

A new species of the genus *Polyschides* Pilsbry & Sharp, 1898 (Mollusca, Scaphopoda, Gadilidae) from Brazilian waters

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Abstract

The genus *Polyschides* is characterized by small- to medium-sized shells with an apex divided into four lobes. We present a revision of the species of *Polyschides* from Brazil, with the description of a new species. *Polyschides tetraschistus* (Watson, 1879) and *P. portoricensis* (Henderson, 1920) were confirmed for Brazilian waters, with the known geographic distribution of the latter extended southward to the state of Rio de Janeiro (21°S). Comparisons of shell morphometrics show that: (1) *P. xavante* n. sp. is significantly smaller and less arched than *P. tetraschistus* and *P. portoricensis*; (2) the maximum diameter, height and width of the anterior aperture, and the height and width of the apical aperture were also significantly smaller in *P. xavante*; (3) the maximum diameter in *P. xavante* n. sp. and *P. tetraschistus* is located closer to the aperture than in *P. portoricensis*. A Discriminant Function Analysis based on seven shell morphometric variables (length, maximum diameter, length to maximum diameter ratio, anterior aperture width, anterior aperture height to anterior aperture width ratio, maximum diameter to posterior aperture width and distance of point of maximum curvature from the apex to length ratio) were 100% efficient in discriminating among the three species.

Key words: *Polyschides*, Gadilidae, Scaphopoda, Mollusca, Brazil, Taxonomy, Morphometry, new species

Introduction

The taxon *Polyschides* was described by Pilsbry and Sharp (1898) as a subgenus ("section") of *Cadulus*. This systematic arrangement was adopted by several subsequent authors: Henderson (1920), Turner (1955), Emerson (1962), and Scarabino (1970, 1973, 1980). However, recent studies have accepted that differences between the taxa *Cadulus*