



## A new species of *Dasyhelea* Kieffer (Diptera: Ceratopogonidae) from Brazilian Amazonia

DIAZ, FLORENTINA<sup>1</sup>, RONDEROS, MARIA M.<sup>2,4</sup>, SPINELLI, GUSTAVO R.<sup>1</sup>, FERREIRA-KEPPLER, RUTH L.<sup>3</sup> & TORREIAS, SHARLANE R. S.<sup>3</sup>

*División Entomología, Museo de La Plata, Paseo del Bosque s/n, 1900 La Plata Argentina.*

*E-mail: mfdiaz@fcnym.unlp.edu.ar, spinelli@fcnym.unlp.edu.ar*

<sup>2</sup>*División Entomología, Museo de La Plata, CCT-CEPAVE, Paseo del Bosque s/n, 1900 La Plata, Argentina.*

*E-mail: ronderos@fcnym.unlp.edu.ar*

<sup>3</sup>*Instituto Nacional de Pesquisas da Amazônia, Coordenação de Pesquisas de Entomologia, Alameda Cosme Ferreira, 1756, Manaus, Amazonas, Brazil. Email: ruth@inpa.gov.br, rtorreias@gmail.com*

<sup>4</sup>*Corresponding author*

### Abstract

A new species from Manaus, Amazonas, Brazil, *Dasyhelea eloyi* Díaz & Ronderos, is described, illustrated and photomicrograph as larva, pupa and male and female adults based on examination with binocular and scanning electron microscopes. This new species, a typical member of the *Dasyhelea grisea* species group, is compared with the most similar congeners *D. necrophila* Spinelli & Rodríguez and the Nearctic *D. pseudoincinurata* Waugh & Wirth.

**Key words:** *Dasyhelea*, new species, immatures, adult, Manaus, Brazil

### Introduction

Biting midges of the genus *Dasyhelea* Kieffer are common and widespread, and are found in all regions of the world in a wide variety of habitats (Wirth & Linley 1990). Taxonomically, the recognition of subgenera and/or species groups is still uncertain and generally have been applied sporadically only to various regional faunas. Borkent (2013) listed 65 species from the Neotropics, with 14 of these known as immatures.

During a recent entomological survey carried out in the vicinity of Manaus, Brazil, larvae and pupae of a species of *Dasyhelea* were collected, reared and identified as an undescribed species. Each stage of this new species is herein described.

### Material and methods

Larvae and pupae were collected with a pipette from flooded soil in the field of CAMPUS II/ INPA, Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Brazil, and from the water lettuce, *Pistia stratiotes* L. in Ilha Marchantaria in the Solimoes river (Fig. 39). Specimens were carried to the laboratory, larvae placed individually in Petri dishes and pupae isolated in a vial with a drop of water and observed daily until adult emergence. Adults were allowed to harden for 24 hours before being preserved to ensure their pigmentation was complete. Larval, pupal exuviae and adults were mounted in Canada balsam following the technique described by Borkent & Spinelli (2007).

For scanning electron microscopy (SEM), larvae and pupae were prepared following the technique of Ronderos *et al.* 2000, 2008. Ink illustrations were made using an attached camera lucida. Photomicrographs were taken with a digital camera Micrometrics SE Premiun, through a Nikon Eclipse E200 microscope.

For larval terminology see Ronderos *et al.* (2012) and for pupal terminology see Borkent (2012) with addition