

Anthomyiidae

Verner Michelsen & Andreas Grossmann (1998 Checklist: Verner Michelsen & Bernhard Merz)

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Diagnosis: Small to medium-sized (2.5-9 mm) calyptrate flies. Dorsocentral setae 2 + 3 present. Meron bare, exceptionally with cluster of fine setulae, but never with a subvertical row of setae. Ventral tip of scutellum with some fine setulae. Vein M_1 not curved or angled forward on distal part; vein A_1 usually traceable to wing margin. Separation from other muscoid families: presence of a projecting (non-linear) lower calypter and/or a pair of crossed setae or setulae on frontal stripe will separate species of Anthomyiidae from Scathophagidae. Presence of at least two of the following three characters will separate species of Anthomyiidae from Fanniidae and Muscidae: enlarged ventrobasal setula present on hind basitarsus; fine hairs present on the ventral tip of scutellum; and wing vein A_1 faintly extended to the wing margin.

Biology: The adults of many species are anthophilous and important pollinators. Other species are rather attracted to honeydew, dung or carrion. The larvae are highly varied in their feeding habits, including scavengers living in decaying organic substrates, herbivores producing leaf-mines or tunnels in stems, and fungivores developing in mushrooms. Specialised cleptoparasitism has developed in *Leucophora* and *Eustalomyia*, where the larvae feed on the provision for the offspring of their hymenopteran hosts. *Acyglossa* species are known as larval parasitoids of bush crickets (Tettigoniidae).

Nomenclature and classification: According to previous checklist, with minor changes.

Number of species: CH: 208 (1998 Checklist: 118),
Europe: ~510, World: ~1925.

Level of faunistic knowledge in Switzerland: Medium

General references: Hennig (1966-1976), Michelsen (2011), Suwa & Darvas (1998).

References to the Swiss fauna: Ackland & Merz (2003), Bächli et al. (2014), Grossmann (2024), Merz et al. (2002, 2006), Michelsen & Merz (1998).

Checklist

Acyglossa Rondani, 1866

- *atramentaria* (Meigen, 1826) !
- *pollinosa* Villeneuve, 1908 L

Adia Robineau-Desvoidy, 1830

- *cinerella* (Fallén, 1825) !
- *grisella* (Rondani, 1871) !



Anthomyia pluvialis,
male (MND2, p.1099).

Alliopsis Schnabl & Dziedzicki, 1911

- *atronitens* (Strobl, 1893) !
- *billbergi* (Zetterstedt, 1838) !
- *glacialis* (Zetterstedt, 1845) !
- *incisivalva* (Strobl, 1898) !
- = *conifrons* auct. nec (Zetterstedt, 1845)
- *kuntzei* (Ringdahl, 1934) !
- *pilitarsis* (Stein, 1900) !
- *rambolitensis* (Villeneuve, 1922) !
- *sepiella* (Zetterstedt, 1845) !
- *silvestris* (Fallén, 1824) !
- *teriolensis* (Pokorný, 1893) !

Anthomyia Meigen, 1803

- *bazini* Ségué, 1929 !
- *confusanea* Michelsen, 1985 !
- *liturata* (Robineau-Desvoidy, 1830) !
- = *pullula* Zetterstedt, 1845
- *monilis* (Meigen, 1826) !
- *pluvialis* (Linnaeus, 1758) !
- *procellaris* Rondani, 1866 !
- *quingemaculata* Macquart, 1839 !

Botanophila Lioy, 1864

- *bompadrei* (Bezzi, 1918) !
- *brunneilinea* (Zetterstedt, 1845) !
- = *schisticolor* Zetterstedt, 1860
- *centaureae* (Hennig, 1970) L
- *discreta* (Meigen, 1826) !

- *dissecta* (Meigen, 1826) !
 - *estonica* (Elberg, 1970) !
 - *facettii* (Bezzi, 1918) !
 - *fugax* (Meigen, 1826) !
 - *gentianae* (Pandellé, 1900) L
 - *helviana* Michelsen, 1983 !
 - *latifrons* (Zetterstedt, 1845) !
 - *lobata* (Collin, 1967) !
 - *maculipes* (Zetterstedt, 1845) !
 - *phrenione* (Séguy, 1937) !
 - *profuga* (Stein, 1916) !
 - *rubrigena* (Schnabl, 1915) !
 - *rupicapra* (Mik, 1887) !
 - = *flavisquama* (Stein, 1906)
 - *sanctimarci* (Czerny, 1906) !
 - *seneciella* (Meade, 1892) !
 - *spinosa* (Rondani, 1866) !
 - *striolata* (Fallén, 1824) !
 - = *fugitiva* Schnabl, 1911
 - *trapezina* (Zetterstedt, 1845) !
 - *tuxeni* (Ringdahl, 1953) !
 - *varicolor* (Meigen, 1826) !
 - = *odontogaster* Zetterstedt, 1845
 - *verticella* (Zetterstedt, 1838) !
 - *vicaria* (Hennig, 1972) !
- Calythea* Schnabl & Dziedzicki, 1911
- *dedecorata* (Rondani, 1866) !
 - *nigricans* (Robineau-Desvoidy, 1830) !
- Chiastocheta* Pokorny, 1889
- *dentifera* Hennig, 1953 !
 - *inermella* (Zetterstedt, 1838) !
 - = *trollii* Zetterstedt, 1845) sensu Collin, 1954
 - *lophota* Karl, 1943 !
 - = *inermella* Zetterstedt, 1838) sensu Hennig, 1953
 - = *trollii* Zetterstedt, 1845) sensu Hennig, 1966
 - *macropyga* Hennig, 1953 !
 - *rotundiventris* Hennig, 1953 !
 - *setifera* Hennig, 1953 !
 - *trollii* (Zetterstedt, 1845) !
 - = *schnabli* Collin, 1954
- Chirosia* Rondani, 1856
- *betuleti* (Ringdahl, 1935) !
 - *cinerosa* (Zetterstedt, 1845) !
 - *montana* Pokorny, 1893 !
- Delia* Robineau-Desvoidy, 1830
- *antiqua* (Meigen, 1826) L

- *brassicaeformis* (Ringdahl, 1926) !
- *brunnescens* (Zetterstedt, 1845) !
- *capdellae* Michelsen, 2012 !
- *cardui* (Meigen, 1826) !
- *carduiformis* (Schnabl, 1911) L
- *coarctata* (Fallén, 1825) !
- *commixta* (Séguy, 1925) !
- *crinita* Hennig, 1974 !
- *criniventris* (Zetterstedt, 1860) !
- *discalis* (Séguy, 1925) !
- *echinata* (Séguy, 1923) !
- *elongata* (Pokorny, 1889) L
- *fallax* (Loew, 1873) !
- *floralis* (Fallén, 1824) !
- *floricola* Robineau-Desvoidy, 1830 !
- *florilega* (Zetterstedt, 1845) !
 - = *trichodactyla* Rondani, 1866
- *frontella* (Zetterstedt, 1838) !
 - = *exigua* Meade, 1883
- *gallica* Hennig, 1974 !
- *hirticrura* (Rondani, 1871) !
- *interflua* (Pandellé, 1900) L
- *judicariae* (Pokorny, 1893) !
- *longicauda* (Strobl, 1898) !
- *lophota* (Pandellé, 1900) L
 - = *nuda* (Strobl, 1901)
- *majuscula* (Pokorny, 1889) !
- *nasutula* (Pandellé, 1900) L
 - = *aconiti* (Ringdahl, 1948)
- *nigrescens* (Rondani, 1877) !
 - = *angusta* Stein, 1897 sensu Ringdahl, 1957
- *penicilliventris* Ackland, 2010 !
 - = *penicillaris* auct. nec (Rondani, 1866)
- *penicillosa* Hennig, 1974 !
- *pilifemur* (Ringdahl, 1933) !
- *pilitibia* (Stein, 1916) !
- *piliventris* (Pokorny, 1889) !
- *planipalpis* (Stein, 1898) L
 - = *pilipyga* Villeneuve, 1917
- *platura* (Meigen, 1826) !
 - = *cilicrura* Rondani, 1866
- *pruinosa* (Zetterstedt, 1845) L
- *pseudofugax* (Strobl, 1893) !
- *radicum* (Linnaeus, 1758) !
 - = *brassicae* Bouché, 1833
- *tenuiventris* (Zetterstedt, 1860) !

- *tornensis* (Ringdahl, 1926) !

- *trispinosa* (Karl, 1937) !

Egle Robineau-Desvoidy, 1830

- *brevicornis* (Zetterstedt, 1838) !

- *ciliata* (Walker, 1849) !

- *concomitans* (Pandellé, 1900) !

- *inermis* Ackland, 1970 !

- *lyneborgi* Ackland & Griffiths, 2003 !

- *minuta* (Meigen, 1826) !

- *myricariae* Grossmann, 1998 !

- *parva* Robineau-Desvoidy, 1830 !

- *parvaeformis* Schnabl, 1911 !

- *pilitibia* (Ringdahl, 1918) !

- *rhinotmeta* (Pandellé, 1900) !

- *subarctica* (Huckett, 1965) !

Emmesomyia Malloch, 1917

- *grisea* (Robineau-Desvoidy, 1830) !

- *socia* (Fallén, 1825) !

Eustalomyia Kowarz, 1873

- *festiva* (Zetterstedt, 1845) !

- *hilaris* (Fallén, 1823) !

- *histrion* (Zetterstedt, 1838) !

- *vittipes* (Zetterstedt, 1845) !

Eutrichota Kowarz, 1893

- *frigida* (Zetterstedt, 1845) !

- *longimana* (Pokorný, 1887) L

- *paratunicata* (Hennig, 1973) !

- *pilimana* (Ringdahl, 1918) !

- *praeclara* (Stein, 1914) L

- *praepotens* (Wiedemann, 1817) !

- *stenometopa* (Hennig, 1973) L

- *triticiperda* (Stein, 1900) !

Heterostylodes Hennig, 1967

- *annularis* (Tiensuu, 1946) !

- *nominabilis* (Collin, 1947) !

- *obscura* (Macquart, 1835) !

- *pilifera* (Zetterstedt, 1845) !

- *pratensis* (Meigen, 1826) !

Hydrophoria Robineau-Desvoidy, 1830

- *bavarica* Hennig, 1969 !

- *diabata* (Pandellé, 1899) !

- *lancifer* (Harris, 1780) !

= *conica* Wiedemann, 1817

- *linogrisea* (Meigen, 1826) !

- *ruralis* (Meigen, 1826) !

- *silvicola* (Robineau-Desvoidy, 1830) !

= *annulata* auct. nec (Pandellé, 1899)

Hylemya Robineau-Desvoidy, 1830

- *nigrimana* (Meigen, 1826) !
- *urbica* van der Wulp, 1896 !
- *vagans* (Panzer, 1798) !
 - = *strenua* Robineau-Desvoidy, 1830
 - = *strigosa* Fabricius, 1794
- *variata* (Fallén, 1823) !

Hylemyza Schnabl & Dziedzicki, 1911

- *partita* (Meigen, 1826) !
 - = *lasciva* (Zetterstedt 1838)

Hyporites Pokorny, 1893

- *montanus* (Schiner, 1862) !

Lasiomma Stein, 1916

- *anthomyinum* (Rondani, 1856) !
 - = *anthomyinum* (Rondani, 1866)
- *craspedodontum* Hsue, 1980 !
- *latipenne* (Zetterstedt, 1838) !
 - = *Chirosia latipennis* (Zetterstedt, 1838)
- *picipes* (Meigen, 1826) L
 - = *octoguttatum* Zetterstedt, 1845
- *seminitidum* (Zetterstedt, 1845) !
- *strigilatum* (Zetterstedt, 1838) !
 - = *eriphthalma* Zetterstedt, 1860

Leucophora Robineau-Desvoidy, 1830

- *brevifrons* (Stein, 1916) !
- *cinerea* Robineau-Desvoidy, 1830 !
- *dorsalis* (Stein, 1916) !
- *grisella* Hennig, 1967 !
- *obtusa* (Zetterstedt, 1838) !
- *sericea* Robineau-Desvoidy, 1830 !
- *unistriata* (Zetterstedt, 1838) !

Mycophaga Rondani, 1856

- *testacea* (Gimmerthal, 1834) !

Paradelia Ringdahl, 1933

- *brunneonigra* (Schnabl, 1911) !
- *intersecta* (Meigen, 1826) !
- *lunatifrons* (Zetterstedt, 1845) !
- *lundbeckii* (Ringdahl, 1918) !
- *palpata* (Stein, 1906) !
- *setiventris* (Huckett, 1965) !

Paregle Schnabl, 1911

- *audacula* (Harris, 1780) !
- *coerulescens* (Strobl, 1893) !

Pegomya Robineau-Desvoidy, 1830

- *bicolor* (Wiedemann, 1817) !

- *calyptrata* (Zetterstedt, 1846) !
- *conformis* (Fallén, 1825) !
- *exilis* (Meigen, 1826) !
- *flavifrons* (Walker, 1849) !
- *flavoscutellata* (Zetterstedt, 1838) L
 - = *flavipalpis* Zetterstedt, 1845
- *geniculata* (Bouché, 1834) !
- *grahami* Michelsen & Ackland, 2009 !
- *haemorrhoum* (Zetterstedt, 1838) !
- *meridiana* (Villeneuve, 1923) !
- *nigrisquama* (Stein, 1888) L
- *pallidoscutellata* (Zetterstedt, 1852) !
- *rufina* (Fallén, 1825) !
- *rugulosa* (Zetterstedt, 1845) !
- *solemnis* (Meigen, 1826) !
 - = *nigritarsis* Zetterstedt, 1838
- *transversa* (Fallén, 1825) !
- *winthemi* (Meigen, 1826) !
- Pegoplata* Schnabl & Dziedzicki, 1911
 - *aestiva* (Meigen, 1826) !
 - *infirma* (Meigen, 1826) !
 - *patellans* (Pandellé, 1900) !
- Phorbia* Robineau-Desvoidy, 1830
 - *acklandi* Hennig, 1969 !
 - *atrogrisea* Tiensuu, 1936 !
 - *bartaki* Ackland & Michelsen, 1987 !
 - *curvicauda* (Zetterstedt, 1845) !
 - *fascicularis* Tiensuu, 1936 !
 - *fumigata* (Meigen, 1826) !
 - *genitalis* (Schnabl, 1911) !
 - *longipilis* (Pandellé, 1900) !
 - *moliniaris* (Karl, 1917) !
 - *penicillaris* (Stein, 1916) !
 - *unipila* (Karl, 1917) !
- Strobilomyia* Michelsen, 1988
 - *anthracina* (Czerny, 1906) !
 - *infrequens* (Ackland, 1965) !
 - *laricicola* (Karl, 1928) !
 - *melania* (Ackland, 1965) !
 - *svenssoni* Michelsen, 1988 !
- Subhylemyia* Ringdahl, 1933
 - *longula* (Fallén, 1824) !
- Zaphne* Robineau-Desvoidy, 1830
 - *ambigua* (Fallén, 1823) !
 - *caudata* (Zetterstedt, 1855) !
 - *divisa* (Meigen, 1826) !

- *frontata* (Zetterstedt, 1838) L
- *lineatocollis* (Zetterstedt, 1838) !
- *septimalis* (Pandellé, 1899) !
- *spiniclunis* (Pandellé, 1899) !

Excluded species

Pegomya maculata (Stein, 1906)

References

- Ackland D.M. & Merz B. 2003. New records of Anthomyiidae (Diptera) from Switzerland. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 76: 207-219.
- Ackland D.M. 2010. Additions and changes to the British List of Anthomyiidae (Diptera). *Dipterists Digest* 17: 79-82.
- Bächli G., Merz B. & Haenni J.-P. 2014. Dritter Nachtrag zur Checkliste der Diptera der Schweiz. *Entomo Helvetica* 7: 119-140.
- Brockhoff E. & Kenis M. 1997. Oviposition, life cycle and parasitoids of the spruce cone maggot, *Strobilomyia anthracina* (Diptera: Anthomyiidae) in the Alps. *Bulletin of Entomological Research* 87: 555-562.
- Franz H. 1989. Die Nordost-Alpen im Spiegel ihrer Landtierwelt. Eine Gebietsmonographie. Band VI/2. Diptera Cyclorapha. Universitätsverlag Wagner, Innsbruck, 445 pp.
- Grossmann A. 2005. Neue Nachweise von Anthomyiidae (Diptera) in der Schweiz. *Mitteilungen der Entomologischen Gesellschaft Basel* 55: 136-140.
- Grossmann A. 2024. Neufunde und aktuelle Bestätigungen von Vorkommen der Anthomyiidae (Diptera) in der Schweiz. *Entomo Helvetica* 17: 69-80.
- Hennig W. 1966-1976. 63a. Anthomyiidae. In: Lindner E. (ed). Die Fliegen der palaearktischen Region. Vol. 7(1): LXXVIII + 974 pp., 114 Taf. Schweizerbart, Stuttgart.
- Michelsen V. & Merz B. 1998. 97. Anthomyiidae. In: Merz B., Bächli G., Haenni J.-P. & Gonseth Y. (eds). Diptera - Checklist. *Fauna Helvetica* 1: 313-317. CSCF / SEG, Neuchâtel, 369 pp.
- 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. *Mitteilungen der Entomologischen Gesellschaft Basel* 56(4): 135-165.
- Michelsen V. 2009. Report on three unrecognised European species of Anthomyiidae described by O. Ringdahl (Insecta: Diptera). *Genus* 20(1): 1-12.
- Michelsen V. 2011. Anthomyiidae. In: Pape T. (ed). *Fauna Europaea: Diptera, Brachycera*. *Fauna Europaea* version 2.4. <http://www.fauna-eu.org>.
- Ringdahl O. 1957. Fliegenfunde aus den Alpen. *Entomologisk Tidskrift* 78: 115-134.
- Roques A. & Hirschheydt J.v. 1990. Contribution à la connaissance de la faune entomologique des cônes de Mélèze en Suisse. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 63: 105-114.
- Sforzi A. & Sommagio D. 2021. Catalog of the Diptera types described by Camillo Rondani. *Zootaxa* 4989: 1-438.
- Suwa M. & Darvas B. 1998. 3.50. Family Anthomyiidae. In: Papp L. & Darvas B. (eds). *Contributions to a Manual of Palaearctic Diptera (with special reference to flies of economic importance)*. Vol. 3: 571-616. *Science Herald*, Budapest, 880 pp.
- Volkart H.D. 1982. Die Gattung *Eustalomyia* Kowarz in der Schweiz (Dipt., Anthomyiidae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 55: 333-335.