

A new species in the genus *Diaphanobezzia* from subantarctic Argentina (Diptera: Ceratopogonidae)

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Una nueva especie del género *Diaphanobezzia* de la región subantártica de Argentina. Se describe e ilustra una especie nueva de Ceratopogonidae, *Diaphanobezzia araucaria*, en base a hembras capturadas en el Parque Nacional Lanín. La diagnosis genérica se modifica parcialmente debido a la presencia, en esta nueva especie, de microtriquias alares.

A new species of predaceous midge, *Diaphanobezzia araucaria* from the Lanín National Park in southwestern Argentina, is described and illustrated from female specimens. The generic diagnosis of *Diaphanobezzia* is modified due to the fact the wing membrane of this new species is covered by microtrichia.

Introduction

The genus *Diaphanobezzia* was proposed by Ingram and Macfie (1931), who designated *D. pelucida* I. and M. as type-species, which is still known by a single male collected in the vicinity of Bariloche, Argentina. Based on the similarity of the male wing and genitalia, Wirth (1952) synonymized *Diaphanobezzia* with *Parabezzia* Malloch. Wirth and Grogan (1988), in their revision of the Ceratopogonini of the World, resurrected *Diaphanobezzia* from synonymy with *Parabezzia*, and described the second known species, *D. spinellii*. Finally, Spinelli and Grogan (1990) described *D. patagonica* from a single female captured in the the Pinturas River Valley, in the steppe area of southern Patagonia.

The purpose of this paper is to describe a new species of *Diaphanobezzia* recently collected by Néstor Basso in a forest of *Araucaria araucana* in the southern shore of Lake Rucachoroy, situated in the northern area of the Lanín National Park, in Neuquén Province, Argentina.

Material and Methods

Specimens are slide mounted in Canada Balsam, and were examined, measured and drawn using a binocular microscope with camera lucida. Illustrations

are based on the holotype, except for the spermathecae. Types are deposited in the collection of the Museo de La Plata, Argentina.

For general ceratopogonid terminology see Downes and Wirth (1981); diagnoses of *Diaphanobezzia* are found in Wirth and Grogan (1988) and Spinelli and Wirth (1993).

Diaphanobezzia araucaria, new species (Figs. 1-6)

Diagnosis. Distinguished from females of *Diaphanobezzia spinellii* and *D. patagonica* by the elongate five distal flagellomeres; presence of whitish areas on scutum; scutellum pale yellowish; presence of microtrichia on wing membrane; broader lumen of radial cell; costal section III very reduced; spines at base of hind basitarsus pale, inconspicuous; and caudomedian excavation of sternite 9 rounded.

Description. FEMALE: Wing length 1.15 (1.13-1.17, n=2) mm; breadth 0.50 (0.49-0.51, n=2) mm.

HEAD: Dark brown. Eyes broadly separated above, sparsely pubescent between the medial ommatidia; one stout interocular seta. Antennal scape dark brown, bearing a pair of setae; pedicel blackish brown; flagellum (Fig. 1) dark brown, bases of

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flagellomeres pale brown; lengths of flagellomeres in proportion of 12-8-8-8-8-8-8-12-12-15-15-17; antennal ratio 1.03 (1.02-1.04, $n=2$); flagellomeres 1-8 bearing a pair of long trichoid sensilla. Palpus (Fig. 2) pale brown; lengths of segments in proportion of 4-9-14-14; 3rd segment with scattered capitate sensilla on inner surface. Mandible with 8-9 teeth.

THORAX: Scutum dark brown; prealar and humeral areas, and prescutellar depression whitish; 5 prealar setae, 1 postalar seta. Scutellum pale yellowish, bearing 4 setae. Legs brown; tarsi pale brown except 5th tarsomeres infuscated; hind tibia with 8 setae on extensor side; hind tibial comb with 7 spines; apices of tarsomeres 1-3 with pair of ventral spines; hind basitarsus abruptly bent at base, with pair of ventral pale spines, which are inconspicuous as compared to the other species of the genus; ventral surface of mid basitarsus with 3-4 widely spaced spines; hind tarsal ratio 2.0; claws small, equal sized with basal inner teeth. Wing (Fig. 3) slightly infuscated, membrane covered with microtrichia; anterior veins grayish; r-m crossvein entire; costal

sections I-II-III in proportion of 38-33-4, R_4+5 35; lumen of radial cell broad; costal ratio 0.96 ($n=2$). Halter (Fig. 4) whitish, sac-shaped, lacking a distinct constriction below knob, as is typical of the genus; knob with 3-4 minute setae on ventral surface.

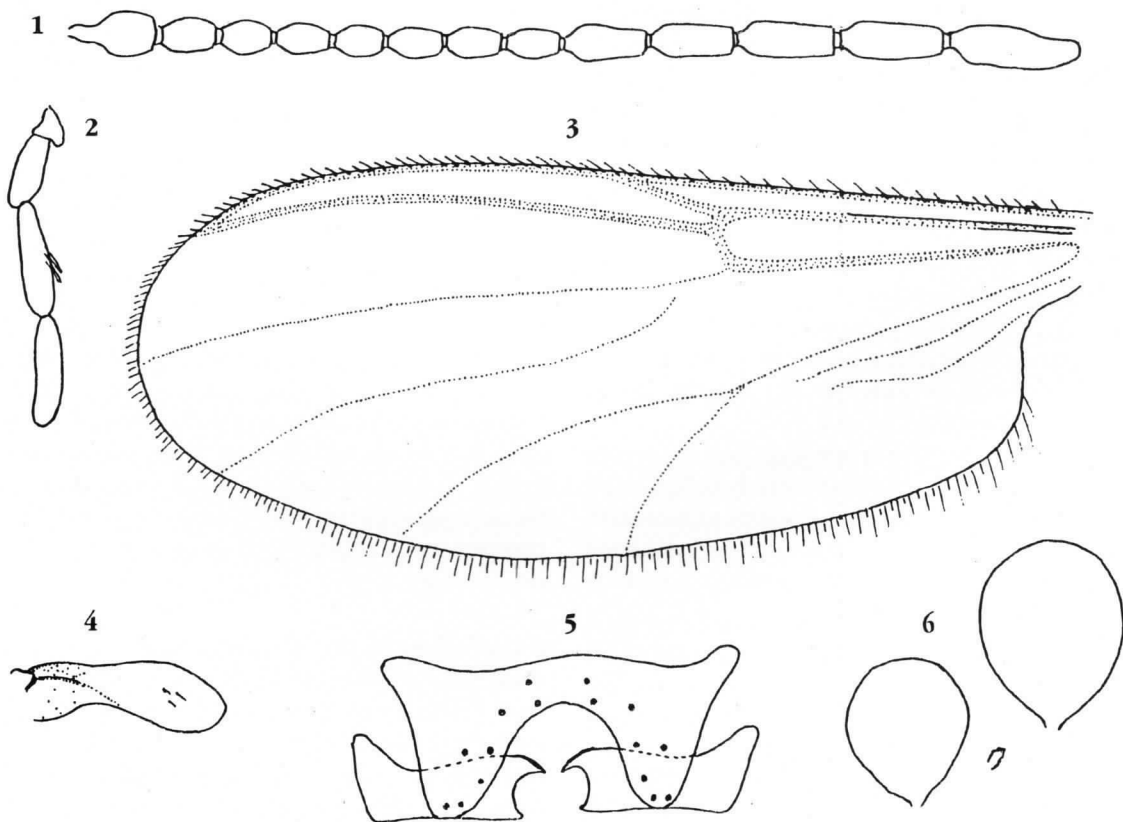
ABDOMEN: Dark brown. Sternite 8 (Fig. 5) with a deep rounded caudomedian excavation; each arm of sternite 9 (Fig. 5) hooked; sternite 10 with 2 pairs of setae, the anterior one short and pale, the posterior pair longer and darker; cerci elongated. Spermathecae (Fig. 6) unequal, ovoid with short necks, measuring 0.064 by 0.049 mm, and 0.052 by 0.044 mm; a small 3rd spermatheca present.

Male. Unknown.

Types. Holotype female, paratype female, Argentina, Neuquén Prov., Lanin National Park, Lake Rucachoroy, 14-I-1994, N.G. Basso, CDC light trap.

Distribution. Known only from the type-locality.

Etymology. The specific epithet refers to the



Figs. 1-6. *Diaphanobezzia araucaria*, female. 1: flagellum. 2: palpus. 3: wing. 4: halter. 5: sternites 8-9. 6: spermathecae (escala: 0.5 mm).

"pehuen" (*Araucaria araucana*), the dominate tree in the vicinity of the type-locality.

Discussion

As pointed out in the generic diagnoses by Wirth and Grogan (1988) and Spinelli and Wirth (1993), the wing of *Diaphanobezzia* is whitish hyaline, without microtrichia. The slightly infuscated wing membrane covered with microtrichia of *D. araucaria*, slightly modifies this generic concept.

Among the five genera of Ceratopogonini endemic to Patagonia, *Austrobelela* Wirth and Grogan, *Borkenthelea* Spinelli and Grogan, *Diaphanobezzia* I. and M., *Isthmobelela* Ingram and Macfie and *Notiohelea* Grogan and Wirth, *Diaphanobezzia* is unique with all species reported from the western slope of the Andes.

Literature Cited

- Downes, A. J. and W. W. Wirth, 1981. Chapter 28. Ceratopogonidae: p. 393-421. In: McAlpine, J.F. *et al.*, eds. *Manual of Nearctic Diptera*. Vol. 1, Agriculture Canada Monograph 27, Ottawa. 674 p.
- Ingram, A. and J. W. S. Macfie, 1931. Ceratopogonidae: p. 155-232. In: *Diptera of Patagonia and South Chile*. British Museum (Nat. Hist.), London. Part 2 (4).
- Spinelli, G. R. and W. L. Grogan, Jr., 1990. New species of predaceous midges of the tribe Ceratopogonini from subantarctic Argentina (Diptera: Ceratopogonidae). *Proc. Entomol. Soc. Wash.*, 92: 127-134.
- Spinelli, G. R. and W. W. Wirth, 1993. Los Ceratopogonidae de la Argentina (Insecta: Diptera). In: Z.A. de Castellanos, Ed. *Fauna de agua dulce de la República Argentina*, PROFADU-CONICET, 38 (3): 1-124.
- Wirth, W. W. 1952. The status of the genus *Parabezzia* Malloch (Diptera, Heleidae). *Proc. Entomol. Soc. Wash.*, 54: 22-26.
- Wirth, W. W. and W. L. Grogan, Jr., 1988. The predaceous midges of the world (Diptera: Ceratopogonidae; Tribe Ceratopogonini). *Flora and Fauna Handbook*, 4, E. J. Brill, New York, XV + 160 p.