

The Rhagionidae (Diptera) of Switzerland

Autor(en): **Majer, Josef M. / Bächli, Gerhard**

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: **22.07.2024**

Persistenter Link: <https://doi.org/10.5169/seals-402684>

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.

The Rhagionidae (Diptera) of Switzerland

JOSEF M. MAJER¹ & GERHARD BÄCHLI²

¹ Ecology and Zoogeography Department, Janus Pannonius University, Ifjuság utja 6, H-7601 Pécs, Hungary

² Zoological Museum, University of Zürich-Irchel, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland

Faunistic records of 31 Swiss rhagionid species are given based on specimens in 7 private and public collections. The following 7 species prove to be new records: *Chrysopilus alpicola* (POKORNY, 1886), *C. erythrophthalmus* LOEW, 1840, *C. laetus* ZETTERSTEDT, 1842, *C. palparis* LOEW, 1869, *Rhagio latipennis* (LOEW, 1856), *R. perrisi* (GOBERT, 1877), and *Symphoromyia immaculata* (MEIGEN, 1804). One species, *Spania nigra*, has to be deleted from the Swiss fauna because its record is based on a misidentification of a partly destroyed *Ptiolina* sp. The Swiss fauna is regarded as well surveyed; however, 3 to 4 additional species might be found by extensive collecting.

Keywords: Rhagionidae, Switzerland, faunistics

INTRODUCTION

The snipe flies (Rhagionidae) form a group of conspicuous, rather large flies. They are often encountered on leaves, trees, shrubs etc. It is therefore not surprising that some species are collected in large numbers even by non-dipterists.

While preparing the chapter “Rhagionidae” for the “Checklist of the Diptera of Switzerland”, an attempt has been made to check all specimens collected in Switzerland and to gather all respective data previously published.

During this study, more than 2200 specimens have been checked; they belong to the following collections:

- ETHZ Entomologische Sammlung der ETH Zürich (B. MERZ)
- MHNG Muséum d'Histoire naturelle, Genève (D. BURCKHARDT)
- MHNN Musée d'Histoire naturelle, Neuchâtel (J.-P. HAENNI)
- MZL Musée zoologique, Lausanne (C. HOFMANN)
- NMBE Naturhistorisches Museum Bern (E. OBRECHT)
- CBM private collection B. MERZ
- CGB private collection G. BÄCHLI

Furthermore, some specimens are included which are deposited in the rhagionid collection of the “Museum für Naturkunde” (Berlin).

KRIZELJ (1971) has checked most of the specimens in the collection of the “Naturhistorisches Museum Basel”; KEISER (1947) recorded the rhagionids of the Swiss National Park (now deposited in the “Bündner Naturmuseum Chur”). The data given by these two authors are accepted and not cited here again.

A complete revision of the Swiss rhagionid fauna has not been made yet, although some papers deal with certain areas (AM STEIN, 1857; MEYER-DÜR, 1862; JAENNICKE, 1867; VON HEYDEN, 1868; BECKER, 1887; SCHOCH, 1889; TOURNIER, 1889; WEGELIN, 1892, 1896; JACOB, 1912; KEISER, 1947; RINGDAHL, 1957; KRIZELJ, 1971; LINDNER, 1973; MEIER & SAUTER, 1989; BLÖCHLINGER, 1990). There are very

few extant specimens of the species mentioned in the papers published before KEISER (1947); therefore, these references are critically reviewed.

The Swiss records in the "Catalogue of Palaearctic Diptera" (MAJER, 1988) were based in part on publications, in part on specimens in different collections, in part because certain species are known from the mountain region of Austria, Italy, and/or France, or are widespread in the Atlantic region of Europe (e.g. *Chrysopilus flaveolus*, *Ptiolina cinereofasciata*, *Rhagio subpilosus*).

Taken in all, the Swiss fauna can be regarded as well surveyed. However, three to four additional species might be found by extensive collecting. Unfortunately, only few data about the habitat of most species are available; therefore, further collectings should include such data as well.

Due to their variability, some species of Rhagionidae are difficult to be identified. However, a combination of the keys published by MACQUART (1826), BECKER (1900, 1920–1923), VERRALL (1909), LINDNER (1922, 1923, 1925, 1942), SZILÁDY (1932), ROZKOŠNÝ & SPITZER (1965), and NAGATOMI (1982) might be useful.

FAUNISTICS

In the following list, full collection dates and locations are given for rare species; otherwise, the month of collection is mentioned (in roman numbers) and the location is summarized. The nomenclature follows the "Catalogue of Palaearctic Diptera" (MAJER, 1988). Genera and species are alphabetically arranged.

Chrysopilus MACQUART, 1826

This genus is distributed all over the World except Antarctica. In Europe, 24 species are known, at least 10 species in Switzerland.

1. *Chrysopilus alpicola* (POKORNY, 1886) [New to Switzerland]

Specimens studied: **GR**: Lenzerheide, 19.VII.1996, MERZ, 1 Ex.; Valbella/Casoja, 17.VII.1996, MERZ, 1 Ex. (both CBM); Zuoz, 20.VII.1971, SAUTER, 1 Ex.; 19.VII.1972, SAUTER, 2 Ex.; 25.VII.1973, SAUTER, 1 Ex.; 17.VII.1975, SAUTER, 1 Ex.; 19.VII.1978, SAUTER, 7 Ex.; 18.–19.VII.1979, SAUTER, 4 Ex. (all ETHZ). **TI**: Piora, 20.VII.1983, SAUTER, 2 Ex. (ETHZ). **VS**: Berisal, 28.VI.–10.VII.1919, ESCHER-KÜNDIG, 2 Ex.; (ETHZ).

Mentioned by SCHOCH (1889) and MAJER (1988) from the Stiflserjoch, just outside of Switzerland.

2. *Chrysopilus auratus* (FABRICIUS, 1805)

Specimens studied: **AG**: Bergdietikon, VII., BÄCHLI, 2 Ex.; Aarau, (Umgebung), VI., ZÜRCHER, 2 Ex.; Villnachern, II.–IX., MAURER, MEIER, 12 Ex.; Würenlos, VI., SAUTER, 1 Ex. **BE**: Adelboden, VII., DÄNIKER, 6 Ex.; Aeschi bei Spiez, VI., MERZ, 1 Ex.; Bern, VI., 5 Ex.; Burgdorf, MEYER-DÜR, 4 Ex. **FR**: Jaunpass, VII., AUBERT, 1 Ex.; Lac des Joncs, VII., PASSELLO, 2 Ex.; Les Pacots, VII., PASSELLO, 2 Ex. **GE**: Russin, VI., AUBERT, 2 Ex. **GL**: Richisau, VIII., BÄCHLI, 2 Ex.; Schwanden, VI., MERZ & EGGENBERGER, 1 Ex.; Schwanden/Niederental, VI., MERZ, 1 Ex.; Werbenalp, VIII., ESCHER-KÜNDIG, 1 Ex. **GR**: Andeer, VI., MERZ, 1 Ex.; Lenz, VII., MERZ, 1 Ex.; Lenzerheide, VII., MERZ, 1 Ex.; S-chanf, VII., DE BEAUMONT, 1 Ex.; Valbella, VII., MERZ, 2 Ex. **LU**: Altbüron, VI., MERZ, 2 Ex. **NE**: Les Ponts-de-Martel, VI., HAENNI, 1 Ex.; Neuchâtel, JACOB, 2 Ex. **TG**: Ermatingen, VII., BUCHER, 4 Ex. **VD**: Ballens, VI., AUBERT, 2 Ex.; Bois de Chênes, VI., AUBERT, 3 Ex.; Boussens, VII., PASSELLO, 3 Ex.; Chapelle, VI., AUBERT, 1 Ex.; Cudrefin, VI., HAENNI, 1 Ex.; Aigle, VI.–VII., PASSELLO, 2 Ex.; Jorat, VI., AUBERT, DE BEAUMONT, 5 Ex.; L'Allier, VIII., AUBERT, 1 Ex.; La Forclaz Ormonts, VII., PASSELLO, 2 Ex.; La Forclaz, VI.–VII., PASSELLO, 7 Ex.; Lausanne-Belmont, VI.–VII., AUBERT, 2 Ex.; Lausanne-Vidy, VI., AUBERT, 4 Ex.; Les Pléiades, VI.–VIII., AUBERT, 9 Ex.; St. Sulpice, V.–VI., SCHMID, 5 Ex.; Yverdon, VI., BOUVIER, 1 Ex.; Yverne, VII., PASSELLO, 1 Ex. **VS**: Aletsch, VII., HAENNI, 3 Ex.; Berisal, VII., ESCHER-KÜNDIG, 5 Ex.; Crans, VIII., SCHMID, 1 Ex.; Finges, V.–VII., AUBERT, SCHMID, 6 Ex.; Lac de Lovenez, VII., PASSELLO, 1 Ex.; Le Bouveret, VII., PASSELLO, 2 Ex.; Muraz,

VII., PASSELLO, 1 Ex.; St. Niklaus, VII., DÄNIKER, 2 Ex.; Sierre, JACOB, 1 Ex.; Val Ferpècle, VI., AUBERT, 1 Ex.; Vétroz, VI., 1 Ex. **ZH**: Boppelsen, VII., SAUTER, 1 Ex.; Flaach, VI., MERZ, 1 Ex.; Glattbrugg, V., ESCHER-KÜNDIG, 1 Ex.; Glattfelden, V., MERZ, 1 Ex.; Illnau, VI., SAUTER, 1 Ex.; Kempthal, VI., GLATTHAAR, 1 Ex.; Lägern ZH/AG, V., ESCHER-KÜNDIG, 1 Ex.; Sihlbrugg, VI.–VII., RÜEGG, 10 Ex.; Zürich, NAEGELI, 1 Ex.; Zürich, V.–VIII., ZÜRCHER, MERZ, 14 Ex.; Zürich-Hönggerberg, VII., BÄCHLI, 6 Ex.; Zürich-Katzensee, VII., BÄCHLI, 7 Ex.; Zürich-Üetliberg, VI., ESCHER-KÜNDIG, 1 Ex.; Zürich-Uto, VI., NAEGELI, 2 Ex. (CBM, CGB, ETHZ, MHNN, MZL, NMBE).

Already mentioned by KRIZELJ (1971), MEIER & SAUTER (1989), and BLÖCHLINGER (1990).

3. *Chrysopilus aureus* (MEIGEN, 1804)

Specimens studied: **AG**: Aarau, (Umgebung), VI.–VII., ZÜRCHER, 3 Ex.; Bergdietikon, VII., BÄCHLI, 1 Ex.; Siggenthal, III.–X., MAURER, 1 Ex.; Villnachern, II.–IX., MAURER, MEIER, 17 Ex.; Würenlingen, VII., BÄCHLI, 3 Ex. **BE**: Bätterkinden, III.–VIII., 2 Ex.; Bern, VI.–VIII., 4 Ex.; Berthoud, VI., AUBERT, 1 Ex.; Biel, VII., BÄCHLI, 3 Ex.; Burgdorf, VI., MEYER-DÜR, 2 Ex.; Weissenburg i. Simmental, HUGUENIN, 1 Ex. **FR**: Estavayer-le Lac, VII., GONSETH, 3 Ex.; Hauteville, VI., PASSELLO, 4 Ex.; Marly, VI., MONTET, 1 Ex.; Les Pacots, VII., PASSELLO, 1 Ex. **GL**: Vorauen, VIII., BÄCHLI, 2 Ex. **GR**: Landquart, VIII., BÄCHLI, 2 Ex.; Le Prese, VIII., ESCHER-KÜNDIG, 2 Ex. **JU**: Boncourt, VI.–VIII., GONSETH, 2 Ex.; Bressaucourt, VII., GONSETH, 2 Ex.; Bure, VI.–VII., GONSETH, 2 Ex.; Chevèze, VII.–VIII., GONSETH, 5 Ex.; Courrendlin, VI.–VIII., GONSETH, 5 Ex.; Courtedoux, VI.–VIII., GONSETH, 5 Ex.; Delémont, VII.–VIII., BÄCHLI, GONSETH, 13 Ex.; Porrentruy, VII., GONSETH, 3 Ex.; Rebeuvelier, VII., HAENNI, 1 Ex. **LU**: Entlebuch-Farb, VII., ROOS, 1 Ex. **NE**: Neuchâtel, VI., JACOB, GONSETH, 2 Ex.; Rochefort, VII., BÄCHLI, 1 Ex. **SG**: Uznach, VII., NAEGELI, ESCHER-KÜNDIG, 2 Ex. **SH**: Merishausen, VI., MERZ, 2 Ex.; Rüdlingen, VII., EGGENBERGER & MERZ, 4 Ex. **SO**: Mariastein, VII., BÄCHLI, 20 Ex.; Zuchwil, VI., NAUER, 1 Ex. **TI**: Biasca, VI., MERZ & BÄCHLI, 1 Ex.; Vezia, VII.–VIII., DUFOUR & GEIGER, 3 Ex. **VD**: Aigle, VI.–VII., PASSELLO, 5 Ex.; Bex, VII., PASSELLO, 2 Ex.; Bois de Chênes, VI.–VII., AUBERT, 2 Ex.; Bousserens, VII., PASSELLO, 2 Ex.; Lausanne-Belmont, VI.–VII., AUBERT, 4 Ex.; Le Sepey Ormonts, VII., PASSELLO, 1 Ex.; Les Grangettes, VII., PASSELLO, 2 Ex.; Lutry, VII., AUBERT, 1 Ex.; Muraz, VII., PASSELLO, 2 Ex.; St. Saphorin s/Morges, VII., PASSELLO, 3 Ex.; Yvorne, PASSELLO, 1 Ex. **VS**: Grimisuat, VII., AUBERT, 1 Ex.; Le Bouveret, VII., PASSELLO, 1 Ex.; Les Evouettes, VII., MERZ, 2 Ex.; Sion, VII., AUBERT, 2 Ex. **ZH**: Affoltern a.A., VIII., MERZ, 1 Ex.; Bachs, VIII., HAIGIS, 2 Ex.; Dietikon, VII.–VIII., BÄCHLI, 132 Ex.; Illnau, VI., SAUTER, 1 Ex.; Kleinikon, VII., MERZ, 1 Ex.; Lindau-Eschikon, VI.–VII., BRAUN, 12 Ex.; Oetwil/L, VII.–VIII., BÄCHLI & HARING, 2 Ex.; Rüdlingen, VII., MERZ, 1 Ex.; Sihlbrugg, VII.–VIII., RÜEGG, 7 Ex.; Zürich, VIII., BÄCHLI, BOSSHARD, DE MARCHI, ESCHER-KÜNDIG, LENGWILER, MERZ, 25 Ex.; Zürich-Hönggerberg, VII., BÄCHLI, 169 Ex.; Zürich-Katzensee, VII., BÄCHLI, 17 Ex.; Zürich-Zürichberg, VII., BÄCHLI, 1 Ex. (CBM, CGB, ETH, MHNN, MZL, NMBE).

Already mentioned by SCHOCH (1889), WEGELIN (1892, 1896), RINGDAHL (1957), KRIZELJ (1971), MEIER & SAUTER (1989), and BLÖCHLINGER (1990).

4. *Chrysopilus erythrophthalmus* LOEW, 1840 [New to Switzerland]

Specimen studied: **BE**: Bern-Gurten, 30.VII.1954, LOUIS, 1 Ex. (NMBE). **FR**: Lac des Joncs, 13.VII.1970, AUBERT, 1 Ex. (MZL). **VD**: Bavois, 15.VI.1978, AUBERT, 1 Ex. (MZL); Cudrefin, 8.VI.1991, HAENNI, 1 Ex. (MHNN). **ZH**: Dietikon, 30.–31.VII.1983, BÄCHLI, 1 Ex. (CGB).

Remarks: A western Palearctic species; most probably it has been collected in Switzerland before, but was misidentified.

5. *Chrysopilus flaveolus* (MEIGEN, 1820)

Remarks: Known from the Austrian, Italian, and French Alps. SCHOCH (1889) mentioned it from Switzerland but this record has not been verified. However, its occurrence in Switzerland is very probable.

6. *Chrysopilus helvolus* (MEIGEN, 1820)

Specimens studied: **VS**: Grimentz, 24.VI.–8.VII.1949, 1 Ex. (MZL); **ZH**: Zürich, 7.VII.1993, MERZ, 1 Ex. (CBM).

Already mentioned by SCHOCH (1889) and MAJER (1988).

Remarks: Old, very dry and hairless specimens might be confused with *C. aureus*.

7. *Chrysopilus laetus* ZETTERSTEDT, 1842 [New to Switzerland]

Specimens studied: **GR**: Cierfs, 5.VII.1964, AUBERT, 1 Ex. (MZL). **NE**: Neuchâtel, 8.VIII.1993, HAENNI, MHNN). **SH**: Rüdlingen, 2.–3.VII.1994, MERZ, 1 Ex. (CBM). **ZH**: Zürich, 6.VII.1994, MERZ, 1 Ex.; 23.VII.1996, MERZ, 1 Ex. (both CBM).

Remarks: Also known from the Pyrenees and the Alps outside of Switzerland. Therefore, the presence of this species was to be expected.

8. *Chrysopilus luteolus* (FALLÉN, 1814)

Specimens studied: **BE**: Weissenburg i. Simmental, HUGUENIN, 2 Ex. (ETHZ). **GL**: Vorauen, 20.VII.1995, BÄCHLI, 2 Ex. (CGB). **GR**: Laax, VII.–IX. 1892, ESCHER-KÜNDIG, 1 Ex.; Zuoz, 16.VII.1975, SAUTER, 1 Ex. (both ETHZ). **SG**: Betlis/Walensee, 25.VI.1995, MERZ, 1 Ex. (CBM). **SZ**: Oberiberg/Ibergereg, 29.VI.1994, MERZ, 1 Ex.; Pragelpass, 7.VIII.1995, MERZ, 1 Ex.; Wägital/Höhfläschen, 6.VIII.1995, MERZ, 1 Ex. (all CBM). **VD**: La Forclaz Ormonts, 28.VII.1959, PASSELLO, 1 Ex. (MZL); **ZH**: Sihlbrugg, 25.VII.1994, RÜEGG, 1 Ex. (ETHZ).

Already mentioned by RINGDAHL (1957) and MAJER (1988).

9. *Chrysopilus nubecula* (FALLÉN, 1814)

Specimens studied: **BE**: Brünig, VI.–8.VII., ESCHER-KÜNDIG, 2 Ex. (ETHZ); Burgdorf, MEYER-DÜR, 1 Ex. (NMBE); Mürren, 3.VIII.1908, DÄNIKER, 1 Ex. (NMBE). **GL**: Richisau, VIII., BÄCHLI, 2 Ex. (CGB). **GR**: Ftan, VII.–VIII., MERZ, 8 Ex. (CBM, ETHZ); Landquart, VIII., ARTER, 1 Ex. (CGB); Samedan, VIII., MERZ, 1 Ex. (CBM); Savognin, VIII., BÄCHLI, 4 Ex. (CGB); Susch, VIII., MERZ, 1 Ex. (CBM); Valbella, VII., MERZ, 2 Ex. (CBM, ETHZ); Zernez, VIII., BÄCHLI, 1 Ex. (CGB); Zernez, VIII., MERZ & BÄCHLI, 8 Ex. (ETHZ); Zernez, VIII., MERZ, 9 Ex. (CBM). **VS**: Grimentz, 24.VI.–8.VII.1949, 1 Ex. (MZL). **ZH**: Zürich-Hönggerberg, VII., BÄCHLI, 14 Ex. (CGB).

Already mentioned by BECKER (1887), SCHOCH (1889), and KRIZELJ (1971).

10. *Chrysopilus palparis* LOEW, 1869 [New to Switzerland]

Specimen studied: **VD**: Vallorbe, 3.VII.1945, SCHMID, 1 Ex. (MZL).

Remarks: Hitherto only recorded from Corfu (Greece) by LOEW (1869) and from Italy by SZILÁDY (1934). It was regarded as a Mediterranean species. The type specimen is lost. To stabilize the identity of the species, a revision and neotype designation is needed.

11. *Chrysopilus splendidus* (MEIGEN, 1820)

Specimens studied: **GL**: Vorauen, VII., BÄCHLI, 9 Ex. **GR**: Ausserferrera, VI., MERZ, 1 Ex.; Il Fuorn, VII., DE BEAUMONT, 2 Ex.; Le Prese, VIII., ESCHER-KÜNDIG, 1 Ex.; Lenz, VII., MERZ, 1 Ex.; Rothenbrunnen, VI.–VIII., MERZ, 3 Ex.; S-chanf, VII., DÄNIKER, 2 Ex.; Zuoz, VII., SAUTER, 7 Ex. **NE**: Couvet, VIII., JEANNERET, 1 Ex. **LU**: Altbüron, VI., MERZ, 2 Ex. **SZ**: Einsiedeln, VII., 1 Ex. **TI**: Gordola, VI., MERZ & BÄCHLI, 1 Ex.; Origgio, VII., BÄCHLI, 1 Ex. **UR**: Göschenen, VI., DÄNIKER, 1 Ex. **VS**: Aletsch, VII., HAENNI, 1 Ex.; Ernen, VI., 3 Ex.; Mörel, VII., HAENNI, 2 Ex.; Pfywald, VII., BÄCHLI, 1 Ex. **ZH**: Dietikon, VII., BÄCHLI, 8 Ex.; Küsnacht, VI., SAUTER, 1 Ex. (CBM, CGB, ETHZ, MHNN, MZL, NMBE).

Already mentioned by MAJER (1988).

Ptiolina ZETTERSTEDT, 1842

There are 7 species recorded from Europe. A revision of this genus is required. In addition to the two species mentioned below, there are some undetermined specimens in the private collection of B. MERZ.

12. *Ptiolina cinereofasciata* (SCHUMMEL, 1837)

Mentioned by MAJER (1988).

Remarks: SZILÁDY (1934) mentioned this species from all parts of central and northern Europe. There is good reason to suppose that it occurs in Switzerland as well. SZILÁDY's opinion was based on the largest European rhagionid collection owned by the Hungarian Natural History Museum. This collection burnt down in 1956. A revision of this species should be based on the collections of "Museum für Naturkunde" in Berlin and "Naturhistorisches Museum" in Wien.

13. *Ptiolina obscura* (FALLÉN, 1814)

Specimens studied: **BE**: Bern, 26.VI.1972, 1 Ex. (NMBE). **GR**: Dischmatal, 30.V.–24.VII.1979, WARTMANN, 1 Ex. (CGB). **JU**: Buix, 8.–22.VI.1988, GONSETH, 1 Ex. (MHNN). **NE**: Rochefort, 5.–8.VII.1982, BÄCHLI, 1 Ex. (CGB); 4.–11.VII. 1982, DUFOUR, 2 Ex. (MHNN). **ZH**: Flaach, 6.VI.1993, MERZ, 1 Ex. (CBM).

Already mentioned by LINDNER (1942) and KRIZELJ (1971).

14. *Ptiolina paradoxa* (JAENNICKE, 1866)

Specimens studied: **GR**: Juf-Stallerberg, 19.VI.1994, MERZ, 1 Ex. (CBM). **NE**: Rochefort, 4.–11.VII.1982, DUFOUR, 1 Ex. (MHNN). **TI**: Gordola-Bolle, 19.VI.1995, MERZ, 1 Ex. (CBM). **VS**: Visperterminen, 23.VII.1993, MERZ, 3 Ex. (CBM).

Already mentioned by VON HEYDEN (1868), BECKER (1887), SCHOCH (1889), LINDNER (1942, 1973), and MAJER (1988).

***Rhagio* FABRICIUS, 1775**

54 species are known from Europe, about 14 from Switzerland.

15. *Rhagio annulatus* (DE GEER, 1776)

Specimens studied: **BE**: Burgdorf, MEYER-DÜR, 2 Ex. (NMBE); Burgdorf, MEYER-DÜR, 3 Ex. (MHNG). **VS**: Grône-Poutafontana, 18.V.1996, MERZ & BÄCHLI, 1 Ex. (CGB).

Already mentioned by MEYER-DÜR (1862, specimens from Burgdorf), SCHOCH (1889), and MAJER (1988).

15. *Rhagio chrysostigma* (LOEW, 1857)

Mentioned by MEYER-DÜR (1862) and SCHOCH (1889).

Remarks: This species was described from Görtz and Triest. The old records mentioned from Switzerland are doubtful. Biology unknown.

17. *Rhagio cingulatus* (Loew, 1856)

Specimens studied: **AG**: Argovie, FREY-GESSNER, 1 Ex. (MHNG). **JU**: Clos du Doubs, 19.VII.1994, GONSETH, 1 Ex. (MHNN). **NE**: Fleurier, 22.VI.1985, HAENNI, 1 Ex. (MHNN). **TI**: Tessin, FREY-GESSNER, 1 Ex. (MHNG). **VD**: Diablerets, VII.1937, 2 Ex. (MHNG); St. Cergues, NAVILLE, 6 Ex. (MHNG).

Already mentioned by MEYER-DÜR (1862) and SCHOCH (1889).

18. *Rhagio conspicuus* MEIGEN, 1804

Specimens studied: **AG**: Aarau, (Umgebung), VI.–VII., ZÜRCHER, 5 Ex.; Würenlos, VI., SAUTER, 1 Ex. **BE**: Adelboden, VII., DÄNIKER, GANSSER, 2 Ex.; Beatenberg, VI., SCHMIDLIN, ISENSCHMID, 6 Ex.; Bern, VI., LOUIS, STECK, DÄNIKER, 10 Ex.; Burgdorf, MEYER-DÜR, 1 Ex.; Engstligen, VIII., GANSSER, 1 Ex.; Engstligental, VII., GANSSER, 2 Ex.; Gasterntal, VII., GANSSER, 1 Ex.; Grauholz, V., 1 Ex.; Guggisberg, VII., KÜNZI, 1 Ex.; Lenk, VI., BUCHER, 2 Ex.; Thun, VI., NAEF, 1 Ex.; Weissenburg i. Simmental, HUGUENIN, 11 Ex.; Weissenburgbad, VII., ISENSCHMID, 1 Ex.; Wengen, VIII., DÄNIKER, 2

Ex.; Wengernalp, VIII., GANSSER, 1 Ex. **FR**: Châtel St. Denis, VII., AUBERT, 1 Ex.; Vallon des Morthéys, VI.–IX., STRUB, 1 Ex. **GL**: Richisau, VI., 1 Ex.; Schwanden, VI., EGGENBERGER & MERZ, 3 Ex.; Schwanden/Niederntal, VI., MERZ, 1 Ex.; Vorauen, VIII., BÄCHLI, 1 Ex. **GR**: Ausserferrera, VI., MERZ, 1 Ex.; Davos, VII.–IX., ESCHER-KÜNDIG, 9 Ex.; Lenz, VII., MERZ, 4 Ex.; Lenzerheide, VII., MERZ, 5 Ex.; Valbella, VII., MERZ, 15 Ex.. **LU**: Entlebuch-Farb, V., ROOS, 2 Ex. **NE**: Le Cachot, VII., MATTHEY, 1 Ex.; Les Ponts-de-Martel, IV.–X., GREBER, 1 Ex.; Neuchâtel, JACOB, 2 Ex.; Rochefort, VII., BÄCHLI, 2 Ex. **SZ**: Rigi, VII., 4 Ex. **TG**: Gutbertshausen bei Sulgen, VI. SAUTER, 2 Ex. **TI**: Vezia, VII., DUFOUR & GEIGER, 1 Ex. **VD**: Bex, V.–VI., MANSER, 1 Ex.; Bois de Chênes, VI., AUBERT, 2 Ex.; Bussigny, V., PASSELLO, 1 Ex.; Crissier, VI., AUBERT, DE BEAUMONT, 2 Ex.; Ferreyres, V., DE BEAUMONT, 1 Ex.; Jorat, VI., DE BEAUMONT, 1 Ex.; La Forclaz Ormonts, VII., PASSELLO, 1 Ex.; La Forclaz, VI.–VII., PASSELLO, 3 Ex.; Lausanne-Belmont, VII., AUBERT, 1 Ex.; Le Mormont, VI., PASSELLO, 3 Ex.; Les Pléiades, VI., AUBERT, 1 Ex.; Longirod, VI., PASSELLO, 1 Ex.; Moille Saugeon, VII., AUBERT, 3 Ex.; Monterond, V., SCHMID, 2 Ex.; Onnens, VII., AUBERT, 1 Ex. **VS**: Col de Bretolet, VII.–VIII., AUBERT, 8 Ex.; Van d'en bas, VII., AUBERT, 1 Ex. **ZH**: Eschikon-Lindau, V.–VI., BRAUN, 18 Ex. (CBM, CGB, ETHZ, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), VON HEYDEN (1868), SCHOCH (1889), WEGELIN (1896), and RINGDAHL (1957).

19. *Rhagio immaculatus* (MEIGEN, 1804)

Specimens studied: **AG**: Aarau, (Umgebung), VII. ZÜRCHER, 1 Ex. **BE**: Burgdorf, VI., MEYER-DÜR, 5 Ex. **FR**: Lac des Joncs, VIII., AUBERT, 1 Ex. **GE**: Genève, BÖSCHENSTEIN, SORDET, 3 Ex. **NE**: Neuchâtel, 1 Ex. **TG**: Hudelmoos TG/SG, VII. SAUTER, 1 Ex. **VD**: Les Diablerets, VI.–VII., PASSELLO, 4 Ex. **ZH**: Glattbrugg, VI., 1 Ex.; Greifensee, VI., 5 Ex.; Schwerzenbach, VI., SAUTER, 1 Ex. (CGB, ETHZ, MHNG, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862, specimens from Burgdorf), SCHOCH (1889), and BLÖCHLINGER (1990).

20. *Rhagio latipennis* (LOEW, 1856) [New to Switzerland]

Specimens studied: **AG**: Aristau, V.–VI.1974, WUNDERLICH, 2 Ex. (CGB). **NE**: Les Ponts-de-Martel, 20.IV.–19.X.1974, GREBER, 1 Ex. (CGB). **SO**: Mariastein, 21.–25.VII.1973, BÄCHLI, 1 Ex. (CGB). **SH**: Siblingen, 20.VI.1957, SAUTER, 1 Ex. (ETHZ). **ZH**: Sihlbrugg, 29.VI.1994, RÜEGG, 1 Ex. (ETHZ).

Remarks: It was earlier regarded as an endemic species of the Central European mountains including Carpathians (SPITZER, 1983). Its occurrence in Switzerland had already been awaited.

21. *Rhagio lineola* FABRICIUS, 1794

Specimens studied: **AG**: Aarau (Umgebung), VIII., ZÜRCHER, 2 Ex.; Bergdietikon, VII., BÄCHLI, 4 Ex.; Villnachern, VI.–VIII., MEIER, KUNZ, 13 Ex. **BE**: Adelboden, VII., DÄNIKER, 1 Ex.; Aeschi-Spiez, VI., MERZ, 1 Ex.; Bern, VI.–VIII., DÄNIKER, 6 Ex.; Biel, VII., BÄCHLI, 1 Ex.; Burgdorf, MEYER-DÜR, 2 Ex.; Riggisberg, VIII., 1 Ex. **FR**: Jaunpass, VII., AUBERT, 1 Ex.; Lac de Lussy, VI., PASSELLO, 1 Ex.; Vallon des Morteys, VI.–IX., STRUB, 1 Ex. **GL**: Pragelpass, VIII., BÄCHLI, 1 Ex.; Richisau, VII., MERZ, 1 Ex.; Richisau, VIII., BÄCHLI, 7 Ex.; Schwanden, VI., MERZ & EGGENBERGER, 2 Ex.; Schwanden/Niederntal, VI., MERZ, 2 Ex. **GR**: Alp Flix, VIII., BÄCHLI, 2 Ex.; Andeer, VI., MERZ, 1 Ex.; Ausserferrera, VI.–VIII., MERZ, MERZ & FREIDBERG, 2 Ex.; Grisons, FREY-GESSNER, 2 Ex.; Il Fuorn, VI.–VII., AUBERT, 3 Ex.; Laax, VII.–IX., ESCHER-KÜNDIG, 1 Ex.; Landquart, VIII., BÄCHLI, 3 Ex.; Lenzerheide (Piz Danis), VII.–VIII., MERZ, 3 Ex.; Rothenbrunnen, VI., MERZ, 1 Ex.; S-chanf/Flin, VIII., MERZ & BÄCHLI, 2 Ex.; Samedan, VII., SAUTER, 5 Ex.; Savognin, VIII., BÄCHLI, 1 Ex.; Scharl, VII., AUBERT, 1 Ex.; Scuol, VIII., BÄCHLI, 3 Ex.; Valbella, VII., MERZ, 8 Ex.; Zernez, VIII., BÄCHLI, 2 Ex.; Zernez-Gondas, VIII., MERZ, MERZ & BÄCHLI, 5 Ex.; Zuoz, VII., SAUTER, 5 Ex. **LU**: Menzberg, VIII., BÄCHLI, 6 Ex. **NE**: Les Ponts-de-Martel, VIII., HAENNI, 2 Ex.; Rochefort, VII., DUFOUR, 1 Ex. **SG**: Rheineck, VIII., BÄCHLI, 2 Ex. **SZ**: Rigi, VII., SAUTER, 3 Ex. **TI**: Angone/Anzonico, VIII., BÄCHLI, 1 Ex.; Bellinzona, VIII., BÄCHLI, 4 Ex.; Biasca-Loderio, VI., MERZ, 2 Ex.; Bodio, VIII., HAENNI, 2 Ex.; Gordola, VI., MERZ & BÄCHLI, 2 Ex.; Lavertezzo, VIII., MERZ & EGGENBERGER, 2 Ex.; Locarno, VII., 1 Ex.; Piora, VII., SAUTER, 5 Ex.; Piotta, VIII., BÄCHLI, 6 Ex.; Vezia, VIII., DUFOUR & GEIGER, 1 Ex. **UR**: Seelisberg, VIII., BÄCHLI, 2 Ex.; Unterschächen, 1 Ex. **VD**: Champmartin, VI., HAENNI, 1 Ex.; La Forclaz Ormonts, VII., PASSELLO, 1 Ex.; La Forclaz, VII.–VIII., PASSELLO, 5 Ex.; Moille Saugeon, VII., AUBERT, 1 Ex.; Solalex, VII.–VIII., AUBERT, 2 Ex.; Vallorbe, VII.,

AUBERT, 2 Ex. **VS**: Arolla, VIII., SIEGENTHALER, 1 Ex.; Col de Bretolet, VII.–IX., AUBERT, 11 Ex.; Cols de Cou et de Bretolet, VIII., AUBERT, 1 Ex.; Guttet, VIII., BÄCHLI, 2 Ex.; Leuk, VIII., MERZ, 1 Ex.; Praz de Fort, VIII., AUBERT, SIEGENTHALER, 2 Ex.; Riederalp, VIII., BÄCHLI, 3 Ex.; Saastal, VII., ESCHER-KÜNDIG, 1 Ex.; Van d'Enhaut, VII., PASSELLO, 1 Ex.; Visperterminen, VII., MERZ, SAUTER, 7 Ex. **ZH**: Dietikon, VII., BÄCHLI, 2 Ex.; Flaach, VI., MERZ, 1 Ex.; Illnau, VI.–X., SAUTER, 3 Ex.; Maschwanden, VI., MERZ & BÄCHLI, 1 Ex.; Oetwil/L., VII.–VIII., BÄCHLI & HARING, 1 Ex.; Sihlbrugg, VI.–VII., RÜEGG, 32 Ex.; Zürich, VII.–VIII., MERZ, 4 Ex.; Zürich-Hönggerberg, VII., BÄCHLI, 4 Ex.; Zürich-Katzensee, VII., BÄCHLI, 4 Ex. (CBM, CGB, ETHZ, MHNG, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), VON HEYDEN (1868), BECKER (1887), SCHOCH (1889), RINGDAHL (1957), KRIZELJ (1971), LINDNER (1973), and MEIER & SAUTER (1989).

Remarks: Some of these authors explicitly refer to the subspecies *monticola* EGGER.

22. *Rhagio maculatus* (DE GEER, 1776)

Specimens studied: **AG**: Aarau (Umgebung), V., ZÜRCHER, 1 Ex. **BE**: Adelboden, VII., DÄNIKER, 2 Ex.; Beatenberg, VI., SCHMIDLIN, 1 Ex.; Brünig, VII., ESCHER-KÜNDIG, 1 Ex.; Burgdorf, V., MEYER-DÜR, 1 Ex.; Gals, V., HAENNI, 1 Ex.; Weissenburg i. Simmental, HUGUENIN, 3 Ex. **GR**: Il Fuorn, VII., DE BEAUMONT, 1 Ex.; Laax, VII.–IX., ESCHER-KÜNDIG, 3 Ex.; Lenz, VII., MERZ, 1 Ex.; S-chanf, VII., DE BEAUMONT, DÄNIKER, 3 Ex.; S-charl, VII., HAENNI, DE BEAUMONT, 2 Ex.; Valbella, VII., MERZ, 4 Ex.; Zuoz, VII., SAUTER, 4 Ex. **JU**: Boncourt, VI., GONSETH, 1 Ex.; Bressaucourt, VI., GONSETH, 1 Ex.; Buix, V.–VI., GONSETH, 3 Ex. **NE**: Couvet, VII.–VIII., JEANNERET, 7 Ex.; Les Bayards, VII., HAENNI, 1 Ex.; Les Ponts-de-Martel, IV.–X., GREBER, 2 Ex.; Neuchâtel, V.–VII., HAENNI, 4 Ex.; Rochefort, VI.–VII., BÄCHLI, DUFOUR, 33 Ex. **SG**: Betlis/Walensee, VI., MERZ, 1 Ex. **SH**: Merisshausen, VI., MERZ, 1 Ex. **SZ**: Rigi, VII., SAUTER, 1 Ex. **UR**: Seelisberg, VIII., BÄCHLI, 1 Ex. **VD**: Bois de Chênes, V., AUBERT, 3 Ex.; Boussens, VII., PASSELLO, 1 Ex.; La Forclaz, VII., PASSELLO, 1 Ex.; Le Mormont, VI., PASSELLO, 1 Ex.; Le Sepey Ormonts, VI., PASSELLO, 1 Ex.; Roch Dessous, VII., AUBERT, 2 Ex. **VS**: Col de Bretolet, VII., 1 Ex.; Visperterminen, VII., SAUTER, 1 Ex.; Zermatt, VII., HAENNI, 1 Ex. **ZH**: Dietikon, VI., BÄCHLI, 1 Ex.; Zürich-Katzensee, VII., BÄCHLI, 1 Ex. (CBM, CGB, ETHZ, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), RINGDAHL (1957), and KRIZELJ (1971).

23. *Rhagio notatus* (MEIGEN, 1820)

Specimens studied: **AG**: Würenlingen, VI., BÄCHLI, 1 Ex. **BE**: Brünig, VII., ESCHER-KÜNDIG, 1 Ex.; Burgdorf, V., MEYER-DÜR, 5 Ex.; Rosenlauri, VII., ESCHER-KÜNDIG, 1 Ex.; Weissenburg i. Simmental, HUGUENIN, 1 Ex. **GL**: Richisau, VI., 3 Ex. **GR**: Lenz, VII., MERZ, 1 Ex.; Valbella, VII., MERZ, 1 Ex. **NE**: Tête de Ran, VI., HAENNI, 1 Ex. **SG**: Nesslau, V., AUBERT, 1 Ex. **TI**: Bedretto, VIII., BÄCHLI, 2 Ex. **VD**: Arveyes, VI., AUBERT, 1 Ex.; Lac de Bret, VI., PASSELLO, 1 Ex.; Monterond, V., SCHMID, 1 Ex.; Vallorbe, V.–VI., DUFOUR, 2 Ex. **VS**: Bretolet, VII., 1 Ex.; Champéry, VI., 1 Ex.; Col de Bretolet, VI.–VII., AUBERT, RUEDI, 8 Ex.; Riederalp, VII.–VIII., BÄCHLI, 3 Ex. (CBM, CGB, ETHZ, MHNG, MZL, MHNN, NMBE).

Already mentioned by MEYER-DÜR (1862, specimens from Burgdorf), SCHOCH (1889), RINGDAHL (1957), and KRIZELJ (1971).

24. *Rhagio perrisi* (GOBERT, 1877) [New to Switzerland]

Specimens studied: **VD**: Barbolet, 12.VII.1957, AUBERT, 1 Ex. **VS**: Bretolet, 22.VIII.1960, AUBERT, 3 Ex.; 7.VIII.1961, AUBERT, 1 Ex. (all MZL).

This species is known from the Italian Alps and the French Pyrenees. The biology is unknown. According to SZILÁDY (1934), *R. rolandi* BECKER, 1921, is a synonym of this species. However, the status of both names is doubtful and a revision is needed.

25. *Rhagio scolopaceus* (LINNAEUS, 1758)

Specimens studied: **AG**: Aarau (Umgebung), V.–VI., ZÜRCHER, 7 Ex.; Argovie, FREY-GESSNER, 1 Ex.; Aristau, V.–VI., WUNDERLICH, 2 Ex.; Würenlingen, VI., BÄCHLI, 3 Ex.; Würenlos, VI., SAUTER, 1 Ex.

BE: Bern, V.–VI., DÄNIKER, SCHMIDLIN, 3 Ex.; Bern-Kirchfeld, VI., STECK, 1 Ex.; Burgdorf, MEYER-DÜR, 3 Ex.; Innenberg, V.–VI., GRAF, 2 Ex.; Röthenbach, V., SCHENKER, 1 Ex.; Seftigen, V., STECK, 1 Ex.; Trub Schynenalp, VII., SCHENKER, 2 Ex.; Weissenburg i. Simmental, HUGUENIN, 1 Ex. **FR:** Überstorf, V., STECK, 2 Ex. **GE:** Châtelaine, V., 5 Ex.; Genève, BUSS, SORDET, 4 Ex. **GL:** Schwanden/Niederntal, VI., MERZ, 1 Ex. **GR:** Cresta, VII.–VIII., ESCHER-KÜNDIG, 4 Ex.; Davos, VII.–VIII., ESCHER-KÜNDIG, 4 Ex.; Filisur, VII., WOLF, 1 Ex.; Grisons, TOURNIER, 1 Ex.; Samedan, VII., SAUTER, 6 Ex.; Tarasp, VI., NAUER, 1 Ex.; Zuoaz, VII., SAUTER, 4 Ex. **JU:** Chevez, VI., GONSETH, 1 Ex. **LU:** Entlebuch-Farb, V., 12 Ex.; Hasle, V., ROOS, 2 Ex.; Robenhausen, VI., ISENSCHMID, 1 Ex. **NE:** Le Cachot, VI., HAENNI, 1 Ex.; Les Ponts-de-Martel, VI., HAENNI, 2 Ex.; Marin, V., HAENNI, 1 Ex.; Neuchâtel, VI., JACOB, 4 Ex.; Pouillerel, VII., DUFOUR, 1 Ex. **SG:** Durschlägi, VI., SAUTER, 1 Ex.; Gossau, V., GANSSER, 4 Ex.; Toggenburg, V., AUBERT, 1 Ex. **TG:** Gutbertshausen bei Sulgen, VI., SAUTER, 1 Ex.; Kradolf, V., SAUTER, 1 Ex. **TI:** Ambri, VI., 1 Ex. **VD:** Ballens, VI., AUBERT, 1 Ex.; Bavois, V.–VI., AUBERT, DUFOUR, 2 Ex.; Boussens, VI., AUBERT, 1 Ex.; Buchillon, V., DE BEAUMONT, 1 Ex.; Chapelle, VI., AUBERT, 1 Ex.; Cossonay, V., PASSELLO, 4 Ex.; Cudrefin, VI., HAENNI, 3 Ex.; Gryon, VII., AUBERT, 1 Ex.; L'Isle, DE BORRE, 1 Ex.; La Chaux, SCHMID, 1 Ex.; La Vraconnaz, VI., DUFOUR, 1 Ex.; Lac de Bret, VI., PASSELLO, 2 Ex.; Les Pléiades, VI.–VII., AUBERT, 3 Ex.; Lesites, VI., PASSELLO, 1 Ex.; Longirod, VI., PASSELLO, 4 Ex.; St. Cergues, NAVILLE, 1 Ex. **VS:** Prox, VII., AUBERT, 1 Ex.; Vionnaz, VI., PASSELLO, 1 Ex. **ZH:** Lindau-Eschikon, V., BRAUN, 1 Ex.; Regensdorf, V., 1 Ex.; Sihlbrugg, V., RÜEGG, 2 Ex.; Uster, VI., GLATTHAAR, 12 Ex.; Wädenswil, V., BUCHER, 3 Ex.; Zürich, V.–VII., HUBER, MERZ, SAUTER, 11 Ex. (CBM, CGB, ETHZ, MHNG, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), JAENNICKE (1867), VON HEYDEN (1868), BECKER (1887), SCHOCH (1889), WEGELIN (1892), RINGDAHL (1957), KRIZELJ (1971), and BLÖCHLINGER (1990).

26. *Rhagio strigosus* (MEIGEN, 1804)

Specimens studied: **AG:** Aarau (Umgebung), VI.–VIII., ZÜRCHER, 2 Ex.; Argovie, FREY-GESSNER, 1 Ex.; Hallwilersee, VII., ZÜRCHER, 1 Ex.; Villnachern, VI.–VIII., KUNZ, MEIER, 6 Ex. **BE:** Adelboden, VII., DÄNIKER, 2 Ex.; Belp, VI., BUCHER, 1 Ex.; Bern, V.–IX., DÄNIKER, STECK, 8 Ex.; Burgdorf, MEYER-DÜR, 1 Ex.; Guggisberg, VII., KÜNZI, 2 Ex.; Liebefeld, SCHENKER, 2 Ex.; Niederwangen, VII., SCHENKER, 1 Ex.; Riedbach, VIII., SCHENKER, 2 Ex.; Rosshäusern, VI.–VII., 2 Ex.; Schwarzhäusern, VII., SCHENKER, 1 Ex.; Worb, VIII., SCHENKER, 1 Ex. **FR:** Fiàngères, VII., DUFOUR, 1 Ex. **GE:** Genève, MAERKY, 1 Ex. **JU:** Boncourt, VI.–VII., GONSETH, 3 Ex.; Chevez, VI.–VIII., GONSETH, 3 Ex.; Courrendlin, VI.–IX., GONSETH, 7 Ex.; Courtedoux, VII.–VIII., GONSETH, 1 Ex.; Les Bois, VII., 1 Ex. **NE:** Cornaux, VII., CARL, 1 Ex.; Couvet, VII.–IX., JEANNERET, 2 Ex.; Dombresson, HUGUENIN, 5 Ex.; Fontaine-André, VII., HAENNI, 1 Ex.; Neuchâtel, VII., JACOB, 9 Ex. **SG:** Buchs, VII., ESCHER-KÜNDIG, 1 Ex. **VD:** Agiez, V., SCHMID, 2 Ex.; Allaman, VI., PASSELLO, 1 Ex.; Ballens, VI., AUBERT, 2 Ex.; Bois de Chênes, VI., AUBERT, 1 Ex.; Bussigny, VI.–VII., AUBERT, 5 Ex.; Chardonnay, V., AUBERT, 1 Ex.; Cudrefin, VII., HAENNI, 2 Ex.; Jorat, VI., DE BEAUMONT, 1 Ex.; Les Grangettes, V., PASSELLO, 1 Ex.; St. Saphorin s/Morges, VII., PASSELLO, 2 Ex. **ZH:** Dietikon, VII., BÄCHLI, 1 Ex.; Zürich, VI.–VIII., BÄCHLI, ESCHER-KÜNDIG, MERZ, 6 Ex.; Zürich-Hönggerberg, VII., BÄCHLI, 1 Ex.; Zürich-Katzensee, VII., BÄCHLI, 1 Ex. (CBM, CGB, ETHZ, MHNG, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), SCHOCH (1889), TOURNIER (1889), KRIZELJ (1971), MEIER & SAUTER (1989), and BLÖCHLINGER (1990).

27. *Rhagio subpilosus* (BECKER, 1892)

Mentioned by BECKER (1892) and MAJER (1988).

Remarks: The type specimen of this species is deposited in the collection of the “Museum für Naturkunde” (Berlin). It is labelled “Sedrun 8.12”.

28. *Rhagio tringarius* (LINNAEUS, 1758)

Specimens studied: **AG:** Aarau (Umgebung), VII., ZÜRCHER, 1 Ex.; Villnachern, VII.–VIII., MEIER, 4 Ex. **BE:** Adelboden, VII., DÄNIKER, 2 Ex.; Aeschi-Spiez, VI., MERZ, 2 Ex.; Beatenberg, VII., JACOB, 1 Ex.; Bern, VI.–VIII., DÄNIKER, OCHS, STECK, 9 Ex.; Biel, VII., BÄCHLI, 1 Ex.; Brünig, VII., ESCHER-KÜNDIG, 2 Ex.; Burgdorf, MEYER-DÜR, 4 Ex.; Guggisberg, VII., KÜNZI, 3 Ex.; Hasliberg, VIII., ESCHER-KÜNDIG, 10 Ex.; Hilterfingen, IX., DÄNIKER, 1 Ex.; Hofstetten, VII., BUCHER, 1 Ex.; Innenberg, VI.–VII., GRAF, 2 Ex.; Kandersteg, VII., DÄNIKER, 1 Ex.; Kienthal, VII., DÄNIKER, 1 Ex.; Köniz, VII., SCHMIDLIN, 1 Ex.; Lenk, VII.–VIII., GANSSER, 5 Ex.; Meiringen, VIII., ESCHER-KÜNDIG, 1 Ex.;

Schwarzenegg, VII., SCHMIDLIN, 1 Ex.; Weissenburg i. Simmental, HUGUENIN, 5 Ex.; Wengen, VIII., GANSSER, 1 Ex. **FR**: Lac de Lussy, VI., PASSELLO, 3 Ex.; Lac des Joncs, VII., PASSELLO, 2 Ex.; Les Pacots, VII.–VIII., AUBERT, PASSELLO, 4 Ex. **GE**: Châtelaïne, V.–VI., 4 Ex.; Genève, JURINE, 2 Ex. **GL**: Glarus, VI.–VII., 4 Ex.; Pragelpass, VIII., BÄCHLI, 3 Ex.; Richisau, VIII., ESCHER-KÜNDIG, MERZ, 3 Ex.; Voraue, VIII., BÄCHLI, 2 Ex. **GR**: Andeer, IX., 1 Ex.; Disentis, IX., 2 Ex.; Ausserferrera, VIII., MERZ, 2 Ex.; Grisons, FREY-GESSNER, 1 Ex.; Lenzerheide, VIII., MERZ, 1 Ex.; Savognin, VIII., BÄCHLI, 1 Ex.; Valbella, VII., MERZ, 2 Ex. **JU**: Courrendlin, VI.–VII., GONSETH, 2 Ex.; Courtedoux, VIII., GONSETH, 2 Ex. **NE**: Cornée, VIII., PIAGET, 1 Ex.; Les Ponts-de-Martel, IV.–X., GREBER, 1 Ex.; Neuchâtel, JACOB, 5 Ex. **NW**: Rotzloch, VII., GANSSER, 1 Ex. **OW**: Engelberg, JACOB, 1 Ex. **SG**: Sargans, VII., SAUTER, 1 Ex. **SH**: Rüdlingen, VI., MERZ, 1 Ex. **SO**: Mariastein, VII., BÄCHLI, 1 Ex.; Zuchwil, VI., NAUER, 1 Ex. **SZ**: Einsiedeln, VII., ESCHER-KÜNDIG, 1 Ex.; Pragelpass, VIII., MERZ, 1 Ex. **TG**: Hudelmoos TG/SG, VII., SAUTER, 1 Ex. **TI**: Bignasco, V.–VI., ESCHER-KÜNDIG, 4 Ex.; Gordola-Bolle, VI., MERZ, 1 Ex.; Locarno, V., ISENSCHMID, 1 Ex.; Mte. S. Giorgio, VI., MERZ, 1 Ex.; Novaggio, V., ESCHER-KÜNDIG, 3 Ex.; Tessin, FREY-GESSNER, 2 Ex.; Vezia, VI.–VII., DUFOUR & GEIGER, 4 Ex. **UR**: Amsteg(?), FREY-GESSNER, 1 Ex.; Unterschächen, 1 Ex. **VD**: Arveyes, VII., JACOB, 1 Ex.; Arzier, V., PASSELLO, 1 Ex.; Ballens, VI., AUBERT, 2 Ex.; Barboleuse, VII., PETITPIERRE, 2 Ex.; Bois de Chênes, VI., AUBERT, 1 Ex.; Bussigny, V.–VI., PASSELLO, 3 Ex.; Chésières, VII., GANSSER, 1 Ex.; Cuarnens, VI., AUBERT, 2 Ex.; Cudrefin, VII.–IX., HAENNI, 2 Ex.; Diablerets, VII., 1 Ex.; Echallens, VIII., SIEGENTHALER, 1 Ex.; Jorat, VI.–VII., AUBERT, DE BEAUMONT, 3 Ex.; La Chau, VI., SCHMID, 1 Ex.; La Forclaz Ormonts, VII., PASSELLO, 1 Ex.; La Forclaz, VII.–VIII., PASSELLO, 3 Ex.; Lac de Bret, VI., PASSELLO, 1 Ex.; Le Sepey Ormonts, VII., PASSELLO, 2 Ex.; Les Pléiades, VII.–VIII., AUBERT, 5 Ex.; Monterond, VIII., SCHMID, 2 Ex.; Noville, VI., DE BEAUMONT, 1 Ex.; St. Cergues, VIII., NAVILLE, 1 Ex.; St. Sulpice, VI., SCHMID, 1 Ex.; Ste. Catherine, VIII., AUBERT, 3 Ex.; Villeneuve, FREY-GESSNER, 3 Ex.; Yverdon, VI., BOUVIER, 1 Ex. **VS**: Col de Bretolet, VII.–VIII., AUBERT, 10 Ex.; Cols de Cou et de Bretolet, VIII., 1 Ex.; Plan Cerisier, VI., PASSELLO, 1 Ex.; Vionnaz, VII., DE BEAUMONT, 1 Ex. **ZH**: Andelfingen, VI., GLATTHAAR, 1 Ex.; Dietikon, VII., BÄCHLI, 1 Ex.; Meilen, 1 Ex.; Zürich, V.–VIII., BÄCHLI, MERZ, 6 Ex.; Zürich-Hönggerberg, VII. BÄCHLI, 2 Ex.; Zürich-Katzensee, VIII., BÄCHLI, 1 Ex. (CBM, CGB, ETHZ, MHNG, MHNN, MZL, NMBE).

Already mentioned by MEYER-DÜR (1862), VON HEYDEN (1868), SCHOCH (1889), WEGELIN (1896), RINGDAHL (1857), KRIZELJ (1971), MEIER & SAUTER (1989), and BLÖCHLINGER (1990).

29. *Rhagio vitripennis* (MEIGEN, 1820)

Specimens studied: **AG**: Aarau (Umgebung), V., ZÜRCHER, 2 Ex. **AI**: Appenzell, VII., 1 Ex. **BE**: Bätterkinden, V., RÖÖSLI, 2 Ex.; Belp, VI., 1 Ex.; Bern, VI., SCHMIDLIN, 1 Ex.; Burgdorf, MEYER-DÜR, 10 Ex.; Niederwangen, VII., SCHENKER, 1 Ex. **FR**: Gletterens, V., PASSELLO, 1 Ex.; Lac de Lussy, VI., PASSELLO, 1 Ex. **GE**: Genève, 2 Ex.; La Plaine, VI., NAVILLE, 1 Ex.; Versoix, V., NAVILLE, 1 Ex. **GL**: Glarus, V., 1 Ex.; Klönthal, 1 Ex.; Schwanden, VI., MERZ, 1 Ex. **GR**: Thusis, VI., JACOB, 1 Ex. **JU**: Bressaucourt, VI., GONSETH, 1 Ex.; Chevèze, V.–VI., GONSETH, 2 Ex.; Courrendlin, V.–VI., GONSETH, 4 Ex.; Delémont, V.–VI., GONSETH, 1 Ex. **NE**: Fleurier, VI., HAENNI, 1 Ex.; Le Cachot, VII., MATTHEY, 1 Ex.; Les Verrières, VI.–VII., HAENNI, 2 Ex.; Neuchâtel, V., HAENNI, 10 Ex.; Rochefort, VII., HAENNI, 1 Ex. **SG**: Nesslau, V., AUBERT, 1 Ex.; Toggenburg, V., AUBERT, 1 Ex. **SZ**: Pragelpass, VIII., MERZ, 1 Ex. **VD**: Ballens, VI., AUBERT, 1 Ex.; Cudrefin, V., HAENNI, 1 Ex.; Jorat, V., AUBERT, 3 Ex.; Les Agites, VI., PASSELLO, 1 Ex.; Les Grangettes, V.–VI., PASSELLO, 3 Ex.; Les Planorbes, VI., SCHMID, 2 Ex.; Les Pléiades, VI., AUBERT, 4 Ex.; Monterond, V., SCHMID, 1 Ex.; Vallée de l'Hongrin, VI., AUBERT, 1 Ex.; Vevey, V., PASSELLO, 1 Ex. **VS**: Follaterres, V., AUBERT, 1 Ex.; Grône-Poutafontana, V., MERZ, 2 Ex.; Muraz, V., PASSELLO, 4 Ex. **ZH**: Andelfingen, V.–VI., GLATTHAAR, 22 Ex.; Dietikon, VI., BÄCHLI, 1 Ex.; Illnau, VI., SAUTER, 1 Ex.; Pfannenstil, V., MERZ, 1 Ex.; Uster, VI., GLATTHAAR, 5 Ex.; Winterthur, VI., GLATTHAAR, 2 Ex.; Zürich, VI.–VII., ESCHER-KÜNDIG, HUBER, MERZ, 4 Ex. (CBM, CGB, ETHZ, MHNG, MHNN, MZ, NMBE).

Already mentioned by MEYER-DÜR (1862), SCHOCH (1889), TOURNIER (1889), WEGELIN (1896), JACOB (1912), KRIZELJ (1971), and BLÖCHLINGER (1990).

Spania MEIGEN, 1830

In this genus only one species *S. nigra* MEIGEN, 1830, from Europe and one subspecies *S. nigra americana* JOHNSON, 1923, from Maine (United States) are included.

30. *Spania nigra* MEIGEN, 1830

Remarks: The specimen of *Spania nigra* mentioned by MEIER AND SAUTER (1989) from Switzerland proved to be a damaged *Ptiolina* sp. *Spania nigra* is a rare (or very rarely collected) species. However, there are good reasons to suppose that it occurs in Switzerland where suitable habitats (*Cornus sanguinea*, *Pellia* sp., mosses, several evergreens) are found.

***Symphoromyia* FRAUENFELD, 1867**

In addition to the two species mentioned below, *S. melanea* (MEIGEN, 1820) was recorded from adjacent countries and might occur in Switzerland as well.

31. *Symphoromyia crassicornis* (PANZER, 1806)

Specimens studied: **BE**: Niesen, VI., MERZ, 1 Ex.; Weissenburg i. Simmental, HUGUENIN, 1 Ex. **GL**: Pragelpass, VIII., BÄCHLI, 11 Ex. **GR**: Alp Flix, VIII., BÄCHLI, 6 Ex.; Ausserferrera, VI., MERZ, 2 Ex.; Döss del Termet, VIII., AUBERT, 1 Ex.; Ftan-Clünas, VIII., MERZ & BÄCHLI, 1 Ex.; Lenzerheide, VII.–X., MERZ, 12 Ex.; Mühlen, VII., ESCHER-KÜNDIG, 1 Ex.; Samedan, VII., MERZ, SAUTER, 8 Ex.; Savognin, VIII., ESCHER-KÜNDIG, 1 Ex.; Silvaplana, VIII., ESCHER-KÜNDIG, 1 Ex.; Soglio, VI., ESCHER-KÜNDIG, 1 Ex.; Stättnerhorn, VIII., WOLF, 1 Ex.; Zerne, VI.–VIII., BÄCHLI, SAUTER, 3 Ex.; Zuoz, VII., SAUTER, 25 Ex. **JU**: Vuissens, VII., AUBERT, 2 Ex. **NE**: Les Ponts-de-Martel, IV.–X., GREBER, 1 Ex. **OW**: Melchalp, 1 Ex. **SZ**: Pragelpass, VIII., MERZ, 2 Ex. **TI**: Cadagno, VII., SAUTER, 2 Ex.; Piora, VII., SAUTER, 6 Ex. **UR**: Oberalppass UR/GR, VIII., BÄCHLI, 1 Ex. **VD**: Pont de Nant, VII., DE BEAUMONT, 2 Ex. **VS**: Col de Bretolet, VII.–VIII., AUBERT, 31 Ex.; Guttet, VIII., BÄCHLI, 3 Ex.; Lac de Lovenez, VII., PASSELLO, 1 Ex.; Mayens de Sion, VIII., NICOD, 2 Ex.; Pro, VII.–VIII., AUBERT, 2 Ex.; Randa, VII., 4 Ex.; Saas-Fee, VII., AUBERT, 3 Ex.; St. Bernard, VIII., AUBERT, 1 Ex.; Val Ferpècle, VI., AUBERT, 5 Ex.; Visperterminen, VII., MERZ, SAUTER, 26 Ex.; Zermatt, VII., ESCHER-KÜNDIG, 1 Ex. (CBM, CG, ETH, MZL).

Already mentioned by VON HEYDEN (1868), BECKER (1887), WEGELIN (1892), KRIZELJ (1971), and LINDNER (1973).

32. *Symphoromyia immaculata* (MEIGEN, 1804) [New to Switzerland]

Specimens studied: **SH**: Merishausen, 1.VI.1996, MERZ, 7 Ex. (CBM, ETHZ).

ACKNOWLEDGMENTS

We would like to thank all persons who have kindly made available specimens of the respective collections. B. MERZ has made critical comments on an earlier version of the manuscript.

REFERENCES

- AM STEIN, [J.R.]. 1857. Bündner Dipteren. *Jahresber. naturf. Ges. Graubünden, N.F.* 2: 89–111.
 BECKER, T. 1887. Beiträge zur Kenntniss der Dipteren-Fauna von St. Moritz. *Berl. ent. Zeitschr.* 31: 93–141.
 BECKER, T. 1892. Eine neue Leptis aus der Schweiz. Ein dipterologischer Beitrag. *Wien. ent. Ztg.* 11: 23.
 BECKER, T. 1900. Die Leptiden Formen im Gebiete der Europäisch-Asiatischen und Mittelmeer-Fauna. *Ent. Nachr.* 26: 97–116.
 BECKER, T. 1920–1923. Neue Dipteren meiner Sammlung. *Neue Beitr. syst. Insektenk.*, 2(5): 41–48, 2(6): 54–64, 2(7): 69–72, 2(8): 80.
 BLÖCHLINGER, H. 1990. Fliegen und Mücken des Kantons Thurgau (Diptera). 1. Teil. *Mitt. thurg. naturf. Ges.* 50: 105–120.
 CHVÁLA, M. 1983. First record of blood-sucking in Palaearctic Rhagionidae (Diptera), with description of a new *Symphoromyia* of the *crassicornis*-group from Central Asia. *Acta ent. bohemoslov.* 80: 423–436.
 VON HEYDEN, L. 1868. Zur Dipterenfauna des Oberengadins. *Jahresber. naturf. Ges. Graubünden, N.F.* 13: 19–36.
 JACOB, B. 1912. Quelques notes sur la faune du Jura. *Mitt. schweiz. ent. Ges.* 12: 65–66.

- JAENNICKE, F. 1867. Beiträge zur Kenntniss der europäischen Leptiden. *Berl. ent. Z.* 11: 95–100.
- KEISER, F. 1947. Die Fliegen des schweizerischen Nationalparks und seiner Umgebung. Pars I. Brachycera Orthorhapha. *Ergebn. wiss. Untersuch. schweiz. Nationalparks* 2(18): 1–198.
- KRIZELJ, S. 1971. Diptères Rhagionides Belgique et d'Europe occidentale. *Bull. Inst. r. Sci. nat. Belg.* 47(9): 1–31.
- LINDNER, E. 1922. Beiträge zur Systematik der Familie der Rhagionidae. *Konowia* 1: 134–136.
- LINDNER, E. 1923. Dipterologische Studien I. Rhagionidae. *Konowia* 2: 1–11.
- LINDNER, E. 1925. 20. Rhagionidae. In: LINDNER, E. (ed.): *Die Fliegen der palaearktischen Region*, 4(1): 1–49, Taf. A & B. Schweizerbart, Stuttgart.
- LINDNER, E. 1942. Beitrag zur Kenntnis der europäischen Ptiolina-Arten (Diptera: Rhagionidae). *Arb. morph. taxon. Ent. Berl.* 9: 230–241.
- LINDNER, E. 1973. *Alpenfliegen*. Goecke & Evers, Krefeld, 204 pp.
- MAJER, J. 1988. Family Rhagionidae. In: SOÓS, Á. & PAPP, L. (eds), *Catalogue of Palearctic Diptera*, vol. 5, pp. 14–24. Akadémia Kiadó, Budapest.
- MACQUART, J. 1826. Insectes Diptères du nord de la France. Asiliques, Bombyliers, Xylotomes, Leptides, Stratiomydes, Xylophagides et Tabaniens. *Mém. Soc. Sci. Agric. Lille 1825*: 324–499.
- MEIER, C. & SAUTER, W. 1989. Zur Kenntnis der Insektenfauna eines Auenwaldreservates an der Aare bei Villnachern AG. *Mitt. aarg. narturf. Ges.* 32: 217–258.
- MEYER-DÜR, R. 1862. Sammelberichte über entomologische Vorkommnisse um Burgdorf, vom Sommer 1862. *Mitt. schweiz. ent. Ges.* 1(2): 32–36.
- NAGATOMI, A. 1982. The genera of Rhagionidae (Diptera). *J. nat. Hist.* 16: 31–70.
- RINGDAHL, O. 1957. Fliegenfunde aus den Alpen. *Ent. Tidskr.* 78: 115–134.
- ROZKOŠNÝ, R. & SPITZER, K. 1965. Schnepfenfliegen (Diptera, Rhagionidae) in der Tschechoslowakei. *Acta ent. bohemoslov.* 62: 340–368.
- SCHOCH, G. 1889. Miscellanea entomologica. II. Prolegomena zur Fauna Dipteriorum Helvetiae. *Wiss. Beilage Progr. Kantonsschule Zürich 1889*: 24–40.
- SÉGUY, E. 1926. *Diptères (Brachycères) (Stratiomyiidae, Erinnidae, Coenomyiidae, Rhagionidae, Tabanidae, Oncodidae, Nemestrinidae, Mydidae, Bombyliidae, Therevidae, Omphralidae)*. Faune de France, vol. 13, 308 pp., Paris.
- SPITZER, K. 1983. Biogeography of some little-known Palearctic species of Rhagionidae (Diptera). *Věstník čs. společ. zool.* 47: 122–125.
- SZILÁDY, Z. 1932. Schnepfenfliegen, Rhagionidae (Leptidae). In: DAHL, F., (ed.), *Die Tierwelt Deutschlands und der angrenzenden Meeresteile*, Teil 26, pp. 40–54. Gustav Fischer, Jena.
- SZILÁDY, Z. 1934. Die palaearktischen Rhagioniden. *Annl. hist.-nat. Mus. natn. hung.* 28: 229–270.
- TOURNIER, H. 1889. Matériaux pour contribuer à une faune suisse. *L'Entomologiste genev.* 1: 19–228.
- TURNER, W.J. 1974. A revision of the genus *Symphoromyia* FRAUENFELD (Diptera: Rhagionidae) I. Introduction. Subgenera and Species-Groups. Review of biology. *Can. Ent.* 106: 851–868.
- VERRALL, G.H. 1909. Rhagionidae. In: *Stratiomyidae and succeeding families of the Diptera Brachycera of Great Britain. (Series of British Flies)*. London, vol. 5, pp. 232–320.
- WEGELIN, H. 1892. Eine entomologische Excursion in's St. Galler Bergland. *Ber. Thätigk. St. Gall. naturw. Ges.* 1890/91: 307–335.
- WEGELIN, H. 1896. Beitrag zur Insekten-Fauna der Kantone St. Gallen und Appenzell. *Ber. Thätigk. St. Gall. naturw. Ges.* 1894/1895: 115–132.

(received March 12, 1997; accepted after minor revision April 25, 1997)