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150th anniversary of Alberto Santos-Dumont's birth, the father of aviation: the damselfly *Cyanallagma demoiselle* sp. nov. from the Brazilian Atlantic Forest (Odonata: Coenagrionidae)

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Abstract. *Cyanallagma demoiselle* sp. nov. (holotype male deposited in DZUP: Brazil, São Paulo State, Cananéia, Ilha do Cardoso State Park), a new small greenish blue and black damselfly, is described, illustrated, and diagnosed based on males and females from the southeastern Atlantic Forest. This new coenagrionid is named after one of the most celebrated projects, the Demoiselle 20 or *libellule* aircraft, designed by the Brazilian inventor and aviation pioneer Alberto Santos-Dumont (1873–1932). This is the third new odonate species discovered in the same restinga-like formation at São Paulo, and like many other odonates from this assemblage, *C. demoiselle* sp. nov., appears to be a typical inhabitant of this type of environment. Due to its sharing many characteristics with other *Cyanallagma*, the new species can be considered a chimera. Its body coloration and genital ligula are similar to those of *C. trimaculatum*, whereas its caudal appendages closely resemble those of *C. nigrinuchale*. Despite of recent advances in taxonomic knowledge about *Cyanallagma*, this study highlights the need for better understanding the morphological correspondences or homologies among the structures of caudal appendages.

Key words. Dragonfly, Zygoptera, eponym, morphology, neotropical, systematics, taxonomy

https://zoobank.org/NomenclaturalActs/urn:lsid:zoobank.org:pub:3D0BA6B4-E6D0-4E88-9411-29DBFD7CC35A

Research Article

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Data Availability Statement:
All relevant data are within the paper.

Introduction

"Inventing is imagining something that no one else has; It is believing what no one has sworn; risking what no one has risked; and achieving what no one has attempted. To invent is to transcend."
Alberto Santos-Dumont [free translation from a quotation accredited to him]

Cyanallagma Kennedy, 1920 is represented by small blue and black damselflies that are endemic to southern South America, ranging from central Brazil to southern Chile (von Ellenrieder & Garrison, 2008). The genus has one of the most complex taxonomic histories for odonates, with several of the originally included species having since been transferred to other genera throughout the years (see De Marmels 1989, 1997 and von Ellenrieder & Garrison, 2008 for a full background). Its history can be traced back to the groundbreaking studies by Selys (1876) when he included four coenagrionid species in his *Acanthagrion interruptum*-complex: *A. interruptum* Selys, 1876; *A. laterale* Selys, 1876; *A. acutum* Selys, 1876; and