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: *Cryptocephala 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.; *Protoctylura (Lacordairella) taeniata* (Thunberg, 1821) comb. nov. (from *Cephalotes* 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 subcelathrata* (Lacordaire, 1848) syn. nov.; *Exosoma lusitanica* (Linnaeus, 1767) = *Crioceris haemorrhhoa* Thunberg, 1827 syn. nov.; *Megalognatha festiva* (Fabricius, 1781) = *Crioceris vires 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, 1827 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, 1827 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.
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 Capensisia (Thunberg 1821). Due to his poor state of health, Thunberg published only short descriptions in Coleoptera Capensis 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 Mioprístis Lacordaire, 1848, Protoctítra 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 (Bezděk 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 haemorrhhoa*) 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 Mejlon)
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).
*Clytra unipunctata* Thunberg, 1821: 183 (original description) (not examined).
*Clytra 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)

Chrysmela 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
Chrysmela 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 Clytra 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 Clytra 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 Clytra bifasciata bifasciata, I confirm Clythra bicincta as its synonym.

Clytra 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 (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).

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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. / a. / 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.** *Melitoma 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 that 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)

*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. / Thunberg’saml. 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

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**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 clyrine 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 clyrine 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)

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 Espèrance”.

Material examined
SOUTH AFRICA • 1 ♂, syntype of Clythra macropus; “Uppsala Univ. Zool. Mus. / Thunberg’saml. 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. / Thunberg’saml. 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)

*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.

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.

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**Fig. 11.** Protoclytra 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 Clytra. Having been the generic name Camptolenes Chevrolat, 1836 originally used for a different species (now a synonym of Clytra 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 Protoclytra.

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 Protoclytra (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, Protoclytra 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] // SYNTAXYPE / 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,
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

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**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 Caffrerie 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*: “Caffrerie”.

**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 (Gemminger & 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

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),…

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

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

**Type localities**

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

**Material examined**

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

**Comments**

The holotype of *Crioceris haemorrhoa* 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).

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

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

**Type localities**

*Cistela festiva*: “Cap. bon. sp.”. *Apophylia 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 haemorrhhoa* 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 quadrimaculata* 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. / a. / 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. / a. / 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 Cryptoccephalus bioculatus Thunberg, 1827 is fixed to one specimen. Due to this act, Cryptoccephalus 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).

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

**Type localities**

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

![Fig. 16. A–E. Monolepta melanogaster (Wiedemann, 1823) (syntype of Cryptoccephalus capensis Thunberg, 1827, ♂, 5.0 mm, UUZM). A. Dorsal view. B. Lateral view. C. Frontal view. D. Label. E. Box label.](image-url)
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)

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. 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. 9219 / 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. 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 Bezděk 2019).

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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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