



Catalogue of the Bolitophilidae and Diadocidiidae of the World (Insecta: Diptera)

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Abstract

The catalogue includes all available and unavailable names that apply to the recent and fossil members of the families Bolitophilidae and Diadocidiidae occurring in the world. Taxonomic references given after each name pertain to the original description with author, year and pages; type locality; type depository and chronological list of synonyms. Complete distributional information from the literature is listed for each species. A total of 81 species-group names in 2 genera are listed for Bolitophilidae, of which 65 are taxonomically valid. For Diadocidiidae, 31 species-group names in 2 genera are listed, of which 26 are taxonomically valid. The following taxonomic changes are made: *Bolitophila pulveris* Lewis, 1969 is removed from Bolitophilidae, *Palaeodocidia* Sasakawa, 2004 is treated as **syn. nov.** of *Diadocidia* Ruthe, 1831, *Diadocidia bifurcata* Fedotova & Perkovsky, 2004 is removed from Diadocidiidae and transferred to Cecidomyiidae.

Key words: Diptera, catalogue, synonymy, distribution

Introduction

Fungus gnats of the families Bolitophilidae and Diadocidiidae are medium-sized flies (3-10 mm), common and diverse in forest habitats. Adults are mostly found in dark, damp places, especially steep overhanging banks in woods, cliffs, the mouths of caves, under overhanging rocks, the root systems of fallen trees, along banks of streams, etc. Some species of *Bolitophila* aestivate and hibernate in caves. Larvae of all species of Bolitophilidae, where the biology is known, are mycophagous and develop in the sporocarps of basidiomycete fungi (Krivosheina *et al.* 1986, Yakovlev 1994, Ševčík 2006). The larvae of *Diadocidia* are associated with decaying wood and develop within a mucous tube under rotting logs, where they feed on the hymenium of higher fungi (Hutson *et al.* 1980, Yakovlev 1994, Zaitzev 1994). The larvae of *D. ferruginosa* are known to feed on the fungus *Peniophora* sp. (Hutson *et al.* 1980).

With the exclusion of fossil taxa that had been placed in Bolitophilidae (see below under Taxa excluded from Bolitophilidae), the only known fossil taxa are the diadocidiids: *Diadocidia parallela* Evenhuis, 1994 from the Eocene/Oligocene amber of Baltic Region and *Docidiadia* Blagoderov & Grimaldi, 2004 with the species *Docidiadia burmitica* Blagoderov & Grimaldi, 2004 from Cretaceous amber of Myanmar.

Recent known distribution of Bolitophilidae is mainly Holarctic, excluding three species in Taiwan (Oriental Region). Diadocidiidae is known from Holarctic, Oriental, Australasian/Oceanian and Neotropical realms.

Species Distribution

	NEA	PAL	OR	AUS	NEO	AFR	Total
Bolitophilidae							
Bolitophila	20	45	3	-	-	-	64
subg. <i>Bolitophila</i>	9	14	2	-	-	-	23
subg. <i>Cliopisa</i>	11	31	1	-	-	-	41
Diadocidiidae							
Diadocidia	3	9	6	5	3	-	24
subg. <i>Adidocidia</i>	2	3	-	3	1	-	9
subg. <i>Didocidia</i>	1	3	3	2	-	-	7
subg. <i>Taidocidia</i>	-	-	1	-	-	-	1
subg. undesignated	-	3	2	-	2	-	7

Note: Questionable and fossil taxa are not included in the table.

Explanatory Information

The design of this catalogue follows the Catalog of the Keroplatidae of the World (Evenhuis 2006). The exceptions to the Evenhuis format are the following: (1) the names of the families, subfamilies and genera are given with author and year; (2) species names are written fully, with genus (subgenus), author and year; (3) for every species to the right of the name is given the abbreviation of the zoogeographical realm(s) in which it is found; (4) bibliographic citations for synonymies are given after the synonym names; (5) distribution of Palearctic species is given for Europe, Asia, and North Africa separately; (6) basic bibliographic sources and updates, and recent distribution are given for the families.

Taxonomic and Nomenclatural Information

- Scope.** This catalogue includes all names, available and unavailable according to the *ICZN*, that apply to the recent and fossil members of the families Bolitophilidae and Diadocidiidae occurring in the world.
- Arrangement of taxa.** Taxa are arranged alphabetically and synonyms are arranged chronologically.
- Typographical treatment of names.** Genus-group and suprageneric headings are centred with authorship. Taxonomically valid genus-group and species-group names are listed in boldface and placed flush left (uppercase for genus-group names; lowercase for species-group names). Nomenclaturally invalid genus-group names are in italics, species-group names are indented. For species-group names, the full reference with original generic combination and genus-group and species-group orthography, author, year, page, and associated synonyms are indented below the main species-group name entry in chronological order. The bibliographic source for the synonymy follows the synonym.
- Taxonomic references.** References given after each name pertain to the original proposal of that name. Each reference consists of name (genus- or species-group), author(s), year of publication, and page. Nomenclaturally available genus-group names follow this reference line with information on the type species. Taxonomically valid species-group names are followed by geographical distribution. Misidentifications are not treated.
- Type species.** Type species of genus-group names are listed in their original binomia with original authorship and date irrespective of their citation and orthography at the time of the establishment of the genus-group name. The correct nominal type species is listed first, with any senior synonym listed in brackets, e.g. "Type species: *Diadocidia flavicans* Ruthe, 1831 [= *Mycetobia ferruginosa* Meigen, 1830]." Method of fixation of type species follows Articles 68 and 69 of the *ICZN* and uses the terms "original designation", "monotypy", and "subsequent designation".
- Type depositories.** Depository information is taken from the literature. Abbreviations for collections follow the standard listed online by Evenhuis (2008).

Abbreviations for type depositories:

AMNH = American Museum of Natural History, New York, USA
 ANIC = Australian National Insect Collection, Canberra, ACT, Australia
 BMNH = Natural History Museum, London, UK
 BPBM = Bishop Museum, Honolulu, Hawai'i, USA
 CAS = California Academy of Sciences, San Francisco, California, USA
 CNC = Canadian National Collection, Ottawa, Ontario, Canada
 CUIC = Cornell University, Ithaca, New York, USA
 EIHU = Entomological Institute, Hokkaido University, Sapporo, Japan
 HNHM = Hungarian Natural History Museum, Budapest, Hungary
 IEME = Institute of Evolution, Morphology and Ecology of Animals, Moscow, Russia
 InBio = Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica
 KBIN = Royal Belgian Institute of Natural History, Brussels, Belgium
 MDRG = Museum voor Dierkunde, Rijksuniversiteit, Ghent, Belgium
 MMBC = Moravian Museum, Brno, Czech Republic
 MNHL = Muséum d'Histoire Naturelle de Ville de Lille, Lille, France
 MNHN = Muséum National d'Histoire Naturelle, Paris, France
 MZHF = Finnish Museum of Natural History, University of Helsinki, Helsinki, Finland
 MZLU = Zoological Museum, University of Lund, Lund, Sweden
 MVMA = Museum of Victoria, Abbotsford, Victoria, Australia
 NMW = Naturhistorisches Museum, Vienna, Austria
 OMNH = Osaka Museum of Natural History, Osaka, Japan
 PAN = Polish Academy of Sciences, Warsaw, Poland
 PIN = Paleontological Institute, Russian Academy of Sciences, Moscow, Russia
 SMF = Forschungsinstitut und Museum Senckenberg, Frankfurt, a.M., Germany
 SMNS = Museum für Naturkunde, Stuttgart, Germany
 SIZC = Schmalhausen Institute of Zoology, National Academy of Sciences, Kiev, Ukraine
 TAU = Tel Aviv University, Ramat Aviv, Israel
 UCMC = University of Colorado Museum, Boulder, Colorado, USA
 USNM = National Museum of Natural History, Washington, D.C., USA
 UTR = University of Tomsk, Tomsk, Russia
 ZFCL = Zhejiang Forestry University [formerly College], Linan, Zhejiang, China
 ZIS = Zoological Institute, Russian Academy of Science, St. Petersburg, Russia
 ZMHB = Museum für Naturkunde, Humboldt-Universität, Berlin, Germany
 ZSM = Zoologische Staatssammlung des Bayern, Munich, Germany

7. Abbreviations. The following abbreviations and symbols are used:

AUS = Australasian/Oceanian
 des. = designated
 FOS = fossil
 H = holotype
 HOL = Holarctic
 I.(s) = Island(s)
 ICZN = International Code of Zoological Nomenclature
 L = lectotype
 NEA = Nearctic
 NEO = Neotropical
 OR = Oriental
 PAL = Palaearctic

S = syntype(s)
 T = type (status not ascertained)
 UK = United Kingdom
 USA = United States of America
 ? = depository is unknown/ unclear

Treatment of Geographical Information.

- Zoogeographical realm delimitation.** The zoogeographical realms used here are Afrotropical, Australasian/Oceanian, Nearctic, Neotropical, Oriental, and Palaeartic. Delimitation of the Afrotropical and Australasian realms are based primarily on the boundaries used in those regional Diptera catalogues (cf. Crosskey, 1980). The boundaries for the remainder of the zoogeographical realms are based on political boundaries as this provided a convenient and absolute delimitation, though they may be at odds with realms from a zoological standpoint. For the delimitation between the Nearctic and Neotropical Regions, the boundaries in Mexico are based on the following: **Nearctic** includes Aguascalientes, Baja California, Baja California Sur, Chihuahua, Coahuila de Zaragoza, Colima, Distrito Federal, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, México, Michoacán de Ocampo, Morelos, Nayarít, Nuevo León, Puebla, Querétaro de Arteaga, San Luis Potosí, Sinaloa, Sonora, Tamaulipas, Tlaxcala, Veracruz-Llave, and Zacatecas; **Neotropical** includes Campeche, Chiapas, Oaxaca, Quintana Roo, Tabasco, and Yucatán. For the delimitation of the Oriental and Palaeartic Regions, the boundaries in China are based on the following: **Oriental** includes Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hong Kong, Hunan, Jiangxi, Shanghai, Yunnan, and Zhejiang; **Palaeartic** includes Anhui, Beijing, Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Nei Monggol, Ningxia, Qinghai, Shanxi, Shaanxi, Shandong, Sichuan, Tianjin, Xinjiang, and Xizang.
- Type localities:** Only the country and state or province is listed.
- Distribution.** Complete distributional information from the literature is listed in alphabetical order. The following countries are broken down to state/province/island: Australia, Brazil, Canada, China, Russia, and the United States.

Distribution of Palaeartic species is given for Europe, Asia and North Africa separately. Parts of European Russia (Central European Russia, East European Russia, North European Russia, South European Russia and Northwest European Russia) are given as in Brummitt (2001). Delimitation of Siberia (West Siberia, East Siberia and Russian Russian Far East) is based on the boundaries used in the Catalogue of Palaeartic Diptera (cf. Soós & Papp 1988). The names Altai Region, Primorie Region and Habarovsk Region are used for Altaiskiy kray, Primorskiy kray and Habarovskiy kray respectively. The Russian Caucasian republics, Georgia and Azerbaijan are included in Europe.

Species listed from the UK are all recorded from Great Britain; only those species also listed from Ireland are also known from Northern Ireland. Species listed for Ireland are known from both Northern Ireland and the Republic of Ireland, except for *Bolitophila spinigera* (Edwards, 1925) which is known only from the latter.

Catalogue

Family BOLITOPHILIDAE Winnertz, 1864

BASIC SOURCES: Plassmann (1988a), Chandler (2004), Laffoon (1965).

UPDATES: **Palaeartic:** Bechev (2009), Bechev & Koç (2006), Blagoderov (1992), Joost & Plassmann (1976), Kjaerandsen & Jordal (2007), Kjaerandsen *et al.* (2007), Maximova (2002), Ostroverkhova & Maksimova (2000), Papp (2007), Papp & Ševčík (2007), Parvu (2004), Polevoi *et al.* (2006), Rindal & Gammelmo (2008), Ševčík (2005), Wu & Yang (1993), Zaitzev (1994); **Oriental:** Ševčík & Papp (2004)

RECENT DISTRIBUTION: **Palaeartic**—45 species (including 3 Holarctic and 1 Palaeartic/Oriental), **Nearctic**—20 (including 3 Holarctic), **Oriental**—3 (including 1 Palaeartic/Oriental).

Genus *BOLITOPHILA* Meigen, 1818

BOLITOPHILA Meigen, 1818: 220. Type species: *Bolitophila cinerea* Meigen, 1818, by subsequent designation (Westwood 1840: 127).

MESSALA Curtis, 1836: 581. Type species: *Messala saundersii* Curtis, 1836, by monotypy. Synonymy: Westwood (1840).

BOLITOPHILELLA Landrock, 1925: 179. Type species: *Bolitophilella cinerea* Meigen, by subsequent designation (Okada 1939: 292).

Subgenus *BOLITOPHILA* Meigen, 1818

Bolitophila (Bolitophila) antennata Ševčík & Papp, 2004 **OR**

Bolitophila (Bolitophila) antennata Ševčík & Papp, 2004: 56. TYPE LOCALITY: Taiwan [H ♂ in HNHM].

DISTRIBUTION: **ORIENTAL**: Taiwan.

Bolitophila (Bolitophila) atlantica Fisher, 1934 **NEA**

Bolitophila atlantica Fisher, 1934: 276. TYPE LOCALITY: USA (New Hampshire) [H ♂ in CUIC].

DISTRIBUTION: **NEARCTIC**: USA (New Hampshire).

Bolitophila (Bolitophila) austriaca (Mayer, 1950) **PAL**

Messala austriaca Mayer, 1950: 282. TYPE LOCALITY: Austria [H ♂ in NMW].

DISTRIBUTION: **PALAEARCTIC**: **Europe**: Czech Republic, Estonia, Finland, France, Germany, Italy, Norway, North European Russia, Central European Russia, South European Russia, Slovakia, Sweden, Switzerland; **Asia**: West Siberia (Altai Region, Kemerovo Province, Tomsk Province), East Siberia (Tungusk-Chunsk Region), Russian Far East (Habarovsk Region, Kunashir I.).

Bolitophila (Bolitophila) basicornis (Mayer, 1951) **PAL**

Messala basicornis Mayer, 1951: 134. TYPE LOCALITY: Austria [H ♂ in NMW].

DISTRIBUTION: **PALAEARCTIC**: **Europe**: Austria, Bulgaria, Czech Republic, Estonia, Finland, Germany, Hungary, Norway, Poland, North European Russia, Central European Russia, Slovakia, Sweden, Switzerland, UK; **Asia**: West Siberia (Altai Region, Novosibirsk Province, Tomsk Province), Russian Far East (Primorie Region).

Bolitophila (Bolitophila) bucera Shaw, 1940 **NEA**

Bolitophila bucera Shaw, 1940: 48. TYPE LOCALITY: USA (Oregon) [H ♂ in USNM].

DISTRIBUTION: **NEARCTIC**: USA (Oregon).

Bolitophila (Bolitophila) caspersi Plassmann, 1986 **PAL**

Bolitophila (B.) caspersi Plassmann, 1986: 143. TYPE LOCALITY: Sweden [H ♂ in ZSM].

DISTRIBUTION: **PALAEARCTIC**: **Europe**: Finland, Norway, Sweden; **Asia**: West Siberia (Altai Region).

Bolitophila (Bolitophila) cinerea Meigen, 1818 **HOL**

Bolitophila cinerea Meigen, 1818: 221. TYPE LOCALITY: Germany [S ? lost, not in MNHN].

DISTRIBUTION: **PALAEARCTIC**: **Europe**: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Corsica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Greece, Hungary, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Montenegro, Republic of Moldova, Norway, Poland, Romania, North European Russia (incl. Novaya Zemlya), Central European Russia, South European Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, The Netherlands, UK; **Asia**: West Siberia (Altai Region, Novosibirsk Province, Tomsk Province), East Siberia (North Yakutiya), Russian Far East (Primorie Region, Kunashir I.), Japan.

NEARCTIC: Canada (British Columbia), USA (Maine, New York, South Carolina).

Note. Meigen (1818: 221) attributed the species to Hoffmannsegg. When Edwards (1924a) studied Meigen's types, he remarked that very few of the Meigen species described from Hofmannsegg's collection were present at Paris or Vienna. The location of Hofmannsegg's collection has not been ascertained.

- Bolitophila (Bolitophila) collarti* (Tollet, 1943) PAL
Messala collarti Tollet, 1943: 17. TYPE LOCALITY: Belgium [H ♂ in KBIN].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Belgium.
- Bolitophila (Bolitophila) cooremani* (Tollet, 1955) PAL
Messala cooremani Tollet, 1955: 454. TYPE LOCALITY: Romania [H ♀ in KBIN].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Romania, Serbia.
- Bolitophila (Bolitophila) dubiosa* Van Duzee, 1928 NEA
Bolitophila dubiosa Van Duzee, 1928: 32. TYPE LOCALITY: USA (California) [H ♂ in CAS].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia), USA (California).
- Bolitophila (Bolitophila) dupla* Garrett, 1925 NEA
Bolitophila duplus Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).
- Bolitophila (Bolitophila) japonica* (Okada, 1934) PAL/OR
Bolitophilella japonica Okada, 1934: 16. TYPE LOCALITY: Japan [H ♂ in EINU].
 DISTRIBUTION: **PALAEARCTIC:** Japan, Nepal; **ORIENTAL:** Taiwan.
- Bolitophila (Bolitophila) lengersdorfi* (Tollet, 1955) PAL
Messala lengersdorfi Tollet, 1955: 453. TYPE LOCALITY: Romania [H ♀ in KBIN].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Romania, Serbia.
- Bolitophila (Bolitophila) leruthi* (Tollet, 1955) PAL
Messala leruthi Tollet, 1955: 451. TYPE LOCALITY: Romania [H ♀ in KBIN].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Romania.
- Bolitophila (Bolitophila) miki* (Mayer, 1950) PAL
Messala miki Mayer, 1950: 281. TYPE LOCALITY: Austria [H ♂ in NMW].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Sweden; **Asia:** Russian Far East (Primorie Region).
- Bolitophila (Bolitophila) patulosa* Garrett, 1925 NEA
Bolitophila patulosa Garrett, 1925: 7. TYPE LOCALITY: USA (California) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** USA (California).
- Bolitophila (Bolitophila) perlata* Garrett, 1925 NEA
Belitophila perlata Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (Quebec, British Columbia), USA (Connecticut).
- Bolitophila (Bolitophila) raca* Garrett, 1925 NEA
Bolitophila raca Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).
- Bolitophila (Bolitophila) saundersii* (Curtis, 1836) PAL
Messala saundersii Curtis, 1836: 581. TYPE LOCALITY: UK [H ♂ in MVMA].
 ? *Bolitophila trullata* Lundström, 1916: 78. TYPE LOCALITY: Sweden [H ♂ in MZHF]. Synonymy: Edwards (1925).

Messala plumicornis Mayer, 1951: 134. TYPE LOCALITY: Austria [H ♂ in NMW]. Synonymy: Hutson & Kidd (1971).

DISTRIBUTION: **PALAEARCTIC: Europe:** Andorra, Austria, Belgium, Bulgaria, Corsica, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Madeira, Norway, Poland, Portugal, Romania, North European Russia, Slovakia, Spain, Sweden, Switzerland, The Netherlands, UK; **Asia:** Turkey, West Siberia (Altai Region, Kemerovo Province), East Siberia (North Yakutiya, Novosibirskie Is.), Russian Far East (Kunashir I.), Turkey; **North Africa:** Algeria.

Bolitophila (Bolitophila) sibirica (Ostroverchova, 1979) **PAL**

Messala sibirica Ostroverchova, 1979: 30. TYPE LOCALITY: West Siberia (Tomsk Province, Krasnoyarsk Region) [S 3 ♂ in UTR].

DISTRIBUTION: **PALAEARCTIC: Asia:** West Siberia (Tomsk Province, Krasnoyarsk Region).

Bolitophila (Bolitophila) simplex Garrett, 1925 **NEA**

Bolitophila simplex Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].

DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).

Bolitophila (Bolitophila) spinigera Edwards, 1925 **PAL**

Bolitophila spinigera Edwards, 1925: 514. TYPE LOCALITY: UK [H ♂ in BMNH].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Finland, France, Germany, Ireland, Italy, Latvia, Romania, South European Russia, Spain, Sweden, Switzerland, The Netherlands, UK, Ukraine.

Bolitophila (Bolitophila) tenella Winnertz, 1864 **PAL**

Bolitophila tenella Schiner, 1863: 430. *Nomen nudum*.

Bolitophila tenella Winnertz, 1864: 674. TYPE LOCALITY: Russia (Sankt-Peterburg) [T ♂♀ in ?].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Belgium, Bulgaria, Corsica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Hungary, Latvia, Norway, Republic of Moldova, Poland, North European Russia, South European Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, UK; **Asia:** West Siberia (Altai Region, Kemerovo Province), Japan.

Subgenus *CLIOPISA* Enderlein, 1936

CLIOPISA Enderlein, 1936: 11 (as genus). Type species: *Bolitophila occlusa* Edwards, 1913, monotypy.

Bolitophila (Cliopisa) acuta Garrett, 1925 **NEA**

Bolitophila acuta Garrett, 1925: 7. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].

DISTRIBUTION: **NEARCTIC:** Canada (British Columbia), USA (New York).

Bolitophila (Cliopisa) alberta Fisher, 1937 **NEA**

Bolitophila alberta Fisher, 1937: 389. TYPE LOCALITY: Canada (Alberta) [H ♂ in CUIC].

DISTRIBUTION: **NEARCTIC:** Canada (Alberta).

Bolitophila (Cliopisa) aperta Lundström, 1914 **PAL**

Bolitophila aperta Lundström, 1914: 5. TYPE LOCALITY: North European Russia (Murmansk Province) [T ♂ in MZHF].

DISTRIBUTION: **PALAEARCTIC: Europe:** Czech Republic, Estonia, Finland, France, Latvia, Norway, North European Russia, Slovakia, Sweden; **Asia:** West Siberia (Altai Region, Kemerovo Province), Russian Far East (Ussuriysk, Sakhalin I., Kunashir I.).

Bolitophila (Cliopisa) bilobata Garrett, 1925 **NEA**

Bolitophila bilobata Garrett, 1925 : 7. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].

DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).

- Bolitophila (Cliopisa) bimaculata*** Zetterstedt, 1838 **PAL**
Bolitophila 2-maculata Zetterstedt, 1838: 854. TYPE LOCALITY: Finland [L ♂ in MZLU].
Bolitophila bimaculata Roser, 1840: 51. TYPE LOCALITY: Germany [S 2♀ in SMNS]. Synonymy: Landrock (1912).
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Bosnia and Herzegovina, Czech Republic, Estonia, Finland, France, Germany, Italy, Norway, Poland, North European Russia, South European Russia, Slovakia, Sweden, Switzerland, UK.
Note: According Kjaerandsen *et al.* (2007) "... remaining type material consist of two specimens in poor condition, without terminalia. A. M. Hutson designated a male lectotype, now without terminalia (possibly on a separate slide). Further remaining material determined as *B. bimaculata* by Zetterstedt belongs to *B. maculipennis* and *B. ingrca*".
- Bolitophila (Cliopisa) bispinosa*** Mayer, 1951 **PAL**
Bolitophila bispinosa Mayer, 1951: 129 TYPE LOCALITY: Austria [H ♂ in NMW].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Belarus, Italy, North European Russia, Switzerland; **Asia:** West Siberia (Krasnoyarsk Region), East Siberia (Tungusks-Chunsk Region, Yakutiya).
- Bolitophila (Cliopisa) clavata*** Garrett, 1925 **NEA**
Bolitophila clavata Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).
- Bolitophila (Cliopisa) connectans*** Garrett, 1925 **NEA**
Bolitophila connectans Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).
- Bolitophila (Cliopisa) curviseta*** Ostroverchova, 1979 **PAL**
Bolitophila curviseta Ostroverchova, 1979: 20. TYPE LOCALITY: West Siberia, Russian Far East [S 3 ♀ in UTR].
 DISTRIBUTION: **PALAEARCTIC: Asia:** West Siberia (Tomsk Province, Beysk Region), Russian Far East (Habarovsk Region).
- Bolitophila (Cliopisa) distus*** Fisher, 1937 **NEA**
Bolitophila distus Fisher, 1937: 389. TYPE LOCALITY: USA (New York) [H ♂ in CUIC].
 DISTRIBUTION: **NEARCTIC:** USA (New York).
- Bolitophila (Cliopisa) doerrsteini*** Plassmann, 1988 **PAL**
Bolitophila (Cliopisa) doerrsteini Plassmann, 1988b: 23. TYPE LOCALITY: Germany [H ♂ in ZSM].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Germany, Sweden.
- Bolitophila (Cliopisa) dubia*** Siebke, 1863 **HOL**
Bolitophila dubia Siebke, 1863: 185. TYPE LOCALITY: Norway [L ♂ in BMNH] (des. Hutson & Kidd (1974)).
Bolitophila disjuncta Loew, 1869: 19. TYPE LOCALITY: Germany [H ♂ in ZIS]. Synonymy: Edwards (1941).
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Czech Republic, Estonia, Finland, France, Georgia, Germany, Hungary, Italy, Latvia, Norway, Poland, Romania, North European Russia, Northwest European Russia, Central European Russia, South European Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK, Ukraine; **Asia:** West Siberia (Krasnoyarsk Region, Altai Region, Kemerovo Province), Russian Far East (Habarovsk Region, Kunashir I.), China (Jilin Province), Japan;
NEARCTIC: Canada (Alberta, British Columbia), USA (New Hampshire, New York, Idaho, Maine).
- Bolitophila (Cliopisa) edwardsiana*** Stackelberg, 1969 **PAL**
Bolitophila edwardsiana Stackelberg, 1969: 248. TYPE LOCALITY: Northwest European Russia (Sankt-Peterburg Region) [H ♂ in ZIS].

DISTRIBUTION: **PALAEARCTIC: Europe:** Estonia, Finland, France, Germany, Hungary, Norway, Poland, Romania, North European Russia, Northwest European Russia, Central European Russia, Slovakia, Sweden, Switzerland; **Asia:** West Siberia (Kemerovo Province), East Siberia (Tungussk-Chunsk Region, North Yakutiya).

Bolitophila (Cliopisa) fumida Edwards, 1941

PAL

Bolitophila fumida Edwards, 1941: 22. TYPE LOCALITY: UK [H ♂ in BMNH].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Bulgaria, Czech Republic, Estonia, Finland, Germany, Norway, Poland, North European Russia, Northwest European Russia, Slovakia, Spain, Sweden, UK, Ukraine; **Asia:** West Siberia (Kemerovo Province, Tomsk Province), East Siberia (Tungussk-Chunsk Region), Russian Far East (Ussuriysk, Kunashir I.)

Bolitophila (Cliopisa) glabrata Loew, 1869

PAL

Bolitophila glabrata Loew, 1869:19. TYPE LOCALITY: Poland [S 1 ♀ and 1 without abdomen (J. Ziegler, pers. comm.) in ZMHB].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, Germany, Italy, Latvia, Poland, Slovakia, Sweden, Switzerland, The Netherlands, UK; **Asia:** West Siberia (Tomsk Province), Russian Far East (Habarovsk Region), China (Jilin Province).

Bolitophila (Cliopisa) glabratella Mayer, 1951

PAL

Bolitophila glabratella Mayer, 1951: 131. TYPE LOCALITY: ? Austria [H ♂ in NMW].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Germany, Sweden.

Bolitophila (Cliopisa) hybrida (Meigen, 1804)

HOL

Macrocera hybrida Meigen, 1804: 47. TYPE LOCALITY: Germany [T ? lost, not in MNHN].

Bolitophila fusca Meigen, 1818: 221 [= *Macrocera hybrida* Meigen, 1804: Meigen (1818)].

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Hungary, Ireland, Italy, Latvia, Lithuania, Republic of Moldova, Romania, Poland, Norway, Romania, North European Russia, Northwest European Russia, Central European Russia, South European Russia, Slovakia, Spain, Sweden, Switzerland, The Netherlands, UK; **Asia:** West Siberia (Tatarstan, Tomsk Province, Kemerovo Province, Altai Region), East Siberia (Tungussk-Chunsk Region, Irkutsk Province), Russian Far East (Habarovsk Region, Primorie Region, Kunashir I.), Israel; **NEARCTIC:** Canada (British Columbia, Quebec), USA (California, Indiana, New Hampshire, New York, North Carolina, Idaho, Indiana, Oregon).

Bolitophila (Cliopisa) incisa Ostroverchova & Grishina, 1974

PAL

Bolitophila incisa Ostroverchova & Grishina, 1974: 40. TYPE LOCALITY: West Siberia (Tomsk Province) [H ♂ in UTR].

DISTRIBUTION: **PALAEARCTIC: Asia:** West Siberia (Tomsk Province).

Note: According to Zaitzev (1994) it is possibly identical to *Bolitophila modesta* Lackschewitz.

Bolitophila (Cliopisa) ingrlica Stackelberg, 1969

PAL

Bolitophila ingrlica Stackelberg, 1969: 250. TYPE LOCALITY: Russia (Sankt-Peterburg Region) [H ♂ in ZIS].

DISTRIBUTION: **PALAEARCTIC: Europe:** Estonia, Germany, Norway, North European Russia, Northwest European Russia, Central European Russia, Slovakia, Sweden, Switzerland. **Asia:** West Siberia (Altai Region, Kemerovo Province, Khakassia Region).

Bolitophila (Cliopisa) latipes Tollet, 1943

PAL

Bolitophila latipes Tollet, 1943: 11. TYPE LOCALITY: Belgium [H ♀ in KBIN].

DISTRIBUTION: **PALAEARCTIC: Europe:** Belgium, Germany, Romania.

- Bolitophila (Cliopisa) limitis*** Polevoi, 1996 **PAL**
Bolitophila (Cliopisa) limitis Polevoi, 1996: 177. TYPE LOCALITY: Finland [H ♂ in ZIS].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Finland, Norway.
- Bolitophila (Cliopisa) maculipennis*** Walker, 1836 **PAL**
Bolitophila maculipennis Walker, 1836: 179. TYPE LOCALITY: UK [H ♂ in BMNH].
Bolitophila coronata Mayer, 1951: 130. TYPE LOCALITY: Austria [H ♂ in NMW]. Synonymy: Hutson & Kidd (1971).
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Bulgaria, Corsica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Poland, Romania, North European Russia, Northwest European Russia, Slovakia, Spain, Sweden, Switzerland, The Netherlands, UK; **Asia:** West Siberia (Tomsk Province, Kemerovo Province, Altai Region), East Siberia (Tungussk-Chunsk Region, Beysk Region, Irkutsk Province), Russian Far East (Habarovsk Region, Primorie Region, Kunashir I.), Japan.
- Bolitophila (Cliopisa) melanoleuci*** Polevoi, 1996 **PAL**
Bolitophila (Cliopisa) melanoleuci Polevoi, 1996: 179. TYPE LOCALITY: Russia (Republic of Karelia) [H ♂ in ZIS].
 DISTRIBUTION: **PALAEARCTIC: Europe:** North European Russia.
- Bolitophila (Cliopisa) modesta*** Lackschewitz, 1937 **PAL**
Bolitophila modesta Lackschewitz, 1937: 3. TYPE LOCALITY: Latvia [H ♂ in ZMHB].
Bolitophila tarsata Mayer, 1951: 132. TYPE LOCALITY: Czech Republic (Bohemia) [H ♀ in NMW]. [Preoccupied Okada, 1935.]
Bolitophila (Cliopisa) mayeri Plassmann, 1986: 144 [new replacement name for *Bolitophila tarsata* Mayer nec Okada, 1935].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Czech Republic, Estonia, Finland, France, Germany, Georgia, Latvia, Norway, Republic of Moldova, Romania, North European Russia, Northwest European Russia, Central European Russia, Slovakia, Spain, Sweden, Switzerland, UK; **Asia:** West Siberia (Altai Region, Kemerovo Province), Russian Far East (Primorie Region).
- Bolitophila (Cliopisa) montana*** Coquillett, 1901 **NEA**
Bolitophila montana Coquillett, 1901: 593. TYPE LOCALITY: USA (New Hampshire) [H ♀ in USNM].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia), USA (New York, Maine, New Hampshire).
- Bolitophila (Cliopisa) nigrolineata*** Landrock, 1912 **PAL**
Bolitophila nigrolineata Landrock, 1912: 46. TYPE LOCALITY: North European Russia and Croatia [S 1 ♀ in HMNH (destroyed; see Evenhuis 2006: 129), 1 ♀ in PAN (not found; D. Mierzwa, pers. com)].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Croatia, Estonia, Finland, Germany, Latvia, Norway, Poland, North European Russia, Northwest European Russia, Central European Russia, Sweden, Switzerland, UK; **Asia:** West Siberia (Altai Region, Kemerovo Province, Khakassia Region), Russian Far East (Primorie Region, Sakhalin I.), Japan.
- Bolitophila (Cliopisa) obscurior*** Stackelberg, 1969 **PAL**
Bolitophila obscurior Stackelberg, 1969: 254. TYPE LOCALITY: North European Russia (Sankt-Peterburg Region) [H ♂ in ZIS].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Finland, Norway, North European Russia, Northwest European Russia, Sweden; **Asia:** West Siberia (Tomsk Province), East Siberia (Tungussk-Chunsk Region).
- Bolitophila (Cliopisa) oclusa*** Edwards, 1913 **PAL**
Bolitophila oclusa Edwards, 1913: 344. TYPE LOCALITY: UK [H ♂ in BMNH].
Bolitophila affinis Ostroverchova, 1971: 92. TYPE LOCALITY: West Siberia [H ♂ in UTR]. Synonymy: Ostroverchova 1979.

DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Norway, Poland, North European Russia, Northwest European Russia, Central European Russia, South European Russia, Slovakia, Slovenia, Sweden, Switzerland, UK; **Asia:** West Siberia (Altai Region, Kemerovo Province), Russian Far East (Sakhalin I.), Japan.

Bolitophila (Cliopisa) palustris Ostroverchova, 1979

PAL

Bolitophila palustra Ostroverchova, 1979: 24. TYPE LOCALITY: East Siberia (Tungussk-Chunsk Region), Russian Far East (Primorie Region) [H ♀ in UTR].

DISTRIBUTION: **PALAEARCTIC: Asia:** East Siberia (Tungussk-Chunsk Region), Russian Far East (Primorie Region).

Bolitophila (Cliopisa) pseudohybrida Landrock, 1912

PAL

Bolitophila pseudohybrida Landrock, 1912: 45. TYPE LOCALITY: Poland [S ♂♀ in PAN (not found; D. Mierzwa, pers. com), 1♂ in HNHM (destroyed; see Evenhuis 2006: 129), 1♂ in MMBC (not found; I. Malenovský, pers. comm.)].

Bolitophila triangulata Edwards, 1941: 22. TYPE LOCALITY: UK [H ♂ in BMNH]. Synonymy: Hutson & Kidd (1971).

DISTRIBUTION: **PALAEARCTIC: Europe:** Andorra, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Malta, Northern Ireland, Norway, Poland, Portugal, North European Russia, Northwest European Russia, East European Russia, Spain, Sweden, Switzerland, The Netherlands, UK; **Asia:** West Siberia (Tatarstan, Kemerovo Province), East Siberia (Irkutsk Province), Russian Far East (Sakhalin I., Kunashir I.).

Bolitophila (Cliopisa) rectangulata Lundström, 1913

PAL

Bolitophila rectangulata Lundström, 1913: 305. TYPE LOCALITY: Hungary [H ♂ in HNHM (destroyed; see Evenhuis 2006: 129)].

DISTRIBUTION: **PALAEARCTIC: Europe:** Czech Republic, Estonia, Hungary, Poland, Slovakia, Switzerland; **Asia:** West Siberia (Tomsk Province), Russian Far East (Sakhalin I.), Japan.

Bolitophila (Cliopisa) recurva Garrett, 1925

NEA

Bolitophila recurva Garrett, 1925: 6. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].

DISTRIBUTION: **NEARCTIC:** Canada (Alberta, British Columbia).

Bolitophila (Cliopisa) rossica Landrock, 1912

PAL

Bolitophila rossica Landrock, 1912: 45. TYPE LOCALITY: Poland [H ♂ in PAN (not found; D. Mierzwa, pers. com)].

Bolitophila luteola Plotnikova, 1962: 41. TYPE LOCALITY: West Siberia (Tomsk Province), Russian Far East (Primorie Region). [H ♂ in UTR]. Synonymy: Zaitzev (1994).

DISTRIBUTION: **PALAEARCTIC: Europe:** Belgium, Bulgaria, Denmark, Estonia, Finland, Hungary, Italy, Norway, Poland, North European Russia, Northwest European Russia, Central European Russia, East European Russia, Sweden, The Netherlands, UK; **Asia:** West Siberia (Tatarstan, Tomsk Province), East Siberia (Yakutiya), Russian Far East (Primorie Region), Japan.

Bolitophila (Cliopisa) scherfi Plassmann, 1970

PAL

Bolitophila scherfi Plassmann, 1970: 97. TYPE LOCALITY: Germany [H ♀ in SMF].

DISTRIBUTION: **PALAEARCTIC: Europe:** Germany.

Bolitophila (Cliopisa) spelaeicola Tollet, 1955

PAL

Bolitophila spelaeicola Tollet, 1955: 450. TYPE LOCALITY: Romania [H ♀ in KBIN].

DISTRIBUTION: **PALAEARCTIC: Europe:** Romania.

- Bolitophila (Cliopisa) subbimaculata* Zaitzev, 1994 PAL
Bolitophila subbimaculata Zaitzev, 1994: 57. TYPE LOCALITY: Russia: Russian Far East (Primorie Region) [H ♂ in IEME].
 DISTRIBUTION: **PALAEARCTIC: Asia:** Russian Far East (Primorie Region).
- Bolitophila (Cliopisa) subteresa* Garrett, 1925 NEA
Bolitophila subteresa Garrett, 1925: 7. TYPE LOCALITY: Canada (British Columbia) [H ♂ in CNC].
 DISTRIBUTION: **NEARCTIC:** Canada (British Columbia).
- Bolitophila (Cliopisa) taihybrida* Ševčík & Papp, 2004 OR
Bolitophila (Cliopisa) taihybrida Ševčík & Papp, 2004: 59. TYPE LOCALITY: Taiwan [H ♂ in HNHM].
 DISTRIBUTION: **ORIENTAL:** Taiwan.
- Bolitophila (Cliopisa) tarsata* Okada, 1935 PAL
Bolitophila tarsata Okada, 1935: 154. TYPE LOCALITY: Japan [H ♂ in EIHU].
 DISTRIBUTION: **PALAEARCTIC: Asia:** Japan.
- Bolitophila (Cliopisa) tarsatiformis* Ostroverchova, 1979 PAL
Bolitophila tarsatiformis Ostroverchova, 1979: 25. TYPE LOCALITY: West Siberia (Tomsk Province) [H ♀ in UTR].
 DISTRIBUTION: **PALAEARCTIC: Asia:** West Siberia (Tomsk Province, Beysk Region), East Siberia (Tungusk-Chunsk Region).
- Bolitophila (Cliopisa) tungusica* Ostroverchova, 1979 PAL
Bolitophila tungusica Ostroverchova, 1979: 26. TYPE LOCALITY: East Siberia (Tungusk-Chunsk Region) [H ♂ in UTR].
 DISTRIBUTION: **PALAEARCTIC: Asia:** East Siberia (Tungusk-Chunsk Region).

Questionable taxa

- Bolitophila bimaculata* Schummel, 1847 PAL
Bolitophila bimaculata Schummel, 1847: 166. TYPE LOCALITY: Poland [S 1♂, 2♀ in ?].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Poland.
Note: The original description is without good diagnostic characters and drawings. The species was not reported after the original description.
- Bolitophila nana* (Macquart, 1826) PAL
Macrocera nana Macquart, 1826: 54. TYPE LOCALITY: France [T? in MNHL].
 DISTRIBUTION: **PALAEARCTIC: Europe:** France.
Note: Evenhuis (2006) removed this species from the Keroplatidae to *Bolitophila*. The type of *Macrocera nana* is an unidentifiable *Bolitophila* species (L. Matile, pers. comm., reported by Chandler 1994: 22). The type is likely to be in Macquart's collection in Lille, France (MNHL), but this has not been confirmed.

Taxa excluded from Bolitophilidae

- Bolitophila luminosa* Skuse, 1891: 678 [= *Arachnocampa luminosa* (Skuse, 1891) (family Keroplatidae) (Edwards 1924b)].
- Bolitophila pulveris* Lewis, 1969: 107. TYPE LOCALITY: USA (Miocene) [H in UCMC].

Note: This fossil species should be removed from Bolitophilidae. According to the drawing in the original description (Lewis 1969: Plate II, B) crossvein bM-Cu absent and the wing is typical for family Mycetophilidae.

Mangas exilis Kovalev, 1986: 136. TYPE LOCALITY: Mongolia (Lower Cretaceous) [H ♂ in PIN] (placed in subfamily Mangasinae Kovalev, 1986).

Note: Mangasinae was proposed as a subfamily of Bolitophilidae, but is of uncertain systematic position. Chandler (2002: 136) considered that it did not belong in Bolitophilidae but that an unnamed fossil species, also placed in Mangasinae by Kovalev (1986), was probably a bolitophilid. Blagoderov & Grimaldi (2004: 64) examined the type of *M. exilis* and concluded that it might correctly belong in Bolitophilidae. However, Hippa & Vilkamaa (2005: 132) treated Mangasidae as of family rank as their phylogenetic analysis of Sciaroidea placed it in a clade including Diadocidiidae, Ditomyiidae and Keroplatidae, of which Bolitophilidae appeared as a sister group.

Messala pilosa Ostroverchova, 1974: 52 [= *Paratinia sciarina* (Mik, 1874) (Mycetophilidae) (Ostroverchova 1979)].

Family DIADOCIDIIDAE Winnertz, 1864

BASIC SOURCES: **Palaeartic:** Krivosheina (1988), Chandler (2004); **Nearctic:** Laffoon (1965); **Oriental:** Colless & Liepa (1973); **Australasian/Oceanian:** Matile (1989); **Neotropical:** Papavero (1977).

UPDATES: **Palaeartic:** Chandler (1994, 2004), Kjaerandsen *et al.* (2007), Ostroverkhova & Maksimova (2000), Papp (2003), Polevoi (1996), Rindal & Gammelmo (2007), Sasakawa (2004), Zaitzev (1994); **Nearctic:** Laštovka & Matile (1972), Miller (1978); **Oriental:** Papp & Ševčík (2005), Wu (1995); **Australasian/Oceanian:** Jaschhof & Jaschhof (2007b), Ševčík (2003); **Neotropical:** Jaschhof & Jaschhof (2007a).

RECENT DISTRIBUTION: **Palaeartic**—9 species, **Nearctic**—2, **Oriental**—6 (including 2 Australasian), **Australasian**—4 (including 2 Oriental), **Neotropical**—3.

Genus DIADOCIDIA Ruthe, 1831

DIADOCIDIA Ruthe, 1831: 1210. Type species: *Diadocidia flavicans* Ruthe, 1831 [= *Mycetobia ferruginosa* Meigen, 1830], by monotypy.

MACRONEVRA Macquart, 1834: 146. Type species: *Macronevra winthemi* Macquart, 1834 [= *Diadocidia ferruginosa* (Meigen, 1830)], by monotypy. Synonymy: Winnertz (1852).

ACLADA Loew, 1850: 33, 35. Type species: *Diadocidia parallela* Evenhuis, 1994, original designation. *Aclada* originally proposed without included species. The type species designated is from the first species included within the genus in accordance with the ICZN.

MACRONEURA Rondani, 1856: 197, 214 (unjustified emendation of *Macronevra* Macquart, 1834).

PALAEODOCIDIA Sasakawa, 2004: 208. Type species: *Palaeodocidia ishizakii* Sasakawa, 2004, original designation (see Notes under *Diadocidia ishizakii*). **SYN. NOV.**

Subgenus ADIDOCIDIA Laštovka & Matile, 1972

ADIDOCIDIA Laštovka & Matile, 1972: 218. Type species: *Diadocidia valida* Mik, 1874: 329, original designation.

Diadocidia (Adidocidia) borealis Coquillett, 1900

NEA

Diadocidia borealis Coquillett, 1900: 390. TYPE LOCALITY: Canada (British Columbia) [H ♂ in USNM].

DISTRIBUTION: **NEARCTIC:** Canada (British Columbia); USA (California, New Hampshire, North Carolina, Oregon, South Carolina, Washington).

- Diadocidia (Adidocidia) fissa* Zaitzev, 1994 PAL
Diadocidia fissa Zaitzev, 1994: 61. TYPE LOCALITY: Central European Russia (Kostroma Region) [H ♂ in IEME].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Central European Russia (Kostroma Region).
- Diadocidia (Adidocidia) ishizakii* (Sasakawa, 2004) **COMB. NOV.** PAL
Palaeodocidia ishizakii Sasakawa, 2004: 209. TYPE LOCALITY: Japan [H ♂ in OMNH].
 DISTRIBUTION: **PALAEARCTIC: Asia:** Japan.
Note: The genus *Palaeodocidia* Sasakawa, 2004 was delimited from *Diadocidia* based on the number of the flagellar segments, stated to be 14 in *Palaeodocidia* and 15 in *Diadocidia*. This was probably on the basis of “2+15” antennal segments being reported in error by Laštovka & Matile (1972). The number of flagellomeres in *Diadocidia* is actually 14. The first antennal flagellomere in *Palaeodocidia* is four times as long as wide and anepisternum setose as is typical of the subgenus *Adidocidia*.
- Diadocidia (Adidocidia) macrosetigera* Jaschhof & Jaschhof, 2007 AUS
Diadocidia (Adidocidia) macrosetigera Jaschhof & Jaschhof, 2007b: 64. TYPE LOCALITY: Australia (Queensland) [H ♂ in ANIC].
 DISTRIBUTION: **AUSTRALASIAN/OCEANIAN:** Australia (Queensland).
- Diadocidia (Adidocidia) nigripalpis* Edwards, 1940 NEO
Diadocidia nigripalpis Edwards, 1940: 443. TYPE LOCALITY: Brazil [S 2♂, 1♀ in BMNH].
 DISTRIBUTION: **NEOTROPICAL:** Brazil (Santa Catarina), Costa Rica.
- Diadocidia (Adidocidia) papua* Ševčík, 2003 AUS
Diadocidia (Adidocidia) papua Ševčík, 2003: 63. TYPE LOCALITY: Papua New Guinea [H ♂ in BPBM].
 DISTRIBUTION: **AUSTRALASIAN/OCEANIAN:** Papua New Guinea.
- Diadocidia (Adidocidia) queenslandensis* Jaschhof & Jaschhof, 2007 AUS
Diadocidia (Adidocidia) queenslandensis Jaschhof & Jaschhof, 2007b: 66. TYPE LOCALITY: Australia (Queensland) [H ♂ in ANIC].
 DISTRIBUTION: **AUSTRALASIAN/OCEANIAN:** Australia (Queensland).
- Diadocidia (Adidocidia) stanfordensis* Arnaud & Hoyt, 1956 NEA
Diadocidia stanfordensis Arnaud & Hoyt, 1956: 87. TYPE LOCALITY: USA (California) [H ♂ in CAS].
 DISTRIBUTION: **NEARCTIC:** USA (California).
- Diadocidia (Adidocidia) trispinosa* Polevoi, 1996 PAL
Diadocidia (Adidocidia) trispinosa Polevoi, 1996: 180. TYPE LOCALITY: Finland [H ♂ in ZIS].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Czech Republic, Finland, Norway, North European Russia, Sweden.
Note: Recorded from Czech Republic (Ševčík 2001) and Norway (Økland & Zaitzev 1997) as *D. borealis* Coquillett.
- Diadocidia (Adidocidia) valida* Mik, 1874 PAL
Diadocidia valida Mik, 1874: 329. TYPE LOCALITY: Austria [H ♀ in NMW].
 DISTRIBUTION: **PALAEARCTIC: Europe:** Austria, Azerbaijan, Bulgaria, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Latvia, Norway, Poland, North European Russia, Slovakia, Sweden, Switzerland, UK; **Asia:** West Siberia (Kemerovo Province, Krasnoyarsk Region).

Subgenus *DIADOCIDIA* Ruthe, 1831

- Diadocidia (Diadocidia) brunicola* Ševčík in Papp & Ševčík, 2005 **OR**
Diadocidia (Diadocidia) brunicola Ševčík in Papp & Ševčík, 2005: 336. TYPE LOCALITY: Brunei [H ♂ in BMNH].
 DISTRIBUTION: **ORIENTAL**: Brunei.
- Diadocidia (Diadocidia) cizeki* Ševčík, 2003 **AUS/OR**
Diadocidia (Diadocidia) cizeki Ševčík, 2003: 64. TYPE LOCALITY: Papua New Guinea [H ♂ in BPBM].
 DISTRIBUTION: **ORIENTAL**: Taiwan; **AUSTRALASIAN/OCEANIAN**: Papua New Guinea.
Note: Probably a synonym of *Diadocidia sinica* Wu, 1995. Male genitalia are very similar to those figured by Wu (1995: figs. 1-3).
- Diadocidia (Diadocidia) ferruginosa* (Meigen, 1830) **HOL**
Mycetobia ferruginosa Meigen, 1830: 294. TYPE LOCALITY: Germany [H ♀ in MNHN].
Diadocidia flavicans Ruthe, 1831: 1211. TYPE LOCALITY: ? Germany [H ♀ in ?MDRG]. Synonymy: Winnertz (1852).
Macronevra winthemi Macquart, 1834: 147. TYPE LOCALITY: Germany [H in ?]. Synonymy: Winnertz (1852).
 DISTRIBUTION: **PALAEARCTIC: Europe**: Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Macedonia, Norway, Poland, Romania, Central European Russia, North European Russia, Northwest European Russia, South European Russia, Slovakia, Spain, Sweden, Switzerland, The Netherlands, UK, Ukraine; **Asia**: West Siberia (Altai Region, Kemerovo Province, Krasnoyarsk Region), Russian Far East (Primorie Region, Sakhalin I.); **NEARCTIC**: Canada (Nova Scotia, Quebec), USA (California, Connecticut, Massachusetts, New Hampshire, New York, North Carolina, Pennsylvania, North Carolina, South Carolina, South Dakota, Washington).
Note: Fisher (1941) and Miller (1978) reported this species from North America (Canada and USA), but the taxonomic status of North American specimens needs confirmation (Laštovka & Matile 1972).
- Diadocidia (Diadocidia) halopensis* Ševčík, 2003 **AUS**
Diadocidia (Diadocidia) halopensis Ševčík, 2003: 65. TYPE LOCALITY: Papua New Guinea [H ♂ in BPBM].
 DISTRIBUTION: **AUSTRALASIAN/OCEANIAN**: Papua New Guinea.
- Diadocidia (Diadocidia) spinosula* Tollet, 1948 **PAL**
Diadocidia spinosula Tollet, 1948: 285. TYPE LOCALITY: Belgium [H ♂ in KBIN].
 DISTRIBUTION: **PALAEARCTIC: Europe**: Andorra, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Montenegro, Norway, Poland, Romania, North European Russia, Northwest European Russia, Slovakia, Slovenia, Sweden, Switzerland, The Netherlands, UK; **Asia**: West Siberia (Altai Region, Kemerovo Province), Japan.
- Diadocidia (Diadocidia) sulawesiana* Ševčík in Papp & Ševčík, 2005 **OR**
Diadocidia (Diadocidia) sulawesiana Ševčík in Papp & Ševčík, 2005: 338. TYPE LOCALITY: Sulawesi [H ♂ in BMNH].
 DISTRIBUTION: **ORIENTAL**: Indonesia (Sulawesi).
- Diadocidia (Diadocidia) thoracica* Okada, 1936 **PAL**
Diadocidia ferruginosa f. *thoracica* Okada, 1936: 22. TYPE LOCALITY: Japan [L ♂ in EIHU].
 DISTRIBUTION: **PALAEARCTIC: Asia**: Japan.

Subgenus TAIDOCIDIA Papp & Ševčík, 2005

TAIDOCIDIA Papp & Ševčík, 2005: 330. Type species: *Diadocidia (Taidocidia) globosa* Papp & Ševčík, 2005: 330, original designation.

Diadocidia (Taidocidia) globosa* Papp & Ševčík, 2005*OR**

Diadocidia (Taidocidia) globosa Papp & Ševčík, 2005: 331. TYPE LOCALITY: Taiwan and Thailand [H ♂ in HNHM].

DISTRIBUTION: **ORIENTAL**: Taiwan, Thailand.

Subgenus undesignated***Diadocidia furnacea* Chandler, 1994****PAL**

Diadocidia furnacea Chandler, 1994: 12. TYPE LOCALITY: Israel/ Lebanon border [H ♂ in TAU].

DISTRIBUTION: **PALAEARCTIC**: **Asia**: Israel/ Lebanon.

Diadocidia hybrida* Jaschhof & Jaschhof, 2007*NEO**

Diadocidia hybrida Jaschhof & Jaschhof, 2007a: 36. TYPE LOCALITY: Costa Rica [H ♂ in INBio].

DISTRIBUTION: **NEOTROPICAL**: Costa Rica.

Note: According to Jaschhof & Jaschhof (2007a) this species could not be classified within presently recognised subgenera of *Diadocidia*.

Diadocidia parallela* Evenhuis, 1994*FOS**

Aclada parallela Evenhuis, 1994: 138. TYPE LOCALITY: Baltic Region (Eocene/Oligocene amber) [T in ?].

[Validated by bibliographic reference to characters of *Aclada* in Loew (1850: 33, 35), which can serve to diagnose the species under ICZN Article 13(c).]

Aclada parallela Loew, 1850: 35. *Nomen nudum*.

DISTRIBUTION: **PALAEARCTIC**: Baltic Region.

Diadocidia setistylus* Papp, 2003*PAL**

Diadocidia setistylus Papp, 2003: 312. TYPE LOCALITY: Hungary [H ♂ in HNHM].

DISTRIBUTION: **PALAEARCTIC**: **Europe**: Hungary.

Diadocidia sevciki* Papp in Papp & Ševčík, 2005*OR**

Diadocidia sevciki Papp in Papp & Ševčík, 2005: 333. TYPE LOCALITY: Taiwan [H ♂ in HNHM].

DISTRIBUTION: **ORIENTAL**: Taiwan.

Diadocidia similis* Jaschhof & Jaschhof, 2007*NEO**

Diadocidia similis Jaschhof & Jaschhof, 2007a: 37. TYPE LOCALITY: Costa Rica [H ♂ in INBio].

DISTRIBUTION: **NEOTROPICAL**: Costa Rica.

Diadocidia sinica* Wu, 1995*OR**

Diadocidia sinica Wu, 1995: 432. TYPE LOCALITY: China (Zhejiang Province) [H ♂ in ZFCL].

DISTRIBUTION: **ORIENTAL**: China (Zhejiang).

Genus DOCIDIADIA Blagoderov & Grimaldi, 2004

DOCIDIADIA Blagoderov & Grimaldi, 2004: 6. Type species *Docidiadia burmitica* Blagoderov & Grimaldi, 2004, original designation.

Docidiadia burmitica Blagoderov & Grimaldi, 2004

FOS

Docidiadia burmitica Blagoderov & Grimaldi, 2004: 7. TYPE LOCALITY: Myanmar (Cretaceous amber) [H♂ in AMNH].

DISTRIBUTION: **ORIENTAL**: Myanmar.

Taxa excluded from Diadocidiidae

Diadocidia bifurcata Fedotova & Perkovsky, 2004: 544. TYPE LOCALITY: Ukraine (Late Eocene Amber) [H♀ in SIZC].

Note: This fossil species was erroneously referred to *Diadocidia*. In fact this is a species of Cecidomyiidae.

Diadocidia terricola Scudder, 1878: 750. TYPE LOCALITY: USA (Eocene) [T in ?].

Note: This fossil species was transferred to *Mycetobia* Meigen (Evenhuis 2006).

Pterogymnus Freeman, 1951: 11. Type species *Pterogymnus elongata* Freeman, 1951 (originally placed in Diadocidiidae), preoccupied by *Pterogymnus* Smith, 1938 (in Pisces, Sparidae) = *Freemanomyia* Jaschhof, 2003: 536, new name for *Pterogymnus* Freeman.

Note: According Chandler (2002), Jaschhof (2003) and Amorim & Rindal (2007) cannot be assigned to any of the existing family group taxa of the Sciaroidea.

Pterogymnus elongata Freeman, 1951: 12. TYPE LOCALITY: Chile [T♀ in BMNH] = *Freemanomyia elongata* (Freeman, 1951) (Jaschhof 2003: 536).

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