

A new species of *Seira* (Collembola: Entomobryidae) from the state of Paraíba, Brazil

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ABSTRACT. A new species of *Seira* Lubbock, 1869 is described and illustrated. *Seira glabra* sp. nov. is the second species described from the municipality of Areia (Caatinga biome) and the seventh from the state of Paraíba, Brazil. Compared with other species of the genus, *Seira glabra* sp. nov. has some remarkable reductions on dorsal chaetotaxy, specially on the methatorax and first abdominal segment. The most similar species to *S. glabra* sp. nov. is *Seira praiana*. Both lack macrochaetae on the first abdominal segment.

KEY WORDS. Caatinga; chaetotaxy; entomobryomorpha; Seirini; taxonomy.

Seira Lubbock, 1869 (Entomobryinae: Seirini) comprises approximately 200 described species distributed worldwide, 23 of which have been recorded from Brazil. The Brazilian fauna of this genus is certainly poorly known, considering the large number of morphotypes yet to be described (ABRANTES *et al.* 2010, 2012, BELLINI *et al.* 2010, BELLINI & ZEPPELINI 2011, BELLINGER *et al.* 1996-2013). The fauna of northeastern Brazil, most particularly in the state of Paraíba is very rich in species of *Seira*, but only less than 10% of the state's territory has been sampled (BELLINI & ZEPPELINI 2009). The municipality of Areia in the state of Paraíba, houses an important conservation unit inside the Caatinga phytogeographic domain, called "Mata do Pau-Ferro", where a "Brejo de altitude" can be found. Compared with other semi-arid areas inside Caatinga, "brejos" have privileged conditions, with higher total amounts of soil moisture and air humidity, cooler temperatures and a taller vegetation cover (LIMA 1966). "Mata do Pau-Ferro" is one of the largest remaining areas of "Brejo" in Paraíba, with 600 hectares and is located at altitudes ranging from 400 and 600 m a.s.l. (BARBOSA *et al.* 2004).

Herein we describe a new species of *Seira* from "Mata do Pau-Ferro". This species represents the seventh record of the genus from Paraíba.

MATERIAL AND METHODS

The specimens were collected in November 2011, during the dry season, using pitfall traps and entomological aspirators, directly from areas where the vegetation cover is tall and litter is present. The climate of Areia is 'As' according to Koeppen's system and the region belongs to Good's biogeo-

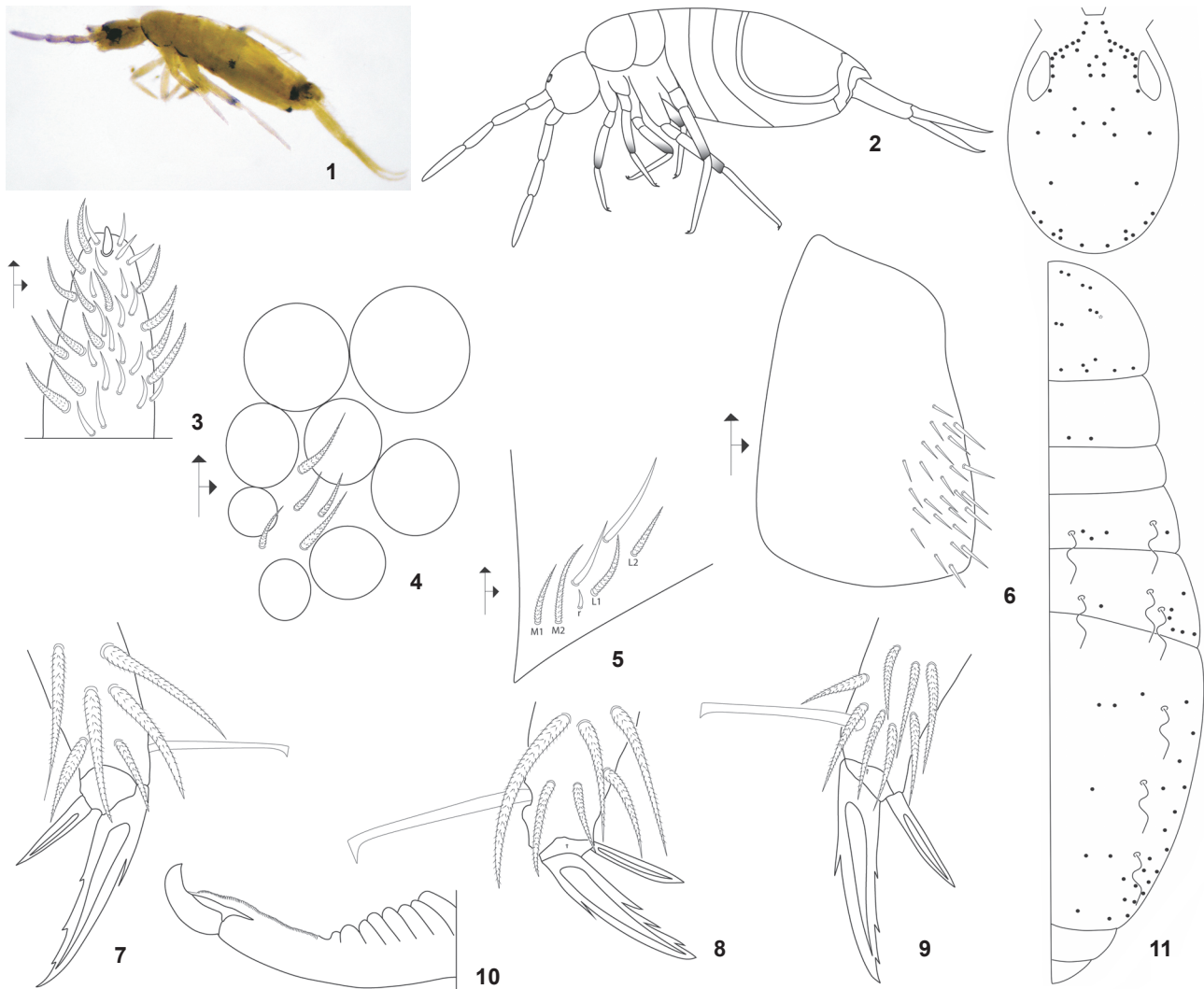
graphic zone 27 (GOOD 1974, KOTTEK *et al.* 2006). The specimens were fixed in 70% ethanol. For mounting on glass slides, specimens were cleared using hydrochloric acid and potassium dichromate, following the procedures described by ARLÉ & MENDONÇA (1982), and Hoyer liquid was used as a semi-permanent medium. The chaetotaxy schemes follow the systems of CHRISTIANSEN & BELLINGER (2000), which was modified from JACQUEMART (1974), and SOTO-ADAMES (2008).

TAXONOMY

Seira glabra sp. nov.

Figs 1-12

Description. Total body length of holotype 2.12 mm. Habitus typically entomobryid (Figs 1 and 2). Color of specimens in 70% ethanol pale yellow with light blue pigment covering antennae and distal femora; two dark blue spots on distal part of fourth and third abdominal segments; dark pigmentation on lateral portions of mesothorax and metathorax; dark blue pigment covering front of head and eye patches (Fig. 1). Color of mounted specimens pale yellow with dark blue pigment covering eye patches and distal femora (Fig. 2); rounded brownish scales covering Ant. (antennal segments) I and II entirely, basal halves of Ant. III and IV, head, thorax, abdomen, ventral tube, all leg segments, manubrium and dentes. Ant. IV not annulated, with single apical bulb and two types of setae: bigger multiciliated setae and smaller curved smooth setae (Fig. 3). Eye patches oval with 8+8 ocelli, the biggest being B and smallest E (Fig. 4). Five interocular multiciliated mesochaetae (Fig. 4). Pre-labral and labral setae smooth. Labial triangle M1-2 and E multiciliated, r



Figures 1-11. *Seira glabra* sp. nov.: (1) specimen in ethanol; (2) habitus; (3) apical region of Ant. IV; (4) right eye patch; (5) labial triangle setae, right side; (6) metatrochanteral organ; (7) empodial complex of leg I; (8) empodial complex of leg II; (9) empodial complex of leg III; (10) distal dens and mucro; (11) macrochaetae on head and half body, right side.

reduced (Fig. 5). Metatrochanteral organ with approximately 27 short spines (Fig. 6). All ungues with four teeth, two basal paired and two apical unpaired (Figs 7-9). Basal pair of spines of ungues of second pair of legs slightly larger than others (Fig. 8). Unguiculi acuminate (Figs 7-9). Tenent hair capitate. Ventral manubrium with 8+8 subapical setae, spines absent. Mucro typically falcate (Fig. 10). Dorsal chaetotaxy of Abd. (abdominal segments) II-III detailed in Fig. 12. Reduction of number of macrochaetae on metathorax (2+2) and absence of macrochaetae on Abd. I (Fig. 11). Dorsal macrochaetae distribution as in Fig. 11.

Material examined. Holotype male on slide, BRAZIL, Paraíba: Municipality of Areia (Mata do Pau-Ferro), 24-27-xi-2011, B.C. Bellini leg. Paratypes: 1 male and 1 female on slides,

same data as holotype. Type material deposited at Collembola Collection of Museu Nacional/UFRJ, Rio de Janeiro, number 2416 CM/MNRJ.

Etymology. "Glabra" means hairless, an allusion to the reduction of chaetotaxy of the metathorax and first abdominal segment of the new species.

Remarks. *Seira glabra* sp. nov. shows many morphological resemblances to *Seira praiana* Bellini, Fernandes & Zeppelini, 2010, described from "Restinga de Marambaia", state of Rio de Janeiro. Although inhabiting different domains (Atlantic Forest and Caatinga, respectively), both species are similar in the cephalic and antennal color patterns and in the body chaetotaxy. *Seira glabra* sp. nov. and *S. praiana* are similar due to the lack of

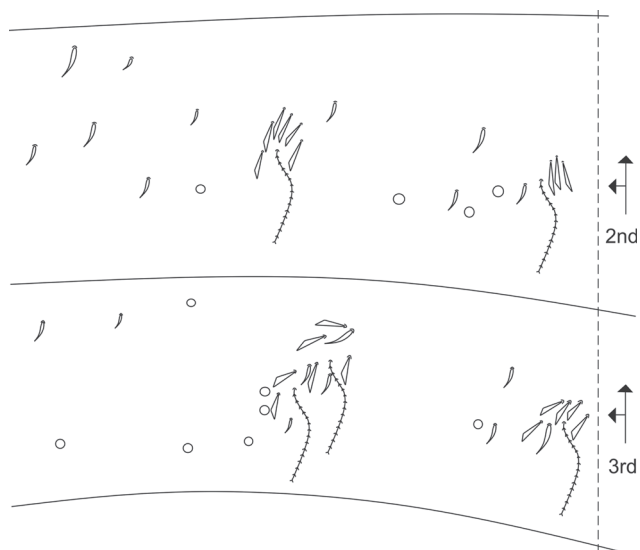


Figure 12. Detailed dorsal chaetotaxy of second and third abdominal segments of *Seira glabra* sp. nov. (left side).

macrochaetae on Abd. I, cephalic regions 2, 3 and 4, regions 1 and 3A of the mesothorax, region A of Abd. II and region A of Abd. III. These species also have acuminate unguiculus, single apical bulb and Ant. IV without annulations. *Seira glabra* sp. nov. can be readily distinguished from *S. praiana* by the cephalic region 1 with 11 macrochaetae, region 5 with two macrochaetae and region 6 with six macrochaetae, whereas in *S. praiana* these regions have eight, four and four macrochaetae, respectively. The new species has two macrochaetae on the region 2 of mesothorax, whereas *S. praiana* has only one. Two macrochaetae are observed on the metathorax, whereas *S. praiana* has three. Finally, six macrochaetae are found on the region B of the Abd. III, whereas *S. praiana* has three.

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