



***Rharodesmus* Schubart, 1960—a tropical element in the North African fauna: a new species from Tunisia and notes on the family Pyrgodesmidae (Diplopoda: Polydesmida)**

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Abstract

The family Pyrgodesmidae and the genus *Rharodesmus* Schubart, 1960 are recorded for the first time from Tunisia. A new species, *Rharodesmus tabarkensis*, is described using scanning electron microscopy, and its membership in the genus and the family is discussed. Notes on west Palaearctic pyrgodesmid species are provided with considerations on the family Pyrgodesmidae.

Key words: Millipedes, Morocco, Tunisia, *Cynedesmus formicola*, *Rharodesmus tabarkensis* n. sp., *Tonodesmus*, taxonomy

Introduction

The Pyrgodesmidae constitutes one of the largest and most diverse millipede families in terms of described genera (more than 170). However, it is one of the most cumbersome in terms of taxonomy although a number of attempts have been made to improve this situation (Golovatch 1996; Golovatch & Sierwald 2000; Golovatch et al. 2009a, 2009b; Hoffman 1973; 1980, Shear 1973; 1977). In fact, most of the described genera are monotypic, often poorly known and in many cases based on female specimens of the type species. One of the most recent comprehensive characterizations of the family was provided by Golovatch (1996: 111), based on the following morphological and genital characters:

- “Paraterga of varying degree of development always directed downward, often lobulated at lateral and/or caudolateral margins, with dorsum convex, strongly arched, usually with transverse or longitudinal mid-dorsal series of tubercles, those of median row(s) often hypertrophied and on somite 18 or 19 sometimes coalesced and projecting posteriorly over a small (19th or 20th) body segment.
- Collum tending to be flabellate, often covering much of the head to entirely concealing it from above; tergal setation wanting to inconspicuous.
- Ozopores, when present, at least partly opening on cylindrical porosteles located in front of caudolateral lobule of paraterga, extremely variable in segmental arrangement.
- Antennomere 5 tending to be longer than antennomere 6, only relatively rarely both are subequal in length to reverse.
- Gonopods displaying a marked trend from simple and relatively exposed telopodites (small coxae) to increasingly well-developed and transverse gonocoel.
- Telopodites in situ from subparallel to strongly crossing each other, with 1–2 branches, sometimes with evidence of torsion with a more or less well-developed solenomerite and without a hairy field/pad at the opening of the seminal groove.”

Most pyrgodesmids are known from the tropical and subtropical parts of Central to South America, Africa and