

## *CULICOIDES TAVARESII*, A NEW SPECIES FROM THE STATE OF RIO DE JANEIRO, BRAZIL (DIPTERA: CERATOPOGONIDAE)

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Studying material collected by Aragão and Tavares in Fazenda da Barrinha, Itaguaí, RJ, Brazil, we found a new species, described here based on female and male specimens.

*Culicoides tavaresii* Felipe-Bauer & Wirth, new species (Figs. 1-14).

*Type locality*: Itaguaí, Rio de Janeiro, Brazil.

*Female*: Wing length 1.11 (1.06-1.22, n = 11) mm; breadth 0.49 (0.48-0.54, n = 11) mm. *Head*: Dark brown. Eyes (Fig. 12) narrowly separated by a distance equal to 1/2 facet, bare. Antenna (Fig. 11) with lengths of flagellar segments in proportion of 18-13-14-15-16-16-16-20-20-21-21-38; antennal ratio 0.96 (0.90-1.07, n = 8); sensilla coeloconica present on segments 3, 7-10. Palpus (Fig. 13) with lengths of segments in proportion of 9-26-31-10-10; third segment swollen distally, with a broad round, shallow, sensory pit; palpal ratio 2.3 (1.9-2.5, n = 11). Proboscis long, P/H ratio 0.96 (0.86-1.05, n = 10); mandible with 15 teeth. *Thorax*: Dark brown; scutum without prominent pattern in slide-mounted specimens, but with pale elongated submedian anterior marks and 2 pairs of faint lateral spots. *Legs* (Figs. 3-5) dark brown, knee spots blackish; fore- and midfemora with subapical and all tibiae with subbasal pale rings; hind tibia with a narrow, faint, apical pale ring; hind tibial comb (Fig. 6) with 4 spines, the one nearest the spur longest. *Wing* (Fig. 1) with pattern as figured; one pale spot over r-m crossvein extending from vein M to costal margin; 2 post-stigmatic pale spots, the posterior one tending to locate behind 2nd radial cell; distal pale area of cell R5, curved posteriorly, not meeting wing

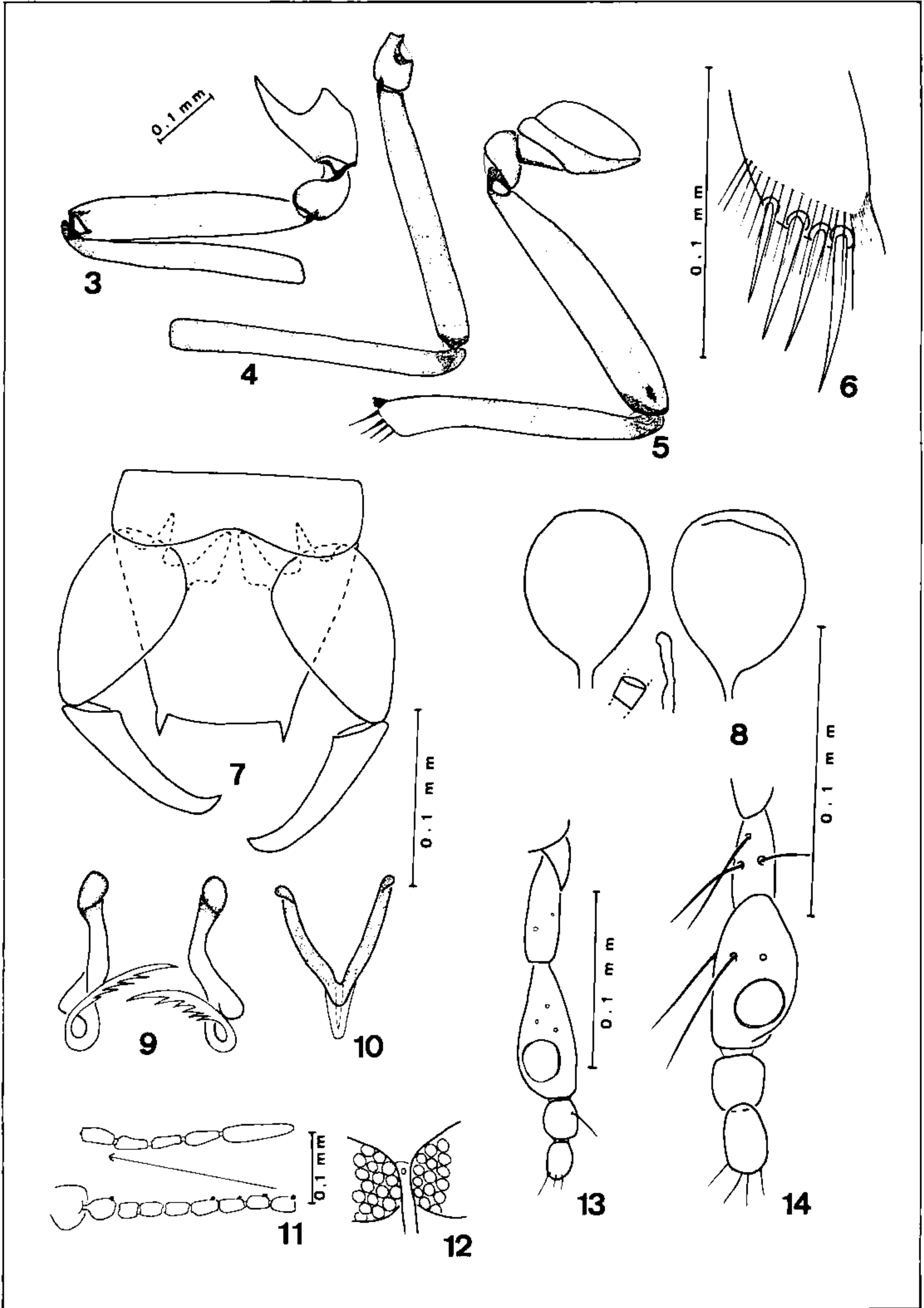
margin; cell M1 with 2 pale areas, the distal one not reaching wing margin; cell M2 with pale spots present behind medial fork and in front of mediocubital fork, two pale spots in distal portion of cell, the second attaining wing margin; cell M4 with a pale spot reaching wing margin; veins M1 and M2 with faint pale areas in distal third and connected with proximal pale spot of cell M1; anal cell with 2 small, rounded, pale spots in distal portion; macrotrichia sparse on distal half of wing; costal ratio 0.65 (0.62-0.66, n = 10). Halter brown. *Abdomen*: Dark brown. Spermathecae (Fig. 8) 2 plus vestigial 3rd and a cylindrical sclerotized ring; ovoid with short, slender necks; slightly unequal, measuring 0.049 by 0.039 mm and 0.046 by 0.037 mm, plus neck 0.007 mm long.

*Male*: Wing length 1.03 (0.90-1.12, n = 9) mm, breadth 0.39 (0.37-0.42, n = 9) mm, pattern (Fig. 2) as figured. Similar to female with usual sexual differences; antenna with last 3 segments elongated; segments 12-15 with lengths in proportion of 10-35-29-44; sensilla coeloconica present on segments 3, 8-12. Palpus as in Fig. 14. Genitalia (Fig. 7): 9th sternum with shallow caudomedian excavation, ventral membrane not spiculate; 9th tergum moderately broad, tapering, with small, slender, triangular apicolateral processes, the caudal margin between them without lobe or cleft. Basistyle moderately stout, ventral root "foot-shaped" with a round basal and apical hook, dorsal root slender, triangular; dististyle moderately stout, slightly curved. Aedeagus (Fig. 10) with rounded basal arms, basal arch pointed, reaching 2/3 of total length, distal process slender, poorly sclerotized with rounded tip, the ventral side appearing channel-like. Parameres (Fig. 9) each with a stout basal knob; stem moderately slender and curved in mid-portion, distally with well-developed ventral lobe; apical portion tapered to fine point, laterally fringed.

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*Culicoides tavaresi* n. sp. Fig. 3: fore leg. Fig. 4: mid leg. Fig. 5: hind leg. Fig. 6: hind tibial comb. Fig. 7: ♂ genitalia, aedeagus and parameres removed. Fig. 8: spermathecae. Fig. 9: parameres. Fig. 10: aedeagus. Fig. 11: ♀ antenna. Fig. 12: eye separation. Fig. 13: ♀ palpus. Fig. 14: ♂ palpus.

*Distribution:* Brazil.

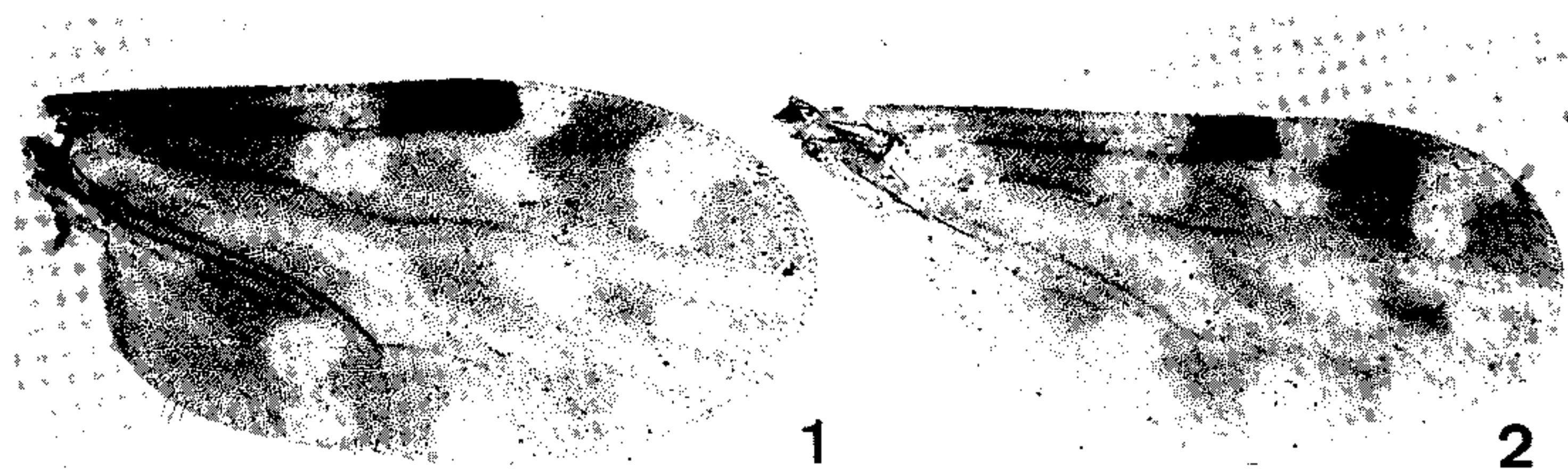
*Types:* Holotype ♀, Fazenda da Barrinha, Itaguaí (22°52' S 43°47' W), Rio de Janeiro, BRASIL, 17-X-1974, Aragão & Tavares col., light trap. Allotype ♂, same data as holotype. Paratypes, 14 ♀♀, 12 ♂♂, same data as holotype [Holotype (n° 167), allotype (n° 168) and part of paratypes (n° 169-194) in Instituto Oswaldo Cruz (I. O. C.), Rio de Janeiro, Brazil; 6 paratypes: 2 ♀♀ and 2 ♂♂ deposited in National Museum of Natural History, Smithsonian Institution, Washington, D. C., USA and 1 ♀ and 1 ♂ in Museo de La Plata, Argentina].

*Material examined:* 162 ♀♀, 65 ♂♂, same data as holotype in I. O. C. (in alcohol 70%).

*Discussion:* This species is named for Omar Tavares in recognition of his contribution to the study of Ceratopogonidae of the State of Rio de Janeiro.

*Culicoides tavaresi* is closely related to *C. pifanoi* Ortiz (1951, *Rev. Sanid. Asist. Soc. 16*: 573-591) which differs in its larger size, aspect of the pale spots of cell R5, absence of pale area in the base of the wing, brownish halter, and the male genitalia with parameres with ventral lobe and a simple aedeagus without subapical pairs of sclerotized points.

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Wings of *Culicoides tavaresi*, new species. Fig. 1: female. Fig. 2: male.