



Dicranocentrus heloisae Arlé & Mendonça, 1982 (Collembola: Entomobryidae): first record of the genus in Espírito Santo state, Brazil

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Abstract: *Dicranocentrus heloisae* is an easily recognized species by color pattern. It was described from the “Parque Nacional da Tijuca” and its distribution was previously restricted to Tijuca Forest, located in Rio de Janeiro State. Here we report the second record for the species with distance about 320 km from its type locality and first record of the genus in the Espírito Santo state.

Key words biodiversity, new record, Orchesellinae, springtails, taxonomy

The genus *Dicranocentrus* Schött, 1893 comprises springtails belonging to the subfamily Orchesellinae, which differs from other subfamilies of Entomobryidae primarily by the presence of five or six antennal segments (Figure 1) (Soto-Adames et al. 2008). Currently, *Dicranocentrus* includes 61 species from the Pantropical region (Bellinger et al. 2014), and four of them are described from Brazil: *D. bicolor* Handschin, 1924 (from Santa Catarina state), *D. termitophilus* Handschin, 1924 (from Minas Gerais state), *D. heloisae* Arlé & Mendonça, 1982 (from Rio de Janeiro state), and *D. amazonicus* Bellini, Morais & Oliveira, 2013 (from Amazonas state); another species, *D. silvestrii* Absolon, 1903 is recorded from Rio de Janeiro state (Abrantes et al. 2012; Bellini et al. 2013). Among these species, *Dicranocentrus heloisae* (Figure 2), was first recorded at “Parque Nacional da Tijuca” ($22^{\circ}57'13''$ S, $043^{\circ}17'29''$ W), state of Rio de Janeiro, and is identifiable mainly by its yellow body and with bluish black pigmentation on the head (Arlé and Mendonça 1982). This species differs from its congeners by the conspicuous coloration, absence of cephalic macrochaetae

S2, dens with more than 50 spines arranged in five rows in the inner basal portion, and two rows of spines on the external basal part (Arlé and Mendonça 1982; Najt et al. 1988). According to the literature (Abrantes et al. 2012; Bellinger et al. 2014), the distribution range of the species was previously restricted to the Tijuca Forest.

The collembolan fauna, in the southeastern Brazil, has been investigated by several authors in the last decades (Abrantes 2012). From Espírito Santo state only six species were described (Queiroz and Deharveng 2008; Fernandes and Mendonça 2010; Queiroz and Mendonça 2010; Queiroz and Fernandes 2011; Queiroz and Weiner 2011) and 27 species were recorded (Arlé 1939, 1981; Thibaud and Palacios-Vargas 1999; Potapov and Culik 2002; Culik et al. 2006; Fernandes and Mendonça 2010).

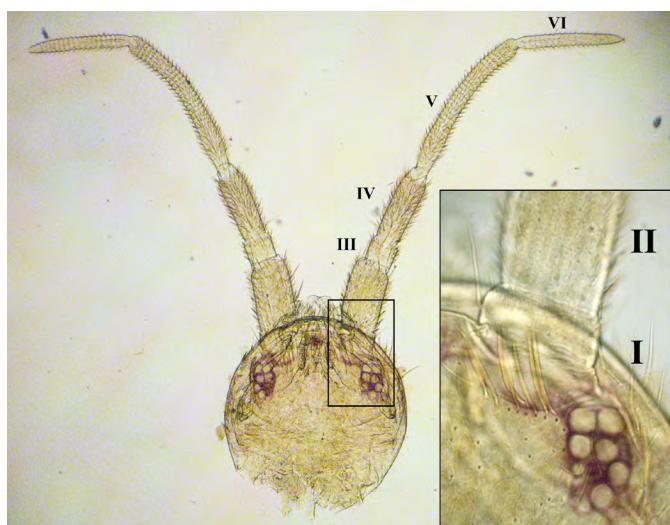


Figure 1. *Dicranocentrus heloisae* Arlé & Mendonça, 1982: dorsal view of head and antennae with detail to antennal segments I and II.



Figure 2. *Dicranocentrus heloisae* Arlé & Mendonça, 1982: lateral view, color pattern in ethanol.

Nevertheless, no records or descriptions of *Dicranocentrus* species were verified and recent material collected by one of the authors in “Serra do Caparaó” (Espírito Santo state), revealed the presence of *Dicranocentrus heloisae*.

The samples were collected by entomological aspirator in 19 November 2013, in the “Parque Nacional do Caparaó” ($20^{\circ}26'57.09''$ S, $041^{\circ}48'4.38''$ W). These samples were authorized under License 40169-2/2013 issued by MMA/Chico Mendes Institute for Biodiversity Conservation (ICMBio) / SISBIO. Three specimens were obtained in an altitude of about 2,500 m. The specimens were preserved in 90% ethanol, fixed in a boiled ethanol and deposited in the Collembola Collection of the

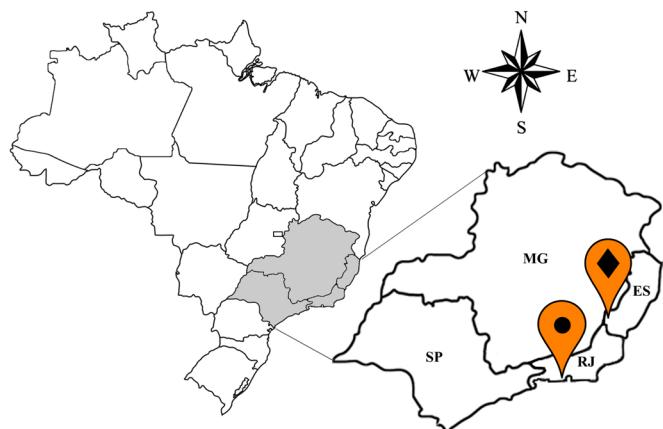


Figure 3. Map of Brazil with current distribution of *Dicranocentrus heloisae* Arlé & Mendonça, 1982 including the new record. Circle = type locality; diamond = new record (modified from IBGE 2015).

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The range of this species with distance about 320 km from its type locality (Figure 3) expands its distribution and configures the first record of this genus for the Espírito Santo state. This record reflects the necessity of a greater effort of samples in areas not yet inventoried.

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