

A new species of *Dasyhelea* from the Canary Islands
(Diptera: Ceratopogonidae)

RYSZARD SZADZIEWSKI

Department of Invertebrate Zoology, University of Gdańsk,
Piłsudskiego 46, 81-378 Gdynia, Poland
e-mail: szadz@ocean.univ.gda.pl

ABSTRACT. *Dasyhelea nilssoni*, a new species from the Canary Islands with unique genitalia is described and illustrated.

KEY WORDS: Diptera, Ceratopogonidae, *Dasyhelea*, new species, Canary Islands.

INTRODUCTION

Biting midges of the genus *Dasyhelea* KIEFFER from the Canary Islands were studied by SANTOS ABREU (1918), STORÅ (1936) and CLASTRIER (1966). Subsequently SZADZIEWSKI (1985) found that *D. grenieri* CLASTRIER from the Canary Islands is a junior synonym of the widely distributed in the Palearctic *D. turficola* Kieffer. Recently BORKENT (1995) revised preserved types of SANTOS ABREU, designated lectotypes and proposed synonymy with the well described species by CLASTRIER: *D. albidipes* (SANTOS ABREU) (= *D. gauchense* CLASTRIER), *D. canariensis* (SANTOS ABREU) (= *D. quinquaeniata* CLASTRIER), *D. pulchripes* (SANTOS ABREU) (= *D. tenerifensis* CLASTRIER). The other 11 specific names introduced by SANTOS ABREU are placed by BORKENT (l.c.) in *Dasyhelea* and recognized as nomina dubia because types are unknown, and probably destroyed. BORKENT proposed also a new name *D. storai* for homonymic *D. canariensis* STORÅ. The latter species was described from a single female devoid of diagnostic features (STORÅ 1936).

Among the materials collected in the Canary Islands which were sent me some time ago by Dr A. N. Nilsson from Sweden I found a species of the genus with strange genitalia which is described below as new.

Acknowledgements

I am much indebted to Dr Anders N. Nilsson of University of Umeå, Sweden, for the gift of interesting biting midges from the Canary Islands and to Dr Art. Borkent of Enderby, Canada, who kindly reviewed the manuscript.

Dasyhelea nilssoni* sp. n.*Diagnosis**

This is the only extant species with gonocoxites armed with long and pointed apicoveniral processes.

Description

Male. Body dark brown, scutellum brown, tarsi pale. Flagellum length **0.53-0.60** mm. Last flagellomere with evenly pointed apex (Fig. 1); distal elongated flagellomeres of similar length. Palpus 5-segmented (Fig. 2); third palpal segment with numerous scattered hyaline sensilla, length 60 µm. Wing transparent with darker radial veins; first radial cell absent, second one slit-like; macrotrichia numerous, in rows; length 0.83-1.01 mm, CR 0.44-0.46. Halter knob darkened. Tarsal ratio (TR) of fore leg **2.1-2.2**, of mid leg 2.0-2.3, of hind leg **1.8-2.1**.

Genitalia (Figs. 3-5). Tergite IX with small, tubercle like apicolateral processes. Gonocoxite armed with apicoveniral long and pointed process (Fig. 4). Gonostyle evenly arched, simple. Aedeagus with long, slender, almost parallel lateral arms; their tips sharply curved (Fig. 5). Almost symmetrical basal arms of parameres only developed.

Female. Similar to male with usual sexual differences. Body brown, scutellum brown or yellowish, tarsi pale. Flagellum **472-532** µm long, AR 0.90; flagellomeres gradually increasing in length (Fig. 6). Last flagellomere with evenly pointed apex. Frons not fused with clypeus (Figs. 7, 8). Third palpal segment broad, with numerous hyaline sensilla on inner surface (Figs. 9, 10); length 60-68 µm. Wing transparent with darker radial veins, first radial cell absent, second one slit-like; macrotrichia abundant, in rows; length 0.87-1.00 mm, CR 0.45-0.50. Tarsal ratio (TR) of fore leg 2.1-2.2, of mid leg 2.2-2.3, of hind leg 1.8-1.9.

Subgenital plate (sternite IX) broad, with distinct lumen (Fig. 11). Seminal capsule single, retort-shaped (Fig. 12), size 64 x 47 µm.

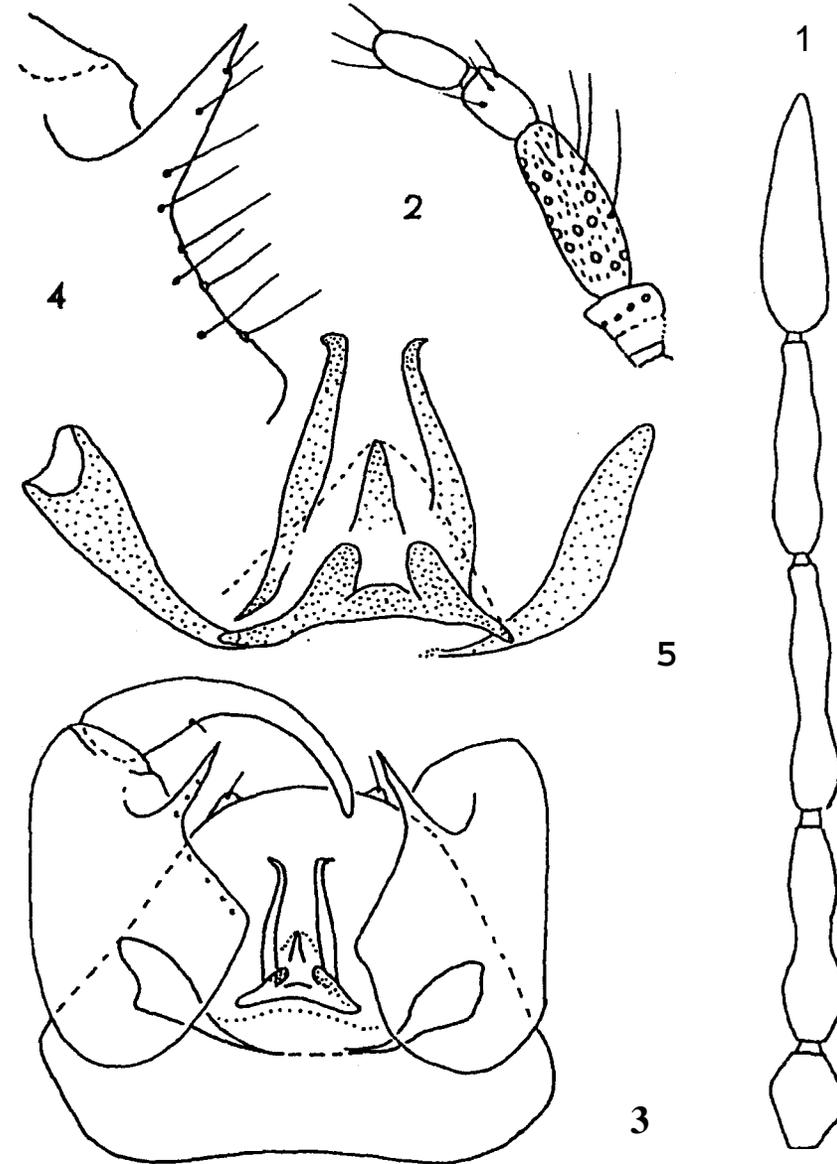
Material examined

Holotype, male: Spain, Gran Canaria, Bco. Azuazc, 18 Nov. 1995, light trap, leg. Baez, Nilsson & Malquist.

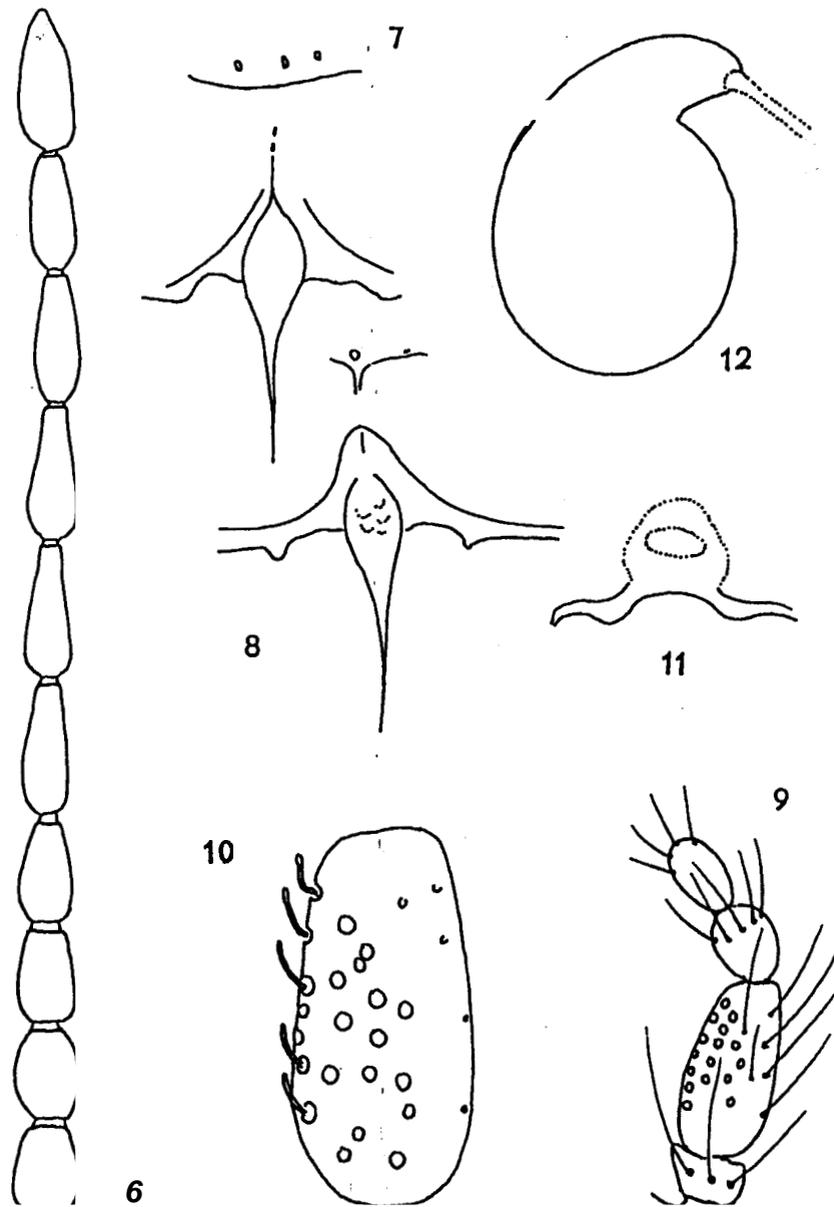
Paratypes: 8 males, 1 female, same data as the holotype; 1 female, Bco. Tirijana, 16 Nov. 1995, other data as above.

Etymology

The species is named for Dr Anders N. Nilsson of University of Umeå, Sweden, who sent me interesting collection of biting midges from the Canary Islands.



Figs. 1-5. *Dasyhelea nilssoni* sp. n., male. 1 - distal flagellomeres, 2 - palpus, 3 - ventral aspect of genitalia, 4 - apicoveniral process of gonocoxite, 5 - aedeagus and parameres.



Figs. 6-12. *Dasyhelea nilssoni* sp. n., female. 6 - distal flagellomers, 7, 8 - frons, 9 - palpus, 10 - third palpal segment, 11 - subgenital plate, 12 - seminal capsule.

Discussion

The new species is a member of the subgenus *Pseudoculicoides* MALLOCH. However, it can not be included to any species group recognized in the Palaearctic. Males of *D. nilssoni* have gonocoxites with unique within the family apicoventral processes which are similar in shape to apicolateral processes of tergite IX present in many species of the subgenus, and probably play similar function at copulation and spermatophore formation. These apicoventral processes on gonocoxites probably replaced apicolateral processes of tergite IX which are weakly developed in the new species.

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