



Two new species of *Callibaetis* Eaton (Ephemeroptera: Baetidae) from Southeastern Brazil

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Abstract

Two new species of *Callibaetis* are described based on nymphs and adults of both genders. Specimens were collected in the states of Rio de Janeiro and Espírito Santo, in the Southeastern region of Brazil. With the description of *C. fluminensis* **sp. n.** and *C. capixaba* **sp. n.** we increase the number of species in the genus *Callibaetis* in Brazil to eleven.

Key words: Aquatic insects, Mayfly, Taxonomy, New species, Neotropics

Introduction

The taxonomy of the mayfly family Baetidae (Ephemeroptera) in the Neotropics has improved considerably in the last 15 years. Several new genera and species have been described, and most of the taxa previously known from the region have been revised. However, *Callibaetis* Eaton remains poorly known, some of the species in the genus are difficult to identify with confidence and most are known only at the imaginal stage.

Callibaetis was one of the first genera established in the family Baetidae and, as is the case for all of the species described in the early years of mayfly taxonomy, the species in this genus were described based solely on alate stages. Several new species were described at the end of the 19th century and in the first decades of the 20th century, most being described by Navás (1912, 1915a, 1915b, 1916, 1922, 1923, 1930, 1933, 1934). However, most of these species were described inadequately: some of the descriptions were based on subimagos and most of the types were either lost or stored under poor conditions (Hubbard & Peters 1981). Only a few species have been described since that period. Since 1934, when Navás described his last valid species of *Callibaetis*, only two new species have been described from the Neotropics: one by Traver (1944), later considered a junior synonym of one of Navás species, and one by Gillies (1990). Nevertheless, since the beginning of the 21st century the study of the nymphs in this genus has been increasing with the work of Salles *et al.* (2003) and Nieto (2008).

Nine species of *Callibaetis* have been recorded from Brazil: *C. fasciatus* Pictet; *C. gregarius* Navás; *C. guttatus* Navás; *C. jocosus* Navás; *C. pollens* Needham & Murphy; *C. radiatus* Navás; *C. viviparus* Needham & Murphy; *C. willineri* Navás; and *C. zonalis* Navás (Salles *et al.* 2004). Only four of these species have their nymphs described: *C. willineri*, *C. guttatus*, *C. radiatus* and *C. pollens* (Traver 1944, Da-Silva 1991, Salles *et al.* 2003, Nieto 2008).

The objective of this paper is to describe two new species of *Callibaetis* from Southeastern Brazil, based on nymphs and adults of both genders.