

## Scaphopoda (Mollusca) from the Brazilian continental shelf and upper slope (13° to 21°S) with descriptions of two new species of the genus *Cadulus* Philippi, 1844

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## Abstract

Twenty six species of Scaphopoda, included in 12 genera and five families were identified. Within these, *Fustiaria stenoschiza* (Pilsbry & Sharp, 1897), *Gadila pocula* **n.comb.** (Dall, 1889); *G. simpsoni* **n.comb.** (Henderson, 1920) and *G. pandionis* (Verril & Smith *in* Verril, 1880) are recorded for the first time for Brazil and two new species of the genus *Cadulus* are here described. Besides that, six species previously recorded from north and northeast Brazil have their geographical range expanded southward: *Antalis circumcincta* (Watson, 1879), *Episiphon didymum* (Watson, 1879), *Ep. sowerbyi* (Guilding, 1834), *Entalina platamodes* (Watson, 1879), *Gadila dominguensis* (Orbigny, 1853) and *Compressidens pressum* (Pilsbry & Sharp, 1897). In the other hand, *Paradentalium infractum* **n.comb.** (Odhner, 1931) has its geographical distribution extended

northward to the state of Maranhão (02°S). *Gadila acus* (Dall, 1889) is proposed as junior synonym of *G. dominguensis* (Orbigny, 1853).

**Key words:** Biodiversity, Brazil, marine molluscs, taxonomy, Scaphopoda

## Introduction

Watson (1879) described the first species of Scaphopoda from Brazilian waters: *Siphonodentalium tetraschistum* Watson, 1879 for Fernando de Noronha Island and *Dentalium circumcinctum* Watson, 1879 from off Pernambuco, and recorded for the last locality *Dentalium subterfissum* Jeffreys, 1877. Dall (1889) considered his *Cadulus quadridentatus* described in 1881, as present in Fernando de Noronha, with the same depth range (7–25 fathoms: 13–47 meters) mentioned for *C. tetraschistus* by Watson (1879). In their classic monography, Pilsbry and Sharp (1897) considered *C. quadridentatus* as a variety of *C. tetraschistus* and described *Dentalium (Fissidentalium) candidum meridionale* from specimens dredged off Rio de Janeiro by the "Albatross".

The first monographic work dealing with Western Atlantic Scaphopoda was published by Henderson (1920) who recorded 110 species, 11 of which were mentioned as present in Brazil. Since then, a number of authors studied Brazilian material (Jaeckel 1927; Odhner 1931; Eyerdam 1950; Lange de Morretes 1949, 1954; Haas 1953; Lopes & Alvarenga 1955; Turner 1955; Rios 1966, 1969, 1970; Rios & Oleiro 1968; Matthews & Rios 1969, 1974; Kraeuter 1972; Fischer-Piette 1973; Penna 1972; Scarabino 1973; Penna-Neme 1974), had recorded about 22 species. Scarabino (1975) increased this number to 30 species, recording eight additional species from the Brazilian coast. In Scarabino (1985, 1994) this number remained the same despite of nomenclatural changes. Subsequent papers (Mello 1981; Cabral & Mello 1994; Almeida & Oliveira 2000) do not add new species and/or records; only Caetano and Absalão (2005) described one new species. Based on the number of new species described in monographic studies covering New Caledonia (Scarabino 1995) and Australia (Lamprell & Healy 1998) and on our personal observations of Atlantic material, we assume that the number of species of scaphopods in Brazil is underestimated.

This paper deal with the Scaphopoda from the continental shelf and upper slope of Brazil from 13° to 21°S. Most of the material is derived from the REVIZEE program (Assessment of the Sustainable Yield of the Living Resources in the Exclusive Economic Zone [Avaliação do Potencial Sustentável dos Recursos Vivos na Zona Econômica Exclusiva]) and additional specimens from other Brazilian expeditions concerning the same geographic area were also included if necessary.