



### Acknowledgements

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### *Dasyhelea nilssoni* sp. n.

#### Diagnosis

This is the only extant species with gonocoxites 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  $\mu$ m. Wing transparent with darker radial veins; first radial cell absent, second one slit-like; macrotrichia numerous, in rows; length 0.83-1.01mm, 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 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  $\mu$ m 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  $\mu$ m. 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  $\mu$ m.

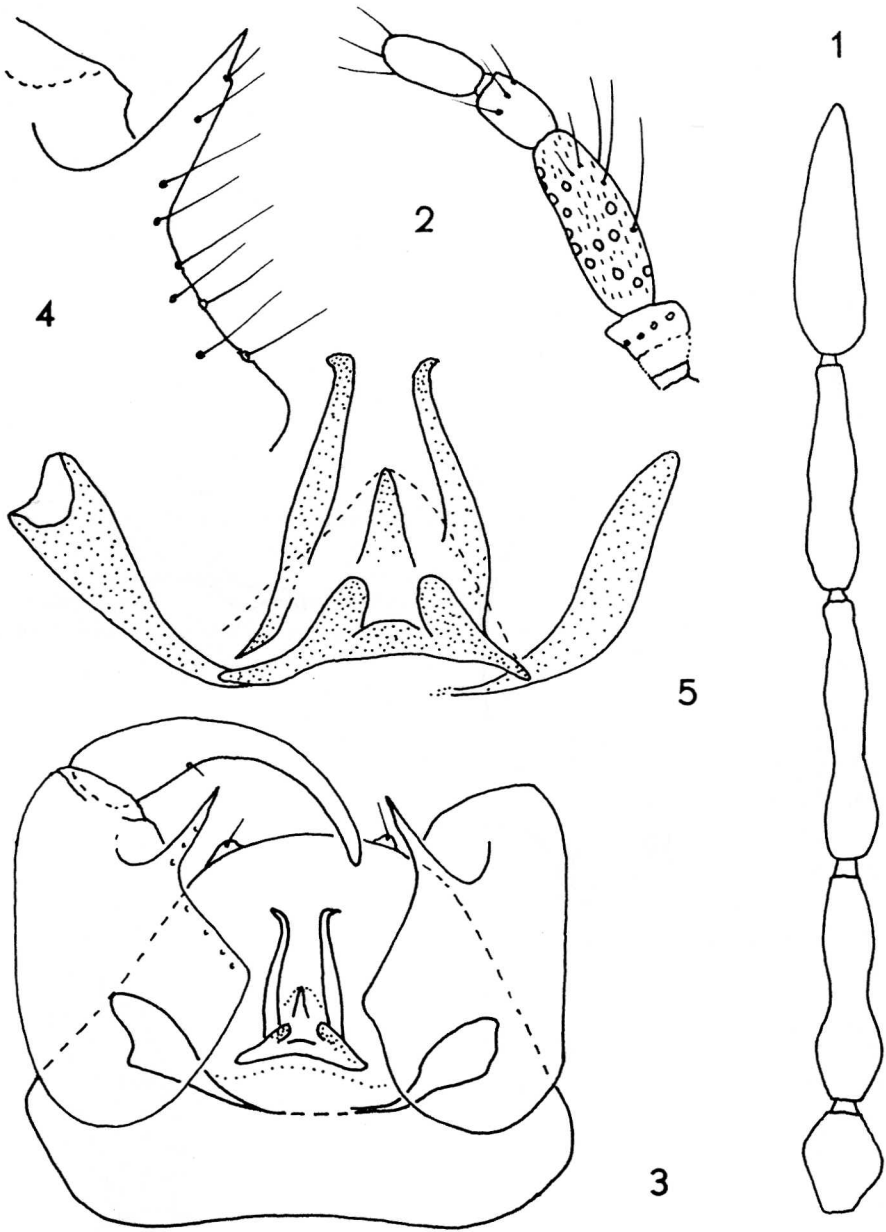
#### Material examined

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

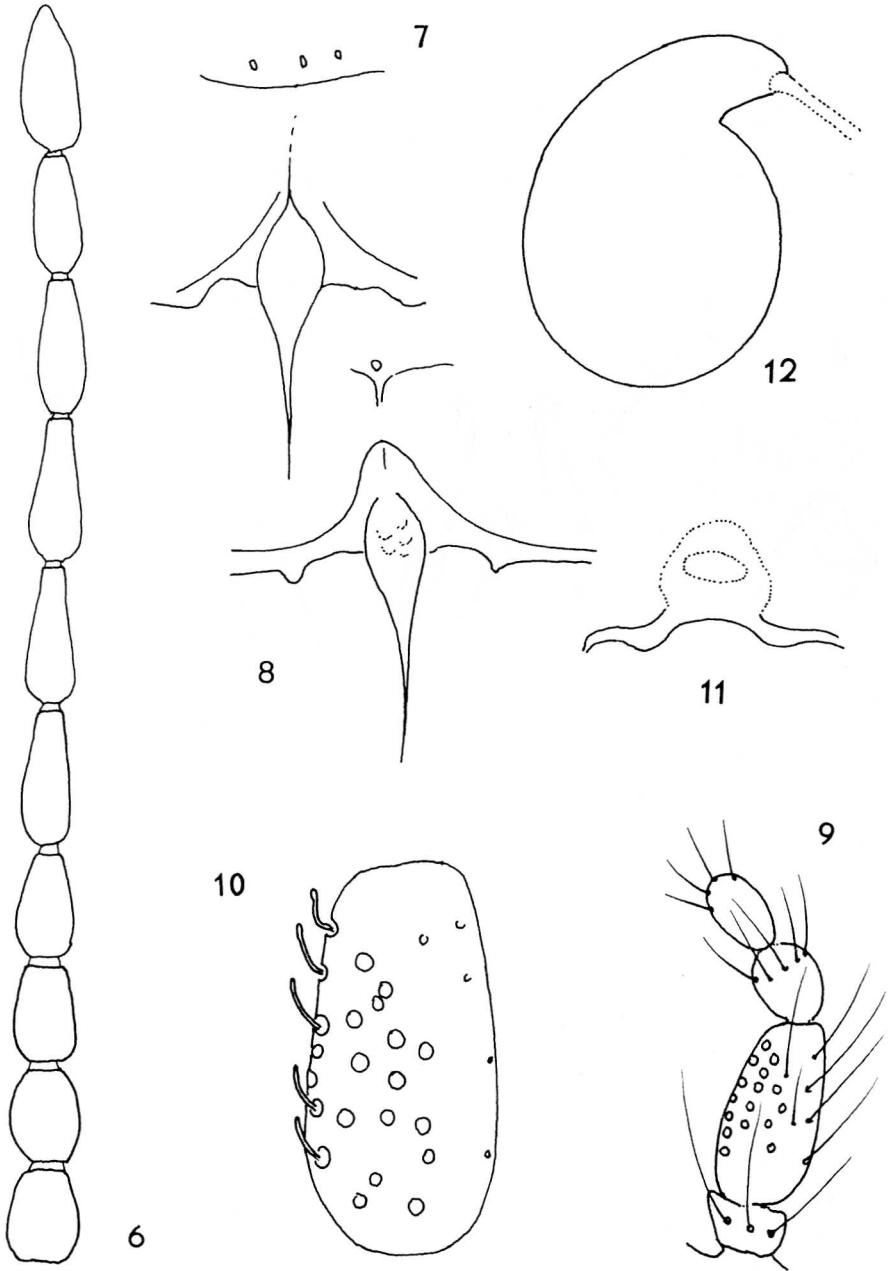
Paratypes: 8 males, 1 female, same data as the holotype; 1 female, Bco. Tirijana, 16 Nov. 1995, other data as above.

#### 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 – apicoventral 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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