



The Diptera: Sphaeroceridae Newsletter.

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EDITORIAL

Sphaeronews is intended as a means of communication for all those interested in the dipterous family Sphaerooceridae. It aims to cover all aspects of the taxonomy and ecology, both pure and applied, of this interesting group. It is not, however, a primary journal and consequently nomenclatorial changes cannot be reported.

The success or otherwise of SphaeroNews depends on you the contributors. Please submit any material you consider would be of interest to others, such as news, comments and information. If you have not already done so, please submit a list of your publications on Sphaerooceridae, including those in press, for inclusion in subsequent issues. Those of you who have kindly done so are encouraged to add to this, as and when papers are submitted for publication.

In this, the fourth issue, Steve Marshall raises some thought-provoking comments on monophyly and the rash assignment of new species to new monobasic genera. I am sure that both he and I would be delighted to hear other's views. My thanks to Steve for the article and to all those who sent reprints of their papers or lists of papers in press.

SphaeroNews is currently issued annually. This means that there is likely to be one more issue prior to the Second International Congress of Dipterology in Bratislava next August. Please let me have copy for one bumper issue next year.

The mailing list has been revised in the light of comments and suggestions received. Please let me know of anyone else you think would be interested to contribute or receive copies of SphaeroNews.

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NEWS

Dr Stephen Marshall, University of Guelph, is still busy with a revision of the former *Opalimosina sordipes* group and has not yet finalised his world revision of *Kimosina*. He now has a student, John Swann, working on *Coproica*. He has travelled a fair bit, with trips to the Queen Charlotte Is., Venezuela, Puerto Rico and the Dominican Republic collecting sphaeroocerids, but has not worked up the material. This year is his sabbatical and he plans to travel a lot.

Dr Lorenzo Munari, Museo Civico di Storia Naturale, Venice has submitted several papers on sphaeroocerids for publication. Two describe new species, one species of *Leptocera* (*Rachsipoda*) and one species of *Kimosina*. A third describes the acroplankton fauna of Lido di Volano and includes two new species of *Kimosina*. A more recent paper describes a new species of *Thoracochoeta* closely related to *T. zosteriae*, differing by its smaller size and genitalia which are similar to *brachystoma*.

Lorenzo is currently collaborating with Dr Rohacek on a paper on Sardinian Sepsidae, Sphaeroceridae and Ephydriidae and he has recently submitted a paper on Tethinidae from Aldabra and South Africa for publication.

Dr Jindrich Rohacek, Silesian Museum, Opava has completed papers on Czechoslovakian species of *Lotophila* and *Copromyza* and sphaerocerids attracted to *Arum maculatum* inflorescences, as well as numerous papers on other acalyptrate families. He is continuing his revision of Western Palearctic *Rachispoda* species.

Dr Laszlo Papp, Hungarian Natural History Museum, Budapest, is continuing his studies on *Poecilosomella* with a revision of the Oriental species, having submitted a paper on the Afrotropical species for publication this year.

Dr Brian Pitkin, British Museum (Natural History), London, completed a review of the sphaerocerids described by O.W. Richards in 1987. This was accepted that year for publication by the British Museum (Natural History) in their Occasional Papers on Systematic Entomology series. However, it hung around for more than a year before the Museum decided that it ought to be prepared as camera-ready copy. The camera-ready copy was completed in June last year and should finally be published on 18th May this year. Apart from a partially completed note on sphaerocerid puparia recovered from archaeological sites in Britain and a proposed paper recording three new species to Britain, Dr Pitkin's subsequent research has been devoted to British leaf-mining Diptera. He is collaborating with John Robbins, an ecologist, to produce a field guide, which will include keys for the identification of the mines of all 400+ dipterous leaf-miners recorded in Britain and, hopefully, full colour photographs of the majority of species. He has a student from Wageningen, Paul Beuk, working on a Handbook for the identification of British Drosophilidae, and continues to identify and take an interest in sphaerocerids.

THE SECOND INTERNATIONAL CONGRESS OF DIPTEROLOGY

The Second Congress of Dipterology is to be held in Bratislava, Czechoslovakia from August 27 - September 1, 1990. The Congress is being organised by the Slovak Academy of Sciences, Comenius University and the Slovak Entomological Society. The first circular and a pre-registration form were circulated for return by February 28th, 1989. Full details can be obtained from the Secretary, Dr Ladislav Jedlicka, 2nd International Congress of Dipterology, c/o Department of Zoology, Comenius University, Mlynska dolina, CS-842 15 Bratislava, Czechoslovakia.

Dr Jindrich Rohacek has authorisation to hold a Sphaerocerid Workshop at the Congress. Would all recipients of SphaeroNews intending to participate in the Congress please consider preparing a lecture for the Workshop and advise Dr Rohacek. The Sphaerocerid Workshop could also include general discussion about a World database, supraspecific taxa, the future of SphaeroNews etc.

MONOPHYLY & GENERIC CONCEPTS

by Steve Marshall, University of Guelph

In the last issue of SphaeroNews, I suggested that some dialogue on justification of new higher taxa would be appropriate material for future issues. As students of a family of flies in which new genera are being described on a regular basis, it behooves us to carefully consider our generic criteria. The following discussion of the subject

includes comments on the approach of Dr Laszlo Papp because he represents a legitimate point of view which contrasts with mine. I wish to emphasize that no disrespect is intended. He is a valued colleague, doing excellent work on our favourite family of flies, but we have differing points of view. Dr Papp (to quote from some of his early correspondence) gives "no factual value to the categories above the species and [he] regard[s] the so-called evolutionary taxonomy a field outside of science". My view is quite the opposite, since the proliferation of higher taxon names without regard to their "factual value" is what has led to the plethora of useless names that plagues sphaeroceridology.

Historically, many sphaerocerid genera have been named for single species distinctive for some superficial attribute such as lack of wings. Count 'em up - most sphaerocerid genera described with any included species at all are all monobasic. Some of these monobasic genera, especially recent additions by Rohacek, are legitimate reflections of the isolated nature of the single included species (e.g. *Gigalimosina* Rohacek). Most, however, are names for unusual-looking species related to members of other genera. Placing wingless species in their own genera instead of classifying them with their winged relatives has a long history in the Sphaeroceridae, and is a tradition still being carried on by Dr Papp. Some of his monobasic genera, for example *Minocellina* and *Nipponsina* clearly belong in large genera such as *Aptilotus* and *Paraptilotus*. Those that don't, such as *Reunionina*, *Indosina*, *Hackmaniella* and *Apterobiroina* also fail to meet my criteria for justifiable genera because their relationships to fully winged species in described genera has not been considered. In my opinion, it is irresponsible to pick the wingless species out of a huge, poorly known fauna and describe new genera for them. I presume that in his counter-argument, Dr Papp will suggest that the taxonomist has a responsibility to bring distinctive new things to the attention of the scientific community, and that I am guilty of sitting on my new discoveries too long, while I seek an elusive phylogenetic context in which to describe them. Both our points of view are legitimate, but Dr Papp's approach can only result in a literature cluttered with names of limited utility. For example I have about 50 undescribed, wingless species in my collection. If I described a new genus for each one which didn't obviously belong to a described genus, I would get a lot of papers published, but of what theoretical or practical value would those papers have? Would that limited utility outweigh the inconvenience of genera based on autapomorphies of single species? Such genera almost invariably must be sunk or radically redefined once the fauna to which they belong is better understood, so my feeling is that they are worse than valueless.

Having complained a bit about monobasic genera, let me offer the opinion that the flip side of the coin is just as bad. In the past, many species left after the description of monobasic genera got dumped into "garbage can taxa", based on primitive characters and the lack of autapomorphies of smaller genera. The most notorious such taxon, from the sphaeroceridologist's point of view, is, of course, *Limosina*. Some argue that = *Limosina* was "recognizable" and thus a useful taxon before Rohacek carved it up; I feel that it was a meaningless bag of leftovers which Rohacek brilliantly divided into meaningful monophyletic groups, even if I do think he divided it a bit too finely in places. I disagree with Rohacek's use of subgenera, but that can be material for a future debate!

Having set the stage by commenting on a few genera I don't agree with, let me lay out the criteria I try and adhere to when describing (or deciding not to describe) new genera. The first criterion is monophyly. Monophyly does give a "factual value" to taxa above the species level, and monophyletic genera have a reality which renders them predictive and useful. A new genus must therefore be defended on the basis of putativesynapomorphies. This criterion is obviously not enough, since monobasic genera are also monophyletic. A second criterion, not met by most monobasic genera, is that a new genus must not render another genus paraphyletic. In other words if your new genus is closely related to part of another genus, your genus belongs in that other genus. This can be a bit hard to take in the case of highly distinctive off-shoots of large genera, but it is the only way to keep sphaerocerid classification meaningful. A last major criterion, and one I would ask my colleagues to carefully consider, is utility. Could you, for example, include your new group in the same genus as its described sister group rather than adding another generic name to the literature? I am a confirmed "lumper" in this respect, and generally prefer one named monophyletic taxon to two. Do you really know enough about

the fauna of the area concerned to properly characterise a new genus? Have you examined your species for the apomorphic characters of all possible congeners? Will your colleagues be able to recognise your genus, and included species, from your publication? We can all point to examples in the literature where these criteria have not been met, and it is my opinion that the result is inconvenience for us all.

SPHAEROCERIDAE COLLECTIONS AT THE BMNH

by Brian R. Pitkin

The Sphaeroceridae collections at the BMNH comprise spirit, slide and dry, pinned material. The dry, pinned collections are split between a British collection comprising 14 drawers, a General collection comprising 26 drawers and an unidentified Accessions collection comprising 20 drawers. All type material is in the General Collection. All collections except the Accessions are arranged alphabetically by genus (following Rohacek & Marshall's concepts) within the three subfamilies Copromyzinae, Sphaerocerinae and Leptocerinae. The Accessions are arranged by zoogeographical region.

All identified collections except the spirit collection are included in the computer database of the Diptera Collections at the BMNH, which provides on-line search and retrieve facilities of the series and drawer number of any taxon (either by species; species and author; species, author and genus; or by genus) as well as our holdings of type material of each taxon. The database can be used to generate printed reports listing all our holdings or any subset of our holdings e.g. all species described by Richards represented by holotypes. The sphaerocerid spirit collection, which comprises mainly Richards' material (see Pitkin, in press) and British material (see Pitkin, 1978), will be indexed on the same database during the coming year.

A total of 432 nominal species are represented in the dry, pinned and slide collections (7 junior synonyms represented by type material are included in the database, in addition to their senior synonyms). The collections include type material of species described by Collin, Deeming, Duda, Eaton, Frey, Hackmann, Harrison, Hutton, Kim, Grimshaw, Norrbom, Marshall, Papp, Richards, Rohacek, Sabrosky, Tenorio, Walker and Williston. This includes type material of 173 species (primary types of 81 species). However, most of the type material is of species described by O.W. Richards.

In the list of material in the BMNH which follows the current generic assignment is used. The author's name is not placed in parentheses even if the current genus and original genus differ. This is because the list is a direct output from the database in which this information is not currently stored. The following abbreviations have been used for types:-

H = Holotype; A = Allotype; P = Paratype; S = Syntype; L = Lectotype; PL = Paralectotype

SPECIES	AUTHOR	GENUS	TYPES
abdominiseta	Duda	Leptocera	-
abundans	Spuler	Spelobia	-
aciculata	Deeming	Pocillosomella	H P1
acrosticalis	Becker	Leptocera (Rachisp.)	-
acutangula	Zetterstedt	Coproica	-
aequalis	Grimshaw	Opacifrons	S2
aequipilosa	Duda	Leptocera (Rachisp.)	-
aestivalis	Richards	"Limoina"	P1

africana	Becker	Lotobia	-
aharonii	Duda	Ceroptera	-
albicans	Richards	Archiborborus	II P185
albinervis	Duda	Minilimosina	-
alvocincta	Richards	Chaetopodella	-
alexandri	Richards	Phthithia	P3
algira	Villeneuve	Ceroptera	-
alloneura	Richards	Minilimosina	II A P1
alluaudi	Villeneuve	Ceroptera	-
alopacialis	Richards	Anommonia	P2
alpina	Rohacek	Leptocera	P2
altimontana	Rohacek	Paralimosina	-
alutaceus	Richards	Ocellipsis	P1
amphora	Richards	Parasphaerocera	1P
ancudensis	Richards	Thoracochaeta	II P1
angulata	Thomas	Poecilosomella	-
annectans	Richards	Pterogramma	1P
annulicornis	Malloch	Mesosphaerocera	-
annulitibia	Deeming	Poecilosomella	II P1
annulus	Walker	Crumomyia	L
antennata	Duda	Pullimosina	-
appendiculata	Villeneuve	Opacifrons	-
apta	Curran	Gymnometopina	-
aptera	Eaton	Anatalanta	S4
arcuata	Seguy	Lotobia	-
arnaudi	Richards	Thoracocheata	8P
aroana	Richards	Leptocera (Rachisp.)	P4
arvenica	Richards	Philocoprella	II
aterrimum	Haliday	Elachisoma	-
atoma	Rondani	Trachypopella	-
atomus	Rondani	Trachypopella	-
atra	Adams	Leptocera (Rachisp.)	-
atra	Meigen	Lotophila	-
atrolimosa	Frey	Leptocera (Rachisp.)	P1
aucklandica	Harrison	"Limosina"	1P
baezi	Papp	Spelobia	-
barbata	Sabrosky	Leptocera (Rachisp.)	-
beckeri	Duda	Aptilotus	-
bequaerti	Villeneuve	Herniosina	-
beroni	Deeming	Pterogramma	-
bifrons	Stenhammar	Spelobia	-
bimaculata	Williston	Parasphaerocera	L PL1
bipilosa	Duda	Leptocera (Rachisp.)	-
biseta	Duda	Chaetopodella	-
boninensis	Richards	Leptocera (Rachisp.)	1P
borboroides	Walker	Poecilosomella	II
borealis	Malloch	"Limosina"	-
borealis	Malloch	Aptilotus	-
borealis	Zetterstedt	Copromyza	-
brachystoma	Stenhammar	Thoracochaeta	-
breviceps	Stenhammar	Leptocera (Rachisp.)	-

brevicostata	Duda	Spinilsina	-
brevivenosa	Tenorio	"Limoina"	P13
brunettii	Deeming	Poecilosomella	II
brunncesternum	Richards	Paraptilotus	P1
cacti	Richards	Coproica	8P
caenosa	Rondani	Leptocera	-
calcarifera	Rohacek	Paralimosina	-
calceata	Richards	Fruittillaria	-
cambrica	Richards	Spelobia	II P1
canadense	Rohacek & Mars.	Nearcticorpus	-
capitata	Richards	Biroella	P2
carbonicolor	Richards	"Limoina"	II A P1
catharsii	Richards	Ceroptera	II
chaetosoma	Richards	Paralimosina	P4
chaetosus	Richards	Archiborborus	P2
chelata	Richards	Safaria	P1
chepuensis	Richards	Fruittillaria	P9
chilenica	Duda	Kimosina	-
chilensis	Richards	Archiborborus	II P5
cilifera	Rondani	Leptocera (Rachisp.)	-
claviventris	Sirobl	Apterymyia	-
clunierus	Duda	Gymnometopina	-
clunipes	Meigen	Spelobia	-
coei	Deeming	"Limoina"	II P4
collessi	Richards	Opacifrons	P3
collinella	Richards	"Limoina"	-
collini	Richards	Opalimosina	II P3
concaua	Spuler	"Limosina"	-
coprina	Duda	Trachypopella	-
coriacea	Richards	Scutelliseta	P1
costalis	Zetterstedt	Borborillus	-
coxata	Stenhammar	Opacifrons	-
crenata	Meigen	Ischiolepta	-
cribrata	Villeneuve	Puncticorpus	-
crispa	Duda	Ceroptera	-
crozetensis	Enderlein	Anatalanta	-
cryptica	Sabrosky	Leptocera (Rachisp.)	2P
cryptochaeta	Duda	Leptocera (Rachisp.)	-
cultellipennis	Enderlein	Leptocera	-
cursoni	Richards	Chaetopodella	II A P10
curvipes	Iatreille	Sphaerocera	-
cyclogaster	Richards	Ocellipsis	-
darwini	Richards	Kimosina	II P1
dealata	Richards	Montethiana	P2
decimsetosa	Richards	Leptocera (Rachisp.)	-
deemingi	Hackman	Crumomyia	II
deemingi	Marshall	Terrilimosina	P3
deemingi	Richards	Pterogramma	II
denticulata	Duda	Opalimosina	-
denticulata	Meigen	Ischiolepta	-
digitata	Duda	Coproica	-

discalis	Malloch	Leptocera	-
disciseta	Richards	Leptocera (Rachisp.)	2P
discontinua	Richards	Binorbitalia	II
divergens	Duda	Leptocera (Rachisp.)	-
dodo	Richards	Biroella	P1
dolichotera	Richards	"Limosina"	3P
dolorosa	Williston	Leptocera	S4
dorrignonis	Richards	"Limosina"	P1
downesi =	Richards	Leptocera (Rachisp.)	II A P6
duodecimseta	Papp	Leptocera (Rachisp.)	P2
duplicata	Richards	Leptocera	P1
ecuadoria	Richards	Parasphaerocera	2P
edwardsi	Richards	"Limosina"	-
edwardsi	Richards	Archiborborus	II
elegans	Spuler	"Limosina"	-
elegans	Vanschuytbroek	Lotobia	-
elephantis	Papp	Norrbomia	-
elgonensis	Richards	Leptocera	P2
elgonensis	Richards	Ocellipsis	P1
ellipsipennis	Richards	Leptocera	P2
empirica	Hutton	Kimosina	S3
ensenada	Richards	Leptocera (Rachisp.)	II P3
equina	Fallen	Copromyza	-
equitans	Collin	Ceroptera	S8
eudypitidis	Richards	Penola	II
fenestralis	Fallen	Pteremis	-
ferruginata	Stenhammar	Coproica	-
filiforceps	Duda	Leptocera (Rachisp.)	-
finetaria	Meigen	Crumomyia	-
finalis	Collin	Leptocera	-
fittkaui	Remmert	Thoracochoeta	-
flavicans	Richards	Oribatomyia	-
flaviceps	Malloch	Sphaerocera	-
flaviceps	Zetterstedt	Gigalimosina	-
flavicoxa	Malloch	Parasphaerocera	-
flavipes	Meigen	Telomerina	-
flavipes	Richards	Paraptilotus	P4
flaviterga	Richards	Acuminiseta	P2
fontinalis	Fallen	Leptocera	-
forceps	Sabrosky	Leptocera (Rachisp.)	2P
forcipata	Richards	Safaria	P7
formosae	Duda	Trachypopella	-
freyi	Hackman	Leptocera (Rachisp.)	P1
fucata	Rondani	Paralimosina	-
fulva	Malloch	Leptocera	-
fumipennis	Stenhammar	Borborillus	-
fungicola	Haliday	Minilimosina	-
furculipexa	Marshall	Minilimosina	II P1
furculisterna	Deeming	Minilimosina	II P1
fuscipennis	Haliday	Leptocera (Rachisp.)	-
garambaensis	Vanschuyt.	Gymnotetopina	-

gemella	Rohacek	Minilimosina	-
giraffa	Richards	Pocilosomella	P3
glabrescens	Villeneuve	Kimosina	-
glabrifrons	Meigen	Crumomyia	-
glacialis	Meigen	Crumomyia	-
gravis	Adams	Borborillus	-
grenstedti =	Richards	Opalimosina	II P3
grossa =	Richards	Aluligera	-
guestphalica	Duda	Minilimosina	-
guttula	Richards	Mesosphaerocera	II
hackarsi	Vanschuybroeck	Copromyza	-
hammersteini ?	Duda	Leptocera (Rachisp.)	-
hardyi	Marshall	Trachypella	-
heteroneura	Haliday	Pullimosina	-
heteroneuroidea	Duda	Pullimosina	-
himalayensis	Deeming	Pocilosomella	II P1
hirticula	Collin	Coproica	-
hirtipes	Malloch	Archiborborus	-
hirtula	Rondani	Coproica	-
hirtuloidca	Duda	Coproica	-
hostica	Villeneuve	Leptocera (Rachisp.)	-
humida	Haliday	Opacifrons	-
hypopygialis	Richards	Norrbomia	II P5
illota =	Williston	Coproica	II
islandica	Stenhammar	Leptocera (Rachisp.)	-
italica	Deeming	Philocoprella	II P39
japonica	Hayashi	"Limoina"	-
johnsoni	Spuler	Thoracochoacta	-
kaszabi	Papp	Paralimosina	-
keniaca	Papp	Norrbomia	-
kibikoensis	Vanschuytb.	Gymnometopina	-
kistneri	Richards	Safaria	P5
knightae	Harrison	"Limosina"	1P
kovacsi	Duda	Leptocera	-
kuntzei	Duda	Trachypella	-
kurandensis	Richards	Popondetta	P1
teleupi	Richards	Ocellipsis	P1
leucoptera	Haliday	Trachypella	-
levicastilli	Richards	Parasphaerocera	-
liberiensis	Richards	Safaria	P5
liliputana	Rondani	Opalimosina	-
limbinervis	Duda	Leptocera (Rachisp.)	-
limosa	Fallen	Leptocera (Rachisp.)	-
lonchoma	Richards	Ocellipsis	P4
longicosta	Spuler	Pullimosina	-
longicostata	Duda	Pocilosomella	-
longidiscoidalis	Duda	"Limoina"	-
longinervis	Duda	Pocilosomella	-
longipes	Richards	Sphaerocera	-
longipexa	Marshall	Terrilimosina	P2
longisetosa	Dahl	Kimosina	-

longiventris	Schurter	Sphaerocera	-
lugubris	Haliday	Coproica	-
lugubris	Williston	"Limosina"	II
lusitanica	Richards	Puncticorpus	II A
lutea	Richards	Spelobia	-
luteilabris	Rondani	Spelobia	-
lutosa	Stenhammar	Leptocera (Rachisp.)	-
lutosoidea	Duda	Leptocera (Rachisp.)	-
maecdonica	Rohacek	Paralimosina	-
maculifrons	Becker	Opacifrons	-
maculipennis	Spuler	Spelobia	-
maculipennis	W.	Archiborborus	-
manicata	Richards	Spelobia	S1
marginata	Adams	Leptocera	-
marginatis	Adams	Borborillus	-
mcalpinei	Richards	Leptocera (Rachisp.) P2	-
medialis	Papp	Parasphaerocera	-
mediospinosa	uda"	Spelobia	-
mejerei	Duda	Pullimosina	-
melanaspis	Bezzi	Leptocera	-
melania	Haliday	Trachyopella	-
melanocephala	Richards	Ocellipsis	P4
mendozana	Richards	Leptocera	II
michigana	Sabrosky	Leptocera (Rachisp.)	4P
microphthalma	Richards	Archiborborus	II
micropyga	Papp	Borborillus	II
minuscule	Collin	Trachyopella	-
minutissima	Zetterstedt	Telomerina	-
mirabilis	Collin	Opalimosina	-
mirabilis	Vanshuylbroeck	Poecilosomella	-
modesta	Duda	Leptocera (Rachisp.)	-
moesta	Villeneuve	Pullimosina	-
mollis	Richards	"Limosina"	4P
monilis	Haliday	Sphaerocera	-
monorbiseta	Deeming	Limosina	II
montana	Richards	Aluligera	II A P12
multipunctata	Duda	Poecilosomella	-
multisetosa	Duda	Leptocera (Rachisp.)	-
munda	Collin	"Limosina"	S3
myersi	Richards	Biroella	-
myrmecophila	K. & M.	Ceroptera	-
myrmecophila	K. & M.	Biroella	-
nana	Rondani	Spelobia	-
nasalis	Richards	Opacifrons	P1
neglecta	Malloch	Copromyza	-
neocurvinervis	Richards	Leptocera	II P4
nepalensis	Deeming	Poecilosomella	II
nepalica	Deeming	Poecilosomella	P2
nigra	Kim & Han	Lotobia	-
nigra	Meigen	Crumomyia	-
nigra	Olivier	Leptocera	-

nigrifrons	Spuler	Spelobia	-
nigrolimbata	Duda	Leptocera	-
nitida	Duda	Ischiolepta	-
nitida	Meigen	Crumomyia	-
nitidifrons	Duda	Borborillus	-
nitidipleura	Richards	Biroina	P3
nitidissima	Richards	Binorbitalia	II
nitidosa	Richards	Ceroptera	H A P4
nitidus	Meigen	Fungobia	-
niveipennis	Duda	Borborillus	-
notabilis	Collin	Crumomyia	-
nuda	Marshall	Trachypella	-
nudipes	Richards	Anommonia	-
obliqua	Richards	Trachypella	1P
obscuripennis	Hackman	"Limoina"	-
ochripes	Meigen	Spelobia	-
oldenbergi	Duda	Leptocera	-
opaca	Duda	"Limoina"	-
pachypus	Richards	Fachytarsella	2P
pallida	Hayashi	Lotophila	-
pallidimana	Duda	Poecilosomella	-
pallidiventris	Meigen	Lotobia	-
pallifrons	Fallen	Alloborborus	-
palmata	Richards	Spelobia	S3
papuana	Richards	Leptocera (Rachisp.)	P2
paracrenata	Duda	Ischiolepta	-
paradoxus	Mikan	Aptilotus	-
parafinalis	Papp	Leptocera	-
paramoesta	Duda	Pullimosina	-
paranigrolimbata	Duda	Leptocera	-
parapusio	Dahl	Spelobia	-
pararoralis	Duda	Leptocera	-
parvula	Stenhammar	Minilimosina	-
patrizii	Richards	Acuminiseta	P1
pectinifera	Villeneuve	Kimosina	-
pectiniterga	Deeming	Poecilosomella	II
peculiaris	Richards	Thoracochaeta	P3
pedestris	Meigen	Crumomyia	-
pedipicta	Richards	Copromyza	II A P4
penetralis	Collin	Spelobia	-
pentaseta	Richards	Thoracochaeta	II
percostata	Richards	"Limoina"	P1
perpava	Williston	Pterogramma	II
pexa	Marshall	Terrilimosina	P2
phycophila	Richards	"Limosina"	8P
phyophila	Richards	Kimosina	II A
pictitaris	Richards	Poecilosomella	-
pilosum	Duda	Elachisoma	-
plaumanni	Deeming	Anomioptera	II P1
pleuriseta	Duda	Leptocera (Rachisp.)	P4
pleurofasciata	Richards	"Limoina"	P7

plumosula	Rondani	Kimosina	-
pocilloptera	Malloch	Pterogramma	-
pollinosus	Richards	Lobelomyia	S3
popularis	Richards	Kimosina	-
prominens	Hayashi	Kimosina	-
pruinosa	Richards	Crumomyia	II P3
pseudimpudica	Deeming	Opacifrons	II P11
pseudociseta	Duda	Leptocera (Rachisp.)	-
pseudoleucoptera	Duda	Telomerina	-
pseudonivalis	Dahl	Spelobia	-
pseudosetaria	Duda	Spelobia	-
pulchripes	Duda	Chaetopodella	II P5
pulex	Richards	Americaptilotus	2P
pullula	Zetterstedt	Pullimosina	-
pumila	Williston	"Limoinsa"	S2
punctipennis	Wiedemann	"Limoinsa"	-
punctipennis	Wiedemann	Pocilosomella	-
pusilla	Fallen	Ischiolepta	-
pusio	Zetterstedt	Coproica	-
quadripina	Laurence	Philocoprella	-
quinquemaculatus =	Walkcr	Archiborborus	II
racovitzai	Bezzi	Terrilimosina	-
rectinervis	Duda	Pocilosomella	-
regalis	Richards	Bentrovata	-
renelli	Harrison	Kimosina	P2
rhinocerotis	Richards	Femoromyza	II
richardsi	Norrbon	Gymnometopina	2P
richardsii	Sabrosky	Leptocera (Rachisp.)	3P
robusta	Spuler	Pterogramma	-
rohaceki	Norrbon	Crumomyia	P1
roserii	Rondani	Crumomyia	-
roskosnyi	Rohacek	Rudolfia	-
rossi	Richards	Leptocera (Rachisp.) 7P	-
rubicornis	Duda	Ceroptera	-
rufa	Duda	"Limoinsa"	-
ruffrons	Duda	Spinilimosina	-
rufilabris	Stenhammar	Spelobia	-
rufitarsis	Meigen	Ceroptera	-
sabina	Richards	Otwayia	P2
salatigae	Meijere	Leptocera	-
sanctachelcnae	Richards	Aubertinia	II A P2
scabricula	Haliday	Ischiolepta	-
schlingeri	Richards	Leptocera	3P
schmitzi	Duda	Terrilimosina	-
scotti	Richards	Lobelomyia	II
scotti	Richards	Leptocera (Rachisp.)	II
scutellaris	Haliday	Chaetopodella	-
scutellaris	Williston	Leptocera	S4
selkirki	Enderlein	Phthithia	-
semiculata	Richards	Spelobia	-
scnecionis	Richards	Paraptilotus	P18

septentrionalis	Stenhammar	Opacifrons	-
serra	Rirds	"Limosina"	-
setaria	Villeneuve	Xenolimosina	-
seticosta	Spuler	Thoracochoeta	-
shannoni	Richards	Parasphaerocera	-
silvatica	Meigen	"Limosina"	-
similis	Collin	Copromyza	-
simplex	Richards	Opalimosina	-
simplicimanus	Richards	Archiborborus	H
simplicipes	Duda	Spelobia	-
smetanai	Marshall	Terrilimosina	P2
sordidus	Zetterstedt	Borborillus	-
sordipes	Adams	Paralimosina	-
sordipes	Tucker	"Limosina"	-
spinata	Richards	Ocellipsis	P1
spinipennis	Haliday	Halidayina	-
spinipleura	Richards	Anommonia	P9
spuleri	Sabrosky	Leptocera (Rachisp.)	4P
stercoraria	Meigen	Copromyza	-
stermiloba	Rohacek	Leptocera	-
striata	Duda	Leptocera (Rachisp.)	-
suberecta	Sabrosky	Leptocera (Rachisp.)	-
submaculatus	Duda	Archiborborus	-
subsINUATA	Richards	Biroella	P2
subsINUATA	Richards	Ceroptera	-
subtinctipennis	Brunetti	Leptocera (Rachisp.)	-
talparum	Richards	Spelobia	S7
tenaculata	Sabrosky	Leptocera (Rachisp.)	-
tenebrarum	Aldrich	Spelobia	-
territorialis	Richards	Leptocera (Rachisp.)	P4
tertia	Richards	Parasphaerocera	1P
thomasi	Harrison	Kimosina	P1
thomasi	Harrison	"Limosina"	4P
trapezina	Richards	Parasphaerocera	-
trichopyga	Richards	Paralimosina	H
trilineata	Hutton	Howickia	S3
triseta	Richards	Binorbitalia	H A P8
trivittata	Richards	Biroella	P1
trochanterata	Malloch	Leptocera (Rachisp.)	-
truncipennis	Enderlein	Antrops	-
tuberculosa	Kim	Sphaerocera	P2
turbatrix	Kim & Han	Lotobia	-
uncinatus	Duda	Borborillus	-
unio	Marshall	Terrilimosina	H P4
urbana	Richards	Coproica	1P
urodeta	Sabrosky	Leptocera (Rachisp.)	1P
ursina	Rohacek	Telomerina	P2
uvira	Richards	Pismara	P1
v-atrum	Villeneuve	Minilimosina	-
vagans	Haliday	Coproica	-
vanschuytbroeckii	Kim	Lotobia	-

varians	Duda	Poecilosomella	-
varicolor	Richards	"Limoina"	P1
varicornis	Strobl	Leptocera (Rachisp.)	-
varipes	Malloch	Parasphaerocera	-
venosa	Enderlein	Phthithia	-
verruciger	Richards	Ocellipsis	P2
villosa	Duda	Spelobia	-
vitripennis	Meigen	Borborillus	-
vitripennis	Zetterstedt	Minilimosina	-
vittafrons	Richards	Lobelomyia	-
wecsi	Sabrosky	Leptocera (Rachisp.)	-
wheeleri	Spuler	Opacifrons	-
winnemana	Malloch	Bromeloccia	-
xanthographa	Richards	"Limoina"	II A P33
xiphosternum =	Richards	Parasphaerocera	1P
zealandica	Harrison	Thoracochaeta	P2
zosterac	Haliday	Thoracochaeta	-

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