Description of the male of *Culicoides dureti* (Diptera: Ceratopogonidae)

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RESUMEN. Se describe e ilustra el macho de *Culicoides dureti* Ronderos & Spinelli y se brinda una breve descripción de la hembra sobre la base de ejemplares capturados, asociados con hembras en la Provincia de Misiones, Argentina. La especie es comparada con *Culicoides barbosai* Wirth & Blanton.

PALABRAS CLAVE. *Culicoides dureti*. Macho. Argentina.

ABSTRACT. The male of *Culicoides dureti* Ronderos & Spinelli is described and illustrated from specimens collected associated with females in the province of Misiones, Argentina, and a brief description of the female is provided. The species is compared with *Culicoides barbosai* Wirth & Blanton.

KEY WORDS. *Culicoides dureti*. Male. Argentina.

INTRODUCTION

Biting midges of the genus *Culicoides* Latreille are notorious blood-sucking pest of man and animals throughout the world (Wirth *et al.*, 1988). *Culicoides dureti* Ronderos & Spinelli is presently known by only female specimens from the area influenced by the hydroelectric complex «Yacyreta», located in the Paraná river, between Argentina and Paraguay (Ronderos & Spinelli, 1995).

The recent discovery of males associated with females of *C. dureti* in the city of Posadas, Misiones, prompted us to herein describe and illustrate the male of this species, providing a brief description of the female, as well.

Terms for structures follow those used in the Manual of Nearctic Diptera (McAlpine *et al.*, 1981) and in Spinelli & Borkent (2004). Terms for wing veins follow the modifications proposed by Szadziewski (1996). The specimens examined are slide mounted in Canada balsam, and deposited in the collection of the Museo de La Plata, Argentina (MLP). Photos of structures were taken with a Pentax Optio, S 40, digital camera through a Leitz S-M Lutz, compound research microscope.

RESULTS

*Culicoides dureti* Ronderos & Spinelli, 1995

(Figs. 1-6)

*Culicoides dureti* Ronderos & Spinelli, 1995: 59 (female; Paraguay, Argentina); Borkent
& Wirth, 1997: 67 (in Word catalog); Borkent & Spinelli, 2000: 32 (in neotropical catalog); Ronderos & Spinelli, 2002: 93 (in key); Spinelli et al., 2005: 141, 146 (in key; wing photo).

**Brief redescription of the female.** Eyes: bare, narrowly separated; AR 0.77-0.88; sensilla coeloconica on flagellomeres 1, 5-8; flagellomeres 8-9 subequal, third palpal segment stout with shallow, rounded, subapical pit; mandible with 17-18 teeth; P/H ratio 0.81-0.91. Scutum: dark brown, without definite pattern, only scattered punctiform darker dots at insertions of setae. Legs: dark brown, knees: blackish, femora with subapical, tibia with subbasal and hind tibia with subapical, narrow rings; hind tibial comb with 4 spines. Wing pattern as in Fig. 1; wing length 0.78-0.90; macrotrichia sparse on the distal half of wing, a few in anal cell; CR 0.57-0.60; halter dark brown, tip of know whitish dorsally. Two ovoid spermathecae with short necks; rudimentary third, sclerotized ring present.

**Description of male.** Similar to female with usual sexual differences.

Head (Fig. 2): dark brown. Eyes: bare, forming a V shaped where they contact. Antennae with flagellomeres 2-10 fused (Fig. 3); flagellomeres 1-10 pale, 11-13 brown; sensilla coeloconica in flagellomeres 1, 6-10. Third palpal segment stout, with broad shallow, rounded subapical sensory pit. Wing length: 0.82 (0.78-0.87, n = 6) mm, width
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0.38 (0.36-0.39, n = 6) mm; pattern as in Fig. 4; CR 0.53 (n = 6).

Genitalia (Figs. 5-6): tergite 9 long, with very short apicolateral processes, small posteromedia notch, pair of evident, pilose, median cerci; sternite 9 with rounded, narrow posteromedia excavation. Gonocoxite: stout, 2.5 times as long as greatest breadth, ventral root foot-shaped, posterior heel evident, dorsal root slender; gonostylus as long as gonocoxite, slender, with bent pointed tip lightly. Parameres (Fig. 6) separate, stout, each with strongly sclerotized basal knob; stem curved near base, midportion of stem nearly straight, distal portion slender, bent ventromesad, tapering to fine point with lateral fringe of stout spines. Aedeagus Y-shaped; basal arch extending to 0.75 of total length; basal arms slender, strongly sclerotized, slightly curved; posteromedia projection lightly sclerotized tapered to slender, rounded tip, with pair of lateral pointed processes.

**Distribution.** Southeastern Paraguay, northeastern Argentina.

**Type.** Holotype female, Paraguay, Encarnación, Quitería, 22-XI-1993, G.R. Spinelli, CDC light (MLP).

**Other specimens examined.** Argentina, Misiones, Posadas, XII-2006, M. D’Oria, 6 females, 6 males, CDC light trap.

**Taxonomic Discussion.** *Culicoides dureti* is very similar to *C. barbosai* Wirth & Blanton, from USA (Florida) to Ecuador. However, the latter has a prominent pattern of punctiform darker dots on the scutum, the apicolateral processes of the male sternite 9 are larger, the posterior midportion of the parameres stem bears a distinct ventral lobe, and the basal arch of the aedeagus is slightly lower.

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**LITERATURE CITED**


