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Taxonomic notes on the Otoretinae, Photurinae,
and Psilocladinae (Coleoptera: Lampyridae)

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Taxonomic notes on the Ototretinae, Photurinae, and Psilocladinae (Coleoptera: Lampyridae)

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Abstract. We propose several nomenclatural changes for taxa in the lampyrid subfamilies Ototretinae, Photurinae, and Psilocladinae (Coleoptera: Lampyridae). Evidence for the correct year of description of *Drilaster albicornis lateobscura* (Pic, 1921) is presented. Spellings are corrected for *Drilaster debilis holzi* (Pic, 1914), *Drilaster impustulata fukienensis* (Pic, 1955), *Drilaster moutoni* (Pic, 1911), *Drilaster pendleburyi* (Pic, 1943) and *Pyrogaster lunifera* (Eschscholtz, 1822). We also explain the validity of the name *Photuris flavicollis* Fall, 1927. Fifty-eight taxa described as variations or aberrations in the subfamilies Ototretinae, Photurinae, and Psilocladinae by Delkeskamp (1977), McDermott (1966), Wittmer (1944), and Pic (1924c), are evaluated, with their availability determined based on ICZN (1999: Article 45.6).

Key words. ICZN, nomenclature, dates of publication, taxonomy, misspellings, subspecific or infrasubspecific rank.

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Introduction

We address taxonomic problems with species and genera in the currently valid lampyrid subfamilies Ototretinae, Photurinae, and Psilocladinae (Coleoptera: Lampyridae) in an effort to update McDermott's (1966) World Lampyridae Catalog. Ballantyne and Keller (2021), Keller (2021, 2022), Keller and Ballantyne (2021, 2023), and Keller and Branham (2018a, b, c) have corrected several problems mostly in other subfamilies, but not in detail for the three subfamilies listed above. We are correcting Ototretinae, Photurinae, and Psilocladinae nomenclatural details not only for the updated checklist (Keller in prep.), but also to address any mistakes present in online databases, regional checklists, and catalogs which mostly relied on Wittmer (1944) and McDermott (1966). We address the following groups of issues: three incorrect publication dates (two of which resulted in the species being *nomina nuda*), five misspelled names, one instance of validity of a taxon name, and 57 determinations of subspecific status within Ototretinae, Photurinae, and Psilocladinae. Additionally, we address the correct spellings of the genera *Ceylanidrilus* Pic, 1911 and *Flabellototreta* Pic, 1911. For each of these, we explain the issues and propose corrections.

Materials and Methods

We checked each species record in Wittmer's (1944) and McDermott's (1966) catalogs for mistakes in authorship, spelling, and date of publication by comparing each to the original descriptions. The validity of varieties listed throughout the Olivier (1910), Wittmer (1944), and McDermott (1966) catalogs was checked using the International Code of Zoological Nomenclature (ICZN 1999) and Lingafelter and Nearn's (2013). Pic's (1924c) species

were never listed in either Wittmer's (1944) or McDermott's (1966) catalogs and is therefore listed separately. We also give priority to the generic name *Drilaster* Kiesenwetter, 1879 over *Ototreta* Olivier, 1908 as explained in Satô (1968).

Results and Discussion

Date of Publications of Species-Group Taxon Names

***Drilaster albicornis lateobscura* (Pic, 1921)**

Ototreta albicornis var. *lateobscura* Pic, 1921: 15

Ototreta albicornis var. *lateobscura* Pic, 1943 [sic]: 9; McDermott 1966: 118

Note. *Ototreta albicornis* var. *lateobscura* Pic, 1921, was redescribed by Pic in 1943. McDermott (1966) overlooked the first description and cited Pic's (1943) redescription as the valid description. Here, we correct the date of publication to Pic (1921).

Name Misspelling

***Drilaster debilis holzi* (Pic, 1914)**

Ototreta v. debilis holzi Pic, 1914b: 9.

Ototreta debilis var. *holtzi* [sic]; McDermott 1966: 119.

Note. Most likely a spelling error by McDermott (1966).

***Drilaster impustulata fukienensis* (Pic, 1955)**

Ototreta impustulata var. *fukienensis* Pic, 1955: 2.

Ototreta impustulata var. *fukiensis* [sic]; McDermott 1966: 119.

Note. McDermott (1966) misspelled the species epithet as '*fukiensis*' instead of the original '*fukienensis*'.

***Drilaster moutoni* (Pic, 1911)**

Ototreta moutoni Pic, 1911b: 181.

Ototreta moultoni [sic]; McDermott 1966: 119.

Note. Named after P. Mouton, collector of the specimen.

***Drilaster pendleburyi* (Pic, 1943)**

Ototreta pendleburyi Pic, 1943: 9.

Ototreta pendelburyi [sic]; McDermott 1966: 119.

Note. Most likely a spelling error by McDermott (1966).

***Pyrogaster lunifera* (Eschscholtz, 1822)**

Lampyris lunifera Eschscholtz, 1822: 52.

Pyrogaster lunifer [sic]; Olivier, 1910: 50, McDermott 1966: 97.

Note. The spelling of the species epithet changed between Olivier (1907) and Olivier (1910) from '*lunifera*' to '*lunifer*'. Most likely a spelling error in Olivier (1910) which was followed in publications thereafter.

Validity of Taxon Name

Photuris falli Barber, 1951

Photuris flavicollis Fall, 1927: 210; Lloyd 2018: 435; junior primary homonym of *Photuris telephorinus flavicollis* Olivier, 1886

Photuris brunnipennis var. *falli* Barber, 1951: 24; replacement name for *Photuris flavicollis* Fall, 1927; McDermott 1966: 89; 1967: 107

Note. Olivier (1886: 212) described the subspecies *Photuris telephorinus flavicollis* Oliver, 1886, that was later moved into the genus *Pyrogaster* Motschulsky, 1853 by Olivier (1910). Later on, Fall (1927: 210) described the species *Photuris flavicollis* Fall, 1927. Barber (1951: 24), acknowledging the presence of a primary homonymy, proposed *falli* as a new replacement name for *flavicollis* Fall, 1927, which is a junior primary homonym of *P. flavicollis* Olivier, 1886.

Determination of Subspecific or Intraspecific Rank

We evaluated all remaining taxa described as variations in the subfamilies Ototretinae, Photurinae, and Psilocladinae (Wittmer 1944; McDermott 1966) and determined their availability based on Article 45.6 of the Code (ICZN 1999) using Lingafelter and Nearn (2013) for elucidation of this article. In the table below, we show the taxa that have been elevated to subspecies level or were made unavailable. The table is first organized alphabetically by McDermott's (1966) catalog, Pic's (1924a, d) uncatalogued species, and Wittmer's (1944) catalog, then alphabetically by subfamily and species within each subfamily in the original combination column.

Original combination	Name used in Delkeskamp 1977	Current status, comments
PHOTURINAE		
<i>Photurocantharis nitidipennis</i> v. nov. <i>peruvianus</i> Pic, 1914a: 4	<i>Photurocantharis nitidipennis</i> var. <i>peruvianus</i> Pic, 1914a: 4 (Delkes- kamp 1977: 7)	<i>Photurocantharis nitidipennis peru- vianus</i> Pic, 1914: 4 Moved from Cantharidae to Lam- pyridae in Wittmer (1969: 127)
Original combination	Name used in McDermott 1966	Current status, comments
OTOTRETINAE		
<i>Ototreta albicornis</i> v. <i>lateobscura</i> Pic, 1921: 15	<i>Ototreta albicornis</i> var. <i>lateobscura</i> Pic, 1943: 9 (McDermott 1966: 118)	<i>Drilaster albicornis lateobscurus</i> (Pic, 1921) For the corrected date of publica- tion, see above.
<i>Ototreta atriceps</i> v. <i>atricollis</i> Pic, 1937a: 139	<i>Ototreta atriceps</i> var. <i>atricollis</i> Pic, 1937a: 139 (McDermott 1966: 118)	<i>Drilaster atriceps atricollis</i> (Pic, 1937)
<i>Ototreta atriceps</i> v. <i>basipennis</i> Pic, 1937a: 139	<i>Ototreta atriceps</i> var. <i>basipennis</i> Pic, 1937a: 139 (McDermott 1966: 118)	<i>Drilaster atriceps basipennis</i> (Pic, 1937)
<i>Ototreta atronotata</i> v. <i>pieli</i> Pic, 1955: 2	<i>Ototreta atronotata</i> var. <i>pieli</i> Pic, 1955: 2 (McDermott 1966: 118)	<i>Drilaster atronotatus pielii</i> (Pic, 1955)
<i>Ototreta corporaali</i> v. <i>diversipes</i> Pic, 1937a: 139	<i>Ototreta corporaali</i> var. <i>diversipes</i> Pic, 1937a: 138 [sic] (McDermott 1966: 119)	<i>Drilaster corporaali diversipes</i> (Pic, 1937)
<i>Ototreta debilis</i> v. <i>holzi</i> Pic, 1914b: 9	<i>Ototreta debilis</i> var. <i>holtzi</i> Pic, 1914b: 9 (McDermott 1966: 119)	<i>Drilaster debilis holzi</i> (Pic, 1914) For correct spelling, see above.

Original combination	Name used in McDermott 1966	Current status, comments
<i>Ototreta impustulata</i> v. <i>fukienensis</i> Pic, 1955: 2	<i>Ototreta impustulata</i> var. <i>fukienensis</i> [sic] Pic, 1955: 2 (McDermott 1966: 119)	<i>Drilaster impustulatus fukienensis</i> (Pic, 1955)
<i>Ototreta lusoria</i> v. <i>testaceonotata</i> Pic, 1921: 16	<i>Ototreta lusoria</i> var. <i>testaceonotata</i> Pic, 1921: 16 (McDermott 1966: 119)	<i>Drilaster lusoria testaceonotatus</i> (Pic, 1921)
<i>Ototreta spectabilis</i> v. <i>inapicalis</i> Pic, 1921: 17	<i>Ototreta spectabilis</i> var. <i>inapicalis</i> Pic, 1921: 17 (McDermott 1966: 119)	<i>Drilaster spectabilis inapicalis</i> (Pic, 1921)
<i>Ototreta subapicalis</i> v. <i>helodiformis</i> Pic, 1921: 17	<i>Ototreta subapicalis</i> var. <i>helodiformis</i> Pic, 1921: 17 (McDermott 1966: 119)	<i>Drilaster subapicalis helodiformis</i> (Pic, 1921)
<i>Ototreta subtilis</i> v. <i>femoralis</i> Pic, 1921: 16	<i>Ototreta subtilis</i> var. <i>femoralis</i> Pic, 1921: 16 (McDermott 1966: 119)	<i>Drilaster subtilis femoralis</i> (Pic, 1921)
<i>Ototreta subtilis</i> v. <i>meggitti</i> Pic, 1935b: 13	<i>Ototreta subtilis</i> var. <i>meggitti</i> Pic, 1935b: 13 (McDermott 1966: 119)	<i>Drilaster subtilis meggitti</i> (Pic, 1935)
<i>Ototreta subtilis</i> var. <i>vittiger</i> Olivier, 1908: 115	<i>Ototreta subtilis</i> var. <i>vittiger</i> Olivier, 1908: 116 [sic] (McDermott 1966: 119)	<i>Drilaster subtilis vittiger</i> (Olivier, 1908)
<i>Ototreta weyersi</i> var. <i>maculithorax</i> Olivier, 1909: 318	<i>Ototreta weyersi</i> var. <i>maculithorax</i> Olivier, 1909: 318 (McDermott 1966: 120)	<i>Drilaster weyersi maculithorax</i> (Olivier, 1909)
<i>Ototreta weyersi</i> var. <i>nigrithorax</i> Olivier, 1909: 318	<i>Ototreta weyersi</i> var. <i>nigrithorax</i> Olivier, 1909: 318 (McDermott 1966: 120)	<i>Drilaster weyersi nigrithorax</i> (Olivier, 1909)
<i>Ototreta weyersi</i> var. <i>semipartita</i> Olivier, 1909: 319	<i>Ototreta weyersi</i> var. <i>semipartita</i> Olivier, 1909: 319 (McDermott 1966: 120)	<i>Drilaster weyersi semipartitus</i> (Olivier, 1909)
PHOTURINAE		
<i>Bycellonycha</i> [sic] <i>collaris</i> v. <i>bicoloripes</i> Pic, 1935b: 9	<i>Bicellonycha collaris</i> var. <i>bicoloripes</i> Pic, 1935a [sic]: 9 (McDermott 1966: 94)	<i>Bicellonycha collaris bicoloripes</i> Pic, 1935 McDermott (1966) cites the wrong publication by Pic (1935a) in the Arkiv för Zoologi for the primary description. <i>Bycellonycha</i> Pic, 1935 (Pic, 1935b: 9) is an incorrect subsequent spelling of <i>Bicellonycha</i> Motschulsky not in prevailing use and therefore an unavailable name.
<i>Daiphoturis bicoloripes</i> v. <i>reductus</i> Pic, 1926: 28	<i>Photuris</i> (<i>Daiphoturis</i>) <i>bicoloripes</i> var. <i>reducta</i> (Pic, 1926: 28) (McDermott 1966: 93)	<i>Photuris</i> (<i>Daiphoturis</i>) <i>bicoloripes reducta</i> (Pic, 1926) McDermott (1966) demoted <i>Daiphoturis</i> Pic, 1926 to a subgenus of <i>Photuris</i> Dejean.

Original combination	Name used in McDermott 1966	Current status, comments
<i>Daiphoturis bicoloripes</i> v. <i>subobliteratus</i> Pic, 1926: 28	<i>Photuris (Daiphoturis) bicoloripes</i> var. <i>subobliterata</i> Pic, 1926: 28 (McDermott 1966: 93)	<i>Photuris (Daiphoturis) bicoloripes subobliterata</i> Pic, 1926 McDermott (1966) demoted <i>Daiphoturis</i> Pic, 1926 to a subgenus of <i>Photuris</i> Dejean.
<i>Photuris amoena</i> var. ? <i>nitida</i> Gorham, 1884: 275	<i>Bicellonycha amoena</i> var. <i>nitida</i> (Gorham, 1884: 275) (McDermott 1966: 94)	<i>Bicellonycha amoena nitida</i> (Gorham, 1884)
<i>Photuris brunnipennis</i> var. <i>falli</i> Barber, 1951: 24	<i>Photuris brunnipennis</i> var. <i>falli</i> Barber, 1951: 24 (McDermott 1966: 89)	<i>Photuris flavicollis</i> Fall, 1927 For discussion on the validity of the name, see “Validity of Taxon Name” section above. Lloyd (2018: 435) gives <i>Photuris flavicollis</i> species status.
<i>Photuris corvus</i> v. <i>innotata</i> Pic, 1930: 80	<i>Photuris corvus</i> var. <i>innotata</i> Pic, 1930a: 80 (McDermott 1966: 89)	<i>Photuris corvus innotata</i> Pic, 1930
<i>Photuris elegans</i> var. <i>guttata</i> Olivier, 1886: 215	<i>Pyrogaster elegans</i> var. <i>guttatus</i> (Olivier, 1886: 215) (McDermott 1966: 96)	<i>Pyrogaster elegans guttatus</i> (Olivier, 1886)
<i>Photuris elegans</i> var. <i>obscuripennis</i> Olivier, 1886: 215	<i>Pyrogaster elegans</i> var. <i>obscuripennis</i> (Olivier, 1886: 215) (McDermott 1966: 96)	<i>Pyrogaster elegans obscuripennis</i> (Olivier, 1886)
<i>Photuris lucidicollis</i> var. <i>sordida</i> Gorham, 1884: 275	<i>Bicellonycha lucidicollis</i> var. <i>sordida</i> (Gorham, 1884: 275) (McDermott 1966: 95)	<i>Bicellonycha lucidicollis sordidus</i> (Gorham, 1884)
<i>Photuris lunifera</i> var. <i>biguttata</i> Olivier, 1886: 220	<i>Pyrogaster lunifer</i> var. <i>biguttatus</i> (Olivier, 1886: 220) (McDermott 1966: 97)	<i>Pyrogaster lunifer biguttatus</i> (Olivier, 1886) For correct spelling of the species epithet, see above.
<i>Photuris ruficeps</i> var. <i>basalis</i> Olivier, 1886: 242	<i>Bicellonycha ruficeps</i> var. <i>basalis</i> (Olivier, 1886: 242) (McDermott 1966: 94)	<i>Bicellonycha ruficeps basalis</i> (Olivier, 1886) Olivier (1907) synonymized <i>Photuris ruficeps</i> and its varieties under <i>Photuris dimidiata</i> (Blanchard). Olivier (1910) moved it to <i>Bicellonycha</i> .
<i>Photuris ruficeps</i> var. <i>humeralis</i> Olivier, 1886: 242	<i>Bicellonycha ruficeps</i> var. <i>humeralis</i> (Olivier, 1886: 242) (McDermott 1966: 94)	<i>Bicellonycha ruficeps humeralis</i> (Olivier, 1886) Olivier (1907) synonymized <i>Photuris ruficeps</i> and its varieties under <i>Photuris dimidiata</i> (Blanchard). Olivier (1910) moved it to <i>Bicellonycha</i> .

Original combination	Name used in McDermott 1966	Current status, comments
<i>Photuris ruficeps</i> var. <i>rubiginosa</i> Olivier, 1886: 242	<i>Bicellonycha ruficeps</i> var. <i>rubiginosa</i> (Olivier, 1886: 242) (McDermott 1966: 94)	<i>Bicellonycha ruficeps rubiginosa</i> (Olivier, 1886) Olivier (1907) synonymized <i>Photuris ruficeps</i> and its varieties under <i>Photuris dimidiata</i> (Blanchard). Olivier (1910) moved it to <i>Bicellonycha</i> .
<i>Photuris telephorina</i> var. <i>apicalis</i> Olivier, 1886: 214	<i>Pyrogaster telephorinus</i> var. <i>apicalis</i> (Olivier, 1886: 214) (McDermott 1966: 98)	<i>Pyrogaster telephorinus apicalis</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>atrata</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>atratus</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus atratus</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>bicolor</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>bicolor</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus bicolor</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>biplagiata</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>biplagiatus</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus biplagiatus</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>dimidiata</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>dimidiatus</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus dimidiatus</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>divisa</i> Olivier, 1886: 212	<i>Pyrogaster telephorinus</i> var. <i>divisus</i> (Olivier, 1886: 212) (McDermott 1966: 98)	<i>Pyrogaster telephorinus divisus</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>flava</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>flavus</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus flavus</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>flavicollis</i> Olivier, 1886: 212	<i>Pyrogaster telephorinus</i> var. <i>flavicollis</i> (Olivier, 1886: 212) (Mc- Dermott 1966: 98)	<i>Pyrogaster telephorinus flavicollis</i> (Olivier, 1886)
<i>Photuris telephorina</i> var. <i>intersepta</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>interseptus</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus interseptus</i> (Olivier, 1886)
<i>Photuris telephorina</i> ab. <i>mixta</i> Olivier, 1896: 3	<i>Pyrogaster telephorinus</i> var. <i>mixtus</i> (Olivier, 1896: 3) (McDermott 1966: 98)	Originally described as an aberration, therefore automatically infrasubspecific and unavailable.
<i>Photuris telephorina</i> var. <i>puncticollis</i> Olivier, 1886: 213	<i>Pyrogaster telephorinus</i> var. <i>puncticollis</i> (Olivier, 1886: 213) (McDermott 1966: 98)	<i>Pyrogaster telephorinus puncticollis</i> (Olivier, 1886)
<i>Pyrogaster bilineatus</i> v. <i>discomaculatus</i> Pic, 1928: 59	<i>Pyrogaster bilineatus</i> var. <i>discomaculatus</i> Pic, 1928: 59 (McDermott 1966: 96)	<i>Pyrogaster bilineatus discomaculatus</i> Pic, 1928
<i>Pyrogaster hecticus</i> v. <i>atriventris</i> Pic, 1924c: 89	<i>Pyrogaster hecticus</i> var. <i>atriventris</i> Pic, 1924c: 89 (McDermott 1966: 96)	<i>Pyrogaster hecticus atriventris</i> Pic, 1924

Original combination	Name used in McDermott 1966	Current status, comments
<i>Pyrogaster maetus</i> v. <i>atricolor</i> Pic, 1939: 371	<i>Pyrogaster maetus</i> var. <i>atricolor</i> Pic, 1939: 371 (McDermott 1966: 97)	<i>Pyrogaster maetus atricolor</i> Pic, 1939
<i>Pyrogaster pictus</i> v. <i>reductus</i> Pic, 1931: 379	<i>Pyrogaster pictus</i> var. <i>reductus</i> Pic, 1931: 379 (McDermott 1966: 97)	<i>Pyrogaster pictus reductus</i> Pic, 1931
<i>Pyrogaster telephorinus</i> var. <i>auricollis</i> Olivier, 1911: 104	<i>Pyrogaster telephorinus</i> var. <i>auricollis</i> Olivier, 1911: 104 (McDermott 1966: 98)	<i>Pyrogaster telephorinus auricollis</i> Olivier, 1911
<i>Pyrogaster telephorinus</i> var. <i>intermedius</i> Olivier, 1911: 104	<i>Pyrogaster telephorinus</i> var. <i>intermedius</i> Olivier, 1911: 104 (McDermott 1966: 98)	<i>Pyrogaster telephorinus intermedius</i> Olivier, 1911
Psilocladinae		
<i>Psilocladus breveramulosus</i> v. <i>reductus</i> Pic, 1937b: 142	<i>Psilocladus breveramulosus</i> var. <i>reductus</i> Pic, 1937b: 142 (McDermott 1966: 85)	<i>Psilocladus breveramulosus reductus</i> Pic, 1937

Original combination	Name used in Pic 1924a	Current status, comments
OTOTRETINAE		
<i>Ototreta bicoloripes</i> var. <i>basalis</i> Pic, 1924a: 713	<i>Ototreta bicoloripes</i> var. <i>basalis</i> Pic, 1924a: 713	<i>Drilaster bicoloripes basalis</i> Pic, 1924
<i>Ototreta bicoloripes</i> var. <i>reducta</i> Pic, 1924a: 713	<i>Ototreta bicoloripes</i> var. <i>reducta</i> Pic, 1924a: 713	<i>Drilaster bicoloripes reductus</i> Pic, 1924

Original combination	Name used in Pic 1924d	Current status, comments
OTOTRETINAE		
<i>Flabellotreta ruficeps</i> v. <i>subelongata</i> Pic, 1924d: 28	<i>Flabellotreta ruficeps</i> var. <i>subelongata</i> Pic, 1924d: 28	<i>Flabellotreta ruficeps subelongata</i> Pic, 1924

Original combination	Name used in Wittmer 1944	Current status, comments
OTOTRETINAE		
<i>Gorhamia depressithorax</i> v. <i>testaceipennis</i> Pic, 1923: 54	<i>Gorhamia depressithorax</i> var. <i>testaceipennis</i> Pic, 1923: 54 (Wittmer 1944: 211)	<i>Gorhamia depressithorax testaceipennis</i> Pic, 1930
<i>Mimophaeopterus wittmeri</i> ab. <i>maculata</i> Wittmer, 1939: 23	<i>Falsophaeopterus</i> (<i>Mimophaeopterus</i>) <i>wittmeri</i> ab. <i>maculata</i> (Wittmer, 1939: 23) (Wittmer 1944: 213)	Originally described as an aberration, therefore automatically infrasubspecific and unavailable
<i>Ototretadrilus flavoscutellatus</i> ab. <i>innotaticollis</i> Wittmer, 1938a: 39	<i>Ototretadrilus flavoscutellatus</i> ab. <i>innotaticollis</i> Wittmer, 1938a: 39 (Wittmer 1944: 21)	Originally described as an aberration, therefore automatically infrasubspecific and unavailable.
<i>Ototretadrilus philippinus</i> ab. <i>maculata</i> Wittmer, 1941: 197	<i>Ototretadrilus philippinus</i> ab. <i>maculata</i> Wittmer, 1941: 197 (Wittmer 1944: 214)	Originally described as an aberration, therefore automatically infrasubspecific and unavailable.
<i>Picodrilus drescheri</i> var. <i>ornaticollis</i> Wittmer, 1938b: 210	<i>Picodrilus drescheri</i> var. <i>ornaticollis</i> Wittmer, 1938b: 210 (Wittmer 1944: 214)	<i>Picodrilus drescheri ornaticollis</i> Wittmer, 1938

Original combination	Name used in Wittmer 1944	Current status, comments
<i>Stenocladus bourgeoisi</i> v. <i>testaceipes</i> Pic, 1924b: 475	<i>Stenocladus bourgeoisi</i> var. <i>testaceipes</i> Pic, 1924b: 475 (Wittmer 1944: 209)	<i>Stenocladus bourgeoisi testaceipes</i> Pic, 1924 <i>Stenocladus</i> Pic, 1924b:475 is an incorrect subsequent spelling of <i>Stenocladus</i> Fairmaire not in prevailing use and therefore an unavailable name.
<i>Stenocladus diversicornis</i> v. <i>obscuripennis</i> Pic, 1935b: 13	<i>Stenocladus diversicornis</i> var. <i>obscuripennis</i> Pic, 1935b: 13 (Wittmer 1944: 209)	<i>Stenocladus diversicornis obscuripennis</i> Pic, 1935 <i>Stenocladus</i> Pic, 1935b:13 is an incorrect subsequent spelling of <i>Stenocladus</i> Fairmaire not in prevailing use and therefore an unavailable name.

Other nomenclatural issues

***Ceylanidrilus* Pic, 1911**

The genus *Ceylanidrilus* was described by Pic (1911c: 198) and included *C. bipartitus* Pic, 1911. Pic (1921) described two more species: *C. atripennis* Pic, 1921 and *C. nigriceps* Pic, 1921 using the original generic name spelling, before describing *C. testaceipennis* Pic, 1929 under the generic name *Ceylanodrilus*. There is no indication that this was intended to be a new genus so we believe it was a misspelling. Janišová & Bocáková (2013: 6) used *Ceylanodrilus* Pic, 1929 with *Ceylanidrilus bipartitus* Pic, 1911 as the type species in their generic revision of Otoretinae, but did not explain why. Here, we revert to the original spelling *Ceylanidrilus* Pic, 1911.

***Flabellototreta* Pic, 1911**

The genus *Flabellototreta* was described by Pic (1911a: 155) and included two species: *F. fruhstorferi* Pic, 1911 and *F. obscuriceps* Pic, 1911. Three years later, Pic (1914b) described two more species (*F. ruficeps* Pic, 1914 and *F. malabarensis* Pic, 1914), but under the generic name *Flabellotreta*. Because Pic stated that *F. obscuriceps* is close to *F. ruficeps* (“Voisin de *F. obscuriceps* Pic, très distinct par sa coloration et la forme différente”) we think it is a subsequent misspelling of the original generic name *Flabellototreta*.

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Literature Cited

- Ballantyne LA, Keller O. 2021.** *Emarginoptyx* Ballantyne (Coleoptera: Lampyridae: Luciolinae) a replacement name for the firefly genus *Emarginata* Ballantyne, 2019. *Insecta Mundi* 0875: 1–2.
- Barber HS. 1951.** North American fireflies of the genus *Photuris*. *Smithsonian Miscellaneous Collections* 117(1): 1–58.
- Delkeskamp K. 1977.** *Cantharidae*. p. 1–487. In: Wilcox JA (ed.). *Coleopterorum Catalogus Supplementa*. Pars 165, Fasc. 1. Dr. W. Junk; The Hague, Netherlands. 487 p.

- Eschscholtz JF. 1822. Entomographien. G. Reimer; Berlin, Germany. 128 p.
- Fall HC. 1927. New Lampyridae. Bulletin of the Brooklyn Entomological Society 22(4): 208–211.
- Gorham HS. 1884. Supplement. p. 249–276. In: Gorham HS (ed.). Biologia Centrali-Americana. Insecta. Coleoptera. Vol. III. Part 2. Malacodermata. R. H. Porter; London, United Kingdom. 372 p.
- ICZN [International Commission of Zoological Nomenclature]. 1999. International Code of Zoological Nomenclature, Fourth Edition, adopted by the International Union of Biological Sciences. International Trust for Zoological Nomenclature; London. xxix + 306 p.
- Janišová K, Bocáková M. 2013. Revision of the subfamily Otoretinae (Coleoptera: Lampyridae). Zoologischer Anzeiger 252: 1–19.
- Keller O. 2021. *Photinus davisae* Keller, new replacement name for *Photinus semiluteus* Pic, 1940 (Coleoptera: Lampyridae). The Pan-Pacific Entomologist 97(3): 179–180.
- Keller O. 2022. On the firefly (Coleoptera: Lampyridae) species of Carl Linnaeus. Insecta Mundi 0962: 1–5.
- Keller O, Ballantyne LA. 2021. *Luciola lambkinae* Keller and Ballantyne, new replacement name for *Luciola roseicollis* Pic, 1935 (Coleoptera: Lampyridae). Insecta Mundi 0874: 1–3.
- Keller O, Ballantyne LA. 2023. Taxonomic notes on the Luciolinae (Coleoptera: Lampyridae). Insecta Mundi 0965: 1–6.
- Keller O, Branham MA. 2018a. Notes on the Amydetinae (Coleoptera: Lampyridae) in McDermott's 1966 catalogue of Lampyridae. Insecta Mundi 0628: 1–6.
- Keller O, Branham MA. 2018b. Miscellaneous notes on the fireflies (Coleoptera: Lampyridae) in McDermott's 1966 catalogue of Lampyridae. Insecta Mundi 0656: 1–10.
- Keller O, Branham MA. 2018c. Miscellaneous notes on the fireflies (Coleoptera: Lampyridae) in McDermott's 1966 catalogue of Lampyridae II. Insecta Mundi 0682: 1–4.
- Lingafelter SW, Nearn EH. 2013. Elucidating Article 45.6 of the International Code of Zoological Nomenclature: A dichotomous key for the determination of subspecific or infrasubspecific rank. Zootaxa 3709(6): 597–600.
- Lloyd JE. 2018. A naturalist's long walk among shadows: Of North American *Photuris* — Patterns, outlines, silhouettes... echoes. Descriptions, illustrations, notes and considerations—From a long-hunter's overland exploration and adventure from a different age. Self-published; Gainesville, FL, USA. 477 p.
- McDermott FA. 1966. Lampyridae. p. 1–149. In: Steel WO (ed.). Coleopterorum Catalogus Supplementa, Pars 9. Uitgeverij Dr. W. Junk; Gravenhage, Netherlands. 149 p.
- McDermott FA. 1967. The North American fireflies of the genus *Photuris* Dejean. A modification of Barber's key (Coleoptera; Lampyridae). The Coleopterists' Bulletin 21(4): 106–116.
- Olivier E. 1886. Études sur les Lampyrides II. Annales de la Société Entomologique de France 6: 201–246.
- Olivier E. 1896. Descriptions de nouvelles espèces de Lampyrides du Musée de Tring. Novitates Zoologicae 3(1): 1–3.
- Olivier E. 1907. 53me fascicule. Coleoptera. Fam. Lampyridae. 1–74. In: Wytsman P (ed.). Genera Insectorum. Vol. VIII. Verteneuil & Desmet; Brussels, Belgium. 74 pp.
- Olivier E. 1908. Le genre *Ototreta* E. Olivier. et descriptions d'espèces nouvelles [Col.]. Bulletin de la Société Entomologique de France 1908: 113–116.
- Olivier E. 1909. Descriptions de Lampyrides nouveaux du Musée civique de Gênes. Annali del Museo Civico di Storia Naturale di Genova 44: 316–319.
- Olivier E. 1910. Lampyridae. p. 1–68. In: Schenkling S (ed.). Coleopterorum Catalogus, Pars 9. W. Junk; Berlin, Germany. 68 p.
- Olivier E. 1911. Révision des Lampyrides. Revue Scientifique du Bourbonnais et du Centre de la France 24(4): 98–112.
- Pic M. 1911a. Coléoptères exotiques nouveaux ou peu connus. L'Échange, Revue Linnéenne 27(320): 155–159.
- Pic M. 1911b. Coléoptères exotiques nouveaux ou peu connus. L'Échange, Revue Linnéenne 27(323): 181–183.
- Pic M. 1911c. Quatre nouveaux genres de Malacodermes. L'Échange, Revue Linnéenne 27(324): 186–188.
- Pic M. 1914a. Un nouveau genre de Malacodermes. Mélanges Exotico-Entomologiques 10: 3–5.
- Pic M. 1914b. Nouveaux Coléoptères de diverses familles. Mélanges Exotico-Entomologiques 10: 7–20.
- Pic M. 1921. Nouveautés diverses. Mélanges Exotico-Entomologiques 33: 1–32.
- Pic M. 1923. Étude des Malacodermes de l'Indochine recueillis par M. R. Vitalis de Salvaza. Faune Entomologique de l'Indochine Française 6: 7–63.
- Pic M. 1924a. Lampyrides et Telephorides des îles Philippines. The Philippine Journal of Science 25: 711–731.
- Pic M. 1924b. Nouveaux Malacodermes Asiatiques. Bulletin du Muséum National d'Histoire Naturelle 30(6): 475–482.
- Pic M. 1924c. Coléoptères exotiques nouveaux. Bulletin de la Section Entomologique Muséum National de Prague 2: 88–89.
- Pic M. 1924d. Coléoptères exotiques en partie nouveaux. L'Échange. Revue Linnéenne 39(417): 27–28.
- Pic M. 1926. Malacodermes exotiques. L'Échange, Revue Linnéenne 42(424): 25–28.
- Pic M. 1928. Malacodermes exotiques. L'Échange, Revue Linnéenne 44(432): 57–60.
- Pic M. 1929. Nouveautés diverses. Mélanges Exotico-Entomologiques 53: 1–36.

- Pic M. 1930.** Malacodermes exotiques. *L'Échange, Revue Linnéenne* 46(439): 77–80.
- Pic M. 1931.** Neue exotische Coleopteren (Malacodermata). *Entomologischer Anzeiger* 11: 377–379.
- Pic M. 1935a.** Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Sii Ping-chang. Insekten gesammelt vom schwedischen Arzt der Expedition Dr. David Hummel 1927–1930. 16. Coleoptera. 2. Helmiidae, Dermestidae, Anobiidae, Cleridae, Malacodermata, Dascillidae, Heteromera (ex. p.), Bruchidae, Cerambycidae, Phytophaga (ex. p.). *Arkiv för Zoologi* 27A(2): 1–14.
- Pic M. 1935b.** Nouveautés diverses. *Mélanges Exotico-Entomologiques* 66: 1–36.
- Pic M. 1937a.** Malacodermes exotiques. *L'Échange, Revue Linnéenne* 53(468): 137–140.
- Pic M. 1937b.** Malacodermes exotiques. *L'Échange, Revue Linnéenne* 53(469): 141–144.
- Pic M. 1939.** Malacodermes exotiques. *L'Échange, Revue Linnéenne* 55(477): 369–372.
- Pic M. 1943.** Coléoptères du globe. *L'Échange, Revue Linnéenne* 59: 9–12.
- Pic M. 1955.** Coléoptères du globe. *L'Échange, Revue Linnéenne* 71(539): 1–3.
- Satô M. 1968.** The lamprid-beetles of Japan, I. *Bulletin of the Japan Entomological Academy* 4(5): 19–26.
- Wittmer W. 1938a.** Neue Drilidae (Coleoptera/Malacodermata) aus Java. (2. Beitrag zur Kenntnis der Indo-Malayischen Malacodermata). *Entomologische Berichten* 10: 36–40.
- Wittmer W. 1938b.** 4. Beitrag zur Kenntnis der Indo-Malayischen Malacodermata (Coleoptera). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 17: 209–210.
- Wittmer W. 1939.** 5. Beitrag zur Kenntnis der Indo-Malayischen Malacodermata (Col.). *Treubia* 17: 21–32.
- Wittmer W. 1941.** Malacodermata von den Philippinen aus der Sammlung des Zoologischen Museums in Amsterdam. 8. Beitrag zur Kenntnis der Indo-Malayischen Malacodermata. *The Philippine Journal of Science* 74(3): 195–229.
- Wittmer W. 1944.** Catalogue des Drilidae E. Oliv. (Coleoptera-Malacodermata). *Revista de la Sociedad Entomológica Argentina* 12: 203–221.
- Wittmer W. 1969.** Synonymische und systematische Notizen über Coleopteren. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 42(1&2): 126–134.

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