



Synthesis of Brazilian Collembola: an update to the species list

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Abstract

The current total number of species found in Brazil is 270, distributed in 19 families and 92 genera, an increase of 71 species and 12 genera in the last 6 years. The greatest known diversity is found in Rio de Janeiro (132 species), Amazonas (56), Espírito Santo (30) and São Paulo (28), while there are no record to seven Brazilian states (Acre, Alagoas, Distrito Federal, Goiás, Rio Grande do Norte, Roraima and Tocantins). Distribution of the records clearly defines the areas that urge investments in scientific research and taxonomic survey and reflects the concentration of information in those centers that host the few specialists in Collembola, currently working in Brazil.

Key words: Brazil, biodiversity, distribution, soil fauna, taxonomy

Introduction

The Brazilian collembologists met in September 2009, at João Pessoa, Northeast Brazil, to the First Workshop on Brazilian Collembola Taxonomy, with the objectives to update the list of Collembola species in Brazil and discuss the state of art of Brazilian Collembology. All the participants worked together and equally to achieve this goal, which resulted in the current paper.

Traditionally Collembola is placed among hexapods (Hexapoda, Ellipura) (Börner 1910), notwithstanding, alternative hypothesis conclude that Collembola are highly specialized terrestrial Crustacea, which reached their evolutionary climax already in the Devonian, when they dominated most terrestrial habitats (present results of molecular analyses where Crustacea is placed paraphyletic in relation to Insecta, and Collembola results sister group of Branchiopoda) (Giribet & Ribera 2000, Janssens & Lawrence 2002–2009, Lawrence 2004, Nardi *et al.* 2001, 2003, Spears & Abele 1997).

Collembola is one of the most important groups in soil mesofauna, mainly because of their importance in soil genesis, dynamics and evolution (Palacios-Vargas 1985). The great diversity of habitats and their prompt response to environmental variations (Pozo *et al.* 1986), mainly those caused by antropic modifications, as deforestation and burning, make this group usefull as bioindicators (Zeppelini *et al.* 2009).