

**The Kateretidae, Nitidulidae and Monotomidae  
(Coleoptera: Cucujoidea) described by Gistel (1856, 1857):  
new synonymies and type designations**

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**Abstract.** The status of previously neglected taxa described by GISTEL (1856, 1857) in the Kateretidae, Nitidulidae and Monotomidae is examined. The following type species are designated: *Cercus rufilabris* Latreille, 1807 for *Ammalaptus* Gistel, 1856; *Nitidula ferruginea* Fabricius, 1775 for *Holopterus* Gistel, 1856; *Silpha bipustulata* Linnaeus, 1761 (= *S. bipunctata* Linnaeus, 1758) for *Theridiosmum* Gistel, 1856; *Silpha depressa* Linnaeus, 1758 for *Scatocharis* Gistel, 1856; *Nitidula marginata* Fabricius, 1781 for *Oostomum* Gistel, 1856. Numerous new generic and species synonyms are proposed, including: *Kateretes* Herbst, 1793 = *Ammalaptus* Gistel, 1856, syn. nov.; *Amphotis* Erichson, 1843 = *Oostomum* Gistel, 1856, syn. nov.; *Nitidula* Fabricius, 1775 = *Theridiosmum* Gistel, 1856, syn. nov.; *Omosita* Erichson, 1843 = *Scatocharis* Gistel, 1856, syn. nov.; *Pocadius* Erichson, 1843 = *Holopterus* Gistel, 1856, syn. nov.; *Pria* Stephens, 1830 = *Strychnobia* Gistel, 1857, syn. nov.; *Brachypterolus linariae* (Stephens, 1830) = *Brachypterolus autumnalis* Gistel, 1857, syn. nov.; *Brachypterolus urticae* (Fabricius, 1792) = *Brachypterolus solaris* Gistel, 1857 = *Brachypterolus pelusius* Gistel, 1857, syn. nov.; *Brachypterolus glaber* (Newman, 1834) = *Brachypterolus collinus* Gistel, 1857, syn. nov.; *Kateretes pedicularius* (Linnaeus, 1758) = *Cercus nectarinus* Gistel, 1857, syn. nov.; *Kateretes pusillus* (Thunberg, 1794) = *Cercus uliginosus* Gistel, 1857, syn. nov.; *Cyllodes ater* (Herbst, 1792) = *Cychramus tenebrio* Gistel, 1857 = *Pocadius tenebrio* Gistel, 1857, syn. nov.; *Epuraea aestiva* (Linnaeus, 1758) = *Nitidula vaccinii* Gistel, 1857, syn. nov.; *Epuraea distincta* (Grimmer, 1841) = *Nitidula polyporina* Gistel, 1857, syn. nov.; *Epuraea melanocephala* (Marsham, 1802) = *Nitidula heterochroa* Gistel, 1857, syn. nov.; *Meligethes aeneus* (Fabricius, 1775) = *Meligethes kelchii* Gistel, 1857, syn. nov.; *Meligethes viridescens* (Fabricius, 1787) = *Meligethes pratincola* Gistel, 1857, syn. nov.; *Omosita colon* (Linnaeus, 1758) = *Omosita viana* Gistel, 1857, syn. nov.; *Thalycra fervida* (Olivier, 1790)

= *Thalycra aridosa* Gistel, 1857, syn. nov.; *Rhizophagus aeneus* Richter, 1820  
= *Rhizophagus scoriaceus* Gistel, 1857, syn. nov.; *Rhizophagus bipustulatus*  
(Fabricius, 1792) = *Rhizophagus quercus* Gistel, 1857, syn. nov. Neotypes for all  
species described by Gistel are designated and deposited in the Bavarian State  
Collection of Zoology, Munich, Germany.

**Key words.** Coleoptera, Kateretidae, Nitidulidae, Monotomidae, taxonomy,  
nomenclature, type species designations, neotype designations, new synonymies,  
Europe, Palearctic region

## Introduction

Johann Nepomuk Franz Xaver Gistel (1803–1873), sometimes spelled also as Gistl (HORN et al. 1990, SCHMITT et al. 1998), published several new names for the Kateretidae, Nitidulidae and Monotomidae in two papers (GISTEL 1856, 1857) that have been overlooked by subsequent authors (GEMMINGER & HAROLD 1868, LUCAS 1919, NEAVE 1939–1940) including the relevant volumes of *Coleopterorum Catalogus* (GROUVELLE 1913, MÉQUIGNON 1914).

The first paper (GISTEL 1856) contains a chapter entitled ‘Pandora monacensis sive Synopsis coleopterorum circa Bavariae urbem Monachium indigenorum, secundum systema novum, adscriptis generum specierumque synonymis etc, indicibus duplicatis etc.’ (pp. 353–390), which is a catalogue of beetles around Munich containing new names for both genus and species groups. The Nitidulidae are listed in the families Carpophilidae (p. 360) and Cychramidae (pp. 361–362), the latter also containing the Kateretidae. Gistel’s ‘new’ nominal genera contain previously described species and are therefore available by indication according to the article 12.2.5 of ICZN (1999); however, the species-group names are unavailable, being ‘nomina nuda’ due to publication without description. Gistel was aware that the new genus-group names corresponded to formerly described genera, which are listed in the ‘Nomina generum synonymica’ chapter (GISTEL 1856: 398–404). Also, the ‘Synonymia selecta’ in the ‘Pandoram monacensem’ chapter (GISTEL 1856: 412–425) may be helpful for identification of some taxa.

The species names published in the second paper by GISTEL (1857) are accompanied by descriptions and must be considered as available names. Even though the Gistel collection should be, at least partly, deposited in the Bavarian State Collection of Zoology, Munich (HORN et al. 1990), it was apparently accessioned into the old collection with relevant type specimens not appropriately labelled, so that they cannot be identified or located (M. Baehr, pers. comm.; SCHÜLKE 2004: 924).

Herein, we formalize the status of Gistel’s names for the Nitidulidae and related families, already included in JELÍNEK (2007) and JELÍNEK & AUDISIO (2007a,b). We therefore subsequently designate, where necessary, the type species of Gistel’s genera and establish the resulting synonymies. As for the species-group names, GISTEL’s brief (1857) descriptions are rather fitting, nevertheless they do not always permit clear identification of the species. We therefore feel it reasonable and appropriate, according to the articles 75.1 and 75.3.1 of ICZN (1999), to designate neotypes for these species for the purpose of providing an objective definition

of these nominal taxa and stabilizing the nomenclature. This statement refers to all cases of neotype designation in this paper, but is not repeated in all individual cases. All designated neotypes are deposited in the Bavarian State Collection of Zoology, Munich, Germany (Zoologische Staatssammlung München, ZSM).

## Material and methods

All taxa are listed in alphabetic order. The descriptive chapter in GISTEL (1857), entitled ‘Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere’, was also published separately with separate pagination. Pages from this separate edition are given in square brackets. Neotype label data are cited in parentheses in their original form; label lines are divided by a slash (/), and separate labels by a double slash (//). Explanations or comments are enclosed in square brackets.

## Genus-group names

### Kateretidae

#### *Ammalaptus* Gistel, 1856

*Ammalaptus* Gistel, 1856: 362. Type species: *Cercus rufilabris* Latreille, 1807 [= *Kateretes rufilabris* (Latreille, 1807)], by subsequent designation here.

GISTEL (1856: 398) gave *Brachypterus* Kugelann, 1794 as a synonym of *Ammalaptus*, but the four originally included species are an array of species currently classified in three modern kateretid genera. These erroneous placements reflect the confused generic classification of kateretids in the middle of the 19th century:

*Ammalaptus scutellatus* Pan.[zer] [*Scaphidium scutellatum* Panzer, 1793 = *Brachypterosolus pulicarius* (Linnaeus, 1758)];

*Ammalaptus urticae* Ku.[gelann] [*Brachypterus urticae* Fabricius, 1792];

*Ammalaptus bipustulatus* [sine auct.] [*Dermestes bipustulatus* Paykull, 1798 = *Kateretes pusillus* (Thunberg, 1794)];

*Ammalaptus rufilabris* Lat.[reille] [*Kateretes rufilabris* (Latreille, 1807)].

The name *Ammalaptus* is the oldest available name for *Brachypterosolus* Grouvelle, 1913, but it has not been used for 150 years. To support the stability of nomenclature, we prefer to designate *Cercus rufilabris* Latreille, 1807 as the type species of *Ammalaptus* Gistel, 1856, which thus becomes a junior synonym of *Kateretes* Herbst, 1793.

### Nitidulidae

#### *Holopterus* Gistel, 1856

*Holopterus* Gistel, 1856: 361, non *Holopterus* Brehm, 1845 (Aves) nec *Holopterus* Blanchard, 1851 (Insecta: Coleoptera: Cerambycidae). Type species: *Nitidula ferruginea* Fabricius, 1775 [*Pocadius ferrugineus* (Fabricius, 1775)], by monotypy.

The single included species is given as *Holopterus ferrugineus* without an author. Apart from the questionable *Ostoma ferruginea* Laicharting, 1781 (see *Oostomum* below), the species-group name *ferrugineus* (*ferruginea*) was used for five Nitidulidae before 1856:

*Nitidula ferruginea* Fabricius, 1775: 159 [*Pocadius ferrugineus* (Fabricius, 1775)];  
*Dermestes ferrugineus* Linnaeus, 1761: 185 [*Pityophagus ferrugineus* Linnaeus, 1761], listed by GISTEL (1856: 360) as *Pityophagus*;

*Silpha ferruginea* Scopoli, 1763: 139 [= *Soronia grisea* (Linnaeus, 1758)], listed by GISTEL (1856: 362) as *Soronia grisea* Lin.;

*Nitidula ferruginea* Herbst, 1792: 105 [= *Omosita depressa* (Linnaeus, 1758)], classified by GISTEL (1856: 362) as *Scatocharis depressa* Lin.;

*Nitidula ferruginea* Heer, 1841: 400 [= *Epuraea melanocephala* (Marsham, 1802)], listed by GISTEL (1856: 362) as *Epurea melanocephala* Msh.

By elimination of the species explicitly mentioned by GISTEL (1856) in different generic combinations, the species placed in *Holopterus* must be *Nitidula ferruginea* Fabricius, 1775, which may also be confirmed by its placement prior to *Cychramus* Kugelann, 1794 (including *Cyllodes* Erichson, 1843) in his paper. Therefore, *Nitidula ferruginea* Fabricius, 1775 is the type species of *Holopterus* by monotypy and *Holopterus* Gistel, 1856 is an objective junior synonym of *Pocadius* Erichson, 1843, given as synonymous by GISTEL (1856: 402). At the same time, this name is a junior homonym of *Holopterus* Brehm, 1845.

### ***Oostomum* Gistel, 1856**

*Oostomum* Gistel, 1856: 362. Type species: *Nitidula marginata* Fabricius, 1781 [= *Amphotis marginata* (Fabricius, 1781)], misidentified as *Ostoma ferruginea* Laicharting, 1781, by monotypy.

GISTEL (1856: 362) included only *Ostoma ferruginea* Laicharting, 1781 in this genus, which would thus be the type species of *Oostomum* by monotypy. The identity of *Ostoma ferruginea* Laicharting, 1781 (non *Silpha ferruginea* Linnaeus, 1758) is uncertain. The taxon is in fact LAICHARTING'S (1781) interpretation of *Silpha ferruginea* sensu SCOPOLI (1763) rather than the description of a new species, and the description clearly refers to a species of *Soronia* Erichson, 1843. Also, the relevant text by SCOPOLI (1763) is a misinterpretation of *Silpha ferruginea* Linnaeus, 1758 [*Peltis ferruginea* (Linnaeus, 1758)] and *Silpha ferruginea* [sensu] Scopoli, 1763 is considered as a junior synonym of *Soronia grisea* (Linnaeus, 1758) (GROUVELLE 1913, AUDISIO 1993). The depository of the type specimens of Laicharting is unknown. According to E. Heiss (pers. comm.), Laicharting's collection is not deposited in the Tiroler Landesmuseum, Innsbruck, as stated by HORN et al. (1990). In the historical collection of the Museum für Naturkunde, Humboldt University, Berlin, there is a series of 12 specimens with old collection labels 'varia F. Ht. Pk.Pr\*/*Ostoma ferruginea* Laichart./N. variegata Ol./grisea Marsh./Brun.Boruss.' and 'grisea/Silpha grisea Lin.'. These specimens originate from several ancient collections, among others those of Hellwig and Herbst, but there is no evidence for the presence of specimens from the Laicharting collection or Laicharting's identification labels (B. Jaeger, pers. comm.). Nevertheless, these historically determined specimens suggest that German authors nearly contemporaneous with Laicharting considered his *Ostoma ferruginea* to be conspecific with *Soronia grisea*. GROUVELLE (1913) listed *Ostoma ferruginea* Laicharting, 1781 with a question mark, thereby denoting this taxon as a possible synonym

of *Soronia punctatissima* (Illiger, 1794) and this synonymy was accepted by AUDISIO (1993). Thus the true identity of *Ostoma ferruginea* [sensu] Laicharting, 1781 remains doubtful and was listed as such by JELÍNEK & AUDISIO (2007b), but there is little doubt about its affiliation with the genus *Soronia*.

However, GISTEL (1856: 362) listed both *Soronia grisea* and *S. punctatissima*, and also gave his interpretation of *Ostoma ferruginea* by the synonymy ‘*Oostomum ferrugineum* Laicharting/ *marginata* F.’ (GISTEL 1856: 414), meaning that GISTEL (1856) considered *Ostoma ferruginea* Laicharting, 1781 as conspecific with *Amphotis marginata* (Fabricius, 1781). He also gave *Amphotis* as a synonym of *Oostomum* GISTEL (1856: 398). Thus, *Nitidula marginata* Fabricius, 1781 [*Amphotis marginata* (Fabricius, 1781)] was misidentified as *Ostoma ferruginea* Laicharting, 1781 by GISTEL (1856) and is the type species of *Oostomum* Gistel, 1856 by monotypy. Consequently, *Oostomum* Gistel, 1856 becomes junior objective synonym of *Amphotis* Erichson, 1843.

### **Scatocharis Gistel, 1856**

*Scatocharis* Gistel, 1856: 362. Type species: *Silpha depressa* Linnaeus, 1758 [= *Omosita depressa* (Linnaeus, 1758)], by subsequent designation here.

Three species were originally included in the genus, all of them representing European species of *Omosita* Erichson, 1843: *depressa* L., *colon* L. and *discooides* [sic!] (author not given). *Silpha depressa* Linnaeus, 1758 is designated here as the type species of the genus and *Scatocharis* Gistel, 1856 becomes an objective junior synonym of *Omosita* Erichson, 1843, which was listed as synonymous by GISTEL (1856: 402).

### **Strychnobia Gistel, 1857**

*Strychnobia* Gistel, 1857: 573 [61]. Type species: *Nitidula dulcamarae* Illiger, 1798 [= *Pria dulcamarae* (Scopoli, 1763)], by original designation.

As indicated by the type species designated by GISTEL (1857), *Strychnobia* Gistel, 1857 is a junior objective synonym of *Pria* Stephens, 1830.

### **Theridiosmum Gistel, 1856**

*Theridiosmum* Gistel, 1856: 36. Type species: *Silpha bipustulata* Linnaeus, 1761 [= *Nitidula bipunctata* (Linnaeus, 1758)], by subsequent designation here.

Four of the five species originally included in the genus belong to *Nitidula* Fabricius, 1775:

*Theridiosmum bipustulatum* [sine auct.] [= *Silpha bipustulata* Linnaeus, 1761 = *Nitidula bipunctata* (Linnaeus, 1758)];

*Theridiosmum sordidum* [sine auct.] [= *Nitidula sordida* Fabricius, 1792 = *Omosita colon* (Linnaeus, 1758)];

*Theridiosmum rufipes* Lin. [= *Silpha rufipes* Linnaeus, 1767 = *Nitidula rufipes* (Linnaeus, 1767)];

*Theridiosmum quadripustulatum* [sine auct.] [= *Nitidula quadripustulata* Fabricius, 1792 = *Nitidula carnaria* (Schaller, 1783)];

*Theridiosmum flexuosum* [sine auct.] [= *Nitidula flexuosa* Olivier, 1790 = *Nitidula flavomaculata* Rossi, 1790].

We designate *Silpha bipustulata* Linnaeus, 1761 as the type species for the genus. *Theridiosmum* Gistel, 1856 is thus an objective junior synonym of *Nitidula* Fabricius, 1775, listed as synonymous by GISTEL (1856: 401).

## Species-group names

### Kateretidae

#### *Brachypterus autumnalis* Gistel, 1857

*Brachypterus autumnalis* Gistel, 1857: 574 [62].

**Type material.** NEOTYPE: ♀, 'Bayr. Alpen / Osterseegebiet / Anf. IX. 1969 // Gesiebe von / Riedgräsern / leg. Wellschmied // *Brachypterus* / *linariae* (Steph.) / (= *cornelii* Sp.) / det. Spornraft 75 // Neotypus / *Brachypterus* / *autumnalis* Gistel, 1857 / des. Jelínek & Audisio, 2007'.

Character '...pronoti angulis posticis rectis, acutis...' indicates the appurtenance of the species to the genus *Brachypterus* Grouvelle, 1913. We therefore consider *Brachypterus autumnalis* as a junior synonym of *Brachypterus linariae* (Stephens, 1830), which is the most common *Brachypterus* species in Central Europe.

#### *Brachypterus collinus* Gistel, 1857

*Brachypterus collinus* Gistel, 1857: 590 [78].

**Type material.** NEOTYPE: ♂, 'Allach. Forst / 22.5.06 // München / H. Kulzer // Neotypus / *Brachypterus* / *collinus* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Brachypterus* / *glaber* (Newm.) / det. Jelínek, 2007'.

The combination of characters mentioned in the original description, such as black coloration, dense pubescence, rounded posterior angles of pronotum, black antennae and piceous legs may refer only to *Brachypterus glaber* (Newman, 1834). *Brachypterus collinus* Gistel, 1857 is therefore proposed as a junior synonym of *Brachypterus glaber* (Newman, 1834).

#### *Brachypterus pelusius* Gistel, 1857

*Brachypterus pelusius* Gistel, 1857: 582 [70].

**Type material.** NEOTYPE: ♀, 'Germania / Thüringen / Jena / 8.5.1929 // Neotypus / *Brachypterus* / *pelusius* Gistel 1857 / des. Jelínek & Audisio / 2007 // *Brachypterus* / *urticae* (F.) / det. J. Jelínek 2007'.

The description is almost identical with that of *B. solaris*, but the type locality is not indicated. We therefore also consider *Brachypterus pelusius* as a junior synonym of *Brachypterus urticae* (Fabricius, 1792).

#### *Brachypterus solaris* Gistel, 1857

*Brachypterus solaris* Gistel, 1857: 577 [65].

**Type material.** NEOTYPE: ♂, 'Styria / Hochschwab / F. Smolik // Neotypus / *Brachypterus* / *solaris* Gistel 1857 / des. Jelínek & Audisio / 2007 // *Brachypterus* / *urticae* (F.) / det. J. Jelínek 2007'.

The combination of characters such as: chestnut-brown colour with red legs and antennae, deep punctation, and rounded posterior angles of pronotum, along with the occurrence in the Alps indicate a (perhaps teneral) specimen of *Brachypterus urticae* (Fabricius, 1792).

*Brachypterus solaris* Gistel, 1857 is thus proposed as a junior synonym of *Brachypterus urticae* (Fabricius, 1792).

### *Cercus nectarineus* Gistel, 1857

*Cercus nectarineus* Gistel, 1857: 578 [66].

**Type material.** NEOTYPE: ♀, 'Risserkogelgebiet / Obb.[Oberbayern] / 19.8.1955, ca 1690 m / leg. G. Scherer // Neotypus / *Cercus* / *nectarineus* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Kateretes* / *pedicularius* (L.) / det. Jelínek, 2007'.

The description undoubtedly refers to *Kateretes pedicularius* (Linnaeus, 1758), probably female or perhaps a small male, because the characteristic sexual dimorphism in the shape of antennae, particularly prominent in larger males, is not mentioned. *Cercus nectarineus* Gistel, 1857 is therefore considered as a junior synonym of *Kateretes pedicularius* (Linnaeus, 1758).

### *Cercus uliginosus* Gistel, 1857

*Cercus uliginosus* Gistel, 1857: 591 [79].

**Type material.** NEOTYPE: ♂, 'Ascholding Au. / Obb. [Oberbayern] 26.VI. / leg. H. Freude 1960 // *Kateretes* / *pusillus* (Thunb.) / det. A. Kirejtshuk 1991 // Neotypus / *Cercus* / *uliginosus* Gistel 1857 / des. Jelínek & Audisio / 2007 // *Kateretes* / *pusillus* (Thunb.) / det. J. Jelínek 2007'.

The description, which mentions a large median spot on each elytron, apparently refers to *Kateretes pusillus* (Thunberg, 1794). *Cercus uliginosus* Gistel, 1857 is thus considered as a junior synonym of *Kateretes pusillus* (Thunberg, 1794).

## Nitidulidae

### *Cychramus tenebrio* Gistel, 1857

*Cychramus tenebrio* Gistel, 1857: 536 [24].

**Type material.** NEOTYPE: ♀, 'Trencsen / Ungarn // Sammlung / A. Horion // Neotypus *Cychramus tenebrio* Gistel, 1857 des. Jelínek & Audisio, 2007 // *Cyllodes* / *ater* (Herbst) / det. 1971 / Karl Spornraft'.

The description of this species from 'Hungary' fits perfectly to the Central European *Cyllodes ater* (Herbst, 1792). Thus, *Cychramus tenebrio* Gistel, 1857 is considered as a junior synonym of *Cyllodes ater* (Herbst, 1792).

**Note.** The species was described from Hungary. The locality of the neotype is Trenčín in Slovakia, which was part of Hungary until 1918.

### *Meligethes kelchii* Gistel, 1857

*Meligethes kelchii* Gistel, 1857: 530 [18].

**Type material.** NEOTYPE: ♀, 'Niederbayern / Tann 30.4.71 // Neotypus / *Meligethes kelchii* Gistel, 1857 des. Jelínek & Audisio, 2007 // *Meligethes* / *aeneus* (F.) / det Jelínek, 2007'.

This species is comparable to a 'quite similar *M. aenea*' and was certainly based on a specimen of *M. aeneus* (F.). Therefore, it is considered here as a junior synonym of *Meligethes aeneus* (Fabricius, 1775).

### *Meligethes pratincola* Gistel, 1857

*Meligethes pratincola* Gistel, 1857: 600 [88].

**Type material.** NEOTYPE: ♀, 'München Umg. / O-Luterbach / 12.VII.1965 / leg. H. Freude / Cola // *Meligethes viridescens* (F.) det. 1969 / Karl Spornraft // Neotypus / *Meligethes pratincola* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Meligethes viridescens* / det. J. Jelínek 2007'.

A metallic-green *Meligethes* with finely denticulate protibiae ('Tibiis anticis inermibus') clearly belongs to the *M. aeneus* species-group. Its rufo-testaceous legs correspond to the coloration of *M. viridescens* (Fabricius, 1787). *Meligethes pratincola* Gistel, 1857 is therefore considered as a junior synonym of *Meligethes viridescens* (Fabricius, 1787).

### *Nitidula heterochroa* Gistel, 1857

*Nitidula heterochroa* Gistel, 1857: 542 [30].

**Type material.** NEOTYPE: ♀, 'Neuhaus bei / Schliersee / 26.IV.1953 / K. Wellschmied // Neotypus / *Nitidula heterochroa* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Eपुरaea Sahlb. / melanocephala* / M. Hüther det. 1954'.

GISTEL (1857) compared this species with '*Nit. aenea*', suggesting an appurtenance with *Meligethes*. However, no *Meligethes* occurring in Bavaria displays the described coloration (brown, at least head dirty black), nor some other features ('Bruststück [...] runzelig, borstig, [...] mit abgerundeten Hinterecken; Decken grob punktiert. ...rotbraun.'). However, these characters correspond to *Eपुरaea (Micrurula) melanocephala* (Marsham, 1802), i.e. a species with a strikingly *Meligethes*-like habitus. We therefore consider *Nitidula heterochroa* Gistel, 1857 as a junior synonym of *Eपुरaea (Micrurula) melanocephala* (Marsham, 1802).

### *Nitidula polyporina* Gistel, 1857

*Nitidula polyporina* Gistel, 1857: 542 [30].

**Type material.** NEOTYPE: ♂, 'A.Stm. [Austria, Steiermark], Bey. Hart= / berg, Tierpark {Herberstein 400 // 1998-04-10 / leg. Erwin Holzer // Neotypus / *Nitidula polyporina* Gistel 1857 / des. Jelínek & Audisio 2007 // *Eपुरaea / distincta* / (Grimmer) / det. J. Jelínek, 2007'.

The brief description mentions important diagnostic traits ('thorace subanguloso, plano [...] elytris maculis obscuris irregularibus obtectis') and in combination with bionomic observations ('Primo vere in Styriae polyporis saliceticollis (Martio mense) non rara.') clearly indicates that this species is conspecific with *Eपुरaea distincta* (Grimmer, 1841). *Nitidula polyporina* Gistel, 1857 is thus a junior synonym of *Eपुरaea distincta* (Grimmer, 1841).

### *Nitidula vaccinii* Gistel, 1857

*Nitidula vaccinii* Gistel, 1857: 542 [30].

**Type material.** NEOTYPE: ♀, 'Stuhleck / St.[Styria], Mader // Neotypus / *Nitidula vaccinii* Gistel 1857 / des. Jelínek & Audisio / 2007 // *Nitidula aestiva* (L.) / det. Jelínek 2007'.

Like other species placed by GISTEL (1857) in *Nitidula*, this species belongs to *Eपुरaea* and GISTEL (1857) himself compared it with *N. depressa*, i.e. *Eपुरaea aestiva* (Linnaeus, 1758). The brief description apparently refers either to *E. aestiva* (Linnaeus, 1758) or to the closely related *E. melina* Erichson, 1843. The indicated proportions, 'thorax 1/3 lin., corporis longitudinis aequante' as well as 'Long. 2 lin. Lat. 1 lin.', even though not quite exact, correspond



better to the former species. We therefore consider *Nitidula vaccinii* Gistel, 1857 as a junior synonym of *E. aestiva* (Linnaeus, 1758).

### ***Omosita viana* Gistel, 1857**

*Omosita viana* Gistel, 1857: 587 [75].

**Type material.** NEOTYPE: ♀, 'Im Wald südl. / von Altenufer, 2 km / S.E. von / Niederaltaich. / An Aas / 18.IV.1947 [handwritten, white card with blue upper and lower border] // Neotypus / *Omosita / viana* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Omosita / colon* (L.) / det. Jelínek, 2007'.

The described colour pattern ('marginis elytrisque apice [...] rufotestaceis') clearly refers to *Omosita colon* (Linnaeus, 1758). *Omosita viana* Gistel, 1857 is thus a junior synonym of *Omosita colon* (Linnaeus, 1758).

### ***Pocadius tenebrio* Gistel, 1857**

*Pocadius tenebrio* Gistel, 1857: 552 [40].

**Type material.** NEOTYPE: ♂, 'Bolesó / Trencsén / Laczó J. // Neotypus / *Pocadius tenebrio* Gistel, 1857 / des. Jelínek & Audisio, 2007 // *Cyllodes ater* (Herbst) det. Jelínek, 2007'.

Apart from minor details, the description of this species is a Latin equivalent of the German description of *Cychramus tenebrio* on page 536 [24]. Moreover, the measurements are specified and potential identity with *Strongylus ater* is admitted. The glabrous, shining black dorsum with subtle seriate punctures on elytra also confirm this identity. *Pocadius tenebrio* Gistel, 1857 is thus both a synonym and a secondary homonym of *Cychramus tenebrio* Gistel, 1857, and a junior synonym of *Strongylus ater* Herbst, 1792 (= *Cyllodes ater* (Herbst, 1792)).

**Note.** Bolesó and Trencsén are Hungarian equivalents of the Slovak toponymes Bolešov and Trenčín (Slovakia) – see also *Cychramus tenebrio* above.

### ***Thalycra aridosa* Gistel, 1857**

*Thalycra aridosa* Gistel, 1857: 590 [78].

**Type material.** NEOTYPE: ♀, 'Stuttgart / Umgebung / K. Wellschmied // *Thalycra / fervida* Oliv. / M. Hüther det. 1955 // Neotypus / *Thalycra / aridosa* Gistel 1857 / des. Jelínek & Audisio, 2007 // *Thalycra / fervida* (Ol.) / det. Jelínek 2007'.

*Thalycra aridosa* was described from Germany, and the only currently recognized Central European species of the genus, *Thalycra fervida* (Olivier, 1790), corresponds to this description. *Thalycra aridosa* Gistel, 1857 is therefore a junior synonym of *Thalycra fervida* (Olivier, 1790).

## **Monotomidae**

### ***Rhizophagus quercus* Gistel, 1857**

*Rhizophagus quercus* Gistel, 1857: 534 [22], 539 [27].

**Type material.** NEOTYPE: ♂, 'Reichenhall Umg. / 14.IV.1967 / leg. H. Freude // Neotypus / *Rhizophagus / quercus* Gistel, 1857 / des. Jelínek & Audisio, 2007 // Rh. / bipustulat. / det. Vogt 1967 / *Rhizophagus / bipustulatus* (F.) / det. J. Jelínek, 2007'.

Two identical descriptions of *Rhizophagus quercus* appeared on pages 534 [22] and 539 [27] in GISTEL (1857). The description fits well *Rhizophagus bipustulatus* Fabricius, 1792. Therefore, *R. quercus* Gistel, 1857 is considered as a junior synonym of *Rhizophagus bipustulatus* Fabricius, 1792.

### ***Rhizophagus scoriaceus* Gistel, 1857**

*Rhizophagus scoriaceus* Gistel, 1857: 589 [77].

**Type material.** NEOTYPE: ♀, ‘Hanno- / ver // Neotypus / Rhizophagus / scoriaceus Gistel 1857 / des. Jelinek & Audisio 2007 // Rhizophagus / aeneus Richt. / det. Jelinek 2007’.

The description refers to greenish, coriaceous elytra, suggesting the identity of *R. scoriaceus* with *Rhizophagus aeneus*. Therefore, *Rhizophagus scoriaceus* Gistel, 1857 is considered as a junior synonym of *Rhizophagus aeneus* Richter, 1820.

## **Review of new synonyms**

### **Kateretidae**

#### ***Brachypterolus linariae* (Stephens, 1830)**

*Cateretes linariae* Stephens, 1830: 53.

*Brachypterus autumnalis* Gistel, 1857: 574, **syn. nov.**

#### ***Brachypterus glaber* (Newman, 1834)**

*Catheretes glaber* Newman, 1834: 200.

*Brachypterus collinus* Gistel, 1857: 590, **syn. nov.**

#### ***Brachypterus urticae* (Fabricius, 1792)**

*Dermestes urticae* Fabricius, 1792a: 235.

*Brachypterus pelusius* Gistel, 1857: 582, **syn. nov.**

*Brachypterus solaris* Gistel, 1857: 577, **syn. nov.**

#### ***Kateretes* Herbst, 1793**

*Kateretes* Herbst, 1793: 11. Type species: *Dermestes pedicularius* Linnaeus, 1758, by subsequent designation (PARSONS 1943).

*Ammalaptus* Gistel, 1856: 362, **syn. nov.** Type species: *Cercus rufilabris* Latreille, 1807, by subsequent designation here.

#### ***Kateretes pedicularius* (Linnaeus, 1758)**

*Dermestes pedicularius* Linnaeus, 1758: 357.

*Cercus nectarineus* Gistel, 1857: 578, **syn. nov.**

#### ***Kateretes pusillus* (Thunberg, 1794)**

*Nitidula pusilla* Thunberg, 1794: 69.

*Cercus uliginosus* Gistel, 1857: 591, **syn. nov.**

### **Nitidulidae**

#### ***Amphotis* Erichson, 1843**

*Amphotis* Erichson, 1843: 290. Type species: *Nitidula marginata* Fabricius, 1781, by monotypy.

*Oostomum* Gistel, 1856: 362, **syn. nov.** Type species: *Nitidula marginata* Fabricius, 1781, by monotypy.

***Cyllodes ater* (Herbst, 1792)**

*Strongylus ater* Herbst, 1792: 188.

*Cychramus tenebrio* Gistel, 1857: 536, **syn. nov.**

*Pocadius tenebrio* Gistel, 1857: 552, **syn. nov.**

***Epuraea aestiva* (Linnaeus, 1758)**

*Silpha aestiva* Linnaeus, 1758: 574.

*Nitidula vaccinii* Gistel, 1857: 542, **syn. nov.**

***Epuraea distincta* (Grimmer, 1841)**

*Nitidula distincta* Grimmer, 1841: 38.

*Nitidula polyporina* Gistel, 1857: 542, **syn. nov.**

***Epuraea melanocephala* (Marsham, 1802)**

*Nitidula melanocephala* Marsham, 1802: 136.

*Nitidula heterochroa* Gistel, 1857: 542, **syn. nov.**

***Meligethes aeneus* (Fabricius, 1775)**

*Nitidula aenea* Fabricius, 1775: 78.

*Meligethes kelchii* Gistel, 1857: 530, **syn. nov.**

***Meligethes viridescens* (Fabricius, 1787)**

*Nitidula viridescens* Fabricius, 1787: 52.

*Meligethes pratincola* Gistel, 1857: 600, **syn. nov.**

***Nitidula* Fabricius, 1775**

*Nitidula* Fabricius, 1775: 77. Type species: *Silpha bipustulata* Linnaeus, 1761 (= *Silpha bipunctata* Linnaeus, 1758), by subsequent designation (THOMSON 1859).

*Theridiosmum* Gistel, 1856: 361, **syn. nov.** Type species: *Silpha bipustulata* Linnaeus, 1761 (= *Silpha bipunctata* Linnaeus, 1758), by subsequent designation here.

***Omosita* Erichson, 1843**

*Omosita* Erichson, 1843: 298. Type species: *Silpha depressa* Linnaeus, 1758, by subsequent designation (THOMSON 1859).

*Scatocharis* Gistel, 1856: 362, **syn. nov.** Type species: *Silpha depressa* Linnaeus, 1758, by subsequent designation here.

***Omosita colon* (Linnaeus, 1758)**

*Silpha colon* Linnaeus, 1758: 362.

*Omosita viana* Gistel, 1857: 587, **syn. nov.**

***Pocadius* Erichson, 1843**

*Pocadius* Erichson, 1843: 318. Type species: *Nitidula ferruginea* Fabricius, 1775, by subsequent designation (CHENU & DESMAREST 1851).

*Holopterus* Gistel, 1856: 361, **syn. nov.** Type species: *Nitidula ferruginea* Fabricius, 1775, by monotypy.

***Pria* Stephens, 1830**

*Pria* Stephens, 1830: 49. Type species: *Silpha truncatella* Marsham, 1802 (= *Laria dulcamarae* Scopoli, 1763), by monotypy.

*Strychnobia* Gistel, 1857: 573, **syn. nov.** Type species: *Nitidula dulcamarae* Illiger, 1798 (= *Laria dulcamarae* Scopoli, 1763), by original designation.

***Thalycra fervida* (Olivier, 1790)**

*Nitidula fervida* Olivier, 1790, no. 12: 15.

*Thalycra aridosa* Gistel, 1857: 590, **syn. nov.**

## Monotomidae

### *Rhizophagus aeneus* Richter, 1820

*Rhizophagus aeneus* Richter, 1820: 9.

*Rhizophagus scoriaceus* Gistel, 1857: 589, **syn. nov.**

### *Rhizophagus bipustulatus* (Fabricius, 1792)

*Lyctus bipustulatus* Fabricius, 1792b: 503.

*Rhizophagus quercus* Gistel, 1857: 534, 539, **syn. nov.**

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## References

- AUDISIO P. 1993: *Coleoptera Nitidulidae-Kateretidae. Fauna d'Italia* 32. Edizioni Calderini, Bologna, xvi + 971 pp.
- CHENU J. C. & DESMAREST M. E. 1851: Coléoptères Cicindelètes, Carabiques, Dytisciens, Hydrophilien, Sylphales et Nitidulaires. In: CHENU J. C. (ed.): *Encyclopédie d'Histoire naturelle ou traité complet de cette science d'après les travaux des naturalistes les plus éminent de tous les pays et toutes les époques*. Maresq et Co., Paris, 312 pp.
- ERICHSON W. F. 1843: Versuch einer systematischen Eintheilung der Nitidularien. *Zeitschrift für die Entomologie, herausgegeben von Ernst Friedrich Germar* 4: 225–361.
- FABRICIUS J. C. 1775: *Systema entomologiae sistens insectorum classes, ordines, genera, species, adjectis synonymis, locis, descriptionibus, observationibus*. Korte, Flensburgi et Lipsiae, 832 pp.
- FABRICIUS J. C. 1787: *Mantissa insectorum sistens eorum species nuper detectas adjectis characteribus genericis, differentiis specificis, emendationibus, observationibus. Tom I*. Christ. Gottl. Proft, Hafniae, xx + 348 pp.
- FABRICIUS J. C. 1792a: *Entomologia systematica emendata et aucta secundum classes, ordines, genera, species adjectis synonymis, locis, observationibus, descriptionibus. Tom I, Pars I*. Christ. Gottl. Proft, Hafniae, xx + 330 pp.
- FABRICIUS J. C. 1792b: *Entomologia systematica emendata et aucta secundum classes, ordines, genera, species adjectis synonymis, locis, observationibus, descriptionibus. Tom I, Pars II*. Christ. Gottl. Proft, Hafniae, 538 pp.
- GEMMINGER M. & HAROLD B. DE 1868: *Catalogus Coleopterorum hucusque descriptorum synonymicus et systematicus. Tom III*. E. H. Gumm, Monachii, pp. 753–978 + [5].
- GISTEL J. N. F. X. 1856: *Die Mysterien der europäischen Insectenwelt*. Tobias Dannheimer, Kempten, xii + 530 + [2] pp.
- GISTEL J. N. F. X. 1857: Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere. Pp. 513–606. In: *Vacuna oder die Geheimnisse aus der organischen und leblosen Welt. Unterdruckte Originalien-Sammlung von grösstentheils noch lebenden und verstorbenen Gelehrten aus dem Gebiete sämtlicher Naturwissenschaften, der Medizin, Litteraturgeschichte, des Forst- und Jagtwesens, der Oekonomie, Geschichte, Biographie, und der freien schönen Künste, herausgegeben von Professor Dr. Johannes Gistel. Zweiter Band*. Schorner, Straubing, 1031 pp. [Also issued as a separate reprint in 1857 by Schorner, 94 pp.]
- GRIMMER K. H. B. 1841: *Steiermark's Coleoptern mit Einhundert sechs neu beschriebenen Species*. C. Tanzer, Grätz, 50 pp [pp. i–iv, 5–50].

- GROUVELLE A. 1913: Byturidae, Nitidulidae: 1. Cateretinae, 2. Meligethinae, 3. Carpophilinae, 4. Nitidulinae, 5. Cryptarchinae, 6. Cybocephalinae. In: JUNK W. & SCHENCKLING S. (eds.): *Coleopterorum Catalogus, Pars 56*. W. Junk, Berlin, 223 pp.
- HEER O. 1841: *Fauna Coleopterorum Helvetica. Pars 1, fasciculus 3*. Impensis Orelii, Fuesslini et Sociorum, Turici [Zürich], pp. 361–652.
- HERBST J. F. W. 1792: *Natursystem aller bekannten in- und auslaendischen Insekten, als eine Fortsetzung der von Buffonschen Naturgeschichte. Der Kaefer vierter Theil. Mit zwölf illuminierten Kupferstafeln*. Joachim Pauli, Berlin, viii + 197 pp + 12 pls.
- HERBST J. F. W. 1793: *Natursystem aller bekannten in- und auslaendischen Insekten, als eine Fortsetzung der von Buffonschen Naturgeschichte. Der Kaefer fuenfter Theil. Mit 16 illuminierten Kupferstaben*. Joachim Pauli, Berlin, xvi + 392 pp + 16 pls.
- HORN W., KAHLE I., FRIESE G. & GAEDICKE R. 1990: *Collectiones entomologicae. Ein Kompendium über den Verbleib entomologischer Sammlungen der Welt bis 1960. Teil 1, 2*. Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik, Berlin, 573 pp.
- ICZN 1999: *International Code of Zoological Nomenclature. Fourth Edition*. International Trust for Zoological Nomenclature, London, 306 pp.
- JELÍNEK J. 2007: Family Monotomidae. Pp. 491–495. In: LÖBL I. & SMETANAA. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 4*. Apollo Books, Stenstrup, 935 pp.
- JELÍNEK J. & AUDISIO P. 2007a: Family Kateretidae. Pp. 455–458. In: LÖBL I. & SMETANAA. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 4*. Apollo Books, Stenstrup, 935 pp.
- JELÍNEK J. & AUDISIO P. 2007b: Family Nitidulidae. Pp. 459–491. In: LÖBL I. & SMETANAA. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 4*. Apollo Books, Stenstrup, 935 pp.
- LAICHARTING J. N. 1781: *Verzeichniss und Beschreibung der Tyroler-Insecten. I. Theil. Käferartige Insecten I. Band*. Johann Caspar Füessly, Zürich, [4] + xii + [1] + 248 pp.
- LINNAEUS C. 1758: *Caroli Linnaei Systema Naturae per Regna tria Naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata*. Impensis direct. Laurentii Salvii, Holmiae, 823 pp.
- LINNAEUS C. 1761: *Fauna Suecica sistens Animalia Sueciae Regnis Mammalia, Aves, Amphibia, Pisces, Insecta, Vermes. Distributa per classes et ordines, genera et species, cum differentiis specierum, synonymis auctorum, nominibus incolarum, locis natalium, descriptionibus Insectorum. Editio altera, auctior*. Laurentii Salvii, Holmiae, 48 + 578 pp., 2 pls.
- LUCAS R. 1919: *Catalogus alphabeticus generum et subgenerum Coleopterorum orbis terrarum totius. Pars I*. Nicolaische Verlags-Buchhandlung R. Stricker, Berlin, xxxi + 696 pp.
- MARSHAM T. 1802: *Coleoptera Britannica, sistens Insecta Britanniae Indigena, secundum Methodum Linnaeanum Disposita. Tomus I. Coleoptera*. Wilks et Taylor, Londini, xxxi + 547 + [1] pp.
- MÉQUIGNON A. 1914: Rhizophagidae. In: JUNK W. & SCHENCKLING S. (eds.): *Coleopterorum Catalogus, Pars 61*. W. Junk, Berlin, 16 pp.
- NEAVE S. A. 1939–1940: *Nomenclator Zoologicus. A list of the names of genera and subgenera in zoology from the tenth edition of Linnaeus 1758 to the end of 1935 in four volumes*. The Zoological Society of London, London. Vol. 1 (1939) xiv + 957 pp; vol. 2 (1939), 1025 pp; vol. 3 (1940), 1065 pp; vol. 4. (1940), 758 pp.
- NEWMAN E. 1834: Entomological Notes (Continued from Vol. I, page 514). *The Entomological Magazine* 2: 200–205.
- OLIVIER M. 1790: *Entomologie, ou Histoire Naturelle des Insectes, avec leur caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enlumée. Coléoptères, Tome 2*. Baudouin, Paris, no. 9–34 + xxii pp.
- PARSONS C. T. 1943: A revision of Nearctic Nitidulidae (Coleoptera). *Bulletin of the Museum of Comparative Zoology* 92: 121–278 + pls. 1–13.
- RICHTER C. F. W. 1820: *Supplementa faunae sectorum Europae. Teil 1*. Richter, Vratislaviae, 12 pls [not seen].
- SCHMITT M., HÜBNER H. & GAEDICKE R. 1998: Nomina Auctorum – Auflösung von Abkürzungen taxonomischer Autoren-Namen. *Nova Supplementa Entomologica* 11: 3–189.

- SCHÜLKE M. 2004: Zur Taxonomie der Tachyporinae (Coleoptera: Staphylinidae). Typenrevision, Typendesignation, Neukombinationen, Untergattungszuordnungen, Nomina nova und neue Synonymien. *Linzer Biologische Beiträge* **36**: 919–1000.
- SCOPOLI J. A. 1763: *Entomologia Carniolica exhibens Insecta Carnioliae indigena et distributa in ordines, genera, species, varietates methodo Linnaeana*. Joannes Thoma Trattner, Vindobonae, xxxvi + 420 pp.
- STEPHENS J. F. 1830: *Illustrations of British Entomology; or, a Synopsis of Indigenous Insects: containing their generic and specific distinctions; with an account of their metamorphoses, times of appearance, localities, food, and economy, as far as practicable. Mandibulata, vol. III*. Baldwin and Craddock, London, 379 pp + pls 16–19.
- THOMSON C. G. 1859: *Skandinaviens Coleoptera, Vol. I*. Berlingska Boktryckeriet, Lund, 290 pp.
- THUNBERG C. P. 1794: *Dissertatio entomologica sistens Insecta Svecica. Quorum partem Quintam. Cons. Exp. facult. Med. Ups. praeside Carol. Pet. Thunberg publico examini subjicit Isaacus Haij, stip. Kahreanus Westrogoth*. Litteris viduae direct. Johann. Edman, Upsaliae, pp. 63–72.