

KEY TO THE GENERA OF SCIOMYZIDAE (DIPTERA) FROM THE AMERICAS SOUTH OF THE UNITED STATES, WITH DESCRIPTIONS OF TWO NEW GENERA

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ABSTRACT—A key is presented to the genera of Sciomyzidae (Diptera) known from the Americas south of the United States including two new genera, **Eutrichomelina** Steyskal (proposed for *Sciomyza fulvipennis* Walker) and **Calliscia** Steyskal (proposed for *Pherbellia callisceles* Steyskal).

Existing keys to the genera of snail-killing flies (Sciomyzidae) from the Americas south of the United States (e.g., Malloch, 1933) are incomplete and out of date. The key presented below includes all genera to be included in the chapter on Sciomyzidae in the catalogue of South American Diptera (Knutson, *et al.*, in press).

Two new genera are described in the key: *Eutrichomelina* Steyskal, for *Sciomyza fulvipennis* Walker; and *Calliscia* Steyskal, for *Pherbellia callisceles* Steyskal. The key also includes the monotypic genus *Pseudomelina* Malloch, based on characters given in the original description. The male holotype of *Pseudomelina apicalis* Malloch (from Puerto Montt, Chile) apparently is not in the British Museum (N.H.), and no other specimens are known to us. The tribal placement of *Pseudomelina*, as discussed by Kaczynski, *et al.* (1969), is in question.

It should also be noted that several genera included in the key are primarily North American taxa that are not known to occur south of the Isthmus of Panama (*Antichaeta*, *Atrichomelina*, *Euthycera*, *Hoplodictya*, *Sepedon* and *Tetanocera*). References to keys to species are noted for each genus, where pertinent.

1. Propleural bristle present (Sciomyzini, plus *Perilimnia* and *Shannonia* [Tetanocerini]) 2
- Propleural bristle absent, only fine hairs on propleuron (Tetanocerini, plus *Pseudomelina* [Sciomyzini]) 8
2. Propleural bristle short and fine, only slightly larger than propleural hairs; nearly entire meso- and sternopleuron, center of pteropleuron, and upper posterior edge of hind coxa with fine hairs; fore tarsus with basitarsus white, distal 4 segments black (*A. pubera* (Loew)) *Atrichomelina* Cresson
- Propleural bristle long and coarse or if short and fine (*Shannonia*) then without the above combination of characters 3
3. Anal vein of wing not reaching margin; wing vein R₁ not extending apicad of anterior crossvein; 2 pairs of dorsocentral bristles; anterior pair very

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- strong and at suture; arista short pubescent; palpus with 1 strong apical bristle; cheeks very narrow; shiny black or brown species (Malloch, 1933, as *Dichrochirosa*) *Parectinocera* Becker
- Anal vein of wing reaching margin, although weakly in some species; without the above combination of characters 4
4. Four pairs of dorsocentral bristles, (1 antesutural and 3 ad- and post-sutural); midfrontal stripe very short, tomentose; wing vein R_1 extending apicad of anterior crossvein (*Sciomyza fulvipennis* Walker, generitype, and *Melina albibasis* Malloch; gender feminine) *Eutrichomelina* Steyskal, new genus
- Two or three pairs of dorsocentral bristles, none antesutural 5
5. Three pairs of dorsocentral bristles; mesopleural bristle present; sternopleural bristles absent; midfrontal stripe scarcely extending beyond ocellar triangle; 1 pair of fronto-orbital bristles; wing hyaline (*Pherbellia callicseles* Steyskal, generitype; gender feminine) .. *Calliscia* Steyskal, new genus
- Two or three pairs of dorsocentral bristles; both mesopleural and sternopleural bristles present or both absent or only sternopleurals present 6
6. Second arisal segment about as long as wide; 3rd antennal segment rather short, rounded apically; 1 or 2 pairs of fronto-orbital bristles; sternopleural bristles present or absent; mesopleuron with or without hairs, without bristles; wing patterned or not *Pherbellia* Robineau-Desvoidy
- Second arisal segment 3–5 times longer than wide; 3rd antennal segment rather elongate and tapered apically; 2 pairs of fronto-orbital bristles (anterior pair sometimes small in *Perilimnia*); sternopleural bristles present; mesopleural bristle present or absent; wing hyaline 7
7. Propleural bristle large; anterior orbital bristles smaller than posterior orbitals; 1 mesopleural bristle; male 4th abdominal sternum with short, dense, black spinules along posterior margin (Kaczynski, *et al.*, 1969) *Perilimnia* Becker
- Propleural bristle small; anterior orbital bristles well developed, almost as long and strong as posterior orbitals; no mesopleural bristles; male 4th abdominal sternum without short, dense, black spinules along posterior margin (Kaczynski, *et al.*, 1969) *Shannonia* Malloch
8. Third antennal segment broadly rounded apically as in *Pherbellia*; pteropleuron with 1 or 2 bristles or bristly hairs; hind coxa without bristles or hairs above base of femur; 2 pairs of postsutural dorsocentral bristles (*P. apicalis* Malloch) *Pseudomelina* Malloch
- Without the above combination of characters 9
9. Vallar (subalar) bristles present 10
- Vallar bristles absent 11
10. Arista with sparse blackish hairs; lunule covered; face without black central spot (Steyskal, 1974) *Dictyodes* Malloch
- Arista densely white-pubescent; lunule broadly exposed; face with black central spot (Steyskal, 1950, 1953) *Protodictya* Malloch
11. Ocellar bristles well developed; 4 scutellar bristles 12
- Ocellar bristles small and weak or lacking; 2 scutellar bristles 20
12. Hind tibia with 2 dorsal preapical bristles (Fisher and Orth, 1971) *Antichaeta* Haliday
- Hind tibia with 1 or no dorsal preapical bristles 13

13. Arista with white pubescence or hairs; wing with strong pattern 14
- Arista with black pubescence or hairs; wing with or without pattern 16
14. Lunule exposed only mesally, between antennae; 2nd antennal segment about half as long as 3rd (Malloch, 1933) *Euthycerina* Malloch
- Lunule broadly exposed; 2nd antennal segment at least almost as long as 3rd segment, sometimes much longer 15
15. 2nd antennal segment about as long as 3rd; head about as long as high (*E. mira* Knutson and Zuska) *Euthycera* Latreille
- 2nd antennal segment much longer than roundish 3rd segment; head at least 1.5 times as long as high (Steyskal, 1960) *Teutoniomyia* Hennig
16. Meso- and pteropleuron without bristles or hairs; if hairs present on posterior part of mesopleuron then wing without dense pattern 17
- Meso- and sometimes pteropleuron with bristles or hairs; wing with dense pattern 18
17. Sternopleuron with hairs only; arista long-haired to plumose (Steyskal, 1959) *Tetanocera* Duméril
- Sternopleuron with 2 strong bristles; 0 or 1 presutural dorsocentral bristles, 3 or 4 postsuturals; arista with short pubescence (Zuska and Berg, 1974) *Tetanoceroides* Malloch
18. Fronto-orbital bristles 2; 1 strong sternopleural bristle; face without black central spot (Fisher and Orth, 1972) *Hoplodictya* Cresson
- Fronto-orbital bristle 1; sternopleural bristle lacking; face with or without black central spot 19
19. Face with black central spot; body with many dark spots at bases of hairs and otherwise (Steyskal, 1954, 1960) *Dictya* Meigen
- Face without black central spot; body largely plain tawny (*G. straminata*, (Wulp)) *Guatemalia* Steyskal
20. Sternum closed above hindcoxae; lower head drawn out into conical rostrum into which proboscis may be withdrawn; palpus not developed; postocellar and usually fronto-orbital bristles lacking; pleural sclerites without hairs or bristles, except a few hairs on propleuron close above forecoxa *Thecomyia* Party
- Sternum above hindcoxae divided by membranous area; lower head not forming tube into which proboscis may be withdrawn; palpus well developed; postocellars present or absent; 1 or 2 pairs of fronto-orbital bristles; pleura frequently with numerous hairs 21
21. Postocellar bristles absent; 1 pair of fronto-orbital bristles; midfemur with minute bristles or setae, none of which is distinctly larger than the others; hind femur almost twice as long as abdomen (Steyskal, 1951) *Sepedomerus* Steyskal
- Postocellar bristles well developed; 0, 1, or 2 pairs of fronto-orbital bristles; midfemur with 1 or more distinctly larger anterior setae near its midlength; hind femur only about $\frac{1}{3}$ longer than abdomen 22
22. Face with black spot in each lower corner; forefemur with at least 1 outstanding dorsal bristle; male with surstyli fused along median line (Steyskal, 1951) *Sepedonea* Steyskal
- Face without spots in lower corners; forefemur without outstanding dorsal bristle; male with surstyli well separated on median line (Steyskal, 1951) *Sepedon* Latreille

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REFERENCES

- Fisher, T. W. and Orth, R. E. 1971. A synopsis of the Nearctic species of *Antichaeta* Haliday with one new species. Pan-Pac. Entomol. 47:32-43.
- . 1972. Synopsis of *Hoplodictya* Cresson with one new species (Diptera: Sciomyzidae). Entomol. News. 83:173-190.
- Kaczynski, V. W., Zuska, J., and Berg, C. O. 1969. Taxonomy, immature stages, and bionomics of the South American genera *Perilimnia* and *Shannonia* (Diptera: Sciomyzidae). Ann. Entomol. Soc. Amer. 62(3):572-592.
- Knutson, L., Steyskal, G. C., Zuska, J. and Abercrombie, J. (in press). Fasc. 64. Family Sciomyzidae, in Papavero, N. (ed.), A Catalogue of the Diptera of the Americas South of the United States. Dept. Zool., Sec. Agric., São Paulo.
- Malloch, J. R. 1933. Acalyptrata. Pp. 177-391, figs. 36-68, pls. 2-7 (= fasc. 4) cont. In Diptera of Patagonia and South Chile. Pt. 6, 499 pp., 84 figs., 8 pls. British Museum (Natural History), London.
- Steyskal, G. C. 1950. The genus *Protodictya* Malloch (Diptera: Sciomyzidae). Proc. Entomol. Soc. Wash. 52(1):33-39.
- . 1951 [1950]. The genus *Sepedon* Latreille in the Americas (Diptera: Sciomyzidae). Wasmann J. Biol. 8(3):271-297.
- . 1953. Notes on a collection of Argentine Sciomyzidae. Acta Zool. Lilloana 13:73-75.
- . 1954. The American species of the genus *Dictya* Meigen (Diptera: Sciomyzidae). Ann. Entomol. Soc. Amer. 47:511-539.
- . 1959. The American species of the genus *Tetanocera* Duméril (Diptera). Papers Mich. Acad. Sci., Arts, and Lett. 44:55-91.
- . 1960. New North and Central American species of Sciomyzidae (Diptera: Acalyptratae). Proc. Entomol. Soc. Wash. 62(1):33-43.
- . 1974. [1973]. The genus *Dictyodes* Malloch (Diptera: Sciomyzidae). Proc. Entomol. Soc. Wash. 75(4):427-430.
- Zuska, J., and Berg, C. O. 1974. A revision of the South American genus *Tetanoceroides* (Diptera: Sciomyzidae), with notes on colour variations correlated with mean temperatures. Trans. R. Entomol. Soc. Lond. 125(3):329-362.



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