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Nomenclatural notes for the Erotylinae
(Coleoptera: Erotylidae)

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Abstract. Several taxonomic and nomenclatural issues are reviewed, clarified, and resolved for multiple genera of the Erotylinae (Coleoptera: Erotylidae). Generic-group names discussed: *Brachymerus* Dejean, 1836, *Cypherotylus* Crotch, 1873, *Cytorea* Laporte, 1840, *Erotylus* Fabricius, 1775, *Eudaemonius* Lewis, 1887, *Eutriplax* Lewis, 1887, *Gibbifer* Voet, 1806, *Neobarytopus* Alvarenga, 1965, *Neomorphoides* Alvarenga, 1977, *Ogcotriplax* Heller, 1920, *Paratritoma* Gorham, 1888, *Platichna* Thomson, 1863, *Pseudochrysomela* Voet, 1806, *Pseudotriplax* Heller, 1920, *Triplax* Herbst, 1793, *Tritomapara* Alvarenga, 1970, *Typocephalus* Hope, 1841, and *Xestus* Wollaston, 1864.

Reviewing these issues resulted in a several nomenclatural actions. *Eutriplax* Lewis, 1887, was found to be an unnecessary replacement name for *Eudaemonius* Lewis, 1887. The genus name is reverted to *Eudaemonius*, resulting in one **new combination**: *Eudaemonius quinquepustulatus* (Li and Ren, 2006).

The Neotropical *Tritomapara* Alvarenga, 1970, was found to be a **new objective synonym** of *Paratritoma* Gorham, 1888, which is a synonym of *Triplax* Herbst, 1793, leading to the following eight **new combinations**: *Triplax atricaudata* (Kuhnt, 1910), *Triplax brasiliensis* (Guérin, 1946), *Triplax bruchi* (Kuhnt, 1910), *Triplax caduca* (Gorham, 1888), *Triplax dimidiata* (Gorham, 1888), *Triplax melanoderes* (Kuhnt, 1910), *Triplax triplacoides* (Crotch, 1876), and *Triplax vivida* (Gorham, 1888).

Erotylus tibialis Duponchel, 1825, is recognized as the valid type species for *Brachymerus* Dejean 1836, which moves the name *Brachymerus* to a different genus-group taxon and renders *Neomorphoides* Alvarenga, 1977, a **new synonym**. This **revalidates** *Neobarytopus* Alvarenga, 1965, as originally proposed. These genus-group names are presently subgenera in *Iphiclus* Dejean, 1836, and the move creates 23 **new combinations** in *Iphiclus* (*Brachymerus*) Dejean, 1836: *I. (B.) amazonus* (Crotch, 1876), *I. (B.) atriventris* (Mader, 1943), *I. (B.) bicolor* (Lacordaire, 1842), *I. (B.) clavicornis* (Olivier, 1792), *I. (B.) columbiae* (Crotch, 1876), *I. (B.) costaricensis* (Mader, 1943), *I. (B.) disconigrum* (Mader, 1942), *I. (B.) dorsonotatus* (Lacordaire, 1842), *I. (B.) fulviventris* (Gorham, 1888), *I. (B.) humeropictus* (Mader, 1943), *I. (B.) lateripunctatus* (Crotch, 1876), *I. (B.) melanopus* (Gorham, 1888), *I. (B.) neglectus* (Guérin, 1956), *I. (B.) nigritarsis* (Mader, 1942), *I. (B.) nigriventris* (Crotch, 1876), *I. (B.) nigropectus* (Mader, 1942), *I. (B.) posticenigrum* (Mader, 1942), *I. (B.) pyrrhocephalus* (Erichson, 1847), *I. (B.) rubripennis* (Lacordaire, 1842), *I. (B.) signaticollis* (Kuhnt, 1910), *I. (B.) simplex* (Lacordaire, 1842), *I. (B.) spilotus* (Gorham, 1888), *I. (B.) tibialis* (Duponchel, 1825); and, 75 **new combinations** in *Iphiclus* (*Neobarytopus*) Alvarenga, 1965: *I. (N.) adustus* (Duponchel, 1825), *I. (N.) alboniger* (Guérin, 1956), *I. (N.) amictus* (Erichson, 1847), *I. (N.) andicola* (Kirsch, 1867), *I. (N.) assequens* (Mader, 1942), *I. (N.) bajulus* (Lacordaire, 1842), *I. (N.) batesi* (Gorham, 1889), *I. (N.) bellulus* (Lacordaire, 1842), *I. (N.) bicinctus* (Olivier, 1807), *I. (N.) bistrifoliatus* (Gorham, 1889), *I. (N.) bizonatus* (Crotch, 1876), *I. (N.) bremeri* (Guérin-Méneville, 1841), *I. (N.) brongniarti* (Lacordaire, 1842), *I. (N.) brunneostriolatus* (Kuhnt, 1910), *I. (N.) cerasinus* (Lacordaire, 1842), *I. (N.) conformis* (Lacordaire, 1842), *I. (N.) distinctus* (Duponchel, 1825), *I. (N.) divisus* (Guérin, 1956), *I. (N.) dorsalis* (Olivier, 1792), *I. (N.) eburneus* (Crotch, 1876), *I. (N.) elegans* (Mader, 1942), *I. (N.) epipleuralis* (Crotch, 1876), *I. (N.) erichsoni* (Lacordaire, 1842), *I. (N.) flavofasciatus* (Duponchel, 1825), *I. (N.) flavosignatus* (Duponchel, 1825), *I. (N.) fragmentatus* (Gorham, 1888), *I. (N.) friedei* (Mader, 1938), *I. (N.) geometra* (Lacordaire, 1842), *I. (N.) hebriacus* (Lacordaire, 1842), *I. (N.) hexastictus* (Crotch, 1876), *I. (N.) incas* (Gorham, 1889), *I. (N.) iris* (Guérin, 1956), *I. (N.) jacinthoi* (Alvarenga, 1977), *I. (N.) laceratus* (Mader, 1938), *I. (N.) lugens* (Lacordaire, 1842), *I. (N.) lunaris* (Guérin, 1956), *I. (N.) luteozonatus* (Crotch, 1876), *I. (N.) miles* (Mader, 1942), *I. (N.) mirus* (Mader, 1942), *I. (N.) musicalis* (Lacordaire, 1842), *I. (N.) neophyta* (Lacordaire, 1842), *I. (N.) nigripennis* (Demay, 1838), *I. (N.) nigropictus* (Lacordaire, 1842), *I. (N.) nigrofasciatus* (Mader, 1942), *I. (N.) nitidulus* (Oliver, 1807), *I. (N.) obsoletesignatus* (Crotch, 1876), *I. (N.) octoguttatus* (Olivier, 1807), *I. (N.) octopustulatus* (Guérin, 1956), *I. (N.) odyneroides* (Crotch, 1876), *I. (N.) ornatus* (Kuhnt, 1909), *I. (N.) pantherinus* (Kuhnt, 1909), *I. (N.) pauper* (Guérin, 1956), *I. (N.) pertaffinis* (Crotch, 1876), *I. (N.) perplexus* (Mader, 1942), *I. (N.) peruvianus* (Mader, 1942), *I. (N.) planipennis* (Kuhnt, 1909), *I. (N.) puncticollis* (Kirsch, 1876), *I. (N.) quadrifasciatus* (Kirsch, 1865), *I. (N.) quinquefasciatus* (Lacordaire, 1842), *I. (N.) ramosus* (Olivier, 1807), *I. (N.) regularis* (Erichson, 1848), *I. (N.) rhomboidalis* (Guérin, 1956), *I. (N.) rufipennis* (Panzer, 1798), *I. (N.) salamandra* (Erichson, 1847), *I. (N.) spectabilis* (Lacordaire, 1842), *I. (N.) stramineus* (Lacordaire, 1842), *I. (N.) subsanguineus* (Crotch, 1876), *I. (N.) superbus* (Mader, 1942), *I. (N.) tigrinatus* (Guérin, 1956), *I. (N.)*

tricinctus (Duponchel, 1825), *I. (N.) trifasciatus* (Olivier, 1807), *I. (N.) tripartitus* (Lacordaire, 1842), *I. (N.) ucayalensis* (Gorham, 1889), *I. (N.) venezuelae* (Crotch, 1876), *I. (N.) westwoodi* (Guérin-Méneville, 1841).

The works of Voet (1766–1778, 1806) do not follow binominal nomenclature and are therefore unavailable by the International Code of Zoological Nomenclature, Article 11.4. Thus, Voet's (1806) generic names “*Pseudochrysomela*” and “*Gibbifer*”, and the species names proposed in each, are unavailable. Removing them from nomenclatural considerations resulted in the following nomenclatural acts: the **resurrection** of *Erotylus rufipennis* Panzer, 1798, now *Iphiclus (Neobarytopus) rufipennis* (Panzer) **new combination**; the proposal of a **new name**, *Iphiclus (Brachymerus) fabricii* Skelley for *Erotylus rufipennis* Fabricius, 1801, not *Erotylus rufipennis* Panzer, 1798; **new combinations** for the two species, *Cypherotylus adrianae* (Alvarenga, 1976) and *Cypherotylus borgmeieri* (Alvarenga, 1976); and **revalidated status** for the five species names, *Erotylus variegatus* Fabricius, 1781, *Barytopus gronovii* (Herbst, 1783), *Prepopharus notatus* (Olivier, 1792), *Iphiclus (Iphiclus) sedecimguttatus* (Olivier, 1792), and *Cypherotylus duponcheli* Arrow, 1937.

Key words. Cucujoidea, pleasing fungus beetles, taxonomy, type species, Voet, Panzer.

Resumen. Se revisan, aclaran y resuelven varias cuestiones taxonómicas y nomenclaturales para varios géneros de Erotylinae (Coleoptera: Erotylidae). Se discuten los siguientes grupos de nombres genéricos: *Brachymerus* Dejean, 1836, *Cypherotylus* Crotch, 1873, *Cytorea* Laporte, 1840, *Erotylus* Fabricius, 1775, *Eudaemonius* Lewis, 1887, *Eutriplax* Lewis, 1887, *Gibbifer* Voet, 1806, *Neobarytopus* Alvarenga, 1965, *Neomorphoides* Alvarenga, 1977, *Ogcotriplax* Heller, 1920, *Paratritoma* Gorham, 1888, *Platichna* Thomson, 1863, *Pseudochrysomela* Voet, 1806, *Pseudotriplax* Heller, 1920, *Triplax* Herbst, 1793, *Tritomapara* Alvarenga, 1970, *Typocephalus* Hope, 1841, y *Xestus* Wollaston, 1864.

La revisión de estos temas dio lugar a varios actos nomenclaturales. Se encontró que *Eutriplax* Lewis, es un nombre de reemplazo innecesario para *Eudaemonius* Lewis, 1887. El nombre del género se revierte a *Eudaemonius*, dando lugar a una **nueva combinación**: *Eudaemonius quinquepustulatus* (Li and Ren, 2006).

Se encontró que el género Neotropical *Tritomapara* Alvarenga, 1970, es **nuevo sinónimo objetivo** de *Paratritoma* Gorham, 1888, el cual es sinónimo de *Triplax* Herbst, 1793, dando lugar a las siguientes ocho **nuevas combinaciones**: *Triplax atricaudata* (Kuhnt, 1910), *Triplax brasiliensis* (Guérin, 1946), *Triplax bruchi* (Kuhnt, 1910), *Triplax caduca* (Gorham, 1888), *Triplax dimidiata* (Gorham, 1888), *Triplax melanoderes* (Kuhnt, 1910), *Triplax triplacoides* (Crotch, 1876), y *Triplax vivida* (Gorham, 1888).

Se reconoce a *Erotylus tibialis* Duponchel, 1825, como la especie tipo válida para *Brachymerus* Dejean 1836, lo que mueve el nombre *Brachymerus* a diferentes grupos de género y convierte a *Neomorphoides* Alvarenga, 1977, en **nuevo sinónimo**. Esto **revalida** a *Neobarytopus* Alvarenga, 1965, como fue propuesto originalmente. Este grupo de nombres genéricos son actualmente subgéneros en *Iphiclus* Dejean, 1836, y el movimiento nomenclatural genera 23 **nuevas combinaciones** en *Iphiclus (Brachymerus)* Dejean, 1836: *I. (B.) amazonus* (Crotch, 1876), *I. (B.) atriventris* (Mader, 1943), *I. (B.) bicolor* (Lacordaire, 1842), *I. (B.) clavicornis* (Olivier, 1792), *I. (B.) columbiae* (Crotch, 1876), *I. (B.) costaricensis* (Mader, 1943), *I. (B.) disconigrum* (Mader, 1942), *I. (B.) dorsonotatus* (Lacordaire, 1842), *I. (B.) fulviventris* (Gorham, 1888), *I. (B.) humeropictus* (Mader, 1943), *I. (B.) lateripunctatus* (Crotch, 1876), *I. (B.) melanopus* (Gorham, 1888), *I. (B.) neglectus* (Guérin, 1956), *I. (B.) nigratarsis* (Mader, 1942), *I. (B.) nigriiventris* (Crotch, 1876), *I. (B.) nigropectus* (Mader, 1942), *I. (B.) posticenigrum* (Mader, 1942), *I. (B.) pyrrocephalus* (Erichson, 1847), *I. (B.) rubripennis* (Lacordaire, 1842), *I. (B.) signaticollis* (Kuhnt, 1910), *I. (B.) simplex* (Lacordaire, 1842), *I. (B.) spilotus* (Gorham, 1888), *I. (B.) tibialis* (Duponchel, 1825); y 75 **nuevas combinaciones** en *Iphiclus (Neobarytopus)* Alvarenga, 1965: *I. (N.) adustus* (Duponchel, 1825), *I. (N.) alboniger* (Guérin, 1956), *I. (N.) amictus* (Erichson, 1847), *I. (N.) andicola* (Kirsch, 1867), *I. (N.) assequens* (Mader, 1942), *I. (N.) bajulus* (Lacordaire, 1842), *I. (N.) batesi* (Gorham, 1889), *I. (N.) bellulus* (Lacordaire, 1842), *I. (N.) bicinctus* (Olivier, 1807), *I. (N.) bistrifoliatus* (Gorham, 1889), *I. (N.) bizonatus* (Crotch, 1876), *I. (N.) bremeri* (Guérin-Méneville, 1841), *I. (N.) brongniarti* (Lacordaire, 1842), *I. (N.) brunneostriolatus* (Kuhnt, 1910), *I. (N.) cerasinus* (Lacordaire, 1842), *I. (N.) conformis* (Lacordaire, 1842), *I. (N.) distinctus* (Duponchel, 1825), *I. (N.) divisus* (Guérin, 1956), *I. (N.) dorsalis* (Olivier, 1792), *I. (N.) eburneus* (Crotch, 1876), *I. (N.) elegans* (Mader, 1942), *I. (N.) epipleuralis* (Crotch, 1876), *I. (N.) erichsoni* (Lacordaire, 1842), *I. (N.) flavofasciatus* (Duponchel, 1825), *I. (N.) flavosignatus* (Duponchel, 1825), *I. (N.) fragmentatus* (Gorham, 1888), *I. (N.) friedei* (Mader, 1938), *I. (N.) geometra* (Lacordaire, 1842), *I. (N.) hebriacus* (Lacordaire, 1842), *I. (N.) hexastictus* (Crotch, 1876), *I. (N.) incas* (Gorham, 1889), *I. (N.) iris* (Guérin, 1956), *I. (N.) jacinthoi* (Alvarenga, 1977), *I. (N.) laceratus* (Mader, 1938), *I. (N.) lugens* (Lacordaire, 1842), *I. (N.) lunaris* (Guérin, 1956), *I. (N.) luteozonatus* (Crotch, 1876), *I. (N.) miles* (Mader, 1942), *I. (N.) mirus* (Mader, 1942), *I. (N.) musicalis* (Lacordaire, 1842), *I. (N.) neophyta* (Lacordaire, 1842), *I. (N.) nigripennis* (Demay, 1838), *I. (N.) nigropictus* (Lacordaire, 1842), *I. (N.) nigrofasciatus* (Mader, 1942), *I. (N.) nitidulus* (Olivier, 1807), *I. (N.) obsoletesignatus* (Crotch, 1876), *I. (N.) octoguttatus* (Olivier, 1807), *I. (N.) octopustulatus* (Guérin, 1956), *I. (N.) odyneroides* (Crotch, 1876), *I. (N.) ornatus* (Kuhnt, 1909), *I. (N.) pantherinus* (Kuhnt, 1909), *I. (N.) pauper*

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Los trabajos de Voet (1766–1778, 1806) no siguen la nomenclatura binomial, por tanto, no están disponibles de acuerdo con el Código Internacional de Nomenclatura Zoológica, Artículo 11.4. Así, los nombres genéricos de Voet (1886) “*Pseudochrysomela*” y “*Gibbifer*”, y las especies propuestas en cada género, no son disponibles. Su eliminación a partir de las consideraciones nomenclaturales dio lugar a los siguientes actos nomenclaturales: la **resurrección** de *Erotylus rufipennis* Panzer, 1798, ahora *Iphiclus* (*Neobarytopus*) *rufipennis* (Panzer) **nueva combinación**; la propuesta de un **nuevo nombre**, *Iphiclus* (*Brachymerus*) *fabricii* Skelley para *Erotylus rufipennis* Fabricius, 1801, no *Erotylus rufipennis* Panzer, 1798; **nuevas combinaciones** para las especies *Cypherotylus adrianae* (Alvarenga, 1976) y *Cypherotylus borgmeieri* (Alvarenga, 1976); y **estatus revalidado** para los cinco nombres de especie, *Erotylus variegatus* Fabricius, 1781, *Barytopus gronovii* (Herbst, 1783), *Prepopharus notatus* (Olivier, 1792), *Iphiclus* (*Iphiclus*) *sedecimguttatus* (Olivier, 1792), and *Cypherotylus duponcheli* Arrow, 1937.

Palabras clave. Cucujoidea, escarabajos agradables de los hongos, taxonomía, especies tipo, Voet, Panzer.

Introduction

A project is underway to create a world catalog for the Cucujoidea (Coleoptera: Polyphaga) that will be available via the Catalogue of Life (catalogueoflife.org). I was invited to assist compiling the list of current genera for the Erotylinae (Coleoptera: Erotylidae). While researching nomenclatural details for these genera, several concerns were discovered that require clarification of various issues involving type species designations, valid generic names for taxa, author attributions, dates of publication, unavailable names, applications of nomenclatural rules, and other nomenclatural details, some requiring new nomenclatural actions to resolve.

Materials and Methods

Each key issue is discussed separately. All pertinent literature has been consulted and the details they present are discussed. The International Code of Zoological Nomenclature (ICZN 1999) has been invoked for several issues and relevant Articles are referenced. These discussions are followed by the corrected synonymies for included taxa. Because of the precision needed for these issues, literature references and taxon names are often present “Author year: page number” so subsequent researchers can easily find the cited information. In synonymies, a tilde ~ is used to separate a genus-species-author combination from the citation using that combination.

A philosophy followed here for attributions of nomenclatural acts needs comment. For synonymies or new combinations, the author(s) credited for the action must have blatantly stated a taxon by name that was synonymized or presented as a genus-species combination. Indications of actions are not considered actions, for example: synonymizing a genus but not listing all included species only implies new combinations for all included species. Following the ICZN (1999), Article 50.1, “The author of a name or nomenclatural act is the person who first publishes it ...”. Works with implied acts or implied combinations are not given credit for those acts.

Alvarenga (1994) attributed some genera to “Chevrolat (1837)” with the Referências Bibliográficas stating it was published “in Dejean”. The second catalog of Dejean containing these erotylid genera was actually published in 1836. Bousquet and Bouchard (2013: 6) point out that Dejean often gave credit to unpublished names used by others. However, Dejean is to be credited with all new available genus-group names even though they are credited to other authors in his publication (see ICZN 1999: Article 50.1). The lists below reflect this change of authorship and date from “Chevrolat (1837)” to the correct Dejean (1836).

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List of Issues

- I. Tritomini: *Eudaemonius* Lewis vs. *Eutriplax* Lewis
- II. Tritomini: *Triplax* Herbst, *Paratritoma* Gorham, *Tritomapara* Alvarenga, *Ogcotriplax* Heller, *Pseudotriplax* Heller, and *Platichna* Thomson
- III. Tritomini: *Xestus* Wollaston
- IV. Erotylini: *Brachymerus* Dejean
- V. Erotylini: *Cytorea* Laporte vs. *Typocephalus* “Chevrolat”
- VI. Voet’s *Catalogus Systematicus Coleopterorum*
- VII. Erotylini: *Erotylus* Fabricius and *Pseudochrysomela* Voet
- VIII. Erotylini: *Gibbifer* Voet and *Cypherotylus* Crotch

Nomenclatural Issue Discussions

I. Tritomini: *Eudaemonius* Lewis vs. *Eutriplax* Lewis

Concern discovered. Unnecessary replacement name.

Discussion and results. *Eudaemonius* Lewis (1887a) was described with a single Japanese species, *E. tuberculifrons* Lewis 1887a. Believing the name *Eudaemonius* was a homonym with *Eudaemonia* Hübner, 1819 (Lepidoptera: Saturniidae), Lewis (1887b) proposed *Eutriplax* as a replacement name. Since 1887, *Eudaemonius* Lewis has been used as an available name in two publications: Jakobson (1915) and Winkler (1926). All other works examined refer to this genus as *Eutriplax* Lewis.

The International Code of Zoological Nomenclature (ICZN 1999, Article 56.2) states a single letter difference is enough to prevent homonymy between two similar generic names. Thus, Lewis’s (1887b) replacement name was unnecessary. To maintain prevailing use of *Eutriplax*, two conditions outlined in the ICZN (1999), Article 23.9.1, must be met. First, Article 23.9.1.1 states the senior name [*Eudaemonius*] must not have been used as an available name since 1899. Second, Article 23.9.1.2 states the name to be conserved [*Eutriplax*] must have been used in more than 25 publication in the last 50 years [in this case, 1969 to date]. The first condition has not been met, and I have not found 25 recent primary references using the name *Eutriplax*. Since both conditions are required to maintain current use, the name for this genus must revert to Lewis’s original name *Eudaemonius*, with *Eutriplax* being the junior synonym. The following synonymy accounts for all ensuing nomenclatural changes for the included species.

Corrected genus synonymy

Eudaemonius Lewis

Eudaemonius Lewis 1887a: 72. Type species: *Eudaemonius tuberculifrons* Lewis 1887a: 72, by monotypy.

Eutriplax Lewis 1887b: 309. Type species: *Eudaemonius tuberculifrons* Lewis 1887a: 72, by monotypy; unnecessary replacement name for *Eudaemonius* Lewis 1887a: 72; synonym of *Eudaemonius* Lewis 1887a.

Eutriplax [sic] for *Eutriplax* Lewis 1887b: 309.

Corrected species synonymies

Eudaemonius tuberculifrons Lewis

Eudaemonius tuberculifrons Lewis 1887a: 72.

Eutriplax tuberculifrons (Lewis) ~ Lewis 1887b: 309.

Eudaemonius quinquepustulatus (Li and Ren), new combination

Eutriplax [sic] *quinquepustulatus* Li and Ren 2006: 52.

II. Tritomini: *Triplax* Herbst, *Paratritoma* Gorham, *Tritomapara* Alvarenga, *Ogcotriplax* Heller, *Pseudotriplax* Heller, *Platichna* Thomson.

Concern discovered. Generic synonymy based on transfer of type species with resulting *incertae sedis*, invalid type designation or proposed *nomen nudum*, and nomenclatorial details of some subgeneric names.

Discussion and results. Multiple issues were discovered in the synonymy of *Triplax* Herbst, 1793, which is a genus that is found in both the Old and New Worlds. These concerns are discussed individually in the following.

***Paratritoma* Gorham.** The genus *Paratritoma* Gorham, 1888: 71, was described for some colorful Central American species superficially similar to *Tritoma* Fabricius and *Mycotretus* Lacordaire in body shape and other general characters. Alvarenga (1965: 88) subsequently designated *Paratritoma divisa* Gorham, 1888, as the type species for *Paratritoma*.

Johnson (1967) found *Paratritoma* morphologically similar to species of *Triplax* Herbst, 1793, differing in color pattern and having similar but smaller pronotal angle pores. Johnson stated, “In other characters, such as the length to width ratio of the body, shape of the pronotum, development of the postmandibular lobes, and width of the terminal segments of the maxillary palpi with distinct apical brush, few significant differences have been found.” Johnson (1967: 8) then transferred the type species of *Paratritoma*, *P. divisa* Gorham (Figure 4), to *Triplax*. By transferring the type species, he unknowingly synonymized *Paratritoma* with *Triplax*.

Alvarenga (1970: 45) recognized this synonymy and that all remaining species of *Paratritoma* were now considered *incertae sedis*. To correct this, he intended to propose a new genus, *Tritomapara* Alvarenga, 1970, for these remaining species, designating *Paratritoma dimidiata* Gorham, 1888, as the type species. Unfortunately, he stated “n. nov. (Pro *Paratritoma* Gorham, 1888)”. Proposing a new name for a genus does not allow changing of the type species (ICZN 1999, Article 67.8). Thus, the type species of *Tritomapara* (= *Paratritoma*) is *P. divisa*, which makes the designation of *P. dimidiata* as the type species *Tritomapara* invalid. Having the same type species, *Paratritoma* and *Tritomapara* are **objective synonyms**.

Even if Alvarenga (1970) had stated “n. nov. (Pro remaining species of *Paratritoma* Gorham, 1888)” he presented no description of the genus. Under the ICZN (1999, Article 13.1.1), *Tritomapara* Alvarenga (1970, 1994) is a *nomen nudum* and unavailable. Alvarenga’s (1994) catalog listed *Tritomapara* and all included species, again without a description. In both instances, as a *nomen novum* or a *nomen nudum*, *Tritomapara* can not be used as Alvarenga intended.

Species of “*Paratritoma*”. In spite of Alvarenga’s efforts, the remaining species of *Paratritoma* remain *incertae sedis*. Types of six species of *Paratritoma* and specimens of other species ascribed to this genus have been studied. The holotype of *P. dimidiata* and most other holotypes possess characters as outlined by Johnson (1967) that would place them in *Triplax*: characters include large umbilicate pronotal pores and dilated terminal maxillary palpomeres with an apical brush. Two species I have not studied, *Paratritoma brasiliensis* Guérin, 1946, and *Paratritoma melanoderes* Kuhnt, 1910, were examined by Italo Pecci-Maddalena (pers. comm.). He found they lacked a true brush on the apical maxillary palpomere, which makes their placement in this group questionable.

To resolve their *incertae sedis* status, all species of the Neotropical genus *Paratritoma* Gorham (= *Tritomapara* Alvarenga) are provisionally transferred to *Triplax*, pending further comprehensive studies. The corrected synonymy below reflects these new combinations.

***Ogcotriplax* Heller and *Pseudotriplax* Heller.** The Old-World synonyms of *Triplax* require clarification. *Ogcotriplax* Heller, 1920: 29, and *Pseudotriplax* Heller, 1920: 29, were both proposed as subgenera of *Triplax*. Since their original description, they have only been mentioned as subgenera by Chùjô (1969: 174–175) as a note in his key to species and the catalog of Chùjô and Chùjô (1990: 10) as subgenera under *Triplax*. However, neither of these works assigned species to these subgenera. Thus, Wegrzynowicz’s (2007: 543) catalog was the first work to present these as full synonyms of *Triplax*. Until more comprehensive studies are published, I agree with these synonymies.

***Platichna* Thomson.** Finally, *Platichna* Thomson, 1863: 295, was described with two European species, *Triplax bicolor* (Marsham, 1802: 122) [a junior synonym of *Triplax aenea* (Schaller, 1783: 254)] and *Triplax rufipes* (Fabricius, 1787: 222), without designating a type species. Ganglbauer (1899:

639–645) and Jakobson (1915: 934) treated *Platichna* as a subgenus, recognizing “*Triplax (Triplax) aenea* (Schaller)” [with *T. bicolor* Marsham as a synonym] and “*Triplax (Platichna) rufipes* (Fabricius)”. However, Kuhnt (1909: 81, 1911: 59) fully synonymized *Platichna* and the misspelling “*Platychna*” under *Triplax*. Subsequently, with “*Platychna*” treated as a synonym of *Triplax*, Iablokov-Khnzorian (1975: 224) designated *T. aenea* as the type species of *Platichna*, which was followed by Chûjô and Chûjô (1990: 9). The synonymical relationship of *Triplax aenea* and *T. bicolor* was not recognized by Iablokov-Khnzorian (1975) but was recognized by Chûjô and Chûjô (1990). None of these authors recognized that *T. aenea* (= *T. bicolor*) had been removed from *Platichna* by Ganglbauer (1899) and Jakobson (1915). More recently, Wegrzynowicz (2007: 543), without explanation, cited *T. rufipes* as the type species of *Platichna*.

The first designation for the type species of *Platichna* by Iablokov-Khnzorian (1975: 224) lists only *T. aenea*, but not *T. bicolor* as a synonym, and *T. aenea* was not an originally included species. According to the ICZN (1999) Article 69.2.2, “If an author designates as type species a nominal species that was not originally included (or accepts another’s such designation) and if, but only if, at the same time he or she places that nominal species in synonymy with one and only one of the originally included species (as defined in Article 67.2), that act constitutes fixation of the latter species as type species of the nominal genus or subgenus.” Thus, Iablokov-Khnzorian’s designation of *T. aenea*, which did not list the synonym *T. bicolor*, is invalid.

The second designation for a type species of *Platichna* was by Chûjô and Chûjô (1990: 9), who listed the type as *T. bicolor*. Even with *T. aenea* being removed from *Platichna*, ICZN (1999), Article 69.1.1., states “In the absence of a prior type fixation for a nominal genus or subgenus, an author is deemed to have designated one of the originally included nominal species as type species, if he or she states (for whatever reason, right or wrong) that it is the type or type species, or uses an equivalent term, and if it is clear that that author accepts it as the type species.” Thus, right or wrong, the 1990 designation by Chûjô and Chûjô must be considered valid. The subsequent designation by Wegrzynowicz (2007: 543) was unnecessary and invalid.

Corrected genus synonymy

Triplax Herbst

Triplax Herbst 1793: 146. Type species: *Silpha russica* Linnaeus 1758: 360, by subsequent designation of Curtis 1838: 706.

Paratritoma Gorham 1888: 71. Type species: *Paratritoma divisa* Gorham 1888: 72, by subsequent designation of Alvarenga 1965: 88; synonymy by Johnson 1967: 8.

Tritomapara Alvarenga 1970: 45. Type species: *Paratritoma divisa* Gorham 1888: 72, by ICZN 1999, Article 67.8; new name for *Paratritoma* Gorham 1888: 71, **new objective synonym** of *Paratritoma* Gorham 1888: 71.

Ogcotriplax Heller 1920: 29. Type species: *Triplax (Ogcotriplax) pseudo* Heller 1920: 50, by original designation; synonymy by Wegrzynowicz 2007: 543.

Pseudotriplax Heller 1920: 29. Type species: *Triplax (Pseudotriplax) tayabasi* Heller 1920: 49, by original designation; synonymy by Wegrzynowicz 2007: 543.

Platichna Thomson 1863: 295. Type species: *Silpha bicolor* Marsham 1802: 122 [synonym of *Silpha aenea* Schaller 1783: 254], by subsequent designation of Chûjô and Chûjô 1990: 9; synonymy by Kuhnt 1909: 81. *Platychna* [sic] of *Platichna* Thomson 1863: 295.

Neotropical species of *Paratritoma* now referred to *Triplax*.

Triplax atricaudata (Kuhnt), new combination.

Paratritoma atricaudata Kuhnt 1910: 246.

Tritomapara atricaudata (Kuhnt) ~ Alvarenga 1994: 38.

Triplax brasiliensis (Guérin), new combination. (Figure 1)

Paratritoma brasiliensis Guérin 1946: 275.

Tritomapara brasiliensis (Guérin) ~ Alvarenga 1994: 38.

Triplax bruchi (Kuhnt), new combination

Paratritoma bruchi Kuhnt 1910: 245.

Tritomapara bruchi (Kuhnt) ~ Alvarenga 1994: 38.



Figure 1–2. Types of species in “*Paratritoma*” Gorham, dorsal and ventral habitus with labels. 1) *Triplax brasiliensis* (Guérin), MZSP (courtesy Italo Salvatore de Castro Pecci-Maddalena and Sonia Aparecida Casari (MZSP)). 2) *Triplax caduca* (Gorham), NHMUK.

***Triplax caduca* (Gorham), new combination (Figure 2)**

Paratritoma caduca Gorham 1888: 73.

Tritomapara caduca (Gorham) ~ Alvarenga 1994: 38.

***Triplax dimidiata* (Gorham), new combination (Figure 3)**

Paratritoma dimidiata Gorham 1888: 72.

Tritomapara dimidiata (Gorham) ~ Alvarenga 1970: 45.

***Triplax melanoderes* (Kuhnt), new combination**

Paratritoma melanoderes Kuhnt 1910: 245.

Tritomapara melanoderes (Kuhnt) ~ Alvarenga 1994: 38.



Figure 3–4. Types of species in “*Paratritoma*” Gorham, dorsal and ventral habitus with labels. 3) *Triplax dimidiata* (Gorham), NHMUK. 4) *Triplax divisa* (Gorham), NHMUK.

***Triplax triplacoides* (Crotch), new combination** (Figure 5)

Mycotretus triplacoides Crotch 1876: 447.

Paratritoma triplacoides (Crotch) ~ Gorham 1888: 72.

Tritomapara triplacoides (Crotch) ~ Alvarenga 1994: 38.

***Triplax vivida* (Gorham), new combination** (Figure 6)

Paratritoma vivida Gorham 1888: 73.

Tritomapara vivida (Gorham) ~ Alvarenga 1994: 38.



Figure 5–6. Types of species in “*Paratritoma*” Gorham, dorsal and ventral habitus with labels. 5) *Triplax triplacoides* (Crotch), UMZC (courtesy Italo Salvatore de Castro Pecci-Maddalena). 6) *Triplax vivida* (Gorham), NHMUK.

III. Tritomini: *Xestus* Wollaston

Concern discovered. Tribal placement of *Xestus*.

Discussion and results. In all historic catalogs (Chapuis 1876: 39; Crotch 1876: 99; Gemminger and Harold 1876: 3696; Kuhnt 1909: 92, 1911: 68; Winkler 1926: 717), the unusual genus *Xestus* Wollaston, 1864: 420, from the Canary Islands was placed in the Tritomini or among tritomine genera. The more recent African and Old-World catalogs of Delkeskamp (1981) and Chûjô and Chûjô (1988, 1989, 1990) did not include *Xestus*. Recently, Wegrzynowicz (2007) in the *Catalogue of Palaearctic Coleoptera* placed *Xestus* in the Dacnini. No literature was found to explain the transfer. Materials studied of *Xestus* possess character states (body shape, pseudotetramerous tarsi, dilated terminal palpomeres, etc.; Figure 7) that are typical of the Tritomini, not the Dacnini. In lieu of further studies, *Xestus* is moved back into the Tritomini.

Xestus Wollaston 1864: 420, type *Xestus throscooides* Wollaston 1864: 421, by monotypy.



Figure 7. Dorsal and ventral habitus of *Xestus throscooides* Wollaston, Canary Islands: Tenerife.

IV. Erotylini: *Brachymerus* Dejean

Concern discovered. Type species discrepancy.

Discussion and results. *Brachymerus* Dejean, 1836: 427, is an available genus-group taxon by indication, listing several available species within it. Two different species from this list were subsequently designated as the type species by Hope (1841: 110, 113) in a table of type species and again with a short description of the genus. No author mentioned the type species until Alvarenga (1965: 82) cited *Erotylus tibialis* Duponchel, 1825: 55, as type by subsequent designation of Hope (1841: 113). A few years later, Alvarenga (1977: 103) discovered Hope's earlier page designation. Alvarenga reversed his 1965 type designation based on page priority and recognized *Erotylus nitidulus* Olivier, 1807, as the type by subsequent designation of Hope (1841: 110). In his catalogue of Neotropical Erotylidae, Alvarenga (1994: 79) followed his 1977 work citing *E. nitidulus* as the type species of *Brachymerus* and placed these species in separate subgenera: *Iphiclus (Brachymerus) nitidulus* (Olivier) and *Iphiclus (Neomorphoides) tibialis* (Duponchel). Beyond catalogs there have been no taxonomic review of *Brachymerus*, and no additional mention of type species until Bousquet and Bouchard (2013: 101) who cited Alvarenga's (1965) first type designation.

According to ICZN (1999, Frequently Asked Questions, "Is there such a thing as page priority?"), page priority for such acts does not exist because the entire work was published at the same time. Then, ICZN (1999), Article 69.1.1., [quoted previously] states that the first designation, for whatever reason, right or wrong, is the valid designation. Thus, Hope's (1841) designations were published at the same time, both having equal status. We must consider Alvarenga's first clear designation of *E. tibialis* in 1965 as valid, his second designation in of *E. nitidulus* in 1977 as invalid and reevaluate Alvarenga's (1994) catalog for the two subgenera involved with these two species.

With *E. tibialis* as the type species of *Brachymerus* and with *E. tibialis* currently placed within *Neomorphoides* Alvarenga, 1977: 103 (Alvarenga 1994: 78), this renders *Neomorphoides* as a junior synonym of *Brachymerus*.

With the transfer of the name *Brachymerus* to a different genus-group, this leaves *Brachymerus* sensu Alvarenga (1977, 1994) needing a name. Before Alvarenga's invalid 1977 type species designation, he had proposed the genus-group name *Neobarytopus* Alvarenga, 1965: 87. This name with the included type species is revalidated as the name for this genus-group.

Necessary changes to genus-group names based on these corrections are stated below. Synonymies for all includes species-group names are presented, most of which are new combinations updated from Alvarenga (1994).

Corrected genus-group synonymy

***Brachymerus* Dejean**

Brachymerus Dejean 1836: 427. Type species: *Erotylus tibialis* Duponchel 1825: 55, by subsequent designation of Hope 1841: 113, as validated by Alvarenga 1965: 82; subgenus of *Iphiclus* Dejean 1836: 426.

Neomorphoides Alvarenga 1977: 103, type *Brachysphaenus (Morphoides) simplex* Lacordaire 1842: 372, by original designation; synonym of *Brachymerus* Dejean 1836: 427; subgenus of *Iphiclus* Dejean 1836: 426.

New synonym.

“*Morphoides*” of Crotch 1876: 515, not *Morphoides* Hope 1841: 111. New name *Neomorphoides* Alvarenga 1977: 103.

***Neobarytopus* Alvarenga, revalidated**

Neobarytopus Alvarenga 1965: 87, type *Erotylus tricinctus* Duponchel 1824: 42, by original designation.

“*Barytopus*” of Lacordaire 1842: 379, not *Barytopus* Dejean 1836: 425. New name *Neobarytopus* Alvarenga 1965: 87.

Corrected species synonymies for *Brachymerus*

***Iphiclus (Brachymerus) amazonus* (Crotch), new combination**

Brachysphaenus (Morphoides) amazonus Crotch 1876: 516.

Brachysphaenus [sic] (*Morphoides*) *amazonus* (Crotch) ~ Kuhnt 1909: 28.

Morphoides amazonus (Crotch) ~ Gemminger and Harold 1876: 3707.

Iphiclus (Neomorphoides) amazonus (Crotch) ~ Alvarenga 1994: 76.

***Iphiclus (Brachymerus) atriventris* (Mader), new combination**

Brachysphaenus (Morphoides) atriventris Mader 1943: 113.

Iphiclus (Neomorphoides) atriventris (Mader) ~ Alvarenga 1994: 76.

***Iphiclus (Brachymerus) bicolor* (Lacordaire), new combination**

Brachysphaenus (Morphoides) bicolor Lacordaire 1842: 368.

Morphoides bicolor (Lacordaire) ~ Gemminger and Harold 1876: 3707.

Brachysphaenus [sic] (*Morphoides*) *bicolor* (Lacordaire) ~ Kuhnt 1909: 28.

Iphiclus (Neomorphoides) bicolor (Lacordaire) ~ Alvarenga 1994: 76.

***Iphiclus (Brachymerus) clavicornis* (Olivier), new combination**

Erotylus clavicornis Olivier 1792: 435.

Saccomorpha clavicornis (Olivier) ~ Dejean 1836: 426.

Brachysphaenus (Morphoides) clavicornis (Olivier) ~ Lacordaire 1842: 367.

Morphoides clavicornis (Olivier) ~ Gemminger and Harold 1876: 3707.

Brachysphaenus [sic] (*Morphoides*) *clavicornis* (Olivier) ~ Kuhnt 1909: 28.

Iphiclus (Neomorphoides) clavicornis (Olivier) ~ Alvarenga 1994: 76.

Brachysphaenus (Morphoides) lacordairei Crotch 1876: 515; unnecessary replacement name, not “*clavicornis*” Linnaeus 1758: 370; synonymy by Gemminger and Harold 1876: 3709.

***Iphiclus (Brachymerus) columbiae* (Crotch), new combination**

Brachysphaenus (Morphoides) columbiae Crotch 1876: 516.

Morphoides columbiae (Crotch) ~ Gemminger and Harold 1876: 3708.

Brachysphaenus [sic] (*Morphoides*) *columbiae* (Crotch) ~ Kuhnt 1909: 28.

Iphiclus (Neomorphoides) columbiae (Crotch) ~ Alvarenga 1994: 77.

Iphiclus (Brachymerus) costaricensis* (Mader), new combinationBrachysphoenus (Morphoides) costaricensis* Mader 1943: 113.*Iphiclus (Neomorphoides) costaricensis* (Mader) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) disconigrum* (Mader), new combination***Brachysphoenus (Morphoides) disconigrum* Mader 1942b: 185.*Iphiclus (Neomorphoides) disconigrum* (Mader) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) dorsonotatus* (Lacordaire), new combination***Brachysphoenus (Morphoides) dorsonotatus* Lacordaire 1842: 370.*Morphoides dorsonotatus* (Lacordaire) ~ Gemminger and Harold 1876: 3708.*Brachysphaenus [sic] (Morphoides) dorsonotatus* (Lacordaire) ~ Kuhnt 1909: 28.*Iphiclus (Neomorphoides) dorsonotatus* (Lacordaire) ~ Alvarenga 1994: 77.*Brachysphoenus (Morphoides) haematopterus* Lacordaire 1842: 371, synonym Crotch 1876: 516.*Morphoides dorsonotatus* var. *haematopterus* (Lacordaire) ~ Gemminger and Harold 1876: 3708.***Iphiclus (Brachymerus) fabricii* Skelley, new name***Erotylus rufipennis* Fabricius 1801: 8, not *Erotylus rufipennis* Panzer 1798: 39. [see discussion in Section VII]*Iphiclus (Neomorphoides) rufipennis* (Fabricius) ~ Alvarenga 1994: 78.*Brachysphoenus (Morphoides) immaculatus* Lacordaire 1842: 369; synonymy by Chevrolat 1843: 79.*Morphoides immaculatus* (Lacordaire) ~ Gemminger and Harold 1876: 3709.*Brachysphaenus [sic] (Morphoides) immaculatus* (Lacordaire) ~ Kuhnt 1909: 28.***Iphiclus (Brachymerus) fulviventris* (Gorham), new combination***Brachysphenus [sic] (Morphoides) fulviventris* Gorham 1888: 97.*Brachysphaenus [sic] (Morphoides) fulviventris* (Gorham) ~ Kuhnt 1909: 28.*Iphiclus (Neomorphoides) fulviventris* (Gorham) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) humeropictus* (Mader), new combination***Brachysphoenus (Morphoides) humeropictus* Mader 1943: 113.*Iphiclus (Neomorphoides) humeropictus* (Mader) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) lateripunctatus* (Crotch), new combination***Brachysphoenus (Morphoides) lateripunctatus* Crotch 1876: 517.*Morphoides lateripunctatus* (Crotch) ~ Gemminger and Harold 1876: 3709.*Brachysphaenus [sic] (Morphoides) lateripunctatus* (Crotch) ~ Kuhnt 1909: 28.*Iphiclus (Neomorphoides) lateripunctatus* (Crotch) ~ Alvarenga 1994: 77.*Brachysphaenus (Morphoides) lateripunctatus* var. *niger* Guérin 1956: 49.***Iphiclus (Brachymerus) melanopus* (Gorham), new combination***Brachysphenus [sic] (Morphoides) melanopus* Gorham 1888: 99.*Brachysphaenus [sic] (Morphoides) melanopus* Gorham ~ Kuhnt 1909: 28.*Iphiclus (Neomorphoides) melanopus* (Gorham) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) neglectus* (Guérin), new combination***Brachysphaenus (Morphoides) neglectus* Guérin 1956: 48.*Iphiclus (Neomorphoides) neglectus* (Guérin) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) nigratarsis* (Mader), new combination***Brachysphoenus (Morphoides) nigratarsis* Mader 1942b: 186.*Iphiclus (Neomorphoides) nigratarsis* (Mader) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) nigriventris* (Crotch), new combination***Brachysphoenus (Morphoides) nigriventris* Crotch 1876: 516.*Morphoides nigriventris* (Crotch) ~ Gemminger and Harold 1876: 710.*Brachysphaenus [sic] (Morphoides) nigriventris* (Crotch) ~ Kuhnt 1909: 28.*Iphiclus (Neomorphoides) nigriventris* (Crotch) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) nigropectus* (Mader), new combination***Brachysphoenus (Morphoides) nigropectus* Mader 1943: 114.*Iphiclus (Neomorphoides) nigropectus* (Mader) ~ Alvarenga 1994: 77.***Iphiclus (Brachymerus) posticenigrum* (Mader), new combination***Brachysphoenus (Morphoides) posticenigrum* Mader 1942b: 185.*Iphiclus (Neomorphoides) posticenigrum* (Mader) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) pyrrocephalus (Erichson), new combination

- Brachysphenus* [sic] (*Morphoides*) *pyrrocephalus* Erichson 1847: 178.
Morphoides pyrrocephalus (Erichson) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Morphoides*) *pyrrocephalus* (Erichson) ~ Kuhnt 1909: 28.
Iphiclus (Neomorphoides) pyrrocephalus (Erichson) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) rubripennis (Lacordaire), new combination

- Brachysphoenus (Morphoides) rubripennis* Lacordaire 1842: 372.
Morphoides rubripennis (Lacordaire) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Morphoides*) *rubripennis* Lacordaire ~ Kuhnt 1909: 28.
Iphiclus (Neomorphoides) rubripennis (Lacordaire) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) signaticollis (Kuhnt), new combination

- Brachysphaenus (Morphoides) signaticollis* Kuhnt 1910: 254.
Iphiclus (Neomorphoides) signaticollis (Kuhnt) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) simplex (Lacordaire), new combination

- Brachysphoenus (Morphoides) simplex* Lacordaire 1842: 372.
Morphoides simplex (Lacordaire) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Morphoides*) *simplex* Lacordaire ~ Kuhnt 1909: 28.
Iphiclus (Neomorphoides) simplex (Lacordaire) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) spilotus (Gorham), new combination

- Prepopharus spilotus* Gorham 1888: 111.
Morphoides spilotus (Gorham) ~ Arrow 1909: 196.
Iphiclus (Neomorphoides) spilotus (Gorham) ~ Alvarenga 1994: 78.

Iphiclus (Brachymerus) tibialis (Duponchel), new combination

- Erotylus tibialis* Duponchel 1825: 55.
Brachysphoenus (Morphoides) tibialis (Duponchel) ~ Lacordaire 1842: 373.
Morphoides tibialis (Duponchel) ~ Gemminger and Harold 1876: 3712.
Brachysphaenus [sic] (*Morphoides*) *tibialis* (Duponchel) ~ Kuhnt 1909: 28.
Iphiclus (Neomorphoides) tibialis (Duponchel) ~ Alvarenga 1994: 78.

Corrected species synonymies for *Neobarytopus****Iphiclus (Neobarytopus) adustus (Duponchel), new combination***

- Erotylus adustus* Duponchel 1825: 56.
Brachysphoenus (Barytopus) adustus (Duponchel) ~ Lacordaire 1842: 395.
Morphoides adustus (Duponchel) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *adustus* (Duponchel) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) adustus (Duponchel) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) alboniger (Guérin), new combination

- Brachysphaenus (Barytopus) alboniger* Guérin 1956: 52.
Iphiclus (Brachymerus) alboniger (Guérin) ~ Alvarenga 1994: 79.
Brachysphaenus (Barytopus) alboniger var. *picturatus* Guérin 1956: 52.

Iphiclus (Neobarytopus) amictus (Erichson), new combination

- Brachysphenus* [sic] (*Barytopus*) *amictus* Erichson 1847: 178.
Morphoides amictus (Erichson) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *amictus* (Erichson) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) amictus (Erichson) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) andicola (Kirsch), new combination

- Barytopus andicola* Kirsch 1876: 104.
Morphoides andicola (Kirsch) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *andicola* (Kirsch) ~ Kuhnt 1909: 22.
Iphiclus (Brachymerus) andicola (Kirsch) ~ Alvarenga 1994: 79.
Brachysphoenus andicola ab. *anteinterrupta* Mader 1942b: 201.

Iphiclus (Neobarytopus) assequens (Mader), new combination

- Brachysphoenus (Barytopus) assequens* Mader 1942c: 79.
Iphiclus (Brachymerus) assequens (Mader) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) bajulus (Lacordaire), new combination

- Brachysphoenus (Barytopus) bajulus* Lacordaire 1842: 413.
Morphoides bajulus (Lacordaire) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Brachymerus*) *bajulus* (Lacordaire) ~ Kuhnt 1909: 31.
Iphiclus (Brachymerus) bajulus (Lacordaire) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) batesi (Gorham), new combination

- Brachysphenus* [sic] *batesi* Gorham 1889: 617.
Brachysphaenus [sic] (*Barytopus*) *batesi* (Gorham) ~ Kuhnt 1909: 22.
Iphiclus (Brachymerus) batesi (Gorham) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) bellulus (Lacordaire), new combination

- Brachysphoenus (Barytopus) bellulus* Lacordaire 1842: 404.
Morphoides bellulus (Lacordaire) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *bellulus* (Lacordaire) ~ Kuhnt 1909: 30.
Iphiclus (Brachymerus) bellulus (Lacordaire) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) bicinctus (Olivier), new combination

- Erotylus bicinctus* Olivier 1807: 472.
Brachysphoenus (Barytopus) bicinctus (Olivier) ~ Lacordaire 1842: 381.
Morphoides bicinctus (Olivier) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *bicinctus* (Olivier) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) bicinctus (Olivier) ~ Alvarenga 1994: 79.

Iphiclus (Neobarytopus) bistrifoliatus (Gorham), new combination

- Brachysphenus* [sic] *bistrifoliatus* Gorham 1889: 616.
Brachysphaenus [sic] (*Barytopus*) *bistrifoliatus* (Gorham) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) bistrifoliatus (Gorham) ~ Alvarenga 1994: 80.

Iphiclus (Neobarytopus) bizonatus (Crotch), new combination

- Brachysphoenus bizonatus* Crotch 1876: 502.
Morphoides bizonatus (Crotch) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *bizonatus* (Crotch) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) bizonatus (Crotch) ~ Alvarenga 1994: 80.

Iphiclus (Neobarytopus) bremeri (Guérin-Méneville), new combination

- Zonarius bremeri* Guérin-Méneville 1841: 117.
Brachysphoenus (Barytopus) bremeri (Guérin-Méneville) ~ Lacordaire 1842: 393.
Morphoides bremeri (Guérin-Méneville) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *bremeri* (Guérin-Méneville) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) bremeri (Guérin-Méneville) ~ Alvarenga 1994: 80.

Iphiclus (Neobarytopus) brongniarti (Lacordaire), new combination

- Brachysphoenus (Barytopus) brongniarti* Lacordaire 1842: 397.
Morphoides brongniarti (Lacordaire) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *brongniarti* (Lacordaire) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) brongniarti (Lacordaire) ~ Alvarenga 1994: 80.
Brachysphoenus fasciatopunctatus Lacordaire, 1842: 396.
Brachysphoenus (Barytopus) brongniarti var. *fasciatopunctatus* Lacordaire ~ Crotch 1876: 519.

Iphiclus (Neobarytopus) brunneostriolatus (Kuhnt), new combination

- Brachysphaenus (Brachymerus) brunneostriolatus* Kuhnt 1910: 265.
Iphiclus (Brachymerus) brunneostriolatus (Kuhnt) ~ Alvarenga 1994: 80.

Iphiclus (Neobarytopus) cerasinus (Lacordaire), new combination

- Brachysphoenus (Barytopus) cerasinus* Lacordaire 1842: 400.
Morphoides cerasinus (Lacordaire) ~ Gemminger and Harold 1876: 3707.
Brachysphaenus [sic] (*Barytopus*) *cerasinus* (Lacordaire) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) cerasinus (Lacordaire) ~ Alvarenga 1994: 80.

Iphiclus (Neobarytopus) conformis (Lacordaire), new combination

- Brachysphoenus (Iphiclus) conformis* Lacordaire 1842: 353.
Brachysphoenus (Barytopus) conformis (Lacordaire) ~ Crotch 1876: 522.
Morphoides conformis (Lacordaire) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Brachymerus*) *conformis* (Lacordaire) ~ Kuhnt 1909: 31.

- Iphiclus* (*Brachymerus*) *conformis* (Lacordaire) ~ Alvarenga 1994: 80.
Brachysphaenus [sic] (*Iphiclus*) *conformis* var. *alienus* Guérin 1956: 50.
Brachysphaenus [sic] (*Iphiclus*) *conformis* var. *minor* Guérin 1956: 50.

***Iphiclus* (*Neobarytopus*) *distinctus* (Duponchel), new combination**

- Erotylus distinctus* Duponchel 1825: 168.
Brachysphaenus (*Barytopus*) *distinctus* (Duponchel) ~ Lacordaire 1842: 394.
Morphoides distinctus (Duponchel) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *distinctus* (Duponchel) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *distinctus* (Duponchel) ~ Alvarenga 1994: 80.

***Iphiclus* (*Neobarytopus*) *divisus* (Guérin), new combination**

- Brachysphaenus* (*Barytopus*) *divisus* Guérin 1956: 53.
Iphiclus (*Brachymerus*) *divisus* (Guérin) ~ Alvarenga 1994: 80.

***Iphiclus* (*Neobarytopus*) *dorsalis* (Olivier), new combination**

- Erotylus dorsalis* Olivier 1792: 436.
Brachysphaenus (*Barytopus*) *dorsalis* (Olivier) ~ Lacordaire 1842: 388.
Morphoides dorsalis (Olivier) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *dorsalis* (Olivier) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *dorsalis* (Olivier) ~ Alvarenga 1994: 81.
Brachysphaenus dorsalis ab. *quinquefasciatoides* Mader, 1942b: 178.

***Iphiclus* (*Neobarytopus*) *eburneus* (Crotch), new combination**

- Brachysphaenus* (*Barytopus*) *eburneus* Crotch 1876: 519.
Morphoides eburneus (Crotch) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *eburneus* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *eburneus* (Crotch) ~ Alvarenga 1994: 81.

***Iphiclus* (*Neobarytopus*) *elegans* (Mader), new combination**

- Brachysphaenus* (*Brachymerus*) *elegans* Mader 1942a: 560.
Iphiclus (*Brachymerus*) *elegans* (Mader) ~ Alvarenga 1994: 81.

***Iphiclus* (*Neobarytopus*) *epipleuralis* (Crotch), new combination**

- Brachysphaenus* (*Barytopus*) *epipleuralis* Crotch 1876: 517.
Morphoides epipleuralis (Crotch) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *epipleuralis* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *epipleuralis* (Crotch) ~ Alvarenga 1994: 81.

***Iphiclus* (*Neobarytopus*) *erichsoni* (Lacordaire), new combination**

- Brachysphaenus* (*Barytopus*) *erichsoni* Lacordaire 1842: 390.
Morphoides erichsoni (Lacordaire) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *erichsoni* (Lacordaire) ~ Kuhnt 1909: 23.
Iphiclus (*Brachymerus*) *erichsoni* (Lacordaire) ~ Alvarenga 1994: 81.

***Iphiclus* (*Neobarytopus*) *flavofasciatus* (Duponchel), new combination**

- Erotylus flavofasciatus* Duponchel 1825: 43.
Brachysphaenus (*Barytopus*) *flavofasciatus* (Duponchel) ~ Lacordaire 1842: 386.
Morphoides flavofasciatus (Duponchel) ~ Gemminger and Harold 1876: 3708.
Brachysphaenus [sic] (*Barytopus*) *flavofasciatus* (Duponchel) ~ Kuhnt 1909: 30.
Iphiclus (*Brachymerus*) *flavofasciatus* (Duponchel) ~ Alvarenga 1994: 81.
Brachysphaenus [sic] (*Barytopus*) *flavofasciatus* var. *apicalis* Kuhnt, 1908: 633.

***Iphiclus* (*Neobarytopus*) *flavosignatus* (Duponchel), new combination**

- Erotylus flavosignatus* Duponchel 1825: 57.
Brachysphaenus (*Iphiclus*) *flavosignatus* (Duponchel) ~ Lacordaire 1842: 352.
Morphoides flavosignatus (Duponchel) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Brachymerus*) *flavosignatus* (Duponchel) ~ Kuhnt 1909: 30.
Brachysphaenus [sic] (*Barytopus*) *flavosignatus* (Duponchel) ~ Kuhnt 1911: 13.
Iphiclus (*Brachymerus*) *flavosignatus* (Duponchel) ~ Alvarenga 1994: 81.

***Iphiclus* (*Neobarytopus*) *fragmentatus* (Gorham), new combination**

- Brachysphaenus* [sic] (*Barytopus*) *fragmentatus* Gorham 1888: 99.
Brachysphaenus [sic] (*Barytopus*) *fragmentatus* Gorham ~ Kuhnt 1909: 30.
Iphiclus (*Brachymerus*) *fragmentatus* (Gorham) ~ Alvarenga 1994: 81.

Iphiclus (Neobarytopus) friedei (Mader), new combination

Brachysphoenus (Barytopus) friedei Mader 1938: 15.
Iphiclus (Brachymerus) friedei (Mader) ~ Alvarenga 1994: 81.

Iphiclus (Neobarytopus) geometra (Lacordaire), new combination

Brachysphoenus (Barytopus) geometra Lacordaire 1842: 381.
Morphoides geometra (Lacordaire) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Barytopus*) *geometra* (Lacordaire) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) geometra (Lacordaire) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) hebriacus (Lacordaire), new combination

Brachysphoenus (Barytopus) hebriacus Lacordaire 1842: 403.
Morphoides hebriacus (Lacordaire) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Barytopus*) *hebriacus* (Lacordaire) ~ Kuhnt 1909: 30.
Iphiclus (Brachymerus) hebriacus (Lacordaire) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) hexastictus (Crotch), new combination

Brachysphoenus (Barytopus) hexastictus Crotch 1876: 520.
Morphoides hexastictus (Crotch) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Barytopus*) *hexastictus* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) hexastictus (Crotch) ~ Alvarenga 1994: 82.
Brachysphoenus (Barytopus) hexasticus var. *discretus* Crotch, 1876: 520.

Iphiclus (Neobarytopus) incas (Gorham), new combination

Brachysphaenus [sic] *incas* Gorham 1889: 617.
Brachysphaenus [sic] (*Barytopus*) *incas* (Gorham) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) incas (Gorham) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) iris (Guérin), new combination

Brachysphaenus (Barytopus) iris Guérin, 1956: 53.
Iphiclus (Brachymerus) iris (Guérin) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) jacinthoi (Alvarenga), new combination

Iphiclus (Brachymerus) jacinthoi Alvarenga 1977: 104, new name.
Brachysphaenus [sic] (*Barytopus*) *oculatus* Guérin 1956: 54, not *Brachysphoenus oculatus* (Duponchel 1825: 161).

Iphiclus (Neobarytopus) laceratus (Mader), new combination

Brachysphoenus (Barytopus) laceratus Mader 1938: 14.
Iphiclus (Brachymerus) laceratus (Mader) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) lugens (Lacordaire), new combination

Brachysphoenus (Barytopus) lugens Lacordaire 1842: 384.
Morphoides lugens (Lacordaire) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Barytopus*) *lugens* (Lacordaire) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) lugens (Lacordaire) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) lunaris (Guérin), new combination

Brachysphaenus (Barytopus) lunaris Guérin 1956: 54.
Iphiclus (Brachymerus) lunaris (Guérin) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) luteozonatus (Crotch), new combination

Brachysphoenus (Barytopus) luteozonatus Crotch 1876: 518.
Morphoides luteozonatus (Crotch) ~ Gemminger and Harold 1876: 3709.
Brachysphaenus [sic] (*Barytopus*) *luteozonatus* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) luteozonatus (Crotch) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) miles (Mader), new combination

Brachysphoenus (Barytopus) miles Mader 1942b: 180.
Iphiclus (Brachymerus) miles (Mader) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) mirus (Mader), new combination

Brachysphoenus (Barytopus) mirus Mader 1942b: 181.
Iphiclus (Brachymerus) mirus (Mader) ~ Alvarenga 1994: 82.

Iphiclus (Neobarytopus) musicalis (Lacordaire), new combination

Brachysphoenus (Barytopus) musicalis Lacordaire 1842: 388.

Morphoides musicalis (Lacordaire) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *musicalis* (Lacordaire) ~ Kuhnt 1909: 22.
Iphiclus (*Brachymerus*) *musicalis* (Lacordaire) ~ Alvarenga 1994: 82.

***Iphiclus* (*Neobarytopus*) *neophyta* (Lacordaire), new combination**

Brachysphoenus (*Brachymerus*) *neophyta* Lacordaire 1842: 415.
Brachysphoenus (*Barytopus*) *neophyta* (Lacordaire) ~ Crotch 1876: 522.
Morphoides neophyta (Lacordaire) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Brachymerus*) *neophyta* (Lacordaire) ~ Kuhnt 1909: 30.
Iphiclus (*Brachymerus*) *neophyta* (Lacordaire) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *nigripennis* (Demay), new combination**

Erotylus nigripennis Demay 1838: 24.
Brachysphoenus (*Brachymerus*) *nigripennis* (Demay) ~ Lacordaire 1842: 412.
Morphoides nigripennis (Demay) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Brachymerus*) *nigripennis* (Demay) ~ Kuhnt 1909: 30.
Brachysphaenus [sic] (*Barytopus*) *nigripennis* (Demay) ~ Kuhnt 1911: 17.
Iphiclus (*Brachymerus*) *nigripennis* (Demay) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *nigropictus* (Lacordaire), new combination**

Brachysphoenus (*Barytopus*) *nigropictus* Lacordaire 1842: 387.
Morphoides nigropictus (Lacordaire) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *nigropictus* (Lacordaire) ~ Kuhnt 1909: 22.
Iphiclus (*Brachymerus*) *nigropictus* (Lacordaire) ~ Alvarenga 1994: 83.
Brachysphoenus nigropictus var. *decoloratus* Crotch, 1876: 502.
Brachysphoenus (*Barytopus*) *nigropictus* ab. *taeniatus* Mader, 1942a: 553.

***Iphiclus* (*Neobarytopus*) *nigrofasciatus* (Mader), new combination**

Brachysphoenus (*Barytopus*) *nigrofasciatus* Mader 1942b: 178.
Iphiclus (*Brachymerus*) *nigrofasciatus* (Mader) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *nitidulus* (Oliver), new combination**

Erotylus nitidulus Olivier 1807: 479.
Brachysphoenus (*Barytopus*) *nitidulus* (Oliver) ~ Lacordaire 1842: 403.
Morphoides nitidulus (Oliver) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *nitidulus* (Oliver) ~ Kuhnt 1909: 30.
Iphiclus (*Brachymerus*) *nitidulus* (Oliver) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *obsoletesignatus* (Crotch), new combination**

Brachysphoenus (*Barytopus*) *obsoletesignatus* Crotch 1876: 520.
Morphoides obsoletesignatus (Crotch) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *obsoletesignatus* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *obsoletesignatus* (Crotch) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *octoguttatus* (Olivier), new combination**

Erotylus octoguttatus Olivier 1807: 485.
Brachysphoenus (*Brachymerus*) *octoguttatus* (Olivier) ~ Lacordaire 1842: 412.
Morphoides octoguttatus (Olivier) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Brachymerus*) *octoguttatus* (Olivier) ~ Kuhnt 1909: 30.
Brachysphaenus [sic] (*Barytopus*) *octoguttatus* (Olivier) ~ Kuhnt 1911: 18.
Iphiclus [sic] (*Brachymerus*) *octoguttatus* (Olivier) ~ Alvarenga 1977: 104.
Iphiclus (*Brachymerus*) *octoguttatus* (Olivier) ~ Alvarenga 1994: 83.
Erotylus oculatus Duponchel, 1825: 161, synonymy by Crotch 1876: 522.
Brachysphaenus (*Brachymerus*) *oculatus* (Duponchel) ~ Lacordaire 1842: 414.
Brachysphaenus [sic] (*Brachymerus*) *oculatus* (Duponchel) ~ Kuhnt 1909: 30.

***Iphiclus* (*Neobarytopus*) *octopustulatus* (Guérin), new combination**

Brachysphaenus (*Barytopus*) *octopustulatus* Guérin 1956: 56.
Iphiclus (*Brachymerus*) *octopustulatus* (Guérin) ~ Alvarenga 1994: 83.

***Iphiclus* (*Neobarytopus*) *odyneroides* (Crotch), new combination**

Brachysphoenus (*Barytopus*) *odyneroides* Crotch 1876: 518.
Morphoides octoguttatus (Olivier) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *odyneroides* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *odyneroides* (Crotch) ~ Alvarenga 1994: 83.

Iphiclus (Neobarytopus) ornatus (Kuhnt), new combination

Brachysphaenus (Barytopus) ornatus Kuhnt 1909: 30.
Iphiclus (Brachymerus) ornatus (Kuhnt) ~ Alvarenga 1994: 83.

Iphiclus (Neobarytopus) pantherinus (Kuhnt), new combination

Brachysphaenus (Brachymerus) pantherinus Kuhnt, 1909: 31.
Iphiclus (Brachymerus) pantherinus (Kuhnt) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) pauper (Guérin), new combination

Brachysphaenus (Barytopus) pauper Guérin 1956: 56.
Iphiclus (Brachymerus) pauper (Guérin) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) peraffinis (Crotch), new combination

Brachysphaenus peraffinis Crotch 1876: 502.
Morphoides peraffinis (Crotch) ~ Gemminger and Harold 1876: 3710.
Brachysphaenus [sic] (*Barytopus*) *peraffinis* (Crotch) ~ Kuhnt 1909: 23.
Iphiclus (Brachymerus) peraffinis (Crotch) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) perplexus (Mader), new combination

Brachysphaenus (Barytopus) perplexus Mader 1942b: 179.
Iphiclus (Brachymerus) perplexus (Mader) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) peruvianus (Mader), new combination

Brachysphaenus (Barytopus) peruvianus Mader 1942b: 177.
Iphiclus (Brachymerus) peruvianus (Mader) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) planipennis (Kuhnt), new combination

Brachysphaenus (Barytopus) planipennis Kuhnt 1909: 29.
Iphiclus (Brachymerus) planipennis (Kuhnt) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) puncticollis (Kirsch), new combination

Barytopus puncticollis Kirsch 1876: 104.
Morphoides puncticollis (Kirsch) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Barytopus*) *puncticollis* (Kirsch) ~ Kuhnt 1909: 30.
Iphiclus (Brachymerus) puncticollis (Kirsch) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) quadrifasciatus (Kirsch), new combination

Brachysphaenus (Barytopus) quadrifasciatus Kirsch 1865: 98.
Morphoides quadrifasciatus (Kirsch) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Barytopus*) *quadrifasciatus* (Kirsch) ~ Kuhnt 1909: 22.
Iphiclus (Brachymerus) quadrifasciatus (Kirsch) ~ Alvarenga 1994: 84.

Iphiclus (Neobarytopus) quinquefasciatus (Lacordaire), new combination

Brachysphaenus (Barytopus) quinquefasciatus Lacordaire 1842: 396.
Morphoides quinquefasciatus (Lacordaire) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Barytopus*) *quinquefasciatus* (Lacordaire) ~ Kuhnt 1909: 30.
Iphiclus (Brachymerus) quinquefasciatus (Lacordaire) ~ Alvarenga 1994: 84.
Brachysphaenus (Barytopus) quinquefasciatus var. *anisozonius* Crotch 1876: 518.
Brachysphaenus (Barytopus) quinquefasciatus var. *basicinctus* Crotch 1876: 518.
Brachysphaenus (Barytopus) quinquefasciatus var. *orthozonius* Crotch 1876: 518.

Iphiclus (Neobarytopus) ramosus (Olivier), new combination

Erotylus ramosus Olivier 1807: 480.
Brachysphaenus (Barytopus) ramosus (Olivier) ~ Lacordaire 1842: 401.
Morphoides ramosus (Olivier) ~ Gemminger and Harold 1876: 3711.
Brachysphaenus [sic] (*Barytopus*) *ramosus* (Olivier) ~ Kuhnt 1909: 29.
Iphiclus (Brachymerus) ramosus (Olivier) ~ Alvarenga 1994: 84-85.
Brachysphaenus (Barytopus) ramosus var. *apicinctus* Crotch 1876: 521.
Brachysphaenus (Barytopus) ramosus var. *carmineus* Crotch 1876: 521.
Brachysphaenus (Barytopus) dilaceratus Lacordaire 1842: 402.
Brachysphaenus (Barytopus) ramosus var. *dilaceratus* Lacordaire ~ Crotch 1876: 521.

Iphiclus (Neobarytopus) regularis (Erichson), new combination

Brachysphaenus regularis Erichson 1848: 579.

Morphoides regularis (Erichson) ~ Gemminger and Harold 1876: 3711.

Brachysphaenus [sic] (*Barytopus*) *regularis* (Erichson) ~ Kuhnt 1909: 29.

Iphiclus (*Brachymerus*) *regularis* (Erichson) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *rhomboidalis* (Guérin), new combination**

Brachysphaenus (*Barytopus*) *rhomboidalis* Guérin 1956: 55.

Iphiclus (*Brachymerus*) *rhomboidalis* (Guérin) ~ Alvarenga 1994: 85.

Brachysphaenus (*Barytopus*) *rhomboidalis* var. *integer* Guérin, 1956: 55.

***Iphiclus* (*Neobarytopus*) *rufipennis* (Panzer), resurrected, new combination (Figure 8-II)**

Erotylus rufipennis Panzer 1798: 39, tab. XXXIII, fig. II. [see discussion in Section VII, p. 22–24]

***Iphiclus* (*Neobarytopus*) *salamandra* (Erichson), new combination**

Brachysphaenus [sic] (*Barytopus*) *salamandra* Erichson 1847: 178.

Morphoides salamandra (Erichson) ~ Gemminger and Harold 1876: 3711.

Brachysphaenus [sic] (*Barytopus*) *salamandra* (Erichson) ~ Kuhnt 1909: 29.

Iphiclus (*Brachymerus*) *salamandra* (Erichson) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *spectabilis* (Lacordaire), new combination**

Brachysphaenus (*Barytopus*) *spectabilis* Lacordaire 1842: 392.

Morphoides spectabilis (Lacordaire) ~ Gemminger and Harold 1876: 3711.

Brachysphaenus [sic] (*Barytopus*) *spectabilis* (Lacordaire) ~ Kuhnt 1909: 29.

Iphiclus (*Brachymerus*) *spectabilis* (Lacordaire) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *stramineus* (Lacordaire), new combination**

Brachysphaenus (*Brachymerus*) *stramineus* Lacordaire 1842: 415.

Brachysphaenus (*Barytopus*) *stramineus* (Lacordaire) ~ Crotch 1876: 522.

Morphoides stramineus (Lacordaire) ~ Gemminger and Harold 1876: 3711.

Brachysphaenus [sic] (*Brachymerus*) *stramineus* (Lacordaire) ~ Kuhnt 1909: 30.

Iphiclus (*Brachymerus*) *stramineus* (Lacordaire) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *subsanguineus* (Crotch), new combination**

Brachysphaenus (*Barytopus*) *subsanguineus* Crotch 1876: 521.

Morphoides subsanguineus (Crotch) ~ Gemminger and Harold 1876: 3711.

Brachysphaenus [sic] (*Barytopus*) *subsanguineus* (Crotch) ~ Kuhnt 1909: 30.

Iphiclus (*Brachymerus*) *subsanguineus* (Crotch) ~ Alvarenga 1994: 85.

Brachysphaenus (*Barytopus*) *subsanguineus* var. *disjunctus* Crotch, 1876: 521.

***Iphiclus* (*Neobarytopus*) *superbus* (Mader), new combination**

Brachysphaenus (*Brachymerus*) *superbus* Mader 1942a: 561.

Iphiclus (*Brachymerus*) *superbus* (Mader) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *tigrinatus* (Guérin), new combination**

Brachysphaenus (*Barytopus*) *tigrinatus* Guérin 1956: 55.

Iphiclus (*Brachymerus*) *tigrinatus* (Guérin) ~ Alvarenga 1994: 85.

***Iphiclus* (*Neobarytopus*) *tricinctus* (Duponchel), new combination**

Erotylus tricinctus Duponchel 1825: 42.

Brachysphaenus (*Barytopus*) *tricinctus* (Duponchel) ~ Lacordaire 1842: 385.

Morphoides tricinctus (Duponchel) ~ Gemminger and Harold 1876: 3712.

Brachysphaenus [sic] (*Barytopus*) *tricinctus* (Duponchel) ~ Kuhnt 1909: 23.

Iphiclus (*Brachymerus*) *tricinctus* (Duponchel) ~ Alvarenga 1994: 86.

Brachysphaenus tricinctus var. *rectesignatus* Crotch 1876: 501.

***Iphiclus* (*Neobarytopus*) *trifasciatus* (Olivier), new combination**

Erotylus trifasciatus Olivier 1807: 473, new name.

Brachysphaenus (*Barytopus*) *trifasciatus* (Olivier) ~ Lacordaire 1842: 384.

Brachysphaenus [sic] (*Barytopus*) *trifasciatus* (Olivier) ~ Kuhnt 1909: 22.

Iphiclus (*Brachymerus*) *trifasciatus* (Olivier) ~ Alvarenga 1994: 86.

Erotylus fasciatus Olivier, 1792: 433, not *Erotylus fasciatus* Fabricius 1801: 6 (Tenebrionidae).

Morphoides fasciatus (Olivier) ~ Gemminger and Harold 1876: 3708.

Brachysphaenus [sic] (*Barytopus*) *fasciatus* (Olivier) ~ Kuhnt 1909: 22.

Brachysphaenus fasciatus (Olivier) ~ Crotch 1876: 501.

***Iphiclus* (*Neobarytopus*) *tripartitus* (Lacordaire), new combination**

Brachysphaenus (*Barytopus*) *tripartitus* Lacordaire 1842: 386.

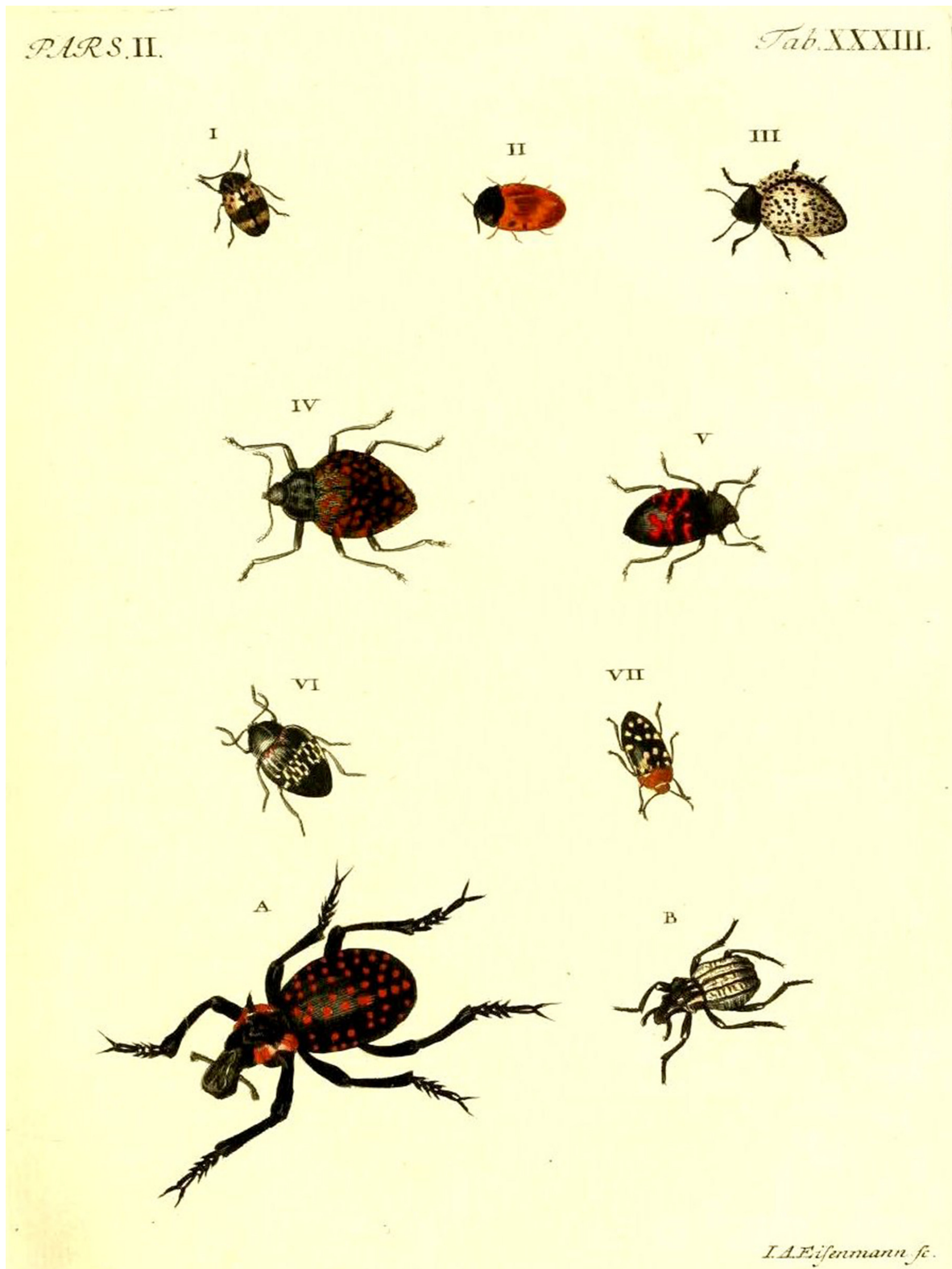


Figure 8. Plate XXXIII used by Panzer (1798) and Voet (1806), present identifications. **I)** *Barytopus gronovii* (Herbst). **II)** *Iphiclus* (*Neobarytopus*) *rufipennis* (Panzer). **III)** *Aegithus punctatissimus* (Fabricius). **IV)** *Erotylus giganteus* (Linnaeus). **V)** *Erotylus variegatus* Fabricius. **VI)** *Preopharus notatus* (Olivier). **VII)** *Iphiclus* (*Iphiclus*) *sedecimguttatus* (Olivier). Image c/o Biodiversity Heritage Library.

Morphoides tripartitus (Lacordaire) ~ Gemminger and Harold 1876: 3712.
Brachysphaenus [sic] (*Barytopus*) *tripartitus* (Lacordaire) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *tripartitus* (Lacordaire) ~ Alvarenga 1994: 86.

***Iphiclus* (*Neobarytopus*) *ucayalensis* (Gorham), new combination**

Brachysphaenus [sic] *ucayalensis* Gorham 1889: 615.
Brachysphaenus [sic] (*Habrodactylus*) *ucayalensis* (Gorham) ~ Kuhnt 1909: 26.
Iphiclus (*Brachymerus*) *ucayalensis* (Gorham) ~ Alvarenga 1994: 86.
Brachysphaenus ucayalensis ssp. *bolivanus* Mader 1942b: 156.

***Iphiclus* (*Neobarytopus*) *venezuelae* (Crotch), new combination**

Brachysphaenus (*Barytopus*) *venezuelae* Crotch 1876: 519.
Morphoides venezuelae (Crotch) ~ Gemminger and Harold 1876: 3712.
Brachysphaenus [sic] (*Barytopus*) *venezuelae* (Crotch) ~ Kuhnt 1909: 29.
Iphiclus (*Brachymerus*) *venezuelae* (Crotch) ~ Alvarenga 1994: 86.

***Iphiclus* (*Neobarytopus*) *westwoodi* (Guérin-Méneville), new combination**

Zonarius westwoodi Guérin-Méneville 1841a: 117.
Brachysphaenus (*Barytopus*) *westwoodi* (Guérin-Méneville) ~ Lacordaire 1842: 391.
Morphoides westwoodi (Guérin-Méneville) ~ Gemminger and Harold 1876: 3712.
Brachysphaenus [sic] (*Barytopus*) *westwoodi* (Guérin-Méneville) ~ Kuhnt 1909: 23.
Iphiclus (*Brachymerus*) *westwoodi* (Guérin-Méneville) ~ Alvarenga 1994: 86.

V. Erotylini: *Cytorea* Laporte vs. *Typocephalus* “Chevrolat”

Concern discovered. Change of author attribution and date of publication changes valid name for genus.

Discussion and results. Two generic names for this taxon have been used by different authors in the past. Most recently, Alvarenga (1994: 87) used *Typocephalus* Dejean, 1836: 427 (type species *Erotylus dimidiatus* Olivier, 1792: 435, by subsequent designation of Hope 1841: 113) as the senior synonym over *Cytorea* Laporte, 1840: 224.

The validity of type designations and author attribution of “*Typocephalus*” was recently addressed by Bousquet and Bouchard (2013: 137), stating there were no available species listed in Dejean (1836) to validate *Typocephalus* “Chevrolat”. “The type species cited by Alvarenga (1965: 90) for *Typocephalus* Chevrolat, *Erotylus dimidiatus* Olivier, 1792 [as ‘*dimidiatus* ? Olivier’] is a *species inquirandum* [sic] in Dejean’s catalogue and therefore is not an originally included species (ICZN 1999: Article 67.2.5). The name *Typocephalus* should be credited to Hope (1841: 113) who first made the name available by describing the genus and selecting *Erotylus dimidiatus* Olivier, 1792, as type species.”

With the changes in attribution and valid date of publication, precedence for the name of this genus must be reversed. Thus, *Cytorea* Laporte, 1840, has priority, with *Typocephalus* Hope, 1841, being a junior synonym. All included species have been used previously in combination with *Cytorea*, which are restored.

Corrected genus synonymy

***Cytorea* Laporte**

Cytorea Laporte 1840: 224. Type species: *Tetraphyllus* (*Cytorea*) *bicolor* Laporte 1840: 224 [junior synonym of *Erotylus dimidiatus* Olivier], by monotypy.
Typocephalus Hope 1841: 113. Type species: *Erotylus dimidiatus* Olivier 1792: 435, by original designation of Hope 1841: 113; synonymy by Lacordaire 1842: 405.

Corrected species synonymies

***Cytorea cruciatus* (Lacordaire)**

Brachysphaenus (*Brachymerus*) *cruciatus* Lacordaire 1842: 407.
Typocephalus cruciatus (Lacordaire) ~ Crotch 1876: 524.
Cytorea cruciatus (Lacordaire) ~ Gemminger and Harold 1876: 3706.

***Cytorea dimidiatus* (Olivier)**

Erotylus dimidiatus Olivier 1792: 435.
Brachysphaenus (*Brachymerus*) *dimidiatus* (Olivier) ~ Lacordaire 1842: 406.

Typocephalus dimidatus (Olivier) ~ Crotch 1876: 523.

Cytorea dimidiatus (Olivier) ~ Gemminger and Harold 1876: 3706.

Cytorea bicolor Laporte, 1840: 224; synonymy by Lacordaire 1842: 406.

***Cytorea interpunctatus* (Crotch)**

Typocephalus interpunctatus Crotch 1876: 524.

Cytorea interpunctatus (Crotch) ~ Gemminger and Harold 1876: 3706.

***Cytorea tricolor* (Kuhnt)**

Typocephalus tricolor Kuhnt 1910: 266.

Cytorea tricolor (Kuhnt) ~ Kuhnt 1911: 21.

***Cytorea vesoides* (Crotch)**

Typocephalus vesoides Crotch 1876: 524.

Cytorea vesoides (Crotch) ~ Gemminger and Harold 1876: 3706.

VI. Voet's Catalogus Systematicus Coleopterorum

Concern discovered. Publication date of Voet's erotylid work and unavailability for nomenclature.

Discussion and results. Alvarenga (1970: 45, 1977: 105, 1994: 88) cited the date of Voet's Catalogus Systematicus Coleopterorum as 1778. This is contrary to Kuhnt (1911: 21) who was the first to list any date for Voet's erotylid work, citing it as 1806. Searching literature resources and library catalogs, I found a discussion of Voet's tomes in the library catalog of the Natural History Museum, London (NHMUK 2019). It states that publication of the work stopped with Voet's death in 1778. Tome I was completed 1766–1778, with Tome II completed in 1806 by the publisher Bakhuysen. In short, Voet's Tome II, pages 33–82, including the description of "*Pseudochrysomela*" Voet and "*Gibbifer*" Voet, was published in 1806. For additional details see Bousquet (2016).

Several authors over many years recognized that Voet's Catalogus Systematicus Coleopterorum did not follow binominal nomenclature (e.g., Sherborn 1902: liv; Alonso-Zarazaga and Lyal 1999: 8; Krell 2012: 62; Löbl and Smetana 2013: 21; Bousquet 2016: 545). For names in a work to be available, ICZN (1999) Article 11.4 states "The author must have consistently applied the Principle of Binominal Nomenclature [Art. 5.1] in the work in which the name or nomenclatural act was published." Krell (2012) noted that Voet's Tome I (1766-1778) used a multinominal system of names. Examining Voet's Tome II (1806), the same situation was discovered, with inconsistent multinominal naming arrangements scattered throughout the work.

Even though the erotylid names proposed in Voet (1806) appear to be binominal, the work is not. Thus, all names presented in this work are unavailable for nomenclatural purposes and any subsequent actions or synonymies based on them must be corrected. The following sections address nomenclatural issues for the Erotylidae based on Voet's unavailable names.

VII. Erotylini: *Erotylus* Fabricius and *Pseudochrysomela* Voet

Concern discovered. With *Pseudochrysomela* Voet, 1806, being unavailable for nomenclatural purposes (ICZN 1999, Article 11.4), the synonymy with *Erotylus* Fabricius, 1775, needs updating and the actions of Alvarenga (1970, 1977) regarding the included species need correction.

Discussion and results. Alvarenga (1970: 45) designated *P. paramariboensis* Voet, 1806, as the type species of *Pseudochrysomela* Voet, 1806, incorrectly citing the publication date for both as 1778. Alvarenga then noted the synonymy of the type species with *Coccinella gigantea* Linnaeus, 1758: 386 (= *Pseudochrysomela paramariboensis* Voet 1806: 44) by Olivier (1792: 432), and that *C. giganteus* is the type species of *Erotylus* Fabricius 1775: 123, making *Erotylus* and *Pseudochrysomela* synonyms. The fact that *Pseudochrysomela* and *P. paramariboensis* are unavailable does not alter the status of *Erotylus* or *E. giganteus* (Linnaeus).

However, Olivier (1792) listed only Voet's plate and figure number, not a species name nor a year. Information provided by Bousquet (2016) and NHMUK (2019) show that Voet's Tome II plates were printed before 1806, probably by 1778, and would have been available for Olivier to cite the image

before the description was published naming the species. Because of details discussed in the following paragraph regarding Panzer (1798), I must restrict credit for synonymies to authors who cite the name being synonymized, not the images. Thus, Alvarenga (1970) crediting Olivier (1792) for the synonymy of Voet's image is considered invalid.

Regarding the remaining species of *Pseudochrysomela*, Voet's plate was first used by Panzer (1798; see Figure 8; see Bousquet 2016: 404), who named the illustrated species, and is credited with describing some of the species prior to Voet (1806). Voet's (1806) publication must have used the original manuscript names, circa 1778, for the species and figures. Thus, for some species, these figures are cited with two names, one by Panzer (1798), the other by Voet (1806). In many early synonymies these figures were cited as "Voet. Col. II. Panz. IV", followed by the figure number, with no species names mentioned. This implies a reference to Panzer (1798) not Voet (1806).

Most of Panzer's names were synonymized by subsequent workers, none of Voet's (1806) names were mentioned until Gemminger and Harold (1876). It is unclear if the early workers were aware of Voet (1806) or not. With credit for synonymies restricted to authors citing the names synonymized, various authors are credited for synonymizing Panzer's names. The first reference to use Voet's names was Gemminger and Harold (1876), who are credited for those synonymies.

The names *Erotylus rufipennis* Panzer (1798) and *Pseudochrysomela exotica* Voet (1806) have both been proposed for Voet's plate XXXIII, figure II. However, neither name appears in any catalog or revisionary work. Only Alvarenga (1977, 1994) mentions *P. exotica* [as *Iphichlus (Brachymerus) exoticus* (Voet)]. In some ways, the figure appears similar to the type of *Erotylus rufipennis* Fabricius [*Iphichlus (Neomorphoides) rufipennis* (Fabricius) in Alvarenga 1994], according to Italo Pecci-Maddalena (pers. comm.) who has a photograph of the type deposited in ZMUC. It is possible that Fabricius (1801) either knowingly used Panzer's name without giving credit or was not aware of Panzer (1798) and accidentally created a homonym when proposing the species name. Only revisionary study of both types can resolve these identity questions. Until then, current nomenclature places them in different subgenera and as homonyms of distinct species, Panzer's name has priority. To correct all of these issues, Panzer's species is here resurrected, and a new name is proposed for Fabricius's species.

All of these issues require some form of correction. Corrected synonymies for all effected species are presented below. Although Voet's names and subsequent apparent nomenclatural acts are place in these synonymies, they have no nomenclatural status and are presented in quote marks "".

Corrected genus synonymy

Erotylus Fabricius

Erotylus Fabricius 1775: 123. Type species: *Coccinella gigantea* Linnaeus 1758: 386, by subsequent designation of Hope 1841: 110.

"*Pseudochrysomela* Voet 1806: 43. Type species: *Pseudochrysomela paramariboensis* Voet 1806: 44, Plate XXXIII, fig. IV, by subsequent designation of Alvarenga 1970: 45; synonymy by Gemminger and Harold 1876: 3713", unavailable (ICZN 1999, Article 11.4).

Corrected species synonymies

The name "*Gibbifer tigrinus* Voet" has a complicated history involving other names, which are treated in the next section.

Aegithus punctatissimus (Fabricius) (Figure 8-III)

Erotylus punctatissus Fabricius 1775: 123.

Aegithus punctatissimus (Fabricius) ~ Lacordaire 1842: 281.

Coccinella centumpunctata Herbst, 1783: 45; synonymy by Illiger 1806: 231.

Aegithus separandus Crotch, 1876: 490; synonymy by Curran 1941: 282.

"*Pseudochrysomela punctata* Voet 1806: 44, tab. XXXIII, fig. III; synonymy by Lacordaire 1842: 281", unavailable (ICZN 1999, Article 11.4).

Barytopus gronovii (Herbst), revalidated (Figure 8-I)

Chrysomela gronovii Herbst 1783: 52.

Micrerotylus gronovii (Herbst) ~ Crotch 1876: 541.

Barytopus gronovii (Herbst) ~ Alvarenga 1977: 105.

Erotylus alternans Olivier, 1792: 434; synonymy by Lacordaire 1842: 379.

Brachysphoenus (Barytopus) alternans (Olivier) ~ Lacordaire 1842: 379.

Erotylus funebris Panzer, 1798: 38, tab. XXXIII, fig. I; synonymy by Lacordaire 1842: 379.

“*Pseudochrysomela surinamensis* Voet 1806: 43, tab. XXXIII, fig. I; synonymy by Gemminger and Harold 1876: 3716”, unavailable (ICZN 1999, Article 11.4).

“*Barytopus surinamensis* (Voet) ~ Alvarenga 1977: 105.”

***Erotylus giganteus* (Linnaeus) (Figure 8-IV)**

Coccinella gigantea Linnaeus 1758: 368.

Chrysomela gigantea (Linnaeus) ~ DeGeer 1775: 349.

Erotylus giganteus (Linnaeus) ~ Fabricius 1775: 123.

“*Pseudochrysomela paramariboensis* Voet 1806: 44, tab. XXXIII, fig. IV; synonymy by Gemminger and Harold 1876: 3714”; unavailable (ICZN 1999, Article 11.4).

***Erotylus variegatus* Fabricius, revalidated (Figure 8-V)**

Erotylus variegatus Fabricius 1781: 157.

Erotylina variegata (Fabricius) ~ Alvarenga 1977: 105.

Cryptocephalus varius Gmelin 1790: 1727; synonymy by Lacordaire 1842: 439.

Erotylus sanguinolentus Panzer 1798: 40, tab. XXXIII, fig. V; synonymy by Illiger 1806: 231.

Erotylus pustulatus Herbst 1799: 364; synonymy by Lacordaire 1842: 439.

“*Pseudochrysomela isequiboensis* Voet 1806: 44, tab. XXXIII, fig. V; synonymy by Gemminger and Harold 1876: 3715”, unavailable (ICZN 1999, Article 11.4).

“*Erotylina isequiboensis* (Voet) ~ Alvarenga 1977: 105.”

“*Erotylus isequiboensis* (Voet) ~ Alvarenga 1994: 92.”

***Iphiclus* (*Iphiclus*) *sedecimguttatus* (Olivier), revalidated (Figure 8-VII)**

Erotylus sedecimguttatus Olivier 1792: 436.

Brachysphoenus (*Iphiclus*) *sedecimguttatus* (Olivier) ~ Lacordaire 1842: 348.

Morphoides sedecimguttatus (Olivier) ~ by Gemminger and Harold 1876: 3711.

Iphiclus (*Iphiclus*) *sedecimguttatus* (Olivier) ~ Alvarenga 1977: 105.

Erotylus thoracicus Panzer, 1798: 40, tab. XXXIII, fig. VII; synonymy by Lacordaire 1842: 348.

“*Pseudochrysomela maculata* Voet 1806: 44, tab. XXXIII, fig. VII; synonymy by Gemminger and Harold 1876: 3711”, unavailable (ICZN 1999, Article 11.4).

“*Iphiclus* (*Brachymerus*) *maculatus* (Voet) ~ Alvarenga 1977: 105.”

***Iphiclus* (*Neobarytopus*) *rufipennis* (Panzer), resurrected, new combination (Figure 8-II)**

Erotylus rufipennis Panzer 1798: 39, tab. XXXIII, fig. II.

“*Pseudochrysomela exotica* Voet 1806: 44, tab. XXXIII, fig. II”, unavailable (ICZN 1999, Article 11.4).

“*Iphiclus* (*Brachymerus*) *exotica* (Voet) ~ Alvarenga 1977: 105.”

***Prepopharus notatus* (Olivier), revalidated (Figure 8-VI)**

Erotylus notatus Olivier 1792: 435.

Barytopus notatus (Olivier) ~ Dejean 1836: 426 [author stated as Fabricius].

Scaphidomorphus notatus (Olivier) ~ Lacordaire 1842: 484.

Prepopharus notatus (Olivier) ~ Gemminger and Harold 1876: 3718.

Erotylus tessellatus Panzer, 1798: 40, tab. XXXIII, fig. VI; synonymy by Illiger 1806: 231.

“*Pseudochrysomela americana* Voet 1806: 44, tab. XXXIII, fig. VI; synonymy by Gemminger and Harold 1876: 3718”, unavailable (ICZN 1999, Article 11.4).

“*Prepopharus americanus* (Voet) ~ Alvarenga 1977: 105–106.”

VIII. *Gibbifer* Voet and *Cypherotylus* Crotch

Concern discovered. *Gibbifer* Voet, 1806, unavailable for nomenclatural purposes.

Discussion and results. Alvarenga (1970) accepted Voet (1806) as a valid publication and resurrected the genus *Gibbifer* Voet, 1806, synonymizing *Cypherotylus* Crotch, 1873. As noted above, Voet’s proposed names are unavailable (ICZN 1999, Article 11.4). Thus, the resurrection of *Gibbifer* is here reversed and *Cypherotylus* is again the valid name for the genus. As noted in the previous section, unavailable parts of synonymies and subsequent nomenclatural acts pertaining to Voet names placed in quote marks “ ” have no nomenclatural status.

As discussed above for “*Pseudochrysomela*”, Voet’s plate for “*Gibbifer*” was used by both Panzer (1798) and Voet (1806). A point of confusion centers around the illustrations of two different species or variations of a species. Panzer (1798) named them both *Erotylus gibbosus* (Linnaeus) with figure 2 as

a “varietas”, while Voet (1806) described them both under the unavailable name “*Gibbifer tigrinus*”.

Panzer (1798; see Figure 9) and Duponchel (1825; see Figure 10) illustrate these species in the same order using the same figure numbers. Duponchel’s figure 1 is “*Erotylus sphacelatus* Fabricius” (which later became *Cypherotylus duponcheli* Arrow), and his figure 2 illustrates *E. gibbosus*, but he cites Panzer’s figure I as *E. gibbosus*. It appears Duponchel’s error in figure citation was generally overlooked, as subsequent literature represents these species as presented by Duponchel, with the species in figure 1 as “*E. sphacelatus*” and figure 2 as *E. gibbosus*.

Gebien (1906) discovered the type of *Erotylus sphacelatus* Fabricius to be a species of Tenebrionidae. To correct this, Arrow (1937) renamed “*Erotylus sphacelatus*” of Duponchel (1825: 35, pl. 1, fig. 1) and subsequent authors as *Cypherotylus duponcheli*.

Alvarenga’s (1970, 1977) treatment of Voet’s “*G. tigrinus*” was confusing and incomplete. Following this, Alvarenga (1994) listed both illustrations of Voet (1806) (not citing Panzer 1798) as a valid “*G. tigrinus*” along with *C. duponcheli* and “*E. sphacelatus*” as synonyms. This synonymy is incorrect as one of the illustrations of “*G. tigrinus*” must be referred to *Chrysomela gibbosa* Linnaeus.

While researching the identity of these illustrations, I attempted to find the type of *Chrysomela gibbosa*. Unfortunately, no specimen of this genus is present in the Linnean Collection (Linnean Society of London 2019). With *C. gibbosa* as the type species of the *Cypherotylus*, following current accepted concepts, and in the interest of stabilizing nomenclature, a neotype that matches Panzer’s figure II and Duponchel’s figure 2 should be designated when the genus is revised.

With the realization that the genus and species “*Gibbifer tigrinus* Voet” are unavailable, the primary nomenclatural issues are resolved, and the two valid species represented in Panzer (1798) and Voet (1806) are *Cypherotylus gibbosus* and *C. duponcheli*. Synonymies for all included species of “*Gibbifer*” are corrected below, most reverting their combinations back to *Cypherotylus*. Only two species names are presented here as new combinations with *Cypherotylus*.

Corrected genus synonymy

Cypherotylus Crotch

Cypherotylus Crotch 1873a: 358, type species *Chrysomela gibbosa* Linnaeus 1763: 10, by original designation.
“*Gibbifer* Voet 1806: 62, type species *Gibbifer tigrinus* Voet 1806: 62, tab. XLIV, fig. II, by monotypy; synonymy by Gemminger and Harold 1876: 3712”, unavailable (ICZN 1999, Article 11.4).

Hypselonotus Hope 1841: 110, type species “*Erotylus sphacelatus*” of authors, not *Erotylus sphacelatus* Fabricius 1801: 4 (Tenebrionidae), by original designation; not *Hypselonotus* Hahn 1833: 186 (Hemiptera); senior synonym of *Cypherotylus* Crotch 1873a: 358 by Gemminger Harold 1876: 3712.

Corrected species synonymies

Cypherotylus adrianae (Alvarenga), new combination

Erotylus apiatus Lacordaire 1842: 462.

Erotylus apiatus var. *foraminosus* Lacordaire 1842: 463.

Cypherotylus apiatus (Lacordaire) ~ Crotch 1876: 539.

Cypherotylus apiatus var. *foraminosus* (Lacordaire) ~ Crotch 1876: 539.

“*Gibbifer*” *adrianae* Alvarenga 1976: 512, new name for *Erotylus apiatus* Lacordaire 1842: 462, not *Erotylus apiatus* Chevrolat 1835: 122 [now *Neopriotelus apiatus* (Chevrolat)].

Cypherotylus aeneoniger Crotch

Cypherotylus aeneoniger Crotch 1876: 539.

“*Gibbifer*” *aeneoniger* (Crotch) ~ Alvarenga 1994: 101.

Cypherotylus alutaceus Gorham

Cypherotylus alutaceus Gorham 1888: 107, pl. 6, fig. 10.

“*Gibbifer*” *alutaceus* (Gorham) ~ Alvarenga 1994: 101.

Cypherotylus annulipes (Guérin-Ménéville)

Hypselonotus annulipes Guérin-Ménéville 1841: 115.

Erotylus annulipes (Guérin-Ménéville) ~ Lacordaire 1842: 461.

Cypherotylus annulipes (Guérin-Ménéville) ~ Crotch 1876: 539.

Cypherotylus annulipes var. *nigricollis* Kuhnt 1908: 228.

“*Gibbifer*” *annulipes* (Guérin-Ménéville) ~ Alvarenga 1994: 101–102.

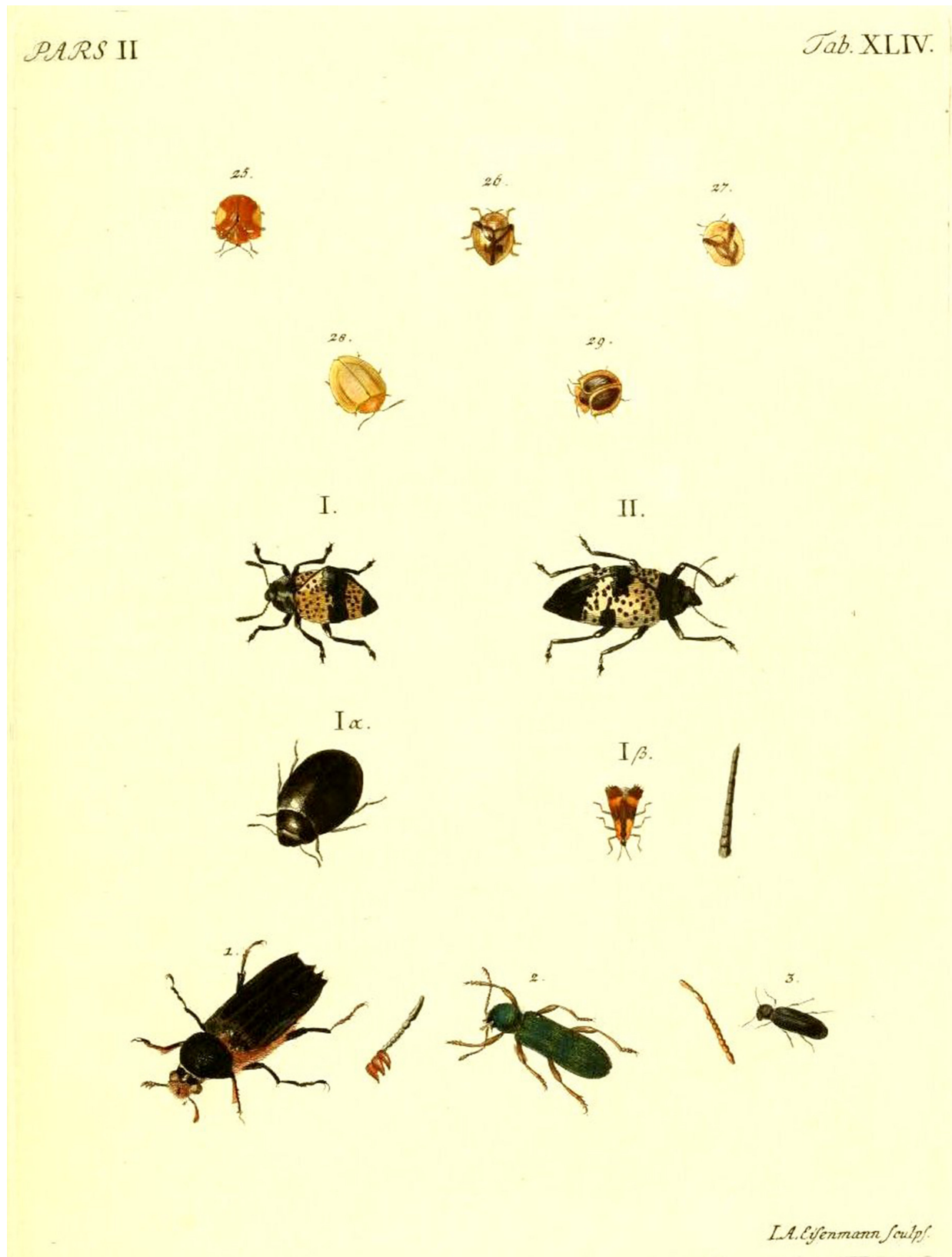


Figure 9. Plate XLIV used by Panzer (1798) and Voet (1806), present identifications. **I)** *Cypherotylus duponcheli* Arrow. **II)** *Cypherotylus gibbosus* (Linnaeus). Image c/o Biodiversity Heritage Library.

***Cypherotylus anthracinus* Gorham**

Cypherotylus anthracinus Gorham 1888: 104.
“*Gibbifer*” *anthracinus* (Gorham) ~ Alvarenga 1994: 102.

***Cypherotylus apicalis* Crotch**

Cypherotylus apicalis Crotch 1876: 540.
“*Gibbifer*” *apicalis* (Crotch) ~ Alvarenga 1994: 102.

***Cypherotylus armillatus* (Erichson)**

Erotylus armillatus Erichson 1847: 176.
Cypherotylus armillatus (Erichson) ~ Crotch 1876: 538.
“*Gibbifer*” *armillatus* (Erichson) ~ Alvarenga 1994: 102.

***Cypherotylus ater* (Kirsch)**

Erotylus ater Kirsch 1876: 109.
Cypherotylus ater (Kirsch) ~ Kuhnt 1908: 230.
“*Gibbifer*” *ater* (Kirsch) ~ Alvarenga 1994: 102.

***Cypherotylus badeni* Dohrn**

Cypherotylus badeni Dohrn 1883: 103.
“*Gibbifer*” *badeni* (Dohrn) ~ Alvarenga 1994: 102.

***Cypherotylus banghaasi* Mader**

Cypherotylus banghaasi Mader 1935: 242.
“*Gibbifer*” *banghaasi* (Mader) ~ Alvarenga 1994: 102.

***Cypherotylus boisduvali* (Chevrolat)**

Erotylus boisduvali Chevrolat 1834: fasc. 4.
Cypherotylus boisduvali (Chevrolat) ~ Crotch 1873a: 358.
“*Gibbifer*” *boisduvali* (Chevrolat) ~ Alvarenga 1994: 102.

***Cypherotylus bolivianus* Mader**

Cypherotylus bolivianus Mader 1942: 568.
“*Gibbifer*” *bolivianus* (Mader) ~ Alvarenga 1994: 102.

***Cypherotylus borgmeieri* (Alvarenga), new combination**

Erotylus annulatus Lacordaire 1842: 456.
Cypherotylus annulatus (Lacordaire) ~ Crotch 1876: 538.
Cypherotylus annulatus var. *neglectus* Kuhnt 1908: 227.
“*Gibbifer*” *borgmeieri* Alvarenga 1976: 512, new name for *Erotylus annulatus* Lacordaire 1842: 456, not *Erotylus annulatus* Germar 1824: 613 [now *Iphiclus* (*Habrodactylus*) *annulatus* (Germar)].

***Cypherotylus californicus* (Lacordaire)**

Erotylus californicus Lacordaire 1842: 467.
Cypherotylus californicus (Lacordaire) ~ Boyle 1956: 93.
“*Gibbifer*” *californicus* (Lacordaire) ~ Alvarenga 1994: 103.
Cypherotylus aspersus Gorham, 1888: 108, pl. 6, fig. 9; synonymy by Boyle 1956: 93.

***Cypherotylus camelus* (Guérin-Méneville)**

Hypselonotus camelus Guérin-Méneville 1841: 116.
Erotylus camelus (Guérin-Méneville) ~ Lacordaire 1842: 452.
Cypherotylus camelus (Guérin-Méneville) ~ Crotch 1876: 537.
“*Gibbifer*” *camelus* (Guérin-Méneville) ~ Alvarenga 1994: 103.

***Cypherotylus costaricensis* Gorham**

Cypherotylus costaricensis Gorham 1888: 105, pl. 6, fig. 7.
“*Gibbifer*” *costaricensis* (Gorham) ~ Alvarenga 1994: 103.

***Cypherotylus debauvei* (Demay)**

Erotylus debauvei Demay 1838: 23.
Cypherotylus debauvei (Demay) ~ Crotch 1876: 538.
“*Gibbifer*” *debauvei* (Demay) ~ Alvarenga 1994: 103.

***Cypherotylus dromedarius* (Lacordaire)**

Erotylus dromedarius Lacordaire 1842: 455.
Cypherotylus dromedarius (Lacordaire) ~ Crotch 1873b: 148.
“*Gibbifer*” *dromedarius* (Lacordaire) ~ Alvarenga 1994: 103.

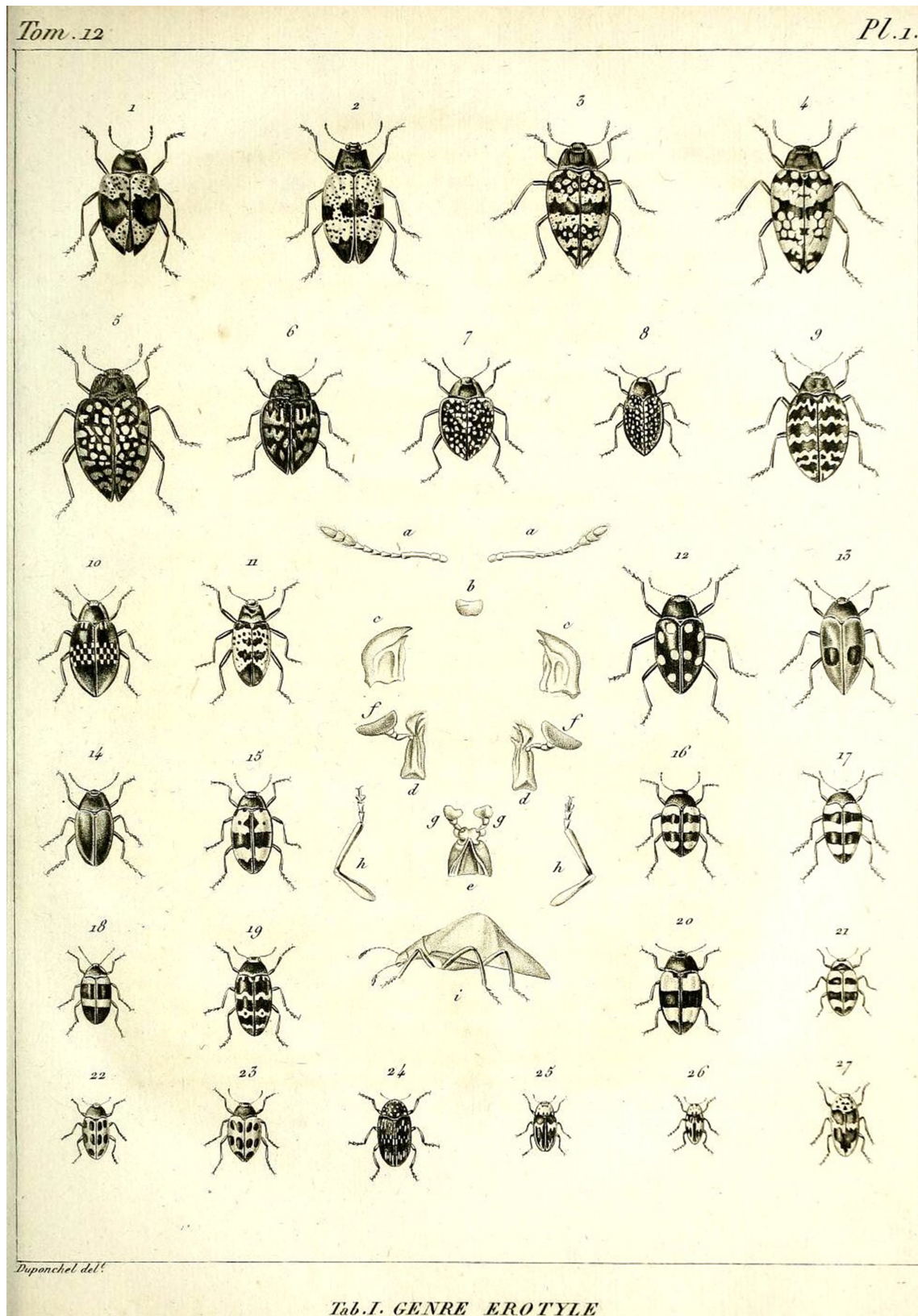


Figure 10. Plate 1 of Duponchel (1825). 1) Originally cited as “*Erotylus sphacelatus* Fabricius”, now *Cypherotylus duponcheli* Arrow. 2) *Cypherotylus gibbosus* (Linnaeus). Image c/o Biodiversity Heritage Library.

***Cypherotylus duponcheli* Arrow, revalidated (Figure 9-I; 10-1)**

“*Erotylus sphacelatus* Fabricius 1801: 4”, of Duponchel 1825: 35, pl. 1, fig. 1; Hope 1841: 110; Lacordaire 1842: 450; et al.

“*Cypherotylus sphacelatus* (Fabricius)” ~ of Crotch 1876: 537; et al.

Cypherotylus duponcheli Arrow 1937: 106, new name for “*Erotylus sphacelatus*” of authors, not *Erotylus sphacelatus* Fabricius 1801: 4 (Tenebrionidae, see Gebien 1906: 226).

“*Gibbifer*” *duponcheli* (Arrow) ~ Alvarenga 1977: 106.

***Cypherotylus elevatus* (Fabricius)**

Erotylus elevatus Fabricius 1801: 4.

Cypherotylus elevatus (Fabricius) ~ Crotch 1876: 538.

“*Gibbifer*” *elevatus* (Fabricius) ~ Alvarenga 1994: 103.

***Cypherotylus fenestratus* Gorham**

Cypherotylus fenestratus Gorham 1888: 107, pl. 5, fig. 22.

“*Gibbifer*” *fenestratus* (Gorham) ~ Alvarenga 1994: 103.

***Cypherotylus gaumeri* Gorham**

Cypherotylus gaumeri Gorham 1888: 106, pl. 6, fig. 8.

“*Gibbifer*” *gaumeri* (Gorham) ~ Alvarenga 1994: 103.

***Cypherotylus gibbosus* (Linnaeus) (Figure 9-II, 10-2)**

Chrysomela gibbosa Linnaeus, 1763: 10.

Erotylus gibbosus (Linnaeus) ~ Fabricius 1781: 157.

Cypherotylus gibbosus (Linnaeus) ~ Crotch 1876: 538.

Hypselonotus gibbosus (Linnaeus) ~ Curran 1941: 283.

“*Gibbifer*” *gibbosus* (Linnaeus) ~ Alvarenga 1994: 104.

“*Gibbifer tigrinus* Voet, 1806: 62, pl. XLIV, fig. II; synonymy by Gemminger and Harold 1876: 3713”, unavailable (ICZN 1999, Article 11.4).

***Cypherotylus goryi* (Guérin-Méneville)**

Hypselonotus goryi Guérin-Méneville 1841: 116.

Erotylus goryi (Guérin-Méneville) ~ Lacordaire 1842: 464.

Cypherotylus goryi (Guérin-Méneville) ~ Crotch 1876: 539.

“*Gibbifer*” *goryi* (Guérin-Méneville) ~ Alvarenga 1994: 104.

***Cypherotylus gracilis* Kuhnt**

Cypherotylus gracilis Kuhnt 1908: 226.

“*Gibbifer*” *gracilis* (Kuhnt) ~ Alvarenga 1994: 104.

***Cypherotylus guatemalae* Crotch**

Cypherotylus guatemalae Crotch 1876: 540.

“*Gibbifer*” *guatemalae* (Crotch) ~ Alvarenga 1994: 104.

***Cypherotylus hopfneri* Mader**

Cypherotylus hopfneri Mader 1935: 243.

“*Gibbifer*” *hopfneri* (Mader) ~ Alvarenga 1994: 104.

***Cypherotylus impressopunctatus* Crotch**

Cypherotylus impressopunctatus Crotch 1873b: 148.

“*Gibbifer*” *impressopunctatus* (Crotch) ~ Alvarenga 1994: 104.

***Cypherotylus impunctatus* Crotch**

Cypherotylus impunctatus Crotch 1876: 537.

“*Gibbifer*” *impunctatus* [sic] (Crotch) ~ Alvarenga 1994: 104.

***Cypherotylus intercedens* Kuhnt**

Cypherotylus intercedens Kuhnt 1908: 228.

“*Gibbifer*” *intercedens* (Kuhnt) ~ Alvarenga 1994: 104.

***Cypherotylus irroratus* Kuhnt**

Cypherotylus irroratus Kuhnt 1908: 228.

“*Gibbifer*” *irroratus* (Kuhnt) ~ Alvarenga 1994: 104.

***Cypherotylus jacquieri* (Lacordaire)**

Erotylus jacquieri Lacordaire 1842: 451.

Cypherotylus jacquieri (Lacordaire) ~ Crotch 1876: 537.
“*Gibbifer*” *jacquieri* (Lacordaire) ~ Alvarenga 1994: 104.

***Cypherotylus maximus* Crotch**

Cypherotylus maximus Crotch 1876: 537.
“*Gibbifer*” *maximus* (Crotch) ~ Alvarenga 1994: 105.

***Cypherotylus militaris* (Lacordaire)**

Erotylus militaris Lacordaire 1842: 458.
Cypherotylus militaris (Lacordaire) ~ Crotch 1876: 538.
“*Gibbifer*” *militaris* (Lacordaire) ~ Alvarenga 1994: 105.

***Cypherotylus obstinatus* Mader**

Cypherotylus obstinatus Mader 1942: 567.
“*Gibbifer*” *obstinatus* (Mader) ~ Alvarenga 1994: 105.

***Cypherotylus ovalis* Mader**

Cypherotylus ovalis Mader 1942: 570.
“*Gibbifer*” *ovalis* (Mader) ~ Alvarenga 1994: 105.

***Cypherotylus patellatus* Gorham**

Cypherotylus patellatus Gorham 1888: 104.
“*Gibbifer*” *patellatus* (Gorham) ~ Alvarenga 1994: 105.

***Cypherotylus seriatus* Kuhnt**

Cypherotylus seriatus Kuhnt 1908: 229.
Cypherotylus seriatus var. *nigroterminalis* Kuhnt, 1908: 229.
“*Gibbifer*” *seriatus* (Kuhnt) ~ Alvarenga 1994: 105.

***Cypherotylus sticticus* (Erichson)**

Erotylus sticticus Erichson 1847: 176.
Cypherotylus sticticus (Erichson) ~ Crotch 1876: 540.
“*Gibbifer*” *sticticus* (Erichson) ~ Alvarenga 1994: 105.

***Cypherotylus stillatus* (Kirsch)**

Erotylus stillatus Kirsch 1865: 100.
Cypherotylus stillatus (Kirsch) ~ Crotch 1876: 540.
“*Gibbifer*” *stillatus* (Kirsch) ~ Alvarenga 1994: 105.

***Cypherotylus tectiformis* (Kuhnt)**

Erotylus tectiformis Kuhnt 1910: 268.
Cypherotylus tectiformis (Kuhnt) ~ Mader 1938: 17.
“*Gibbifer*” *tectiformis* (Kuhnt) ~ Alvarenga 1994: 105.

***Cypherotylus triangularis* Guérin**

Cypherotylus triangularis Guérin 1949: 233, fig. 5.
“*Gibbifer*” *triangularis* (Guérin) ~ Alvarenga 1994: 105.

***Cypherotylus variolosus* Crotch**

Cypherotylus variolosus Crotch 1876: 540.
“*Gibbifer*” *variolosus* (Crotch) ~ Alvarenga 1994: 106.

***Cypherotylus vicinus* (Guérin-Méneville)**

Hypselonotus vicinus Guérin-Méneville 1841: 116.
Erotylus vicinus (Guérin-Méneville) ~ Lacordaire 1842: 465.
Cypherotylus vicinus (Guérin-Méneville) ~ Crotch 1876: 539.
“*Gibbifer*” *vicinus* (Guérin-Méneville) ~ Alvarenga 1994: 106.
Erotylus melanostigma Lacordaire 1842: 466; synonymy by Crotch 1876: 539.
Cypherotylus jansoni Crotch 1873b: 149; synonymy by Gorham 1888: 105.
Cypherotylus vicinus var. *jansoni* Crotch ~ Kuhnt 1909: 40.

***Cypherotylus zebu* (Kirsch)**

Erotylus zebu Kirsch 1876: 108.
Cypherotylus zebu (Kirsch) ~ Kuhnt 1908: 226.
“*Gibbifer*” *zebu* (Kirsch) ~ Alvarenga 1994: 106.

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