



Three new species of Cancellariidae (Gastropoda: Neogastropoda) from north-east Brazil with first record of *Gergovia* for the Atlantic ocean

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Abstract

Brocchinia verheckeni n. sp. and *Brocchinia harasewychi* n. sp. are described from several stations from 340 to 720m on the Continental Slope off Northeast Brazil. *Brocchinia verheckeni* occurred from the states of Ceará to Sergipe, and *B. harasewychi* was collected from the states of Pernambuco to Alagoas. Both species are considered endemic to these regions. This is the second record of the genus *Brocchinia* Jousseaume, 1887 in deep waters off Brazil. *Brocchinia harasewychi* has a protoconch with 1 ¼ whorls, which is more inflated in comparison to *B. verheckeni*, the body whorl has 3 spiral cords, the uppermost bordering the suture and the other 2 near mid-whorl. The body whorl of *Brocchinia verheckeni* has 3 strongly nodulose spiral cords and an outer lip with 5 to 6 internal denticles, while that of *B. harasewychi* has a smooth outer lip. The genus *Gergovia* Cossmann, 1899 is recorded for the first time in the Atlantic Ocean with the description of *Gergovia petiti* n. sp., known only from the oceanic region from Northeast Brazil, occurring from the state of Ceará to the state of Bahia, as well as in the Fernando de Noronha archipelago, probably living in the muddy substrate at depths of between 206 and 720 meters.

Key words: Cancellariidae, *Brocchinia*, *Gergovia*, deep sea, Northeast Brazil

Introduction

Cancellariidae are represented by small to medium-sized marine neogastropods (Ponder 1973), which are highly specialized, but taxonomically enigmatic, and little is known about their biology (Harasewych & Petit 1982; 1984). They have morphologically similar shells, making the group easy to recognize at the family and species levels. However generic classifications lead to confusion, especially because of the presence of various overlapping characteristics (Verhecken 1997). Nonetheless, there is consensus that the members of this family possess solid, biconic shells, cancellate sculpture, with both axial and spiral ribs that intercept one another, forming reticulate sculpture, an elliptical aperture with a short siphonal canal and strong columellar folds in most genera (Abbott 1974; Rios 1994).

The genus *Brocchinia* consists of species with a small, turreted shell; smooth, paucispiral protoconch; convex, anteriorly rounded, axially and spirally sculptured whorls, well-marked suture, oval to semi-circular aperture, imperforate or with an umbilical chink, outer lip smooth or with internal folds, short siphonal canal, slightly curved columella with one or two slight, rounded columellar folds.

The genus *Gergovia* Cossmann, 1899 [type species, by original designation, *Cancellaria platypleura* Tate, 1898] encompasses a small number of species so far known only from temperate Australian waters. These gastropods possess a small shell with a prominent protoconch, and teleoconch with strong axial ribs, whorls shouldered and coronate, suture channeled, small ovate aperture, and a straight columella with two medium to strong folds. This is the first record of the genus outside of the Australian area.