Revision of the Iberian millipede genus
*Schizomeritus* Verhoeff, 1931 (Diplopoda: Polydesmidae),
with the description of three new species

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**Abstract**

The genus *Schizomeritus* Verhoeff, 1931 is revised and the type species *S. phantasma* (Verhoeff, 1925) is redescribed. Three new species from Spain, *S. ortizi* sp. n., *S. esgrimidor* sp. n. and *S. andalusius* sp. n. are described and figured. *Polydesmus mauriesi* Vicente, 1979 is redescribed and included in *Schizomeritus*. *Polydesmus armatus* Machado, 1946 is evaluated based on the original description and also included in *Schizomeritus*. A key to the six species is given.

**Key words**

Diplopoda, Polydesmida, Polydesmidae, *Schizomeritus*, new species, new synonym, new combination, Iberia, Spain

**Introduction**

Verhoeff (1931) established *Polydesmus* subgenus *Schizomeritus* to accommodate *Polydesmus phantasma* Verhoeff, 1925, described by Verhoeff (1925) based on a single male collected in the Cercedilla, Sierra de Guadarrama, Spain in 1905. Attems (1940) included *P. phantasma*, when he established *Polydesmus* subgenus *Normarchus* Attems, 1940. However, both Jeekel (1971) and Hoffman (1980) kept *P. phantasma* in *Schizomeritus* and raised *Schizomeritus* to genus level, which is the present status used e.g. by Enghoff & Kime (2004).

When studying unidentified polydesmid material housed in the Museo Nacional de Ciencias Naturales in Madrid, several additional specimens of *S. phantasma* were discovered. Further, three new congeners were discovered, and are described below.
Type material of *Polydesmus mauriesi* Vicente, 1979 was examined and the species is an obvious member of *Schizomeritus*. The type material of *Polydesmus armatus* Machado, 1946, stated to be stored in “Museu de Zoologia do Porto”, could unfortunately not be located. However the original description describes characters different from the typical *Polydesmus* species and it is thus regarded as a *Schizomeritus* species here.

**Material and methods**

The examination of the specimens was done using a Leica MZ Apo stereomicroscope. When making Scanning Electron Micrographs (SEM), gonopods where gently mounted on stubs using sticky tabs and the air-dried stubs were sputter coated with gold. *Schizomeritus phantasma* was observed with a JSM 6400 scanning electron microscope, while a Zeiss Supra 55 UP field emission scanning electron microscope was used for *S. esgrimidor*, *S. ortizi*, and *S. andalusius*. Photographs of tergal structures were taken using a Nicon Coolpix 4500 on the Leica MZ Apo stereomicroscope.

The terminology concerning gonopod morphology and body characters mostly follows Djursvoll et. al. (2001), corrected in accordance with Golovatch and Wytwer (2007). The anterior/posterior moveable telopodite part may be retracted into the coxite (in situ) or remain erected. The retracted condition serves here for the definition of the dorsal and ventral sides of the telopodite. As the telopodite cannot move laterad or mediad, these sides are more obvious to name. In accordance with the traditional gonopod outlines, the erected position serves as basic when describing the direction of gonopod parts.

The material examined is housed in Museo Nacional de Ciencias Naturales, Madrid, Spain (MNCN); Zoologische Statssammlung München, Germany (ZSM) and Muséum National d’Histoire Naturelle, Paris, France (MNHN).

**Results**

*Schizomeritus Verhoeff*

*Schizomeritus* Verhoeff, 1931: 419; as subgenus of *Polydesmus* Latreille, 1803

*Type species:* *Polydesmus phantasma* Verhoeff, 1925, by original designation and monotypy.

*Other species included:* *Schizomeritus ortizi* sp. n., *S. esgrimidor* sp. n., *S. andalusius* sp. n., *S. mauriesi* (Vicente, 1979), comb. n., and *S. armatus* (Machado, 1946), comb. n.

*Generic diagnosis:* Body with longitudinal furrow on most paraterga (Fig. 2). Gonopod exomere pointed, not extending beyond and subordinate to well developed, sometimes strongly armed distofemoral part (acropodite) (Fig. 5). “Femorite” (i.e. seminal groove piece) with a conspicuous large bulb-like elevation laterally (Figs 4 & 5). Lateral ridge of coxite with dense setation (Figs 3 & 4).