



<http://dx.doi.org/10.11646/zootaxa.3920.4.3>

<http://zoobank.org/urn:lsid:zoobank.org:pub:B7A48AB3-4D73-41B8-B84A-62121DCB3C37>

Taxonomic and distributional notes on two species groups of the genus *Dasyrhicnoessa* Hendel (Diptera: Canacidae: Tethinae)

LORENZO MUNARI

c/o Museum of Natural History, S. Croce 1730, I-30135 Venezia, Italy. E-mail: munari.lorenzo@gmail.com

Abstract

Some taxonomic and distributional aspects of two species groups of the genus *Dasyrhicnoessa* Hendel, 1934, viz. *D. tripunctata* group and *D. ciliata* group, are discussed. Figures of the male terminalia and a key to species are also provided.

Key words: Diptera, Canacidae, *Dasyrhicnoessa tripunctata* group, *Dasyrhicnoessa ciliata* group

Introduction

The pantropical genus *Dasyrhicnoessa* Hendel, 1934 comprises twenty-eight species with a combined, worldwide distribution mostly occurring in the tropical belt. The species of this genus are primarily associated with mangrove swamps, but they can also be found on oceanic sandy beaches. *Dasyrhicnoessa* species pose severe difficulties in identification, because of a shortage of external diagnostic characters. In contrast, the genitalic features of the males are quite distinctive and facilitate the correct identification of all species. Within this genus, two species groups were recognized by Munari (2004, 2014), the *Dasyrhicnoessa ciliata* group and the *D. tripunctata* group. Taxonomic notes, mostly concerning genitalic features, and distributional remarks are provided herein for a better understanding of this taxonomically demanding genus of beach flies, which consists of many heterogeneous species that are particularly difficult to ascribe to a particular species group.

Material and methods

Literature data and re-examination of some specimens from the author's collection served to provide the state of the art on the taxonomy and distribution of the two species groups treated in the present work. All specimens examined are double mounted, micropinned in a plastic block, or glued to the tip of a triangular card. Study and illustrations of the material examined required the use of dissecting and compound microscopes, the latter used in particular for perusal of the genitalic structures. Figures of the male terminalia are taken from the author's previously published papers. The photograph illustrating the abdomen of *Dasyrhicnoessa tripunctata* Sasakawa was obtained with Optikam-B5 Digital Camera on an Optika SZM-2 stereomicroscope. The other photographs illustrating *D. longisetosa* Munari were obtained with the following equipment: Nikon D200 SLR Digital Camera; Nikon PB-6 bellows; lens: Nikon 24mm f/2.8 Ai-S, Nikon micro-nikkor f/2.8 105mm Ai-S. Multiple images were then processed by means of the CombineZP® Image Stacking Software. The photographs obtained with Nikon equipment were taken and processed by Davide Vallotto (Spinea, Venice, Italy).

Abbreviations used in this paper

AMS Australian Museum, Sydney, Australia.

BPBM Bernice P. Bishop Museum, Honolulu, Hawaii, United States.

LMC Lorenzo Munari Collection (property of the Natural History Museum, Venice, Italy).



FIGURE 23. *Dasyrhicnoessa longisetosa* Munari. Particular of the mesonotum showing the long setation. Photograph by D. Vallotto. Scale bar = 0.5 mm.

References

- Hendel, F. (1934) Revision der Tethiniden (Dipt. Muscid. acal.). *Tijdschrift voor Entomologie*, 77, 37–54.
- Munari, L. (1996) Tethinidae (Diptera) in the Museum of Zoology, Lund University. *Stobaeana*, 6, 1–11.
- Munari, L. (2004) Beach Flies (Diptera: Tethinidae: Tethininae) from Australia and Papua New Guinea, with descriptions of two new genera and ten new species. *Records of the Australian Museum*, 56 (1), 29–56.
<http://dx.doi.org/10.3853/j.0067-1975.56.2004.1395>
- Munari, L. (2005) Indo-Pacific beach flies (Diptera: Tethinidae): New species and records from the Indian and Western Pacific Oceans. *Studia dipterologica*, 11 (2), 585–596. [2004]
- Munari, L. (2010a) Canacidae and Australimyziidae (Diptera) collected by Danish Scientific Expeditions and by N.L.H. Krauss, with descriptions of four new species. *Steenstrupia*, 32 (1), 51–68.
- Munari, L. (2010b) Order Diptera, family Canacidae (Part 2). In: van Harten, A. (Ed.), *Arthropod Fauna of the United Arab Emirates*, 2, pp. 647–660. [Abu Dhabi]
- Munari, L. (2014) New Indo-Pacific species of *Dasyrhicnoessa* Hendel, 1934 and *Pseudorhicnoessa* Malloch, 1914 (Diptera: Canacidae: Tethininae). *Zootaxa*, 3784 (3), 281–293.
<http://dx.doi.org/10.11646/zootaxa.3784.3.8>
- Sasakawa, M. (1974) Oriental Tethinidae (Diptera). *Akitu*, 1, 1–6.
- Udvardy, M.D.F. (1975) A classification of the biogeographical provinces of the world. *IUCN Occasional Paper*, 18, 1–48.