

# The Subgenus *Scaptia* (*Lepmia*) Fairchild: Redescription of Females and Description of a Male (Diptera: Tabanidae: Pangoniinae)

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*The subgenus Scaptia (Lepmia) Fairchild, known only from mountainous areas of Southeast of Brazil, is redescribed and illustrated. It is contrasted with similar species of Scaptia (Pseudoscione). It is more similar to the Australian Myioscaptia and Plinthina than to the other New World Scaptia subgenera.*

Key words: horsefly - *Scaptia (Lepmia)* - taxonomy - Neotropical region

The genus *Scaptia* is represented in the Neotropical region by 4 subgenera: 3 of them recently revised: *Pseudoscione* (16 sp., Wilkerson & Coscarón 1984), *Scaptia* (10 sp., Coscarón & Wilkerson 1985), *Pseudomelpia* (1 sp., Coscarón & Gonzalez 2001); only *Lepmia* (2 species) remains unrevised. The species are found in the Southern Cone of South America, especially in the Neantarctic subregion. Genus *Scaptia* is also present in the Australian region with subgenera *Pseudoscione* (26 sp.), *Scaptia* (28 sp.), *Myoscaptia* (7 sp.), *Plinthina* (7 sp.), and *Palimmecomomyia* (7 sp.) (Mackerras 1960).

The subgenus *Lepmia* Fairchild 1969 presently contains 2 species from Southeast of Brazil. As indicated by the author, the species are characterized by “a stout and heavily sclerotized proboscis with apices somewhat bulbous”. As with other *Scaptia* species, subgenus *Lepmia* are stout, moderately sized, with an inflated subshiny abdomen. *Lepmia* is also characterized by wide maxillary palp, front elongated and divergent below, wing faintly brown fumose with a yellowish hue accentuated on anterior border, genital cerci wider than long, with distal border concave, genital fork narrower basally, gonapophysis wider than long, and male with gradually acuminate gonostylus with blunt apex.

*Lepmia* shows great similarity with the other *Scaptia* subgenera (Coscarón & González 2001).

## MATERIALS AND METHODS

The specimens studied were collected in the states of São Paulo and Rio de Janeiro and are deposited in the collections from Department of Entomology of Museu de Zoologia de São Paulo.

The study was made in accordance with the methodology of Coscarón and Gonzalez (2001).

## DESCRIPTIONS

### *Scaptia (Lepmia) molesta* (Wiedemann) (redescription)

*Scaptia (Lepmia) molesta*: Fairchild 1971: 16, Coscarón and Papavero, 1993: 62, fig. 26 a-c, Fairchild and Burger 1994: 38

*Pangonia molesta* Wiedemann 1828: 91, Enderlein 1925: 271, Kröber, 1930: 189

*Pangonia exeuns* Walker 1850: 12

*Diatomineura exeuns*: Lutz 1909: 653 pl. 2, fig. 31

*Diatomineura molesta*: Lutz 1909: 654 pl. 2, fig. 32

A median sized yellowish brown fumose winged species with wide subtrapezoidal palp (Figs 2-3).

*Female*: body length 14.3-15.5 mm, wing: length 13-13.5 mm, width 4-4.7 mm. Eyes blackish, bluish iridescent (relaxed), with yellowish pilosity. Proboscis shiny black; flagellum and palpus light reddish brown with yellowish brown pilosity. Front, subcallus, antennal scape and pedicel, and frontoclypeus, brown pollinose with concolorous hairs, changing to blackish depending on incidence of light. Occiput and posterior head area light gray pollinose with yellowish brown hairs. Front divergent below, ocellar tubercle prominent with 3 well developed ocelli, front height 1.7-1.8 mm, width: at base 0.6 mm, at vertex 0.4 mm; frontal index = 3-3.1; frontal basal divergence = 1.3-1.4. Basal article of flagellum a little narrower than scape diameter. Frontoclypeus length about equal to front height. Proboscis a little shorter than head height (Fig. 1). Scutum and metanotum light brown with gray pollinosity and yellowish brown hairs; pleura and legs yellowish brown pollinose. Wing slightly brownish fumose; wing veins light brown with dark hairs. No appendix on (R<sub>4+5</sub>). Halter light grayish brown. Abdomen bright reddish brown darkened on posterior half of segments, with pilosity yellowish to black depending on incidence of light, and becoming darker posteriorly. Cercus wider than high, truncate with small median depression apically, IX tergite with long hairs (Fig. 4).

*Male*: unknown.

*Material examined*: Brazil: São Paulo, São Sebastião Island, 12-IV-63, col. Urban (on human) 1 female; Serra Negra, V-45, col. Lima: 1 female.

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*Geographic distribution:* Southeast Brazil: Minas Gerais, Rio de Janeiro, São Paulo.

*Discussion:* the closest species is *seminigra* which has a longer palp, lighter scutum and abdomen, and is a little shorter. Our material is in agreement with the Wiedemann (1828) description, based on the *molesta* original description and the redescrptions of Lutz (1909) and Kröber (1930) of *Scaptia exeuns* (Walker), we accept *exeuns* as a synonym of *molesta*.

*Scaptia* (*Lepmia*) *seminigra* (Ricardo)  
(redescription of the female and description of the male)

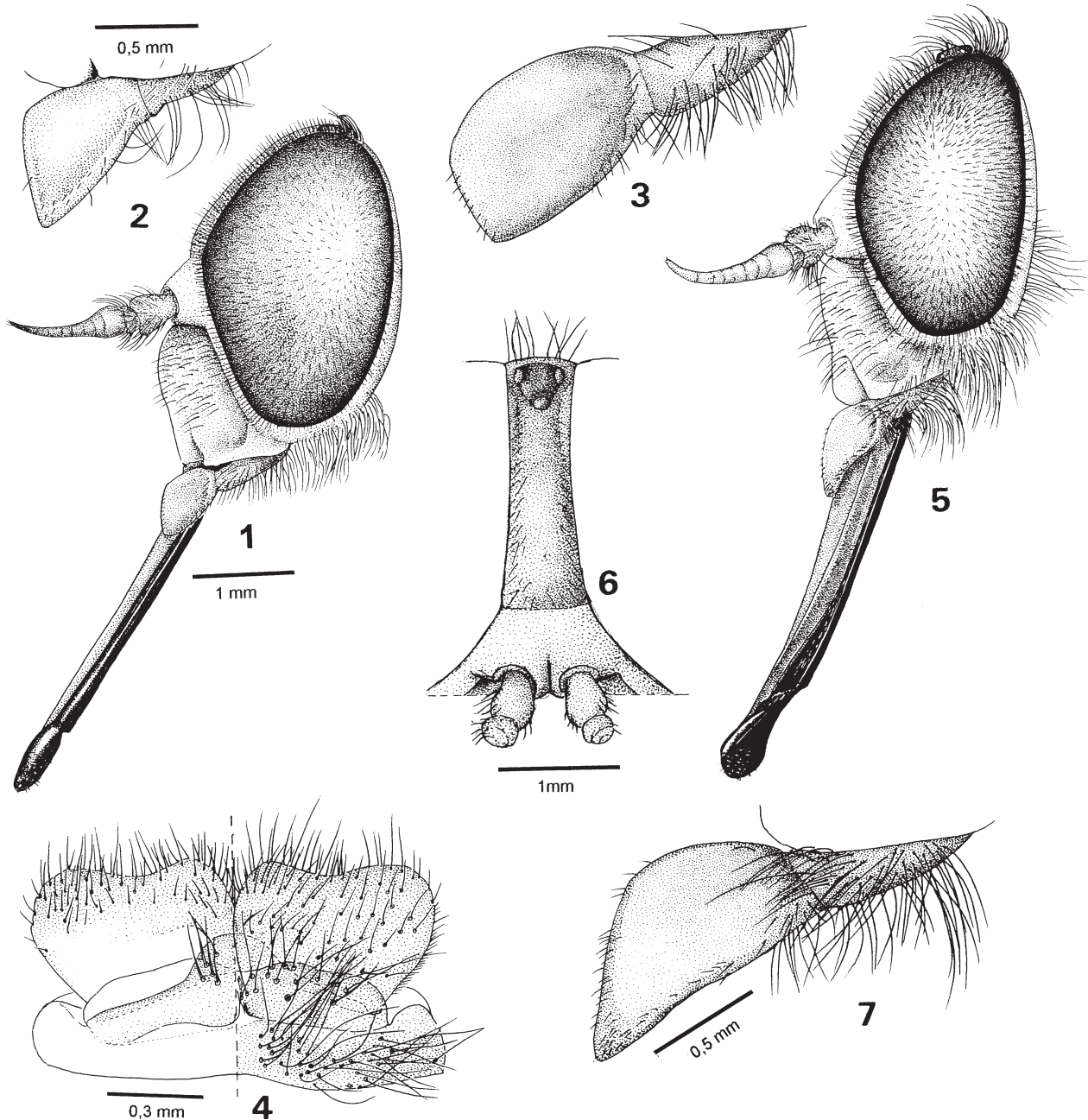
*Scaptia* (*Lepmia*) *seminigra*: Fairchild 1969: 203, 1971: 16, Fairchild and Burger 1994: 38

*Diatomineura seminigra* Ricardo 1902: 432

*Melpia ferruginea* Enderlein 1925: 277, Fairchild 1966: 10, fig. 14

*Parosca ferruginea*: Kröber 1930: 188-189, fig. 31

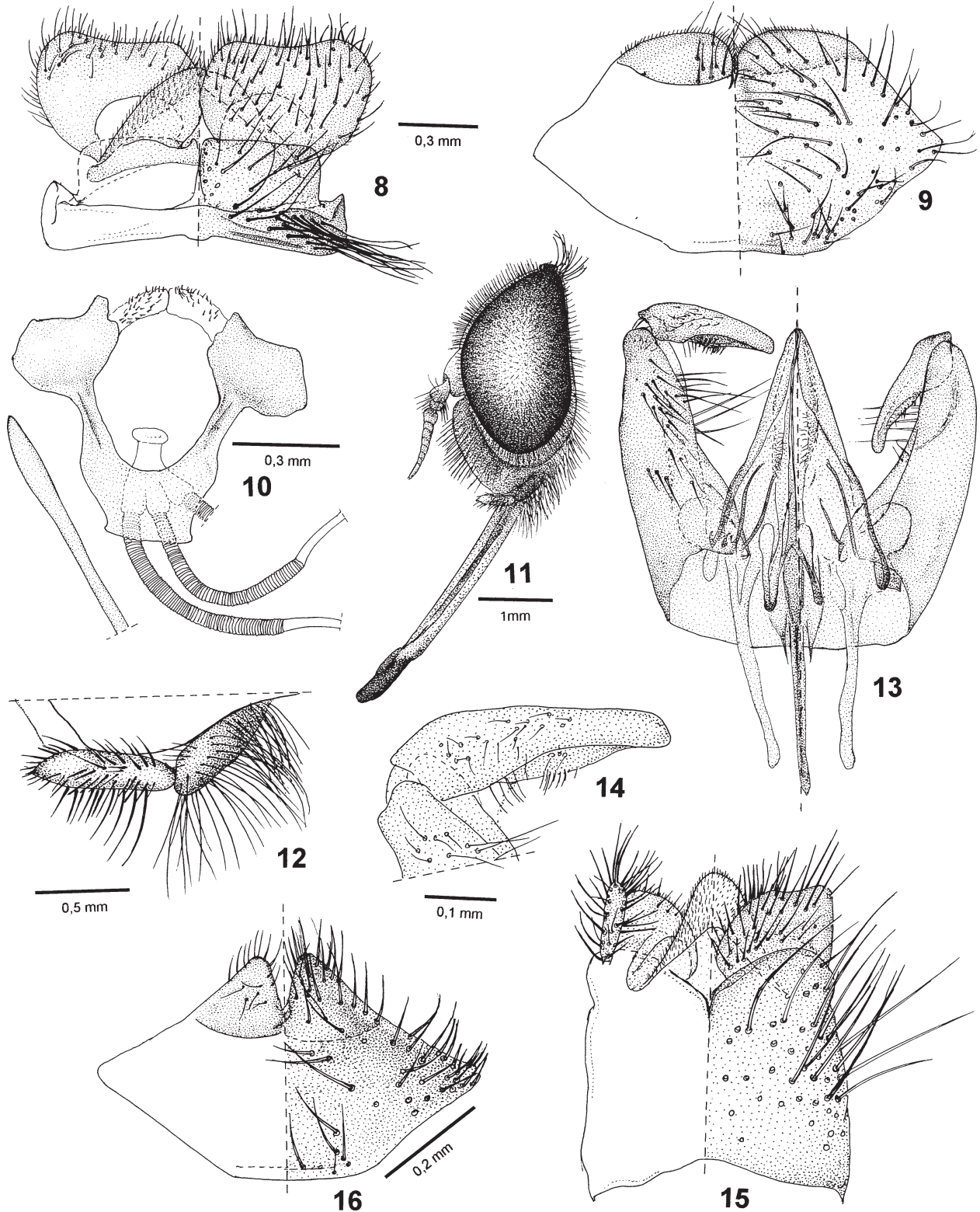
A medium to large yellowish brown species with proboscis shiny blackish, labella wholly sclerotized, scutum and abdomen yellowish brown, and wing hyaline but slightly infuscated yellowish brown especially on the costal border. *Female*: body length 13-13.5 mm, wing length 12-13 mm, width 4.1-4.3 mm. Eyes greenish black iridescent (relaxed), with yellowish brown pilosity; front, subcallus, frontoclypeus, occiput, antenna, palp, yellowish light brown with concolorous pilosity; occiput with light gray pollinosity. Beard yellowish brown to dark brown



*Scaptia* (*Lepmia*) *molesta* female - Fig. 1: head. Figs 2-3: maxillary palp. Fig. 4: IX-X tergites and cerci. *S. (L.) seminigra* female - Fig. 5: head. Fig. 6: front. Fig. 7: maxillary palp (similar scale: 1, 5; 2, 3)

depending on incidence of light. Front narrow, divergent below, ocellar tubercle slightly elevated, with 3 well developed ocelli (Fig. 6); front height 1.8-1.9 mm, width: at base 0.6-0.7 mm, at vertex 0.4-0.5 mm; frontal index 2.7-3;

frontal basal divergence 1.2-1.3; antenna with pedicel narrower than scape and basal segment of flagellum. Palp wide, but narrower apically with anterobasal and posterior rim slightly elevated (Fig. 7). Proboscis a little longer than



*Scaptia (Lepmia) seminigra*, 8-10 female - Fig. 8: IX-X tergites and cerci. Fig. 9: VIII sternite and gonapophysis. Fig. 10: genital fork and spermatheca; 11-15 male - Fig. 11: head. Fig. 12: maxillary palp. Fig. 13: gonocoxite, basistyli, dististyli and aedeagus. Fig. 14: dististyle. Fig. 15: epandrium, ventral plate of proctiger and cerci. Fig. 16: *S. (Pseudoscione) hibernus* female: VIII sternite and gonapophysis (similar scale: 8, 9, 10, 13, 15)

head height (Fig. 5), with labella bulbous, very sclerotized. Scutum with hairs varying from yellowish golden to copper colored. Pleura, coxae and legs light yellowish brown; pleura with light gray pollinosity. Wing veins yellowish brown with hairs light brownish to blackish depending on light incidence. Fork and third vein ( $R_{4+5}$ ) without appendix. Abdomen subshiny, darkened on posterior tergites, hairs yellowish golden to copper colored. Cercus wide with posterior border concave, IX tergite with abundant, black elongate hairs (Fig. 8). VIII sternite two times wider than long and gonapophysis broad with convex border (Fig. 9). Genital fork with narrow base and abundant microtrichiae on combs (Fig. 10).

*Male*: body length 11 mm, wing: length 10.6 mm, width 3.4-3.5 mm. Color similar to female, but slightly paler on scutum and abdominal terga than some females. Black violaceous greenish eyes (relaxed) with a slightly longer hairs than female, as also are frontoclypeus and beard hairs. Upper central facets not well differentiated from smaller lower facets. Ocellar tubercle raised above level of eyes, with three distinct ocelli and long hairs. Antenna as female, scape with longer hairs. Palp elongated with apex bare laterally (Fig. 12). Proboscis longer than head height (Fig. 11). Gonocoxite a little wider than basistyle length; dististyle pointed distally with blunt apex; aedeagus robust (Figs 13-14); epandrium elongated, gradually concave basally, ventral plate of proctiger narrow and cerci subtrapezoidal (Fig. 15).

*Material examined*: Brazil, São Paulo, Salesópolis, Est. Biol. Boraceia, 850 m, 29-VIII-61, col. Rabello, 1 female; Caraguatatuba, Res. Flor. 7/14-VII-62, col. Exp. Dep. Zool.: 1 female; São Paulo, Capital, I-1935, col. Pessoa: 1 female. Rio de Janeiro, Distr. Federal, V-1938, col. Serv. Febr. Amarela, M.E.S. Brazil; Angra dos Reis, Fazenda Japuhya, VII-45, col. L.T.F.: 1 male.

*Geographic distribution*: Southeast Brazil: Minas Gerais, Espírito Santo, Rio de Janeiro, and São Paulo.

*Discussion*: our material is in agreement with the Ricardo's description, but body length is longer than his (11 mm). Specimens compared with the *ferruginea* holotype agree with it, and we are in accordance with Fairchild's (1966) comments; *molesta* is differentiated especially by the short palp. Kröber's *ferruginea* drawings show the front narrower basally and palp more elongated. Kröber (1934) also considered erroneously *seminigra* as a synonym of *Fidena tabanipennis* (Macquart).

Among the *S. (Pseudoscione)* species, the closest is *S. (P.) hibernus* Wilkerson & Coscarón 1984. Differences in palp shape, and that hair color on the frontoclypeus, gena, beard and pleura are dark brown mixed with grayish yellow, permit differentiation; in addition, the VIII sternite shape with pointed gonapophysis and a deep separation between them (Fig. 16), plus the elongate cercus shape without a distal concavity, also help to differentiate these species.

The closest species to *molesta* and *seminigra* in the Neotropics are *S. (Pseudoscione) hibernus* (Southeast Brazil), and *latipalpis* and *subulipalpis* (South Chile) (Wilkerson & Coscarón 1984).

It is possible to differentiate the *Pseudoscione* species

by a relatively shorter front, maxillary palp apically acuminate, emarginated, often with a central depressed area, the labella more elongated and not very sclerotized, and gonapophysis more acuminate.

In contrast, the Australian *Myoscapta* and *Plinthina* species have, as does *Melpia*, the distal article of maxillary palp not acuminate, and female VIII sternite and gonapophysis wider with gradually rounded apical borders. This similarity is evidence of the close transantarctic relationship between the *Scaptia* faunas, with 2 Neotropical subgenera in common with Australia (*S. (Scaptia)* and *S. (Pseudoscione)*), and another 3 subgenera endemic to each continent, all of them morphologically similar.

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