



# The Primary Types of Scathophagidae (Diptera) in the Museum für Naturkunde Berlin, and Senckenberg Deutsches Entomologisches Institut, Germany

Andrey L. Ozerov<sup>1</sup>

<sup>1</sup> Zoological Museum, Moscow State University, Bol'shaya Nikitskaya 6, Moscow 125009, Russia

Corresponding author: Andrey L. Ozerov (ozarov2455@rambler.ru)

## Abstract

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## Key Words

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The primary types (holotypes, lectotypes, and syntypes) of the Diptera family *Scathophagidae* housed in the Museum für Naturkunde der Humboldt-Universität zu Berlin and Senckenberg Deutsches Entomologisches Institut, Müncheberg, both in Germany, are revised. 50 species of *Scathophagidae* are enumerated. The species are listed alphabetically, and the account concludes with a systematic nomenclatural summary. Detailed information is given on the specimens, their labelling and their condition. 28 lectotypes are designated [*Acanthocnema latipennis* Becker, 1894 (Poland); *Amaurosoma articulata* Becker, 1894 (Poland); *Amaurosoma inermis* Becker, 1894 (Latvia or Estonia); *Amaurosoma minuta* Becker, 1894 (Latvia or Estonia); *Amaurosoma nigrifrontata* Becker, 1894 (Italy); *Amaurosoma nutans* Becker, 1894 (Poland); *Cochliarium castanipes* Becker, 1894 (Switzerland); *Cochliarium lasiostoma* Becker, 1894 (Switzerland); *Cordylura aberrans* Becker, 1894 (Sweden); *Cordylura bezzii* Sack, 1937 (Italy); *Cordylura biseta* Loew, 1864 (Denmark or Germany); *Cordylura dasyprocta* Loew, 1864 (Sweden); *Cordylura femoralis* Loew, 1864 (Austria); *Cordylura glaucescens* Loew, 1864 (Germany); *Cordylura melaleuca* Loew, 1873 (Greece); *Cordylura melanacra* Loew, 1873 (Poland); *Cordylura nigriventris* Loew, 1864 (Poland); *Cordylura opaca* Loew, 1864 (Austria); *Cordylura pecticornis* Loew, 1864 (Russia); *Cordylura umbrosa* Loew, 1873 (Slovakia); *Cordylura unicolor* Loew, 1864 (Spain); *Parallelomma longicornis* Hendel, 1913 (Taiwan); *Parallelomma media* Becker, 1894 (Poland); *Pselaphephila loewi* Becker, 1894 (Poland); *Scatophaga dasythrix* Becker, 1894 (Russia); *Scatophaga islandica* Becker, 1894 (Iceland); *Scatophaga mollis* Becker, 1894 (Russia); *Scatophaga ordinata* Becker, 1894 (Switzerland)]. Three new synonyms are established: *Amaurosoma nigrifrontata* Becker, 1894 is a new junior synonym of *Nanna tibiella* (Zetterstedt, 1838); *Cordylura rubifrontata* Becker, 1894 is a new junior synonym of *Cordylura aberrans* (Becker, 1894); *Cordylura unicolor* Loew, 1864 is a new junior synonym of *Cordylura albipes* (Fallén, 1819).

## Introduction

The Museum für Naturkunde an der Humboldt-Universität zu Berlin (ZMHB) and Senckenberg Deutsches Entomologisches Institut (SDEI) contain the most important Diptera collections in Europe. These include the collections of Friedrich Hermann Loew (1807–1878) and Theodor Becker (1840–1928), two of the leading European dipterists of their day, who described numbers of *Scathophagidae* and whose collections are of significant value.

Also, there are type specimens of scathophagid species described by P. Sack (1865–1946), L. Oldenberg (1863–1931), F. G. Hendel (1874–1936), E. M. Hering (1893–1967), and types of several species described by myself in 1997, 1999, and 2013 in both the ZMHB and SDEI.

Each specimen in Loew's and Becker's collections, which were handed over to ZMHB, has its own number, but each number may refer to a single specimen or to a series of conspecific specimens. There are notebooks that give the key to these code numbers: the "Catalog Gen-

eral Musei Zoologici Berolinensis" (Diptera I, II) for Loew's collection and four notebooks for Becker's collection (Becker Catalog Diptera: Tome I (1882–1887; Nos 1–14179), Tome II (1887–1893; Nos 14180–33839), Tome III (1894–1906; Nos 13840–53642), and Tome IV (1906–1914; Nos 53641–62427)). These notebooks contain information about the number of specimens, localities, dates of capture and year.

Loew's collection also contains many syntypes of scathophagid species described by Zetterstedt in 1838 and 1846. This material requires special examination together with Zetterstedt's own collection in the Museum of Zoology of Lund University (Sweden) and is not discussed in this paper except for those specimens which were described by Loew or Becker as new species (for example *Cordylura aberrans* Becker, 1894 or *Cordylura dasyprocta* Loew, 1864, see below).

The Scathophagidae types in the ZMHB and SDEI were examined by the late J.R. Vockeroth in 1954–1964 who designated numerous lectotypes, but these designations were not published.

All the species discussed here are listed alphabetically. Detailed information is given on the specimens, their labelling and their condition. Finally, the current taxonomic identity is provided.

The following abbreviations are used for the depositories of specimens used or discussed in this paper: MNHP – Muséum National d'Histoire Naturelle, Paris, France; NMW – Naturhistorisches Museum Wien, Vienna, Austria; SDEI — Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany; ZISP – Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia; ZMHB — Museum für Naturkunde, Berlin, Germany; ZMUH — Zoological Museum, Helsinki University, Helsinki, Finland. ZMUM — Zoological Museum, Moscow State University, Moscow, Russia.

## List of the taxa

### ***aberrans* Becker, 1894: 91 (*Cordylura*).**

Described from an unspecified number of both sexes: "Zett., Dipt. Sc. V. 2001, 6, *Cord. rufimana*".

**ZMHB material:** 1 male syntype was found in Loew's collection among *C. rufimana*. It is labelled "Lappon. Bohem.", "2633", "*Cordylura rufimana*", "*Cordilura rufimana* Meig det. F. Šifner ♂". There is every reason to believe that this specimen is a syntype of *Cordylura aberrans*. Therefore this male (thorax damaged in posterior part, scutellum missing; right wing missing, left hind leg glued to the pin, abdomen dissected and stored in a microvial with glycerol on the same pin) has been labelled and is designated herewith as lectotype. Type-locality: "Lapponia" (Sweden). Genitalia was examined and found to be conspecific with that shown in Hackman's figures for *C. aberrans* (Hackman 1956: 21, fig. 77).

**Current name:** A good species of *Cordilura* Fallén, 1810, correctly recognised by recent authors.

### ***alata* Becker, 1914: 127 (*Scopeuma*).**

Described from 6 specimens of both sexes from Kenya. 4 of them are in MNHP and a lectotype was designated from these type-specimens (Ozerov 2010b: 301).

**ZMHB material:** male and female syntypes, both in very good condition, are conspecific with lectotype and have been labelled as paralectotypes. Both specimens have the same labels: "Afrique or. anglaise, Mt Kenya, verst Ouest, zone des forêts, Alluaud & Jeanne", "Forêts Moyennes, Bambous supér, 2800–3200 m, Janv. 1912, St 41", "*Scatophaga alata* Beck. det. Becker".

**Current name:** *Scathophaga alata* (Becker, 1914).

### ***albidohirta* Becker, 1907a: 254 (*Scatophaga*).**

Described from "8 Exemplare aus Ost-Zaidam in O.Tibet: Kurlyk am Fl.Baingol (24 und 28.V.95), Fl. Bomyn oder Itschegyn (Ende VI.95), zwischen dem See Itsche und dem Fl. Orogyn (1–8.VII.95), am Fl. Orogyn südlich von W.-Nan-schan (3–20.VII.95); Gobi in Chines. Turkestan: Kara-Tübe, westlich von Hami (15. IX.95) [Roborowski]". 7 of them are in ZISP and a lectotype was designated from these syntypes (Ozerov and Krivosheina 2011: 105).

**ZMHB material:** a male syntype (half of left wing, mid and hind left legs missing, abdomen dissected and glued on card on the same pin), labelled "оз. Иче — р Орогын с Цайдам, ц Гоби РобКозлов 1–3 VII 95", "Gobi. Asien 51896. VII", "*albidohirta* Beck.", "ZMU Berl.", "*Scatophaga albidohirta* Beck. SYN-TYPE labelled 1954 by J.R. Vockeroth", is conspecific with the lectotype and has been labelled as paralectotype.

**Current name:** *Scatophaga albidohirta* (Becker, 1907).

### ***amica* Ozerov, 1999: 511 (*Langechristia*).**

Described from a single female from Russian Far East.

**SDEI material:** holotype female, labelled "RUSSIA: Primorskiy Kray Sichote-Alin, Biol. Stat. 30 km SE Chuguyevka, 44.05 N, 134.12 E), 650 m, Malaisefalle 31.V.–03.VI.1993 leg. C. Lange & J. Ziegler", "Holotypus ♀ *Langechristia amica* sp.nov. det. A.L. Ozerov, 1997". Type-locality: 30 km SE Chuguyevka (44.05N, 134.2E), 650 m (Primorskiy Kray, Russia).

**Current name:** *Langechristia amica* Ozerov, 1999.

### ***arctica* Becker, 1897: 398 (*Scatophaga*).**

Described from an unspecified number specimens of both sexes taken on Novaya Zemlya. 2 syntypes are housed in ZISP and a lectotype was designated from these type-specimens (Ozerov and Krivosheina 2013: 143), which is conspecific with *Scathophaga miltisetosa* (Holmgren, 1883).

**ZMHB material:** a male syntype (left mid leg missing), labelled "Novaja Semlja, mons Tschernyschew, G. Ja-

cobson, 5.VIII.96”, “41956”, “arctica Becker”, “Scathophaga arctica Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”, “Scathophaga apicalis Curt. Det. 1962 J.R. Vockeroth”, has been labelled as paralectotype. It is *Scathophaga multisetosa*.

**Current name:** A junior synonym of *Scathophaga multisetosa* (Holmgren, 1883) as currently understood.

**arctica Becker, 1907b: 412 (*Pselaphephila*).**

Described from an unspecified number of male specimens from “Ost-Grönland”.

**ZMHB material:** male syntype in good condition, labelled “♂ Hekla Havn [in English =Hekla Harbor 70.47N 26.18W] 29–7.[18]92. Deichmann”, “36008”, “Pselaph. arctica Beck. det. Becker”, “Gonarticus arcticus Beck. det. J.R. Vockeroth 1954”, “Pselaphephila arctica PARALECTOTYPE labelled 1954 by J.R. Vockeroth”. I have labelled it as syntype.

**Current name:** *Gonarticus arcticus* (Becker, 1907).

**articulata Becker, 1894: 117 (*Amaurosoma*).**

Described from an unspecified number of male specimens from “Schlesien”.

**ZMHB material:** 2 male syntypes. One male syntype in very good condition, labelled “Rothkirch 6/V 29986”, “Amaurosoma LECTOTYPE articulata Beck. Designated by J.R. Vockeroth 19”, “Amaurosoma articulatum (Ztt.) ♂ Det. F. Šifner”, has been labelled and is designated herewith as lectotype of *Amaurosoma articulata*. Type-locality: “Rothkirch” (Czerwony Kościół [near Legnica: ca. 51.186N, 16.061E], Poland). The second male (good condition), labelled “Rothkirch 6/V 29986”, “PARALECTOTYPE Amaurosoma articulata Beck. labelled by J.R. V.”, “Nanna articulata Beck. Det. J.R. Vockeroth 1962”, has been labelled as paralectotype.

**Current name:** *Nanna articulata* (Becker, 1894), correctly recognised by recent authors.

**bezzii Sack, 1937: 18 (*Cordylura*).**

Described an unspecified number of both sexes from “Livrio (Adamellagruppe)”.

**ZMHB material:** 2 males, 1 female syntypes. One male is in very good condition, labelled “Livrio 16.VI.00”, “Italien VI. 46052”, “Cordylura Bezzii. Beck det. Becker”, “Homotype Cordylura bezzii Sack Compared by J.R. Vockeroth 1956”, “Bucephalina bezzii Sack det. 1957 J.R. Vockeroth”, “Syntypus”. The other male has labels “Livrio 16.VI.00”, “Italien VI. 46052”, “Typus”, “Homotype Cordylura bezzii Sack Compared by J.R. Vockeroth 1956”, “Bucephalina (Neogimnomera) bezzii Sack det. 1957 J.R. Vockeroth”. The female has labels “Livrio 11.VII.00”, “48264”, “Cordylura Bezzii Beck. det. Becker”, “Cordylura Bezzii in lit Bek.”, “Bucephalina bezzii Sack det. 1957 J.R. Vockeroth”,

“Syntypus”. All three syntypes have been labelled as paralectotypes.

**SDEI material:** 2 males and 2 females syntypes, all in very good condition. One of males is labelled “Livrio 16.VI.00”, “Cordylura Bezzii in litt. Beck”, “Cordylura Bezzii sp.n. det. Sack”, “coll. Oldenberg”, “Typus ♂”, “Cordylura bezzii Sack LECTOTYPE Designated by J.R. Vockeroth 19”, “Lectotypus”. I have designated it herewith and labelled it as lectotype of *Cordylura bezzii*. Type-locality: Livrio (Italy). Male and female syntypes both labelled “Livrio 16.VI.00”, “coll. Oldenberg”, “Cordylura Bezzii sp.n. det. Sack”, “Cordylura bezzii Sack PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, “Paralectotypus”, and one female syntype with labels “Livrio 16.VI.00”, “coll. Oldenberg”, “Cordylura Bezzii Beck det. Bezzii”, “Cordylura Bezzii sp.n. det. Sack”, “Typus ♀”, “Cordylura bezzii Sack PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, “Paralectotypus”, have all been labelled as paralectotypes.

**Current name:** a good species. Šifner (2008: 116) listed it in the genus *Bucephalina* Malloch, 1919, which I consider as a subgenus of *Cordilura*.

**biseta Loew, 1864: 21 (*Cordylura*).**

Described from male and female syntypes from “Dänemark, ganz Deutschland”.

**ZMHB material:** one well preserved male, labelled “P. Seitz 27.4.51” or “P. Sulz, 27.4.51” (a family name, difficult to read), “Coll. H. Loew”, “11399”, “Cordylura biseta m.”, “Type”, “Cordilura picipes Meigen det. Šifner ♂”. It has been labelled and is herewith designated as lectotype. It is *Cordilura picipes* (Meigen, 1826).

**Current name:** A junior synonym of *Cordilura picipes* (Meigen, 1826), correctly recognised by recent authors.

**breviventris Loew, 1873: 250 (*Cordylura*).**

Described from male sex, number not stated, taken from “Sarepta”. Studied by Ozerov (2010c: 5), who designated a lectotype.

**ZMHB material:** lectotype male (abdomen dissected and glued on card on the same pin, right fore and hind tibiae missing), labelled “Sarepta Christ”, “11434”, “Cordylura breviventrism Lw.”, “Coll. H. Loew”, “Type”, “Cordylura breviventrism Loew LECTOTYPE designated by J.R. Vockeroth 19”. Type-locality: “Gegend von Sarepta” [=Krasnoarmeisk in Volgogradskaya Oblast’, ca. 48.512N 44.554E] (Russia).

**Current name:** synonymized with *Spathephilus nigriventrism* (Loew, 1864) by Ozerov (2010c: 5).

**castanipes Becker, 1894: 185 (*Cochliarium*).**

Described an unspecified number of both sexes from “St. Moritz”.



**ZMHB material:** 2 male and 1 female syntypes, all in excellent condition. The male labelled “St. Moritz 5/7 10777” [= 5 July 1886], *Cochliarium castanipes* Becker LECTOTYPE Designated by J.R. Vockeroth 19”, “Zool. Mus. Berlin”, has been labelled and is herewith designated as lectotype. Type-locality: “St. Moritz” (Switzerland).

The male with labels “St. Moritz 1/7 10294”, *Cochliarium castanipes* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth” and the female “St. Moritz 30/6 10132”, *Cochliarium castanipes* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth” have been labelled as paralectotypes.

**Current name:** *Gimnomera castanipes* (Becker, 1894).

***dasyprocta* Loew, 1864: 25 (*Cordylura*).**

Described from an unspecified number of both sexes from “Sweden” taken from the syntypes of *Cordylura caudata* Zetterstedt, 1838.

**ZMHB material:** 3 males and 1 female syntypes. A male (right mid leg missing, right wing slightly torn) labelled “Cord. caudata Zett. Lappon. Bohem.\*”, “Coll. H. Loew”, “11438”, “*Cordylura dasyprocta* m.”, “type”, “*Cordylura dasyprocta* Lw. Lectotype Designated by J.R. Vockeroth 19”, has been labelled and is herewith designated as lectotype of *Cordylura dasyprocta*. Type-locality: “Sweden”.

One male (good condition) labelled “Palmén”, “Lapponia”, “Coll. H. Loew”, “Type”, “*Cordylura dasyprocta* Lw. PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, conspecific with lectotype, one male syntype (badly damaged: head, abdomen, wings, right mid leg and both hind legs missing) labelled “C. caudata Zett. Lapp. Boh.\*”, “Coll. H. Loew”, “type”, “*Cordylura dasyprocta* Lw. PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, which seems to be conspecific with the lectotype, and female syntype (good condition) labelled “Bhn”, “Dv”, “caudata Ztt. Boh. \*”, “Coll. H. Loew”, “type”, “*Cordylura dasyprocta* Lw. PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, conspecific with lectotype; all three have been labelled as paralectotypes.

**Current name:** *Okeniella dasyprocta* (Loew, 1864), correctly recognised by recent authors.

***dasythrix* Becker, 1894: 173 (*Scatophaga*).**

Described from an unspecified number of both sexes from “aus der Behringstrasse”.

**ZMHB material:** one well preserved male, labelled “xxx Miednaja blizko w Behrynga. July P. Dybowski 1882” (xxx = illegible), “30030”, “*Scatophaga dasythrix* Becker LECTOTYPE Designated by J.R. Vockeroth 19”, has been labelled and is herewith designated as lectotype of *Scatophaga dasythrix*. Type-locality: Island Medny (Comandor Is., Russia).

**Current name:** *Scathophaga dasythrix* (Becker, 1894), correctly recognised by recent authors.

***fascipes* Becker, 1894: 160 (*Spathiophora*).**

In the original paper described from an unspecified number of both sexes: “Zett., Cord. hydromyzina var. b, Dipt. Scand. V. 2037, 35” and only specimens mentioned by Zetterstedt for his var. B can be considered as syntypes. Four specimens are mentioned in “Becker Catalog Diptera” (No 30109) as *Spathiophora fascipes* from “Dorpat”; one of them was sent to F. Hendel.

**ZMHB material:** 2 females, both in very good condition. One of them labelled “15/7 86”, “Dorpat” 30109”, “hydromyzina Fall. Det. 1954 J.R. Vockeroth”. The other female is identical labelled but with the date “1/7 86”. Both are *Spaziphora hydromyzina* (Fallén, 1819).

There is a male labelled by J.R. Vockeroth as lectotype of *Spathiophora fascipes*. This specimen was taken from “Rügen”, was mentioned in “Becker Catalog Diptera” under No 30112 as *Spaziphora hydromyzina* Fallén.

All these 3 specimens are not from Zetterstedt’s collection and therefore they cannot be syntypes of *S. fascipes*.

**Current name:** *Spaziphora hydromyzina* (Fallén, 1819) as currently understood.

***femoralis* Loew, 1864: 18 (*Cordylura*).**

Described from an unspecified number of females from “Kärnthen”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura femoralis* (No.11387). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** lectotype female (both hind legs missing, abdomen glued back on to the body, right wing damaged) labelled “Schneeb Jul. 55”, “11387”, “Coll. H. Loew”, “*Cordylura femoralis* Lw.”, “Holotypus Nr.”, “*Norellisoma femorale* (Loew) ♀ Det. F. Šifner 1970”. Type-locality: “Kärnthen” (Austria, Carinthia, Schneeberg).

**Current name:** *Norellisoma femorale* (Loew, 1864).

***fulvifrons* Ozerov, 1997: 1427 (*Cordilura*).**

Described from 2 males and 1 female from Khabarovskiy Kray (Russia).

**SDEI material:** holotype male (Ozerov 1997: 1427, original designation) in excellent condition, labelled “RUSSIA: Khabarovskiy Kray Boitsovo 20 km N Bikin Bolsoi Solntsepyok Hill 47.02N 134.21E 25.V.1993 leg. C. Lange & J. Ziegler”. Type-locality: Boitsovo 47.02N 134.21E (Russia, Khabarovskiy Kray). Paratype female with the same label but with the date 24–27.V.1993 is conspecific with the holotype. The second male paratype is kept in ZMUM (Ozerov 1997: 1427).

**Current name:** *Cordilura fulvifrons* Ozerov, 1997.

***glaucescens* Loew, 1864: 23 (*Cordylura*).**

Described from an unspecified number of the female sex from “Kreuth; Gerstaecker”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura glaucescens* (No.11412). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** lectotype female (condition very good, but right postpedicel and left hind leg missing), labelled “Kreuth Gerst. 7/8”, “Coll. H. Loew”, “11412”, “*Cordylura glaucescens* Lw.” “Holotypus”. Type-locality: “Kreuth” (Germany, Bavaria, Kreuth village).

**Note:** The fore tibia of this species has only one (preapical) anteroventral seta. See also below under *latipennis* Becker.

**Current name:** *Acanthocnema glaucescens* (Loew, 1864).

***incola* Becker, 1900: 54 (*Scatophaga*).**

Described from 4 male syntypes from “Kantaika und der Insel Nikander” [river Khantayka: ca. 68.1019N 86.6293E; Nikandrovsk’s Is: ca. 70.6722N 83.2370E (Russia, West Siberia)]. Most of the males are in ZMUH (Hackman 1956: 20) and a lectotype will be selected from the syntypes in this Museum.

**ZMHB material:** 1 male syntype (half of right wing broken off and glued on the determination label, right mid leg missing), labelled “246”, “Ins. Nikandr.”, “J. Sahlb.”, “*Scatophaga incola* Beck. det. Becker”, “*Scatophaga incola* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”. It has been labelled by me as a syntype of *Scatophaga incola*.

**Current name:** *Scathophaga incola* (Becker, 1900).

***inermis* Becker, 1894: 119 (*Amaurosoma*).**

Described from an unspecified number of both sexes from “aus Livland und Schlesien”.

**ZMHB material:** 4 syntypes: 2 males and 2 females, all in very good condition and conspecific.

A male labelled “Livland 29991”, “2/5 87”, “84”, “*Amaurosoma* LECTOTYPE *inermis* Beck. Designated by Vockeroth 19” has been labelled and is herewith designated as lectotype of *Amaurosoma inermis*. Type-locality: “Livland” (Latvia or Estonia). A female labelled “Livland 29991”, “V/8 88”, “PARALECTOTYPE *Amaurosoma inermis* Beck. labelled J.R.V.”, “*Nanna inermis* Beck. Det. J.R. Vockeroth 1962”, a female with the same labels, but without “84” and with “V/12 89”, and a male (abdomen dissected and stored in glycerol in a microvial on the same pin) labelled “Livland 29991”, “8/5 88”, “PARALECTOTYPE *Amaurosoma inermis* Beck. labelled J.R.V.”, “*Nanna inermis* Beck. Det. J.R. Vockeroth 1962”, “*Paralectotypus*”, “Zool. Mus. Berlin”, have been labelled as paralectotypes; all three are conspecific with the lectotype.

**Current name:** *Nanna inermis* (Becker, 1894), correctly recognised by recent authors.

***islandica* Becker, 1894: 175 (*Scatophaga*).**

Described from “Ein Pärchen aus Island und Labrador”.

**ZMHB material:** male and female syntypes. Male (left mid leg missing, end of abdomen dissected and stored in a microvial of glycerol on the same pin) labelled “Island xxx” (xxx = illegible, possibly collector’s name), “*Scatophag[a] borealis* nov. sp.”, “Coll. H. Loew”, “11452”, “*Islandica* Becker”, “*Scatophaga intermedia* Walker ♂ Det. F. Šifner”, has been labelled and is herewith designated as lectotype. Type-locality: “Island” [= Iceland]. It is *Scathophaga litorea* (Fallén, 1819). Female (left hind leg, tibia and tarsus of right hind leg missing, end of abdomen dissected and glued on card), labelled “Labrador.”, “Coll. H. Loew”, “*Scatophaga islandica* Becker”, “*Scatophaga villipes* Zetterstedt ♀ Det. F. Šifner” and provided with a green label, has been labelled as paralectotype; it is conspecific with the lectotype.

**Current name:** A junior synonym of *Scathophaga litorea* (Fallén, 1819), as currently understood.

***lasiosoma* Becker, 1894: 184 (*Cochliarium*).**

Described from “Ein Pärchen aus St. Moritz”.

**ZMHB material:** both syntypes. Male (condition excellent), labelled “St. Moritz 28/6 9779” [= 28 June 1886], “*Cochliarium lasiosoma* Becker LECTOTYPE Designated by Vockeroth 19”, has been labelled and is herewith designated as lectotype. Type-locality: “St. Moritz” (Switzerland). Female (right mid leg missing), labelled “St. Moritz 28/6 9753”, “*Cochliarium lasiosoma* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, is conspecific with the lectotype and has been labelled as paralectotype.

**Current name:** *Gimnomera lasiosoma* (Becker, 1894).

***latipennis* Becker, 1894: 138 (*Acanthocnema*).**

Described from an unspecified number of the female sex taken “Schlesien. Wölfelsfall bei Glatz”.

**ZMHB material:** a female in excellent condition, labelled “Wölfelsfall 7/7 23793” [= 7 July 1889], “*Acanthocnema latipennis* Becker LECTOTYPE Designated by Vockeroth 19” has been labelled and is herewith designated as lectotype. Type-locality: “Wölfelsfall bei Glatz” (Wodospad Wilczki west of Międzygórze southeast of Bystrzyca Kłodzka, Poland).

**Current name:** It is a good species of *Acanthocnema*, not a synonym of *Acanthocnema glaucescens* Loew as considered by Gorodkov (1986), Suwa (1986), and Šifner (2008). The fore tibia of *A. latipennis* has two anteroventral setae (one at middle, the other preapical). Figures of the male sternite 5 and genitalia of *A. latipennis* are given by Suwa (1986: figs 8, 10, 20, 22) as *Acanthocnema glaucescens* Loew.

***lesgiae* Becker, 1894: 129 (*Norellia*).**

Described from 2 males “vom Kaukasus aus Lesgia”.

**ZMHB material:** Lectotype male (designated by Ozerov 2010a: 231), labelled “Caucas Lesgia”, “Zool. Mus. Berlin”, “Norellia HOLOTYPE lesgiae Beck lab [= labelled by] Vockeroth”. Type-locality: “Lesgia” (= Dagestan, Russia). Fore right and left mid legs missing.

**Current name:** *Norellisoma lesgiae* (Becker, 1894).

#### **loewi Becker, 1894: 123 (*Pselaphephila*).**

Described from an unspecified number of both sexes without any statement giving a specific locality, but most probably from “Schlesien” or “Posen”, now part of Poland: “... diesen Exemplaren aber keinerlei Notiz beigegeben ist, so nehme ich an, dass diese Thiere entweder aus Schlesien oder aus Posen stammen.”.

**ZMHB material:** 3 syntypes. A male, double pinned (condition good), labelled “Coll. H. Loew”, “Zool. Mus. Berlin”, “Type”, “Pselaphephila loewi Becker LECTOTYPE Designated by J.R. Vockeroth 19”, has been labelled and is herewith designated as lectotype. Type-locality: Poland.

A female, double pinned (right eye broken), labelled “Coll. H. Loew”, “11436”, “Cordylura immunda Lw. Besch. II”, “an ♀ praecedentis”, “Zool. Mus. Berlin”, “Type”, “Pselaphephila loewi Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, and a male, (damaged: abdomen, right wing and left mid leg glued on card, right fore and right hind legs missing), labelled “Coll. H. Loew”, “Zool. Mus. Berlin”, “Type”, “Pselaphephila loewi Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, have been labelled as paralectotypes. Both are conspecific with the lectotype.

**Current name:** *Nanna loewi* (Becker, 1894).

#### **longicornis Hendel, 1913: 77 (*Parallelomma*).**

Described from 11 male syntypes taken “aus Hoozan. 7. Februar”. Šifner (2009: 290) incorrectly designated a holotype for this species and 6 paratypes (3 males and 3 females) taken at “Hoozan” and “Chip-Chip”, all deposited in NMW. Only the males from “Hoozan” in this material may be syntypes. Hendel loaned material for study from SDEI, and a lectotype is being designated from syntypes in this Institution.

**SDEI material:** 5 male syntypes.

A male syntype (right wing absent), labelled “Hoozan Formosa Sauter, 1911”, “7.II”, “coll. Oldenberg”, “PARALECTOTYPE *Parallelomma longicornis* Hendel”, “*Parallelomma longicornis* Hendel”, “*Megaphthalma longicornis* Hend. Det. 1956 J.R. Vockeroth”, has been labelled and is herewith designated as lectotype. Type-locality: “Hoozan” (Taiwan). The other four syntypes have been labelled as paralectotypes: male (all left legs missing), labelled “Hoozan Formosa Sauter, 1911”, “7.II”, “Hendel det.”, “Typus”, “PARALECTOTYPE *Parallelomma longicornis* Hendel”, “*Parallelomma longicornis*

Hendel”, “*Megaphthalma longicornis* Hendel Det. 1965 J.R. Vockeroth”; male (right mid leg and both hind legs missing), labelled “Hoozan Formosa Sauter, 1911”, “7.II”, “Hendel det.”, “Typus”, “Lectotypus”, “*Parallelomma longicornis* Hendel”, “*Parallelomma longicornis* H. det. Hendel”, “*Parallelomma longicornis* Hendel LECTOTYPE Designated Vockeroth 19”; male (right postpedicel and right mid leg missing), labelled “Hoozan Formosa Sauter, 1911”, “7.II”, “coll. Oldenberg”, “PARALECTOTYPE *Parallelomma longicornis* Hendel”, “*Parallelomma longicornis* Hendel”, “*Megaphthalma longicornis* Hend. Det. 1956 J.R. Vockeroth”; male (right mid leg missing, both postpedicels damaged), labelled “Hoozan Formosa Sauter, 1911”, “7.II”, “Hendel det.”, “Typus”, “Paralectotypus”, “*Parallelomma longicornis* Hendel”.

There are several additional specimens in SDEI identified as *Parallelomma longicornis*, but these are females or males taken on other dates and so none can be a syntype.

**ZMHB material:** 4 females from “Kosempo”, cannot be syntypes.

**Current name:** Vockeroth (1977: 437) listed this species in the genus *Megaphthalma* Becker, 1894. Šifner (2009: 290) placed it in a monotypic genus *Suwaia* Šifner, 2009. I follow Vockeroth’s assignment.

#### **media Becker, 1894: 96 (*Parallelomma*).**

Described from an unspecified number of the male sex from “Aus Schlesien, Umgegend von Liegnitz”.

**ZMHB material:** a male in excellent condition, labelled “Rothkirch 11/6 31511”, “media Beck.”, “Typus”, Zool. Mus. Berlin”, “*Chylizosoma media* Beck. Det. 1954 J.R. Vockeroth”, “*Chylizosoma medium* Beck. ♂ Det. F. Šifner”, “Holotypus ♂ *Parallelomma media* Becker, 1894: 96 det. A.L. Ozerov, 2010” has been labelled and is herewith designated as lectotype. Type-locality: “Rothkirch” (Czerwony Kościół (51.186215N, 16.06128E), Poland).

**Current name:** *Parallelomma medium* Becker, 1894.

#### **melaleuca Loew, 1873: 245 (*Cordylura*).**

Described from an unspecified number of females from “Griechenland”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura melaleuca* (No 11381). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** The lectotype is male, not female, damaged (head and legs missing, thorax largely consumed by a beetle pest), labelled “Corfu Erber”, “11381”, “Coll. H.Loew”, “*Cordylura melaleuca* Lw.”, “Type”, “*Cordylura melaleuca* Loew LECTOTYPE Designated Vockeroth 19”. Type-locality: Corfu I. (Greece). It is conspecific with *Norellia tipularia* (Fabricius, 1794).

**Current name:** A junior synonym of *Norellia tipularia* (Fabricius, 1794), as currently understood.



***melanacra* Loew, 1873: 247 (*Cordylura*).**

Described from an unspecified number of both sexes from “Schlesien”.

**ZMHB material:** A female syntype in very good condition, labelled “Rosenthal 14.4.51”, “Coll. H.Loew”, “Type”, “*Cordylura melanacra* Loew LECTOTYPE Designated by Vockeroth 19”, “*Scoliaphleps ustulata* (Ztt.). ♂ [sic] Det. F. Šifner” has been labelled and is herewith designated as lectotype. Type-locality: “Rosenthal” [now Rózanka, part of Międzyzylesie, near Kłódzko (Poland)]. It is conspecific with *Cordilura ustulata* (Zetterstedt, 1838).

**Current name:** A junior synonym of *Cordilura ustulata* (Zetterstedt, 1838), as currently understood.

***mensurata* Becker, 1894: 119 (*Amaurosoma*).**

Described from an unspecified number of both sexes from “Schlesien”.

**ZMHB material:** 1 type specimen. It was sent on loan to F. Šifner in 2007; not examined by me.

**Current name:** According by Šifner (2008: 151) it is a junior synonym of *Nanna armillata* (Zetterstedt, 1846).

***minuta* Becker, 1894: 116 (*Amaurosoma*).**

Described from an unspecified number of the male sex “Aus Livland”.

**ZMHB material:** a male (abdomen, tarsomeres 2–5 of right fore leg and of both hind legs missing), labelled “7/5”, “Livland 29984”, “110”, “*Amaurosoma* LECTOTYPE *minuta* Becker Designated by Vockeroth 19”, “*Nanna flavipes* Fall. Det. J.R. Vockeroth 1962” has been labelled and is herewith designated as lectotype. Type-locality: “Livland” (Latvia or Estonia).

**Current name:** Recently synonymized with *Nanna flavipes* (Fallén, 1819) by Ozerov (2010c: 7).

***mollis* Becker, 1894: 171 (*Scatophaga*).**

Described from an unspecified number of both sexes from “Sibirien”.

**ZMHB material:** 8 syntypes: 6 males, 2 females. Male in very good condition, labelled “Sibiria Schnabl”, “Coll. H. Loew”, “*Scatophaga mollis* Becker LECTOTYPE Designated by J.R. Vockeroth 19”, has been labelled and is herewith designated as lectotype. Type-locality: “Sibiria” (Russia).

All other syntypes have been labelled as paralectotypes: 2 males, both in good condition and labelled “Sibiria Schnabl”, “Coll. H. Loew”, “*Scatophaga mollis* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”; female (right wing damaged), labelled “Sibiria Schnabl”, “11453”, “Coll. H. Loew”, “*Scatina mollis* Lw.”, “*Scatophaga mollis* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”; 3 males (one without right postpedicel), all in good condition, and female (left hind leg, left wing, and abdomen missing), each

labelled “Sibiria Schnabl”, “Coll. H. Loew”. All paralectotypes are conspecific with the lectotype.

**Current name:** A good species of *Scathophaga* Meigen, 1803.

***nigrifrontata* Becker, 1894: 120 (*Amaurosoma*).**

Described from “Ein Pärchen aus Süd-Tirol vom Lusier Pass”.

**ZMHB material:** both syntypes. Male (head missing), labelled “Lusier Pass 19/6 90 25520” [= 19 June 1890], “*Amaurosoma nigrifrontata* Becker LECTOTYPE Designated by Vockeroth 19”, has been labelled and is herewith designated as lectotype. Type-locality: “Süd-Tirol vom Lusier Pass” [now Passo di Lusia (Italy, Trentino)]. The female is in very good condition, labelled “Lusier Pass 19/6 90 25522”, “PARALECTOTYPE *Amaurosoma nigrifrontata* Beck. labelled [by] Vockeroth”, “*Nanna nigrifrontata* Beck. Det. 1962 J.R.Vockeroth” has been labelled as paralectotype. Both specimens are conspecific with *Nanna tibiella* (Zetterstedt, 1838).

**Current name:** A new junior synonym of *Nanna tibiella* (Zetterstedt, 1838), **syn.n.**

***nigriventris* Loew, 1864: 19 (*Cordylura*).**

Described from an unspecified number of females from “Posen”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura nigriventris* (No 11392). It was studied by Ozerov (2010c: 5), has been labelled and is herewith designated as lectotype.

**ZMHB material:** lectotype female (left mid leg and right hind tarsal segments 2–5 are missing and the apex of the right wing is damaged), labelled “23/5 43.”, “11392”, “Coll. H. Loew”, “Type”, “*Cordylura nigriventris* m.”, “*Cordylura nigriventris* Lw. LECTOTYPE Designated by Vockeroth 19”, “Zool. Mus. Berlin”. Type-locality: “Posen” (Poland, Poznań).

**Current name:** *Spathephilus nigriventris* (Loew, 1864).

***nutans* Becker, 1894: 120 (*Amaurosoma*).**

Described from “Ein Männchen aus Kärnthen in der Sammlung des Herrn Prof. Tief; ein Männchen aus Schlesien”.

**ZMHB material:** there is one male, near the box label “*nutans* Becker”, labelled “Liegnitz 10/5 30636” [10 May 1893]. It was mentioned by Vockeroth as lectotype of *Amaurosoma nutans* and is highly probably a syntype. In the Becker’s Catalogue there is an entry “Panten bei Liegnitz” (now Pątnów Legnicki near Legnica). It has been labelled and is herewith designated as lectotype. Type-locality: Legnica (formerly Liegnitz), Poland. It was correctly determined by Vockeroth as *Nanna tibiella* (Zetterstedt).

**Current name:** A junior synonym of *Nanna tibiella* (Zetterstedt, 1838). Synonymized by Šifner (2008: 155).

***obscurinervis* Becker, 1900: 55 (*Scatophaga*).**

Described from “2 Pärchen von der Insel Nikander und Dudinka” [Russia, West Siberia]. Most syntypes are deposited in ZMUH (Hackman 1956: 20) and a lectotype will be selected from the syntypes in this Museum.

**ZMHB material:** female syntype (damaged, left wing, left mid leg, both hind legs missing, abdomen glued to the mount), labelled “250”, “J. Sahlb.”, “Ins. Nikandr.”, “42482”, “*obscurinervis* Beck.”, “*Scatophaga obscurinervis* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”. It has been labelled as a syntype.

**Current name:** *Scathophaga obscurinervis* (Becker, 1900).

***opaca* Loew, 1864: 19 (*Cordylura*).**

Described from an unspecified number of females from “Kärnten”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura opaca* (No 11385). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** the lectotype female has been mainly consumed by a beetle pest, and all that remain are the head, legs (except right hind leg), and some small fragments of thorax, labelled “Saualp aug. 55”, “Coll. H.Loew”, “11385”, “*Cordylura opaca* Lw”, “Type”, “*Cordylura opaca* Loew LECTOTYPE Designated by J.R. Vockeroth 19”. Type-locality: Saualpe (Kärnten [Carinthia], Austria).

**Current name:** because of its poor condition, the identity of the lectotype is difficult to determine. The name was synonymized by Becker (1905: 13) with *Norellisoma lituratum* (Meigen, 1826). I can see no reason for disputing this synonymy, and have accepted it.

***ordinata* Becker, 1894: 168 (*Scatophaga*).**

Described from an unspecified number of both sexes from “St. Moritz”.

**ZMHB material:** male and female syntypes. The male (slightly wrinkled, abdomen dissected and placed in a microvial of glycerine), labelled “St. Moritz 26/6 9629” [26 June 1886], “*Scatophaga ordinata* Becker LECTOTYPE Designated by J.R. Vockeroth 19”, “*Scopaeuma taeniopum* Rond. det. 1954 J.R. Vockeroth”, has been labelled and is herewith designated as lectotype. Type-locality: St. Moritz (Switzerland). I agree with the determination by Vockeroth that it conspecific with *S. taeniopa* (Rondani, 1867). The female is in good condition and is labelled “St. Moritz 28/6 9819”, “*Scatophaga ordinata* Becker PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, “*Scatophaga taeniopa* Rond. det. 1962 J.R. Vockeroth”, and has been labelled as paralectotype; Vockeroth’s determination is correct.

**Current name:** A junior synonym of *Scathophaga taeniopa* (Rondani, 1867).

***paridis* Hering, 1923: 200 (*Parallelomma*).**

Described from a female holotype (Hering 1923: 200, original designation) and some female paratypes taken from “Berlin (Jungfernheide, 4. VII. 20), und Güntersberg a. Oder [now Osiecznica near Krosno (Poland)], 6. VII. 20”.

**ZMHB material:** holotype and 1 paratype, each labelled by Hering accordingly, but both are males, not females. Holotype male in good condition, but abdomen dissected and placed in a microvial of glycerine, labelled “Jungfernheide. 4.7.20 Nr. 1513 Mt. Hering. MZ”, “Paris quadrif”, “*Parallelomma paridis* m. type det. Mart Hering”, “coll. Hypon. M. Hering”, “Type ♀”, “Zool. Mus. Berlin”, “HOLOTYPUS ♂ *Parallelomma paridis* Hering 1923: 200 det. A.L. Ozerov, 2010”, “*Parallelomma vittatum* (Meigen) ♂ det. A.L. Ozerov, 2010”. Type-locality: Jungfernheide, Berlin (Germany). Photos of the original labels of the holotype were given by Ozerov (2010d: 311).

Male paratype in good condition, labelled “Jungfernheide. 4.7.20 Nr. 1513 Mt. Hering. MZ”, “Paris quadrif”, “*Parallelomma paridis* m. det. Mart Hering”, “coll. Hypon. M. Hering”, “Paratypus”, “Zool. Mus. Berlin”, “Chylizos. vittatum Meig. ♂ Det. F. Šifner”, “PARATYPUS ♂ *Parallelomma paridis* Hering 1923: 200 det. A.L. Ozerov, 2010”, “*Parallelomma vittatum* (Meigen) ♂ det. A.L. Ozerov, 2010”.

**Current name:** A junior synonym of *Parallelomma vittatum* (Meigen, 1826), as currently understood.

***picticornis* Loew, 1864: 22 (*Cordylura*).**

Described from an unspecified number of females from “Sibirien”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura picticornis* (No 11369). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** lectotype female in very good condition, labelled “11369”, “Coll. H. Loew”, “*Cordylura picticornis* m.”, “Type”, “*Cordylura picticornis* Lw. LECTOTYPE Designated by J.R. Vockeroth 19” and provided with a small black label. Type-locality: “Sibiria” (Russia).

**Current name:** *Cordylura picticornis* (Loew, 1864), correctly recognised by recent authors.

***pictipennis* Oldenberg, 1923: 307 (*Scatophaga*).**

Described from a single male „oberhalb Gastein zwischen Böckstein und Nassfeld, nahe dem Bärenfall“.

**SDEI material:** holotype male in very good condition (abdomen in a microvial of glycerine), labelled “Gastein 10.7.07”, “*pictipenne* Old.”, “n.sp.”, “coll. Oldenberg”, “*Scatophaga*”, “Typus”, “Holotypus”, “*Scatophaga* HOMOTYPE maculipennis Ringd. Compared by J.R. Vockeroth 1954”. Type-locality: Gastein valley (Austria).

**Current name:** *Scathophaga pictipennis* (Oldenberg, 1923), correctly recognised by recent authors.



***rubifrontata* Becker, 1894: 91 (*Cordylura*).**

Described from “Ein Weibchen in der Loew’schen Sammlung aus Kultuk”.

**ZMHB material:** female holotype (abdomen dissected and glued on card, right hind tibia and tarsus missing), labelled “Kultuk v. Maak”, “rubifrontata Beck.”, “Type”, “Coll. H. Loew”, “13885”, “*Cordylura* sp. nov. an var. praec.”, “*Cordilura ciliata* Meigen det. Šifner, ♀”. Type-locality: Kultuk (Russia, Baikal Area, 51.7221N 103.6951E). Conspecific with *Cordilura aberrans* Becker, 1894, not with *Cordilura ciliata* (Meigen, 1826), as was determined and published by Šifner (2008: 118).

**Current name:** A new junior synonym of *Cordilura aberrans* (Becker, 1894), **syn.n.**

***sahlbergi* Becker, 1900: 51 (*Lasioscelus*).**

Described from “5 Exemplare aus Kantaika u. Dudinka” [Russia, West Siberia]. Most syntypes are in Helsinki University Museum (ZMHU) and a lectotype will be selected from the syntypes in this Museum.

**ZMHB material:** 1 male and 1 female syntypes. Male (head missing, both wings damaged), labelled “185”, “Dudinka”, “J.Sahlb.”, “Sahlbergi Beck.”, “42487”, “*Lasioscelus sahlbergi* Beck. PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, “Pogonota sahlbergi Beck. Det. 1963 J.R. Vockeroth”; and female (both wings damaged), labelled “69”, “Kantaika”, “J.Sahlb.”, “*Lasioscelus Sahlbergi* Beck.”, “42487”, “*Lasioscelus sahlbergi* Beck. PARALECTOTYPE labelled 1954 by J.R. Vockeroth”, “Pogonota sahlbergi Beck. Det. 1963 J.R. Vockeroth”, “*Lasioscelus sahlbergi* Becker ♀ Det. F. Šifner 1973”. Both have been labelled as syntypes.

**Current name:** *Pogonota sahlbergi* (Becker, 1900), correctly recognised by recent authors.

***septentrionalis* Becker, 1897: 397 (*Scatophaga*).**

Described from 5 specimens of both sexes “vom Tschernyschew-Berge auf Nowaja-Semlja. 5. Aug. 1896”. 3 syntypes are in ZISP and a lectotype was designated from these syntypes (Ozerov and Krivosheina 2013: 146).

**ZMHB material:** 1 male and 1 female syntypes. Male (right wing, right mid and hind legs missing), labelled “N. Semlja mons Tshernyschewi J. Jacobs on 5.VIII.96”, “41955”, “*Scatophaga septentrionalis* Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”, “*Scopeuma varipes* Holm. Det. 1954 J.R. Vockeroth”. Female (right wing damaged), labelled “N. Semlja mons Tshernyschewi J. Jacobs on 5.VIII.96”, “41955”, “*septentrionalis* Beck.”, “*Scatophaga septentrionalis* Beck. SYNTYPE labelled 1954 by J.R. Vockeroth”, “*Scopeuma varipes* Holm. Det. 1954 J.R. Vockeroth”. Both are conspecific with *Scathophaga varipes* (Holmgren, 1883) and have been labelled as paralectotypes.

**Current name:** A junior synonym of *Scathophaga varipes* (Holmgren, 1883).

***socialis* Becker, 1894: 90 (*Cordylura*).**

Described from an unspecified number of both sexes [“*C. pudica*. Zett. Dipt. Sc. V. 1998, 3 [“*Suecia meridionalis*... in Scania... ad Hafniam” (Sweden, Denmark)]; Rond., Prodr. VII, 14, 4.[“unicum exemplar germanicum” (Germany)]]”. Šifner (2008: 123) wrote that these syntypes were kept in ZMHB.

**ZMHB and SDEI material:** no type-material found.

**Current name:** A good species of *Cordilura*, correctly recognised by recent authors.

***speciosa* Ozerov, 1999: 511 (*Langechristia*).**

Described from a single female from Primorskiy Kray (Russia).

**SDEI material:** holotype female (left fore leg, except coxa missing, right wing damaged), labelled “RUSSIA: Primorskiy Kray Sichote-Alin, Biol. Stat. 30 km SE Chuguyevka, 44.05 N, 134.12 E 650 m, Malaisefalle 31.V.–03.VI.1993 leg. C. Lange & J. Ziegler”. Type-locality: 30 km SE Chuguyevka (44.05N, 134.12E) (Russia, Primorskiy Kray).

**Current name:** *Langechristia speciosa* Ozerov, 1999.

***tinctinervis* Becker, 1894: 178 (*Coniosternum*).**

Described from “Ein Männchen und zwei Weibchen in der Sammlung des Prof. Strobl.”, locality not stated.

**ZMHB material:** 1 female syntype. This female (right mid leg missing), labelled “v. G Strobl aus Seitenstetten [Austria]”, “8/5 88”, “*tinctinervis* Beck”, “*Coniosternum tinctinervis* Beck. LECTOTYPE Designated by J.R. Vockeroth 19”, has been labelled as syntype.

**Current name:** *Scathophaga tinctinervis* (Becker, 1894).

***umbrosa* Loew, 1873: 246 (*Cordylura*).**

Described from an unspecified number of females from “Ungarn... bei Losoncz”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as *Cordylura umbrosa* (No 11398). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** male lectotype (both wing damaged at middle), with a small green label and labelled “11398”, “Coll. H. Loew”, “Losoncz Kowarz”, “*Cordylura umbraculata* Lw.”, “Type”, “*Cordylura umbrosa* Loew LECTOTYPE Designated by J.R. Vockeroth 19”, “*Cordylura umbrosa* Loew det. Šifner ♂”. Type-locality: “Losoncz” (Lučenec, 48.333306N 19.666695E, Slovakia). Conspecific with *Cordilura impudica* (Rondani, 1867).

**Current name:** A junior synonym of *Cordilura impudica* (Rondani, 1867), as currently understood.

***unicolor* Loew, 1864: 17 (*Cordylura*).**

Described from an unspecified number of females from “Andalusien”. A single specimen is mentioned in the “Catalog General Musei Zoologici Berolinensis” as

*Cordylura unicolor* (No 11373). It has been studied, labelled and is herewith designated as lectotype.

**ZMHB material:** lectotype female in very good condition, labelled “Spanien Stauding“, “11373“, “Coll. H. Loew“, “*Cordylura unicolor* m.“, “Type“, “*Cordylura umbrosa* Loew LECTOTYPE Designated by J.R. Vockeroth 19“. Type-locality: “Andalusien“ (Spain, Andalusia). Conspecific with *Cordilura albipes* (Fallén, 1819), not with *Parallelomma vittatum* (Meigen, 1826) as considered Šifner (2008: 174).

**Current name:** A new junior synonym of *Cordilura albipes* (Fallén, 1819), **syn.n.**

#### **vockerothi Ozerov, 2013: 81 (*Norellisoma*).**

Described from 8 males and 5 females taken in the Alps of Austria, Switzerland, and Italy.

**ZMHB material:** holotype male (Ozerov 2013: 81, original designation), in very good condition, labelled “St. Moritz 3/7 10570” [= 3 July 1886], “*Norellisoma* n. sp. 1 det. J.R. Vockeroth 1954“. Type-locality: St. Moritz (Switzerland: ~46.50N, 9.83E).

12 paratypes: 3 males and 4 females same locality as holotype, 28.VI. (9419), 3.VII. (10566, 10567), 4.VII. (10616, 10617, 10642) and 16.VII (11722); 2 males [Italy] “Vallombrosa 54041 V”; 2 males [Switzerland] “Linthal”, 31.5.[19]13 and 6.6.[19]13; 1 female [Austria] “Schneeberg Jul.[18]55“, “coll. H. Loew“. Three of these paratypes are in ZMUM (Ozerov 2013: 83).

**Current name:** *Norellisoma vockerothi* Ozerov, 2013.

#### **ziegleri Ozerov, 1999: 510 (*Langechristia*).**

Described from 3 males and 2 females from Khabarovskiy Kray (Russia).

**SDEI material:** holotype male (Ozerov 1999: 510, original designation), in very good condition, labelled “RUSSIA: Khabarovskiy Kray Boitsovo 20 km N Bikin Bolsoi Solntsepyok Hill 47.02N 134.21E 250 m, Malaise-falle, 24–27.V.1993 leg. C. Lange & J. Ziegler“. Type-locality: Boitsovo 47.02N 134.21E (Russia, Khabarovskiy Kray). 1 male and 1 female paratypes with the same labels are conspecific with holotype. A further 1 male and 1 female paratypes are in ZMUM (Ozerov 1999: 510).

**Current name:** *Langechristia ziegleri* Ozerov, 1999.

## Nomenclatural summary

*Acanthocnema glaucescens* (Loew, 1864)

*Acanthocnema latipennis* Becker, 1894

*Cordilura aberrans* (Becker, 1894)

*rubifrontata* Becker, 1894, **syn. n.**

*Cordilura albipes* (Fallén, 1819)

*unicolor* Loew, 1864, **syn. n.**

*Cordilura bezzii* (Sack, 1937)

*Cordilura fulvifrons* Ozerov, 1997

*Cordilura impudica* (Rondani, 1867)

*umbrosa* Loew, 1873

*Cordilura picipes* (Meigen, 1826)

*biseta* Loew, 1864

*Cordilura picticornis* (Loew, 1864)

*Cordilura socialis* (Becker, 1894)

*Cordilura ustulata* (Zetterstedt, 1838)

*melanacra* Loew, 1873

*Gimnomera castanipes* (Becker, 1894)

*Gimnomera lasiostoma* (Becker, 1894)

*Gonarcticus arcticus* (Becker, 1907)

*Langechristia amica* Ozerov, 1999

*Langechristia speciosa* Ozerov, 1999

*Langechristia ziegleri* Ozerov, 1999

*Megaphthalma longicornis* Hendel, 1913

*Nanna armillata* (Zetterstedt, 1846)

*mensurata* Becker, 1894

*Nanna articulata* (Becker, 1894)

*Nanna flavipes* (Fallén, 1819)

*minuta* Becker, 1894

*Nanna inermis* (Becker, 1894)

*Nanna loewi* (Becker, 1894)

*Nanna tibiella* (Zetterstedt, 1838)

*nigrifrontata* Becker, 1894, **syn. n.**

*nutans* Becker, 1894

*Norellia tipularia* (Fabricius, 1794)

*melaleuca* Loew, 1873

*Norellisoma femorale* (Loew, 1864)

*Norellisoma lesgiae* (Becker, 1894)

*Norellisoma lituratum* (Meigen, 1826)

*opaca* Loew, 1864

*Norellisoma vockerothi* Ozerov, 2013

*Okeniella dasyprocta* (Loew, 1864)

*Parallelomma media* Becker, 1894

*Parallelomma vittatum* (Meigen, 1826)

*paridis* Hering, 1923

*Pogonota sahlbergi* (Becker, 1900)

*Scathophaga alata* (Becker, 1914)

*Scathophaga albidohirta* (Becker, 1907)

*Scathophaga dasythrix* (Becker, 1894)

*Scathophaga incola* (Becker, 1900)

*Scathophaga litorea* (Fallén, 1819)

*islandica* Becker, 1894

*Scathophaga mollis* (Becker, 1894)

*Scathophaga multiseta* (Holmgren, 1883)

*arctica* Becker, 1897

*Scathophaga obscurinervis* (Becker, 1900)

*Scathophaga pictipennis* (Oldenberg, 1923)

*Scathophaga taeniopa* (Rondani, 1867)

*ordinata* Becker, 1894

*Scathophaga tinctinervis* (Becker, 1894)

*Scathophaga varipes* (Holmgren, 1883)

*septentrionalis* Becker, 1897

*Spathephilus nigriventris* (Loew, 1864)

*breviventris* Loew, 1873

*Spaziphora hydromyzina* (Fallén, 1819)

*fascipes* Becker, 1894

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Autor(en)/Author(s): Ozerov Andrej Leonidovitsch

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