

Rhinocricidae Systematics I: The taxonomic placement of the species of *Zipyge* Chamberlin, 1925 and *Oxygydes* Chamberlin, 1922 (Diplopoda: Spirobolida: Rhinocricidae: Oxygyginae)

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Abstract

The rhinocricid genera *Zipyge* and *Oxygydes* are considered to be junior synonyms of the genus *Oxygyge*. The following new combinations are established: *Oxygyge lapidicina* (Chamberlin, 1922) and *Oxygyge mesites* (Chamberlin, 1922), both from *Oxygydes*. The current status of rhinocricid generic level taxonomy is introduced, the limits of *Oxygyge* Silvestri are discussed, and the type specimens of the type species of the nominal genera *Zipyge* and *Oxygydes* are redescribed.

Key words: Diplopoda, milliped, Spirobolida, *Oxygyge*, millipede taxonomy, Rhinocricidae classification

Introduction

This paper is the first in a series, undertaken by the first author, which will begin to address the taxonomy and systematics of the worldwide rhinocricid genera. The primary aim of this series will be to simplify rhinocricid taxonomy by eliminating or redefining many of the problem genera that currently exist — an endeavor that coincides with a preparation of a more thorough, phylogenetic, treatment of the family.

Like many millipede families, the Rhinocricidae have both monotypic and paraphyletic/highly artificial genera. As relative newcomers to diplopod taxonomy, we find the criteria used by some past millipede workers (e.g., Chamberlin) for establishing higher taxa mysterious. It is apparent that the simple somatic and genitalic morphology of species placed in the Rhinocricidae makes this group particularly challenging; moreover, this state of affairs appears to be further confounded by the lack of any attempt to apply a phylogenetic approach to defining genera. Many genera appear to be delimited using phenetic criteria [a situation considered by Shear and Leonard (2003) to have some temporary utility],