

# Papéis Avulsos de Zoologia

## TWO NEW SPECIES OF SNAIL-KILLING FLIES FROM WEST-CENTRAL BRAZIL (DIPTERA, SCIOMYZIDAE)

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### ABSTRACT

*Sepedonea barbosai* and *S. canabravana*, two new species of snail-killing flies (Diptera, Sciomyzidae) are described from the Brasília area.

Two new species of *Sepedonea* Steyskal, recently discovered in the Brasília area, are described to facilitate ongoing biological studies.

The genus *Sepedonea* and other members of the *Sepedon* Group (*Sepedomeris* Steyskal, *Sepedon* Latreille, *Sepedonella* Verbeke, *Sepedoninus* Verbeke, and *Thecomyia* Perty) are distinguished by Steyskal (1973) from other Sciomyzidae on the basis of the following features: propleural bristle absent, vellar (subalar) bristle present, one pair of scutellar bristles, lunule exposed, face more or less extended below.

*Sepedonea* is distinguished from other members of the *Sepedon* group as follows: sternum above hind coxae divided by membranous area, lower head not forming tube into which proboscis may be withdrawn, palpus well developed, face without spot just below antenna but with spot in lower corner of cheek, ocellar bristles absent, post-ocellar bristles present, one pair of posterior fronto-orbital bristles, pleuron with many hairs; front femur with at least one strong dorsal bristle, and middle femur with one or more distinctly larger anterior setae near midlength.

Five species of *Sepedonea* were included in Steyskal's (1951) revision of *Sepedon* s. lat. in the Americas. In addition to the two species herein described, three species discovered by J. Abercrombie and C. O. Berg are awaiting descriptions. The biologies of several species of *Sepedonea* are treated in detail by Abercrombie (1970).

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***Sepedonea barbosai*, sp. n.**

(Figs. 1-5)

Male and female. Eye reddish with metallic green cast; 2 transverse reddish-purple stripes, 1 just below middle, 1 at upper third. Hairs just below mesothoracic spiracle strong. Spinules of middle femur not extending to midfemur, 4-6 in number. Posterodorsal margin of hindcoxa with row of fine hairs that are longer than hairs on dorsum of abdomen. Hind femur without trace of dark pre-apical marks. Wing only slightly darkened apically; *ta* crossvein slightly clouded ventrally at junction with 4th longitudinal vein; anal vein usually with slight angle at midlength.

Male. Body length (excluding antennae), 4.9 to 5.3 mm; wing length, 4.8 to 5.2 mm. Fourth abdominal sternum with straight posterior margin; a broad, flat, posteriorly curved hooklike process on posteromedian margin. Fifth sternum composed of a pair of strongly sclerotized, bare, quadrate anterior plates connected by membrane with a pair of more weakly sclerotized, haired posterior plates; anterior plates approximate, concave, without fingerlike projections, posterior half strongly bent ventrad; posterior plates each with a low tubercle near posterior margin. Basiphallus of aedeagus knoblike; distiphallus C-shaped, with sinuous posteroventral projection surmounted by large, membranous epiphallus. Aedeagal apodeme with a pair of broad, flat arms over base of basiphallus; stem of aedeagal apodeme short; ejaculatory apodeme minute. Anterior surstylus small, cylindrical, apically setose; a membranous, saclike area behind 5th sternum in which the aedeagus lies in repose. Fused posterior surstyli with lateral arms strongly curved forward, without a median lobe.

*Discussion.* This species is in the section of the genus in which the hind femur lacks dark pre-apical marks. It is most similar to *S. isthmi* (Steyskal), *S. guianica* (Steyskal) and *S. guatemalana* (Steyskal), from which species it can be distinguished primarily by characters of the male genitalia as shown here and by Steyskal (1951).

*Types.* Holotype male, BRAZIL. Goiás: Lagoa de Pedra, west of Rio Cana Brava, 160 km northeast of Brasília on Brasília-Fortaleza Highway (BR-020), 30.X.1974 (L. Knutson & A. Bredt). In the Museu de Zoologia, Universidade de São Paulo. Paratypes. Female (allotype), same locality, 9.I.1974 (D. Barbosa); 14 males and 6 females, same locality, 23 and 30.X.1974; one female, Brasília, D.F., Lagoa Paranoá, 5.XI.1974 (L. Knutson & A. Bredt). In the Museu de Zoologia, Universidade de São Paulo and U.S. National Museum, Washington, D.C.

*Sepedonea barbosai* is named after Professor Frederico Simões Barbosa, Universidade de Brasília.

***Sepedonea canabravana*, sp. n.**

(Figs. 6-11)

Male and female. Dorsum of mesothorax greyish. Hairs just below mesothoracic spiracle numerous and strong. Middle femur with 4-6 spinules posteroapically, not extending to midlength of femur. Hairs on upper margin of hind coxa long. Hind femur without a

discrete, dark, dorsal pre-apical mark and not diffusely reddened; posterolateral dark mark larger than anterolateral dark mark. Wing not darkened apically; cross vein barely infuscated; anal vein only slightly curved at middle.

Male. Body length, 5.8 mm; wing length, 4.5 to 5.1 mm. Fourth abdominal sternum with more or less straight posterior margin; a thick posteroventrally curved hooklike knob on posteromedian margin; a median interior ridge extending from base of knob to 3/4 distance to anterior margin of sternum. Fifth sternum composed of a pair of strongly sclerotized, bare, quadrate anterior plates membranously connected with a pair of more weakly sclerotized, haired posterior plates, anterior plates approximate, concave, posterior half strongly bent ventrad, a fingerlike projection arising from posteromedian margin of each anterior plate and a somewhat longer, thicker fingerlike projection arising from near middle of each anterior plate; posterior plates slightly more widely separated, posterior margin strongly sclerotized and with a slight tubercle anteriorly. A membranous saclike area behind 5th sternum in which the aedeagus lies in repose. Basiphallus of aedeagus knoblike, distiphallus C-shaped, with a short, lightly sclerotized, straight projection arising from posteroventral margin and surmounted by small, membranous epiphallus. Aedeagal apodeme with 2 broad arms over base of basiphallus, stem of apodeme short. Ejaculatory apodeme minute. Anterior surstylus minute, cylindrical, apically setose. Posterior surstyli membranously connected mesially below middle; lateral arms only moderately curved anterad, with a ventromedian projection.

*Discussion.* This species is in the section of the genus in which the hind femur has dark pre-apical marks; it is most similar to *S. lindneri* (Hendel) and *S. telson* (Steksyal), from which species it can be distinguished by characters of the male genitalia as shown here and by Steyskal (1951), and by the pattern of pre-apical dark marks on the hind femur.

*Types.* Holotype male, BRAZIL. Goiás: Rio Preto, 70 km north-east of Brasília, 20 km south of Formosa, 21.X.1974 (L. Knutson). In the Museu de Zoologia, Universidade de São Paulo. Paratypes. Female (allotype), same locality, 7.XI.1974 (A. Bredt & L. Knutson); 1 male, same data; 9 males and 17 females, same locality, 8.XI.1974 (A. Bredt & L. Knutson); 1 male, Goiás: Lagoa Preta, west of Rio Cana Brava, 160 km northeast of Brasília on Brasília-Fortaleza Highway (BR-020), 25.IV.1974 (D. Barbosa). In the Museu de Zoologia, Universidade de São Paulo and U.S. National Museum, Washington, D.C.

The specific name, *canabravana*, is an adjective referring to the Rio Cana Brava.

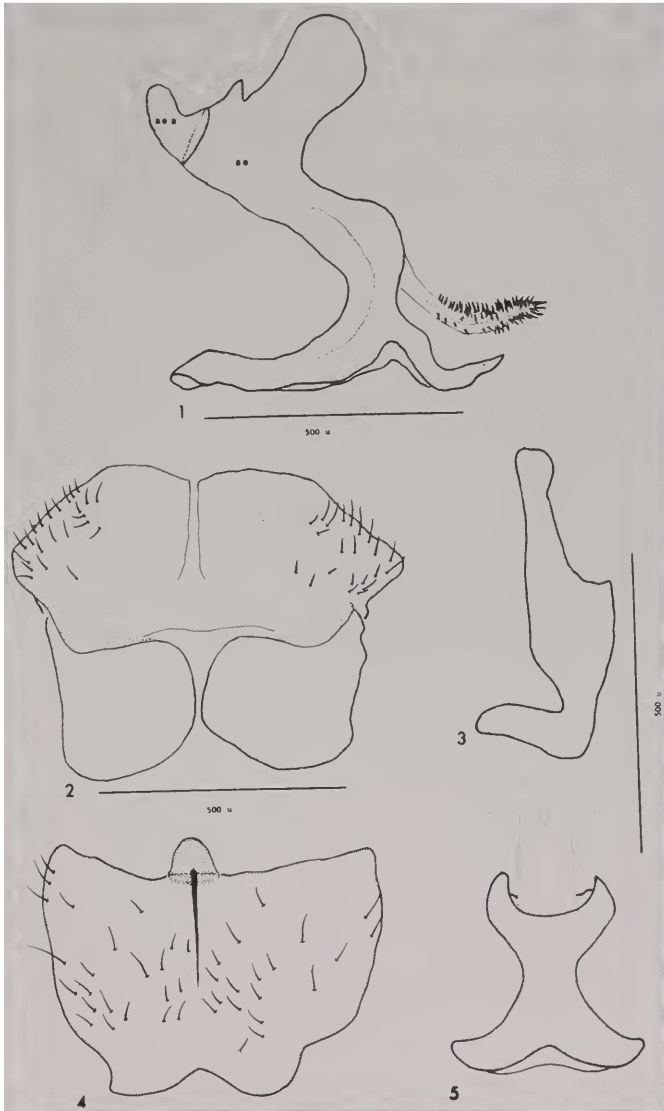
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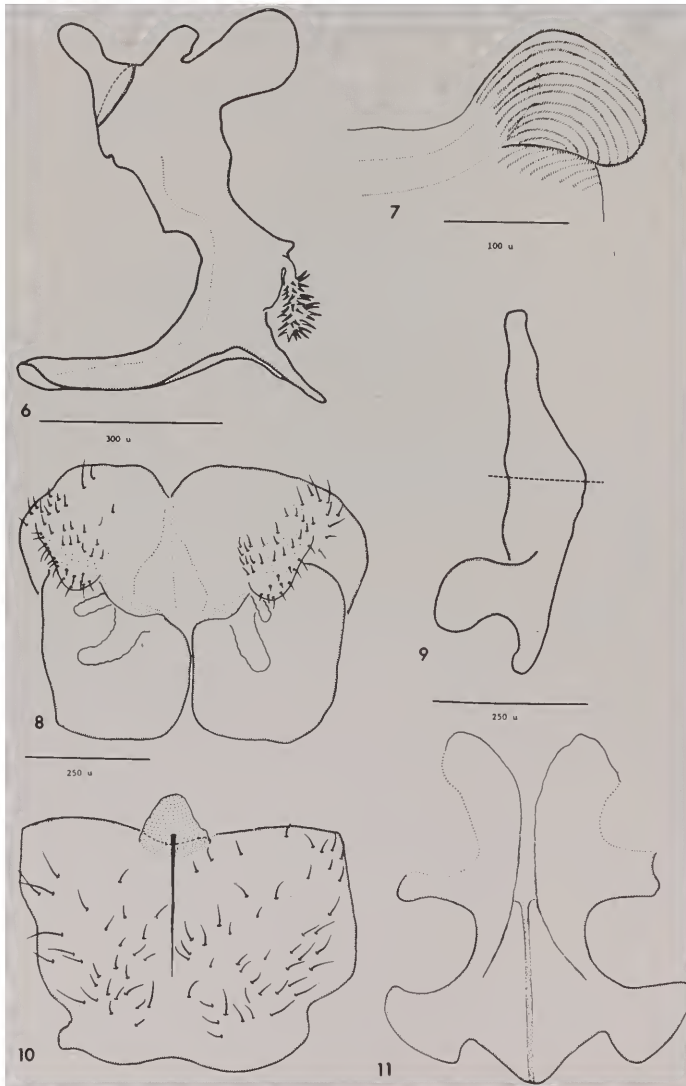
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*Sepedonea barbosa*, male genitalia. 1, aedeagus (ae) and aedeagal apodeme (ae a), lateral view; 2, fifth sternum, ventral view; 3, posterior surstylus, lateral view; 4, fourth sternum, ventral view; 5, posterior surstyli, posterior view.



*Sepedonea canabravana*, male genitalia. 6, aedeagus (ae) and aedeagal apodeme (ae a), lateral view; 7, hooklike process on posteromedian margin of fourth sternum, lateral view; 8, fifth sternum, ventral view; 9, posterior surstylus, lateral view (dotted line indicates portion of surstylus exposed below epandrium); 10, fourth sternum, ventral view; 11, posterior surstyli, posterior view.



