Checklist of the fly families Chyromyidae and Heleomyzidae (Diptera) of Finland

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Abstract
A Finnish checklist of the sphaeroceroid fly families Chyromyidae and Heleomyzidae is provided.

Keywords
Species list, Finland, Diptera, biodiversity, faunistics

Introduction

The superfamily Sphaeroceroidea is a medium-sized one, with two families of moderate diversity, Sphaeroceridae (1550 species) and Heleomyzidae (~720 species), and the small family Chyromyidae. The enigmatic afrotropical *Mormotomyia hirsuta* Austin, 1936 was once placed near Sphaeroceridae but it is now seen as an ephydroid fly (Kirk-Spriggs et al. 2011). McAlpine (2007) has proposed an alternative concept for Sphaeroceroidea with Sphaeroceridae and Heleomyzidae united as a single family called Heteromyzidae. This proposal has not gained significant support and for the purposes of this checklist the traditional concept of family Sphaeroceridae is retained.
There is no general agreement on the relationships of various heleomyzid tribes. Several different schemes for subfamilies have been proposed (see McAlpine 2007, McAlpine and Woodley 2010). Some taxa treated here as heleomyzids (primarily Trixoscelidinae, Chiropteromyzinae, Heteromyzinae and Borboropsini) may deserve full family status. As a conservative approach this checklist follows Marshall (2012) and keeps them as subfamilies and tribes. The heleomyzid subfamilies and tribes are listed alphabetically.

The Finnish chyromyids are small yellow flies with (at least while alive) iridescent blue or green eyes. Chyromyids are rarely collected and little is known about their ecology or the proper place of the family within Sphaeroceroidea. They may actually be a specialized lineage arising from within Heleomyzidae sensu lato.

Two of the three sphaeroceroid families are treated in this paper. The largest, Sphaeroceridae, is covered in a separate paper in this issue of ZooKeys. The Finnish species of Heleomyzidae and Chyromyidae were last listed by Hackman (1980).

**Table 1.** Number of species by family.

<table>
<thead>
<tr>
<th>Family</th>
<th>Number of species in</th>
<th>Level of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>World (Pape et al. 2011)</td>
<td>Europe</td>
</tr>
<tr>
<td>Chyromyidae</td>
<td>138</td>
<td>59</td>
</tr>
<tr>
<td>Heleomyzidae</td>
<td>727</td>
<td>175</td>
</tr>
</tbody>
</table>

**Checklist**

suborder Brachycera Macquart, 1834
clade Eremoneura Lameere, 1906
clade Cyclorrhapha Brauer, 1863
infraorder Schizophora Becher, 1882
clade Muscaria Enderlein, 1936
parvorder Acalyptratae Macquart, 1835
superfamily Sphaeroceroidea Macquart, 1835

**CHYROMYIDAE** Hendel, 1916
**CHYROMYINAE** Hendel, 1916

**CHYROMYA** Robineau-Desvoidy, 1830
Chyromya flava (Linnaeus, 1758)
Chyromya oppidana (Scopoli, 1763)

**GYMNOCHIROMYIA** Hendel, 1933
Gymnochiromyia flavella (Zetterstedt, 1848)
  = minima (Becker, 1904)
Gymnochiromyia inermis (Collin, 1933)

**HELEOMYZIDAE** Westwood, 1840
**BORBOROPSINAE** Griffiths, 1972
BORBOROPSIS Czerny, 1902
Borboropsis puberula (Zetterstedt, 1838)
  = fulviceps (Strobl, 1898)

CHIROPTEROMYZINAE Frey, 1952

CHIROPTEROMYZA Frey, 1952
Chiropteromyza broersei (de Meijere, 1946)
  = wegelii Frey, 1952

NEOSSOS Malloch, 1927
  = Ornitholeria Frey, 1930
Neossos nidicola (Frey, 1930)

HETEROMYZINAE Fallén, 1820

HETEROMYZA Fallén, 1820
Heteromyza atricornis Meigen, 1830
Heteromyza oculata Fallén, 1820
Heteromyza rotundicornis (Zetterstedt, 1846)

TEPHROCHLAMYS Loew, 1862
Tephrochlamys flavipes (Zetterstedt, 1838)
Tephrochlamys rufiventris (Meigen, 1830)
  = lapponica (Czerny, 1924)
Tephrochlamys steniusi Frey, 1930
Tephrochlamys tarsalis (Zetterstedt, 1847)

HELEOMYZINAE Westwood, 1840

HELEOMYZAS Frey, 1952
Heleomyza borealis (Boheman, 1865)
  = czernyi Collart, 1933
  = modesta misid.
Heleomyza hackmani Frey, 1950
Heleomyza pleuralis (Becker, 1907)
Heleomyza serrata (Linnaeus, 1758)

MORPHOLERIA Garrett, 1921
sg. Spanoparea Czerny, 1924
Morpholeria dudai (Czerny, 1924)
Morpholeria kerteszii Czerny, 1924
Morpholeria obscuriventris (Zetterstedt, 1847)
Morpholeria ruficornis (Meigen, 1830)

NEOLERIA Malloch, 1919
Neoleria inscripta (Meigen, 1830)
= minuta (Zetterstedt, 1838)
Neoleria prominens (Becker, 1897)
= tibialis misid.
Neoleria ruficauda (Zetterstedt, 1847)
Neoleria ruficeps (Zetterstedt, 1838)
**SCOLIOCENTRA** Loew, 1862
go *Chaetomus* Czerny, 1924
Scoliocentra confusa (Wahlgren, 1918)
Scoliocentra flavotestacea (Zetterstedt, 1838)
go *Leriola* Gorokov, 1962
Scoliocentra brachypterna (Loew, 1873)
Scoliocentra nigrinervis (Wahlgren, 1918)
go *Scoliocentra* Loew, 1862
Scoliocentra dupliciseta (Strobl, 1894)
Scoliocentra scutellaris (Zetterstedt, 1838)
Scoliocentra villosa (Meigen, 1830)
tribe Oecotheini Gorokov, 1972
**ECCOPTOMERA** Loew, 1862
Eccoptomera infuscata Wahlgren, 1918
Eccoptomera longiseta (Meigen, 1830)
Eccoptomera marginicornis Czerny, 1924
Eccoptomera microps (Meigen, 1830)
Eccoptomera obscura (Meigen, 1830)
Eccoptomera ornata Loew, 1862
Eccoptomera pallescens (Meigen, 1830)
**OECOTHEA** Haliday, 1837
Oecothea fenestralis (Fallén, 1820)
tribe Orbelliini Gorokov, 1972
**ORBELLIA** Robineau-Desvoidy, 1830
Orbellia nivicola Frey, 1913
**SUILLINAE** Wahlgren, 1917
**SUILLIA** Robineau-Desvoidy, 1830
= *Allophyla* Loew, 1862
Suillia affinis (Meigen, 1830)
Suillia apicalis (Loew, 1862)
Suillia atricornis (Meigen, 1830)
Suillia bicolor (Zetterstedt, 1838)
Suillia femoralis (Loew, 1862)
Suillia flava (Meigen, 1830)
Suillia flavifrons (Zetterstedt, 1838)
= nudipes (Czerny, 1932)
Suillia fuscicornis (Zetterstedt, 1847)
Suillia humilis (Meigen, 1830)
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= inornata (Loew, 1862)
Suillia laevifrons (Loew, 1862)
Suillia lineitergum (Pandellé, 1901)
  = strobii (Czerny, 1904)
Suillia lurida (Meigen, 1830)
Suillia mikii (Pokorny, 1886)
Suillia nemorum (Meigen, 1830)
Suillia pallida (Fallén, 1820)
Suillia parva (Loew, 1862)
  = collini Hackman, 1972
  = flavifrons auct. nec (Zetterstedt, 1838)
Suillia quadrilineata Czerny, 1924
Suillia vaginata (Loew, 1862)
TRIXOSCELIDINAE Hendel, 1916
TRIXOSCELIS Rondani, 1856
Trixoscelis frontalis (Fallén, 1823)
  ? = canescens misid. (see Notes)
Trixoscelis marginella (Fallén, 1823)
Trixoscelis obscurella (Fallén, 1823)
Trixoscelis similis Hackman, 1970

Notes

Chyromya oppidana (Scopoli, 1763). Found only inside houses and farm buildings in Finland.

Orbellia nivicola Frey, 1913. This species was synonymized with O. myiopiformis R.-D. by Storå (1958), but Frey (1958) defended its validity. The status of O. nivicola as a species needs verification.

Trixoscelis canescens (Loew, 1865). This species was originally described on the basis of a single female. Soós (1979) examined the type and revived the name from synonymy with T. frontalis. Woźniaka (2008) provided an illustrated diagnosis for T. canescens and synonymized T. gigans Carles-Tolrá, 2001 and T. fumipennis Papp, 2005 with it. The species was recently recorded from Finland by Flinck and Kahanpää (2013). Specimens with darkened costal veins and dorsal abdominal surfaces, both proposed diagnostic characters of T. canescens, are common among Finnish T. frontalis material (see Fig. 8 in Flinck and Kahanpää 2013). Finnish males with these features have genitalia identical with those illustrated for T. frontalis by Hackman (1970) and quite unlike the genitalia of T. gigans (= fumipennis Papp). The male specimen mentioned in Flinck and Kahanpää (2013) was later dissected and it belongs to T. frontalis. The external characters (darkened costa and dorsum of abdomen) can not be used to reliably separate T. canescens from T. frontalis. The Finnish records of T. canescens are probably all misidentifications of T. frontalis.
References


