
ANDRÉ R. SENNA¹, RAYANE SORRENTINO², TAPAS CHATTERJEE³ & NIKOLAOS V. SCHIZAS⁴

¹Universidade Federal da Bahia (UFBA), Instituto de Biologia, Laboratório de Invertebrados Marinhos (LABIMAR). Rua Barão de Jeremoabo, 147, Ondina, Salvador, BA, CEP 40170-290, Brasil. E-mail: senna.carcinologia@gmail.com
²Centro Universitário de Volta Redonda (UniFOA), Curso de Ciências Biológicas. Av. Paulo Erlei Alves Abrantes, 1.325, Prédio 1, Três Poços, Volta Redonda, RJ, CEP 27240-560, Brasil. E-mail: rayanesorrentino@gmail.com
³Indian School of Learning, Department of Biology, ISM Annexe, P.O. – ISM, Dhanbad 826004, Jharkhand, India. E-mail: drtchatterjee@gmail.com
⁴University of Puerto Rico, Mayagüez, Department of Marine Sciences. Call Box 9000, Mayagüez, PR 00681, USA. E-mail: nschizas@gmail.com

Abstract

A new species of the genus *Boca* Lowry & Stoddart, 1997 is described from a mesophotic coral ecosystem off southwestern Puerto Rico, in the Caribbean Sea. The new species is easily recognized from the others in the genus mainly by the following characters: (1) maxilliped, inner plate with 2 long apical simple setae; palp, articles slender, subequal in length; (2) gnathopod 1, propodus slightly elongate, about 2.5 × longer than wide, and palm extremely acute, quite long and distinctly demarked by a robust seta at the palmar corner; (3) gnathopod 2, carpus slightly elongate, about 3.7 × longer than wide; (4) pereopod 5, basis widely expanded posteriorly, posterior margin rounded and smooth, and posteroventral lobe weakly developed. We also present a key to world species of *Boca*. This is the fifth species of *Boca* from world’s oceans and the first record of the genus from Puerto Rico.

Key words: taxonomy, Biodiversity, *Boca gurui* sp. nov., Mesophotic Coral Ecosystems, Western Atlantic

Introduction

The Aristiidae Lowry & Stoddart, 1997 is a family of lysianassoid amphipods widely spread around the world, with more than 30 species grouped in the genera *Aristias* Boeck, 1871, *Boca* Lowry & Stoddart, 1997, *Memana* Stoddart & Lowry, 2010, *Perrierella* Chevreux & Bouvier, 1892 and *Pratinas* Stoddart & Lowry, 2010. Until now, just four species are known for the genus *Boca*: *B. campi* Lowry & Stoddart, 1997, *B. elvae* Lowry & Stoddart, 1997, *B. megachela* Lowry & Stoddart, 1997, all from the Gulf of Mexico, and *B. normae* Ortiz, Winfield & Varela, 2012, from southwestern Cuba. Mesophotic Coral Ecosystems (MCEs) are relatively deep benthic habitats found at depths between 30–40 m to 100 m in the tropics (Locker et al. 2010). MCEs are visually dominated by macroalgae, sponges and reef-building corals and have proven to be a trove of new records and new species of peracarid crustaceans, especially cumaceans (e.g. Petrescu et al. 2012, 2013). The present study is part of a US National Oceanic and Atmospheric Administration-funded research programme (DeepCres) to characterize the biodiversity of MCEs. We describe the first new species of amphipods from samples collected during DeepCres.

Material and methods

The material was collected from Hole-in-the-Wall, one of the diving sites of the DeepCres research program, off southwestern Puerto Rico, in the Caribbean Sea. On June 8, 2010, divers equipped with Tri-Mix Rebreathers collected loose rubble, corals, sponges and algae from 90.5 m (297 ft.) depth. All substrata were placed over a 1 mm
outer ramus article 2 ................................................................. Boca gurui sp. nov.
3a. Gnathopod 1, dactylus curved; telson without apical robust setae ................................................. 4
3b. Gnathopod 1, dactylus bent at right angle proximally; telson with 1 apical robust seta on each lobe .......... Boca elvae
4a. Gnathopod 1 weakly subchelate, dactylus large; pereopods 5–7, propodus with articulated anterodistal spur ...... Boca campi
4b. Gnathopod 1 massively subchelate, dactylus very large; pereopods 5–7, propodus with non articulated anterodistal spur ...... Boca megachela

FIGURE 4. Type locality of Boca gurui sp. nov. Hole-in the-Wall, 90.5 m (297 ft.), off SW Puerto Rico, Caribbean Sea
(Distribution map by Danielle P. Cintra).

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