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## The genus *Xestoleberis* (Ostracoda: Xestoleberididae) in the Northern, Northeastern and Eastern regions of the Brazilian continental shelf

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### Abstract

The analysis of 359 samples from three regions of the Brazilian continental shelf (Northern, Northeastern and Eastern) resulted in the recognition of six species of the genus *Xestoleberis*. One of these species was already described, *X. umbonata* Whatley *et al.* 1998, four species are new and herein described, *X. inesae* **sp. nov.**, *X. amazonica* **sp. nov.**, *X. subtriangularis* **sp. nov.** and *X. virilis* **sp. nov.**, and one was maintained in open nomenclature, *Xestoleberis* sp. The species *X. inesae* **sp. nov.** is widely distributed in the study area, occurring in all mentioned regions, while *X. amazonica* **sp. nov.** is restricted to the Northern region. *Xestoleberis subtriangularis* **sp. nov.**, *X. virilis* **sp. nov.** and *Xestoleberis* sp. occur in the Northeastern and Eastern regions. *Xestoleberis umbonata* was recorded in this study only in the southernmost part of the Eastern region.

**Key words:** new species, Ostracoda, South Atlantic Ocean, taxonomy

### Introduction

The Brazilian continental shelf extends to about 8,000 km, from Orange Cape (~4°N) in the northern Amapá State (AP) to Chui (~33°S) in southern Rio Grande do Sul (RS). In the northern portion, the continental shelf reaches a width of 330 km, close to the Amazon River mouth, and in the southeastern/southern reaches 200-220 km (Knoppers *et al.* 2002). It comprises different climate zones and a diverseness of input from the hydrographic network. Most of the discharge occurs mainly in two sites on the shelf: in the north, with the Amazon River system, and in the south, with the La Plata River (Muehe & Garcez 2005).

In this context of great climate variability and continental input, an abundant and diverse assemblage of ostracods can be found. These crustaceans have been studied in the last decades for taxonomic, (paleo)zoogeographic and (paleo)ecologic purposes (*e.g.* Pinto *et al.* 1978; Coimbra & Ornellas 1989; Coimbra *et al.* 1992; 1999; Do Carmo & Sanguinetti 1999; Brandão 2004; Machado *et al.* 2005; Machado 2008; Ramos *et al.* 2014).

*Xestoleberis* is a cosmopolitan genus of Xestoleberididae, which has been recorded from the north (Coimbra *et al.* 1999) to the south of the Brazilian shelf (Whatley *et al.* 1998; Machado *et al.* 2005) and in the Brazilian oceanic islands (Coimbra *et al.* 2009; Antonietto *et al.* 2012; Coimbra & Carreño 2012; Coimbra *et al.* 2013; Luz & Coimbra 2014). The genus is relatively easy to recognize due to its frequently sub-ovate and smooth carapace, but the similarities among species of *Xestoleberis* makes the identification of singular species difficult, which contributes to keeping several of them in open nomenclature, as discussed by Titterton & Whatley (2005).

The present work aims to contribute to the knowledge of the genus *Xestoleberis* along most of the Brazilian continental shelf, revealing the number of species throughout it, identifying and describing new taxa, as well as discussing their geographic distributions.