomelidae. Due to many taxonomic difficulties, it is not possible to review all of these at once. Some groups require the cooperation of additional specialists and also the study of many primary type specimens of other authors. In the present paper I include one representative of Synetinae, all of Thunberg's Clytrini species and part of his Galerucinae.

In Clytrini, Thunberg proposed 15 new taxa altogether. Except for three species described at the beginning of his career (Thunberg 1787), most of the taxa were proposed in his *Coleoptera Capensia* (Thunberg 1821). Due to his poor state of health, Thunberg published only short descriptions in *Coleoptera Capensia* as explained in the introduction to Forsberg (1821) who was asked to provide extended redescriptions (for details see Bezděk 2016).

In two cases (*Clythra unipunctata* Thunberg, 1821 and *C. bicincta* Thunberg, 1821), it is not quite clear whether Thunberg (1821) wanted to propose new replacement names for already described taxa, because in the description there is a clear reference to an older publication and species. However, also in these cases the 'new name' is accompanied by a description and there is no evidence of intentional replacement. I can only speculate why Thunberg wanted to give new names for non-homonymous older names. The question is how to apply such cases to the current Code (ICZN 1999). In my opinion, the crucial facts are that 1) the intention to replace the names is missing, and 2) Thunberg treated these names as valid, not as synonyms. Because the names are accompanied by descriptions, I prefer to work with them as if validly described.

The genus assignments proposed for some of Thunberg's Clytrini species are provisional. This is particularly the case with species classified in *Miopristis* Lacordaire, 1848, *Protoclytra* Weise, 1905 and *Smeia* Lacordaire, 1848. The definitions of these genera are superficial, with many species wrongly classified, and comprehensive studies are absent. I cannot exclude future transfers to other genera.

In Synetinae, Thunberg (1787) described only one nominal taxon, forgotten for many years, which is proposed here as nomen oblitum.

Thunberg (1787, 1814, 1827) described 13 Galerucinae species altogether (excluding Alticini). Ten species were proposed in *Crioceris* Geoffroy, 1762, two in *Cryptocephalus* Geoffroy, 1762, one in *Taumacera* Thunberg, 1814. At present I am not able to resolve the species identity of six Galerucinae species as the comparison with the type material of other species, additional examination and/or dissection of the aedeagus are necessary. Alticini itself will be also published separately in the future.

Material and methods

Images

Photographs of specimens deposited in UUZM, BMNH and NHMB were taken with a Canon EOS 550D digital camera with a Canon MP-E 65 mm lens. Images of the same specimen at different focal planes were combined using Helicon Focus 5.3 software.

Material citations

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 lines. 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.

Type specimens

The type specimens deposited in Thunberg's collection were located and provided with red type labels by Wallin & Wallin (2001). To the best of my knowledge, Thunberg's Chrysomelidae type specimens are deposited exclusively in UUZM. Therefore I treat all single type specimens in Thunberg's collection as holotypes in agreement with my previous study dealing with the taxa described by Carl Peter Forsberg from Thunberg's collection (Bezdek 2016). The lectotypes are designated only in cases when the type series consists of more than one species.

The type specimens from Thunberg's collection were not dissected (except the holotype of *Crioceris haemorrhoea*) particularly to avoid damage to historical specimens during the risky remounting.

Repositories

- BMNH = The Natural History Museum, London, UK (Michael Geiser, Maxwell V. L. Barclay)
- LMRM = Lev N. Medvedev collection, Moscow, Russia
- NHMB = Naturhistorisches Museum, Basel, Switzerland (Matthias Borer)
- NHRS = Naturhistoriska Riksmuseet Stockholm, Sweden (Johannes Bergsten)
- SAMC = IZIKO South African Museum, Cape Town, South Africa (Aisha Mayekiso)
- UUZM = Museum of Evolution, Uppsala University, Sweden (Hans Mejlom)
- ZMHB = Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (Johannes Frisch, Joachim Willers)
- ZMK = Universität Kiel, Zoologisches Museum, Kiel, Germany (Michael Kuhlmann)

Results

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
 Genus *Antipus* DeGeer, 1778

Antipus rufus rufus DeGeer, 1778

Fig. 1

- Antipus rufus* DeGeer, 1778: 659 (original description).
- Cryptocephalus maxillosus* Fabricius, 1781: 139 (original description).
- Clytra capensis* Olivier, 1808: 853 (original description) (not examined).
- Clythra unipunctata* Thunberg, 1821: 183 (original description) (not examined).
- Clythra octonotata* Thunberg, 1821: 184 (original description).
- Micropyga transvalense* Jacoby, 1903: 93 (original description) (not examined).



Fig. 1. *Antipus rufus* DeGeer, 1778. **A.** Syntype, ♂, not measured, NHRS. **B–E.** Syntype of *Cryptocephalus maxillosus* Fabricius, 1781, ♂, not measured, BMNH. **B.** Dorsal view. **C.** Lateral view. **D.** Frontal view. **E.** Label. **F–J.** Syntype of *Clythra octonotata* Thunberg, 1821, ♀, 7.5 mm, UUZM. **F.** Dorsal view. **G.** Lateral view. **H.** Frontal view. **I.** Label. **J.** Box label.

Type localities

Antipus rufus: “Cap”. *Cryptocephalus maxillosus*: “Cap. bon. sp.”. *Clytra capensis*: “cap de Bonne-Espérance”. *Clythra unipunctata*: “Cap” [= from the publication title]. *Clythra octonotata*: “Cap” [= from the publication title]. *Micropyga transvalense*: “Transvaal”.

Material examined**Syntypes**

SOUTH AFRICA • 1 ♂; “Sp. [w, h] // *Antipus rufus*. VII p 659 [box label common for both specimens, w, h]”; NHRS • 1 ♂, without any labels; NHRS.

Additional material

SOUTH AFRICA • 1 ♂, syntype of *Cryptocephalus maxillosus*; “*Cryp. Maxillosus* / Fabr. Sp. Ins. n. 11 [w, h]”; BMNH – Banks coll. • 1 ♀, syntype of *Clythra octonotata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8212 / *Clythra octonotata* / Cap. TYP [r, p] // 8-notata. / α / Cap. 23 [box label, w, h]”; UUZM • 1 ♀ (almost destroyed), syntype of *Clythra octonotata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8213 / *Clythra octonotata* / Cap. TYP [r, p] // 8-notata. / β / Cap. 24 [box label, w, h]”; UUZM • 1 ♀, syntype of *Clythra octonotata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15384 / *Clythra octonotata* / TYP [r, p] // 8-notata. / 110x [box label, w, h]”; UUZM.

Distribution

Republic of South Africa (RSA).

Comments

Thunberg (1821) accompanied the name *Clythra unipunctata* with a very short description and a reference to *Cryptocephalus maxillosus* Fabricius, 1781. I can only speculate whether Thunberg wanted to replace the older name or not. However, because there is no explicit intention of replacement, I treat *Clythra unipunctata* as a validly described species conspecific with *Cryptocephalus maxillosus*. In UUZM, no type specimens of *Clythra unipunctata* were traced.

In the same paper, Thunberg (1821) described *Clythra octonotata*. In UUZM three female syntypes are deposited (one almost destroyed). The syntypes belong to a colour aberration with black spots on elytra often occurring in females of *Antipus rufus rufus*. Lacordaire (1848) correctly listed *Clythra octonotata* under his variety B of *Antipus rufus rufus*. Here I confirm *Clythra octonotata* as a synonym of *Antipus rufus rufus*.

The genus *Antipus* DeGeer, 1778 includes three species: *A. nasicornis* Medvedev, 2008 (Congo), *A. signatifera* (Lacordaire, 1848) (RSA) and the widely distributed *Antipus rufus* DeGeer, 1778 forming three subspecies (*Antipus r. rufus*; *Antipus r. cornuta* Medvedev, 1993; *Antipus r. haefligeri* (Weise, 1907)). The genus requires a modern taxonomic revision.

Genus *Atelechira* Lacordaire, 1848

Atelechira elegans (Thunberg, 1821)

Fig. 2

Clythra elegans Thunberg, 1821: 184 (original description).

Type locality

“Cap” [= from the publication title]: Western Cape Province, Republic of South Africa.

Material examined

Holotype

SOUTH AFRICA • ♂, “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8211 / *Clythra elegans* / Cap. TYP [r, p] // elegans. / Cap. 22 [box label, w, h]”; UUZM.

Additional material

SOUTH AFRICA – **Eastern Cape** • 2 ♀♀; Dunbrody; 23 Feb. 1907; BMNH • 3 ♂♂, 2 ♀♀; Somerset East; Oct. 1930; R.E. Turner leg.; BMNH • 2 ♂♂; Aliwal North; 1–13 Jan. 1923; R.E. Turner leg.; BMNH – **Western Cape** • 1 ♀; BMNH • 4 ♂♂, 2 ♀♀; Table Mt., Oudtshoorn; 1906; W. Bevins leg.; BMNH • 1 ♂, 1 ♀; Matjesfontein; 19–31 Dec. 1928; R.E. Turner leg.; BMNH – **KwaZulu-Natal** • 1 ♀; Durban; G.A.K. Marshall leg.; BMNH – **Northern Cape** • 4 ♂♂, 5 ♀♀; Kimberley; Feb. 1881; BMNH.

ZIMBABWE • 1 ♂; S. Rhodesia, Salisbury; G.A.K. Marshall leg.; BMNH.

NAMIBIA • 1 ♀; 27 miles NNE Grunau, Noachabeb; 10–12 Jan. 1972; BMNH.

Distribution

RSA. Newly recorded for Zimbabwe and Namibia.

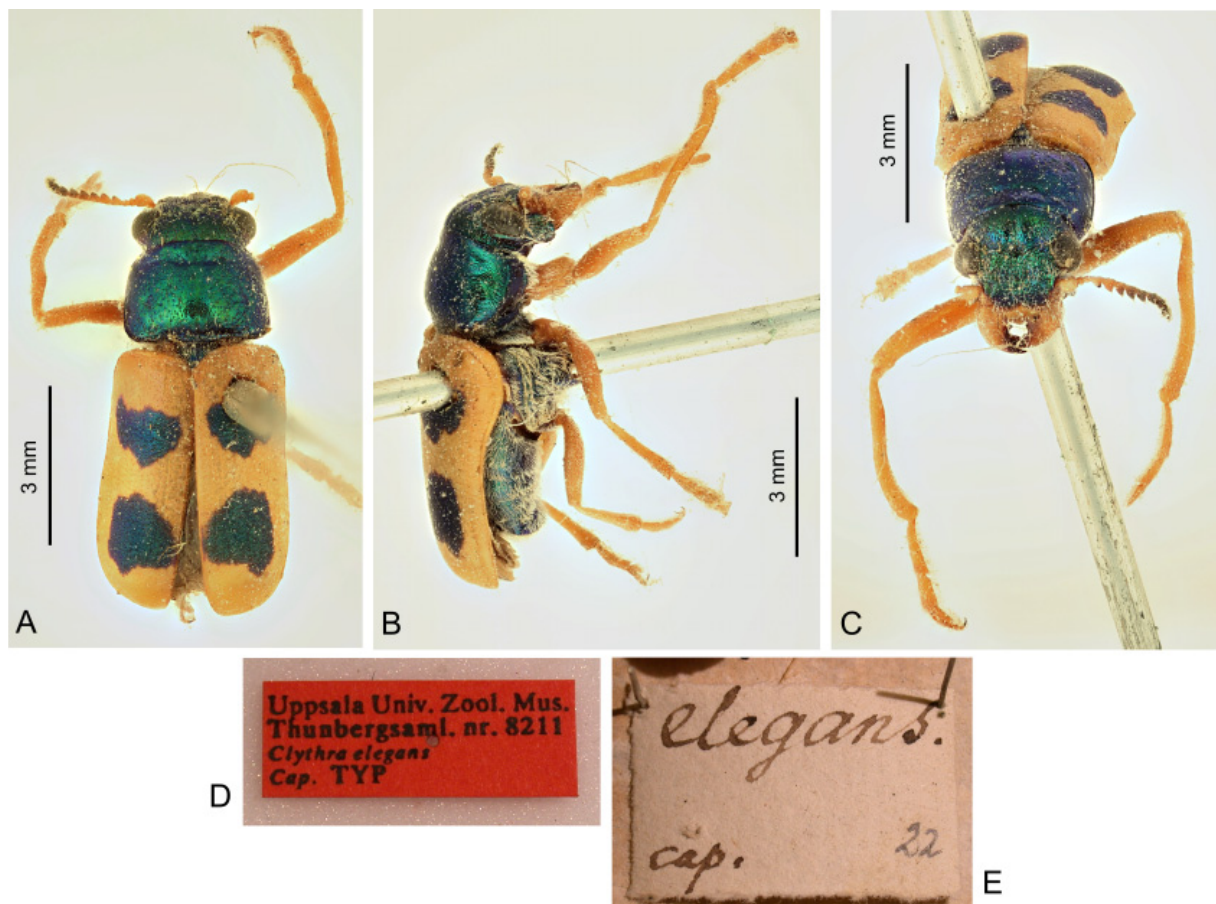


Fig. 2. *Atelechira elegans* (Thunberg, 1821), holotype, ♂, 7.5 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label. **E.** Box label.

Comments

Clythra elegans was synonymized with another South African species *Atelechira aulica* (Fabricius, 1781) by Lacordaire (1848). This synonymy was accepted by all subsequent authors. However, it was recently discovered that the holotype of *Crioceris aulica* deposited in Banks' collection in BMNH is a representative of *Hadrocnemus* Kraatz, 1895 (Malachiidae). Subsequently, *Atelechira elegans* was restored as correct name for Clytrini species (for details see Geiser & Bezděk in press).

Lacordaire (1848) proposed the subgeneric name *Atelechira* Lacordaire, 1848 with two included species, *Clythra (Atelechira) aulica* and *C. (A.) baculus* Lacordaire, 1848. Medvedev (1993a) designated *Atelechira aulica* as the type species of *Atelechira*. Because this designation was based on a misapplication of a previously established nominal species, the type of *Atelechira* is *Atelechira elegans* (Thunberg, 1821) (see ICZN, Art. 69.2.4).

Currently, the genus *Atelechira* comprises ten species. All of them except *A. schultzei* Weise, 1905 from Nigeria were keyed by Medvedev (1993a). The generic assignment of *Atelechira foersbergi* (Lacordaire, 1848) needs confirmation as it was also classified in *Merilia* Lacordaire, 1848 by Medvedev & Erber (2003). *Atelechira elegans* can be distinguished from its congeners by the combination of the following characters: pronotum punctate, elytra dull, legs completely yellow, mandibles yellow (Lacordaire 1848; Medvedev 1993a).

Genus *Clytra* Laicharting, 1781

***Clytra bifasciata bifasciata* (DeGeer, 1778)**

Chrysomela bifasciata DeGeer, 1778: 663 (original description).

Clythra rugosa Fabricius, 1798: 111 (original description).

Clythra bicincta Thunberg, 1821: 185 (original description) (not examined).

Clythra mutabilis Klug, 1829: 16 (original description) (not examined).

Clythra bicincta – Forsberg 1821: 268, 287 (redescription).

Type localities

Chrysomela bifasciata: not stated; *Clythra rugosa*: “Cap. Bon. Spei”; *Clythra bicincta*: “Cap” [= from the publication title]; *Clythra mutabilis*: “Kap”.

Material examined**Syntypes**

SOUTH AFRICA • 1 ♀; “Sp. [w, h] // *C. bifasciata* VII. 664 [box label, w, h]”; NHRS • 1 ♀; “[small blank orange label] // *C. bifasciata* VII. 664 [box label, w, h]”; NHRS.

Additional material

SOUTH AFRICA • 1 ♀, syntype of *Clythra rugosa*; “C: rugosa / e Cap: b: sp: Paykull [w, h]”; ZMK • 1 ♂, syntype of *Clythra rugosa*; without any label; ZMK.

Distribution

RSA.

Comments

Clytra bifasciata was treated as synonym of *Clythra rugosa* by Schoenherr (1808) but with reversed priority. Lacordaire (1848) correctly gave the priority to *Clytra bifasciata* and in synonymy he listed

both *Clythra rugosa* and *Clythra bicincta*. Gemminger & Harold (1874) also added *Clythra mutabilis* to the synonyms of *Clythra bifasciata*. The same arrangement was accepted also in subsequent catalogues by Jacoby & Clavareau (1906) and Clavareau (1913). I examined the type specimens of *Chrysomela bifasciata* and photographs of the syntypes of *Clythra rugosa*, and undoubtedly they are conspecific.

Thunberg (1821) introduced the name *Clythra bicincta* with *Clythra rugosa* Fabricius, 1798 placed in synonymy. As discussed in the introduction, it is not quite clear whether or not Thunberg (1821) wanted to propose a new replacement name for *Clythra rugosa*. As explained above I treat *Clythra bicincta* as a validly described species. The type specimen(s) were not traced in UUZM. Because its original description by Thunberg (1821) and also redescription by Forsberg (1821) agree with *Clythra bifasciata bifasciata*, I confirm *Clythra bicincta* as its synonym.

Clythra bifasciata ssp. *pallipes* Medvedev, 1993, also described from the Western Cape Province, differs from nominal subspecies only in the pale tibiae and tarsi (Medvedev 1993a) and its validity needs confirmation.

Genus *Coptocephala* Chevrolat, 1836

Coptocephala unifasciata unifasciata (Scopoli, 1763)

Fig. 3A–E

Buprestis unifasciata Scopoli, 1763: 66 (original description) (not examined).

Cryptocephalus melanocephalus Thunberg, 1787: 46 (original description). **Syn. nov.**

For a full list of synonyms, see Regalin & Medvedev (2010).

Type localities

Buprestis unifasciata: Carniolia [= Slovenia, based on title]; *Cryptocephalus melanocephalus*: not stated.

Material examined

COUNTRY UNKNOWN • ♀, holotype of *Cryptocephalus melanocephalus*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8198 / *Clythra bimaculata* / *melanoceph.* TYP [r, p] // *2-maculata.* / *melanoceph.* 13 [box label, w, h]”; UUZM.

Distribution

Europe (except northern part), Turkey, Kazakhstan, Mongolia (Regalin & Medvedev 2010).

Comments

The holotype of *Cryptocephalus melanocephalus* is a female of *Coptocephala*. Although the identification of *Coptocephala* females is usually very complicated, the colouration of the head (black with orange labrum), elytra (two broad transverse metallic bands on each elytron) and legs (orange with dark basal halves of meso- and metafemora) is typical of the common European *C. unifasciata unifasciata*. As I see no differences between long series of *C. unifasciata unifasciata* and the holotype of *Cryptocephalus melanocephalus*, I propose a new synonymy: *C. unifasciata unifasciata* (Scopoli, 1763) = *Cryptocephalus melanocephalus* Thunberg, 1787 syn. nov.

Genus *Gyriodera* Lacordaire, 1848

Gyriodera cruciata (Thunberg, 1821)

Fig. 3F–J

Clythra cruciata Thunberg, 1821: 184 (original description).



Fig. 3. A–E. *Coptocephala unifasciata unifasciata* (Scopoli, 1763), syntype of *Cryptocephalus melanocephalus* Thunberg, 1787, ♀, 5.5 mm, UUZM. A. Dorsal view. B. Lateral view. C. Frontal view. D. Label. E. Box label. F–J. Syntype of *Gyriodera cruciata* (Thunberg, 1821), ♂, 8.0 mm, UUZM. F. Dorsal view. G. Lateral view. H. Frontal view. I. Label. J. Box label.

Clythra cruciata – Forsberg 1821: 286 (redescription).

Clythra (*Gyriodera*) *cruciata* – Lacordaire 1848: 122.

Tituboea cruciata – Gemminger & Harold 1874: 3283 (catalogue).

Tituboea (*Gyriodera*) *cruciata* – Jacoby & Clavareau 1906: 25, pl. 2, fig. 12 (catalogue).

Antipa (*Gyriodera*) *cruciata* – Clavareau 1913: 40 (catalogue).

Type locality

“Cap” [= from the publication title].

Type material examined

SOUTH AFRICA • 1 ♂, syntype of *Clythra cruciata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8227 / *Clythra cruciata* / Cap. TYP [r, p] // *cruciata*. / α . / Cap. 6 [box label, w, h]”; UUZM • 1 ♂, syntype of *Clythra cruciata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8228 / *Clythra cruciata* / Cap. TYP [r, p] // *cruciata*. / β . / Cap. 7 [box label, w, h]”; UUZM.

Distribution

RSA.

Comments

The collection of UUZM houses two male syntypes of *Clythra cruciata*, one in good condition, the second with head and pronotum broken and artificially stuck back in the wrong position. Both examined syntypes agree well with the species definition of *Gyriodera cruciata* used in subsequent publications (Lacordaire 1848; Jacoby & Clavareau 1906; Medvedev 1989b).

Currently, the genus *Gyriodera* Lacordaire, 1848 includes ten species, but the position of *G. capensis* (Lacordaire, 1848) is uncertain and it should probably be moved to the genus *Smaragdina* Chevrolat, 1836. The genus was keyed by Medvedev (1989b). *Clythra cruciata* is the type species of *Gyriodera* designated by Lacordaire (1848).

Genus *Melitonoma* Chevrolat, 1836

Melitonoma decemnotata (Thunberg, 1787) comb. nov.

Figs 4–5

Cryptocephalus 10-notatus Thunberg, 1787: 47 (original description).

Type locality

Not stated.

Material examined

Holotype

SOUTH AFRICA • ♀; type locality not stated (see Comments); “[small blank label] // Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9582 / *Cryptocephalus decemnotatus* / Mus. Thunb. TYP [r, p] // *10 - notata*. / 19 / Mus. Thunb. [box label, w, h]”; UUZM.

Additional material

SOUTH AFRICA – **Western Cape province** • 1 ♂, 1 ♀; Worcester; Jan. 1929; B.E. Turner leg.; BMNH • 1 ♀; “P.B. Spei” [= Cape of Good Hope]; BMNH.

Redescription

BODY LENGTH. ♂: 6.1 mm, ♀♀: 5.1–5.8 mm (holotype ♀: 5.8 mm).

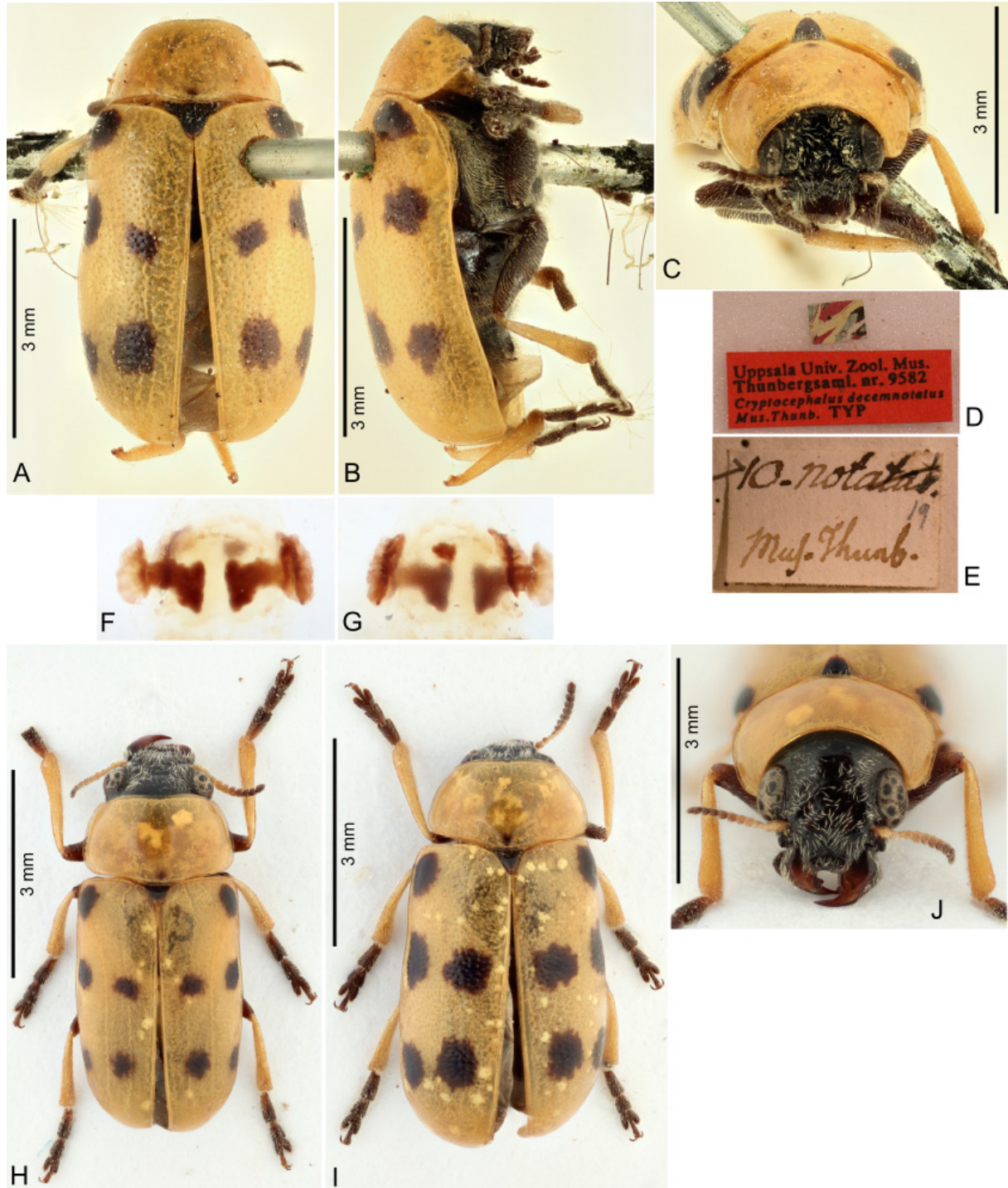


Fig. 4. *Melitonoma decemnotata* (Thunberg, 1787) comb. nov. **A–E.** Syntype, ♀, 5.8 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Labels. **E.** Box label. **F–G.** Kotpresse. **F.** Ventral view. **G.** Dorsal view. **H.** ♂, 6.1 mm, RSA, Worcester, BMNH. **I.** ♀, 5.7 mm, RSA, Worcester, BMNH. **J.** Male head, frontal view.

MALE (Fig. 4H). Head black, apical halves of mandibles reddish, antennae yellow, antennomeres VII–VIII brownish basally, apices gradually darkened, IX–XI black. Pronotum orange with small blurry dark spot near middle of posterior margin. Scutellum black with orange tip. Elytra orange, each elytron with 5 small black round spots (1, 2, 2). Underside black. Legs black with pale femora and bases of first two protarsomeres.

HEAD (Fig. 4J). Mandibles moderately enlarged, left mandible somewhat larger, basal halves robust, apical halves forming long thin hook, dorsal side flat, even and glabrous, sides covered with pale setae. Labrum transverse with rounded anterior angles and shallowly emarginated anterior margin, margins except middle of anterior margin covered with short pale setae, surface lustrous with transverse stripe of dense punctures bearing longer pale setae. Clypeus with wide shallow V-shaped anterior margin. Eyes small. Frons very wide, 3.7 times as wide as diameter of eye, surface uneven, irregularly covered with small punctures and long pale setae. Frons separated from vertex by shallow indistinct impression. Vertex lustrous, covered with sparse punctures and pale setae. Antennae short, 0.21 times as long as body, antennomere I club-shaped, II small, globular, III small, triangular, IV triangular with produced apical angle, antennae shortly serrated from antennomere V.

THORAX. Pronotum glabrous, lustrous, almost impunctate, 1.74 times as wide as long, widest at basal half, moderately convex. Anterior margin nearly straight, lateral margins rounded, posterior margin slightly rounded and moderately expanded in scutellar area. Anterior angles obtusangulate, posterior angles widely rounded. Lateral and posterior margins bordered, anterior margin bordered only near anterior angles. Posterior angles slightly elevated above elytral base. Scutellum subtriangular with rounded tip, glabrous, in basal quarter punctate, rest of surface impunctate, scutellar apex slightly elevated upon elytral level.

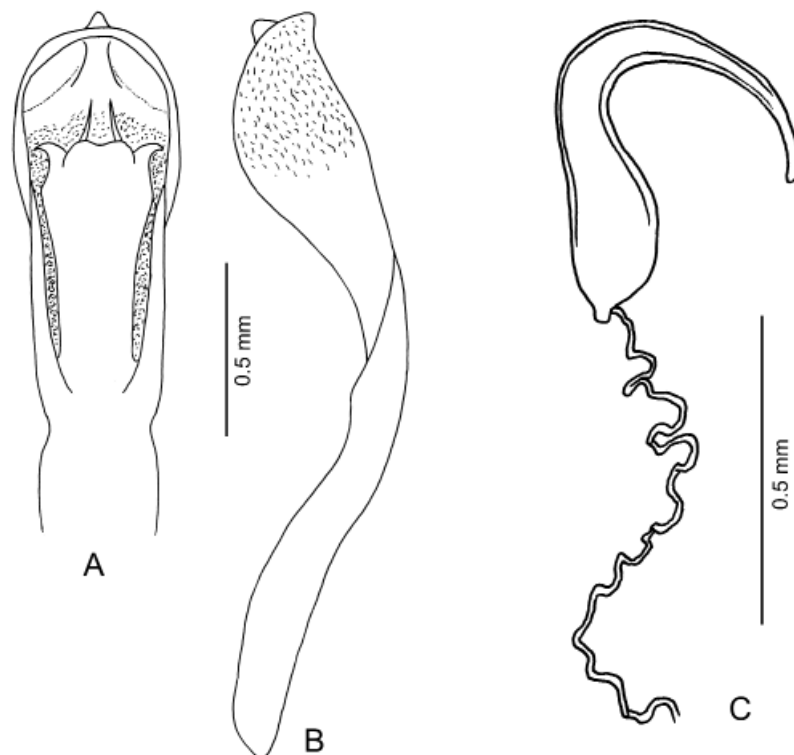


Fig. 5. *Melitonoma decemnotata* (Thunberg, 1787) comb. nov. **A.** Aedeagus, dorsal view. **B.** Aedeagus, lateral view. **C.** Spermatheca.

ELYTRA. Subcylindrical, 0.65 times as long as body, 1.54 times as long as wide at humeral part, glabrous, semiopaque, densely covered with small confused punctures, disappearing at elytral apices. Basal margin with complete thin border forming narrow elevated keel. Epipleura impunctate, glabrous, wide basally, suddenly narrowed and disappearing at basal third.

LEGS. Protibiae slightly prolonged. Protarsomere I parallel with convergent base, twice as long as broad, length ratios of protarsomeres I–IV equal to 10-7-6-6. Metatarsi narrower than protarsi, length ratios of metatarsomeres I–IV equal to 10-6-6-7. Claws simple.

MALE GENITALIA (Fig 5A–B). Aedeagus narrow, 5.5 times as long as wide. Ventral side bulbous in apical part, covered with fine wrinkles, subapically with small tooth.

FEMALE (Figs 4A–C, I, 5C). Mandibles and anterior legs not enlarged. Tarsi as wide as in male but moderately shorter, length ratios of protarsomeres I–IV equal to 8-6-6-6. Spermatheca: cornu U-shaped, apical half gradually narrowed to sharp apex, basal half moderately wider, spermathecal duct ca 1.5 times as long as cornu, with ca 15 simple coils (Fig. 5C).

Differential diagnosis

Although the species of *Melitonoma* Chevrolat, 1836 are highly variable in colour, the combination of black femora and tarsi with yellow tibiae is very unusual. Similar coloured legs are known only in three species of *Melitonoma*: *M. diligens* Weise, 1909 (Congo); *M. flavotibialis* Bryant, 1959 (Kenya); and *M. litigiosa* (Lacordaire, 1848) (widely distributed in Africa). Several years ago I examined one male syntype of *M. diligens* deposited in NHRS but the aedeagus was not studied. The aedeagi of *M. flavotibialis* and *M. litigiosa* are similar to that of *M. decemnotata* comb. nov., including a small ventral tooth near apex (see drawings in Medvedev 1993a). This whole species group requires comprehensive revision and, as a first step, *M. decemnotata* comb. nov. is described above

Distribution

RSA (see comments).

Comments

The type locality was not given in the original description. During my visit to the BMNH in 2017, I found three specimens from the Cape Region which perfectly fit the holotype of *Cryptocephalus decemnotatus*. As Thunberg personally collected in the Cape and described many new species from this locality, I have no doubt that *C. decemnotatus* was also collected there.

Genus *Miopristis* Lacordaire, 1848

Miopristis colon (Thunberg, 1787)

Fig. 6

Chrysomela colon Thunberg, 1787: 45, fig. 9 (original description).

Clythra colon – Schoenherr 1808: 345. — Forsberg 1821: 263, 278 (redescription).

Miopristis (*Miopristis*) *colon* – Jacoby & Clavareau 1906: 12 (catalogue). — Clavareau 1913: 29 (catalogue).

Type locality

Not stated.

Material examined

Holotype

SOUTH AFRICA • ♀; type locality not stated (see Comments); “*colon.* / 12 / Mus. Thunb. [box label, w, h]”; UUZM.

Distribution

Probably RSA (see comments).

Comments

Lacordaire (1848) listed *Clythra colon* among the species not known to him and reported it from “Promont. Bonae Spei” [= Cape of Good Hope] although neither Thunberg (1787) nor Forsberg (1821) provided any type locality. Habitually, *Miopristis colon* is very similar to many South African Clytrini

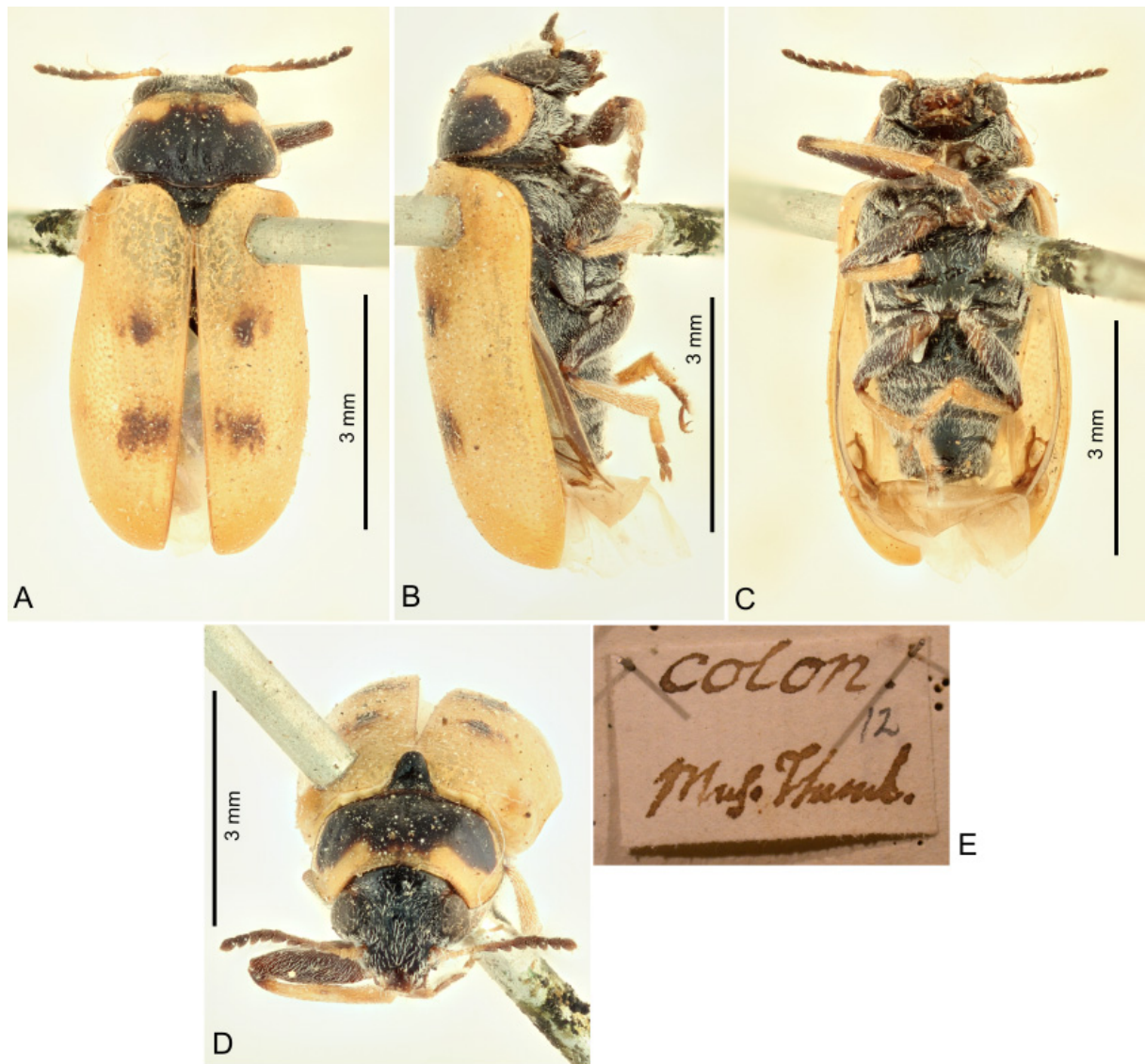


Fig. 6. *Miopristis colon* (Thunberg, 1821), holotype, ♀, 5.5 mm, UUZM. A. Dorsal view. B. Lateral view. C. ventral view. D. Frontal view. E. Box label.

which, in accordance with Lacordaire (1848), allows me to believe that the holotype was collected in the Cape together with many other specimens during Thunberg's expeditions.

The holotype of *Chrysomela colon* was not traced, or was overlooked, by Wallin & Wallin (2001) and thus it lacks the typical printed red label they added to all type specimens.

The species identity of *Chrysomela colon* is unclear. The holotype is a relatively small female (5.5 mm) with a reduced black elytral pattern. Jacoby & Clavareau (1906) and Clavareau (1913) classified it in *Miopristis* with some doubt. Currently, the genus *Miopristis* comprises more than 20 species and I examined the primary type specimens of about 90% of the species. The colouration of *Chrysomela colon* does not exactly fit with any of the described species. However, as in many Clytrini, the colouration of species of *Miopristis* is extremely variable and I cannot exclude that the holotype of *Ch. colon* is a pale specimen with reduced black pattern of some other already described species. In summary, I leave *Chrysomela colon* as a valid species in *Miopristis*, and its identity can be resolved in the future if more specimens, including males, are discovered.

Miopristis flexuosa (Thunberg, 1821)

Fig. 7

Clythra flexuosa Thunberg, 1821: 184 (original description).

Miopristis namaquensis Medvedev, 1993b: 21 (original description). **Syn. nov.**

Clythra flexuosa – Forsberg 1821: 269, 288 (redescription). — Lacordaire 1848: 393.

Miopristis flexuosa – Gemminger & Harold 1874: 3280 (catalogue).

Miopristis (Miopristis) flexuosa – Jacoby & Clavareau 1906: 12 (catalogue). — Clavareau 1913: 29 (catalogue).

Type localities

Clythra flexuosa: “Cap” [= from the publication title]. *Miopristis namaquensis*: “South Africa, Richtersveld, Kubosa settlement (28.27° S, 17.43° E)”.

Material examined

Holotype

SOUTH AFRICA • ♀; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8233 / *Clythra flexuosa* / Cap. TYP [r, p] // *flexuosa*. / Cap. 12 [box label, w, h]”; UUZM.

Additional material

SOUTH AFRICA – **Northern Cape** • ♂ (photograph), paratype of *Miopristis namaquensis*; “S. Afr., Namaqualand / Eselsfontein / 29.42 S – 17.43 E [w, p] // 16-17.9.1984; 460 m / yellow Comp. & Acacia / leg. C. L. Bellamy [w, p] // *Miopristis* / m. / *namaquensis* [h] / L. N. Medvedev det. 19 [p] 90 [w, h] // PARATYPUS [r, p]”; LMRM. – **Western Cape** • 1 ♂, 1 ♀; Calvinia Nat. Res.; 1000 m a.s.l.; 25 Sept. 1984; W. Wittmer leg.; NHMB.

Distribution

RSA.

Comments

Lacordaire (1848) listed *Clythra flexuosa* as a species unknown to him and speculated that it could belong to the genus *Macrolenes* Chevrolat, 1836. Subsequent catalogues include this species in the genus *Miopristis*

(Jacoby & Clavareau 1906; Clavareau 1913). Based on the examination of the holotype, I can confirm its position in *Miopristis*. Moreover, I examined the photograph of a male paratype of *M. namaquensis* and two additional specimens of *M. namaquensis* deposited in NHMB, identified by Dieter Erber. Undoubtedly, *M. namaquensis* is conspecific with *M. flexuosa*, and thus the new synonymy is proposed.

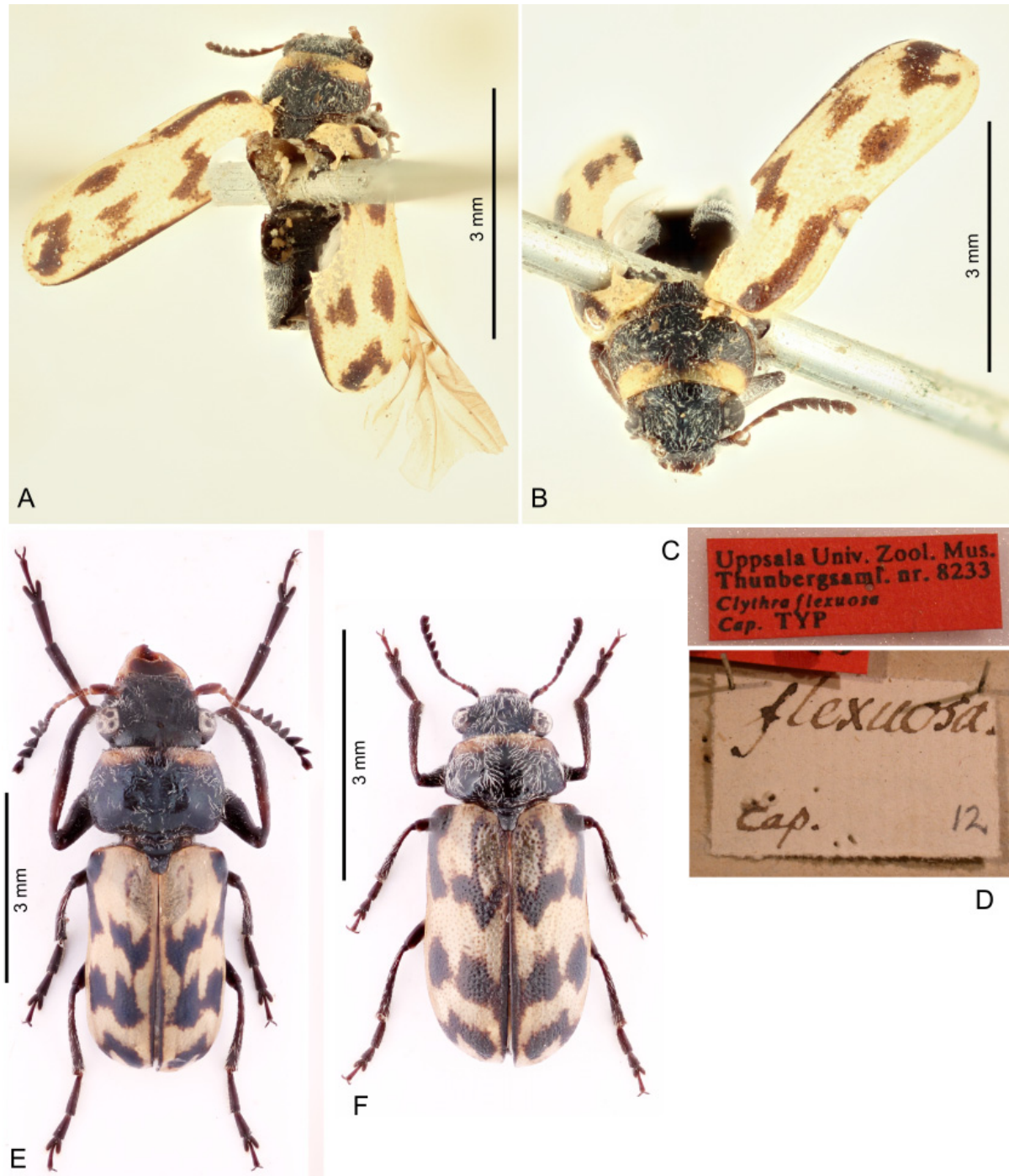


Fig. 7. *Miopristis flexuosa* (Thunberg, 1787). A–D. Holotype, ♀, 4.5 mm, UUZM. A. Dorsal view. B. Frontal view. C. Label. D. Box label. E. ♂, 7.0 mm, RSA, Calvinia Nat. Res., NHMB. F. ♀, 4.7 mm, RSA, Calvinia Nat. Res., NHMB.

Miopristis stigma (Thunberg, 1821)

Fig. 8

Clythra stigma Thunberg, 1821: 184 (original description).

Clythra stigma – Forsberg 1821: 276 (redescription).

Miopristis stigma – Gemminger & Harold 1874: 3278 (catalogue).

Miopristis (Miopristis) stigma – Jacoby & Clavareau 1906: 12 (catalogue). — Clavareau 1913: 29 (catalogue).

Type locality

“Cap” [= from the publication title].

Material examined

Holotype

SOUTH AFRICA • ♂; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8190 / *Clythra stigma* / Cap. TYP [r, p] // *stigma*. / Cap. 6 [box label, w, h]”; UUZM.

Distribution

RSA.

Comments

Only the holotype is known, whose head and pronotum are broken and artificially stuck back together. The generic assignment was not clearly understood by the subsequent authors. While Lacordaire (1848) mentioned



Fig. 8. *Miopristis stigma* (Thunberg, 1821), holotype, ♂, 7.0 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label. **E.** Box label.

Clythra stigma among the species unknown to him, Gemminger & Harold (1874) classified it in *Miopristis*. Jacoby & Clavareau (1906) and Clavareau (1913) followed the assignment to *Miopristis* with doubts.

The examination of the holotype showed very densely pubescent propleura. Based on the keys to identification of clytrine genera with pubescent propleurae (Medvedev 1970, 1989a), *Clythra stigma* should be classified in *Protoclytra*. Here I have to point out that there is evident confusion in the definition of the genera *Miopristis* and *Protoclytra*. Medvedev (1970, 1989a) did not include *Miopristis* in his keys to clytrine genera with pubescent propleurae, which could lead to the assumption that species of *Miopristis* have the propleura bare. However, the type species *Miopristis lepida* (Lacordaire, 1848) has the propleura pubescent, which I verified from the type specimen deposited in the BMNH. Also Medvedev (1993b, 1993c) himself mentioned pubescent propleura in the descriptions of *Miopristis namaquensis* Medvedev, 1993 and *Miopristis dimorphus* Medvedev, 1993. As the generic relationships between *Miopristis* and *Protoclytra* still require further studies, I tentatively leave *Clythra stigma* in *Miopristis*.

Genus *Plecomera* Lacordaire, 1848

Plecomera thunbergii thunbergii (Lacordaire, 1848)

Fig. 9

Clythra (*Plecomera*) *thunbergii* Lacordaire, 1848: 104 (replacement name for *Clythra macropus* Thunberg, 1821, not *Clytra macropus* Illiger, 1800).

Clythra macropus Thunberg, 1821: 184 (original description).

Clythra (*Plecomera*) *quadraticollis* Lacordaire, 1848: 105 (original description).

Clythra macropus – Forsberg 1821: 282 (redescription).

Miopristis macropus – Gemminger & Harold 1874: 3280 (catalogue).

Miopristis (*Plecomera*) *macropus* – Jacoby & Clavareau 1906: 14 (catalogue).

Miopristis (*Plecomera*) *thunbergi* – Clavareau 1913: 31 (catalogue).

Type localities

Clythra macropus: “Cap” [= from the publication title]. *Clythra quadraticollis*: “Cap de Bonne Espérance”.

Material examined

SOUTH AFRICA • 1 ♂, syntype of *Clythra macropus*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8245 / *Clythra macropus* / Cap. TYP [r, p] // *macropus*. / Cap. 24 [box label, w, h]”; UUZM • 1 ♂, syntype of *Clythra macropus*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15375 / *Clythra macropus* / TYP [r, p] // *macropus*. / III [box label, w, h]”; UUZM • 1 ♂, syntype of *Clythra quadraticollis*; “E. Coll. / Chevt. [w, p] // cbs [w, h] // 240 [b, p] // SYN- / TYPE [round white label with blue collar] // *Plecomera* / *quadraticollis* / Lac. type [w, h] // *brachialis* / Ch. cbs [w, h] // 67-56 [w, p]”; BMNH • 1 ♂, syntype of *Clythra quadraticollis*; “23098 [w, p] // Promont. / b. sp. / Lichtst. [b, h] // *Plecomera* / *quadraticollis* / Lacord * [w, h] // Captans / N. / Pr. b. Sp. Lichtenst. [b, h]”; ZMHB.

Distribution

RSA.

Comments

Given that *Clythra macropus* Thunberg, 1821 was a homonym of *Clytra macropus* Illiger, 1800 (now in *Tituboea*), Lacordaire (1848) proposed the replacement name *Clythra* (*Plecomera*) *thunbergii* for Thunberg’s species.

Lacordaire (1848) proposed the subgenus *Plecomera* for two species from the Cape: *Clythra thunbergii* Lacordaire, 1848 and *Clythra quadraticollis* Lacordaire, 1848. Recently, *Plecomera* was treated at genus level by Medvedev (1989b, 1992a, 1993b, 2008) and Medvedev & Regalin (1997) without any other comment. The type species *Clythra quadraticollis* was designated by Medvedev & Regalin (1997). Currently, *Plecomera* includes six species and one subspecies. However, the position of some species in *Plecomera* needs verification and the whole genus is in need of comprehensive revision.



Fig. 9. *Plecomera thunbergii thunbergii* (Lacordaire, 1848). **A–E.** Syntype of *Clythra macropus* Thunberg, 1821, ♂, 7.5 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label. **E.** Box label. **F–G.** Syntype of *Clythra quadraticollis* Lacordaire, 1848, ♂, not measured, BMNH. **F.** Dorsal view. **G.** Labels.

Medvedev (2008) synonymized *Plecomera thunbergii* and *P. quadraticollis* arguing that the two taxa represent two extreme color variations of a single species, and he also described transitional forms.

Genus *Phoenicodera* Lacordaire, 1848

Phoenicodera scapularis (Thunberg, 1821)

Fig. 10

Clythra scapularis Thunberg, 1821: 184 (original description).

Clythra scapularis – Forsberg 1821: 262, 275 (redescription).

Clythra (Phoenicodera) scapularis – Lacordaire 1848: 94.

Tituboea scapularis – Gemminger & Harold 1874: 3282 (catalogue).



Fig. 10. *Phoenicodera scapularis* (Thunberg, 1821). **A–D.** Syntype, ♂, 9.0 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label and box label. **E–G.** Syntype, ♀, 7.8 mm, UUZM. **E.** Dorsal view. **F.** Label. **G.** Box label.

Tituboea (Phoenicodera) scapularis – Jacoby & Clavareau 1906: 24 (catalogue).

Antipa (Phoenicodera) scapularis – Clavareau 1913: 440 (catalogue).

Type locality

“Cap” [= from the publication title].

Material examined

Syntypes

SOUTH AFRICA • 1 ♂; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15368 / *Clythra scapularis* / TYP [r, p] // *scapularis*. / 104 [box label, w, h]”; UUZM • 1 ♀, “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8191 / *Clythra scapularis* / Cap. TYP [r, p] // *scapularis*. / Cap. 7 [box label, w, h]”; UUZM.

Distribution

RSA.

Comments

The genus *Phoenicodera* was originally proposed as a subgenus of *Clythra* by Lacordaire (1848), who included two species: *Clythra scapularis* Thunberg, 1821 and *Clythra varicollis* Lacordaire, 1848. Subsequent authors catalogued *Phoenicodera* as a subgenus of either *Tituboea* or *Antipa*. Medvedev (1993b) raised *Phoenicodera* to genus level, but without any comments.

Phoenicodera clearly needs modern revision. In particular, its relationships with the genera *Tituboea* and *Antipus* need clarification. To my knowledge the type species of *Phoenicodera* was not designated. However, I will avoid doing that without performing a comprehensive revision of the genus. Currently, five species are classified in *Phoenicodera*: the two abovementioned, *Phoenicodera robusta* Medvedev, 1993 (from RSA), *P. metallica* Pic, 1939 and *P. nigrovittata* Pic, 1939 (both from Angola). Medvedev (1993b) keyed three South African species.

Genus *Protoclytra* Weise, 1905

Protoclytra (Lacordairella) taeniata (Thunberg, 1821) comb. nov.

Fig. 11

Clythra taeniata Thunberg, 1821: 184 (original description).

Clythra (Camptolenes) fastuosa Lacordaire, 1848: 113 (original description). **Syn. nov.**

Clythra taeniata – Forsberg 1821: 287 (redescription).

Clythra (Camptolenes) taeniata – Lacordaire 1848: 117.

Lachnaea taeniata – Gemminger & Harold 1874: 3281 (catalogue).

Crabronites (Camptolenes) taeniata – Jacoby & Clavareau 1906: 16 (catalogue). — Clavareau 1913: 32 (catalogue).

Camptolenes taeniata – Medvedev & Erber 2003: 86 (misidentification ?).

Lachnaea (Camptolenes) fastuosa – Chapuis 1874: 114.

Lachnaea fastuosa – Gemminger & Harold 1874: 3281 (catalogue).

Crabronites (Camptolenes) fastuosa – Jacoby & Clavareau 1906: 16 (catalogue). — Clavareau 1913: 32 (catalogue).

Protoclytra (Lacordairella) fastuosa – Medvedev 1970: 194.

Type localities

Clythra taeniata: “Cap” [= from the publication title]. *Clythra (Camptolenes) fastuosa*: “Afrique australe” [= Southern Africa].

Material examined

Holotype

SOUTH AFRICA • ♂; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8232 / *Clythra taeniata* / Cap. TYP [r, p] // *catenata*. / Cap. 11 [box label, w, h]”; UUZM.

Additional material

SOUTH AFRICA • ♂, syntype of *Clythra (Camptolenes) fastuosa*; “23101 [w, p] // Caffraria / Krebs [blue-grey, h] // *Camptolenes / fastuosa* Lac. * [w, h] // *fastuosa* / N. / Caffr. Krebs. [b, h]”; ZMHB.

Distribution

RSA.



Fig. 11. *Protoclythra taeniata* (Thunberg, 1821) comb. nov. A–E. Holotype, ♂, 8.0 mm, UUZM. A. Dorsal view. B. Lateral view. C. Frontal view. D. Label. E. Box label. F–G. Syntype of *Clythra fastuosa* Lacordaire, 1848, ♂, not measured, ZMHB. F. Dorsal view. G. Labels.

Comments

Lacordaire (1848) classified both *Clythra taeniata* and *C. fastuosa* in *Camptolenes*, a subgenus of *Clythra*. Having been the generic name *Camptolenes* Chevrolat, 1836 originally used for a different species (now a synonym of *Clythra* Laicharting, 1781, see Bousquet & Bouchard 2013), Monrós (1953) proposed the generic name *Lacordairella* Monrós, 1953 for the *Camptolenes* species sensu Lacordaire (1848) and designated *Clythra fastuosa* as the type species of *Lacordairella*. Later, Medvedev (1970) downgraded *Lacordairella* to subgenus of *Protoclythra*.

The comparison of the holotype of *Clythra taeniata* with the syntype of *Clythra fastuosa* deposited in ZMHB undoubtedly showed both taxa to be conspecific. Consequently, *Clythra fastuosa* is proposed as a new synonym of *Protoclythra (Lacordairella) taeniata* comb. nov.

Medvedev & Erber (2003) discussed the elytral colour pattern variability of *Camptolenes taeniata*, however, their drawings do not fit well with the elytral colouration of the holotype. I cannot exclude that Medvedev & Erber (2003) misidentified the studied specimens.

Currently, *Protoclythra* subgenus *Lacordairella* includes eight species, six of them were listed by Medvedev (1970). Two additional species were also described by Medvedev (1993a, 1993d). No keys to species of *Lacordairella* have ever been provided.

Genus *Smeia* Lacordaire, 1848

Smeia undata (Thunberg, 1821) comb. nov.

Fig. 12

Clythra undata Thunberg, 1821: 184 (original description).

Clythra (Smeia) virginea Lacordaire, 1848: 24 (original description). **Syn. nov.**

Melitonoma pictipennis Jacoby, 1898: 350 (original description). **Syn. nov.**

Clythra undata – Forsberg 1821: 288 (redescription). — Lacordaire 1848: 393.

Miopristis undata – Gemminger & Harold 1874: 3280 (catalogue).

Miopristis virginea – Gemminger & Harold 1874: 3280 (catalogue).

Melitonoma pictipennis – Medvedev 1979: 170 (= *Smeia virginea*).

Type localities

Clythra undata: “Cap” [= from the publication title]. *Clythra (Smeia) virginea*: “Caffrerie”. *Melitonoma pictipennis*: “Pretoria”.

Material examined**Holotype**

SOUTH AFRICA • ♂; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8234 / *Clythra undata* / Cap. TYP [r, p] // *catenata*. / Cap. 13 [box label, w, h]”; UUZM.

Additional material

SOUTH AFRICA, **Western Cape** • ♂, syntype of *Clythra (Smeia) virginea*; “23051 [w, p] // Promont. / b. sp. / Krebs [blue-grey, h] // *Smeia / virginea* Lac. * [w, h] // Hist.-Coll. (Coleoptera) / Nr. 23051 / *Smeia virginea* Lac. x / Promont. b. sp. Krebs / Zool. Mus. Berlin [b, p] // *Smeia / virginea* Lac. [h] / L. Medvedev det. 96 [p] 7 [w, h] // SYNTYPE / *Smeia virginea* / Lacordaire, 1848 / labelled by MFNB 2017 [r, p]”; ZMHB • 1 ♀; “Promont. b. sp.” [= Promontorio Bonae Spei]; Krebs leg.; ZMHB. – **Gauteng** • 1 ♀, syntype of *Melitonoma pictipennis*; “SYN- / TYPE [white round label with blue collar,

p] // Pretoria / (W. L. D.) [w, p] // Distant Coll. / 1911-383 [w, p] // *Melitonoma* / *pictipennis* / Jac. [b, h] // *Smeia* / *virginea* Lac. [h] / L. N. Medvedev det. 19 [p] 68 [w, h]”; BMNH • 1 ♀, syntype of *Melitonoma pictipennis*; “SYN- / TYPE [white round label with blue collar, p] // Pretoria / (W. L. D.) [w, p] // Jacoby Coll. / 1909-28a [w, p] // *Melitonoma* / *pictipennis* / Jac. [b, h]”; BMNH •

Distribution

RSA.

Comments

The identity of *Clythra undata* was unclear to the subsequent authors. Lacordaire (1848) listed *C. undata* among the species not known to him but, based on the description, he speculated its position within the

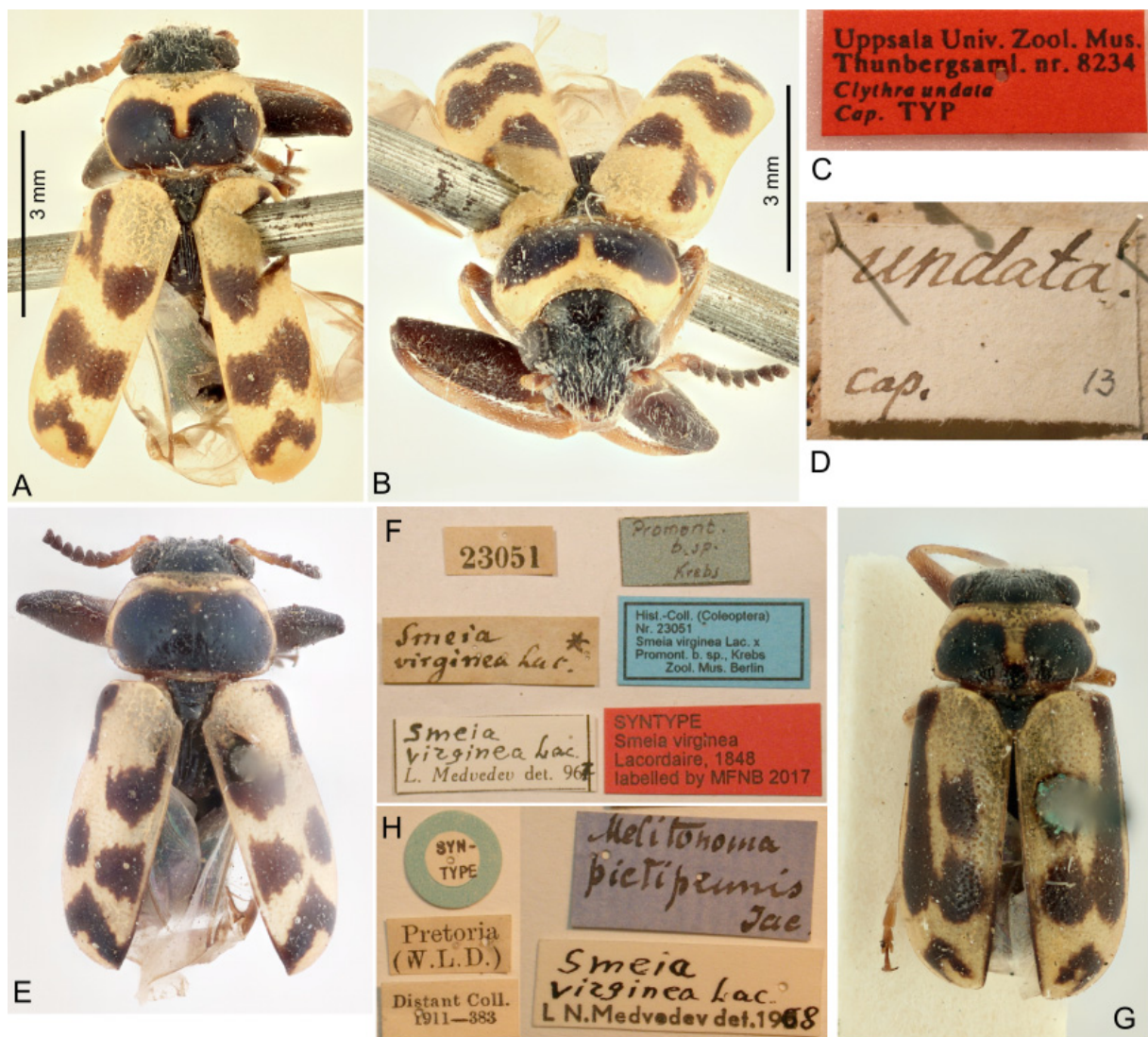


Fig. 12. *Smeia undata* (Thunberg, 1821) comb. nov. A–D. Holotype, ♂, 6.5 mm, UUZM. A. Dorsal view. B. Frontal view. C. Label. D. Box label. E–F. Syntype of *Clythra virginea* Lacordaire, 1848, ♂, not measured, ZMHB. E. Dorsal view. F. Labels. G–H. Syntype of *Melitonoma pictipennis* Jacoby, 1898, ♀, not measured, BMNH. G. Dorsal view. H. Labels.

genus *Macrolenes*. In the catalogues by Gemminger & Harold (1874), Jacoby & Clavareau (1906) and Clavareau (1913), it is classified in the genus *Miopristis*.

The comparison of the primary type specimens of *Clythra undata*, *C. virginea* and *Melitonoma pictipennis* showed that all three taxa are conspecific, and they are therefore synonymized here. Medvedev (1979) synonymized *Melitonoma pictipennis* Jacoby, 1898 with *Smeia virginea* without any comments. *Melitonoma pictipennis* was described from two females now deposited in BMNH. Both specimens have the outer elytral black spots connected, forming a lateral black stripe. Except for this colour peculiarity, I do not see any other difference.

Lacordaire (1848) did not specify the number of available specimens when describing *Smeia virginea*, only mentioning material from Cafferie deposited in “Museum Berlin”. Based on the catalogue of this historic collection, the original series included three specimens (Jäger 2017, pers. comm.) and I was able to locate two of them: a male and a female. Because Lacordaire (1848) explicitly mentioned that the female was unknown to him, I treat only the male as a syntype, the female is listed here in the section ‘Additional material examined’.

The genus *Smeia* Lacordaire, 1848 is among the genera with pubescent propleura and can be distinguished by the combination of the following characters: epipleura glabrous, male fore legs elongate with strongly thickened femora, anterior margin of elytra elevated along whole length, antennomere IV elongate, pronotum glabrous (see the generic keys by Medvedev 1970, 1989a). Currently, only two species are classified in *Smeia*: *S. undata* comb. nov. and *S. braunsi* Medvedev, 1993, both distributed in RSA. *Smeia braunsi* differs from *S. undata* comb. nov. in apex of aedeagus bulbous and carinate underside, and missing humeral and preapical elytral spots (Medvedev 1993a).

Genus *Teinocera* Lacordaire, 1848

Teinocera catenata (Thunberg, 1821) comb. nov.

Fig. 13A–D

Clythra catenata Thunberg, 1821: 184 (original description).

Clythra (Lophobasis) subclathrata Lacordaire, 1848: 20 (original description) (not examined). **Syn. nov.**

Clythra (Miopristis) catenata – Lacordaire 1848: 28.

Miopristis catenata – Gemminger & Harold 1874: 3280 (catalogue). — Papp 1951: 83 (key). — Medvedev 1979: 170; 1989b: 776.

Miopristis (Miopristis) catenata – Jacoby & Clavareau 1906: 12 (catalogue). — Clavareau 1913: 29 (catalogue).

Type localities

Clythra catenata: “Cap” [= from the publication title]. *Clythra (Lophobasis) subclathrata*: “Cafferie”.

Material examined

Holotype

SOUTH AFRICA • ♂; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 8229 / *Clythra catenata* / Cap. TYP [r, p] // *catenata*. / Cap. 8 [box label, w, h]”; UUZM.

Distribution

RSA.

Comments

One type specimen of *Clythra (Lophobasis) subclathrata*, originally deposited in ZMHB, was not located (Jäger 2017, pers. comm.).

The holotype of *Clythra catenata* is a representative of the genus *Teinocera* Lacordaire, 1848. The identity of *Clythra catenata* has a long history of misinterpretation. Lacordaire (1848) classified it in *Miopristis* Lacordaire, 1848, and this placement was followed by all subsequent authors (Gemming & Harold 1874; Jacoby & Clavareau 1906; Clavareau 1913; Papp 1951; Medvedev 1979, 1989b).

Males of *Teinocera subclathrata* are characterised by the last antennomere divided by an indistinct suture into a larger basal part and a thin apical part. The same character was observed in the holotype of *Clythra catenata*. Although one type specimen of *Teinocera subclathrata* originally deposited in ZMHB was not traced there (Jäger 2017, pers. comm.), its original description agrees well with the species definition in various collections. As a result, *Clythra catenata* is transferred to *Teinocera*, and *T. subclathrata* is proposed as new synonym.

The genus *Teinocera* Lacordaire, 1848 currently contains five species. Three species were keyed by Medvedev (1992a) and two additional species were described by Erber & Medvedev (2002).

Medvedev (1979) synonymized *Labidostomis insidiosa* Péringuey, 1888 with *Miopristis catenata*. I had the possibility to study photographs of two syntypes of *Labidostomis insidiosa* deposited in SAMC, and at first glance the two taxa are not congeneric. *Labidostomis insidiosa* is restored as a valid species in *Miopristis*; however, its placement in *Miopristis* needs further study as the definition of *Miopristis* is not stabilized.

Subfamily Synetinae LeConte & Horn, 1883
Genus *Syneta* Dejean, 1835

Syneta betulae (Fabricius, 1792) nomen protectum
Fig. 13E–G

Crioceris betulae Fabricius, 1792: 5 (original description) (not examined).
Crioceris betulina Thunberg, 1787: 47 (original description) **nomen oblitum**

Type localities

Crioceris betulae: “Lapponiae”. *Crioceris betulina*: “Lapponia”.

Material examined

Syntypes

COUNTRY UNKNOWN • 1 spec. unsexed; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9507 / *Crioceris betulina* / Mus. Thunb. TYP [r, p] // *betulina*. / 4 α . / Mus. Thunb. [box label, w, h]”; UUZM • 1 spec. unsexed; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15253 / *Crioceris betulina* / TYP [r, p] // *betulina*. / γ . / 103 x [w, h]”; UUZM.

Comments

Two syntypes of *Crioceris betulina* deposited in UUZM are conspecific with *Syneta betulae betulae* (Fabricius, 1792). In order to preserve stability, according to Art. 23.9 of ICZN (1999) I propose to consider *Crioceris betulina* as nomen oblitum and *Syneta betulae betulae* (Fabricius, 1792) as nomen protectum. The conditions of the Article 23.9.1.1 are met because to my knowledge the name *Crioceris betulina* has not been used as valid in any publication after 1899. Following Article 23.9.1.2, I supply

the references of 25 papers, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 year, where *Syneta betulae* is treated as a valid species: Leiler (1973), Medvedev & Zaitsev (1978), Mann & Crowson (1981, 1983), Medvedev (1982, 1992b, 2012), Dubeshko & Medvedev (1989), Lee (1990), Schawaller (1990), Medvedev & Dubeshko (1992), Samuelson (1994), Telnov & Kalniņš (2003), Warchałowski (2003, 2010), Bienkowski (2004),



Fig. 13. A–D. Holotype of *Teinocera catenata* (Thunberg, 1821) comb. nov., ♂, 6.7 mm, UUZM. A. Dorsal view. B. Frontal view. C. Label. D. Box label. E–G. *Syneta betulae* (Fabricius, 1792) (syntype of *Crioceris betulina* Thunberg, 1787, unsexed, 6.0 mm, UUZM). E. Dorsal view. F. Label. G. Box label.

Silfverberg (2004, 2010a, 2010b), Telnov (2004), Jolivet & Verma (2008), Guskova (2010), Bukejs (2012, 2013), Lawrence & Ślipiński (2014).

Subfamily Galerucinae Latreille, 1802

Genus *Exosoma* Jacoby, 1903

Exosoma lusitanica (Linnaeus, 1767)

Fig. 14A–D

Chrysomela lusitanica Linnaeus, 1767: 1066 (original description) (not examined).

Crioceris haemorrhoea Thunberg, 1827: 7 (original description). **Syn. nov.**

For a full list of synonyms, see Beenen (2010).

Type localities

Chrysomela lusitanica: “Lusitania”. *Crioceris haemorrhoea*: “Cap” [= from the title, probably erroneous, see Comments below].

Material examined

COUNTRY UNKNOWN (see Comments) • ♂, holotype of *Crioceris haemorrhoea*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9537 / *Crioceris haemorrhoea* / Cap. TYP [r, p] // *haemorrhoea*. / Cap. 7 [box label, w, h]”; UUZM.

Comments

The holotype of *Crioceris haemorrhoea* was dissected and is without any doubt conspecific with the common west Mediterranean *Exosoma lusitanicum*. The type locality “Cap” is evidently incorrect. Very probably the holotype was collected in the Mediterranean area during Thunberg’s travels and subsequently mislabelled.

Genus *Megalognatha* Baly, 1878

Megalognatha festiva (Fabricius, 1781)

Fig. 14E–J

Cistela festiva Fabricius, 1781: 148 (original description).

Apophyllia elegantula Jacoby, 1891: 39 (original description) (not examined).

Crioceris virens Thunberg, 1827: 10 (original description). **Syn. nov.**

Type localities

Cistela festiva: “Cap. bon. sp.”. *Apophyllia elegantula*: “South Africa”. *Crioceris virens*: “Cap” [= from the publication title].

Material examined

Holotype

SOUTH AFRICA • ♀; “Type / H. T. [white round label with red collar] // *Cist. Festiva* / Fabr. Sp. Ins. n. 13 [w, h] // Dissected on behalf / of B. Grobbelar S. Africa [h] / S. L. Shute det. 19 [p] 89 [w, h] // *Megalognatha* / *festiva* (F.) [h] / S. L. Shute det. 19 [p] 89 / = *elegantula* Jac / not *elegans* Baly. [w, h] // AfriGa / specimen ID: [p] / 1512 [h] / specimen data / documented [p] / 15.II. [h] 20 [p] 05. [g, h]”; BMNH.

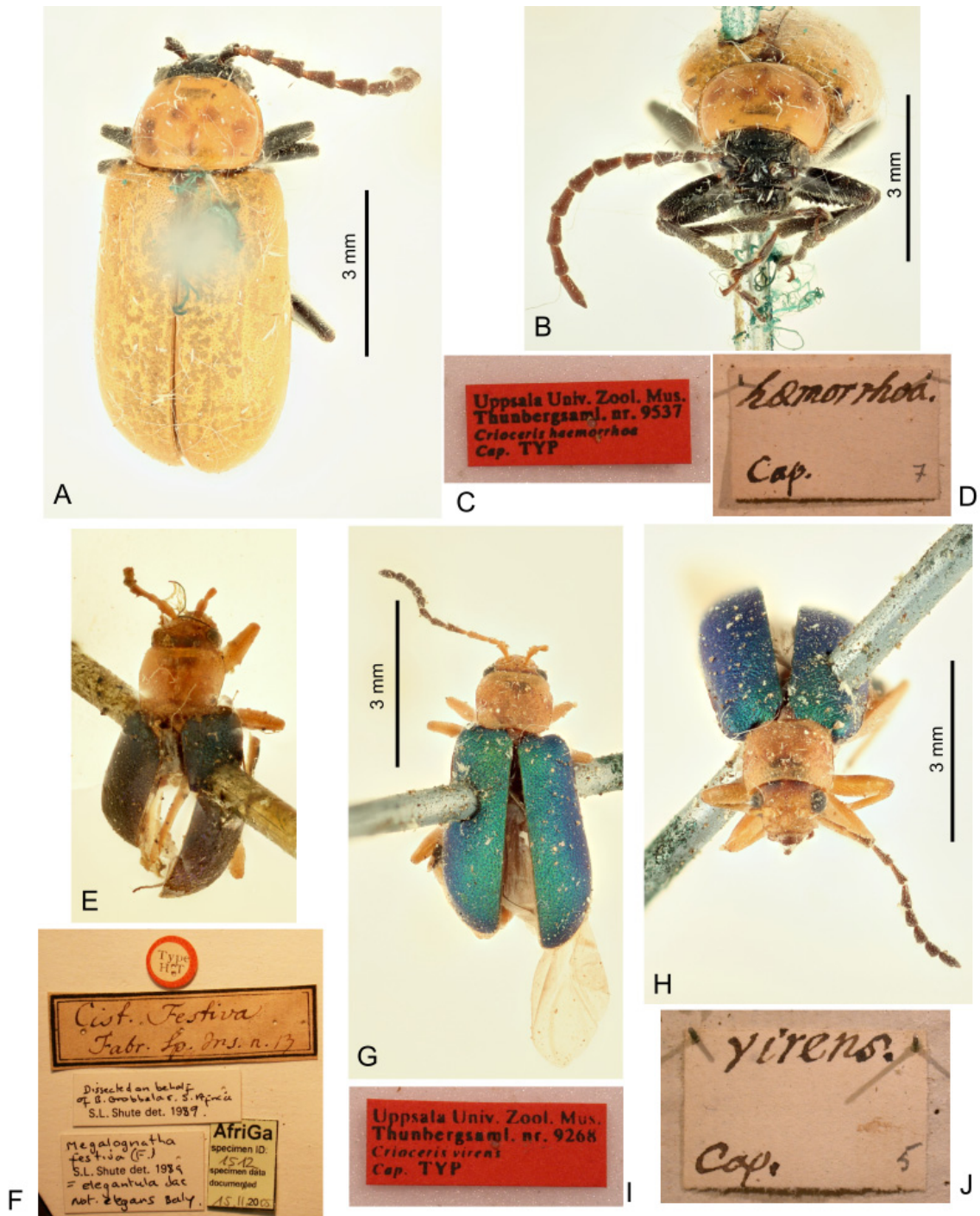


Fig. 14. A–D. *Exosoma lusitanica* (Linnaeus, 1767), holotype of *Crioceris haemorrhoea* Thunberg, 1827, ♂, 8.0 mm, UUZM. A. Dorsal view. B. Frontal view. C. Label. D. Box label. E–J. *Megalognatha festiva* (Fabricius, 1781). E–F. Holotype of *Cistela festiva* Fabricius, 1781, ♀, not measured, BMNH. E. Dorsal view. F. Labels. G–J. Holotype of *Crioceris virens* Thunberg, 1827, ♀, 4.5 mm, UUZM. G. Dorsal view. H. Frontal view. I. Label. J. Box label.

Additional material

SOUTH AFRICA • ♀, holotype of *Crioceris virens*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9268 / *Crioceris virens* / Cap. TYP [r, p] // *virens*. / Cap. 5 [box label, w, h]”; UUZM.

Comments

Megalognatha festiva was recently redescribed by Grobbelaar (1993). The syntype of *Crioceris virens* was compared with the Fabrician type specimen of *Cistela festiva* deposited in the BMNH and without any doubt the two taxa are conspecific. *Crioceris virens* is proposed as a new synonym of *Megalognatha festiva*.

Genus *Monolepta* Chevrolat, 1836

Monolepta bioculata (Fabricius, 1781)

Fig. 15

Crioceris bioculata Fabricius, 1781: 154 (original description).

Chrysomela 4maculata Goldfuss, 1805: 42 (original description) (not examined).

Cryptocephalus bioculatus Thunberg, 1827: 14 (original description). **Syn. nov.**

Type localities

Crioceris bioculata: not stated. *Chrysomela quadrimaculata*: “Cap. Bon. Spei”. *Cryptocephalus bioculatus*: “Cap. Bon. Spei”.

Material examined

Lectotype (designated by Wagner 2007)

SOUTH AFRICA • ♀; “*Crioceris 2-oculata* / Fabr. Sp. Ins. n. 27 [w, h] // Lectotypus / Th. Wagner desig. [p] 96 [r, h] // AfriGa / specimen ID: [p] / 936 [h] / specimen data / documented [p] / 15.II. [h] 20 [p] 08. [g, h]”; BMNH – Banks coll.

Paralectotype

SOUTH AFRICA • ♀; “Paralectotypus / Th. Wagner desig. [p] 96 [r, h]”; BMNH – Banks coll.

Additional material

SOUTH AFRICA • 1 ♂, lectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9466 / *Cryptocephalus bioculatus* / Cap. TYP [r, p] // *bioculatus*. / α . / Cap. 1 x [box label, w, h]”; UUZM • 1 ♀, paralectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9467 / *Cryptocephalus bioculatus* / Cap. TYP [r, p] // *bioculatus*. / β . / Cap. 2 x [box label, w, h]”; UUZM • 1 ♂, paralectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9468 / *Cryptocephalus bioculatus* / Cap. TYP [r, p] // *bioculatus*. / γ . / Cap. 3 x [box label, w, h]”; UUZM • 1 ♂, paralectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9580 / *Cryptocephalus bioculatus* / Mus. Thunb. TYP [r, p] // *bioculatus*. / α . / Mus. Thunb. 17 [box label, w, h]”; UUZM • 1 ♂, paralectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15175 / *Cryptocephalus bioculatus* / TYP [r, p] // *bioculatus*. / δ . / 25 x [w, h]”; UUZM; 1 ♀, paralectotype of *Cryptocephalus bioculatus* (designated here); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 15501 / *Cryptocephalus bioculatus* / TYP [r, p] // *bioculatus*. / β . / 103 x [w, h]”; UUZM. The type specimens are provided with one printed red label: “LECTOTYPUS, [or PARALECTOTYPUS, resp.] / *Cryptocephalus* / *bioculatus* / Thunberg, 1827 / J. Bezděk des., 2018”.

Comments

Thunberg's collection consists of six syntypes of *Cryptocephalus bioculatus*, which include three different species. The two specimens (Nos. 9466 and 9580) that best fit the original description are conspecific with *Monolepta bioculata*. Another specimen (No. 9468) is *Monolepta cruciata* Guérin

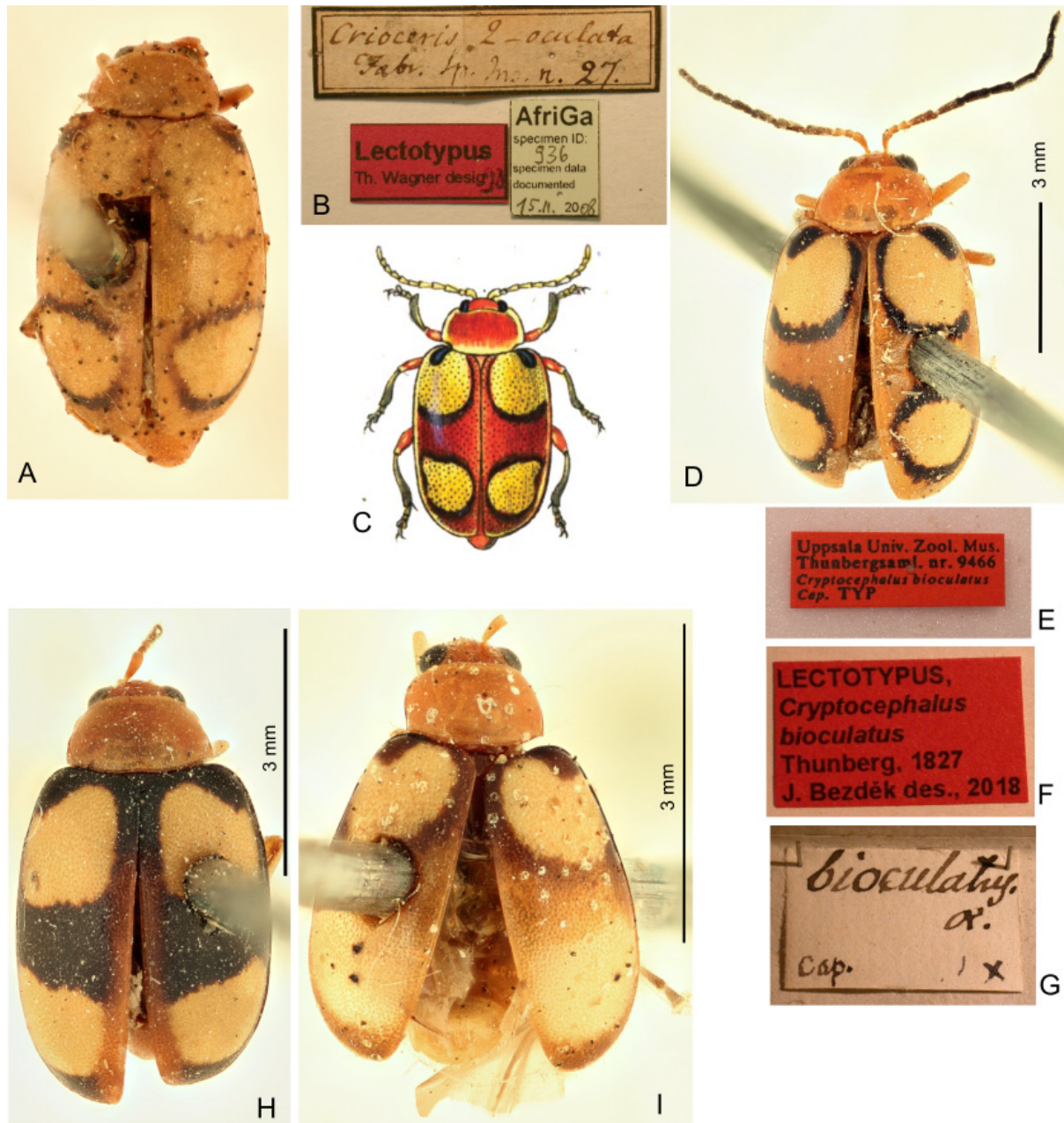


Fig. 15. A–I. *Monolepta bioculata* (Fabricius, 1781). A–B. Lectotype, ♀, not measured, BMNH. A. Dorsal view. B. Labels. C. *Chrysomela quadrimaculata* Goldfuss, 1805 (drawing from the original description). D–G. Lectotype of *Cryptocephalus bioculatus* Thunberg, 1827, ♂, 5.5 mm, UUZM. D. Dorsal view. E. Label. F. Lectotype label. G. Box label. H. Paralectotype of *Cryptocephalus bioculatus* Thunberg, 1827, ♂, 4.8 mm, UUZM (actually *Monolepta cruciata* Guérin-Ménéville, 1849). I. Paralectotype of *Cryptocephalus bioculatus* Thunberg, 1827, ♂, 4.0 mm, UUZM (actually *Monolepta signata* (Olivier, 1908)).

de Méneville, 1847. The last three specimens (Nos. 9467, 15175 and 15501) are *Monolepta signata* (Olivier, 1808), which were evidently mislabelled, as *M. signata* is an Asiatic species and its occurrence in southern Africa is improbable. These specimens were probably collected in Java and Thunberg mistakenly mixed them with southern African specimens.

As the type series is composed of three different species, syntype No. 9466 is selected and here designated as the lectotype, and the identity of *Cryptocephalus bioculatus* Thunberg, 1827 is fixed to one specimen. Due to this act, *Cryptocephalus bioculatus* is proposed as a new synonym of *Monolepta bioculata* (Fabricius, 1781). *Monolepta bioculata* is the type species of the genus *Monolepta*, and was recently redescribed, including study of the type material, by Wagner (2007).

Monolepta melanogaster (Wiedemann, 1823)

Fig. 16

Galleruca melanogaster Wiedemann, 1823: 77 (original description) (not examined).

Cryptocephalus capensis Thunberg, 1827: 15 (original description). **Syn. nov.**

Type localities

Galleruca melanogaster: “Prom. bon. sp.”. *Cryptocephalus capensis*: “Cap” [= from the publication title].

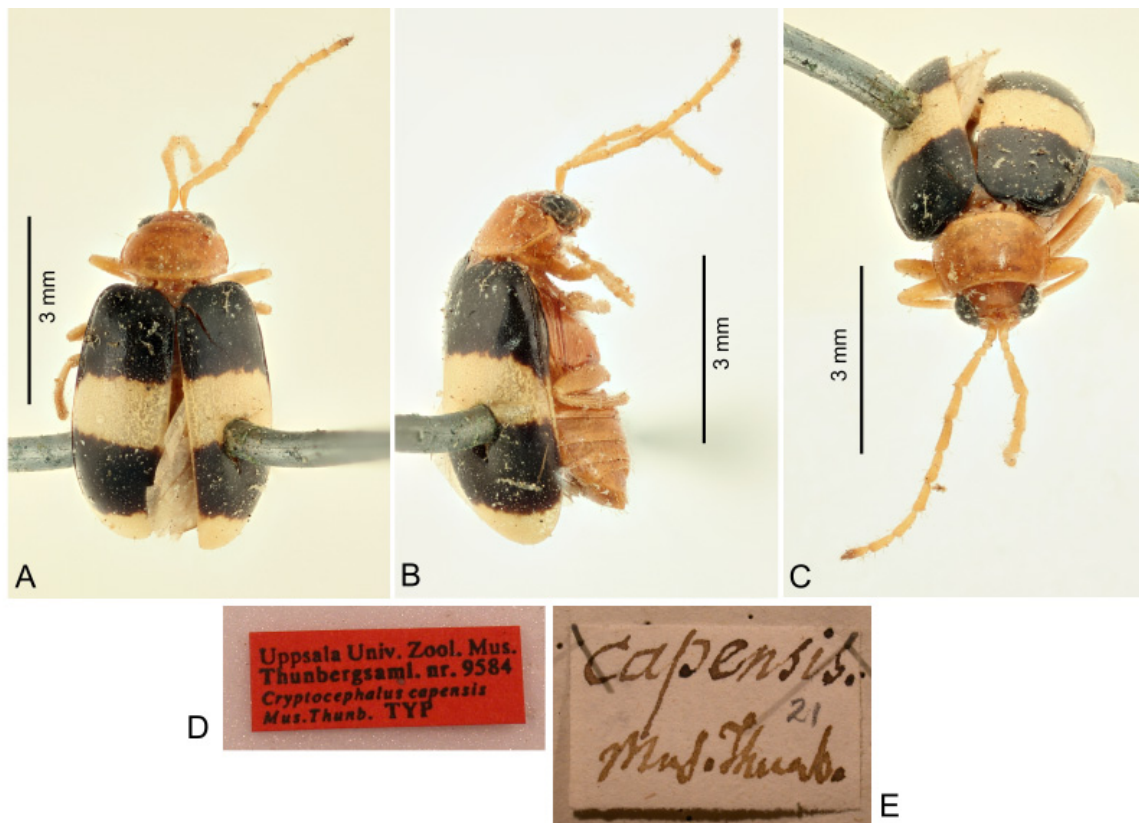


Fig. 16. A–E. *Monolepta melanogaster* (Wiedemann, 1823) (syntype of *Cryptocephalus capensis* Thunberg, 1827, ♂, 5.0 mm, UUZM). **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label. **E.** Box label.

Type material examined

SOUTH AFRICA • 1 ♂, syntype of *Cryptocephalus capensis*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9584 / *Cryptocephalus capensis* / Mus. Thunb. TYP [r, p] // *capensis*. / 21 / Mus. Thunb. [box label, w, h]”; UUZM • 1 ♀, syntype of *Cryptocephalus capensis*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 14734 / *Cryptocephalus capensis* / Cap. TYP [r, p] // *capensis*. / 86 x [w, h]”; UUZM.

Comments

Thunberg’s collection consists of two syntypes (male and female) of *Cryptocephalus capensis*. Without any doubt *Cryptocephalus capensis* is conspecific with *Monolepta melanogaster* and the new synonymy is proposed. *Monolepta melanogaster* was recently redescribed (Wagner 2005).

Genus *Palaeophylia* Jacoby, 1903

Palaeophylia tricolor (Fabricius, 1781)

Fig. 17

Chrysomela tricolor Fabricius, 1781: 129 (original description).

Crioceris tetrapuncta Thunberg, 1787: 47 (original description). **Syn. nov.**

Crioceris dimidiata Thunberg, 1827: 9 (original description). **Syn. nov.**

Type localities

Chrysomela tricolor: not stated; *Crioceris tetrapuncta*: “Cap” [= from the publication title]. *Crioceris dimidiata*: “Cap” [= from the publication title].

Material examined**Holotype**

SOUTH AFRICA • 1 spec. unsexed; “*Chr. Tricolor* / Fabr. Sp. Ins. n. 77 [w, h] // AfriGa / specimen ID: [p] / 251 [h] / specimen data / documented [p] / 4.IX. [h] 20 [p] 08. [g, h]”; BMNH – Banks coll.

Additional material

SOUTH AFRICA • 1 spec. unsexed, syntype of *Crioceris tetrapuncta*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9521 / *Crioceris tetrapuncta* / Mus. Thunb. TYP [r, p] // *tetrapuncta* / 15 / Mus. Thunb. [box label, w, h]”; UUZM • 1 spec. unsexed, syntype of *Crioceris tetrapuncta*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9219 / *Crioceris tetrapuncta* / Cap. TYP [r, p] // *tetrapuncta*. / Cap. 3 [w, h]”; UUZM • 2 specs, lectotype (head and pronotum, designated here) and 1 paralectotype (elytra and thorax) of *Crioceris dimidiata*; “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 9220 / *Crioceris dimidiata* / Cap. TYP [r, p] // *dimidiata*. / Cap. 4 [box label, w, h] // LECTOTYPUS, / head and pronotum / *Crioceris dimidiata* / Thunberg, 1827 / J. Bezděk des., 2018 [r, p] // PARALECTOTYPUS, / elytra and thorax / *Crioceris dimidiata* / Thunberg, 1827 / J. Bezděk des., 2018 [r, p]”; UUZM.

Comments

Thunberg’s collection in UUZM contains two syntypes of *Crioceris tetrapuncta* (Fig. 17G). Both specimens were compared with the holotype of *Palaeophylia tricolor* and the taxa are conspecific. Consequently, *Crioceris tetrapuncta* is synonymized with *Palaeophylia tricolor*.

The only known type specimen of *Crioceris dimidiata* (Fig. 17C) is a composite of two different species, but this does not influence the use of the name (see article 17.1 of the Code). The head and pronotum belong to *Palaeophylia tricolor* (Fabricius, 1781), while the rest of body originates from a beetle unknown to me (but not Chrysomelidae). As Thunberg’s description of *Crioceris dimidiata* perfectly

fits the composite specimen, I have no doubt that the specimen was already composite when Thunberg wrote the description. The head and pronotum are designated as the lectotype of *Crioceris dimidiata*, in order to fix the name to a particular identity, and *C. dimidiata* is synonymized with *Palaeophylia tricolor*.

Currently, the genus *Palaeophylia* Jacoby, 1903 includes nine species (Nie *et al.* 2017) and *Palaeophylia tricolor* (Fabricius, 1781) is its type species. The genus was never revised and it seems to be evident that some of the species are not congeneric with *Palaeophylia* and will be transferred to another genus/other genera in the future.



Fig. 17. A–I. *Palaeophylia tricolor* (Fabricius, 1781). A–B. Holotype, unsexed, not measured, BMNH. A. Dorsal view. B. Labels. C–F. Lectotype/paralectotype of *Crioceris dimidiata* Thunberg, 1827, unsexed, 6.0 mm, UUZM. C. Dorsal view. D. Label. E. Lectotype and paralectotype labels. F. Box label. G–I. Syntype of *Crioceris tetrapuncta* Thunberg, 1787, unsexed, 6.5 mm, UUZM. G. Dorsal view. H. Label. I. Box label.

Genus *Taumacera* Thunberg, 1814

Taumacera deusta Thunberg, 1814

Fig. 18

Taumacera deusta Thunberg, 1814: 48 (original description).

Oedicerus apicipennis Baly, 1879: 110 (original description).

Nacrea apicipennis Baly, 1886: 29 (original description).

Type localities

Taumacera deusta: “Goda-Hopps Udden” [= Cap. Bon. Spei; patria falsa]. *Oedicerus apicipennis*: “India”. *Nacrea apicipennis*: “India” [probably erroneous, see Comments].

Material examined

Holotype

INDONESIA • ♂; probably Java (see Comments); “Uppsala Univ. Zool. Mus. / Thunbergsaml. nr. 12377 / *Taumacera deusta* / Cap. TYP [r, p] // *deusta*. / Cap. [box label, w, h]”; UUZM.

Additional material

Oedicerus apicipennis: probably same type specimen as for *Nacrea apicipennis* (for details see Bezdek 2019).

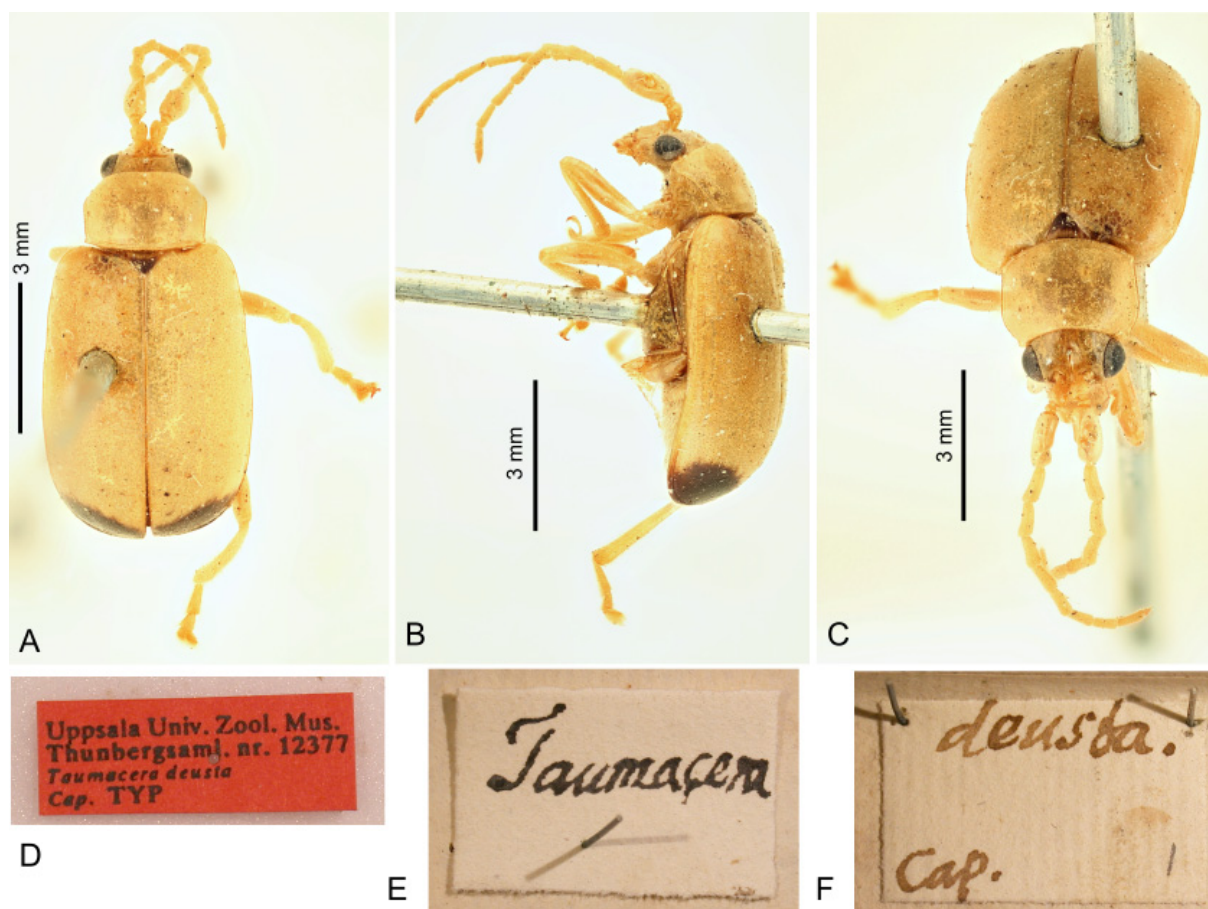


Fig. 18. *Taumacera deusta* Thunberg, 1814, holotype, ♂, 7.5 mm, UUZM. **A.** Dorsal view. **B.** Lateral view. **C.** Frontal view. **D.** Label. **E.** Box label 1. **F.** Box label 2.

INDONESIA • ♂, holotype of *Nacrea apicipennis*; probably Java (see Comments); “Type [white round label with red collar, p] // India or. [w, h] // *Nacrea / apicipennis / Baly / India [w, p] // Baly Coll. [w, p]”; BMNH.*

Comments

Thunberg (1814) described *Taumacera deusta* from “Goda-Hopps Udden” (= Cap. Bon. Spei). Weise (1922) already regarded this type locality as erroneous and correctly synonymized *Oedicerus apicipennis* Baly, 1879 and *Nacrea apicipennis* Baly, 1886 (both described from “India”) with *Taumacera deusta*. Based on the paper by Weise (1922), Maulik (1936) and Wilcox (1973) reported India in the distribution of *Taumacera deusta*. Reid (1999) mentioned that it probably does not occur in India. Based on its currently known distribution, it seems evident that Thunberg collected the holotype during his two visits to Java in the years 1775 and 1777, and later mislabelled it. *Taumacera deusta* is known also from Bali (Bezděk 2019).

Taumacera deusta is the type species of the species-rich genus *Taumacera* Thunberg, 1814 (currently ca 70 species, predominantly distributed in the Oriental region). An additional ca 20 African species currently classified in *Taumacera* are not congeneric and will be transferred elsewhere in the future. The genus concept was recently revised by Bezděk (2019).

Discussion

Altogether Thunberg described about 100 species of Chrysomelidae, which are generally poorly known. Some species were not found in any subsequent papers and many others, although they can be found in some catalogues, more or less disappeared from the entomological literature. Only a small proportion of the Chrysomelidae type specimens have been recently studied, for example: genus *Cassida* Linnaeus, 1758 (Sekerka 2008); *Chrysomela undata* Thunberg, 1784 was stated as a nomen oblitum by Kippenberg (2010); *Chrysomela decempustulata* Thunberg, 1787 was transferred to *Centroscelis* Chevrolat, 1836 by Bezděk *et al.* (2012); *Chrysomela superba* Thunberg, 1787 to *Ambrostoma* Motschulsky, 1860 by Ge *et al.* (2012); or *Chrysomela javanica* Thunberg, 1787 to Tenebrionidae by Bezděk *et al.* (2015). A revision of Thunberg’s South African *Cryptocephalus* species is in preparation (Schöller & Bezděk 2018).

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