

Faunistics of the *Rhamphomyia* species of Switzerland (Diptera, Empididae)

Autor(en): **Barták, M. / Beuk, P.L.T. / Merz, B.**

Objektyp: **Article**

Zeitschrift: **Mitteilungen der Schweizerischen Entomologischen Gesellschaft = Bulletin de la Société Entomologique Suisse = Journal of the Swiss Entomological Society**

Band (Jahr): **70 (1997)**

Heft 3-4

PDF erstellt am: **10.08.2024**

Persistenter Link: <https://doi.org/10.5169/seals-402681>

Nutzungsbedingungen

Die ETH-Bibliothek ist Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Inhalten der Zeitschriften. Die Rechte liegen in der Regel bei den Herausgebern.

Die auf der Plattform e-periodica veröffentlichten Dokumente stehen für nicht-kommerzielle Zwecke in Lehre und Forschung sowie für die private Nutzung frei zur Verfügung. Einzelne Dateien oder Ausdrucke aus diesem Angebot können zusammen mit diesen Nutzungsbedingungen und den korrekten Herkunftsbezeichnungen weitergegeben werden.

Das Veröffentlichen von Bildern in Print- und Online-Publikationen ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. Die systematische Speicherung von Teilen des elektronischen Angebots auf anderen Servern bedarf ebenfalls des schriftlichen Einverständnisses der Rechteinhaber.

Haftungsausschluss

Alle Angaben erfolgen ohne Gewähr für Vollständigkeit oder Richtigkeit. Es wird keine Haftung übernommen für Schäden durch die Verwendung von Informationen aus diesem Online-Angebot oder durch das Fehlen von Informationen. Dies gilt auch für Inhalte Dritter, die über dieses Angebot zugänglich sind.

Faunistics of the *Rhamphomyia* species of Switzerland (Diptera, Empididae)

M. BARTÁK¹, P. L. TH. BEUK² & B. MERZ³

¹ Czech University of Agriculture in Prague, Faculty of Agronomy, Department of Zoology and Fishery, CZ-165 21 Praha 6 – Suchbátka, Czech Republic

² Institute for Systematics and Population Biology, Plantage Middenlaan 64, NL-1018 DH Amsterdam, Netherlands

³ Entomologische Sammlung ETH, ETH Zentrum, CH-8092 Zürich, Switzerland

The present paper lists 73 species of *Rhamphomyia* (Diptera, Empididae) from Switzerland, of which 36 species are cited here for the first time. From 71 species authentic material was examined and *R. sciarina* and *R. geniculata* are both known from literature only. *R. minor* and *R. rupestris* are deleted from the Swiss list because of previous misidentification of localities. Full reference concerning Swiss literature and the localities are given for all species.

Keywords: *Rhamphomyia*, faunistics, Switzerland

INTRODUCTION

Rhamphomyia MEIGEN is one of the largest genera within the Diptera. At present about 550 species are known worldwide, of which 350 are described from the Palearctic region. However, the genus is still badly known, because hundreds of species still await description. Details about morphology, systematics, biology and biogeography are given by BARTÁK (1982). Both adults and larvae are important predators of other invertebrates and often occur in large numbers, therefore they are a biological regulating factor of high significance in ecosystems. They are particularly abundant in mountains, and may even be the dominant taxon of Diptera above 2500 m altitude.

No special attention has been paid so far to this genus for the territory of Switzerland. A few useful data about the occurrence of this genus in Switzerland can be found scattered in literature (e.g. OLDENBERG, 1917, 1927; KEISER, 1947; RINGDAHL, 1957; BARTÁK, 1981, 1982, 1985; VOLKART, 1991). In older literature (e.g. SCHOCH, 1889) the most important morphological feature, the structure of the male genitalia, was not used for identification. Moreover, the specimens on which SCHOCH (1889) and others based their lists, are no more present. Therefore, these names have not been taken into consideration when preparing the following list.

For identification the keys and revisions of BARTÁK (1981, 1982, 1985), COLLIN (1961) and FREY (1954–1956) were used, which were based mainly on the study of types in order to guarantee a stable nomenclature.

The following list arose from the studies of many institutional and private collections as listed below:

BNM	Bündner Natur-Museum, CH-Chur
CUP	Charles University, CZ-Praha
DEI	Deutsches Entomologisches Institut, D-Eberswalde
ETHZ	Eidgenössische Technische Hochschule, CH-Zürich

MHNN	Musée d'Histoire Naturelle, CH-Neuchâtel
MSNL	Museo di Storia Naturale, CH-Lugano
NHMB	Naturhistorisches Museum, CH-Basel
SMNS	Staatliches Museum für Naturkunde, D-Stuttgart
ZMH	Zoological Museum, SF-Helsinki
ZMUA	Zoological Museum University, NL-Amsterdam
CBM	collection B. MERZ, CH-Zürich
CCB	collection C. VAUCHER-VON BALLMOOS, CH-Neuchâtel
CGB	collection G. BÄCHLI, CH-Dietikon
CMB	collection M. BARTÁK, CZ-Praha

LIST OF SPECIES

Nomenclature and arrangement follows CHVÁLA (1989), but the subgenera are listed alphabetically. All species which are here recorded for the first time reliably from Switzerland, are marked with an asterisk (*).

For each species, first the known literature is cited with localities; second: the localities of all specimens checked are given. They are listed in alphabetic order according to the Swiss Cantons, with following abbreviations used:

AG: Aargau; **BE:** Bern; **BL:** Baselland; **FR:** Fribourg; **GL:** Glarus; **GR:** Graubünden; **JU:** Jura; **LU:** Luzern; **NE:** Neuchâtel; **SG:** St. Gallen; **SH:** Schaffhausen; **SO:** Solothurn; **SZ:** Schwyz; **TG:** Thurgau; **TI:** Ticino; **VD:** Vaud; **VS:** Valais; **ZG:** Zug; **ZH:** Zürich.

1. *Rhamphomyia (Aclonempis) albohirta* COLLIN, 1926

VOLKART (1991): **LU:** Hasle.

BE: La Neuveville (MHNN); Weissenburg im Simmental (ETHZ). **JU:** Courtedoux (MHNN). **NE:** Neuchâtel (MHNN). **SG:** Betlis-Quinten (CBM). **TG:** Ermatingen (coll. K. GRIMM). **ZH:** Dietikon (CGB); Sihlbrugg (ETHZ); Zürich (Waldgarten, Zürichberg) (CBM, ETHZ).

2. *Rhamphomyia (Aclonempis) eupterota* LOEW, 1873

RINGDAHL (1957): **GR:** Arosa.

NE: La Chaux-de-Fonds (MHNN); Les Verrières (MHNN). **ZH:** Dietikon (CGB); Sihlbrugg (ETHZ); Zürich (Allmend, Waldgarten, Zürichberg) (CBM).

3*. *Rhamphomyia (Aclonempis) galactoptera* STROBL, 1893

GR: Lenz (CBM). **VD:** Burtignière (CCB); Cudrefin (MHNN). **VS:** Leuk-Pfynwald (CBM, CGB, ETHZ).

Remarks: This species is recorded in CHVÁLA (1989) from Switzerland probably based on OLDENBERG (1917), who mentioned it from Bozen. But this locality is in Italy (South Tyrolia).

4*. *Rhamphomyia (Aclonempis) longipes* (MEIGEN, 1804)

JU: Buix (MHNN); Courtedoux (MHNN). **GL:** Richisau (CGB); Schwanden (CBM); Vorauen (CGB). **NE:** Le Locle (MHNN). **SZ:** Pragelpass (CGB, ZMUA). **VD:** Burtignière (CCB). **ZH:** Dietikon (CGB); Lindau-Eschikon (ETHZ); Zürich (Hönggerberg, Zürichberg) (CBM, ETHZ, ZMUA).

5. *Rhamphomyia (Aclonempis) umbripes* BECKER, 1887

VOLKART (1991): **LU:** Hasle.

GR: Il Fuorn (MHNN). **NE:** Chambrélien (MHNN); Maix Rochat (CCB); V. Maix (CCB); St-Sulpice (MHNN). **SO:** Hägendorf (priv. coll. G. ARTMANN, det. CHVÁLA), Passwang-Burten (NHMB). **VD:** Burtignière (CCB); Praz Rodet (CCB). **ZH:** Sihlbrugg (ETHZ).

6. *Rhamphomyia (Amydroneura) claripennis* OLDENBERG, 1922

VOLKART (1991): LU: Hasle.

GL: Linthal (DEI).

7*. *Rhamphomyia (Amydroneura) crassicauda* STROBL, 1893

GR: Il Fuorn (MHNN); Lenzerheide-Dorf (CBM). TI: Angone/Anzonico (CGB); Bodio-Bidre (MHNN); Canariscio di Ritom (MSNL); Cevio (MSNL); Intragna (MSNL); Piora (MSNL); Piotta (CGB).

8. *Rhamphomyia (Amydroneura) erythrophthalma* MEIGEN, 1830

VOLKART (1991): LU: Hasle.

TI: Gudo (CGB, MHNG). VS: Grächen (CBM). ZH: Zürich-Zürichberg (CBM).

9*. *Rhamphomyia (Amydroneura) gibba* (FALLÉN, 1816)

TI: Piotta, 1 ♂ (CGB). ZH: Oetwil a. L. (CGB).

10*. *Rhamphomyia (Amydroneura) hirsutipes* COLLIN, 1926

TI: Gudo (CBM, CGB).

11*. *Rhamphomyia (Holoclera) caliginosa* COLLIN, 1926

TI: Gordola-Bolle (CBM, CGB).

12. *Rhamphomyia (Holoclera) culicina* (FALLÉN, 1816)

CHVÁLA (1989): mentions the species from Switzerland but without exact locality.

GL: Klöntal (CGB). GR: Alp Flix (CGB); Ausserferrera (CBM); Ftan (ETHZ); Il Fuorn (MHNN); Lenzerheide (Piz Danis, Sanaspans) (CBM, CGB); Savognin (CGB); Zernez (CGB). NE: Cachot (CCB). TI: Airolo (CGB); Angone/Anzonico (CGB); Piotta (CGB). VS: Bürchen (CGB); Leuk (CGB).

13. *Rhamphomyia (Holoclera) flava* (FALLÉN, 1816)

RINGDAHL (1957): VD: Diablerets.

BE: Bellelay (NHMB); Biel (CGB); St.-Imier (MHNN). GL: Klöntal (CGB); Richisau (CGB); Vorauen (CGB). GR: Alp Flix (CGB); Lenzerheide (CGB); Savognin (CGB); Surrein (CGB); Susch-Fortezza (CGB); Valbella-Casoja (CBM, ETHZ); Zernez-Gondas (CBM, CGB). JU: Buix (MHNN); Courtedoux (MHNN); Delémont (CGB). NE: Couvet (MHNN); La Tourne (MHNN); Les Bayards (MHNN); Rochefort (MHNN); St-Sulpice (MHNN). SO: Mariastein (CGB). UR: Seelisberg (CGB). VS: Bürchen (CGB); Längtal (NHMB); Riederalp (CGB); Visperterminen (CBM). ZH: Zürich-Hönggerberg (CBM, CGB).

14. *Rhamphomyia (Holoclera) flaviventris* MACQUART, 1827

OLDENBERG (1917): GR: St. Moritz.

GR: Alp Flix (CGB); Samedan (ETHZ); Sils-Engadin (SMNS); Zuoz (ETHZ). TI: Piora (ETHZ). VS: Zermatt (Findeln, Haueten, Riffelalp) (NHMB).

15. *Rhamphomyia (Holoclera) heterochroma* BEZZI, 1898

KEISER (1947): GR: Swiss National Park. RINGDAHL (1957): GR: Arosa; VD: Naye.

GL: Richisau (CGB). **GR:** Alp Flix (CGB); Dischmatal (CGB); Ftan (CGB); Lenzerheide (Dorf, Sanaspans, Tgantieni) (CBM, CGB, ETHZ); Samedan (ETHZ); Zernez (CGB); Zuoz (Nüd) (CBM, CGB, ETHZ). **VS:** Oberwald (CGB); Riederalp (CGB). **TI:** Angone/Anzonico (CGB); Piora (CGB, ETHZ). **VS:** Visperterminen (CBM).

16. *Rhamphomyia (Holoclera) lamellata* COLLIN, 1926

CHVÁLA (1989): based on the specimen listed below, but this record is yet unpublished.

VD: Cudrefin (CUP).

17. *Rhamphomyia (Holoclera) nigripennis* (FABRICIUS, 1794)

CHVÁLA (1989): based on a specimen from Frintvillier, but this record is yet unpublished.

BE: Frintvillier (CUP); Gampelen (MHNN). **GL:** Vorauen (CGB). **GR:** Andeer-Clugin (CBM); S. Nicla (NHMB). **VS:** Aletsch (MHNN). **ZH:** Birmensdorf (CGB); Dietikon (CGB); Glattfelden-Bahnhof (CBM); Sihlbrugg (ETHZ); Winterthur (CGB); Zürich (Allmend, Hönggerberg, Katzensee, Zürichberg) (CBM, CGB, ETHZ).

18. *Rhamphomyia (Holoclera) trigemina* OLDENBERG, 1927

CHVÁLA (1989) mentions the species from Switzerland, but without exact locality.

VD: Burtignière (CCB). **ZH:** Sihlbrugg (ETHZ).

19. *Rhamphomyia (Holoclera) umbripennis* MEIGEN, 1826

Published by CHVÁLA (1989) but without precise locality data.

BE: Flühli (ETHZ). **ZH:** Sihlbrugg (ETHZ).

20. *Rhamphomyia (Lundstroemiella) australis* FREY, 1922

OLDENBERG (1927): **GL:** Linthal (under the name *R. subalpina* OLDENBERG). **AG:** Würenlingen (CGB). **GR:** Albula-Pass (CBM); Ardez (CGB); S. Nicla (CMB). **JU:** Delémont (CGB). **NE:** Rochefort (CGB, MHNN). **VS:** Guttet (CGB).

21*. *Rhamphomyia (Lundstroemiella) dudai* OLDENBERG, 1927

GR: Savognin (CGB); Scuol (CGB); Zernez (CGB); Zuoz (CGB). **NE:** Les Bayards (MHNN). **VS:** Guttet (CGB); Leuk (CGB); Riederalp (CGB); Visperterminen (CBM, ETHZ).

22. *Rhamphomyia (Lundstroemiella) hybotina* (ZETTERSTEDT [1838])

OLDENBERG (1927): **GR:** Maloja, St. Moritz. KEISER (1947): **GR:** Swiss National Park.

GR: Alp Flix (CGB); Ftan (CGB); Lenzerheide (CGB); Samedan (ETHZ); Savognin (CGB); S-chanf-Flin (CBM, CGB); Valbella-Casoja (ETHZ); Zernez-Gondas (CBM, CGB); Zuoz-Nüd (CBM, CGB, ETHZ). **NE:** Burtignière (CCB). **SZ:** Holzegg (CGB). **TI:** Airolo (CGB); Bedretto (CGB); Piotta (CGB). **VS:** Guttet (CGB); Leuk (CGB); Oberwald (CGB); Riederalp (CGB); Visperterminen (ETHZ). **ZH:** Oetwil a. L. (CGB).

23*. *Rhamphomyia (Lundstroemiella) magellensis* FREY, 1927

GR: Ftan-Clünas (CBM). **TI:** Cadagno (ETHZ).

24*. *Rhamphomyia (Lundstroemiella) strobli* BARTÁK, 1985

GL: Klöntal (CGB).

25. *Rhamphomyia (Megacyttarus) crassirostris* (FALLÉN, 1816)

REDARD (1985): NE: Chaux d'Amin. VOLKART (1991): LU: Hasle.

AG: Umg. Aarau (ETHZ); Aristau (CGB); Maschwanden (CGB). BE: Pelzmühletal (NHMB). GR: Valbella-Casoja (CBM). SO: Bärschwil (NHMB). TI: Piora (ETHZ). VS: Leuk-Pfynwald (CBM). ZH: Zürich (Allmend) (CBM, ETHZ).

26*. *Rhamphomyia (Megacyttarus) poissoni* (TREHEN, 1966)

Recorded from Switzerland by CHVÁLA (1989) based on the unpublished specimens from Delémont listed below.

JU: Courtedoux (MHNN); Delémont (CGB, CUP). Lucelle (NHMB). NE: Essarts (CCB). SH: Merishausen (CBM). VD: Champmartin (MHNN). ZH: Dietikon-Hardwald (CBM, CGB); Sihlbrugg (ETHZ); Uster (CGB).

27*. *Rhamphomyia (Pararhamphomyia) aethiops* (ZETTERSTEDT, [1838])

Published by CHVÁLA (1989) from Switzerland, but without exact locality.

GR: Präsur-Alp (Engadin) (SMNS). VS: Zermatt-Blatten (NHMB).

28*. *Rhamphomyia (Pararhamphomyia) amoena* LOEW, 1840

VS: Noes (ETHZ); Sierre (ETHZ); St-Léonard (ETHZ).

29*. *Rhamphomyia (Pararhamphomyia) atra* MEIGEN, 1822

NE: Neuchâtel (MHNN); Rochefort (MHNN); St-Blaise (MHNN). SH: Hemmental (CBM); Merishausen (CBM). ZH: Zürich (Katzensee) (CBM).

30*. *Rhamphomyia (Pararhamphomyia) curvula* FREY, 1913

NE: Bois d. Lattes (CCB).

31*. *Rhamphomyia (Pararhamphomyia) dentata* OLDENBERG, 1910

TI: Dalpe, Bedrina-Val Cima (MSNL).

32*. *Rhamphomyia (Pararhamphomyia) marginata* (FABRICIUS, 1787)

AG: Liebegg (ETHZ). NE: Voens (MHNN). SH: Merishausen (CBM). TG: Ermatingen (ETHZ and private collection K. GRIMM); Kreuzlingen (ETHZ); Steckborn (ETHZ). ZH: Illnau (ETHZ); Zürich-Burghölzli (ETHZ).

33*. *Rhamphomyia (Pararhamphomyia) modesta* WAHLBERG, 1844

GR: Alp Flix (CGB); Zuoz (ETHZ).

34*. *Rhamphomyia (Pararhamphomyia) obscura* (ZETTERSTEDT, [1838])

NE: Le Cachot (1050m) (CCB).

35. *Rhamphomyia (Pararhamphomyia) pilifer* MEIGEN, 1838

OLDENBERG (1927, under the name *Rh. dentipes* ZETTERSTEDT): GL: Linthal; GR: Bergün, St. Moritz. VOLKART (1991): LU: Hasle.

BE: Weissenburg i. S. (ETHZ); Lamboing (CBM). **JU:** Delémont (CUP). **NE:** Chambrelieu (MHNN). **SG:** Betlis a. Walensee (CBM). **VD:** Cudrefin (MHNN); Praz Rodet (CCB). **VS:** Täsch (NHMB). **ZH:** Dietikon (CGB); Flaach/Thurauen (CBM); Sihlbrugg (ETHZ); Zürich (Irchelpark, Waldgarten, Zürichberg) (CBM, CGB).

36*. *Rhamphomyia (Pararhamphomyia) praestans* FREY, 1913

GR: St. Moritz (DEI).

37*. *Rhamphomyia (Pararhamphomyia) tibiella* ZETTERSTEDT, 1842

VD: Cudrefin (MHNN). **VS:** Noes (ETHZ). **ZH:** Zürich (Katzensee) (CBM).

38*. *Rhamphomyia (Pararhamphomyia) tipularia* (FALLÉN, 1816)

NE: Neuchâtel (MHNN). **ZH:** Illnau-Soorhalde (ETHZ).

39*. *Rhamphomyia (Pararhamphomyia) unguiculata* FREY, 1913

VD: Burtignière (CCB); Praz Rodet (CCB).

40. *Rhamphomyia* (s. str.) *albosegmentata* (ZETTERSTEDT, [1838])

KEISER (1947): **GR:** Swiss National Park (as *Rh. engadinica* OLDENBERG)

GR: Nationalpark (ZMH); Silvaplana (ZMH); Zuoz-Nüd (CBM, CGB).

41. *Rhamphomyia* (s. str.) *anthracina* MEIGEN, 1822

KEISER (1947): **GR:** Swiss National Park. RINGDAHL (1957): **GR:** Arosa.

GL: Pragelpass (CGB). **GR:** Cresta (ETHZ); Dischmatal (CGB); Juf-Stallerberg (CBM); Lenzerheide (Piz Danis) (CBM); Maloja (DEI); Nufenen (MHNN); St. Moritz (DEI); Val dal Fain (CUP); Val Fex (SMNS). **TI:** "Tessin" (MHNN).

42*. *Rhamphomyia* (s. str.) *argentata* VON RÖDER, 1887

ZH: Dietikon (CGB); Zürich (Zürichberg) (CBM).

43*. *Rhamphomyia* (s. str.) *aucta* OLDENBERG, 1917

GR: Munt la Schera (MHNN); St. Moritz (DEI). **TI:** Piora (ETHZ).

44. *Rhamphomyia* (s. str.) *brevipila* OLDENBERG, 1922

KEISER (1947): **GR:** Swiss National Park.

GR: Albula Pass (CBM); Alp Flix (CGB); Ftan-Clünas (CBM, CGB); Lenzerheide (Piz Danis) (CBM, CGB); Maloja (DEI); St. Moritz (DEI).

45. *Rhamphomyia* (s. str.) *chionoptera* BEZZI, 1904

KEISER (1947): **GR:** Swiss National Park (see below, specimens from BNM).

GR: Lenzerheide (CBM); Munt de la Bescha (BNM); Murtergrat (BNM); Piz d Aint (BNM); Val Cluozza (BNM); Val Laschadurella (BNM); Val Nügliä (BNM); Val Stabelchod (BNM); Val Tavrü (BNM).

46*. *Rhamphomyia* (s. str.) *cinerascens* (MEIGEN, 1804)

AG: Aristau (CGB). **BE:** Burgdorf (ETHZ). **NE:** Le Paquier (MHNN); Neuchâtel (MHNN). **VD:** Burtignière (CCB). **VS:** Sierre (ETHZ). **ZG:** Rüss-Spitz (Maschwanden) (CBM). **ZH:** Illnau (ETHZ); Zürich (Allmend, Balgrist) (CBM, ETHZ).

47. *Rhamphomyia* (s. str.) *crassimana* STROBL, 1898

= *Rhamphomyia hirsuta* OLDENBERG, 1922

KEISER (1947): **GR**: Swiss National Park.

GR: Juf-Stallerberg (CBM).

48. *Rhamphomyia* (s. str.) *crinita* BECKER, 1887

KEISER (1947): **GR**: Swiss National Park.

GR: Lenzerheide (CGB); Samedan (ETHZ); St. Moritz (DEI). **NE**: Les Bayards (MHNN). **VS**: Längtal (NHMB); Leuk-Brentjong (CBM); Visperterminen-Gebidempass (CBM); Zermatt-Haueten (CUP, NHMB).

49*. *Rhamphomyia* (s. str.) *curvinervis* OLDENBERG, 1917

OLDENBERG (1917): **GR**: St. Moritz (type locality).

GR: Pontresina (CMB); S-charl/Flin (CGB); St. Moritz (DEI). **TI**: Cadagno (ETHZ). **VS**: Crans (ETHZ); Leuk-Brentjong (CBM).

50. *Rhamphomyia* (s. str.) *discoidalis* BECKER, 1889

KEISER (1947): **GR**: Swiss National Park.

GR: Dischmatal (CGB); Maloja (DEI); Piz Umbrail (DEI); St. Moritz (DEI). **VS**: Aletschwald (MHNN); Eggischhorn (ZMHB); Furka (ZMHB); Visperterminen (CBM).

51*. *Rhamphomyia* (s. str.) *hercynica* OLDENBERG, 1927

BE: Weissenburg i. S. (ETHZ).

52. *Rhamphomyia* (s. str.) *hirtimana* OLDENBERG, 1922

KEISER (1947): **GR**: Swiss National Park.

GR: Pontresina (NHMB); St. Moritz (DEI); V. Languard (CUP, NHMB). **VS**: Geisspfadsee (NHMB); Oberwald (CGB).

53*. *Rhamphomyia* (s. str.) *hungarica* (WÉBER, 1969)

VS: Leuk (Brentjong, Pfywald) (CBM).

54*. *Rhamphomyia* (s. str.) *laevipes* (FALLÉN, 1816)

AG: Aristau (CGB). **GR**: Dischmatal (CGB). **ZH**: Zürich (Oerlikon) (CBM, ETHZ).

55. *Rhamphomyia* (s. str.) *loewi* NOWICKI, 1868

KEISER (1947): **GR**: Swiss National Park (see below, specimens from BNM).

GR: Alp Buffalora (BNM); God Trupchun (BNM); Lenzerheide (Piz Scalottas) (CBM); Munt la Schera (BNM); Murtergrat (BNM); Piz Umbrail (DEI); Sesvenna (DEI); Sta. Maria (ZMH); Val Cluozza (BNM); Val Minger (BNM); Val Muraunza (BNM); Val Müschauns (BNM).

56. *Rhamphomyia* (s. str.) *luridipennis* NOWICKI, 1868

KEISER (1947): **GR**: Swiss National Park.

BE: Grimsel (ETHZ). **GR**: Dischmatal (CGB); Flüela-Pass (CBM); Juf-Stallerberg (CBM); Maloja (DEI); Oberalppass (CGB); St. Moritz (DEI); Val Languard (CUP, NHMB); Val Minger (BNM). **VS**: Geisspfadsee (NHMB); Grimentz (MHNN); Mont d'Etoile (DEI).

57. *Rhamphomyia* (s. str.) *melania* BECKER, 1887

KEISER (1947): **GR**: Swiss National Park.

GR: Dischmatal (CGB). **TI**: Bolle di Pianazzora (MSNL); Canariscio di Ritom (MSNL); Piora (ETHZ). **VS**: Riederfurka, 2000m (MHNN).

58. *Rhamphomyia* (s. str.) *montana* OLDENBERG, 1915

KEISER (1947): **GR**: Swiss National Park. VOLKART (1991): **LU**: Hasle.

GL: Richisau (CGB). **GR**: Bergün (DEI); Bosch de San Remo Mesocco (MSNL); God dal Fuorn (MHNN); Il Fuorn (MHNN); Lenzerheide (CBM, CGB); Savognin (CGB); St. Moritz (DEI); Zuoz (Nüd) (CBM, CGB, ETHZ). **NE**: Cachot (CCB); Les Bayards (MHNN). **TI**: Angone/Anzonico (CGB); Bedretto (CGB). **VS**: Längtal (NHMB); Oberwald (CGB); Riederalp (CGB); Visperterminen (CBM, ETHZ).

59*. *Rhamphomyia* (s. str.) *nigromaculata* VON ROSER, 1840

NE: Neuchâtel (MHNN).

60*. *Rhamphomyia* (s. str.) *nitidula* ZETTERSTEDT, 1842

ZH: Sihlbrugg (ETHZ).

61. *Rhamphomyia* (s. str.) *nubigena* BEZZI, 1904

KEISER (1947): **GR**: Swiss National Park (see below).

GR: Val Foraz (BNM).

62*. *Rhamphomyia* (s. str.) *parvicellulata* FREY, 1922

BE: Weissenburg i. S. (ETHZ).

63*. *Rhamphomyia* (s. str.) *plumipes* (MEIGEN, 1804)

TI: Campra di La' (MSNL). **VD**: Burtignière (CCB).

64. *Rhamphomyia* (s. str.) *sanctimauritii* BECKER, 1887

KEISER (1947): **GR**: Swiss National Park.

GR: Pontresina (ZMH); Samedan (ETHZ); St. Moritz (DEI).

65. *Rhamphomyia* (s. str.) *serpentata* Loew, 1856

KEISER (1947): **GR**: Swiss National Park.

GR: Alp Flix (CGB); Dischmatal (CBM, CGB); Maloja (DEI); St. Moritz (DEI); Zuoz (ETHZ).

66*. *Rhamphomyia* (s. str.) *spinipes* (FALLÉN, 1816)

GR: Andeer (ETHZ); Sedrun (ETHZ). **TI**: Intragna (MSNL); Olivone (MSNL).

67. *Rhamphomyia* (s. str.) *stigmosa* MACQUART, 1827

RINGDAHL (1957): **GR**: Arosa. REDARD (1985): **NE**: Chaux d'Amin. VOLKART (1991): **LU**: Hasle.

BE: Flühli (ETHZ). **GR**: Alp Flix (CBM, CGB); Buffalora (MHNN); Dischmatal (CGB); Tschier (MHNN). **JU**: La Ferrière (MHNN). **NE**: V. Maix (CCB). **TI**: Piora (ETHZ). **VD**: Burtignière (CCB); Praz Rodet (CCB). **VS**: Oberwald (CGB).

68. *Rhamphomyia* (s. str.) *sulcata* (MEIGEN, 1804)

BASSET (1985): NE: Cachot.

AG: Gipf/Oberfrick (CGB); Siggenthal (CGB). BE: Bätterkinden (CGB); Pelzmühletal (NHMB); Schachental (NHMB). BL: Röschenz (NHMB). FR: Grandsivaz (MHNN). GR: Clangia-Schlucht (MHNN); Lenzerheide (CBM); Tschier (MHNN); Zuoz (ETHZ). JU: Courtedoux (MHNN). LU: Altbüron (ETHZ). NE: Bevaix (MHNN); Fleurier (MHNN); Les Bayards (MHNN). SO: Kleinlützel (NHMB). VD: Burtignière (CCB). ZH: Lägern-Boppelsen (CBM); Zürich (Katzensee, Zürichberg) (CBM, CGB, ETHZ).

69. *Rhamphomyia* (s. str.) *sulcatella* COLLIN, 1926

REDARD (1985): NE: Chaux d'Amin. VOLKART (1991): LU: Hasle.

AG: Aristau (CGB). VS: Zermatt-Stafelalp (NHMB). ZH: Sihlbrugg (ETHZ); Wetzikon (CBM, ETHZ); Zürich (Waldgarten, Zürichberg) (CBM).

70*. *Rhamphomyia* (s. str.) *sulcatina* COLLIN, 1926

ZH: Illnau (ETHZ).

71. *Rhamphomyia* (s. str.) *tibialis* MEIGEN, 1822

REDARD (1985): NE: Chaux d'Amin.

NE: Les Verrières (MHNN).

72. *Rhamphomyia* (s. str.) *tristriolata* NOWICKI, 1868

KEISER (1947): GR: Swiss National Park.

GR: Ftan (CMB). VS: Visperterminen (CBM).

73*. *Rhamphomyia* (s. str.) *vesiculosa* (FALLÉN, 1816)

VD: Burtignière (CCB).

DISCUSSION

The present list contains 73 species, which are known with certainty from Switzerland, of which 36 are recorded here for the first time. There are additional four species listed from Switzerland in CHVÁLA (1989), but we did not succeed in finding either the original sources or new material of *R. sciarina* (FALLÉN), *R. rupestris* OLDENBERG, *R. minor* OLDENBERG, and *R. geniculata* MEIGEN. At least in the case of *R. minor* and *R. rupestris* it was obviously due to the misinterpretation of localities and these species should be omitted from the checklist. In the case of several other species mentioned in CHVÁLA (1989) we did not find the original source either, but we had additional material at our disposal (e.g. *R. culicina* and *R. trigemina*). *R. aterrima* FREY was published by KEISER (1947) from Val Muschauns (Swiss National Park) based on one specimen, but we did not find it.

ACKNOWLEDGEMENTS

We would like to thank the following curators who generously put the material under their care at our disposal: J. P. MÜLLER (BNM); M. CHVÁLA (CUP); F. MENZEL and the late G. MORGE (DEI); J.-P. HAENNI (MHNN); F. RAMPAZZI (MSNL); M. BRANCUCCI (NHMB); H.-P. TSCHORSNIG (SMNS); B. LINDBERG (ZMH); B. BRUGGE (ZMUA). In addition we should express our thanks to C. VAUCHER-VON BALLMOOS and G. BÄCHLI for the loan of material from their private collections. K. TSCHUDI-REIN critically checked the English of an earlier version of the manuscript. The present paper was supported

by grant No 206/95/0970 of the Grant Agency of the Czech Republic which is gratefully acknowledged.

ZUSAMMENFASSUNG

In der vorliegenden Arbeit werden 73 Arten von *Rhamphomyia* (Diptera, Empididae) für die Schweiz aufgeführt, wovon 36 Arten hier zum ersten Mal gemeldet werden. Von 71 Arten wurden Tiere untersucht, die aus der Schweiz stammen, während *Rh. sciarina* und *Rh. geniculata* nur aus der Literatur bekannt sind. *Rh. minor* und *Rh. rupestris* werden von der Liste der schweizerischen Arten gestrichen, weil sie wegen Fundortsverwechslung irrtümlich aus der Schweiz publiziert wurden. Für alle Arten werden die bekannten Literaturhinweise und die Lokalitäten der untersuchten Tiere angegeben.

REFERENCES

- BARTÁK, M. 1981. A Revision of the *Rhamphomyia albosegmentata*-group (Diptera, Empididae), with Descriptions of New Species. *Acta Univ. Carol.-Biol.* 1979 (1981): 361–407.
- BARTÁK, M. 1982. The Czechoslovak species of *Rhamphomyia* (Diptera, Empididae), with description of a new species from central Europe. *Acta Univ. Carol.-Biol.* 1980 (1982): 381–461.
- BARTÁK, M. 1985. A Revision of the *Rhamphomyia* subgenus *Lundstroemiella* (Diptera, Empididae), with description of a new species. *Acta Univ. Carol.-Biol.* 1982–1984 (1985): 9–46.
- BASSET, Y. 1985. Les Peuplements d'Arthropodes sur *Pinus mugo* TURRA dans les Tourbières du Haut-Jura Neuchâtelois. *Bull. Soc. neuchâtel. Sci. nat.* 108: 63–76.
- CHVÁLA, M. 1989. Family Empididae; Introduction and subfamilies Oreogetoninae, Empidinae, Brachystomatinae. In: SOÓS, Á. & PAPP, L. (eds) *Catalogue of Palaearctic Diptera* 6: 228–336.
- COLLIN, J.E. 1961. Empididae. *British Flies* VI: 1–782.
- FREY, R. 1954–56. 28. Empididae (Gattung *Rhamphomyia*). In: LINDNER, E. (ed.). *Die Fliegen der paläarktischen Region IV* (4): 422–584.
- KEISER, F. 1947. Die Fliegen des schweizerischen Nationalparks und seiner Umgebung. I. Brachycera Orthorhapha. *Ergebn. Wiss. Untersuch. schweiz. Nationalparks* 2(18): 1–198.
- OLDENBERG, L. 1917. Die *Rhamphomyien* (Dipt.) des Wiener Hofmuseums. *Arch. Naturgesch.* 83A(6) (1917): 14–27.
- OLDENBERG, L. 1927. Beiträge zur Kenntnis der paläarktischen *Rhamphomyien* (Dipt.). *Konowia* 6(1): 1–29.
- REDARD, O. 1985. Étude écofaunistique des points d'eau de la région Neuchâteloise. Les mares de pâturage de La Chaux-d'Amin. II. La Faune. *Bull. Soc. neuchâtel. Sci. nat.* 108: 87–101.
- RINGDAHL, O. 1957. Fliegenfunde aus den Alpen. *Ent. Tidskr.* 78: 115–134.
- SCHOCH, G. 1889. Prolegomena zur Fauna Dipterorum Helvetiae. *Wiss. Beil. Progr. Kantonsschule Zürich* 1889: 24–40.
- VOLKART, H.D. 1991. Die Insektenfauna des Hochmoores Balmoos bei Hasle, Kanton Luzern. XXV. Diptera 3: Hybotidae und Empididae. *Ent. Ber. Luzern* 25: 51–57.

(received July 1, 1997; accepted July 21, 1997)