

Family Phyllomyzidæ

Small flies, usually black, sometimes silvery pollinose.

Costa broken at the humeral crossvein and at the apex of the auxiliary vein; postocellar bristles convergent or parallel; anterior frontals convergent, the others divergent, proclinate or reclinate; interfrontals present or there are rows of hairs; oral vibrissæ present though sometimes but poorly differentiated from the other bristles; proboscis long and geniculate, or short; antennæ not elongate, often small. Mesonotum with one to four pairs of dorsocentrals; mesopleura with or without bristles; pteropleura sometimes with distinct bristles. Legs moderately short. First vein ending near the basal third of the wing; second basal and anal cells small; posterior crossvein absent in *Paramyia*; costa usually bristly basally. Abdomen short and rather broad, the bristles weak or absent.

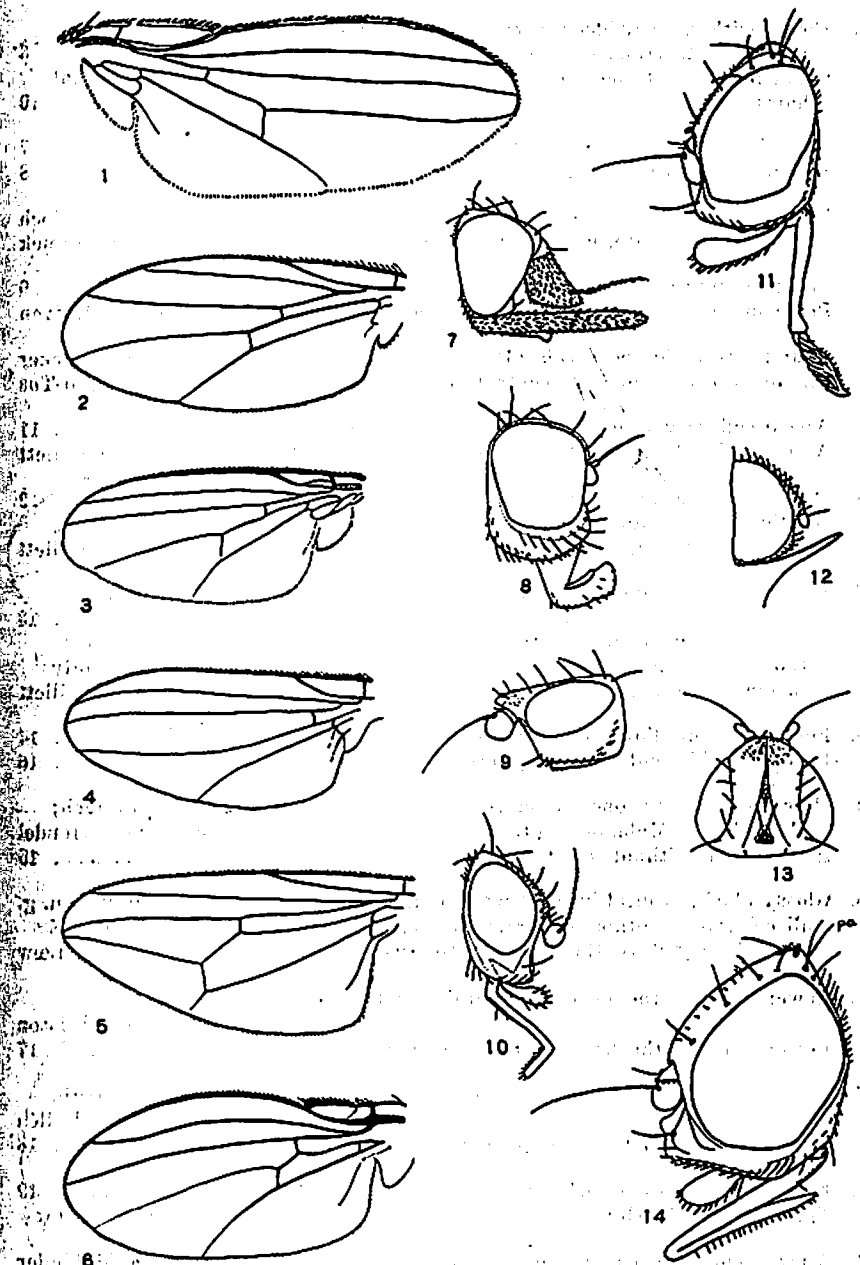
These flies were included by Williston in the Agromyzidæ while other authors have recognized the Milichiidæ and Carnidæ. *Phyllomyza* is an older generic name than *Milichia* and I do not consider the differences between the genera placed in the Carnidæ and Phyllomyzidæ as of more than generic value.

The adults are rather common and may frequently be found on fence posts, fences, logs, tree-trunks, etc. in the hot sun, or they may be taken by sweeping, on foliage or in grass. I have collected them only during dry weather and always in the bright sunlight. Keys to the species will be found in Melander's revision of the family,\* and in a paper by Malloch†.

KEY TO GENERA

- 1. Posterior crossvein present..... 2
- Posterior crossvein absent (4, 26).....*Paramyia* Williston
- 2. Costa extending to the fourth vein..... 5
- Costa stopping at the third vein..... 3
- 3. Proboscis very elongate and geniculate (3, 20).....*Aldrichiella* Hendel
- Proboscis short ..... 4
- 4. Mesopleura bare (2, 9, 13).....*Euchlorops* Malloch
- Mesopleura with two or three bristles (6, 21).....*Meoneura* Rondani

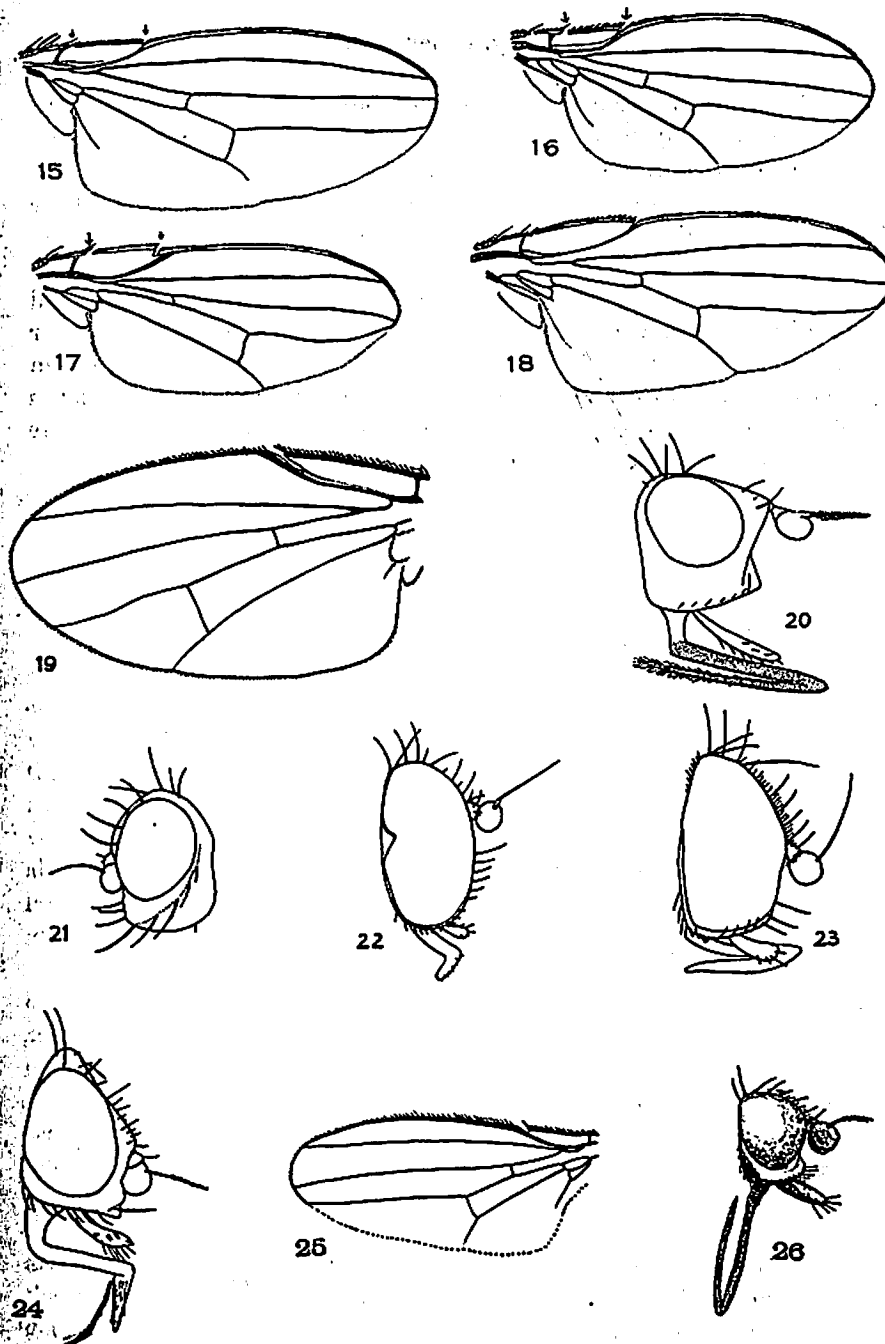
\* 1913. Journ. N. Y. Ent. Soc., xxi, pp. 234-246.  
 † 1913. Proc. U. S. N. M., xlvi, pp. 127-152.



1.—1. *Hypaspistomyia latipes*; 2. *Euchlorops vittata*; 3. *Aldrichiella agromyzina*; 4. *Paramyia nitens*; 5. *Eusiphona mira*; 6. *Meoneura vagans*; 7. *Phyllomyza hirtipalpis*; 8. *Hemeromyia nitida*; 9. *Euchlorops vittata*; 10. *Desmometopa M-nigrum*; 11. *Hypaspistomyia latipes*; 12. *Eusiphona mira*; 13. *Euchlorops vittata*; 14. *Desmomyza confusa*.

Curran, 1934

- 5. Costa with a very deep excision at the apex of the auxiliary vein; cruciate interfrontals developed ..... 6  
Costa broken but the excision not extending into the cell; interfrontal hairs present ..... 10
- 6. Mesopleura with strong bristles..... 7  
Mesopleura bare ..... 8
- 7. Proboscis very long, geniculate.....*Paramilichia* Malloch  
Proboscis geniculate, but not unusually long (19, 23)..*Pholeomyia* Bilimek
- 8. Posterior margin of the eye excised at the middle..... 9  
Posterior margin of the eye not excised.....*Milichia* Meigen
- 9. Four pairs of dorsocentrals (18, 22).....*Ecoptomma* Becker  
One or two pairs of dorsocentrals (17, 22).....*Milichiella* Giglio-Tos
- 10. Apical cell very widely open, at most a little narrowed apically..... 11  
Apical cell only narrowly open (5, 12).....*Eusiphona* Coquillett
- 11. Bristles of the head and thorax strong; eyes at most short haired..... 12  
Bristles of head and thorax not strongly differentiated from the hair; eyes rather long pilose .....*Arctobiella* Coquillett
- 12. Proboscis geniculate, long and chitinized; vibrissal angle usually distinct ..... 13  
Proboscis shorter and more or less fleshy, the labellæ not elongate though folding back; vibrissal angles not developed; face strongly carinate (8).....*Hemeromyia* Coquillett
- 13. Posterior tibiae flattened and broadened..... 14  
Posterior tibiae not unusually flat and wide..... 16
- 14. Pteropleura with one or more small bristles (*Paramadiza* Malloch; *Mallochiella* Melander) (1, 11).....*Hypaspistomyia* Hendel  
Pteropleura without bristle..... 15
- 15. Glossy black; frontal bristles weak (14, 15).....*Desmomyza*, n. g.  
Dull colored; frontals stronger; two pairs of divergent frontals; interfrontals in differentiated rows (16, 10).....*Desmometopa* Lœw
- 16. Lower edge of the head horizontal and long (24, 25).  
*Platophrymyia* Williston  
Lower edge of the head rounded or short..... 17
- 17. Eyes hairy; palpi very large, projecting far beyond the oral margin (7) ..... *Phyllomyza* Fallén  
Eyes bare or nearly so; palpi not projecting..... 18
- 18. Five or six pairs of orbitals..... 19  
Three pairs of orbitals.....*Cacoxenus* Lœw
- 19. Apical scutellars converging.....*Neophyllomyza* Melander  
Apical scutellars diverging.....*Stomosis* Melander

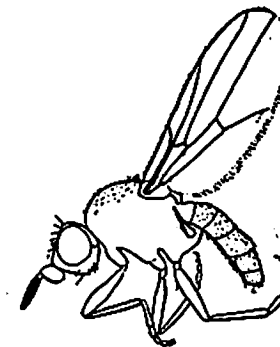


Phyllomyzidæ II.—15, *Desmomyza confusa*; 16, *Desmometopa*; 17, *Milichiella*; 18, *Ecoptomma*; 19, *Pholeomyia indecora*; 20, *Aldrichiella agromyzina*; 21, *Meoneura vagans*; 22, *Milichiella lacteipennis*; 23, *Pholeomyia indecora*; 24, 25, *Platophrymyia nigra*; 26, *Paramyia nitens*.

**Desmomyza, new genus**

Related to *Hypaspistomyia* Hendel but differing in having the pteropleura entirely bare instead of having some setulæ above. Genotype:—*D. confusa* n. sp. (New York).

The genotype is extremely like *H. glabra* Fallén, of which I believe *Desmometopa halteralis* Coquillett to be a synonym. It is entirely shining black except the base of the tarsi, the wings are milky white with yellowish veins. The only difference between *Desmomyza* and *Hypaspistomyia*, to which I refer *glabra*, lies in the presence in the latter of pteropleural setules. The type of *halteralis* has these, as do European specimens of *glabra* examined by me, hence my belief that Coquillett's species is the same as *glabra*. The weaker frontals will separate *Desmomyza* from *Desmometopa*.

**Family Chloropidæ—The Frit Flies**

*Crassiseta* species.

Small to very small, bare or nearly bare flies.

Head usually rather hemispherical, sometimes more or less triangular or rectangular, the face usually nearly vertical or receding; oral vibrissæ weak or absent; front broad, sometimes with bristles, the vertical triangle very large, often extending to the anterior margin of the front. Antennæ usually short, with rounded third segment, sometimes elongate. Wings of moderate length or rather short, auxiliary vein vestigial; second basal cell united with the discal cell; anal cell absent; fifth vein almost always with a slight, characteristic irregularity near the middle of the discal cell. Legs short, the femora rarely greatly thickened.

These flies are very common and representatives of the family may be collected almost anywhere. The family will be readily recognized as the large vertical or frontal triangle is characteristic and the peculiar gentle curve of the fourth vein is typical of the group.

The larvæ live in grass and other plants and some of them are economic pests of cereals. They are thick and cylindrical, with stout mouth hooks, two segmented antennæ and fleshy abdominal protuberances for locomotion.

The generic limits in some cases are evidently weak and it is not always easy to place some species with certainty. I am not certain that the so-called horny geniculate proboscis of *Madiza* Fallén constitutes a generic character in this case since there is a gradual evolution to the normal type found in *Oscinella* Becker. The apical section of the pro-