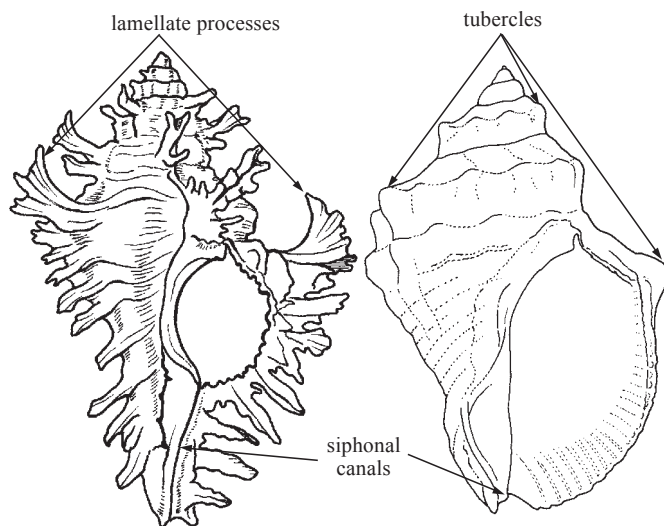


**MURICIDAE**

**Rock shells (rock snails)**

**Diagnostic characters:** Shell usually with high spire, shell sculpture with prevailing axial elements such as varices (usually placed at 120° intervals), spines, nodules, lamellae, and others. Anterior canal usually well developed. Periostracum lacking. Operculum thick, horny.



ventral view

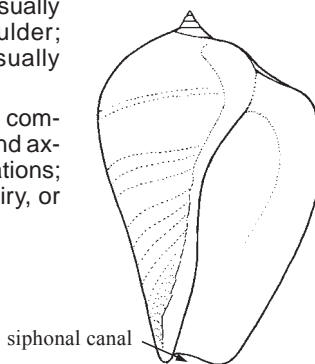
examples showing diversity of shape and sculpture

**Habitat, biology, and fisheries:** In shallow waters. Active predators, generally feeding on other molluscs and barnacles. Typically, access to the soft parts of the prey is obtained by boring a hole through the shell by means of a softening secretion and then scraping action of the radula. Hand-collected, especially by divers. Marketed and consumed locally. The shell is sold as an ornament.

**Similar families occurring in the area**

**Melongenidae:** shell pear-shaped to fusiform, usually with sculpture of spines or nodules on shoulder; periostracum usually thick; parietal shield usually smooth; operculum claw-shaped, heavy, horny.

**Ranellidae:** shell usually large, heavy, sculpture a combination of strong spiral elements such as cords and axial varices; outer lip internally with strong indentations; periostracum sometimes very well developed, hairy, or fringe-like; operculum heavy, horny.




Melongenidae




Ranellidae

**List of species of interest to fisheries occurring in the area**

The symbol  is given when species accounts are included.

 *Chicoreus brevifrons* (Lamarck, 1822).

 *Chicoreus pomum* (Gmelin, 1791).

 *Stramonita haemastoma* (Linnaeus, 1767).

**References**

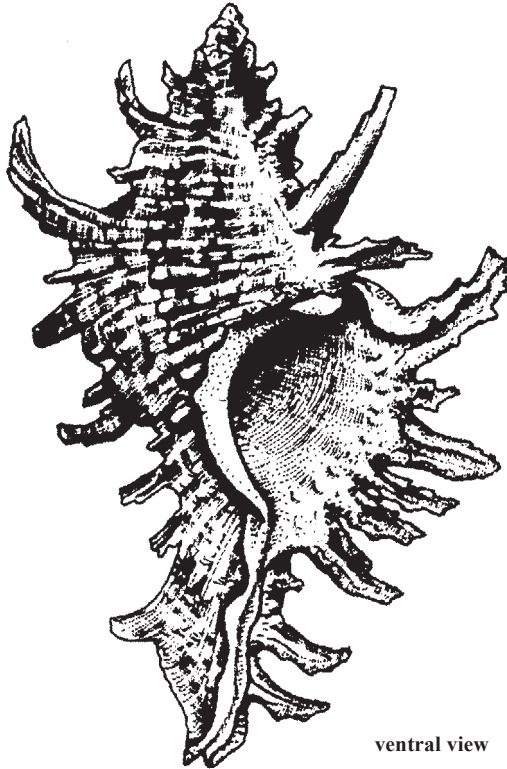
- Houart, R. 1994. *Illustrated catalogue of Recent species of Muricidae named since 1971*. Verlag Crista Hemmen, Wiesbaden, 179 p.
- Kool, S.P. 1987. Significance of radular characters in reconstruction of thaidid phylogeny (Neogastropoda: Muricacea). *The Nautilus*, 101:117-132.
- Radwin, G. and A. D'Attilio. 1976. *Murex shells of the World - An illustrated guide to the Muricidae*. Stanford Univ. Press, 284 p.

*Chicoreus brevifrons* (Gmelin, 1791)

KSB

**Frequent synonyms / misidentifications:** *Murex brevifrons* Lamarck, 1822 / *Chicoreus pomum* (Gmelin, 1791); *Chicoreus dilectus* (A. Adams, 1855).

**FAO names:** **En** - West Indian murex; **Fr** - Rocher antillais; **Sp** - Busano antillano.

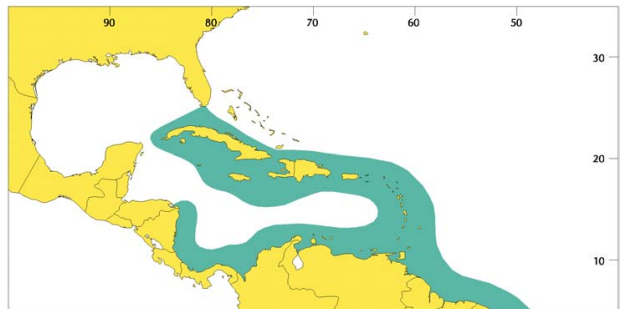


**Diagnostic characters:** Shell elongate, anterior canal well developed, 3 axial varices present on last whorl, varices with foliated spines, surface sculpture of flat spiral cords and cordlets in the interspaces. **Colour:** variable, with dark and pale spiral bands, aperture whitish.

**Size:** To 150 mm.

**Habitat, biology, and fisheries:** On mud flats in protected bays and lagoons, near oyster flats, and mangrove environments. Consumed locally raw or boiled.

**Distribution:** Caribbean to Brazil.

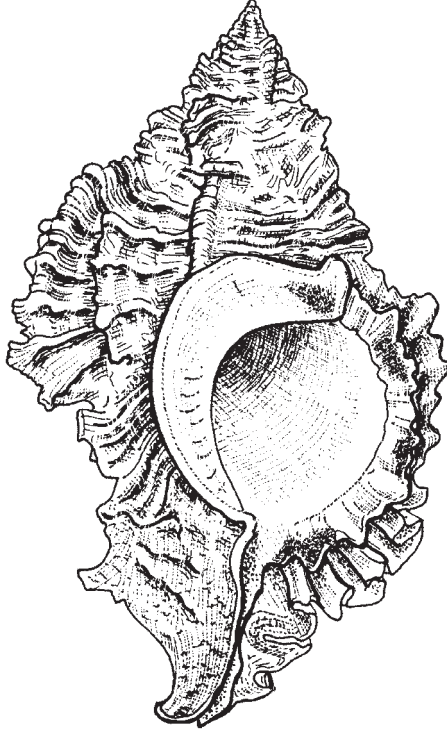


***Chicoreus pomum*** (Gmelin, 1791)

FLO

**Frequent synonyms / misidentifications:** *Murex pomum* Gmelin, 1791; *Phyllonotus pomum* (Gmelin, 1791) / *Chicoreus oculatus* (Reeve, 1845); *Chicoreus margaritensis* (Abbott, 1958).

**FAO names:** **En** - Apple murex; **Fr** - Rocher pomme; **Sp** - Busano manzanero.



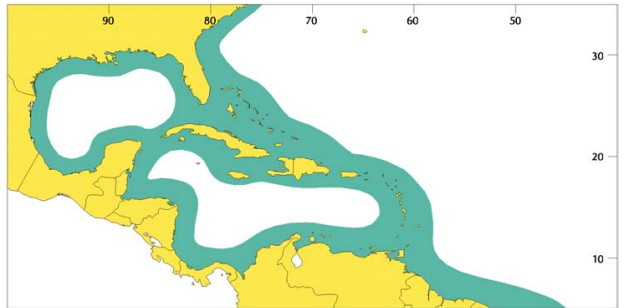
ventral view

**Diagnostic characters:** Shell heavy, thick, with rough surface. Sculpture of numerous spiral cords and axial ribs, spines absent. Varices strong but spineless. Siphonal canal curved. **Colour:** tan to brown, outer lip with 3 or 4 dark blotches. Aperture glossy, ivory, buff, salmon, or yellow, with dark brown spot on apical end of parietal wall.

**Size:** To 125 mm.

**Habitat, biology, and fisheries:** On soft and hard bottoms, along a wide depth range (from 0 to 200 m). Predator feeding on bivalves; performs communal spawning. Consumed locally, raw or boiled.

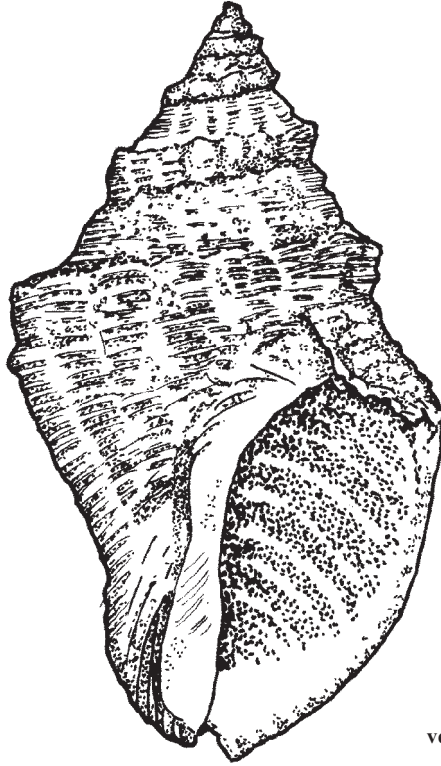
**Distribution:** North Carolina to Florida and Caribbean to Brazil.



***Stramonita haemastoma*** (Linnaeus, 1767)

**Frequent synonyms / misidentifications:** *Thais haemastoma* (Linnaeus, 1767) / *Stramonita rustica* (Lamarck, 1822).

**FAO names:** **En** - Red-mouthed rock shell (AFS: Rock snail); **Fr** - Pourpre haemastoma; **Sp** - Púrpura de boca roja.



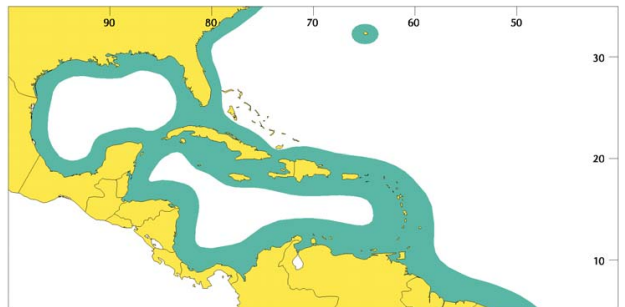
ventral view

**Diagnostic characters:** Shell solid, elongate. Shell sculpture of fine spiral lines with weak axial growth lines. Last whorls sometimes with nodules on shoulder. **Colour:** variable, light grey, yellowish, or tan, usually mottled or checkered with darker brown, greyish, or orange marks.

**Size:** To 80 mm.

**Habitat, biology, and fisheries:** On all kinds of hard substrates, intertidal to subtidal. Active predator on oyster and mussel beds.

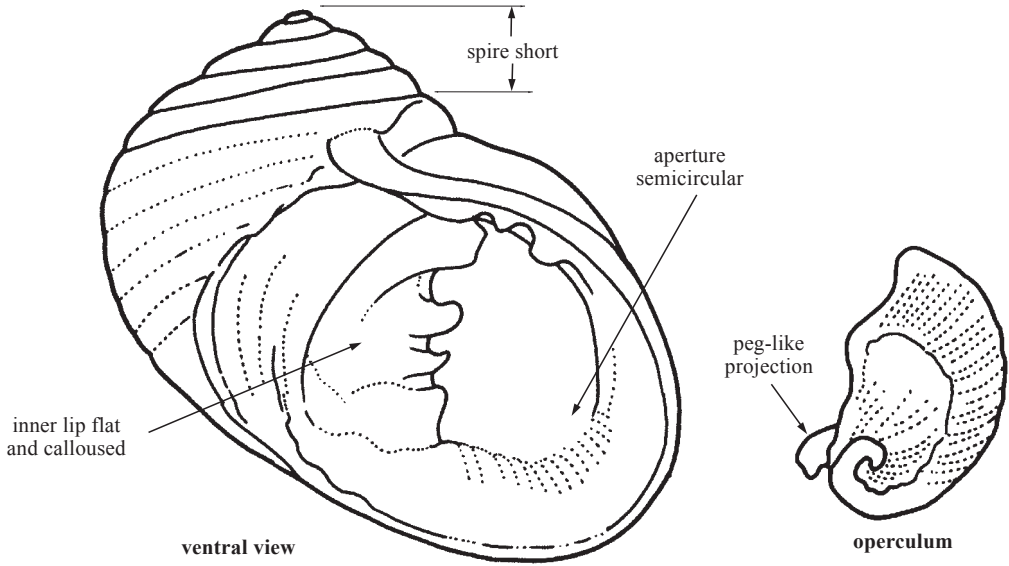
**Distribution:** North Carolina to Florida, Caribbean to Brazil, Bermuda, and tropical West Africa.



## NERITIDAE

### Nerites

**Diagnostic characters:** Shell globose, thick, sculpture usually with strong spiral elements such as cords and threads. Aperture D-shaped, posterior part of outer lip and parietal region usually with strong indentations. Operculum calcareous, with projecting peg on internal edge.



**Habitat, biology, and fisheries:** Intertidal on rocky coasts. Consumed locally, boiled.

#### Similar families occurring in the area

Naticidae: shell globular to ovate-conical; outer surface smooth or with reduced sculpture; aperture large, semicircular; siphonal canal absent; umbilicus open or closed, sometimes with an internal rib; operculum corneous or calcified.

#### List of species of interest to fisheries occurring in the area

The symbol  is given when species accounts are included.

 *Nerita peloronta* Linnaeus, 1758.



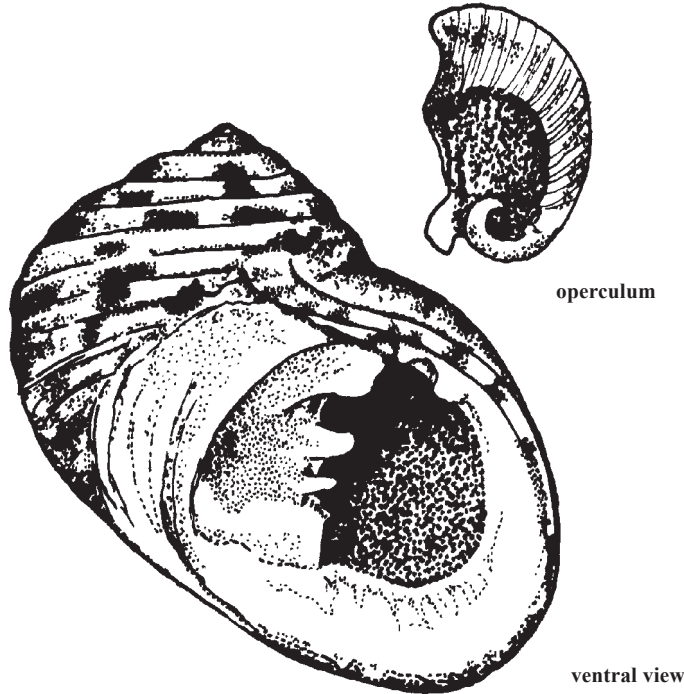
ventral view  
Naticidae

*Nerita peloronta* Linnaeus, 1758

NJE

**Frequent synonyms / misidentifications:** None / *Nerita tessellata* Gmelin, 1791; *Nerita fulgurans* Gmelin, 1791.

**FAO names:** En - Bleeding tooth; Fr - Néríte dent saignant; Sp - Nerita diente sangrante.

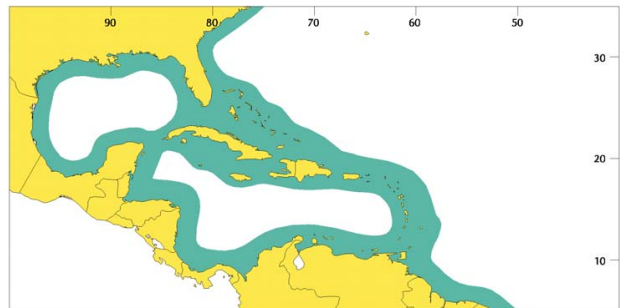


**Diagnostic characters:** Shell solid, globular, sculpture of strong spiral cords fading out on last whorl. Aperture large, inner lip with 1 to 3 white tooth-like projections, with blood red blotch, outer lip finely crenulated. **Colour:** shell colour yellowish mottled with red and black.

**Size:** To 40 mm.

**Habitat, biology, and fisheries:** Inhabits rocky coasts in intertidal zones, usually in high-energy environments. Known to exhibit 'homing' behaviour, moving in search of shelter during the day and foraging at night. Hand-collected, consumed locally, mainly in chowders, stews, and soups.

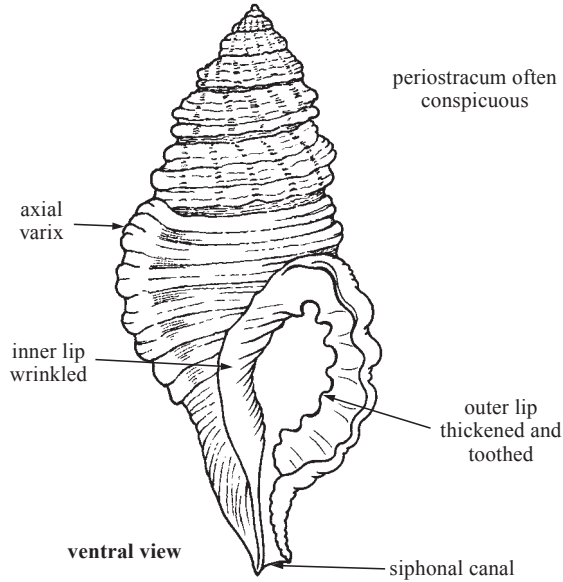
**Distribution:** North Carolina to Florida and Caribbean to Brazil.



**RANELLIDAE**

**Triton shells**

**Diagnostic characters:** Shell usually large, heavy, sculpture a combination of strong spiral elements such as cords and axial varices. Outer lip internally with strong indentations. Periostracum sometimes very well developed, hairy, or fringe-like. Operculum heavy, horny.



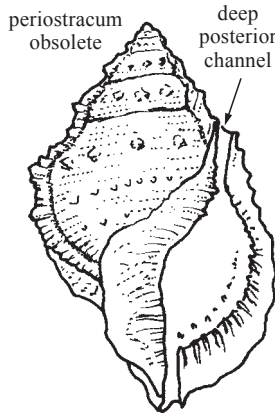
**Habitat, biology, and fisheries:** Species of interest to fisheries inhabit shallow-water environments. Consumed locally, raw or cooked. Shells marketed as souvenirs, collectibles, or ornaments.

**Remarks:** Formerly referred to as Cymatiidae.

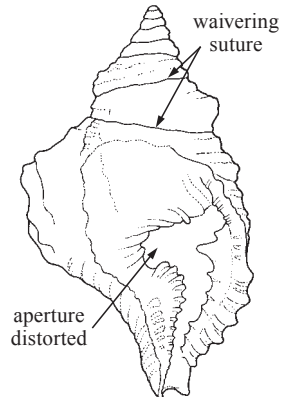
**Similar families occurring in the area**

**Bursidae:** periostracum obsolete to absent; aperture with a deep posterior canal.

**Personidae:** spire whorls irregular, with a wavering suture; aperture distorted; inner lip strongly sinuous, with an extensive, shield-like callus.




ventral view  
**Bursidae**



ventral view  
**Personidae**

**List of species of interest to fisheries occurring in the area**

The symbol  is given when species accounts are included.

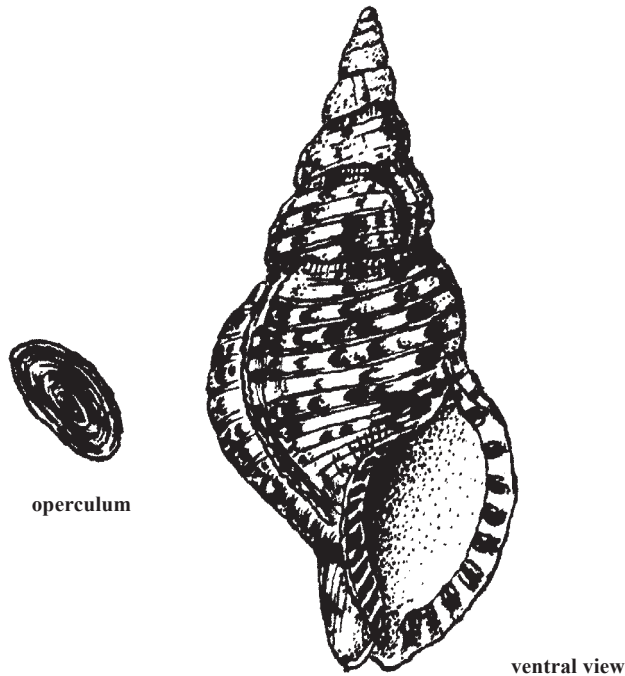
 *Charonia variegata* (Lamarck, 1816).



***Charonia variegata* (Lamarck, 1816)**

**Frequent synonyms / misidentifications:** *Charonia tritonis variegata* (Lamarck, 1816) / None.

**FAO names:** **En** - Atlantic triton's trumpet; **Fr** - Triton de l'Atlantique; **Sp** - Tritón Atlántico.



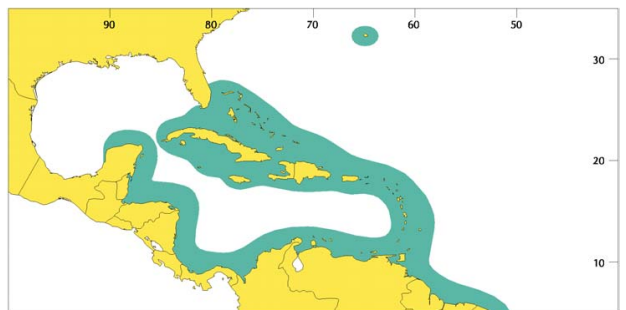
**Diagnostic characters:** Shell elongate, large, heavy. Spire pointed, elongate. Anterior canal very short. Varices present on last whorls. Parietal region with narrow dark brown inner lip covered by regularly spaced, spirally oriented, white, cord-like plicae. Outer lip internally with pairs of fine white teeth superimposed on square blotches of dark brown colour. **Colour:** cream white with brown markings, usually crescent-shaped.

**Size:** To 330 mm.

**Habitat, biology, and fisheries:** Shallow subtidal, collected by divers, consumed locally raw or boiled. Shell sold as collectible or souvenir.

**Distribution:** Southeastern Florida, Caribbean to Brazil, and Bermuda.

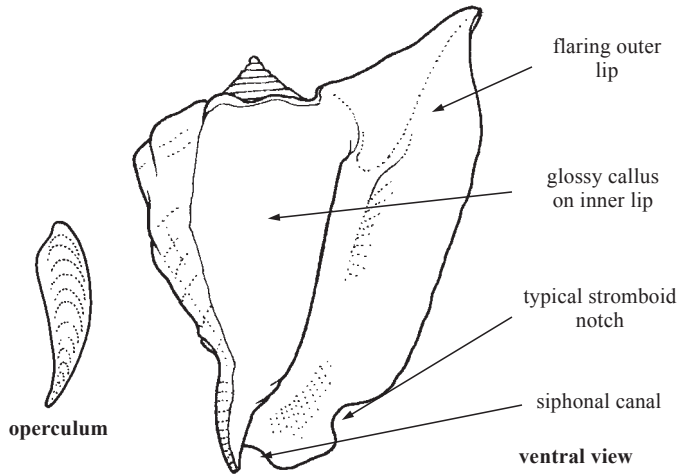
**Remarks:** Referred to elsewhere as *Charonia tritonis variegata*; however, specific status of the taxon is currently well accepted amongst specialists.



## STROMBIDAE

### Conchs (stromb conchs)

**Diagnostic characters:** Shell usually large, thick, heavy, with large last whorl. Shell sculpture consists of a row of spines, nodules, or knobs on shoulder. Aperture with flaring outer lip in mature individuals. Stromboid notch usually well developed, near short, opened anterior canal. Parietal region with heavy, glazed callus. Operculum sickle-shaped, sometimes serrated along outer edge. Foot narrow, elongate, used for leaping. Eyes at the distal end of long stalks.







**Habitat, biology, and fisheries:** On sandy bottoms, usually in areas of large concentration of brown seaweeds and/or seagrass beds. Most species consumed locally, with at least 1 species (*Strombus gigas*) of great economic importance to fisheries.

#### Similar families occurring in the area

None.

#### List of species of interest to fisheries occurring in the area

The symbol  is given when species accounts are included.

-  *Strombus costatus* Gmelin, 1791.
-  *Strombus gigas* Linnaeus, 1758.
-  *Strombus pugilis* Linnaeus, 1758.

#### References

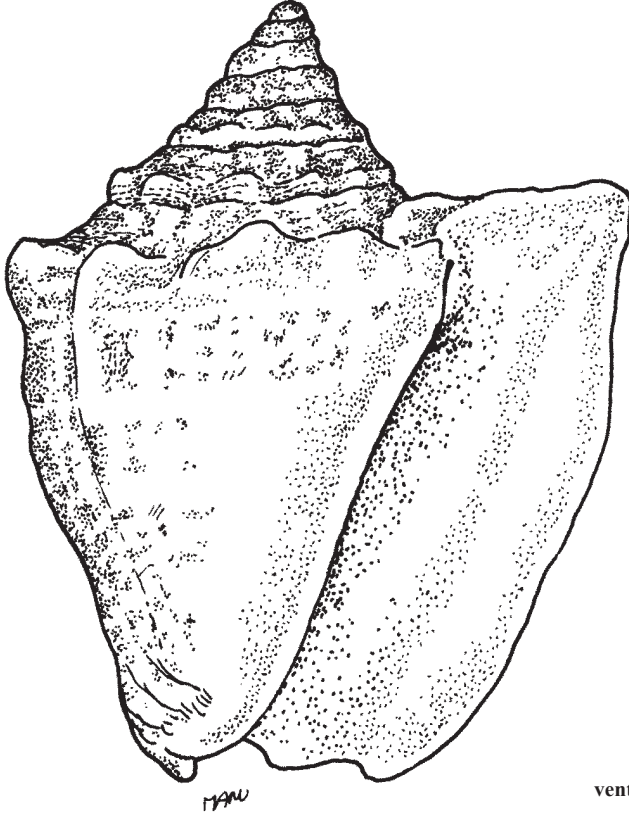
- Appeldoorn, R.S. 1985. Growth, mortality and dispersion of juvenile, laboratory-reared conchs, *Strombus gigas* and *S. costatus*, released at an offshore site. *Bull. Mar. Sci.*, 37:785-793.
- Appeldoorn, R.S. 1988. Age determination, growth, mortality, and age of first reproduction in adult queen conch, *Strombus gigas* L., off Puerto Rico. *Fish. Res.*, 6:363-378.
- Brownell, W.N., C.J. Berg, Jr., and K.C. Haines. 1977. Fisheries and aquaculture of the queen conch, *Strombus gigas*, in the Caribbean. *FAO Fish. Rep.*, 200:59-69.
- Brownell, W.N. and J.M. Stevely. 1981. The biology, fisheries and management of the queen conch, *Strombus gigas*. *Mar. Fish. Rev.*, 43(7):1-12.
- Medley, P.A. and C.H. Ninnes. 1999. A stock assessment for the conch (*Strombus gigas* L.) in the Turks and Caicos Islands. *Bull. Mar. Sci.*, 64(3):399-406.
- Stoner, A.W. 1997. The status of the queen conch, *Strombus gigas*, research in the Caribbean. *Mar. Fish. Rev.*, 59(3):14-22.
- Tewfik, A., H.M. Guzmán, and G. Jácome. Assessment of the queen conch *Strombus gigas* (Gastropoda: Strombidae) population in Cayos Cochinos, Honduras. *Rev. Biol. Trop.*, 46(4):137-150.

*Strombus costatus* Gmelin, 1791

MBQ

**Frequent synonyms / misidentifications:** None / *Strombus gigas* Linnaeus, 1758, *Strombus goliath* Schröter, 1805.

**FAO names:** En - Milk conch; Fr - Strombe laiteux; Sp - Cobo lechoso.



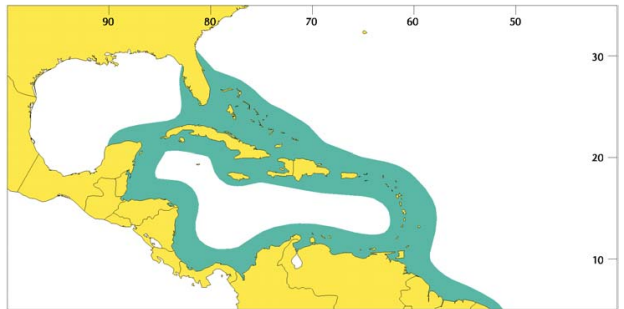
ventral view

**Diagnostic characters:** Shell of medium size, shape extremely variable, sculpture of projecting nodules on shoulder. Aperture flared in mature specimens, sometimes with very thick lip. **Colour:** internal shell white, sometimes glazed or metallic-like; shell externally cream to brown, frequently flecked with other hues.

**Size:** To 160 mm.

**Habitat, biology, and fisheries:** Lives on sand in meadows of seagrass or, less frequently, brown algae. Development includes a long-lasting, planktotrophic stage. Consumed locally and exploited commercially in parts of the area.

**Distribution:** Southern Florida, southern Gulf of Mexico, Caribbean to Brazil, and Bermuda.

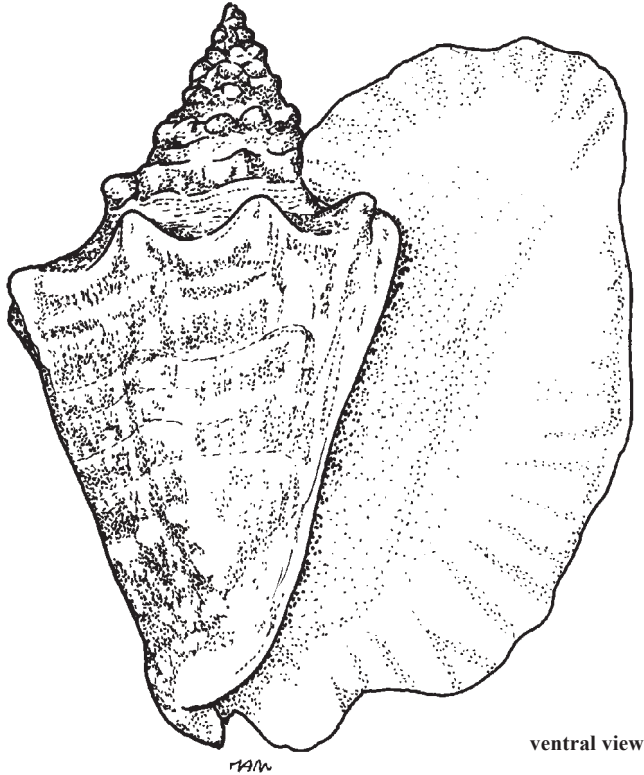


*Strombus gigas* Linnaeus, 1758

COO

**Frequent synonyms / misidentifications:** None / *Strombus goliath* Schröter, 1805, *Strombus costatus* Gmelin, 1791.

**FAO names:** **En** - Pink conch (AFS: Queen conch); **Fr** - Strombe rosé; **Sp** - Cobo rosado.

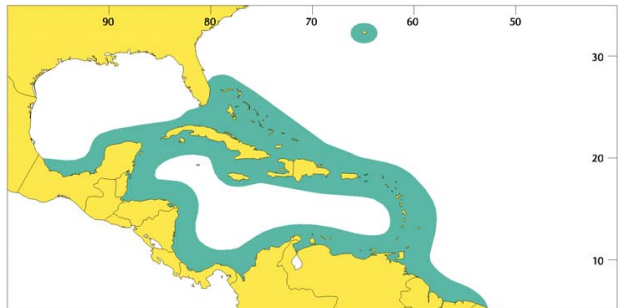


**Diagnostic characters:** Shell large, with relatively large spire, flared outer lip with posterior expansion projecting well beyond spire length. Spire taller than other species in genus. Sculpture of sharp knobs along shoulder. **Colour:** pale tan with thin brown periostracum. Internal shell colour deep pink.

**Size:** To 300 mm.

**Habitat, biology, and fisheries:** Lives on sand near seagrass beds, between depths of 2 and 15 m. Unquestionably the more valued and exploited gastropod species in area. The fisheries have grown exponentially in the last 30 years, with resulting declines in population and area closures. The species has been included on appendix 2 of CITES (Convention on the International Trade of Endangered Species). International trade is allowed only from nations in which the populations of the species are not under threat from commercial fishing. Collection/fisheries banned at least in the USA and in the state of Yucatán, Mexico. Stock severely depleted in several Caribbean nations.

**Distribution:** Southeastern Florida, Caribbean; Bermuda.

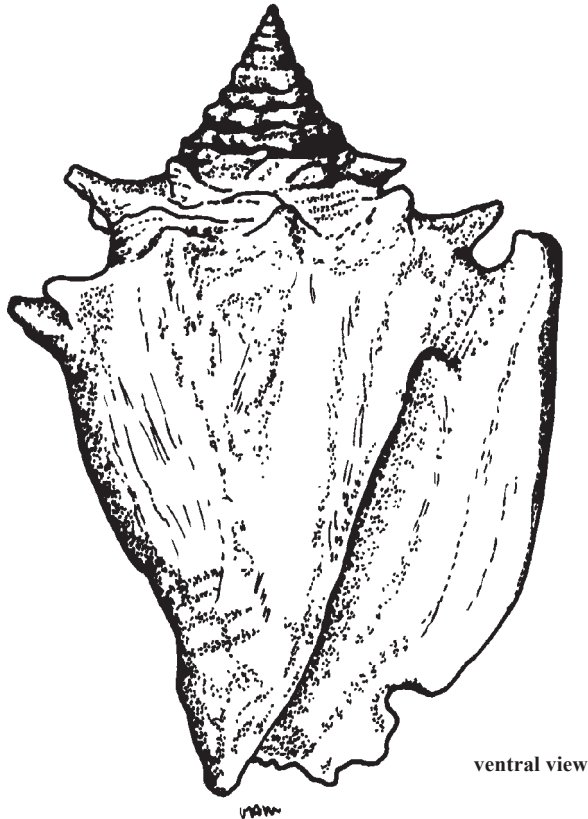


*Strombus pugilis* Linnaeus, 1758

RXU

**Frequent synonyms / misidentifications:** None / *Strombus alatus* Gmelin, 1791.

**FAO names:** **En** - Fighting conch (AFS: West Indian fighting conch); **Fr** - Strombe combattant; **Sp** - Cobo luchador.

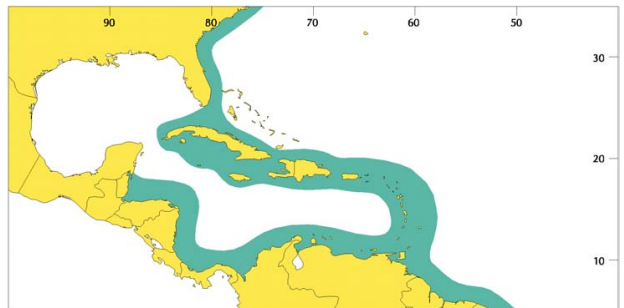


**Diagnostic characters:** Shell solid, with large last whorl and small, pointed spire. Whorls with single row of nodulose spines on periphery; spines larger on last whorl. Anterior and 'stromboid' notches present. Posterior angle of outer lip distinct, projected in posterior direction. Operculum sickle-shaped, animal with elongate foot used for leaping. **Colour:** variable, from yellowish to light or dark orange, interior of aperture white, anterior end dark purple.

**Size:** To 130 mm.

**Habitat, biology, and fisheries:** Lives on sandy bottoms. Development includes a long-lasting, planktotrophic stage. Consumed locally, boiled, exploited commercially in parts of the area.

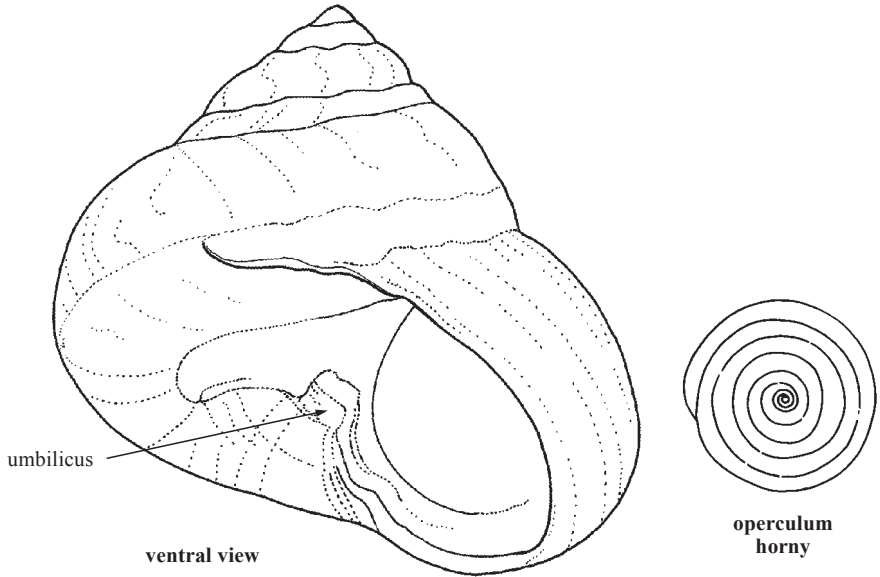
**Distribution:** Southeastern Florida, Caribbean, Bermuda.



## TROCHIDAE

### Top shells

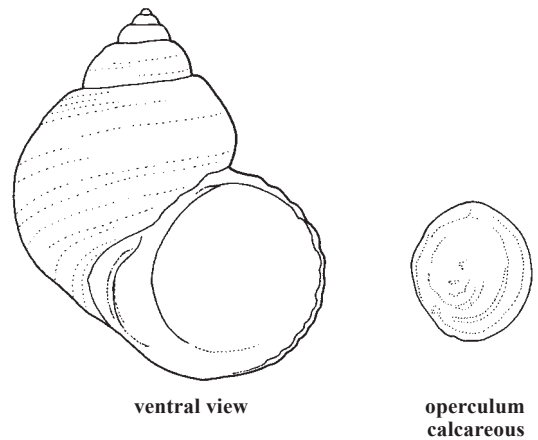
**Diagnostic characters:** Shell conical to globose, usually with a flattened base, umbilicus present. Aperture usually rounded, siphonal canal lacking. Shell internally nacreous. Operculum horny, multispiral.



**Habitat, biology, and fisheries:** Species of interest to fisheries live on hard substrates and shell/coral rubble. *Cittarium pica* is an important fisheries resource that is quickly being extirpated due to over exploitation in many parts of the area.

### Similar families occurring in the area


Turbinidae: shell heavy, thick, sculpture variable; aperture rounded, internally nacreous, anterior canal lacking; operculum calcified but internally horny.



Turbinidae

### List of species of interest to fisheries occurring in the area

The symbol  is given when species accounts are included.

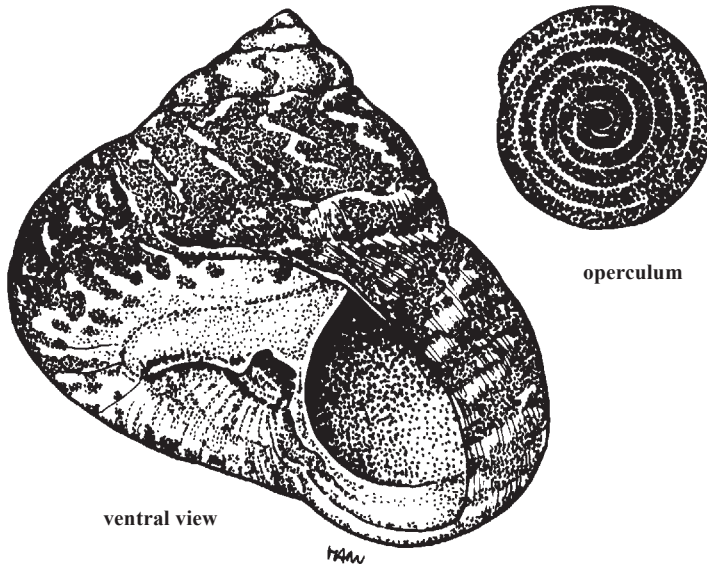
 *Cittarium pica* (Linnaeus, 1758).

*Cittarium pica* (Linnaeus, 1758)

KUI

**Frequent synonyms / misidentifications:** None / None.

**FAO names:** **En** - West Indian top shell; **Fr** - Troque des Antilles; **Sp** - Burgado antillano.

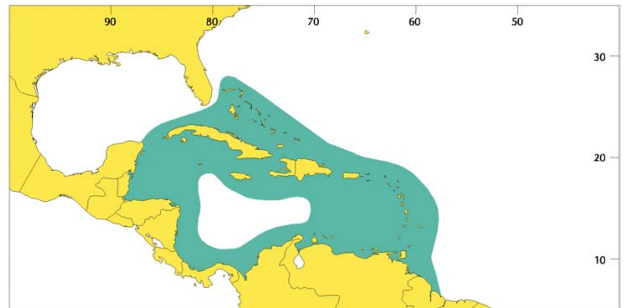


**Diagnostic characters:** Shell large, heavy, conical, with rounded shoulders. Umbilicus deep and round, operculum multispiral, circular. **Colour:** purple-black on a whitish background; aperture white, internally nacreous; operculum iridescent brown.

**Size:** To 100 mm.

**Habitat, biology, and fisheries:** Shallow subtidal, on rocks and shell rubble. Collected by divers. Commercially exploited in entire area of distribution, but stocks have been locally extirpated or are diminishing due to overexploitation.

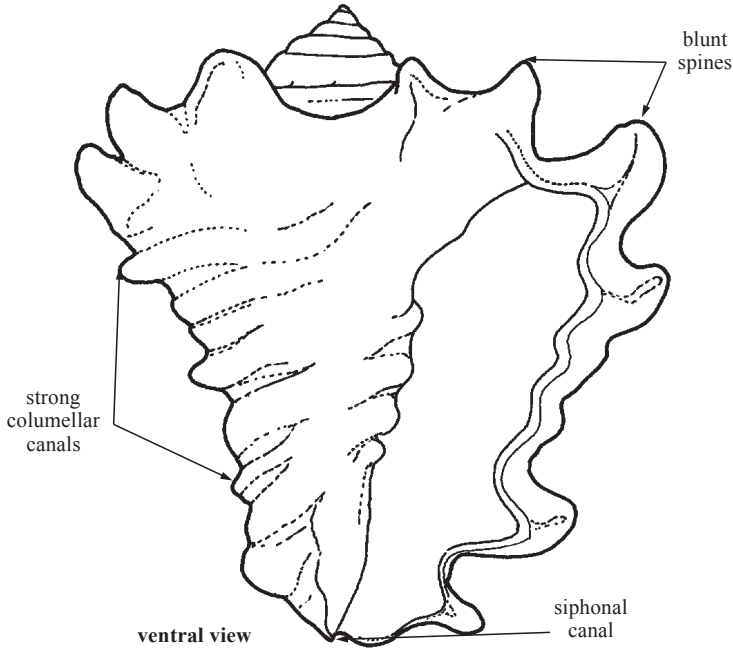
**Distribution:** Caribbean.



## TURBINELLIDAE

### Vase shells

**Diagnostic characters:** Shell very thick and heavy, fusiform. Sculpture of large nodules or blunt spines. Anterior canal and columellar folds well developed. Periostracum conspicuous, thick. Operculum heavy, horny.

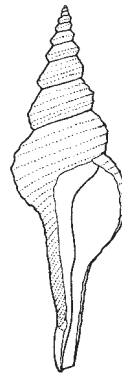


**Habitat, biology, and fisheries:** Intertidal to shallow subtidal, on rocky bottoms, often in coral reef areas. Consumed locally (mainly foot), boiled or in stews.

#### Similar families occurring in the area

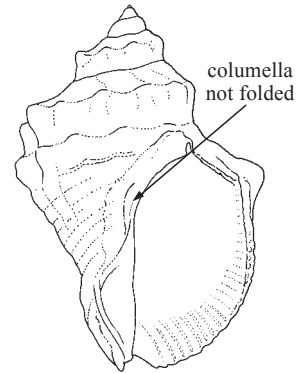
**Fasciariidae:** shell large, elongate, spindle-shaped, spire elevated, anterior canal well developed; columellar folds present; operculum thick and horny.

**Muricidae:** shell usually with high spire, shell sculpture with prevailing axial elements such as varices (usually placed at 120° intervals), spines, nodules, lamellae, and others; anterior canal usually well developed; periostracum lacking; operculum thick, horny.



ventral view

**Fasciariidae**



ventral view

**Muricidae**

#### List of species of interest to fisheries occurring in the area

The symbol is given when species accounts are included.

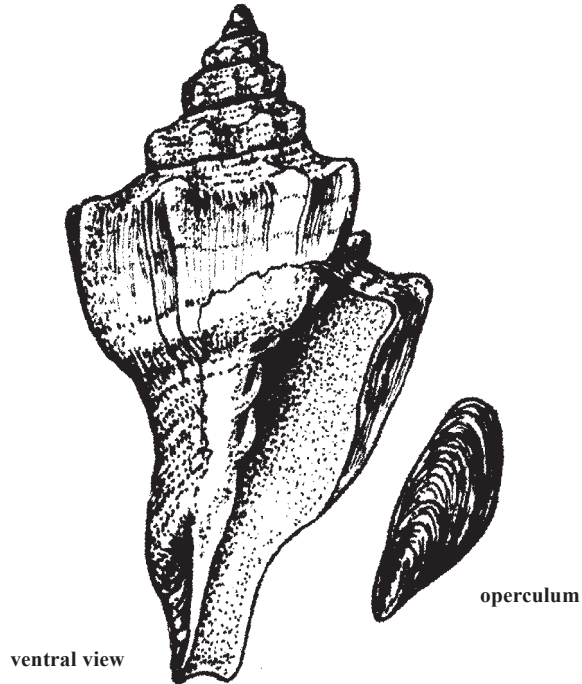
*Turbinella angulata* (Lightfoot, 1786).



***Turbinella angulata*** (Lightfoot, 1786)

**Frequent synonyms / misidentifications:** None / *Pleuroploca gigantea* (Kiener, 1840).

**FAO names:** **En** - West Indian chank; **Fr** - Chanque antillais; **Sp** - Chanque antillano.



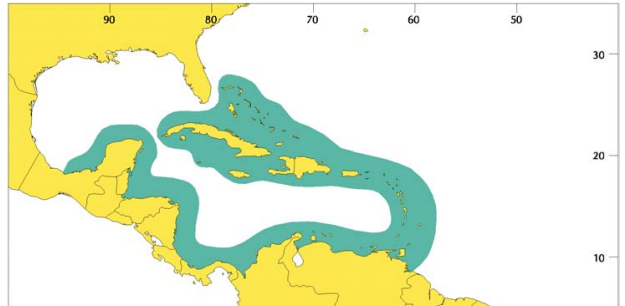
**Diagnostic characters:** Shell very large, heavy, fusiform. Sculpture of 8 to 10 prominent ribs angled at shoulder, 8 to 10 on last whorl. Columella with 3 strong folds. **Colour:** white, internally tinged with pink or orange.

**Size:** To 350 mm.

**Habitat, biology, and fisheries:** Consumed locally, boiled.

**Distribution:** Caribbean: Bahamas, northern Cuba, and Yucatán to Panama.

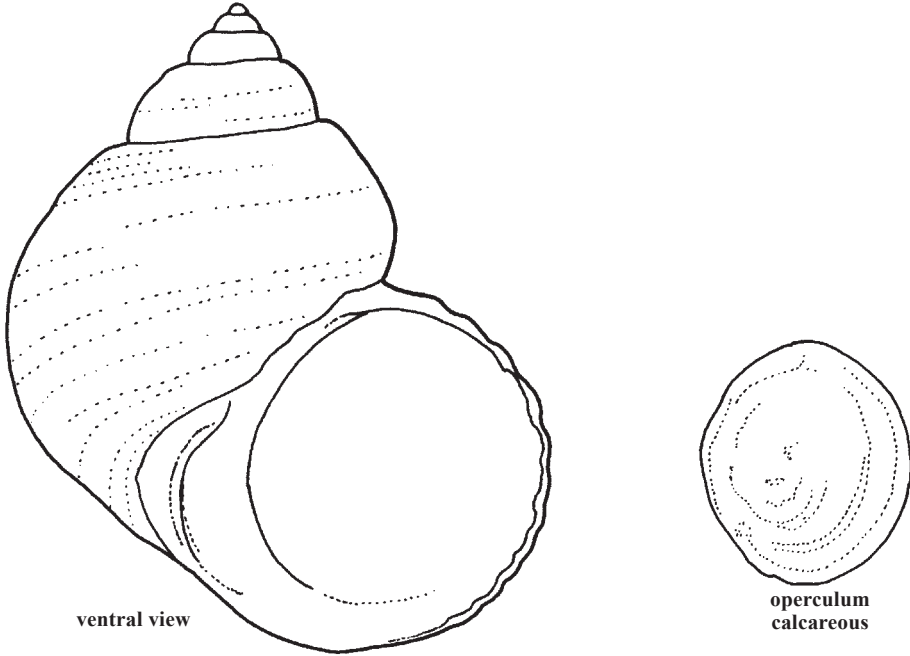
**Remarks:** This is one of the largest gastropods in the Atlantic Ocean.



## TURBINIDAE

### Turban shells

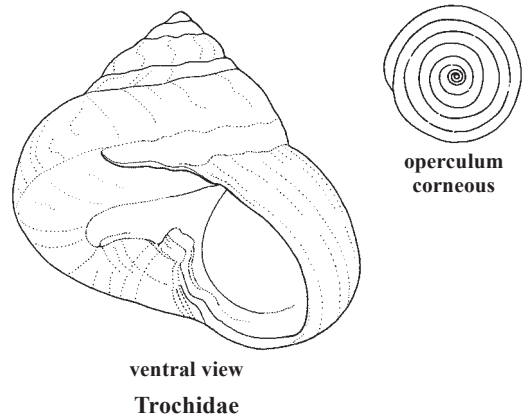
**Diagnostic characters:** Shell heavy, thick, sculpture variable. Aperture rounded, internally nacreous, anterior canal lacking. Operculum calcareous.




**Habitat, biology, and fisheries:** On hard substrates or seagrass beds. Species of interest to fisheries is consumed locally, boiled.

### Similar families occurring in the area


**Trochidae:** shell conical to globose, usually with a flattened base, umbilicus present; aperture usually rounded, siphonal canal lacking; shell internally nacreous; operculum horny, multispiral.



### List of species of interest to fisheries occurring in the area

The symbol  is given when species accounts are included.

 *Turbo canaliculatus* Hermann, 1781.

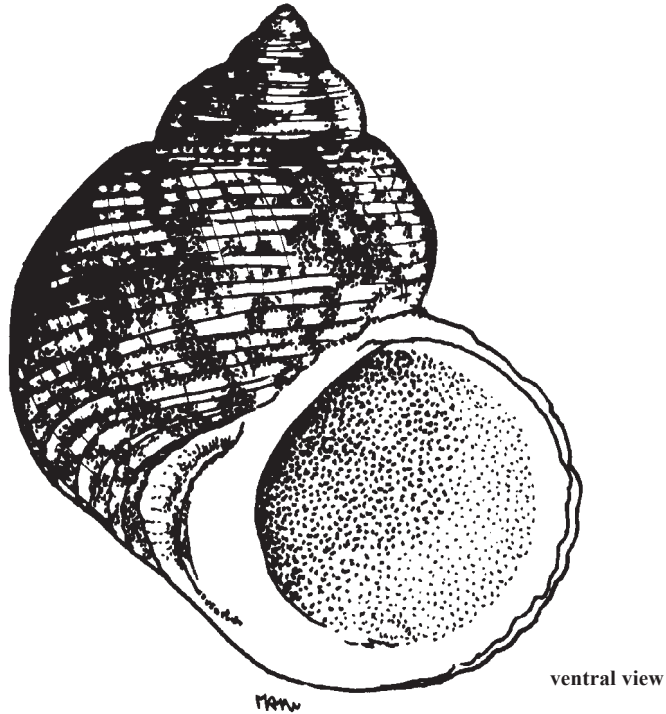
 *Turbo castanea* Gmelin, 1791.

*Turbo canaliculatus* Hermann, 1781

UBN

**Frequent synonyms / misidentifications:** None / *Turbo castanea* Gmelin, 1791; *Cittarium pica* (Linnaeus, 1758).

**FAO names:** **En** - Channelled turban; **Fr** - Turban canaliculé; **Sp** - Turbante acanalado.

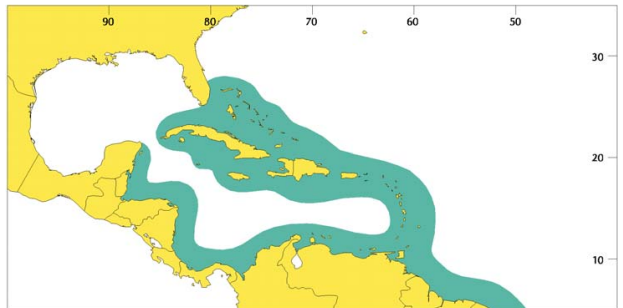


**Diagnostic characters:** Shell rounded, turbanate, shell base convex, umbilicus small. Sculpture consisting of low, smooth spiral cords (16 to 19 on last whorl). Deep groove present below suture. Operculum circular, smoothish. **Colour:** variable, glossy yellowish to orange to red, with irregular markings.

**Size:** To 75 mm.

**Habitat, biology, and fisheries:** On rocks, near seaweeds, in subtidal to 120 m. Consumed locally, boiled, represents a species of potential economic importance.

**Distribution:** Southeastern Florida and Caribbean to Brazil.

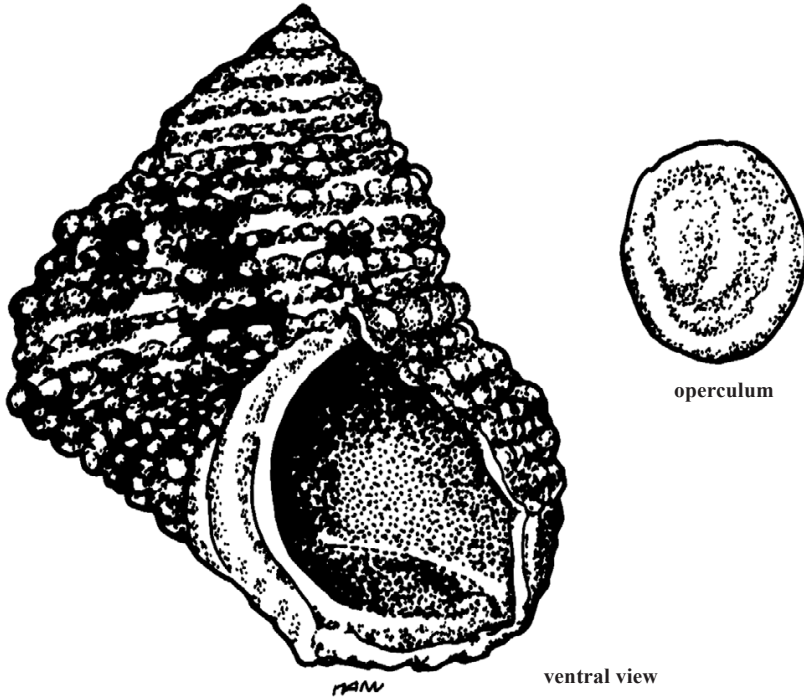


*Turbo castanea* Gmelin, 1791

UOT

**Frequent synonyms / misidentifications:** None / *Turbo canaliculatus* Hermann, 1781.

**FAO names:** En - Chestnut turban; Fr - Turban marron; Sp - Turbante castaña.



**Diagnostic characters:** Shell turbanate. Sculpture of spiral rows of beads, sometimes with small spines on whorl shoulders. **Colour:** tan to light brown, with patches of brown, reddish brown, and cream.

**Size:** To 38 mm.

**Habitat, biology, and fisheries:** On sand and shell and coral rubble, in shallow subtidal. Consumed locally, boiled, represents a species of potential economic importance.

**Distribution:** North Carolina through Florida to Texas and Caribbean to Brazil.

