

MARINE AND TERRESTRIAL MOLLUSCS FROM BERMUDA - A NEW COLLECTION FROM THE PATRIMONY OF THE "GRIGORE ANTIPA" MUSEUM

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Abstract. During a survey of Bermuda shores in June 2000 regarding peracarid crustaceans, a small survey was done on sandy beaches around these islands, during which 354 molluscan specimens were collected from three classes (Gastropoda, Bivalvia and Polyplacophora), belonging to 35 families, 62 species and 55 genera, from 11 stations (from Somerset Island up to St. George Island). We discuss the historical presence of introduced gastropod species (*Polygyra plana*, *Rumina decollata*, *Bradybaena similis*, *Otala lactaea* and *Euglandina rosea*), the presence of unusual species, like the Indo-Pacific ostreid, *Hyotissa hyotis* (Linnaeus, 1758) and the probably first mention of *Isognomostoma isognomostomos* (Schröter, 1784) outside its range. This collection is the only one of its kind from this area, which recently entered the museum's patrimony. The collection of molluscs from Bermuda is part of a collection of exotic molluscs (Belize, Philippine, Angola), a generous donation made by Dr. Angela Petrescu and Dr. Iorgu Petrescu, esteemed researchers of the museum.

Keywords: gastropods, bivalves, polyplacophorans, Bermuda, Antipa Museum.

Rezumat. Moluște marine și terestre din Bermuda - o nouă colecție din patrimoniul Muzeului „Grigore Antipa”. În cadrul unui studiu al țămurilor din Bermuda din iunie 2000 privind crustaceele peracaride, a fost efectuat un mic studiu de-a lungul plajelor nisipoase din jurul insulelor, în timpul căruia au fost colectate 354 exemplare de moluște din trei clase (Gastropoda, Bivalvia și Polyplacophora), aparținând la 35 de familii, 62 de specii și 55 de genuri, din 11 stații (de la Insula Somerset până la Insula St. George). Discutăm despre istoricul prezenței speciilor de gasteropode introduse (*Polygyra plana*, *Rumina decollata*, *Bradybaena similis*, *Otala lactaea* și *Euglandina rosea*), prezența unor specii mai puțin obișnuite, precum ostreidul indo-pacific, *Hyotissa hyotis* (Linnaeus, 1758) și probabil prima mențiune a gasteropodului *Isognomostoma isognomostomos* (Schröter, 1784) în afara ariei sale. Această colecție în patrimoniul muzeului este singura de acest fel din zona Bermudeilor. Colecția de moluște din Bermuda face parte dintr-o colecție mai mare de moluște exotice (Belize, Philippine, Angola), o donație generoasă făcută de dr. Angela Petrescu și dr. Iorgu Petrescu, binecunoscuți cercetători ai Muzeului.

Cuvinte cheie: gastropode, bivalve, poliplacefore, Bermuda, Muzeul Antipa.

INTRODUCTION

The West Atlantic region, the Caribbean, ranges from Cape Hatteras, 35.5°N to Espirito Santo, 21°S, Brazil, and reunites the Bermudas, Gulf of Mexico, the West Indies, the Caribbean basins, and the S American coast with Nicaragua, Venezuela, and Guyana. It is one of the most abundant areas in bivalve fauna and endemites (HUBER, 2010). As Bermuda is close to the Antillean Archipelago, it is well within the influence of the Gulf Stream, and a great number of species found in the Bahaman and West Indian Seas and the coasts of Florida could be as well met here (HEILPRIN, 1888; WALLER, 1973; NICOL, 1984).

This short survey is based on the material collected between June 18th and 29th, 2000, by Dr. Angela Petrescu, an ornithologist, from the "Grigore Antipa" National Museum of Natural History (Bucharest, Romania), by Dr. Karl Wittmann (from The Institute of Medical Biology, Vienna, Austria) and Dr. Iorgu Petrescu ("Grigore Antipa," National Museum of Natural History, Bucharest, Romania). The study was part of the "Bermuda Biodiversity Project," supported by the Bermuda Natural History Museum and the Bermuda Zoological Society, in collaboration with the Institute of Medical Biology (Vienna, Austria).

The main purpose of the research was represented by the study of peracarid fauna, mysids and cumaceans. The collected samples contained other marine invertebrates, small decapods and molluscs. Results of this fieldtrip had been published (PETRESCU & STERRER, 2001) and new Cumacean species had been described from submarine caves and shallow waters of Bermuda and now are deposited in the Crustacean type-collection of the museum (PETRESCU, 1990; BĂCESCU & MURADIAN, 1977; BĂCESCU & ILIFFE, 1991; BĂCESCU, 1992).

One of the first works on Bermuda shells was done by VERRILL (1901-1902), followed by DALL & BARTSCH (1911), VANATTA (1910, 1923) and PEILE (1926). One of the most comprehensive works on Bermuda natural history, fauna and flora is comprised by STERRER (1986), completed with a more popular field book (STERRER, 1992). To this day, recent checklists on marine molluscs (JENSEN, 1997; JENSEN & PEARCE, 2009) complete the wide image of the fauna of Bermuda.

Bermuda reunites approximately 8299 species, of which the marine bivalvia (205 species) and gastropoda (594 species) are well represented (STERRER, 1998). The main repositories for the Bermuda mollusk collections are located in the United States of America: The Museum of Comparative Zoology (Harvard College) (more than 4000 specimens) (HARVARD UNIVERSITY M & MORRIS P J, 2024), The Academy of Natural Science of Philadelphia (more than 2000 specimens) (ACADEMY OF NATURAL SCIENCES, 2024), National Museum of Bermuda: Haycock Collection (ABBOTT & JENSEN, 1967), the Delaware Musum of Nature and Science (where the molluscan collection from

Bermuda reaches more than 1400 items- mostly collected and studied by Jensen Russell and Tucker Abbott) (DELAWARE MUSEUM OF NATURE & SCIENCE, 2024).

The Mollusca collection from the Grigore Antipa Museum comprises around 230000 specimens, of which the exotic collection represents a smaller portion. The exotic mollusc collection reunites conchs and alcohol-preserved specimens from museums expeditions in the Pacific Ocean (1965), western Africa (1971) (ANDREI, 2016), the Indian Ocean (1973–1974), the Red Sea and Aden Gulf (1977), in the Indonesian Archipelago (1991) (ANDREI, 1999), Cuba, Brazil (donation of dr. Aurelian Popescu-Gorj) and Peru (1994) (ANDREI, 2010), the most recent expeditions in the Aegean and Mediterranean Sea (ANDREI & POPESCU-MIRCENI, 2009), or important donations like the collection of Hilarie Mitrea from the Indo-Malaysian Archipelago (PETRESCU & PETRESCU, 2019).

MATERIAL AND METHODS

The identification of mollusks was done using numerous monographs (ABBOTT, 1985; ABBOTT & DANCE, 1990; DANCE, 1977; OLIVER, 1979; LINDNER, 1989; STERRER, 1986). For gastropods and bivalves, respectively, we have used the classification of BOUCHET et al. (2010, 2017). For the new families erected since these publications or new classifications, we have used WoRMS (WORMS EDITORIAL BOARD, 2024) or MolluscaBase (MOLLUSCABASE EDS., 2024).

Survey sites: Mangrove Bay, Sommerset Long Bay- Sommerset Island, Flatts- Zoological Garden, Harrington Sound, Tom Moore's Jungle, Castle Harbour, Tobacco Bay, Devonshire Bay, Hungry Bay, Warwick Long Bay, Horseshoe Bay.

Mollusk species were collected and partially identified in the Bermuda Museum by Dr. Angela Petrescu, and another part was identified in Romania, at the “Grigore Antipa” Museum by Mrs. Gabriela Andrei, Mollusca specialist.

The measurements for the valves and the gastropod shells are given, as well as the approximate development stage.

Abbreviations and symbols:

h = height; L = length; D= maximum diameter; d= small diameter; v- valve, l-left; r- right;

A.P. - Angela Petrescu; I.P. - Iorgu Petrescu; K.W. - Karl Wittmann; G.A. - Gabriela Andrei;

M.B. - Mangrove Bay, S.L.B. - Sommerset Long Bay, F.-Z.G.-Flatts - Zoological Garden, H.S. - Harrington Sound,

T.M.J. - Tom Moore's Jungle, C.H. - Castle Harbour, T.B. - Tobacco Bay, D.B. - Devonshire Bay, H.B. - Hungry Bay,

W.L.B. - Warwick Long Bay, H.S.B. - Horseshoe Bay.

RESULTS

A total of 354 specimens belonging to 62 species and 55 genera are reported from three classes (Gastropoda, Bivalvia and Polyplacophora) from 35 families (Table 1, 2). Gastropods represent almost half from all identified species, 29 species and 229 specimens, followed by Bivalves, with 32 species and 123 specimens, and 1 species (2 specimens), of chiton. The specimens are preserved in the Invertebrate Collection-Mollusca (dry and wet specimens) of the “Grigore Antipa” Museum. The Bermuda mollusc collection is registered at this inventory numbers: GST 6781-6792; GST 6811-6843; BIV 3215-3241; BIV 3260-3288; POL 20; POL 24.

We hereby present a detailed systematic list of the western Atlantic specimens, part of the mollusc collection donated by Angela and Iorgu Petrescu to the “Grigore Antipa” Museum.

A selection of some of the found species, marine bivalves and marine and terrestrial gastropods can be seen in figures 1 and 2. The systematic list of the species of gastropods, bivalves, polyplacophorans is summarized in Tables 1 & 2.

LIST OF MOLLUSCS OF BERMUDA COLLECTED IN 2000

Class Gastropoda

Subclass Patellogastropoda Lindberg, 1986

Superfam. Lottioidea Gray, 1840

Fam. Eoacmaeidae T. Nakano & Ozawa, 2007

Eoacmaea pustulata (Helbling, 1779) sin. *Patelloida pustulata* (Helbling, 1779), spotted (Atlantic) limpet, GST 6787, 1 spec. (D/d: 14,5/12,7, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A.P., Det. G.A.

Distribution: rare in Florida Keys and the West Indies, common (ABBOTT, 1985).

Habitat: intertidal on rocks, on the shore.

Subclass Vetigastropoda Salvini-Plawen, 1989

Fam. Fissurellidae J. Fleming, 1822

Fissurella barbadensis (Gmelin, 1791), Barbados keyhole limpet, GST 6784, 12 specs (D/d: 28,28,6-19/20,7-12,7, dry), Bermuda, Devonshire Bay, 22.06.2000, Leg. et det. A. P., verified G. A.; GST 6788, 2 specs (1+1) (D/d: 26,2/19; 17,4/12, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A.P., Det. G.A.; GST 6789, 2 specs (D/d: 25/20,5; 22,7/18,3, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A.P., Det. G.A.; GST 6829, 7 specs (large, wet; D/d: 34,6-

23,3/24,5-16,6), Bermuda, Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.; GST 6830, 2 specs (small, calcareous deposits; D/d: 18,5/12; 19/13), Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.; GST 6785, 16 specs (D/d: 25,7-14/17,2-8,5, dry), Bermuda, Harrington Sound, 20.06.2000, Leg. A.P., Det. G.A.; GST 6819, 2 specs (dry shells, D/d: 18/15; 15,2/11,5), Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.;

Distribution: Florida Keys up to Brazil, Caribbean, Bermuda, abundant in The West Indies (ABBOTT, 1985).
Habitat: intertidal, on oceanic rocks.

Fissurella rosea (Gmelin, 1791), rosy keyhole limpet, GST 6788, 2 spec. (1+1) (wet, D/d: 26,2/19; 17,4/12); GST 6820, 5 specs (dry shells, rolled, D/d: 21,4-16,6/16,6-11,2), Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.

Distribution: Southeast Florida, Texas; West Indies; Brazil (ABBOTT, 1985; TUNNELL et al., 2010).
Habitat: in beach drif, hard substrate, among rocks.

Diodora dysoni (Reeve, 1860), Dyson's keyhole limpet, GST 6790, 1 spec (D/d: 20,4/13, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A.P., Det. G.A.

Distribution: Florida Keys up to Brazil, Bermuda (STERRER, 1986; TUNNELL et al., 2010).
Habitat: subtidal, on rocks, moderately common.

Hemitoma octoradiata (Gmelin, 1791), eight-rayed emarginula, GST 6842, 2 specs (D/d:9,2/7; 10,3/7,7, dry), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.

Distribution: S-E Florida to Brazil; Bermuda (fossil) (ABBOTT, 1985).
Habitat: common on rocks, low tide; common.

Fam. Tegulidae Kuroda, Habe & Oyama, 1971

Agathistoma fasciatum (Born, 1778), silky tegula, GST 6836, 4 specs (D/h: 8,7/7,2; 7,7/6,8; 7,7/7; 9/6; wet, from sponges), Bermuda, Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: S Florida to Brazil, the Caribbean Sea, and the West Indies.
Habitat: shallow waters, under stones, among *Thalassia* rhizomes.

Subclass Neritimorpha Koken, 1896

Fam. Neritidae Rafinesque, 1815

Nerita tessellata Gmelin, 1791, checkered nerite, GST 6823, 6 specs. (wet, with operculum, D/h: 23-16,8/17-14), Bermuda, Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.

Distribution: Florida to Brazil; Bermuda.
Habitat: shore rocks, abundant.

Subclass Caenogastropoda

Superfam. Cerithioidea J. Fleming, 1822

Fam. Cerithiidae J. Fleming, 1822

Cerithium atratum (Born, 1778) sin. *Cerithium floridanum* Mörch, 1876, Florida cerith, GST 6786, 2 specs (subad., dry, h/D: 19,8/11; 19,7/10), Bermuda, Harrington Sound, 22.06.2000, Leg. A.P., Det. G.A.; GST 6839, 9 specs (ad., subad.; h/D: 19,4-10/14-7,4, from sponges; wet); GST 6840, 11 specs (subad., juv.; h/D: 14,3-11/7,5-6, from sponges; wet) Bermuda, Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: S-E U.S.A to Brazil.
Habitat: subtidal, in shallow water, in algae, common species.

Cerithium litteratum (Born, 1778) sin. *Cerithium semiferrugineum* Lamarck, 1822, stocky cerith, GST 6825, 3 spec. (wet; h/D: 22,3-19,6/12-8,7), Bermuda, Harrington Sound, 20.06.2000, Leg. K. W & I. P., Det. G. A.; GST 6834, 8 specs (5 + 3 juv., h/D: 17- 12,3/8-6,7, from sponges, wet), Bermuda, Harrington Sound, 20.06.2000, Leg. K. W., Det., G.A.

Distribution: SE Florida, West Indies, Bermuda (ABBOTT, 1985).
Habitat: subtidal, common.

Cerithium lutosum Menke, 1828, dwarf cerith, GST 6832, 26 specs (wet, H:10,3-8), Bermuda, Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.; GST 6833, 1 spec. (h/D: 10/4,8; wet), Harrington Sound, 20.06.2000, Leg. K. W & I. P., Det. G.A.

Distribution: South half of Florida, West Indies to Brazil, Bermuda (ABBOTT, 1985).
Habitat: intertidal, abundant.

Fam. Siliquariidae Anton, 1838

Tenagodus squamatus (Blainville, 1827) sin. *Siliquaria squamata* Blainville, 1827, slit worm-shell, GST 6791, 1 frag. (L:19, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A. P., Det. G. A.

Distribution: S-E U.S.A to Brazil, Bermuda.

Habitat: in sponges, up to 700 m, common species.

Fam. Turritellidae Lovén, 1847

Vermicularia spirata (R. A. Philippi, 1836), West Indian worm-shell, GST 6782, 3 specs (dry), L:57,2; 46,3; 67, Bermuda, Harrington Sound, 20.06.2000; GST 6824, 1 spec. (wet; L:55), Bermuda, Harrington Sound, 20.06.2000; Leg. K. W & I. P., Det. G. A.; GST 6837, 8 specs (various stages, h: 17,5-12; wet, from sponges), Bermuda, Harrington Sound, 20.06.2000; Leg. K. W., Det. G. A.

Distribution: S-E Florida and The West Indies, Bermuda (ABBOTT, 1985).

Habitat: in shallow waters, in sponges, ascidians and corals.

Order Littorinimorpha Golikov & Starobogatov, 1975

Family Littorinidae Children, 1834

Echinolittorina ziczac (Gmelin, 1791) sin. *Littorina ziczac* (Gmelin, 1791), zebra periwinkle, GST 6822, 4 specs (large, h/D:20/12; 16,5/10; 19,3/10,2; 16,6/10,6; wet), Leg et det. A.P., updated G.A, GST 6831, 3 specs (subad., h/D: 11,7/7; 9,3/6,8; 8,6/6,3; wet), Bermuda, Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.

Distribution: SE Florida, West Indies, Bermuda (ABBOTT, 1985).

Habitat: intertidal, rocks, abundant.

Cenchritis muricatus (Linnaeus, 1758) sin. *Tectarius muricatus* (Linnaeus, 1758), beaded periwinkle, GST 6821, 6 spec. (5+1; h/D: 24-16,5/ 19-12)(wet), Bermuda, Devonshire Bay, 22.06.2000, Leg. et det. A.P., updated G.A.

Distribution: S Florida, and The West Indies, Bermuda (ABBOTT, 1985).

Habitat: supralittoral, on vertical rocky walls.

Fam. Vermetidae Rafinesque, 1815

Dendropoma corrodens (d'Orbigny, 1841), ringed wormsnaill: GST 6781, 4 specs (conrescent on *Spondylus tenuis* Schreibers, 1793, BIV 3225), Bermuda, Harrington Sound, 20.06.2000, Leg. I. P., Det. A.P., verified G. A.

Distribution: SE Florida to Lesser Antilles, Cuba, Bermuda (ABBOTT, 1985).

Habitat: on coral substrates.

Vermetus irregularis d'Orbigny, 1841 sin. *Dendropoma irregularis* (d'Orbigny, 1841), GST 6816, 1 spec. (dry, 14,2/13,8), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G. A.

Distribution: S-E Florida, up to Brazil; Bermuda.

Habitat: attached to rocks, common species.

Petalococonchus varians (d'Orbigny, 1841), variable wormsnaill, GST 6826, 10 specs (L:106) conrescent on one piece (wet), GST 6827, 5 specs (conrescent on one piece, wet; L~77), GST 6828, 2 specs (conrescent on one piece, wet; L:44), Bermuda, Mangrove Bay, Somerset Island, 3 m depth, 25.06.2000, Leg. K.W., Det. G.A.

Distribution: Florida, up to Brazil; Bermuda.

Habitat: abundant in the intertidal zone, forms reefs in shallow water.

Fam. Strombidae Rafinesque, 1815

Lobatus raninus (Gmelin, 1791) sin. *Strombus raninus* Gmelin, 1791; *Strombus bituberculatus* Lam., hawk-wing conch, GST 6783, 3 specs (2 ad., 1 subad., dry, h/D: 59/44,5; 64,6/50 (ad.); 81/59, subad.); Bermuda, Harrington Sound, 22.06.2000, Leg. I.P., Det. G.A.

Distribution: S-E Florida, up to Brazil.

Habitat: common species, in shallow waters, intertidal zone.

Macrostrombus costatus (Gmelin, 1791) sin. *Strombus costatus* Gmelin, 1791, milk conch, the harbour conch, w.no., 1 ex. (ad.); Bermuda, Harrington Sound, 06.2000, Leg. et det. A.P.

Distribution: S Florida and the West Indies; Bermuda, Brazil.

Habitat: shallow-water, banks.

Ord. Neogastropoda Wenz, 1938

Family Nassariidae Iredale, 1916

Phrontis vibex (Say, 1822) sin. *Nassarius vibex* (Say, 1822), bruised nassa, GST 6841, 2 specs (ad., subad.; h/D: 7,6/5,35; 5,7/3,5; from sponges; wet); Bermuda, Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: Cape Cod to Florida in the USA, West Indies, Venezuela and Brazil; abundant (ABBOTT, 1985).

Habitat: Bays, sandy areas.

Fam. Olividae Latreille, 1825

Olivella minuta (Link, 1807), minute dwarf olive, GST 6835, 2 specs (one nicked, juv., h:8;7, from sponges), Bermuda, Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: from Texas to the south of Brazil, West Indies, Caribbean (ABBOTT, 1985).

Habitat: sandy beaches, tidal flats, estuaries, mangroves; uncommon.

Subclass Heterobranchia Burmeister, 1837**Ord. Siphonariida****Fam. Siphonariidae Gray, 1827**

Siphonaria alternata (Say, 1826), Say's false limpet, GST 6792, 11 specs (dry, D/d: 20-10/16,2-8), Bermuda, Mangrove Bay, 25.06.2000; GST 6815, 1 spec. (dry, D/d: 11/9,6), Bermuda, Warwick Long Bay, 29.06.2000; Leg. A. P., Det. G. A.

Distribution: S-E U.S.A. to Brazil, Bermuda; common species (STERRER, 1986).

Habitat: intertidal, on rocks.

Superorder Pylopulmonata**Superfamily Pyramidelloidea Gray, 1840****Family Pyramidellidae Gray, 1840**

Turbonilla sp., GST 6843, 1 spec. (h: 13,7), Bermuda, Mangrove Bay, 25.06.2000, Leg. A. P., Det. G. A.

Distribution: Atlantic Ocean off Bermuda.

Habitat: depths from 4 to 80 m.

Order Stylommatophora A. Schmidt, 1855**Superord. Eupulmonata Haszprunar & Huber, 1990****Fam. Achatinidae Swainson, 1840**

Rumina decollata (Linnaeus, 1758), the decollate snail, GST 6812, 1 v. (dry, h/D: 26,3/10), Bermuda, Flatts-Zoological Garden, 06.2000, Leg. A. P., Det. G. A.

Distribution: Mediterranean Sea, S Europe, N Africa, W Asia; invasive, crop pest in Bermuda (BIELER & SLAPCINSKY, 2000).

Habitat: shrub, gravelly grassland, soil with clay (BATTS, 1957).

Fam. Spiraxidae H. B. Baker, 1939

Euglandina rosea (Ferussac, 1818), rosy wolfsnail, cannibal snail, GST 6813, 9 bigger specs. (dry, h/D: 48,8-35,4/20,6-15), GST 6814, 8 spec. (smaller, dry, h/D: 32,8-25,5/14,4-12), Bermuda, Harrington Sound, 22.06.2000, Leg. A. P., Det. G. A.

Distribution: native to Nearctic, S and S-E U.S.A., Florida, Georgia, S Carolina; introduced to Bermuda (BIELER & SLAPCINSKY, 2000).

Habitat: temperate deciduous and mixed forests; leaf litter and under shrubs in forests (DAVIS et al., 2004).

Fam. Helicidae Rafinesque, 1815

Otala lactea (O.F. Müller, 1774), milk snail, GST 6811, 6 specs (dry;1 nicked, D/d: 33,4-27,4/29-22,7), Bermuda, Hungry Bay, 25.06.2000, Leg. A. P., Det. G. A.

Distribution: S Spain to N Africa; introduced to Bermuda (BIELER & SLAPCINSKY, 2000).

Habitat: Rocky shrublands.

Isognomostoma sp., the masked snail, GST 6838, 4 specs (dry), Bermuda, Flatts- Zoological Garden, 06.2000, Leg. A. P., Det. G. A.

Distribution: Central Europe (Alps, Carpathians) (KERNEY et al., 1983).

Habitat: common in mountain forests, soil, leaf litter.

Family Camaenidae Pilsbry, 1895

Bradybaena similaris (A. Férussac, 1822), Asian trampsnail, GST 6817, 2 specs (1 ad., 1 subad., dry, D/d: 13,5/11,7; 12/10), Bermuda, Flatts- Zoological Garden, 06.2000, Leg. A. P., Det. G. A.

Distribution: E and S-E Asia, introduced in South America, southern North America, Bermuda (BIELER & SLAPCINSKY, 2000).

Habitat: on leaves of shrubs, lush vegetation.

Fam. Polygyridae Pilsbry, 1895

Polygyra plana (Dunker, 1843), GST 6818, 7 specs (dry, D/d: 11-8,5/10,3-7,6), Bermuda, Mangrove Bay, 25.06.2000, Leg. A.P., Det.G.A.

Distribution: introduced to Bermuda and the Western Bahama's, common (ABBOTT, 1985).

Habitat: under palm fronds and rocks.

Class Bivalvia**Subclass Autobranchia Grobben, 1894****Order Mytilida Férussac, 1822****Fam. Mytilidae Rafinesque, 1815**

Aulacomya atra (Molina, 1782) sin. *Aucalomya ater crenata* (Lamarck, 1819), *Aulacomya magellanica* (Chemnitz, 1785), Chilean ribbed mussel, BIV 3241, 1 spec. (h/L: 14,5/7; very young, dry), Bermuda, Tom Moore's Jungle, 20.06.2000, Leg. I. P., Det. G.A.; BIV 3277, 9 specs (young spec., L/l: 18,5/13,7/8,5-7,5; wet), Bermuda, Horseshoe Bay, Leg. A.P., Det. G.A.; BIV 3276, 2 specs (young, L/l: 20,5/10;19,2/10; wet, with epibiosis), Bermuda, Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.

Distribution: native in South America, Peru, Argentina; introduced around the world (MIKKELSEN & BIELER, 2008).

Habitat: attached to rocky substrates, brown algae, forms large colonies.

Order Pectinida Gray, 1854**Fam. Plicatulidae Gray, 1854**

Plicatula gibbosa Lamarck, 1801 sin. *Plicatula ramosa* Lamarck, 1819, Atlantic kitten's paw, BIV 3265, 1 v. (one young spec., rolled, dry, L/h: 14,8/12,7), Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.

Distribution: from S-E U.S.A. to Brazil; Bermuda (MIKKELSEN & BIELER, 2008).

Habitat: subtidal, to 20 m, attached to rocks; abundant.

Fam. Pectinidae Rafinesque, 1815

Euvola ziczac (Linnaeus, 1758) sin. *Pecten ziczac* (Linnaeus, 1758), zigzag scallop, BIV 3217, 1 spec. (dry, L/H/g: 91,6/ 85/ 27,8), Bermuda, Tobacco Bay, 18.06.2000, Leg. I.P., Det. A.P., verified and updated by G.A.

Distribution: from N Carolina to Brazil and the West Indies; Bermuda (MIKKELSEN & BIELER, 2008).

Habitat: shallow waters, close to shore, form beds.

Fam. Spondylidae Gray, 1826

Spondylus tenuis Schreibers, 1793 sin. *Spondylus ictericus* Reeve, 1856, digitate thorny oyster, BIV 3223, 1 spec. (dry, L/h: 59,4/69); BIV 3224, 1 v. (dry, L/h: 71/71,5, with red foraminifer, *Homotrema rubrum*); Bermuda, Castle Harbour, 27.06.2000; BIV 3231, 1 v. (dry, L/h: 67,3/74), Bermuda, Castle Harbour, 23.06.2000, Leg. K. W., Det. A.P., verified and updated G. A.; BIV 3225, 1 v. (dry, L/h: 82/84,4), with *Dendropoma corrodens* (d'Orbigny, 1841) (GST 6781), Bermuda, Harrington Sound, 20.06.2000, Leg. I. P., Det. A. P., verified and updated G. A.; BIV 3231, 1 v. (L/h:67,3/74), Bermuda, Castle Harbour, 23.06.2000, Leg.K. W., Det. A. P., verified and updated G. A.; BIV 3236, v. (L/h: 64,4/60,5, dry), 1 piece (valve, 80/72/33) with epibiosis: complete shell of *Spondylus tenuis* perfectly conserved, 2 shells of *Dendostrea frons* (Linnaeus, 1758), complete (one closed, other with mobile valve), Bermuda, Harrington Sound, 20.06.2000, Leg.K. W., Det. A. P., verified and updated G. A.; BIV 3237, 1 piece (1 v., L/h: 65,7/69,2, dry), with epibiosis (2 v. of *Dendostrea frons*, concrescent with calcareous deposits), Bermuda, Harrington Sound, 22.06.2000, Leg.K. W., Det. A. P., verified and updated G. A.

Distribution: Florida to West Indies, Gulf of Mexico, South America; Bermuda (MIKKELSEN & BIELER, 2008).

Habitat: in shallow waters, attached to hard substrates, to corals.

Order Arcida Stoliczka, 1871**Fam. Arcidae Lamarck, 1809**

Anadara notabilis (Röding, 1798), eared ark clam, BIV 3215, 1v. (l., dry, L/H: 30/21,7), Bermuda, Mangrove Bay, 25.06.2000, Leg. I. P., Det. G. A.; BIV 3270, 1 spec. (wet; L/h/g: 64/46/46,5), Bermuda, Harrington Sound, 22.06.2000, Leg. I. P., Det. A.P., verified G.A.

Distribution: from S-E U.S.A. to Brazil; Bermuda (MIKKELSEN & BIELER, 2008).

Habitat: common species, in shallow waters.

Arca zebra Swainson, 1833, Atlantic turkey wreg, BIV 3219, 3 v. (dry, L/h: 62-56/ 21,2-25), Bermuda, Mangrove Bay, 25.06.2000, Leg. A. P., Det. G. A.

Distribution: from S-E U.S.A. to Brazil; Bermuda (MIKKELSEN & BIELER, 2008).

Habitat: shallow rock reef, common species.

Lamarcka mutabilis (G. B. Sowerby I, 1833) sin. *Arca mutabilis* (Sowerby I, 1833), the changeable ark, BIV 3220, 1 v. (r., dry, L/h: 29,3/20), Bermuda, Mangrove Bay, 25.06.2000, Leg. A.P., Det. and updated G.A.

Distribution: W Mexico to Ecuador (ABBOTT, 1985).

Habitat: subtidal among rocks, until 82 m; common species.

Barbatia domingensis (Lamarck, 1819) sin. *Barbatia cancellaria* (Lamarck, 1819), white miniature ark clam, BIV 3262, 20 v. (L/h:22,5-11,7/12,2-7, dry, with red foraminifer, *Homotrema rubrum*), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.; BIV 3280, 1 spec (young, L/h: 10,4/6, wet, from sponges), Bermuda, Harrington Sound, 20.06.2000, Leg. K.W., Det.G.A.

Distribution: S Florida up to Brazil (ABBOTT, 1985).

Habitat: marine species, intertidal, 4 m depth, among coral boulders; common species.

Barbatia candida (Helbling, 1779), white-beard ark, BIV 3263, 1 v. (very young, dry, L/h: 12/9), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.

Distribution: N Carolina, southern Florida, the Bahamas to Brazil (ABBOTT, 1985; TUNNELL et al., 2010).

Habitat: shallow reefs, on rocks; common species.

Order Lucinida Gray, 1854

Fam. Lucinidae J. Fleming, 1828

Codakia orbicularis (Linnaeus, 1758), tiger lucine, BIV 3216, 1 spec. (dry, L/h: 45,5/39,5), Bermuda, Mangrove Bay, 25.06.2000, Leg. I. P., Det. G. A.; BIV 3218, 1 v. (dry, L/h: 87/82), Bermuda, Tobacco Bay, 18.06.2000, Leg. I.P., Det. A. P., verified G.A.

Distribution: S-E U.S.A. to Brazil, West Indies, Gulf of Mexico, Bahamas, Bermuda (MIKKELSEN & BIELER, 2008; HAAS, 1952).

Habitat: subtidal, up to 5 m in coralline sand, common species.

Pegophysema schrammi (Crosse, 1876) sin. *Anodontia (Pegophysema) philippiana* (Reeve, 1850), *A. schrammi* Crosse, chalky buttercup, BIV 3233, 1 spec. (L/h/g: 24,5/22,6/10,3, dry), Bermuda, Mangrove Bay, 25.06.2000, Leg. I. P., Det. G. A.

Distribution: S-E U.S.A, Cuba, Bermuda (TUNNELL et al., 2010).

Habitat: mangroves, burrowed in muddy substrate.

Divalinga quadrisulcata (d'Orbigny, 1846) sin. *Divaricella quadrisulcata* (d'Orbigny, 1846), cross-hatched lucine, BIV 3267, 1 v. (young spec., dry, L/h: 10,7/11), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A. P., Det. G. A.

Distribution: S-E U.S.A to Brazil.

Habitat: shallow water to 100 m depth.

Order Venerida Gray, 1854

Fam. Veneridae Rafinesque, 1815

Megapitaria maculata (Linnaeus, 1758) sin. *Macrocallista maculata* (Linnaeus, 1758), calico clam, BIV 3230, 7 specs. (each with 2 v.) (dry, L/h: 59/46,1; 58/43,7; 58,8/44; 40,5/30,5; 54,5/41; 61,4/45,5; 44/33,5), Bermuda, Harrington Sound, 22.06.2000, Leg. K. W. & I. P., Det. A. P., verified and updated G. A.

Distribution: from Brazil to North Carolina and the Bahamas; Bermuda.

Habitat: on sandy bottoms, buried.

Pitar fulminatus (Menke, 1828), lightning pitar, BIV 3282, 1 spec (l.v., very young spec; h: 11/9,6; from sponges; dry), Bermuda, Harrington Sound, 20.06.2000, Leg. K. W., Det. G. A.

Distribution: N Carolina, Florida, Texas; Bermuda; common (TUNNELL et al., 2010)

Habitat: shallow water, rubble, coarse sediment.

Pitar albidus (Gmelin, 1791), white venus clam, BIV 3284, 2 specs (l. v. of young spec, 1 juv.; L/h: 14,5/11; from sponges; wet), Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: West Indies to Brazil.

Habitat: benthic, shallow water; common.

Lamelliconcha circinata (Born, 1778) sin. *Pitar circinatus* (Born, 1778), purple venus clam, BIV 3283, 6 specs (v., very young specs; L/h: 10-9/9-8; from sponges; wet), Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: West Indies to Brazil.

Habitat: benthic, shallow water; common.

Fam. Chamidae Lamarck, 1809

Chama macerophylla Gmelin, 1791, leafy jewel box clam, BIV 3221, 1 v. (L/h: 43,7/43,3, dry), Bermuda, Harrington Sound, 20.06.2000, Leg. I. P., Det. G. A.; BIV 3235, 1 v. (h/L: 20/16,3, dry), Bermuda, Harrington Sound, 22.06.2000, Leg. K. W., Det. G. A.; BIV 3272, 2 specs (conrescent with other species, *Dendostrea frons*, BIV 3271, with epibiosis-sponges and algae, wet; ~73/51), Harrington Sound, 22.06.2000, Leg. K. W. & I.P., Det. G.A.; BIV 3238, 1 v. (h/L: 23,2/17,4, dry), BIV 3286, 1 v. (L/H: 16,6/18, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A. P., Det. G.

A.; BIV 3266, 2 v. (small specimens, dry, D/d: 15/13; 16/15), Warwick Long Bay, 29.06.2000, Leg. A. P., Det. G. A.; BIV 3287, 1 v. (L/h: 15,2/20, dry), Bermuda, Mangrove Bay, 25.06.2000, Leg. I.P., Det. G.A.

Distribution: SE U.S.A. to Brazil.

Habitat: shallow waters, on rocks and in clumps; common species.

Chama congregata Conrad, 1833, corrugated jewel box clam, BIV 3264, 1 v. (dry, L/h: 19/18), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A. P., Det. G. A.

Distribution: SE U.S.A. to Brazil, Bermuda (TUNNELL et al., 2010).

Habitat: shallow waters, on rocks; common species.

Chama sinuosa Broderip, 1835, smooth-edged jewel box, BIV 3278, 2 specs (27,6/26; concrescent on 1 piece with calcareous deposits, in reef, wet), Harrington Sound, 20.06.2000, Leg. K.W. & I.P., Det. G.A.

Distribution: SE U.S.A. to Brazil; Bermuda and the Tortugas (BAYER, 1943).

Habitat: shallow waters, on rocks; common species.

Pseudochama cristella (Lamarck, 1819), left-handed jewel box clam, BIV 3279, 3 specs (2 superior valves and one smaller, h/L: 18,7/19,3; 16,6/15,5; without veil, from sponges, wet), Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: from Florida to West Indies.

Habitat: coral reef, sand, 5-9 m.

Arcinella arcinella (Linnaeus, 1767), true spiny jewel box, BIV 3288, 7 v. (1 piece with reef fragment with concrescent valves, 73/55,5, dry), Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: West Indies to Brazil (ABBOTT, 1985).

Habitat: gravel bottoms and calcareous algae, up to 80 m.

Order Ostreida Férussac, 1822

Fam. Gryphaeidae Vialov, 1936

Hyotissa hyotis (Linnaeus, 1758) sin. *Dendostrea hyotis* Linnaeus, 1758, giant honeycomb oyster, BIV 3275, 1 spec. (concrecent with several specs, *Pinctada imbricata*, BIV 3273, *Dendostrea frons*, BIV 3274; all of them are fixed on the larger shell of *Pinctada imbricata*; 103/68, wet), Bermuda, Harrington Sound, 20.06.2000, Leg. I.P., Det. G.A.

Distribution: widely distributed in Indo-Pacific, Red Sea, Atlantic (S Florida, Antilles, Colombia) (ABBOTT, 1985).

Habitat: attached to blocks, coral reefs, in shallow waters, 3-4 m depth; rare.

Fam. Ostreidae Rafinesque, 1815

Dendostrea frons (Linnaeus, 1758) sin. *Lopha frons* (Linnaeus, 1758), frond oyster, BIV 3226, 1 spec. (concrecent with 1 v., L/h: 72,6/48,2, dry), Bermuda, Mangrove Bay, 25.06.2000; BIV 3227, 2 pieces formed by 2 v. concrecent (L/h: 34,4/29; 69,7/40,3, dry), Bermuda, Mangrove Bay, 25.06.2000; BIV 3228- 4 v. (L/h: 51/37; 36,5/29,2; 38,6/26,8; 33,3/26, dry), Bermuda, Mangrove Bay, 25.06.2000, Leg. K. W. & I. P., Det. G. A.; BIV 3271, 2 specs (concrecent with *Chama macerophylla*, BIV 3272, 2 specs, with epibiosis- sponges and algae, wet; ~73/51), Harrington Sound, 20.06.2000, Leg. K. W. & I. P., Det. G. A.; BIV 3274, 2 specs (concrecent with *Pinctada imbricata*, BIV 3273 and *Hyotissa hyotis*, BIV 3275, wet; 103/68), Harrington Sound, 20.06.2000, Leg. I.P., Det. G.A.

Distribution: S-E U.S.A., West Indies to Brazil, Bermuda (TUNNELL et al., 2010).

Habitat: 3-4 m depth, variability of forms, on rocks and on *Alcyonaria* stems; common species.

Crassostrea rhizophorae (Guilding, 1828), the mangrove cupped oyster, BIV 3234, 2 v. (D/d: 30,6/20,6; 25,4/20,4, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A. P., Det. G. A.

Distribution: West Indies to Brazil; abundant.

Habitat: shallow bottoms, in eastuine waters, attached to the roots of the red mangrove or forming banks.

Fam. Isognomonidae Woodring, 1925 (1828)

Isognomon alatus (Gmelin, 1791), flat tree oyster, BIV 3239, 1 v. (very young spec., L/h: 11/15, dry), Bermuda, Devonshire Bay, 23.06.2000, Leg. A. P., Det. G. A.

Distribution: U.S.A. (Florida, Texas), Antilles, Bermuda and Brazil; common species.

Habitat: intertidal zone, amid mangrove roots (red mangrove), on rocks.

Fam. Margaritidae Blainville, 1824

Pinctada imbricata Röding, 1798 sin. *P.radiata* (Leach, 1814), Atlantic pearl-oyster, BIV 3268, 3 specs (large, wet; L/h: 78/73; 54/55; 54/51), BIV 3269, 2 specs (small; calcareous deposits, wet; L/h: 28/29; 40,5/36), Bermuda, Harrington Sound, 22.06.2000, Leg. I.P. & K.W., Det. A.P., verified G.A.; BIV 3273, 3 specs (1 larger, 1 smaller, 1 juv.,

conrescent with several specs, *Dendostrea frons*, BIV 3274 and *Hyotissa hyotis*, BIV 3275, wet; 103/68), Harrington Sound, 20.06.2000, Leg. I.P., Det. G.A.

Distribution: S-E S.U.A up to Brazil; common species.

Habitat: 3- 4 m depth, shallow waters.

Order Cardiida A. Férussac, 1822

Fam. Cardiidae Lamarck, 1809

Fulvia (Fulvia) laevigata (Linnaeus, 1758) sin. *Laevicardium laevigatum* (L., 1758), egg cockle, BIV 3232 1 v. (L/h: 30/33,4, dry), Bermuda, Harrington Sound, 20.06.2000, Leg. I.P., Det. G.A.

Distribution: S-E S.U.A up to Brazil, West Indies, Bermuda; common species.

Habitat: shallow waters, 0–75 m.

Fam. Tellinidae Blainville, 1814

Laciolina laevigata (Linnaeus, 1758) sin. *Tellina laevigata* L., 1758, smooth tellin, BIV 3222 1 spec. (2 v., dry, L/h: 49/37,9/14), Bermuda, Mangrove Bay, 25.06.2000; BIV 3229 1 v. (1., dry, L/h: 80,3/62,8), Bermuda, Tobacco Bay, 18.06.2000, Leg. I.P., Det. A. P., verified and updated G. A.

Distribution: caribbean, S-E S.U.A.; common species.

Habitat: on coral sand bottoms, 1-16 m.

Tampaella tampaensis (Conrad, 1866) sin. *Tellina tampaensis* Conrad, 1866, the Tampa tellin, BIV 3240, 1 v. (1., dry, h/L: 14,4/16,7), Bermuda, Devonshire Bay, 23.06.2000, Leg. A.P., Det. G.A.

Distribution: southern half of Florida to Texas, the West Indies; common species.

Habitat: shallow waters, sandy-muddy bottom

Tellina radiata Linnaeus, 1758, sunrise tellin, BIV 3260, 1 v. (young spec., dry, L/h: 19,5/9,4), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A.P., Det. G.A.

Distribution: S-E U. S.A. to Caribbean Central America to Brazil, West Indies, Bermuda, Bahamas ; common species (MIKKELSEN & BIELER, 2008).

Habitat: shallow coral sand areas.

Eurytellina alternata (Say, 1822), alternate tellin: BIV 3281, 1 juv. (2 v., L/h: 10/6, from sponges, dry), Harrington Sound, 20.06.2000, Leg. K.W., Det. G.A.

Distribution: N Carolina to Florida, Bermuda, Bahamas, West Indies, Gulf of Mexico to Brazil (MIKKELSEN & BIELER, 2008).

Habitat: shallow coral sand areas.

Subclass Protobranchia Pelseneer, 1889

Ord. Solemyida Dall, 1889

Fam. Solemyidae Gray, 1840

Solemya velum Say, 1822, Atlantic awning clam, BIV 3261, 1 spec. (v., dry, L/h: 25,4/11), Bermuda, Warwick Long Bay, 29.06.2000, Leg. A. P., Det. G. A.

Distribution: Nova Scotia to N Florida; common species.

Habitat: marine species, shallow water, 1-12 m depth, in mud.

Class Polyplacophora

Fam. Chitonidae Rafinesque, 1815

Chiton tuberculatus Linnaeus, 1758, West Indian green chiton, POL 20, 1 spec. (shell, dry; L/l: 32/22), Bermuda, Devonshire Bay, 23.06.2000, Leg. et det. A. P., verified G. A.; POL 24, 1 spec. (wet; 48,6/27,7), Devonshire Bay, 22.06.2000, Leg. A.P., Det. G.A.

Distribution: SE Florida and the West Indies, common species.

Habitat: intertidal, rocky shore.

DISCUSSION

Gastropods

In our survey, we have identified 229 collected gastropod specimens, 29 species and 26 genera from 19 families (Eoacmaeidae, Fissurellidae, Tegulidae, Neritidae, Cerithiidae, Siliquariidae, Turritellidae, Littorinidae, Vermetidae, Strombidae, Nassariidae, Olividae, Siphonariidae, Pyramidellidae, Achatinidae, Spiraxidae, Helicidae, Camaenidae and Polygyridae) (Fig. 1A-R, Table 1). The most abundant gastropod specimens were from Harrington Sound, Devonshire Bay and Mangrove Bay (Fig. 3). Almost half of the collected gastropods are represented by Fissurellidae and Cerithiidae, followed by Vermetidae and Spiraxidae in a smaller percentage (Fig. 4).

From our collecting points, especially from Harrington Sound and Devonshire Bay, more than 48% of collected gastropod specimens belonged to the Cerithiidae and Fissurellidae families (Fig. 4).

Also, the intertidal littorinid, *Echinolittorina ziczac* was practically uncommon in 1864, nowadays is very common (ABBOTT & JENSEN, 1967). It was found in our survey only in Devonshire Bay (Fig. 11).

Some species of gastropod snails like the genus *Cerithium* are most common and could be handpicked by the thousands in Bermuda, especially in Harrington Sound (THOMAS, 1996) and Walshingham Pond (GOULD, 1968). From our samples, the Cerithids represent more than 35% from all the gastropod specimens collected in Harrington Sound (Fig. 4). Other families which were more abundant in Harrington Sound were the land snail family Spiraxidae and the marine caenogastropod turritellid, *Vermicularia spirata* (Fig.1A). In the Mangrove Bay, part of the Bermuda Mangrove community as mapped by Thomas in 1993, is no longer populated by mangrove bark (the red mangrove, *Rhizophora mangle*, *Avicennia germinans* and *Conocarpus erectus*). The identified gastropod species included *Petalococonchus varians*, *Siphonaria alternata* and the introduced terrestrial snail species, *Polygyra plana* (Fig. 1C,F,P).

Cenchrithis muricatus is one of the shells preferred to be inhabited by *Coenobita clypeatus* (WALKER, 1994), only species of terrestrial hermit crab in the Bahamas and most abundant in Hungry Bay, Paget Parrish, Bermuda. Other preferred shells are *Nerita versicolor*, *Otala lactea* (COPELAND, 2020). In our survey we have found the only specimens of *Otala lactea*, but without hermit inhabitants.

Dendropoma corrodens, identified in Harrington Sound (Fig. 1B) is part of the algal-vermetid cup reefs, which enclose a shallow mini-lagoon and small coral heads (COATES et al., 2013). This embedded vermetid gastropod is occasional encrusting *Millepora alciornis* (THOMAS & STEVENS, 1991). In our sample is encrusted on *Spondylus tenuis*.

In our short survey we have identified seven gastropod species collected from sponges: *Agathistoma fasciatum*, *Cerithium atratum*, *Cerithium litteratum*, *Tenagodus squamatus*, *Vermicularia spirata*, *Phrontis vibex* and *Olivella minuta*. Except *Tenagodus squamatus* all have been collected from Harrington Sound. The associations between sponges and gastropods are rare. The most common shells are the one that present the heteromorph growth pattern, a special shell adaptation for a filter feeding strategy, as it is the case of several Vermiculariine and in all slit-bearing Siliquariidae (*Tenagodus* and *Pyxipoma* genera) (PANSINI et al., 1999). Our only specimen of *Tenagodus squamatus* was a 19 mm individual, dry specimen from Devonshire Bay. In general, they prefer depths between 10 and 440 m, in Bermuda they have been identified between 549 and up to 732 m depth (GOULD, 1966). Given their lifestyle, in soft sediment and in sponges at great depths they are rarely collected and observed (BIELER, 2004).

From Harrington Sound we have identified other species from 'wormsnails' group such as: from the uncoiling members (genus *Vermicularia*)- *Vermicularia spirata* and from family Turritellidae (the true wormsnaileds, Vermetidae (Vermetoidea): *Dendropoma corrodens*, *Vermetus irregularis*, *Petalococonchus varians*.

Vermetidae are known to be among the most important bioconstructors, forming monospecific clusters of tubes of considerable size, thus forming a framework of reef communities, sometimes circled by barnacle *Tetraclita* and the brown macroalga *Sargassum* or in close association with the encrusting foraminifera *Homotrema rubrum* and *Acervulina* sp. (JONES & HUNTER, 1995).

Introduced species

In this small beach-combing study we have identified no more than 5 invasive species of terrestrial snails: *Rumina decollata*, *Euglandina rosea*, *Otala lactea*, *Bradybaena similaris* and *Polygyra plana*. Another specimen, *Isognomostoma* sp., we presume it was introduced accidentally given the diverse nature of the biomes from the Zoological Garden (Fig. 1 M-R).

Rumina decollata, *Bradybaena similaris* and *Polygyra plana* were introduced accidentally before 1890, while *Euglandina rosea* and *Otala lactea* were introduced intentionally after 1920s.

The pulmonate snail species are among the most common and diverse animals on Bermuda, among which 28 species are accidentally introduced and 4 species are intentionally introduced (BIELER & SLAPCINSKY, 2000).

PEILE (1926) mentioned the introduced snail species of *Polygyra* and *Rumina decollata* as being very abundant, followed by the work of VANATTA (1910) who mentioned a detailed list of localities where *Polygyra plana* and *Rumina decollata* were identified, sometimes together, in Harrington Sound. It was also mentioned from Hungry Bay and Somerset. From Hungry Bay we have identified couple of dry shells of the helicid *Otala lactea*. Between 1958 and 1960 *Euglandina rosea* was released to control *Otala lactea* and *Rumina decollata*, both considered to be agricultural pests (BIELER & SLAPCINSKY, 2000; STERRER ET AL., 2004).

Rumina decollata was identified in Flatts - Zoological Garden in our survey. This is a pulmonate land snail introduced as a biological control agent for the garden snail, *Helix aspersa*, and was also recorded by VANATTA in 1910.

Euglandina rosea, introduced in the 1950s as a biological control agent, was very abundant in Harrington Sound. *Euglandina rosea* was introduced in Hawaii, in 1955 (DAVIS & BUTLER, 1964), in order to combat the giant African land snail, the achatinid *Lissachatina fulica*, which was a threat for the entire native species in the following eight years.

This species, introduced to control *Rumina*, as well as *Otala lactea* (BIELER & SLAPCINSKY, 2000). "The cannibal snail" is considered a threat to the critically endangered endemites, *Poecilozonites bermudensis* and *P. circumfirmatus*, as it has been observed in captivity to prey upon these species. Efforts are made to conserve and protect

the two endemites, *P. bermudensis* was thought to be extinct, but a small population was rediscovered in 2014 (OUTERBRIDGE & SAMIA, 2019).

Another surprise of this short survey was the identification in the Flatts- Zoological Garden of four dry specimens from the *Isognomostoma* genus, from Ariantinae Mörch, 1864 (Gastropoda, Helicidae), subfamily of terrestrial airbreathing snails. We presume it to be *Isognomostoma isognomostomos*, given the lack of apertural teeth. Normally, the distribution includes Mountains of Central Europe, E France, Switzerland, Austria, N Italy, Slovenia, Croatia, Czech Republic, Slovenia, S Poland (Carpathians), NE Hungary, Ukraine, and Romania (KERNEY et al., 1983).

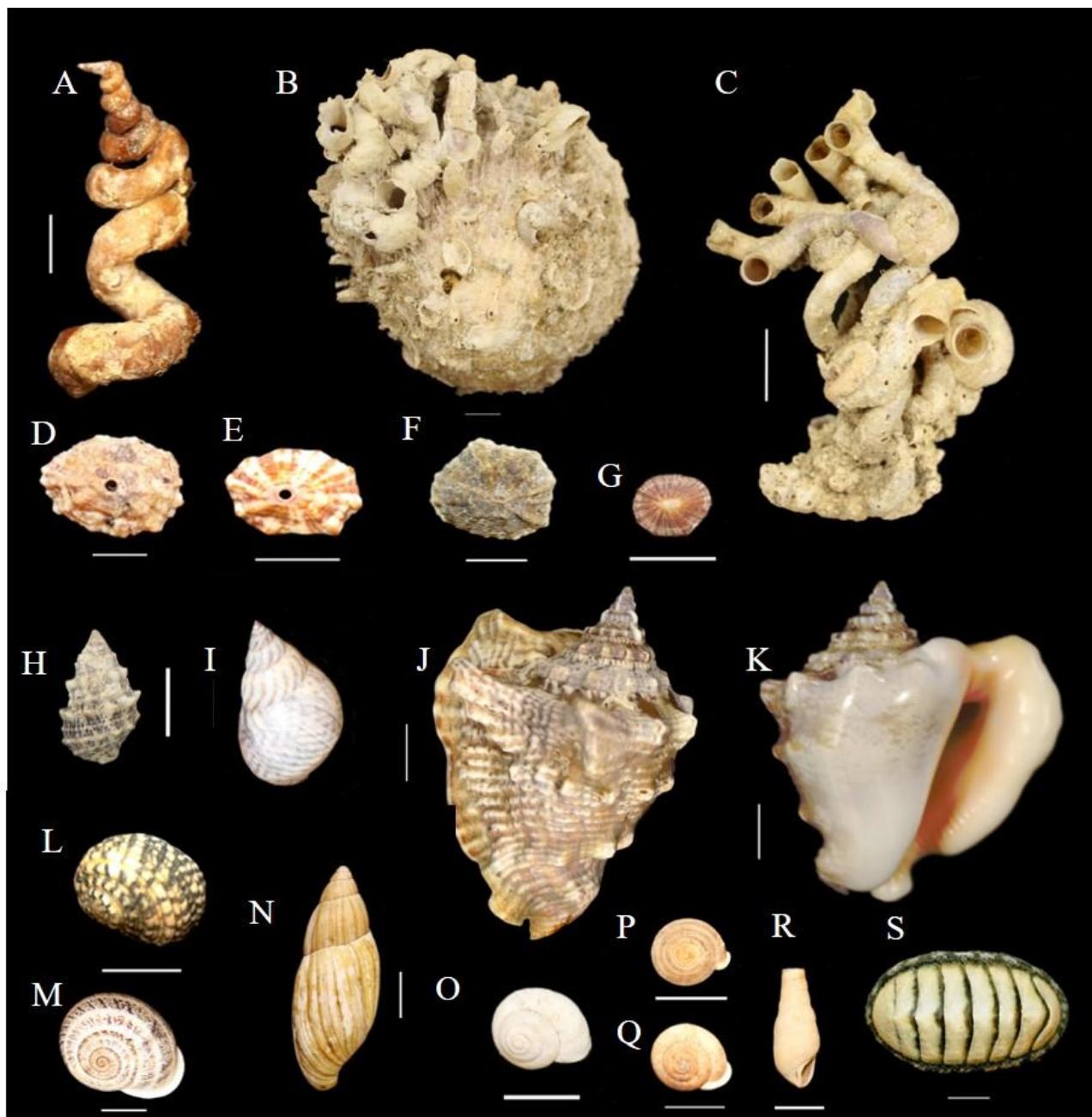


Figure 1. Marine and terrestrial snails of Bermuda: **A.** *Vermicularia spirata*; **B.** *Dendropoma corrodens* (concescent on *Spondylus tenuis*); **C.** *Petalococonchus varians* (concescent); **D.** *Fissurella barbadensis*, **E.** *Fissurella rosea*; **F.** *Siphonaria alternata*; **G.** *Hemitoma octoradiata*; **H.** *Cerithium atratum*; **I.** *Echinolittorina ziczac*; **J.** *Lobatus raninus*-dorsal view, **K.**-ventral view; **L.** *Nerita tessellata*; **M.** *Otala lactea*; **N.** *Euglandina rosea*; **O.** *Bradybaena similaris*; **P.** *Polygyra plana*; **Q.** *Isognomostoma isognomostomos*; **R.** *Rumina decollata*; **S.** *Chiton tuberculatus*. Scale bar: 2 cm (A, C, J, K); 1 cm (B, D-I, L-R) (original photos).

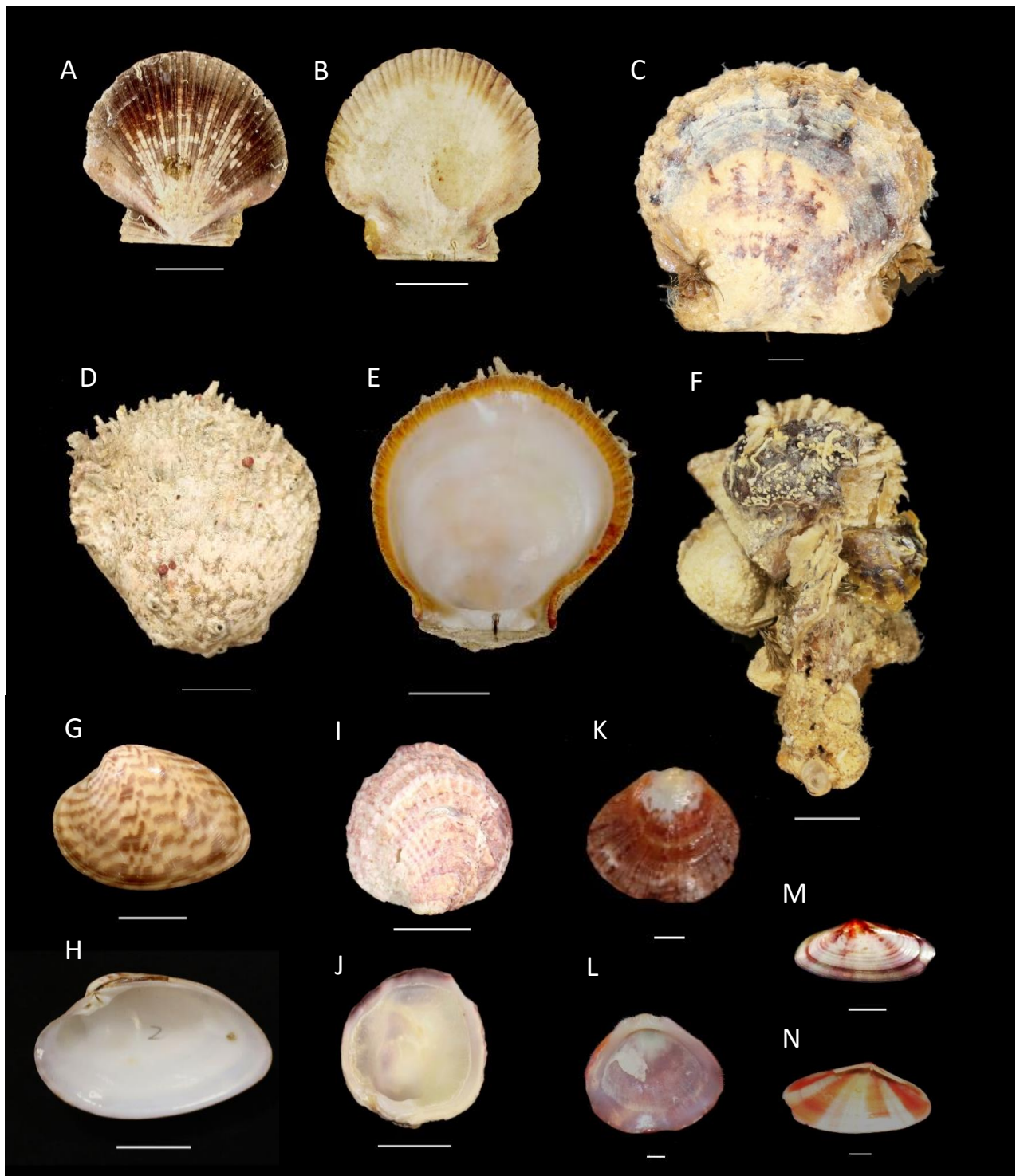


Figure 2. Bivalves of Bermuda: **A.** *Euvola ziczac* - dorsal view, **B.** - ventral view; **C.** *Pinctada imbricata*; **D.** *Spondylus tenuis* with red foraminifer, *Homotrema rubrum* - dorsal view, **E.** - ventral view; **F.** *Dendostrea frons* (concurrent with *Pinctada imbricata* and *Hyothisa hyotis*); **G.** *Megapitaria maculata* -dorsal view; **H.**- ventral view; **I.** *Chama macerophylla* - dorsal view, **J.** - ventral view; **K.** *Plicatula gibbosa* - dorsal view, **L.** - ventral view; **M.** *Tellina radiata*- dorsal view, **N.** - ventral view. Scale bar: 2 cm (A- J); 0,5 cm (L-N) (original photos).

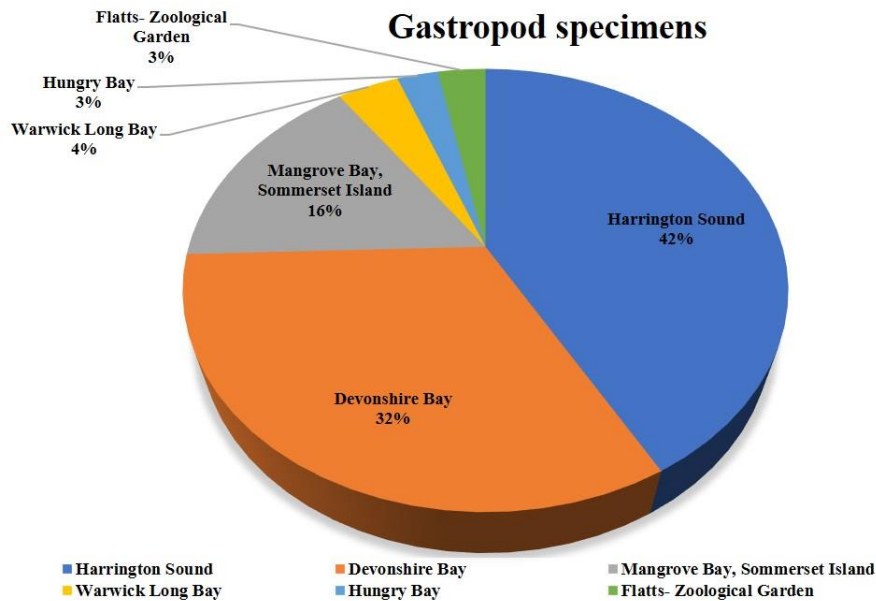


Figure 3. Schematic representation of the gastropod presence in the collecting sites: Harrington Sound, Devonshire Bay, Mangrove Bay, Warwick Long Bay, Hungry Bay and Flatts- Zoological Garden.

Families of gastropod identified in the collecting sites

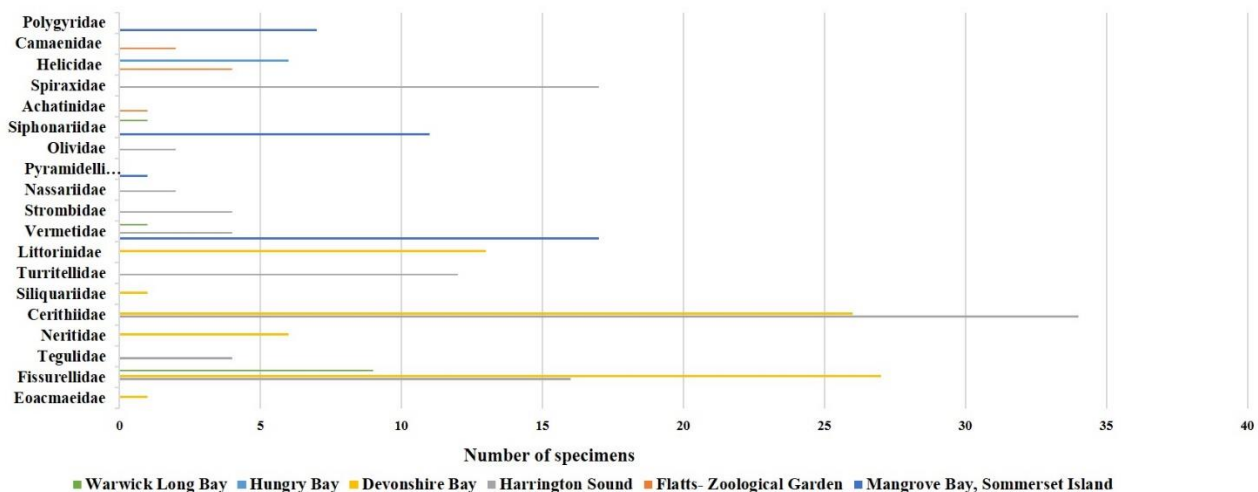


Figure 4. Families of gastropods identified in the collecting sites: Warwick Long Bay, Hungry Bay, Devonshire Bay, Harrington Sound, Flatts-Zoological Garden, Mangrove Bay, Somerset Island.

Bivalves

Class Bivalvia was represented by 123 specimens, from 32 species and 28 genera, from 15 families: Mytilidae, Plicatulidae, Pectinidae, Spondylidae, Arcidae, Lucinidae, Chamidae, Gryphaeidae, Ostreidae, Isognomonidae, Margaritidae, Cardiidae, Tellinidae, Veneridae, Solemyidae (Fig. 2, Table 2). The specimens were identified from 8 collection stations: Harrington Sound, Mangrove Bay, Warwick Long Bay, Devonshire Bay, Tobacco Bay, Horseshoe Bay, Castle Harbour and Tom Moore's Jungle (Fig. 5). From these stations the most abundant families were Arcidae, Chamidae, Veneridae, Ostreidae and Mytilidae (Fig. 6), from three major points: Harrington Sound, Warwick Long Bay and Mangrove Bay. Harrington Sound is one of the most well represented in number of bivalve species, nine species, from nine families. From these Chamidae, Veneridae and Margaritidae are the most well represented.

In our samples we have identified, in Harrington Sound, another uncommon species for Bermuda, the grypheid *Hyotissa hyotis* (Linnaeus, 1758) (Fig. 2F). *Hyotissa hyotis* is an indo-pacific species which extends from Madagascar to the Tuamotu Islands in the Indo-West Pacific tropics, in the tropical part of the eastern Pacific (HARRY, 1985). It has been mentioned from Espiritu Santo by SEVILLA et al. (1998) and in Florida Keys by BIELER et al. (2004) on shipwrecks (MIKKELSEN & BIELER, 2008). Our specimen was found to be fixed with other ostreid species, such as *Pinctada imbricata* (Fig. 2C) and *Dendostrea frons* (Fig. 2F), all of these are fixed on the valve of *Pinctada imbricata*.

Chama macerophylla (Fig. 2I) was identified in our survey in Harrington Sound. This is a frequent species also in Walshingham Pond (GOULD, 1968), cemented to the limestone walls.

In Bermuda, *Megapitaria maculata* (Linnaeus, 1758), the large calico clam, has not been seen alive until 1961. Since then, it was used as bait and on local food markets. In our survey it was found from Harrington Sound, near the Aquarium (Fig. 2G). It is very abundant in Trunk, Cockroach, and Rabbit islands in Harrington Sound (ABBOTT & JENSEN, 1967; THOMAS, 1996).

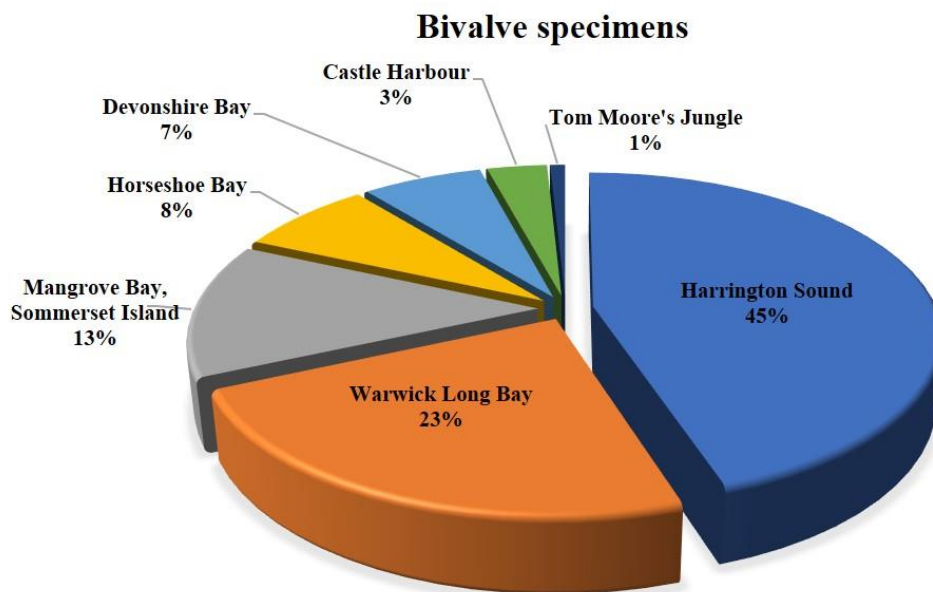


Figure 5. Schematic representation of bivalve presence in the collecting sites: Harrington Sound, Warwick Long Bay, Mangrove Bay, Devonshire Bay, Horseshoe Bay, Tom Moore's Jungle.

Families of bivalves identified in the collecting sites

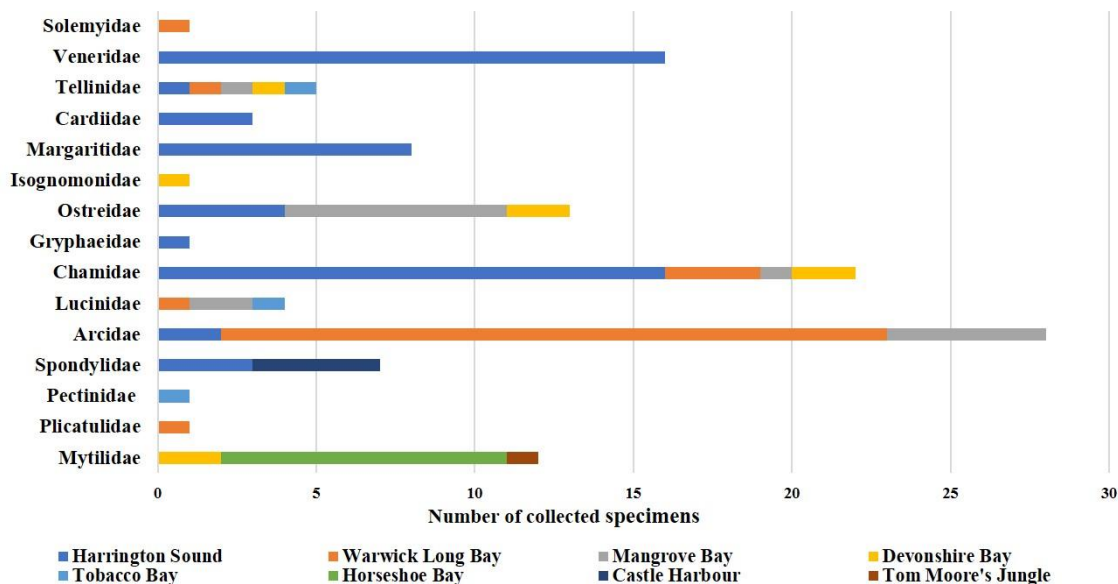


Figure 6. Families of bivalves identified in the collecting sites: Harrington Sound, Warwick Long Bay, Mangrove Bay, Devonshire Bay, Tobacco Bay, Horseshoe Bay, Castle Harbour, Tom Moore's Jungle.

The mangrove oyster, *Isognomon alatus* was the only isognomonid identified in our short survey, from Devonshire Bay (Fig. 6). Present in Mill's Creek, more abundant in Mangrove Bay Estuary, Mangrove Lake and Trott's Pond (THOMAS, 2006). It was a common species in mangrove swamps, but the main threat is the pollution, so it could be a good bioindicator for coastal pollution (AKITA et al., 2021).

Polyplacophorans

Only one species of Chitonidae was identified, *Chiton tuberculatus*, the West Indian Chiton, in Devonshire Bay (Fig. 1S). It is a common species in the Great Sound region (Long Island, Grace's Island), Cross Bay, South Shore (CROZIER, 1918), Saint George's (COPELAND, 2020).

Table 1. Systematic list of gastropods.

Class: GASTROPODA: PATELLOGASTROPODA			
Orders	Families & Subfamilies	Genera	Number of species
SUBCLASS/ PATELLOGASTROPODA	EOACMAEIDAE	<i>EOACMAEA</i> T. Nakano & Ozawa, 2007	1
VETIGASTROPODA			
LEPETELLIDA	FISSURELLIDAE FISSURELLINAE ZEIDORINAE DIODORINAE	<i>FISSURELLA</i> Bruguière, 1789	2
		<i>HEMITOMA</i> Swainson, 1840	1
		<i>DIODORA</i> J. E. Gray, 1821	1
TROCHIDA	TEGULIDAE	<i>AGATHISTOMA</i> Olsson & Harbison, 1953	1
CYCLONERITIDA	NERITIDAE NERITINAE	<i>NERITA</i> Linnaeus, 1758	1
CAENOGASTROPODA			
CAENOGASTROPODA	CERITHIIDAE CERITHIINAE SILIQUARIIDAE	<i>CERITHIUM</i> Bruguière, 1789	3
		<i>TENAGODUS</i> Guettard, 1770	1
		<i>VERMICULARIA</i> Lamarck, 1799	1
LITTORINIMORPHA	LITTORINIDAE LITTORININAE	<i>ECHINOLITTORINA</i> Habe, 1956	1
		<i>CENCHRITIS</i> E. von Martens, 1900	1
	VERMETIDAE	<i>DENDROPOMA</i> Mörch, 1861	1
		<i>VERMETUS</i> Daudin, 1800	1
		<i>PETALOCONCHUS</i>	1
		<i>LOBATUS</i> [Swainson], 1837	1
	STROMBIDAE	<i>MACROSTROMBUS</i> Petuch, 1994	1
		<i>PRHONTIS</i> H. Adams & A. Adams, 1853	1
NEOGASTROPODA	NASSARIIDAE NASSARIINAE	<i>PRHONTIS</i> H. Adams & A. Adams, 1853	1
	OLIVIDAE	<i>OLIVELLA</i> Swainson, 1831	1
HETEROBRANCHIA			
SIPHONARIIDA	SIPHONARIIDAE	<i>SIPHONARIA</i> G. B. Sowerby I, 1823	1
PYLOPULMONATA	PYRAMIDELLIDAE TURBONILLINAE	<i>TURBONILLA</i> Risso, 1826	1
STYLOMMATOPHORA	ACHATINIDAE RUMININAE	<i>RUMINA</i> Risso, 1826	1
		<i>EUGLANDINA</i> Crosse & Fischer, 1870	1
	HELICIDAE HELICINAE ARIANTINAE	<i>OTALA</i> Schumacher, 1817	1
		<i>ISOGNOMOSTOMA</i> Fitzinger, 1833	1
	CAMAENIDAE BRADYBAENINAE	<i>BRADYBAENA</i> (Beck, 1837)	1
	POLYGYRIDAE POLYGYRINAE	<i>POLYGYRA</i> Say, 1818	1

Table 2. Systematic list of bivalves.

Class/ Subclass: BIVALVIA: AUTOBRANCHIA			
Orders	Families & Subfamilies	Genera	Number of species
MYTILIDA	MYTILIDAE MYTILINAE	<i>AULACOMYA</i> Mörch, 1853	1
PECTINIDA	PLICATULIDAE PECTINIDAE PECTININAE SPONDYLIDAE	<i>PLICATULA</i> Lamarck, 1801	1
		<i>EUVOLA</i> Dall, 1898	1
		<i>SPONDYLUS</i> Linnaeus, 1758	1
ARCIDA	ARCIDAE	<i>ANADARA</i> J. E. Gray, 1847	1
		<i>ARCA</i> Linnaeus, 1758	1
		<i>LAMARCKA</i> Vermeij & Amano, 2021	1
		<i>BARBATIA</i> J. E. Gray, 1842	2
LUCINIDA	LUCINIDAE CODAKIINAE PEGOPHYSEMINEAE LUCININAE	<i>CODAKIA</i> Scopoli, 1777	1
		<i>PEGOPHYSEMA</i> R. B. Stewart, 1930	1
		<i>DIVALINGA</i> Chavan, 1951	1
	VENERIDAE	<i>MEGAPITARIA</i> U. S. Grant & Gale, 1931	1

VENERIDA	CALLOCARDIINAE	<i>PITAR</i> Römer, 1857	2
		<i>LAMELLICONCHA</i> Dall, 1902	1
	CHAMIDAE	<i>CHAMA</i> Linnaeus, 1758	3
		<i>PSEUDUCHAMA</i> Odhner, 1917	1
		<i>ARCINELLA</i> Schumacher, 1817	1
OSTREIDA	GRYPHAEIDAE	<i>HYOTISSA</i> Stenzel, 1971	1
	OSTREIDAE OSTREINAE	<i>DENDOSTREA</i> Swainson, 1835	1
		<i>CRASSOSTREA</i> Sacco, 1897	1
	CRASSOSTREINAE	<i>ISOGNOMON</i> [Lightfoot], 1786	1
	MARGARITIDAE	<i>PINCTADA</i> Röding, 1798	1
CARDIIDA	CARDIIDAE CARDIINAE	<i>FULVIA (FULVIA)</i> J. E. Gray, 1853	1
		<i>LACIOLINA</i> Iredale, 1937	1
	TELLINIDAE TELLININAE	<i>TAMPAELLA</i> M. Huber, Langleit & Kreipl, 2015	1
		<i>TELLINA</i> Linnaeus, 1758	1
		<i>EURYTELLINA</i> P. Fischer, 1887	1
SOLEMYIDA	SOLEMYIDAE SOLEMYINAE	<i>SOLEMYA</i> Lamarck, 1818	1

CONCLUSIONS

The paper presents the catalogue of a collection of mollusks from Bermuda, one of the most unique collection recently entered in the patrimony of the “Grigore Antipa” Museum. This collection represents a part of the exotic mollusc collection, a most generous donation made by dr. Angela Petrescu and dr. Iorgu Petrescu, esteemed researchers of the museum. Other exotic mollusca collection from this donation are represented by specimens from the Belize fauna, the Philippines and the Angolan coast.

The Bermudian Mollusk collection from the “Grigore Antipa” Museum comprises 354 mollusc specimens (229 marine and terrestrial gastropod specimens, 123 specimens of marine bivalves and 2 specimens of chiton), which were collected from three classes (Gastropoda, Bivalvia and Polyplacophora), belonging to 35 families, 55 genuses, 62 species, from 11 stations (from Somerset Island up to St. George Island).

To this day no other molluscs from this region have been registered in our collections. On the brink of the slow decline of biodiversity, climate change, pollution, and other environmental stressors, it is our duty as museum specialists to safeguard and to protect the history of such precious specimens.

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REFERENCES

- ABBOTT R. T. 1985. *Seashells of the World. A Golden Guide*. Golden Books Publishing Company. 160 pp.
- ABBOTT R. T. & Dance S. P. 1990. *Compendium of Seashells (Fifth Printing)*. American Malacologists, Inc. Melbourne. 411 pp.
- ABBOTT R. T., & JENSEN R. 1967. Molluscan Faunal Changes around Bermuda. *Science*. AAAS. Washington, D.C. **155**(3763): 687-688.
- ACADEMY OF NATURAL SCIENCES. 2024. *Malacology Collection at the Academy of Natural Sciences of Philadelphia*. Occurrence dataset <https://doi.org/10.15468/xp1dhx> accessed via GBIF.org on 2024-05-24.
- AKITA L., ANDERSON A., SMETI, H., QUIEROZ T. 2021. Short-term response of flat tree oyster, *Isognomon alatus* to CO₂ acidified seawater in laboratory and field experiments. *African Journal of Environmental Science and Technology*. Lagos: Academic Journals. Nigeria. **15**(1): 27-52.
- ANDREI G. 2010. Moluște. In: *Muzeul de Istorie Naturală "Grigore Antipa" - Colecții și Colecționari*. București. 36 pp.
- ANDREI G. 2016. Marine molluscs collected by “Thalassa” Expedition in Mauritania (1971). *International Zoological Congress of “Grigore Antipa” Museum (Book of Abstracts)*. Bucharest: 165.
- ANDREI G. 1999. Expedition of the “Grigore Antipa” National Museum Of Natural History, Bucharest1 Romania, In *The Indonesian Archipelago (1991) - Marine Molluscs (Gastropoda & Bivalvia)*. *Travaux du Muséum d'Histoire naturelle “Grigore Antipa”*. Bucharest. **41**: 37-63.

- ANDREI G. & POPESCU-MIRCENI R. 2009. Marine molluscs brought from the expeditions from Turkey “Taurus” – 2005 and “Focida” – 2006. *Travaux du Muséum d'Histoire naturelle “Grigore Antipa”*. Bucharest. **52**: 395-414.
- BĂCESCU M. 1992. Deux espèces nouvelles de *Cumella* (Crustacea, Cumacea) des grottes sousmarines de Bermuda. - *Travaux du Muséum d'Histoire naturelle “Grigore Antipa”*. Bucharest. **32**: 257-262.
- BĂCESCU M. & ILIFFE T.H. 1991. Nouvelles espèces de *Cumella* des grottes sous-marines de Bermude. *Revue Roumaine Biologie. Série Biologie Animale*. Edit. Academiei Române. București. **36**(1-2): 9-13.
- BĂCESCU M. & MURADIAN Z. 1977. *Cubanocuma gutzui* gen. et sp. n. (Cumacea, Nannastacidae) from the tropical western Atlantic. *Revue Roumaine de Biologie. Série Biologie Animale*. Edit. Academiei Române. București. **22**: 3-9.
- BATTS J. H. 1957. Anatomy and life cycle of the snail *Rumina decollata* (Pulmonata: Achatinidae). *Southwestern Naturalist*. Texas. **2**(2-3): 74-82.
- BAYER F. M. 1943. The Florida species of the family Chamidae. *The Nautilus*. Florida. **56**(4):116-124.
- BIELER R. 2004. Sanitation with sponge and plunger: western Atlantic slit-wormsnails (Mollusca: Caenogastropoda: Sillquariidae). *Zoological Journal of the Linnean Society*. Oxford University Press. **140**: 307-333.
- BIELER R. & SLAPCINSKY J. 2000. A case study for the development of an island fauna: Recent terrestrial mollusks of Bermuda. *Nemouria, Occasional Papers of the Delaware Museum of Natural History*. Wilmington, Delaware. **44**: 1-99.
- BIELER R. P. M., MIKKELSEN T. LEE, FOIGHIL D. Ó. 2004. Discovery of the Indo-Pacific oyster *Hyotissa hyotis* (Linnaeus, 1758) in the Florida Keys (Bivalvia: Gryphaeidae). *Molluscan Research*. CSIRO Publishing. **24**(3): 149-159.
- BOUCHET P., ROCROI J. -P., BIELER R., CARTER J. G., COAN E. V. 2010. Nomenclator of bivalve families with a classification of bivalve families. *Malacologia*. Institute of Malacology (U.S.). **52**(2): 1-184.
- BOUCHET P., ROCROI J.-P., HAUSDORF B., KAIM A., KANO Y., NÜTZEL A., PARKHAEV P., SCHRÖDL M., STRONG E.E. 2017. Revised Classification, Nomenclator and Typification of Gastropod and Monoplacophoran Families. *Malacologia*. Institute of Malacology (U.S.). **61**(1-2): 1-526.
- COATES K., FOURQUREAN J., KENWORTHY W., LOGAN A., MANUEL S., SMITH S. 2013. Introduction to Bermuda: Geology, Oceanography and Climate. In: C.R.C. Sheppard (Ed.) *Coral Reefs of the United Kingdom Overseas Territories. Coral Reefs of the World 4. Coral Reefs of the United Kingdom Overseas Territories*. Springer Science. 115-133.
- COPELAND A. I. 2020. Management plan for the land hermit crab (*Coenobita clypeatus*) in Bermuda. Department of Environment and Natural Resources, Government of Bermuda. 39 pp.
- CROZIER W. J. 1918. Growth of *Chiton Tuberculatus* in Different Environments. *Proceedings of the National Academy of Sciences of the United States of America*. United States National Academy of Sciences (U. S.). **4**(11) : 325-328.
- DANCE P. S. 1977. *The Encyclopedia of Shells (Second Edition)*. Blandford Press Limited. Poole, Dorset.1-288.
- DALL W. H. & BARTSCH P. 1911. New species of shells from Bermuda. *Proceedings of the United States National Museum*. Smithsonian Institution Press. **40**: 277-288.
- DAVIS E., PEREZ K., BENNETT D. 2004. *Euglandina rosea* (Férussac, 1821) is found on the ground and in trees in Florida. *The Nautilus*. Florida. **118**(3): 127-128.
- DAVIS C. J. & BUTLER G. D. 1964. Introduced enemies of the giant African Snail, *Achatina fulica* Bowdich, in Hawaii (Pulmonata: Achatinidae). *Proceedings Hawaiian Entomological Society*. Honolulu, Hawaii. **18**(3): 377-389.
- DELAWARE MUSEUM OF NATURE & SCIENCE. 2024. Delaware Museum of Nature and Science – Mollusks. Occurrence dataset <https://doi.org/10.15468/lfwzak> accessed via GBIF.org on 2024-05-24.
- GOULD S. J. 1966. Notes on shell morphology and classification of the Siliquariidae (Gastropoda): the protoconch and slit of *Siliquaria squamata* Blainville. *American Museum novitates*. American Museum of Natural History (U. S.). **2263**: 1-13.
- GOULD S. J. 1968. The molluscan fauna of an unusual Bermudian pond: a natural experiment in form and composition. *Breviora*. Harvard Univ., Museum Comparative Zoology. **308**: 1-13.
- HAAS F. 1952. On the mollusk fauna of the landlocked waters of Bermuda. *Fieldiana: Zoology*. Field Museum of Natural History, Chicago. **34**(8): 101-105.
- HARRY H. W. 1985. Synopsis of the supraspecific classification of living oysters (Bivalvia: Gryphaeidae and Ostreidae). *Veliger*. **28**: 121-158.
- HARVARD UNIVERSITY M, MORRIS P. J. 2024. Museum of Comparative Zoology, Harvard University. Version 162.426. Museum of Comparative Zoology, Harvard University. Occurrence dataset <https://doi.org/10.15468/p5rupv> accessed via GBIF.org on 2024-05-24.
- HEILPRIN A. 1888. Contributions to the Natural History of the Bermuda Islands. *Proceedings of the Academy of Natural Sciences of Philadelphia*. Academy of Natural Sciences of Drexel University (U.S.). **40**: 302-328.
- HUBER M. 2010. *Compendium of bivalves. A full-color guide to 3,300 of the World's Marine Bivalves. A status on Bivalvia after 250 years of research*. Hackenheim: ConchBooks. 901 pp.
- JENSEN R. H. 1997. A Checklist and Bibliography of the Marine Molluscs of Bermuda. Unp. 547 pp.
- JENSEN R. H. & PEARCE T. A. 2009. *Marine Mollusks of Bermuda: Checklist and Bibliography*. Delaware Museum of Natural History. Wilmington, Delaware. 473 pp.

- JONES B. & HUNTER I.G. 1995. Vermetid Buildups from Grand Cayman, British West Indies. *Journal of Coastal Research*. Charlotte, NC. (U.S.). **11**(4): 973-983.
- KERNEY M. P., CAMERON R. A. D., JUNGBLUTH J. H. 1983. *Die Landschnecken Nord- und Mitteleuropas. Ein Bestimmungsbuch für Biologen und Naturfreunde*. Hamburg, Berlin. 384 pp.
- LINDNER G. 1989. *Guide des coquillages marins. Les Guides du Naturaliste (Deuxième édition)*. Delachaux & Niestlé. Neuchâtel-Paris. 255 pp.
- MIKKELSEN P. M. & BIELER R. 2008. Seashells of Southern Florida. Living Marine Mollusks of the Florida Keys and Adjacent Regions: Bivalves. Princeton University Press. 496 pp.
- MOLLUSCABASE eds. 2024. MolluscaBase. Accessed at <https://www.molluscabase.org> on 2024-05-23. doi:10.14284/448
- NICOL D. 1984. The shallow-water marine pelecypods of Bermuda: An example of a sweepstakes route. *Florida Scientist*. [Orlando] Florida Academy of Sciences. **47**(3): 193-197.
- OLIVER A. P. H. 1979. *Les coquillages marins du monde en couleurs*. Elsevier Sequoia, Paris-Bruxelles. 320 pp.
- OUTERBRIDGE M. & SARKIS S. 2019. Recovery plan for the endemic land snails of Bermuda; *Poecilozonites bermudensis* and *Poecilozonites circumfirmatus*. Department of Environment and Natural Resources, Government of Bermuda. 26 p.
- PANSINI M., CATTANEO-VIETTI R., SCHIAPARELLI S. 1999. Relationship between sponges and a taxon of obligatory inquilines: the Siliquariid molluscs. *Memoirs of the Queensland Museum*. Brisbane, Queensland Museum. **44**: 427-438.
- PEILE A. J. 1926. The Mollusca of Bermuda (with corrections attached). *Proceedings of the Malacological Society of London*. London, Dulau. **17**(2 & 3): 71-98.
- PETRESCU I. 1990. *Campylaspis cousteaui*, a new cumacean species from the submarine caves of Bermuda. *Revue Roumaine de Biologie. Série Biologie Animale*. Edit. Academiei Române. București. **35**(1): 9-12.
- PETRESCU I. & STERRER W. 2001. Cumacea (Crustacea) from shallow waters of Bermuda. *Annales Naturhistorisches Museum Wien*. Naturhistorisches Museum Wien. Wien, Austria. **103B**: 89-128.
- PETRESCU I. & PETRESCU A. 2019. Donation of dr. Hilarius Mitrea from the collections of Museum of Natural History from Bucharest. *Marisia*. Muzeul Judetean Mureș. Studii și materiale. Științele Naturii, Târgu Mureș. **38-39**: 101-130.
- SEVILLA M. L., GARCÍA-DOMÍNGUEZ F., URÍA E. 1998. Datos anatómicos de *Hyotissa hyotis* (Linnaeus, 1758). *Anales de la Escuela Nacional de Ciencias Biológicas*. México. **43**: 25-32.
- STERRER W. 1986. *Marine fauna and flora of Bermuda: a systematic guide to the identification of marine organisms*. Wiley-Interscience Publication. Wiley, New York. 742 pp.
- STERRER W. 1992. *Bermuda's Marine Life*. Bermuda Natural History Museum and Bermuda Zoological Society, Bermuda. 308 pp.
- STERRER W. 1998. How many species are there in Bermuda?. *Bulletin of Marine Science*. Rosenstiel School of Marine, Atmospheric, and Earth Science at the University of Miami. **62**(3): 809-840.
- STERRER W., GLASSPOOL, A., DESILVA, H., FURBERT, J. 2004. Bermuda - An Island Biodiversity Transported. In: John Davenport and Julia L. Davenport (eds.) *The Effects of Human Transport on Ecosystems: Cars and Planes, Boats and Trains*. Dublin: Royal Irish Academy. 118-170.
- THOMAS M. L. H. 1996. *The ecology of Harrington Sound. Project Nature. Field study guide*. The Bermuda Paint Co. 96 pp.
- THOMAS M. L. H. 2006. *A Teaching Guide to the Biology and Geology of Bermuda*. Bermuda Zoological Society, 360 pp.
- THOMAS M. L. H. & STEVENS J.-A. 1991. Communities of constructional lips and cup reef rims in Bermuda. *Coral Reefs*. Springer Science+Business Media. **9**(4): 225-230.
- TUNNELL Jr. J., ANDREWS J., BARRERA N., MORETZSOHN F. 2010. *Encyclopedia of Texas Seashells. Identification, Ecology, Distribution & History*. Texas A & M University Press. 512 pp.
- VANATTA E.G. 1910. Bermuda shells. *Proceedings of the Academy of Natural Sciences of Philadelphia*. **62**(3):664-672.
- VANATTA E.G. 1923. Bermuda shells. *The Nautilus*. Florida. **37**: 32-33.
- VERRILL. A. E. 1901-1902. The Bermuda islands: an account of their scenery, climate, productions, physiography, natural history and geology, with sketches of their discovery and early history, and the changes in their flora and fauna due to man. *Transactions of the Connecticut Academy of Arts and Sciences*, **11**: 413-956.
- WALKER S. E. 1994. Biological Remanie: Gastropod Fossils Used by the Living Terrestrial Hermit Crab, *Coenobita clypeatus*, on Bermuda. *Palaios*. SEPM Society for Sedimentary Geology. **9**(4): 403-412.
- WALLER T. R. 1973. The habits and habitats of some Bermudian marine mollusks. *The Nautilus*. Florida. **87**(2): 31 -52.
- WORMS ED. BOARD. 2024. *World Register of Marine Species*. Available from <https://www.marinespecies.org> at VLIZ. Accessed 2024-05-23. doi:10.14284/170

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