

Distribution, phenology and habitats of the lesser dung fly species (Diptera, Sphaeroceridae) of Sweden and Norway, with notes from adjacent countries

FOLKE FLORÉN

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A total of 133 species of lesser dung flies (Diptera, Sphaeroceridae) are here recorded from Sweden and Norway. More than 35,000 specimens, mainly preserved in alcohol, were studied. From this material, the species *Minilimosina hispidula* Roháček, 1988, and the subspecies *Sphaerocera pseudomonilis hallux* Roháček & Florén, 1987, were previously described. Four additional new species in the genera *Trachypella*, *Opacifrons*, *Minilimosina* and *Telomerina* will later be described by J. Roháček and S. A. Marshall. Other unidentified specimens are still being examined by specialists. This will probably increase the number of species known from this region to well over 140. Some species records are also given for Denmark, Finland and Iceland. Recorded for the first time are 62 species from Sweden, 25 from Norway, and one from Iceland. For each species, information is provided on adult phenology, recorded habitats, and successful collecting methods.

F. Florén, Service Center for Taxonomic Zoology, Swedish Museum of Natural History, P.O. Box 50007, S-104 05 Stockholm, Sweden.

Introduction

The Sphaeroceridae or lesser dung flies is a family of very common, usually small and dark, acalyptrate flies. They are distinguished from other acalyptrates by their short, thickened first segment of the hind tarsus (Pitkin 1988). Another diagnostic character is that some of the posterior wing veins frequently end at the posterior cross vein or continue to the wing margin only as faint traces. Most species are fully winged and capable of flight, but many of them fly only rarely. Instead they often move by running or jumping with their elongated hind legs. Most species of this family are generally considered to be saprophagous. Adults are often observed on animal droppings, dung hills and decaying vegetation, where they feed and lay their eggs. Quite a number of species have been recorded from runs and nests of small mammals, which often contain dung and decaying plant material. Most authorities consider the Sphaeroceridae to be closest related to Heleomyzidae, Trixoscelididae, Rhinotoridae and other acalyptrate flies. McAlpine et al. (1981) classified these families in the superfamily Sphaeroceroidea (Pitkin 1988).

There are over 700 described species of Sphaeroceridae of which at least 290 are recorded from the Palaearctic region (Pitkin 1988).

The Swedish lesser dung flies were previously studied by Fallén (1820), Zetterstedt (1840, 1847, 1855, 1860) and above all by Stenhammar (1855). Among the species described by these authors 26 are still valid. Subsequently, only scattered notices have been published, e.g. Wahlgren (1917), Ardö (1957) and Hackman (1967).

This report is based on work carried out at the Service Centre for Taxonomic Zoology, Zoo-tax, Swedish Museum of Natural History, Stockholm. From all specimens examined at this centre, 35,000 specimens of sphaerocerid flies from more than 400 localities and 6,000 catches, mainly from Sweden and Norway, were sorted out and used in the present study. Almost 70 collectors have contributed with material. Besides the poorly studied boreal forest region in northern Sweden, the material gives a fairly good picture of the distribution of sphaerocerid species in Sweden.

A total of 133 species were identified, all recorded from Sweden (62 for the first time), 37 from Norway (25 for the first time), seven from Iceland (one for the first time), three from Denmark and one from Finland. The species *Minilimosina hispidula* Roháček, 1988, and the subspecies *Sphaerocera pseudomonilis hallux* Roháček & Florén, 1987, were both described from this material. Four additional new species will be described by Roháček and Marshall in the near future. Unidentified specimens representing some additional ten species, some maybe undescribed, are under examination by Roháček and Marshall. These studies will probably increase the total number of species in the studied material to well over 140. The Swedish species list will then approach 150 species, which is a high figure relative to other countries.

Material and methods

The main part of the studied material was collected by the following persons and institutions: Hugo Andersson, field catches with different methods from a large number of biotopes, mostly in prov. SK, HA, SM and northern Sweden and Norway; Hugo Andersson & Roy Danielsson, ÖL: Halltorps hage (1980), sweep-nettings and different kinds of traps; Lennart Cederholm, SM: Åseda Kullebo, cow house, window traps; Swedish University of Agricultural Sciences, SK-NB, fields cultivated with potato (Roland Sigvald 1987), oil seed crops (Johan Mörner & Barbara Ek-bom 1987), oats (Göran Nordlander) and wheat (Hans von Rosen), yellow traps; Swedish Veterinary Institute, ÖG-UP, cow house and pastures, window traps and sweep-nettings (Bech-Nielsen et al. 1982); Göran Andersson & Jan Jonasson, LY: Ammarnäs, mountain birch forest, window traps (1982); Karl Müller et al., ÄN: Ängerån, LU: Messaure and TO: Abisko, river and lake shores with surroundings, different kinds of traps (1970–1982); Folke Florén, SÖ: Älgö, grass compost, pitfall traps and sweep-nettings (studied continuously between May–October during five years, yielding 67 species, some of them previously undescribed); Sigmund Hågvar, flies on snow from Norway, and Erling Olafsson & Thröstur Erlingsson, flies from Iceland. Old material collected by Boheman, E. Haglund, Holmgren, Roth, Stenhammar and G. Hedgren, arranged by E. Wahlgren in 1927 and kept at the Entomological Department of Swedish Museum of Natural History, Stockholm (tray 16:3 Borboridae) is also included in this report.

Complete journals with detailed biological and distributional data are available at the Department of Entomology, Swedish Museum of Natural History, Stockholm. Location of specimens in museums and other collections is presented separately for each species.

In the following list the information for each species is given as: (1) synonyms in brackets (the synonyms presented are those of Swedish authors or other synonyms of special interest); (2) selected references in parenthesis; (3) records from Sweden, Norway and adjacent countries (province, locality, date with 19 omitted, no. of males and females, collector); (4) distribution with literature records for the Nordic countries; (5) biology followed by habitat data of the studied specimens and the methods with which they were collected; (6) total nos. of specimens studied of each sex, and range of collecting years and months; (7) museums and/or collections where the material is kept.

The names of the most frequently mentioned authors are abbreviated (see below), others are given in full. Abbreviations for the provinces of Denmark, Norway and Finland are those used in Fauna Entomologica Scandinavica, but those used for Sweden are according to Cederholm (1972). Locality data from Sweden are according to Svensk Ortsförteckning (1974). When not otherwise stated Hugo Andersson is the collector with the following exceptions: ÖL: Halltorps hage, H. Andersson & R. Danielsson; SM: Åseda Kullebo, L. Cederholm; SÖ: Älgö, F. Florén; ÄN: Ängerån and LU: Messaure, K. Müller et al.; LY: Ammarnäs, G. Andersson & J. Jonasson; N Kongsberg at river Lågen in Norway, R. Hall; Iceland, E. Olafsson.

Abbreviations

Authors: A = H. Andersson, D = O. Duda, F = C. F. Fallén, G = D. P. Gapsin, H = W. Hackman, K = C. K. Kim, M = S. A. Marshall, Ni = P. Nielsen, N = A. L. Norrbom, P = L. Papp, Pi = B. Pitkin, R = J. Roháček, Ri = O. Ringdahl, Rs = O. W. Richards, S = Ch. Stenhammar, W = E. Wahlgren, Z = J. W. Zetterstedt.

Countries: according to the national signs used on cars.

Collectors: AA = Anders Ahlstrand, HA = Hugo Andersson, KA = Kjell Ander, JA = Jonas Ardö, PA = Paul Ardö, JOB = Jan-Olof Björklund, Bhn = Carl Boheman, PB = Per Brinck, Ch = Charpentier, RGD = Richard G:son Dahl, RD = Roy Danielsson, PD = Per Douwes, BE = Barbara Ek-bom, LE = Lennart Ekström, TE = Thröstur Erlingsson, FF = Folke Florén, HF = Henrika Florén, SG = Sven Gerdin, EG = E. Grah, UG = Ulf Gårdenfors, Hagl = Emil Haglund,

RH = Ragnar Hall, CH = Christer Hansson, GH = Gustav W. Hedgren, KH = Karl-Johan Hedqvist, Hgn = August Emil Holmgren, SH = Sigmund Hågvar, GI = Gunnar Israelsson, AJ = Anton Jansson, UJ = Ulf Johnsen, TK = Torbjörn Kronstedt, JL = Jan Lundin, TL = Torsten Larsson, TEL = Tor-Erik Leiler, CL = Carl Lindroth, UL = Ulf Lundwall, TM = Teresa Mireström, KM = Karl Müller, JM = Johan Mörner, MN = Monica Niklasson, GN = Göran Nordlander, TN = Tord Nyholm, EO = Erling Olafsson, PIP = Per Inge Persson, JR = Jan Regnander, OR = Oscar Ringdahl, HR = Hans v. Rosen, Roth = Carl David Roth, GR = Gustav Rudebeck, NR = Nils Rydén, RS = Roland Sigvald, Sthr = Christian Stenhammar, BS = Bo Svensson, SVA = Sveriges Veterinärmedicinska Anstalt, ES = Edvard Sylvén, MS = Michael Sörensson, BT = Bo Tjeder, TT = Tord Tjeder, MT = Mark Toneby, PWg = Peter Wahlberg, HW = Henrik Waldén, We = Westesson, TW = Torbjörn Wallgren, BÖ = Bert Ödarp.

Collecting methods: F = pitfall trap, Y = yellow trap, W = window trap, M = Malaise trap, B = baited trap, P = picked on snow, S = sifted, N = sweep-netting.

Museums and collections: BML = British Museum (Natural History), London, IMN = Icelandic Museum of Natural History, NFI = Norwegian Forest Research Institute, JRO = coll. of Jindřich Roháček, Opava (Czechoslovakia), NRS = Swedish Museum of Natural History, Stockholm, SMO = Slezské muzeum Opava (Czechoslovakia), ZIL = Zoological Institute, Lund (Sweden), ZIU = Zoological Institute, Uppsala (Sweden), ZMH = Zoological Museum of the University, Helsinki (Finland).

List of species

In the following list, data on all records of all identified species are presented. The used format is described above, and includes also information on habitats, adult phenology, collecting methods etc. A check list of the Swedish species of Sphaeroceridae is presented in Tab. 1, that also summarizes the known records from Swedish provinces and from the other Nordic countries.

1. **Sphaerocera curvipes** [*subsultans* auct.]. (K 1968, Pi 1988). **S:** SK: Stoby Arkelstorp 550620 1♀; Anderslöv 740615 1♂ RD; Bosarp 710422 1♂ RD; N Krankesjön 750703 2♂; Lund 8105 2♂5♀; Lund Bot. garden 720503 2♂ RD; Mariannelund 81 V–VIII 2♂ 2♀ RS; Orup 800618 1♀ RS; Baldringe Skogshejdan 690616 1♂; Blentarp Stampenbäckan 690622 2♂ BS; Stenshuvud 740616 1♀ HA, 830614 1♂1♀ RD; Sövedsjön 560530 1♂; Åkarp 5505 2♀; 1♂ Bhn. – **HA:** Årnitt 550407 46♂51♀ cow house, 630602 1♂, 640727 1♂, 66–1♀, 690622 1♂, 7306 9♂5♀, 730609 5♂2♀. – **SM:** Åseda Kullebo 7607 66♂111♀; Trotteslöv 830630 1♂ RS; Söraby Vartorp 720501 1♀ RD; 2♂ Bhn. – **ÖL:** 1♂1♀ Bhn. – **ÖG:** Bjärka-Säby 79 V–XI 4♂6♀, 80 V–IX 114♂121♀ SVA; Högsjö 1♀ TW; Kolmården 2008 1♀ GH; Törnevalla Linghem 791130 2♂4♀, 80 V–VIII 10♂7♀ SVA; Vist Stavsäter 7905 10♂21♀, 80 VI–VIII 10♂22♀ SVA; Vallerstad 79 VII–VIII 2♂ SVA; 1♀ Bhn. – **VG:** Hasslösa Ekgården 1♀ RS; Kinnekulle 1♂ Bhn.

Västerplana 1♀ AA; 2♂1♀ Bhn. – **BO:** Fiskebäckskil 240531 1♀ GH. – **SÖ:** Älgö 830710 1♂, 85 VI–X 3♂, 8606 2♂5♀, 87 VI–VII 2♂1♀. – **UP:** Ed Antuna 79 V–IX 22♂15♀, 80 IV–VIII 4♂10♀ SVA; Faringe Erikslund 770808 12♂25♀ FF; Getingarnö 79 VIII–IX 4♂4♀, 80 IV–VIII 3♀, 810717 1♂ SVA; Estuna Hov 81 V–X 14♂23♀ SVA; Vada Mälsta 800514 1♂3♀ SVA; Stockholm Exp.fält 2107 1♂, 220515 1♀ GH; Stockholm 2♀ GH; 3♂3♀ Bhn; Svartsjö 2206 1♀ GH. – **VB:** Röbbäcksdalen 800612 1♀ RS. **IS:** Leidvöllur 850620 1♂ EO & TE; Hlidarendi 840820 1♀.

Cosmopolitan incl DK, S (F 1820 *subsultans*; Z 1840 *subsultans*, SK–LY; R 1941, SK, HA; 1951, JÄ, LU; Ardö 1957, SK, HA), N (Z 1847 *subsultans*), SF (H 1980) and IS (new). Wide ecological tolerance, larvae chiefly coprophagous (R 1984): cow houses, cow dung, pastures, potato fields, maple in sap, grass compost, on nettles, N F Y W. 353♂441♀, 1954–87, IV–X (NRS, ZIL, IMN), 9♂14♀ Bhn, GH, det. Kim 1967 (NRS).

2. **Sphaerocera monilis** [*tarsalis* Wahlgrén, 1918]. (K 1968, Pi 1988). **S:** SK: Stoby Arkelstorp 550620 1♀; Lund 54-0903 1♂; Mariannelund 810720 1♀ RS; 1♀ Roth. – **HA:** Snöstorp 550705 1♀; Årnitt 640720 1♀. – **SÖ:** Älgö 85 VI–IX 7♂4♀, 86 V–VII 8♂3♀; 87 VI–IX 5♂2♀. – **UP:** Balingsta Eriksberg 7904 1♀ JM.

Europe incl S (W 1918 *tarsalis*, SK; K 1968, SK) and SF. Terricolous, occurring in decayed fungi and leaf litter (R 1980); grass compost, garden, potato field, meadow with bushes, ditch at a rye field, N F Y. 21♂14♀, 1954–87, V–IX (NRS, ZIL), 1♀ Roth (NRS).

3. **Sphaerocera pseudomonilis hallux**. (R & Florén 1987). **S:** SÖ: Älgö 830628 2♂, 850929 1♂, 851006 1♀, 860629 1♂ S (new), the nominate subspecies only known from Japan. Biology largely unknown; grass compost, F. 4♂1♀, 1983–86, VI–X. Type material: 2♂1♀ (NRS) 1♂ (JRO).

4. **Ischiolepta crenata** [*coronata* Zetterstedt, 1838]. (Rs 1938, Pi 1988). **S:** UP: Stockholm 2♀ Bhn. (det. K 1967). North and Central Europe incl S (Z 1840 *coronata*, ÅS type loc.; K 1972: 207 1♀ type) and SF. Rare, collected in runs of small mammals (R 1984). 2♀ Bhn (NRS).

5. **Ischiolepta denticulata** [*paracrenata* Duda, 1920]. (R & P 1984, Pi 1988). **S:** SK: N Krankesjön 740730 1♀. – **SM:** 1♂1♀ Bhn. – **ÖL:** 1♂ Bhn; 1♀ Hgn. – **ÖG:** 1♀ Sthr; 1♂ Bhn. – **VG:** Homborgsjön 870715 1♀. – **UP:** 1♂1♀ Bhn; 4♀ PWg.

Europe incl S (K 1972: 209) and SF (H 1967a). Taken in small mammal burrows (H 1967a) and in waterbirds' nests (Rs 1938): sandy lake shores, N. 2♀, 1974–87, VII (ZIL), 4♂ 8♀ Bhn, Hgn, Sthr, PWg *paracrenata*, det. Kim 1967 (NRS).

6. **Ischiolepta micropyga**. (Rs 1938, D 1938). **S:** SM: Staby 850629 1♀. – **SÖ:** Älgö 860608 1♀. – **LU:** Messaure 71-0819 1♀. Central Europe and S (new). A rare terricolous species among decaying matter in boggy meadows and alder forests (R 1984): pond with sedge, grass compost, pinewood by Lule river, N F. 3♀, 1971–86, VI–VIII (NRS, ZIL).

7. **Ischiolepta nitida** [*denticulata* auct.]. (R & P 1984). **S:** SK: Vittsjö V Bröna 830529 1♂; Forsakar 810802 1♂; Stenshuvud 830614 1♂ RD; 4♂1♀ Roth; 1♂1♀ Bhn. – **VG:** 1♀ Bhn. – **UP:** Vada Mälsta 800514 1♀ SVA; Stockholm 1♀ Bhn; Uppsala 320516 1♀ GH.

North and Central Europe incl DK (H 1986 pers. comm.),

Tab. 1. A check list of the Swedish species of lesser dung flies (Diptera, Sphaeroceridae), with records for the faunistic provinces SK–TO. Records from Denmark (DK), Norway (N), Finland (SF), and Iceland (IS), are also presented. Records were classified as: (A) literature records, (B) ditto, specimens also examined by the author, and (C) previously unpublished records presented in this work. "Lapponia" denotes old records not possible to locate to province in Swedish Lapland.

No. Species	SK	BL	HA	SM	ÖL	GO	GS	ÖG	VG	BO	DS	NÄ
Sphaerocerinae												
1 <i>Sphaerocera curvipes</i> Latreille, 1805	B	A	B	C	C	-	-	C	C	C	-	A
2 <i>S. monilis</i> Haliday, 1836	B	-	C	-	-	-	-	-	-	-	-	-
3 <i>S. pseudomonilis hallux</i> Roháček & Florén, 1987	-	-	-	-	-	-	-	-	-	-	-	-
4 <i>Ischiolepta crenata</i> (Meigen, 1830)	-	-	-	-	-	-	-	-	-	-	-	-
5 <i>I. denticulata</i> (Meigen, 1830)	C	-	-	B	B	-	-	B	C	-	-	-
6 <i>I. micropyga</i> (Duda, 1938)	-	-	-	C	-	-	-	-	-	-	-	-
7 <i>I. nitida</i> (Duda, 1920)	B	-	-	-	-	-	-	-	B	-	-	-
8 <i>I. pusilla</i> (Fallén, 1820)	B	-	C	C	-	-	-	C	C	-	-	-
9 <i>I. scabricula</i> (Haliday, 1836)	C	-	-	-	-	-	-	C	-	-	-	-
10 <i>I. vaporariorum</i> (Haliday, 1836)	-	-	-	-	-	-	-	C	-	-	-	-
Copromyzinae												
11 <i>Copromyza borealis</i> Zetterstedt, 1847	-	-	-	-	-	-	-	-	-	-	-	-
12 <i>C. equina</i> Fallén, 1820	B	B	C	B	B	B	-	B	B	C	-	A
13 <i>C. neglecta</i> (Malloch, 1913)	-	-	-	-	-	-	-	-	-	-	-	-
14 <i>C. similis</i> (Collin, 1930)	C	-	C	-	-	-	-	-	-	C	-	-
15 <i>C. stercoraria</i> (Meigen, 1830)	C	C	C	B	C	-	-	B	C	A	-	-
16 <i>Lotophila atra</i> (Meigen, 1830)	B	A	C	C	C	C	-	B	C	C	-	C
17 <i>Borborillus costalis</i> (Zetterstedt, 1847)	B	-	B	C	-	-	-	C	-	-	-	C
18 <i>B. fumipennis</i> (Stenhammar, 1855)	-	-	-	-	-	-	-	-	-	-	-	-
19 <i>B. sordidus</i> (Zetterstedt, 1847)	A	-	C	-	B	-	-	B	-	-	-	-
20 <i>B. uncinatus</i> (Duda, 1923)	C	-	C	-	C	-	-	-	C	-	-	C
21 <i>B. vitripennis</i> (Meigen, 1830)	B	-	C	-	A	B	-	B	-	-	-	C
22 <i>Alloborborus pallifrons</i> (Fallén, 1820)	A	-	C	B	-	A	-	B	B	-	-	-
23 <i>Crumomyia fimetaria</i> (Meigen, 1830)	B	-	C	A	-	-	-	-	-	-	-	-
24 <i>C. glabrifrons</i> (Meigen, 1830)	-	-	-	B	-	-	-	-	-	-	-	-
25 <i>C. nigra</i> (Meigen, 1830)	-	-	-	-	-	-	-	B	-	-	-	-
26 <i>C. nitida</i> (Meigen, 1830)	B	-	C	A	-	-	-	B	C	C	-	-
27 <i>C. notabilis</i> (Collin, 1902)	B	-	-	-	-	-	-	-	-	-	-	-
28 <i>C. pedestris</i> (Meigen, 1830)	A	-	-	-	-	C	-	-	-	-	-	-
29 <i>C. pruinosa</i> (Richards, 1932)	-	-	-	-	-	-	-	-	-	-	-	-
30 <i>C. roserii</i> (Rondani, 1880)	C	-	-	-	-	-	-	-	-	-	-	-
31 <i>C. setitibialis</i> (Spuler, 1925)	C	-	-	C	-	-	-	-	-	-	-	-
Limosiniinae												
32 <i>Coproica acutangula</i> (Zetterstedt, 1847)	B	-	B	C	B	-	-	A	C	-	-	C
33 <i>C. ferruginata</i> (Stenhammar, 1855)	B	-	C	C	C	C	-	B	C	-	-	C
34 <i>C. hirticula</i> Collin, 1956	C	-	C	C	C	C	-	C	C	-	-	-
35 <i>C. hirtula</i> (Rondani, 1880)	C	-	C	C	-	-	-	C	C	-	-	-
36 <i>C. lugubris</i> (Haliday, 1836)	B	-	C	C	C	C	-	C	C	-	-	-
37 <i>C. pusio</i> (Zetterstedt, 1847)	B	-	B	C	B	-	-	B	B	A	-	-
38 <i>C. vagans</i> (Haliday, 1833)	B	-	B	C	C	A	-	B	C	-	-	-
39 <i>Philocoprella italica</i> (Deeming, 1964)	-	-	-	-	C	-	-	-	-	-	-	-
40 <i>P. quadrispina</i> (Laurence, 1952)	-	-	-	-	-	-	-	-	-	-	-	-
41 <i>Elachisoma aterrimum</i> (Haliday, 1833)	B	-	B	C	C	-	-	B	C	A	-	-
42 <i>E. pilosum</i> (Duda, 1924)	C	-	C	C	-	-	-	C	C	-	-	-
43 <i>Trachypella (Nudopella) leucoptera</i> (Haliday, 1836)	B	-	C	C	-	-	-	B	C	-	-	-
44 <i>T. (Minuscula) minuscula</i> Collin, 1956	-	-	-	C	-	-	-	-	-	-	-	-
45 <i>T. (s.str.) atomus</i> (Rondani, 1880)	C	-	-	C	-	-	-	C	-	-	-	-
46 <i>T. (s.str.) hovilla</i> Collin, 1954	C	-	C	C	-	-	-	C	-	-	-	-
47 <i>T. (s.str.) coprina</i> (Duda, 1918)	-	-	-	-	-	-	-	-	-	-	-	-
48 <i>T. (s.str.) kuntzei</i> (Duda, 1918)	-	-	C	C	-	-	-	-	C	-	-	-
49 <i>T. (s.str.) lineafrons</i> (Spuler, 1925)	C	-	C	C	-	-	-	C	C	-	-	C
50 <i>T. (s.str.) melania</i> (Haliday, 1836)	C	-	A	C	-	-	-	B	C	-	-	-
51 <i>Thoracochoeta brachystoma</i> (Stenhammar, 1855)	C	-	B	C	C	-	-	-	-	-	-	-
52 <i>T. seticosta</i> (Spuler, 1925)	-	-	-	-	-	-	-	-	-	C	-	-

De svenska arterna av hoppflugors (Diptera, Sphaeroceridae) utbredning i de inhemska landskapen samt i grannländerna. Angiven förekomst baseras på: (A) litteraturuppgift, (B) dito, även kontrollerad av förf., samt (C) tidigare opublicerade fynd presenterade i föreliggande uppsats.

No.	SÖ	UP	VS	VR	DR	GÄ	HS	ME	HR	JÄ	ÄN	VB	NB	ÅS	LY	PI	LU	TO	DK	N	SF	IS
1	C	C	-	-	-	-	A	-	-	A	-	C	-	-	A	-	A	-	A	A	A	C
2	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
3	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	B	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	A
5	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
6	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-
7	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A
8	C	C	-	-	C	-	-	-	-	-	-	C	C	-	B	-	-	C	A	B	A	A
9	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
10	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
11	-	-	-	-	C	-	-	-	-	A	-	A	-	-	-	-	A	B	-	C	A	A
12	C	B	-	-	-	-	-	-	-	A	-	-	-	A	A	-	C	B	A	B	A	A
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	C	-	-	-	-
14	-	C	C	-	C	-	-	-	-	-	-	-	-	-	-	-	-	C	-	B	A	A
15	-	C	-	-	C	-	-	-	A	-	C	C	A	-	C	-	C	B	A	B	A	-
16	C	B	-	-	C	-	-	-	-	A	-	-	-	C	-	-	C	A	A	B	A	-
17	-	C	-	-	-	-	-	-	-	-	-	-	C	-	A	-	A	C	A	C	A	A
18	-	-	-	-	C	-	-	-	-	A	-	-	-	-	C	-	B	B	-	C	A	A
19	-	A	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	A	A	A	-
20	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	-
21	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
22	-	B	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	A	-
23	C	B	-	-	-	-	-	-	-	-	C	-	-	-	C	-	C	B	-	C	A	-
24	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A	-
25	-	B	-	-	C	-	-	-	-	A	-	-	-	-	-	-	-	C	A	A	A	A
26	-	C	-	C	C	-	-	-	-	A	-	-	-	-	-	-	-	-	A	C	A	A
27	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	C	A
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	C	-	C	A	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
32	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	A	-	A	-
33	C	C	C	-	-	-	-	-	-	-	-	C	C	-	C	-	-	C	-	-	A	-
34	C	C	-	-	C	-	-	-	-	-	-	C	C	-	-	-	-	-	A	-	A	-
35	C	C	C	-	C	-	-	-	-	-	-	C	C	-	-	-	-	-	-	-	A	-
36	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	A	-
37	C	B	-	-	-	-	-	-	-	-	-	C	-	-	-	-	C	C	-	A	-	A
38	C	C	C	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	A	A	A	A
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
41	C	C	-	-	-	-	-	-	-	-	-	C	C	-	-	-	-	-	A	-	A	-
42	C	C	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-
43	C	C	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
44	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	C	C	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-
46	C	C	-	-	-	-	-	-	-	-	-	C	C	-	-	-	-	C	-	C	A	A
47	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	C	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	C	C	-	-	C	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-	A
50	C	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	A
51	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-

No. Species	SK	BL	HA	SM	ÖL	GO	GS	ÖG	VG	BO	DS	NÄ
53 <i>T. zosteræ</i> (Haliday, 1833)	B	-	A	C	C	-	-	C	-	C	-	-
54 <i>Puncticorpus cribratum</i> (Villeneuve, 1918)	B	-	-	-	-	-	-	-	-	-	-	-
55 <i>Pteremis fenestralis</i> (Fallén, 1820)	B	-	C	C	C	C	-	B	C	-	-	C
56 <i>Opacifrons coxata</i> (Stenhammar, 1855)	B	-	B	B	C	-	-	B	C	C	-	C
57 <i>O. flavilabris</i> (Hackman, 1968)	-	-	-	-	-	-	-	-	-	-	-	-
58 <i>O. humida</i> (Haliday, 1836)	B	-	C	C	C	-	-	B	C	-	-	C
59 <i>O. septentrionalis</i> (Stenhammar, 1855)	B	-	A	-	-	-	-	-	-	-	-	-
60 <i>Leptocera</i> (s.str.) <i>alpina</i> Roháček, 1982	-	-	C	-	-	-	-	-	-	-	-	-
61 <i>L.</i> (s.str.) <i>caenosa</i> (Rondani, 1880)	C	-	C	C	-	C	-	C	C	-	-	-
62 <i>L.</i> (s.str.) <i>finalis</i> (Collin, 1956)	C	-	C	C	-	-	-	C	C	-	-	C
63 <i>L.</i> (s.str.) <i>fontinalis</i> (Fallén, 1826)	B	B	C	B	C	C	-	B	C	-	-	C
64 <i>L.</i> (s.str.) <i>nigra</i> Olivier, 1813	B	C	C	C	B	C	-	C	C	-	-	C
65 <i>L.</i> (s.str.) <i>oldenbergi</i> (Duda, 1918)	B	-	-	-	-	-	-	-	-	-	-	-
66 <i>L. (Rachispoda) anceps</i> (Stenhammar, 1855)	B	-	-	-	B	-	-	B	A	-	-	-
67 <i>L. (R.) breviceps</i> (Stenhammar, 1855)	B	-	C	-	C	C	-	B	-	-	-	-
68 <i>L. (R.) cryptochaeta</i> (Duda, 1918)	C	-	-	-	C	-	-	-	-	-	-	-
69 <i>L. (R.) fuscipennis</i> (Haliday, 1833)	B	-	-	-	B	C	-	-	-	-	-	-
70 <i>L. (R.) limosa</i> (Fallén, 1820)	B	-	-	B	C	A	-	B	C	-	-	-
71 <i>L. (R.) lugubrina</i> (Zetterstedt, 1847)	A	-	-	-	C	A	-	-	-	-	-	-
72 <i>L. (R.) lutosa</i> (Stenhammar, 1855)	B	C	B	C	B	B	-	B	B	B	-	C
73 <i>L. (R.) lutosoidea</i> (Duda, 1938)	C	C	-	-	-	C	-	-	-	-	-	-
74 <i>Limosina silvatica</i> Meigen, 1830	B	-	C	B	-	B	-	B	A	-	-	-
75 <i>Gigalimosina flaviceps</i> (Zetterstedt, 1847)	B	-	-	-	-	-	-	-	-	-	-	-
76 <i>Apteromyia claviventris</i> (Strobl, 1909)	B	-	C	-	-	-	-	-	-	-	-	-
77 <i>Herniosina bequaerti</i> (Villeneuve, 1917)	-	-	-	-	-	-	-	-	C	-	-	-
78 <i>Terrilimosina racovitzai</i> (Bezzi, 1911)	C	-	-	C	-	-	-	-	-	-	-	-
79 <i>T. schmitzi</i> (Duda, 1918)	C	C	C	C	-	-	-	-	-	C	-	C
80 <i>Minilimosina (Svarciella) splendens</i> (Duda, 1928)	C	-	C	-	C	-	-	-	-	-	-	-
81 <i>M. (S.) unica</i> (Papp, 1973)	-	-	-	-	-	-	-	-	-	-	-	-
82 <i>M. (S.) v-atrum</i> (Villeneuve, 1917)	C	-	C	C	C	-	-	C	C	-	-	-
83 <i>M. (S.) vitripennis</i> (Zetterstedt, 1847)	B	-	C	C	-	C	-	B	-	-	-	-
84 <i>M. (s.str.) fungicola</i> (Haliday, 1836)	C	C	C	C	-	C	-	C	C	-	-	-
85 <i>M. (s.str.) gemella</i> Roháček, 1983	C	-	C	C	-	-	-	C	C	-	-	-
86 <i>M. (s.str.) hispidula</i> Roháček, 1988	-	-	-	-	-	-	-	-	-	-	-	-
87 <i>M. (s.str.) parvula</i> (Stenhammar, 1855)	C	-	B	C	C	C	C	B	-	-	-	C
88 <i>M. (s.str.) tenera</i> Roháček, 1983	-	-	-	-	-	-	-	-	-	-	-	-
89 <i>M. (Allolimosina) secundaria</i> (Duda, 1918)	C	-	-	-	-	-	-	-	-	-	-	C
90 <i>Xenolimosina setaria</i> (Villeneuve, 1918)	C	-	-	-	-	-	-	-	-	-	-	-
91 <i>Paralimosina fucata</i> (Rondani, 1880)	C	-	-	-	-	-	-	-	-	-	-	-
92 <i>P. kaszabi</i> Papp, 1973	-	-	-	-	-	-	-	C	C	-	-	-
93 <i>P. subcibrata</i> (Roháček, 1977)	C	-	-	-	-	-	-	-	-	-	-	-
94 <i>Spelobia (Eulimosina) ochripes</i> (Meigen, 1830)	B	-	B	C	C	B	-	B	C	C	-	C
95 <i>S. (s.str.) belanica</i> Roháček, 1983	C	-	-	-	-	-	-	-	-	-	-	-
96 <i>S. (s.str.) hispina</i> Marshall, 1985	-	-	-	-	-	-	-	-	-	-	-	-
97 <i>S. (s.str.) cambrica</i> (Richards, 1929)	C	-	C	C	-	-	-	-	-	-	-	-
98 <i>S. (s.str.) clunipes</i> (Meigen, 1830)	B	C	C	B	C	C	-	B	C	C	-	C
99 <i>S. (s.str.) ibrida</i> Roháček, 1983	-	-	-	-	-	-	-	-	-	-	-	-
100 <i>S. (s.str.) luteilabris</i> (Rondani, 1880)	C	C	C	C	C	C	-	C	C	-	-	C
101 <i>S. (s.str.) manicata</i> (Richards, 1927)	B	-	C	C	-	-	-	-	-	-	-	-
102 <i>S. (s.str.) nana</i> (Rondani, 1880)	C	-	C	C	C	-	-	C	-	-	-	-
103 <i>S. (s.str.) palmaia</i> (Richards, 1927)	B	C	C	C	C	-	-	C	-	-	-	-
104 <i>S. (s.str.) pappi</i> Roháček, 1983	-	-	-	-	-	-	-	-	-	-	-	-
105 <i>S. (s.str.) parapusio</i> (Dahl, 1909)	B	C	C	C	-	-	-	-	C	-	-	-
106 <i>S. (s.str.) pseudonivalis</i> (Dahl, 1909)	A	-	-	-	-	-	-	-	-	-	-	-
107 <i>S. (s.str.) pseudosetaria</i> (Duda, 1918)	-	C	C	C	-	-	-	C	C	-	-	-
108 <i>S. (s.str.) rufilabris</i> (Stenhammar, 1855)	B	C	B	C	B	-	-	B	C	B	-	C
109 <i>S. (s.str.) talparum</i> (Richards, 1927)	B	-	C	C	C	-	-	C	C	-	-	C
110 <i>S. (Bifronsina) bifrons</i> (Stenhammar, 1855)	B	-	C	C	C	-	-	B	C	-	-	-
111 <i>Pullimosina (Dahlimosina) dahl</i> (Duda, 1918)	-	-	C	-	-	-	-	-	-	-	-	-
112 <i>P. (s.str.) antennata</i> (Duda, 1918)	-	-	C	C	-	-	-	C	C	-	-	C
113 <i>P. (s.str.) heteroneura</i> (Haliday, 1836)	B	-	C	C	-	C	-	B	C	-	-	-

No.	SÖ	UP	VS	VR	DR	GÄ	HS	ME	HR	JÄ	ÄN	VB	NB	ÅS	LY	PI	LU	TO	DK	N	SF	IS
53	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	B	A	A
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
55	C	C	C	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
56	C	B	C	-	C	-	-	-	-	-	C	C	C	-	-	-	-	C	-	C	A	-
57	-	-	-	-	C	-	-	-	-	-	C	-	C	-	-	-	-	-	-	-	A	-
58	C	B	C	-	-	-	-	-	-	-	-	C	C	-	A	-	-	A	A	B	A	A
59	-	-	-	-	C	-	-	-	-	-	-	-	-	LAPPONIA	-	-	-	A	-	-	A	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	C	C	C	-	-	-	-	-	-	C	-	-	-	-	-	-	C	-	A	C	A	A
62	C	C	C	-	C	-	-	-	-	-	C	C	C	-	C	-	-	C	A	C	A	-
63	C	B	-	-	C	-	-	-	A	A	C	C	B	-	A	-	B	B	A	B	B	A
64	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
66	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	C	A	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
70	-	A	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	A	A	C	A	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	C	B	-	-	C	-	-	-	-	-	-	C	-	-	-	-	-	-	B	B	A	A
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
74	-	B	-	-	-	A	-	-	-	A	-	-	-	-	A	-	-	-	A	-	A	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
76	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	A	-	A	A
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	B
78	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
79	C	C	-	-	-	-	-	-	-	-	C	-	-	-	C	-	C	C	A	C	A	A
80	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	C	-	-	-	-	-	-	-	-	-	-	C	C	-	C	-	-	A	-
82	C	C	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	C	A	-
83	-	C	C	-	-	-	-	-	-	-	C	-	-	-	B	-	C	C	A	C	A	A
84	C	C	C	C	C	-	-	-	-	-	-	-	C	-	-	-	-	-	A	C	A	A
85	C	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	C	-	-	-	-	-
87	C	C	C	-	C	-	-	-	-	-	-	C	-	-	C	C	C	C	-	-	A	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	A	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
92	C	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	B	C	-	C	-	-	-	-	-	C	C	B	-	A	-	-	A	A	B	A	-
95	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	A	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	A	-	-	-	-	-
97	-	-	C	-	-	-	-	-	-	-	C	-	C	-	-	-	-	C	-	C	A	-
98	C	C	C	-	C	-	-	-	-	-	C	C	-	-	A	-	-	B	A	B	A	B
99	C	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	C	-	C	A	-
100	C	C	C	-	C	-	-	-	-	-	C	C	C	-	C	-	C	C	A	C	A	B
101	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	A	-
102	-	C	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	C	A	-	A	-
103	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
104	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	-
105	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	A	-	A	-
106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
107	C	C	-	-	-	-	-	-	-	-	-	-	C	-	B	-	-	-	A	A	A	B
108	-	B	C	-	C	-	-	-	-	-	-	-	C	-	C	-	C	C	B	B	A	B
109	C	C	C	-	C	-	-	-	-	-	-	C	-	-	C	-	-	C	A	-	A	-
110	C	C	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	A	A	A	-
111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	C	-	-	A	-
112	C	C	C	-	C	-	-	-	-	-	-	C	C	-	C	-	C	-	A	-	A	-
113	C	C	-	-	-	-	-	-	-	-	-	C	C	-	-	-	-	-	A	-	A	A

No. Species	SK	BL	HA	SM	ÖL	GO	GS	ÖG	VG	BO	DS	NÄ
114 <i>P. (s.str.) mejerei</i> (Duda, 1918).....	C	—	—	—	—	—	—	—	—	—	—	—
115 <i>P. (s.str.) moesta</i> (Villeneuve, 1917).....	C	—	C	C	—	—	—	C	C	—	—	C
116 <i>P. (s.str.) pullula</i> (Zetterstedt, 1847).....	B	—	C	C	C	C	—	B	C	—	—	C
117 <i>Chaetopodella scutellaris</i> (Haliday, 1836).....	B	—	B	B	C	C	—	B	C	—	—	—
118 <i>Kimosina (Collimosina) spinosa</i> (Collin, 1930).....	—	—	—	—	—	—	—	—	—	—	—	—
119 <i>K. (Alimosina) empirica</i> (Hutton, 1901).....	—	—	—	C	—	—	—	C	—	—	—	—
120 <i>K. (s.str.) longisetosa</i> (Dahl, 1909).....	C	—	—	C	C	—	—	C	—	—	—	—
121 <i>K. (s.str.) plumosula</i> (Rondani, 1880).....	C	—	—	—	—	—	—	—	C	—	—	—
122 <i>Telomerina eburnea</i> Roháček, 1983.....	—	—	—	—	—	—	—	C	C	—	—	—
123 <i>T. flavipes</i> (Meigen, 1830).....	B	—	C	C	A	—	—	B	C	—	—	—
124 <i>T. levifrons</i> (Spuler, 1925).....	—	—	—	—	—	—	—	—	—	—	—	—
125 <i>T. pseudoleucoptera</i> (Duda, 1924).....	C	—	C	C	C	—	—	C	C	—	—	C
126 <i>Opalimosina (Pappiella) litiputana</i> (Rondani, 1880).....	C	—	C	C	—	—	—	C	C	—	—	—
127 <i>O. (Dentilimosina) denticulata</i> (Duda, 1924).....	C	—	—	C	C	—	—	—	—	—	—	—
128 <i>O. (s.str.) calcarifera</i> (Roháček, 1975).....	—	—	—	—	—	—	—	—	—	—	—	—
129 <i>O. (s.str.) collini</i> (Richards, 1929).....	C	—	C	C	C	—	—	C	—	—	—	—
130 <i>O. (s.str.) mirabilis</i> (Collin, 1902).....	C	C	C	C	C	C	—	C	C	—	—	C
131 <i>O. (s.str.) simplex</i> (Richards, 1929).....	—	—	—	—	C	—	—	—	—	—	—	—
132 <i>Rudolfina rozkosnyi</i> (Roháček, 1975).....	—	—	—	—	—	—	—	—	—	—	—	—
133 <i>Halidayina spinipennis</i> (Haliday, 1836).....	B	—	C	C	C	C	—	B	C	—	—	C

S (K 1972: 209) and SF (H 1963), and AFG (P 1984). On a variety of decaying matter in wet places, thyrophilous (R 1984); wet deciduous forest, cow house, horse droppings, H N. 3♂1♀, 1932–83, V–VIII (NRS, ZIL), 5♂5♀ Bhn, Roth, det. Kim 1967 (NRS).

8. *Ischiolepta pusilla*. (R & P 1984, Pi 1988). S: SK: Stoby Arkelstorp 550620 1♂; Björnstorp 880415 1♀ MS; Ellestad 700610 1♀, 740831 1♂1♀; Humlarödshus fålad 850601 1♂; Klostergården 730429 1♂1♀; N Krankejön 700503 1♀, 730701 1♂, 750620 1♀; Kullaberg 670411 1♂, 690804 1♀, 720809 1♂, 750807 2♀; Kullen 590704 3♂ CL; Lomma 750526 1♂1♀; Lund 410803 1♀ KA, 710801 4♂3♀ HA, 810521 1♂1♀ HA; Mariannelund 81 VI–VII 2♀ RS; Ringsjönäs 650813 1♂; Ripa 831110 2♂1♀ MS; Råå vassar 610520 1♂; Baldringe Skogshejdan 69 VI–IX 3♀; Stenshuvud 820531 1♀; Sövdesjön 560530 1♀; Vombsjön 1♂1♀; Åkarp 550527 1♀. – HA: Rydöbruk 860811 1♀ JA; Tönnersa 800609 1♀, 810720 1♀ RS; Årnilt 55 IV–V 15♂12♀, 56 I–IV 27♂35♀, 570608 1♂, 630602 3♂, 640427 1♂, 66–1♂3♀, 690518 2♂, 73 VI–VII 2♂5♀; Snöstorp 55 V–VII 5♂37♀. – SM: Helgesbo 850629 1♂; Hyltebruk 860907 1♂ 1♀ JA; Åseda Kullebo 7607 308♂1068♀; Skorrö 85–0726 1♀ RD; Tagel 790727 1♂, 800703 1♀ RS; Tenhult 830704 1♀ RS; Traryd 840630 1♀. – ÖG: Bjärka-Säby 7905 5♂6♀, 8005 90♂185♀ SVA; Brynstorp 800807 1♂, 820802 1♀, 830603 1♀ RS; Törnevala Lingham 8005 73♂50♀ SVA; Vist Stavsåter 7905 3♂6♀, 8005 5♂10♀ SVA. – VG: Hasslösa Ekgården 810728 1♀ RS; Skara Viglunda 82 VI–VII 2♀ RS. – SÖ: Rösäng 8008 1♂ JM; Vingåker Vik 7907 1♀ JM; Älgö 81 VI–VIII 48♂48♀, 82 VII–IX 11♂12♀, 83 VI–VII 137♂111♀, 84 VII–VIII 75♂54♀, 85 VI–X 94♂119♀, 86 IV–X 134♂ 149♀, 87 VI–X 95♂128♀. – UP: Ed Antuna 79 V–IX 34♂ 31♀, 800508 1♂2♀ SVA; Solna Bergshamra 770627 1♀ GN; Balingsta Eriksberg 7905 1♂ JM; Faringe Erikslund 790805 1♂9♀ FF; Getingarnö 79 VIII–IX 79♂2♀, 80 VII–VIII 2♀, 8107 5♂11♀ SVA; Estuna Hov 81 VI–X 2♂6♀ SVA; Vada Mälsta 800514 1♀ SVA; Rimbo 8106 1♀ JM. – DR: Näs 810907 1♂ RS. – VB: Röbbäcksdalen 820624 1♀ RS; Umeå

lsk 810712 1♂ RS. – NB: Kengis utm. 5507 2♀. – LY: Ammamäs 710616 1♂ – TO: Vittangi 550718 1♂. N: B: Krokskogen 680412 1♀ SH. – MR: Ålesund 860626 1♂1♀ HF & UJ.

Holarctic incl DK, S (F 1820, type loc.; Z 1840, SK-Lpl 1860, LY; Ri 1951 SK-UP; H 1967a SK), N (Z 1855), SF (Z 1860) and IS (Ni *et al.* 1954). Common, developing in various matter (R 1984): cow houses, dung hill, pastures, grass compost, urinal, maple in sap, wet meadows, lake shores, swamps, collected on snow, N F Y W P. 1289♂ 2141♀, 1954–88, IV–X (NRS, ZIL).

9. *Ischiolepta scabricula*. (Pi 1988). S: SK: Orup 740811 1♀ RS. – ÖG: Vist Stavsåter 800513 1♀ SVA. – SÖ: Älgö 85 IX–X 4♂1♀, 860629 1♂. Europe incl S (new), SF (H 1980); Asia: AFG, J (Hayashi 1986); Afrotrop. and Oriental Regs. Rare, collected on dung (Hayashi 1986). Possibly tercolous – small eyes (Allen 1977): grass compost, potato field, cow house, N Y W. 5♂3♀, 1974–86, V–X (NRS, ZIL).

10. *Ischiolepta vaporariorum*. (R & P 1984, Pi 1988). S: ÖG: Törnevala Lingham 800513 1♂ SVA. – UP: Stockholm Exp.fältet 220515 1♀, 2209 2♂2♀ GH, det K 1967.

Europe incl S (new) and SF; AFG and N. Africa (P 1984). Coprophagous (P 1973b): cow house, W. 3♂3♀, 1922–80, V–IX (NRS). *I. vaporariorum* and *I. pusilla* are very much alike, but male cerci differ distinctly (Pi 1988 figs).

11. *Copromyza borealis*. (N & K 1985a). S: DR: Norslund 280610 1♂ BT. – TO: Karesuando 5507 2♂2♀; Soppero 550720 1♀; Lpl. in. 3♂2♀ Bhn. N: F: Altafjordbotn 560704 3♂3♀; Tanafjord 560706 1♀.

Scandinavia to Siberia incl S (Z 1847, JÄ, LU, TO; N & K 1985a, VB), N (new), SF (H 1965) and IS (H pers. comm.). Arctic to subarctic, collected on cow and horse dung and in rodent burrows: pastures, N. 6♂8♀, 1928–56, VI–VII (NRS, ZIL), 3♂2♀ Bhn (NRS).

12. *Copromyza equina*. (N & K 1985a). S: SK: Brösarp 690615 1♀; Bökeberg 560824 1♂; Gantofta 810805 1♂1♀; Klagshamsudde 81 V–VI 1♂1♀; Linnebjerg 410706 1♀

No.	SÖ	UP	VS	VR	DR	GÄ	HS	ME	HR	JÄ	ÄN	VB	NB	ÄS	LY	PI	LU	TO	DK	N	SF	IS
114	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-
115	C	C	C	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
116	C	B	C	-	C	-	-	-	-	-	-	C	C	-	-	C	C	-	A	A	A	-
117	C	B	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	A	C	A	-
118	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	A	-
119	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	A
120	-	-	-	-	-	-	-	-	-	-	C	-	C	-	-	-	-	-	A	-	A	-
121	C	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	B
122	C	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-
123	C	C	-	-	C	-	-	-	-	A	-	C	-	-	-	C	-	-	A	-	A	A
124	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
125	C	C	-	-	C	-	-	-	-	-	-	C	C	-	-	-	-	-	A	C	A	-
126	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	C	A	-
127	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
128	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
129	C	C	C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
130	C	C	C	-	C	-	-	-	-	-	-	C	C	-	-	-	-	-	A	-	A	-
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-
132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-
133	C	C	-	-	C	-	-	-	-	-	-	C	C	-	-	C	C	A	C	A	A	A

KA; Mariannelund 810612 1♀, 830613 1♂ RS; Stenshuvud 820531 1♀ HA, 8306 3♂5♀ RD; Vitemölla 840527 1♀; 2♂ Bhn. - **BL**: Stubbemåla 850724 1♀ RD. - **HA**: Tönnersa 820624 1♂ RS; Årnilt 630602 1♀, 650528 1♀. - **SM**: Tenhult 83 VI-VII 4♂2♀ RS. - **ÖL**: 1♂2♀ Bhn. - **GO**: 1♂2♀ Bhn. - **ÖG**: Brynstorp 830630 1♂; Tömevalla Linghem 791130 1♂ SVA; Vist Stavsäter 790511 1♂2♀; 2♂1♀ Bhn; 1♂1♀ PWg. - **VG**: Hasslösa Ekgården 790626 1♀ RS; St Lund 830617 1♂ RS; Skara Viglunda 820719 1♂ RS. - **BO**: Fiskebäckskil 1806 1♂ GH; Lyckoma 450702 1♂1♀ BT. - **SÖ**: Nacka VI 1♀ GH. - **UP**: Furusund 230805 1♂ 1♀ GH; Rimbo 8105 1♂ JM; Stockholm 2♀ Bhn; Stockholm Exp.fältet 220515 1♀, 2308 2♂ GH; Svartsjö 2108 1♀ GH; Värmdö 250821 1♀ GH. - **TO**: Vittangi 560704 1♂ 1♀. **N**: F: Altafjord 560704 1♂1♀.

Almost cosmopolitan incl DK (Z 1847), S (F 1820; Z 1840, ÄS, LY, TO; 1847, SK, BL, SM, ÖL, GO, ÖG, VG, NÄ, UP, JÄ; Z 1855 var. *fuscineris*, SK; Ri 1921, SK; 1931, TO; 1939, JÄ; 1941, SK; Kim 1972 lectotype and paralectotypes), N (Z 1840), SF (H 1965) and IS (A 1967). Synanthropic, chiefly coprophagous, on various kinds of droppings: cattle droppings, cow house, pasture, potato and rape fields, deciduous forest, N Y W. 19♂23♀, 1941-85, V-IX (NRS, ZIL), 13♂14♀ Bhn, GH, PWg (NRS).

13. *Copromyza neglecta*. (N & K 1985a). **S**: LU: Messaure 740715 1♀; Gällivare Perka 740823 1♀ HW; Sitasjaure 740828 1♀ HW. - **TO**: Abisko Nuolja 830714 1♀; Abisko Marmorbrottet 830727 1♀; Abisko Stordalen 750318 2♀ KM; Abisko Nat. Vet. Stn. 750922 1♀ KM.

N, America: CDN, USA; Europe: CS (R 1984 as *parastercoraria*), S (new). A terricolous species close to *C. stercorearia*, found in rodent burrows, on excrement and carrion: mixed pine forest by Lule river, mountain birch forest, peat bogs, N F L. 9♀, 1974-83, III-IX (NRS, ZIL).

14. *Copromyza similis* [*nigrina* Gimmertahl, 1847]. (N & K 1985a, Pi 1988) **S**: SK: Hällestad Grytängen 830606 1♂, 880418 2♀; Mariannelund 830606 1♂ RS; Stenshuvud 830614 2♂ RD. - **HA**: Årnilt 66-1♂. - **BO**: Lyckoma

450702 1♂ BT. - **UP**: Estuna Båtmanstorp 810729 4♂1♀ SVA. - **VS**: Ridö 8106 1♂ JM. - **DR**: Gylle 701206 1♀ JOB. - **TO**: Maunu 550724 1♂; Soppero 550720 2♂2♀. **N**: O: Rondane Furusjoen 730423 1♀ SH. - **F**: Altafjordbotn 560704 4♂3♀; Vestertana 560706 2♂4♀.

Palearctic, widespread incl S (new), N, SF (H 1965, Hedström & Nuorteva 1971) and IS (A 1967). Coprophagous, chiefly in dung from large mammals: horse droppings, pastures, cow house, potato and rape field, on snow, N Y W P. 18♂17♀, 1945-88, IV-XII (NRS, ZIL, NFI).

15. *Copromyza stercorearia* [*nigrifemoratus* Macquart, 1935; *tibialis* Zetterstedt, 1847; *pallipes* Stenhammar, 1855; *zetterstedti* Wahlgren, 1918; *stenhammari* Wahlgren, 1918]. (N & K 1985a, Pi 1988). **S**: SK: Härkeberga 820602 1♂ CH; N Krankesjön 820403 1♂, 870521 1♀; Kullaberg 720809 1♀, 740704 1♀, 750807 1♀; Lund 820703 1♀ CH; Orup 780810 1♂ RS; Gudmuntorp Rövarekulan 740901 1♂; Degeberga Segeholmsån 830529 1♂; Skanör 560902 1♂ 1♀; Stenshuvud 650617 1♂ HA, 830611 1♂ RD; Vombsjön 850703 1♀; Åkarp 540629 1♂; Önnemo 820529 1♂; Österlöv 631019 1♀. - **BL**: Tjärö 670702 1♀. - **HA**: Tönnersa 780705 1♂, 830630 1♀ RS; Årnilt 660831 1♀, 670325 2♂, 720327 1♂, 830802 1♂. - **SM**: Getnabo 830717 1♀ RD; Trotteslöv 820708 1♂1♀ RS; Åreda 830707 1♂ RD; 1♀ Bhn *pallipes* paralectotype. - **ÖL**: Glömminge 320713 1♀ GH *stenhammari*; Möckelmossen 780829 1♀ ES *et al.* - **ÖG**: Brynstorp 780717 1♂ RS; N Sturefors slott 850626 1♀. - **VG**: Hasslösa Ekgården 810820 1♀ RS; Skara Viglunda 8207 1♂1♀ RS. - **BO**: 1♀ Bhn *pallipes* lectotype. - **UP**: Solna Berghshamra 770713 1♂ GN; Kolhammar 7807 2♀ RS. - **DR**: Falun Norslund 260627 1♀ BT. - **ÄN**: Ångerån 770620 1♂. - **VB**: Röbbäcksdalen 820622 1♂ RS. - **LY**: Ammanäs 7107 2♀. - **LU**: Messaure 71 VI-IX 2♂7♀, 74 VII-VIII 2♂; Sitasjaure 740825 1♂ HW. - **TO**: Abisko Ridonjira 830722 1♀; Abisko 75 VIII-X 2♂1♀ HA, 76 VI-VIII 1♂2♀ KM; Vittangi 550717 1♂. **N**: AK: Baerum Delivann 701213 1♀ SH; Skulerud 741221 1♀ SH. - **B**: Krokskogen 740216 1♀ SH.

– **SF**: Sognefjell 860622 1♀ HF & UJ. **DK**: **J**: Nymindesgab 810526 2♀ RD; Husby Klit 810526 1♀ RD; Husby 870610 1♂ RD.

Holarctic incl DK, S (Z 1847 *tibialis*, S 1855 *pallipes*, SM, ÖG, BO; Ri 1951 *nigrifemoratus*, HR, NB, TO; N & K 1985a paralectotype, SM), N (Ardö 1957) and SF (H 1965). Terricolous, often in wet biotopes, breeding in excrement and rotting matter. Adults occur throughout the whole year (R 1984): deciduous forest, wet pasture, peat bogs, mountain birch forest, mixed forest by Lule river, potato fields, collected on snow, N F Y W P, 32♂42♀, 1926–87, II–XII (NRS, ZIL, NFI), 3♀ Bhn, HG (NRS).

16. *Lotophila atra* [*geniculatus* auct.]. (N & K 1984, Pi 1988). **S**: **SK**: Stoby Arkelstorp 550620 1♂; V. Bröna 830529 1♂; Brösarp 690615 9♂5♀ pasture; Bällingesjön 850619 1♀; Bökeberg 591001 1♀; Ellestadssjön 680821 1♂, 690616 1♂1♀, 700610 1♂; Hasslemölla 810507 2♀, 820530 1♀; Humlarödshus fäläd 850601 1♂; Hällestad 7408 5♂4♀, 840519 1♂1♀, 880418 1♂; Klostergården 730509 1♂; Knäbäckshusen 810613 1♂1♀ RD; Kullaberg – 1♀, 720801 1♀; Linnebjerg 680928 2♂; Lund 720715 1♂ HA, 820703 1♂ RD; Mariannelund 81 VI–VII 2♂, 820814 1♀, 830606 1♀ RS; Orup 79 VI–VIII 1♂1♀, 80 VII–VIII 1♂ 2♀ RS; Perstorp 631019 1♀; Råå vassar 610520 1♂; Baldringe Skogshejdan 69 VI–IX 10♂4♀; Skärälid 410620 1♀ TN; Stenshuvud 8306 5♂6♀ RD; Vombsjön 750618 1♂2♀; 2♂1♀ Bhn *geniculatus*. – **HA**: Stjernarp 6107 1♂ PA; Tönnersa 780810 1♂2♀, 790808 1♀, 80 VI–VIII 3♂, 810720 1♂, 830704 1♀ RS; Åmilt 550704 1♂, 5607 1♂3♀, 630602 1♂, 680704 1♂1♀, 710725 1♂, 7306 8♂3♀. – **SM**: Hyltebruk 860804 1♀ JA; Åseda Kullebo 760724 2♀; Skorrö 830623 1♂ RD; Tagel 780619 1♀; Trotteslöv 80-0804 1♂, 8108 1♂1♀, 82 V–VIII 2♂3♀, 830613 1♀ RS; 2♂2♀ Bhn *geniculatus*. – **ÖL**: Halltorps hage 7608 2♀. – **GO**: Norrlanda Hammars 780818 1♀ RD; Ulla hau 780827 1♂ MS. – **ÖG**: Bjärka-Säby 790809 2♀, 8005 2♀ SVA; Ö. Ryd Boda 810714 1♀ TW; Ö. Ryd Hagalund 810709 27♂3♀ cowpat TW; Tjällmo Hindstorp 79 V–VII 1♂1♀ JM; Ö. Ryd Rässla 810714 2♂ TW; 1♂1♀ Bhn *geniculatus*. – **VG**: Hasslösa Ekgården 790702 1♀, 8108 2♂ RS; Göteborg – 1♀ BT. – **BO**: Fiskebäckskil 240815 1♀ GH *geniculatus*; 2♀ Bhn *geniculatus*. – **NÄ**: Örebro Oset 410801 1♂ TN. – **SÖ**: Älgö 860531 1♀. – **UP**: Balingsta Eriksberg 7905 1♂ JM; Getingarn 79 VIII–IX 2♀, 800819 2♂1♀ SVA; Kolhammar 78 VI–VIII 2♂ RS; Vada Mälsta 800514 80♂14♀ SVA; Rimbo 8107 1♂ JM; Stocholm 3♂1♀ Bhn *geniculatus*; Värmdö 250806 1♂ GH. – **DR**: Floda Ringforsen 660620 1♀ TT. – **LY**: Ammarnäs 71 VI–VII 1♂1♀. – **TO**: Abisko Jebrenjokk 760615 1♂ KM; Lpn.in. 2♂ 1♀ Bhn. **N**: **ST**: Benna 860621 2♂2♀ HF & UJ. – **NS**: Mo i Rana 560626 1♂. – **F**: Altafjord 560704 1♂; Lakselv 560709 1♀; Tanafjord 560706 1♂.

Holarctic incl DK (Z 1847), S (Z 1847, SK, BL, ÖG, JÄ; Ri 1954, SK; Lundblad 1955, UP; N & K 1984, JÄ), N (Z 1847, N & K 1984) and SF (H 1965). Coprophilous, chiefly breeding in cow dung: cow houses, pastures, meadow with bushes, grass compost, potato fields, a watered pile of pulpwood, N F Y W. 205♂94♀, 1941–88, IV–X (NRS, ZIL), 11♂9♀ Bhn, GH (NRS).

17. *Borborillus costalis*. (H 1965, Pi 1988). **S**: **SK**: Klostergården 720715 1♂; Stenshuvud 8306 5♂2♀ RD. – **HA**: Enslöv 560715 1♂. – **SM**: N. Åreda 870620 2♀ RD. – **ÖG**: Högsjö 810709 1♀ TW; 1♂1♀ Sthr. – **NÄ**: Örebro Markkärrer 410728 1♂ TN. – **UP**: Estuna Båtsmanstorp 8107

47♂28♀ horse droppings SVA. – **NB**: Kengis 550730 1♀. – **TO**: Abisko Stordalen 7503 1♀ peat bog KM. **N**: **F**: Tana bru 560708 1♂; Vestertana 560706 1♀; Altafjordbotn 560704 1♀.

Palaeartic incl DK (Z 1847, Hafnia type loc.; Ardö 1957), S (Z 1860, SK, LY, LU; Ardö 1957, HA), N (new), SF (H 1965) and IS (Ni *et al.* 1954, needs reexamination – could be *B. fumipennis*). Coprophilous, larvae chiefly in horse dung (P 1973a); horse and cow droppings, pastures, marshes, N L W. 57♂37♀, 1941–87, III–VIII (NRS; ZIL), 1♂1♀ Sthr (NRS).

18. *Borborillus fumipennis*. (H 1965). **S**: **DR**: Lima Bullberget 310826 1♀ BT. – **LY**: Sorsele Åkroken 630711 2♂. – **LU**: Messaure 710907 1♂. – **TO**: Abisko Nuolja reg. arct. 830714 1♂1♀; Abisko Marmorbröttet 830722 1♀; Abisko Stordalen 75 1♀ KM; Soppero 550720 1♀; Lpl. in. 3♂2♀ Bhn lectotype and paralectotypes des. Norrbom 1984 (NRS). **N**: **F**: Vicksa reg. alp. 560705 1♀; 560709 1♀.

Recorded only from S (S 1855, LU type loc.; Ri 1931, TO; 1939, JÄ), N (new), SF (H 1965), IS (Lindroth 1931 misidentified as *B. costalis*, E. Olafsson pers. comm. 1988) and Svalbard (P 1984). Arctic to subarctic, close to *B. costalis*. 1♂1♀ collected from a dead fox at Svalbard (D 1938); stony shores by lakes and rivers, marshes, peat bog, wet meadow, ditch, N F L. 4♂6♀, 1963–83, III–IX (NRS, ZIL), 2♂2♀ Bhn (NRS).

19. *Borborillus sordidus*. (H 1965). **S**: **HA**: Åmilt 560725 1♀. – **ÖL**: Böda Kronopark 540704 1♀ RGD; 1♂ Hgn. – **ÖG**: 1♂1♀ Sthr.

Widespread in Europe incl DK (Ardö 1957), S (Z 1847 type loc.; S 1855, ÖG, UP; Z 1860, SK, ÖL; Ri 1951, ÖG, UP, JÄ, Lpl; K 1972 types), N (H 1986 pers. comm.) and SF (H 1965); also recorded from Asia, N, America and Africa. On horse, cow and sheep dung (Hayashi 1986); wet meadows and marshes, N. 2♀, 1954–56, VII (ZIL), 2♂1♀ Hgn, Sthr (NRS).

20. *Borborillus uncinatus*. (H 1965). **S**: **SK**: Kullaberg 670704 1♂; Orup 800801 1♂ RS; Skärälid 650525 1♂; Stenshuvud 830614 1♀ RD. – **HA**: Tönnersa 810827 1♂ RS; Åmilt 550529 1♂, 640926 1♀, 650528 1♀. – **ÖL**: Halltorps hage 760831 1♂. – **VG**: Hasslösa Ekgården 79-0824 1♂, 800804 1♀ RS. – **NÄ**: Örebro Oset 410810 1♂ TN. – **UP**: Estuna Båtsmanstorp 810729 4♂ SVA.

Widespread in Europe incl S (P 1984 no loc.), N (P 1984, type loc.) and SF (H 1965); also recorded from Mongolia (P 1973a). On horse dung, sometimes in mouse runs: horse droppings, brook ravine, wet glen, lake shore, potato field, N L Y. 13♂4♀, 1941–88, IV–IX (NRS, ZIL).

21. *Borborillus vitripennis*. (H 1965, Pi 1988). **S**: **SK**: Krankesjön 550830 1♂; Orup 780817 1♀ RS. – **HA**: Laxvik 8507 1♀ PA. – **GO**: 4♀ Bhn. – **ÖG**: 2♂1♀ Bhn; 2♂1♀ PWg. – **NÄ**: Mark 410728 3♂2♀ TN. – **UP**: Stockholm 3♂2♀ Bhn.

Europe incl DK (P 1984), S (Z 1847, SK, ÖG; 1860, GO, ÖL, UP; Ri 1941, SK) and SF (H 1965); Siberia and Japan (Hayashi 1986). Not common but taken in various habitats, mainly on dung: marsh, damp mixed forest, garden, potato field, N Y. 5♂5♀, 1941–85, VII–VIII (NRS, ZIL), 7♂8♀ Bhn, PWg (NRS).

22. *Alloborborus pallifrons*. (N & K 1985b, H 1965). **S**: **HA**: Enslöv 560718 1♂. – **SM**: 2♂3♀ Bhn. – **ÖG**: 1♂ Bhn. – **VG**: Kinnekulle 1♂1♀ Bhn. – **UP**: Stockholm 4♂ Bhn.

North and Central Europe incl S (F 1820 lectotype; Z 1847, SK, ÖG, GO, UP; Ri 1951, JÄ) and SF (H 1965). Commonly on horse dung; pasture, N, 1♂, 1956, VII (ZIL), 8♂4♀ Bhn (NRS).

23. *Crumomyia fimetaria* [suillorum Haliday, 1836]. (N & K 1985b, Pi 1988). S: SK: Arkelstorp 550622 1♀; Björkåkrasjön 831009 1♀ MS; Bökeberg 840923 1♀; Klagshamnsudde 820526 1♂; Klöva hallar 820711 1♂; Kullaberg 69-1♂, 7107 2♂, 720809 1♂1♀, 7306 2♀; Skärälid 630926 1♀, 670402 1♂; Silvåkra Stensoffa 840916 2♂; Gudmuntorp Rövarekulan 820708 1♂; Tjömarsjön 830911 1♂. - HA: Snöstorp 550530 1♂; Virsehatt 860503 1♂; Åmilt 860502 1♀. - SO: Algö 840805 1♂1♀, 85 VII-X 1♂2♀, 86 V-VIII 8♂5♀, 87 VI-IX 8♂7♀. - UP: Värmdö 250801 1♀ GH. - AN: Ångerån 770620 1♂. - LY: Ammarås 71 VI-VII 2♂. - LU: Messaure 69-1♀, 71 VI-VII 3♀, 730820 1♂ 1♀. - TO: Abisko 75 V-IX 7♂14♀, 76 V-VIII 24♂36♀ mountain birch forest KM; Abisko Ridonjira 83-0722 1♂; Lpl. in. 1♂1♀ Bhn. N: AK: Skulerud 741221 1♀ SH. - B: Krokskogen 841111 1♀ SH. - ST: Benna 860621 3♂ HF & UJ. - F: Adamsfjord 550705 1♂.

Widespread in Europe incl S (S 1855 *suillorum*, SK, SM, UP, Lpl. in.; Ri 1931, TO; H 1967a, SK). N (new) and SF (H 1965, Hedström & Nuorteva 1971). A polysaprophagous woodland species (R 1984); wet deciduous forest, mountain birch forest, peat bog, marshes, moose dung, tree stump in sap, kitchen refuse, pasture, on snow, N F L Y W P. 81♂84♀, 1955-87, III-XII (NRS, ZIL, NFI), 1♂2♀ Bhn, GH (NRS).

24. *Crumomyia glabrifrons*. (N & K 1985b, H 1965). S: SM: 1♀ Bhn. - UP: Stockholm 1♀ Bhn. Europe incl S (Ri 1951, SK-TO) and SF (H 1965); Asia Minor and Central Asia. A highland species, collected on decayed vegetation and roe droppings, 2♀ Bhn (NRS).

25. *Crumomyia nigra* [tuxeni Collin, 1954]. (N & K 1985b). S: ÖG: 2♂1♀ Bhn. - UP: Stockholm Exp.fältet 192205-06 1♂2♀ GH. - DR: Norslund 330312 1♂1♀ BT. - TO: Vittangi 550718 1♀.

Europe incl DK, S (Z 1847, UP, JÄ; S 1855, ÖG; N & K 1985b, JÄ), N (Z 1847), SF (H 1965) and IS (H 1965 *tuxeni*); USSR, AFG and West Greenland. Common on dung from sheep, cattle and horse; cowpats, N, 2♂5♀, 1922-55, III-VII (NRS, ZIL), 3♂3♀ Bhn, GH (NRS).

26. *Crumomyia nitida* [nigriceps Rondani, 1880]. (N & K 1985b, Pi 1988). S: SK: Harlösa Borstabäcken 850623 1♂; Blentarp Bosarps gårde 870903 1♂1♀; Kullaberg 730623 1♂, 740702 1♂; Linnebjerg 680928 1♀; Degeberga Segelholmsån 830529 1♂; Blentarp Stampenbäcken 69 VI-XI 3♂8♀ BS, Stenshuvud 830612 1♀ RD; Yddingesjön 84-0923 1♀; 1♀ Bhn. - HA: Åmilt 501116 1♂1♀, 840619 1♂. - ÖG: 1♀ PWg; 1♂ Hgn. - VG: Håkanstorp 870715 1♀; Göteborg 1♀ BT; 3♂ Bhn. - BO: Ljungkile 450703 1♂ BT; 1♂ PWg. - UP: Stockholm 7♂ Bhn; Värmdö 2508 1♂3♀ GH. - VR: Töcksfors 840611 1♀ FF. - DR: Floda Sängån 390407 1♀ TT; Falun Norslund 310222 1♀ BT. N: O: Rondane Furuojoen 730414 1♂ SH.

Europe incl DK, S (Z 1947, SK, ÖG, JÄ; Ri 1954, SK; H 1967a, SK), N (new), SF and IS. A woodland species in shady places, adults occur during the whole year (R 1984); damp deciduous forest, by streams, wooded marshland, on snow, N F M P. 12♂18♀, 1925-87, II-XI (NRS, ZIL, NFI), 13♂5♀ *nigriceps* Bhn, Hgn, PWg, GH (NRS).

27. *Crumomyia notabilis*. (N & K 1985b). S: SK: Kullaberg 730625 1♀, 810623 1♂; Åhus 830715 3♂4♀. - DR: Falun Norslund 310222 1♂ BT. - TO: Abisko 75 II-XI 16♂12♀, 7602 1♀ mountain birch forest and peat bog KM. N: AK: Nordmarka 710221 1♂ SH; Ostmarka 731226 1♂ SH; Delivann 701118 1♂, 710118 1♂, 711215 2♀ SH; Kolåsen 710124 1♂1♀ SH; Valler 701119 1♀ SH; Skuckelia 750325 1♂ SH; Skulerud 741221 1♂3♀, 750126 1♂, 750222 1♀ SH. - B: Krokskogen 712811 3♀, 7203 2♂2♀, 7204 1♂2♀, 740113 2♂1♀, 7402 1♂2♀, 860409 1♂ SH. - O: Ormstjerkampen Nasj. Park 751023 1♂ SH. - R: Krokavann 701226 1♀ SH.

North and Central Europe incl S (H 1967a, SK as *glacialis*), N (new) and SF (H 1980). Psychrophilous, confirmed to burrows of small mammals, caves and damp forests, adults occur throughout the whole year (R 1984); mountain birch forest, marshes and peat bogs, on snow (all Norwegian finds), N F L W P. 38♂37♀, 1931-86, I-XII (NRS, ZIL, NFI).

28. *Crumomyia pedestris*. (N & K 1985b). S: GO: Öja 690718 1♂1♀ CL. North and Central Europe incl DK, S (Dahl 1964, SK; H 1967a, SK) and N. Terricolous, mainly in lowlands on wet meadows, macropterous form extremely rare; a dried up reedy canal, 1♂1♀, 1969, VII (ZIL).

29. *Crumomyia pruinosa*. (N & K 1985b). S: LU: Messaure 69-1♂, 710720 1♂2♀, 710819 6♀. - TO: Abisko Nat. Vet. stn. 7507 7♂11♀, 750829 1♀, 751020 1♂1♀ KM; Abisko Stordalen 751023 1♀, 760623 5♂2♀, 7608 1♂1♀ KM; Abiskojokk 850623 1♀ TM. N: F: Vestertana 560706 1♂.

Northern Holarctic Reg. incl S (new), N (new) and SF. Collected from rodent burrows, decayed leaves and dung, also picked on snow; mixed forest by streams, mountain birch forest, peat bogs, marshes, N, F, Y. 18♂26♀, 1956-85, VI-X (NRS, ZIL).

30. *Crumomyia roserii*. (N & K 1985b). S: SK: S Yddingesjön 840923 1♂. Europe (in South and Central Europe at higher altitudes) incl DK (H 1986 pers. comm.) and S (new). Collected on decaying fungi, mouse droppings, in caves and in rabbit holes; wooded marshland, N, 1♂, 1984, IX (ZIL).

31. *Crumomyia setitibialis* [freyi Hackman, 1965]. (N & K 1985b). S: SK: Höör 830911 1♂. - SM: Hyltebruk 860811 2♂, 860907 1♂ JA. Northern Holarctic incl S (new) and SF (*freyi*). In Europe previously reported only from CH and SF. Collected from a cave in CH; watered pile of timber (both localities), N Y M. 4♂, 1983-86, VIII-IX (ZIL).

32. *Coproica acutangula*. (Rs 1960, Pi 1988). S: SK: Hällestad Grytängen 740831 1♀; Kloster 540703 1♂; Klostersågen 810507 1♀; Lerberget 690813 1♂; Mariannelund 8107 1♂1♀ RS; Sandhammaren 530808 1♂ PA; Stenshuvud 830614 2♂1♀ RD. - HA: Tönnersa 790817 1♀ RS. - SM: Tenhult 8307 3♂1♀ RS. - ÖL: Halltorps hage 760831 1♂1♀; 1♂ Hgn. - VG: Hasslösa Ekgården 780707 1♀ RS. - NA: Kräcklinge Tampalandet 7906 1♂ JM. - UP: Getingarn 790801 1♀ SVA; Kolhammar 780810 1♀ RS. - TO: Vittangi 550718 1♀.

Holarctic incl DK (Ardö 1957), S (Z 1847, SK type loc.; S 1855, SK, HA, ÖL, ÖG; Ardö 1957, SK, HA) and SF (H 1980); Afrotropical and Pacific Regions (P 1979a). Coprophagous, breeding in dung from large animals; cow houses, horse and cow droppings, pastures, marsh, potato and rape fields, N Y W. 11♂11♀, 1953-83, V-VIII (NRS, ZIL), 1♂ Hgn (NRS).

33. *Coproica ferruginata*. (Rs 1960, Pi 1988). **S: SK:** Kullaberg 710616 1♀; Linnebjerg 680928 1♂; Mariannelund 810612 1♀; 820809 1♀, 830609 1♂ RS; Orup 7907 2♂, 800630 1♂1♀ RS; Gudmuntorp Rövarekulan 651010 1♂; Stenshuvud 830314 1♂3♀ RD; Åkarp 530527 1♀. - **HA:** Laxvik 8507 1♀ PA; Snöstorp 55 V-VII 10♂11♀; Tönnersa 780616 1♀, 800623 1♀ RS; Årnilt 560715 1♂1♀, 73-0612 1♂1♀. - **SM:** Bergkvara 850726 1♂ RD; Åseda Kullebo 7607 60♂50♀; Tagel 790623 1♂ RS; Trotteslöv 800625 1♂, 830815 1♀ RS. - **ÖL:** Halltorps hage 760604 1♀. - **GO:** St Tollby 78-1♂ RS. - **ÖG:** Bjärka-Säby 79 V-VIII 12♂26♀, 80 V-IX 125♂176♀ SVA; Brynstorp 82-0705 1♀ RS; Tjällmo Hindstorp 7907 1♂, 8007 1♂ JM; Högsjö 810709 1♀ TW; Törnevala Lingham 80 VII-IX 3♂4♀ SVA; Vist Stavstätter 790514 2♂4♀, 80 V-VIII 13♂24♀ SVA; Vallerstad 79 VII-VIII 4♂8♀ SVA. **VG:** Hasslösa Ekgården 800829 1♂, 810825 1♀ RS; St Lund 830728 1♂ RS; Skara Viglunda 82 VI-VIII 3♂5♀ RS. - **NÄ:** Kräcklinge Tampalandet 7906 1♂ JM. - **SÖ:** Hammar-källa 830616 1♂ MT; Älgö 810802 2♂1♀, 83 VI-VII 18♂12♀, 8408 2♂1♀, 85 VI-IX 16♂13♀, 86 VI-VIII 10♂10♀, 87 VI-IX 25♂35♀. - **UP:** Ed Antuna 79 V-IX 397♂646♀, 8008 9♂3♀ SVA; Getingamö 79 VIII-IX 4♂8♀, 80 VI-VIII 10♂17♀, 81 V-VIII 11♂12♀ SVA; Estuna Hov 81 VII-IX 16♂8♀ SVA; Kolhammar 810720 1♂ RS; Fasterna Mörby 79 V-VII 2♂1♀ JM; Rimbo 8106 2♂ JM. - **VS:** Brunby 8105 1♀ JM; Ridö 8106 1♀ JM. - **VB:** Röbbäcksdalen 780621 1♂, 800707 1♂1♀, 810731 1♀, 820819 1♀ RS, Umeå lsk. 820819 1♀ RS. - **NB:** Högsjön 620805 1♀. - **LY:** Ammamäs 710629 1♀. - **TO:** Vittangi 550718 1♂.

Cosmopolitan incl S (S 1855, SK, ÖG; K 1972 syntypes) and SF (H 1980). Common on decaying matter and excrement, synanthropic, but also in natural habitats: cow houses, cattle droppings, pastures, potato and rape fields, grass compost, deciduous forest, mountain birch forest, N F Y W. 776♂110♀, 1953-87, V-X (NRS, ZIL).

34. *Coproica hirticula*. (Collin 1956, Pi 1988). **S: SK:** Orup 790820 1♀ RS; Baldringe Skogshejdan 690910 1♀. - **HA:** Tönnersa 810707 1♂, 820823 1♀, 830721 1♀ RS; Årnilt 630602 1♀, 7306 8♂8♀. - **SM:** Åseda Kullebo 7607 34♂25♀; Trotteslöv 1♂ RS. - **ÖL:** Halltorps hage 760723 2♂. - **GO:** St Tollby 1♀ RS. - **ÖG:** Bjärka-Säby 1♂7♀ SVA; Brynstorp 82 VII-VIII 14♂9♀ RS; Jämevid 800731 1♂ RS; Vist Stavstätter 800929 1♀ SVA. - **VG:** Hasslösa Ekgården 810810 1♀ RS; Västerplana 2♂2♀ AA; Skara Viglunda 82 VI-VIII 9♂12♀ RS. - **SÖ:** Älgö 8108 10♂7♀, 820711 1♂, 83 VI-VII 247♂146♀, 840819 1♂, 85 VI-IX 10♂24♀, 86 VI-IX 13♂22♀, 87 VI-X 24♂32♀. - **UP:** Ed Antuna 79 VI-VII 1♂1♀, 800807 2♀ SVA; Enköping Brunsholm 8007 1♀ BE; Getingamö 81 VII-VIII 3♂4♀ SVA; Estuna Hov 81 VII-IX 2♀ SVA. - **DR:** Österå 86-0728 1♂1♀ FF. - **VB:** Röbbäcksdalen 800728 1♂, 810826 1♂ RS; Umeå lsk. 820729 1♀ RS.

Probably cosmopolitan, reported from Europe incl DK, S (new) and SF (P 1984); Japan (Hayashi 1986) and Australia. Common, chiefly coprophagous but also on carrion, and decayed vegetation (R 1984): cow houses, dung hill, pastures, grass compost, potato and rape fields, maple in sap, N F Y W. 389♂313♀, 1955-87, V-IX (NRS, ZIL). One single catch from the grass compost at Älgö yielded 245♂143♀.

35. *Coproica hirtula*. (Rs 1960, Pi 1988). **S: SK:** Vombsjön 650613 1♀. - **HA:** Snöstorp 550705 2♂1♀; Årnilt 66-7♀;

Tönnersa 830610 1♀ RS. - **SM:** Åseda Kullebo 7607 56♂51♀; Trotteslöv 830725 1♀ RS. - **ÖG:** Bjärka-Säby 790809 2♂1♀, 8005 12♂17♀ SVA; Törnevala Lingham 8005 7♂6♀ SVA; Vist Stavstätter 790516 6♂9♀, 800629 2♀ SVA. - **VG:** Västerplana 8207 1♂ AA; Skara Viglunda 820715 1♀ RS. - **SÖ:** Älgö 83 VI-VII 11♂10♀, 8408 1♂1♀, 85 VI-IX 4♂3♀, 86 VI-VIII 3♂1♀, 87 VII-VIII 6♂7♀. - **UP:** Faringe Erikslund 770805 2♂6♀ FF; Ed Antuna 79 VI-XI 6♂4♀, 80 II-VIII 29♂48♀ SVA; Estuna Hov 81 VII-IX 1♂2♀ SVA. - **VS:** Brunby 7906 1♀ JM. - **DR:** Näs 820624 1♀ RS. - **VB:** Röbbäcksdalen 780713 1♀ RS. - **NB:** Högsjön 620805 1♀.

Cosmopolitan, in all parts of the Palaearctic Reg. incl S (new) and SF (H 1980). Connected with animal husbandry (P 1984): cow houses 145♂182♀, potato and rape fields, grass compost, N F T, 167♂211♀, 1955-87, IV-IX (NRS, ZIL).

36. *Coproica lugubris* [*stenhammari* Zetterstedt, 1860]. (RS 1960, R 1977, Pi 1988). **S: SK:** Ellestadsjön 680821 1♂; Hällestad Grytängen 740803 2♂; N Krankejön 700503 1♀; 730825 4♂2♀; 760424 3♀; Lerberget 690813 1♂; Linnebjerg 590808 1♂, 680928 1♂; Mariannelund 820831 1♀, 830808 1♀ RS; Baldringe Skogshejdan 690916 1♂; N Vårhallarna 850704 1♀; 1♂ Bhn. - **HA:** Årnilt 560718 15♂16♀ pasture, 760621 2♂1♀. - **SM:** Åseda Kullebo 7607 4♀; Tenhult 8307 4♀ RS. - **ÖL:** Halltorps hage 76 VII-VIII 11♂16♀ moist meadows. - **GO:** St Tollby 7807 1♂1♀ RS. - **ÖG:** Brynstorp 810720 1♀ RS. - **VG:** St Lund 830722 1♂1♀ RS. - **SÖ:** Rösäng 8007 1♀ JM; Älgö 85 VII-IX 1♂1♀. - **UP:** Fasterna Mörby 7908 1♀ JM; Kolhammar 780626 1♂ RS. **N: B:** N Kongsberg Lägen 830730 1♀.

Palaearctic, in all parts of Europe incl S (Z 1860 *stenhammari*, SK; R 1977 *stenhammari* lectotype and paralectotypes), N (new) and SF (H 1980). Pasture symbiophilous: pastures, cow houses, grass compost, potato fields, N F Y W. 43♂57♀, 1956-85, IV-IX (NRS, ZIL), 1♂ Bhn (NRS).

37. *Coproica pusio* [*pseudolugubris* Duda, 1924]. (D 1924, P 1979b, R 1981 and 1983; 159). **S: SK:** N Krankejön 750620 1♀. - **HA:** Tönnersa 780804 1♀, 790706 2♂, 800815 1♀ RS; Årnilt 560718 1♂, 730612 1♀. - **SM:** Tagel 79-1♂ RS; Tenhult 83 VI-VIII 1♂3♀ RS; Trotteslöv 830725 1♂ RS. - **ÖL:** Halltorps hage 760723 1♂. - **ÖG:** Brynstorp 810713 1♂ RS; Tjällmo Hindstorp 7907 1♂ JM; Jämevid 800703 1♀ RS; Vist Stavstätter 800513 1♀ SVA. - **VG:** Hasslösa Ekgården 780707 1♀ RS; Västerplana 8207 1♂ AA; St Lund 830722 1♀ RS; Skara Viglunda 82 VI-VIII 4♂6♀ RS. - **SÖ:** Älgö 8108 2♂1♀, 84 VIII-IX 6♂5♀, 85 IX-X 5♂3♀, 86 VI-VIII 6♂4♀. - **UP:** Solna Bergshamra 770811 1♀ GN; Rimbo 8105 1♀ JM. - **VB:** Röbbäcksdalen 820722 2♀ RS; Umeå lsk. 820723 1♀ RS. - **LU:** Messaure 740527 1♀. - **TO:** Maunu 550724 3♀.

Europe incl DK, S (Z 1847, SK type loc.; S 1855, SK, HA, ÖL, ÖG, VG, BO, UP; R 1983, lectotype) and SF; AFG and Mongolia. Chiefly on cattle droppings: cow houses, dung hill, pastures, potato and rape fields, grass compost, maple in sap, N F Y W L. 33♂39♀, 1955-86, V-IX (NRS, ZIL).

38. *Coproica vagans* [*opacula* Stenhammar, 1855]. (P 1979b, Pi 1988). **S: SK:** N Krankejön 750620 1♂1♀; Mariannelund 810730 1♂, 83 VI-VII 2♂ RS; Orup 78 VI-VII 3♂, 790614 1♀ RS. - **HA:** Enslöv 690622 1♀; Tönnersa 78 VI-VIII 2♂5♀, 790806 1♀, 800606 1♂, 830721 1♂

RS. - **SM**: Åseda Kullebo 7607 112♂169♀; Trotteslöv 80-0811 1♀, 83 VII-VIII 1♂2♀ RS. - **ÖL**: Halltorps hage 760723 1♂; **ÖG**: Bjärka-Säby 80 V-VII 6♂3♀ SVA; Järnevid 800731 1♂ RS. - **VG**: Göteborg 550702 1♀ BT; Skara Viglunda 82 VI-VIII 15♂27♀ RS. - **SÖ**: Hammar-källa 830616 1♀ MT; Älgö 85 VI-VII 1♂3♀. - **UP**: Ed Antuna 79 VI-VII 1♂2♀ SVA; Enköping Brunns-holm 80-0626 1♂ BE; Getingarnö 800625 1♀, 810731 4♂1♀ SVA; Kolhammar 830722 1♀ RS. - **VS**: Ridö 8108 1♀ JM. - **VB**: Röbbäcksdalen 790806 1♂ RS.

Cosmopolitan incl DK, S (S 1855 *opacula*, ÖG, GO, type locs; Ardö 1957, SK, HA; R 1983; 159 *opacula* lectotype and paralectotypes), N (Ardö 1957), SF (H 1980) and IS (Ni *et al.* 1954). On excrement and decaying matter: cow houses 123♂177♀, pastures, grass compost, potato and rape fields, N F Y W. 157♂223♀, 1955-85, VI-VIII (NRS, ZIL).

39. **Philocoprella italica**. (Deeming 1964). **S**: **ÖL**: Halltorps hage 760604 1♂. Europe: CS, H, I and S (new); AFG and Mongolia (P 1984): wooded pasture land (oak trees), Y. 1♂, 1976, VI (ZIL).

40. **Philocoprella quadripina**. (Laurence 1952, Deeming 1964). **S**: **SÖ**: Älgö 850706 1♂. Europe: GB, H, CS (R 1988 pers. comm.), S (new) and SF (H 1980). Rare, type material from cow pats: grass compost, F. 1♂, 1985, VII (NRS).

41. **Elachisoma aterrimum** [*nigerrimum* Haliday, 1836]. (P 1971, 1983; Pi 1988). **S**: **SK**: Mariannelund 810727 1♂, 82 V-IX 3♂2♀, 830616 1♂ RS; Orup 78 VI-VII 1♂3♀, 790806 1♂, 800806 1♀ RS; Baldringe Skogshejdan 690916 1♂1♀. - **HA**: Tönnersa 790720 1♀ RS. - **SM**: Hyltebruk 860811 1♀ JA; Åseda Kullebo 7607 134♂191♀; Trotteslöv 800811 1♀, 820812 1♂ RS. - **ÖL**: Halltorps hage 760806 1♀. - **ÖG**: Bjärka-Säby 80 V-VIII 2♂3♀ SVA; Brynstorp 790611 2♀, 810618 1♂ RS; Järnevid 800731 1♀ RS; Törnevalle Linghem 800513 2♂1♀ SVA; Vist Stavsåter 80-0513 1♂ SVA. - **VG**: Hasslösa Ekgården 800810 1♀, 81-0810 1♀ RS; Skara Viglunda 82 VI-VIII 7♂5♀ RS; Västerplana 8207 1♂1♀ AA. - **SÖ**: Älgö 81 VII-VIII 3♂, 83 VI-VII 32♂17♀, 84 VII-IX 6♂9♀, 85 VI-X 18♂17♀, 86 V-X 8♂5♀, 87 VI-IX 8♂13♀. - **UP**: Faringe Erikslund 770805 5♂13♀ FF; Getingarnö 790802 1♀, 8107 1♂3♀ SVA; Estuna Hov 8107 2♀ SVA; Fasterna Mörby 7908 1♂ JM. - **VB**: Röbbäcksdalen 8107 3♀ RS. - **NB**: Pajala 560730 1♂.

Palaeartic incl DK, S (S 1855 *nigerrimum*, SK, HA, ÖG, BO) and SF (H 1980). On excrement from large herbivores and in decaying vegetation (R 1984): cow houses 147♂206♀, cowpat, dung hill, pastures, grass compost, oaken tree stump, N F Y W. 243♂302♀, 1955-87, V-X (NRS, ZIL).

42. **Elachisoma pilosum**. (P 1971, 1983; Pi 1988). **S**: **SK**: Dalby 740724 1♂; Mariannelund 820729 1♀ RS; Orup 780626 1♂, 790625 1♀ RS. - **HA**: Snöstorp 550705 1♂; Årnilt 7406 2♀. - **SM**: Tagel 800718 1♀ RS; Åseda Kullebo 7607 16♂20♀. - **ÖG**: Tjällmo Hindstorp 8007 1♀ JM. - **VG**: Västerplana 8207 1♂ AA; Skara Viglunda 820715 1♂ RS. - **SÖ**: Älgö 83-87 VI-IX 5♂5♀. - **UP**: Ed Antuna 800807 1♂1♀ SVA; Faringe Erikslund 770805 3♂ FF; Getingarnö 810703 1♀ SVA. - **VB**: Umeå lsk 820729 1♀ RS.

Europe: GB, D, CS, PL, H and S (new); AFG, Coprobiont often together with *E. aterrimum* (P 1978); cow houses

21♂22♀, dung hill, potato and rape fields, deciduous forest, ant hill, N F Y W. 30♂34♀, 1955-87, VI-IX (NRS, ZIL).

43. **Trachypella leucoptera**. (R & M 1986). **S**: **SK**: Mariannelund 810618 1♂ RS; Orup 800728 1♀ RS. - **HA**: Enslöv 740727 1♀; Trotteslöv 830609 1♀ RS. - **SM**: Åseda Kullebo 760721 4♂2♀; Tagel 790626 1♀ RS. - **ÖG**: Bjärka-Säby 80 V-VII 1♂6♀ SVA; Brynstorp 800621 1♀, 82-0628 1♂ RS; Vist Stavsåter 790626 1♀ SVA. - **VG**: Hasslösa Ekgården 81 VII-VIII 1♂1♀ RS; Västerplana 8207 1♀ AA. - **SÖ**: Älgö 83 VI-VII 2♂3♀, 85 VI-IX 4♂2♀, 8607 1♂1♀, 87 VII-IX 1♂4♀. - **UP**: Ed Antuna 790608 2♀, 800807 2♂ SVA; Faringe Erikslund 770808 12♂7♀ FF; Getingarnö 7908 2♀, 800725 1♂, 81 VII-VIII 3♂ SVA; Estuna Hov 810816 1♀ SVA. - **DR**: Österå 860728 1♂ FF.

Cosmopolitan incl DK, S (S 1855, SK, ÖG; R & M 1986 incl in material above) and SF (H 1980). Polysaprophagous occurring in decaying vegetation, excrement and refuse heaps: cow houses, dung hill, grass compost, pile of watered pulpwood, N F Y W. 34♂38♀, 1974-86, V-IX (NRS, ZIL).

44. **Trachypella minuscula**. (R & M 1986). **S**: **SM**: Åseda Kullebo 7607 14♂18♀; Hyltebruk 860727 1♀ JA. - **SÖ**: Älgö 830628 1♂, 830709 2♀, 850914 1♂, 860629 1♀. - **UP**: Getingarnö 790903 1♂, 800725 1♂ SVA.

Europe: GB, H and S (new, R & M 1986 incl in material above). Collected in cow houses and garden refuse heaps: cow houses, grass compost, pile of watered pulpwood, F W M. 18♂22♀, 1976-86, VI-IX (NRS, ZIL).

45. **Trachypella atomus**. (R & M 1986). **S**: **SK**: Kullaberg 690803 1♂; Orup 800623 1♀ RS. - **SM**: Åseda Kullebo 7607 3♂3♀. - **ÖG**: Törnevalle Linghem 800801 1♂ SVA. - **SÖ**: Älgö 820711 1♀, 830710 16♂10♀, 840728 1♂, 850706 1♂, 870905 1♂. - **UP**: Ed Antuna 790608 1♀ SVA; Getingarnö 810816 1♀ SVA. - **NB**: Högsån 620806 1♀.

Tends to be cosmopolitan (spread by man), in Europe recorded from E, GB, D, CS, H, J and S (new, R & M 1986 incl in material above). Thermophilous, in various decaying matter: cow houses, grass compost 19♂11♀, potato fields, N F Y W. 24♂18♀, 1962-87, VI-IX (NRS, ZIL). Previously confused with *T. lineafrons*.

46. **Trachypella bovilla**. (R & M 1986). **S**: **SK**: Orup 800723 1♀ RS; Baldringe Skogshejdan 690916 2♀. - **HA**: Tönnersa 810821 1♂ RS. - **SM**: Tenhult 830725 1♀ RS; Trotteslöv 820610 1♀ RS. - **ÖG**: Brynstorp 820628 1♂ RS. - **SÖ**: Rösäng 8008 3♀ JM; Älgö 830628 2♂, 8506 2♂4♀, 8507 2♀, 860531 1♀, 8606 1♂1♀, 870710 1♂. - **UP**: Ed Antuna 790608 1♀ SVA; Rimbo 8107 1♂ JM. - **VB**: Röbbäcksdalen 7807 1♀, 8107 1♀ RS. - **NB**: Pajala 550724 13♂18♀. - **TO**: Soppero 550720 3♂1♀, N; N. Narvik Citypark 850625 1♀ TM.

Europe: A, S (new, R & M 1986 incl in material above), N (new), SF and IS (Ni *et al.* 1954); N. America: USA and CDN. Psychrophilous, on various kinds of decaying matter: pastures 13♂20♀, cow houses, dung hill, grass compost, potato and rape fields, N F Y W. 28♂42♀, 1955-87, V-IX (NRS, ZIL).

47. **Trachypella coprina**. (R & M 1986). **S**: **SÖ**: Älgö 8508 1♀, 8509 1♂1♀, 8510 1♂1♀, 8707 1♀, 8708 1♂. South and Central Europe (s.lat.) incl S (new); N. America: USA. Thermophilous, on manure and decayed vegetation: grass compost, F. 3♂4♀, 1985-87, VII-X (NRS, ZIL). Previously confused with *T. bovilla*.

48. **Trachypella kuntzei**. (R & M 1986). **S**: **HA**: Tönnersa

8107 1♂, 8108 1♂ RS; Tagel 800710 1♂ RS. – **SM**: Trotteslöv 810817 1♂ RS. – **VG**: Götene Viglunda 820726 1♀ RS. – **SÖ**: Rösäng 7907 1♂ JM; Älgö 810727 1♂ 1♀, 8108 5♂ 1♀, 820711 6♂ 1♀, 830628 3♂, 830710 1♀, 84-0728 3♂, 8408 6♂ 10♀, 8506 6♂ 5♀, 8507 27♂ 24♀, 860531 2♂ 1♀, 8606 19♂ 27♀, 8607 12♂ 8♀, 860810 2♀, 860914 1♀, 8707 1♂ 1♀, 870815 1♀, 870905 1♂ 1♀. – **DR**: Nås 810907 1♀ RS.

Europe: DDR, CS, H and S (new, R & M 1986 incl in material above); N. America: CDN. Mainly associated with decaying matter: grass-compost 148♂ 134♀, potato and rape fields, F Y. 153♂ 136♀, 1979–87, V–IX (NRS, ZIL).

49. **Trachypella lineafrons**. (R & M 1986). **S**: **SK**: Orup 7907 1♀ RS. – **HA**: Snöstorp 550705 1♀; Tönnersa 790706 1♀ RS; Åmilt 680704 1♀. – **SM**: Åseda Kullebo 7607 471♂ 496♀; Tagel 800718 1♂ RS; Trotteslöv 800811 1♂, 820730 1♀, 830613 1♀, 830808 1♂ RS. – **ÖG**: Bjärka-Säby 790809 1♂, 800528 1♂, 800801 2♀ SVA; Brynstorp 820816 1♂, 830623 1♀ RS; Tjällmo Hindstorp 7906 1♂, 8007 1♂ RS; Törnevala Lingham 791128 4♂, 800513 1♀, 800801 1♂ 1♀ SVA; Vist Stavsäter 800513 2♀, 800926 1♀ SVA; Vallerstad 790723 1♂ SVA. – **VG**: Hasslösa Ekgården 810825 1♀ RS; Skara Viglunda 8207 2♂ 3♀ RS. – **NÄ**: Fjugesta Bästa 820719 1♂ RS. – **SÖ**: Älgö 810809 1♂, 830710 38♂ 35♀, 8408 2♂, 8506 1♂ 2♀, 850706 1♂, 86-0629 4♂ 1♀, 8607 5♂ 4♀, 860829 1♀. – **UP**: Ed Antuna 790608 4♂ 4♀, 800807 3♂ SVA; Faringe Erikslund 1♂ 1♀ FF; Getingarnö 7908 1♂ 2♀, 790903 4♂ 3♀, 791014 1♂, 800725 1♂ 3♀, 8107 5♂ 4♀, 8108 3♂ 3♀, 810927 3♂ SVA; Estuna Hov 8109 3♂ SVA; Kolhammar 810810 1♂ RS. – **DR**: Nederborg 8107 2♀ RS. – **VB**: Röbbäcksdalen 790709 1♀ RS, Umeå lsk 820729 1♂ RS.

Widely distributed in the Holarctic Reg. incl S (new, R & M 1986 incl in material above) and SF. On various decaying matter: cow houses 508♂ 524♀, potato and rape fields, grass compost, N F Y W. 571♂ 580♀, 1955–87, V–XII (NRS, ZIL). Previously confused with *T. atomus*.

50. **Trachypella melania**. (R & M 1986). **S**: **SK**: Marianelund 810612 1♂ RS; Orup 7807 3♂ 1♀, 800609 1♀ RS. – **SM**: Trotteslöv 8007 1♂, 8008 1♂ RS. – **ÖG**: Brynstorp 810609 1♂ RS; Vist Stavsäter 800513 1♀ SVA. – **VG**: Hasslösa Ekgården 810825 1♀ RS; Västerplana 8207 1♂ AA; Skara Viglunda 8208 3♂ 2♀ RS. – **SÖ**: Älgö 830628 5♂, 830710 4♂ 2♀, 840805 1♀, 850914 1♀, 860706 2♀, 860829 1♂. – **UP**: Solna Bergshamra 770627 1♀ GN; Getingarnö 800717 2♀ SVA. – **TO**: Maunu 550724 3♀.

Probably widespread in the Palaearctic Reg. incl S (S 1855, HA, ÖG, UP; R & M 1986 incl in material above) and SF; the only extra-European record is from Mongolia (P 1973a). Breeding in various decaying matter: grass compost, potato and rape fields, cow houses, dung hill, wet pasture, N F Y W. 20♂ 18♀, 1955–86, V–IX (NRS, ZIL).

51. **Thoracochoeta brachystoma**. (M 1982a, Pi 1988). **S**: **SK**: Kullaberg 830823 1♀; Lomma 720819 1♀, 750906 1♂ 1♀; Malmö 731004 1♀. – **HA**: Tönnersa 820816 1♀ RS. – **SM**: Hyltebruk 860907 1♂ JA; Åseda Kullebo 76-0718 1♂. – **ÖL**: Halltorps hage 760723 1♂ 1♀.

Cosmopolitan incl DK, S (S 1855, HA, UP; K 1972 no syntypes) and SF (H 1980). On seashores, rarely inland: seashores with seaweed, potato field, pile of watered pulpwood, cow house, N Y W. 4♂ 6♀, 1972–86, VII–X (NRS, ZIL).

52. **Thoracochoeta seticosta**. (M 1982a). **S**: **BO**: Brofjorden Staholmen 870703 5♂ 1♀ LE. **N**: **MR**: S Ålesund Vardalsfjorden 860626 1♂ HF & UJ.

N. America: CDN, USA; Asia: Japan (M 1987 pers. comm.); Europe: S (new) and N (new). Breeding in decaying seaweed on the driftline: seashores with seaweed and other decaying matter, N F. 6♂ 1♀, 1986–87, VI–VII (NRS, ZIL). In N. America the most northerly of *Thoracochoeta* at either coast. New for the W. Palaearctic Reg.

53. **Thoracochoeta zosteræ** [*setulosa* Zetterstedt, 1847, *piligeræ* Stenhammar, 1855]. (M 1982a). **S**: **SK**: Kullaberg 720807 23♂ 15♀, 810624 3♂ 6♀; Lomma 720316 1♂ 1♀; Mölle 810624 4♂ 3♀; Orup 800707 1♂ RS. – **SM**: Åseda Kullebo 760721 4♂ 1♀. – **ÖL**: Halltorps hage 760723 1♀. – **ÖG**: Bjärka-Säby 800801 1♂ SVA; Törnevala Lingham 800801 1♂ SVA; Vallerstad 790723 1♀. **BO**: Brofjorden 870703 1♂ LE. – **UP**: Getingarnö 810830 1♀ SVA; Estuna Hov 810828 1♂ SVA. **N**: **TE**: Stråholmen 870717 1♂ LE. – **AA**: Tromsø 870722 2♀ LE. – **TR**: Gratangen 560630 1♀.

Europe incl DK, S (Z 1847 *setulosa*, SK type loc.; S 1855, HA; Ardö 1957, SK; K 1972 *setulosa* syntype), N (Ardö 1957), SF (S 1855 *piligeræ*; K 1972 type material missing) and IS (Ni *et al.* 1954); Asia: Japan; Nearctic Region (Hayashi 1986). On seashores, rarely inland: seashores with seaweed, cow houses, potato fields, N F Y W. 41♂ 32♀, 1956–87, III–VIII (NRS, ZIL).

54. **Punctiropus cribratum**. (R & M 1982). **S**: **SK**: Oretorp 6010 1♂ 1♀ GL. Central Europe (s.lat.) incl DK and S (H 1967a, SK material above). Wet lowland forest, larvae develop in sporophores of fungi and mycelia in forest litter: in runs of small mammals. 1♂ 1♀, 1960, X (ZMH).

55. **Pteremis fenestralis** [*nivalis* Haliday, 1833; *paradoxa* Stenhammar, 1855; *subaptera* Frey, 1947]. (R 1984, Pi 1988). **S**: **SK**: Klostersågen 590808 1♂ 1♀, 730326 3♀, 820417 1♀, 850421 1♂; Knäbäckshusen 830613 1♂ RD; N Krankesjön 690607 1♀, 700503 2♂ 1♀; Kungsmarken 770919 1♀; Linnebjerg 680928 1♂ 1♀; Lund Stadsparken 730814 1♀; Lund 8508 1♀ PA; Mariannelund 8107 3♀, 820801 1♂ RS; Ripa 831010 2♂ MS; Gudmundtorp Rövarekulan 810728 1♂ 3♀. – **HA**: Tönnersa 780822 1♂, 790716 1♂, 800606 1♀, 81 VII–VIII 1♂ 1♀, 830608 1♂ RS; Åmilt 730422 1♀, 860502 1♀. – **SM**: Bergkvara 750321 1♂ 3♀ RD; Åseda Kullebo 760718 2♀; Tagel 800703 1♀ RS. – **ÖL**: Möckelmossen 790415 1♂ ES *et al.* – **GO**: St Tollby 780703 1♂ RS. – **ÖG**: Brynstorp 790716 1♀, 810806 1♀ RS; Tjällmo Hindstorp 79 VI–VII 1♂ 1♀, 8007 1♂ JM. – **VG**: Hasslösa Ekgården 790806 1♂, 800725 1♀ RS; Skara Viglunda 820729 1♂ RS. – **NÄ**: Kräcklinge Tampalandet 7907 1♀ JM. – **SÖ**: Rösäng 7905 1♀ JM; Älgö 850618 1♀, 86 V–VIII 2♂ 5♀, 87 VII–IX 1♂ 1♀. – **UP**: Solna Bergshamra 7708 3♀ GN; Enköping Brunnsö 80 VI–VII 3♀ BE; Balingsta Eriksberg 79 IV–V 2♂ 7♀ JM; Getingarnö 791014 1♀ SVA; Kolhammar 780619 2♀, 820709 1♀ RS; Lussinge 770813 1♀ HR; Fasterna Mörby 7905 1♂ JM; Rimbo 8107 1♀ JM. – **VS**: Brunnby 8107 1♂ JM. – **DR**: Nås 830905 1♀ RS; Vansbro 780827 1♂ RS.

Europe incl DK, S (F 1820 SK; S 1855 *paradoxa* ÖG; H 1967a SK; K 1972 type material) and SF (Frey 1947 *subaptera*). Terricolous, with wing dimorphism, brachypterous forms (1♂ 4♀ in material above) common only in N. Europe: wet forest, marshes, peat bog, potato, wheat, oats and rape fields, cow houses, grass compost, tree stump in sap, N F Y S. 32♂ 63♀, 1959–87, III–X (NRS, ZIL).

56. *Opacifrons coxata*. (R 1975, Pi 1988). **S: SK:** Arild 820811 2♂; Arlov 731004 1♀; Barsebäck 690715 5♂1♀; Bjärred 690625 2♂; Harlösa Borstbäcken 850823 2♂1♀; Brösarp 690615 2♂1♀; Börringe 830823 5♂1♀ MS; Dalby 550830 3♀, 610603 3♂3♀; Ellestadssjön 680821 1♂1♀, 690616 3♂9♀, 700610 2♂1♀; Fränninge 810802 1♀; Hällestad Grytängen 710506 1♂, 7408 4♂1♀, 820611 1♂1♀, 840519 1♀, 880418 3♂; Hasslemölla 810507 2♀; Klags-hamnsudde 810706 1♂1♀; Klostersgården 730429 1♂1♀; Klostersågen 681015 4♂1♀; N Krankesjön 550830 22♂6♀, 710613 1♀, 73 IV-VIII 17♂14♀, 74 VIII-IX 2♂1♀, 750620 6♂14♀; Kullaberg 6306 4♂10♀, 650806 1♂1♀, 6807 8♂3♀, 6908 4♂71♀, 7407 2♂1♀, 750806 9♂3♀, 830825 1♂4♀; Linnebjerg 59 VII-VIII 3♂, 680928 2♀; Lund 720820 1♀; Mariannelund 81 VI-VIII 12♂10♀, 82 VI-VIII 1♂5♀, 83 VI-VIII 4♂3♀ RS; Mjånäs 631019 1♂; Mölle 730624 1♀; Norrvikens trgr 830922 1♂; Orup 780626 1♀, 79 VII-VIII 2♂1♀, 80 VI-VIII 4♂1♀ RS; Ringsjönäs 650616 1♀; Gudmuntorp Rövarekulan 640812 14♂12♀ by a stream; Borby Sandby mosse 850531 1♂; Baldringe Skogshejdan 69 VI-IX 28♂29♀ moist grassland; Skärälid 410620 1♀ TN; Blentarp Stampenbäcken 690622 2♀ BS; Stenshuvud 820531 1♀; Silvåkra Stensoffa 830810 1♂5♀, 690514 1♂, 840916 1♂; Kivik Torup 820602 2♂ CH; Vombsjön 750618 1♂1♀; Vårhallarna 850704 1♀; Yddingesjön 591001 1♀; Akarp 540629 1♀; Örtofta 610616 1♀; Övedskloster 620920 1♂1♀. — **HA:** Rydöbruk 86 VIII-IX 12♂ pile of watered pulpwood JA; Snöstorp 550705 1♀; Tönnersa 80 VI-VIII 3♂5♀, 81 VI-VIII 3♂3♀, 8207 2♀ RS; Årnitt 55 V-VII 2♀, 560706 2♂1♀, 680704 1♀, 710621 1♂. — **SM:** Bolmen 430812 1♂ OR; Hyltebruk 830812 1♂ HA, 860817 1♂ JA; Åseda Kullebo 7607 40♂ 42♀; Tenhult 83 VI-VIII 5♂3♀ RS; Trotteslöv 81 VI-VII 5♂3♀, 82 VI-VIII 1♂3♀, 83 VI-VIII 5♂3♀ RS; Växjö Åryd 830706 1♂ RD; Ålmhult 830709 2♂1♀ RD. — **ÖL:** Halltorps hage 76 VI-VIII 42♂57♀ moist meadow; Möckelmossen 780608 1♂2♀ ES *et al.* — **ÖG:** Brynstorp 7807 4♀, 81 VI-VII 1♂1♀, 82 VII-IX 2♂2♀, 83 VI-VII 1♂1♀ RS, Tjällmo Hindstorp 7907 1♂, 8006 1♂ JM; Järnevid 80 VI-VIII 1♂6♀ RS. — **VG:** Hasslösa Ekgården 780714 1♂, 79 VII-VIII 3♂2♀, 80 VII-VIII 1♂3♀ RS; St Lund 8307 4♂1♀ RS; Skara Viglunda 82 VI-VIII 4♂3♀ RS. — **BO:** Strömstad Bölskären 870712 1♂ LE. — **NÄ:** Fjugesta Bärsta 82 VI-VII 5♀ RS; Örebro Markkärrer 410728 1♂ TN; Örebro Sommarro 410813 1♂ TN; Kräcklinge Tampalandet 7907 2♀ JM; Västkärr 82 VII-VIII 2♂4♀, 8307 2♀ RS. — **SÖ:** Römora 870528 1♂ FF; Rösäng 8007 1♂ JM. — **UP:** Solna Bergshamra 77 VII-VIII 3♂3♀ GN; Enköping Brunnsholm 80 VI-VII 1♂1♀ BE; Balingsta Eriksberg 79 IV-V 1♂1♀ JM; Kolhammar 78 VI-VIII 9♂10♀, 80 VI-VIII 2♂, 810806 1♀, 8207 1♂1♀, 830815 1♀ RS; Lussinge 77 VII-VIII 1♂3♀ HR; Rimbo 8107 2♂2♀ JM; Stockholm 2♂ Bhn. — **VS:** Brunnby 73 V-VII 1♂1♀ JM; Ridö 8107 1♂ JM. — **DR:** Karlsbyheden 480720 1♂ BT; Näs 81 VII-VIII 2♂2♀, 82 — 2♂ RS. — **ÄN:** Norrbyn 7707 2♂1♀ KM. — **VB:** Röbbäcksdalen 7807 1♂1♀, 790808 1♂, 80 VI-VII 2♂1♀, 8207 2♂, 830818 1♀ RS; Umeå lsk 830808 1♀ RS. — **NB:** Högsöfjärden 6509 3♂1♀, 780730 1♀; Kengis 550730 1♂; Rörbäck 720707 1♂; Sunderbyn 5507 9♂2♀ HA, 720705 3♂3♀ HA, 8307 5♂1♀ RS. — **TO:** Karesuando 550722 1♂. **N: B: N:** Kongsberg Lågen 830730 2♀. — **F:** Altafjordbotn 560704 1♀; Lakselv 560709 2♂1♀; Smalfjord 560708 1♂1♀.

Holarctic incl S (S 1855, SK, HA, SM, ÖG, UP; K 1972 type material not located), N (new) and SF (H 1980);

Oriental and Afrotropical. Common in boggy and marshy habitats, larvae develop in mud (R 1984); wet meadows, marshy land, on river and lake shores, potato and rape fields, cow houses, N F Y W. 467♂448♀, 1941-88, IV-X (NRS, ZIL), 2♂ Bhn (NRS).

57. *Opacifrons flavilabris*. (H 1968, R 1982b). **S: DR:** Näs 820624 1♀ RS. — **ÄN:** Ångerån 770630 1♀. **NB:** Högsöfjärden 560906 4♂2♀. Only recorded from SF, USSR and S (new). In vegetation near water: lake and river shores, N F Y. 4♂4♀, 1956-82, VI.

58. *Opacifrons humida* [*pumilio* Verrall, 1888]. (R 1982b, Pi 1988). **S: SK:** Harlösa Borstbäcken 85 — 1♂; Brösarp 690615 1♂5♀; Börringe 830823 2♂4♀ MS; Dalby 610603 2♂5♀; Ellestadssjön 690616 2♂1♀, 700610 1♀; Fränninge Granbacka 810802 2♀; Hällestad Grytängen 710506 1♂, 740831 8♂2♀, 820620 1♀; Håckeberga 650816 1♂; Klags-hamnsudde 810706 1♀; Kloster 540703 1♂; Klostersågen 681003 2♂1♀; N Krankesjön 550830 2♀, 730430 3♂, 740907 4♂1♀, 750620 1♂8♀; Kullaberg 6306 150♂187♀ by a stream, 650806 1♂1♀, 6707 10♂5♀, 6807 6♂7♀, 6908 276♂459♀ by a stream, 7208 141♂201♀ by a pool, 730625 55♂70♀, 740702 13♂10♀, 7508 4♂5♀, 760707 9♂9♀, 770722 1♂3♀, 780722 1♂, 790730 1♂, 800817 6♀, 810625 3♂2♀, 820802 2♀, 8308 2♂4♀; Nyhem Kägelån 800810 1♀; Lomma 591018 1♀; Hjarnarp Margaretorp 670712 1♂; Mariannelund 81 VI-VII 4♂6♀, 82 VII-VIII 7♂5♀ RS; Mölle 730624 44♂45♀; Norrvikens trgr 830922 2♂3♀; Orup 780615 1♂, 800806 1♀ RS; Gudmuntorp Rövarekulan 640812 6♂3♀, 690712 3♂, 740901 6♂2♀, 81-0728 1♀; Sjöbo 690715 2♀; Baldringe Skogshejdan 69 VI-X 11♂23♀, 700627 1♂; Skärälid 47 — 1♀ PB, 630926 1♂ HA, 650201 1♂ HA; Blentarp Stampenbäcken 69 VI-X 1♂12♀ BS; Stenshuvud 770814 2♀, 820531 1♀; Silvåkra Stensoffa 801005 1♂; Vombsjön 750618 1♂1♀; 5♂3♀ Bhn. — **HA:** Tönnersa 81 VI-VIII 3♀, 83 VI-VIII 1♂5♀ RS; Årnitt 550531 1♀2♀, 680704 1♀, 730611 1♀, 810810 1♀. — **SM:** Blygkvara 830717 1♂1♀ RD; Getnabo 830717 1♂1♀ RD; Hyltebruk 630902 1♂ HA, 86 VIII-IX 3♂1♀ RD; Åseda Kullebo 7607 18♂52♀; Trotteslöv 810723 1♂, 830721 1♂ RS; Ålmhult 830709 1♀ RD; 1♂ Bhn. — **ÖL:** Halltorps hage 76 VI-VIII 44♂50♀. — **ÖG:** Bjärka-Säby 790726 1♂ SVA; Brynstorp 81 VII-VIII 2♂1♀ RS; Tjällmo Hindstorp 8007 1♂1♀ JM; 1♂ Bhn. — **VG:** Hasslösa Ekgården 800829 1♂ RS; Skara Viglunda 82 VI-VIII 9♂9♀ RS. — **NÄ:** Örebro Sommarro 410809 1♀ TN. — **SÖ:** Vingåker Vik 7907 2♂6♀ JM. — **UP:** Estuna Hov 800703 1♀ SVA; Kolhammar 780718 1♂ RS; Rimbo 8107 1♂ JM. — **VS:** Ridö 8107 2♂ JM. — **VB:** Röbbäcksdalen 780727 1♀, 7907 1♂2♀ RS; Umeå lsk 820805 1♀ RS. — **NB:** Pajala 5507 27♂27♀; Rörbäck 720707 1♂; Sunderbyn 830704 1♂ RS. **N: AK:** Skulerud 741221 1♂ SH; N Kongsberg Lågen 830730 1♂. — **SF:** Strynsvatnet 860626 1♂ HF & UJ.

Widespread in the Old World incl DK (Z 1847 *pumilio*), S (Z 1840 *pumilio*, TO; 1847, SK, ÖG, UP; 1860, LY), N (Z 1855 *pumilio*), SF (Z 1860 *pumilio*) and IS (A 1967). In boggy places with pools, larvae develop in subaquatic mud (R 1984); marshes, wet meadows, by lakes and streams, potato fields, pile of watered pulpwood, cow house, on snow, N Y W P. 925♂1292♀, 1941-86, IV-XII (NRS, ZIL, NFI), 7♂3♀ Bhn (NRS).

59. *Opacifrons septentrionalis*. (H 1968, R 1982b). **S: SK:** N Krankesjön 730825 1♀, 750620 1♂1♀, 750703 1♂2♀, 810707 1♂1♀; Osbysjön 690611 1♂; Ringsjönäs 650616

2♂, 650812 1♂, 650813 1♂. — **DR:** Floda Sängen 710903 1♀ TT.

Europe incl DK, S (S 1855, SK, HA, Lpl; K 1972 syn-types) and SF. Occurring on sandy shores (H 1972): sandy lake shores, N. 8♂6♀, 1965–81, VI–IX (NRS, ZIL).

60. *Leptocera alpina*. (R 1982c). **S:** HA: Årnilt 720327 1♂. Known only from Europe: A, CS, BG and S (new). Oligostenothermous, in mountain areas in Central Europe: mixed forest with lingonberry and various mosses, N. 1♂, 1972, III (ZIL). A Central European vicariant of the North European *L. finalis*.

61. *Leptocera caenosa*. (R 1982c, Pi 1988). **S:** SK: Kävlinge 710608 2♂21♀ poultry farm We; Lund 730901 4♂3♀ Ch. — **HA:** Tönnerså 830801 2♂ RS; Årnilt 700830 1♂1♀. — **SM:** Åseda Kullebo 7607 2♂. — **GO:** St Tollby 780812 1♂ RS. — **ÖG:** Bjärka-Säby 80 III–V 8♂2♀ SVA; Brynstorp 780724 1♀ RS. — **VG:** Hasslösa Ekgården 79-0703 1♀ RS; Skara Viglunda 820715 1♂ RS. — **SÖ:** Älgö 840902 1♂, 8509 2♂1♀, 860921 1♂. — **UP:** Ed Antuna 800410 1♂ SVA. — **JÄ:** Östersund 740712 2♂1♀ EG. — **LU:** Messaure 740722 1♀. **N:** ST: Benna 880623 1♀ HF & UJ.

Cosmopolitan incl DK, S (new), N (new), SF (H 1963) and IS (Ni *et al.* 1954). Synanthropic, breeding in human sewage: latrine, cow houses, poultry farm, potato fields, grass compost, N F L Y W. 49♂34♀, 1971–88, III–IX (NRS, ZIL). *L. caenosa* has yellow-brown swollen palps.

62. *Leptocera finalis*. (R 1982c). **S:** SK: Ellagård 680519 1♂; Hellestad 880418 1♂; N Krankesjön 710613 1♂, 7304 1♂1♀, 740421 1♂; Gudmuntorp Rövarekulan 640812 2♂; Baldringe Skogshejdan 690916 1♂. — **HA:** Årnilt 650528 2♂. — **SM:** Trotteslöv 81 VII–VIII 1♂1♀, 820722 1♀ RS; Växjö Trummen 690626 1♂. — **ÖG:** Tjällmo Hindstorp 7907 1♂1♀, 8008 1♂ JM; Järnevid 800714 1♂ RS. — **VG:** Hasslösa Ekgården 800704 1♂ RS; Skara Viglunda 82 VII–VIII 3♂1♀ RS. — **NÄ:** Fjugesta Bärsta 82 VI–VIII 2♀ RS; Örebro Oset 410801 1♀ TN; Västkrå 8208 2♀ RS. — **SÖ:** Römora 870528 3♂ FF. — **UP:** Solna Bergshamra 77 VII–VIII 14♂9♀ GN; Enköping Brunnsolm 80 VII–VIII 3♀ BE; Balingsta Eriksberg 7905 1♀ JM; Kolhammar 780709 1♂, 800710 1♂ RS; Lussinge 7707 2♂1♀ HR; Rimbo 81 VII–VIII 1♂1♀ JM. — **VS:** Ridö 8107 3♂1♀ JM. — **DR:** Näs 780702 1♀ RS. — **ÄN:** Norrbyn 77 VII–VIII 2♂2♀ KM. — **VB:** Röbbäcksdalen 780724 1♂, 790716 1♀, 790718 1♀, 790821 1♂, 8207 1♂1♀ RS; Umeå Isk 8207 2♂ RS. — **NB:** Högsön 720701 1♀; Pajala 5507 1♂1♀; Smedsbyn 6307 2♂. — **LY:** Ammamäs 710625 1♂. — **TO:** Abisko Jebrenjokk 760804 1♂ KM; Karesuando 5507 7♂3♀; Masugnbyn 550718 1♀; Ö. Soppero 550720 1♂. **N:** O: Rondane Furusjoen 680420 2♂ SH. — **TR:** Bardu 550706 2♂. — **F:** Vestertana 550607 1♂.

Only known from Europe incl DK, S (new), N (new) and SF (H 1967b). Rather common in Fennoscandia (H 1967b): wet meadows, marshes, lake shores, subarctic meadow birch forest, fields with potato, rape and oats, on snow, N F Y W P. 70♂39♀, 1941–88, IV–IX (NRS, ZIL, NFI). Easily confused with the closely related *L. fontinalis*.

63. *Leptocera fontinalis*. (R 1982c). **S:** SK: Allerums mosse 810805 1♀; Årild 820810 2♀; Bjärröd 640629 1♀, 74-0627 1♀; Blentarp Bosarps gårde 870903 1♀; Dalby 61-0603 2♂; S. Sandby Fägelsång 85 V–VII 2♂1♀; Gemtofta 810805 1♂; Hällestad Grytängen 750721 1♂, 81 V–VIII 1♂1♀; Hasslemölla 810507 1♂; Klagshamsudd 810706

1♂1♀; Klostergården 730429 1♀; N Krankesjön 730410 1♂, 74 IV–IX 2♂2♀, 810806 1♂; Kullaberg 570815 1♂, 630607 1♂, 650806 1♂, 6707 5♂2♀, 6807 2♂4♀, 6908 21♂16♀, 7107 9♂9♀, 7208 5♂3♀, 7306 4♂, 7407 18♂10♀, 7508 7♂3♀, 760707 1♀, 7707 2♂1♀, 8106 1♂2♀, 8208 4♀, 830923 1♀; Linnebjerg 68 IX–X 2♂6♀; Lomma 59 VII–VIII 5♂3♀, 720316 1♂1♀; Lund 830703 1♂; Margaretorp 650624 4♂, 670712 1♂1♀; Marianne-lund 810807 1♀ RS; Mölle 730624 13♂3♀ marsh; Orup 800721 1♀ RS; Pälssjö 610611 3♂; Gudmuntorp Rövarekulan 640812 5♂5♀ HA, 690712 7♂6♀ HA, 740901 9♂17♀ HA, 810728 2♂ HA, 740901 2♂ BT; Silvåkra 820526 1♂ CH; Skryllegården 820919 1♂; Skärålid 410620 1♂ TN, 670402 2♀ HA; Smyge 870401 1♂ MN; Silvåkra Stensoffa 690514 4♂1♀; Åkarp 550527 1♀; 3♂ Bhn. — **BL:** Bräkne Hobv 850718 1♂; Torsås 870706 8♂16♀ RD. — **HA:** Tönnerså 78 VII–VIII 1♂1♀, 810707 2♂ RS; Årnilt 540411 3♂, 560715 1♀, 620707 1♂1♀, 630602 1♂, 640727 2♂3♀, 650528 17♂2♀ at a stream, 6705 1♂1♀, 700830 1♂, 71-0726 1♂1♀, 720810 1♀, 740807 1♀, 830802 1♀; Virschatt 860503 1♂1♀. — **SM:** Getnabo 830717 1♀ RD; Åseda Kullebo 7607 15♂49♀; Pataholm 850624 1♂; Skorrö 83-0623 1♂ RD; Trotteslöv 810813 1♂, 830721 1♂ RS; 1♀ Bhn. — **ÖL:** Glömmingen 320824 1♂ GH; Halltorps hage 76 VI–VIII 7♂7♀ marsh and moist woodland; Möckelby Jordtorpsåsen 850612 2♂ RD. — **GO:** St Tollby 7807 1♂1♀ RS; Ljugam 260724 1♀ GH. — **ÖG:** Bjärka-Säby 800528 1♂ SVA; Brynstorp 810806 1♂ RS; Åby — 1♂3♀ GH; — 0819 1♂ GH; 2♂1♀ Bhn. — **VG:** Råbäck 870714 1♂; Västerplana 8207 1♂9♀ AA; 1♀ Bhn. — **NÄ:** Örebro Hjälmberg 520721 1♂ NR; Örebro Markkäret — 1♀ TN; Mullhyttan 410722 1♀ TN; Örebro Oset 410816 1♂ TN; Örebro Sommaro 410813 1♀ TN. — **SÖ:** Älgö 8506 2♀, 860531 1♂, 87 VI–VII 1♂1♀. — **UP:** Ed Antuna 800528 1♂ SVA; Solna Bergshamra 770708 4♂8♀ GN; Balingsta Eriksberg 7904 1♀ JM; Stockholm Exp.fältet 22 V–IX 2♂1♀, 270830 1♂. — **VI–VII 2♀ GH; Kolhammar 790713 1♀ RS; Värmdö Munkö 790606 1♂1♀ FF; Rimbo 8105 1♀ JM; Stockholm 1♂3♀ Bhn; Svartsjö 2106 1♀ GH; Värmdö 250806 1♀ GH; Stockholm Älktjan 760525 2♂ FF. — **DR:** Karlsbyheden 480728 1♀, 500621 1♂ BT; Mora Kråkbergsmyran 550817 1♂1♀ BT; Falun Norslund 310705 1♀ BT. — **ÄN:** Ångerån 770710 3♂. — **VB:** Röbbäcksdalen 78 VI–VIII 3♂10♀, 79 VII–VIII 7♂11♀, 80 VI–VIII 7♂10♀, 83 1♀ RS; Umeå Isk 8207 2♀, 830721 1♂ RS. — **NB:** Högsön 650906 2♀, 720701 1♀, 780703 1♂; Kengis 5507 1♂2♀; Smedsbyn 630702 1♂; Sunderbyn 820705 1♂ HA, 830725 1♀ RS. — **LU:** Antajaure 740829 1♂ HW; Gällivare 5507 1♂3♀; Messaure 71 VII–IX 1♂1♀. — **TO:** Karesuando 550722 1♂; Vittangi 550719 1♂. **N:** TR: Djupvik 560703 1♂; Gratangen 5606 2♂3♀; Målselv 560701 2♀. — **F:** Kälfjord 560704 1♂; Langfjord 560704 3♂; Tana bru 560708 2♂. **SF:** LI: Enare träsk 560710 1♀.**

Widespread in Europe incl DK, S (F 1826, SK type loc.; Z 1840, LY, TO; 1847, SK, BL, SM, ÖG, UP, HR, JÄ, NB, LY, TO; R 1982b, LU, TO), N, SF and IS; also recorded from Tunisia, Central Asia, Far East, the Nearctic, Neotropical and Afrotropical Regions. Common in wet shady places, probably polysaprophagous: a variety of wet shady places, grass compost, maple in sap, cow house, cowpats, potato fields, N F Y W. 313♂319♀, 1931–87, III–X (NRS, ZIL), 12♂15♀ Bhn, Hagl, GH (NRS).

64. *Leptocera nigra* [*curvinervis*, Stenhammar, 1855]. (R 1982c). **S:** SK: Alnarp 540628 1♀; Billebjerg 760425 1♂1♀;

Bjärred 640625 1♂, 731004 1♂; Dalby 610603 1♂1♀; Ellestadstsjön 690616 2♂; S. Sandby Fågelsång 610430 1♀ PD; Hällestad Grytängen 710506 1♀, 740831 4♂9♀, 840519 1♂1♀, 880418 1♂1♀, Hasslemölla 810507 1♂; Helmershus 631019 2♂5♀; Klostersågen 681015 12♂14♀, 850421 1♂; Klostergården 73 IV-V 4♂1♀; N Krankeşjon 710613 1♂, 73 VII-VIII 72♂50♀, 74 IV-IX 3♀, 75 VI-VII 11♂5♀; Kullaberg 570815 1♂, 680725 1♂1♀, 6908 2♂2♀, 710702 1♀, 730624 6♂, 740708 1♀, 7508 6♂4♀, 800812 1♀; Linnebjerg 680928 2♂; Lomma 591007 2♂1♀; Lund 610511 1♂, 720715 1♂, 73 III-VII 1♂1♀, 740608 1♂; Mariannelund 8308 2♀ RS; Mölle 730624 8♂8♀; Orup 780810 3♂ RS; Gudmuntorp Rövarekulan 740901 2♂; Sjöbo 690715 1♀; Baldringe Skogshejdan 690916 13♂8♀; Silvåkra Stensoffa 690514 1♀; Sövedsjön 560530 1♂; Kulturens Östarp 730706 1♀. - **BL**: Brömsebo 870704 1♀ RD; Tjärö 670702 1♀. - **HA**: Tönnersa 760807 1♀, 78 VI-VIII 6♂9♀, 790725 1♀, 800606 1♂, 8108 3♂, 8208 3♂2♀, 83 VI-VIII 5♂1♀ RS; Åmilt 670515 1♀, 720513 1♀. - **SM**: Bergkvara 830717 1♂1♀ RD; Getnabo 830707 1♀ RD; Hyltebruk 860811 1♂ JA; Åseda Kullebo 7607 4♂3♀; Skorrö 830623 5♂5♀ RD; Tenhult 830630 1♂ RS; Trotteslöv 820621 1♀, 83 VII-VIII 2♀ RS. - **ÖL**: Halltorps hage 7608 17♂9♀. - **GO**: Norrlanda Hammars 780818 1♂ RD; Sundre Maskmyr 780815 1♀ RD; St Tollby 78 VII-VIII 2♂ RS. - **ÖG**: Brynstorps 810716 1♀ RS; Tjällmo Hindstorp 7907 1♀ JM. - **VG**: Hasslösa Ekgården 7807 2♀ RS; St. Lund 830725 1♀ RS; Skara Viglunda 820812 2♀ RS. - **NA**: Fjugesta Bårsta 830805 1♀ RS. - **SO**: Älgö 810727 1♂1♀; 84 VII-VIII 2♂4♀. - **UP**: Solna Bergshamra 79 VI-VIII 1♂3♀ GN; Kolhammar 780819 4♀ RS.

Temperate areas of the Palaearctic Reg. incl DK and S (S 1855 *curvinervis*, ÖL type loc., type material lost; R 1982c, SK, OL neotype). Thermophilous, common in damp places: wet meadows, marshes, grass compost, maple in sap, cow house, potato and rape fields, N F Y W. 220♂192♀, 1954-88, IV-X (NRS, ZIL). No records north of Stockholm.

65. *Leptocera oldenbergi*. (R 1982c). S: SK: Kullaberg 630606 1♂, 730624 1♂1♀; Öved 820530 1♀ CH. Known only from Europe incl DK and S (H 1967a SK). A rare terricolous species occurring in damp places, larvae probably phytosaprophagous: damp deciduous forests, N W. 2♂2♀, 1963-73, VI (NRS, ZIL).

66. *Leptocera anceps*. (D 1938) S: SK-UP. Known only from Europe: D, CS, H, USSR, and S (S 1855, SK, ÖL, ÖG, VG, UP; K 1972, no syntypes found).

A poorly known species easily confused with *L. breviceps*. Larvae develop in various kinds of mud (P 1976): marshes, by streams in deciduous forests, lake shore, wheat and rape fields, N F Y W. 12♂8♀, 1971-80, V-VIII (NRS, ZIL). All material above as well as the closely related *L. breviceps* and *L. cryptochaeta* has been sent to Roháček, who is working on a revision of the sg. *Rachispoda*. The outcome of his investigations could bring about some changes in the species identifications. Locality records will be given more exactly in Roháček's report.

67. *Leptocera breviceps*. (D 1938, Pi 1988). S: SK-VS. Central and north Europe incl DK (P 1984), S (S 1855, ÖG, UP; Ardö 1957, SK; K 1972, syntypes), N (Ardö 1957) and SF (H 1980).

Found behind sea wall and among grass roots, larvae develop in mud: muddy sea and lake shores, marshes, at a stream in deciduous forest, rape field near the sea, N F Y. 22♂27♀, 1955-75, V-VIII (NRS, ZIL).

68. *Leptocera cryptochaeta*. (D 1938, Pi 1988). S: SK, ÖL. Known from Europe: GB, D, H and S (new). Rare, poorly known, found in wet places in coastal as well as in inland habitats: marshes and wet meadows, N F. 4♂3♀, 1968-73, VI-VIII (ZIL).

69. *Leptocera fuscipennis* [*oelandica* Stenhammar, 1855]. (D 1938, Pi 1988). S: SK: Lomma 720819 4♂4♀; Malmö 731004 15♂8♀. - **ÖL**: Halltorps hage 760604 2♂1♀, 760723 21♂21♀, 760831 4♂. - **GO**: Norrlanda Hammars 780818 1♀ RD.

Widely distributed in the Holarctic Reg. incl DK (P 1984), S (S 1855 *oelandica*, ÖL type loc.; Ardö 1957, SK; K 1972 syntype) and SF (H 1980). Common, halophilous, larvae develop in saline mud (P 1973a): seaweed on seashore, salty marshes and meadows behind sea wall, N Y. 46♂35♀, 1972-78, VI-X (ZIL).

70. *Leptocera limosa*. (D 1938, Rs 1930, G & K 1972, Pi 1988). S: SK: Arlöw 731004 1♂1♀; Ellestadstsjön 690616 1♂1♀; Klostersågen 681005 2♂; N Krankeşjon 550830 3♀, 580830 1♂, 690805 1♀, 700503 1♂, 730825 94♂111♀ sandy lakeshore, 75 VI-VII 83♂67♀ (do.); Kullaberg 690805 1♀; Lomma 730819 3♂; Lund 720715 2♂2♀; Mariannelund 820801 1♀ RS; Mölle 730624 2♀; Sjöbo 690715 1♀; Baldringe Skogshejdan 690916 2♂2♀; Trollenäs 83-0721 2♂1♀ RD; Vombsjön 750618 2♂6♀; Ystad 540720 1♂; 2♂ Bhn. - **SM**: Åseda Kullebo 7607 1♂7♀; Växjö Trummen 690626 1♂; 2♂1♀ Bhn. - **ÖL**: Möckelby Jordtorpsåsen 850612 1♂ RD; Möckelmossen 780808 1♂ ES *et al.* - **ÖG**: 2♂ -. - **VG**: Skara Viglunda 820701 1♀ RS. N: B: N Kongsberg Lågen 830730 4♂2♀.

Widespread in the Holarctic and Afrotropical Regions incl DK, S (F 1820, SK type loc.; Z 1840, SK, GO, ÖG, TO; 1847, SM, UP, LU; Ri 1941, SK; 1951, LY; Persson 1983, ÖL: incl in material above; G & K 1972 lectotype and paralectotypes), N (new) and SF (H 1980). In various wet and boggy places, sometimes on manure, larvae develop in mud and wet soil: on sea and lake shores, wet meadows behind sea wall, damp deciduous forests, potato fields, cow houses (inland), N F Y W. 211♂207♀, 1954-85, IV-X (NRS, ZIL, NFI), 6♂1♀ Bhn. (NRS). No modern finds from northern Sweden.

71. *Leptocera lugubrina*. (D 1938, R 1988 pers. comm.) S: ÖL: Möckelmossen 780620 4♂5♀ ES *et al.*

Only known from S (Z 1847, SK, GO type locs; Persson 1983 as *breviceps*, ÖL material above). Biology unknown: on wet ground at sea shore with sedge, F. 4♂5♀, 1978, VI (NRS). Roháček has studied the syntypes and found that they belong to *L. (Rachispoda)* and not to the genus *Thora-cochaeta*. He also identified the material above, previously recorded as *L. breviceps* (R 1988 pers. comm.)

72. *Leptocera lutosa*. (G & K 1972, Pi 1988). S: SK: Arid 820810 4♂; Arlöw 731004 3♂; Bjärred 640625 1♂; Ellestadstsjön 680821 1♂, 700610 1♂; Hällestad Grytängen 710506 4♂, 740821 1♂; Höör 830911 1♂1♀; Klagshamnsudde 820526 1♀; Klostersågen 681005 151♂130♀; N Krankeşjon 550830 320♂215♀ muddy lake shore, 73 VII-VIII 8♂5♀, 740901 2♂2♀, 750703 3♂3♀, 760424 1♂; Kullaberg 57 VI-VIII 3♀, 650806 2♂1♀, 6707 3♂2♀, 6807 88♂52♀ muddy pool, 6908 9♂13♀, 710704 1♂, 7407 9♂4♀, 7508 27♂16♀, 760707 1♀, 830823 1♀; Mariannelund 810706 1♀, 82 VII-VIII 2♂1♀ RS; Mölle 810624 1♂2♀; Osby 690611 1♂; Ottarpsjön 410625 1♂ TN; Ringsjön 560803 2♂2♀; Gudmuntorp Rövarekulan 610812

29♂40♀, 740901 5♂3♀, 821003 1♂; Sjöbo 690715 95♂39♀; Skärålid 410620 1♂ TN, 650525 1♂ HA; Blentarp Stampenbäckens 690907 1♂ BS; Stenshuvud 830810 1♀; Silvåkra Stensoffa 690601 1♂1♀; Sturup 810710 1♂; Tjörnarpsjön 830911 1♂; Vombsjön 560805 1♀, 740724 1♂, 750618 1♀. - **BL**: Brömsebro 870704 6♂3♀ RD. - **HA**: Tönnersa 820726 1♂ RS. - **SM**: Bergkvara 830717 1♂ RD; Getnabo 870704 1♂ RD; Hyltebruk 830812 3♂2♀; Tenhult 83 VII-VIII 1♂1♀ RS; Trotteslöv 80 VII-VIII 2♀, 820819 1♀ RS. - **ÖL**: Halltorps hage 76 VI-VIII 10♂7♀; Möckelmossen 780620 1♀ ES *et al.* - **GO**: Norrlanda Hammars 780818 11♂7♀ RD; Fole St Olofsholm 780817 1♀ RD. - **ÖG**: Brynstorp 8208 2♂2♀, 830616 1♂ RS; 3♂3♀ Hgl. - **VG**: Skara Viglunda 820816 1♀ RS. - **BO**: Grimme-röd 450703 1♂ BT. - **NÄ**: Fjugesta Bärsta 830723 1♂ RS; Örebro Sommarro 4108 2♂2♀ TN. - **SÖ**: Trosa Askö 840605 1♀ FF. - **UP**: Solna Bergshamra 770803 1♀ GN; Kolhammar 7807 2♀ RS; Stockholm Älktistan 760825 1♂ FF. - **DR**: Lima Bullberget 310826 1♀ BT; By Årängsån 470804 1♀ BT; Limesforsen 3108 1♂2♀ BT. - **NB**: Sunderbyn 720705 1♂. **N**: F: Altafjordbotn 560704 2♀; Björnnes 560709 1♀; Lakselv 560709 3♀; Tana bru 560608 1♀. **DK**: **NEZ**: Nivå 610929 1♀.

Holarctic, incl DK, S (S 1855, SK, HA, BO, VG, ÖG, GO, ÖL, UP; Ardö 1957, SK; G & K 1972 lectotype and paralectotypes; Persson 1983, ÖL: incl in material above), N (Ardö 1957), SF (H 1980) and IS (A 1967). In various wet and boggy places, larvae develop in mud; marshland with pond, muddy sea and lake shores, by streams, grass compost, potato fields, N F Y M. 834♂586♀, 1931-87, V-X (NRS, ZIL). 3♂3♀ Hgl (NRS).

73. *Leptocera lutoidea*. (D 1938, G & K 1972, Pi 1988). **S**: **SK**: Arliv 731004 4♂1♀; Ellstadsjön 680821 1♂; Hällestad Grytängen 710506 2♂; Klostergården 730415 1♂; Klostersågen 681005 1♂1♀; N Krankesjön 550830 44♂26♀, 730825 1♀; Kullaberg 720802 1♂1♀; Lomma 720316 1♀; Gudmuntorp Rövarekulan 640812 1♀. - **BL**: Brömsebro 870704 1♂. - **GO**: Norrlanda Hammars 780818 1♂1♀ RD.

Holarctic incl S (new) and SF (H 1980). In wet and boggy places, larvae develop in mud, lowland oriented; muddy sea and lake shores, by streams, marshes with pools, N. 56♂32♀, 1955-87, III-X (NRS, ZIL).

74. *Limosina silvatica*. (R 1983). **S**: **SK**: Blentarp 690622 1♀ BS; Sandby Fågelsång 850703 1♂; Maltesholm 840508 1♂ MS. - **HA**: Enslöv 550407 1♂1♀, 560104 1♂1♀; Årmilt 710726 1♀. - **SM**: 1♂ Bhn. - **GO**: 1♂ Bhn. - **ÖG**: 3♂2♀ Bhn; 1♀ Hgl. - **UP**: Stockholm 6♂4♀ Bhn; Värmdö 250808 1♀ GH.

Widespread in Europe incl DK, S (Z 1840, LY; 1847, SK, GO, ÖG, VG, UP, HS, JÄ; H 1967a, SK) and SF; records also from Tunisia: *L. silvatica* does not occur in N. America: all records are based on misidentified *Leptocera* (s.str.) (M pers. comm.). Chiefly phytosaprophagous, developing in decayed vegetation in woodland areas; by streams in damp deciduous forest, N M S. 4♂5♀, 1925-84, I-VII (NRS, ZIL), 11♂8♀ Bhn, Hgl, GH (NRS).

75. *Gigalimosina flaviceps*. (R 1983, 1984). **S**: **SK**: Silvåkra 820526 2♀ CH; Haräng 840811 1♀ MS, 3♂4♀ Hgn.

Central Europe (s.lat.) incl DK, S (Z 1847, SK type loc.: S 1855, SK; H 1967a, SK; R 1983 type material lost) and SF (H 1986 pers. comm.). Psychrophilous, among decaying leaves in ravines and rock slots; shady deciduous forest

(*Fagus silvatica* dominating), N M. 3♀ 1982-84, V-VIII (ZIL). 3♂4♀ Hgn (NRS).

76. *Apteromyia claviventris*. (R 1983). **S**: **SK**: Kullaberg 660821 1♀, 710712 1♂, 720802 1♂; Sövde 871031 1♀ MS. - **HA**: Årmilt 510116 2♀, 710411 1♂, 720327 1♂, 730422 3♀, 860502 1♀. - **SÖ**: Älgö 850714 1♂, 850907 1♂, 860517 1♂1♀, 860719 1♂, 870913 2♀. - **UP**: Ed Antuna 800508 1♂ SVA; Solna Bergshamra 770829 1♂ GN; Kolhammar 790713 1♂ RS. - **LU**: Messaure 710722 1♂2♀.

Europe incl DK, S (H 1967a, SK), SF and IS (H 1986 pers. comm.); N. America: CDN (M & R 1982). Polysaprophagous, connected with damp and shady habitats such as cellars, caves, runs of small mammals and shady woods; damp mixed deciduous forest, elk droppings in mixed wood, various tree stumps in sap (spruce and alder), grass compost, potato and oats fields, cow houses, N F Y W. 13♂13♀, 1951-86, I-IX (NRS, ZIL).

77. *Herniosina bequaerti*. (R 1983) **S**: **VG**: Hasslösa Ekgården 790626 1♂ RS. **IS**: Hlidarendi 840803 1♂1♀; Innri-Njardvik 850702 1♀; Skagaströnd 850718 1♂; Neskaupstaður 860120 1♂.

Widespread in Europe incl S (new), SF and IS (Ni *et al.* 1954). Cavemicolous, living in caves, cellars and burrows of various mammals (R 1984); potato field, Y. 7♂2♀, 1979-86, I-VIII (NRS, IMN).

78. *Terrilimosina racovitzai*. (R 1983, M 1987). **S**: **SK**: Mariannelund 810615 1♂ RS. - **SM**: Trotteslöv 800721 1♂ RS. - **UP**: Ed Antuna 790608 1♂ SVA. Widespread in Europe incl S (new) and SF (H 1980); also reported from N. America. Polysaprophagous, in caves, cellars and mammal burrows; potato fields, cow house, Y W. 3♂, 1979-81, VI (NRS, ZIL).

79. *Terrilimosina schmitzi*. (R 1983, M 1985a, M 1987). **S**: **SK**: Forsakar 820709 1♀; Hasslemölla 720528 1♀; Klöva hallar 820711 1♂; Kullaberg 720809 1♂, 730621 1♂, 740704 1♂1♀, 760713 1♂, 780722 1♂; Gudmuntorp Rövarekulan 690712 1♀; Skärålid 670402 2♀; Sövde 871031 1♂1♀ MS. - **BL**: Bräkne-Hoby 850718 1♂. - **HA**: Rydöbruk 860817 3♂ JA; Årmilt 650528 1♀, 7107 2♂, 73 VI-VII 1♂2♀, 740624 1♂, 8605 2♀. - **SM**: Hyltebruk 830812 1♂1♀ HA, 86 VIII-IX 4♂3♀ JA; Åseda Kullebo 7607 7♂23♀; Trotteslöv 830704 1♂ RS. - **BO**: Brofjorden 88-0803 1♂ LE. - **NA**: Fjugesta Bärsta 820823 1♂ RS. - **SÖ**: Älgö 840812 1♀, 85 V-IX 2♂5♀, 8708 1♂1♀. - **UP**: Ed Antuna 790603 1♂ SVA; Kolhammar 790717 1♀ RS. - **ÄN**: Norrbyn 77 VI-X 1♂1♀ KM. - **LY**: Ammarnäs 7107 2♀. - **LU**: Messaure 740606 1♂. - **TO**: Abisko 760721 1♂ KM; Masungbyn 550718 1♀; Vittangi 550717 1♀. **N**: **ST**: Benna 860621 1♀ HF & UJ. - **TR**: Målselv 560701 1♂.

Holarctic incl DK, S (new), N (new), SF and IS (H 1986 pers. comm.). Common on rotting litter in damp forest (R 1984); cow houses, sheep droppings, damp deciduous forest with running water, boggy pasture, a watered pile of pulpwood, potato fields, N F Y W. 38♂53♀, 1955-88, V-X (NRS, ZIL).

80. *Minilimosina splendens*. (R 1983). **S**: **SK**: N Krankesjön 690607 1♂, 740803♂; Kullaberg 710712 1♀, 800815 1♀; Stenshuvud 770814 1♂; Silvåkra Stensoffa 840916 1♀. - **HA**: Årmilt 570804 1♀; 710725 1♀, 720810 1♂, 740624 1♂. - **ÖL**: Halltorps hage 760806 1♂2♀. - **SÖ**: Älgö

840728 1♂, 850618 1♀.

Central Europe (s.lat.) incl S (new). Uncommon, living in damp forest and meadows on decaying matter (R 1984); damp deciduous forest, marsh, lake shores, grass compost, N F W. 7♂8♀, 1957–85, VI–VIII (NRS, ZIL).

81. *Minilimosina unica* [hackmani Roháček, 1977]. (P 1973a, R 1983). S: VR: Skallberg 770626 1♂2♀ JR. – LY: Ammamäs 710626 1♂, 710701 1♂. – PI: Pieljekaise 810703 1♀ TEL. – TO: Abisko 570712 1♀, 570713 1♂ PIP; Abisko 750630 1♂1♀, 750707 1♀ KM.

Known from Mongolia, SF and S (new). Biology unknown, female recorded new: mountain birch forest, spruce forest (Axelsson 1982, Lundberg 1979) and peat bogs, N L W. 5♂6♀, 1957–81, V–VII (NRS, ZIL). Material above has been studied by Roháček and Marshall in connection with their work on *Minilimosina* (S.) of the world (in press).

82. *Minilimosina v-atrum*. (R 1983). S: SK: Hasslemölla 7205 3♂2♀; Kullaberg 650806 1♀, 710704 1♀, 730627 1♂; Margaretetorp 670713 1♂; Gudmuntorp Rövarekulan 690712 1♂; Tvedöra 690510 1♀. – HA: Årnilt 73 VI–IX 1♂2♀, 740627 1♂, 750627 1♂. – SM: Tenhult 830606 1♀ RS, Trotteslöv 820701 1♂, 830818 1♂ RS; Gårdsby N. Åreda 830707 1♀, 870620 1♂ RD. – ÖL: Halltorps hage 760806 1♀. – ÖG: Järnevid 800630 1♀ RS. – VG: Hasslösa Ekgården 800815 1♂ RS. – SÖ: Älgö 810809 1♀. – UP: Solna Bergshamra 770824 1♀ GN; Kolhammar 820706 1♂ RS. – VS: Årsbäcken 810729 1♀ UG. – VR: Ekshärad Skallberg 770523 2♀ JR. – PI: Pieljekaise 810703 1♀ TEL. – TO: Abisko Nuolja 570713 1♂ PIP. N: N: Dunderland 560627 1♀. – TR: Gratangen 560729 2♀, 560730 1♀. – F: Lakselv 560709 1♂; Vestertana 560706 1♀.

Central and North Europe incl DK, S (new), N (new) and SF. Boreo-alpine, collected on peat bogs and in mixed forests (R 1984): damp deciduous forests, marshes and peat bogs, muddy lake shores, potato and wheat fields, grass compost, pile of watered pulpwood, N F Y W, 15♂22♀, 1956–87, V–IX (NRS, ZIL).

83. *Minilimosina vitripennis*. (R 1983). S: SK: Hällestad Grytängen 740803 1♂; Humlarödshus fålad 850601 1♂; Klostersågen 850421 1♂1♀; N Krankejsjön 700503 1♂1♀, 760424 1♀; Kullaberg 720801 1♀; Mariannelund 810710 1♂ RS; Ringsjön 650616 1♀; Gudmuntorp Rövarekulan 651010 1♀, 690916 2♂2♀; Vårhallama 850704 2♂; Åkarp 550527 1♂. – HA: Tönnersa 810820 1♂ RS; Årnilt 550528 1♂, 66–1♂, 710621 1♀, 730612 1♂1♀. – SM: Bergkvara 850718 1♀ RD; Åseda Kullebo 7607 12♀; Trotteslöv 820610 1♀ RS. – GO: St Tollby 7806 2♂ RS. – ÖG: Brynstorp 810716 1♀ RS; Bjärka-Säby 800528 1♀ SVA. – UP: Balingsta Eriksberg 7905 1♀ JM; Getingarnö 800725 1♀ SVA; Kolhammar 780611 1♀ RS. – VS: Ridö 8107 1♀ JM. – VB: Röbbäcksdalen 790723 1♂, 800710 1♂, 810710 1♂ RS; Umeå Isk 8206 2♂ RS. – LY: Ammamäs 7106 4♀. – LU: Messaure 74 VI–VII 2♀. – TO: Abisko 760623 2♀ KM, 830718 1♀ HA, 850623 1♀ TM; Soppero 550721 1♀. N: TR: Djupvik 560703 1♂. – F: Altafjord 560704 1♀.

Holarctic, widespread in Europe (M 1985b) incl DK, S (Z 1847, SK type loc.; S 1855, SK, ÖG: H 1967a, SK: R 1983, SK lectotype and paralectotypes, LY, N (new), SF and IS. In woods and woodland meadows, in Central Europe restricted to mountains: mountain birch forests, damp deciduous forest, lake shores, moorland, garden, cow house, potato and rape fields, maple in sap, N L Y W, 24♂39♀, 1955–85, V–X (NRS, ZIL).

84. *Minilimosina fungicola* [exigua Rondani, 1880]. (R 1983, M 1985b). S: SK: S. Sandby Fågelsång 850621 1♂; Hasslemölla 720528 1♂1♀; N Krankejsjön 730825 2♀; Kullaberg 630606 1♂1♀, 670711 3♂, 690805 3♂2♀, 710710 1♂, 7208 5♂5♀, 730618 1♀, 7508 2♂1♀, 760707 1♂; Linnebjerg 770918 1♂; Lund stadsparken 710802 1♂; Mariannelund 810803 1♀, 820811 1♀ RS; Orup 78 VI–VIII 3♂, 80 VII–VIII 2♂1♀ RS; Gudmuntorp Rövarekulan 740901 1♂; Sjöbo 690715 1♂; Örtofta 610616 1♀. – BL: Kristianopol S Bröms 870706 4♂ RD. – HA: Tönnersa 79 VI–VIII 1♂2♀ RS; Årnilt 670515 1♀, 690622 1♀, 700830 2♀, 710724 1♀, 720327 2♂. – SM: Bergkvara 850726 1♂ RD; Åseda Kullebo 7607 13♂43♀; Tagel 780626 1♀ RS; Trotteslöv 8208 5♂3♀, 83 VII–VIII 3♀ RS. – GO: St Tollby 780812 1♀ RS. – ÖG: Brynstorp 780810 1♂ RS; Tjällmo Hindstorp 7907 3♀ JM. – VG: Hasslösa Ekgården 7908 1♂1♀, 800722 1♀, 810820 1♂1♀ RS. – SÖ: Älgö 81 VII–IX 3♂8♀, 820711 1♂1♀, 83 VI–VII 4♂3♀, 84 VII–IX 21♂16♀, 85 VI–X 69♂122♀, 86 V–X 12♂20♀, 87 VI–VII 9♂8♀. – UP: Ed Antuna 790906 2♀ SVA; Solna Bergshamra 770727 1♂ GN; Getingarnö 800625 1♂ SVA; Kolhammar 780814 1♂, 790731 1♀ RS. – VS: Ridö 8108 1♀ JM. – VR: Ekshärad Skallberg 770525 1♀ JR. – DR: Näs 780802 1♀ RS. – NB: Pajala Jupukka 550728 1♀. N: B: N Kongsberg Lågen 830930 1♂.

Holarctic, common in the northern regions incl DK, S (new), N (new), SF and IS (N *et al.* 1954 and A 1967 need to be confirmed). Synanthropic, chiefly phytosaprophagous, in spite of its specific name rarely on fungi: meadows, deciduous forests, by streams, grass compost 119♂178♀, cow houses, potato and rape fields, pile of wood in coniferous forest, N F Y W, 180♂268♀, 1955–87, III–X (NRS, ZIL). Easily confused with closely related species, previous records therefore need reexamination.

85. *Minilimosina gemella*. (R 1983, M 1985b). S: SK: Baldringe Skogshedjan 690916 1♂1♀; Mariannelund 820811 1♀ RS. – HA: Tönnersa 820802 1♂ RS. – SM: Trotteslöv 820722 1♀ RS. – ÖG: Brynstorp 820531 1♀ RS. – VG: Skara Viglunda 820617 1♂ RS. – SÖ: Rösäng 7906 1♂ JM; Älgö 810727 1♂, 850624 3♂3♀, 860531 1♂, 860614 1♂1♀, 860625 1♂, 870905 1♀. – LY: Ammamäs 7106 3♂1♀, 7107 1♂1♀.

Europe: A, CS, GB (Pi 1988) and S (new); N, America: CDN and USA. In boreo-alpine habitats i.a. among dung enriched substrates: grass compost, potato and rape fields, mountain birch forest, pasture, N F Y W, 14♂11♀, 1969–87, V–IX (NRS, ZIL). Easily confused with *M. fungicola*. This material is now in the hands of J. Roháček for revision purpose.

86. *Minilimosina hispidula*. (R 1988). S: LY: Ammamäs 710631 1♂. – LU: Messaure 740624 1♂ holotype (ZIL). A new species known only from S (R 1988 incl in material above). Probably boreal like its Nearctic sisterspecies *M. zeda*: mixed mountain birch and spruce forest, pine forest by Lule river, L W, 2♂, 1971–74, VI (NRS, ZIL).

87. *Minilimosina parvula*. (R 1983, M 1985b). S: SK: Kullaberg 630607 1♂, 7107 2♀, 720801 1♂2♀, 810623 1♀; Lund stadsparken 710807 1♂; Mariannelund 830714 1♂1♀ RS; Osby 850818 3♂ RS; Stenshuvud 770814 1♂. – HA: Hylte 710724 1♀; Tönnersa 810824 1♂ RH; Årnilt 710724 5♂5♀, 720327 13♂25♀. – SM: Åseda Kullebo 7607 7♂6♀; Saltvik 8508 4♂5♀ TL; Tagel 780626 1♂ RS; Tenhult 830714 1♂ RS; Trotteslöv 800714 1♀ RS. – ÖL: Hall-

torps hage 760723 1 ♀. - **GO**: St Tollby 780812 1 ♂ **RS**. - **GS**: Gotska Sandön 54 - 2 ♀ **AJ**. - **ÖG**: Brynstorp 780803 1 ♂, 820802 1 ♂ **RS**; Järnevad 800714 1 ♀ **RS**. - **NA**: Fjugesta Bärsta 820730 1 ♀ **RS**. - **SÖ**: Älgö 81 VII-VIII 4 ♂, 820711 1 ♂, 830628 1 ♂ 3 ♀, 84 VII-VIII 6 ♂ 8 ♀, 8506 27 ♂ 27 ♀, 8507 5 ♂ 10 ♀, 8508 2 ♂ 4 ♀, 8509 1 ♂ 4 ♀, 86 V-VII 23 ♂ 27 ♀, 87 VI-IX 14 ♂ 19 ♀. - **UP**: Balingsta Eriksberg 7905 1 ♂ 1 ♀ **JM**; Kolhammar 780814 1 ♀ **RS**; Fasterna Mörby 7905 1 ♀ **JM**. - **VS**: Brunnby 79 VI-VIII 2 ♂ **JM**. - **DR**: Österå 860728 1 ♂ **FF**. - **VB**: Röbbäcksdalen 790709 1 ♀, 820622 1 ♀ **RS**; Umeå lsk 820712 1 ♂ **RS**. - **LY**: Ammarnäs 7106 4 ♂. - **PI**: Pieljekaise 8106 2 ♂ 1 ♀ **TEL**. - **LU**: Messaure 71 VI-VII 7 ♂ 8 ♀, 73 VI-VII 2 ♀, 74 V-VII 35 ♂ 45 ♀. - **TO**: Abisko 540731 4 ♀ **NR**, 750623 1 ♂ 2 ♀ **KM**.

Europe incl **DK**, **S** (**S** 1855, **HA**, **ÖG**; **R** 1983 lectotype and paralectotype) and **SF**; **N**, **America**: **CDN** and **USA**. Necrophagous, also on excrement, rotting fungi and decaying vegetation; pastures, mixed forest, peat bog, grass compost, birds' nests (*Parus caeruleus*, *Prunella modularis*), elk droppings, cow house, potato and rape fields, **N F Y W E**. 211 ♂ 239 ♀, 1954-87, III-IX (**NRS**, **ZIL**). Previously confused with *M. fungicola*.

88. *Minilimosina tenera*. (**R** 1983). **S**: **LU**: Messaure 71-0902 1 ♂. Only known from Europe: **CS**, **S** (new) and **SF** (**H** pers. comm.). The only previous record is from decaying fungi on a peat bog in **CS**: mixed coniferous forest with lingonberry by Lule river, **F**. 1 ♂, 1971, IX (**ZIL**).

89. *Minilimosina secundaria*. (**R** 1983). **S**: **SK**: Baldringe Skogshejdan 690916 1 ♂. - **NA**: Fjugesta Bärsta 830705 1 ♂ **RS**. Known only from Europe: **GB**, **H**, **DDR** (**P** 1984) and **S** (new). Very rare, taken on a window and on a boggy meadow; wet pasture, potato field, **N Y**. 2 ♂, 1969-83, VII-IX (**NRS**, **ZIL**). Male (material above) previously unknown will be described by Roháček.

90. *Xenolimosina setaria*. (**R** 1983, **M** 1985a). **S**: **SK**: Silvåkra Stenoffa 801005 1 ♂. Restricted Atlantic distribution: **GB**, **B**, **DDR** and **S** (new). Very rare, collected on decaying fungi: damp deciduous woodland, **N**. 1 ♂, 1980, X (**ZIL**).

91. *Paralimosina fucata*. (**R** 1983). **S**: **SK**: Kullaberg 68-0721 1 ♀, 760713 1 ♂; Stenshuvud 770814 1 ♂. Widespread in Europe incl. **DK** and **S** (new), records also from **N**. **Africa**. In woodland on excrement, fungi and litter: mixed deciduous forest, damp deciduous forest with pool, **N**. 2 ♂ 1 ♀, 1968-77, VII-VIII (**NRS**, **ZIL**).

92. *Paralimosina kaszabi* [*latigena* Roháček, 1977]. (**R** 1983). **S**: **ÖG**: Tjällmo Hindstorp 7905 1 ♂ **JM**. - **VG**: Hasslösa Ekgården 780714 1 ♀, 790716 1 ♀ **RS** - **SÖ**: Vingåker Vik 7907 1 ♀ **JM**. - **VB**: Umeå lsk 820830 1 ♂ **RS**.

Europe: **D**, **CS** and **S** (new); **Mongolia**. Poorly known, in Central Europe at high altitudes, records from hay and peat bog meadows: potato and rape fields, **Y**. 2 ♂ 3 ♀, 1978-82, V-VIII (**NRS**, **ZIL**).

93. *Paralimosina suberibrata*. (**R** 1983). **S**: **SK**: Öved 820530 1 ♂ **CH**. Known only from Europe: **CS**, **A**, **Hm** **YU** and **S** (new). Morphological features indicate terricolous life-habit: beech forest, **N**. 1 ♂, 1982, V (**ZIL**).

94. *Spelobia ochripes*. (**R** 1983, **M** 1985c). **S**: **SK**: Brösarp 690615 1 ♂ 2 ♀; Dalby 550830 1 ♂ 1 ♀; Flackarp 600630 1 ♂; Klostersågen 620920 1 ♀, 730326 1 ♀, 850421 2 ♂; **N** **Kran**-kesjön 550830 1 ♂, 700503 2 ♂, 740421 1 ♀, 750903 1 ♂, 760424 1 ♂; Kullaberg 720809 2 ♂; Lomma 550628 1 ♂ 1 ♀,

600915 1 ♂, 750526 1 ♀; Mariannelund 810716 1 ♀ **RS**; Ringsjön 630926 1 ♀; Skånör 560902 1 ♀; Baldringe Skogshejdan 690916 12 ♂ 20 ♀ pasture; Stenshuvud 590915 1 ♂; Åsljunga 590719 2 ♀, 600605 1 ♂ 1 ♀; Österlöf 631019 1 ♀. - **HA**: Enslöv 550529 1 ♀, 5607 2 ♂; Årnilt 550706 1 ♀, 66 - 2 ♀, 71 VI-VII 1 ♂ 1 ♀. - **SM**: Getnabo 830717 1 ♂ 1 ♀ **RD**; Åseda Kullebo 7607 59 ♂ 46 ♀; Tenhult 83 VI-VII 1 ♂ 1 ♀ **RS**; 3 ♀ **Bhn**. - **ÖL**: Halltorps hage 76 VI-VII 2 ♂ 1 ♀. - **GO**: Hellvi 780817 1 ♀ **RD**, St Tollby 780812 1 ♀ **RS**. - **ÖG**: Bjärka-Säby 800801 1 ♀ **SVA**; Brynstorp 78 VI-VIII 1 ♂ 3 ♀, 790716 1 ♀, 80 V-VI 1 ♂ 1 ♀ **RS**; Vist Stavsäter 800508 1 ♀ **SVA**; 2 ♂ **PWg**. - **VG**: Kinnekulle 1 ♂ 5 ♀ **Bhn**; Österplana hed 780819 1 ♂ **BÖ**. - **BO**: Havstensund 5606 2 ♂ 1 ♀. - **NA**: Adolfsberg 410722 2 ♂ **TN**; Västkärr 82 VI-VII 5 ♂ 1 ♀ **RS**; Örebro 52 - 1 ♀ **NR**. - **UP**: Enköping Brunnsö 800626 1 ♂ 1 ♀ **BE**; Getingamö 80 VI-VIII 1 ♂ 4 ♀, 81 VII-VIII 1 ♂ 7 ♀ **SVA**; Estuna Hov 810703 1 ♀ **SVA**, Lussinge 770728 1 ♂ **HR**; Stockholm 3 ♀ **Bhn**. - **VS**: Ridö 8107 1 ♂ **JM**. - **DR**: Näs 820719 1 ♀ **RS**; Rättvik Ujby 730904 1 ♀ **TT**; Vansbro 790625 1 ♀ **RS**; 1 ♂ **Bhn**. - **ÄN**: Hamptäs 540617 1 ♂ **NR**. - **VB**: Röbbäcksdalen 7907 2 ♀, 8207 1 ♂ 3 ♀ **RS**; Umeå lsk 820727 2 ♀ **RS**. - **NB**: Bergviken 650902 1 ♂; Bertnässet 560712 1 ♂ 1 ♀; Högsön 720706 1 ♀; Kengis 5507 2 ♂ 2 ♀; Smedsbyn 630702 1 ♂. **N**: **B**: **N** **Kongs**-berg Lågen 830730 2 ♀. - **N**: **Mo** i **Rana** 560704 2 ♀; Rosäng 560627 1 ♀. - **F**: Altafjordbotn 560704 2 ♀; Vesterfjord 560706 1 ♀.

Holarctic incl **DK**, **S** (**Z** 1840, **LY**, **TO**; 1847, **SK**, **ÖG**, **GO**, **UP**, **NB**, **LY**; **Ardö** 1957, **HA**), **N** (**Z** 1855) and **SF** (**H** 1980). Typical meadow species living under grass: meadows and pastures, marshes, by streams and rivers, cow houses and cowpats, potato, wheat and rape fields, **N F Y W**. 125 ♂ 144 ♀, 1941-83, II-X (**NRS**, **ZIL**), 3 ♂ 10 ♀ **Bhn**, **PWg** (**NRS**).

95. *Spelobia belanica*. (**R** 1983). **S**: **SK**: Klagshamnssude 820526 1 ♀. - **VB**: Röbbäcksdalen 830811 1 ♀ **RS**. Known only from Europe, **CS**, **DK** (allotype) and **S** (new). Biology unknown, holotype from runs of *Microtus arvalis*: wet pasture, potato field, **N Y**. 2 ♀, 1982-83, V-VIII (**NRS**, **ZIL**). The female allotype from **DK** with abdomen lost.

96. *Spelobia bispina*. (**M** 1985c). **S**: **LY**: **NNE** Tärnasjön Dakkejaure 630716 1 ♂ (Roháček det.). **N**, **America**: **CDN**; Europe: **S** (**M** 1985c, **LU**); **Siberia** (**R** 1987 pers. comm.). Biology largely unknown: creek with sedge, **N**. 1 ♂, 1963, VII (**ZIL**).

97. *Spelobia cambrica*. (**R** 1983). **S**: **SK**: Stoby Arkelstorp 550620 1 ♀; Hjárnarp Margaretstorp 670712 1 ♂. - **HA**: Breared 810810 1 ♂; Årnilt 6705 2 ♂, 830801 1 ♂. - **SM**: Trotteslöv 820819 1 ♂ **RS**. - **VS**: Årsbäcken 810729 2 ♂ **UG**. - **ÄN**: Docksta 540618 1 ♀ **NR**. - **NB**: Pajala 550727 1 ♂ 1 ♀. - **TO**: Abisko Ridojirra 830722 1 ♀. **N**: **ST**: Benna 860621 1 ♂ 2 ♀ **HF** & **UJ**. - **TR**: Gratangen 560630 1 ♂ 1 ♀.

Probably boreo-alpine, known from mountains in Central Europe and from North Europe incl **S** (new), **N** (new) and **SF**. Polysaprophagous in woods and on peat bogs (**R** 1984): deciduous forests and ravines with streaming water, mountain birch forests, marsh with sedge, kitchen compost, sheep droppings, potato fields, **N F Y**. 10 ♂ 7 ♀, 1955-86, V-VIII (**NRS**, **ZIL**).

98. *Spelobia clunipes* [*pygmaea* Zetterstedt, 1938]. (**R** 1983, **M** 1985c, **Pi** 1988). **S**: **SK**: Stoby Arkelstorp 550620 1 ♂; **S**. Sandby Fågelsång 610430 1 ♀ **PD**; Hasslemölla 7205 3 ♀;

Immeln 631019 1♀; N Krankesjön 730825 1♀, 7409 1♂♀; 750703 1♂; 760424 2♂; Kullaberg 610514 1♀, 680721 1♂, 710704 1♂♀, 7208 4♂2♀, 740707 1♂; Linnebjerg 681013 2♂; Lomma 720316 1♀, 740811 1♀; Lund 720820 1♂; Mariannelund 81 VI–VIII 9♂11♀, 82 VI–VIII 1♂5♀, 83 VI–VIII 4♂6♀ RS; Mjönäs 631019 1♀; Orup 7907 2♂, 80 VI–VIII 4♂11♀ RS; Revinge 740820 1♂ RD; Gudmundtorp Rövarekulan 740901 2♂; Baldringe Skogshejdan 690916 2♂1♀; Skärålid 670402 2♀ HA, 410620 1♂ TN; Blentarp Stampenbäcken 690622 2♀ BS; Stenshuvud 83 VI–VII 4♂2♀ RD; Sturup 810710 1♂; Torup 820602 1♂ CH; Vombsjön 740724 1♂; Åkarp 550527 2♂2♀. – **BL**: Brömsebro 8707 1♂1♀ RD. – **HA**: Snöstorp 550705 1♀; Tönnersa 780810 1♂1♀, 8006 1♂3♀, 81 VII–VIII 2♂1♀, 83 VI–VIII 9♂7♀ RS; Åmilt 550705 4♂4♀, 5706 7♂1♀, 620701 1♂, 630602 1♀, 6407 3♀, 650528 2♂1♀, 670515 2♂2♀, 700830 1♂1♀, 71 VI–VII 2♂4♀, 72 III–VI 6♂12♀, 73-0609 3♂4♀, 750426 2♂2♀, 780716 1♂, 830801 1♀. – **SM**: Bergkvara 850615 1♂ RD; Getnabo 830717 3♀, 8506-09 1♀ RD; Åseda Kullebo 7607 203♂100♀; Tagel 790629 1♀, 10618 1♂1♀ RS; Tenhult 83 VI–VIII 12♂27♀ RS; Trotteslöv 800811 1♀, 81 VI–VIII 1♂3♀, 82 V–VIII 8♂12♀, 83 VI–VIII 7♂12♀ RS; N Åreda 870620 1♂ RD. – **ÖL**: Halltorps hage 76 VII–VIII 6♂19♀; Möckelby Jordtorpsåsen 850612 6♀ RD; Kastlösa 700624 1♂; Möckelmossen 7808 2♂ ES *et al.* – **GO**: Ulla hau 870827 1♀ MS. – **ÖG**: Bjärka-Säby 80 VI–VIII 2♀ SVA; Brynstorp 780810 2♂, 7906 3♀, 80 V–VIII 2♂8♀, 81 VI–VIII 5♂7♀, 82 VII–VIII 1♂3♀ RS; Tjällmo Hindstorp 79 VI–VIII 8♂6♀, 8006 2♂ JM; Järnevid 80 VI–VII 1♂2♀ RS; Klosterlunda 79 V–VII 2♂2♀ JM. – **VG**: Hasslösa Ekgården 80 VI–VIII 2♂5♀, 81 VI–VII 1♂2♀ RS; St Lund 83 VI–VII 1♂2♀ RS; Skara Viglunda 82 VI–VIII 15♂16♀ RS. – **BO**: Brofjorden 880803 1♀ LE; Havstensund 560609 1♂1♀. – **NÄ**: Fjugesta Bärsta 82 VI–VIII 1♂3♀ RS; Tysslinge Latorp 520623 1♀ NR; Örebro Markkäret 410728 1♀ TN; Mullhyttan 52 VI–VIII 1♂2♀ TN; Örebro Oset 410801 1♂ TN; Kräcklinge Tampalandet 7906 1♀ JM; Västkärr 8207 1♂1♀ RS. – **SÖ**: Älgö 810727 1♀, 82 VII–IX 2♂1♀, 830628 1♀, 840728 1♀, 85 VI–IX 15♂23♀, 86 V–IX 4♂10♀, 87 VI–VIII 7♂5♀. – **UP**: Ed Antuna 790608 1♂ SVA; Adelsö Björkö 820602 2♀ FF; Balingsta Eriksberg 79 IV–VIII 3♂3♀ JM; Faringe Erikslund 770805 1♂3♀ FF; Getingarnö 79 VIII–IX 3♂8♀, 8008 5♂6♀, 81 VI–X 5♀ SVA; Estuna Hov 810830 1♀ SVA; Kolhammar 80 VI–VII 1♂2♀, 81 VI–VII 2♂1♀, 82 VII–VIII 1♂2♀, 83 VII–VIII 5♂7♀ RS; Rimbo 81 V–VII 13♂7♀ JM; Ultuna 830707 1♂ RS; – **VS**: Brunnby 7905 1♂ JM; Årsbäcken 810729 1♂ UG. – **DR**: Näs 81 VII–VIII 2♀, 8207 1♂2♀ RS. – **VB**: Vindeln Hällnäs 390412 1♂ KH; Röbäcksdalen 7907 2♂5♀, 800821 1♀, 81 VII–VIII 3♂6♀, 82 VII–VIII 2♀, 8308 1♂3♀ RS; Umeå Isk 82 VI–VIII 1♂3♀ RS. – **NB**: Högsön 620805 1♀; Kengis 550730 7♂6♀; Pajala 5507 3♂6♀; Storsund 630630 1♂; Sunderbyn 830727 1♀ RS. – **TO**: Maunu 5507 33♂13♀; Vittangi 550718 1♂. **N**: B: N Kongsberg Lågen 830730 8♂1♀. – **ST**: Benna 860621 1♀, 880623 1♂ HF & UJ. – **N**: Mo i Rana 560626 1♂1♀. – **TR**: Gratangen 5606 2♂; Målselv 560701 2♂1♀. – **F**: Vestertana 560706 2♂; Lakselv 560707 1♂2♀. **IS**: Sudurreykir 1♀; Thykkvibaer 850624 1♀.

Widespread in the Holarctic Reg. incl DK, S (Z 1840 *pygmaea*, TO, LY type loc.; 1847; SK, SM, ÖG; Gaunitz 1951, ÖG; Persson 1983, ÖL incl in material above; R 1983 no syntypes), N (Z 1847; Ardö 1957), SF and IS (A 1967). Common, polysaprophagous with wide ecological tolerance:

cow houses, dung hills, cow and sheep droppings, faeces, pastures and meadows, potato fields, ant hill, tree stump in sap, rotting apples, N F L Y W B. 615♂514♀, 1941–88, III–X (NRS, ZIL, IMN). *S. clunipes* seems variable in its morphological characters and is therefore difficult to distinguish from its closest congeners.

99. *Spelobia ibrida*. (R 1983). **S**: SÖ: Älgö 840819 1♀, 850803 1♂, 870606 1♂, 870710 1♀. – **LY**: Amarnäs 710630 1♀, 7107 2♂2♀. – **TO**: Abisko 540724 1♀ NR, 5707 10♂6♀ PIP, 570721 1♀ KM. **N**: **TR**: Gratangen 560630 1♂; Målselv 560701 1♂.

Only known from Europe: CS, S (new), N (new) and SF (paratypes). Most type specimens were collected on peat bog meadows: mountain birch forest and meadows, peat bogs, grass compost, N F L W. 16♂14♀, 1954–87, VI–VIII (NRS, ZIL). Closely related to *S. rufilabris*.

100. *Spelobia luteilabris*. (R 1983, M 1985c). **S**: **SK**: Brösarp 690615 1♂; Hällestad Grytängen 710506 1♂, 740831 1♂1♀, 880418 1♂; Hasslemölla 810507 1♂; Klågshamnsudde 810706 1♂; N Krankesjön 730825 2♂2♀, 750703 1♀; Kullaberg 6306 1♂1♀, 860721 1♀, 6908 3♂, 7107 3♂3♀, 72 VIII–IX 7♂6♀, 730624 1♂1♀, 760713 1♂; Lund 71-0807 1♂, 720715 1♂, 730429 1♂; Mariannelund 81 VII–VIII 4♀, 82 VII–VIII 2♂1♀ RS, Orup 7907 1♂1♀, 80 VII–VIII 2♂1♀ RS; Gudmundtorp Rövarekulan 740901 1♂; Baldringe Skogshejdan 690916 3♂; Smyge 870401 1♂ MN. – **BL**: Kristianopel S Bröms 870706 2♂ RD. – **HA**: Tönnersa 81 VII–VIII 1♂3♀, 820815 1♂, 83 VI–VIII 2♂2♀ RS; Åmilt 560715 1♂, 690521 1♀, 700830 1♂, 730612 1♀, 750627 1♀. – **SM**: Hyltebruk 860907 1♂ JA; Åseda Kullebo 7607 92♂52♀, 820708 1♀ RS; Trotteslöv 800724 1♂, 810817 1♂, 820708 1♀ RS. – **ÖL**: Halltorps hage 760723 1♀; Möckelby Jordtorpsåsen 850612 1♀ RD. – **GO**: St Tollby 780622 1♂ RS. – **ÖG**: Bjärka-Säby 79 V–X 2♂3♀, 80 IV–VIII 16♂25♀ SVA; Brynstorp 790724 1♂, 80 VII–VIII 3♀, 82 VII–VIII 3♂2♀ RS; Tjällmo Hindstorp 7905 1♂, 8007 4♂1♀ JM; Törnevalla Linghem 80 VIII–IX 8♂12♀ SVA. – **VG**: Hasslösa Ekgården 780714 1♀, 79 VII–VIII 4♂1♀, 8008 3♂, 81 VII–VIII 2♀ RS; Skara Viglunda 820819 1♂ RS. – **NÄ**: Fjugesta Bärsta 820705 1♂, 830705 1♀ RS; Kräcklinge Tampalandet 7907 2♂1♀ JM. – **SÖ**: Vingåker Vik 7907 1♀ JM; Älgö 830628 1♂, 85 VI–IX 19♂40♀, 86 V–IX 21♂17♀, 87 VI–IX 7♂8♀. – **UP**: Ed Antuna 79 V–IX 272♂142♀, 80 I–V 7♂15♀ SVA; Enköping Brunnsbolm 80 VII–VIII 11♂4♀ BE; Faringe Erikslund 770805 5♂11♀ FF; Getingarnö 81 VII–VIII 1♂6♀ SVA; Kolhammar 780707 1♂ RS. – **VS**: Brunnby 79 VII–VIII 1♂3♀, 81 VII–VIII 1♂2♀ JM; Ridö 8107 1♂ JM. – **DR**: By Björka 640717 1♀ BT; Leksand Sängån 730721 1♂1♀ TT, Vansbro 78 VII–VIII 2♂1♀ RS. – **ÄN**: Norrbyn 770710 1♀ KM. – **VB**: Röbäcksdalen 790704 1♀ RS. – **NB**: Råneå Bergviken 650902 1♀; Pajala 550731 1♂. – **LY**: Amarnäs 7106 2♂3♀. – **LU**: Messaure 740708 1♂. – **TO**: Abisko 570721 1♀ KM; Karesuando 550722 1♀; Maunu 550724 1♀. **N**: B: N Kongsberg Lågen 830730 1♂1♀. – **ST**: Strynsvatnet 860626 2♂ HF & UJ. – **N**: Mo i Rana 560626 1♂. – **TR**: Gratangen 560630 1♀. **IS**: Hafnarfjörður 830501 1♂; Vaglakogur 840719 1♂; Nupur 850717 1♀; Hlidarvatn 870719 1♀.

Widespread in N, America and Europe incl DK, S (new), N (new), SF and IS (Ni *et al.* 1954). Polysaprophagous, wide ecological tolerance, with synanthropic as well as wild populations: cow houses 404♂279♀, pastures, potato and rape fields, grass compost, meadow with bushes, meadow birch

forest, marsh, lake and stream shores, N F L Y W. 535 ♂ 413 ♀, 1955–88, I–IX (NRS, ZIL, IMN). The females of *S. luteilabris* and *S. ibrida* are very similar but the spermathecae permit a safe identification.

101. *Spelobia manicata*. (R 1983). S: SK: Silvåkra 680511 1♂; Kullaberg 710707 1♀, 730620 1♂, 750806 1♂ 1♀. – HA: Tönnera 810817 1♀ RS; Årnilt 670504 1♀. – SM: Hålgård Gårdsby 730407 1♀ RD. – UP: Kolhammar 780814 1♀ RS. – TO: Abisko 750707 1♂ KM.

Known from GB, S (H 1967a, SK), SF (H 1980) and Central Europe. Microcavernicolous, in runs and burrows of small mammals (R 1984); marshes, mountain birch forest, sandy lake shore, tuft with ants, marl pit, potato fields, H L Y W. 4♂ 6♀, 1967–81, IV–VIII (NRS, ZIL). *S. manicata*, with shortened wings, could be just an ecomorph of *S. clunipes*. Roháček treats it as a separate species.

102. *Spelobia nana*. (R 1983). S: SK: Ellestadsjön 700610 1♀; Hällestad Grytängen 740831 1♂ 1♀; N Krankesjön 710613 1♀; Kullaberg 570615 1♀, 660821 2♂ 1♀, 720801 4♂; Lund 590523 1♂; Silvåkra Stensoffa 680602 1♀; Åkarp 55 IV–V 2♂. – HA: Rydö bruk 860817 1♂ JA; Tönnera 790627 1♀, 800612 1♀ RS; Årnilt 670515 1♂, 690521 1♂, 7306 2♀. – SM: Hyltebruk 860817 2♂ 1♀ JA; Trotteslöv 830711 1♂ RS; Växjö Åryd 830709 1♂ RD. – ÖL: Halltorps hage 76 VI–VIII 2♂ 2♀. – ÖG: Brynstorp 800825 1♂ RS. – UP: Alunda 7909 1♀ SG. – TO: Karesuando 550722 1♂; Soppero 550720 2♀.

Known from Central and North Europe incl DK, S (R 1983, LY) and SF. Little known polysaprophagous meadow species: wet meadows, marshes, peat bog, a watered pile of pulpwood, alder forest, maple in sap, potato fields, emerged from dead beetle (*Hylobius abietes*), N Y W E. 22♂ 18♀, 1955–86, V–VIII (NRS, ZIL, ZIU).

103. *Spelobia palmata*. (R 1983). S: SK: Stoby Arkelstorp 550620 4♂ 2♀; Billebjer 770515 1♂; Bjäred 640612 1♂; Hällestad Grytängen 810620 1♂, 880414 1♂ 1♀; Hasslemölla 720528 2♂; Kullaberg 650806 2♂, 670714 1♀, 6807 2♂, 690805 2♂, 7107 3♂ 2♀, 7208 7♂ 5♀, 73 V–VIII 5♂ 5♀, 740702 1♀, 750806 1♂; Lomma 590730 1♂; Mölle 730624 1♂; Gudmutorp Rövarekulan 740901 1♂; Silvåkra 820526 1♂ CH; Blentarp Stampenbäck 69 VI–IX 3♀ BS; Stenshuvud 7708 2♂ 1♀; Silvåkra Stensoffa 840916 1♂. – BL: Brömsebo 870704 1♂ RD. – HA: Årnilt 550529 1♀, 690521 3♂, 700830 1♂ 1♀, 71 IV–VIII 3♂ 2♀, 72 III–V 2♂ 1♀, 730422 2♂ 2♀. – SM: Döderhult Rödsle VI–VIII 5♂ 2♀. – ÖL: Halltorps hage 76 VI–VIII 5♂ 2♀. – ÖG: N Sturefors slott 850626 1♂. – SÖ: Älgö 85 VI–IX 1♂ 1♀, 860531 1♂ 1♀, 870614 1♀.

Known only from the W. Palearctic Reg. incl DK, S (H 1967a, SK) and SF (H 1963). Common, chiefly necrophagous; damp deciduous forest with pools and streams, meadow with bushes, marl pit, rotting apples, tree stump in sap, grass compost, elk droppings, N F W. 63♂ 34♀, 1955–88, III–IX (NRS, ZIL). The records are restricted to southern Sweden.

104. *Spelobia pappi*. (R 1983, M 1985c). S: NB: Högsön 720701 1♀; Kengis 550705 1♀; Sunderbyn 720705 1♀. Europe: CS, DDR and S (new); N. America: CDN. Confined to moorland habitats, tyrphobiont (R 1984); marshes, N. 3♀, 1955–72, VIII (NRS, ZIL).

105. *Spelobia parapusio*. (R 1983). S: SK: Bosarp Blentarp utm. 870903 1♀; Veberöd Ljungen 820530 1♀; Lund stadsparken 7108 4♀; Kullaberg 670713 3♀, 6807 3♀,

7107 4♀, 750808 1♀, 770719 1♀, 800815 1♀; Silvåkra Stensoffa 801005 1♀; Stenshuvud 830612 1♀ RD. – BL: Stubbemåla 850724 1♀ RD. – HA: Årnilt 570804 1♀, 67 V–VII 2♀, 710726 1♀. – SM: Hyltebruk 860727 1♀ JA. – VG: Västerplana 8207 1♀ AA. – SÖ: Älgö 85 VI–IX 6♀, 86 V–VI 11♀, 8706 4♀. – TO: Maunu 550724 1♀.

Europe incl DK, S (H 1967a, SK) and SF: Tunisia and Madeira. Confined to woodland regions, develops in fungi (obligate fungivore), parthenogenetic reproduction dominates: trees affected by fungi, tree stump affected by *Phallus impudicus*, pile of wood, damp deciduous forest, marshes, peat bog, grass compost, N F Y. 50♀, 1955–87, V–X (NRS, ZIL). No males found.

106. *Spelobia pseudonivalis*. (R 1983). No new finds. Known from Central Europe (s.lat.) incl S (H 1967a, SK). A microcavernicolous species with reduced eyes and wings, incapable of flight, collected in runs and nests of small mammals. 18♂ 81♀, 1959–60, I–XI (ZMH).

107. *Spelobia pseudosetaria* [penealis Collin, 1925]. (R 1983, M 1985c). S: BL: Kristianopol S Bröms 870706 1♂ RD. – HA: Årnilt 740808 1♀. – SM: Åseda Kullebo 7607 8♂ 8♀. – ÖG: Törnvalle Lingham 800513 1♂ SVA. – VG: Hasslösa Ekgården 810820 1♂ RS; Gällstad 621114 3♀. – SÖ: Älgö 85 VI–X 1♂ 6♀, 860614 1♀, 870702 1♀. – UP: Faringe Erikslund 770805 2♂ 2♀ FF. – NB: Högsön 620805 2♀. – LY: Ammaräs 710709 1♀. IS: Surtsey 710627 1♂; Sudurreykir 770826 1♀; Hafnir 830718 1♂; Gljufur 840609 1♂; Hlidarendi 840803 1♂ 1♀; Laxholt 850505 1♀; Sandasel 850620 1♀; Skagaströnd 850718 1♂ 1♀; Ingolfshöfði 850728 1♀.

Widespread in the Palearctic Reg. incl DK, S (R 1983, LY), N, SF and IS (Ni *et al.* 1954). Polysaprophagous, synanthropic, often indoors: cow houses, grass compost, potato fields, deciduous forest, meadow birch forest, on cheese, N F Y W. 19♂ 31♀, 1962–87, V–XI (NRS, ZIL, IMN).

108. *Spelobia rufilabris*. (R 1983). S: SK: Viitsjö V Bröna 830529 1♂; Hasslemölla 730526 1♀, 810507 1♂; Hällestad Grytängen 740831 3♂, 840831 1♂, 880418 6♂ 3♀; Klostergården 730509 1♂; N Krankesjön 74 IV–IX 2♂ 2♀; Kullaberg 570614 1♂, 630607 1♂, 7107 3♂, 720801 1♂, 7306 2♂, 750806 1♂ 3♀; Kulturens Östarp 730706 1♀; Linnebjerg 680928 1♂, 770918 1♀; Mariannelund 820823 1♀ RS; Silvåkra 801005 1♂; Stenshuvud 820531 1♂ 5♀; Silvåkra Stensoffa 840916 1♂ 1♀; Tvedöra 690510 1♂; Åslunga 590719 1♂; 1♂ 1♀ Bhn. – BL: Brömsebo 870704 1♂ RD. – HA: Tönnera 810827 1♀ RS; Årnilt 480730 1♀, 541228 1♀, 550528 1♂, 650528 1♀; 6705 4♂, 710724 1♀, 720512 1♀, 73 IV–VI 3♂, 750426 1♂. – SM: Bergkvara 750331 1♀ RD; Getnabo 830717 1♂ RD; Tenhult 830704 1♂ RS; Trotteslöv 830606 1♀ RS; N Åreda 870620 1♂ RD. – ÖL: Halltorps hage 7608 3♀. – ÖG: Brynstorp 810609 4♀ RS; Tjällmo Hindstorp 8006 1♀ JM; 1♀ Bhn. – VG: Hasslösa Ekgården 800804 1♂, 810825 1♂ RS. – BO: Stenungsund 550710 1♀ RGD. – NÄ: Örebro Oset 410816 1♂ TN. – UP: Rimbo 8108 1♀ JM; Uppsala – 1♂. – VS: Ridö 8108 1♀ JM. – DR: Näs 780825 1♀ RS. – NB: Pajala 550727 1♂. – LY: Hemavan 560624 1♂ 1♀. – LU: Gällivare 550714 1♂. – TO: Karesuando 5507 2♂ 1♀; Ö. Soppero 5507 1♂ 2♀; Vittangi 550716 1♂. N: TR: Gratangen 560629 1♀; Målselv 560701 2♂; Sörkjös 560703 1♀. – F: Lakselv 5607 5♂ 1♀; Langfjord 560704 1♂; Vestertana 560706 3♂ 3♀. – DK: Jutland 5608 1♀. IS: Ingolfshöfði 850728 1♂ 1♀.

Eurosiberia incl DK, S (S 1855, SK, HA, BO, ÖL, ÖG,

UP: R 1983 lectotype and paralectotypes), N, SF and IS (A 1967). In wet and shady places under decayed vegetation: damp deciduous forests, wet meadows, marshes, peat bog, potato fields, cowpats, maple in sap, N Y W. 67♂50♀, 1941–88, III–XII (NRS, ZIL, IMN), 2♂2♀ Bhn (NRS).

109. *Spelobia talparum*. (R 1983). S: SK: Klostergården 73 IV–V 2♀; 820703 1♂; N Kranjesjön 690607 1♀; Kullaberg 570615 2♀, 750806 1♂; Linnebjerg 770918 1♂; Mariannelund 81 VI–VII 3♂, 820628 1♀ RS; Orup 78 VII–VIII 4♂3♀, 80 VI–VIII 3♂6♀ RS; Stenshuvud 830612 1♀ RD. – HA: Tönnersa 78 VII–VIII 2♂1♀, 790808 1♂, 80 VI–VIII 2♀, 81 VII–VIII 1♂4♀, 83 VI–VIII 1♂3♀ RS; Årmilt 670325 1♀, 800802 1♀, 810814 1♀, 830802 1♀. – SM: Trotteslöv 820731 1♂ RS. – ÖL: Halltorps hage 760723 1♂. – ÖG: Brynstorp 81 VII–VIII 2♂1♀, 830616 1♂ RS; Tjällmo Hindstorp 79 V–VII 2♂, 8007 1♂1♀ JM; Järnevid 8008 2♂ RS; Klosterlunda 79 V–VII 2♂4♀, 80 VI–VIII 2♂2♀ JM. – VG: Hasslösa Ekgården 7807 3♂, 79 VI–VII 5♂1♀, 80 VI–VIII 3♂3♀ RS; Skara Viglunda 82 VI–VIII 4♂1♀ RS. – NÄ: Västkär 820712 1♀ RS. – SÖ: Rösäng 7906 2♀ JM; Älgö 830808 1♀, 86 V–VI 2♂2♀. – UP: Solna Bergshamra 77 VI–VIII 4♂11♀ GN; Enköping Brunnsö 8005 2♀ BE; Kolhammar 78 VI–VIII 6♂4♀, 790728 1♀ RS; Lussinge 7708 4♀ HR; Rimbo 8106 1♂ JM. – VS: Brunnby 79 VI–VII 2♂, 8107 1♀ JM. – DR: Näs 78 VII–VIII 2♂3♀, 790702 1♀ RS. – VB: Röbbäcksdalen 82 VI–VIII 1♂1♀ RS; Umeå Isk 820819 1♂ RS. – LY: Ammarås 710627 1♀. – TO: Abisko Jebrejnokk 760623 2♀ KM.

Widespread in Europe incl DK, S (H 1967a, SK) and SF (H 1963). External European records probably refer to different species. Microcavernicolous, polysaprophagous. Gravid females frequently collected during migration searching for new burrows for oviposition: potato, wheat, oats and rape fields, mountain birch forests, deciduous forests, wet meadows and marshes, heather, moss, ruderal land, N F Y W S. 67♂81♀, 1957–87, IV–IX (NRS, ZIL).

110. *Spelobia bifrons*. (R 1983, M 1985c). S: SK: N Kranjesjön 750620 1♀; Kullaberg 570615 1♀; Orup 7806 1♂1♀, 790716 1♀, 80 VII–VIII 3♀ RS. – HA: Snöstorp 55 V–VII 4♂9♀; Tönnersa 780719 1♀, 81 VII–VIII 3♀ RS; Årmilt 7306 14♂3♀ maple in sap, 740626 1♀. – SM: Åseda Kullebo 7607 21♂45♀; Tagel 790713 1♀ RS; Trotteslöv 8007 2♂1♀ RS. – ÖL: Halltorps hage 76 VII–VIII 1♂2♀. – ÖG: Bjärka-Säby 79 V–VIII 3♀, 80 V–IX 143♂279♀ SVA; Brynstorp 79 VII–VIII 1♂1♀, 800825 1♂, 820715 1♀ RS; Klosterlunda 7906 1♀ JM; Törnevala Linghem 80 V–VIII 17♂27♀ SVA; Vist Stavsäter 79-0516 1♀, 80 V–VIII 1♂35♀ SVA; Vallerstad 79 VII–VIII 3♂2♀ SVA. – VG: Hasslösa Ekgården 780626 1♂ RS; Skara Viglunda 82 VII–VIII 1♂1♀ RS; Västerplana 8207 2♂ AA. – SÖ: Vingåker Vik 7907 1♀ JM; Älgö 81 VI–VIII 6♀, 83 VI–VII 35♂20♀, 84 VII–VIII 12♂17♀, 85 VI–IX 80♂98♀, 86 VI–IX 8♂16♀, 87 VI–IX 133♂148♀. – UP: Ed Antuna 79 VI–VII 8♂8♀ SVA; Faringe Erikslund 77-0808 3♂4♀ FF; Getingarnö 79 VIII–IX 7♂19♀, 80 VII–VIII 13♂32♀, 81 VII–VIII 3♂11♀ SVA; Estuna Hov 8108 1♂1♀ SVA; Kolhammar 780703 1♂ RS; Rimbo 8105 1♀ JM; Ultuna 830802 1♀ RS. – VB: Röbbäcksdalen 810717 1♀ RS.

Cosmopolitan incl DK, S (B 1855, SK, ÖG; Z 1860, SK; K 1972 no syntypes), N (Ardö 1957) and SF. Polysaprophagous, synanthropic, frequently found in piles of decaying vegetation and in manure piles: cow houses and grass

compost (accounting for over 90% of the material), potato and rape fields, maple in sap, H F Y W. 521♂795♀, 1955–87, IV–IX (NRS, ZIL).

111. *Pullimosina dahli*. (R 1983, 1984). S: HA: Enslöv 570804 1♂1♀. – LY: Juktån 610706 1♀. – TO: Najakajaurer 830718 1♀. Boreo-alpine, known from Europe: CS, DDR, D, SF, USSR (Karelia) and S (new). Confined to moorland biotopes (thelyphobiont): marshes, N. 1♂3♀, 1957–83, VII–VIII (ZIL).

112. *Pullimosina antennata*. (R 1983). S: HA: Tönnersa 810730 1♂ RS. – SM: Tagel 790623 1♀, 800718 1♂ RS; Trotteslöv 800731 1♀, 810723 1♂ RS. – ÖG: Brynstorp 780810 1♂, 79 VI–VII 1♂2♀, 80 VII–VIII 1♂2♀, 81 VI–VII 1♂4♀ RS; Tjällmo Hindstorp 79 VI–VII 2♂, 80 VI–VIII 2♂3♀ JM; Järnevid 80 VII–VIII 1♂2♀ RS; Klosterlunda 8007 1♂3♀ JM. – VG: Hasslösa Ekgården 7807 5♂1♀, 79 VII–VIII 4♂4♀, 80 VII–VIII 3♂2♀, 81 VI–VIII 1♂4♀ RS; Skara Viglunda 820617 1♂ RS. – NÄ: Fjugesta Bästa 8207 1♂2♀, 830705 1♀ RS; Kräcklinge Tampalanget 79 VI–VII 4♂1♀ JM; Västkär 820705 1♀ RS. – SÖ: Rösäng 79 VI–VIII 4♂2♀, 80 VII–VIII 2♂ JM; Vingåker Vik 7906 1♀ JM; Älgö 850720 1♀. – UP: Solna Bergshamra 77 VII–VIII 2♂2♀ GN; Balingsta Eriksberg 79 IV–V 6♂4♀ JM; Getingarnö 800725 1♀ SVA; Kolhammar 78 V–VIII 31♂25♀, 7908 4♀, 8007 1♂4♀, 81 VII–VIII 8♂3♀, 82 VII–VIII 3♂4♀, 8306 2♀ RS; Fasterna Mörby 79 VI–VII 1♂3♀ JM; Rimbo 81 VI–VIII 10♂7♀ JM; Ultuna 8308 2♂ RS. – VS: Brunnby 7907 1♂, 81 VI–VIII 4♂2♀ JM; Ridö 8106 3♀ JM. – DR: Karlsbyheden 480725 1♂ BT; Näs 78 VI–VII 2♀, 79 VI–VIII 5♂2♀, 81 VI–VII 4♂4♀, 820712 1♀ RS. – VB: Röbbäcksdalen 78 VI–VII 3♂3♀, 79 VII–VIII 2♀, 80 VII–VIII 2♂2♀, 81 VII–VIII 3♂, 82 VII–VIII 4♂ RS, Umeå Isk 82 VI–VIII 1♂3♀ RS. – NB: Sunderbyn 830707 1♀ RS. – LY: Ammarås 740619 1♀. – LU: Messaure 74 V–VI 1♂1♀.

Probably widely distributed; in Europe recorded from D, CS, GB (Pi 1988), USSR (Ingria), DK, S (new) and SF; N. America: CDN, USA (M 1986). Terricolous, probably polysaprophagous: most specimens were collected by yellow traps in cultivated fields; garden, grass compost, mixed forest, mountain birch forest and cow house are other habitats, N F Y W. 130♂124♀, 1948–85, IV–VIII (NRS, ZIL). Easily confused with *P. moesta*; previous records need reexamination.

113. *Pullimosina heteroneura*. (R 1983). S: SK: Bjärred 731004 1♀; N Kranjesjön 730825 2♂1♀; Kullaberg 76-0707 1♂; Linnebjerg 680928 1♂; Lund 840916 1♂ GR; Mariannelund 810727 1♀, 8207 2♀, 830704 1♀ RS; Orup 760817 1♂, 78 VII–VIII 2♂4♀, 80 VI–VIII 7♂5♀ RS; Osby 850805 2♂1♀ RH; Skärålid 630926 1♂; Svanehall 720805 1♂. – HA: Snöstorp 55 V–VII 2♂1♀; Tönnersa 78 VII–VIII 6♀, 7908 3♀, 800710 1♂, 810824 1♂, 820812 1♀ RS. – SM: Åseda Kullebo 7607 36♂28♀; Tenhult 83-0719 1♂ RS; Trotteslöv 80 VII–VIII 2♀, 8208 2♂2♀ RS. – GO: St Tollby 780622 1♂ RS. – ÖG: Bjärka-Säby 79 V–VIII 2♀, 80 V–VIII 11♂6♀ SVA; Brynstorp 780814 1♂, 800825 1♂, 81 VII–VIII 2♂2♀ RS; Hindstorp 7907 1♂ JM; Törnevala Linghem 80 V–IX 3♂1♀ SVA. – VG: Hasslösa Ekgården 8008 2♂1♀, 810825 1♂ RS; Skara Viglunda 820715 1♂ RS; Västerplana 8207 1♀ AA. – SÖ: Römora 861019 4♂7♀ FF; Älgö 820926 3♀, 84 VII–VIII 36♂66♀, 85 VI–X 2♂6♀, 87 VII–IX 1♂4♀. – UP: Ed Antuna 79 VI–IX 121♂202♀, 80 V–VII 3♂4♀ SVA; Fa-

ringe Erikslund 770805 2♀ FF; Getingarnö 790903 1♀, 80 V-VII 2♂6♀, 81 V-VI 2♂2♀ SVA; Estuna Hov 810731 1♂ SVA, Kolhammar 78 VII-VIII 3♀, 820812 1♀ RS. - **VB**: Röbbäcksdalen 790821 1♀, 810717 1♂ RS. - **NB**: Högsöfjärden 650906 1♀.

Cosmopolitan incl DK, S (S 1855, SK, ÖG; H 1967a, SK), SF and IS. Polysaprophagous, developing in various decayed vegetation: cow houses and grass compost (together 253♂394♀), dung hill, kitchen compost, potato and rape fields, lake and sea shores, bird's nest (*Prunella modularis*), on dung beetle (*Aphodius* sp.), N F Y W E. 281♂411♀, 1955-87, V-X (NRS, ZIL).

114. *Pullimosina mejerei*. (R 1983). S: **SK**: Björnstorp 880415 1♀ MS; Sövede 871031 1♂ MS. - **SÖ**: Älgö 870812 1♂. Central Europe (s.lat.) incl DK and S (new). Terricolous, phytosaprophagous, occurring in deeper layer of leaf litter and decayed grass: stump of alder tree, grass compost (in deeper layers), F S. 2♂1♀, 1987-88, VIII-X (NRS, ZIL).

115. *Pullimosina moesta*. (R 1983). S: **SK**: Hasslemölla 810507 1♀; N Krankejön 73 VII-VIII 2♂2♀; Kullaberg 630606 1♀, 650806 1♀, 6707 3♂1♀, 680721 1♂1♀, 69-0804 1♀, 7107 3♂4♀, 7208 2♂2♀, 7306 3♀, 740709 1♀, 830803 1♂; Mariannelund 81 VII-VIII 8♂14♀, 8207 2♂1♀, 83 VI-VIII 1♂5♀ RS; Orup 78 VII-VIII 3♂3♀, 80 VI-VIII 4♂6♀ RS; Gudmuntorp Rövarekulan 550529 1♀ PA; 690712 1♂, 821003 1♀; Sjöbo Sövede 690715 1♀ HA, 871031 1♀ MS. - **HA**: Tönnersa 78 VII-VIII 3♂1♀, 800815 1♀, 81 VII-VIII 6♂10♀, 82 VII-VIII 1♂1♀, 83-0709 1♀ RS; Ärnilt 550528 1♀. - **SM**: Hyltebruk 8608 2♀ JA; Tenhult 830801 1♀ RS; Trotteslöv 80 VII-VIII 5♂15♀, 8107 4♂9♀, 82 VII-VIII 9♂12♀ RS. - **ÖG**: Brynstorp 7808 1♂1♀, 790716 1♀, 8008 8♂7♀, 81 VII-VIII 5♂15♀ RS; Tjällmo Hindstorp 7906 1♀, 80 VII-VIII 10♂16♀ JM; Jämevid 8008 5♂9♀ RS. - **VG**: Hasslösa Ekgården 780721 1♀, 79 VII-VIII 13♂25♀, 80 VII-VIII 22♂19♀, 81 VII-VIII 57♂63♀ RS; St Lund 83 VI-VII 1♂1♀ RS; Skara Viglunda 820617 1♀ RS. - **NÄ**: Fjugesta Bästa 830705 1♂4♀ RS; Kräcklinge Tampalandet 79 VI-VII 1♂2♀ JM. - **SÖ**: Rösäng 8008 1♂1♀ JM; Vingåker Vik 7907 1♂1♀ JM; Älgö 81 VII-VIII 5♂3♀, 84 VII-VIII 2♂9♀, 85 VI-IX 7♂8♀, 86 V-X 11♂13♀, 87 VII-VIII 5♂6♀. - **UP**: Kolhammar 790728 1♀, 800718 1♀, 82 VII-VIII 2♂3♀, 83-0801 1♂ RS. - **VS**: Brunny 7905 1♂1♀ JM; Ridö 8107 1♂ JM. - **DR**: Näs 810824 1♂, 830905 1♂ RS.

Seems to be widespread in Europe incl DK, S (new) and SF. Terricolous, probably phytosaprophagous: potato and rape fields (together 179♂262♀), grass compost, damp deciduous forest with stream, stump of alder tree, H F Y. 223♂316♀, 1955-87, V-X (NRS, ZIL). Easily confused with *P. antennata*, previous records need reexamination. *P. moesta* has a more southerly distribution in Sweden than *P. antennata*.

116. *Pullimosina pullula*. (R 1983). S: **SK**: Björnstorp 88-0415 1♀ MS; Hällestad Grytängen 840519 1♀; Kullaberg 750810 1♀; Lund 710925 1♀; 720715 1♀; Mariannelund 81 VII-VIII 11♀, 82 V-VIII 3♀, 83 VII-VIII 5♀ RS; Orup 780717 1♀, 79 VII-VIII 3♀ RS; Ripa 831110 1♀ MS; Gudmuntorp Rövarekulan 640812 1♀; Silvåkra Stensoffa 800920 1♀, 840916 1♀; Åkarp 550527 1♀. - **HA**: Tönnersa 79 VII-VIII 4♀, 800815 4♀, 81 VII-VIII 6♀, 830707 1♀ RS. - **SM**: Åseda Kullebo 760718 1♀; Tagel 800609 1♀ RS; Tenhult 830711 1♀ RS; Trotteslöv 800811 2♀, 81

VII-VIII 9♀, 82 VII-VIII 10♀, 830707 1♀ RS. - **ÖL**: Halltorps hage 76 VII-VIII 4♀. - **GO**: St Tollby 780812 2♀ RS. - **ÖG**: Brynstorp 780821 1♀, 7907 2♀, 80 VII-VIII 3♀, 81 VII-VIII 11♀, 82 V-VIII 4♀ RS; Tjällmo Hindstorp 80 V-VII 8♀ JM; Jämevid 80 VI-VIII 7♀ RS. - **VG**: Hasslösa Ekgården 79 VII-VIII 5♀, 80 V-VIII 10♀, 81 VI-VIII 18♀; St Lund 830725 1♀ RS; Skara Viglunda 82 VI-VIII 3♀ RS. - **NÄ**: Fjugesta Bästa 8206 2♀, 8307 4♀ RS; Kräcklinge Tampalandet 7907 1♀ JM. - **SÖ**: Rösäng 7907 1♀, 8008 3♀ JM; Vingåker Vik 7907 2♀ JM. - **UP**: Solna Bergshamra 77 VII-VIII 3♀ GN; Enköping Brunnsö 80 VI-VIII 10♀ BE; Balingsta Eriksberg 7905 1♀ JM; Kolhammar 78 VI-VIII 5♀, 790728 1♀, 8107 3♀, 820802 1♀ RS; Täby Mörtsjön 830523 1♀ TK; Rimbo 81 VI-VII 2♀ JM. - **VS**: Brunny 7905 2♀, 81 V-VII 2♀ JM. - **DR**: Nederborg 81 VII-VIII 3♀, 830818 1♀ RS. - **VB**: Röbbäcksdalen 810812 1♀ RS; Umeå Isk 820621 1♀ RS. - **NB**: Högsöfjärden 650906 1♀. - **LU**: Messaure 740624 1♀. - **TO**: Maunu 550724 1♀.

Widespread in Europe incl S (Z 1847, SK type loc.; S 1855, SK, ÖG; Lindroth 1943, UP), N and SF; N. America: CDN, USA (M 1986). Terricolous, chiefly phytosaprophagous; most populations are parthenogenetic: potato and rape fields (together 186♀), meadows and pastures, marshes, by streams, coniferous forest with lingonberry by Lule river, cow house, N F L Y W. 205♀, 1955-88, IV-XI (NRS, ZIL). Most finds are from late summer with a peak in August. No males found.

117. *Chaetopodella scutellaris*. (R 1983). S: **SK**: Dalby 550830 1♂, Hällestad Grytängen 740831 12♂11♀ moist grassland; Hasslemölla 720507 1♂; N Krankejön 710807 1♀, 73 VII-VIII 3♂2♀; 740915 1♀; Kullaberg 720801 2♂; Linnehjör 680928 1♂; Lund stadsparken 730814 1♀; Orup 790820 1♂ RS; Gudmuntorp Rövarekulan 740901 1♀; Baldringe Skogshejdan 690916 1♀; Yddingesjön 591001 1♀; Åkarp 550527 1♀. - **HA**: Tönnersa 810810 1♂ RS; Ärnilt 560718 17♂10♀ pasture, 700830 2♀, 7106 1♂2♀, 760612 2♂, 860502 1♀. - **SM**: Hyltebruk 860811 1♂ JA; Åseda Kullebo 760718 1♀; Traryd 840630 1♂1♀; Trotteslöv 810817 1♀, 820531 1♂, 830818 1♂ RS. - **ÖL**: Drörs-torp 7808 1♂ ES *et al.*; Halltorps hage 76 VII-VIII 24♂29♀ pasture and moist grassland. - **GO**: Norrlanda Hammas 780818 1♂ RD; St Tollby 780819 1♀ RS. - **ÖG**: Brynstorp 780814 1♀, 800623 1♀, 81 VI-VIII 1♂1♀, 82 V-VII 2♂2♀ RS; Ö. Ryd Hagalund 810709 1♀ TW; Tjällmo Hindstorp 8007 2♂ JM. - **VG**: Hasslösa Ekgården 810825 1♀ RS; Skara Viglunda 82 VII-VIII 2♂1♀ RS. - **SÖ**: Vingåker Vik 7907 1♂ JM; Älgö 810727 1♀, 85 VI-X 9♂27♀, 86 V-IX 11♂10♀, 87 VIII-IX 1♂2♀. - **UP**: Getingarnö 800819 1♀ SVA; Rimbo 8107 1♀ JM. - **NB**: Pentäsjärvi 510728 1♂ KA. **N**: **B**: N Kongsberg Lågen 830730 1♂. - **ST**: Benna 880624 3♀ HF & UJ.

Widespread in Europe incl DK, S (Z 1847, SK, HA, SM, ÖG, UP), N (new) and SF; also recorded from AFG and Africa. Common, chiefly coprophagous, classified as pasture symbiophilous: pasture lands, cow houses, lake and river shores, damp deciduous forest, grass compost, potato and rape fields, tree stump in sap, N F Y W. 102♂120♀, 1951-88, V-X (NRS, ZIL). Most specimens were collected on grazed meadows.

118. *Kimosina spinosa*. (R 1983). S: **DR**: Näs 820624 1♂ RS. - **LU**: Messaure 7307 1♂. Only known from Europe: GB, CS, H, USSR (NET), S (new) and SF. Probably terricolous and incapable of flight, preferring boggy lowland mea-

dows: potato field, damp mixed forest by Lule river, L Y. 2♂, 1973–82, VI–VII (NRS, ZIL).

119. *Kimosina empirica* [*pectinifera* Villeneuve, 1918]. (R 1983). S: SM: Åseda Kullebo 7607 2♂1♀. – ÖG: Bjärka-Säby 790514 1♀ SVA. – UP: Ed Antuna 790514 1♀, 790608 2♂7♀, 790926 2♂5♀, 800218 2♂, 800411 2♂1♀, 800508 2♂36♀, 800708 1♂1♀, 800806 1♂ SVA; Estuna Hov 810816 1♂ SVA.

Cosmopolitan incl DK, S (new), SF and IS (Ni *et al.* 1954). Necrophagous, associated with human settlements, sexual wing dimorphism: cow houses, W. 64♂53♀, 1976–81, II–IX (NRS, ZIL).

120. *Kimosina longisetosa*. (R 1983). S: SK: Ellestadsjön 690616 1♂; Hällestad Grytängen 710506 1♀; N Krankesjön 700530 1♀, 71 VI–VIII 3♂1♀, 730701 1♂, 760424 1♀; Kullaberg 750810 1♂; Baldringe Skogshejdan 690916 1♂; Sövedsjön 560520 1♀. – SM: Tagel 780619 1♀, 810625 1♀ RS; Trotteslöv 830616 1♀ RS. – ÖL: Halltorps hage 76 VI–VIII 3♂; Möckelmossen 78 VI–VII 12♂20♀, 790430 1♂ ES *et al.* – ÖG: Brynstorp 820621 1♂ RS; Tjällmo Hindstorp 7905 1♀ JM; Järnevid 800619 1♀ RS. – AN: Norrbyn 770710 2♂ KM. – NB: Högsön 630628 1♂. – LY: Sorsele Juktån 610706 1♀.

Widespread but rare in Europe incl DK, S (R 1983 no loc.; Persson 1983, ÖL incl in material above) and SF. In damp deciduous forest and meadows, under cut sedge, in runs and nests of small mammals; damp woodlands and meadows, reeds along lake shores, marshes, potato and rape fields, N F L Y. 27♂31♀, 1956–82, IV–IX (NRS, ZIL).

121. *Kimosina plumosula*. (R 1983). S: SK: Kullaberg 720802 1♂, 740630 1♀, 750806 1♂; Mölle 730624 1♂; Gudmuntorp Rövarekulan 640812 1♂. – HA: Rydöbruk 830817 1♂. – VG: Västerplana 8207 1♀ AA. – SÖ: Älgö 840812 1♀. IS: Vaglaskogur 840719 1♀.

Widespread in Europe incl DK, S (Lindroth 1943, UP), SF and IS (H 1986 pers. comm.); Non European records need reexamination. Not common, occurring in damp places under decayed vegetation: damp deciduous forest, marsh, grass compost, dung hill, N F. 5♂4♀, 1964–84, VI–VIII (NRS, ZIL, IMN).

122. *Telomerina eburnea*. (M & R 1984). S: ÖG: Brynstorp 8207 1♂1♀, 8208 4♂4♀ RS. – VG: Hasslösa Ekgården 800815 2♂ RS. – SÖ: Älgö 850624 1♂4♀. – UP: Ed Antuna 790608 1♂ SVA; Enköping Brunnsö 800724 1♀ BE, Kolhammar 820809 1♂ RS. – VS: Brunnby 7906 1♀, 810731 1♀ JM.

Only known from Europe: CS, DK, S (new) and SF. Probably necrophagous like its congener *T. flavipes*: rape fields, grass compost, cow house, N Y W. 9♂13♀, 1979–85, VI–VIII (NRS, ZIL). Very few specimens recorded.

123. *Telomerina flavipes* [*minutissima* Zetterstedt, 1847]. (R 1983, M & R 1984). S: SK: Höör Brännestad 850329 1♂ UL; S. Sandby Fågelsång 850703 1♂; N Krankesjön 710803 1♂; Kullaberg 7107 3♀, 720801 8♂2♀; Kullen 590704 1♀ CL; Mariannelund 830718 2♀ RS. – HA: Snöstorp 550705 1♀; Åmilt 690622 1♂, 710724 1♂4♀. – SM: Åseda Kullebo 7607 21♂194♀. – ÖG: Bjärka-Säby 8005 3♂1♀ SVA; Brynstorp 82 VII–VIII 1♂2♀, 830623 1♀ RS. – VG: Skara Viglunda 820715 1♂ RS. – SÖ: Älgö 81 VI–IX 1♂3♀, 83 VI–VIII 75♂54♀, 84 VI–VIII 7♂6♀, 85 VI–X 242♂217♀, 86 V–X 61♂101♀, 87 VI–VIII 51♂46♀. – UP: Ed Antuna 79 VI–IX 204♂107♀, 80 IV–VII 10♂2♀

SVA; Faringe Erikslund 770805 1♀ FF; Getingarnö 790801 1♂1♀, 80 VII–VIII 1♂2♀, 8107 5♀ SVA; Rimbo 8107 1♂ JM. – DR: Nederborg 810831 1♀ RS. – VB: Röbbäcksdalen 800612 1♂, 82 VI–VIII 3♂2♀ RS. – LU: Gällivare 550714 1♂.

Cosmopolitan incl DK, S (Z 1947 *minutissima*, SK, ÖG, JÅ; S 1855 *minutissima*, ÖL), SF and IS (A 1967). Common, chiefly necrophagous but also on excrements: cow houses and grass compost (together 878♂777♀), bird's nest (*Ficedula hypoleuca*), latrine, urinal, deciduous forest, potato field, N F Y W E. 898♂790♀, 1955–87, III–IX (NRS, ZIL).

124. *Telomerina levifrons* [*antonini* Roháček, 1983]. (R 1983, M & R 1984). S: SÖ: Älgö 850907 1♂. Holarctic, widely distributed but with very few records, in Europe recorded from CS and S (new). Occurring on excrement, manure and decaying vegetation: grass compost, F. 1♂, 1985, IX (NRS).

125. *Telomerina pseudoleucoptera*. (R 1983). S: SK: Mariannelund 820902 1♂, 830613 1♂ RS; Orup 780619 1♀, 790813 1♂ RS; Gudmuntorp Rövarekulan 640812 1♂; Baldringe Skogshejdan 690916 1♂2♀. – HA: Tönnersa 830613 1♀ RS. – SM: Åseda Kullebo 7607 1♂1♀; Tagel 80 VI–VII 1♂1♀ RS; Tenhult 830630 1♂ RS; Trotteslöv 810803 1♀, 820902 1♂, 83 VI–VIII 3♂2♀ RS. – ÖL: Halltorps hage 760831 6♂9♀ moist clearing. – ÖG: Järnevid 800731 1♀ RS. – VG: Hasslösa Ekgården 800815 1♀ RS; Skara Viglunda 820608 1♂ RS. – NÄ: Fjugesta Bärsta 820823 1♂ RS. – SÖ: Älgö 850706 1♂, 860810 1♂, 87-0710 1♂. – UP: Ed Antuna 790608 1♂, 800411 1♀ SVA. – DR: Nederborg 810831 1♀ RS. – VB: Röbbäcksdalen 820812 1♂ RS. – NB: Pajala 550731 1♀. N: ST: Benna 880623 1♀, 880624 2♂2♀ HF & UJ.

Central and N. Europe incl DK, S (R 1983), N (new) and SF. Common on dung from large herbivores: potato fields, pastures, cow houses, cow droppings, faeces, grass compost, N F Y W. 27♂26♀, 1955–88, IV–IX (NRS, ZIL).

126. *Opalimosina liliputana* [*appendicula* Villeneuve, 1918]. (R 1983). S: SK: Hällestad Grytängen 740831 1♂1♀; N Krankesjön 730825 1♀; Kullaberg 630606 1♀, 750807 1♀; Lomma 720316 1♀; Mariannelund 820603 1♂ RS; Orup 800714 1♀ RS. – HA: Snöstorp 55 V–VII 2♂2♀; Åmilt 66 – 1♀. – SM: Åseda Kullebo 7607 339♂456♀. – ÖG: Bjärka-Säby 790809 1♀, 800528 2♂5♀ SVA; Tjällmo Hindstorp 7907 2♂ JM; Tömevalla Lingham 791130 2♂3♀, 80 V–VIII 3♂2♀ SVA; Vist Stavsäter 790926 1♂ SVA; Vallerstad 790723 1♂ SVA. – VG: Hasslösa Ekgården 780-707 1♀ RS. – SÖ: Rösäng 7905 1♀ JM; Älgö 82 VII–IX 1♂1♀, 8306 16♂23♀, 8408 3♂2♀, 85 VI–X 29♂19♀, 86 VI–X 47♂35♀, 87 VI–X 23♂11♀. – UP: Ed Antuna 79 VIII–IX 2♂1♀, 800708 2♀ SVA; Faringe Erikslund 770-805 2♂2♀ FF; Getingarnö 79 VIII–IX 16♂9♀, 80 VII–VIII 5♂ SVA; Estuna Hov 810703 1♀ SVA. N: B: N Kongsberg Lägen 830730 1♀.

Known only from Europe incl DK, S (new), N (new) and SF. Polysaprophagous, common on composts, dung heaps and on excrement: cow houses and grass compost (together 493♂576♀), potato and rape fields, alder forest, lake shore, N F Y W. 499♂584♀, 1955–87, IV–XI (NRS, ZIL).

127. *Opalimosina denticulata*. (R 1983). S: SK: Helmershus 631019 1♀. – SM: Åseda Kullebo 6707 10♂6♀. – ÖL: Halltorps hage 750831 1♂. – UP: Ed Antuna 790608 1♀ SVA.

Only known from Europe incl S (new) and SF (H 1980). Coprophagous, in Central Europe often at higher altitudes: Cow houses 10♂7♀, garden, damp meadow, N Y W. 11♂8♀, 1963–79, VI–X (NRS, ZIL).

128. *Opalimosina calcarifera*. (R 1983). S: DR: Näs 780711 1♂ RS. Only known from Europe: CS, H and S (new). Probably coprophagous: potato field, Y. 1♂, 1978, VII (NRS).

129. *Opalimosina collini*. (R 1983). S: SK: Hällestad Grytängen 740831 1♂; Mariannelund 810612 1♀ RS; Orup 78-0619 1♀, 800616 1♀ RS; Baldringe Skogshejdan 690916 2♂1♀. – HA: Tönnersa 780807 1♂, 790808 1♀, 800606 1♀ RS. – SM: Tagel 790612 1♀ RS; Trotteslöv 820624 1♂, 830818 1♂ RS. – ÖL: Halltorps hage 7607 2♂, 7608 1♂. – ÖG: Brynstorp 820816 1♀ RS; Tjällmo Hindstorp 7907 1♂1♀ JM. – SÖ: Rössäng 8008 1♂ JM; Älgö 850618 1♂2♀, 8507 1♂1♀, 860706 1♀. – UP: Solna Bergshamra 770824 1♂ GN; Kolhammar 780713 1♀, 790728 1♂ RS. – VS: Ridö 8107 1♀ JM.

Known only from Europe: GB, CS, H, S (new) and SF (H 1980). Strictly coprophagous, developing in excrement from various herbivorous mammals: potato and rape fields, (together 10♂10♀), pastures, grass compost, N F Y. 15♂15♀, 1969–86, VI–VIII (NRS, ZIL).

130. *Opalimosina mirabilis*. (R 1983). S: SK: Stoby Arkelstorp 550620 1♀; Hasslemölla 720507 1♀; N Kranke-sjön 690607 1♂, 730701 2♂2♀; Kullaberg 570625 1♀, 670711 1♀, 690809 1♂, 710707 2♀, 740707 1♀, 770710 1♂1♀, 790731 1♂; Lomma 750906 1♂; Löberöd 710806 1♂; Mariannelund 81 VI–VII 1♂1♀, 82 VI–VII 1♂1♀, 830609 1♂ RS; Orup 780602 1♂, 790730 1♂2♀, 800609 1♀ RS; Sjöbo 690715 1♂; Baldringe Skogshejdan 690616 1♂1♀. – BL: Kristianopol S Bröms 870706 1♀ RD. – HA: Snöstorp 550705 2♂3♀; Tönnersa 79 VII–VIII 4♀, 81 VII–VIII 3♂, 820705 1♀, 830704 2♀ RS; Ämilt 620707 1♀. – SM: Hyltebruk 830812 1♂1♀ HA, 860817 12♂3♀ JA; Åseda Kullebo 7607 16♂18♀; Trotteslöv 800811 2♀, 8108 1♂1♀, 82 VII–VIII 1♂1♀, 830630 1♂1♀ RS; N Åreda 870620 1♂ RD. – ÖL: Halltorps hage 760806 1♂; Möckelmossen 780711 1♀ ES *et al.* – GO: St Tollby 7807 2♂ RS. – ÖG: Bjärka-Säby 79 V–VIII 1♂3♀, 80 V–VIII 2♂4♀ SVA; Brynstorp 81 VI–VIII 2♂ RS; Tjällmo Hindstorp 7907 7♂4♀ JM; Törnevalla Linghem 80 V–VIII 8♂10♀ SVA; Vist Stavsäter 8005 2♀ SVA; Täckern 830420 3♂ JL; Vallerstad 790723 2♂4♀ SVA. – VG: Hasslösa Ekgården 790702 2♀ RS; Skara Viglunda 82 VI–VIII 4♂8♀ RS; Västerplana 8207 3♂2♀ AA. – NÄ: Fjögesta Bärsta 820624 1♂ RS. – SÖ: Hammarkälla 830616 1♀ MT; Vingåker Vik 7907 1♀ JM; Älgö 81 VII–VIII 5♀, 820926 1♀, 83 VI–VII 12♂103♀, 8408 11♂9♀, 85 VI–X 33♂27♀, 86 V–IX 33♂36♀, 87 VI–IX 18♂17♀. – UP: Ed Antuna 7906 40♂19♀, 800807 3♂4♀ SVA; Faringe Erikslund 770805 1♂1♀ FF; Getingarnö 79 VIII–IX 17♂ 23♀, 80 VII–VIII 16♂15♀, 81 V–VII 11♂14♀ SVA; Kolhammar 790811 1♀, 800710 1♂ RS; Lussinge 77 VI–VIII 2♀ HR. – VS: Brunnby 7906 1♂ JM; Ridö 8107 1♂ JM. – DR: Näs 79 VI–VIII 2♂ RS. – VB: Röbbäcksdalen 790815 1♂ RS; Umeå Isk 820812 1♂, 830815 1♀ RS. – NB: Högsön 620805 1♀; Pajala 550727 1♀.

Cosmopolitan incl DK, S (new; Persson 1983, ÖL incl in material above) and SF (H 1980). Polysaprophagous chiefly coprophagous: cow houses 296♂320♀, dung hills, grass compost, potato and rape fields, wooded marsh land, emer-

ged from reeds, N F Y W E. 591♂589♀, 1955–87, V–X (NRS, ZIL).

131. *Opalimosina simplex*. (R 1983). S: ÖL: Halltorps hage 760806 1♂, 760831 2♂. Known only from Europe: GB, CS, S (new) and SF (H 1986 pers. comm.). Coprophagous, also in decayed vegetation: wet glen with *Carex*, Y. 3♂, 1976, VIII (NRS, ZIL).

132. *Rudolfina rozkosnyi*. (R 1983, 1987). S: TO: Abisko Jebrenjokk 760804 1♂ KM. Only known from Europe: CS, A, USSR (Kola) and S (new). An arctoalpine coprophagous mountain species: mountain birch forest, W. 1♂, 1976, VIII (ZIL).

133. *Holidayvina spinipennis*. (R 1983, M 1982b). S: SK: Ellestadssjön 700610 1♂; Torna-Hellestad 880418 1♂; Kullaberg 690804 1♀, 720801 4♂, 750618 1♂, 770710 1♂1♀; Lund 810521 1♀; Mariannelund 8106 1♂1♀, 82 V–VI 1♂1♀, 830613 1♂1♀ RS; Orup 780615 1♂, 790625 1♀, 80 VI–VII 2♀ RS; Ringsjönäs 650616 1♀; Gudmuntorp Rövarekulan 651010 1♀; Sjöbo 690715 1♂; Stenshuvud 830611 1♀ RD; Trollenäs 850721 1♂; Vomb 740724 1♀; Åkarp 550527 1♀. – HA: Snöstorp 550705 1♂1♀; Tönnersa 78 VI–VII 1♂1♀, 790703 1♀, 80 VI–VIII 6♂3♀, 81 VI–VIII 2♀, 830704 1♂ RS; Ämilt 560718 1♂, 66 – 4♂6♀, 670224 1♀, 690521 1♂, 7306 3♂3♀. – SM: Bergkvara 850726 1♂ RD; Åseda Kullebo 7607 1721♂2027♀; Tagel 7906 2♂, 800609 1♂ RS; Tenhult 8308 2♂ RS; Trotteslöv 80 VII–VIII 1♂3♀, 82 VI–VIII 1♂3♀, 83 VI–VII 4♂3♀ RS. – ÖL: Halltorps hage 7607 3♂. – GO: Ulla Hau 870827 1♂ MS. – ÖG: Bjärka-Säby 790809 1♂1♀, 80 V–VIII 51♂64♀ SVA; Brynstorp 7806 1♂1♀, 80 V–VI 4♀, 8106 3♂4♀, 82 V–VI 2♂3♀, 83 VI–VII 1♂1♀ RS; Tjällmo Hindstorp 7907 2♀ JM; Järnevid 80 VI–VII 2♂2♀ RS; Törnevalla Linghem 791025 1♀, 80 V–IX 5♂4♀ SVA; Vist Stavsäter 800513 1♂ SVA; Vallerstad 790723 1♂ SVA. – VG: Hasslösa Ekgården 800704 1♂, 81 VI–VII 2♂ RS; St Lund 83 VI–VII 1♂1♀ RS; Skara Viglunda 82 VI–VIII 26♂29♀ RS; Västerplana 8207 2♂5♀ AA. – NÄ: Fjögesta Bärsta 820805 1♀ RS. – SÖ: Hammarkälla 830616 1♂ MT; Älgö 81 VII–IX 8♂14♀, 82 VII–IX 5♂4♀, 83 VI–VII 224♂259♀, 84 VII–VIII 31♂40♀, 85 VI–XI 68♂86♀, 86 V–VI 72♂102♀, 87 VI–X 63♂63♀. – UP: Ed Antuna 79 VI–IX 63♂39♀, 800716 4♂5♀ SVA; Faringe Erikslund 770807 3♂7♀ FF; Getingarnö 79 VIII–IX 14♂12♀, 80 VI–VIII 6♂2♀ SVA; 81 VII–X 15♂17♀ SVA; Fasterna Mörby 79 VI–VIII 2♂ JM; Rimbo 81 V–VII 8♂5♀ JM. – DR: Nederborg 810717 1♀, 820628 1♀ RS; Vansbro 7808 1♂1♀, 79 VI–VII 2♂1♀ RS. – VB: Röbbäcksdalen 780713 1♀, 810814 1♂, 820723 1♂ RS; Umeå Isk 820726 1♀ RS. – NB: Högsön 620805 3♂4♀; Kengis 550730 1♀. – LU: Messaure 730613 1♂. – TO: Vittangi 550718 3♂10♀. N: MR: Ålesund 860626 1♀ HF & UJ.

Holarctic incl DK, S (Gaunitz 1951, ÖG; R 1983, SK), N (new), SF and IS (Ni *et al.* 1954). Common, polysaprophagous: cow houses (1891♂2187♀), dung hills and grass compost, refuse dump, pastures, latrine, potato and rape fields, maple in sap, lake and sea shores, N F Y W. 2468♂ 2865♀, 1955–87, II–XI (NRS, ZIL).

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Sammanfattning

Föreliggande rapport över hoppflugor (Sphaeroceridae) i Norden är baserad på ett material omfattande ca 35 000 exemplar fördelade på 6 000 fångster och 400 lokaler. Materialet har sorterats och bearbetats på Zoo-tax vid Naturhistoriska riksmuseet i Stockholm. Det kommer huvudsakligen från samlare i Sverige men också i några mindre poster från norska och isländska samlare. Fångsternas geografiska fördelning omfattar alla de fem nordiska länderna, dock med endast ett fåtal fynd från Danmark och Finland. Den regionala fördelningen av de svenska fångsterna framgår av Tab. 1.

Totalt har närmare 70 samlare bidragit med material. För Sveriges vidkommande kan undersökningen, trots få fynd från det nordsvenska skogsområdet, anses ge en tämligen god bild av sphaeroceridernas förekomst och utbredning i landet.

Antalet arter kända från Sverige uppgår nu till 133. Därtill kommer fyra nya arter, som J. Roháček och S. A. Marshall avser att beskriva, samt ett antal icke identifierade exemplar. Totalt kan antalet svenska arter, sedan materialet i dess helhet bearbetats, väntas överstiga 140 med god marginal. Allt sällsynt eller svårbestämt material samt material av särskilt intresse i samband med pågående revisionsarbeten har tillställts specialister för närmare granskning.

Fullständiga journaler med detaljerade fångstdata finns tillgängliga på Entomologiska sektionen, Naturhistoriska riksmuseet, Stockholm.

Första Svenska entomologmötet

Fredag till söndag 28–30 juli 1989 kommer Entomologiska Föreningen i Uppland att arrangera det första Svenska entomologmötet i Uppsala. Mötet skall vara ett tillfälle att träffas och umgås för medlemmarna i de svenska entomologföreningarna, att gemensamt samla insekter i rik och intressant natur och att dryfta

gemensamma angelägenheter kring SEF, Entomologisk Tidskrift m m. Sista anmälningsdag 31 april 1989. För information och anmälan kontakta: *Entomologiska Föreningen i Uppland, c/o Entomologiska avdelningen, Box 561, 751 22 Uppsala.*