

Syrphidae

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Diagnosis: Adult Syrphidae are very diverse in terms of size, shapes and colours. They have large eyes in relation to the size of the head, and rather short antennae (with exceptions, e.g. *Chrysotoxum*, *Sphiximorpha*, which have very long antennae). They rarely have bristles (coarse long hairs) but can be covered with long and dense soft-looking hairs or appear rather hairless. They can be distinguished from other Diptera by the wing veins: in almost all species a false vein, the vena spuria, is present, as well as a false border (two outer cross-veins) along the posterior edge of the wing. Colours vary greatly. Many species mimic Hymenoptera (bumblebees, various wasps, bees) and can have striking yellow and black or large orange patterns, while others are more discrete and may be entirely black or brown or metallic green. In addition to their colours, the mimics often behave like Hymenoptera or pretend to have long antennae by waving their black forelegs under their heads.

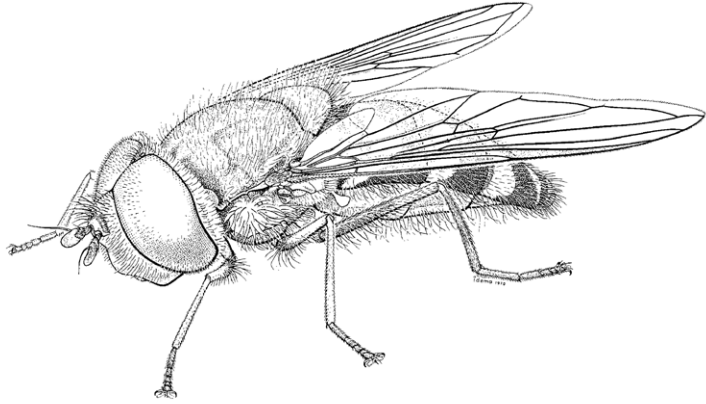
Biology: Adult Syrphidae, also called flower flies or hoverflies, are known for their characteristic hovering flight. They are mostly generalists and feed mainly on flower nectar and pollen, participating in the pollination process. The larvae, on the other hand, are very diversified in their needs and are more specialised. Some species are predatory (feeding on aphids and other soft-bodied insects), thus helping with biological control in crops, others are phytophagous (feeding on stems, bulbs, roots, leaves, etc.), or saprophagous (participating in the decomposition process, such as rotting wood or the accumulation of organic matter) or develop in fungi. Some species develop in the nests of social insects (ants, bumblebees or social wasps) and feed either on their waste, or directly on their brood. Many species are linked to very specific niches in all kinds of habitats, such as forests, meadows, marshes, gardens. It is because of this great diversity and specialisation in larval ecology that Syrphidae are often used as bioindicators of environmental quality.

Number of species: CH: 495 (1998 Checklist: 453),
AT: 430, BE: 341, CZ: 412, DE: 467, FR: 596, GB: 289, IT: 513, NL: 341, SI: 358, SK: 389,
Europe: > 900, World: ~6000

Nomenclature and classification: Adapted from different sources: Syrph the Net (Speight 2020), TAXREF (2024), Systema Dipteroorum (Evenhuis & Pape 2022), Reverté et al. (2023). Microdontinae is considered here as a subfamily of Syrphidae. All genera are sorted alphabetically without reference to tribes or subfamilies for easier read.

Level of faunistic knowledge in Switzerland: Good.

General references: Bot & Van de Meuter (2019, 2023) [keys, species accounts, north-western Europe], Bartsch et al. (2009a, 2009b) [key, species accounts, northern Europe], Láska & Bičík (2013) [larvae], Mengual et al. (2008, 2018), Moran et al. (2021), Rotheray & Gilbert 1989 [phylogeny, systematics], Speight (2020) [keys, species accounts, Europe]



Syrphus torvus,
male (MND2, p. 713).

References to the Swiss fauna: Bächli et al. (2014), Goeldlin de Tiefenau (1974), Goeldlin de Tiefenau & Speight (1997), Maibach et al. (1992, 1998), Merz et al. (2002), Merz et al. (2006), Pétremand et al. (2021, 2022), Schoch (1889).

Checklist

Anasimyia Schiner, 1864

- *contracta* Claussen & Torp, 1980 !
- *interpuncta* (Harris, 1778) ? N1
- *lunulata* (Meigen, 1822) !
- *transfuga* (Linnaeus, 1758) !

Baccha Fabricius, 1805

- *elongata* (Fabricius, 1775) !
- = *obscuripennis* Meigen, 1822 N2

Blera Billberg, 1820

- *fallax* (Linnaeus, 1758) !

Brachyopa Meigen, 1822

- *bicolor* (Fallén, 1817) !
- *bimaculosa* Doczkal & Dziöck, 2004 ! N3
- *dorsata* Zetterstedt, 1837 !
- *grunewaldensis* Kassebeer, 2000 !
- *insensilis* Collin, 1939 !
- *obscura* Thompson & Torp, 1982 ! N4
- *panzeri* Goffe, 1945 !
- *pilosa* Collin, 1939 !

- *plena* Collin, 1939 ? N5
- *scutellaris* Robineau-Desvoidy, 1843 !
- *testacea* (Fallén, 1817) !
- *vittata* Zetterstedt, 1843 !
- Brachypalpoides* Hippa, 1978
 - *lentus* (Meigen, 1822) !
- Brachypalpus* Macquart, 1834
 - *chrysites* Egger, 1859 !
 - *laphriformis* (Fallén, 1816) !
 - = *meigeni* Schiner, 1857 N6
 - *valgus* (Panzer, 1798) !
- Caliprobola* Rondani, 1845
 - *speciosa* (Rossi, 1790) !
- Callicera* Panzer, 1809
 - *aenea* (Fabricius, 1777) !
 - *aurata* (Rossi, 1790) !
 - *macquarti* Rondani, 1844 ! N7
 - *spinolae* Rondani, 1844 ! N7
- Ceriana* Rafinesque, 1815
 - *conopsoides* (Linnaeus, 1758) !
- Chalcosyrphus* Curran, 1925
 - *eunotus* (Loew, 1873) !
 - *femoratus* (Linnaeus, 1758) !
 - = *curvipes* (Loew, 1854) N8
 - *nemorum* (Fabricius, 1805) !
 - *piger* (Fabricius, 1794) !
 - *valgus* (Gmelin, 1790) !
- Cheilosia* Meigen, 1822
 - *aerea* Dufour, 1848 !
 - = *correcta* Becker, 1894
 - = *gemina* Becker, 1894
 - = *zetterstedti* Becker, 1894
 - *ahenea* (von Roser, 1840) !
 - *alba* Vujić & Claussen, 2000 ! N9
 - *albipila* Meigen, 1838 !
 - *albitarsis* (Meigen, 1822) !
 - *alpestris* Becker, 1894 !
 - *antiqua* (Meigen, 1822) !
 - *aristata* Barkalov & Ståhls, 1997 !
 - *barbata* Loew, 1857 !
 - = *honesta* Rondani, 1868
 - *bergenstammi* Becker, 1894 !
 - *brachysoma* Egger, 1860 !
 - *bracusi* Vujić & Claussen, 1994 !
 - *caerulescens* (Meigen, 1822) !
 - *canicularis* (Panzer, 1801) !

- *carbonaria* Egger, 1860 !
- *chloris* (Meigen, 1822) !
- *chrysocoma* (Meigen, 1822) !
- *clama* Claussen & Vujić, 1995 !
- *crassiseta* Loew, 1859 !
- *cynocephala* Loew, 1840 !
- *derasa* Loew, 1857 !
- *fasciata* Schiner & Egger, 1853 !
- *faucis* Becker, 1894 !
- *flavipes* (Panzer, 1798) !
- *fraterna* (Meigen, 1830) !
- *frontalis* Loew, 1857 !
- *gagatea* Loew, 1857 !
- *gigantea* (Zetterstedt, 1838) !
- *griseiventris* Loew, 1857 ! N10
- *grisella* Becker, 1894 !
- *grossa* (Fallén, 1817) !
- *hercyniae* Loew, 1857 !
- *himantopus* (Panzer, 1798) !
- *hypena* Becker, 1894 !
- *illustrata* (Harris, 1780) !
- *impressa* Loew, 1840 !
- *impudens* Becker, 1894 !
- *insignis* Loew, 1857 !
- *laeviseta* Claussen, 1987 !
- *laeviventris* Loew, 1857 !
- *lasiopa* Kowarz, 1885 !
- *laticornis* Rondani, 1857 !
= *latifacies* Loew, 1857
- *latifrons* (Zetterstedt, 1843) !
- *lenis* Becker, 1894 !
= *angustipennis* Becker, 1894
- *lenta* Becker, 1894 !
- *loewi* Becker, 1894 !
- *longula* (Zetterstedt, 1838) !
- *luteicornis* (Zetterstedt, 1838) ! N11 [1]
- *marginata* Becker, 1894 !
- *melanopa* (Zetterstedt, 1843) !
- *melanura* Becker, 1894 !
- *montana* Egger, 1860 !
= *braueri* Becker, 1894
- *morio* (Zetterstedt, 1838) ! N11
= *scanica* (Ringdahl, 1937) N11
- *mutabilis* (Fallén, 1817) !
= *ruralis* (Meigen, 1822)
- *nebulosa* Verrall, 1871 !

- *nigripes* (Meigen, 1822) !
 - *nivalis* Becker, 1894 !
 - *orthotricha* Vujčić & Claussen, 1994 !
 - *pagana* (Meigen, 1822) !
 - *pascuorum* Becker, 1894 !
 - *pedemontana* Rondani, 1857 !
 - *pedestris* Becker, 1894 L
 - *personata* Loew, 1857 !
 - *pictipennis* Egger, 1860 !
 - *pilifer* Becker, 1894 !
 - *proxima* (Zetterstedt, 1843) !
 - *psilophthalma* Becker, 1894 !
 - *pubera* (Zetterstedt, 1838) !
 - *ranunculi* Doczkal, 2000 !
 - *rhodiolae* Schmid, 2000 ? L N12
 - *rhynchops* Egger, 1860 !
 - *rufimana* Becker, 1894 !
 - *sahlbergi* Becker, 1894 !
 - *scutellata* (Fallén, 1817) !
 - *semifasciata* Becker, 1894 !
 - *soror* (Zetterstedt, 1843) !
 - = *rufipes* auct. nec Preyssler, 1793 N13
 - *subpictipennis* Claussen, 1998 !
 - *tonsa* Sack, 1938 !
 - *urbana* (Meigen, 1822) !
 - = *praecox* (Zetterstedt, 1843)
 - *uviformis* Becker, 1894 !
 - *vangaveri* Timon-David, 1937 !
 - *variabilis* (Panzer, 1798) !
 - *velutina* Loew, 1840 !
 - *venosa* Loew, 1857 !
 - *vernalis* (Fallén, 1817) !
 - = *rotundiventris* Becker, 1894 N14
 - = *ruficollis* Becker, 1894 N14
 - *vicina* (Zetterstedt, 1849) !
 - = *nasutula* Becker, 1894
 - *vujici* Claussen & Doczkal, 1998 !
 - *vulpina* (Meigen, 1822) !
- Chrysogaster* Meigen, 1803
- *basalis* Loew, 1857 !
 - *rondanii* Maibach & Goeldlin, 1995 !
 - *solstitialis* (Fallén, 1817) !
 - *virescens* Loew, 1854 !
- Chrysotoxum* Meigen, 1803
- *arcuatum* (Linnaeus, 1758) ! N15
 - = *fasciatum* (Müller, 1764) N15

- *bicinctum* (Linnaeus, 1758) !
- *cautum* (Harris, 1778) !
- *elegans* Loew, 1841 !
- *fasciolatum* (De Geer, 1776) !
- *festivum* (Linnaeus, 1758) ! N15
 - = *arcuatum* auct. nec Linnaeus, 1758
- *intermedium* Meigen, 1822 ! N16
- *lessonae* Giglio-Tos, 1890 ! N16
- *montanum* Nedeljković & Vujić, in Nedeljković et al., 2015 ! N3
- *octomaculatum* Curtis, 1837 !
- *vernale* Loew, 1841 !
- *verralli* Collin, 1940 !

Criorhina Meigen, 1822

- *asilica* (Fallén, 1816) !
- *floccosa* (Meigen, 1822) !
 - = *Brachomyia floccosa* (Meigen, 1822)
- *pachymera* (Egger, 1858) !
- *ranunculi* (Panzer, 1804) !

Dasysyrphus Enderlein, 1938

- *albostriatus* (Fallén, 1817) !
- *eggeri* (Schiner, 1862) !
- *friuliensis* (van der Goot, 1960) !
- *hilaris* (Zetterstedt, 1843) !
- *lenensis* Bagatshanova, 1980 !
- *neovenustus* Soszyński & Mielczarek, 2013 ! N3
- *pauxillus* (Williston, 1887) !
- *pinastri* (De Geer, 1776) ! N17
 - = *lunulatus* auct. nec Meigen, 1822 N18
- *postclaviger* (Stys & Moucha, 1962) ! N19
- *tricinctus* (Fallén, 1817) !
- *venustus* (Meigen, 1822) !
 - = *lunulatus* (Meigen, 1822) N18

Didea Macquart, 1834

- *alneti* (Fallén, 1817) !
- *fasciata* Macquart, 1834 !
- *intermedia* Loew, 1854 !

Doros Meigen, 1803

- *profuges* (Harris, 1780) !
 - = *conopseus* (Fabricius, 1775) N20

Epistrophe Walker, 1852

- *cryptica* Doczkal & Schmid, 1994 !
- *diaphana* (Zetterstedt, 1843) !
- *eligans* (Harris, 1780) !
- *flava* Doczkal & Schmid, 1994 !
 - = *melanostomoides* auct. nec Strobl, 1880
- *grossulariae* (Meigen, 1822) !

- *leiophthalma* (Schiner & Egger, 1853) !
- *melanostoma* (Zetterstedt, 1843) !
 - = *melanostomoides* (Strobl, 1880) N21
- *nitidicollis* (Meigen, 1822) !
- *obscuripes* (Strobl, 1910) ! N3
- *olgae* Mutin, 1993 !
- Epistrophella* Dušek & Láška, 1967
 - *euchroma* (Kowarz, 1885) !
 - = *Epistrophe euchroma* (Kowarz, 1885) N22
 - = *Meligramma euchroma* (Kowarz, 1885)
- Episyrrhus* Matsumura & Adachi, 1917
 - *balteatus* (De Geer, 1776) !
- Eriozona* Schiner, 1860
 - *syrphoides* (Fallén, 1817) !
- Eristalinus* Rondani, 1845
 - *aneus* (Scopoli, 1763) !
 - *sepulchralis* (Linnaeus, 1758) !
 - *taeniops* (Wiedemann, 1818) ! N23
- Eristalis* Latreille, 1804
 - *alpina* (Panzer, 1798) !
 - *arbustorum* (Linnaeus, 1758) !
 - *cryptarum* (Fabricius, 1794) !
 - *horticola* (De Geer, 1776) !
 - = *lineata* (Harris, 1776) N24
 - *intricaria* (Linnaeus, 1758) !
 - *jugorum* Egger, 1858 !
 - *nemorum* (Linnaeus, 1758) !
 - = *interrupta* (Poda, 1761) N25
 - *pertinax* (Scopoli, 1763) !
 - *picea* (Fallén, 1817) !
 - *rupium* Fabricius, 1805 !
 - = *vitripennis* Strobl, 1893 N26
 - *similis* (Fallén, 1817) !
 - = *pratorum* Meigen, 1822 N27
 - *tenax* (Linnaeus, 1758) !
- Eumerus* Meigen, 1822
 - *alpinus* Rondani, 1857 !
 - = *olivaceus* auct. nec Loew, 1848 N28
 - *amoenus* Loew, 1848 !
 - *arctus* van Steenis, 2021 ! N29
 - *argyropus* Loew, 1848 !
 - *clavatus* Becker, 1921 !
 - *consimilis* Simić & Vujić, 1996 ! N3
 - *emarginatus* Loew, 1848 ? N30
 - *flavitaris* Zetterstedt, 1843 !
 - *funeralis* Meigen, 1822 !

- = *tuberculatus* Rondani, 1857 N31
- *grandis* Meigen, 1822 !
- *hungaricus* Szilády, 1940 !
 - = *elaverensis* Séguy, 1961 N32
- *ornatus* Meigen, 1822 !
- *ovatus* Loew, 1848 !
- *pulchellus* Loew, 1848 !
- *sabulonum* (Fallén, 1817) ? N33
- *sinuatus* Loew, 1855 ! N34
- *sogdianus* Stackelberg, 1952 !
- *strigatus* (Fallén, 1817) !
- *tarsalis* Loew, 1848 !
- *tricolor* (Fabricius, 1798) !
- *uncipes* Rondani, 1850 !
- Eupeodes* Osten-Sacken, 1877
 - *abiskoensis* (Dušek & Láska, 1973) ? N35
 - *bucculatus* (Rondani, 1857) ! N36
 - = *latilunulatus* (Collin, 1931) N37
 - *corollae* (Fabricius, 1794) !
 - *flaviceps* (Rondani, 1857) !
 - *goeldlini* Mazánek, Láska & Bičík, 1999 !
 - *latifasciatus* (Macquart, 1829) !
 - *lucasi* (Marcos-García & Láska, 1983) !
 - *luniger* (Meigen, 1822) !
 - *nielsenii* (Dušek & Láska, 1976) !
 - *nitens* (Zetterstedt, 1843) !
 - *nuba* (Wiedemann, 1830) !
 - *tirolensis* (Dušek & Láska, 1973) !
- Eurimyia* Bigot, 1883
 - *lineata* (Fabricius, 1787) !
 - = *Anasimyia lineata* (Fabricius, 1787) N38
- Fagisyrrhus* Dušek & Láska, 1967
 - *cinctus* (Fallén, 1817) !
 - = *Melangyna cincta* (Fallén, 1817)
 - = *Meligramma cincta* (Fallén, 1817) N39
- Ferdinandea* Rondani, 1844
 - *cuprea* (Scopoli, 1763) !
 - *ruficornis* (Fabricius, 1775) !
- Hammerschmidtia* Schummel, 1834
 - *ferruginea* (Fallén, 1817) !
- Helophilus* Meigen, 1822
 - *affinis* Wahlberg, 1844 !
 - *hybridus* Loew, 1846 !
 - *pendulus* (Linnaeus, 1758) !
 - *trivittatus* (Fabricius, 1805) !
 - = *parallelus* (Harris, 1776) N40

- Heringia* Rondani, 1856
 - *heringi* (Zetterstedt, 1843) ! N41
 = *senilis* Sack, 1938 N41
- Ischyroptera* Pokorný, 1887
 - *bipilosa* Pokorný, 1887 !
- Lapposyrphus* Dušek & Láska, 1967
 - *lapponicus* (Zetterstedt, 1838) !
 = *Eupeodes lapponicus* (Zetterstedt, 1838) N42
- Lejogaster* Rondani, 1857
 - *metallina* (Fabricius, 1777) !
 - *tarsata* (Megerle in Meigen, 1822) !
- Lejops* Rondani, 1857
 - *vittatus* (Meigen, 1822) L N43
- Lejota* Rondani, 1857
 - *ruficornis* (Zetterstedt, 1843) !
- Leucozona* Schiner, 1860
 - *glauca* (Linnaeus, 1758) !
 = *Ischyrosyrphus glaucius* (Linnaeus, 1758) N44
 - *inopinata* Doczkal, 2000 !
 - *laternaria* (Müller, 1776) !
 = *Ischyrosyrphus laternarius* (Müller, 1776) N44
 - *lucorum* (Linnaeus, 1758) !
- Mallota* Meigen, 1822
 - *cimbiciformis* (Fallén, 1817) !
 - *fuciformis* (Fabricius, 1794) !
- Matsumyia* Shiraki, 1949
 - *berberina* (Fabricius, 1805) ! N45
 = *Brachymyia berberina* (Fabricius, 1805)
 = *Criorhina berberina* (Fabricius, 1805)
- Megasyrphus* Dušek & Láska, 1967
 - *erraticus* (Linnaeus, 1758) ! N46
 = *Didea erratica* (Linnaeus, 1758)
 = *Eriozona erratica* (Linnaeus, 1758)
 = *Megasyrphus annulipes* (Zetterstedt, 1838)
- Melangyna* Verrall, 1901
 - *arctica* (Zetterstedt, 1838) !
 - *barbifrons* (Fallén, 1817) !
 - *compositarum* (Verrall, 1873) ! N47
 - *ericarum* (Collin, 1946) !
 - *labiatarum* (Verrall, 1901) ! N47
 - *lasiophthalma* (Zetterstedt, 1843) !
 - *pavlovskyi* (Violovitsh, 1956) ! N48
 - *quadrimaculata* (Verrall, 1873) ! N49
 - *umbellatarum* (Fabricius, 1794) !
- Melanogaster* Rondani, 1857
 - *aerosa* (Loew, 1843) !

- *hirtella* (Loew, 1843) !
- *nuda* (Macquart, 1829) !
- *parumplicata* (Loew, 1840) !

Melanostoma Schiner, 1860

- *certum* (Haarto & Ståhls, 2014) !
 - = *dubium* auct. nec Zetterstedt, 1837 N50
- *mellarium* (Meigen, 1822) ! N51
- *mellinum* (Linnaeus, 1758) ! N50
 - = *dubium* Zetterstedt, 1837
 - = *pumicatum* (Meigen, 1838) N52
- *scalare* (Fabricius, 1794) !

Meligramma Frey, 1946 N53

- *cingulata* (Egger, 1860) !
- *guttata* (Fallén, 1817) !
- *triangulifera* (Zetterstedt, 1843) !

Meliscaeva Frey, 1946

- *auricollis* (Meigen, 1822) !
- *cinctella* (Zetterstedt, 1843) !

Merodon Meigen, 1803

- *aberrans* Egger, 1860 !
- *albifrons* Meigen, 1822 !
- *analís* Meigen, 1822 ! N54
 - = *haemorrhoidalis* Sack, 1913
- *armipes* Rondani, 1843 !
- *atratus* (Oldenberg, 1919) ! N55
- *aureus* Fabricius, 1805 !
 - = *aeneus* Meigen, 1822 N56
- *auripes* Sack, 1913 L N57
- *avidus* (Rossi, 1790) !
 - = *spinipes* (Fabricius, 1794)
- *cinereus* (Fabricius, 1794) !
- *clavipes* (Fabricius, 1781) !
- *clunipes* Sack, 1913 ? L N58
- *equestris* (Fabricius, 1794) !
- *flavus* Sack, 1913 !
- *funestus* (Fabricius, 1794) !
- *gallicus* Vujić & Radenković in Vujić et al., 2012 ! N59
 - = *crymensis* auct. nec Paramonov, 1925 N60
- *geniculatus* Strobl, 1909 L N61
- *loewi* van der Goot, 1964 !
- *moenium* Wiedemann in Meigen, 1822 ! N62
- *nigritarsis* Rondani, 1845 !
- *ruficornis* Meigen, 1822 !
- *rufus* Meigen, 1838 !

Mesembrius Rondani, 1857

- *peregrinus* (Loew, 1846) !

Microdon Meigen, 1803 N63

- *analis* (Macquart, 1842) !
- = *eggeri* Mik, 1897 N64
- *devius* (Linnaeus, 1761) !
- *miki* Doczkal & Schmid, 1999 !
- *mutabilis* (Linnaeus, 1758) ! N65
- *myrmicae* Schönrogge et al., 2002 ! N65

Milesia Latreille, 1804

- *crabroniformis* (Fabricius, 1775) !
- *semiluctifera* (Villers, 1789) !

Myathropa Rondani, 1845

- *florea* (Linnaeus, 1758) !

Myolepta Newman, 1838

- *dubia* (Fabricius, 1805) !
- = *luteola* (Gmelin, 1790)
- *obscura* Becher, 1882 !
- *vara* (Panzer, 1798) !
- = *helvetica* (Wainwright, 1911) N66

Neosciasia Williston, 1886

- *annexa* (Müller, 1776) !
- *interrupta* (Meigen, 1822) !
- *meticulosa* (Scopoli, 1763) !
- *obliqua* Coe, 1940 !
- *podagrica* (Fabricius, 1775) !
- *tenur* (Harris, 1780) !
- *unifasciata* (Strobl, 1898) !

Neocnemodon Goffe, 1944

- *brevidens* (Egger, 1865) !
- *fulvimanus* (Zetterstedt, 1843) !
- *latitarsis* (Egger, 1865) !
- *pubescens* (Delucchi & Pschorn-Walcher, 1955) ! N67
- *vitripennis* (Meigen, 1822) !

Orthonevra Macquart, 1829

- *atlantica* Żóralski & Van de Meutter, 2024 ! N68
- *brevicornis* (Loew, 1843) ! N68
- *elegans* (Meigen, 1822) !
- *frontalis* (Loew, 1843) !
- *geniculata* (Meigen, 1830) !
- *intermedia* Lundbeck, 1916 !
- *nobilis* (Fallén, 1817) !
- *onytes* (Séguy, 1961) ! N69
- *plumbago* (Loew, 1840) ! N70

Paragus Latreille, 1804

- *absidatus* Goeldlin, 1971 !
- *albifrons* (Fallén, 1817) !
- *bicolor* (Fabricius, 1794) !

- = *romanicus* Stănescu, 1992 N72
- *constrictus* Šimić, 1986 !
- *finitimus* Goeldlin, 1971 !
- *flammeus* Goeldlin, 1971 !
- *haemorrhous* Meigen, 1822 !
- *majoranae* Rondani, 1857 ! N71
- *pecchiolii* Rondani, 1857 !
- = *Paragus majoranae* auct. nec Rondani, 1857 N71
- *punctulatus* Zetterstedt, 1838 !
- *quadrifasciatus* Meigen, 1822 !
- *testaceus* Meigen, 1822 !
- = *romanicus* auct. nec Stănescu, 1992 N72
- *tibialis* (Fallén, 1817) !
- Parasyrphus* Matsumura, 1917
- *annulatus* (Zetterstedt, 1838) !
- *kirgizorum* (Peck, 1969) ! N73
- *lineola* (Zetterstedt, 1843) !
- *macularis* (Zetterstedt, 1843) !
- *malinellus* (Collin, 1952) !
- *nigritarsis* (Zetterstedt, 1843) !
- *punctulatus* (Verrall, 1873) !
- *tarsatus* (Zetterstedt, 1838) ! N73
- *vittiger* (Zetterstedt, 1843) ! N74
- Parhelophilus* Girschner, 1897
- *consimilis* (Malm, 1863) !
- *frutetorum* (Fabricius, 1775) !
- *versicolor* (Fabricius, 1794) !
- Pelecocera* Meigen, 1822
- *scaevooides* (Fallén, 1817) !
- = *Chamaesyphus scaevooides* (Fallén, 1817) N75
- *tricincta* Meigen, 1822 !
- Pipiza* Fallén, 1810
- *accola* Violovitsh, 1985 ! N19
- *austriaca* Meigen, 1822 !
- *carbonaria* Meigen, 1822 !
- *fasciata* Meigen, 1822 !
- = *fenestrata* auct. nec Meigen, 1822 N76
- *festiva* Meigen, 1822 !
- *lugubris* (Fabricius, 1775) !
- = *signata* Meigen, 1822 N77
- *luteitarsis* Zetterstedt, 1843 !
- *noctiluca* (Linnaeus, 1758) !
- *notata* Meigen, 1822 !
- = *bimaculata* Meigen, 1822 N78
- *quadrimaculata* (Panzer, 1802) !
- Pipizella* Rondani, 1856

- *annulata* (Macquart, 1829) !
- *bispina* Šimić, 1987 !
- *divicoi* (Goeldlin, 1974) !
- *maculipennis* (Meigen, 1822) !
- *nigriana* (Séguy, 1961) !
- *pennina* (Goeldlin, 1974) !
- *speighti* Verlinden, 1999 L
- *viduata* (Linnaeus, 1758) !
- *virens* (Fabricius, 1805) !
- *zeneggenensis* (Goeldlin, 1974) !

Platycheirus Lepeletier & Serville, 1828

- *abruzzensis* (van der Goot, 1969) !
- *albimanus* (Fabricius, 1781) !
- *altomontis* Merlin & Nielsen in Nielsen, 2004 ! N19
- *ambiguus* (Fallén, 1817) !
- *amplus* Curran, 1927 !
- *angustatus* (Zetterstedt, 1843) !
- *angustipes* Goeldlin, 1974 !
- *aurolateralis* Stubbs, 2002 !
- *brunnifrons* Nielsen, 2004 !
- *caesius* Nielsen & Stuke in Nielsen, 2004 !
- *chilosia* (Curran, 1922) ! N19
- *clausseni* Nielsen, 2004 !
- *clypeatus* (Meigen, 1822) !
- *complicatus* (Becker, 1889) !
- *discimanus* Loew, 1871 !
- *europaeus* Goeldlin, Maibach & Speight, 1990 !
- *fasciculatus* Loew, 1856 !
- *fulviventris* (Macquart, 1829) !
- *goeldlini* Nielsen, 2004 !
- *immaculatus* Óhara, 1980 !
- *jaerensis* Nielsen, 1971 !
- *manicatus* (Meigen, 1822) !
- *melanopsis* Loew, 1856 !
- *nielseni* Vockeroth, 1990 !
- *occultus* Goeldlin, Maibach & Speight, 1990 !
- *parmatus* Rondani, 1857 !
- *peltatus* (Meigen, 1822) !
- *perpallidus* Verrall, 1901 !
- *podagratus* (Zetterstedt, 1838) !
- *scambus* (Staeger, 1843) !
- *scutatus* (Meigen, 1822) !
- *speighti* Doczkal, Stuke & Goeldlin, 2002 !
- *splendidus* Rotheray, 1998 !
- *tarsalis* (Schummel, 1836) !
- *tatricus* Dušek & Láška, 1982 !

- *transfugus* (Harris, 1780) L N3
- Pocota* Lepeletier & Serville, 1828
 - *personata* (Harris, 1780) ! N62
- Portevinia* Goffe, 1944
 - *maculata* (Fallén, 1817) !
- Psarus* Latreille, 1804
 - *abdominalis* (Fabricius, 1794) !
- Pseudopelecocera* Vujić & Radenković, 2018
 - *latifrons* Loew, 1856 ? N79
 - = *Pelecocera latifrons* Loew, 1856
- Psilota* Meigen, 1822
 - *anthracina* Meigen, 1822 ? N80
 - *atra* (Fallén, 1817) ! N81
 - *exilistyla* Smit & Vujić, 2008 ! N3
- Pyrophæna* Schiner, 1860
 - *granditarsa* (Forster, 1771) !
 - *rosarum* (Fabricius, 1787) !
- Rhingia* Scopoli, 1763
 - *borealis* Ringdahl, 1928 !
 - *campestris* Meigen, 1822 !
 - *rostrata* (Linnaeus, 1758) !
- Riponnensia* Maibach, Goeldlin de Tiefenau & Speight, 1994
 - *splendens* (Meigen, 1822) !
- Rohdendorfia* Smirnov, 1924
 - *alpina* Sack, 1938 !
- Scaeva* Fabricius, 1805
 - *albomaculata* (Macquart, 1842) ! N82
 - *dignota* (Rondani, 1857) !
 - *mecogramma* (Bigot, 1860) !
 - *pyrastri* (Linnaeus, 1758) !
 - *selenitica* (Meigen, 1822) !
- Sericomyia* Meigen, 1803
 - *bombiformis* (Fallén, 1810) !
 - = *Arctophila bombiforme* (Fallén, 1810) N83
 - *lappona* (Linnaeus, 1758) !
 - *silentis* (Harris, 1778) !
 - *superbiens* (Müller, 1776) !
 - = *Arctophila superbiens* (Müller, 1776) N85
- Spazigaster* Rondani, 1843
 - *ambulans* (Fabricius, 1798) !
- Sphaerophoria* Lepeletier & Serville, 1828
 - *bankowskæ* Goeldlin, 1989 !
 - *batava* Goeldlin, 1974 !
 - *borealpina* Goeldlin, 1989 !
 - *chongjini* Bankowska, 1964 !
 - *estebani* Goeldlin, 1991 !

- *fatarum* Goeldlin, 1989 !
- *infusata* Goeldlin, 1974 !
- *interrupta* (Fabricius, 1805) !
- *laurae* Goeldlin, 1989 !
- *loewi* Zetterstedt, 1843 !
- *philanthus* (Meigen, 1822) !
- *rueppelli* (Wiedemann, 1830) !
- *scripta* (Linnaeus, 1758) !
- *shirchan* Violovitsh, 1957 !
- *taeniata* (Meigen, 1822) !
- *virgata* Goeldlin, 1974 !
- Sphegina* Meigen, 1822
 - *clavata* (Scopoli, 1763) !
 - *clunipes* (Fallén, 1816) !
 - *cornifera* Becker, 1921 !
 - *elegans* Schummel, 1843 !
 - *latifrons* Egger, 1865 !
 - *montana* Becker, 1921 !
 - *platychira* Szilády, 1937 !
 - *sibirica* Stackelberg, 1953 !
 - *sphegina* (Zetterstedt, 1838) !
 - *verecunda* Collin, 1937 !
- Sphiximorpha* Rondani, 1850
 - *subsessilis* (Illiger in Rossi, 1807) !
- Spilomyia* Meigen, 1803
 - *digitata* (Rondani, 1865) !
 - *diophthalma* (Linnaeus, 1758) !
 - *manicata* (Rondani, 1865) !
 - *saltuum* (Fabricius, 1794) !
- Syritta* Lepeletier & Serville, 1828
 - *flaviventris* Macquart, 1842 ! N5
 - *pipiens* (Linnaeus, 1758) !
- Syrphocheilosia* Stackelberg, 1964
 - *claviventris* (Strobl, 1910) !
- Syrphus* Fabricius, 1775
 - *auberti* Goeldlin, 1996 !
 - *nitidifrons* Becker, 1921 !
 - *rectus bretoletensis* Goeldlin, 1996 ! N85
 - *ribesii* (Linnaeus, 1758) !
 - *torvus* Osten Sacken, 1875 !
 - *vitripennis* Meigen, 1822 !
- Temnostoma* Lepeletier & Serville, 1828
 - *apiforme* (Fabricius, 1794) !
 - *bombylans* (Fabricius, 1805) !
 - *meridionale* Krivosheina & Mamayev, 1962 ! N3
 - *vespiforme* (Linnaeus, 1758) !

Trichopsomyia Williston, 1888

- *flavitaris* (Meigen, 1822) !
- *joratensis* Goeldlin, 1997 !
- *lucida* (Meigen, 1822) !

Triglyphus Loew, 1840

- *primus* Loew, 1840 !

Tropidia Meigen, 1822

- *scita* (Harris, 1780) !

Volucella Geoffroy, 1762

- *bombylans* (Linnaeus, 1758) !
- *inanis* (Linnaeus, 1758) !
- *inflata* (Fabricius, 1794) !
- *pellucens* (Linnaeus, 1758) !
- *zonaria* (Poda, 1761) !

Xanthandrus Verrall, 1901

- *comtus* (Harris, 1780) !

Xanthogramma Schiner, 1860 N86

- *citrofasciatum* (De Geer, 1776) !
= *festivum* (Linnaeus, 1758) N87
- *dives* (Rondani, 1857) !
- *laetum* (Fabricius, 1794) !
- *pedissequum* (Harris, 1778) !
- *stackelbergi* Violovitsh, 1975 !

Xylota Meigen, 1822

- *abiens* Meigen, 1822 !
= *semulatra* (Harris, 1780) N88
- *caeruleiventris* Zetterstedt, 1838 ! N89
- *florum* (Fabricius, 1805) !
- *ignava* (Panzer, 1798) !
- *jakutorum* Bagatshanova, 1980 ! N89
= *Xylota caeruleiventris* auct. nec Zetterstedt, 1838
- *meigeniana* Stackelberg, 1964 ! N3
- *segnis* (Linnaeus, 1758) !
- *sylvarum* (Linnaeus, 1758) !
- *tarda* Meigen, 1822 !
- *triangularis* Zetterstedt, 1838 !
- *xanthocnema* Collin, 1939 !

Excluded species

Cheilosia brachiptera Palma, 1863

Cheilosia brevipennis Becker, 1894

Cheilosia dombressonensis Becker in De Rougemont, 1898

Cheilosia imperfecta Becker, 1921

Cheilosia parvicornis Becker, 1894

Cheilosia plumbella Becker, 1894

Cheilosia rotundicornis Hellén, 1914

Cheilosia signaticornis Becker, 1894

Cheilosia varians Becker, 1889

Merodon annulatus (Fabricius, 1794) N90

Platycheirus sticticus (Meigen, 1822) L N91

Notes

- N1 Tóth (1994b) mentions *Anasimyia interpuncta* in canton Luzern. The species is however out of its usual range and the record could not be confirmed yet.
- N2 *Baccha obscuripennis* is synonymised with *Baccha elongata*, following Reemer et al. (2004).
- N3 *Brachyopa bimaculosa*, *Chrysotoxum montanum*, *Dasysyrphus neovenustus*, *Eumerus consimilis*, *Epistrophe obscuripes*, *Platycheirus transfugus*, *Psilota exilistyla*, *Temnostoma meridionale*, *Xylota meigeniana* were published as new for Switzerland by Fisler et al. (2023).
- N4 *Brachyopa obscura* was published as new for Switzerland by Pétremand et al. (2020).
- N5 Presence of *Brachyopa plena* in Switzerland still to be confirmed. There is no other record since the putative ones in the 1998 Checklist.
- N6 *Brachypalpus meigeni* is widely treated as a colour variation of *B. laphriformis*, following Speight (2020).
- N7 *Callicera macquarti* and *Callicera spinolae* were published as new for Switzerland by Plichta & Fisler (2021).
- N8 *Chalcosyrphus curvipes* is synonymised with *C. femoratus*, following Schmid (1995).
- N9 *Cheilosia alba*: there are a couple of unpublished records from Switzerland, and Tissot et al. (2019) mention the species in France, a few km away from the Swiss border.
- N10 Speight (2020) argues that *Cheilosia griseiventris* may or may not be a variant of *C. latifrons*. However, Bot & van de Meutter (2019) say the consensus is growing to consider it a separate species. It is therefore kept in the Checklist until further studies.
- N11 *Cheilosia morio* (Zetterstedt, 1838) is meant sensu Barkalov: confusion remains in this complex concerning the validity of the species *Cheilosia scanica* and its separation from *C. morio*. *C. scanica* is here considered as a synonym, until further clarification. Yet the name *C. morio* was long thought to involve two taxa, and Bot & Van de Meutter (2023) now use the name *C. luteicornis* for the species often referred to as « *C. morio* B », i.e. the one with the « bare face ». Both are present in Switzerland.
- N12 *Cheilosia rhodiola*: only the markings that the larvae left in the plant *Rhodiola rosea* are reported in Switzerland (Schmid 2007), but the species is confirmed from adjacent countries. However, Lair et al. (2021) now suggest the species is not genetically different from *C. semifasciata* which could lead to synonymy in the future.
- N13 *Cheilosia rufipes* is synonymised with *C. soror*, following Speight & Sarthou (2006). However, in some recent works the name *ruffipes* with two « f » is used as the valid name for this species (e.g. Reverté et al. 2023).
- N14 *Cheilosia rotundiventris* and *Cheilosia ruficollis* are synonymised with *C. vernalis*, following Ståhls et al. (2008).
- N15 According to the International Code of Zoological Nomenclature, the name *Chrysotoxum arcuatum* should be the name in use for *Chrysotoxum fasciatum* (junior synonym of *C. arcuatum*). However, for a long time, the name *C. arcuatum* of authors was wrongly used for another species (*Chrysotoxum festivum*). To avoid confusion, some authors (including Speight 2020) keep the name *C. fasciatum* instead of using the name *C. arcuatum* sensu Linnaeus. We decide to follow the greater consensus and use *C. arcuatum*, bearing this confusion in mind.
- N16 Two forms of *Chrysotoxum intermedium* were known. One form is now widely considered a species and called *C. lessonae* (Speight & Lebard 2022). Both species are confirmed in Switzerland. Records of *C. intermedium* from before 2022 should be considered with care.
- N17 *Dasysyrphus pinastri* is here meant sensu Locke & Skevington (2013).
- N18 *Dasysyrphus lunulatus* of authors nec Meigen has been synonymised with *D. pinastri*. *Dasysyrphus lunulatus* sensu Meigen has been synonymised with *D. venustus* (Locke & Skevington 2013). The name was also sometimes used for other difficult to identify species, namely *D. lenensis* and *D. pauxillus*.
- N19 *Dasysyrphus postclaviger*, *Pipiza accola*, *Platycheirus altomontis* and *Platycheirus chilosis* were published as new for Switzerland by Fisler & Speight (2020).
- N20 *Doros conopseus* is synonymised with *D. profuges*, following Chandler & McCullough (2004).
- N21 *Epistrophe melanostomoides* is synonymised with *E. melanostoma*, following Doczkal & Schmid (1994).

- N22 *Meligramma euchroma* (or *Epistrophe euchroma*) is here considered in the genus *Epistrophella*, following Rotheray & Gilbert (1989) and recent works (Mengual et al. 2023).
- N23 *Eristalinus taeniops* was published as new for Switzerland by Dutto & Maistrello (2017) and Pollini et al. (2021).
- N24 *Eristalis lineata* is here synonymised with *E. horticola* (and not the other way around), following Chandler & McCullough (2004).
- N25 *Eristalis interrupta* is synonymised with *E. nemorum*, following Chandler & McCullough (2004).
- N26 *Eristalis vitripennis* is synonymised with *E. rupium*, following Hippa et al. (2001).
- N27 *Eristalis pratorum* is synonymised with *E. similis*, following Nielsen (1999).
- N28 *Eumerus olivaceus* of authors was synonymised with *E. alpinus*. The real *E. olivaceus* sensu Loew is endemic to Sicily (Grković et al. 2015).
- N29 *Eumerus arctus* was published as new for Switzerland by Grković et al. (2021).
- N30 *Eumerus emarginatus*: the specimen reported by Goeldlin (1974) from les Dévens could not be found and there were issues with the identification of this species in the past.
- N31 *Eumerus tuberculatus* is synonymised with *E. funeralis*, following Speight (2020).
- N32 *Eumerus elaverensis* is synonymised with *E. hungaricus*, following Ricarte et al. (2017).
- N33 Presence of *Eumerus sabulonum* in Switzerland still to be confirmed. It was reported a few times in Switzerland, but the records which could be verified all turned out to be males of *E. tarsalis*, or females – which are not morphologically distinguishable from *E. tarsalis*.
- N34 *Eumerus sinuatus* was published as new for Switzerland by Vujčić & Šimić (1995) without reference to specific data and did not appear in the 1998 Checklist. Its presence was later confirmed by Fisler et al. (2023).
- N35 Presence of *Eupeodes abiskoensis* in Switzerland still to be confirmed. *E. abiskoensis* is a normally nordic or nearctic species, and there are identification issues with this species (Speight 2020).
- N36 *Eupeodes bucculatus* is called *E. frequens* in some recent works (e.g. Reverté et al. 2023).
- N37 *Eupeodes latilunulatus* is synonymised with *E. bucculatus*, following Mazánek et al. (1998).
- N38 The species *Anasimyia lineata* was placed in the genus *Eurimyia* by Skevington et al. (2019).
- N39 *Fagisyrrhus cinctus*: Following molecular analyses (Mengual 2008), we use the genus *Fagisyrrhus* for this species sometimes placed in *Meligramma* or *Melangyna*.
- N40 *Helophilus parallelus* is synonymised with *H. trivittatus*, following Vujčić et al. (2002).
- N41 Validity of taxonomic distinction between *Heringia senilis* and *H. heringi* unresolved (Claussen et al. 1994). According to the very few and inconsistent differences between the two species, we consider *H. senilis* a synonym of *H. heringi*, as already done by several authors including Van Veen (2010), until further studies.
- N42 *Eupeodes lapponicus* is synonymised with *Lapposyrphus lapponicus*, following Mengual et al. (2018).
- N43 *Lejops vittatus* is a species easily recognisable, but the specimen mentioned by Tóth (1994a) could not be found and there are no other records of this species.
- N44 The genus *Ischyrosyrphus* is synonymised with *Leucozona*, following Álvarez Fidalgo et al. (2018).
- N45 *Criorhina berberina* was recently placed in the new genus *Matsumyia* by Moran et al. (2021).
- N46 *Megasyrphus erraticus* is sometimes placed in the genus *Eriozona*.
- N47 Validity of taxonomic distinction between *Melangyna labiatarum* and *M. compositarum* unresolved (Bygebjerg 2011). They might be synonyms, but *M. labiatarum* is kept in the checklist until further studies.
- N48 *Melangyna pavlovskiyi* was published as new for Switzerland by Bisschop & Fisler (2022).
- N49 *Meligramma quadrimaculata* was wrongly assigned to the genus *Meligramma* in the 1998 Checklist.
- N50 In northern Europe, *Melanostoma dubium* sensu Zetterstedt was synonymised with *M. mellinum* while *M. dubium* of authors was synonymised with *M. certum* (Haarto & Ståhls 2014). However, it was not certain whether the central European *M. dubium* of authors also is a synonym of *M. certum* (Speight 2020). Analysis of swiss material now suggest they are probably the same species (Gunilla Ståhls pers. com. 2023).
- N51 *Melanostoma mellarium* was published as new for Switzerland by Speight et al. (2015).
- N52 *Melanostoma pumicatum* is considered a synonym of *M. mellinum*, but is taxonomically problematic (Speight et al. 2015).
- N53 The species of *Meligramma* were sometimes included in the genus *Melangyna*.
- N54 Differentiating between *Merodon constans* Widemann, 1822 and *M. analis* is only possible with the male genitalia (Vujčić 2020a), but these structures proved variable in the specimens found in Switzerland. *M. analis* is added to the list until further studies.
- N55 *Merodon atratus* was published as new for Switzerland by Šašić et al. (2016).

- N56 *Merodon aeneus* is synonymised with *M. aureus*, following Vujić et al. (2020b).
- N57 *Merodon auripes* was published as new for Switzerland by Vujić et al. (2012).
- N58 There is only one mention of a male *Merodon clunipes* from Switzerland in Hurkmans (1993). The record could not be verified and is slightly out of its Mediterranean range. There is only one unlocalised record in France (Speight 2020).
- N59 *Merodon gallicus* was published as new for Switzerland by Pétremand et al. (2021) and Pollini et al. (2021).
- N60 *Merodon crymensis* is a synonym of *M. trebevicensis*, following Radenković et al. (2002). However, all specimens previously identified as *M. crymensis* so far turned out to be another closely related species, *M. gallicus*, described in 2012. *M. gallicus* has thus been confirmed for Switzerland, but not yet *M. trebevicensis*.
- N61 *Merodon geniculatus*: recorded in Ticino by Tóth and Rezbanyai-Reser (2002). This Mediterranean species is also present in the south of France.
- N62 *Merodon moenium* and *Pocota personata* were published as new for Switzerland by Speight et al. (2019).
- N63 The subfamily Microdontinae is considered as another family « Microdontidae » by recent works (i.e. Speight 2020).
- N64 *Microdon eggeri* is synonymised with *Microdon analis*, following Doczkal & Schmid (1999).
- N65 *Microdon myrmicae* was confirmed by Speight & Sommaggio (2010). This cryptic species was described in 2002 by Schönrogge et al. (2002) and is not distinguishable from *M. mutabilis* at the adult stage. Records prior to 2002 should be considered with care. *Microdon mutabilis* was in turn confirmed by Speight et al. (2019).
- N66 *Myolepta helvetica* is synonymised with *M. vara*, following Reemer et al. (2004).
- N67 Another species, *Neocnemodon larusi* Vujić, 1999, is morphologically very similar to *N. pubescens*. It is not yet clear if *N. larusi* is also present in Switzerland.
- N68 *Orthonevra brevicornis* is in fact two widespread species (*O. brevicornis* and *O. atlantica*), both of which occur in Switzerland (Żóralski & Van de Meutter 2024). All swiss specimens should be revised.
- N69 *Orthonevra onytes* is possibly a synonym of *O. tristis* or *O. montana* (Speight 2020).
- N70 *Orthonevra plumbago* was first cited by Goeldlin (1974), and more recently in la Grande Caricaie (Fisler et al. 2021). However, upon second examination, the latter specimens could be *O. arcana*, a newly described species (Ricarte et al. 2022). Until further examination of these specimens as well as the first records, *O. plumbago* is kept in the list.
- N71 The name *Paragus majoranae* has long been wrongly applied to the species now known as *P. pecchiolii* (*P. majoranae* of authors = *P. pecchiolii*). On top of that, *P. gorgus* was described in 1999, but was established as a junior synonym of *P. majoranae*, so there was – and still is – a lot of confusion with these species names (Sommaggio 2002). Both *P. pecchiolii* (= *majoranae* of authors) and *P. majoranae* (= *P. gorgus*) are present in Switzerland.
- N72 *Paragus bicolor* and close species are in need of revision (Tot et al. 2018). Recent findings point towards a synonymy of *Paragus romanicus* with *P. bicolor*, and of *P. romanicus* of authors with *P. testaceus* (Kočić 2023), both of which occur in Switzerland (pers. comm. Tamara Tot).
- N73 *Parasyrphus kirgizorum* is closely related to *Parasyrphus tarsatus*. The former was confirmed for Switzerland by Fisler et al. (2023) and closer examination of the male genitalia revealed both species found in Switzerland to correspond with the two species found in other parts of Europe (pers. comm. Libor Mazánek).
- N74 *Parasyrphus vittiger* is called *P. relictus* in some recent works (Reverté et al. 2023).
- N75 *Chamaesyrrhus scaevoides* is synonymised with *Pelecocera scaevoides*, following Speight & Sarthou (2006).
- N76 *Pipiza fenestrata* sensu Meigen is a junior synonym of *P. noctiluca*. *P. fenestrata* of recent authors however is a junior synonym of *P. fasciata* (Vujić et al. 2013).
- N77 *Pipiza signata* was synonymised by Vujić et al. (2013) with *Pipiza lugubris*, but was previously mixed up with *Pipiza noctiluca/notata*-group.
- N78 *Pipiza bimaculata* was synonymised by Vujić et al. (2013) with *Pipiza notata* but the name was also often wrongly attributed to *Pipiza noctiluca*.
- N79 *Pseudopelecocera latifrons* was added in the 1998 Checklist by Tóth (1994b) under the name *Pelecocera latifrons*. Its presence in Switzerland could not be confirmed yet and there is no other record in Switzerland.
- N80 The presence of *Psilota anthracina* in Switzerland needs confirmation, since the records found so far in the museums turned out to be either *P. atra* or *P. exilistyla*.

- N81 *Psilota atra* was published as new for Switzerland by Pétremand et al. (2021).
- N82 *Scaeva albomaculata* is a highly migratory species (Speight 2020).
- N83 *Arctophila* is now considered a subgenus of *Sericomyia*, according to Skevington & Thompson (2012).
- N84 *Syrpitta flaviventris* was published as new for Switzerland by Pollini et al. (2021).
- N85 *Syrphus rectus bretoleensis*: The status of this taxon needs further clarification. It is possibly only a variant of *Syrphus vitripennis* Meigen, 1822 (Ssymank & Lair 2014).
- N86 The genus *Xanthogramma* is considered a synonym of *Philhelius* in some recent works (e.g. Reverté et al. 2023).
- N87 *Xanthogramma festivum* is synonymised with *Xanthogramma citrofasciatum*, following Speight & Sarthou (2006).
- N88 *Xylota semulatra* is synonymised with *X. abiens*, following Schmid (1995).
- N89 The name *Xylota caeruleiventris* or «*X. caeruleiventris*» was often wrongly used for the species presently named *Xylota jakutorum* (Doczkal 2004). Both species are however present in Switzerland (Fisler et al. 2023).
- N90 The type material of *Merodon annulatus* is lost and the description is not sufficient to know exactly what this species is (Speight et al. 2018).
- N91 *Platycheirus sticticus* was wrongly identified by Goeldin de Tiefenau & Speight (1997) (see 1998 Checklist comment N14) and there has been no proof of the presence of this species subsequently.

Species records

- [1] 1F, VD, St-Livres, 17.3.2012, 680 m., leg. Jean-Louis Simon

References

- Álvarez Fidalgo M., Álvarez Fidalgo P., Ricarto Sabater A. & Marcos-García M.A. 2018. The genus *Leucozona* Schiffner, 1860 on the Iberian Peninsula, including the first records of *Leucozona laternaria* (Müller, 1776) (Diptera: Syrphidae). *BV news Publicaciones Científicas* 7: 128-141.
- Bächli G., Merz B. & Haenni J.-P. 2014. Dritter Nachtrag zur Checkliste der Diptera der Schweiz. *Entomo Helvetica* 7: 119-140.
- Bartsch H., Binkiewicz E., Rådén A. & Nasibov E. 2009a. Blomflugor: Syrphinae. Nationalnyckeln till Sveriges flora och flora, DH53a. Artdatabanken, SLU, Uppsala, 406 pp.
- Bartsch H., Binkiewicz E., Klintbjer A., Rådén A. & Nasibov E. 2009b. Blomflugor: Eristalinae & Microdontinae. Nationalnyckeln till Sveriges flora och flora, DH 53b. Artdatabanken, SLU, Uppsala, 478pp.
- Bisschop J. & Fisler L. 2022. First records of *Melangyna pavlovskiyi* (Violovitsh, 1956) for Switzerland and its status in Europe (Diptera: Syrphidae). *Entomo Helvetica* 15: 57-64.
- Bot S. & Van de Meuter F. 2019. Veldgids Zweefvliegen. KNNV Uitgeverij, Zeist, 388 pp.
- Bot S. & Van de Meuter F. 2023. Hoverflies of Britain and North-west Europe: A photographic guide. Bloomsbury Publishing, 416 p.
- Bygebjerg R. 2011. A new European species in the genus *Melangyna* Verrall, 1901 (Diptera, Syrphidae). *Entomologiske Meddelelser* 79: 143-151.
- Chandler P.J. & McCullough A. 2004. *Eristalis* Latreille, 1804 (Insecta, Diptera): proposed confirmation that the gender is feminine; *Musca nemorum* Linnaeus, 1758, *M. arbustorum* Linnaeus, 1758 and *M. horticola* De Geer, 1776 (currently *Eristalis nemorum*, *E. arbustorum* and *E. horticola*). *Bulletin of Zoological Nomenclature* 61: 241-245.
- Claussen C., Goeldin de Tiefenau P. & Lucas J.A.W. 1. 1994. Zur Identität von *Pipizella heringii* (Zetterstedt) var. *hispanica* Strobl, 1909 - mit einer Typenrevision der paläarktischen Arten der Gattung *Heringia* Rondani, 1856, sensu stricto (Diptera: Syrphidae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 67: 309-326.
- Doczkal D. 2004. *Xylota caeruleiventris* Zetterstedt, 1838 (Diptera, Syrphidae) found in central Europe, with remarks on identification of the female. *Volucella* 7: 193-200.
- Doczkal D. & Schmid U. 1994. Drei neue Arten der Gattung *Epistrophe* (Diptera: Syrphidae), mit einem Bestimmungsschlüssel für die deutschen Arten. *Stuttgarter Beiträge zur Naturkunde* 507: 1-32.
- Doczkal D. & Schmid U. 1999. Revision der mitteleuropäischen Arten der Gattung *Microdon* Meigen (Diptera, Syrphidae). *Volucella* 4: 45-68.

- Dutto M. & Maistrello L. 2017. Osservazioni sulla presenza di *Eristalinus (Eristalodes) taeniops* (Wiedemann, 1818) (Diptera, Syrphidae) in Piemonte (Italia) e nel Canton Ticino (Svizzera). Quaderni del Museo Civico di Storia Naturale di Ferrara 5: 69-71.
- Evenhuis N.L. & Pape T. (eds). 2022. Systema Dipteriorum. Version 3.10. <http://www.diptera.org>
- Fisler L., Gander A. & Baudraz M. 2021. Méthode Syrph the Net dans la Grande Caricaie. Rapport final 2017-2020. Association de la Grande Caricaie, Cheseaux-Noréaz, 51 pp.
- Fisler L. & Speight M.C.D. 2020. Quatre nouvelles espèces de Syrphidae (Diptera) pour la Suisse. Entomo Helvetica 13: 123-129.
- Fisler L., Ston D., Bisschop J. & Pétremand G. 2023. Premières mentions et confirmations de la présence d'espèces de Syrphidae (Diptera) en Suisse. Entomo Helvetica 16: 77-92.
- Goeldlin de Tiefenau P. 1974. Contribution à l'étude systématique et écologique des Syrphidae (Dipt.) de la Suisse occidentale. Mitteilungen der Schweizerischen entomologischen Gesellschaft 47: 151-252.
- Goeldlin de Tiefenau P. & Speight M.C.D. 1997. Complément à la liste faunistique des Syrphidae (Diptera) de Suisse: synthèse des espèces nouvelles et méconnues. Mitteilungen der Schweizerischen entomologischen Gesellschaft 70: 299-309.
- Grković A., van Steenis J., Miličić M., Kočiš Tubić N., Djan M., Radenković S. & Vujić A. 2021. Taxonomic revision of the highly threatened *Eumerus tricolor* species group (Diptera: Syrphidae) in Southeast Europe, with insights into the conservation of the genus *Eumerus*. European Journal of Entomology 118: 368-393.
- Grković A., Vujić A., Radenković S., Chroni A. & Petanidou T. 2015. Diversity of the genus *Eumerus* Meigen (Diptera, Syrphidae) on the eastern Mediterranean islands with description of three new species. Annales de la Société Entomologique de France 51: 361-373.
- Haarto A. & Ståhls G. 2014. When mtDNA COI is misleading: Congruent signal of ITS2 molecular marker and morphology for north European *Melanostoma Schiner, 1860* (Diptera, Syrphidae). ZooKeys 134: 93-134.
- Hippa H., Nielsen T.R. & van Steenis J. 2001. The West Palearctic species of the genus *Eristalis* Latreille (Diptera, Syrphidae). Norwegian Journal of Entomology 48: 289-327.
- Hurkmans W. 1993. A monograph of *Merodon* (Diptera: Syrphidae). Part 1. Tijdschrift voor Entomologie 136: 147-234.
- Kočić A., Vujić A., Tot T., Milosavljević M.J. & de Groot M. 2023. An updated checklist of the hoverflies (Diptera: Syrphidae) of Slovenia. Zootaxa 5297(2): 189-227.
- Lair X., Bot S., Ståhls G., Minssieux E., Garrin M. 2021. New species of hoverflies for the Pyrenees - Nouvelles espèces de Syrphes pour les Pyrénées (Diptera, Syrphidae). Revue de l'Association Roussillonnaise d'Entomologie 30: 113-128.
- Láska P., Mazánek L. & Bičík V. 2013. Key to adults and larvae of the genera of European Syrphinae (Diptera, Syrphidae). Časopis Slezského zemského muzea. Série A, Vědy přírodní. 62: 193-206.
- Locke M.M. & Skevington J.H. 2013. Revision of Nearctic *Dasysyrphus* Enderlein (Diptera: Syrphidae). Zootaxa 3660: 1-80.
- Maibach A., Goeldlin de Tiefenau P. & Dirickx H.G. 1992. Liste faunistique des Syrphidae de Suisse (Diptera). Miscellanea Faunistica Helveticae 1. CSCF, 51 pp.
- Maibach A., Goeldlin de Tiefenau P. & Dirickx H.G. 1998. 51. Syrphidae. In: Merz B., Bächli G., Haenni J.P. & Gonseth Y. (eds). Diptera - Checklist. Fauna Helvetica 1: 211-224. SEG/CSCF, Neuchâtel, 369 pp.
- Mazánek L., Bičík V. & Láska P. 1998. Redescription and reinstatement of *Eupeodes bucculatus* (Rondani, 1857) and its synonymy (Dipt., Syrphidae). Acta Universitatis Palackianae Olomucensis Facultas rerum naturalium, Biológica 36: 27-38.
- Mengual X., Mayer C., Burt T.O., Moran K.M., Dietz L., Nottebrock G. et al. 2023 Systematics and evolution of predatory flower flies (Diptera: Syrphidae) based on exon-capture sequencing. Systematic Entomology: 48(2): 250-277.
- Mengual X., Ståhls G., Láska P., Mazánek L. & Rojo S. 2018. Molecular phylogenetics of the predatory lineage of flower flies *Eupeodes-Scaeva* (Diptera: Syrphidae), with the description of the Neotropical genus *Austroscaeva* gen. nov. Journal of Zoological Systematics and Evolutionary Research 56: 148-169.
- Mengual X., Ståhls G. & Rojo S. 2008. Cladistics conflict and congruence with the current tribal classification. World 23: 1-20.
- Merz B., Bächli G. & Haenni J.-P. 2002. Erster Nachtrag zur Checkliste der Diptera der Schweiz. Mitteilungen der Entomologischen Gesellschaft Basel 51(3-4)(2001): 110-140.
- Merz B., Bächli G. & Haenni J.-P. 2006. Zweiter Nachtrag zur Checkliste der Diptera der Schweiz. 56(4): 135-165.

- Moran K.M., Skevington J.H., Kelso S., Mengual X., Jordaens K., Young A.D., Ståhls G., Mutin V., Bot S., van Zuijen M., Ichige K., van Steenis J., Hauser M. & van Steenis W. 2021. A multigene phylogeny of the eristaline flower flies (Diptera: Syrphidae), with emphasis on the subtribe Criorhinina. *Zoological Journal of the Linnean Society* 20: 1-16.
- Nielsen T.R. 1999. Check-list and distribution maps of Norwegian Hoverflies, with description of *Platycheirus laskai* nov. sp. (Diptera Syrphidae). NINA Fagrapport 35: 1-99.
- Pétremand G., Fisler L., Speight M.C.D. & Castella E. 2021. *Merodon gallicus* Vujjić & Radenković, 2012 et *Psilota atra* (Loew, 1817) en Suisse et quelques nouvelles mentions genevoises (Diptera: Syrphidae). *Entomo Helvetica* 14: 67-75.
- Pétremand G., Maibach A., Speight M.C.D., Goeldlin de Tiefenau P. & Castella E. 2021. Une première liste des Diptères Syrphidés du canton de Vaud (Suisse). *Bulletin de la Société Vaudoise des Sciences Naturelles* 100: 257-274.
- Pétremand G., Speight M.C.D. & Castella E. 2020. Deux nouveaux Diptères pour la Suisse (Syrphidae et Stratiomyidae), et compléments à la liste des Syrphidae du canton de Genève. *Entomo Helvetica* 13: 97-106.
- Pétremand G., Bessat M., Castella E., Speight M.C.D. 2022. Genève sous la loupe: les syrphes du canton (Diptera: Syrphidae). Editions Faune Genève, 306 pp.
- Plichta M. & Fisler L. 2021. Erstfunde von *Callicera macquarti* Rondani, 1844 und *Callicera spinolae* Rondani, 1844 (Diptera: Syrphidae) für die Schweiz. *Entomo Helvetica* 14: 93-98.
- Pollini Paltrinieri L., Koch B., Forini-Giacalone I. 2021. Nota breve: Tre nuove specie di Syrphidae (Diptera) segnalate in Svizzera. *Entomo Helvetica* 14: 159-163.
- Radenković S., Vujjić A. & Šimić S. 2002. On the identity and synonymy of two species from *Merodon ruficornis* Meigen group (Diptera: Syrphidae). *Acta entomologica serbica* 7: 51-57.
- Reemer M., Hauser M., Speight M.C.D. 2004. The genus *Myolepta* Newman in the West-Palaearctic region (Diptera, Syrphidae). *Studia dipterologica* 11: 553-580.
- Reverté S., Miličić M., Ačanski J., Andrić A., Aracil A., Aubert M. et al. 2023. National records of 3000 European bee and hoverfly species: A contribution to pollinator conservation. *Insect Conservation and Diversity* 16(6): 758-775.
- Ricarte A., Souba-Dols G.J., Hauser M., Marcos-García M.Á. 2017. A review of the early stages and host plants of the genera *Eumerus* and *Merodon* (Diptera: Syrphidae), with new data on four species. *PLoS ONE* 12: e0189852.
- Rotheray G.E. & Gilbert F.S. 1989. The phylogeny and systematics of European predacious Syrphidae (Diptera) based on larval and puparial stages. *Zoological Journal of the Linnean Society* 95: 29-70.
- Šašić L., Ačanski J., Vujjić A., Ståhls G., Radenković S., Milić D., Vidaković D.O. & Dan M. 2016. Molecular and morphological inference of three cryptic species within the *Merodon aureus* species group (Diptera: Syrphidae). *PLoS ONE* 11: 6-8.
- Schmid U. 1995. Neu beschriebene paläarktische Schwebfliegenarten (Diptera, Syrphidae) und neue Synonyme: eine Übersicht. *Volucella* 1: 29-44.
- Schmid U. 2007. How to find *Cheilosia rhodiola* Schmid, 2000. (Diptera, Syrphidae). *Volucella* 8: 121-122.
- Schoch G. 1889. *Miscellanea entomologica*. II. Prolegomena zur Fauna Dipteorum Helvetiae. Wissenschaftliche Beilage zum Programm der Kantonsschule in Zürich 1889: 24-40.
- Schönrogge K., Barr B., Wardlaw J.C., Napper E.K.V., Gardner M.G., Breen J., Elmes G.W. & Thomas J.A. 2002. When rare species become endangered: cryptic speciation in myrmecophilous hoverflies. *Biological Journal of the Linnean Society* 75: 291-300.
- Skevington J.H., Locke M.M., Young A.D., Moran K., Crins W.J. & Marshall S.A. 2019. *Field Guide to the Flower Flies of Northeastern North America*. Princeton, NJ: Princeton University Press, 512 pp.
- Skevington J.H. & Thompson F.C. 2012. Review of New World *Sericomyia* (Diptera: Syrphidae), including description of a new species. *Canadian Entomologist* 144: 216-247.
- Sommaggio D. 2002. *Paragus gorgus* Vujjić & Radenkovic, 1999: a junior synonym of *P. majoranae* Rondani, 1857, and reinstatement of *P. pecchiolii* Rondani, 1857 (Diptera, Syrphidae). *Volucella* 6: 53-56.
- Speight M.C.D. 2020. *Species accounts of European Syrphidae* (Diptera). Syrph the Net Publications, Dublin, 314 pp.
- Speight M.C.D., Athanasiades A., Bessat M., De Carvalho A.-G., Faye J.-D., Fleury D., Monod V., Nicolas K., Passaseo A., Petremand G., Rochefort S. & Castella E. 2019. Révision de la liste des Diptères Syrphidae du canton de Genève, incluant cinq espèces nouvelles pour la Suisse. *Entomo Helvetica* 12: 87-98.

- Speight M.C.D., Castella E. & Sarthou J.-P. 2015. *Melanostoma mellarium* (Meigen, 1822) (Diptera: Syrphidae) en Suisse et au Liechtenstein, avec une clef pour la distinguer des espèces proches. Entomo Helvetica 8: 65-70.
- Speight M.C.D. & Lebard T. 2022. Quelques additions à la liste des syrphes connus dans le département du Gard, avec une mise à jour de la clef des taxons du groupe *Chrysotoxum intermedium* en France (Diptera: Syrphidae). Revue française d'entomologie générale 4(1-2): 15-31.
- Speight M.C.D. & Sarthou J.-P. 2006. Révision de la liste des diptères Syrphidae et Microdontidae de France métropolitaine et de Corse: 505 espèces confirmées dont 13 nouvelles pour cette faune. Bulletin de la Société entomologique de France 111: 11-20.
- Speight M.C.D., Sarthou J.-P., Vanappelghem C. & Sarthou V. 2018. Maps of the departmental distribution of syrphid species in France / Cartes de distribution départementale des syrphes de France (Diptera, Syrphidae). Syrph the Net Publications, Dublin: Syrph the Net, the database of European Syrphidae 100, 80 pp.
- Speight M.C.D. & Sommaggio D. 2010. On the presence in Switzerland of *Microdon myrmicae* Schönrogge et al., 2002, *Xanthogramma dives* (Rondani, 1857) and *X. stackelbergi* Violovitsh, 1975. Entomo Helvetica 3: 139-145.
- Ssymank A. & Lair X. 2014. Observations and collections of hoverflies (Diptera: Syrphidae) in the Mercantour National Park, France, including a checklist. Studia dipterologica 21: 95-153.
- Ståhls G., Vujić A. & Milankov V. 2008. *Cheilosia vernalis* (Diptera, Syrphidae) Complex: Molecular and Morphological Variability. Annales Zoologici Fennici 45: 149-159.
- TAXREF (eds). 2024. TAXREF v17.0, référentiel taxonomique pour la France. PatriNat (OFB-CNRS-MNHN-IRD), Muséum national d'Histoire naturelle, Paris. Archive de téléchargement contenant 8 fichiers générés le 10 janvier 2024. <https://inpn.mnhn.fr/telechargement/referentielEspece/taxref/17.0/menu>
- Tissot B., Speight M.C.D. & Claude J. 2019. *Cheilosia alba* Vujić & Claussen, 2000, nouvelle espèce de Syrphie pour la France continentale et clé de détermination des femelles des espèces proches (Diptera Syrphidae). L'Entomologiste 75: 261-264.
- Tot T.J., Nedeljković Z.S., Radenković S.R. & Vujić A.A. 2018. Taxonomic study of the genus *Paragus* Latreille, 1804 (Diptera: Syrphidae) in the collections of the Department of Biology and Ecology at the University of Novi Sad (FSUNS), Serbia. Matica Srpska Journal for Natural Sciences Novi Sad 135: 119-127.
- Tóth S. 1994a. Zur Insektenfauna vom Rüss-Spitz (Kanton Zug), 388 m, bei Maschwanden ZH III. Diptera 1: Syrphidae (Schwebfliegen). Entomologische Berichte Luzern 32: 87-108.
- Tóth S. 1994b. Zur Insektenfauna vom Vogelmoos (775m) bei Neudorf, Kanton Luzern XIII. Diptera 1: Syrphidae (Schwebfliegen). Entomologische Berichte Luzern 31: 127-146.
- Tóth S. & Rezbanyai-Reser L. 2002. Zur Fliegenfauna vom Monte Generoso, Kanton Tessin, Südschweiz. - 2. Schwebfliegen (Diptera: Syrphidae). Entomologische Berichte Luzern 48: 37-86.
- Van Veen M.P. 2010. Hoverflies of Northwest Europe: identification keys to the Syrphidae. 2e éd., KNNV uitgeverij, 256 p.
- Vujić A., Radenković S., Likov L., Andrić A., Janković M., Ačanski J., Popov G., De Courcy Williams M., Šašić Zorić L., Djan M. 2020a. Conflict and congruence between morphological and molecular data: revision of the *Merodon constans* group (Diptera: Syrphidae). Invertebrate Systematics 34: 406-448.
- Vujić A., Radenković S., Ståhls G., Ačanski J., Stefanović, A., Veselić S., Andrić A., Hayat R. 2012. Systematics and taxonomy of the *ruficornis* group of genus *Merodon* Meigen (Diptera: Syrphidae). Systematic Entomology 37: 578-602.
- Vujić A., Šašić Zorić Lj., Ačanski J., Likov L., Radenković S., Djan M., Milić D., Šebić A., Ranković M., & Khaghaninia S. 2020b. Hide-and-peek with hoverflies: *Merodon aureus* – a species, a complex or a subgroup?. Zoological Journal of the Linnean Society 190: 974-1001.
- Vujić A. & Šimić S. 1995. Genus *Eumerus* Meigen 1822 (Diptera: Syrphidae) in area of former Yugoslavia. Bulletin of Natural History Museum, Belgrade B 49-50: 173-190.
- Vujić A., Šimić S. & Radenković S. 2002. New data on hoverflies diversity (Insecta: Diptera: Syrphidae) on the Fruska Gora mountain (Serbia). Proceedings for Natural Sciences 103: 91-106.
- Vujić A., Ståhls G., Ačanski J., Bartsch H., Bygebjerg R. & Stefanović A. 2013. Systematics of Pipizini and taxonomy of European *Pipiza* Fallén: Molecular and morphological evidence (Diptera, Syrphidae). Zoologica Scripta 42: 288-305.
- Żóralski R., Van de Meutter F., Mengual X., Gadawski P. 2024. Two Palaearctic species of *Orthonevra* (Diptera: Syrphidae) under the name *O. brevicornis*. Acta Entomologica Musei Nationalis Pragae 64(1): 223-242.