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Rhinocricidae Systematics II: A species catalog of the Rhinocricidae (Diplopoda: Spirobolida) with synonymies

PAUL E. MAREK, JASON E. BOND & PETRA SIERWALD



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Abstract

This paper summarizes the distribution, provides a taxonomic bibliography from 1758 to 2002, and lists all available species, generic names, and synonymies of the family Rhinocricidae (Diplopoda: Spirobolida). At present, there are 528 nominal species and 23 subspecies of Rhinocricidae placed in 27 genera and 3 subgenera. One new combination is proposed: *Rhinocricus obesus rubicundus* is transferred to *Anadenobolus* [*Anadenobolus obesus rubicundus* (Brölemann, 1905)].

Key words: Diplopoda, millipedes, specieslist, catalog, checklist

Introduction

The family Rhinocricidae comprises 530 nominal species divided into 27 genera. Like many myriapod taxa, this family of millipedes is poorly known and is probably much more diverse than what is reflected by its current taxonomy. The species diversity of this family is likely underestimated due to a paucity of trained millipede taxonomists who are familiar with the group and the simple, conservative somatic morphology of the animals. Most species are diagnosed and consequently identified on the basis of male gonopod morphology and the occasional spine or projection. The very combination of a slightly different gonopod shape and presence of a miscellaneous spine or projection have traditionally called for the establishment of new, often monotypic, genera.

Most helmithomorph millipede genera and species are defined almost exclusively on the basis of male genitalic characters (Hoffman 1998); members of the family Rhinocricidae are not an exception because they are easily recognized by their simple gonopods on the seventh body ring. Anterior and posterior gonopods are separate; however, the posterior gonopods (phallopods) are usually nestled within the gonocoel of the anterior gonopod, or coleopod (Hoffman 1960). The distinct morphology of the anterior gonopod (Fig. 1) comprises a sternite that is usually triangular-shaped, transverse proximally and narrow distally. The coxal aspect of the posterior gonopod is typically narrow and flattened, whereas the telopodite is either flagellate or spatulate. Other features used to distinguish rhinocricids from other spirobolidan millipedes include a wide collum with a broad, rounded ventrolateral aspect (all species) and presence of scobinae (most species). As pointed out by Hoffman (1998), there is some variability in other "basic peripheral struc-