

New records of the genus *Atrichopogon* (Diptera: Ceratopogonidae) from Argentina and new species name

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Nuevos registros para Argentina del género *Atrichopogon* (Diptera: Ceratopogonidae) y nuevo nombre para una especie

RESUMEN. Se brinda el primer registro para Argentina de tres especies del género *Atrichopogon* Kieffer (Diptera: Ceratopogonidae): *Atrichopogon (Atrichopogon) adamsoni* Macfie, *Atrichopogon (A.) costalis* Macfie y *Atrichopogon (A.) flavicaudae* Macfie. Además, se propone a *Atrichopogon rufus* n. n. Marino y Rossi como nombre de reemplazo para *Atrichopogon rufiventris* Marino & Rossi, 2022, homónimo menor de *Atrichopogon rufiventris* Kieffer, 1917 de Australia.

PALABRAS CLAVE. Forcipomyiinae. Homónimo. Misiones. Primer registro. Región Neotropical.

ABSTRACT. First record from Argentina of three species of the genus *Atrichopogon* Kieffer (Diptera: Ceratopogonidae) are provided: *Atrichopogon (Atrichopogon) adamsoni* Macfie, *Atrichopogon (A.) costalis* Macfie and *Atrichopogon (A.) flavicaudae* Macfie. In addition, *Atrichopogon rufus* n. n. Marino & Rossi is proposed as a substitute name for *Atrichopogon rufiventris* Marino & Rossi, 2022, junior homonym of *Atrichopogon rufiventris* Kieffer, 1917 from Australia.

KEYWORDS. First records. Forcipomyiinae. Homonym. Misiones. Neotropical region.

Spinelli *et al.* (2023) in their catalogue of Argentinian species of Ceratopogonidae, recorded 30 species of the genus *Atrichopogon* Kieffer (Diptera: Ceratopogonidae). The purpose of this note is to provide corologic information from different surveys of Ceratopogonidae in the province of Misiones. During the fieldworks several species were collected, three of them that are currently in the subgenus *Atrichopogon (Atrichopogon)* Kieffer sensu stricto and were not previously found in Argentina. These species were described by Macfie from Brazil and Trinidad and their types were deposited in the Natural History Museum, London (BMNH) in the early 20th century. They have not been recorded for more than 70 years.

The studied specimens were slide-mounted in Canada balsam and deposited in the collection of the División Entomología, Museo de La Plata (MLPA). The type material from BMNH was revised through photographs. For each species, diagnostic characters are provided and illustrated. In addition, a map with the new records is included. Finally, in 2022 Marino and colleagues described

a new species of *Atrichopogon* from Buenos Aires province, Argentina, whose specific name was preoccupied. We propose a substitute name for this junior homonym: *Atrichopogon (A.) rufus*, new name for *Atrichopogon rufiventris* Marino & Rossi, 2022 (preocc. Kieffer, 1917).

***Atrichopogon (Atrichopogon) adamsoni* Macfie**

(Fig. 1a-c)

Atrichopogon adamsoni Macfie 1937: 4 (female, Trinidad); Macfie, 1938: 162 (Trinidad); Macfie, 1949: 112 (male, Mexico); Borkent & Dominiak, 2020: 57 (in World catalog).

Atrichopogon (Atrichopogon) adamsoni Borkent & Spinelli, 2007: 44 (in Neotropical catalog).

Diagnostic characters. Small species, uniformly pale except scutum brown; females with humeral areas paler (Fig. 1a); male and female with tarsal ratio about 1.00 (Fig.

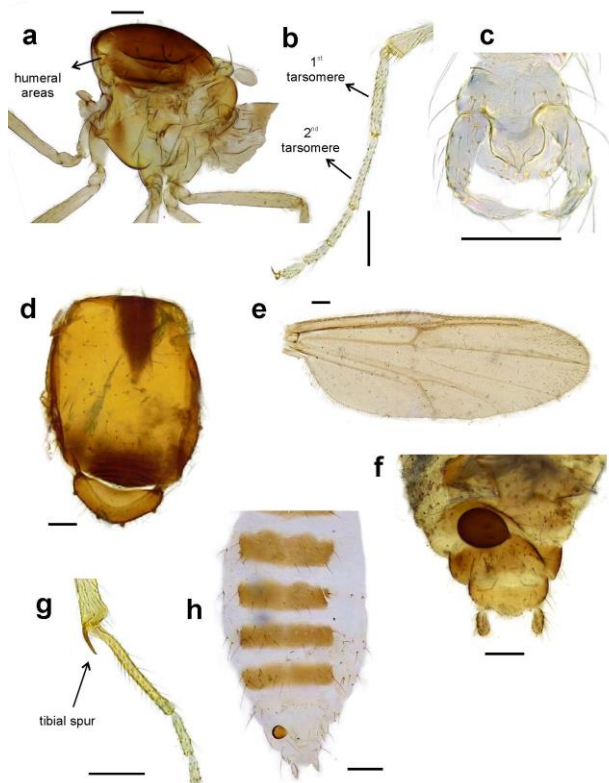


Fig. 1. Diagnostic characters. *Atrichopogon (Atrichopogon) adamsoni* Macfie: a. lateral view of female thorax. b. male hind tarsus. c. male genitalia. *A. (A.) costalis* Macfie: d. dorsal view of female scutum. e. female wing. f. tip of female abdomen. *A. (A.) flavicaudae* Macfie: g. female hind tibial spur. h. female abdomen. Scale bars= 0.1 mm.

1b); ventral portion of aedeagal-parameral complex with a posterior pointed tip (Fig. 1c).

Types. Two syntypes female labeled: “Trinidad, St. Augustine, 2.I.1936, coll. by A. M. Adamson” (BMNH).

Distribution. Mexico (Chiapas) and Trinidad (St. Augustine).

New Records. Argentina, Misiones, Parque Provincial Moconá, sendero a la gruta, 27°54'S 53°09'W, 20-21.III.2011, 2 males, 2 females, Cazorra C., Malaise trap; same data except: camino junto al mirador, 1 male, 2 females, Cazorra C., sweep net (MLPA) (Fig. 2).

***Atrichopogon (Atrichopogon) costalis* Macfie**

(Figs. 1d-f, 3)

Atrichopogon costalis Macfie 1939: 179 (female, Brazil); Borkent & Dominiak, 2020: 59 (in World catalog).

Atrichopogon (Atrichopogon) costalis: Borkent & Spinelli 2007: 45 (in Neotropical catalog); Santarém & Felipe-Bauer, 2023: 39 (in Brazilian catalog).

Diagnostic characters. Large orange-brown species (Fig. 3); scutum brown with prescutellar depression and anterior medial triangle dark brown (Fig. 1d); costal ratio near 0.8 (costa long), numerous macrotrichiae in cells r₃,

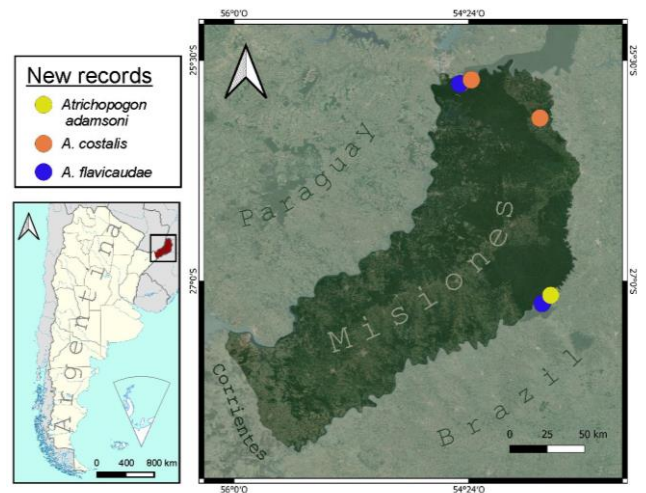


Fig. 2. New records. Map of Misiones province, Argentina, with the new records of *Atrichopogon (Atrichopogon) adamsoni*, *A. (A.) costalis* and *A. (A.) flavicaudae*.

m₁ and m₂, scarce in cells cua₁ and anal (Fig. 1e); spermatheca large (Fig. 1f). Male unknown.

Types. Holotype female labeled: “Brazilien Nova Teutonia 27° 11' B 52° 23' L Fritz Plaumann”

Distribution. Brazil (Santa Catarina).

New Records. Argentina, Misiones, Parque Nacional Iguazú, 25°40'24.8"S 54°26'55.4"W, 10.X.2023, 2 females, Cazorra C., Chiramberro A., Hellmuth, T., Pereyra M. & Rossi J., sweep net, MLPA; same data except Parque Provincial Guardaparque H. Foerster, Andresito, 21.X.2018, 1 female alive, photographed by Javier Chivone (Figs. 2, 3).

Remarks. Macfie (1939) briefly described the scutum as showing “traces of usual adornment”. He did not mention the characteristic pattern of pigmentation that we observed in the studied material.



Fig. 3. Female habitus of *Atrichopogon (Atrichopogon) costalis* Macfie. Photographic record from Andresito, Misiones, Argentina, 21.X.2018, by J. Chivone.

***Atrichopogon (Atrichopogon) flavicaudae* Macfie**

(Fig. 1g-h)

Atrichopogon flavicaudae Macfie 1939: 181 (female, Brazil); Borkent & Dominiak, 2020: 60 (in World catalog).

Atrichopogon (Atrichopogon) flavicaudae: Borkent & Spinelli 2007: 45 (in Neotropical catalog); Santarém & Felipe-Bauer, 2023: 40 (in Brazilian catalog).

Atrichopogon pilosior Macfie 1939: 182 (as variety of *Atrichopogon flavicaudae*).

Diagnostic characters. Small species with hind tibial spur long, thick and dark (Fig. 1g); abdomen pale brown, abdominal tergites 2-6 dark brown (Fig. 1h). Male unknown.

Types. Holotype female labeled: "Brazilien Nova Teutonia 27° 11' B 52° 23' L Fritz Plaumann"

Distribution. Brazil (Santa Catarina).

New Records. Argentina, Misiones, Parque Nacional Iguazú, 25°41'08.0"S, 54°27'34.9"W, 13.X.2023, 3 females, Cazorla C., Chiramberro A., Hellmuth, T., Pereyra M. & Rossi J., sweep net; same data except: 25°40'40"S 54°27'07"W 180 m, 1.V.2023, 1 female, Delfino Ahumada H., Pereyra M., Rossi J. & Rozas Sia M., same data except Parque Provincial Moconá, sendero a la gruta, 27°54'S 53°09'W, 20-21.III.2011, 1 female, Cazorla C., Malaise trap; same data except camino junto al mirador, 1 female, Cazorla C., sweep net (MLPA) (Fig. 2).

***Atrichopogon (Atrichopogon) rufus* Marino & Rossi, nomen novum**

Objective replacement name for *Atrichopogon (Atrichopogon) rufiventris* Marino & Rossi in Marino *et al.*, 2022: 579 (male, female; Argentina), junior primary homonym of *Atrichopogon rufiventris* Kieffer, 1917: 184 (female; Australia; described as variety of *Atrichopogon atratus* Kieffer).

Etymology. The new specific name refers to the reddish-brown coloration of the abdominal segments observed in freshly collected specimens.

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REFERENCES

- Borkent, A., & Dominiak, P. (2020) Catalog of the Biting Midges of the World (Diptera: Ceratopogonidae). *Zootaxa*, **4787**, 1-377. <https://doi.org/10.11646/zootaxa.4787.1.1>
- Borkent, A., & Spinelli, G.R. (2007) Neotropical Ceratopogonidae (Diptera: Insecta). *Aquatic Biodiversity in Latin America (ABLA)*. Vol. 4 (ed. Adis, J., Arias, J.R., Rueda-Delgado, G., & Wantzen, K.M.), pp. 1-198. Pensoft, Sofia-Moscow.
- Kieffer, J.J. (1917) Chironomides d'Australie conservés au Musée National Hongrois de Budapest. *Annales Historico-Naturales Musei Nationalis Hungarici*, **15**, 175-228.
- Macfie, J.W.S. (1937) I. - Ceratopogonidæ from Trinidad. *Annals and Magazine of Natural History*, **20**, 1-18. <https://doi.org/10.1080/00222933708655311>
- Macfie, J.W.S. (1938) Notes on Ceratopogonidae (Diptera). *Proceedings of the Royal Entomological Society of London. Series B, Taxonomy*, **7**, 157-166. <https://doi.org/10.1111/j.1365-3113.1938.tb01271.x>
- Macfie, J.W.S. (1939) A report on a collection of Brazilian Ceratopogonidae (Dipt.). *Revista de Entomología*, **10**, 137-219.
- Macfie, J.W.S. (1949) Notes on Ceratopogonidae. *Proceedings of the Royal Entomological Society of London. Series B, Taxonomy*, **18**, 109-115. <https://doi.org/10.1111/j.1365-3113.1949.tb01431.x>
- Marino, P.I., Rossi, J.F., & Cazorla, C.G. (2022) A new species of *Atrichopogon (Atrichopogon)* Kieffer (Diptera: Ceratopogonidae), redescription and first record from Argentina of *Atrichopogon (A.) eucnemus* and *Atrichopogon (A.) woodfordi* by Macfie. *Zootaxa*, **5188**, 574-586. <https://doi.org/10.11646/zootaxa.5188.6.5>
- Santarém, M.C.A., & Felipe-Bauer, M.L. (2023) *Brazilian species of Biting Midges (Diptera: Ceratopogonidae)*. FIOCRUZ, Rio de Janeiro.
- Spinelli, G.R., Ronderos, M.M., Ayala, M.M., & Diaz, F. (2023) Catalog of the biting midges of Argentina (Diptera: Ceratopogonidae). *Zootaxa*, **5261**, 1-83. <https://doi.org/10.11646/zootaxa.5261.1.1>