
Preliminary report of recent brachiopods from the Colombian Caribbean Sea

Reporte preliminar de los braquiópodos recientes del Caribe colombiano

ALEXIS ROJAS-BRICEÑO¹

PEDRO PATARROYO²

ADRIANA GRACIA³

¹Smithsonian Tropical Research Institute. Balboa, Ancon, Panamá

E-mail: RojasA@si.edu

²Departamento de Geociencias, Universidad Nacional de Colombia, Cr. 30 N. 45-03, Bogotá

E-mail: pcpatarroyog@unal.edu.co

³Instituto de Investigaciones Marinas y Costeras INVEMAR. Santa Marta, Colombia

E-mail: agracia@invemar.org.co

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ABSTRACT

Several specimens collected during the INVEMAR-MARCORAL cruise in San Bernardo, Caribbean coast from Colombia, were examined. The brachiopods are associated to deep reef community with marine algae, mollusks, echinoderms, bryozoan, and decapod crustaceans and were collected from a wide range of sediments. The material includes the terebratulids: *Argyrotheca*, *Terebratulina* and *Tichosina*. Although the diversity of this fauna is low, this record suggests that the Caribbean brachiopods probably are more abundant in offshore than it was supposed.

Key words: *Argyrotheca*, *Terebratulina*, *Tichosina*, Caribbean, Colombia.

RESUMEN

Se examinaron los ejemplares recolectados durante el crucero INVEMAR-MARCORAL en San Bernardo, costa del Caribe de Colombia. Los braquiópodos están asociados a una comunidad arrecifal profunda de algas marinas, moluscos, equinodermos, briozoos y crustáceos decápodos, los cuales fueron colectados en una amplia gama de sedimentos. El material incluye los terebratulidos: *Argyrotheca*, *Terebratulina* y *Tichosina*. Aunque la diversidad de esta fauna es baja, el registro sugiere que los braquiópodos del Caribe colombiano probablemente son más abundantes costa afuera de lo que se suponía.

Palabras Clave: *Argyrotheca*, *Terebratulina*, *Tichosina*, Caribe, Colombia.

INTRODUCTION

Although articulate brachiopods are considered to be rare in the modern oceans, they are diverse in the Caribbean Sea (COOPER 1977, KOWALEWSKI *et al.* 2002, HARPER & DONOVAN 2007). However, recent brachiopods had not been recorded from Colombia. This preliminary report documents the brachiopods collected during the INVE-MAR-MARCORAL cruise in San Bernardo Island, Colombian Caribbean Sea (Fig. 1). San Bernardo is an extensive reef complex located in the central region of the Continental Shelf from Colombian Caribbean and comprises more than 250 km² (LÓPEZ-VICTORIA & DÍAZ 2000). The samples were collected in offshore associated to deep reef community (95 -198 m) with marine algae, snails, bivalves, tusk shells, stars, sea lilies, bryozoans and decapod crustaceans and were collected from mud to sand-gravel sediments (Table 1).

MATERIAL AND METHODS

The material included in the report was collected by the Instituto de Investigaciones Marinas y Costeras –INVE-MAR during the INVE-MAR-MARCORAL cruise in the San Bernardo locality, Colombian Caribbean Sea, carried out in April of 2005 (Fig. 1). The shells were examined under a camera lucida and SEM micrographs were taken in the SEM laboratory of the Universidad Nacional de Colombia.

All samples kept at the Museo de Historia Natural Marina de Colombia (MHNMC) Santa Marta.

RESULTS AND IMPLICATIONS

Four species of brachiopods has been preliminary identified: *Argyrotheca cuneata* (Risso), *Argyrotheca cf. jacksoni* Cooper, *Terebratulina* sp. y *Tichosina* sp., all new record for Colombia (Fig. 2).

The brachiopod fauna is dominated by micromorphic brachiopods, *Terebratulina* sp. and *A. cuneata* (Risso), with a bathymetric distribution from 100-170m. These are the commonest brachiopods in the Caribbean (COOPER 1979). *Tichosina* sp., a deep-water generalist, includes a small number of big and strongly uniplicate shells. This genus that occupied water from approximately 200 - 250 m (HARPER & DONOVAN 2007) was recovered from shallower waters. Accurate ecologic and taxonomic studies will be presented in the near future.

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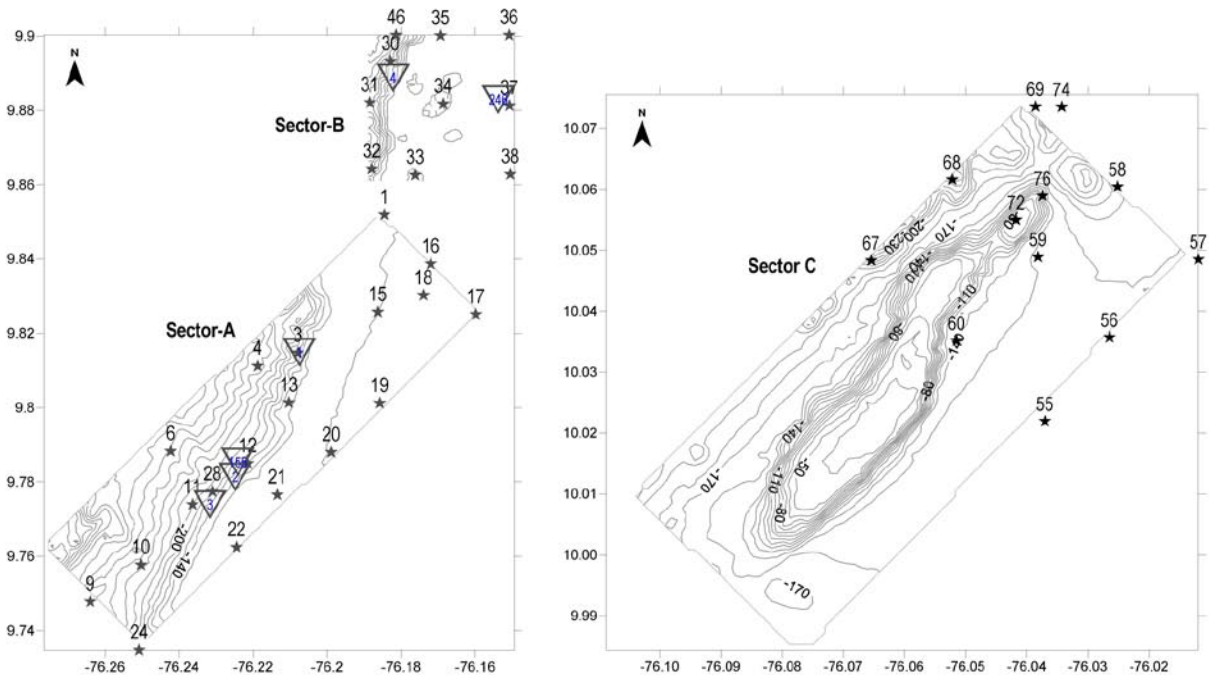


Fig. 1. Location of the samples where brachiopods were found in the INVE-MAR-MARCORAL cruise.

DRAGA	AREA	FECHA / HORA	LATITUD GRADOS	LONGITUD GRADOS	PROF. INIC (metros)	PROF. FINAL (metros)
1	A	30/04/2005 08:01:00 a.m.	9,852	-76,185	102	101
2	A	30/04/2005 07:30:00 a.m.	9,840	-76,199	118	118
3	A	01/05/2005 00:00	9,815	-76,208	210	217
4	A	01/05/2005 00:00	9,811	-76,219	264	285
5	A	29/04/2005 12:16:00 p.m.	9,799	-76,231	350	345
6	A	29/04/2005 11:53:00 a.m.	9,788	-76,242	300	300
7	A	29/04/2005 09:01:00 a.m.	9,775	-76,262	377	380
8	A	29/04/2005 08:14:00 a.m.	9,759	-76,276	410	410
9	A	29/04/2005 07:40:00 a.m.	9,748	-76,264	311	311
10	A	29/04/2005 09:54:00 a.m.	9,758	-76,250	271	264
11	A	29/04/2005 11:08:00 a.m.	9,774	-76,236	202	200
12	A	1/05/2005 11: AM	9,785	-76,221	182	184
13	A	01/05/2005 00:00	9,801	-76,210	121	121
14	A	29/04/2005 06:28:00 p.m.	9,813	-76,199	102	102
15	A	30/04/2005 07:08:00 a.m.	9,826	-76,186	100	100
16	A	30/04/2005 08:21:00 a.m.	9,839	-76,172	98	98
17	A	30/04/2005 08:38:00 a.m.	9,825	-76,160	95	95
18	A	29/04/2005 07:10:00 p.m.	9,830	-76,174	94	94
19	A	29/04/2005 06:46:00 p.m.	9,801	-76,186	95	95
20	A	01/05/2005 00:00	9,788	-76,199	98	98
21	A	29/04/2005 03:31:00 p.m.	9,777	-76,214	102	102
22	A	29/04/2005 10:46:00 a.m.	9,762	-76,225	101	101
23	A	29/04/2005 10:15:00 a.m.	9,748	-76,248	104	104
24	A	29/04/2005 07:13:00 a.m.	9,735	-76,251	177	174
28	A	29/04/2005 02:26:00 p.m.	9,777	-76,231	180	178
29	A	29/04/2005 02:45:00 p.m.	9,780	-76,226	154	151
30	B	30/04/2005 03:47:00 p.m.	9,893	-76,183	197	197
31	B	30/04/2005 10:20:00 a.m.	9,882	-76,188	225	225
32	B	30/04/2005 09:50:00 a.m.	9,864	-76,188	184	184
33	B	30/04/2005 09:34:00 a.m.	9,863	-76,176	98	98
34	B	30/04/2005 10:53:00 a.m.	9,882	-76,169	121	121
35	B	30/04/2005 02:01:00 p.m.	9,900	-76,169	107	107
36	B	30/04/2005 01:33:00 p.m.	9,900	-76,151	105	105
37	B	30/04/2005 11:51:00 a.m.	9,881	-76,151	107	107
38	B	30/04/2005 09:13:00 a.m.	9,863	-76,151	101	101
40	B	30/04/2005 10:39:00 a.m.	9,883	-76,178	100	100
43	B	30/04/2005 11:06:00 a.m.	9,876	-76,164	112	110
46	B	30/04/2005 03:11:00 p.m.	9,900	-76,181	265	262
55	C	28/04/2005 08:03:00 a.m.	10,022	-76,037	151	151
56	C	27/04/2005 02:30:00 p.m.	10,036	-76,027	157	157
57	C	27/04/2005 02:00:00 p.m.	10,049	-76,012	159	159
58	C	27/04/2005 01:45:00 p.m.	10,060	-76,025	172	173
59	C	27/04/2005 02:59:00 p.m.	10,049	-76,038	148	151
60	C	28/04/2005 07:38:00 a.m.	10,035	-76,051	139	139
65	C	02/05/2005 11:15:00 a.	10,020	-76,088	182	180
66	C	02/05/2005 11:41:00 p.m.	10,032	-76,069	154	151
67	C	27/04/2005 04:54:00 p.m.	10,048	-76,065	231	220
68	C	27/04/2005 04:20:00 p.m.	10,062	-76,052	252	270
69	C	27/04/2005 12:11:00 p.m.	10,074	-76,039	159	154
72	C	27/04/2005 03:53:00 p.m.	10,055	-76,042	73	72
74	C	27/04/2005 01:22:00 p.m.	10,074	-76,034	75	75
75	C	27/04/2005 05:26:00 p.m.	10,042	-76,060	100	100
76	C	27/04/2005 03:26:00 p.m.	10,059	-76,037	120	127
Estación	Sector	Fecha	Profundidad (m) mínima	Profundidad (m) máxima	Latitud	Longitud
Caja 2	A	5/1/05	123	151	9,781	-76,224
Caja 3	A	5/1/05	117	154	9,773	-76,231
Arrastre 1	B	4/30/05	107	107	9,882	-76,153

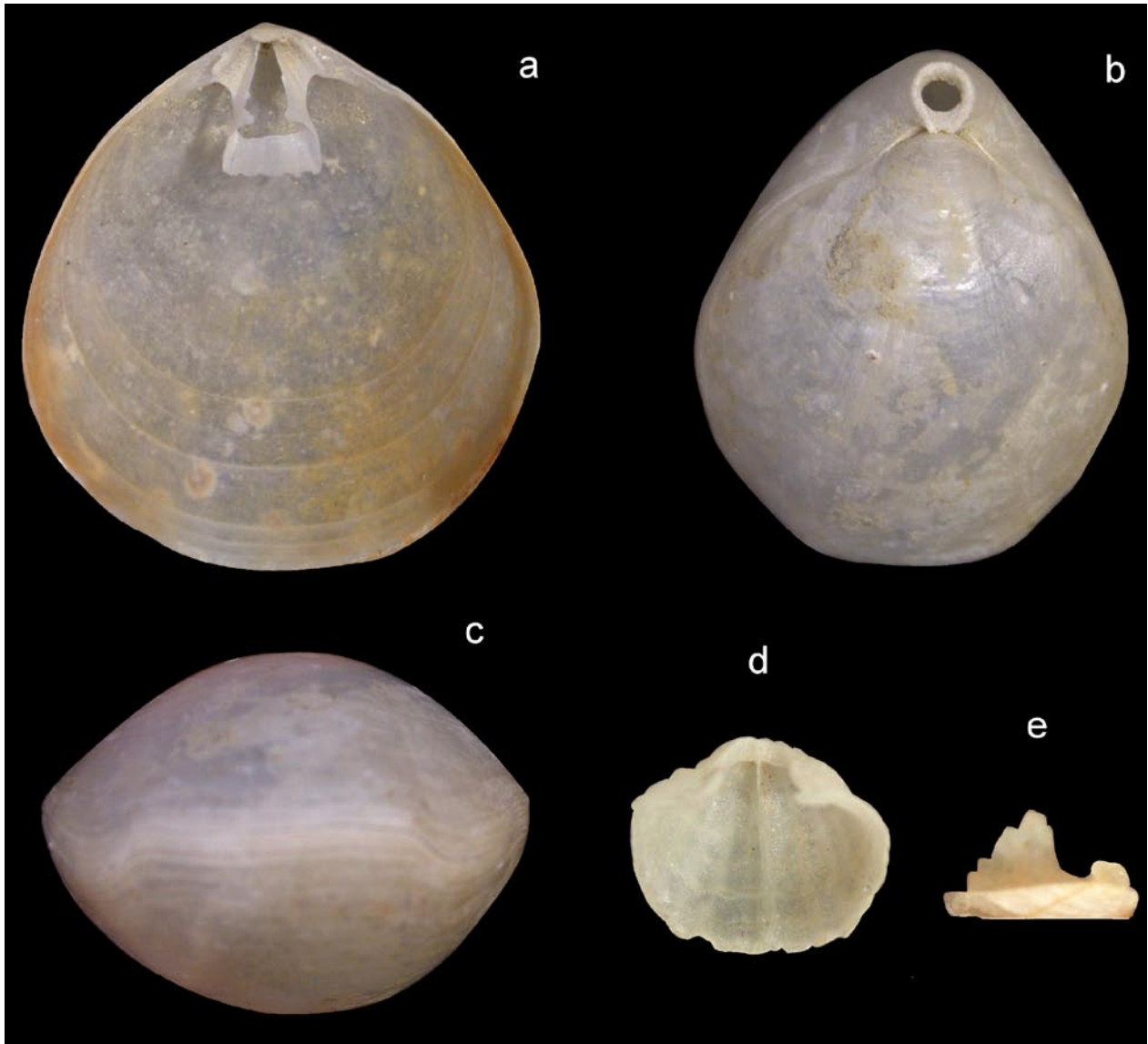


Fig. 2. a-c, *Tichosina* sp.; d-e, *Argyrotheca* cf. *jacksoni* Cooper. Colombian Caribbean Sea.

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