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

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**ABSTRACT.** *Dasyhelea nilssonii*, a new species from the Canary Islands with unique male 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), STORÁ (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 Palaearctic *D. turficola* Kieffer. Recently BORKENT (1997) 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. quinquefaeniata* 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 homonymous *D. canariensis* STORÁ. The latter species is described from a single female devoid of diagnostic features (STORÁ 1936).

Among the materials collected in the Canary Islands which were sent me some years ago by Dr A. N. Nilsson from Sweden I found a species of the genus with strange male 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 gonoxites armed with long and pointed apicoventral 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. Gonoxite armed with apicoventral 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
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. 6-12. Dasyhelea nilssonii 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 Palaeartic. 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.

REFERENCES


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