A Catalog and Conspectus on the Family Coelopidae (Diptera: Schizophora)

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Introduction

The family Coelopidae, more commonly known as kelp flies, occurs primarily on maritime beaches in association with wrack where the larvae exploit stranded and rotting seaweed. Adults and larvae are sometimes very abundant in this habitat, especially on stranded kelp, which, as a result, is significantly reduced and recycled. Multiple species may share the same habitat, feeding on kelp in various conditions, such as state of decomposition. Adults vary considerably in form and size but are typically though not always broadly depressed (flattened), have strong legs, and are dark colored. Considerable intraspecific variation is often expressed, especially in overall size, including wing length, and setal characters. The variation is apparently a combination of genetic and environmental influences, especially nutrition (Hennig 1937, Butlin et al. 1982, McAlpine 1991). This plasticity in “traditional” characters has led to extensive splitting and has resulted, in some cases, in multiple descriptions and names for the same species.

Coelopidae occur almost exclusively in cool, temperate zones and currently include nearly 30 species worldwide. Species richness is disproportionately distributed, however, with nearly 80% of the genera and about 60% of the species occurring in the Australasian Region alone.

This catalog and conspectus are intended to encourage further research on all aspects of kelp flies. There are still undescribed species (we are aware of one from South Island, New Zealand), some species, such as those from the southern Afrotropical Region, need better resolution, the immature stages of most species are largely undocumented or unknown, and the phylogenetic relationships among the included taxa have only recently been investigated (McAlpine 1991, Meier & Wiegmann 2002). Although resolved better than most families of Schizophora, the current hypotheses of phylogenetic relationships for the taxa within the family are being actively investigated and undoubtedly will be further corroborated and more finely resolved as new evidence is analyzed and improved analytical tools are employed.
Zoological catalogs, checklists, and equivalent databases are indispensable tools for anyone needing a reference to a currently accepted name and frequently to other information relating to that taxon, such as bibliographic and distributional data. This is possible because most information is filed under a species’ scientific name, which is the key to retrieval of information from the literature. The system is dynamic, however, and subject to interpretation. The taxonomic literature is constantly changing to reflect recent work, and some species are known by more than one name. Thus a complete listing of names, including synonyms, is an important starting point for locating information, whether as the basis for applied and basic research or simply to satisfy a curiosity.

The information included in a catalog is usually arranged in a logical and organized format that allows for its convenient and rapid conveyance—in short, a quick and easy storage and retrieval system. The format and amount of information presented varies greatly, however. Our use of the term catalog is intended to convey a more comprehensive treatment, including information on all valid names, synonyms, type species, and the status and deposition of primary types. The bibliographic section includes complete references (author, date, original citation), and distributional and other biotic information are also provided.

Regional catalogs, checklists, and faunal treatments have contributed significantly to the compilation of this catalog. The most recent of these for a given region or country are as follows:

Catalogs: Vockeroth 1965 (Nearctic); Steyskal 1967 (Neotropical); Cogan 1980 (Afrotropical); Gorodkov 1984a, 1984b (Palearctic); Mathis 1989 (Australasian/Oceanian).

Checklists: Morimoto 1989 (Japan); Bruyn 1991 (Belgium); Nowakowski 1991a, 1991b (Poland); Munari & Rivosecchi 1995 (Italy); Poole & Gentili 1996 (Nearctic Region); Chandler 1998a, 1998b (British Isles); Schumann 1999a, 1999b (Germany); Pakalniškis et al. 2000 (Lithuania); Meier & Petersen 2001 (Denmark); Beuk 2002 (Netherlands); Carles-Tolrá & Báez 2002 (Spain, Portugal).

Faunal Treatments: Aldrich 1929 (Nearctic); Séguy 1934 (France); Hennig 1937 (Palearctic); Stackelberg 1970 (European Russia); Ardö 1964 (South Africa); Cole 1969 (western North America); Harrison 1976 (Subantarctic islands); Vockeroth 1987 (Nearctic); McAlpine 1991 (Australian), 1998 (Palearctic).

Nomenclature: Sabrosky 1999 [discussion of the family-group names Phycodromidae, Malacomyiidae, and Coelopidae, and the need to preserve the latter through for the ICZN Commission].


**Abbreviations used in this catalog**

To economize on space we have used acronyms for museums where primary type(s) are deposited. These acronyms are as follows:

- **AMS** Australian Museum, Sydney, Australia.
- **BMNH** British Museum (Natural History), London, United Kingdom.
- **BBM** Bernice P. Bishop Museum, Honolulu, Hawaii, USA.
- **CAS** California Academy of Sciences, San Francisco, USA.
- **CMC** Canterbury Museum, Christchurch, New Zealand.
- **MCSNM** Museo Civico di Storia Naturale de Milano, Milan, Italy.
- **MNHNP** Museum National d’Histoire naturelle, Paris, France.
- **MZUF** Museo Zoologico “La Specola,” Florence, Italy.
- **NMI** National Museum of Ireland, Dublin, Ireland.
- **NMW** Naturhistorisches Museum, Wien, Austria.
- **NZAC** New Zealand Arthropod Collection, Landcare Research, Auckland, New Zealand.
- **PDD** Plant Diseases Division, Auckland, New Zealand.
- **USNM** formerly called United States National Museum, National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.
- **UZMC** Universitets Zoologiske Museum, Copenhagen, Denmark.
- **ZIL** Zoological Institute, University of Lund, Lund, Sweden.
- **ZMHU** Zoologisches Museum, Humboldt Universität, Berlin, Germany.

**Diagnosis** (synapomorphies, according to McAlpine (1991), are indicated with an asterisk): Adult. Small to large flies (body length 3.0-16.0 mm); often robust, squat, strongly depressed and setose; brown to blackish; occurring on seashores. **Head:** Vertex flat to shallowly convex; *postocellar
setae convergent. *Antenna decumbent; basoflagellomere subcircular; *distalmost seta of dorsal transverse series on scape enlarged, mesoclinate. Face slightly convex to concave, sclerotized; *parafacial prominence near epistomal margin. Thorax: Mesonotum stout, distinctly and broadly flattened; *scutum bearing distinct, medial series of setulae anteriorly; metepisternum usually bearing several short setulae ventrad of spiracle; *katepisternal seta anterodorsoclinate to anterodorsoclinate; *posterior portion of katepisternal suture shallowly projected dorsally, forming an arc above katepisternal seta; katepisternum not produced posterodorsally to form a hypopleural channel; prosternum lacking precoxal bridge. Wing usually macropterous, hyaline to faintly infuscate; costa unbroken; subcosta complete; apical section of vein M not bent strongly forward, terminating posterior of wing apex; vein Cu_{2+}A_{1} reaching posterior margin. *Apical tarsomeres broadly subt riangular with 2-3 setiferous teeth on apical margin. Abdomen: *Sternite 1 very short or vestigial. Male sternites 6-7 distinct, displaced asymmetrically; epandrium with 1 pair of basally articulated surstyli; basiphallus often stout, projected prominently; distiphallus slender, flexible, sometimes reduced. Female with 3-4 spermathecae, with or without terminal vesicles.

Egg. Undescribed; Phillips et al. (1995b) compared the sculpture of the chorion of eggs of two Coelopa species.

Third-instar larval. Typically maggot-like, cylindrical, anterior end tapered, posterior end generally broadly rounded; anterior spiracle on short process, fan-shaped, digitate, with one terminal opening per process; posterior spiracles separate, on short or elongate respiratory tubes, each spiracle with 3 slits, surrounded by a circle of plumose hydrofuge hairs (not in fascicles); anal opening on protuberance, this sometimes subdivided into lobes that bear spines or starlike sclerites around anus.

Puparium. Dark brown, ovoid with a moderately rugose surface.

Adult kelp flies are similar to Dryomyzidae, Helcomyzidae and Sepсидae (Orygma) and are distinguished from these and other families of the Sciomyzoidea by the generally compact, flattened, and setose appearance; the convergent postocellar setae, the flattened mesonotum; the complete wing venation with an unbroken costa and with vein Cu_{2+}A_{1} reaching posterior margin; the anteroclinate to anterodorsoclinate katepisternal seta, and the usually setose metepisternum.

Biology. All stages of kelp flies live in stranded seaweeds, especially where extensive wrack beds of kelp, sea grasses, and other jetsam have accumulated. Adults are often abundant and sometimes are a nuisance to people at the beach. Adults are also attracted to certain organic solvents and can be a

**Classification and nomenclature.** For the last several decades, this family has gone almost exclusively under the name of Coelopidae, but earlier literature used Phycodromidae. Phycodromidae is based on the genus *Phycodroma*, which is a junior synonym of *Malacomyia*. As *Phycodroma* was synonymized with *Malacomyia* well before 1961, the family-group name Phycodromidae is unavailable (Article 40b of the International Code; see McAlpine 1991: 47). The family-group name Coelopidae, however, is based on a different genus than *Malacomyia*, and Malacomyiidae Czerny (1909) is an available but essentially unused name. The case to preserve the use of Coelopidae should be submitted to the ICZN (McAlpine 1989: 1450, Sabrosky 1999: 246). Use of Malacomyiidae as valid also requires a case be submitted to the ICZN (Art. 23.11).

Coelopidae are in the superfamily Sciomyzoidea and are similar and closely related to the Helcomyzidae, perhaps as the sister group (McAlpine 1991). McAlpine (1991) and Meier & Wiegmann (2002) have proposed the most recent and complete phylogenies for the family, using morphological data, and in the latter paper, also DNA sequences as evidence. Although the morphological evidence confirms the monophyly of the family (McAlpine identified nine synapomorphies, see diagnosis above), the DNA sequences were equivocal, especially regarding the position of the genus *Lopa*. *Lopa*, which is monotypic and morphologically divergent, is the basis for McAlpine’s subfamily Lopinae and was sometimes positioned as the first divergence in the Coelopidae. Under other weighting regimes, however, *Lopa* sometimes diverged before the other Coelopidae and most of the outgroups being considered in the analysis (Helcomyzidae, Heterocheilidae, and Dryomyzidae). Meier and Wiegmann (2002: 401) suggested that DNA sequences of other genes might better resolve this ambiguity. Thus in the classification below, the subfamily Lopinae tentatively remains in the Coelopidae. Based on unpublished data and analysis from more recent DNA sequences, Meier (personal communication) has also indicated to us that the position of *Malacomyia* is problematic and it may be more closely related to *Coelopa*.

McAlpine’s classification not only divided the Coelopidae into two subfamilies (Lopinae and Coelopinae), but within the Coelopinae, he also
recognized four tribes and 12 genera. McAlpine’s classification is relatively finely divided (seven of the 13 genera are monotypic) and did not always accord with the “preferred” cladogram in Meier and Wiegmann’s total-evidence analysis. In the classification below, both proposals were considered and resulted in the elimination of one tribe, the Ammini, by combining it with the tribe Coelopellini. Thus the subfamily Coelopinae now comprises three tribes, 12 genera, and 28 species.

**Distribution.** Species of Coelopidae largely have temperate distributions and reveal greatest diversity in the southern hemisphere, especially in the Australasian Region where most genera (10) and species (18) are found. The Neotropical Region is notable in lacking any species, and elsewhere only a few species are found in the tropics and subtropics. McAlpine (1991) recorded specimens of *Dasycoelopa australis* Malloch along the eastern coast of Australia into tropical zones (12°-34° S latitude) and also reported that a small number of related species in the genus *Coelopa* (*C. ursina & alluaudi*) are found on maritime beaches along the western Pacific and Indian Oceans. In temperate zones in both the northern and southern hemispheres, species have been found in cool to very cold environments, including subantarctic islands in the south and above the Arctic Circle in the north. McAlpine (1991) suggested that failure to rear *Coelopella curvipes* in the laboratory might have been due to that species’ need for cool temperatures. Although an occasional adult is found inland, the family is only known to breed in wrack on maritime beaches and is apparently restricted to seashores.

Lopinae include a single genus, *Lopa* McAlpine, that has been found only in Australia. Of the subfamily Coelopinae, only *Coelopa*, *Coelopina* and *Malacomyia* are found in the northern hemisphere. The remaining genera and some species of *Coelopa* occur in the southern hemisphere.

Although some genera, such as *Coelopa*, are relatively widespread and are associated with maritime beaches in both the northern and southern hemispheres, most genera and species are more geographically circumscribed. This is especially apparent in the Australasian Region where there are 18 species in 10 genera that occur in Australia and/or New Zealand. The genera *Lopa*, *Amma*, *Dasycoelopa*, *Gluma*, *Rhis* and *This* are endemic to Australia. *Baenopterus* is endemic to New Zealand. *Chaetocoelopa*, *Coelopella*, and *Icaridion* are endemic Australasian genera living in both New Zealand and Australia, but only the first occurs on the Australian mainland. Seven species are known from New Zealand and its subantarctic islands, and of these, five are endemic and two have distributions that extend to Macquarie Island. The Australasian Region is the center for both generic and species diversity.
Table of genera

The following table lists the genera of Coelopidae in the order found in the catalog, with a summary of the number of species known from each zoogeographic region. The number in the total column is less than the sum of those in each region as species are known from more than one region.

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Subfamilies: 2
Tribes: 4
Genera: 13

Identification. McAlpine (1991) published the only recent key to the genera of the world, and that paper is useful for understanding the family even though its focus is on the Australian fauna. Aldrich’s (1929) revision of North American species of *Coelopa* and Malloch’s (1933) summary of *Coelopa* are still useful for identifying New World species (see also Vockeroth 1987), and the Palearctic species can be identified by using Hennig (1937) and McAlpine (1998).

At the species level, considerable variation is demonstrated, especially in overall body size, degree of setation and in some cases, color. Recognition of this variation must be considered in making species-level identifications. In addition, some species, such as *Coelopa frigida* and *C. nebularum* Aldrich, are completely interfertile with no apparent pre- or postzygotic barriers (Laamanen et al. 2003). Their respective populations, however, are allopatric and at least one morphological character distinguishes them. For
the present, we are recognizing them as separate species while also ac-
knowledging that these allopatric populations would be considered conspe-
cific using some species definitions (Laamanen et al. 2003).

**Key to genera and subgenera of Coelopidae**

1. Wing much reduced; tarsal claws broadly compressed..............2
   - Wing fully developed; tarsal claws variable....................3

2. Anepisternum with short, thick setulae; halter developed; wing
   with complete venation (New Zealand) ....................*Baeopterus* (in part)
   - Anepisternum bare; halter vestigial; wing with much reduced ve-
     nation (New Zealand) ..................................................*Icaridion* (in part)

3. Anepisternum with setulae or setae other than on posteroventral
   quarter, including a seta along posterior margin (may be shortened
   in large males); scutum and scutellum quite convex..............4
   - Anepisternum bare or setulose only on posteroventral quarter,
     without posterior marginal seta; other characters variable........7

4. Anepimeron setulose; midcoxa with medial plate produced into a
   posteriorly directly lobe (Australia) .............................*Dasycoelopa*
   - Anepimeron bare; midcoxa with medial plate without lobe .......5

5. Hindtibia with 1 ventroapical spur; male forecoxa without poste-
   rior setae (Europe, North Africa) .....................................*Malacomyia*
   - Hindtibia with 2 strong, unequal, ventroapical spurs; male fore-
     coxa with a series of strong posterior setae or spines..........6

6. Scape with outermost, dorsal setula conspicuously enlarged and in-
   curved; face concave, prominent only on ventral margin and between
   antennal bases; scutellum narrow; intradorsocentral setulae in 7-11
   mostly irregular rows; male sternite 5 at least half as long as sternite
   4, almost symmetrical (Australia, New Zealand) ......*Chaetocoelopa*
   - Scape with outermost dorsal setula not enlarged; face with weak,
     saddle-shaped, medial carina; scutellum relatively broad and
     rounded; intradorsocentral setulae in 3-5 rows, lateral rows very
     irregular; male sternite 5 short, very asymmetrical (western North
     America) ...........................................................................*Coelopina* (in part)

7. Interfacetal setulae numerous; occipital surface of head convex,
   not fitted to thorax; hypopleuron bare (Australia) ..............*Lopa*
   - Eye bare or nearly so; occipital surface of head more or less broad-
     ly flattened, fitting closely against thorax; hypopleuron setulose
     posteriorly ........................................................................8
8. Prosternum bare; arista shorter than greatest diameter of eye; 2 pairs of scutellar setae ................................................................. 9

- Prosternum setulose (rarely bare in diminutives of Icaridion, having arista longer than eye and usually with only 1 pair of scutellar setae)........................................................................................................... 10

9. Vibrissal angle prominent and bearing a moderately long vibrissal seta; postpronotum with 2 setae, these subequal; vein $A_2$ indistinguishable beyond alula; male surstylus deeply bilobed (Australia)

- Vibrissal angle receding, bearing fine setulae only; normally 1 postpronotal seta present; vein $A_2$ present as an unpigmented crease beyond alula; male surstylus simple (Australia) ............... ................................................................. Rhis (in part)

10. Midcoxa with medial plate produced into a pubescent lobe as prominent as anterior setulose lobe (reduced in Coelopa stejnegeri); forefemur with small, strongly spinescent basal anteroventral setulae; scutellum very broadly rounded; face usually much narrowed ventrally so that parafacial prominences (when distinct) are approximate (except in Coelopa vanduzeei) ......................... 11

- Midcoxa with medial plate not produced into a lobe; forefemur without such spinescent setulae; scutellum narrower, often subtriangular; face not markedly narrowed below ........................................ 14

11. Anal cell (CuP) with posterodistal angle not more acute than anterodistal angle; postnotopleural ridge rounded; prosternum strongly bifurcate anteriorly; hindtibia with 2 apical spurs, dorsal spur larger (temperate Australia)................................. Gluma

- Anal cell with posterodistal angle produced, markedly more acute than anterodistal angle; postnotopleural ridge with sharp edge; prosternum anteriorly entire or with slight, medial notch; hindtibial spurs not as above (if 2 then ventral spur larger)(north temperate zone, Africa, Indo-Pacific tropics) (genus Coelopa) ................. 12

12. Subcosta without ventral setulae ....................... subgenus Fucomyia

- Basal section of subcostal bearing ventral setulae ...................... 13

13. Presutural intra-alar seta present; hindtibia with only 1 apical anteroventral spur; male: forefemur with many long, fine setulae only ................................................................. subgenus Coelopa

- Presutural intra-alar seta absent; hindtibia with 2-3 apical anteroventral spurs; male: forefemur with a dorsal series of large spine-like setae (smaller in diminutive examples), in addition to smaller such setae and few setulae .............................. subgenus Neocoelopa
14. Arista bare; subcosta with small setulae ventrally near humeral crossvein; hindfemur with thick, spinescent, anteroventral and posteroventral setae (New Zealand) .................. *Baeopterus* (in part)
- Arista short-haired; subcosta bare; hindfemur ventrally with at most fine, poorly differentiated setae ............................. 15
15. Costa fading beyond vein R$_{4+5}$, not reaching vein M; postpronotal callus with 2 long setae; male forebasitarsus with 2 narrow, ventroapical processes; female sternite 4 divided in 2 (Australia)......
........................................................................................................................................... *Amma*
- Costa narrowed beyond vein R$_{4+5}$ but distinct to vein M; postpronotal callus with at most 1 long seta; male forebasitarsus with 1 broad, ventroapical process; female sternite 4 undivided ........... 16
16. Metasternum generally setulose; vein A$_2$ absent; apex of parafacial prominence microtomentose, not shiny; vibrissal area generally with 1 or few differentiated setae among setulae; male surstylus biramous (New Zealand, Macquarie Island) ..... *Icaridion* (in part)
- Metasternum bare; vein A$_2$ visible beyond alula as an unpigmented crease; apex of parafacial prominence smooth, shiny; vibrissal area setulose but without slightly differentiated setae; male surstylus simple................................................................. 17
17. Hindtibia with 1 terminal ventral spur (Australia) .... *Rhis* (in part)
- Hindtibia with 2 unequal terminal ventral spurs (Macquarie Island, New Zealand) ................................................................. *Coelopella*

**Family Coelopidae Hendel**

*Coelopinae* Hendel, 1910a: 112 [as a subfamily of the family Muscidae].
Type genus: *Coelopa* Meigen.


Phycodromidae Loew, 1861: 89. Type genus: Phycodroma Stenhammar 1854 [= Malacomyia Haliday 1837].

Phycodromiinae. Lameere 1906: 138

Subfamily COELOPINAE Hendel

Coelopinae Hendel, 1910a: 112 [family Muscidae]. Type genus: Coelopa Meigen.

Tribe Coelopini Hendel

Coelopini Hendel, 1910a: 112 [family Muscidae, as “Coelopinae”]. Type genus: Coelopa Meigen. McAlpine 1991: 29-84 [revision, first use as a tribe, Australian species]

Genus COELOPA Meigen


Caelopa. Misspelling. Westwood 1840: 144

NB: As first noted by Haliday (1838: 186), Meigen based Coelopa on a misidentification. Musca frigida of Meigen was renamed pilipes by Haliday and was retained in the genus Coelopa. Haliday erected a new genus, Fucomyia, for the true frigida of Fabricius. Under the ICZN (Art. 70.3), when an author discovers that a type species was misidentified, the author should select and thereby fix as type species the species that will best serve stability and universality. Thus, as the type species of Coelopa Meigen, we formally select and fix Coelopa pilipes Haliday, a species Haliday recognized and selected years ago.

Subgenus Coelopa Meigen

Coelopa Meigen, 1830: 8. Type species: Musca frigida of Meigen, not Fabricius, by monotypy [misidentification = Coelopa pilipes Haliday].

pilipes Haliday. PA: Denmark, Färöe Islands, France, Great Britain, Ireland, Netherlands, Russia (European Part), Spain, Sweden.


Coelopa pilipes pilipes. Séguy 1934: 308-313 [review, figs. of male terminalia, habitus of body].


Hippobosca marina Walker, 1849: 1134 [manuscript name, attributed to Montagu].

Musca frigida of Meigen [Not Fabricius]. Misidentification. Meigen 1830: 8; Becker 1902: 250 [notes on Meigen’s collection].

Subgenus Fucomyia Haliday


Phycomyia Agassiz, 1846: 156, 288 [as a new name for Fucomyia].

aequatorialis Bezzi. AF: Somalia.

Coelopa (Coelopa) aequatorialis. Hardy 1957: 43 [generic combination, suggested to possibly be a synonym of C. pilipes Haliday].

alluaudi Séguy. AF: Madagascar. AU: Australia (Northern Territory, Queensland), Micronesia (Palau). OR: Japan (Ryukyu Islands), Philippines.


Coelopa (Coelopa) alluaudi. Hardy 1957: 43 [generic combination, suggested to be related to C. africana Malloch].


dasypoda Bezzi. AF: Namibia, South Africa (Northern Cape).

Coelopa dasypoda Bezzi, 1908: 191. Namibia. Itschabo Island (a guano island?), Lüderitzbaai (26°36.5′S, 15°08′E = Angra Pequena or Lüderitz Bay), Possession Island (27°01′S, 15°13′E); South Africa. Northern Cape: Port Nolloth (29°15′S, 16°52′E). ST ♂♀ MCSNM, USNM. Cogan 1980: 610 [catalog, Afrotropics].

Coelopa (Coelopa) dasypoda. Hardy 1957: 43 [generic combination].

frigida (Fabricius). NE: Canada (New Brunswick, Quebec), USA (Maine, Massachusetts, New York, Rhode Island). PA: Denmark, Färoe Islands, France, Great Britain, Iceland, Ireland, Japan, Lithuania, Netherlands, Norway, Poland, Russia (European Part), Spain, Sweden.


*Fucomyia gravis.* Scott 1920: 156 [natural history, figs. of puparium, terminal spiracle in third-instar larva].

*Fucomyia frigida* var. gravis. Hennig 1937: 26 [review].


**Fucomyia frigida** var. *parvula*. Hennig 1937: 27 [review]; Hardy 1957: 43 [list].


**nebularum** Aldrich. NE: USA (Alaska, California, Oregon, Washington). PA: Japan (Kuril Islands), Russia (Far East).


**Fucomyia frigida nebularum**. Hennig 1937: 28 [review, generic combination].

**Coelopa (Fucomyia) frigida var. nebularum**. Hardy 1957: 44 [list].


**orientalis** Macquart. OR: Indonesia (Java).

**Coelopa orientalis** Macquart, 1843: 166. Indonesia. Java. ST ? MNHNP. Becker 1910: 23 [listed as a synonym of *C. aequatorialis* Bezzi].

**stejnegeri** Aldrich. NE: USA (Alaska). PA: Russia (Far East).


**Coelopa steinegeri**. Misspelling. Hendel 1932: 7 [comparison with *C. nigrovillosa*].

**Coelopa (Fucomyia) stejnegeri**. Malloch 1933: 343 [review]; Mathis 1989: 564 [interception on Hawaiian Islands, catalog, Australasia/Oceania].

**Coelopa (Coelopa) stejnegeri**. Hardy 1957: 43 [discussion]; Vockeroth 1965: 679 [catalog, Nearctic]; Gorodkov 1984b: 151 [catalog, Palearctic].

ursina (Wiedemann). AF: South Africa (Northern Cape, Western Cape). Copromyza ursina Wiedemann, 1824: 59. South Africa. Western Cape: Cape of Good Hope [= “Prom. bon. sp.”]. ST ♂ UZMC, ZMHU.


Coelopa (Neocoelopa) africana. Hardy 1957: 43 [generic combination]; Ardö 1964: 441 [discussion, possibly a synonym of C. dasypoda Bezzi].

Subgenus Neocoelopa Malloch


vanduzeei Cresson. NE: USA (Alaska, California, Oregon, Washington).


Coelopa frigida of authors [not Fabricius]. Misidentification. Cole 1912: 156 [list]; Cole & Lovett: 1921: 320 [list, Oregon]

Fucomyia vanduzeei. Steyskal 1957: 68 [generic combination, synonymy, figs. of male terminalia].

Nomina dubia


offendens Walker. AU: Australia (Tasmania).


**Tribe Coelopellini McAlpine**


**Genus AMMA McAlpine**


*blancheae* McAlpine. AU: Australia (New South Wales, Victoria, South Australia, Tasmania, Western Australia).


**Genus BAEOPTERUS Lamb**


*Paeopterus* [sic]. Lamb 1909: 139 [misspelling].


*robustus* Lamb. AU: New Zealand (Auckland Islands, Campbell Island).


LT ♂ BMNH [designated by Harrison 1959: 95]. Enderlein 1930a: 256 [list, Campbell and Ewing Islands]; Hendel 1937: 185 [generic key]; Miller 1950: 101 [catalog, New Zealand]; Harrison 1959: 95 [review, lectotype designation], 1964: 312 [discussion, Campbell
Island, fig. of male terminalia], 1976: 126 [list, Auckland Islands, Campbell Island]; Mathis 1989: 563 [catalog, Australasia/Oceania].

*philpotti* (Malloch). AU: New Zealand (Chatham Islands, Snares Islands).


*Baeopterus (Protoeolopa) philpotti*. Mathis 1989: 563 [generic combination; Australasian/Oceanian catalog].


**Genus COELOPELLA Malloch**


*curvipes* (Hutton). AU: Macquarie Island, New Zealand (Auckland Islands, Campbell Island, Chatham Islands, South Island).


*Coelopa (Fucomyia) curvipes*. Malloch 1933: 343 [generic combination]; Harrison 1959: 107 [review, fig. of wing, lectotype designation]; Mathis 1989: 564 [catalog, Australasia/Oceania].

*Coelopa (Coelopa) curvipes*. Hardy 1957: 43 [list].

*Coelopa (Coelopella) curvipes*. Hardy 1962: 969-971 [review, generic combination, figs. of head, male and female terminalia, larva].

*Coelopella curvipes*. McAlpine 1991: 70-72 [revision].


*Coelopa (Fucomyia) macquariensis* Womersley, 1937: 72. Australia. Macquarie Island (Stations 81 and 82). ST ? BMNH. Harrison

**Genus ICARIDION Lamb**


*debile* (Lamb). **AU**: New Zealand (South Island, Auckland Islands, Antipodes Island, Campbell Island).


*Coelopa (Fucomyia) debilis*. Harrison 1959: 106 [review, lectotype designation, generic combination].


*nasutum* Lamb. **AU**: New Zealand (Antipodes Island, Auckland Islands, Campbell Island).


*nigrifrons* Lamb. **AU**: Macquarie Island, New Zealand (Auckland Island, Campbell Island, South Island).

Coelopa (Fucomyia) nigrifrons. Harrison 1959: 108 [review, lectotype designation]; Hardy 1962: 968-969 [review, figs. of head, male and female terminalia, larva, Macquarie Island].


Genus RHIS McAlpine

popeae (McAlpine). AU: Australia (Australian Capital Territory, New South Wales, South Australia, Tasmania, Victoria, Western Australia).


Rhis popeae. NEW COMBINATION.
NB: We have transferred this species to the genus Rhis based on DNA evidence and the well-supported clade of Rhis whitleyi plus this species (Meier & Wiegmann 2002).

whitleyi McAlpine. AU: Australia (New South Wales, South Australia, Tasmania, Victoria).


Genus THIS McAlpine

This McAlpine, 1991: 67. Type species: canus McAlpine, by original designation.
canus McAlpine. AU: Australia (Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania, Victoria, Western Australia).


Tribe GLUMINI McAlpine

Genus CHAETOCOELOPA Malloch


*littoralis* (Hutton). **AU**: New Zealand (North and South Islands, Auckland Islands, Campbell Island, Chatham Islands, Snares Islands).


**sydneyensis** (Schiner). **AU**: Australia (Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania, Victoria, Western Australia).


Genus COELOPINA Malloch


*anomala* (Cole). **NE:** USA (California). **NT:** Mexico (Baja California Norte).


Genus DASYCOELOPA Malloch


*australis* Malloch. **AU:** Australia (Lord Howe Island, New South Wales, Queensland).


Genus GLUMA McAlpine


_keyzeri_ McAlpine. **AU:** Australia (New South Wales, South Australia, Victoria, Western Australia).


_musgravei_ McAlpine. **AU:** Australia (Tasmania, Victoria).

nitida McAlpine. **AU:** Australia (New South Wales, South Australia, Tasmania, Victoria, Western Australia).


**Genus MALACOMYIA** Haliday


*Phycodroma* Stenhammar, 1854: 270. Type species: *Coelopa fucorum* Zetterstedt, by monotypy. Schiner 1862: 21 [review]; Séguy 1940: 231 [key].


sciomyzina (Haliday). **PA:** Azores, Canary Islands, Denmark, Great Britain, Ireland, Italy, Lithuania, Madeira, Netherlands, Poland, Russia (European Part), Spain, Sweden.


*Coelopa (Malacomyza) sciomyzina.* Haliday 1838: 186 [key].

*Phycodromya* [sic] *scyomyzina.* Misspelling. Rondani 1866: 48 [list, Italy].

Malacomyia sciomyzina sciomyzina. Hennig 1937: 30 [review, fig. of head].

Malacomyza sciomyzina. Meijere 1939: 161 [list, Netherlands].

Phycodroma fucorum. Schiner 1862: 21 [review, Sweden].
Malacomyza fucorum. Frey 1937: 103 [list, Canary Islands], 1945: 67 [synonymy with M. sciomyzina].
Malacomyia fucorum. Frey 1958: 41 [list, Canary Islands].
Malacomyia sciomyzina meridinalis. Misspelling. Gorodkov 1984a: 150 [catalog, Palearctic, as part of the family Helcomyzidae].

Subfamily LOPINAE McAlpine


Genus LOPA McAlpine


convexa McAlpine. AU: Australia (South Australia, Western Australia).  
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