



## Three new species of Artotrogidae (Copepoda, Siphonostomatoida) from the southeastern coast of Pernambuco State, Brazil

ELIZABETH NEVES<sup>1</sup> & RODRIGO JOHNSON<sup>2</sup>

Universidade Federal da Bahia, Inst. Biologia, Dept. Zoologia, LABIMAR – Crustacea, Cnidaria & Fauna Associada, Adhemar de Barros, s/n, Campus de Ondina, Bahia, BRAZIL - CEP: 40170-290. E-mail: <sup>1</sup>elizabeth.neves@gmail.com; <sup>2</sup>r.johnsson@gmail.com

### Abstract

Three new copepod species, *Bradypontius ancistronus* sp. nov., *Cryptopontius aesthetascus* sp. nov. and *Cryptopontius expletus* sp. nov., of the siphonostomatoid family Artotrogidae are described based on specimens from sponge and algal hosts collected along the Brazilian coast. These findings represent the first records of artotrogid copepods from Brazil. Male *Bradypontius ancistronus* sp. nov. was found in association with sponges, and is characterized by having an unarmed P4 endopod that bears a distal hook-like projection on the third segment. Male *Cryptopontius aesthetascus* sp. nov., also recorded from sponges, differs from its congeners by a combination of characters that include a 12-segmented antennule, 2 setae on the inner lobe of the maxillule, 7 elements on the third exopodal segment of P1 and 9 elements on the third exopodal segment of P4. Female *Cryptopontius expletus* sp. nov. was recorded on algae, and can be distinguished from its congeners by having an 8-segmented antennule, 6 elements on the third endopodal segment of P1, 9 elements on the third exopodal segment of P4 and 3 setae on P5 exopod.

**Key words:** Artotrogidae, Siphonostomatoida, *Cryptopontius*, *Bradypontius*, new species, Copepoda, Brazil

### Introduction

Recent taxonomic studies on siphonostomatoid copepods associated with coral reef communities of the Abrolhos region and Todos os Santos Bay in Brazil (Fig. 1) revealed 14 new species of the family Asterocheridae and one new member of the family Entomolepididae collected from sponges, echinoderms, bryozoans and cnidarians (Johnsson 1997, 1998a–b, 1999, 2000, 2002; Bispo *et al.* 2006). This handful of studies confirmed our belief that many siphonostomatoid copepods exist in association with an array of invertebrate groups within this region and, more importantly, suggest that additional copepod-invertebrate associations await discovery along the Brazilian coast.

The present paper describes two new species of *Cryptopontius* Giesbrecht, 1899 and a new species of *Bradypontius* Giesbrecht, 1895 collected along the northeastern coast of Brazil. One of the two *Cryptopontius* species was found associated with algae, while the remaining two new taxa were found in association with sponges. These findings represent the first records of the copepod family Artotrogidae from the Brazilian coast.

### Material and methods

One sample each of sponges and algae, respectively, were collected at a depth of 10–15 m off Santo Aleixo Island (8°36'44"S, 35°01'21"W), a volcanic island located about 5 km east from the northeastern coast of Pernambuco State, Brazil (Fig. 1), and then processed following the methods given in Humes (1996) to recover