Pristina trifida sp. nov., a new soil-dwelling microannelid (Oligochaeta: Naididae) from Amazonian forest soils, with comments on species recognition in the genus

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Abstract

A new species of the oligochaete genus Pristina (Naididae) is described from Central Amazonian soil and litter samples. Investigations were carried out on living and preserved material, with emphasis on characters of the soft-bodied anatomy as seen in living specimens, including the sexual organs. Regarding the chaetal pattern, Pristina trifida is almost indistinguishable from the syntopic P. silvicola Collado & Schmelz, 2000. Conspicuous differences exist, however, in the presence of a stomach with intracellular canals, in the location of the first nephridium in segment IX, and in details of the male reproductive system such as a large prostate gland and a widening of the distal part of the vas deferens. The new species resembles also a group of taxonomically problematic species, P. sima, P. minuta, and P. osborni, whose synonymy has been assumed by several authors. Pristina trifida differs from this group mainly by smaller needle and ventral chaetae and by equally long teeth in the anterior ventral chaetae. The high similarity in the chaetal pattern between P. trifida and P. silvicola implies that there are more species in Pristina than the chaetae might suggest. It further questions the accuracy of chaetae-based species identifications and synonymizations in the group of P. osborni, P. minuta, and P. sima, and possibly the genus in general.

Key words: Taxonomy, new species, Clitellata, Annelida, Naididae, Pristina, Brazil, live observation, chaetotaxy

Introduction

Five species of Pristina Ehrenberg, 1828, three of them new to science, have recently been described from soil and litter samples of a primary rain forest plot at the Brazilian Agro-forestry Research Facility (EMBRAPA-CPAA: Empresa Brasileira de Pesquisa