



Brachiopods from off the San Bernardo Archipelago (Colombian Caribbean), with comments on specific synonymies in *Tichosina* Cooper, 1977

ALEXIS ROJAS^{1, 2, 5}, ADRIANA GRACIA³ & PEDRO PATARROYO⁴

¹Florida Museum of Natural History, Division of Invertebrate Paleontology, University of Florida, Gainesville, Florida, 32611, USA.

²Department of Geological Sciences, University of Florida, Gainesville, FL 3261.

E-mail: arojas@flmnh.ufl.edu

³Instituto de Investigaciones Marinas y Costeras, INVEMAR, Calle 25 No. 2-55, Playa Salguero, Santa Marta, Colombia. E-mail:

adriana.gracia@invemar.org.co

⁴Departamento de Geociencias, Universidad Nacional de Colombia. A. A. 14490, Bogotá, Colombia.

E-mail: pcpatarroyog@unal.edu.co ⁵Corresponding author

Abstract

Colombian brachiopod faunas have not been studied extensively. Only three brachiopod species have been reported from the Colombian Caribbean Sea so far, namely *Argyrotheca barrettiana* (Davidson, 1866), *Terebratulina latifrons* Dall, 1920, and the cosmopolitan *Platidia anomioides* (Scacchi & Philippi, 1844). In this work, brachiopods collected from deep-water environments (90–250 m) off the San Bernardo Archipelago, collected during the MARCORAL cruise, are examined. The studied material consists of four species, two of which are new records for Colombia: *Terebratulina cailleti* Crosse, 1865 and *Tichosina plicata* Cooper, 1977. The genus *Tichosina* belongs to the family Terebratulidae and comprises twenty extant species occurring across the Caribbean. Based on a revision of published descriptions and illustrations, we synonymize *Tichosina bullisi* Cooper, 1977 and *Tichosina dubia* Cooper, 1977 with *Tichosina plicata* Cooper, 1977. Remarkably, apart from reports from southern Guiana, *T. plicata* is restricted to the margins of the Caribbean plate.

Key words: Brachiopoda, taxonomy, deep-water environments, southwestern Caribbean

Introduction

The brachiopod faunas of the Tropical Western Atlantic have been studied by several authors over the previous century. The first extensive reports based on material dredged around the Caribbean were completed by Dall (1920) and Davidson (1866). Cooper (1977) published the most complete review of modern brachiopods from this region based principally on material collected by the U.S. Coast Survey vessel Blake (late 1870s), U.S. Fish Commission Albatross (1880s), R/V Oregon and R/V Oregon II (1950's to 1970s), R/V Gerda (1960s) and R/V Pillsbury (1960s and 70s) campaigns (see also Lutz & Ginsburg 2007). Cooper (1977) provided descriptions of more than thirty new species, some of which are most probably synonymous (Logan 1987; Harper *et al.* 1997; Harper 2002; Harper & Donovan 2007). In a more recent study, Logan (1990) compiled a list of brachiopods collected by several Dutch expeditions in the Caribbean Sea which extended the geographic range of a number of brachiopod species in the region. The southwestern Caribbean brachiopod faunas, particularly those from Colombia, have been poorly studied. Cooper (1977) provided the first reference to brachiopod species in the Colombian Caribbean: *Argyrotheca barrettiana* (Davidson, 1866) from the San Bernardo Islands, *Terebratulina latifrons* Dall, 1920 from the Guajira Peninsula, and the cosmopolitan *Platidia anomioides* (Scacchi & Philippi, 1844) occurring northwest of Punta Piedras (Cordoba). The record of *A. barrettiana* in the Gulf of Darien by Cooper (1977) remains equivocal because this name has been associated with Panamanian and Colombian locations. In a preliminary report based on limited material, Rojas *et al.* (2009) identified the brachiopod genera *Tichosina*, *Terebratulina* and *Argyrotheca* off the San Bernardo Archipelago. The purpose of this paper is to describe the brachiopod fauna from deep-water environments off this Archipelago. The material studied was collected during the MARCORAL cruise carried out

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