

<http://dx.doi.org/10.11646/zootaxa.3753.3.9>
<http://zoobank.org/urn:lsid:zoobank.org:pub:15475172-CFD4-42E7-AF55-AD0C65E58B8F>

***Denopelopia moema*, a new Tanypodinae (Diptera: Chironomidae) from the Neotropical Region**

FABIO LAURINDO DA SILVA¹, SOFIA WIEDENBRUG² & CAROLINE SILVA NEUBERN DE OLIVEIRA¹

¹Laboratory of Aquatic Entomology, Department of Hydrobiology, Federal University of São Carlos, P.O. Box 676, 13565-905, São Carlos, SP, Brazil

²Museum of Zoology, University of São Paulo, Av. Nazaré, 481, 04263-000, São Paulo, SP, Brazil. E-mail: fabelha@hotmail.com

Whilst sorting Malaise trap material from Pantanal, in western central Brazil, a not readily identifiable species of *Denopelopia* Roback et Rutter, were found. This genus has no formal species described or recorded in Brazil, except for a larval morphotype recorded by Trivinho-Strixino & Strixino (1995). According to Ashe & O'Connor (2009), *Denopelopia* comprises 4 species known from the Nearctic, Neotropical, eastern Palearctic and Oriental regions (viz. *D. atria* Roback & Rutter, 1988; *D. diaoluonica* Cheng & Wang, 2005; *D. irioquereae* Sasa et Suzuki, 2000 and *D. viridula* Cheng & Wang, 2005). A key of adult males was given by Cheng and Wang (2005). The found species is regarded as new and described here.

The specimens were slide-mounted in Euparal. Morphological terminology and abbreviations follow Sæther (1980). Mensural data are given as ranges, with the number of observed specimens in parenthesis if different from the number (n) stated at the beginning of the description. The holotypes and paratypes are deposited in the Museum of Zoology of the University of São Paulo.

Taxonomy

Denopelopia is a genus close to *Paramerina*, *Telmatopelopia* and *Zavrelimyia*. Roback & Rutter (1988) described the adults and immatures of *Denopelopia atria* using the following characters. **Male:** AR 1.6–1.7; costa not extended beyond R₄₊₅, ending between apices of M and CU₁; tergite A IX with transverse row setae; anal point conical. **Pupa:** thoracic horn with small plastron plate; thoracic comb present; A VII with three LS filaments; anal lobes elongate-triangular with a row of spinules on outer margin only; male genital sacs about ½ as long as anal lobes. **Larva:** head IC about 0.50; ligula with equal size; paraligula trifid; anal tubules shorter than posterior pseudopods

***Denopelopia moema* sp. n.**

(Fig. 1)

Type material. Holotype male, Brazil, Mato Grosso do Sul, Corumbá, BEP - Mata ciliar, Rio Miranda, 02.xi-02.xii.2011, C. J. E. Lamas & S. S. Nihei (SISBIOTA-Project). Paratypes: 3 males same data as holotype. 2 males same data as holotype except for 03-18.x.2011.

Diagnostic characters. *Denopelopia moema* can be distinguished from most other *Denopelopia* species by the abdominal segment I pale, with two lateral small brown spots on anterior margin, A II–III pale, A IV pale with one medial brown spot on anterior margin, A V–VIII with posterior dark brown bands, covering almost whole segments. Adult males of *D. moema* appear most similar to those of *D. atria* Roback & Rutter in the AR and abdominal coloration. However, the distinctive brown spots on anterior margin of abdominal segment I and IV separate *D. moema* from the former species.

Etymology. Refers to the main character in the epic poem "Caramuru" from Santa Rita Durão, an Indian woman of the Tupi group named Moema, which means sweet.

Description. Adult male. (n = 6)

Size. Total length 2.8–3.3 mm. Wing length 1.6–2.0 mm. Total length/wing length 3.97–4.56. Wing length/ profemur length 2.21–2.52.

Coloration. Head yellow with dark occipital margin; pedicel and antenna brown; maxillary palp pale brown. Thorax brown. Wing membrane transparent without any marking. Legs pale. Abdomen with segment I pale with two lateral small brown spots on anterior margin, A II–III pale, A IV pale with one medial brown spot on anterior margin, A V–VIII with posterior dark brown bands, covering almost whole segments. Hypopygium pale (Fig. 1F).

Head. Temporal setae 12–14, uniserial. Eye ratio 0.77–0.81. Tentorium 138–200 µm long. Clypeus 103–138 µm long, 63–78 µm wide at largest part, bearing 19–28 setae. Cibarial pump 215–260 µm long, with anterior margin slightly concave. Lengths of palpomeres 1–5 (in µm): 38–50; 63–88; 125–163; 160–180 (4); 233–308 (4). Antennal flagellum 940–1150 µm long, diameter of pedicel 120–140 µm, apical setae single, AR 1.60–1.80.

Thorax. Antepronotum with 3 lateral setae. Acrostichals 32–48 (4), biserial, diverging evenly posteriorly, starting close to antepronotum and almost reaching scutellum; dorsocentrals 12–15, biserial anteriorly and uniserial posteriorly; prealars 6–8; supraalars 2. Anapleural suture ratio 0.52–0.57. Scutellum with transverse row of 6–8 setae and group of a few fine anterior setae.

Wing (Fig. 1A). Width 0.4–0.5 mm. Costa 1.5–1.8 mm long. R₂₊₃ present. VR 0.82–0.89. WW 0.25–0.29. Brachiolum with 2 setae. Squama with 14–30 setae.

Legs (Figs 1B–D). Fore leg: femur 650–800 µm long, tibia 750–920 µm long, width at apex of tibia 19–28 µm, tibia with single, apical and pectinate spur 50–55 (5) µm long (Fig. 1B), with 3–4 (5) lateral teeth and two preapical setae, pseudospurs not observable. Mid leg: femur 710–890 µm long, tibia 770–920 µm long, width at apex of tibia 40 µm long, tibia with two, apical and pectinate spurs 28–50; 50 µm long, each with lateral 4 lateral teeth (Fig. 1C) and two preapical setae; pseudospurs not observable. Hind leg: femur 700–840 µm long, tibia 910–1060 µm long, width at apex of tibia 40–50 µm long, tibia with two, apical and pectinate spurs 32–55 (5); 75–95 (4) µm long, longest spur with 4 teeth, shortest spur with 3 teeth (Fig. 1D); comb with 6–7 (5) bristles; pseudospurs not observable. Claws and pulvilli not observable.

Hypopygium (Fig. 1E). Tergite IX straight, with 8–12 posterior setae. Membranous anal point small, apical edge conical. Phallapodeme indistinct. Sternapodeme with moderate anterior process. Gonocoxite cylindrical, 125–153 µm long, 55–68 µm wide, with slightly concave inner margin. GcR 2.23–2.43. Gonostylus simple and slender, 78–95 µm long; megaseta 10–13 µm long. HR 1.57–1.84. HV 3.17–3.99.

Acknowledgements

We would like to thank Susana Trivinho-Strixino (University of São Carlos) and Carlos E. Lamas (Museum of Zoology, University of São Paulo) for laboratory and sampling support. Thanks also to the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) (Proc. No. 563256/2010-9) and Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) (Proc. No. 2010/52314-0) for the support to the SISBIOTA Project.

References

- Ashe, P. & O'Connor, J.P. (2009) *A World Catalogue of Chironomidae (Diptera). Part 1. Buchonomyiinae, Chilenomyiinae, Podonominae, Aphroteniinae, Tanypodinae, Usambaromyiinae, Diamesinae, Prodiamesinae and Telmatogotoninae*. Irish Biogeographical Society and National Museum of Ireland, Dublin, 445 pp.
- Cheng, M. & Wang, X. (2005) *Denopelopia* Roback & Rutter from China with emendation of the generic diagnosis (Diptera: Chironomidae: Tanypodinae). *Zootaxa*, 1042, 55–63.
- Sæther, O.A. (1980) Glossary of chironomid morphology terminology (Diptera: Chironomidae). *Entomologica Scandinavica*, Supplement 14, 1–51.
- Trivinho-Strixino, S. & Strixino, G. (1995) *Larvas de Chironomidae (Diptera) do Estado de São Paulo: guia de identificação e diagnose dos gêneros* PPG-ERN/UFSCar, São Carlos, 229 pp.
- Roback, S.S. & Rutter, P.R. (1988) *Denopelopia atria*, a new genus and species of Pentaneurini (Diptera: Chironomidae: Tanypodinae) from Florida. *Spixiana Supplement*, 14, 117–127.