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## An annotated list of the millipede (Diplopoda) species described by Johann Carl

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**Abstract:** Johann Carl described 390 species or subspecies of millipedes during his long career at the Muséum d'histoire naturelle de Genève, studying specimens collected on his own expeditions and on those of other, mainly Swiss, naturalists. The type specimens deposited in Geneva are enumerated, and the type specimens that could be located in other collections in other museums are reported. Lectotypes are designated for 17 species: *Brachyspirobolus aequatorialis* (Carl, 1909), *Carlopeltis alatus* (Carl, 1914), *Mastigorhacus alatus* (Carl, 1912), *Salpidobolus annulipes* (Carl, 1912), *Erythrachus arietis* (Carl, 1912), *Argentocricus bernardinensis* (Carl, 1918), *Trigoniulus bitaeniatus* Carl, 1912, *Desmocricus conjunctus* Carl, 1918, *Polylepis elberti* Carl, 1912, *Trigoniulus incommodus* Carl, 1912, *Stenobolus insularis* Carl, 1918, *Salpidobolus lateralis* (Carl, 1912), *Dinematocricus lombokensis* (Carl, 1912), *Prepodesmus longipes* (Carl, 1913), *Arostrophus mertonii* (Carl, 1912), *Salpidobolus moenensis* (Carl, 1912) and *Eucarlia velox* (Carl, 1912). *Polydesmus carli* nom. nov. is introduced as a replacement name for *Polydesmus japonicus* Carl, 1902, a junior homonym of *Polydesmus japonicus* Peters, 1864. *Odontopyge johanncarli* nom. nov. is introduced as a replacement name for *Odontopyge fasciata* Carl, 1905, a junior homonym of *Odontopyge fasciata* Attems, 1896.

**Keywords:** Jean Carl - Geneva - Basel - India - Indonesia - East Africa - Colombia - type catalogue.

## INTRODUCTION

Johann (or Jean) Carl (1877-1944) joined the staff of the Muséum d'histoire naturelle de Genève (MHNG) as the junior assistant of Emil Frey-Gessner in 1900. Carl went on to become curator and eventually deputy director of the Museum. His scientific work followed on from that of Henri de Saussure, who published extensively on Hymenoptera, Orthoptera, Diplopoda and Crustacea (Hollier & Hollier, 2013). Saussure's influence was such that Carl worked on all of these groups, and was also a pioneer in the study of the Collembola (Revilliod, 1945). His Orthoptera type specimens are all in the MHNG (Hollier, 2010). The Diplopoda he studied included material collected on his own expeditions to East Africa and southern India, but he also examined the collections made on the expeditions of several other Swiss and German naturalists, and many type specimens were

therefore deposited in other museums. In the first such study (Carl, 1905) he was invited by Ignacio Bolívar to study specimens collected by Martínez de la Escalera in Guinée Espagnole (now Equatorial Guinea) in the Museo Nacional de Ciencias Naturales (MNCN) in Madrid (Bolívar being a long-term collaborator of Saussure). Carl (1912c) studied the Diplopoda collected by Paul and Fritz Sarasin, both biologists from Basel, who left most of their collections to the Naturhistorisches Museum Basel (NMB), on their expedition to Celebes (now Sulawesi in Indonesia). He also (Carl, 1912c, 1913a) studied specimens from Celebes and Sumatra collected by Johannes Elbert and deposited in the Naturhistorisches Museum Bern (NMBe) and in the Senckenberg Naturmuseum Frankfurt (SMF). Fritz Sarasin, this time with Jean Roux of the NMB, also collected in New Caledonia and the Loyalty Islands, and

Carl (1926) worked on their specimens. Carl (1914b) studied the Diplopoda collected by the expedition of Fuhrmann and Mayor to Colombia. Their trip was partly funded by the city of Neuchâtel and their specimens ought to be deposited in the Musée d'histoire naturelle de Neuchâtel but they are apparently not there. Carl (1922) treated Diplopoda specimens collected in Indonesia by Hugo von Buttel-Reepen, who was the director of the Oldenburger Naturhistorisches Museum. The collection of W. Morton (who collected in Malaysia/Indonesia) is in the Musée cantonal de zoologie in Lausanne, and Carl (1909a) treated a number of Diplopoda specimens collected by him. He also (Carl, 1912a) described the Diplopoda specimens collected by Hugo Merton in the Aru and Kai Islands (now in Indonesia).

Carl published more than 30 articles on the Diplopoda (27 with descriptions of new taxa) and described 390 species or subspecies between 1902 and 1942. Carl did not designate holotypes, and did not always state how many specimens he had available for his descriptions (if there were few specimens he generally enumerated them, but was content with “several” or “many” if there were more). He clearly understood the need for fixing a type specimen however, and his labels often indicate types and cotypes although this has no formal meaning because it was not usually mentioned in the original description. Carl made a distinction between subspecies and varieties in his descriptions but, because they were all published before 1960, they must all be treated as being of subspecific rank. Carl generally provided adequate illustrations to accompany his descriptions, and also helpfully revised many of Humbert and Saussure's types, illustrating features not mentioned in the early descriptions (Hollier *et al.*, 2017). Specimens collected by other workers are often without a separate data label but usually have two identification labels with at least some information about provenance, one written by Carl (usually in pencil) and the other written in ink by another hand (see Fig. 1). Specimens collected by Carl himself often have a data label; these are handwritten in the case of the East Africa expedition and labels with “Voy. Carl et Escher, Inde méridionale” printed at the top and handwritten details added below in the case of the India expeditions.

## ARRANGEMENT AND FORMAT

The species are arranged alphabetically. The format for each is:

**specific epithet** Author, year of publication, pages containing description, figures [*Original generic placement*].

Type locality and depository (if given) as stated in the original description. Type series as given in the original description.



Fig. 1. An example of the two identification labels that are typically found with Carl's specimens.

Number of specimens in the MHNG. Condition of specimens. Locality and other information written on the labels associated with the specimens (N.B. the printed data on Carl's India expedition labels is not repeatedly cited). Type status of the specimens. Information about type specimens in other collections. Other comments. Currently valid combination, current family placement. Nomenclature follows Sierwald & Spelda (2019).

The following abbreviations are used in the catalogue:

- BMNH Natural History Museum, London
- HNHM Hungarian Natural History Museum, Budapest
- MCZL Musée cantonal de zoologie, Lausanne
- MHNG Muséum d'histoire naturelle de Genève
- MNCN Museo Nacional de Ciencias Naturales, Madrid
- MTD Museum für Tierkunde, Dresden (collection destroyed in World War II)
- NHMW Naturhistorisches Museum, Wien
- NMB Naturhistorisches Museum, Basel
- NMBE Naturhistorisches Museum, Bern
- SMF Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt
- UZH Zoological Museum, University of Zurich
- ZMHB Museum für Naturkunde, Berlin
- ZMUH Zoologisches Museum Centrum für Naturkunde der Universität Hamburg

## CATALOGUE

**acceptus** Carl, 1914b: 907-908, fig. 143 [*Batodesmus*]. Gauduas. One ♂.

The MHNG collection contains two gonopods in alcohol (MHNG-ARTO-14350). The vial containing them has the label “*Batodesmus acceptus* Carl, ♂ type, gonopode” indicating that they belong to the holotype, while a photocopy of an original label in the jar gives the

locality as “Colombie”. The whereabouts of the rest of the specimen is unknown.

*Batodesmus acceptus* Carl, 1914, Chelodesmidae

**acceptus** Carl, 1941b: 649-652, figs 115-120 [*Ktenostreptus*].

Untere Palnis: Tandikudi, 1500 m, in Cardamum-Pflanzung, unter Holz, 23.IV; Maryland, 1600 m. Moyar-Becken: Masinigudi, Busch. Three ♂, four ♀ and unspecified number of juveniles.

The MHNG collection contains 15 specimens in alcohol, in five tubes. The jar contains a label reading “Tandikudi 23.IV. Cardamum Estate, Unter Holz”. Each of the three ♂ is in a separate tube: the first (MHNG-ARTO-14236) is broken in half and has a data label with “Maryland” written on it; the second (MHNG-ARTO-14237) is accompanied by two smaller vials containing the head and anterior rings and the gonopods and has a data label with “Tandikudi” written on it; the third (MHNG-ARTO-14238) is broken into five parts, with a note that the gonopods have been slide mounted. The fourth tube (MHNG-ARTO-14239) contains two specimens, one broken, with a data label with “Masinigudi, Busch” written on it. The fifth tube (MHNG-ARTO-14240) contains ten specimens, mostly broken, with a data label with “Tandikudi” written on it. The microscope slide preparation of the gonopods of a ♂ syntype (MHNG-ARTO-14238) is in a case glued to the lid of the jar. All of these specimens are syntypes.

*Ktenostreptus acceptus* Carl, 1941, Harpagophoridae

**acutangulus** Carl, 1926: 399-401, figs 47-52 [*Canacophilus (Anthogonopus)*].

Neu-Caledonien: Mt. Humboldt ca. 1100 m, 17. September 1911; Gipfel 1600 m, 18. September 1911. Unspecified number of ♂, ♀ and juveniles.

The MHNG collection contains three specimens, one with a pin running the length of the body, in alcohol (MHNG-ARTO-14292). The identification label in the jar has “Nlle Cal. Sarasin et Roux” written on it, indicating that the specimens are syntypes. There are two syntypes in the NMB (inventory numbers NMB-DIPL-00352a and NMB-DIPL-00352b). *Canacophilus acutangulus* is the type species of *Anthogonopus* Carl, 1926 by monotypy (Jeekel, 1971).

*Canacophilus acutangulus* Carl, 1926, Dalodesmidae

**aequatorialis** Carl, 1909b: 356-359, pl. 7, figs 25-30 [*Microspirobolus*].

Njarugenje (Central-Ruanda), im Tal des Njaranda, Jinja (Busoga), bei den Riponfällen des Nils. Unspecified number of ♂ and ♀.

The MHNG collection contains some 70 specimens in alcohol in two jars. The first jar (MHNG-ARTO-14417) contains 28 specimens, several of them broken. One specimen is separated in a small vial with the anterior of the body and the gonopods detached: this specimen

is here designated lectotype. Two specimens with pins running the length of the body are in a second small tube. The identification labels have “Njarugenje, Central-Ruanda Dr J. Carl” and “Rwanda centr. J. Carl Types” written on them respectively and there is a printed “Type” label, indicating that the specimens are part of the type series. The second jar (MHNG-ARTO-1 4418) contains some 40 specimens, many of them broken into several parts. The original pencil-written identification label has “Njarugenje J. Carl” written on it. Although there is no type label, there is no reason to doubt that these are part of the type series. There are three syntypes in the ZMUH (Weidner, 1960), six in the MCZL and three in the NMB (inventory number NMB-DIPL-00185a). *Microspirobolus aequatorialis* was designated as the type species of the genus *Microspirobolus* Carl, 1909 by Brölemann (1914) but the name is preoccupied by *Microspirobolus* Silvestri, 1898. Carl (Carl in Brölemann, 1914) proposed the replacement name *Brachyspirobolus* Carl, 1914, with *B. aequatorialis* as the type species by direct substitution (Jeekel, 1971).

*Brachyspirobolus aequatorialis* (Carl, 1909), Pachybolidae

**alatus** Carl, 1914b: 900-901, fig. 130 [*Alocodesmus*].

Unterhalb Bodega central. Unspecified number of ♂ and ♀.

The MHNG collection contains one ♂ specimen in alcohol (MHNG-ARTO-14351) which is here designated as lectotype. The specimen is in a glass vial with some loose legs while the gonopods are in a separate smaller vial. The identification labels have “Bodega Central (Colombie)” and “Colombie, coll. Fuhrmann.” written on them respectively, and a printed “Cotype” label, indicating that the specimen is a syntype. There is an undated typewritten label stating that Hoffman had identified the specimen as *Carlopeltis alatus*. The whereabouts of the other syntype(s) is unknown. *Carlopeltis alatus* is the type species of the genus *Carlopeltis* Verhoeff, 1938 by monotypy (Jeekel, 1971).

*Carlopeltis alatus* (Carl, 1914), Chelodesmidae

**alatus** Carl, 1912c: 146-148, pl. 5, fig. 16 [*Platyrrhacus*]. Roembi-Mengkoka, S.-O.-Celebes (Dr J. Elbert); S.-O.-Celebes (coll. Sarasin). One damaged ♂ and two ♀.

No specimens found in the MHNG. The SMF collection contains fragments of four ♂ and at least two ♀ in alcohol. The identification label has “Roembi-Mengkoka, SO-Celebes, J. Elbert” written on it. After examination of these type specimens, one ♂ (SMF 829) was placed in a separate jar and is here designated as lectotype. There is one ♀ paralectotype (referred to as “Typ” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00137a).

*Mastigorhacus alatus* (Carl, 1912), Platyrrhacidae



**albicans** Carl, 1902: 570-572, pl. 10, figs 3-4 [*Strongylosoma*].

Sumatra, Dr. Moesch (Zürcher Museum). One ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14293). The specimen is in a vial. A second vial contains a single gonopod; it is not clear if this is from the specimen in the jar or from the other syntype. The identification labels in the jar have "type Sumatra (Moesch)" written on them and indicate that the specimen is a syntype. The other syntype is presumably in the UZH.

*Sundanina albicans* (Carl, 1902), Paradoxosomatidae

**albidus** Carl, 1932: 485-487, figs 103-108 [*Sholaphilus*]. Palnis: Shola bei Vandaravu, 2300 m unter morschem Holz, 6.-10.IV. Unspecified number of ♂ and ♀.

The MHNG collection contains parts of some 20 specimens, some broken, in alcohol (MHNG-ARTO-14294). The specimens are in a vial separated by a cotton wool plug from a smaller vial containing fragments including antennae and gonopods. The data label has "Palnis, Vandaravu" written on it, indicating that the specimens are syntypes. *Sholaphilus albidus* is the type species of the genus *Sholaphilus* Car, 1932 by monotypy (and not by designation in the original description as stated by Jeekel, 1971).

*Sholaphilus albidus* Carl, 1932, Fuhrmannodesmidae

**alticola** Carl, 1912c: 103-104 [*Nesoglomeris*].

Gipfel des Bowonglangi; Süd-Celebes (coll. Sarasin). One ♀.

No specimens found in the MHNG. The ♀ holotype (referred to as "Typ" in the NMB catalogue) is in the NMB (inventory number NMB-DIPL-00111a).

*Hyleoglomeris alticola* (Carl, 1912), Glomeridae

**ambigua** Carl, 1941a: 359-361, figs 1-3 [*Orthomorpha* (*Kalorthomorpha*)].

Soekaboemi, West-Java. E. Walch leg. Museum Genf. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14295). The specimen is broken and placed in a small vial, while several fragments including a gonopod are in a separate small vial. The identification labels have "type Java, E. Walch" written on them, indicating that the specimen is the holotype.

*Tectorporus ambiguus* (Carl, 1941), Paradoxosomatidae

**ambiguus** Carl, 1914b: 941, fig. 204 [*Aphelidesmus*].

Cafetal Buenavista bei Viota. Coll. Fuhrmann. One ♂. No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Aphelidesmus ambiguus* Carl, 1914, Aphelidesmidae

**ambiguus** Carl, 1926: 424-246, figs 83-86 [*Spirobolellus*].

Neu-Caledonien: Tchlabel, unter Kalkblöcken, 5. Mai

1911; Oubatche, Wald, unter faulem Holz, April 1911; Mt. Ignambi, Wald, April 1911, 800-1000 m; Hienghène; Insel Ouedjo bei Hienghène, Juni 1911; Canala, März 1912; Bourail, 26. Jan. 1912; La Foa, 16. Jan. 1912. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in two jars. The first jar (MHNG-ARTO-14328) contains four specimens, one with a pin running the length of the body, and a vial containing gonopods. The identification label has "Drs F. Sarasin & J. Roux, N. Caled. Bourail 2.II.12" written on it, and the specimens are presumably syntypes despite the collecting date not corresponding to that in the original description. The second jar (MHNG-ARTO-14329) contains a specimen collected in 1977 which is clearly not part of the type series. There are 12 syntypes (referred to as "Typen" in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00363a to NMB-DIPL-00363g).

*Spirobolellus ambiguus* Carl, 1926, Spirobolellidae

**americanus** Carl, 1902: 611-613, pl. 11, fig. 37 [*Polydesmus*].

Texas, J. Boll (Genfer Museum). Two ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14296) under the name *Pseudopolydesmus americanus*. Both specimens have a pin running the length of the body. The data label in the jar reads "Texas, J. Boll" and one of the identification labels has "Type" written on it, indicating that the specimens are syntypes. A handwritten note states that Hoffman examined the specimens in 1960 and intended to designate the smaller specimen as the lectotype; this designation does not appear to have been published and Hoffman (1999: 445) erroneously refers to a holotype deposited in the MHNG. Two microscope slide preparations of gonopods of syntypes (MHNG-ARTO-14297) are in a case glued to the lid of the jar.

A junior synonym of *Pseudopolydesmus pinetorum* (Bollman, 1888), Polydesmidae

**ammonites** Carl, 1914b: 965 [*Trigonostylus*].

Camelia, Kaffeepflanzung, 1800 m. One ♀.

No specimens found in the MHNG. The whereabouts of the holotype is unknown.

*Cyrtodesmus ammonites* (Carl, 1914), Cyrtodesmidae

**andinus** Carl, 1914b: 960-961, figs 248-257 [*Calymmodesmus*].

Puerto de los Pobres, am Cauca-Fluss. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol. The specimens, one of which is in three pieces, are in a small vial (MHNG-ARTO-14353). A second vial (MHNG-ARTO-14354) contains gonopods and dissected parts of a head. The identification labels have "Cauca (Colombie)" and "Colombie, Coll. Fuhrmann ♂" written on them respectively and there is a printed "Cotype"

label indicating that the specimens are syntypes. *Calymmodesmus andinus* is the type species of the genus *Calymmodesmus* Carl, 1914 by monotypy (Jeekel, 1971). *Calymmodesmus andinus* Carl, 1914, Pyrgodesmidae

***andropygus impunctatus*** Carl, 1918: 458-459, figs 40-45 [*Trigoniulus*].

Ile Deslacs, L. Biro leg. Musée national hongrois. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol. The two specimens, each with a pin running the length of the body, are in a glass vial (MHNG-ARTO-14355). A smaller vial (MHNG-ARTO-14356) contains gonopods, antennae and some legs. The identification labels both have "Ile Deslacs, Biró leg." written on them, indicating that the specimens are syntypes. There were presumably other syntypes in the HNHM, although these are not listed in Korsós (1983).

*Trigoniulus andropygus impunctatus* Carl, 1918, Pachybolidae

***angustifrons*** Carl, 1905: 278-280, fig. 9 [*Spirostreptus*]. No explicit locality. Unspecified number of ♀.

No specimens found in the MHNG. According to Andrés Cobeta (2001: 70) there is a type specimen in the MNCN (MNCN 20.07/1174). *Spirostreptus angustifrons* Carl, 1905 is a junior homonym of *S. angustifrons* Brölemann, 1902. Given the large number of available names in the genus *Spirostreptus*, assignment of a replacement name is deferred until a taxonomic revision is carried out.

"*Spirostreptus angustifrons*" Carl, 1905, Spirostreptidae

***annulipes*** Carl, 1917: 402-405, figs 23-24 [*Doratogonus*]. Patrie? One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14242). The jar contains three identification labels giving different locality information; the oldest has "*Spirostreptus maritimus* Koch, Brisbane, H. de Sss." written on it in Zehntner's handwriting. Carl's pencil label has "Patrie?" written on it while the ink label has "Afrique(?)" written on it. This is clearly the holotype. The specimen is accompanied by a small vial containing the gonopods.

*Doratogonus annulipes* Carl, 1917, Spirostreptidae

***annulipes*** Carl, 1912c: 189-192, figs 25-27 [*Rhinocricus*]. Buol, N.-Celebes (coll. Sarasin). One ♂, one ♀ and an unspecified number of juveniles.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14316). The identification labels in the jar have "type Buol, N. de Celebes ex coll. Sarasin" written on them, indicating that the specimen is a syntype. There are three syntypes (one ♂, here designated as lectotype, one ♀ and one juvenile referred to as "Typen" in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00162a).

*Salpidobolus annulipes* (Carl, 1912), Rhinocricidae

***annulipes*** Carl, 1914b: 918-920, figs 163-165 [*Trichomorpha*].

La Camelia bei Angelopolis. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol. The specimens each have a pin running the length of the body and are in a glass vial (MHNG-ARTO-14357). A smaller vial (MHNG-ARTO-14358) contains gonopods. The identification labels in the jar both have "Colombie coll. Fuhrmann" written on them and there is a printed "Cotype" label, indicating that the specimens are syntypes. There are also two syntypes (one ♂ and one ♀ referred to as "Co-Typus" in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00227a).

*Trichomorpha annulipes* Carl, 1914, Chelodesmidae

***areatus*** Carl, 1932: 490-493, figs 114-118 [*Archandrodresmus*].

Upper-Palnis: Kodaikanal, 24.X.1894, J.R. Henderson leg. (Brit. Museum); Bombay-Shola bei Kodaikanal, 2200 m, unter Holz; Maryian-Shola, 2300 m, 11.-14. IV; Kleine Sholas und Mimosawäldchen bei Pumbarai, 1900 m, 29.III; Kukkal-Shola unter Holz, 1.IV; kleine Kaffee-Plantage unterhalb Kukkal und Pumbarai, 1900 m; Sholas bei Vandaravu F.R., 2300 m, unter Holz, 6.IV. Travancore: Grosser Wald im oberen Vattavadai-Tal, zwischen Palnis und Anaimalais, 1850 m, 10.IV. Lower Palnis: Tandikudi, 1500 m, auf Mauer, nach Regen. Unspecified number of ♂ and ♀.

The MHNG collection contains 148 specimens in alcohol in eight vials. The first vial (MHNG-ARTO-14364) contains 14 specimens, two of them broken and a data label with "Travancore Vattavadai" written on it. The second vial (MHNG-ARTO-14365) contains 43 specimens, several of them broken, and a data label with "Palnis sup. Vandaravu" written on it. The third vial (MHNG-ARTO-14366) contains nine specimens and a data label with "Palnis sup. Kukkal-Shola" written on it. The fourth vial (MHNG-ARTO-14367) contains 13 specimens and two data labels with "Palnis sup. Pumbarai" and "Mimosawäldchen ob. Pumbarai, 29.III, Unter Holz" written on them respectively. The fifth vial (MHNG-ARTO-14368) contains 17 specimens, some broken, and a data label with "Palnis sup. Maryian-Shola" written on it. The sixth vial (MHNG-ARTO-14369) contains 14 specimens and a data label with "Palnis sup. Kukkal, plantation" written on it. The seventh vial (MHNG-ARTO-14370) contains 30 specimens, some broken, and a data label with "Palnis infér. Tandikudi" written on it. The eighth vial (MHNG-ARTO-14371) contains nine broken specimens, one of them separated in a smaller vial, and a data label with "Palnis sup. Kodaikanal Shola" written on it. These specimens are all syntypes. There is also type material in the BMNH. *Archandrodresmus areatus* was designated the type species of the genus *Archandrodresmus* Carl, 1932 in the original description. *Cryptocorypha areata* (Carl, 1932), Pyrgodesmidae

**arietis** Carl, 1912c: 151-152, pl. 5, figs 10-11 [*Platyrrhacus*].

Matinang-Kette (Nordseite) Nord Celebes 500-1000 m (coll. Sarasin). Unspecified number of ♂.

No specimens found in the MHNG. There is a single ♂ syntype (referred to as “Typ” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00138a). As the only known ♂ type, this specimen is here designated lectotype.

*Erythracus arietis* (Carl, 1912), Platyrrhacidae

**armata** Carl, 1902: 579-581, pl. 10, figs 19-20 [*Orthomorpha*].

Java, auf Kaffeeblättern, Dr. L. Zehntner (Genfer Museum). One ♂.

The MHNG collection contains one specimen; the main body of the specimen is in alcohol (MHNG-ARTO-14360) and two legs and part of a gonopod are mounted on a microscope slide (MHNG-ARTO-14361). The identification labels have “type Java, Zehntner” and “Java, Zehntner” written on them respectively, indicating that the specimen is the holotype. An undated typewritten label states that Hoffman considered the specimen to belong to an unknown genus, and an undated label written in pencil reads “*Orthomorpha armata* Carl, ♂ holotype (7th somite missing) balsam preparation of telopodite of left gonopod + 2 legs separate, Jeekel”. Jeekel (1980b) gave a new illustration of the gonopod and placed the species in the genus *Nesorthomorpha* Jeekel, 1980.

*Nesorthomorpha armata* (Carl, 1902), Paradoxosomatidae

**asperrimus** Carl, 1932: 441-443, figs 27-30 [*Grammorhabdus*].

Palnis: Maryland, Neutral Saddle; exponierter Westhang, ca. 1600 m, 19.IV. – Tandikudi, ca. 1500 m, Cardamum-Plantage, 23.IV. More than one ♂ and ♀.

The MHNG collection contains five specimens in alcohol in two vials. The first vial (MHNG-ARTO-14362) contains one specimen with a pin running the length of the body and a data label with “Palnis inf., Tandikudi” written on it. The second vial (MHNG-ARTO-14363) contains four specimens, two with a pin running the length of the body and the other two broken into several pieces. One of the specimens with a pin running the length of the body is separated in a smaller vial, and there is another vial with gonopods. The data label has “Maryland, Palnis inf.” written on it. There is also a pencil written label reading “♂ lectotype and 3 ♀ lectoparatypes”. Jeekel (1980a: 176) designated the ♂ from Neutral Saddle as the lectotype, the other specimens are paralectotypes. *Grammorhabdus asperrimus* is the type species of the genus *Grammorhabdus* Carl, 1932 by monotypy (Jeekel, 1971). An undated typewritten label in the jar states that Hoffman identified the specimens as *Polydrepanum asperrimum* (Carl).

*Polydrepanum asperrimum* (Carl, 1932), Paradoxosomatidae

**asperus** Carl, 1905: 269-271, figs 4-4b [*Cordylloporus* (*Neocordylloporus*)].

Cabo St Juan. Unspecified number of ♂ (♀ not mentioned explicitly).

No specimens found in the MHNG. Andrés Cobeta (2001) did not locate any type specimens in the MNCN. *Neocordylloporus asperus* is the type species of the genus *Neocordylloporus* Carl, 1905 by monotypy (Jeekel, 1971).

*Neocordylloporus asperus* Carl, 1905, Chelodesmidae

**attemsi** Carl, 1914b: 895 [*Chondrodesmus*].

Replacement name for *Leptodesmus goudoti* Gervais, 1847 *sensu* Attems (1898: 375), which Carl recognised as a species distinct from Gervais’ original species concept. No specimens found in the MHNG. There is a syntype in the ZMUH (Weidner, 1960) and two in the ZMHB (Moritz & Fischer, 1978a).

*Chondrodesmus attemsi* Carl, 1914, Chelodesmidae

**aubryi luteola** Carl, 1902: 595 [*Cordylloporus*].

Goldküste, Dr. E. Mähli (Basler Museum). One ♀.

No specimens found in the MHNG. The ♀ holotype (referred to as “Syntypus variationis” in the NMB catalogue) is in the NMB (inventory number NMB-DIPL-00462-1a) under the name *C. ornatus* var. *luteola*. A junior synonym of *Prepodesmus ornatus* (Peters, 1864), Chelodesmidae

**augustus** Carl, 1914b: 884-886, figs 110-112 [*Leptodesmus*].

La Camelia, Kaffeeplantation bei 1800 m. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14359). Two of the specimens have a pin running the length of the body, and they are accompanied by a pair of gonopods in a small vial. The identification labels have “Colombie (Camelia Kaffeeplantation) 2♂ 1♀” and “Colombie, Coll. Fuhrmann” written on them respectively, and there is a printed “Cotype” label, indicating that the specimens are syntypes. The jar also contains an undated typed label stating that Hoffman considered the specimens to belong to an undescribed genus. There are two syntypes (one ♂ and one ♀ referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00222a).

*Leptodesmus augustus* Carl, 1914, Chelodesmidae

**baccatus** Carl, 1926: 387-389, figs 20-28 [*Atopogonus*].

Neu-Caledonien: Mt. Humboldt Gipfel 1600 m, 18. Sept. 1911; Mt. Canala, 4. Nov. 1911; Ignambi-Wald, 700-800 m, April 1911. One damaged ♂, one ♀ and an unspecified number of juveniles.

No specimens found in the MHNG. There are at least four syntypes (one ♂, one ♀ and juveniles referred to as “Typen” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00345a, NMB-DIPL-00345b and



NMB-DIPL-00345c). *Atopogonus baccatus* is the type species of the genus *Atopogonus* Carl, 1926 by monotypy (Jeekel, 1971).

*Agathodesmus baccatus* (Carl, 1926), Haplodesmidae

**bacillifer** Carl, 1912c: 153-154 [*Opisthoporodesmus*]. Masarang, in Baummoos (coll. Sarasin). Two ♀, possibly juveniles.

No specimens found in the MHNG. There is a single ♀ syntype (referred to as “Typ” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00139a).

*Opisthoporodesmus bacillifer* Carl, 1912, Opisetretidae

**badaga** Carl, 1932: 458-459, figs 52-54 [*Telodrepanum*]. Nilgiris: Kotagiri, 1900 m, J. R. Henderson (Brit. Museum). One damaged ♂.

No specimens found in the MHNG. The holotype could not be located in the BMNH and is presumably lost. *Telodrepanum badaga* is the type species of the genus *Telodrepanum* Carl, 1932 by monotypy (Jeekel, 1971).

*Telodrepanum badaga* Carl, 1932, Paradoxosomatidae

**bernardinensis** Carl, 1918: 436-439, figs 14-15 [*Rhinocricus*].

San Bernardino, Paraguay. Dr Hassler leg. Muséum de Genève. One ♂ and two ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14376). Two of the specimens have a pin running the length of the body, the other is broken but both parts have pins running along them. There is also a small vial containing the gonopods. One of the identification labels has “San Bernardino (Paraguay), Dr Hassler leg.” written on it, indicating that the specimens are syntypes. The ♂ specimen is here designated lectotype.

*Argentocricus bernardinensis* (Carl, 1918), Rhinocricidae

**bicolor** Carl, 1909b: 319-321, pl. 6, fig 20 [*Lophostreptus*].

Kirehe in Kissaka (Südost-Ruanda), in Bananenpflanzungen. Njarungenje bis Niansa (Central-Ruanda). Unspecified number of ♂ and ♀.

The MHNG collection contains some 53 specimens in alcohol in three jars. One jar (MHNG-ARTO-14377) contains the lectotype designated by Demange & Mauriès (1975: 69). The specimen is in two parts, and the gonopods are separate in the same vial. The identification labels are original, and have the locality “Njarungenje, Dr Carl” and “types!” written on them respectively. A handwritten label in the jar reads “*Lophostreptus bicolor* Carl. Njarungenje (Central Ruanda) LECTOTYPE – J.M. Demange 24.X.68. Exempleaire issu du bocal unique de Carl”. The second jar (MHNG-ARTO-14378) contains some 40 specimens, many of them broken and two with pins running the length of the body. There are typewritten copies of the original labels, and these specimens are paralectotypes. The third jar (MHNG-ARTO-14379)

contains 12 specimens, some broken. The identification label has “Njarungenje-Niansa, Dr J Carl” written on it. Although not explicitly labelled as types, these specimens are also paralectotypes. There is a paralectotype in the NMB (inventory number NMB-DIPL-00178a) and three in the MCZL. *Lophostreptus bicolor* is the type species of *Carlostreptus* Verhoeff, 1941c by monotypy (Jeekel, 1971).

*Lophostreptus bicolor* Carl, 1909, Spirostreptidae

**bicolor** Carl, 1902: 594-595 [*Prionopeltis*].

Neuseeland, Nordinsel. H. Suter (Berner Museum). Two ♀.

No specimens found in the MHNG collection. The syntypes are presumably in the NMBE.

*Desmoxytes bicolor* (Carl, 1902), Paradoxosomatidae

**bimontana** Carl, 1932: 431-433, figs 14-15 [*Orthomorpha* (*Gyrodrepanum*)].

Anaimalais: Valparai, ca. 1100 m, 7.III.27, Talboden, unter morschen Stämmen. Nilgiris: Kartery-Valley, unterhalb Coonoor, 1600 m, Bananenpflanzung unter Steinen und Strünken. Unspecified number of ♂ and ♀. The MHNG collection contains 36 specimens in alcohol in two jars. The first jar (MHNG-ARTO-14373) contains eight specimens, three of them broken and one with a pin running the length of the body. The data label has “Nilgiris, Karerai-Valley, bananarie” written on it. The second jar (MHNG-ARTO-14374) contains 28 specimens, many of them broken and two smaller vials, one with two of the specimens, one of which has a pin running the length of the body, and the other with gonopods. The data label has “Anaimalais, Valparai” written on it. The identification label has “♂, ♀ types! – cotypes” written on it. All of these specimens are syntypes. *Orthomorpha bimontana* is the type species of *Gyrodrepanum* Carl, 1932 by monotypy (Jeekel, 1971).

A junior synonym of *Gyrodrepanum lamprum* (Chamberlin, 1920), Paradoxosomatidae

**biolleyi** Carl, 1902: 658-661, pl. 11, figs 67-68 [*Platyrhacus*].

Las Delicias (Costarica), P. Biolley (Genfer Museum). One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14375). The identification labels have “Les Delicias (Costa Rica) P. Biolley” and “type Les Delicias (Costa Rica) P. Biolley” written on them respectively, indicating that the specimen is the holotype. An undated typewritten label in the jar shows that Hoffman identified the specimen as *Tirodesmus biolleyi* (Carl).

*Tirodesmus biolleyi* (Carl, 1902), Platyrrhacidae

**biporus** Carl, 1932: 500-503, figs 131-139 [*Pagodesmus*].

Palnis: Vandaravu, 2350 m, Sholas, unter Holz, 10.IV; Mariyanshola, 2300 m; Kleine Shola ob[erhalb]



Pumbarai, 1900 m, 29.II., unter Holz. Travancore: Grosser Wald, im oberen Vattavadai-Tal, zwischen Palnis und Anaimalais, 1850 m, 10.IV. Unspecified number of ♂, ♀ and juveniles.

The MHNG collection contains some 40 specimens in alcohol in three vials. The first vial (MHNG-ARTO-14243) contains five specimens in a smaller vial and a data label with “Palnis, Mariyanshola” written on it. The second vial (MHNG-ARTO-14244) contains two specimens separated by a cotton wool plug, one with a data label with “Palnis, Pumbarai” written on it and the other with a data label with “Travancore, Vattavadai” written on it. The third vial (MHNG-ARTO-14245) contains some 30 specimens separated from a smaller vial by a cotton wool plug; the vial contains a pair of gonopods and other fragments. The data label has “Palnis, Vandaravu” written on it. These specimens are all syntypes. *Pagodesmus biporus* was designated the type species of the genus *Pagodesmus* Carl, 1932 in the original description.

*Pagodesmus biporus* Carl, 1932, Pyrgodesmidae

***bipulvillata*** Carl, 1902: 586-589, pl. 10, figs 17-18 [*Orthomorpha*].

Java, Dr. L. Zehntner (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol in three vials. The first vial (MHNG-ARTO-14380) contains the lectotype designated by Jeekel (1980b: 327). The specimen has a pin running the length of the body, and is accompanied by a smaller vial containing the left gonopod. The second vial (MHNG-ARTO-14381) contains three ♂ paralectotypes. The specimens each have a pin running the length of the body, and there are two smaller vials containing gonopods and other dissected parts. The third vial (MHNG-ARTO-14382) contains a ♀ paralectotype. The identification labels in the jar have the locality “Java Zehntner” and “Types!” written on them respectively. There is also a handwritten label reading “*Orthomorpha bipulvillata* Carl, lectotype ♂, 3 ♂ and 1 ♀ paralectotypes Jeekel, 1976”.

*Orthomorpha bipulvillata* was designated the type species of the genus *Diglossosternum* Jeekel, 1980b in the original description of the genus.

*Diglossosternum bipulvillatum* (Carl, 1902), Paradoxosomatidae

***biseriatus*** Carl, 1926: 384-386, figs 15-19 [*Plethodesmus*]. Tchalabel, 5. Mai 1911. Unspecified number of ♂, ♀ and juveniles.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14322). The identification labels have “Tchalabel N. Caled. Sarasin et Roux” written on them, indicating that the specimen is a syntype. There are several syntypes (♂, ♀ and juveniles referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00344a). *Plethodesmus biseriatus*

is the type species of the genus *Plethodesmus* Carl, 1926 by monotypy (Jeekel, 1971).

*Plethodesmus biseriatus* Carl, 1926, Pyrgodesmidae

***bitaeniatus*** Carl, 1912b: 167-168, figs 1-2, & text fig. B [*Trigoniulus*].

Lombok. Sadjang. Dr. J. Elbert. Unspecified number of ♂ and ♀.

No specimens found in the MHNG. The SMF collection contains one jar with three ♂ and one ♀ accompanied by a microvial with dissected gonopods. The identification label in the jar has “Lombok: Sadjang, Elbert, 1909” written on it, indicating that the specimens are types. After examination of the type specimens, one ♂ (SMF 1385) was placed in a separate jar and is here designated as lectotype.

*Trigoniulus bitaeniatus* Carl, 1912, Pachybolidae

***bivirgatus*** Carl, 1902: 652-655, pl. 11, fig. 65 [*Platyrrhacus*].

San José (Costarica), P. Biolley (Genfer Museum). One ♂ and five ♀.

The MHNG collection contains six specimens in alcohol in two jars. The first jar (MHNG-ARTO-14383) contains four specimens and a small vial containing a gonopod. The identification labels in the jar have “Costa Rica, St José, Port Limon P. Biolley” and “types! Costa Rica, St José, Port Limon P. Biolley” written on them respectively, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18549) contains two specimens. The identification labels in the jar have “Costarica St José” and “types! St José, Port Limon P. Biolley” written on them respectively, indicating that the specimens are also syntypes. Hoffman (1999: 396) states that he examined the ♂.

A junior synonym of *Nyssodesmus phyton* (Peters, 1864), Platyrrhacidae

***boetonense*** Carl, 1912c: 119-120, text fig. 8 [*Castanotherium*].

Insel Boëton, südöstl. von Celebes (coll. Elbert). One ♀. No specimens found in the MHNG. The holotype was expected to be in the SMF but could not be found.

*Castanotherium boetonense* Carl, 1912, Zephroniidae

***bogotensis*** Carl, 1914b: 849-851, figs 32, 49-54 [*Stemmatoius*].

Bogota, 2600 m; Paramo Cruz Verde, 3400 m (Ost-Cordillere). Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens and dissected parts in alcohol in six vials. The first vial (MHNG-ARTO-14404) contains two specimens. The second vial (MHNG-ARTO-14405) contains a head and part of the first body ring, and a handwritten label “Stemm. spec. 3 ♂”. The third vial (MHNG-ARTO-14406) contains three pairs of legs and the label “♀”. The fourth vial (MHNG-ARTO-14407) contains a head, part of the

first body ring and gonopods. The fifth vial (MHNG-ARTO-14408) contains gonopods, two legs and some unidentifiable fragments, and the label “♂”. The sixth vial (MHNG-ARTO-14409) contains gonopods. It is not clear which, if any, of the dissected parts belong to the specimens in the first vial. The identification label in the jar has the locality “Colombie, Coll. Fuhrmann” written on it, and there is a printed “Cotype” label, indicating that the specimens are syntypes. There is a further ♀ syntype in the NMB (inventory number NMB-DIPL-00210a).

*Stemmiulus bogotensis* (Carl, 1914), Stemmiulidae

**braueri** Carl, 1913c: 213-215, figs 1-4 [*Holopodostreptus*]. Santa Inez, Ecuador (Zoolog. Museum Berlin). Unspecified number of ♂ and ♀.

No specimens found in the MHNG collection. The ZMHB collection contains five syntypes (Moritz & Fischer, 1974). *H. braueri* is the type species of the genus *Holopodostreptus* Carl, 1913 by monotypy (Jeekel, 1971).

*Holopodostreptus braueri* Carl, 1913, Pseudoannolenidae

**braueri** Carl, 1918: 420-423, fig. 2 [*Polylepiscus*]. Santa Inez, Ecuador. R. Haensch leg. Musée de Berlin. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14403). One of the identification labels in the jar has “♂♀ cotypes, Santa Inez, Ecuador. R. Haensch leg.” written on it, indicating that the specimens are syntypes. There are four syntypes in the ZMHB (Moritz & Fischer, 1978a). *Polylepiscus braueri* was designated as the type species of *Sculptoteles* Vohland, 1998 in the original description of the genus.

*Sculptoteles braueri* (Carl, 1918), Aphelidesmidae

**brevicornis** Carl, 1914b: 950, figs 223-227 [*Cryptogonodesmus*].

Alto San Miquel. One ♂.

No specimens found in the MHNG. The whereabouts of the holotype is unknown. *Cryptogonodesmus brevicornis* is the type species of *Schizotelopus* Verhoeff, 1941b by monotypy (Jeekel, 1971).

*Schizotelopus brevicornis* (Carl, 1914), Fuhrmannodesmidae

**brevipes** Carl, 1914b: 876-877, figs 101-102 [*Rhinocricus*].

La Camelia, Kaffeepflanzung bei Angelopolis, 1800 m. One ♂ and one ♀.

No specimens found in the MHNG. The whereabouts of the syntypes is unknown. *Rhinocricus brevipes* Carl, 1914 is a junior homonym of *R. brevipes* Karsch, 1881 and a replacement name was proposed by Schubart (1951).

*Rhinocricus colombianus* Schubart, 1951, Rhinocricidae

**bugnioni** Carl, 1918: 449-452, figs 29-32 [*Cingalobolus*]. Ceylan. Dr Ed. Bugnion leg. Muséum de Genève. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14410). The specimen, which has a pin running the length of the body, is in one vial and the gonopods in another. One of the identification labels has “Ceylan, Dr E. Bugnion” written on it and there is a printed “Type” label, indicating that the specimen is the holotype. *Cingalobolus bugnioni* is the type species of the genus *Cingalobolus* Carl, 1918 by monotypy (Jeekel, 1971).

*Cingalobolus bugnioni* Carl, 1918, Pachybolidae

**butteli** Carl, 1922: 577-579, figs S-U [*Cambalopsis*].

Bandar Baroe; 3500'. Zentralsumatra. One ♂.

The MHNG collection contains two microscope slide preparations of parts of the holotype: 1) a slide (MHNG-ARTO-14413) with the dissected head and the second and third pairs of legs. 2) a slide (MHNG-ARTO-14414) with gonopods. The rest of the specimen is in the ZMHB collection (Moritz & Fischer, 1974).

*Trachyjulus butteli* (Carl, 1922), Cambalopsidae

**butteli** Carl, 1922: 576-577, fig. R [*Prionopeltis*].

Tjibodas, Zentraljava. 4500' Höhe. One ♂.

No specimens found in the MHNG collection. The holotype is in the ZMHB collection (Moritz & Fischer, 1978a).

*Orthomorpha butteli* (Carl, 1922), Paradoxosomatidae

**butteli** Carl, 1922: 573-574, figs L-M [*Opisotretus*].

Santis (Distrikt Deli). Ostsumatra, in verlassenen Grabwespennest. One ♂.

The MHNG collection contains a microscope slide preparation of the holotype (MHNG-ARTO-14411). The specimen is broken into two parts, and the gonopods are separate and damaged.

*Solaenaulus butteli* (Carl, 1922), Opisotretidae

**butteli birmanica** Carl, 1941a: 374-376, figs 26-27 [*Solaenaulus*].

Irawadi, Birma. Unspecified number of ♂ and ♀.

The MHNG collection contains 19 specimens in alcohol (MHNG-ARTO-18583). The jar contains two vials: the first contains ten specimens, five of them broken and an identification label with “Irawadi, Birmanie” written on it; the second contains nine specimens, four of them broken, and an identification label with “Irawadi [sic] Oates leg.” written on it. The identification labels in the jar have “Birmanie Oates leg.” and “Irawaddi [sic] (Birmanie) Oates leg.” written on them respectively, indicating that the specimens are syntypes.

*Solaenaulus birmanicus* Carl, 1941, Opisotretidae

**caledonicus** Carl, 1926: 403-405, figs 54-57 [*Agastrophus*].

Neu-Caledonien: Tchalabel, unter Kalkblöcken, 5. Mai 1911; Hienghène, Mai 1911. Two ♂ and an unspecified number of ♀.

No specimens found in the MHNG. There are at least four syntypes (two ♂ and several ♀ referred to as “Typen” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00355a and NMB-DIPL-00355b).

*Hypocambala caledonica* (Carl, 1926), Cambalopsidae

**canalensis** Carl, 1926: 423-424, figs 80-82 [*Spirobolellus*].

Neu-Caledonien: Canala; Halbinsel Bogota, bei Canala, ca. 500 m, September 1911. Four ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14327). The specimen has a pin running the length of the body. The identification label has “Mt Canala Nlle. Caledonie” written on it, indicating that the specimen is a syntype. The other three syntypes (referred to a “Typen” in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00362a and NMB-DIPL-00362b).

*Spirobolellus canalensis* Carl, 1926, Spirobolellidae

**canonicus** Carl, 1932: 524-527, figs 178-184 [*Steganostigmus*].

Palnis: Akazienwäldchen oberhalb Pumbarai, ca. 1900 m, 29.III., unter Holz. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains one broken specimen in alcohol (MHNG-ARTO-14246). The data label has “Pumbarai” written on it and the identification label has “♂ type!” written on it, indicating that the specimen is the holotype. *Steganostigmus canonicus* was designated the type species of the genus *Steganostigmus* Carl, 1932 in the original description.

*Steganostigmus canonicus* Carl, 1932, Pyrgodesmidae

**carbonarius** Carl, 1914b: 894-895, fig. 122 [*Chondrodesmus*].

Argelia, Kaffeepflanzung bei Viota, 1600 m. One ♀.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Chondrodesmus carbonarius* Carl, 1914, Chelodesmidae

**cardamomi** Carl, 1932: 478-479, figs 86, 91-93 [*Pseudosphaeroparia*].

Anaimalais: Cardamum-Pflanzung bei Valparai, an Bach, unter sehr feuchtem Laub, 1100 m, 4.III (Type); Naduar-Estate, Kaffee-Pflanzung, 7.III. Unspecified number of ♂ and ♀.

The MHNG collection contains three broken specimens in alcohol, in two jars. The first jar (MHNG-ARTO-14247) contains a vial containing a broken ♂ separated by a colon wool plug from a smaller vial containing gonopods and other fragments. The data label has “Anaimalais, Valparai 4.III” written on it and the identification label has “♂ type!” written on it, indicating that the specimen is the holotype. The other (MHNG-ARTO-14248) contains two broken ♀ and a data label with “Anaimalais, Naduar

Est. 7.III” written on it. The female specimens can be considered paratypes.

*Pseudosphaeroparia cardamomi* Carl, 1932, Fuhrmannodesmidae

**carli** Attems, 1914: 317 [*Rhinocricus*].

Replacement name for *Rhinocricus montivagus* Carl, 1912, a junior homonym of *R. montivagus* Silvestri, 1895.

*Acladocricus carli* (Attems, 1914), Rhinocricidae

**caudatus** Carl, 1941b: 645-648, figs 110-114 [*Leptostreptus*].

Ceylon: Pundaloya, Green leg. British Museum. One ♂.

No specimens found in the MHNG collection. The holotype has not been located in the BMNH, and the specimen is probably lost.

A junior synonym of *Leptostreptus caudiculatus* (Karsch, 1881), Harpagophoridae

**celebensis** Carl, 1912c: 126-128, pl. 5, figs 1-3, pl. 6, figs 23-24 [*Rhinotus*].

Vulkan-Reihe, Nord-Celebes (coll. Sarasin). One ♂.

No specimens found in the MHNG collection. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00124a).

*Rhinotus celebensis* Carl, 1912, Siphonotidae

**centralis** Carl, 1912c: 176-178 [*Rhinocricus*].

Flachland nördl. vom Golf von Boni, Central-Celebes; Matanna-See, nördl. S.O.-Celebes; Ussu, S.O.-Celebes (coll. Sarasin). Two ♂ and three ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14312). The identification labels both have “type Celebes central, ex coll. Sarasin” written on them, indicating that the specimen is a type. The other four syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00156a and NMB-DIPL-00156b).

*Salpidobolus centralis* (Carl, 1912), Rhinocricidae

**centralis minor** Carl, 1912c: 179, text fig. 18 [*Rhinocricus*].

Ussu, im N. von S.O.-Celebes (coll. Sarasin). Two ♂.

No specimens found in the MHNG collection. The two syntypes (referred to as ♀ “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00157a). This subspecies was synonymised with the nominal subspecies by Jeekel (2001: 34).

A junior synonym of *Salpidobolus centralis* (Carl, 1912), Rhinocricidae

**centralis spectabilis** Carl, 1912c: 178 [*Rhinocricus*].

Roembi-Mengkoka, S.O.-Celebes (Dr J. Elbert). One ♂.

No specimens found in the MHNG collection. There is a jar containing one ♀ and a microvial with dissected gonopods in the SMF (SMF 1701). The whereabouts of



the rest of the ♂ holotype is unknown. This subspecies was synonymised with the nominal subspecies by Jeekel (2001: 34).

A junior synonym of *Salpidobolus centralis* (Carl, 1912), Rhinocricidae

**cinctellus** Carl, 1926: 405-406, figs 58-61 [*Agastrophus*]. Loyalty-Inseln: Lifou, 9. Mai 1912. Unspecified number of ♂ (♀ not explicitly mentioned).

No specimens found in the MHNG collection. There are two ♂ syntypes (referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00356a).

*Hypocambala cinctella* (Carl, 1926), Cambalopsidae

**cinctus** Carl, 1906: 235-236, figs 23-26 [*Sphaeropoeus* (*Castanotherium*)].

Sumatra (Coll. G. Schneider). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18447). This specimen is accompanied by a vial containing gonopods. The identification label in the jar has “Sumatra, Coll. G. Schneider” written on it, indicating that the specimen is a syntype. The whereabouts of the other syntypes is unknown.

*Castanotherium cinctum* (Carl, 1906), Zephroniidae

**cinereus** Carl, 1902: 597-598, pl. 10, figs 23-26 [*Pseudoprionopeltis*].

Neuseeland, H. Suter (Berner Museum). One ♂.

No specimens found in the MHNG. The holotype is presumably in the NMBE. *Pseudoprionopeltis cinereus* was designated as the type species of the genus *Pseudoprionopeltis* Carl, 1902 by Brölemann (1916).

*Pseudoprionopeltis cinereus* Carl, 1902, Dalodesmidae

**coelebs** Carl, 1902: 644-646, pl. 11, figs 69-70, 72 [*Platyrrhacus*].

Sumatra, Dr. Moesch (Zürcher Museum). One ♂.

No specimens found in the MHNG. The holotype is presumably in the UZH.

*Trematorhacus coelebs* (Carl, 1902), Platyrrhacidae

**coelebs** Carl, 1941b: 605-607, figs 57-58 [*Lankabolus*]. Ceylon: Pundaloya, ca. 1300 m ü. M. Green leg. (Brit. Museum of Nat. Hist.). Unspecified series (♀ not explicitly mentioned).

The MHNG collection contains a microscope slide preparation of gonopods (MHNG-ARTO-14436). Although not explicitly labelled as such, this is clearly part of the type series. The rest of the type series is in the BMNH. *Lankabolus coelebs* is the type species of the genus *Lankabolus* Carl, 1941 by monotypy (Jeekel, 1971).

A junior synonym of *Lankabolus greeni* (Pocock, 1892), Pachybolidae

**columbiana** Carl, 1914b: 827-828, figs 9-14 [*Siphonophora*].

La Camelia bei Angelopolis (Central-Cordilleren). Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14531). The identification labels in the jar have “Colombie Coll. Fuhrmann” and “Camelia Colombie Coll. Fuhrmann” written on them respectively and there is a printed “cotype” label indicating that the specimens are syntypes. There are two syntypes (one ♂ and one ♀ referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00208a).

*Siphonophorella columbiana* (Carl, 1914), Siphonophoridae

**comicus** Carl, 1926: 440-442, figs 119-121 [*Spirobolellus*].

Loyalty-Inseln: Ouvéa, Fayaoué, Mai 1912; Lifou, Képénéé, April 1912; Maré, Nétché und Raoua, Dez. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14337). Each specimen has a pin running the length of the body. The identification label has “Drs F. Sarasin & J. Roux, Fayaoué Ouvéa” written on it, indicating that the specimens are syntypes. There are several syntypes (♂ and ♀ referred to as “Typen” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00374a, NMB-DIPL-00374b and NMB-DIPL-00374c).

*Spirobolellus comicus* Carl, 1926, Spirobolellidae

**comicus brevimaculatus** Carl, 1926: 440 [*Spirobolellus*]. [Unspecified locality]. Unspecified series.

No specimens found in the MHNG or NMB under this name.

A junior synonym of *Spirobolellus comicus* Carl, 1926, Spirobolellidae

**comicus lineata** Carl, 1926: 441 [*Spirobolellus*].

[Unspecified locality]. Unspecified series.

No specimens found in the MHNG or NMB under this name.

A junior synonym of *Spirobolellus comicus* Carl, 1926, Spirobolellidae

**comicus pleuralis** Carl, 1926: 440 [*Spirobolellus*].

[Unspecified locality]. Unspecified series.

No specimens found in the MHNG or NMB under this name.

A junior synonym of *Spirobolellus comicus* Carl, 1926, Spirobolellidae

**comicus rebellis** Carl, 1926: 440 [*Spirobolellus*].

[Unspecified locality]. Unspecified series.

No specimens found in the MHNG or NMB under this name.

A junior synonym of *Spirobolellus comicus* Carl, 1926, Spirobolellidae

**conjunctus** Carl, 1918: 445-448, figs 22-28 [*Desmocricus*].

Moluques. Muséum de Genève. One ♂ and one ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18452). The specimens are accompanied by a vial containing gonopods. The identification labels in the jars both have “Moluques” written on them, indicating that the specimens are the type series. The ♂ specimen is here designated lectotype. *Desmocricus conjunctus* is the type species of the genus *Desmocricus* Carl, 1918 by monotypy (Jeekel, 1971).

*Desmocricus conjunctus* Carl, 1918, Rhinocricidae

**constrictum** Carl, 1912c: 135-136, pl. 5, fig. 8 [*Strongylosoma*].

Südliche Vorberge des Tokalekadjo ca. 1000 m, Central-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀. No specimens found in the MHNG collection. There are two syntypes in the NMB under the name *Orthomorpha constricta* (Carl, 1912) (inventory number NMB-DIPL-00129a).

*Tectoporus constrictus* (Carl, 1912), Paradoxosomatidae

**contortipes** Carl, 1932: 528-529, figs 187-189 [*Steganostigmus*].

Palnis: Vandaravu-Shola, ca. 2300 m, 6.IV, unter faulem Holz; Mariyanshola, ca. 2300 m, 10.-13.IV, unter faulem Holz. Three ♂.

The MHNG collection contains three specimens in two jars. The first jar (MHNG-ARTO-14249) contains two specimens, one broken, in a vial with a data label with “Vandaravu Shola 6.IV” written on it and a second tube containing gonopods. The second jar (MHNG-ARTO-14250) contains one specimen in a vial with a data label with “Mariyanshola, 10-16.IV” written on it. The labels show that these are the syntypes.

*Steganostigmus contortipes* Carl, 1932, Pyrgodesmidae

**convexus** Carl, 1914b: 890-891, fig. 118 [*Chondrodesmus*].

Morron; Zwischen Fresno und Mariquita, 400 m ü. M. One ♂ and one ♀.

No specimens found in the MHNG collection. The whereabouts of the syntypes is unknown.

*Chondrodesmus convexus* Carl, 1914, Chelodesmidae

**convexus** Carl, 1902: 633-635, pl. 11, fig. 57 [*Pachyurus*].  
Costarica, P. Biolley (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18554). One of the specimens has been placed in a vial that has been wrapped in paper with “Lectotype” written on it. One of the specimens loose in the jar is broken. Both of the identification labels

in the jar have “Costarica P. Biolley” written on them, indicating that the specimens are part of the type series. A lectotype does not seem to have been formally designated and the specimens are syntypes.

*Amplinus convexus* (Carl, 1902), Aphelidesmidae

**coonoorensis** Carl, 1932: 427-428, fig. 8 [*Orthomorpha* (*Kalorthomorpha*)].

Nilgiris: Coonoor, ca. 1600 m, XII 1926. Unter Laub, auf tiefgründigem Boden der Kaffeeplantagen und im Urwald. Unspecified number of ♂ and ♀.

The MHNG collection contains eight specimens in alcohol in two vials. One vial (MHNG-ARTO-14388) contains the lectotype designated by Jeekel (1980a: 168). The specimen has a pin running the length of the body and is accompanied by a smaller vial containing gonopods and a handwritten lectotype label. The second vial (MHNG-ARTO-14389) contains seven paralectotypes. One of the specimens has a pin running the length of the body and several other specimens are broken. This vial has the original data label with “Nilgiris, Coonoor” written on it. A handwritten note in the jar reads “*Orthomorpha coonoorensis* Carl, ♂ lectotype, 5♂ lectoparatypes + 2♀ lectoparatypes Jeekel 1976”. Jeekel (1980a) designated *Orthomorpha coonoorensis* as the type species of the genus *Parchondromorpha* Jeekel, 1980 in the original description of the genus.

*Parchondromorpha coonoorensis* (Carl, 1932), Paradoxosomatidae

**coriacea** Carl, 1902: 581-584, pl. 10, fig. 21 [*Orthomorpha*].

Java, Dr. L. Zehntner (Genfer Museum). One ♂ and one ♀.

The MHNG collection contains two specimens in alcohol in two vials. One vial (MHNG-ARTO-14401) contains the lectotype designated by Jeekel (1980b: 332). The specimen had a pin running the length of the body, but two parts of the anterior of the body have become detached. The vial also contains a smaller vial containing gonopods. A second vial (MHNG-ARTO-14402) contains a paralectotype with a pin running the length of the body. The identification labels in the jar have “Java, Zehntner” and “Java, Dr L. Zehntner” written on them respectively, and a handwritten label indicates that the specimens were studied by Jeekel in 1976. Jeekel (1980b) designated *Orthomorpha coriacea* as the type species of the genus *Nesorthomorpha* Jeekel, 1980 in the original description of the genus.

*Nesorthomorpha coriacea* (Carl, 1902), Paradoxosomatidae

**costatus** Carl, 1913a: 213-216, figs 8-10 [*Cyphozonus*].

Yonni, Sierra-Leone. Two juvenile ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18547). The identification labels in the jar have “♀ juv. Freetown, Sierra-Leone Volz” and

“Freetown Volz” written on them respectively. Although the locality given in the description differs from that on the label it seems almost certain that this specimen is a syntype. The other syntype is presumably in the NMBE. *Cyphozonus costatus* is the type species of *Cyphozonus* Carl, 1913 by monotypy (Jeekel, 1971).

*Campodesmus costatus* (Carl, 1913), Campodesmidae

**crassipes** Carl, 1941b: 595-598, figs 42-46bis [*Diopsiulus* (*Plusiochaeturus*)].

Nilgiris: Elkhill, 2300 m, Wald, in krümeliger Erde, I.1927. Two ♂, one ♀ and an unspecified number of juveniles.

The MHNG collection contains 33 specimens in alcohol in three vials. The first vial (MHNG-ARTO-14455) contains two specimens in a smaller vial and labels with “*Diopsiulus* IV Elkhill” and “*Diopsiulus crassipes* Carl, type ♂ et cotype ♂, Elkhill” written on them. The second vial (MHNG-ARTO-14456) contains one specimen and a label with “*Diopsiulus crassipes* Carl, ♀ type, Elkhill I.27” written on it. The third vial (MHNG-ARTO-14457) contains 30 specimens, several of them broken, and a label with “*Diopsiulus crassipes* Carl, Elkhill, Juvs.” written on it. There are also three microscope slides preparations of parts of syntypes: 1) a slide (MHNG-ARTO-14458) with ♂ legs, gnathochilarium and antenna; 2) slide (MHNG-ARTO-14459) with gonopods and legs of both ♂; 3) a slide (MHNG-ARTO-14460) with the second and third legs of the ♀. Despite the label in the first tube, no holotype designation was made in the original description and all of these specimens are syntypes.

*Stemmiulus crassipes* (Carl, 1941), Stemmiulidae

**crassipes** Carl, 1909a: 253-255, fig. 19 [*Platyrrhacus*]. Borneo. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Hoplurorhachis crassipes* (Carl, 1909), Platyrrhacidae

**crepuscularis** Carl, 1932: 514-517, figs 161-169 [*Skotodesmus*].

Palnis: Bombay-Shola, bei Kodaikanal, 2200 m, 21.III, unter Holz; Akazienwäldchen oberhalb Pumbarai, 2000 m, 29.III, unter Holz; Mariyan-Shola, 2300 m, 11.-14.IV, unter Holz; Shola bei Maryland, Neutral-Saddle, 1600 m, 20.IV. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains 14 specimens in alcohol in three vials. The first vial (MHNG-ARTO-18618) contains specimens from two localities separated by a plug of cotton wool; one specimen with a data label with “Bombay-Shola près Kodaikanal” written on it and two specimens with a data label with “Shola a Maryland” written on it. The second vial (MHNG-ARTO-18619) contains specimens from two localities separated by a cotton wool plug; two specimens with a data label with “Bombay-Shola près Kodaikanal” written on it and nine

specimens, two of them broken, with a data label with “Pumbarai, bosquet d’acacias 29.III.” written on it. The third vial (MHNG-ARTO-18620) contains a smaller vial of dissected parts and an identification label with “gonopodes, pattes, antennes” written on it. The data labels indicate that all of these specimens are syntypes. *Skotodesmus crepuscularis* is the type species of the genus *Skotodesmus* Carl, 1932 by monotypy (Jeekel, 1971).

*Skotodesmus crepuscularis* Carl, 1932, Pyrgodesmidae

**crepuscularis debilis** Carl, 1932: 517, fig. 162 [*Skotodesmus*].

Palnis: Kaffee-Plantage bei Kukkal, 1850 m, 2.IV. More than one specimen.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18621). The data label has “Palnis, Kaffe-Plant. près de Kukkal” written on it, indicating that the specimens are syntypes.

A junior synonym of *Skotodesmus crepuscularis* Carl, 1932, Pyrgodesmidae

**cuisinieri** Carl, 1917: 392-395, figs 12-15 [*Thyropygus*]. Tay Ninh, Cochinchine (L. Cuisinier leg.). One ♂.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-21296). There is also a vial containing gonopods. There is a locality label with “Tay Ninh Cochinchine” written on it. The identification labels in the jar have “Tay Ninh (Cochinchine) Cuisinier leg.” and “Type! Cochinchine Cuisinier” written on them. The ♂ specimen is the holotype, the two ♀ specimens, one of which is broken into two parts, are not types. A revision of the species based on the holotype was published in 2011 (Pimvichai *et al.*, 2011).

*Thyropygus cuisinieri* Carl, 1917, Harpagophoridae

**cylindrica** Carl, 1935: 334-336, figs 15-19 [*Akribosoma*]. Darjeeling (Sikkim) III. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18556). Both specimens have a pin running the length of the body. They are placed in a vial with a label with “*Akribosoma cylindrical* Carl, ♂♀ cotypes, Darjeeling 7000’ Everest Exp.” written on it. The identification labels in the jar both have “♂♀ cotypes Himalaya mérid.” written on them and the specimens are thus syntypes. There are further syntypes in the BMNH. *Akribosoma cylindricum* is the type species of the genus *Akribosoma* Carl, 1935 by monotypy (Jeekel, 1971).

*Anoplodesmus cylindricus* (Carl, 1935), Paradoxosomatidae

**debilis** Carl, 1914b: 848-849, figs 45-48 [*Stemmatoiulus*]. La Camelia, Kaffeepflanzung bei Angelopolis, 1800 m. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Stemmiulus debilis* (Carl, 1914), Stemmiulidae



**debilitata** Carl, 1914b: 920, figs 166-167 [*Trichomorpha*].  
La Camelia bei Angelopolis. One ♂.

No specimens found in the MHNG collections. The whereabouts of the holotype is unknown.

*Trichomorpha debilitata* Carl, 1914, Chelodesmidae

**decoratum** Carl, 1912c: 118-119, text fig. 7 [*Castanotherium*].

Loka und Umgebung, bis 1300 m ü. M., am Pik von Bonthain, Süd-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

No specimens found in the MHNG. There are two syntypes (one ♂ and one ♀ referred to as "Typen" in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00118a).

*Castanotherium decoratum* Carl, 1912, Zephroniidae

**dempuranus** Carl, 1912d: 512-513, pl. 9, figs 8,10-11 [*Rhinotus*].

Dempuran, Java. Dr. L. Zehntner. Unspecified number of ♂ and ♀.

The MHNG collection contains 18 specimens in alcohol (MHNG-ARTO-18451). The vial containing the specimens has two labels, one with "Dempuran 28. Nov. 96" written in pencil and the other with "Zehntner Java" printed on yellow paper. The identification label in the jar has "♂♀ Java (Dempuran) Zehntner" written on it, and the specimens are syntypes.

*Rhinotus dempuranus* Carl, 1912, Siphonotidae

**dentata** Carl, 1932: 428-431, figs 9-13 [*Orthomorpha* (*Kalorthomorpha*)].

Nilgiris: Coonoor, ca. 1600 m, unter Laub, auf tiefgründigem Boden der Pflanzungen am alten Nilgiriweg. XII.26. Unspecified number of ♂.

The MHNG collection contains three specimens in alcohol in two jars. The first (MHNG-ARTO-14390) contains the lectotype designated Jeekel (1980a: 170). The specimen is in a vial and has a pin running the length of the body, and it is accompanied by a smaller vial containing the gonopods. The vial has the original identification and data labels, the latter with "Nilgiris, Coonoor" written on it. The jar contains a handwritten label indicating that Jeekel studied the specimens in 1976. The second jar (MHNG-ARTO-14391) contains two paralectotypes, one of them broken in two. These specimens are accompanied by copies of the original labels. Jeekel (1980a: 170) designated *Orthomorpha dentata* as the type species of *Harpagomorpha* Jeekel, 1980 in the original description of the genus.

*Harpagomorpha dentata* (Carl, 1932), Paradoxosomatidae

**denticulata** Carl, 1914b: 926-927, figs 181-183 [*Trichomorpha*].

La Camelia, bei Angelopolis. One ♂ and one juvenile.

No specimens found in the MHNG collection. The whereabouts of the type specimens is unknown.

*Trichomorpha denticulata* Carl, 1914, Chelodesmidae

**detruncata** Carl, 1905: 280-282, figs 11-11d [*Odontopyge*].

Guinée espagnole. Unspecified number of ♂.

No specimens found in the MHNG collection. Andrés Cobeta (2001) did not locate any type specimens in the MNCN.

*Rhamphidarpe detruncata* (Carl, 1914), Odontopygidae

**dilatatus** Carl, 1905: 264-267, figs 3-3b [*Cordyloporus*].

Cabo St Juan. Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18532). The identification labels in the jar have "Cabo St Juan, Guinée-espagnole" and "Guinée-espagnole" written on them respectively, indicating that the specimen is a syntype. Another handwritten label in the jar states that Hoffman selected the specimen as lectotype in 1960, but it does not appear that the designation was ever formally published. According to Andrés Cobeta (2001: 67) there is another syntype in the MNCN (MNCN 20.07/1180).

*Paracordyloporus dilatatus* (Carl, 1905), Chelodesmidae

**dimidiatus** Carl, 1926: 418-419, figs 70-72 [*Spirobolellus*].

Neu-Caledonien: Koné, Station am Koné-Fluss, Aug. 1911; Tiouaka-Tal, Aug. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-14323). The identification label has "Kone-Fluss-Station 18.8.11" written on it, indicating that the specimens are syntypes. There are several syntypes (♂ and ♀ referred to as "Typen" in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00359a and NMB-DIPL-00359b).

*Spirobolellus dimidiatus* Carl, 1926, Spirobolellidae

**dimorphum** Carl, 1913a: 204-206, figs 2-3 [*Strongylosoma*].

Yonni, Sierra-Leone. Unspecified number of ♂ and ♀.

The MHNG collection contains 12 specimens in alcohol (MHNG-ARTO-18561). One of the specimens has a pin running the length of the body and one of them is broken. They are accompanied by a vial holding gonopods. The original identification labels in the jar have "Yonni (Sierra Leone) W. Volz" and "Sierra leone Volz" written on them respectively, indicating that the specimens are syntypes. The other syntypes are presumably in the NMBE.

A junior synonym of *Xanthodesmus physkon* (Attems, 1898), Paradoxosomatidae

**dimorphus** Carl, 1909b: 362-365, pl. 7, figs 31-34 [*Trigoniulus*].

Daressalam. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14439). The specimens are all broken and are accompanied by four vials, one containing anterior gonopods, one containing a complete set of gonopods, one with a partially dissected head and one with a pair of legs with vulvas. The identification labels in the jar both have “Daressalam Dr J. Carl” written on them, indicating that the specimens are syntypes. *Trigoniulus dimorphus* was designated as the type species of the genus *Parabolus* Enghoff, 2011 in the original description of the genus.

*Parabolus dimorphus* (Carl, 1909), Pachybolidae

***dispersa*** Carl, 1909b: 332-333, pl. 8, figs 53, 61-62 [*Odontopyge*].

Njarugenje-Niansa (Central-Ruanda); Misoroti-Chiavitembe (Ost-Ussuwi). Two ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18486). Both of the specimens are reinforced with pins, one of them is broken into three pieces. There is a small vial with dissected parts including gonopods. The identification labels in the jar have “Njarugenje-Niansa Ruanda Dr J. Carl” and “types! Ruanda central Dr. J. Carl” written on them respectively, indicating that the specimens are syntypes.

*Geotopodon dispersus* (Carl, 1909), Odontopygidae

***dispersus*** Carl, 1926: 426-428, figs 87-89 [*Spirobolellus*]. Neu-Caledonien: Pam, Juli 1911; Oubatche, März 1911; Insel Ouedjo bei Hienghène, 5. Juni 1911; Touo, Aug. 1911; Koné, Aug. 1911; Tiouaka-Tal, 23. Aug. 1911; Bourail; Ngoï-Tal, 200 m, 16. Sept. 1911; Yaté, März 1912; Prony, März 1912. Loyalty-Inseln: Ouvéa, Fayaoué, Mai 1912; Lifou, Képénéé und Naltho, April 1912; Maré, Nétché und Médou, Dez. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains 15 specimens in alcohol in two vials. The first (MHNG-ARTO-14330) contains six specimens, one with a pin running the length of the body. The data label has “Drs F. Sarasin & J. Roux, N. Caled., Tao 24 Juni 1911” written on it. The second (MHNG-ARTO-14331) contains nine specimens, two of them broken. The data label has “Drs F. Sarasin & J. Roux, N. Caled., Naltho, Lifou” written on it. The specimens are presumably all syntypes even though the data in the first tube does not correspond to the localities given in the original description. There are 27 syntypes (referred to as “Typen” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00364a to NMB-DIPL-00364o).

*Spirobolellus dispersus* Carl, 1926, Spirobolellidae

***distinctum*** Carl, 1912c: 106-109, pl. 6, figs 37-40 [*Castanotherium*].

Ussu, Südost-Celebes (coll. Sarasin). One ♂.

No specimens found in the MHNG. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00112a).

*Castanotherium distinctum* Carl, 1912, Zephroniidae

***distinctus*** Carl, 1917: 388-390, figs 7-9 [*Poratophilus*]. Elizabethville (Katanga, Haut-Congo). One ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14251). The specimens are accompanied by a vial containing gonopods. The identification labels have “Elizabethville (Katanga) Haut-Congo” and “Afrique mérid. type!” written on them respectively. The ♂ is the holotype, the ♀ was only mentioned in the original description as doubtfully conspecific and cannot be considered a type.

*Zinophora distincta* (Carl, 1917), Harpagophoridae

***domesticus*** Carl, 1909b: 359-360 [*Microspirobolus*].

Bukoba, in einer Eingeborenenhütte. Unspecified number of ♀ and one juvenile ♂.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14419). Two specimens have pins running the length of the body and are in a small vial, the others are loose in the jar. The identification labels both have “Bukoba J. Carl” written on them and there is a printed “Type” label indicating that the specimens are syntypes. There are two syntypes in the ZMUH (Weidner, 1960).

*Brachyspirobolus domesticus* (Carl, 1909), Pachybolidae

***dorsalis*** Carl, 1909b: 341-342, pl. 7, fig. 45 [*Odontopyge*]. Kiwamba in Süd-Karagwe; Biaramuli (Ost-Ussuwi) bis zum Sultanat Ihangiro, sehr häufig; Bukoba. Unspecified series.

The MHNG collection contains four specimens in alcohol in two vials. One vial (MHNG-ARTO-18487) contains two specimens, one of them with a pin running part of the length of the body, and some dissected gonopods. The other vial (MHNG-ARTO-18488) contains two specimens, one of them with a pin running most of the length of the body and a label with “Misorote-Chiarotembe 14.xi.08” written in pencil. The labels in the jar have “Biaramuli Odontopyge”, “Biaramuli (ost. Ussuwi) J. Carl” and “types! Ost-Ussuwi J. Carl” written on them respectively, indicating that the specimens are syntypes. There are two syntypes in the ZMUH (Weidner, 1960).

*Haplothysanus dorsalis* (Carl, 1909), Odontopygidae

***dorsosulcata*** Carl, 1909b: 350-352, pl. 8, figs 55-56 [*Odontopyge*].

Bukoba; Biaramuli (Ost-Ussuwi); Kagera, durch Südkaragwe bis Mabira. Unspecified number of ♂ and ♀.

The MHNG collection contains 36 specimens in alcohol in three jars. One jar (MHNG-ARTO-18489) contains 20 specimens, two of them separated into a vial with their dissected gonopods. Three of the specimens have pins running part of the length of the body and several are broken. The identification labels in the jar have “Biaramuli (Ost-Ussuwi) Dr J. Carl” and “types O.-Ussuwi J. Carl” written on them respectively,

indicating that the specimens are syntypes. An undated typewritten note in the jar states that Hoffman identified the specimens as *Rhamphidarpe dorsosulcata* [sic] *dorsosulcata*. The second jar (MHNG-ARTO-18490) contains parts of at least 14 specimens, most of them broken. The identification labels in the jar are not original and have “Bukoba” typed on them, suggesting that the specimens are syntypes. The third jar (MHNG-ARTO-18491) contains two specimens, each with a pin running the length of the body. The identification labels in the jar have “Odontopyge dorsosulcata?” written on them, and “Jinja (Busoga) Dr J. Carl” and “Jinja Dr J. Carl” written on them respectively. Given the uncertain identification, these specimens are not considered syntypes. There are three syntypes in the ZMUH (Weidner, 1960) and three in the MCZL.

*Rhamphidarpe dorsosulcata* (Carl, 1909), Odontopygidae

**dorsovittatus** Carl, 1914b: 895-896 [*Chondrodesmus*]. Buenavista, Kaffeepflanzung bei Viota, 1000 m ü. M. One ♀.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Chondrodesmus dorsovittatus* Carl, 1914, Chelodesmidae

**dravidus** Carl, 1932: 447-449, figs 35-39 [*Xiphidiogonus*]. Nord-Travancore: Oberes Vattavadi-Tal, zwischen Anaimalais und Palnis, in Urwald, ca. 1850 m, 10.IV. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14252). The specimen is in a glass vial inside a larger tube, and has a pin running the length of the body. A second small vial contains the gonopods and antenna. The data label has “Travancore Vattavadi” written on it and the identification label has “♂ type” written on it, indicating that the specimen is the holotype. *Xiphidiogonus dravidus* Carl, 1932, Paradoxosomatidae

**ducalis** Carl, 1926: 452-455, figs 140-142 [*Rhinotus*]. Neu-Caledonien: Coulé-Boréaré, 6. Febr. 1912; Tchlabel, unter Kalkblöcken, 5. Mai 1911; Yaté, 23. März 1912; Mt. Canala, 700 m, Sept. 1911; Mt. Ignambi, April 1911. Loyalty-Inseln: Maré, Nétché, Dez. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-14343). The identification labels in the jar both have “Ignambi, N. Caled. Sarasin & Roux” written on them, indicating that the specimens are syntypes. There are nine syntypes (♂, ♀ and juveniles referred to as “Typen” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00382a to NMB-DIPL-00382f).

*Rhinotus ducalis* Carl, 1926, Siphonotidae

**duplus** Jeekel, 2001: 13 [*Spirobolellus*].

Replacement name for *Spirobolellus solitarius* Carl, 1926, a junior homonym of *S. solitarius* Carl, 1912.

*Spirobolellus duplus* Jeekel, 2001, Spirobolellidae

**dysoni** Carl, 1941b: 616-618, figs 67-68, 71-73 [*Aulacobolus*].

Nilgiris: Coonoor, am alten Nilgiriweg, in Laubmoder, ca. 1600 m; Hill-grove Estate, ca. 1500 m, unter morschen Strünken, I.1927. Unspecified number of ♂ and ♀.

The MHNG collection contains ten specimens in alcohol (MHNG-ARTO-14424). The specimens are accompanied by three vials, two containing partially dissected heads and the other gonopods. The data label has “Coonoor, Nilgiris, I.27” written on it in pencil, indicating that the specimens are syntypes. There are also two microscope slide preparations of parts of syntypes: 1) a slide (MHNG-ARTO-14425) with posterior gonopods and 2) a slide (MHNG-ARTO-14426) with the first three pairs of legs of a ♂.

*Aulacobolus dysoni* Carl, 1941, Pachybolidae

**ejaculans** Carl, 1941b: 620-621, figs 69, 76-79 [*Aulacobolus*].

Anaimalais: Shola am Berg ob Resthouse Attakatti, ca. 1200 m, unter Borke, 26.II; Valparai, Hügel ob Naduar-Estate, ca. 1300 m, frische Waldlichtung, unter Holz, 9.III. Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol in two jars. One jar (MHNG-ARTO-14427) contains five specimens and a data label with “Shola am Ibex-Hill bei Attakatti 26.II, unter faulen Stämmen” written on it, indicating that the specimens are syntypes. The other jar (MHNG-ARTO-14428) contains a single specimen with the head detached and a small vial with gonopods. The data label has “Hügel ob Nadu-Ar-Estate, frische Waldlichtung, unter Holz 9.III. Valparai Anaimalais” written on it, indicating that the specimen is a syntype. There is also a microscope slide preparation (MHNG-ARTO-14429) with the posterior gonopods and the first three pairs of legs of one of the syntypes.

*Aulacobolus ejaculans ejaculans* Carl, 1941, Pachybolidae

**ejaculans vallensis** Carl, 1941b: 621-622, fig. 80 [*Aulacobolus*].

Travancore: Grosser Wald im oberen Vattavadai-Tal, ca. 1850 m. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14430). The specimens are accompanied by a small vial containing a partially dissected head and some pairs of legs. The data label has “Grosser Wald im oberen Vattavadai-Tal (Travancore) 10.IV” written on it, indicating that these are the syntypes of the subspecies *vallensis*, even though the identification labels only have “*Aulacobolus ejaculans*” written on them. There is also a microscope slide preparation of a pair of posterior gonopods (MHNG-ARTO-14431) labelled “*Auloc. ejaculans* subsp. ♂ Vattavadai” and thus part of one of the syntypes.

*Aulacobolus ejaculans vallensis* Carl, 1941, Pachybolidae



**elberti** Carl, 1912c: 142-144, pl. 5, fig. 12 [*Polylepis*].  
Roembi-Mengkoka, SO.-Celebes (Dr. J. Elbert).  
Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18550). The specimen has a pin running the length of the body and the head and anterior segments are detached. The identification labels in the jar have “♂ cotype S. E. de Celebes ex coll. Elbert” and “♂ cotype S. E. de Celebes” written on them respectively, indicating that the specimen is a syntype. The SMF collection contains three specimens in alcohol, two ♂, each with a single gonopod missing, and one ♀. The identification label in the jar has “Lombok, Sadjang, leg. Elbert 1909” written on it, indicating that these specimens are types. After examination of these type specimens, one ♂ (SMF 732) was placed in a separate jar and is here designated as lectotype.

*Polylepis elberti* Carl, 1912, Platyrrhacidae

**elberti** Carl, 1912b: 170-171, figs 3-4, text figs D-E [*Rhinocricus*].

Lombok. Sadjang. Dr. J. Elbert. Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol (MHNG-ARTO-18455). The specimens each have a pin running the length of the body. The identification labels in the jar have “Lombok (Sadjang) ex. coll. J. Elbert” and “Lombok Coll. Elbert types!” written on them respectively, indicating that the specimens are syntypes. The SMF collection contains more than seven specimens in alcohol (SMF 1861) under the name *Eurhinocricus elberti*. The identification label has “Lombok, Sadjang, Elbert, 1909” written on it, indicating that these are syntypes. *Rhinocricus elberti* Carl was designated as the type species of the genus *Carlocricus* Jeekel, 2001 in the original description of the genus.

*Carlocricus elberti* (Carl, 1912), Rhinocricidae

**elegans wroughtoni** Carl, 1941b: 634-637, figs 96-99 [*Glyphiulus* (*Podoglyphiulus*)].

Kanda, bei Bombay. Major Wroughton leg. 1893 (British Museum). One ♂.

The MHNG collection contains a microscope slide preparation (MHNG-ARTO-18513) with gonopods with “*Glyphiulus elegans* Silv. ssp. *wroughtoni* Carl” and “Gonopoden und Ersatzgonopoden” written on the labels. These are obviously part of the holotype; the rest of the specimen is in the BMNH.

*Podoglyphiulus elegans wroughtoni* (Carl, 1941), Cambalopsidae

**emini** Carl, 1909b: 344-346, pl. 7, figs 41-42 [*Odontopyge*].

Bukoba, in Gebüsch und Bananengärten; Sultanat Ihangiro. Unspecified number of ♂.

The MHNG collection contains 50 specimens in alcohol

in three jars. The first jar (MHNG-ARTO-18492) contains 21 specimens, four broken and three reinforced with pins. The identification labels in the jar have “Bukoba J. Carl” and “types! Bukoba J. Carl” written on them respectively, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18493) contains parts of at least 21 specimens, many of them broken and three of which are reinforced with pins. There is a data label with “Bukoba IX.08” written in pencil, and the original identification label in the jar has “Bukoba J. Carl” written on it, indicating that the specimens are syntypes. An undated typewritten label in the jar states that Hoffman identified these specimens as *Haplothysanus emini*. The third jar (MHNG-ARTO-18494) contains seven specimens, three of them broken and three reinforced with pins. There is a vial with dissected parts including gonopods. The identification labels in the jar have “Ihangiro J. Carl” and “Ihangiro Dr J. Carl” written on them respectively, indicating that the specimens are syntypes. There are three syntypes in the ZMUH (Weidner, 1960), four in the MCZL, three in the ZMHB (Moritz & Fischer, 1974) and three ♀ (referred to as “Paratypoiden” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00182a).

*Haplothysanus emini* (Carl, 1909), Odontopygidae

**eremita** Carl, 1935: 337-340, figs 20-25 [*Hingstonia*].

Rongshar-Valley (Nepal), 24.VI. Two ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18591). The specimen is broken and placed in a vial that is accompanied by another vial containing gonopods. A label in the large vial that contains the smaller one has an identification label with “♂ cotype Rongshar Valley, 11500', III Everest-Exp.” written on it, indicating that the specimen is a syntype. The other syntypes are in the BMNH. *Hingstonia eremita* is the type species of the genus *Hingstonia* Carl, 1935 by monotypy (Jeekel, 1971).

*Hingstonia eremita* Carl, 1935, Fuhrmannodesmidae

**eremita** Carl, 1912c: 102-103 [*Nesoglomeris*].

Bowanglangi, 1200-1500 m. ü. M., Süd-Celebes (coll. Sarasin). One ♀.

No specimens found in the MHNG. The ♀ holotype is in the NMB (inventory number NMB-DIPL-00110a).

*Hyleoglomeris eremita* (Carl, 1912), Glomeridae

**eremitus** Carl, 1932: 504, fig. 140 [*Pagodesmus*].

Upper-Palnis: Bombay-Shola, bei Kodaikanal, 2200 m. One juvenile ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14231). The specimen is broken into two pieces. The identification label has “type Kodaikanal” written on it, indicating that the specimen is the holotype. *Pagodesmus eremitus* Carl, 1932, Pyrgodesmidae

**eremitus** Carl, 1941b: 674-677, figs 166-170 [*Thyropygus*].

Nilgiris: Coonoor, 26.XII.1926. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14233). The data label has "Coonoor, 26.XII" written on it and the identification labels have "type" written on them, indicating that the specimen is the holotype. Most of the specimen is in a glass vial, with the head and anterior body rings, and the gonopods in separate, smaller vials.

*Gnomognathus eremitus* (Carl, 1941), Harpagophoridae

**errabundus** Carl, 1941b: 711-714, figs 224-227 [*Glyphiulus* (*Podoglyphiulus*)].

Untere Palnis: Tandikudi, ca. 1500 m, auf Wegmauer, nach Regen. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14232). The locality label has "Tandikudi, 26.IV nach Regen, in Mauern, unter den oberen Steinen" written on it and the identification labels have "type" written on them, indicating that the specimen is the holotype. Most of the specimen is in a small vial placed in a larger tube along with a second small vial containing the anterior body rings and gonopods. There are also two microscope slide preparations of parts of the holotype: 1) a slide (MHNG-ARTO-18514) with gonopods with a label with "Glyphiulus errabundus Carl ♂ type Gonopodes" written on it; 2) a slide (MHNG-ARTO-18515) with legs with a label with "Glyphiulus errabundus Carl ♂, Tandikudi, type Pattes 1, 2° et 3°".

*Podoglyphiulus errabundus* Carl, 1942, Cambalopsidae

**escalerae** Carl, 1905: 273, fig. 7 [*Trichozonus*].

Cabo St Juan. Unspecified number of ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14230). The identification labels have "♀ Guinée espagnole" written on them, indicating that the specimens are syntypes. According to Andrés Cobeta (2001: 68) there is another syntype in the MNCN (MNCN 20.07/1190). *Trichozonus escalerae* is the type species of the genus *Trichozonus* Carl, 1905 by monotypy (Jeekel, 1971).

*Trichozonus escalerae* Carl, 1905, Fuhrmannodesmidae

**exiguus** Carl, 1932: 483-484, figs 98-102 [*Kukkalodesmus*].

Palnis: Kukkal-Shola, ca. 1900 m, 1.IV, unter faulem Holz. One ♂ and two ♀.

The MHNG collection contains seven specimens in alcohol (MHNG-ARTO-18592). Three of the specimens are broken, and they are accompanied by a vial containing fragments of dissected parts. The data label has "Kukkalshola (Palnis)" written on it, indicating that the syntypes are amongst the specimens. It is not obvious if the other specimens were excluded from the type series because they are juveniles or for some other reason. *Kukkalodesmus exiguus* is the type species of the genus

*Kukkalodesmus* Carl, 1932 by monotypy (Jeekel, 1971).

*Kukkalodesmus exiguus* Carl, 1932, Fuhrmannodesmidae

**exiguus** Carl, 1926: 443-444, figs 125-126 [*Spirobolellus*].

Neu-Caledonien: Mt. Canala, 17. Sept. 1911. One ♂.

No specimens found in the MHNG. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00376a).

*Spirobolellus exiguus* Carl, 1926, Spirobolellidae

**exilis** Carl, 1914b: 860-862, figs 69, 71-75 [*Epinannolene*].

Medellin, 1600 m. Unspecified number of ♂ and ♀.

The MHNG collection contains eight specimens in a vial in alcohol (MHNG-ARTO-18465). A second vial (MHNG-ARTO-18466) contains dissected parts including gonopods. The identification labels in the jar have "Colombie Fuhrmann" and "Colombie Fuhrmann leg." written on them respectively, indicating that the specimens are syntypes. There are five syntypes (one ♂ and four ♀ referred to as "Co-Typus" in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00212a).

*Epinannolene exilis* Carl, 1914, Pseudonannolenidae

**expulsus** Carl, 1926: 442-443, figs 122-124 [*Spirobolellus*].

Loyalty-Inseln: Ouvéa, Fayaoué, Mai 1912; Lifou, Nathaló, April 1912; Maré, Néthché, Dez. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14338). The identification label has "Nathaló Lifou" written on it, indicating that the specimens are syntypes. There are six syntypes (three ♂ and three ♀ referred to as "Typus" in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00375a, NMB-DIPL-00375b and NMB-DIPL-00375c).

*Spirobolellus expulsus* Carl, 1926, Spirobolellidae

**fallax** Carl, 1926: 435, figs 106-108 [*Spirobolellus*].

Neu-Caledonien: Oubatche, Wald, in faulem Holz, 600 m, April 1911; Mt. Canala, Wald bei 800-1000 m, Sept. 1910. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14324). The identification label has "Kanala [sic] 800-1000 m" written on it, indicating that the specimens are syntypes. There are four syntypes (two ♂ and two ♀ referred to as "Typus" in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00369a and NMB-DIPL-369b).

*Spirobolellus fallax* Carl, 1926, Spirobolellidae

**fasciata** Carl, 1905: 282-284, fig. 10 [*Odontopyge*].

Corisco. One ♀.

No specimens found in the MHNG. According to Andrés Cobeta (2001: 70) the holotype is in the MNCN (MNCN 20.07/1171). *Odontopyge fasciata* Carl, 1905 is a junior

homonym of *O. fasciata* Attems, 1896. The replacement name *Odontopyge johanncarli* is proposed here for *O. fasciata* Carl, 1905.

*Odontopyge johanncarli* **nom. nov.**, Odontopygidae

***fastidiosus*** Carl, 1926: 397-398, figs 42-43 [*Canacophilus* (*Canacophilus*)].

Neu-Caledonien: Wald oberhalb Oubatche, 600 m, April 1911, in faulem Holz. One ♂, one ♀ and one juvenile.

No specimens found in the MHNG. The three syntypes (one ♂, one ♀ and one juvenile ♂ referred to as "Typus" in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00350a).

*Canacophilus fastidiosus* Carl, 1926, Dalodesmidae

***faucium fulvosignata*** Carl, 1918: 444 [*Dinematocricus*].

Nouvelle Guinée. L. Biro leg. Musée national hongrois. Six specimens, sex not given.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18453). The identification labels in the jar have "Nouv. Guinée, L. Biro" written on them, indicating that the specimen is a syntype. The other syntypes are presumably in the HNMH.

A junior synonym of *Dinematocricus faucium* Brölemann, 1913, Rhinocricidae

***fecundus*** Carl, 1912b: 164-165, fig. 7 [*Platyrrhacus*].

Lombok. Sadjang 1000-1600 m, viele Exemplare, Sapit 680 m 1 ♂ (Dr. Elbert). Unspecified number of ♂ and ♀. The MHNG collection contains 13 specimens in alcohol in two jars. One jar (MHNG-ARTO-15121) contains nine specimens, each with a pin running the length of the body, and a glass vial containing the lectotype designated by Hoffman (1965: 878) (MHNG-ARTO-15122). The second jar (MHNG-ARTO-15123) contains three broken specimens. The identification labels in the first jar have "Lombok, coll. Elbert, types!" and "Sadjang (Lombok), Dr. Elbert leg" written on them respectively, and that in the second jar has "Sadjang, Lombok" written on it. All of these specimens are part of the type series, and apart from the lectotype are paralectotypes. The SMF collection contains 49 specimens in alcohol in four jars (SMF 842-SMF 845) from Sadjang and Sapit which are paralectotypes. There are two ♀ paralectotypes in the ZMHB (Moritz & Fischer, 1978a). One specimen was listed in the accession catalogue of the MTD (No. 389) but this was destroyed during the Second World War. Hoffman (1965) designated *P. fecundus* as the type species of *Sundarrhacus* Hoffman, 1965 in the original description of the genus.

*Sundarrhacus fecundus* (Carl, 1912), Platyrrhacidae

***flavosignatus*** Carl, 1909b: 307-309, pl. 6, fig. 15 [*Euryzonus*].

Vom Kagera bis Njarowungu in Ost-Ussuwi, im Busch, nach Regen häufig den Karawanenfussweg kreuzend. Unspecified number of ♂ and ♀.

The MHNG collection contains eight specimens in alcohol in two jars. The first jar (MHNG-ARTO-18545) contains seven specimens, three with a pin running the length of the body. They are accompanied by a vial containing gonopods. Both of the identification labels in the jar have "Süd. Kagera J. Carl" written on them, indicating that the specimens are syntypes. An undated label has "selon HOFFMAN: Gomphodesmidae, Emphysemastix flavosignatus (Carl)" typewritten on it. The second jar (MHNG-ARTO-18546) contains one specimen. The labels in the jar are typewritten and have "Kagera-Mabira, Pori 4-5.XI.08" and "Kagera" written on them, suggesting that this specimen is also a syntype. There are two syntypes in the ZMUH (Weidner, 1960), three in the MCZL, two in the NMB (inventory number NMB-DIPL-00173a) and two in the ZMHB (Moritz & Fischer, 1978a).

*Aulodesmus flavosignatus* (Carl, 1909), Gomphodesmidae

***fossiger silvestre*** Carl, 1909b: 300, pl. 6, figs 11-12 [*Strongylosoma*].

Urwaldparzelle bei Bukoba, unter Laub. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains ten specimens in alcohol in two jars. The first jar (MHNG-ARTO-18564) contains five specimens; two have pins running the length of the body and are placed in individual vials, one is broken and placed in a vial with a smaller vial containing gonopods and the other two specimens are in a fourth vial. The identification labels in the jar have "Urwäldchen bei Bukoba" and "types Bukoba Dr J. Carl" written on them respectively, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18565) contains five specimens in a single vial; two of the specimens are broken. The vial contains an original identification label with "Bukoba Carl" written on it, indicating that the specimens are syntypes. There are two syntypes in the ZMUH (Weidner, 1960) and two in the MCZL.

*Eviulisoma silvestre* (Carl, 1909), Paradoxosomatidae

***fossiger typica*** Carl, 1909b: 296-299, pl. 6, figs 7-14 [*Strongylosoma*].

Sultanat Ihangiro, in Bananenpflanzungen, unter Blättern und Bananenstämmen. Bukoba auf Steinblöcken unter Laub. Unspecified number of ♂ and ♀.

The MHNG collection contains 63 specimens in alcohol in two jars. The first jar (MHNG-ARTO-18562) contains parts of at least 17 specimens; five have pins running the length of the body and most are broken. One specimen has been separated in a vial along with a smaller vial containing gonopods. The identification labels in the jar have "♂♀ types Bukoba u. Ihangiro" and "types Bukoba et Ihangiro Dr J. Carl" written on them respectively, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18563) contains parts of at least 46 specimens; two have a pin running the length of the body and many are badly broken. There is an



original identification label with “Ihangiro” written on it, indicating that the specimens are syntypes. There are three syntypes in the ZMUH (Weidner, 1960), three in the ZMHB (Moritz & Fischer, 1978a) and three in the MCZL. The description and some of the old labels refer to “*S. fossiger* var. *typica*” but it could be argued that this indicates that the taxon is the nominal subspecies rather than being an available name.

*Eviulisoma fossiger fossiger* (Carl, 1909), Paradoxosomatidae

***fossiger ussuwense*** Carl, 1909b: 299-300, pl. 6, figs 8-10 [*Strongylosoma*].

Sultanat Ost-Ussuwi im Süden der Residentur Bukoba. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains 35 specimens in alcohol in two jars. The first jar (MHNG-ARTO-18566) contains 17 specimens; six have pins running the length of the body and are placed in individual vials, one is broken and placed in a vial with a smaller vial holding gonopods, and ten specimens, two of which are broken, are placed in the eighth vial. One of the original identification labels in the jar has “types Ussuwe J. Carl” written on it, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18569) contains 18 specimens; three have pins running the length of the body and five are broken. The labels in the jar are not original and have “Mabira” typewritten on them suggesting that these specimens are not syntypes. There are two syntypes in the ZMUH (Weidner, 1960) and three in the MCZL.

A junior synonym of *Eviulisoma fossiger* (Carl, 1909), Paradoxosomatidae

***frater*** Carl, 1932: 511-512, figs 156-160 [*Propyrgodesmus*].

Nilgiris: Coonoor, gegen Lady Cunnings-Seat, ca. 1700 m, in Erde und unter Laub, sehr feucht, 29.XII. Unspecified number of ♂ and ♀.

The MHNG collection contains ten specimens in two jars. The first jar (MHNG-ARTO-18616) contains one broken specimen. The data label has “Coonoor, 29.XII.26” written on it. The identification label has “♂ type” written on it, but no holotype was designated in the original description and the specimen is a syntype. The second jar (MHNG-ARTO-18617) contains nine specimens, some of them broken, and a small vial with fragments of dissected parts. The identification label has “Coonoor” written on it, indicating that the specimens are syntypes.

*Propyrgodesmus frater* Carl, 1932, Pyrgodesmidae

***frater*** Carl, 1909a: 267-269, fig. 20 [*Spirostreptus* (*Thyropygus*)].

Java, Coll. Zehntner, Genfer Museum; Sumatra, Coll. W. Morton. Unspecified number of ♂ and ♀.

The MHNG collection contains eight specimens in alcohol (MHNG-ARTO-18485). Four of the specimens

are reinforced with pins and five are broken. There is also a vial with gonopods. Both of the identification labels in the jar have “Java Dr. L. Zehntner” written on them, indicating that the specimens are syntypes. There are two syntypes collected by Morton in the MCZL.

*Gonoplectus frater* (Carl, 1909), Harpagophoridae

***fraternus*** Carl, 1902: 655-656, pl. 11, fig. 71 [*Platyrrhacus*].

Costarica, San José und Port Limon, P. Biolley (Genfer Museum). Four ♂ and three ♀.

The MHNG collection contains six specimens in two jars. The first jar (MHNG-ARTO-14228) contains three ♂ and a vial containing gonopods. The identification label has “Costarica, St. José, Port Limon, P. Biolley” written on it and there is a label dated 1960 indicating that Hoffman intended to designate the dissected ♂ as the lectotype. The second jar (MHNG-ARTO-14229) contains three ♀ and the identification label has “Costarica, St. José, Port Limon, P. Biolley” written on it. The lectotype designation was not published (Hoffman, 1999) and all of the specimens are syntypes. The other ♂ syntype (referred to as “Syntyp” in the NMB catalogue) is in the NMB (inventory number NMB-DIPL-00442a).

*Nyssodesmus fraternus* (Carl, 1902), Platyrrhacidae

***fuhrmanni*** Carl, 1914b: 947-948, figs 207-210 [*Cryptogonodesmus*].

Tambo, ca. 2000 m. Unspecified number of ♂ and ♀.

The MHNG collection contains some dissected parts in alcohol (MHNG-ARTO-18588). A label in the vial containing the parts has “♂ Gonop., Ant, Bein 2, ocb.” written on it, while the label in the jar is a photocopy of a label with “Diplopodes de la Colombie Pièces anatomiques (J. Carl 1914)” written on it, indicating that the specimen(s) from which the parts came were syntypes (it is possible that there are parts from more than one syntype in the tube). The whereabouts of the rest of the syntypes is unknown.

*Brachycerodesmus fuhrmanni* (Carl, 1914), Fuhrmannodesmidae

***fuhrmanni*** Carl, 1913b: 175, figs 1-2 [*Epinannolene*].

Illustration only.

Carl (1914b: 859-860, figs 65-68, 70-71) provided a description of ♂ and ♀ and gave the locality “La Camelia, 1800 m, Kaffeepflanzung bei Angelopolis.” The MHNG collection contains four specimens in alcohol in two vials. The first vial (MHNG-ARTO-18467) contains two large specimens, one of them broken. The second vial (MHNG-ARTO-18468) contains two smaller specimens, one of them with a pin running the length of the body, a smaller vial with dissected parts and a label with “Epinannolene fuhrmanni Carl ♀♂ (Schaltstadium)!” written on it. There are two further vials (MHNG-ARTO-18469 and MHNG-ARTO-18470) containing gonopods. The identification labels in the jar have “Colombie” and “Colombie Coll.

Fuhrmann” written on them respectively, indicating that the specimens are syntypes. There are two ♀ syntypes (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00213a).

*Epinannolene fuhrmanni* Carl, 1913, Pseudonannolenidae

**fuhrmanni** Carl, 1914b: 875-876, figs 98-100 [*Microspirobolus*].

La Camelia, Kaffeepflanzung bei Angelopolis, 1800 m; Argelia, Kaffeepflanzung 1600 m. Unspecified number of ♂ and juveniles.

The MHNG collection contains a number of dissected parts, including gonopods, in alcohol (MHNG-ARTO-14420). A label in the tube containing them reads “Microspirob. fuhrmanni Carl ♂” and a photocopy of a label with “Diplopodes de la Colombie Pièces anatomiques (J. Carl 1914)” written on it, indicating that they belonged to one or more syntype(s). There is one syntype (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00219a). The whereabouts of the other syntypes is unknown.

*Spirobolellus fuhrmanni* (Carl, 1914), Spirobolellidae

**fuhrmanni** Carl, 1914b: 962-963, fig. 258 [*Oniscodesmus*].

Bocca del Monte, Tambo, ca. 2000 m. One ♂ and one ♀. The MHNG collection contains parts of two specimens in two vials in alcohol. The first vial (MHNG-ARTO-18624) contains a single gonopod. The second vial (MHNG-ARTO-18625) contains a specimen with a pin running the length of the body. There is a data label in the jar with “Tambo, Bocca del Monte” written on it and one of the identification labels has “♀ Colombie Coll. Fuhrmann” written on it, indicating that the specimens are syntypes. The whereabouts of the rest of the ♂ syntype is unknown. *Oniscodesmus fuhrmanni* Carl, 1914, Oniscodesmidae

**fuhrmanni** Carl, 1914b: 826-827, figs 1-8 [*Siphonophora*].

La Camelia bei Angelopolis (Central-Cordilleren, 1820 m). Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol (MHNG-ARTO-14530). The identification labels in the jar have “Camelia Colombie Coll. Fuhrmann” and “Colombie Coll. Fuhrmann” written on them respectively and there is a printed “Cotype” label, indicating that the specimens are syntypes.

*Siphonophora fuhrmanni* Carl, 1914

**fuhrmanni** Carl, 1914a: figs 7-8 [*Stemmatoius*].

Unspecified provenance and series (illustration only).

Carl (1914b: 853-855, figs 25, 30, 33-34, 62-64) provided a description of ♂ and ♀ and gave the locality as “Tambo, am Westhang der Sabana von Bogota, ca. 2000 m; Bogota, 2600 m.” The MHNG collection contains two specimens,

each with a pin running the length of the body, in a vial in alcohol (MHNG-ARTO-14485). There are three other vials with dissected parts which may belong to these specimens or to others. The first (MHNG-ARTO-14486) contains legs and gonopods and a “♂” label. The second (MHNG-ARTO-14487) contains legs and gonopods. The third (MHNG-ARTO-14488) contains legs and a “♀” label. The identification labels in the jar have “Colombie coll. Fuhrmann” written on them, indicating that the specimens are syntypes.

*Stemmiulus fuhrmanni* (Carl, 1914), Stemmiulidae

**fulvescens** Carl, 1918: 433-435, figs 11-12 [*Rhinocricus*]. Moluques. Muséum de Genève. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol in two jars. One jar (MHNG-ARTO-18458) contains two broken specimens and a vial containing gonopods. The identification labels in the jar have “Moluques” and “Moluques (Deyrolle) types!” written on them respectively, indicating that the specimens are syntypes. The other jar (MHNG-ARTO-18459) contains one specimen and a vial containing gonopods. The identification labels in the jar have “Moluques (Deyrolle)” and “Moluques (Deyrolle) types!” written on them respectively, indicating that the specimen is a syntype.

*Proporobolus fulvescens fulvescens* (Carl, 1918), Rhinocricidae

**fulvescens ascobinatus** Carl, 1918: 435 [*Rhinocricus*]. Moluques. Muséum de Genève. One ♂ and one ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18454). Both of the specimens are broken and they are accompanied by a vial containing gonopods. The identification labels in the jar have “Moluques (Deyrolle)” and “Moluques” written on them respectively. Carl’s original label also has “n. subsp.” written on it, indicating that the specimens are syntypes. *Proporobolus fulvescens ascobinatus* (Carl, 1918), Rhinocricidae

**fulvotaeniatus** Carl, 1912c: 181-183, text figs 19-21 [*Rhinocricus*].

Manipi, S.-Celebes, bei 800 m üB M. (coll. Sarasin). Two ♂ and two ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14313). The identification labels have “Manipi Celebes mérid., ex coll. Sarasin” and “type Manipi Celebes mérid., ex coll. Sarasin” written on them respectively, indicating that the specimen is a syntype. The other three syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00158a).

*Salpidobolus fulvotaeniatus* (Carl, 1912), Rhinocricidae

**gorontalensis** Carl, 1912c: 188-189, text fig. 24 [*Rhinocricus*].

Gorontalo, N.-Celebes (coll. Sarasin). One ♂ and one ♀. The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14315). The specimen is broken and a pin protrudes from one of the halves. The identification labels have “Gorontalo Celebes sept. ex coll. Sarasin” and “type Gorontalo Celebes sept. ex coll. Sarasin” written on them respectively, indicating that the specimen is a syntype. There are two specimens identified as syntypes (one ♂ and one ♀ referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00161a), implying that the number of specimens mentioned in the original description was incorrect.

*Salpidobolus gorontalensis* (Carl, 1912), Rhinocricidae

**gracilicornis** Carl, 1914b: 828-830, figs 15-23 [*Siphonophora*].

Buenavista, Kefeetal bis Viota (Ost-Cordillere). Two ♂. The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14532). The identification labels in the jar have “Colombie Coll. Fuhrmann” and “Buenavista Colombie Coll. Fuhrmann” written on them respectively and there is a printed “Cotype” label, indicating that the specimen is a syntype. *Siphonophora gracilicornis* is the type species of the genus *Columbianum* Verhoeff, 1941a by monotypy (Jeekel, 1971).

*Columbianum gracilicorne* (Carl, 1914), Siphonophoridae

**gracilipes** Carl, 1902: 577-579, pl. 10, figs 13-16 [*Tectoporus*].

Java, Dr. L. Zehntner (Genfer Museum). One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14415). The identification labels in the jar have “Java, Zehntner” written on them, indicating that the specimen is the holotype. The gonopods are mounted on a microscope slide preparation (MHNG-ARTO14416) which is in a case glued to the lid of the jar. *Tectoporus gracilipes* is the type species of the genus *Tectoporus* Carl, 1902 by monotypy (Jeekel, 1971).

*Tectoporus gracilipes* Carl, 1902, Paradoxosomatidae

**gracilis** Carl, 1913a: 219-221, fig. 13 [*Peridontopyge* (*Neodontopyge*)].

Freetown, Sierra-Leone. One ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18476). The specimen has a pin running the length of the body and there are dissected parts including gonopods in a separate vial. The identification label has “Sierra Leone W. Volz” written on it, indicating that the specimen is a syntype. The other syntype is presumably in the NMBE. *Peridontopyge gracilis* is the type species of the genus *Neodontopyge* Carl, 1913 by monotypy (Jeekel, 1971).

*Neodontopyge gracilis* Carl, 1913, Odontopygidae

**gracilis** Carl, 1926: 382-384, figs 9-14 [*Pixodesmus*].

Hienghène, Juni 1911. Unspecified number of ♂ (♀ not explicitly mentioned).

No specimens found in the MHNG. There is one ♂ syntype (referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00343a). *Pixodesmus gracilis* is the type species of the genus *Pixodesmus* Carl, 1926 by monotypy (Jeekel, 1971).

*Pixodesmus gracilis* Carl, 1912, Pyrgodesmidae

**gracilis** Carl, 1914b: 927-928, figs 184-187 [*Trichomorpha*].

La Camelia bei Angelopolis. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Trichomorpha gracilis* Carl, 1914, Chelodesmidae

**gracillimus** Carl, 1941b: 653-656, figs 121-126 [*Picrogonopus*].

Nilgiris: Kleiner Djungel bei Coonoor, 1600 m. One ♂ and two ♀.

The MHNG collection contains three specimens in alcohol in two vials. The first vial (MHNG-ARTO-14234) contains one specimen broken into several pieces and an identification label with “♂ type Coonoor” written on it. The second vial (MHNG-ARTO-14235) contains two specimens broken into several pieces and an identification label with “Coonoor” written on it. The ♂ was not designated as holotype in the original description and so all of the specimens are syntypes. *Picrogonopus gracillimus* is the type species of the genus *Picrogonopus* Carl, 1941 by monotypy (Jeekel, 1971).

*Picrogonopus gracillimus* Carl, 1941, Harpagophoridae

**grandis** Carl, 1922: 566-568, figs A-D [*Siphonophora*].

Gap (Distrikt Selangor), Malakka, 2700' ü. M. One ♂.

The MHNG collection contains a slide preparation of the gonopods of the holotype (MHNG-ARTO-14533). The rest of the specimen is in the ZMHB (Moritz & Fischer, 1978b).

*Pterozonium grandis* (Carl, 1922), Siphonophoridae

**gravelyi** Carl, 1932: 518-521, figs 170-177 [*Klimakodesmus*].

Nilgiris: Kaffee-Pflanzung unterhalb Coonoor, ca. 1600 m, unter Stein mit Ameisen, 27.XII ♂ Typus; Karteri-Tälchen, bei Coonoor, ca. 1500 m, unter Holz, 29.XII; Coonoor, gegen Lady Cunnings-Seat, ca. 1800 m, unter Laub, am Wege; Mudumalai, Moyar-Becken, ca. 1000 m, an Bachufer, unter Stein, 5.II. Unspecified number of ♂ and juveniles.

The MHNG collection contains six specimens in alcohol in two jars. The first jar (MHNG-ARTO-18609) contains one broken specimen. The data label has “Nilgaris, Coonoor, plant. de café 27.XII.26” written on it, indicating that this is the holotype. The second jar contains three vials. The first vial (MHNG-ARTO-18610)



contains three specimens, two of them in fragments. The data label has “Mudumalai 5.II.27 ♂ juvs.” written on it. The second vial (MHNG-ARTO-18611) contains one broken specimen. The data label has “Nilgaris, Karteri 2.I.27” written on it. The third vial (MHNG-ARTO-18612) contains one broken specimen. The data label has “Nilgaris, Coonoor, 1800 m L.C. Seat” written on it. The identification label in the tube has “Cotype” written on it, and the specimens in the second jar can be considered paratypes. *Klimakodesmus gravelyi* is the type species of the genus *Klimakodesmus* Carl, 1932 by monotypy (Jeekel, 1971).

*Klimakodesmus gravelyi* Carl, 1932, Pyrgodesmidae

***gravelyi fergusonii*** Carl, 1941b: 619, fig. 74 [*Aulacobolus*]. Trivandrum, im südlichen Travancore. H. Ferguson leg., British Museum. One ♂ and two ♀.

No specimens found in the MHNG collection. The syntypes are in the BMNH.

A junior synonym of *Aulacobolus gravelyi* Silvestri, 1916, Pachybolidae

***gravelyi septrionalis*** Carl, 1941b: 619-620, fig. 75 [*Aulacobolus*].

Anaimalais: Attakatti und Umgebung, 1000-1200 m. Unspecified number of ♂ and ♀.

The MHNG collection contains 16 specimens in alcohol (MHNG-ARTO-14432). The specimens are accompanied by four small vials, two containing gonopods and two containing partially dissected heads and anterior segments. The pencil-written data labels have “Attakatti beim Bungalow, unter Borke 1.III.27” and “Nebenfluss des Aligar, 2 Meilen ob Attikatti 24.II, Unter faulen Stämmen” written on them, indicating that the specimens are syntypes.

A junior synonym of *Aulacobolus gravelyi* Silvestri, 1916, Pachybolidae

***greeni*** Carl, 1941b: 602-603, figs 52-56 [*Diopsiulus* (*Plusiochaeturus*)].

Ceylon: Pundloya, 1000 m. British Museum (Green leg.). One ♂ and one ♀.

No specimens found in the MHNG collection. The syntypes are in the BMNH.

*Stemmiulus greeni* Carl, 1941, Stemmiulidae

***haenschi*** Carl, 1918: 419-420, fig. 1 [*Pycnotropis*].

Santa Inez, Ecuador. R. Heansch leg. Musée de Berlin. One ♂.

No specimens found in the MHNG. The holotype is in the ZMHB (Moritz & Fischer, 1978a).

*Pycnotropis haenschi* Carl, 1918, Aphelidesmidae

***hassleri*** Carl, 1917: 406-409, figs 25-26 [*Stenostreptus*].

San Bernadino, Paraguay (Dr. Hassler leg.), Asuncion, Paraguay (Dr. E. Joulowsky leg.). More than one ♂.

The MHNG collection contains one specimen in

alcohol under the name *Stenostreptus hassleri* (MHNG-ARTO-14253). The specimen is in three large pieces, with the gonopods separate. The identification label has “type Paraguay” written on it, indicating that the specimen was part of the type series. Hoffman (1974: 80) designated this specimen as the lectotype. There are a further seven specimens under the name *Urostreptus hassleri* in two jars (MHNG-ARTO-14254 and MHNG-ARTO-14255), which are probably paralectotypes. *Stenostreptus hassleri* is the type species of the genus *Stenostreptus* Carl, 1917 by monotypy (Jeekel, 1971).

*Urostreptus hassleri* (Carl, 1917), Spirostreptidae

***helicogonus*** Carl, 1941b: 679-682, figs 173-178 [*Thyropygus*].

Nilgiris: Coonoor, 1600 m, Djungel, unter Laub, auf Humus, 24.XII.1926. One ♂ and one ♀.

The MHNG collection contains two specimens in alcohol in one vial (MHNG-ARTO-14256). Both specimens are broken, and are accompanied by a smaller vial containing a head, gonopods and other fragments. The data label has “Kleiner Djungel 24.XII, unterhalb Coonoor” written on it, indicating that the specimens are syntypes.

*Gnomognathus helicogonus* (Carl, 1941), Harpagophoridae

***hendersoni*** Carl, 1932: 449-451, figs 40-43 [*Xiphidiogonus*].

Palnis: Kodaikanal, ca. 2200 m, J. R. Henderson leg. 24.X.94 [Brit. Museum 170-171 (A)]. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol, accompanied by a small vial containing gonopods and other legs (MHNG-ARTP-14257). The data label has “Palnis, Kodaikanal, Henderson leg.” written on it. The identification label has “Xiphidiogonus hendersoni Carl, ♂♀ cotypes, ♂ type gonop., pattes 1<sup>re</sup> et 2<sup>me</sup>” written on it. Carl did not designate a holotype in the original description and so these specimens are syntypes. There are further syntypes in the BMNH.

*Xiphidiogonus hendersoni* Carl, 1932, Paradoxosomatidae

***heterosculptus*** Carl, 1902: 635-638, pl. 12, figs 73-75 [*Pachyurus*].

Guatemala (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains one intact specimen and parts of at least two others in alcohol (MHNG-ARTO-18555). The specimens are accompanied by a vial containing gonopods. Both of the original identification labels in the jar have “Types ♂♀ Guatemala” written on them, indicating that the specimens are syntypes. An undated typewritten label states that Hoffman identified these specimens as *Amplinus heterosculptus*.

*Polylepiscus heterosculptus* (Carl, 1902), Platyrrhacidae

**heterotuberculata** Carl, 1902: 667-668, pl. 12, fig. 99 [*Poratia*].

Java, auf Zuckerrohr, hinter Blattscheiden, Dr. L. Zehntner (Genfer Museum). 16 ♀.

The MHNG collection contains ten specimens in alcohol in three vials. The first vial (MHNG-ARTO-14258) contains the lectotype designated by Adis *et al.* (2000: 152), the second (MHNG-ARTO-14259) contains one dissected specimen and the third (MHNG-ARTO-14260) contains the remaining specimens. The identification labels in the jar both have “Java [Dr. L.] Zehntner” written on them, indicating that the specimens were part of the type series. There is a microscope slide preparation of the vulva of the dissected paralectotype in a case glued to the lid of the jar (MHNG-ARTO-14259a).

A junior synonym of *Poratia digitata* (Porat, 1889), Pyrgodesmidae

**hingstoni** Carl, 1935: 326-329, figs 1-6 [*Orthomorpha* (*Orthomorpha*)].

Yatung, 10,000', 16.IV.1924. One ♂ and two ♀.

The MHNG contains one specimen and some dissected parts of a second specimen in alcohol (MHNG-ARTO-18557). The intact specimen has a pin running the length of the body and is in a small vial. The gonopods of another specimen are in a second small vial, and both of these are in a larger tube which also contains a label with “*Orthomorpha* (O.) *hingstoni* Carl, 1♀ + gonopode ♂, Yatung 10000' Everest Exp. 1924” written on it. The original identification labels in the jar have “♀ and gon. ♂ Yatung Himalaya 10000' Everest Exped. 1924” and “Yatung Himalaya 3000 m” written on them respectively, and the specimens are syntypes. There are further type specimens in the BMNH. *Orthomorpha hingstoni* was designated as the type species of the genus *Orophosoma* Jeekel, 1980 in the original description (Jeekel, 1980c). *Delarthrum hingstoni* (Carl, 1935), Paradoxosomatidae

**hirsuta** Carl, 1914b: 921, fig. 168 [*Trichomorpha*].

Aguacatal. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Trichomorpha hirsuta* Carl, 1914, Chelodesmidae

**hirsutus** Carl, 1914b: 965 [*Trigonostylus*].

Camelia, Kaffeepflanzung, 1800 m. One ♀.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Cyrtodesmus hirsutus* (Carl, 1914), Cyrtodesmidae

**hirta** Carl, 1932: 439-440, figs 24-26 [*Sundanina*].

Travancore: Grosser Wald im oberen Vattavadaï-Tal, zwischen den Palnis und Anaimalais, ca. 1850 m, 10.IV. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14261). The specimen is placed in a small vial and accompanied by a second vial containing

the gonopods and other fragments. The specimen had a pin running the length of the body, but is now in several pieces (the largest is still on the pin). The locality label has “Travancore, Vattavadaï” written on it and the identification label has “Type” written on it, indicating that the specimen is the holotype. A pencil note in the jar states that the specimen was studied by Jeekel in 1976.

*Antichirogonus hirtus* (Carl, 1932), Paradoxosomatidae

**hirtipes** Carl, 1912c: 132-133, pl. 5, figs 6-7 [*Strongylosoma*].

Loka, Süd-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14305). The specimen has a pin running the length of the body. The identification labels have “Loka Celebes mérid. coll. Sarasin” and “type Celebes mérid. coll. Sarasin” written on them respectively, indicating that the specimen is a syntype. There are three syntypes in the NMB under the name *Orthomorpha hirtipes* (inventory number NMB-DIPL-00127a).

*Tectoporus hirtipes* (Carl, 1912), Paradoxosomatidae

**hispidus** Carl, 1926: 456-457, figs 149-151 [*Rhinotus*].

Loyalty-Inseln: Ouvéa, Fayaoué, 15. Mai 1912. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains a microscope slide preparation of the anterior gonopods of a syntype (MHNG-ARTO-14345). There are two syntypes (one ♂ and one ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00385a).

*Rhinotus hispidus* Carl, 1926, Siphonotidae

**hortensis** Carl, 1914a: figs 2, 3 [*Stemmatoilulus*].

Illustration only.

Carl (1914b: 845-848, figs 31, 35-44) provided a description of ♂ and ♀, and gave the localities “La Camelia, Kaffeepflanzung bei Angelopolis, 1800 m; Puerto de los Pobres, am Cauca; Jirardot am Magdalena, 250 m.” The MHNG collection contains one specimen and two vials with dissected parts in alcohol. The first vial (MHNG-ARTO-14489) contains one specimen. The second vial (MHNG-ARTO-14490) contains legs and gonopods and a “♂” label. The third vial (MHNG-ARTO-14491) contains legs, antennae and mouthparts and a “♀” label. The identification labels in the jar have “Colombie” and “Colombie Coll. Fuhrmann” written on them respectively and there is a printed “Cotype” label, indicating that the specimens are syntypes. There are two more ♀ syntypes in the NMB (inventory number NMB-DIPL-00209a).

*Stemmiulus hortensis* (Carl, 1914), Stemmiulidae

**humberti** Carl, 1902: 590-593 [*Prionopeltis*].

Paradenia (Ceylon), Dr. P. und F. Sarasin (Basler Museum). Two ♂.

No specimens found in the MHNG. The two ♂ syntypes

are in the NMB (inventory number NMB-DIPL-00467a). *Anoploidesmus humberti* (Carl, 1902), Paradoxosomatidae

**humberti** Carl, 1911: 399-401, figs 3-5 [*Trachyiulus*].

Ceylon, Humbert. Unspecified number of ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14262). The specimens are in a glass vial, one of them apparently intact, the other in fragments. A smaller vial holds a pair of gonopods. The identification label in pencil has "Ceylan, Voy. Humbert" written on it. The identification label in ink is almost illegible. There is a printed "Type" label, indicating that the specimens are syntypes. These specimens were part of the material identified as *T. ceylanicus* (Peters, 1864) by Humbert (1865), but recognised as a distinct species by Carl when he revised the specimens.

*Trachyiulus humberti* Carl, 1911, Cambalopsidae

**humberti willeyi** Carl, 1941b: 641-642, figs 107-109 [*Trachyiulus*].

Ceylon: Karawehgawem. P. A. Willey leg. (British Museum). One ♂.

The MHNG collection contains two microscope slide preparations: 1) a slide (MHNG-ARTO-18463) with gonopods with labels with "Trachyiulus humberti Carl ssp. willeyi Carl" and "Gonop. I et II" handwritten on them respectively; 2) a slide (MHNG-ARTO-18464) with legs with labels with "Trachyiulus humberti Carl ssp. willeyi Carl" and "♂ type Bp. 1 et 2" handwritten on them respectively. Both belong to the holotype. The rest of the holotype is in the BMNH. The MHNG alcohol collection contains some specimens collected after the date of the publication of the original description and these are therefore not part of the type series.

*Trachyiulus willeyi willeyi* Carl, 1941, Cambalopsidae

**humboldti** Carl, 1926: 393-394, figs 35-38 [*Canacophilus* (*Canacophilus*)].

Neu-Caledonien: Gipfel des Mt. Humboldt 1600 m, 18. Sept. 1911; Mt. Canala, 4. Nov. 1911, Wald, 800-1000 m. Two ♂.

No specimens found in the MHNG. The two ♂ syntypes (referred to as "Typus" in the NMB catalogue) are in the NMB (inventory numbers NMB-DDIPL-00348a and NMB-DIPL-00348b).

*Canacophilus humboldti* Carl, 1926, Dalodesmidae

**humilis** Carl, 1932: 469-471, figs 68-74 [*Ootacadesmus*]. Niligiris: Dodabetta Reserved Forest, 2500 m, 11.I. unter faulem Holz. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18593). The specimen, which is broken, and a label with "♂ type!" written on it and a second small vial containing gonopods and a label with "Gon., 3° patte ♂" written on it are placed in a larger vial with an identification label. Although there is no locality data it is clear that this specimen is the holotype. *Ootacadesmus*

*humilis* was designated as the type species of the genus *Ootacadesmus* Carl, 1932 in the original description.

*Ootacadesmus humilis* Carl, 1932, Fuhrmannodesmidae

**hystrix** Carl, 1926: 402-403, fig. 53 [*Cotylotropis*].

Koné, Aug. 1911; Ngoï-Tal, 200 m, 14. Sept. 1911. Two ♀.

No specimens found in the MHNG. The two ♀ syntypes (referred to as "Typus" in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00354a and NMB-DIPL-00354b). *Cotylotropis hystrix* is the type species of the genus *Cotylotropis* Carl, 1926 by monotypy (Jeekel, 1971).

*Cotylotropis hystrix* Carl, 1926, *incertae sedis*

**imitans** Carl, 1914b: 953-954, figs 235-239 [*Gyrophallus*].

La Camelia, Kaffeepflanzung. One ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18590). The specimen is broken into three parts, and is accompanied by a small vial containing fragments of dissected parts. Both of the identification labels in the jar have "♂ Colombie coll. Fuhrmann" written on them, indicating that the specimen is a syntype. The whereabouts of the other syntype is unknown. *G. imitans* was designated as the type species of the genus *Gyrophallus* Carl, 1914 by Brölemann (1916).

*Gyrophallus imitans* Carl, 1914, Fuhrmannodesmidae

**implicatum** Carl, 1941a: 371-374, figs 23-25 [*Polydrepanum*].

Kanda, bei Bombay. Wroughton leg. British Museum. One ♂.

No specimens found in the MHNG collection. The holotype is in the BMNH.

*Telodrepanum implicatum* (Carl, 1941), Paradoxosomatidae

**incommodus** Carl, 1912a: 274-275 [*Trigoniulus*].

Elat auf Gross-Kei. Two ♀.

No specimens found in the MHNG collection. The SMF collection contains three specimens in alcohol, two of them ♀. One ♀ has a pin running most of the length of the body (SMF 1356, designated here as lectotype), the other ♀ also has a pin running most of the length of the body (SMF 1366). The identification labels in the jars have "Groß Key: Elat H. Merton S. 1908" written on them indicating that they are type specimens. This species can not be securely placed in a genus and is in need of a revision according to Jeekel (2001: 83).

?*Trigoniulus incommodus* Carl, 1912, Pachybolidae

**inconstans** Carl, 1914b: 869-871, figs 88-91 [*Spirostreptus* (*Nanostreptus*)].

La Camelia, Kaffeepflanzung bei Angelopolis 1800 m. Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol



(MHNG-ARTO-18477). Two of the specimens have a pin running all or part of the length of the body, and they are accompanied by a vial containing gonopods. The identification labels in the jar have “Camelia (Colombie) 1800 m. Coll. Fuhrm.” and “Camelia (Colombie) Coll. Fuhrmann” written on them respectively, indicating that the specimens are syntypes. There are two syntypes (one ♂ and one ♀ referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00216a).

*Hyloecostreptus inconstans* (Carl, 1914), Spirostreptidae

**indus** Carl, 1942: 148, figs 8, 11-12, 17-18 [*Glomeridesmus*].

Inde méridionale, 1926/27, Carl leg. Unspecified number of ♂ and ♀.

The MHNG collection contains six microscope slide preparations; 1) a slide (MHNG-ARTO-18632) with a head and first two body rings with a label with “Glomeridesmus indus n. sp., Mariyanshola” written on it; 2) a slide (MHNG-ARTO-18633) with mouthparts with a label with “Glomeridesmus indus n. sp., ♂ Mariyanshola” written on it; 3) a slide (MHNG-ARTO-18634) with head and mouthparts and a label with “Glomeridesmus indus” written on it; 4) a slide (MHNG-ARTO-18635) with legs with a label with “Glomeridesmus indus n. sp.” written on it; 5) a slide (MHNG-ARTO-18636) with legs with a label with “Glomeridesmus indus n. sp. ♂ juv.” written on it; 6) a slide (MHNG-ARTO-18637) with telopods with a label with “Glomeridesmidae ♂ Mariyanshola dessin publié!” written on it. These are all parts of syntypes. There are two other slides without any identification label (MHNG-ARTO-18638 and MHNG-ARTO-18639) which may also belong to the type series. The other parts of the specimens appear to have been lost.

*Glomeridesmus indus* Carl, 1942, Glomeridesmidae

**insolitus** Carl, 1941b: 598-602, figs 47-51 [*Diopsiulus* (*Plusiochaeturus*)].

Onere Palnis: Kleine Shola bei Pumbarai, 1900 m. One ♂.

The MHNG collection contains one specimen. The main part of the body is in alcohol in a small vial placed in a larger one (MHNG-ARTO-14453). The labels in the large vial have “Diopsiulus insolitus Carl ♂ type Pumbarai 29.III” and “Kleine Shola oberh Pumbarai 29.III 1 ♂” written on them. A label in the jar has “Diopsiulus insolitus Carl ♂ type, Palnis sup. Gonop. et 2e patte ♂, voir préparation” written on it, indicating that the specimen is the holotype. There is also a microscope slide preparation (MHNG-ARTO-14454) with the gonopods and legs 1, 2, 3 and 8 of the holotype.

*Stemmiulus insolitus* (Carl, 1941), Stemmiulidae

**instabilis** Carl, 1914b: 879-881, figs 107-108 [*Rhinocricus*].

Argelia, Kaffeeepflanzung, bei Viota 1600 m; Honda-Gauduas. One ♂ and one ♀.

No specimens found in the MHNG collection. The whereabouts of the syntypes is unknown.

*Rhinocricus instabilis instabilis* Carl, 1914, Rhinocricidae

**instabilis adolescens** Carl, 1914b: 881 [*Rhinocricus*].

Tambo, 2000 m (Coll. Fuhrmann); Bogota (Berliner Museum). Unspecified number of ♂ and ♀.

No specimens found in the MHNG collection. The ZMHB collection contains two ♀ syntypes (Moritz & Fischer, 1975).

*Rhinocricus instabilis adolescens* Carl, 1914, Rhinocricidae

**instabilis valens** Carl, 1914b: 881-882 [*Rhinocricus*].

Zwischen Fresno und Mariquita, 400 m (Coll. Fuhrmann); Sta. Inez, in Ecuador leg. Haensch (Berliner Museum). Unspecified number of ♂ and one ♀.

The MHNG collection contains two specimens in alcohol in separate jars. One jar (MHNG-ARTO-14451) contains a specimen with a pin running along the anterior of the body, the specimen is slightly split, exposing the gonopods. The identification labels in the jar have “♂ Sta Inez, Ecuador” written on them, and the specimen is probably a syntype. The other jar (MHNG-ARTO-14452) contains a smaller specimen. The data label reads “Colombie acheté à M. Bonnal XII.1901” and the specimen is probably not a syntype. The ZMHB contains three ♂ syntypes (Moritz & Fischer, 1975).

*Rhinocricus instabilis vallens* Carl, 1914, Rhinocricidae

**insularis** Carl, 1918: 453-456, figs 33-36 [*Stenobolus*].

Male-Atoll, Maledives. Muséum de Genève. One ♂, an unspecified number of ♀ and one juvenile ♂.

The MHNG collection contains four specimens in alcohol in three vials. The first vial (MHNG-ARTO-14263) contains one specimen with a pin running the length of the body and a small vial containing gonopods and other fragments. This specimen, the only ♂, is here designated lectotype. The second vial (MHNG-ARTO-14264) contains one specimen with a pin running the length of the body. The third vial (MHNG-ARTO-14265) contains two specimens, each with a pin running the length of the body. The locality label has “Male Atoll, Maledives” written on it in pencil, and the identification labels have “Maldives” and “Maldives types” written on them respectively, indicating that the specimens are types. *Stenobolus insularis* is the type species of the genus *Stenobolus* Carl, 1918 by monotypy (Jeekel, 1971).

*Stenobolus insularis* Carl, 1918, Pachybolidae

**interfectus** Carl, 1941b: 690-692, figs 195-198 [*Thyropogus*].

Anaimalais: Attakatti, 1000 m, sehr trockener Busch. One incomplete ♂.

The MHNG collection contains parts of one specimen in alcohol (MHNG-ARTO-14266). The specimen is in five pieces in a small vial separated by a cotton wool

plug from the detached gonopods. The identification label in the larger vial containing the smaller one with the specimen has “Attakatti, II.1927” written on it, and the identification labels in the jar have “type Anaimalais” and “type Anaimalais Voy. Carl” written on them respectively, indicating that the specimen is the holotype. *Gnomognathus interfectus* (Carl, 1941), Harpagophoridae

**intermedia** Carl, 1909b: 335-336, pl. 8, figs 47-48, 66 [*Odontopyge*].

Njarugenge-Niansa (Central-Ruanda), auf Grasland; Kirehe in Kissaka (Süd-Ost-Ruanda). Unspecified series. The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-18495). Three specimens are reinforced with pins, and there is a vial containing gonopods. The identification labels in the jar have “Njarugenge-Niansa (Central-Ruanda) J. Carl” and “types, Ruanda central J. Carl” written on them respectively, indicating that the specimens are syntypes. There is a ♀ syntype in the ZMUH (Weidner, 1960).

*Geotypodon intermedius* (Carl, 1909), Odontopygidae

**intermedium** Carl, 1902: 564-566, pl. 10, figs 8-10 [*Strongylosoma*].

Rio Grande do Sul (Basler Museum). Three ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14321). The identification labels both have “Rio Grande do Sul, Dr Ternetz” written on them and the specimen is almost certainly a syntype given the provenance and the relationship between Ternetz and the NMB (see *Trichogonostreptus ternetzi* Carl, 1918). There is also a microscope slide preparation of the gonopods of a syntype (MHNG-ART-14536). The other two syntypes (one ♂ and one ♀) are in the NMB (inventory number NMB-DIPL-00233a) under the name *Catharosoma glabrum* (Peters).

*Catharosoma intermedium* (Carl, 1902), Paradoxosomatidae

**intermedius** Carl, 1914b: 899-900, figs 127-129 [*Alocodesmus*].

Guadua, Magdalena, Buenavista. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14352). Each specimen has a pin running the length of the body. The specimens are in separate vials and there is fifth vial containing gonopods. The identification labels have “Magdalena (Colombie)” and “Colombie, coll. Fuhrmann” written on them respectively and there is a label with “Cotype” printed on it, indicating that the specimens are syntypes. There is a further ♂ syntype (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00224a).

*Alocodesmus intermedius* Carl, 1914, Chelodesmidae

**iuliforme** Carl, 1905: 262-264, figs 2-2a [*Strongylosoma*]. Cabo St Juan. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14539). One of the specimens has a pin running the length of the body. The identification labels in the jar have “Guinée espagnole” written on them, indicating that the specimens are syntypes. According to Andrés Cobeta (2001: 68) there are four syntypes in the MNCN (MNCN 20.07/1177).

*Scolodesmus iuliformis iuliformis* (Carl, 1905), Paradoxosomatidae

**iuliforme volzi** Carl, 1913a: 202-204, fig. 1 [*Strongylosoma*].

Yonni und Falaba (nordöstliches Sierra-Leone). Unspecified number of ♂ and ♀.

The MHNG collection contains seven specimens in alcohol (MHNG-ARTO-14540). There is a separate vial containing gonopods (MHNG-ARTO-14541). The original identification labels in the jar have “Sierra Leone W. Volz” written on them, indicating that the specimens are syntypes. There is also an undated typewritten label indicating that Hoffman identified the specimens as *Scolodesmus iuliformis* (Carl). There may be other syntypes in the NMBE.

*Scolodesmus volzi volzi* (Carl, 1913), Paradoxosomatidae

**japonicus** Carl, 1902: 614-616, pl. 11, figs 38-39 [*Polydesmus*].

Japan (Genfer Museum). Two ♂.

The MHNG collection contains parts of at least six broken specimens (MHNG-ARTO-14542). There is a discrepancy between the original description, which mentions ♀ characters, and the list of specimens (two ♂) which follow it. The type series is restricted to the two ♂ which are presumably amongst these specimens. The original identification labels have “Japon ♂♀” written on them and there is a separate pencil label reading “Japon”. There is also an undated typewritten label indicating that Hoffman identified the specimens as *Epanerchodus japonicus* (Carl). *Polydesmus japonicus* Carl, 1902 is a junior homonym of *P. japonicum* Peters, 1864. The replacement name *Polydesmus carli* is proposed here for *P. japonicus* Carl, 1902.

*Polydesmus carli* **nom. nov.**, Polydesmidae

**javanicus** Carl, 1911: 401-404, figs 6-9 [*Glyphiulus*].

Java, Passaroean, zwischen den Wurzeln von Zuckerrohr. Dr. L. Zehntner leg. One ♂ and an unspecified number of ♀.

The MHNG collection contains eight specimens in alcohol (MHNG-ARTO-14267). The identification label in pencil has “Java, Dr. L. Zehntner” written on it but the other identification label is illegible, and there is a label with “type” printed on it, indicating that the specimens are syntypes.

*Glyphiulus javanicus* Carl, 1911, Cambalopsidae

**junodi** Carl, 1917: 384-387, figs 3-4 [*Poratophilus*]. Shilowana et Rikalla, Afrique méridionale orientale (Junod leg.). Two ♂.

The MHNG collection contains two specimens in alcohol in two jars. The first jar (MHNG-ARTO-14268) contains one specimen and a vial containing gonopods and other fragments. The identification label has "type Shilowana, Afrique mérid." written on it, indicating that it is a syntype. The second jar (MHNG-ARTO-14269) contains one specimen and a vial containing gonopods and other fragments. The identification label has "Ricalla, Afrique mérid." written on it, indicating that the specimen is a syntype.

*Zinophora junodi* (Carl, 1917), Harpagophoridae

**kandti** Carl, 1909b: 323-325, pl. 6, fig. 19 [*Lophostreptus*]. Njarugenje-Niansa (Central-Ruanda); Kirehe in Kissaka (Süd-Ost-Ruanda); vom Kagera durch Süd-Karagwe bis Ost-Ussuwi; Entebbe (Uganda). Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol in two jars. One jar (MHNG-ARTP-18471) contains the lectotype designated by Demange & Mauriès (1975: 55), although it is unclear if the designation is valid because they also state that no lectotype was designated (Demange & Mauriès, 1975: 70). The identification labels in the jar have "Ruanda centrale J. Carl" and "Njaugenje-Nainsa, Ruanda Dr J. Carl" written on them respectively. The second jar contains two vials. One (MHNG-ARTO-18472) has a single specimen, a smaller vial containing dissected parts including gonopods and a handwritten label stating that the specimen had been studied by Elsa Krabbe. The other (MHNG-ARTO-18473) has seven specimens, four of them broken. The jar contains typewritten copies of the identification labels in the first jar. All of these specimens are part of type series. There is one ♀ paralectotype or syntype in the ZMUH (Weidner, 1960), three in the MCZL, two in the ZMHB (Moritz & Fischer, 1974) and one in the NMB (inventory number NMB-DIPL-00179a). *Lophostrephus kandti* was designated as the type species of *Bucinogonus* Demange & Mauriès, 1975 in the original description of the genus.

*Bucinogonus kandti* (Carl, 1909), Spirostrepsidae

**kandti** Carl, 1909b: 342-344, pl. 8, figs 59-60 [*Odontopyge*].

West-Ruanda, Dr. R. Kandt leg. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18496). One of the specimens is broken and placed in a vial. The identification labels in the jar have "Ruanda occid." and "types! Ruanda occid." written on them respectively, indicating that the specimens are syntypes.

*Odontopyge kandti kandti* Carl, 1909, Odontopygidae

**kandyanus** Carl, 1932: 497-499, figs 127-130 [*Archandrodesmus*].

Ceylon: Kandy (Willey leg. Brit. Museum). Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14372). The specimens, one of them broken, are in a vial and accompanied by a smaller vial containing gonopods. The data label has "Ceylan, Kandy" written on it, and the identification label has "♂♀ cotypes" written on it, indicating that the specimens are syntypes. No syntypes could be located in the BMNH.

*Cryptocorypha kandyanus* (Carl, 1932), Pyrgodesmidae

**kelaarti valparaiensis** Carl, 1932: 462-464, figs 60-61, 67 [*Anoplodesmus*].

Anaimalais: Valparai, Talboden, unter Holz. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14270). Both specimens have a pin running the length of the body and there is a small vial containing gonopods. The identification label has "types Valparai, Anaimalais, 1.III.27" written on it, indicating that the specimens are syntypes.

*Chondromorpha kelaarti valparaiensis* (Carl, 1932), Paradoxosomatidae

**laeve** Carl, 1912c: 110-113, text figs 1-3 [*Castanotherium*].

Matinangkette, Nord-Seite 250-1000 m über M., Nord-Celebes (coll. Sarasin). Two ♀.

No specimens found in the MHNG collection. The ♀ syntypes (referred to as "Typen" in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00114a).

*Castanotherium laeve* Carl, 1912, Zephroniidae

**laevisulcata** Carl, 1932: 436-438, figs 19-23 [*Sundanina*].

Palni-Hills: Sholas bei Vandaravu und Mariyanshola, ca. 2300 m, 6.-12.IV.27; unter Holz. Unspecified number of ♂ and ♀.

The MHNG collection contains 11 specimens in alcohol in two jars. The first jar contains two vials. The first vial (MHNG-ARTO-14271) contains a specimen with a pin running the length of the body and a smaller vial holding the gonopods and other fragments. The data label has "Palnis, Vandavravu shola" written on it. Jeekel (1980a: 173) designated this specimen as the lectotype. The second vial (MHNG-ARTO-14272) contains five broken specimens, presumably with the same data as the lectotype and thus paralectotypes. The second jar (MHNG-ARTO-14273) contains five broken specimens, two with pins running the length of the body. The data label has "Palnis, Mariyanshola" written on it, indicating that the specimens are paralectotypes.

*Antichirogonus laevisulcatus* (Carl, 1932) Paradoxosomatidae

**lateralis** Carl, 1912c: 182-785, text fig. 22 [*Rhinocricus*].

S.-O.-Celebes und Boeton (Dr J. Elbert). One ♂ and two ♀.



The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18460). The identification labels in the jar have “♂ cotype Boëton S.E. de Célèbes ex coll. Elbert” and “♂ cot. Boëton (ex coll. Elbert)” written on them respectively. The SMF collection contains one ♂ with dissected gonopods and two ♀ in alcohol. The identification label has “Celebes: Roembi-Mengkoke, Boeton, Elbert 1909” written on it, indicating that the specimens are part of the type series. After examination of the types the ♂ in the SMF (SMF 1847) was placed in a separate jar and is here designated lectotype. It is not clear if the specimen in the MHNG is part of the type series, or if the number of specimens given in the original description is incorrect.

*Salpidobolus lateralis* (Carl, 1912), Rhinocricidae

***lateralis atratus*** Carl, 1912c: 185 [*Rhinocricus*].

Roembi-Megkoka, S.-O.-Celebes (Dr J. Elbert). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTP-18461). The identification labels in the jar have “cotype ex coll. Elbert, Roembi-Megkoka (Celebes merid.)” and “S.E. de Celebes (cotype ex coll. Elbert)” written on them respectively, indicating that the specimen is a syntype. The SMF collection contains one ♂ and one ♀ in alcohol (SMF 1848) under the name *Rhinocricus lateralis atratus* [sic]. The identification label has “SO-Celebes: Roembi-Mengkoke, Elbert, 1909” written on it, indicating that the specimens are syntypes.

A junior synonym of *Salpidobolus lateralis* (Carl, 1912), Rhinocricidae

***laticollis*** Carl, 1909b: 346-347, pl. 7, fig. 39, pl. 8, figs 63-64 [*Odontopyge*].

Biaramuli (Ost-Ussuwi). Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol in two vials. The first vial (MHNG-ARTO-18497) contains one broken specimen and, separated by a cotton wool plug, dissected parts including gonopods. A label in the vial states that the specimen was selected as lectotype by O. Krauss. The second vial (MHNG-ARTO-18498) contains four specimens, all broken, and a label stating that they were designated as paralectotypes by O. Krauss. The identification labels in the jar have “Biaramuli J. Carl” and “types Ost-Ussuwi Dr J. Carl” written on them respectively, indicating that the specimens are part of the type series. Krauss (1960: 179) states that he examined the ♂ lectotype and ♀ paralectotypes which is probably a valid lectotype designation.

*Spinotarsus laticollis* (Carl, 1909), Odontopygidae

***leucopygus*** Carl, 1912a: 278-279, fig. 18 [*Rhinocricus*].

Aru-Archipel: Dobo, Wammer. Kei-Archipel: Elat, Gross-Kei. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol

(MHNG-ARTO-14320) under the name *Dinematocricus leucopygus* (Carl). The identification labels have “type Ile Wammer (Aroe) ex coll. Merton” written on them, indicating that the specimens are syntypes. There is a ♀ syntype (referred to as “Typ” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00202a) and eleven syntypes in the SMF (SMF 1849, Aru Islands, Wämmer-Insel; SMF 1850, Elat: Gross-Kei).

*Dinematocricus leucopygus* (Carl, 1912), Rhinocricidae

***leucopygus*** Carl, 1926: 421-423, figs 76-79 [*Spirobolellus*].

Neu-Caledonien: Ngoï-Tal, 200 m, 16. Sept. 1911; Mt. Yaté, ca. 500 m, 27. März 1912; Prony, 100 m, 1. April 1912. Unspecified number of ♂ and ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14326), two with pins running most or part of the length of the body. The identification label has “Mt Yaté, Nlle. Caledonie” written on it, indicating that the specimens are syntypes. There are six syntypes (three ♂ and three ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00361a, NMB-DIPL-00361b and NMB-DIPL-00361c).

*Spirobolellus leucopygus* Carl, 1926, Spirobolellidae

***lifouensis*** Carl, 1926: 398-399, figs 44-46 [*Canacophilus* (*Canacophilus*)].

Loyalty-Inseln: Lifou, April 1912; Maré, Dez. 1911. One ♂ and more than one ♀.

No specimens found in the MHNG. There are five syntypes (one ♂ and four ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00351a and NMB-DIPL-00351b).

*Canacophilus lifouensis* Carl, 1926, Dalodesmidae

***lividus*** Carl, 1914b: 956-958, figs 241-245 [*Fuhrmannodesmus*].

Paramo Cruz Verde, 3400 m. One ♂ and one ♀.

No specimens found in the MHNG. The whereabouts of the syntypes is unknown. *Fuhrmannodesmus lividus* is the type species of the genus *Fuhrmannodesmus* Carl, 1914 by monotypy (Jeekel, 1971).

*Fuhrmannodesmus lividus* Carl, 1914, Fuhrmannodesmidae

***lombokensis*** Carl, 1912b: 168-169, fig. 6, text fig. C [*Rhinocricus*].

Lombok. Sadjang. Dr. J. Elbert. Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens under the name *Dinematocricus lombokensis* (MHN-ARTO-14450). Both specimens have a pin running most of the length of the body. The pencil written identification label has “Lombok (Sadjang) ♂♀ ex coll. Dr J. Elbert” written on it and there is a printed “Type” label, indicating that the specimens are part of the type series. The SMF

collection contains three ♂ and three ♀ in alcohol. The identification label in the jar has “Lombok: Sadjang, Elbert, 1909” written on it, indicating that the specimens are part of the type series. After an examination of the type specimens one ♂ (SMF 1712) was placed in a separate jar and is here designated as lectotype.

*Dinematocricus lombokensis* (Carl, 1912), Rhinocricidae

**longipes** Carl, 1913a: 222-224, figs 14-18 [*Cordyloporus*]. Idenau, Kamerun. Museum Senkenberg. One ♂ and more than one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18533). The specimen has a pin running the length of the body and is accompanied by a vial containing dissected parts including gonopods. The identification labels in the jar have “Idenau, Kamerun” and “Kamerun” written on them respectively, indicating that the specimen is part of the type series. A handwritten label in the jar states that Hoffman selected the specimen as lectotype in 1960, but it is not clear whether the designation was formally published; this specimen is hereby designated lectotype. The SMF collection contains two specimens in alcohol: a ♀ labelled “Paraty” (SMF 100) and a ♀ labelled “Typus!” (SMF 101), both of which are now paralectotypes.

*Prepodesmus longipes* (Carl, 1913), Chelodesmidae

**luctuosus** Carl, 1914b: 902-903, figs 131-133 [*Heteropeltis*].

Camelai, Kaffeepflanzung. Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18536). The specimen has a pin running the length of the body and is accompanied by a small vial containing dissected parts including gonopods. The identification labels in the jar have “La Camelia (Colombie)” and “Colombie Coll. Fuhrmann” written on them respectively, indicating that the specimen is a syntype. The whereabouts of the other syntypes is unknown. *Heteropeltis luctuosus* is the type species of the genus *Heteropeltis* Carl, 1914 by monotypy (Jeekel, 1971).

*Heteropeltis luctuosus* Carl, 1914, Chelodesmidae

**lugubris** Carl, 1909b: 305-307, pl. 6, figs 16-17 [*Oxydesmus*].

Kampala (Uganda), einzeln unter faulenden Palmstämmen in einem Sumpftälchen. Two ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18548). The specimen, which has a pin running the length of the body, is accompanied by a small vial containing gonopods. The data label has “Kampala in eine Marsch I.09” written on it and the identification labels in the jar have “Kampala” and “type! Kampala Dr J. Carl” written on them respectively, indicating that the specimen is a syntype. The whereabouts of the other syntypes is unknown.

*Coromus lugubris* (Carl, 1909), Oxydesmidae

**macassarensis** Carl, 1912c: 198-199, text fig. 35 [*Rhinocricus*].

Makassar, Süd-Celebes (coll. Sarasin). Two ♂ and two ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14319). The identification labels have “Celebes merid. ex coll. Sarasin” and “type Celebes merid. ex coll. Sarasin” written on them respectively, indicating that the specimen is a syntype. The other three syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00166a). *Acladocricus macassarensis* (Carl, 1912), Rhinocricidae

**macracanthus** Carl, 1941b: 685-690, figs 185-194 [*Thyropygus*].

Anaimalais: Kaffeepflanzung Naduar, ob Valparai, 1400 m; Talboden von Valparai, 1100 m, III.1927, unter Stämmen und im Mulm. Two ♂ and an unspecified number of juvenile ♀.

The MHNG collection contains 17 specimens in alcohol in five vials. The first tube (MHNG-ARTO-14496) contains one specimen broken into four pieces, and a label with “Thyropygus macracanthus Carl, ♂ forma B. Valparai III.27” written on it. The second vial (MHNG-ARTO-14497) contains one specimen broken into six pieces and a smaller vial containing some partially dissected segments. The label has “Thyropygus macracanthus Carl ♂ type Naduae Estate” written on it. The third tube (MHNG-ARTO-14498) contains one specimen broken into two pieces and labels with “Thyropygus macracanthus Carl, ♀ var. de sculpture! Valparai 4.III.27” and “♀ 58 seg. voir sculp. et antennes” written on them respectively. The fourth vial (MHNG-ARTO-14499) contains four specimens, all broken, and labels with “Thyropygus macracanthus Carl, ♀♀ 57-59 segm. Naduar s. Valparai III.27”, “Valparai Naduar Estate 7.III” and “♀♀ 57-59 segm<sup>e</sup>, ♀ juv. 56 segm., 2 beinlos” written on them respectively. The fifth vial (MHNG-ARTO-14500) contains ten specimens, all broken, and labels with “Thyropygus macracanthus Carl, ♀♀ 57-59 segments, juvi, Valparai Anaimalais” and “♀♀ 57-59 segm<sup>e</sup> auch die keinsten!” written on them respectively. All of these specimens are from localities mentioned in the description and are syntypes. There are also two microscope slide preparations; 1) a slide (MHNG-ARTO-14501) with the telopodites of the gonopods of the ♂ from Naduar; 2) a slide (MHNG-ARTO-14502) with the gonopods, antenna and first pair of legs of the other ♂. The differences between Carl’s a and b varieties were discussed in the description, but the forms were not described and named separately.

*Gnomognathus macracanthus* (Carl, 1941), Harpagophoridae

**major** Carl, 1914a: figs 1, 4-6 [*Stemmatoiulus*].

No locality or series information (illustration only).

Carl (1914b: 851-853, figs 24, 26-29, 55-61) provided

a description of ♂ and ♀ and gave the locality “La Camelia, Kaffeepflanzung bei Angelopolis.” The MHNG collection contains two specimens in one vial and two vials containing dissected parts in alcohol. The first vial (MHNG-ARTO-14492) contains two specimens, one with a pin running the length of the body. The second vial (MHNG-ARTO-14493) contains detached legs and gonopods of more than one specimen, and a “♂” label. The third vial (MHNG-ARTO-14494) contains detached legs and other fragments, and a “♀” label. The identification labels in the jar have “Colombie” and “Colombie Fuhrmann” written on them respectively and there is a printed “Cotype” label, indicating that the specimens are syntypes. There are two further ♀ syntypes in the NMB (inventory number NMB-DIPL-00211a).

*Stemmiulus major* (Carl, 1914), Stemmiulidae

**malayus** Carl, 1909a: 263-265, figs 12-14 [*Spirostreptus* (*Thyropygus*)].

Java. L. Zehntner (Genfer Museum). Unspecified number of ♂.

The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-14495). All but one of the specimens is broken, some into many pieces, and they are accompanied by a small vial containing a gonopod. The identification labels in the jar both have “Java Zehntner” written on them, indicating that the specimens are syntypes.

*Gonoplectus malayus malayus* (Carl, 1909), Harpagophoridae

**mareesi** Carl, 1909b: 300-302, pl. 6, fig. 2 [*Cordyloporus*]. Vom Kagera durch die Südecke von Karagwe bis Mabira, im Busch auf dem Boden des Graslandes häufig. Mabira-Njarowungo in Ussuwi, im Wäldchen an trockenem Flusslauf. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol. The specimens have pins running the length of the body, and are placed in separate vials (MHNG-ARTO-14274, MHNG-ARTO-14275, MHNG-ARTO-14276 and MHNG-ARTO-14277). One of the vials (MHNG-ARTO-14274) also contains a smaller vial with the gonopods of the specimen. The data label has “Mabira-Niarowungo, XI.09, Wäldchen am Flussufer” written on it and the identification labels have “mareesi n. sp.” and “types Ost-Ussuwi Dr J. Carl” written on them respectively, indicating that the specimens are part of the type series. The tube with the dissected specimen is labelled as the lectotype, but this designation does not appear to have been published, and the specimens are syntypes. There are two syntypes in the ZMUH (Weidner, 1960), one in the MCZL, one in the ZMHB (Moritz & Fischer, 1978a) and one (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00172a).

*Morphotelus mareesi* (Carl, 1909), Chelodesmidae

**martini** Carl, 1902: 599-600, pl. 10, fig. 34 [*Pseudopriopeltis*].

Melbourne, Konsul Martin (Genfer Museum). One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14278). The identification labels have “Melbourne, Mr Martin” and “type Melbourne, Mr Martin” written on them respectively, indicating that the specimen is the holotype. There is also a microscope slide preparation of the gonopods (MHNG-ARTO-14278a).

*Lissodesmus martini* (Carl, 1902), Dalodesmidae

**matarae** Carl, 1941b: 658-660, figs 127-134 [*Harpurostreptus*].

Süd-Ceylon: Cocosnuss-Pflanzung bei Matara, V.1927. Four ♂ and ♀.

The MHNG collection contains nine specimens in alcohol in five vials. The first vial (MHNG-ARTO-14442) contains a broken specimen which has a pin that ran the length of the body projecting from the largest piece, and a smaller vial with gonopods. The second vial (MHNG-ARTO-14443) contains one specimen which has been partially dissected. The third vial (MHNG-ARTO-14444) contains a broken specimen with the pieces secured on three pins. The fourth vial (MHNG-ARTO-14445) contains a specimen with a pin running the length of the body and a smaller vial holding the head and anterior body rings. The fifth vial (MHNG-ARTO-14446) contains four specimens. One of the identification labels in the jar has “Inde mérid” written on it, but the one in Carl’s writing has “Matara, Ceylan mérid.” and the labels in the vials all have “Matara” written on them, most with the data as well, indicating that they are syntypes.

*Harpurostreptus matarae* Carl, 1941, Harpagophoridae

**mayori** Carl, 1914b: 873-875, figs 94-97 [*Microspirobolus*].

La Camelia, Kaffeepflanzung bei Angelopolis, 1800 m. Unspecified number of ♂ and ♀.

The MHNG collection contains a number of dissected parts, including gonopods, in a vial in alcohol (MHNG-ARTO-14421). A label in the vial containing these parts has “Microspirob. mayori Carl ♂” written on it and a label in the jar is a photocopy of an original label with “Diplopodes de la Colombie, Pièces anatomique (J. Carl, 1914)” written on it, indicating that the remains belonged to one or more syntype(s). The whereabouts of the other syntypes is unknown.

*Spirobolellus mayori* (Carl, 1914), Spirobolellidae

**mecheli** Carl, 1902: 650-652, pl. 11, figs 58-61 [*Platyrrhacus*].

Indragiri (Sumatra), A. v. Mechel (Basler Museum). Three ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14347). The specimen has a pin running the length of the body and is accompanied by a small vial containing the gonopods. The identification labels have



“Sumatra, A. v. Mechel” and “type Sumatra, A. v. Mechel, Doubl. du Musée de Bâle” written on them respectively, indicating that the specimen is a syntype. The other two ♂ syntypes are in the NMB (inventory number NMB-DIPL-00441a). *Platyrrhachus mecheli* was designated as the type species of *Kainorhacus* Jeekel, 2007 in the original description of the genus.

*Kainorhacus mecheli* (Carl, 1902), Platyrrhacidae

**mediovirgata** Carl, 1941a: 364-366, figs 7-8 [*Orthomorpha* (*Orthomorpha*)].

Nördliche Chin-Hills, in Ober-Birma. E. G. Watson leg. British Museum. One ♂.

No specimens found in the MHNG collection. The holotype is in the BMNH.

*Antheromorpha mediovirgata* (Carl, 1941), Paradoxosomatidae

**medius** Carl, 1902: 675-676, pl. 12, figs 105-106 [*Sphaeriodesmus*].

Guatemala, Dr. Oltramare (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains seven specimens in alcohol in two vials. One vial (MHNG-ARTO-18239) contains a broken specimen and a smaller vial containing gonopods. The tube has a label with “*Sphaeriodesmus medius* Carl 1902, Taf. 12, Fig. 105” handwritten by Carl in pencil, and a label with “Lectotypus! Sig. Hoffman 79” handwritten in pencil. The other vial (MHNG-ARTO-18240) contains six specimens, four of them broken, and a label with “Guatemala, Dr Oltramare” handwritten in pencil. The identification labels in the jar have “Guatemala” and “Guatemala, Oltramare” written on them respectively. Hoffman (1999: 412) refers to a ♂ holotype in the MHNG, presumably referring to the specimen he had labelled as lectotype, but no lectotype designation has been published and all of the specimens are syntypes.

*Sphaeriodesmus medius* Carl, 1902, Sphaeriodesmidae

**mertoni** Carl, 1912a: 273-274, figs 10-13 [*Trigoniulus*]. Aru-Archipel: Wald Dobo-Wangil, Wammer; Wardakau, Maikoor. Unspecified series, only ♂ mentioned explicitly. No specimens found in the MHNG collection. The SMF collection contains two specimens in alcohol in separate jars. One contains a ♂ with dissected gonopods in a microvial (SMF 1368, here designated lectotype) and “Aroe: Ins. Wammerm H. Merton, 1908” written on the identification label. The other contains a ♂ with dissected gonopods in a microvial (SMF 1392) and “Aroe, H. Merton” written on the identification label. *Trigoniulus mertoni* was designated the type species of the genus *Arostrophus* Chamberlin, 1920 in the original description of the genus.

*Arostrophus mertoni* (Carl, 1912), Pachybolidae

**mimicus** Carl, 1941b: 608-610, figs 59-64 [*Komphobolus*]. Palnis: Tigershola, zwischen Shembaganur und Maryland, unter der Rinde von Baumstrünken, 1650 m, 18.IV. One ♂, two ♀ and one juvenile.

The MHNG collection contains four specimens, three of them broken, in alcohol (MHNG-ARTO-14422). There is a data label with “Tiger-Shola bei Maryland 18.IV. unter Borke” written on it in pencil and the identification labels have “Palnis” and “Tigre-Shola (Palnis) 18.IV.27, sous l’écorce de branches pourries” written on them respectively, indicating that the specimens are syntypes. There is also a microscope slide preparation of two anterior and one posterior gonopod (MHNG-ARTO-14423). *Komphobolus mimicus* is the type species of the genus *Komphobolus* Carl, 1941 by monotypy (Jeekel, 1971).

*Komphobolus mimicus* Carl, 1941, Pachybolidae

**minor** Carl, 1909a: 260-261, figs 7-8 [*Spirostreptus* (*Thyropygus*)].

Java. L. Zehntner. Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-14503). All of the specimens are broken, some of the fragments having pins projecting from them. One specimen has been separated and is labelled “Lectotypus! sig. Hoffman 1975”. There is also a small vial containing gonopods. The original identification labels both have “Java Dr L Zehntner” written on them, and there is also an undated label with “*Remulopygus minor* (Carl) Harpagophoridae (Types!)” typewritten on it, indicating that the specimens are part of the type series. The lectotype designation does not appear to have been published and the specimens are therefore syntypes. *Remulopygus minor* (Carl, 1909), Harpagophoridae

**minusculus discretus** Carl, 1941b: 709-711, figs 211-212, 222-223 [*Thyropygus*].

Untere Palnis: Tandikudi, 1500 m, Cardamum-Pflanzung, Schattenkultur, unter Holz; Maryland, 1600 m, Kaffeeplantzung, 20.IV. Obere Palnis: Pambarai, 1900 m in faulem Stroh; Kleine Shola gegenüber Kukkal, 1900 m, 2.IV. Anaimalais: Valparai, 1100 m. Unspecified number of ♂ and ♀.

The MHNG collection contains 19 specimens in alcohol in seven vials. The first vial (MHNG-ARTO-14513) contains one specimen and labels with “Thyr. minusculus discretus Carl ♂ ad. 59 segments, Maryland (Palnis inf.) 20.IV” and “Kafee-Estate bei Maryland 20.IV ♂ 59 segm.” written on them respectively. The second vial (MHNG-ARTO-14514) contains one specimen, a smaller vial containing the head, segments with gonopods and other dissected parts, and a label with “Thyr. minusculus discretus Carl ♂ cotype, Tandikudi P. inf., voir dessin praefemur I ♂” written on it. The third vial (MHNG-ARTO-14515) contains one specimen, a smaller vial containing the head, some legs and other dissected parts, and a label with “Thyr. minusculus discretus Carl ♀ 61 segm. ob Pambaraital, in faulem Stroh” written

on it. The fourth vial (MHNG-ARTO-14516) contains one specimen and labels with “Thyr. minusculus discretus Carl ♀ 62 segm. Kukkal 2.IV” and “Kleine Shola, gegen Kukkal 2.IV ♀ Skulptur von spec. E” written on them respectively. The fifth vial (MHNG-ARTO-14517) contains one specimen and labels with “Thyr. minusculus discretus Carl ♂ immat. Valparai (Anaimalais) III.27”, “Valparai III.27” and “Skulptur von spec. E” written on them respectively. The sixth vial (MHNG-ARTO-14518) contains seven specimens and labels with “Thyr. minusculus discretus Carl ♀♀, juvs. Tandikudi (Cardamum-Pflng.) unter Holz” and “Tandikudi Cardamon-Estate unter Holz” written on them respectively. The seventh vial (MHNG-ARTO-14519) contains seven specimens, two of them separated in a smaller vial, a second smaller vial with gonopods and other dissected parts, and a label with “Thyr. minusculus discretus Carl ♂♂ cotypes, 63-66 segments, Tandikudi, Palnis inférieurs, (Cardamum-Estate) unter Holz” written on it. Although only one of the labels makes an explicit reference to type status, the localities correspond to those listed in the description and all of these specimens are syntypes.

*Gnomognathus minusculus discretus* (Carl, 1941), Harpagophoridae

***minusculus striatus*** Carl, 1941b: 706-709, figs 209, 219-221 [*Thyropygus*].

Oberer Palnis: Vandaravu, 2350 m, kleine Shola, beim Rasthaus. One ♂.

The MHNG collection contains 18 specimens in alcohol in two jars. The first jar (MHNG-ARTO-14509) contains a vial holding a specimen broken in to two large pieces accompanied by a small tube containing gonopods, the head and other dissected parts. The labels in the tube have “Thyropygus minusculus striatus Carl, ♂ type Vandavaru R.F” and “Harp. sp. G, ♂ type 52 segm. Vandavaru F.R. 8.IV” written on them, indicating that this specimen is the holotype. The second jar (MHNG-ARTO-18640) contains five vials of specimens collected by Carl and listed in the original description, but which were excluded from the type series by Carl’s in-habitual nomination of the ♂ from Vandaravu with 52 segments as the “typus”.

*Gnomognathus minusculus striatus* (Carl, 1941), Harpagophoridae

***minusculus suspectus*** Carl, 1941b: 704-705, figs 206, 208, 216-218 [*Thyropygus*].

Oberer Palnis: Kukkalshola, 1900 m, 1.IV, ♂ Type, 61 Segmente; ♀ Type, 58 Segmente, 3 mm dick. One ♂ and one ♀.

The MHNG collection contains the two specimens in alcohol (MHNG-ARTO-14510). One of the specimens is broken, and they are accompanied by three small vials; one holding two body rings with gonopods, the head and other fragments, one with ♂ second and third legs and

one with the ♀ second legs. The label in the larger vial reads “Thyr. min. suspectus Carl, Kukkalshola 1.IV.27, ♂ type 61 segm., ♀ 58 segm (= G)”, indicating that the specimens are the syntypes. The MHNG also has two vials of specimens collected by Carl and listed in the original description but not identified therein as type specimens.

*Gnomognathus minusculus suspectus* (Carl, 1941), Harpagophoridae

***minusculus vicinus*** Carl, 1941b: 703, figs 205, 210, 215 [*Thyropygus*].

Oberer Palnis: Lichter Akazienhain bei Pumberai, 1900 m, unter Holz und Stein. Two ♂ and an unspecified number of ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14508). One of the specimens is broken, and there is a small vial with gonopods and a head and anterior segments. The labels in the larger vial have “Lichter Mimosahain bei Pumberai F.R. 28.III unter Holz und Stein” and “Thyr. minusculus vicinus Carl ♂♀ types. Mimosahain bei Pumberai F.R. 28.III unter Holz und Stein” written on them respectively, indicating that the specimens are syntypes. The whereabouts of the other syntype(s) is unknown.

*Gnomognathus minusculus vicinus* (Carl, 1941), Harpagophoridae

***minuta*** Carl, 1922: 568-569, figs E-F [*Siphonophora*].

Maxwells Hill (Distrikt Perak). Malakka, in Mulm, 4000’ ü. M. One ♂.

The MHNG collection has a microscope slide preparation of the gonopods of the holotype (MHNG-ARTO-14534). The rest of the specimen is in the ZMHB collection (Moritz & Fischer, 1978b).

*Gonatotrichus minutus* (Carl, 1922), Siphonophoridae

***minutus*** Carl, 1932: 506-508, figs 142-149 [*Akreiodesmus*].

Nilgiris: Coonoor, 1700 m, bei *Camponotus* spec. One ♂. The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18606). The specimen is accompanied by a small vial containing fragments of dissected parts. The data label has “Coonoor” written on it, and the identification label has “♂ type” written on it, indicating that the specimen is the holotype. The genus name *Akreiodesmus* Carl, 1932 is unavailable because no type species was designated. *Akreiodesmus minutus* was subsequently designated the type species of the genus *Akreiodesmus* Attems, 1940 by Attems (1940).

*Akreiodesmus minutus* Carl, 1932, Pyrgodesmidae

***minutus*** Carl, 1926: 433-435, figs 102-105 [*Spirobolellus*].

Neu-Caledonien: Mt. Canala, Wald; Mt. Canala, Wald, bei 700 m, Sept. 1911. Unspecified number of ♂ and ♀. The MHNG collection contains three specimens in alcohol

(MHNG-ARTO-14335). Two of the specimens have a pin running the length of the body. The identification label has “Mt Kanala [sic] 800-100 m” written on it, indicating that the specimens are syntypes. There are three syntypes (two ♂ and one ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00368a and NMB-DIPL-00368b).

*Spirobolellus minutus* Carl, 1926, Spirobolellidae

**modestus** Carl, 1902: 646-648, pl. 11, fig. 66 [*Platyrhacus*].

Sumatra, Dr. W. Voltz (Berner Museum). One ♀.

No specimens found in the MHNG. The holotype is presumably in the NMBE.

*Platyrhacus modestus* Carl, 1902, Platyrhacidae

**modestus** Carl, 1926: 455-456, figs 145-148 [*Rhinotus*]. Neu-Caledonien: Prony, 100 m, März 1912; Mt. Yaté, ca. 500 m, März 1912. Two ♂ and one ♀.

The MHNG collection contains a slide preparation of the posterior gonopods of one of the syntypes (MHNG-ARTO-14344). The three syntypes (two ♂ and one ♀ referred to as “Typus” in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00384a and NMB-DIPL-00384b).

*Rhinotus modestus* Carl, 1926, Siphonotidae

**modestus** Carl, 1926: 445-447, figs 129-132 [*Spirobolellus*].

Neu-Caledonien: Oubatche, April 1911; Hienghène; Insel Ouedjo, bei Hienghène, Juni 1911; Mt. Canala, 17. Sept. 1911; Yaté, März 1912. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14339). Three of the specimens have a pin running the length of the body. The identification label has “Yaté Nlle. Caledonie” written on it, indicating that the specimens are syntypes. There are six syntypes (four ♂ and two ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00378a to NMB-DIPL-00378d).

*Spirobolellus modestus* Carl, 1926, Spirobolellidae

**moenensis** Carl, 1912c: 185-186 [*Rhinocricus*].

Insel Moena, im S. von S.-O.-Celebes (coll. J. Elbert). One ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14449). The specimen has a pin running the length of the anterior half. The identification labels in the jar have “cotype ex coll. Elbert, Ile Moena S.-E. de Célèbes” and “Ile Moena (ex coll. Elbert)” written on them respectively, indicating that the specimen is part of the type series. The SMF collection contains one ♂ in alcohol with dissected gonopods in a microvial (SMF 1832). The identification label in the jar has “SO-Celebes: Moena Raha, Elbert, 1909” written on it, indicating that the specimen is a type. After examination of the types, the ♂ in the SMF is here designated as lectotype.

*Salpidobolus moenensis* (Carl, 1912), Rhinocricidae

**moniliforme** Carl, 1912c: 136-139, pl. 5, figs 4-5 [*Strongylosoma*].

Gegend von Duri 400-600 m, Süd-Central-Celebes; Sadaonta, Central-Celebes; Makassar, Süd-Celebes; Süd-Ost-Celebes; Kema, Nord-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14306). One of the identification labels has “types, Sadaonta/Celebes centr. ex coll. Sarasin” written on it, indicating that the specimens are syntypes. There are around ten syntypes in the NMB (inventory numbers NMB-DIPL-00130a to NMB-DIPL-00130d) under the name *Helicorthomorpha moniliformis* (Carl).

*Helicorthomorpha orthogona moniliformis* (Carl, 1912), Paradoxosomatidae

**monomorphum** Carl, 1913a: 206-207 [*Strongylosoma*].

Weg zwischen Baiima und Pendambo (östliches Sierra-Leone) 18.VI.06. 15 ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18567). One of the specimens has a pin running the length of the body. The identification labels in the jar have “S. E. de la Sierra Leone Volz” and “Sierra Leone Volz” written on them respectively, indicating that the specimens are syntypes. The other syntypes are presumably in the NMBE.

A junior synonym of *Xanthodesmus physkon* (Attems, 1898), Paradoxosomatidae

**monstruosus** Carl, 1932: 487-489, figs 109-113 [*Coonoorphilus*].

Nilgiris: Kleine Dschungel unterhalb Coonoor, 1500 m, zwischen Laub und Moder, 24.XII, ♀ typus; Elkhil, 2400 m, Shola unter Steinen, 19.I.27; Dodabetta Reserved Forest, 2400 m, unter faulem Holz, 11.I.1927; Avalanche, 1800 m. Unspecified series.

The MHNG collection contains eight specimens in alcohol in two jars. The first jar (MHNG-ARTO-18586) contains a vial with two smaller vials in it. One tube holds fragments of a specimen and has a label with “Fragments ♂♀ typus!” written on it, the other holds a gonopod. The identification label in the larger tube has “♀♂ type Coonoor 24.XII” written on it, corresponding to locality data given for the specimen designated as the type. The second jar (MHNG-ARTO-18587) contains two vials, each with several specimens with different locality labels separated by cotton wool plugs. The first vial contains two specimens with the data label “Nilgiris, Elkhil 19.I.27” and two specimens with the data label “Nilgiris Dodabetta R.F.” The second vial has one specimen with the data label “Nilgiris Avalanche” and two specimens with the data label “Nilgiris Coonoor”. In the text of the original description Carl states that his type is a gynandromorph. The other specimens could be considered paratypes. *Coonoorphilus monstruosus* is the type species of the genus *Coonoorphilus* Carl, 1932 by monotypy (Jeekel, 1971).



*Coonoorophilus monstruosus* Carl, 1932, Fuhrmannodesmidae

**montanus** Carl, 1926: 419-421, figs 73-75 [*Spirobolellus*]. Neu-Caledonien: Mt. Canala 700-1100 m, 4. Nov. 1911; Mt. Humboldt 1200-1600 m (Gipfel), 17.-18. Sept. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-14325), one is broken and two have pins running the length of the body. The identification label has "Mt Kanala [sic] Nlle. Caledonie" written on it, indicating that the specimens are syntypes. There are four syntypes (two ♂ and two ♀ referred to as "Typus" in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00360a and NMB-DIPL-00360b).

*Spirobolellus montanus* Carl, 1926, Spirobolellidae

**montigena** Carl, 1935: 330-333, figs 9-14 [*Strongylosoma*].

Darjeeling (Sikkim), 7000', 13.III. One ♂ and one ♀.

No specimens found in the MHNG collection. The type specimens are in the BMNH.

*Substrongylosoma montigena* (Carl, 1935), Paradoxosomatidae

**montivagum** Carl, 1912c: 133-135 [*Strongylosoma*].

Südliche Vorberge des Tokalekadjö ca. 1000 m, Central-Celebes (coll. Sarasin). Two ♀.

No specimens found in the MHNG collection. The two ♀ syntypes (referred to as "Typus" in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00128a).

*Strongylosoma montivagum* Carl, 1912, Paradoxosomatidae

**montivagus** Carl, 1941b: 660-663, figs 135-139 [*Harpurostreptus*].

Untere Palnis: Passübergang westlich von Tandikudi, 1550 m, trockener Busch, unter Steinen, V.1927. One ♂ and three ♀.

The MHNG collection contains four specimens in alcohol in two vials. The first vial (MHNG-ARTO-14447) contains a broken specimen and a smaller vial with the head, a few segments and the gonopods. The second vial (MHNG-ARTO-14448) contains three specimens, two broken and one with a pin running the length of a body, and a smaller vial containing the head and anterior segments of one of the specimens. The identification labels in the jar have "types Palnis inf. (Inde mérid.) J. Carl" and "types Palnis inf. Voy. J. Carl" written on them respectively, indicating that the specimens are syntypes.

*Harpurostreptus montivagus* Carl, 1941, Harpagophoridae

**montivagus** Carl, 1902: 662-664, pl. 12, figs 84-88 [*Platyrrhacus*].

Volcan de Turrialba (Costarica) 2000 m ü. Meer, P. Biolley (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-15118). The identification labels have "Costarica, P. Biolley" and "types ♂♀ Costarica, P. Biolley" written on them respectively, indicating that the specimens are syntypes. There is a further syntype in the NMB (inventory number NMB-DIPL-00443a).

*Platyrrhacus montivagus* Carl, 1902, Platyrrhacidae

**montivagus** Carl, 1912c: 174-176 [*Rhinocricus*].

Südabfall der Matinangkette, ca. 1000 m ü. M., Nord-Celebes (coll. Sarasin). Two ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14311). The identification labels have "♂ cotype N. de Celebes" and "cotype Celebes sept." written on them respectively, indicating that the specimen is a syntype. The second ♂ syntype (referred to as "Typ" in the NMB catalogue) is in the NMB (inventory number NMB-DIPL-00155a). *Rhinocricus montivagus* Carl, 1912 is a junior homonym of *R. montivagus* Silvestri, 1895, and the replacement name *R. carli* was proposed by Attems (1914: 317).

*Acladocricus carli* (Attems, 1914), Rhinocricidae

**mortoni** Carl, 1909a: 255-258, figs 10-11 [*Platyrrhacus*].

Borneo. W. Morton. Unspecified number of ♂.

The MHNG collection contains three specimens in alcohol in two jars. The first jar (MHNG-ARTO-15124) contains one specimen accompanied by a small vial with gonopods. The identification label has "Borneo, ex coll. Morton" written on it. There is a handwritten label indicating that in 1973 Hoffman intended to designate this specimen as the lectotype, but this designation does not seem to have been formally published and the specimen is therefore a syntype. An undated typewritten label states that Hoffman identified the specimen as *Eurydirorhachis mortoni* (Carl). The second jar (MHNG-ARTO-15125) contains two broken specimens. The identification label in the jar has "Borneo (W. Morton)" written on it, indicating that the specimens are syntypes. An undated typewritten label states that Hoffman identified this specimen as *Eurydirorhachis mortoni* (Carl).

*Acanthodesmus mortoni* (Carl, 1909), Platyrrhacidae

**mulierosus** Carl, 1937: 242-249, figs 1-3 [*Diopsiulus*].

[No precise locality data]. Unspecified number of ♂ and ♀.

Carl (1941b: 586) gave the locality data "Anaimalais: Kokumalai, bei Attakatti (1000 m), im lichten Busch, unter Steinen, exponiert und trocken, III.1927." The MHNG collection contains 45 syntypes in alcohol in six vials. The first vial (MHNG-ARTO-14465) contains one specimen broken into several pieces and a label with "Diopsiulus mulierosus Carl, ♂ type!" written on it. The second vial (MHNG-ARTO-14466) contains one specimen with the anterior part of the body detached and a label with "Diopsiulus mulierosus Carl, 49 segmts., ♀ vierge, Z. Anz. 117 p. 245 (3)" written on it. The third

vial (MHNG-ARTO-14467) contains two specimens in smaller vials, both with the anterior of the body detached and labelled as “3e larve”. The fourth vial (MHNG-ARTO-14468) contains four broken specimens and a label with “*Diopsiulus mulierosus* Carl, types ♀, Attakatti, Zool. Anz. 214” written on it. The fifth vial (MHNG-ARTO-14469) contains 36 specimens, one of them with a pin running the length of the body, and a label with “*Diopsiulus mulierosus* Carl, juvs. Attakatti 3.III.27, xerophil.” written on it. The sixth vial (MHNG-ARTO-14470) contains one specimen without a label. No type was designated in the original description and so all of these specimens are syntypes. There are also seven microscope slide preparations which, while only labelled “*Diopsiulus* I” have “Attakatti” or “Attakatti, Kokumalai” written on the labels and are obviously part of the type series: 1) a slide (MHNG-ARTO-14471) with gonopods and legs; 2) a slide (MHNG-ARTO-14472) with a pair of ♀ third legs; 3) a slide (MHNG-ARTO-14473) with antennae and ♂ first, second and third legs; 4) a slide (MHNG-ARTO-14474) with the first, second and third legs of a juvenile ♂; 5) a slide (MHNG-ARTO-14475) with the receptacula of a ♀; 6) a slide (MHNG-ARTO-14476) of the gonopods of a nearly mature ♂; 7) a slide (MHNG-ARTO-14477) with the gonopods of an immature ♂.

*Stemmiulus mulierosus* (Carl, 1937), Stemmiulidae

***multiannulatus*** Carl, 1909b: 313-314, pl. 6, figs 6, 21 [*Spirostreptus*].

Busch zwischen dem Kagera und dem Lager von Mabira in Südkaragwe. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18478). The specimen is broken into several pieces and is accompanied by a vial containing gonopods. There is a locality label with “Bei Kagera-Mabira 5.xi.08” written on it and identification labels have “Karagwe Dr. J. Carl” and “Bei Kagera-Mabira” written on them respectively, indicating that the specimen is the holotype. The proper generic placement of this species is unknown (Enghoff *et al.*, 2016).

?*Spirostreptus multiannulatus* Carl, 1909, Spirostreptidae

***multistriatus*** Carl, 1912c: 192-193 [*Rhinocricus*].

Buol, Nord-Celebes (coll. Sarasin). One ♀.

No specimens found in the MHNG. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00163a). According to Jeekel (2001: 43) this species is in need of a revision and cannot be assigned to a genus. *Rhinocricus* is an American genus, so it is very unlikely that this species belongs to *Rhinocricus*. It was listed as *Dinematocricus*? in Chamberlin (1920) without re-examination, and Marek *et al.* (2003) transferred all *Dinematocricus* from Sulawesi to *Salpidobolus*. Until a proper revision of the type specimen is undertaken, it is best to leave this species in its original combination.

?*Rhinocricus multistriatus* Carl, 1912, Rhinocricidae

***nanus*** Carl, 1902: 631-633, pl. 11, figs 55-56 [*Icosidesmus*].

Neuseeland, Nordinsel, Suter (Berner & Genfer Museum). Two ♂.

The MHNG collection contains one broken specimen in alcohol (MHNG-ARTO-18626). The identification labels in the jar have “N<sup>elle</sup> Zélande Suter-Naef” and “N<sup>e</sup> Zélande (Nord) Suter” written on them respectively, indicating that the specimen is part of the type series. Johns (1964: 36) designated this specimen as the lectotype. The MHNG also has a microscope slide preparation of gonopods and legs (MHNG-ARTO-18630); it is not clear if these belong to the lectotype or to the paralectotype. The paralectotype is presumably in the NMBE.

*Icosidesmus* (*Eparmatolophus*) *nanus* Carl, 1902, Dalodesmidae

***nanus*** Carl, 1941b: 682-685, figs 179-184 [*Thyropygus*]. Shevaroy-Hills: Yerkaud. J. R. Henderson leg. 1894, British Museum. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol in two vials. The first vial (MHNG-ARTO-14504) contains a broken specimen in a smaller vial and labels with “*Thyropygus nanus* Carl ♂ cotype Yerkaud” and “P ♂ cotype” written on them respectively. The second vial (MHNG-ARTO-14505) contains three broken specimens, parts of two of which are still on pins that once ran the length of the body, and a label reading “Thyrop. nanus Carl, Yerkaud Henderson”. The locality data corresponds to that given in the original description and all of these specimens are syntypes. There are other syntypes in the BMNH.

*Gnomognathus nanus* (Carl, 1941), Harpagophoridae

***nanus striatus*** Carl, 1941b: 685 [*Thyropygus*].

Shevaroy-Hills: Yerkaud. J. R. Henderson leg. 1894, British Museum. Fragments of two immature ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14506). The specimen has a pin running the length of the body and lacks the posterior part. The labels in the vial have “Th. nanus v. striatus Carl” and “var. striatus Carl ♂ juv.” written on them. The pencil identification label has “Yerkaud (Shevaroy) Henderson 1894” written on it, indicating that the specimen is a syntype. The other syntypes are in the BMNH.

A junior synonym of *Gnomognathus nanus* (Carl, 1941), Harpagophoridae

***naufagus*** Carl, 1918: 441-444, figs 19-21 [*Eurhinocricus*].

Atoll d'Ulit; Carolines occidentales. Hanseatische Südsee-Expedition, E. Wolf leg. Muséum Senckenberg. Unspecified number of ♂ and ♀.

The MHNG contains five specimens in alcohol (MHNG-ARTO-18456). Three of the specimens have pins running the length of the body. A separate vial (MHNG-ARTO-18457) contains dissected parts including

gonopods. The identification labels in the jar have “Carolines occident. Hanseatische Südsee-Expedition (E. Wolff)” and “Carolines occid. Cotypes” written on them respectively, indicating that the specimens are syntypes. The SMF collection contains 12 specimens in alcohol (SMF 1800). The identification label has “W-Karolinen: Mogamoga a. Ulitiatoll, E. Wolf, 3.10.1909” written on it indicating that the specimens are syntypes.

*Eurhinocricus naufragus* Carl, 1918, Rhinocricidae

**naviculare** Carl, 1902: 573-575, pl. 10, figs 5-7 [*Strongylosoma*].

Sumatra, G. Autran (Genfer Museum). One ♂ and one ♀. The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18570). These are accompanied by a vial containing gonopods. The identification labels in the jar both have “Sumatra M. Autran” written on them, indicating that the specimens are the syntypes. *Strongylosoma naviculare* was designated as the type species of the genus *Sundaninella* Jeekel, 1968 in the original description of the genus.

*Sundaninella navicularis* (Carl, 1902), Paradoxosomatidae

**neglectus** Carl, 1903: 560-561 [*Acutangulus*].

Orizaba, Mexico. Unspecified series.

The MHNG collection contains fragments of at least two specimens in alcohol in two vials. The first vial (MHNG-ARTO-18552) contains a smaller vial of fragments and has an old data label with “Orizaba, Mexique” written on it. There are two handwritten identification labels with “*Acutangulus neglectus* Carl” and “*Strongylosoma coccineus* S. et H. ♀” written on them respectively. The second vial (MHNG-ARTO-18553) contains a smaller vial of fragments and an old data label which has once been secured on a pin and is largely illegible although “Orizaba” is just discernible. There are two handwritten identification labels with “*Acutangulus neglectus* Carl” and “*Strongylosoma coccineus* S. et H. ♂” written on them. These specimens are syntypes. Carl gave this name to the specimens referred to as *Polydesmus coccineus* var. by Saussure & Humbert (1872) which he recognised as a distinct species when revising the specimens.

*Acutangulus neglectus* Carl, 1903, Rhachodesmidae

**neglectus** Carl, 1919: 391-392, figs 17-22 [*Saussurobolus*].

Cuernavaca. Unspecified series.

The specimens upon which Carl based his description were identified as *Spirobolus nietanus* Saussure, 1860 by Saussure & Humbert (1872), but Carl (1919: 391) found that the posterior gonopods were distinct from those of the type specimen. The type specimens of *S. neglectus* could not be located, but might be mixed with fragments of *S. nietanus* in alcohol in the MHNG collection (see Hollier *et al.*, 2017).

*Centrelus neglectus* (Carl, 1919), Atopetholidae

**neglectus** Carl, 1902: 676-677, pl. 12, figs 107-108 [*Sphaeriodesmus*].

Mexico (Genfer Museum). Two ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18241). Both have pins running the length of the body and both are broken. The vial containing the specimens has a label with “*Sphaeriodesmus neglectus* n. sp.” handwritten in pencil in it. A second vial (MHNG-ARTO-18242) contains a smaller vial with gonopods and a label with “*Sphaeriodesmus neglectus* Carl, 1902 Pl. 12, Fig. 107” handwritten in pencil. The identification label in the jar has “Mexique” written on it. These specimens are syntypes.

*Sphaeriodesmus neglectus* Carl, 1902, Sphaeriodesmidae

**neglectus** Carl, 1909a: 270-271, figs 23-24 [*Spirostreptus* (*Thyropygus*)].

Java (L. Zentner, Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-14507). All but two of the specimens are broken. They are accompanied by two small vials, each containing gonopods. The identification labels in the jar have “Java, Dr L. Zehntner” written on them, indicating that the specimens are syntypes. There is an undated typed label indicating that Hoffman had identified the specimens as *Remulopygus neglectus* (Carl).

*Remulopygus neglectus* (Carl, 1909), Harpagophoridae

**negotiosus** Carl, 1941b: 667-670, figs 153-158 [*Thyropygus*].

Mysore. British Museum. One ♂.

No specimens found in the MHNG collection. The holotype is in the BMNH.

*Phyllogonostreptus negotiosus* (Carl, 1941), Harpagophoridae

**niger** Carl, 1914b: 963-965, figs 259-262 [*Trigonostylus*].

Bocca del Monte (Tambo), ca. 2000 m. One ♂.

The MHNG collection contains parts of two specimens in separate vials in alcohol. The first vial (MHNG-ARTO-18622) contains dissected parts including gonopods. The second vial (MHNG-ARTO-18623) contains a specimen with a pin running the length of the body. The identification labels in the jar have “♀ Tambo (Colombie) ex Coll. Fuhrmann” and “Colombie coll. Fuhrmann” written on them respectively. The intact specimen is the ♀ mentioned after the description as being probably conspecific with the holotype and is not part of the type series. The dissected parts must belong to the holotype but the whereabouts of the rest of the specimen is unknown.

*Cyrtodesmus niger* (Carl, 1914), Cyrtodesmidae

**nigricornis** Carl, 1926: 430-431, figs 94-96 [*Spirobolellus*].

Neu-Caledonien: Négropo-Tal, 3. März 1912; Neoï-Tal, 16. Sept. 1911. Three ♂ and three ♀.



The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14333). The specimen has a pin running the length of the body. The identification label has “Negropotal” written on it, indicating that the specimen is a syntype. There are four syntypes (two ♂ and two ♀ referred to as “Typ” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00366a and NMB-DIPL-00366b).

*Spirobolellus nigricornis* Carl, 1926, Spirobolellidae

**nigrita** Carl, 1914b: 863 [*Epinannolene*].

Alto San Miquel, 2000 m, Central-Cordillere. One ♀.

No specimens found in the MHNG. The whereabouts of the holotype is unknown.

*Epinannolene nigrita* Carl, 1914, Pseudonannolenidae

**nigrovirgatum** Carl, 1902: 567-569, pl. 10, figs 1-2 [*Strongylosoma*].

Melbourne, Konsul Martin (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18571), one of them broken. Both of the identification labels in the jar have “Melbourne M. Martin” written on them, indicating that the specimens are part of the type series. Decker *et al.* (2017) designated the ♂ as the lectotype and the ♀ as a paralectotype. *Strongylosoma nigrovirgatum* was designated as the type species of *Pogonosternum* Jeekel, 1965 in the original description of the genus.

*Pogonosternum nigrovirgatum* (Carl, 1902), Paradoxosomatidae

**nilgirensis** Carl, 1932: 477-478, figs 85, 89, 90 [*Pseudosphaeroparia*].

Nilgiris: Coonor [sic], 1600 m, im Urwald, unter Laub und Moder, 24.XII.26; schattiger Wegrund, unter Steinen auf Mulm, 4.I.27, ♂ und ♀ Typen; Dodabetta Reserved Forest, ca. 2400 m, unter faulem Holz, 11.I.27; Elk-Hill ca. 2400 m, Shola unter Steinen, 14.I.27; Avalanche, Shola, 2050 m. Unspecified number of ♂ and ♀.

The MHNG collection contains 30 specimens in alcohol in two jars. The first jar (MHNG-ARTO-18594) contains four specimens. The data label has “Coonor 4.I Wegrund” written on it. The identification label has “*Pseudosphaeroparia nilgirensis* Carl types!” indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18595) contains two vials, each with specimens from two localities separated by a cotton wool plug. The first vial contains one specimen with a data label with “Nilgiris Avalanche R.F.” written on it and ten specimens with a data label with “Coonor 2-4.XII petite jungle” written on it. The second vial contains two specimens, one of them broken, with a data label with “Nilgiris Elkhill Sholas 14.I.27” written on it and 13 specimens with a data label with “Nilgiris Dodabetta R.F.” written on it. The specimens in the second jar are not part of the type series.

*Pseudosphaeroparia nilgirensis* Carl, 1932, Fuhrmannodesmidae

**nitida** Carl, 1914b: 924-925, figs 175-180 [*Trichomorpha*]. La Camelia, bei Angelopolis. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens and dissected parts in alcohol in three vials. The first vial (MHNG-ARTO-18540) contains two specimens, both with a pin running the length of the body. The second vial (MHNG-ARTO-18541) contains two specimens, one with a pin running the length of the body. A third vial (MHNG-ARTO-18542) contains gonopods and legs. Both of the identification labels in the jar have “Colombie Coll. Fuhrmann” written on them, indicating that the specimens are syntypes. There are two syntypes (one ♂ and one ♀ referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00228a).

*Trichomorpha nitida* Carl, 1914, Chelodesmidae

**nobilis** Carl, 1914b: 893-894, fig. 121 [*Chondrodesmus*]. Barranquilla am Magdalena, Meereshöhe. Two ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18530). The specimen has a pin running the length of the body and is accompanied by a vial containing gonopods. The identification labels in the jar have “Colombie (Barranquilla)” and “Colombie Coll. Fuhrmann” written on them respectively, indicating that the specimen is a syntype. The whereabouts of the other syntype is unknown.

*Chondrodesmus nobilis* Carl, 1914, Chelodesmidae

**nubilus** Carl, 1941b: 628-634, figs 86-95 [*Glyphiulus*].

Anaimalais: Attakati, xerophil, IV.1927. One ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14279). Most of the body, broken into three parts, is in a small vial, while a second small vial contains the first three body rings. The identification labels have “Anaimalais” written on them and indicate that the specimen is the holotype. There is also a microscope slide preparation (MHNG-ARTO-18516) of part of the holotype: the gnathochilarium, legs and other parts with a label with “*Glyphiulus nubilus* Carl ♀ Antenn., Gnathochil., Bein 1 u 2, Vulven”.

*Podoglyphiulus nubilus* (Carl, 1941), Cambalopsidae

**obtusangulatus** Carl, 1914b: 950, figs 219-222 [*Cryptogonodesmus*].

La Camelia bei Angelopolis, 1800 m. One ♂ and one ♀.

The MHNG collection contains some dissected parts in alcohol (MHNG-ARTO-18589). A label in the vial containing the parts has “♂ Gonop.” written on it while the label in the jar is a photocopy of a label with “Diplopodes de la Colombie Pièces anatomiques (J. Carl 1914)” written on it, indicating that the specimen from which the parts came was a syntype. The whereabouts of the rest of the syntypes is unknown.

*Phaneromerium obtusangulum* (Carl, 1914), Fuhrmannodesmidae

**olivaceus** Carl, 1902: 624-626, pl. 11, fig. 49 [*Icosidesmus*].

Neuseeland, Nordinsel (Berner Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18627). The identification labels in the jar have “♂ N<sup>elle</sup> Zélande Suter-Naef” and “♂ N<sup>e</sup> Zélande (Nord) Suter” written on them respectively, indicating that the specimen is a syntype. The other syntypes are presumably in the NMBE.

*Icosidesmus (Icosidesmus) olivaceus* Carl, 1902, Dalodesmidae

**oltramarei** Carl, 1902: 600-602, pl. 10, fig. 34 [*Leptodesmus*].

Guatemala, Dr. Oltramare (Genfer Museum). Two ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18537). The specimen is in fragments in a small vial. The identification labels in the jar have “Guatemala M. Oltramare” and “♂ type Guatemala M. Oltramare” written on them respectively, indicating that the specimen is a syntype. There is also a microscope slide preparation (MHNG-ARTO-18538) of gonopods with a label with “Leptodesmus oltramarei Carl copf.” which is presumably part of a syntype.

*Leptodesmus oltramarei* Carl, 1902, Chelodesmidae

**orientalis** Carl, 1912c: 156-158, pl. 6, fig. 35, text figs 13-14 [*Agastrophus*].

Masarang, Nord-Celebes (coll. Sarasin). Fragments of a ♂ and one ♀.

No specimens found in the MHNG. The two syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00141a).

*Hypocambala orientalis* (Carl, 1912), Cambalopsidae

**ornatum** Carl, 1912c: 116-118, pl. 6, figs 32-33, 41, text fig. 6 [*Castanotherium*].

Bontorio und Umgebung, Süd-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14303). One specimen has a pin running most of the length of the body. The identification labels have “Celebes coll. Sarasin” and “types Celebes coll. Sarasin” written on them respectively, indicating that the specimens are syntypes. There are three syntypes (referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00117a).

*Castanotherium ornatum* Carl, 1912, Zephroniidae

**orophila** Carl, 1941a: 361-364, figs 4-6 [*Orthomorpha (Orthomorpha)*].

Nördliche Chin-Hills, in Ober-Birma. E. G. Watson leg. 1893, British Museum. One ♂ and one ♀.

No specimens found in the MHNG. The syntypes are in the BMNH.

*Antheromorpha orophila* (Carl, 1941), Paradoxosomatidae

**palnense** Carl, 1941b: 576-580, figs 1-12 [*Pygmaeosoma*]. Upper Palnis: Kleine Shola bei Pumburai, unter faulem Holz, 1900 m, 29.III.; Kukkal Shola, 1.IV.; Bombay-Shola bei Kodaikanal, 2200 m, 21.III.; Mariyan-Shola, 2300 m, 11.-14.IV.; Shola bei Vandaravu F. R., 2300 m, 6.-10.IV. Unspecified number of ♂, ♀ and juveniles.

The MHNG collection contains seven microscope slide preparations of parts of syntypes: 1) a slide (MHNG-ARTO-18523) of legs, gnathochelidium and anterior segments with a label with “Pygmaeosoma palnense Carl ♂, 1<sup>re</sup> patte, gnathochelidium, segments 1-6” written on it; 2) a slide (MHNG-ARTO-18524) of a head with a label with “Pygmaeosoma palnense Carl tête ♂” written on it; 3) a slide (MHNG-ARTO-18525) of mouthparts and legs with labels with “Pygmaeosoma palnense ♀, pièces buccales, pattes 1 et 2, 2.II.41” and “Traitées à la potasse caust.” written on them; 4) a slide (MHNG-ARTO-18526) of legs with labels with “Süd-Indien, ♂ no. 1 Vandaravu, vord. Beinpaar” and “Pygmaeosoma palnense Carl” written on them; 5) a slide (MHNG-ARTO-18527) of head and mouthparts with a label with “Pygmaeosoma palnense Carl, Kopf und Mundteile” written on it; 6) a slide (MHNG-ARTO-18528) of head and legs with labels with “Pygmaeosoma palnense ♀, capsule cephalique, Patte 3, II.41” and “Traitées à la potasse caust.” written on them; 7) a slide (MHNG-ARTO-18529) of gonopods with labels with “Pygmaeosoma palnense Carl ♂, Palnis super.” and “Gonopoden I u. II und Fragmente von I” written on them. The MHNG collection once contained 21 syntypes in alcohol but these were loaned to William A. Sheer in 1987 and are apparently lost. *Pygmaeosoma palnense* is the type species of the genus *Pygmaeosoma* Carl, 1941 by monotypy (Jeekel, 1971).

*Hendersonula palnense* (Carl, 1941), Pygmaeosomatidae

**palnensis** Carl, 1932: 472-476, figs 75-84 [*Pseudosphaeeroparia*].

Upper-Palnis: Shola bei Kodaikanal, 2200 m; Maryian-shola, unter Holz, 11.-14.IV, 2350 m; Kukkal-shola, 1.IV, 2000 m; Vandaravu-shola, 2350 m, 6.-10.IV; Sholas und Akazien-Wäldchen ob Pumburai, 1950 m, 29.III. Lower-Palnis: Shola bei Maryland, 20.IV. 1600 m: Cardamum-Pflanzung bei Tandikudi, 23.IV., 1500 m. Travancore: Grosser Wald im oberen Vattavada-Tal, 10.IV, 1850 m, zwischen Palnis und Anaimalais. Unspecified number of ♂ and ♀.

The MHNG collection contains 84 specimens in alcohol in two jars. The first jar (MHNG-ARTO-18597) contains five broken specimens and a small vial with dissected parts including gonopods. The data label has “Palnis sup., Kodaikanal, IV.27” written on it. The identification label has “types” written on it, indicating that the specimens

are syntypes. Although these specimens are the only ones to be labelled as types, there was no such designation in the original description and the whole series are syntypes. The second jar contains eight vials. The first vial (MHNG-ARTO-18599) contains five specimens, two of them badly broken. The data label has “Travancore, Vattavardai” written on it, indicating that the specimens are syntypes. The second vial (MHNG-ARTO-18600) contains parts of at least 20 specimens, many of them broken. The data label has “Palnis sup., Kukkal-Shola” written on it, indicating that the specimens are syntypes. The third vial (MHNG-ARTO-18601) contains parts of at least 20 specimens. The data label has “Palnis sup., Vandaravu, 6-10.IV.” written on it, indicating that the specimens are syntypes. The fourth vial (MHNG-ARTO-18602) contains one broken specimen. The data label has “Palnis sup., Maryian-Shola, 11.IV.” written on it, indicating that the specimen is a syntype. The fifth vial (MHNG-ARTO-18598) contains two specimens, one fragmented. The data label has “Palnis inf., Pumbarai, bosquet d’acacias” written on it, indicating that the specimens are syntypes. The sixth vial (MHNG-ARTO-18603) contains parts of at least 15 specimens. The data label has “Palnis sup., Pumbarai pet. Shola 29.III.” written on it, indicating that the specimens are syntypes. The seventh vial (MHNG-ARTO-18604) contains three specimens. The data label has “Palnis inf., Tandikudi 23.IV.” written on it, indicating that the specimens are syntypes. The eighth vial (MHNG-ARTO-18605) contains 13 specimens. The data label has “Palnis inf., Maryland 10.IV. ♂” written on it, and although the date on the label does not match that given in the original description the specimens are almost certainly syntypes. *Pseudosphaeroparia palnensis* was explicitly designated as the type species of the genus *Pseudosphaeroparia* Carl, 1932 in the original description.

*Pseudosphaeroparia palnensis palnensis* Carl, 1932, Fuhrmannodesmidae

*palnensis soror* Carl, 1932: 476-477, figs 87-88 [*Pseudosphaeroparia*].

Anaimalais: Naduar-Estate bei Valparai, 1200 m. One ♂. The MHNG collection contains one broken specimen in alcohol (MHNG-ARTO-18596). The data label has “Anaimalais Naduar-Estate” written on it, and the identification label has “♂ type” written on it, indicating that it is the holotype.

*Pseudosphaeroparia palnensis soror* Carl, 1932, Fuhrmannodesmidae

*patrioticum unicolor* Carl, 1902: 575-576 [*Strongylosoma*].

Sumatra (Genfer Museum). Two ♂ and one ♀.

The MHNG collection contains three specimens in alcohol in two vials. The first vial (MHNG-ARTO-18572) contains two smaller vials holding broken parts of one specimen and a label with “Lectotype ♂” written

in pencil. The second tube (MHNG-ARTO-18573) contains two smaller tubes, each holding a specimen, one of them broken. Both of the original identification labels in the jar have “Sumatra” written on them, and the specimens are the type series. There is also a microscope slide preparation of the gonopods of a type specimen (MHNG-ARTO-14537). A pencil written label in the jar states that Jeekel examined the specimens and selected the lectotype in 1976 but this designation has not been formally published and the specimens are syntypes.

*Nedyopus patrioticus unicolor* (Carl, 1902), Paradoxosomatidae

*patruelis* Carl, 1932: 527-528, figs 185-186 [*Steganostigmus*].

Palnis: Kukkal-Shola, ca. 1900 m, 1.IV, unter faulem Holz. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14280). The specimen is in a vial, separated by a cotton wool plug from the label and a smaller vial containing gonopods and other fragments. The locality label has “Palnis, Kukkalshola, 1.IV type” written on it, indicating that the specimen is the holotype. *Steganostigmus patruelis* Carl, 1932, Pyrgodesmidae

*peninsularis* Carl, 1912c: 179-181, text fig. 19 [*Rhinocricus*].

Roembi-Mengkoka, S.O.-Celebes (coll. Elbert). Three ♂ and one ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14543). Both specimens have pins running part of the length of the body. The identification labels have “S.E. de Celebes cotypes ex coll. Elbert” and “Roembi-Mengkoka S.E. de Celebes cotypes ex coll. Elbert” written on them respectively, indicating that the specimens are part of the type series. The SMF collection contains five specimens in alcohol in two jars. One jar contains one ♂ and one ♀ (SMF 1710). The identification label has “SO-Celebes: Roembi-Mengkoka, J. Elbert, 1909” written on it, indicating that the specimens are part of the type series. The second jar contains one ♂ with dissected gonopods and two ♀ (SMF 1697). The identification label has “SO-Celebes: Roembi-Mengkoka, Elbert, 1909”. It is likely that these specimens are those referred to by Carl after the original description of *R. peninsularis expulsus* and therefore not part of the type series.

*Salpidobolus penninsularis* (Carl, 1912), Rhinocricidae

*peninsularis expulsus* Carl, 1912c: 181 [*Rhinocricus*].

Insel Kabaena (coll. Elbert). Two ♂.

No specimens found in the MHNG collection. The SMF collection contains two ♂ in alcohol (SMF 1704). The identification label has “Insel Kabaena, Elbert, 1909” written on it, indicating that the specimens are types.

A junior synonym of *Salpidobolus peninsularis* (Carl, 1912), Rhinocricidae



**perfidus** Carl, 1941b: 626-628, figs 83-85 [*Aulacobolus*]. Anaimalais: Valparai, 1100 m, unter faulem Holz, III.1927. Three ♂.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-14433). The heads of two of the specimens are detached and there is a small vial containing gonopods. The data label has “Valparai 3, 4.III. unter morschen Holz ? n. sp.” Written on it in pencil, indicating that the specimens are syntypes. There are also two microscope slide preparations: 1) a slide (MHNG-ARTO-14434) of gonopods and the first two pairs of legs; 2) a slide (MHNG-ARTO-14435) of the legs of the 7th, 10th and 15th segments.

*Aulacobolus perfidus* Carl, 1941, Pachybolidae

**petersi** Carl, 1914b: 952-953, figs 228-234 [*Brachycerodesmus*].

La Camelia, Kaffeepflanzung, 1800 m; Medellin, am Ufer des Porce, 1600 m. Unspecified number of ♂ and ♀. The MHNG collection contains parts of at least eight specimens in alcohol in two vials. The first vial (MHNG-ARTO-18584) contains parts of eight specimens, four of them broken and possibly incomplete. The second vial contains dissected parts and a label with “Brachycerodesmus petersi Carl ♂, VS. B'pr., Ant., Gonopodes” written on it. Both of the identification labels in the jar have “Colombie ex Coll. Fuhrmann” written on them, indicating that the specimens are syntypes. The whereabouts of other syntypes is unknown. *Brachycerodesmus petersi* is the type species of the genus *Brachycerodesmus* Carl, 1914 by monotypy (Jeekel, 1971).

*Brachycerodesmus petersi* Carl, 1914, Fuhrmannodesmidae

**phthisicus** Carl, 1912c: 196-197, text figs 33-34 [*Rhinocricus*].

Donggala an der Palos-Bai, nördl. Central-Celebes (coll. Sarasin). One ♂ and two ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14318). The identification labels both have “type Donggala (Celebes) ex coll. Sarasin” written on them, indicating that the specimen is a syntype. The other two syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00165a).

*Dinematocricus phthisicus* (Carl, 1912), Rhinocricidae

**phthisicus** Carl, 1926: 436-437, figs 109-111 [*Spirobolellus*].

Neu-Caledonien: Mt. Panié, Wald, 500 m, 27. Juni 1911. Unspecified number of ♂ (♀ not mentioned explicitly). No specimens found in the MHNG. There are two syntypes (one ♂ and one ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00370a).

*Spirobolellus phthisicus* Carl, 1926, Spirobolellidae

**pictum** Carl, 1912c: 130-132, pl. 5, figs 1-3 [*Strongylosoma*].

Bowonglangi, 1200-1500 m, Süd-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

No specimens found in the MHNG. There are two syntypes in the NMB under the name *Celebestia picta* (Carl) (inventory number NMB-DIPL-00126a).

*Tectoporus pictus* (Carl, 1912), Paradoxosomatidae

**pilosella** Carl, 1914b: 922, figs 169-170 [*Trichomorpha*].

Medellin am Ufer des Porce, 1600 m. One ♂.

No specimens found in the MHNG. The whereabouts of the holotype is unknown.

*Trichomorpha pilosella* Carl, 1914, Chelodesmidae

**pilosum** Carl, 1912c: 114-116, textfig. 5 [*Castanotherium*].

Bontorio und Umgebung; Bowanglangi, 1200-1500 m. Süd-Celebes (coll. Sarasin). Three ♀.

No specimens found in the MHNG. The three syntypes (three ♀ referred to as “Typen” in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00116a and NMB-DIPL-00116b).

*Castanotherium pilosum* Carl, 1912, Zephroniidae

**plataleus granosus** Carl, 1902: 602-604, pl. 10, fig. 34 [*Leptodesmus*].

St. José (Costarica), P. Biolley (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol (MHNG-ARTO-18539). Two of the specimens are separated into a vial, one has a pin running the length of the body and the other is broken. Three of the specimens loose in the jar are also broken. The identification labels in the jar use the orthography “Plataleus granulosus Carl.” They have “St José (Costarica) P. Biolley” and “Costarica P. Biolley” written on them respectively, indicating that the specimens are syntypes.

*Chondrodesmus granosus* (Carl, 1902), Chelodesmidae

**pleuralis** Carl, 1912a: 274-275 [*Trigoniulus*].

Kei-Archipel: Kei-Dulah, Elat auf Gross-Kei. More than one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14437). The identification labels in the jar both have “Iles Key ex. coll. Merton” written on them and there is a printed “Type” label, indicating that the specimen is a syntype. This species can not be reliably placed in a genus and is in need of a revision according to Jeekel (2001: 83).

?*Trigoniulus pleuralis* Carl, 1912, Pachybolidae

**plumipes** Carl, 1941b: 592-595, figs 36-41 [*Diopsiulus* (*Plusiochaeturus*)].

Untere Palnis: Tandikudi, ca. 1500 m, nach Regen unter den obersten Steinen einer Mauer, IV.1927. Two ♂.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14461). Both specimens are broken.

The labels in the vial containing them have “Tandikudi III.1927 Carl leg.”, “Tandikudi” and “Diopsiulus III Tandikudi” written on them respectively, indicating that the specimens are syntypes. There are also three microscope slide preparations of parts of syntypes: 1) a slide (MHNG-ARTO-14462) of the gonopods, first three legs and gnathochilarium; 2) a slide (MHNG-ARTO-14463) of gonopods; 3) a slide (MHNG-ARTO-14464) of the first three legs. The labels on the slides give the name as *D. plumosus*, although this has been altered by Carl to *D. plumipes* on the first slide.

*Stemmiulus plumipes* (Carl, 1941), Stemmiulidae

**pococki** Carl, 1909b: 338-341, pl. 8, figs 57-58, 65 [*Odontopyge*].

Biaramuli (Ost-Ussuwi); Niakahanga (Central-Karagwe). Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol (MHNG-ARTO-18499). A specimen in several pieces is separated in a vial, two of the others are reinforced with pins and one of these is broken. The identification labels in the jar have “Biaramuli”, “Biaramuli J. Carl” and “types, Ost-Ussuwi J. Carl” written on them respectively, indicating that the specimens are syntypes. An undated printed label in the jar states that Hoffman identified the specimens as *Helicochetus pococki* (Carl). There is a syntype in the ZMUH (Weidner, 1960) and a ♂ syntype (referred to as “Paratypoid” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00181a).

*Odontopyge pococki* Carl, 1909, Odontopygidae

**propinqua** Carl, 1914b: 918, figs 160-162 [*Trichomorpha*].

La Camelia bei Angelopolis. One ♂ and one ♀.

No specimens found in the MHNG collection. The whereabouts of the syntypes is unknown.

*Trichomorpha propinqua* Carl, 1914, Chelodesmidae

**propinquus** Carl, 1902: 665-666, pl. 12, figs 80-82 [*Platyrrhacus*].

Las Delicias, Sta-Clara (Costarica) 300 m ü. M., P. Biolley (Genfer Museum). Three ♂ and one ♀.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-15119). Two of them have pins running the length of the body. The identification labels have “Las Delicias (Costarica) P. Biolley” and “types ♂♀” written on them respectively, indicating that the specimens are syntypes. The other syntype is in the NMB (inventory number NMB-DIPL-00444a).

*Barydesmus propinquus* (Carl, 1902), Platyrrhacidae

**ptilostreptoides** Carl, 1909b: 321-323, pl. 6, figs 35-36 [*Lophostreptus*].

Buschgebiet zwischen dem Kagera und dem Lager von Mabira in Süd-Karagwe, einige Exemplare im Busch und in Bananenpflanzungen. Unspecified number of ♂ and ♀. The MHNG collection contains 25 specimens in alcohol

in two jars. The first jar (MHNG-ARTO-18474) contains the specimen designated as lectotype by Demange & Mauriès (1975: 70). The identification labels in the jar have “Süd-Karagwe J. Carl” and “Kagera-Mbira Dr J. Carl” written on them respectively. The other jar (MHNG-ARTO-18475) contains parts of at least 24 specimens, nearly all broken and several incomplete, and a small vial containing gonopods. The jar contains typewritten copies of the labels in the first jar and the specimens are paralectotypes.

*Lophostreptus ptilostreptoides* Carl, 1909, Spirostreptidae

**pulcher** Carl, 1905: 267-269, fig. 5 [*Cordyloporus*].

Cabo St Juan. Unspecified number of ♂ and ♀.

No specimens found in the MHNG collection. Andrés Cobeta (2001) could not locate any type specimens in the MNCN.

*Paracordyloporus pulcher* (Carl, 1905), Chelodesmidae

**pulcherrimus** Carl, 1909a: 258-260, figs 2-6 [*Spirostreptus*].

Ceylon, höhere Lagen, Coll. W. Morton. Two ♂ and two ♀.

The MHNG collection contains five specimens in alcohol in three jars under the name *Spirostreptus pulcherrimus* and 15 specimens in alcohol under the name *Ktenostreptus pulcherrimus*. The first jar (MHNG-ARTO-18479) contains one specimen, which has been reinforced with pins, and a vial containing gonopods. The identification labels in the jar have “Ceylan, Coll. W. Morton” and “Ceylan ex coll. Morton” written on them respectively, indicating that the specimen is a syntype. The second jar (MHNG-ARTO-18480) contains one broken specimen. The identification label has “Ceylan Col. [sic] Morton” typewritten on it, indicating that the specimen is a syntype. The third jar (MHNG-ARTO-18481) contains three specimens. The identification label in the jar has “Ceylan, Doubles” written on it and it is likely that the specimens are not part of the type series. The specimens under the name *K. pulcherrimus* were collected after the publication of the original description and are not part of the type series. The whereabouts of the other two syntypes is unknown.

A junior synonym of *Ktenostreptus annulipes* Attems, 1909, Harpagophoridae

**reducta** Carl, 1914b: 928-929, figs 188-189 [*Trichomorpha*].

La Camelia, bei Angelopolis. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Trichomorpha reducta* Carl, 1914, Chelodesmidae

**regina** Carl, 1909b: 333-335, pl. 8, figs 49-50, 54 [*Odontopyge*].

Kagera bis Mabira (Süd-Karagwe); Biaramuli bis Chiavitembe (Ost-Ussuwi). Unspecified number of ♂.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18500). Two of the specimens are reinforced by pins, and they are accompanied by a vial containing gonopods. The identification labels in the jar have “Kagira-Mabira” and “types! Sud-Karagwe Dr J. Carl” written on them respectively, indicating that the specimens are syntypes. An undated typewritten label in the jar states that Hoffman identified the specimens as *Rhamphidarpoides regina* (Carl). There is a ♂ syntype in the ZMUH (Weidner, 1960) and one in the NHMW [Inventory numbers 2686 (body broken into two parts) and 9085 (fragments of two segments mounted on a microscope slide)].

*Rhamphidarpoides regina* (Carl, 1909), Odontopygidae

**ripariensis** Carl, 1912c: 186-188, text fig. 23 [*Rhinocricus*].

Posso-See; Mapane am Golf Tomini, Central-Celebes (coll. Sarasin). Two ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14314). The identification labels both have “type Celebes central, ex coll. Sarasin” written on them, indicating that the specimen is a syntype. The other two syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00159a).

*Salpidobolus ripariensis* (Carl, 1912), Rhinocricidae

**riparius** Carl, 1932: 495-497, figs 123-126 [*Archandrodesmus*].

Nilgiris: Mudumalai, ca. 1000 m, 5.II, Bachufer, unter Steinen. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14281). The specimen is broken into two main pieces and a number of fragments. There is no locality label, but the identification label has “♂ type” written on it, indicating that the specimen is the holotype. *Cryptocorypha riparia* (Carl, 1932), Pyrgodesmidae

**riparius** Carl, 1914b: 888-890, fig. 117 [*Chondrodesmus*].

Bodega Central, am Magdalena, 50 m ü. M. Three ♂. The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18531). The specimen is in a vial, with a second vial containing dissected parts including gonopods. The identification labels in the jar have “Colombie” and “Colombie Coll. Fuhrmann” written on them respectively, indicating that the specimen is a syntype. The whereabouts of the other syntypes is unknown.

*Chondrodesmus riparius* Carl, 1914, Chelodesmidae

**riparius** Carl, 1902: 641-643, pl. 12, fig. 83 [*Platyrrhacus*].

Rio General (“Côté pacifique”), P. Biolley (Genfer Museum). Two ♂ and two ♀. The MHNG collection contains four specimens in alcohol (MHNG-ARTO-15120). Two of them have pins running the length of the body, and they are accompanied by a

small vial containing gonopods. The identification labels have “types ♂♀ Rio General, P. Biolley” and “types ♂♀ Rio General, Cote Pacifique, P. Biolley” written on them respectively, indicating that the specimens are syntypes. There is a handwritten note in the jar indicating that Hoffman intended to designate the ♂ with the gonopods removed as the lectotype in 1964, although this does not seem to have been formally published. An undated typewritten note in the jar indicates that Hoffman identified the specimens as *Tirodesmus riparius* (Carl, 1902).

*Barydesmus riparius* (Carl, 1902), Platyrrhacidae

**rouxi** Carl, 1926: 394-396, figs 39-41 [*Canacophilus* (*Canacophilus*)].

Neu-Caledonien: Nouméa, 9. April 1912; Mt. Ignambi (Wald) 800-1000 m, April 1911; Mt. Canala, 25. Okt. 1911; Insel Ouedjo, bei Hienghène, 5. Juni 1911; Oubatche, Aug. 1911; Mt. Panié (Wald), 27. Juni 1911; Hienghène, 8. Mai 1911. Loyalty-Inseln: Ouvéa, Fayaoué, Mai 1912; Lifou, Képénée, April 1912; Maré, Médou und Nétché, Dez. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol, in two vials. The first vial (MHNG-ARTO-14301) contains one specimen; the identification label has “Drs. F. Sarasin & J. Roux, N. Caled.” printed and “Insel Ouedjo bei Hienghène” written on it. The second vial (MHNG-ARTO-14302) contains three specimens, one with a pin running the length of the body. The identification label has “Drs. F. Sarasin & J. Roux” printed and “Képénée, Lifou (Loyalty)” written on it. These specimens are syntypes. There are more than 20 syntypes (♂, ♀ and juveniles referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00349a to NMB-DIPL-00349i).

*Canacophilus rouxi* Carl, 1926, Dalodesmidae

**rouxi** Carl, 1926: 447-449, figs 133-135 [*Spirobolellus*].

Neu-Caledonien: Tao, Mai 1911; Hienghène, Juni 1911; Station am Koné-Fluss, 1. Aug. 1911; Tiouaka-Tal, Aug. 1911; Mt. Canala, 17. Sept. 1911. Loyalty-Inseln: Ouvéa, Fayaoué; Lifou, Nathalo, Képénée; Maré, Nétché und La Roche. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-14340). One of the specimens has a pin running the length of the body. The identification label has “Lifou Loyalty” written on it, indicating that the specimens are syntypes. There are around 20 syntypes (♂ and ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00379a to NMB-DIPL-00379k).

*Spirobolellus rouxi* Carl, 1926, Spirobolellidae

**rufocinctus** Carl, 1932: 455-457, figs 50-51 [*Himantogonus*].

Anaimalais: Valparai, 1100 m, 4.-9.III.1927. Talboden, in



jungen Kaffeepflanzungen und frischen Rodungen, unter Stämmen.

The MHNG collection contains 17 specimens in three vials. The first vial (MHNG-ARTO-14385) contains the ♂ lectotype designated by Jeekel (1980a: 166) according to a handwritten label. The specimen has a pin running the length of the body and is accompanied by a smaller vial with the gonopods. A handwritten identification label has the locality “Valparai” written on it. The second vial (MHNG-ARTO-14386) contains five ♂ and one ♀ paralectotypes according to a handwritten label. One specimen has a pin running the length of the body, and the original identification label has the locality “Valparai, clairières” written on it. The third vial (MHNG-ARTO-14387) contains six ♂ and four ♀ paralectotypes according to a handwritten label. Two of the specimens have pins running the length of the body, and several of the others are broken. The original identification label has the locality “Valparai” written on it. *Himantogonus rufocinctus* is the type species of the genus *Himantogonus* Carl, 1932 by monotypy (Jeekel, 1971).

*Anoplodesmus rufocinctus* (Carl, 1932), Paradoxosomatidae

**rufocinctus** Carl, 1926: 428-430, figs 80-93 [*Spirobolellus*].

Neu-Caledonien: Yaté, Wald, März 1912; Nouméa. Loyalty-Inseln: Lifou, Képénéé und Naltho; Maré, Nétché, Médou, Pénélo und Ro. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-14332). The identification label has “Képénéé, Lifou” written on it, indicating that the specimens are syntypes. There are more than ten syntypes (♂ and ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00365a to NMB-DIPL-00365g).

*Spirobolellus rufocinctus* Carl, 1926, Spirobolellidae

**rufozonatus** Carl, 1918: 435-436, fig. 13 [*Rhinocricus*].

Moluques. Muséum de Genève. One ♂ and two ♀. The MHNG collection contains three specimens in alcohol (MHNG-ARTO-18462). One of the specimens is broken, and they are accompanied by a vial containing gonopods. The identification labels in the jar have “Moluques (Deyrolle)” and “Moluques types” written on them respectively, indicating that the specimens are syntypes. According to Jeekel (2001: 43) this species is in need of a revision and cannot be reliably assigned to a genus. It is very unlikely that this species belongs to the American genus *Rhinocricus*.

?*Rhinocricus rufozonatus* Carl, 1918, Rhinocricidae

**rugulosa** Carl, 1932: 421-424, figs 3-4 [*Orthomorpha* (*Orthomorpha*)].

Palnis: Oberes Pumbarai-Tal, ca. 1900 m, 30.III, tief unter Steinen und in faulem Stroh. – Tigershola bei

Maryland, ca. 1600 m, Wald, unter Holz, 18.-20.IV. – Kodaikanal, 24.X.1894, J. R. Henderson leg. (British Museum Nat. Hist., No. 170-171). Shevaroy: “Lone Cottage (Shevaroy)”, 24.X.1894, J. R. Henderson leg., British Museum Nat. Hist., No. 169 ♂, 169a ♀.

Unspecified number of ♂ and ♀.

The MHNG collection contains 22 specimens in alcohol in two vials. The first vial (MHNG-ARTO-14393) contains eight specimens, one with a pin running the length of the body and two broken. The data label has “Palnis inf. Tigershola” written on it. The second vial (MHNG-ARTO-14394) contains 14 specimens, three with pins running the length of the body and most of the rest broken. One specimen is separated in a smaller vial and a handwritten note indicates that this specimen was studied by Jeekel in 1976. There is also a small vial with gonopods and legs and a handwritten label reading “Gonopodes ♂ pattes 3, 4, 5”. The data label has “Palnis sup. Pumbarai” written on it. These specimens are all syntypes. There are further syntypes in the BMNH.

*Delarthrum rugulosum* (Carl, 1932), Paradoxosomatidae

**ruralis** Carl, 1914b: 865-867, figs 79-80 [*Spirostreptus* (*Epistreptus*)].

La Camelia, 1800 m, Kaffeepflanzung; am Magdalena bei Jirardot, 250 m; Puerto de los Pobres, am Cauca. Unspecified number of ♂ and ♀.

The MHNG collection contains six specimens in alcohol in two jars. One jar (MHNG-ARTO-18482) contains one specimen with a pin running the length of the body and a vial containing dissected parts including the head and anterior body rings and the gonopods. The identification labels in the jar are photocopies of the original labels in the second jar. They have “Camelia (Colombie) Coll. Fuhrmann” and “Colombie Coll. Fuhrmann” written on them respectively, indicating that the specimen is part of the type series. A handwritten note dated 1990 indicates that Hoffman intended to designate this specimen as the lectotype. The second jar (MHNG-ARTO-18483) contains five specimens, one with a pin running the length of the body and two broken. The identification labels in the jar have “Camelia (Colombie) Coll. Fuhrmann” and “Colombie Coll. Fuhrmann” written on them respectively, indicating that the specimens are part of the type series. The lectotype designation has apparently not been published and so all of these specimens are syntypes. There is another ♀ syntype (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00214a).

*Isoporoastreptus ruralis* (Carl, 1914), Spirostreptidae

**sarasini** Carl, 1926: 391-393, figs 29-34 [*Canacophilus* (*Canacophilus*)].

Neu-Caledonien: Mt. Humboldt, zirka 1100 m, 18. Sept. 1911; Mt. Canala, 4. Nov. 1911, Wald, 800-1000 m. Unspecified series.

The MHNG collection contains three specimens in alcohol

(MHNG-ARTO-14300). The identification labels have “Mt. Humboldt, N. Caledonie” and “Mt. Humboldt, N. Caledonie Sarasin et Roux” written on them respectively, indicating that these specimens are syntypes. There are seven syntypes (six ♀ and one juvenile referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00347a and NMB-DIPL-00347b). *Canacophilus sarasini* was designated as the type species for the genus *Canacophilus* Carl, 1926 by Attems (1940). *Canacophilus sarasini* Carl, 1926, Dalodesmidae

**sarasini** Carl, 1926: 449-450, figs 136-137 [*Spirobolellus*]. Neu-Caledinien: Pam, Juli 1911; Diahotal nach Col Porori, 7. Mai 1911; Tschalabel, 5. Mai 1911; Oubatche, April 1911; Tao, 24. Mai 1911; Hienghène, Juni 1911; Koné, Aug. 1911; Bourail, Jan. 1912. Unspecified number of ♂ and ♀.

The MHNG collection contains 17 specimens in alcohol in two vials. The first vial (MHNG-ARTO-14341) contains six specimens, one broken. The data label has “Drs F. Sarasin & J. Roux, N. Caled. Zwischen Diahotal und Col Porori, 6. V. 11” written on it, and the identification label indicates that it is a new species. The second vial (MHNG-ARTO-14342) contains eleven specimens, five of them with pins running the length of the body, two broken. The data label has “Tschalabel N.-C. unter Kalkblöcken” written on it and the identification label has “n. sp. Drs F. Sarasin & J. Roux, N. Caled.” written on it. All of these specimens are presumably syntypes even though the data in the first tube do not exactly match that given in the original description. There are more than 16 syntypes (♂ and ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00380a to NMB-DIPL-00380g).

*Spirobolellus sarasini* Carl, 1926, Spirobolellidae

**sarasinorum** Carl, 1912c: 101-102, pl. 6, fig. 36 [*Nesoglomeris*].

Loka 1000-1300 m. üb. M., Süd-Celebes (coll. Sarasin). One ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14298). The identification labels both have “type Loka, Celebes mérid., Sarasin” written on them, indicating that the specimen is a syntype. The other syntype (referred to as “Typ” in the NMB catalogue) is in the NMB (inventory number NMB-DIPL-00108a). *Nesoglomeris sarasinorum* was designated types species of the genus *Nesoglomeris* Carl, 1912 by Jeekel (1971). *Hyleoglomeris sarasinorum* (Carl, 1912), Glomeridae

**sarasinorum** Carl, 1912c: 144-146, pl. 5, fig. 17 [*Platyrrhacus*].

Uangkahulu-Tal Nord-Celebes (coll. Sarasin). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14309). The pencil-written identification label reads “type Uangkahulu/Celebes sept., ex coll.

Sarasin”, indicating that the specimen is a syntype. There are two syntypes (one ♂ and one ♀ referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00136a).

*Erythrhus sarasinorum* (Carl, 1912), Platyrrhacidae

**saussurei** Carl, 1909a: 261-263, fig. 22 [*Spirostreptus* (*Thyropygus*)].

“Indes orientales” (Malay. Archipel?). Unspecified number of ♂ and ♀.

The MHNG collection contains parts of at least three specimens (MHNG-ARTO-14525). One of the specimens has two pins running through the anterior of the body and another has a wooden skewer running through a fragment. The specimens are accompanied by a small vial containing gonopods and other dissected parts. The identification labels in the jar both have “Indes oriental. H. d. Saussure” written on them, indicating that the specimens are syntypes. An undated typed label indicates that Hoffman studied the specimens.

*Gonoplectus saussurei* (Carl, 1909), Harpagophoridae

**schenkeli** Carl, 1902: 628-629, pl. 11, figs 53-54 [*Icosidesmus*].

Neuseeland, Nordinsel, Suter (Basler Museum & Berner Museum). Three ♂.

The MHNG collection contains a microscope slide preparation of the gonopods of one of the type specimens (MHNG-ARTO-14299). The lectotype designated by Johns (1964: 8) and one paralectotype are in the NMB (inventory number NMB-DIPL-00464a). The other paralectotype is presumably in the NMBE.

*Icosidesmus* (*Icosidesmus*) *schenkeli* Carl, 1902, Dalodesmidae

**sellae dentiger** Carl, 1909b: 310 [*Cryptodesmus*].

Kampala (Uganda), in Sümpfen; Bukoba, Urwäldchen, unter Laub; Muruccu bei Bukoba, unter Moos am Seefer; Mabira-Njarowungo (Ost-Ussuwi), Wäldchen an Flussufer, unter sehr feuchtem Laub. Unspecified number of ♂ and ♀.

The MHNG collection contains 24 specimens in alcohol in two jars. The first jar contains three vials. The first vial (MHNG-ARTO-18578) contains five specimens, one with a pin running the length of the body and two broken. The data label in this vial has “Urwäldchen bei Bukoba” written on it and both of the identification labels in the tube have “Bukoba J. Carl” written on them, indicating that the specimens are syntypes. The second vial (MHNG-ARTO-18579) contains two specimens in a smaller vial, one with a pin running the length of the body, and a small vial holding gonopods. The data label in the larger vial has “Kampala Marsch I.09” written on it and one of the identification labels has “Kampala Dr J. Carl” written on it, indicating that the specimens are syntypes. The third vial (MHNG-ARTO-18580) contains four specimens in a smaller tube and a second vial holding gonopods.

The data label in the vial has “Mabira-Njarowungo XI.09 Wäldchen an Flussufer” written on it and one of the identification labels has “Ost-Ussuwi Dr J. Carl” written on it, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18581) contains 13 specimens, six of them broken. The identification labels in this jar are not original and both have “Niarowungo [sic] Carl” typewritten on them, indicating that these specimens are also syntypes. There are two syntypes in the ZMUH (Weidner, 1960) and three (referred to as “Cotypus var.” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00174a).

A junior synonym of *Aporodesmus sellae* Silvestri, 1907, Cryptodesmidae

**semiplumbeus** Carl, 1914b: 877-878, figs 103-104 [*Rhinocricus*].

Puerto de los Pobres, am Cauca-Fluss. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Rhinocricus semiplumbeus* Carl, 1914, Rhinocricidae

**sericatus** Carl, 1912b: 165-167, fig. 5, text fig. A [*Trigoniulus*].

Lombok. Praya, Sapit und Sadjang. Viele Exemplare. Dr. J. Elbert. Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol (MHNG-ARTO-14440). One of the specimens has a pin running most of the length of the body and one is incomplete. The pencil-written identification label has “Sadajang (Lombok) ex coll. Dr J Elbert” written on it and there is a printed “Type” label indicating that the specimens are syntypes.

*Trigoniulus sericatus* Carl, 1912, Pachybolidae

**setosus** Carl, 1922: 574-576, figs N-Q [*Opisotretus*].

Santis (Distrikt Deli), Ostsumatra. In einem verlassenen Grabwespennest. One ♂.

The MHNG collection contains a microscope slide preparation of the holotype (MHNG-ARTO-14412). The body is in three main parts with the gonopods separate. *Opisotretus setosus* was designated the type species of *Carlotretus* Hoffman, 1980 in the original description of the genus.

*Carlotretus setosus* (Carl, 1922), Opiostretidae

**similis** Carl, 1917: 387-388, figs 1-2, 5-6 [*Poratophilus*].

Rikalla, Afrique méridionale orientale. One ♂ and 3 ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14282). Two of the specimens are broken, and they are accompanied by a vial containing gonopods. One of the identification labels has “Rikalla, Afrique mér. orient.” written on it. The identification labels indicate that the ♂ is the “type”, but the original description did not designate a holotype and all of the specimens are syntypes.

*Zinophora similis* (Carl, 1917), Harpagophoridae

**simillimus** Carl, 1914b: 955, fig. 240 [*Gyrophallus*].

La Camelia, Kaffeepflanzung. One ♂.

No specimens found in the MHNG collection. The whereabouts of the holotype is unknown.

*Gyrophallus simillimus* Carl, 1914, Fuhrmannodesmidae

**simplex** Carl, 1909a: 250-252, fig. 21 [*Sphaeropoeus* (*Castanotherium*)].

Java (Coll. L. Zehntner). Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-18446). The specimens are accompanied by a vial containing gonopods. The two largest specimens have a pin running the length of the body. The identification labels in the jar have “Java Zehntner” and “Java, Dr L Zehntner” written on them respectively, indicating that the specimens are syntypes.

*Castanotherium simplex* (Carl, 1909), Zephroniidae

**simulans** Carl, 1932: 506-508, figs 142-149 [*Akreiodesmus*].

Nilgiris: Urwald bei Coonoor, 1700 m, bei *Camponotus*. Lower Palnis: Maryland, 1600 m, Weide, unter Stein, bei Termiten. Two ♂ and one juvenile.

The MHNG collection contains three specimens in alcohol (MHNG-ARTO-18607). The specimens are placed in a single vial; those from the two localities are separated by a cotton wool plug. One broken male has a data label with “Palnis (type!)” written on it. The other two specimens and a small vial containing dissected parts have a data label with “Coonoor juv. ♂” written on it. No holotype was designated in the original description and so these specimens are all syntypes.

*Akreiodesmus simulans* Carl, 1932, Pyrgodesmidae

**simulans** Carl, 1941b: 637-639, figs 100-103 [*Cambalopsis*].

Nilgiris: Umgebung von Coonoor, 1500-1700 m, XII.1926, in Pflanzungen, unter Laub und Moder; Mudumalai und Gudalur, ca. 1000 m, an Bachufern, unter Laub und Steinen. Unspecified number of ♂ and ♀. The MHNG collection contains more than 200 specimens in alcohol in five vials. The first vial (MHNG-ARTO-18506) contains 11 specimens and a vial with dissected parts including a head and gonopods. The data labels in the larger vial have “Coonoor XII.26” and “Coonoor, Lady Cameron’s Seat 29/12” written on them respectively. The second vial (MHNG-ARTO-18507) contains more than 100 specimens. The data labels in the vial have “Mudumalai II.27” and “Mudumalai 9.II, Bachufern, unter Laub + Steinen” written on them respectively. The third vial (MHNG-ARTO-18508) contains 36 specimens. The data labels in the tube have “Gudalur II.27” and “am Bach Gudalur, Kaffee-Estate 12.II.27” written on them. The fourth vial (MHNG-ARTO-18509) contains two groups of specimens separated by a cotton wool plug. Twelve specimens are



accompanied by a data label with “Coonoor XII.26” written on it and 23 specimens are accompanied by data labels with “Coonoor XII.26” and “Kleiner Djungel, Coonoor 24.12” written on them respectively. The fifth tube (MHNG-ARTO-18510) contains 43 specimens. The data label in the tube has “Hill Green Estate 22/12” written on it. All of these specimens are syntypes. There are also two microscope slide preparations of parts of syntypes: 1) a slide (MHNG-ARTO-18511) of gonopods, gnathochilarium and other parts, with “Cambalopsis simulans Carl ♂ Inde merriid.” written on the label; 2) a slide (MHNG-ARTO-18512) of legs and other parts, with “Cambalopsis simulans C. ♀ Beinp. 1 2 + 3, Vulven adult” written on the label.

*Trachyjulus simulans* (Carl, 1941), Cambalopsidae

**simulans** Carl, 1935: 330, figs 7-8 [*Orthomorpha* (*Orthomorpha*)].

Rungshar-Valley (Nepal), 11,000'; 27.VI, 29.VI, 9,500'. Tropde (Thibet), 22.VI. One ♂ and three ♀.

The MHNG collection contains one specimen and dissected parts of a second specimen in alcohol (MHNG-ARTO-18558). The specimen in one small vial and some gonopods in another small vial are placed together in a larger tube with a label with “Tropde. Tibet 10,000 ft., 22.6.1924, Mt. Everest Exped. 1924 Maj. R. W. G. Hingston” written on it. The identification labels in the jar have “♀ Tropde, Tibet. gonopode ♂ de Rungshar Valley” and “Himalaya, Tibet III Everest exped.” written on them respectively. The original description calls the specimens from Nepal “Typen” (first date) and “Cotypus” (second date), but all of the specimens studied by Carl should be considered syntypes (see Jeekel, 1980c). The other syntypes are in the BMNH.

*Delarthrum simulans* (Carl, 1935), Paradoxosomatidae

**simulans** Carl, 1905: 277-278, figs 8-8a [*Spirobolus*].

Cap St Juan. One ♂.

No specimens found in the MHNG collection. According to Andrés Cobeta (2001: 70) the holotype is in the MNCN (MNCN 20.07/1148).

*Spirobolus simulans* Carl, 1905, Spirobolidae

**socialis** Carl, 1909b: 330-332, pl. 8, figs 51-52 [*Odontopyge*].

Njarugenje-Niansa (Central-Ruanda) sehr häufig in Bananenpflanzungen; Kirehe in Kissaka (Südost-Ruanda); Busch vom Kagera durch Süd-Karagwe bis Mabira in Ost-Ussuwi; Niakahanga (Central-Karagwe) in trockenen Bananengärten; Entebbe (Uganda). Unspecified number of ♂ (♀ not mentioned explicitly). The MHNG collection contains 53 specimens in alcohol in five jars. The first jar (MHNG-ARTO-18501) contains the lectotype designated by Demange (1988: 557). The specimen is in fragments and incomplete. There is an original label in the jar with “Niakahanga (Karagwe) trockene Schamben” written on it, indicating that

the specimen is part of the type series. The second jar (MHNG-ARTO-18502) contains one specimen. The data label has “Entebbe (Uganda)” written on it, indicating that it is part of the type series. The third jar (MHNG-ARTO-18503) contains two specimens and a vial holding dissected parts including gonopods. The photocopied identification label in the jar has “Niakahanga (Karagwe) trockene Schamben” written on it, indicating that the specimen is part of the type series. The fourth jar (MHNG-ARTO-18504) contains parts of at least 26 specimens, many of them broken and several reinforced with pins. One of the original identification labels in the jar has “types Karagwe central Dr J. Carl” written on it, indicating that the specimens are part of the type series. The fifth jar (MHNG-ARTO-18505) contains parts of at least 23 specimens, many broken and five reinforced with pins. There are also two vials with gonopods. The labels are not original but have the localities “Njarugenje”, “Njarugenje-Nainsa”, “Pori Kagera Mabira” and “Kirehe-S.O. Ruanda” typewritten on them, indicating that the specimens are part of the type series. There is a ♂ paralectotype in the ZMUH (Weidner, 1960), three paralectotypes (two ♂ and one ♀) in the NMB (inventory number NMB-DIPL-00180a) and three paralectotypes in the MCZL.

*Haplothysanus socialis* (Carl, 1909), Odontopygidae

**socialis** Carl, 1912c: 139-142, pl. 5, figs 13-15 [*Priopeltis*].

Bontorio, Süd-Celebes (Dr J. Elbert). Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol in two vials. The first vial (MHNG-ARTO-14307) contains three specimens, each with a pin running the length of the body, an identification label with “Bontorio, Celebes mér. ex coll. Sarasin [sic]” written on it and a label “species 1”. The other vial (MHNG-ARTO-14308) contains a single specimen with the label “species 2”. The identification label in the jar has “type” written on it, indicating that the specimens are syntypes. A handwritten note in the jar indicates that Jeekel examined the specimens in 1976 and concluded that they were not conspecific. There are 16 further syntypes in the NMB (inventory number NMB-DIPL-00133a, NMB-DIPL-00134a and NMB-DIPL-00135a) under the name *Pratinus socialis* (Carl).

*Gigantomorpha socialis* (Carl, 1912), Paradoxosomatidae

**socialis** Carl, 1926: 457-459, figs 152-159 [*Siphonophora*].

Neu-Caledonien: Mt. Canala, 700-1000 m, Sept. 1911. Unspecified number of ♂.

The MHNG collection contains seven specimens in alcohol (MHNG-ARTO-14346). The identification labels both have “Ponié, Wald 500 m, N. Caled., Sarasin & Roux” written on them. This corresponds to one of the many localities listed in the original description, but

a footnote indicates that Carl based the species on an unspecified number of ♂ from Mt Canala and assumes that the others correspond, and so these specimens should probably not be considered syntypes. The specimens from the Mt Canala locality including several ♂ syntypes are in the NMB (inventory number NMB-DIPL-00387e). *Pterozonium socialis* (Carl, 1926), Siphonophoridae

**solitarium** Carl, 1909a: 252-253, fig. 1 [*Strongylosoma*]. Sumatra. Mus. Bern. Unspecified number of ♂.

No specimens found in the MHNG. The type series is presumably in the NMBE.

*Sundanina solitaria* (Carl, 1909), Paradoxosomatidae

**solitarius** Carl, 1912c: 168-169, pl. 6, fig. 27 [*Spirobolellus*].

Celebes (coll. Sarasin). One ♂.

No specimens found in the MHNG. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00150a).

*Spirobolellus solitarius* Carl, 1912, Spirobolellidae

**solitarius** Carl, 1926: 439-440, figs 116-118 [*Spirobolellus*].

Neu-Caledonien: Mt. Canala, 800-1000 m, Wald, 17. Sept. 1911. One ♂.

No specimens found in the MHNG. The ♂ holotype is in the NMB (inventory number NMB-DIPL-00373a). *Spirobolellus solitarius* Carl, 1926 is a junior homonym of *S. solitarius* Carl, 1912. Jeekel (2001) proposed the replacement name *S. duplus*.

*Spirobolellus duplus* Jeekel, 2001, Spirobolellidae

**solitarius** Carl, 1909b: 311-312, pl. 6, figs 5, 18, 24 [*Spirostreptus*].

Rubja (Ihangiro) im Gebüsch am Ngono-Fluss. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18484). The specimen is broken into three pieces and is accompanied by a small vial containing gonopods. A data label with "Rubja aus Ngono xi.08" written on it is attached to the central fragment with string. The identification labels in the jar both have "type! Rubja Dr. J. Carl" written on them, indicating that this specimen is the holotype.

*Limnostreptus solitarius* (Carl, 1909), Spirostreptidae

**sparsepunctatum** Carl, 1912c: 120-122, text fig. 9 [*Castanotherium*].

Bolowonglangi, 1200-1500 m ü. M., Süd-Celebes (coll. Sarasin). One ♀.

No specimens found in the MHNG collection. The ♀ holotype is in the NMB (inventory number NMB-DIPL-00119a).

*Castanotherium sparsepunctatum* Carl, 1912, Zephroiniidae

**spinipleura** Carl, 1941a: 366-369, figs 9-16 [*Sundanina*]. Nördliche Chin-Hills, Ober-Birma. E. G. Watson leg. 1893. British Museum. One ♂ and one ♀.

The MHNG collection contains a microscope slide preparation of the gonopod and the first, second, third and last legs of the ♂ syntype (MHNG-ARTO-14538). The specimens are in the BMNH. *Sundania spinipleura* was designated as the type species of *Enghoffosoma* Golovatch, 1993 in the original description of the genus. *Enghoffosoma spinipleurum* (Carl, 1941), Paradoxosomatidae

**spinipleurus** Carl, 1932: 444-446, figs 31-34 [*Xiphidiogonus*].

Palnis: Sholas bei Kodaikanal, Mariyanshola und Vandaravu, 2150-2350 m, 6.-14.IV. Unspecified number of ♂ and ♀.

The MHNG collection contains nine specimens in alcohol, in four vials. The first vial (MHNG-ARTO-14283) contains five specimens; the adult and one of the four juveniles have a pin running the length of the body. The data label has "Mariyanshola ♂ type and juveniles" written on it. The second vial (MHNG-ARTO-14285) contains three specimens, two of them with a pin running the length of the body, and a label with "Kodaikanal ♀♀" written on it. The third vial (MHNG-ARTO-14286) contains one specimen and a label with "Vandaravu ♂" written on it. The fourth vial (MHNG-ARTO-14284), which is without labels, contains fragments including gonopods. The label in the first tube indicates that Carl considered the ♂ to be the holotype, but this was not stated in the original description and therefore all of these specimens are syntypes. *Xiphidiogonus spinipleurus* was explicitly designated as the type species of the genus *Xiphidiogonus* Carl, 1932 in the original description.

*Xiphidiogonus spinipleurus* Carl, 1932, Paradoxosomatidae

**spiralis** Carl, 1909b: 352-354, pl. 8, fig. 46 [*Odontopyge*]. Njarugenge-Niansa (Central-Ruanda); Kerehe (Süd-Ost-Ruanda); Biaramuli (Ost-Ussuwi); Bukoba. Unspecified number of ♂ and ♀.

The MHNG collection contains 44 specimens in alcohol in three jars. The first jar (MHNG-ARTO-18517) contains four specimens, two of them broken. The identification labels in the jar have "Bukoba Dr J. Carl" and "types Bukoba J. Carl" written on them respectively, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18518) contains 22 specimens, four of them broken. The identification labels in the jar have "Njarugenge-Niansa J. Carl" and "types Ruanda central J. Carl" written on them respectively, indicating that the specimens are syntypes. The third jar (MHNG-ARTO-18519) contains parts of at least 16 specimens, eight of them broken and some apparently incomplete. There is also a vial containing gonopods. The original identification label in the jar has "Biaramuli" written on it, indicating that the specimens are syntypes. An undated typewritten label in the jar states that Hoffman identified these specimens as *Syndesmogenus spiralis* (Carl). There

are four syntypes in the ZMUH (Weidner, 1960) and four (two ♂, one ♀ and one damaged specimen referred to as “Paratypoides” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00184a).

*Haplothysanus spiralis* (Carl, 1909), Odontopygidae

**squamosus** Carl, 1912c: 161-163, pl. 6, figs 30-31, 34, text fig. 15 [*Trigoniulus*].

Posso-See (coll. Sarasin). One ♂ and one juvenile.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14310). The specimen, which has a pin running the length of the body, is in one vial, and the gonopods are in a separate, smaller vial. The pencil-written identification label has “Posso-See – Tomini-Golf, Celebes centr. ex coll. Sarasin” written on it and the specimen is presumably a syntype. There are two syntypes (referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00145a), implying that the number of specimens given in the original description was incorrect.

*Trigoniulus squamosus* Carl, 1912, Pachybolidae

**stellatum** Carl, 1912c: 122-124, text fig. 10 [*Castanotherium*].

Loka und Umgebung bis 1300 m üb. M., Süd-Celebes (coll. Sarasin). More than one ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14304). The identification labels have “types Loka Celebes mérid. coll. Sarasin” and “types Celebes mérid. coll. Sarasin” written on them respectively, indicating that the specimens are syntypes. There are seven syntypes (referred to as “Typen” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00120a).

*Castanotherium stellatum* Carl, 1912, Zephroniidae

**straminipes** Carl, 1909a: 256-257, figs 9, 16-18 [*Spirostreptus* (*Thyropygus*)].

Sumatra. W. Morton. One ♂.

No specimens found in the MHNG. There are two specimens collected by Morton in Sumatra in the MCZL under the name *Thyropygus straminipes*. One of them, which has a pin inserted behind the head and is broken into three parts and accompanied by a vial containing dissected parts, is almost certainly the holotype because as well as signs of having been studied it has the number of segments given in the original description. The other specimen, which is intact and shows no sign of study and has fewer segments than the specimen used for the original description, is not a type.

*Gonoplectus straminipes* (Carl, 1909), Harpagophoridae

**studerii** Carl, 1913a: 207-210, figs 4-5 [*Cordyloporus*].

Yonni, Sierra-Leone; zwischen Laub im Wald. Two ♂ and two ♀.

The MHNG collection contains two specimens in alcohol in two vials. The first vial (MHNG-ARTO-18534) con-

tains a specimen with a pin running the length of the body and a smaller vial holding gonopods. The second vial (MHNG-ARTO-18535) contains a specimen with a pin running the length of the body. The identification labels in the jar have “Sierra-Leone Volz” and “Sierra-Leone W. Volz” written on them respectively, indicating that they are syntypes. A handwritten label in the jar states that Hoffman selected the ♂ as lectotype in 1960, but the designation does not appear to have been formally published. The other two syntypes are presumably in the NMBE.

*Tylodesmus studeri* (Carl, 1913), Chelodesmidae

**subcylindricus** Carl, 1932: 452-454, figs 44-49 [*Paranedyopus*].

Palnis: Kaffeetälchen bei Kukkal, ca. 1900 m, 2.IV. Travancore: Grosser Wald im oberen Vattavada-Tal, ca. 1800 m, 10.IV. Unspecified number of ♂, ♀ and juveniles.

The MHNG collection contains five specimens in alcohol in two vials. The first vial (MHNG-ARTO-18559) contains two specimens, both with a pin running the length of the body. The data label has “♀, ♂ juv. Vattavada” written on it. The second vial (MHNG-ARTO-18560) contains two smaller vials, one holding three specimens, each with a pin running the length of the body, two of them broken, and the other with dissected parts including gonopods. The data label in the larger vial has “Palnis Kukkal” written on it. All of these specimens are syntypes. *P. subcylindricus* is the type species of the genus *Paranedyopus* Carl, 1932 by monotypy (Jeekel, 1971).

*Anoplodesmus subcylindricus* (Carl, 1932), Paradoxosomatidae

**subterraneus** Carl, 1926: 437-438, figs 112-113 [*Spirobolellus*].

Neu-Caledonien: Ngoï-Tal, 200 m, in der Erde, 16. Sep. 1911. Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14336). The specimen has a pin running the length of the body. The identification label has “Ngoje N. Caledonie” written on it, indicating that the specimen is a syntype. There are four syntypes (♂ and ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00371a).

*Spirobolellus subterraneus* Carl, 1926, Spirobolellidae

**subvalidus** Carl, 1941b: 663-665, figs 140-148 [*Thyropygus*].

Shevaroy-Hills: Yerkaud. J. R. Henderson leg. 1894, British Museum. Three ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14520). The identification labels in the jar have “Shevaroy Hills” and “♂ cotype Yerkaud (Shevaroy Hills) Henderson 1894” written on them respectively. The other syntypes were not located in the



BMNH and may be lost. *Thyropygus subvalidus* was designated as the type species of the genus *Carlogonus* Demange, 1961 in the original description of the genus. *Carlogonus subvalidus* (Carl, 1941), Harpagophoridae

**sulcifer** Carl, 1932: 504, fig. 141 [*Pagodesmus*].

Nilgiris: Coonoor, kleine Dschungel, 1500 m, unter Holz, 9.I. More than one juvenile ♀.

The MHNG collection contains parts of at least five specimens in alcohol (MHNG-ARTO-18615). Some of the specimens are in fragments and may be incomplete. The data label has “Nilgiris, Coonoor, petite jungle” written on it, indicating that these specimens are syntypes. *Pagodesmus sulcifer* Carl, 1932, Pyrgodesmidae

**sumatranus** Carl, 1906: 243-245, figs 15-18 [*Trachelomegalus*].

Sumatra (Coll. Mösch et Coll. Schneider). Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol in two jars. The first jar (MHNG-ARTO-14441) contains two specimens; one has a pin running the length of the body, the other is broken into three pieces. There is also a vial containing gonopods. The identification labels in the jar both have “Sumatra coll. Schneider” written on them and there is a printed “Type” label, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-14442) contains one broken specimen. The pencil-written identification label has “Sumatra G. Schneider” written on it, indicating that the specimens are syntypes. There are also three specimens (one ♂ and two ♀ referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00232a) which are probably syntypes.

*Atopochetus sumatranus* (Carl, 1906), Pachybolidae

**suspectum** Carl, 1912c: 109 [*Castanotherium*].

Mapane am Golf von Tomini, Central-Celebes (coll. Sarasin). One damaged ♀.

No specimens found in the MHNG. The ♀ holotype is in the NMB (inventory number NMB-DIPL-00113a).

*Castanotherium suspectum* Carl, 1912, Zephroniidae

**suspensus** Carl, 1918: 439-441, figs 16-18 [*Polyconocerus* (*Polyconoceras*)].

Iles Palau. Musée de Bâle. One ♂ and one ♀.

No specimens found in the MHNG. The two syntypes (one ♂ and one ♀ referred to as “Typus” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00339a).

*Salpidobolus suspensus* (Carl, 1918), Rhinocricidae

**suteri** Carl, 1902: 629-631, pl. 11, figs 50-52 [*Icosidesmus*].

Neuseeland, Nordinsel, Suter (Basler Museum). Two ♂ and one ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18628). The specimen has a pin running

the length of the body. The identification labels in the jar have “N<sup>elle</sup> Zélande Suter” and “♂ type N<sup>lle</sup> Zélande (Nord) Suter” written on them respectively, indicating that the specimen is a syntype. The MHNG also has a microscope slide preparation of gonopods and legs (MHNG-ARTO-18629); it is not clear if these belong to the specimen in alcohol or to the other ♂ syntype. There are two ♀ regarded as syntypes in the NMB (inventory number NMB-DIPL-00469a), implying that the sex of the specimens given in the original description might be incorrect.

*Icosidesmus* (*Icosidesmus*) *suteri* Carl, 1902, Dalodesmidae

**taeniatus** Carl, 1926: 431-433, figs 97-101 [*Spirobolellus*].

Neu-Caledonien: Hienghène; Insel Ouedjo, bei Hienghène, Juni 1911; Koné und Station am Koné-Fluss, Aug. 1911; Mt. Canala; Ngoï-Tal, zwischen Pandanus-Blättern, 16. Sept. 1911; Umgebung von Nouméa; Yaté, März 1912; Prony, März 1912. Loyalty-Inseln: Ouvéa, Fayaoué, Mai 1912; Lifou, Képénée und Nathalo, April 1912; Maré, Médou und Nétché, Dez. 1911. Unspecified number of ♂ (♀ not mentioned explicitly).

The MHNG collection contains 14 specimens in alcohol (MHNG-ARTO-14334). The identification label has “Fayaoué (Ouvea) Loyalty” written on it, indicating that the specimens are syntypes. There are around 40 syntypes (♂ and ♀ referred to as “Typus” in the NMB catalogue) in the NMB (inventory numbers NMB-DIPL-00367a to NMB-DIPL-00367o).

*Spirobolellus taeniatus* Carl, 1926, Spirobolellidae

**tamilum** Carl, 1932: 434-436, figs 16-18 [*Polydrepanum*].

Süd-Indien: “Madras”, J. R. Henderson leg. (Brit. Museum). Three ♂ and three ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14392). The specimens, each have a pin running the length of the body, are in a small vial and there are gonopods and legs in a smaller vial. The label in the large vial housing the two smaller ones has “Polydrepanum tamilum Carl, ♂♀ cotypes, ♂ type gonop., pattes 1, 2, 7, Madras Henderson leg.” written on it, indicating that the specimens are syntypes. Jeekel (1980a) says that the other syntypes “are obviously preserved” in the BMNH, and there are syntypes in their collection; for some reason he referred to the species as *P. tamulum*. *Polydrepanum tamilum* is the type species of the genus *Polydrepanum* Carl, 1932 by monotypy (Jeekel, 1971).

*Polydrepanum tamilum* Carl, 1932, Paradoxosomatidae

**ternetzi** Carl, 1918: 428-431, figs 7-8 [*Trichogonos-treptus*].

San José, Paraguay, Dr Ternetz leg. Musée de Bâle. One ♂ and one ♀.

No specimens found in the MHNG. The syntypes (one ♂ and one ♀ referred to as “Typus” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00337a).

*Trichogonostreptus ternetzi* is the type species of the genus *Trichogonostreptus* Carl, 1918 by monotypy (Jeekel, 1971).

*Trichogonostreptus (Trichogonostreptus) ternetzi* Carl, 1918, Spirostreptidae

**tesselatum** Carl, 1909b: 294-296, pl. 6, fig. 4 [*Strongylosoma*].

Kampala (Uganda) und Jinja (Busoga) in sumpfigen Talböden. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol in two jars. The first jar (MHNG-ARTO-18574) contains a vial holding a broken specimen and a smaller vial holding dissected parts including gonopods. A typewritten label in the larger vial states that Hoffman selected this specimen as lectotype in 1972. The original identification label in the jar has “types! Kampala J. Carl” written on it, indicating that the specimen is part of the type series. An undated typewritten label states that Hoffman identified the specimen as *Ectodesmus tesselatum* (Carl). The second jar (MHNG-ARTO-18575) contains a vial holding four specimens, two with pins running the length of the body. An original identification label in the tube has “Marsch bei Kampala” written on it, indicating that the specimens are part of the type series. A typewritten label in the jar states that Hoffman selected these specimens as “lectoparatypes” in 1972. The identification label in the jar has “Selon Hoffman Paradoxosomatidae *Ectodesmus tesselatum* (Carl)” typewritten on it. The lectotype designation does not seem to have been formally published and all of these specimens are therefore syntypes. There are two syntypes in the ZMUH (Weidner, 1960) and two in the MCZL.

*Habrodesmus tessellatus* (Carl, 1909), Paradoxosomatidae

**transversezonatus** Carl, 1912c: 193-195, text figs 28-32 [*Rhinocricus*].

Mapane, Golf von Tomini, Central-Celebes; Landschaft zwischen Posso-See und Tomini-Golf (coll. Sarasin). One ♂ and four ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-14317). One specimen has a pin running the length of the body, the other is broken into three pieces. The identification labels have “Mapane, Celebes cent. ex coll. Sarasin” written on them, indicating that the specimens are syntypes. The other three syntypes (referred to as “Typen” in the NMB catalogue) are in the NMB (inventory number NMB-DIPL-00164a).

*Salpidobolus transversezonatus* (Carl, 1912), Rhinocricidae

**trichocephalus** Carl, 1912c: 128-130 [*Rhinotus*].

Manipi, Süd-Celebes, bei ca. 800 m (coll. Sarasin). One ♀.

No specimens found in the MHNG. The ♀ holotype is in the NMB (inventory number NMB-DIPL-00125a).

*Rhinotus trichocephalus* Carl, 1912, Siphonotidae

**tricolor** Carl, 1902: 605-607, pl. 10, figs 32-33 [*Leptodesmus*].

Santa Catharina (Brasilien) (Basler Museum). Unspecified number of ♀.

No specimens found in the MHNG. There is one ♀ syntype (referred to as “Holotypus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00458a).

*Leptodesmus tricolor* Carl, 1902, Chelodesmidae

**tricolor** Carl, 1941b: 670-674, figs 159-165 [*Thyropygus*].

Nilgiris: Coonoor, 1500 und 1600 m, kleiner Urwald und Kaffeepflanzung Hillgrove, XII.1926. Three ♂.

The MHNG collection contains the three specimens in alcohol in two vials. The first vial (MHNG-ARTO-14521) contains one specimen and labels with “HillGrove Estate ob. Stufe 22.XII ♂” and “♂ type, 62 segm, Gonopod voir prépar.” written on them respectively. The second vial (MHNG-ARTO-14522) contains two specimens separated by a cottonwool plug; the lower has the head, segments with gonopods and other dissected parts in a smaller vial and a label with “♂ cotype 59 segm<sup>te</sup>” written on it. The vial has a data label with “Kleiner Djungel bei Coonoor 24.XII ♂ ad.” written on it. No holotype was designated in the original description and all of these specimens are syntypes. There are also two microscope slide preparations: 1) a slide (MHNG-ARTO-14523) with the gonopods of the first specimen and 2) a slide (MHNG-ARTO-14524) with the first pair of legs and antennae of one of the specimens.

*Gnomognathus tricolor* (Carl, 1941), Harpagophoridae

**trifida** Carl, 1941a: 369-371, figs 17-22 [*Sundanina*].

Kanda, bei Bombay. Wroughton leg. 1893. British Museum. One ♂.

No specimens found in the MHNG collection. The holotype is in the BMNH.

“*Sundanina*” *trifida* Carl, 1941, Paradoxosomatidae

**triseriatus** Carl, 1912c: 154-156, pl. 5, fig. 18 [*Cryptodesmus*].

Soputan 1200 m, Nord-Celebes (coll. Sarasin). One ♀.

No specimens found in the MHNG. The ♀ holotype is in the NMB (inventory number NMB-DIPL-00140a).

*Cryptodesmus triseriatus* Carl, 1912, Cryptodesmidae

**tuberculatus** Carl, 1932: 493-495, figs 119-122 [*Archandrodesmus*].

Nilgiris: Dodabetta, Reserved Forest, 2400 m, 11.I, unter faulen Stämmen; Elk-Hill, Reserved Forest, 2300 m; Karteri-Tälchen, unterhalb Coonoor, 1550 m, 2.I. One ♂ and an unspecified number of ♀ and juveniles.

The MHNG collection contains 15 specimens in alcohol, in two jars. The first jar contains two vials; the first tube (MHNG-ARTO-14287) contains one specimen and a data label with “Nilgiris, Bangitappali” written on it. This locality is not listed in the original description and the specimens may not be syntypes. The second vial

(MHNG-ARTO-14288) is divided by a cotton wool plug; one section contains one specimen and a data label with “Nilgiris, Vallée de Karteri” written on it, the other contains three specimens and a data label with “Nilgiris, Elk.Hill R. F.” written on it. The specimens in this vial are syntypes. The second jar (MHNG-ARTO-18608) contains a vial holding parts of at least ten specimens and a small vial containing dissected parts. The data label has “Nilgiris Dodabetta R.F.” written on it, indicating that these specimens are syntypes.

*Cryptocorypha tuberculata* (Carl, 1932), Pyrgodesmidae

**unicolor** Carl, 1902: 609-611, pl. 11, figs 35-36 [*Aceratophallus*].

St-José (Costarica), P. Biolley (Genfer Museum). Two ♂. The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18551). Both have a pin running the length of the body. Each is in a vial and there are two other vials containing gonopods. Both of the identification labels in the jar have “♂ types St José, Costarica P. Biolley” written on them, indicating that the specimens are syntypes. *Aceratophallus unicolor* is the type species of the genus *Aceratophallus* Carl, 1902 by monotypy (Jeekel, 1971).

*Aceratophallus unicolor unicolor* Carl 1902, Rhachodesmidae

**urbicola** Carl, 1909b: 361-362, pl. 7, figs 37-38 [*Odontopyge*].

Daressalam, im Naturpark beim Hotel Kaiserhof. Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-18520). All of the specimens are broken, two are reinforced with pins, and they are accompanied by a tube containing gonopods. Both of the identification labels in the jar have “Daressalam J. Carl” written on them, indicating that the specimens are syntypes. An undated typewritten label in the jar states that Hoffman identified the specimens as *Prionopetalum urbiculum* (Carl).

*Prionopetalum urbicola* (Carl, 1909), Odontopygidae

**vagans** Carl, 1941b: 589-592, figs 24-35 [*Diopsiulus* (*Plusiochaeturus*)].

Nilgiris: Alter Weg unterhalb Coonoor, ca. 1500 m und im Erdmulm des Urwalds, unter dicker Laubdecke, XII.1926 und I.1927. Unspecified number of ♂ and ♀.

The MHNG collection contains 14 specimens in alcohol in four vials. The first vial (MHNG-ARTO-14478) contains two specimens and a label with “Diopsiulus vagans Carl ♂♂ Coonoor 4.I.27” written on it. The second vial (MHNG-ARTO-14479) contains three specimens, two of them broken into several pieces, and labels with “Alter Nilgiris ca. 3 Meilen unterhalb Coonoor 4.I.27”, “Diopsiulus vagans Carl Coonoor” and “Alter Nilgiris Coonoor 4.I Präp Diopsiulus II” written on them respectively. The third vial (MHNG-

ARTO-14480) contains six specimens and labels with “Diopsiulus vagans Carl, Coonoor, 2♂♂, 1♀, juv.” and “Stemmiulidae! ♂♀ juv. Coonoor 24-29.XII. Unter dicker Laubdecke, in Erdmulden des Waldes, feucht & schlaffig” written on them respectively. The fourth vial (MHNG-ARTO-14481) contains three broken specimens and a label with “Diopsiulus vagans Carl 3♀♀ Coonoor, 4.I.27” written on it. All of these specimens are syntypes. There are three microscope slide preparations, one labelled “Diopsiulus II vagans Carl Coonoor” and the others “Diopsiulus II”, one of which has locality data. 1) a slide (MHNG-ARTO-14482) with gonopods, legs 1, 2, 3 and 9 and antennae; 2) a slide (MHNG-ARTO-14483) with gonopods, legs 1 and 2 and hypostoma; 3) a slide (MHNG-ARTO-14484) with legs 1, 2 and 3 and the hypostoma of a ♀.

*Stemmiulus vagans* (Carl, 1941), Stemmiulidae

**vagans** Carl, 1909b: 291-293, pl. 6, fig. 3 [*Strongylosoma*]. Vom Kagera durch die Südecke von Karagwe bis Ost-Ussuwi und von hier, seltener werdend, nördlich bis gegen Rubja in der Residentur Bukoba. Unspecified number of ♂ and ♀.

The MHNG collection contains 38 specimens in alcohol in two jars. The first jar (MHNG-ARTO-18576) contains 19 specimens, six of them broken and one with a pin running the length of the body. The data label has “Njarowungo XI.08” written on it and the identification label in the jar has “Strongylosoma vagans n. sp. Carl” written on it, indicating that the specimens are syntypes. The second jar (MHNG-ARTO-18577) contains 19 specimens, one with a pin running the length of the body. The identification labels in the jar have “Biaramuli J. Carl” and “types, Ost-Ussuwi J. Carl” written on them respectively, indicating that the specimens are syntypes. More recent, although undated, labels in both jars have “selon Hoffman: Paradoxosomatitae Xanthodesmus vagans (Carl)” typewritten on them. There are three syntypes in the ZMUH (Weidner, 1960), five in the MCZL, three in the NMB (inventory number NMB-DIPL-00170a) and three in the ZMHB (Moritz & Fischer, 1978a). Four specimens are listed in the accession catalogue of the MTD (No. 388), but these were destroyed in the Second World War. *Xanthodesmus vagans* (Carl, 1909), Paradoxosomatidae

**valdaui multituberculatus** Carl, 1905: 275-276 [*Oxydesmus*].

Cabo St Juan. One ♀.

No specimens found in the MHNG collection. According to Andrés Cobeta (2001: 67) there are two specimens collected by Escalera at the type locality in the MNCN (MNCN 20.07/1185) although neither is explicitly called a type.

*Scytodesmus multituberculatus* (Carl, 1905), Oxydesmidae



**variegatus** Carl, 1902: 626-628, pl. 11, figs 46-48 [*Icosidesmus*].

Neuseeland, Nordinsel, H. Suter (Berner Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18631). The identification labels in the jar have “N<sup>elle</sup> Zélande Suter-Naef” and “♂ type N<sup>lle</sup> Zélande (Nord) Suter” written on them respectively, indicating that the specimen is a syntype. The other syntypes are presumably in the NMBE.

*Icosidesmus* (*Icosidesmus*) *variegatus* Carl, 1902, Dalodesmidae

**velox** Carl, 1912a: 271-272, figs 1-4 [*Trigoniulus*].

Aru-Archipel: Dobo, Wangil (Wald, in Baumstämmen und in der Erde) und Durdjela, Wammer, Samang und Sungi Panua auf Wokam, Seltutti und am Sungi Kolobobo auf Kobroor. Kei-Archipel: Kei-Dulah. Unspecified series, only ♂ mentioned explicitly.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-14438). Two of the specimens have pins running part of the length of the body. The identification labels in the jar both have “Iles Key ex. coll. Merton” written on them and there is a printed “Type” label, indicating that the specimens are syntypes. The SMF collection contains 19 specimens in alcohol in eleven jars (SMF 1353, 1378, 1380, 1383, 1384, 1391, 1393, 1395, 1396, 1434, 1436) from Wammer Insel (Aroe), Dobo (Wammer Insel), Sungi Kolobobo (Kobroor), Durjela (Wammer Insel), zw. Dobo u. Wangil, Wakum and Aroe. There are at least six ♂ specimens. After examination of the types the ♂ and dissected gonopods (SMF 1395) with “Aroe: Wammer-Ins., Durjela, Merton, 1908” written on the identification label is hereby designated as lectotype. *Trigoniulus velox* was designated as the type species of the genus *Eucarlia* Brölemann, 1913 in the original description (Jeekel, 1971).

*Eucarlia velox* (Carl, 1912), Pachybolidae

**velutinus** Carl, 1906: 232-233, figs 19-22 [*Sphaeropoeus*].

Sumatra: Deli und Karoo-Hocheben am Fuss des Vulkans Si-Nabung (Coll. G. Schneider). Unspecified number of ♂ and ♀.

The MHNG collection contains five specimens in alcohol (MHNG-ARTO-18448). The identification labels in the jar have “Sumatra, Schneider” and “Sumatra, Coll. Schneider” written on them respectively, indicating that the specimens are syntypes. The whereabouts of any other syntypes is unknown.

*Sphaeropoeus velutinus* Carl, 1906, Zephroniidae

**velutinus xanthopleurus** Carl, 1909a: 249-250 [*Sphaeropoeus*].

Sumatra (Coll. W. Morton und Museum Bern). Unspecified series.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO.18449). The specimen is accompanied

by a vial containing gonopods. The identification labels in the jar do not give any locality data, but the specimen is probably a syntype. There are two specimens collected by Morton in Sumatra in the MCZL which are syntypes, and presumably at least one other syntype in the NMBE. A junior synonym of *Sphaeropoeus velutinus* Carl, 1906, Zephroniidae

**venusta** Carl, 1914b: 916-917, figs 157-159 [*Trichomorpha*].

Zwischen Tambo und Bocca del Monte. Three ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-18543). The specimen, which has a pin running the length of the body, is in one vial while a smaller vial contains gonopods. The identification labels in the jar have “Colombie coll. Fuhrmann” and “Columbien Coll. Fuhrmann” written on them respectively, indicating that the specimen is a syntype. The whereabouts of the other syntypes is unknown.

*Trichomorpha venusta* Carl, 1914, Chelodesmidae

**vermicularis** Carl, 1909b: 348-350, pl. 7, fig. 40 [*Odontopyge*].

Biamuli (Ost-Ussuwi). Unspecified number of ♂.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18521). Three of the specimens are broken, two are reinforced with pins. The identification labels in the jar have “Biamuli J. Carl” and “type Ost-Ussuwi J. Carl” written on them respectively, indicating that the specimens are syntypes.

*Allantogonus vermicularis* (Carl, 1909), Odontopygidae

**vicarius** Carl, 1941b: 677-679, figs 171-172 [*Thyropygus*].

Anaimalais: Attakatti, 1000 m. One ♂ and one ♀.

The MHNG collection contains the two specimens in alcohol in two vials. The first vial (MHNG-ARTO-14526) contains one specimen broken into two pieces, two smaller vials, one containing gonopods and the other the head and anterior segments, and a label with “♂ type 64 segm.” written on it. The second vial (MHNG-ARTO-14527) contains one specimen broken into two pieces and a label with “♀ 64 segm<sup>tes</sup>” written on it. The identification labels in the jar both have “♂ type ♀ Anaimalais Voy. J. Carl” written on them, indicating that the specimens are syntypes.

*Gnomognathus vicarius* (Carl, 1941), Harpagophoridae

**vicinus** Carl, 1918: 423-424, fig. 3 [*Platyrrhacus* (*Pleorhacus*)].

Eitape, Nouvelle Guinée. E. Wolf leg. One ♂.

No specimens found in the MHNG. The SMF collection contains one ♂ specimen in alcohol accompanied by a microvial with dissected gonopods (SMF 1609). The identification label has “Neu-Guinea: Eitape, E. Wolf, 14.9.1909, ♂ Typus!” written on it, indicating that this specimen is the holotype.

*Pleorhacus vicinus* Carl, 1918, Platyrrhacidae

**virgata** Carl, 1914b: 914-916, figs 153-156 [*Trichomorpha*].

La Camelia bei Angelopolis; Girardot am Magdalena. Unspecified number of ♂ and ♀.

The MHNG collection contains four specimens in alcohol (MHNG-ARTO-18544). The specimens are in a large vial, three of them have pins running the length of the body. A smaller vial contains gonopods and legs. The identification labels in the jar both have “Colombie Coll. Fuhrmann” written on them, indicating that the specimens are syntypes. There are three ♀ syntypes (referred to as “Co-Typus” in the NMB catalogue) in the NMB (inventory number NMB-DIPL-00226a).

*Trichomorpha virgata* Carl, 1914, Chelodesmidae

**virilis** Carl, 1922: 570-572, figs G-K [*Gymnogonodesmus*].

Buitenzorg, in von Termiten bewohntem Holz und in der Erde eines Ameisennestes. One ♂ and more than one ♀. The MHNG collection contains three specimens in alcohol (MHNG-ARTO-18613). Both of the identification labels in the jar have “♀ Buitenzorg Buttell-Reepen” written on them, indicating that the specimens are syntypes. The MHNG also has a microscope slide preparation (MHNG-ARTO-18614) with the gonopods and vulvas of syntypes. *Gymnogonodesmus virilis* is the type species of the genus *Gymnogonodesmus* Carl, 1922 by monotypy (Jeekel, 1971).

*Gymnogonodesmus virilis* Carl, 1922, *incertae sedis*

**volzi** Carl, 1913a: 210-212, figs 6-7 [*Cryptodesmus*].

Yonni, Sierra-Leone. Two ♂ and many ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18582). One of the specimens is broken. The identification labels in the jar have “Yonni (Sierra Leone) Volz” and “♀ Sierra Leone Volz” written on them respectively, indicating that the specimens are syntypes. An undated typewritten label in the jar states that Hoffman identified the specimens as *Aporodesmus pulcher* (Cook). The whereabouts of the other syntypes is unknown.

*Cryptodesmus volzi* Carl, 1913, Cryptodesmidae

**volzi** Carl, 1913a: 217-219, figs 11-12 [*Peridontopyge*].

Freetown, Sierra-Leone. One ♂.

No specimens found in the MHNG. The whereabouts of the holotype is unknown.

*Peridontopyge volzi* Carl, 1913, Odontopygidae

**volzi** Carl, 1906: 233-234, figs 7-11 [*Sphaeropoeus* (*Castanotherium*)].

Sumatra; Palembang (Dr. Volz); Indragiri (G. Schneider); Lahat (Museum Genf). Unspecified number of ♂ and ♀.

The MHNG collection contains two specimens in alcohol (MHNG-ARTO-18450). The specimens are accompanied by a vial containing telopods. One of the identification labels in the jar has “♂ Sumatra, Coll. W. Volz” written

on it, indicating that the specimens are syntypes. Carl’s original label does not give a locality, and it is possible that these specimens are really those listed as deposited in the MHNG in the original description and not specimens collected by Volz. The other syntypes are presumably in the NMBE.

*Castanotherium volzi* (Carl, 1906), Zephroniidae

**willei** Carl, 1932: 425-426, figs 6-7 [*Orthomorpha* (*Kalorthomorpha*)].

Ceylon: Kala Oya, XII 1905, Dr. A. Willey leg. (Brit. Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains a ♀ specimen and isolated gonopods in alcohol (MHNG-ARTO-14384). The intact specimen has a pin running the length of the body and is accompanied by a small vial containing the gonopods and a leg. The label in the large vial has “Orth. (Kalorthomorpha) willei Carl, ♀ cotype, ♂ gonopodes et 3e patte. Ceylon ex. Brit. Muséum” written on it, indicating that the specimens are syntypes. The rest of the ♂ was returned to the BMNH. A handwritten label in the jar indicates that the specimens were studied by Jeekel in 1976. Jeekel (1980a) designated *Orthomorpha willei* as the type species of the genus *Pyrargogonus* Jeekel, 1980 in the original description of the genus.

*Pyrargogonus willei* (Carl, 1932), Paradoxosomatidae

**xerophila** Carl, 1909b: 336-337, pl. 7, figs 37-38 [*Odontopyge*].

Njarugenje (Central-Ruanda) im Grasland; zwischen Kagera und Mohasisee (Ost-Ruanda), vereinzelt im trocken Busch. Unspecified number of ♂.

The MHNG collection contains parts of at least three specimens in alcohol (MHNG-ARTO-18522). Two of the specimens are broken and two are reinforced with pins; the fragments of one of these are separated in a vial. A second vial contains dissected parts including gonopods. The identification labels in the jar have “Njarugenje”, “Ruanda J. Carl” and “types Ruanda J. Carl” written on them respectively, indicating that the specimens are syntypes.

*Prionopetalum xerophilum* (Carl, 1909), Odontopygidae

**xylophilus** Carl, 1926: 438-439, figs 114-115 [*Spirobolellus*].

Neu-Caledonien: Oubatche, Wald, 600 m in faulem Holz, April 1911; Mt. Panié, Wald, 500 m, 27. Juni 1911. Two ♂ and two ♀.

No specimens found in the MHNG collection. The four syntypes (two ♂ and two ♀ referred to as “Typus” in the NMB catalogue) are in the NMB (inventory numbers NMB-DIPL-00372a and NMB-DIPL-00372b).

*Spirobolellus xylophilus* Carl, 1926, Spirobolellidae

**yatensis** Carl, 1926: 444-445, figs 127-128 [*Spirobolellus*].

Neu-Caledonien: Yaté ca. 500 m, März 1912. One ♂.

No specimens found in the MHNG collection. The ♂

holotype is in the NMB (inventory number NMB-DIPL-00377a).

*Spirobolellus yatensis* Carl, 1926, Spirobolellidae

**zehntneri** Carl, 1911: 404-407, figs 10-14 [*Mastodesmus*]. Java. Dr. L. Zehntner leg. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14289). The specimen, in a vial, is broken into two parts. A second vial contains fragments of gonopods. One of the identification labels in the jar has “type Java, Dr L. Zehntner” written and indicates that the specimen is the holotype, the other label is almost illegible. *Mastodesmus zehntneri* is the type species of the genus *Mastodesmus* Carl, 1911 by monotypy (Jeekel, 1971).

*Mastodesmus zehntneri* Carl, 1911, Polydesmidea incertae sedis

**zehntneri** Carl, 1902: 584-586, pl. 10, fig. 22 [*Orthomorpha*].

Java, Dr. L. Zehntner (Genfer Museum). Unspecified number of ♂ and ♀.

The MHNG collection contains 39 specimens in alcohol in six vials. The first vial (MHNG-ARTO-14395) contains one specimen broken into three parts and a smaller vial containing gonopods. A handwritten label reads “1♂ syntype *Orthomorpha zehntneri* Carl, Java leg. L. Zehntner” and a handwritten label in the jar states that this specimen was studied by Jeekel in 1976. The second vial (MHNG-ARTO-14396) contains two broken specimens and a smaller vial containing a gonopod. A handwritten label reads “*Orthomorpha zehntneri* Carl, Java leg. L. Zehntner”. The third vial (MHNG-ARTO-14397) contains two specimens, each with a pin running the length of the body. The fourth vial (MHNG-ARTO-14398) contains 11 specimens. The fifth tube (MHNG-ARTO-14399) contains 23 specimens. The sixth vial (MHNG-ARTO-14400) contains one broken specimen. The identification labels in the jar have the locality information “Java, Zehntner” and “Java, Dr L. Zehntner” written on them respectively, indicating that the specimens are syntypes. There is also a microscope slide preparation of gonopods (MHNG-ARTO-14535). There are two further syntypes in the NMB (inventory number NMB-DIPL-00452a).

*Orthomorpha zehntneri* Carl, 1902, Paradoxosomatidae

**zehntneri** Carl, 1912d: 510-512, pl. 9, figs 4-7, 9 [*Siphonophora*].

Dempuran, Java. Dr. L. Zehntner. Unspecified number of ♂ and ♀.

The MHNG collection contains 21 specimens in alcohol (MHNG-ARTO-14529). The identification labels in the jar have “Dempuran (Java) Dr L. Zehntner” written on them, indicating that the specimens are syntypes. *Siphonophora zehntneri* was designated as the type

species of the genus *Lomboknium* Jeekel, 2001 in the original description of the genus.

*Lomboknium zehntneri* (Carl, 1912), Siphonophoridae

**zehntneri** Carl, 1909a: 269-270, figs 15, 25 [*Spirostreptus* (*Thyropygus*)].

[Java, Zehntner]. Unspecified number of ♂ and ♀.

The MHNG collection contains seven specimens in alcohol (MHNG-ARTO-14528). Three of the specimens are broken, and there is a small vial with gonopods and other dissected parts. The identification labels in the jar have “Java Dr L. Zehntner” written on, indicating that the specimens are syntypes, and an undated typed label states that Hoffman studied the specimens.

*Remulopygus zehntneri* (Carl, 1909), Harpagophoridae

**zonatus** Carl, 1918: 462-465, figs 49-51 [*Messicobolus*]. Guatemala. Muséum de Genève. One ♂.

The MHNG collection contains one specimen in alcohol (MHNG-ARTO-14290). The specimen is broken into two parts, and the gonopods are in a separate vial in the jar. The data label has “Guatemala, M<sup>r</sup> Oltramare” written on it. The identification labels have “type Guatemala, M<sup>r</sup> Oltramare” written on them, indicating that the specimen is the holotype.

*Messicobolus zonatus* Carl, 1918, Messicobolidae

**zonatus** Carl, 1912c: 149-151, pl. 5, fig. 9 [*Platyrrhacus*]. Insel Kabaena, südlich von Celebes (Dr Elbert). Two ♂ and three ♀.

The MHNG collection has two specimens in alcohol (MHNG-ARTO-14291). The specimens, one of which has a pin running the length of the body, are in a vial along with a microvial containing the gonopods of the ♂. The identification labels have “Ile Kabaena, S. de Celebes, coll. Elbert” and “♂♀ types Ile Kabaena, S. de Celebes, coll. Elbert” written on them respectively, indicating that the specimens are syntypes. The SMF collection contains one ♂ and three ♀ (one of which is incomplete) in alcohol, accompanied by a microvial with dissected gonopods (SMF 861). The identification label has “Insel Kabaena, J. Elbert” written on it, indicating that the specimens are syntypes. *Platyrrhacus zonatus* Carl was designated as the type species of *Mastigorhacus* Jeekel, 2007 in the original description of the genus.

*Mastigorhacus zonatus* (Carl, 1912), Platyrrhacidae

Carl (1902) gave a description and illustrated the gonopod of some very much smaller specimens noted by Saussure & Humbert (1872) among those they identified as *S. mexicanus* (Saussure, 1859). Attems recognised that they represented a distinct species and named them *Sphaeriodesmus saussurei* Attems, 1899, apparently without having seen the specimens himself. The four syntypes are in the MHNG collection (MHNG-ARTO-18243 to MHNG-ARTO-18246). The MHNG collection also contains a number of specimens placed under names that were never published.



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