



New insights on the genus *Scolopendrelloides* Bagnall 1913 (Scutigereidae, Symphyla) with descriptions of two new species

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Abstract

The study of two new species of Symphyla from the Democratic Republic of the Congo, *Scolopendrelloides congolensis* n.sp. and *Scolopendrelloides pseudocongolensis* n.sp., has led to the detection of *Scolopendrelloides* Bagnall 1913 species currently misplaced under *Hanseniella* Bagnall 1913. Accordingly, it is proposed a new combination for six species originally described under *Hanseniella*: *Scolopendrelloides angulosa* (Hansen 1903), *S. tenella* (Ribaut 1914), *S. producta* (Ribaut 1914), *S. dolosa* (Ribaut 1914), *S. graeca* (Remy 1941) and *S. elgolensis* (Scheller 1952). An identification key to the species of *Scolopendrelloides* is given. A differential diagnostic for differencing *Scolopendrelloides* from *Hanseniella* and *Scutigereella* is also given, as well as a key to the genera of the family Scutigereidae, mainly intended for observations using SEM.

Key words: *Hanseniella*, *congolensis*, *pseudocongolensis*, *angulosa*, *tenella*, *producta*, *dolosa*, *graeca*, *elgolensis*, Democratic Republic of the Congo

Introduction

The family Scutigereidae contains 5 genera, of which three—*Scutigereella* Ryder, *Hanseniella* Bagnall and *Scolopendrelloides* Bagnall—were erected by dividing 10 “*Scutigereella*” species described by Hansen in 1903. *Scolopendrelloides* as a taxon was firstly created as subgenus within *Hanseniella* by Bagnall (1913) and Edwards (1959) later raised it to the rank of genus.

The current diagnostic of this genus is “*Last tergum with deep posterior depression; all terga emarginated posteriorly; styli of posterior legs short*” (Edwards 1959, Scheller 1961). Both Edwards and Scheller illustrated the characteristic morphology of the tergites in *Scolopendrelloides*, with the posterior emargination between two pointed projections. Scheller (1961) wrote that this genus comprises three species: both previously included in the subgenus by Bagnall (1913) – *Scolopendrelloides pauperata* (Hansen 1903) and *S. crassicornis* (Hansen 1903)—and the new species described by him, *S. bifida* Scheller 1961.

In the present work, during a study of the collection of Symphyla of the Royal Museum for Central Africa (Tervuren, Belgium), some problems with the concept of this genus were detected in the literature, which have considerably hampered the description and study of two new species. For this reason, a preliminary revision of *Scolopendrelloides* has been conducted.

Material and methods

27 specimens of Symphyla belonging to the collection of the Royal Museum for Central Africa (RMCA) were studied using scanning electron microscopy (SEM). Specimens conserved in ethanol 70% were dehydrated in a graded series of acetone up to 100%, critical-point-dried with carbon dioxide in a Balzer CPD 030 and subsequently sputter coated with gold. Taxonomic characters of the specimens were examined in a JEOL JSM-5400LV microscope at 10 kV.