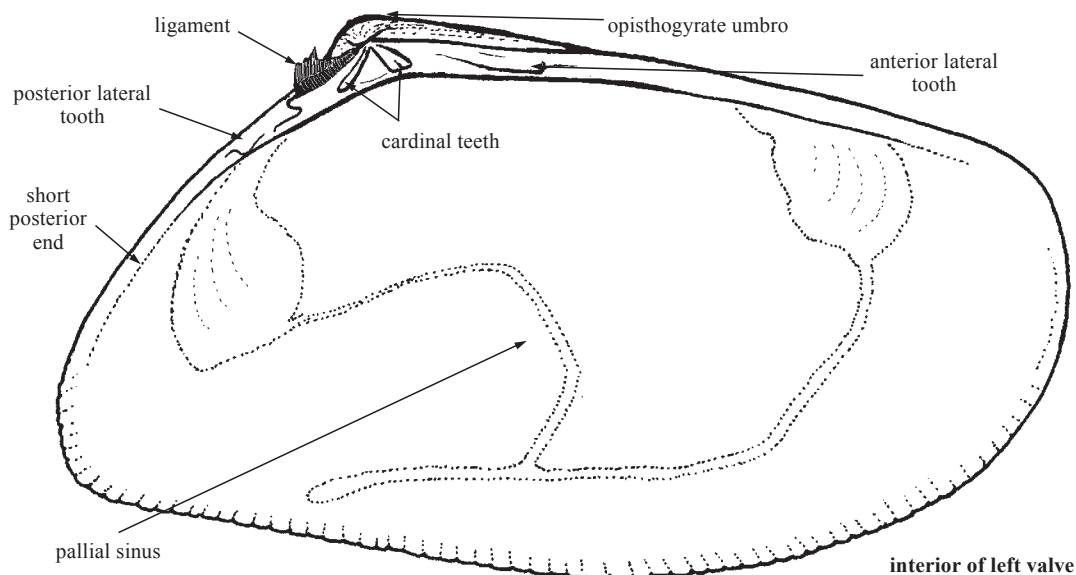


DONACIDAE

Donax clams

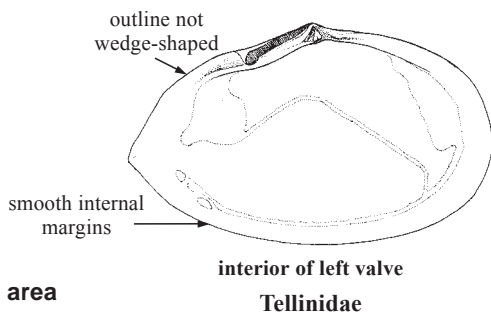
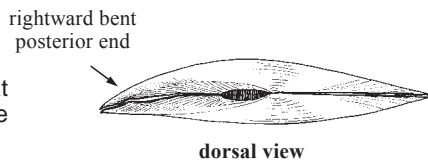
Diagnostic characters: Shell wedge-shaped, usually with an angled (keel-like) posterior surface. Ligament external. Hinge with 2 cardinal teeth on each valve. Adductor muscle scars subequal.



Habitat, biology, and fisheries: Species well-adapted to the intertidal zone of high-energy, sandy beaches. Three species of interest to fisheries in the area. Collected by hand, rakes, dredges, or shovels. Consumed locally raw, marinated, or in chowders.

Similar families occurring in the area

Tellinidae: shell compressed, oval to oblong, usually with flexed at posterior end; sculpture mostly lacking; ligament external; hinge with 2 cardinal teeth in each valve; pallial sinus deep.



List of species of interest to fisheries occurring in the area

The symbol 🐚 is given when species accounts are included.

- 🐚 *Donax denticulatus* Linnaeus, 1758.
- 🐚 *Donax striatus* Linnaeus, 1767.
- 🐚 *Iphigenia brasiliiana* (Lamarck, 1818).

Reference

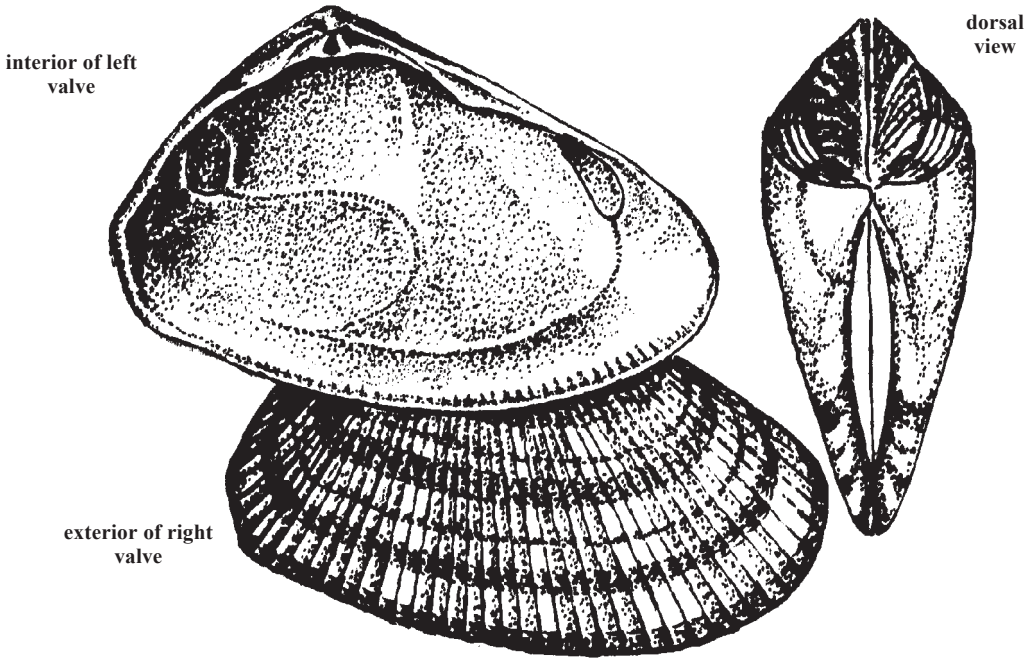
Adamkewicz, S.L. and M.G. Harasewych. 1996. Systematics and biogeography of the genus *Donax* (Bivalvia: Donacidae) in North America. *Am. Malac. Bull.*, 13:97-103.

Donax denticulatus Linnaeus, 1758

DXD

Frequent synonyms / misidentifications: None / *Donax striatus* Linnaeus, 1767.

FAO names: **En** - Common Caribbean donax; **Fr** - Flion des Caraïbes; **Sp** - Coquina del Caribe.

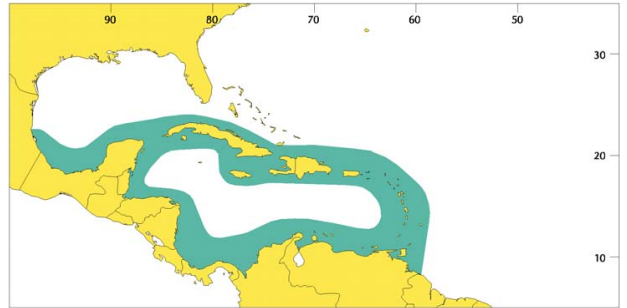


Diagnostic characters: Shell wedge-shaped, inflated. Posterior slope with 2 curved ridges. Surface sculpture consisting of fine radial grooves of microscopic pinpoints. **Colour:** variable, usually brown, yellowish, or purple, with rays of darker hues.

Size: To 25 mm.

Habitat, biology, and fisheries: Infaunal in shallow sand, usually in environments rich in particulate organic matter. Consumed locally in soups and chowders.

Distribution: Southeastern Caribbean to northern Brazil.

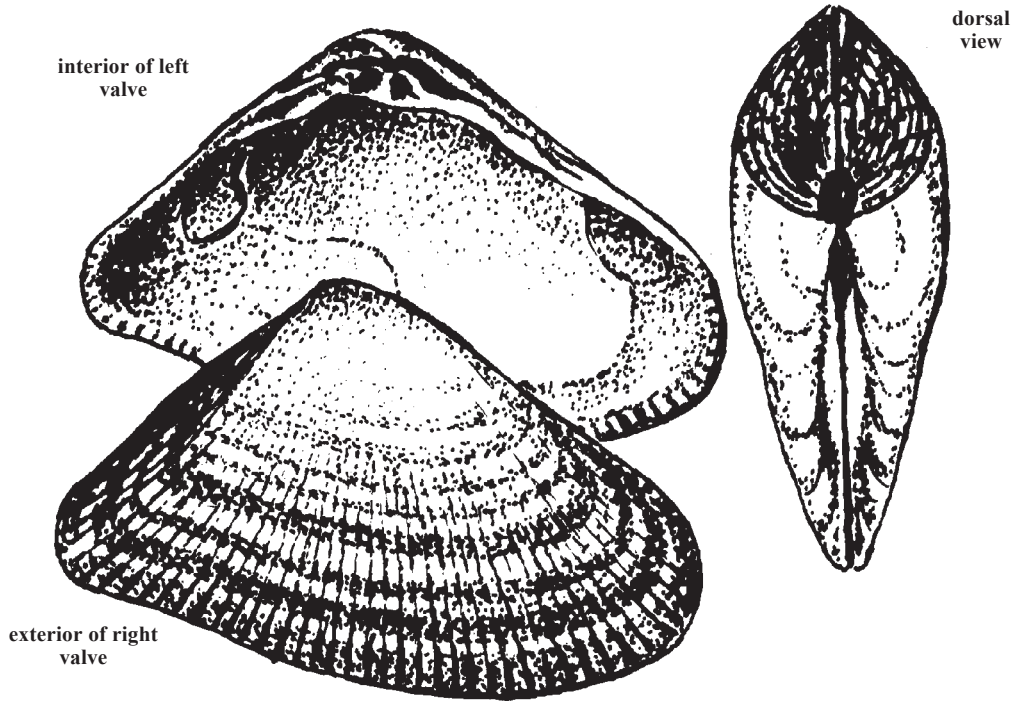


Donax striatus Linnaeus, 1767

DNT

Frequent synonyms / misidentifications: None / *Donax denticulatus* Linnaeus, 1758.

FAO names: **En** - Striate donax; **Fr** - Flion ridée; **Sp** - Coquina rayada.

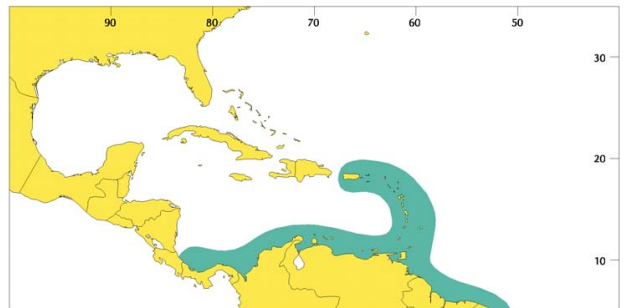


Diagnostic characters: Shell wedge-shaped, inflated. Posterior slope flat or concave, with fine radial threads.
Colour: variable, usually cream with purplish or bluish tinges. Umbones usually of darker hues.

Size: To 25 mm.

Habitat, biology, and fisheries: Infaunal in shallow sand, usually in environments rich in particulate organic matter. Consumed locally in soups and chowders.

Distribution: Caribbean and Lower Antilles to northern South America.

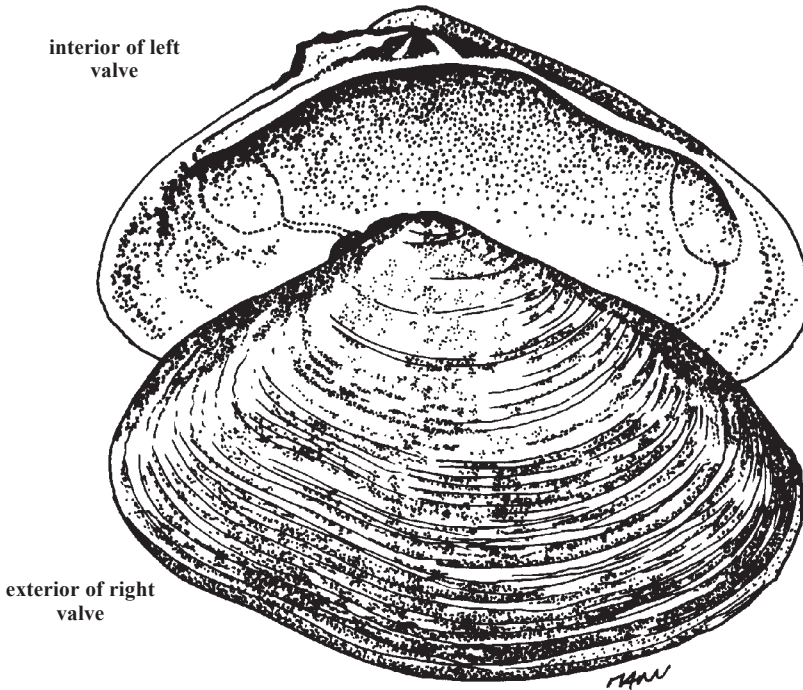


Iphigenia brasiliana (Lamarck, 1818)

IFB

Frequent synonyms / misidentifications: None / *Polymesoda arctata* (Deshayes, 1854).

FAO names: **En** - Giant false donax (AFS: Giant coquina); **Fr** - Donace géanté; **Sp** - Coquina gigante.

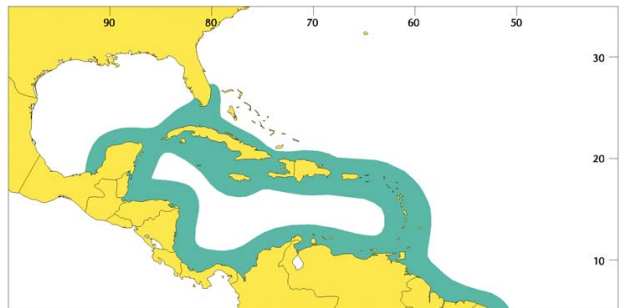


Diagnostic characters: Shell wedge-shaped, heavy, moderately inflated, with rhomboidal outline. Shell surface smooth. Posterodorsal slope somewhat flat. Pallial sinus large. Hinge with 2 lateral teeth (1 bifid) on each valve, lateral teeth absent. Umbones slightly posterior. Periostracum thin, glossy. **Colour:** tan cream with purple umbonal region; periostracum brown.

Size: To 65 mm.

Habitat, biology, and fisheries: Infaunal in shallow sandy bottoms. Consumed locally in stews and chowders.

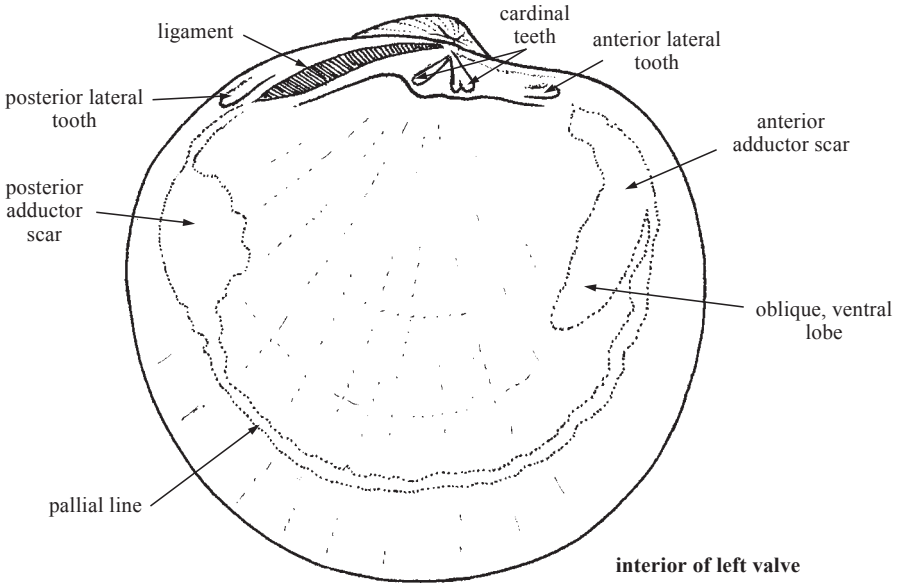
Distribution: Southern Florida to Brazil.



LUCINIDAE

Lucinas

Diagnostic characters: Shell disk-shaped, ligament external, hinge typically with 2 cardinal and 2 lateral teeth. Pallial sinus absent. Foot long.

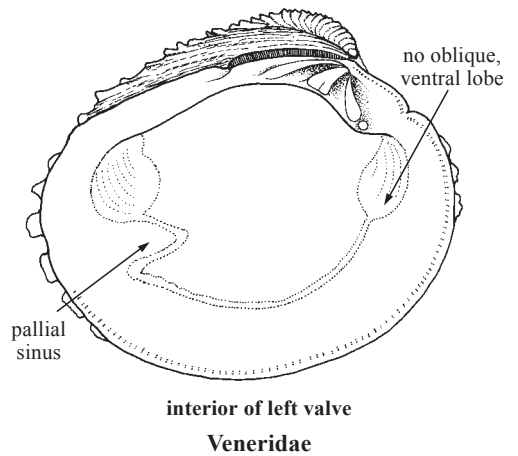


Habitat, biology, and fisheries: Shallow-water, subtidal habitat. Buried deeply in sand or sandy-mud. Hand-collected, consumed locally.

Remarks: Members of the family typically host symbiotic bacteria in their gills.

Similar families occurring in the area

Veneridae: shell usually solid, umbones anterior to midline, lunule and scutcheon usually present, sculpture usually concentric, sometimes lacking; ligament external; hinge with 3 or rarely 2 cardinal teeth in each valve; adductor muscles (and their scars) usually equivalent in size.



List of species of interest to fisheries occurring in the area

The symbol 🐚 is given when species accounts are included.

🐚 *Codakia orbicularis* (Linnaeus, 1758).

References

- Brestsky, S. S. 1976. Evolution and classification of the Lucinidae (Mollusca: Bivalvia). *Paleontogr. Am.*, 8(50):219-337.
- Gros, O., L. Frenkiel, and M. Mouëza. 1997. Embryonic, larval, and post-larval development in the symbiotic clam *Codakia orbicularis* (Bivalvia: Lucinidae). *Inv. Biol.* 116(2):86-101.

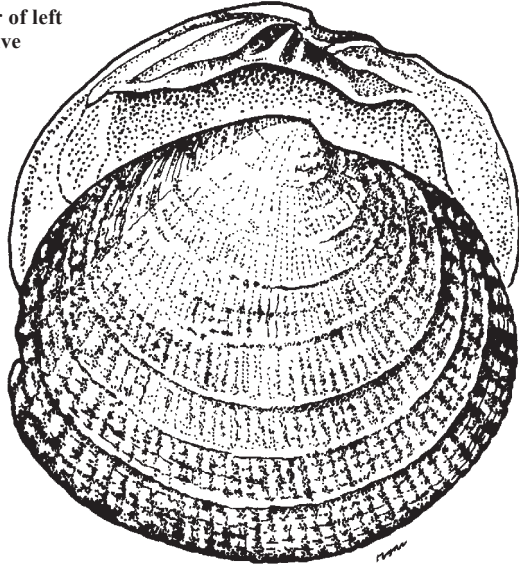
Codakia orbicularis (Linnaeus, 1758)

KKO

Frequent synonyms / misidentifications: None / *Codakia orbiculata* (Montagu, 1808); *Codakia costata* (d'Orbigny, 1842)

FAO names: **En** - Atlantic tiger lucine (AFS: Tiger lucine); **Fr** - Lucine tigrée américaine; **Sp** - Lucina tigre americana.

interior of left
valve



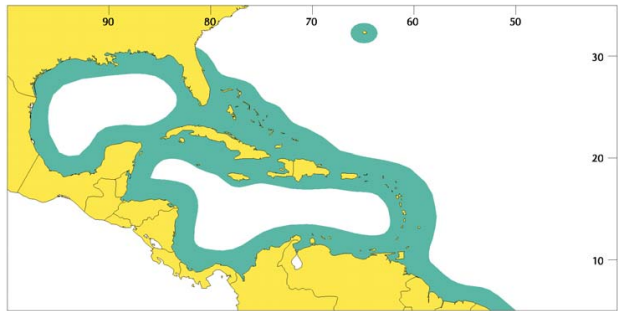
exterior of right
valve

Diagnostic characters: Shell circular (but slightly longer than taller), compressed, thick. Sculpture of radial lines crossed by finer concentric threads, except for smooth surfaces of umbones and 5 mm of subsequent growth. Lunule deep, heart-shaped, larger on right valve. Periostracum thin. **Colour:** externally white, internally white to pale lemon yellow, with pink margins; periostracum brownish.

Size: To 85 mm.

Habitat, biology, and fisheries: Infaunal, burying deeply in sand at subtidal depths. Consumed locally.

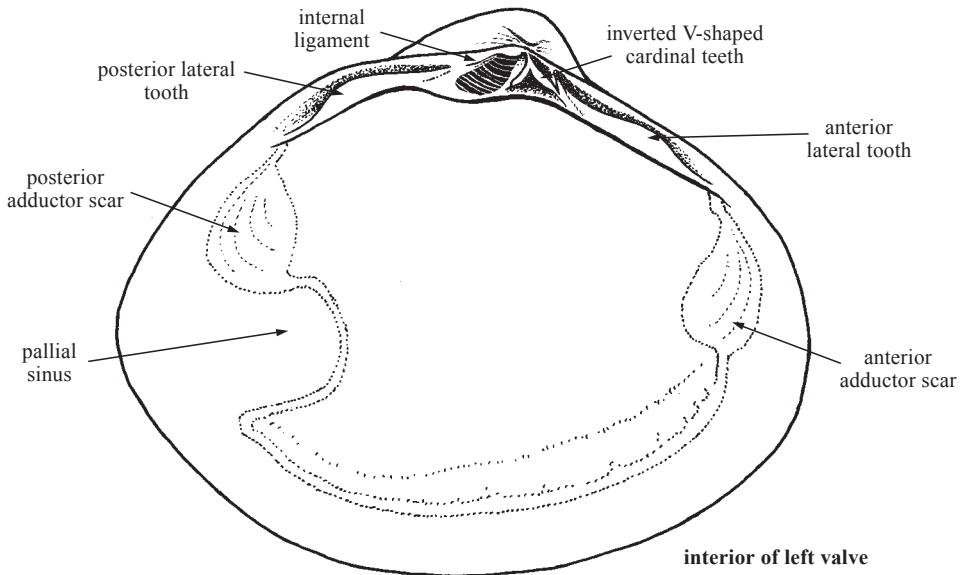
Distribution: Florida to Texas, Caribbean south to Brazil, and Bermuda.



MACTRIDAE

Trough shells

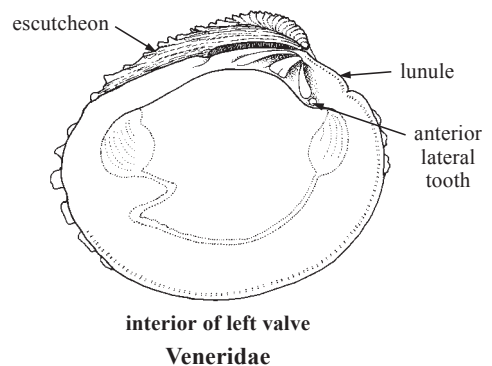
Diagnostic characters: Shell triangular to subtriangular, internal ligament, with chondrophore, typically with 2 fused cardinal teeth forming an 'inverted V' in left valve. Siphons fused.



Habitat, biology, and fisheries: Found in sandy or muddy sand bottoms. Outside area, surf clams are known to be added to catches of quahogs. Consumed locally in areas where pollution is minimal or nonexistent.

Similar families occurring in the area

Veneridae: Shell usually solid, umbones anterior to midline, lunule and scutcheon usually present, sculpture usually concentric, sometimes lacking; ligament external; hinge with 3 or rarely 2 cardinal teeth in each valve; adductor muscles (and their scars) usually equivalent in size.



List of species of interest to fisheries occurring in the area

The symbol 🐚 is given when species accounts are included.

🐚 *Mactrellona alata* (Spengler, 1802).

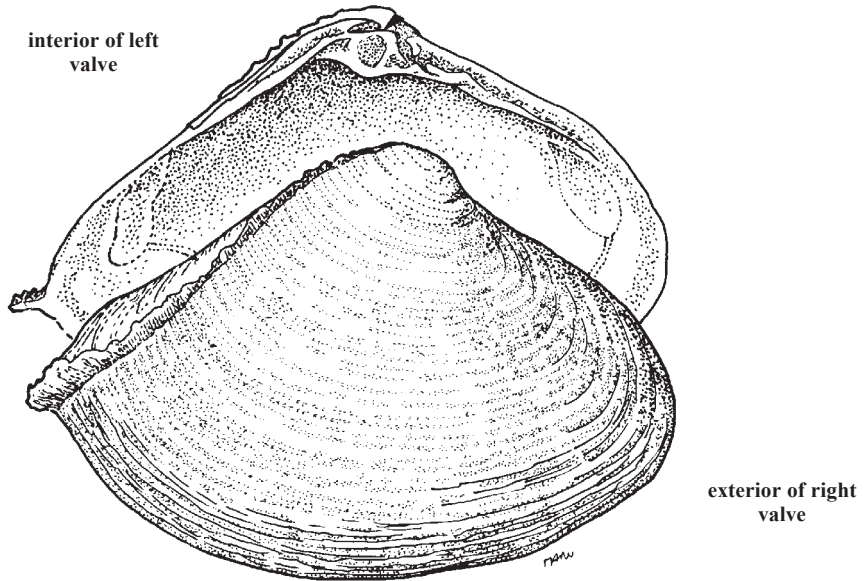
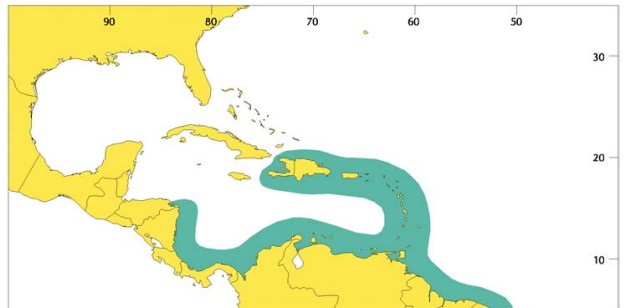
🐚 *Rangia cuneata* (G. B. Sowerby I, 1831).

References

- Sundberg, K. and V.S. Kennedy. 1992. Growth and development in the Atlantic rangia, *Rangia cuneata*. *J. Shell. Res.*, 11(1):9-12.
- Sundberg, K. and V.S. Kennedy. 1993. Larval settlement of the Atlantic rangia, *Rangia cuneata* (Bivalvia: Mactridae). *Estuaries*, 16:223-228.

Mactrellona alata (Spengler, 1802)

WMC

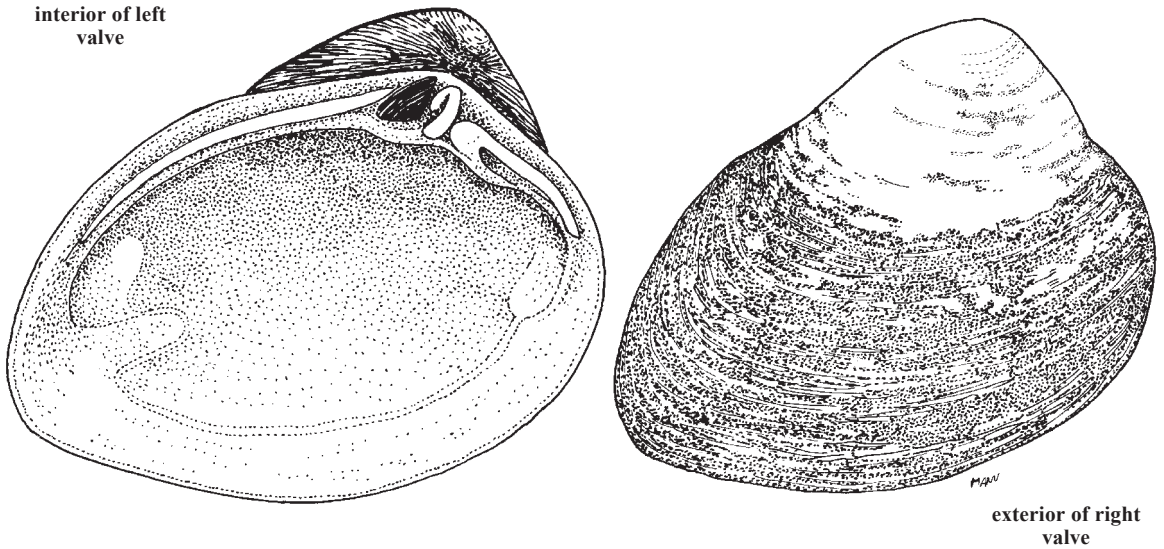
Frequent synonyms / misidentifications: None / None.**FAO names:** En - Caribbean winged maetra; Fr - Mactre ailée; Sp - Mactra alada.**Diagnostic characters:** Shell thin, triangular, inflated, light. Posterior slope typically flattened and bound by characteristically elevated, 'keel-like' ridge. Hinge with anterior lateral teeth short. Umbones prominent, twisted inward. Periostracum thin, flaky when dry. **Colour:** white; periostracum yellowish.**Size:** To 100 mm.**Habitat, biology, and fisheries:** Infaunal, in shallow subtidal sand. Consumed locally in chowders, soups, and stews.**Distribution:** Caribbean to southeastern Brazil and tropical eastern Pacific.

Rangia cuneata (G. B. Sowerby I, 1831)

RGQ

Frequent synonyms / misidentifications: None / *Tivela mactroides* (Born, 1778).

FAO names: **En** - Common rangia (AFS: Atlantic rangia); **Fr** - Rangie américaine; **Sp** - Rangia americana.



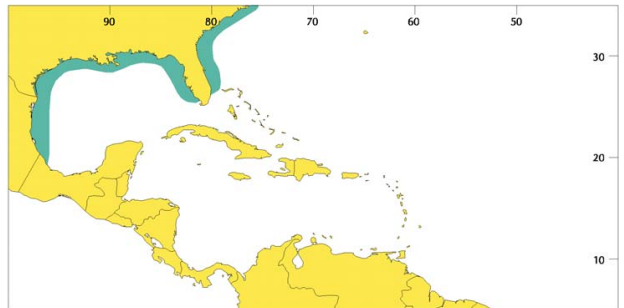
Diagnostic characters: Shell oval, heavy, very thick. Hinge with lateral teeth transversally striated. Pallial sinus reduced. Umbones anterior, pointing inward and in anterior direction. Periostracum strong and smooth.

Colour: externally dirt white, internally glossy white with slight blue-grey tinge; periostracum grey-brown.

Size: To 50 mm.

Habitat, biology, and fisheries: Infaunal in sandy mud, in very low salinity brackish water. Consumed locally in chowders.

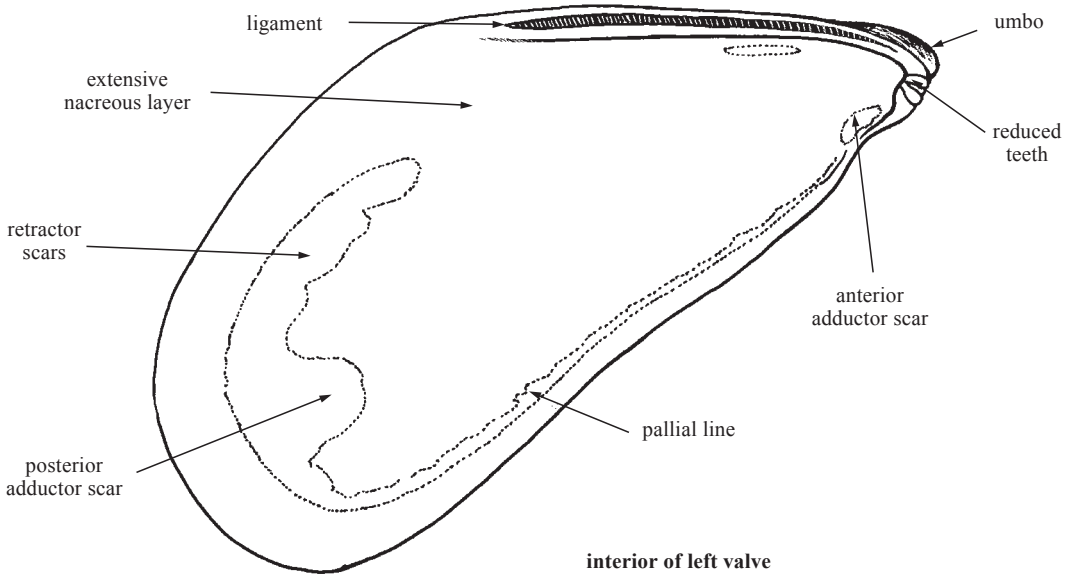
Distribution: Maryland to Texas and eastern Gulf of Mexico.



MYTILIDAE

Sea mussels

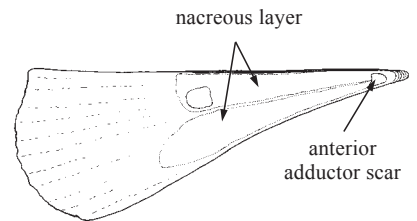
Diagnostic characters: Shell elongate, with umbones near or at anterior end. Ligament in anterior margin. Hinge without teeth or with tiny denticles. Internal surface nacreous. Adductor muscle scars differing in size, the anterior small or absent.



Habitat, biology, and fisheries: Species of interest to fisheries live attached to hard substrates by byssus in the intertidal. Mostly consumed locally, but species in the genus *Perna* and *Mytilus* heavily exploited commercially.

Similar families occurring in the area

Pinnidae: shell large, brittle, triangular, with pointed umbones at anterior end; ligament internal, posterior, inset along interior shell margin; adductor muscle scars different in size, anterior muscle small, near umbo, posterior muscle large, central.



List of species of interest to fisheries occurring in the area

The symbol 🐚 is given when species accounts are included.

- 🐚 *Geukensia demissa* (Dillwyn, 1817).
- 🐚 *Modiolus americanus* (Leach, 1815).
Modiolus squamosus Beuperthuy, 1867.
- 🐚 *Mytella guyanensis* (Lamarck, 1819).
Mytella strigata (Hanley, 1843).
- 🐚 *Perna perna* (Linnaeus, 1767).

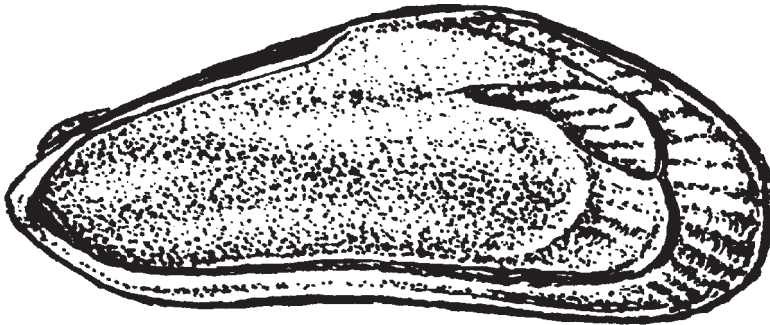
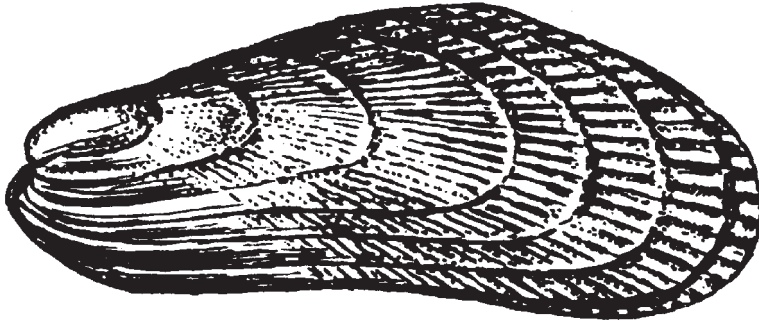
Geukensia demissa (Dillwyn, 1817)

GKD

Frequent synonyms / misidentifications: None / *Ischadium recurvum* (Rafinesque, 1820); *Brachidontes exustus* (Linnaeus, 1758).

FAO names: **En** - Atlantic ribbed mussel (AFS: Ribbed mussel); **Fr** - Moule côtelé de l'Atlantique; **Sp** - Mejillón costilludo atlántico.

exterior of left
valve



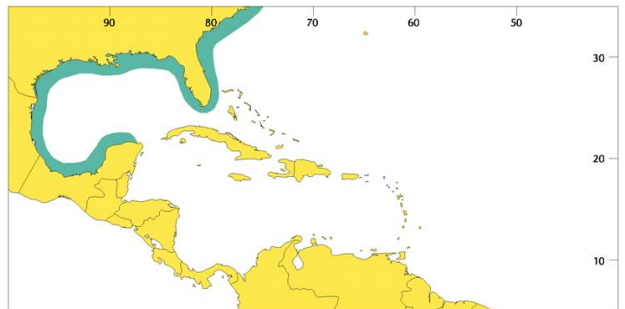
interior of right
valve

Diagnostic characters: Shell mussel-shaped, thin but strong. Shell margins crenulated. Sculpture of strong, numerous, bifurcating radial ribs, weaker on anteroventral area. Hinge teeth absent. **Colour:** externally variable, usually yellowish brown, greenish brown, or dark brown, internally bluish white with posterior end (rounded area) purplish.

Size: To 80 mm.

Habitat, biology, and fisheries: Lives attached to hard substrates intertidally or at shallow subtidal depths. Commercially exploited in the Yucatán/Campeche area of Mexico. Consumed locally boiled, grilled, or marinated.

Distribution: Canada to northeastern Florida; Gulf of Mexico; introduced to California.



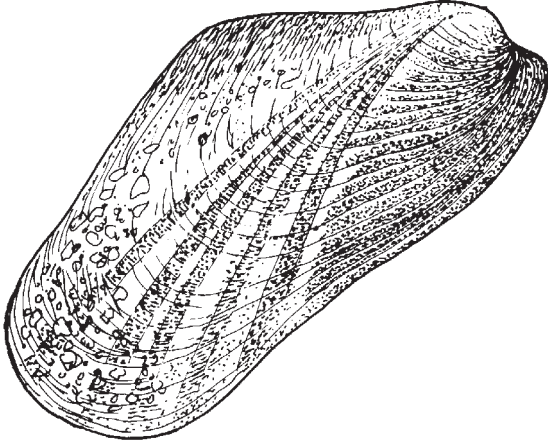
Modiolus americanus (Leach, 1815)

DJI

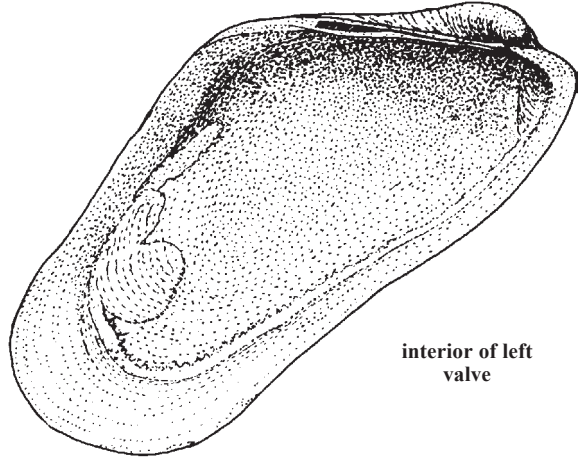
Frequent synonyms / misidentifications: None / *Modiolus modiolus* (Linnaeus, 1758)

FAO names: **En** - Tulip mussel (AFS: American horse mussel); **Fr** - Modiole tulipe; **Sp** - Mejillón tulipán.

exterior of right
valve



interior of left
valve

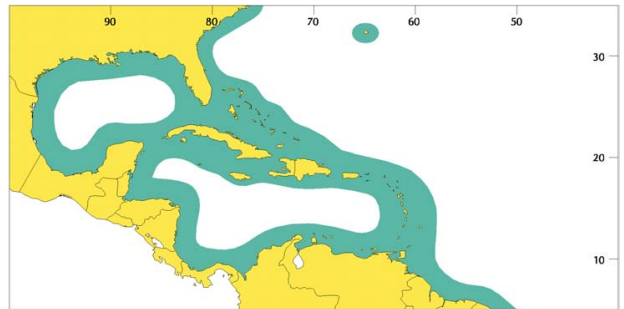


Diagnostic characters: Shell mussel-shaped, trigonal, thin. Sculpture of fine growth lines. Umbones swollen, not terminal (away from pointed end of shell). Hinge teeth absent. Periostracum heavy, sometimes hair-like. **Colour:** externally light brown with blush of rose, purple, or orange (concentrated on umbones) and purple streaks, but with a white oblique streak in middle of shell, internally pearly whitish, tinged with rose or purple.

Size: To 110 mm.

Habitat, biology, and fisheries: Lives attached to hard substrates intertidally or at shallow subtidal depths, mostly in coral reef areas. Consumed locally boiled, grilled, or marinated.

Distribution: South Carolina to Florida, Caribbean to Brazil, Bermuda, and Gulf of California to Peru.

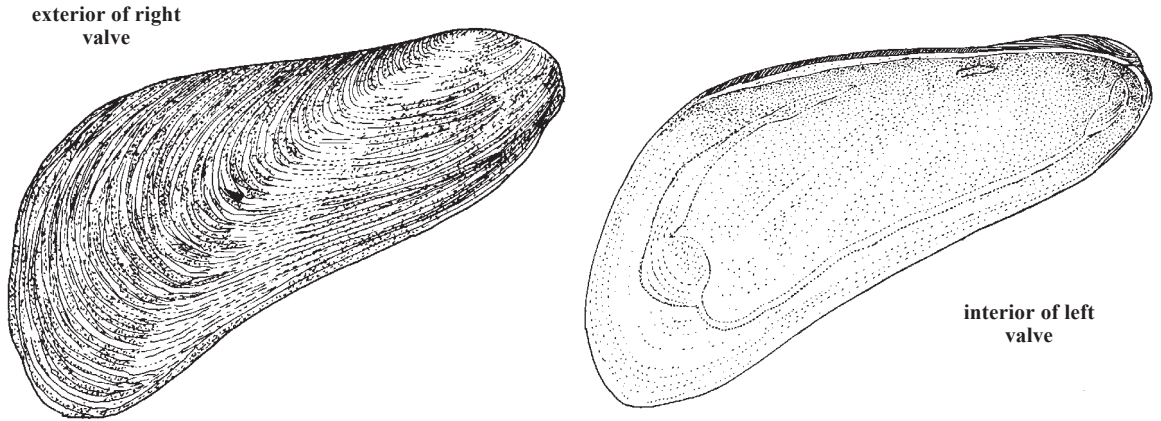


Mytella guyanensis (Lamarck, 1819)

YEG

Frequent synonyms / misidentifications: None / *Mytella strigata* (Hanley, 1843)

FAO names: **En** - Guyana swamp mussel; **Fr** - Moule de Guyane; **Sp** - Mejillón fanguero de Guayana.

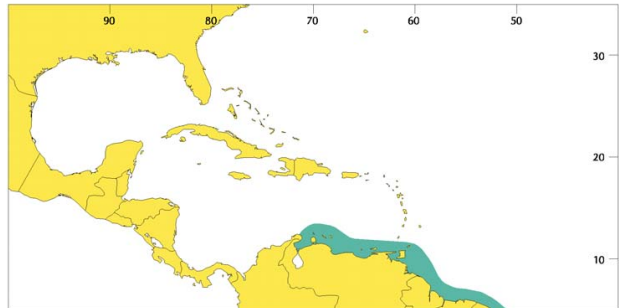


Diagnostic characters: Shell mussel-shaped, elongate, ventral region concave. Oblique ridge runs anterodorsal to posteroventral region of valve. Umbones subterminal. Posterior part of the mantle with branching tentacles. **Colour:** externally greenish on posterodorsal region (above ridge) and yellowish brown on anteroventral region (below ridge).

Size: To 90 mm.

Habitat, biology, and fisheries: Intertidal in bays and protected areas, forming clumps attached to mangrove prop roots or other hard substrates. Consumed locally (in southern part of area) in stews, boiled, grilled, or with rice.

Distribution: Southern Caribbean to southeastern Brazil.

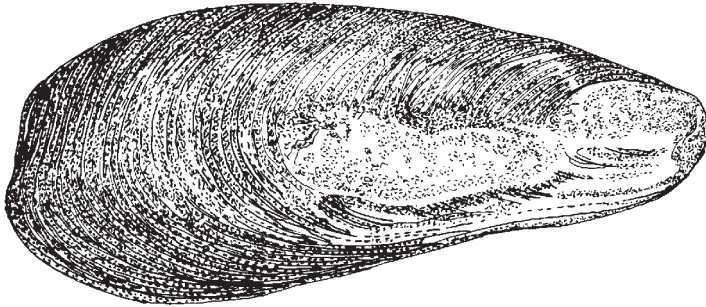


Perna perna (Linnaeus, 1767)

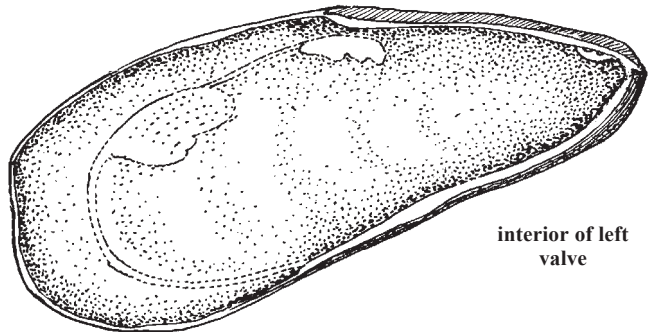
MSL

Frequent synonyms / misidentifications: None / *Mytilus edulis* Linnaeus, 1758.

FAO names: **En** - South American rock mussel (AFS: Brown mussel); **Fr** - Moule roche sudaméricaine; **Sp** - Mejillón de roca sudamericano.



exterior of right
valve



interior of left
valve

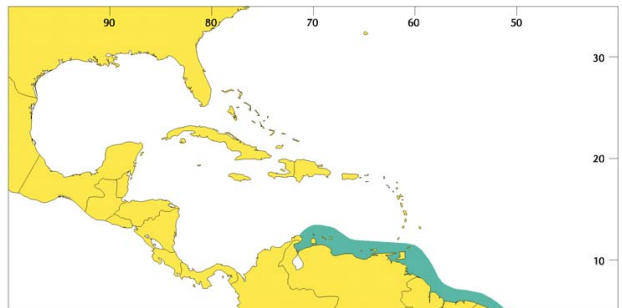
Diagnostic characters: Shell mussel-shaped, ventral margin straight, posterior end rounded. Shell surface smooth except for fine growth lines. Hinge with 1 or 2 teeth. Periostracum flaky. **Colour:** externally brown or light brown with concentric yellow bands near ventral margin, internally purple, nacreous.

Size: To 170 mm.

Habitat, biology, and fisheries: Attached by byssus onto hard substrates, common in high-energy rocky coasts. Species heavily exploited commercially, stocks are dwindling in southernmost part of range. Consumed boiled in own juices, marinated, grilled, with rice, or in a number of different local dishes. Canned industrially.

Distribution: Southern Caribbean to Brazil.

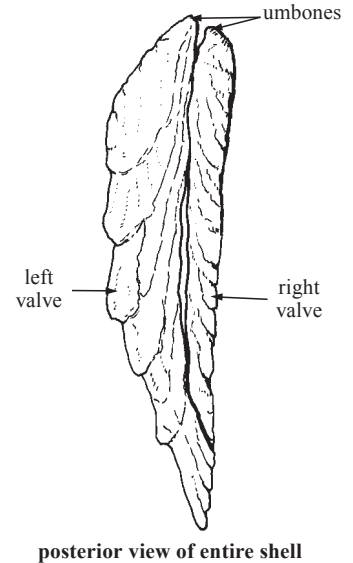
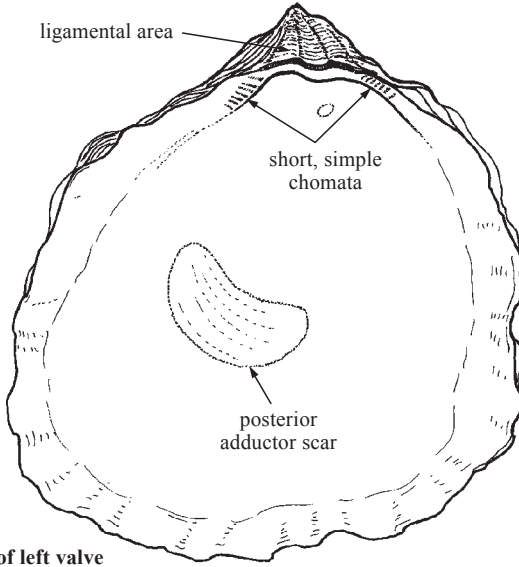
Remarks: Largest mytilid in area.



OSTREIDAE

Oysters

Diagnostic characters: Shell irregularly shaped, attached (cemented) to hard substrate by the left valve. Ligament external, in shallow depression. Only posterior adductor muscle scar present.

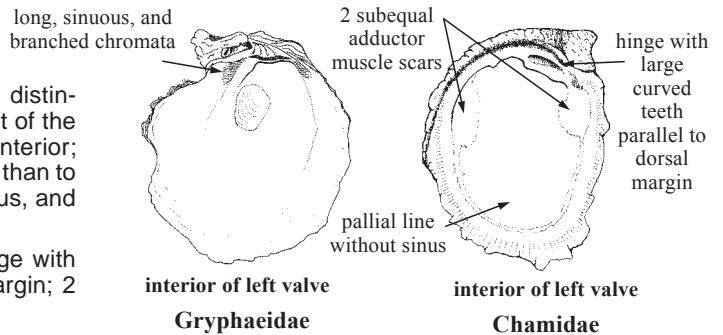


Habitat, biology, and fisheries: Oysters attach themselves to hard substrates, inhabiting the intertidal zone in protected, bay waters, usually in mangrove-associated habitats. The 2 species covered represent some of the most heavily exploited bivalves in the area. Populations have dwindled in several countries due to over-exploitation.


Similar families occurring in the area



Gryphaeidae: shell structure vesicular, distinguishable under a lens on an eroded part of the shell, or along peripheral area of the interior; adductor muscle scar nearer to the hinge than to the ventral margin; chromata long, sinuous, and branched.

Chamidae: pallial line without sinus; hinge with large curved teeth parallel to dorsal margin; 2 subequal adductor muscle scars.



List of species of interest to fisheries occurring in the area

The symbol  is given when species accounts are included.

-  *Crassostrea rhizophorae* (Guilding, 1828).
-  *Crassostrea virginica* (Gmelin, 1791).

References

Harry, H. 1985. Synopsis of the supraspecific classification of living oysters (Bivalvia: Gryphaeidae and Ostreidae). *The Veliger*, 28:121-158.

Kennedy, V.S. 1996. The ecological role of the eastern oyster *Crassostrea virginica*, with remarks on disease. *J. Shell. Res.*, 15:177-183.

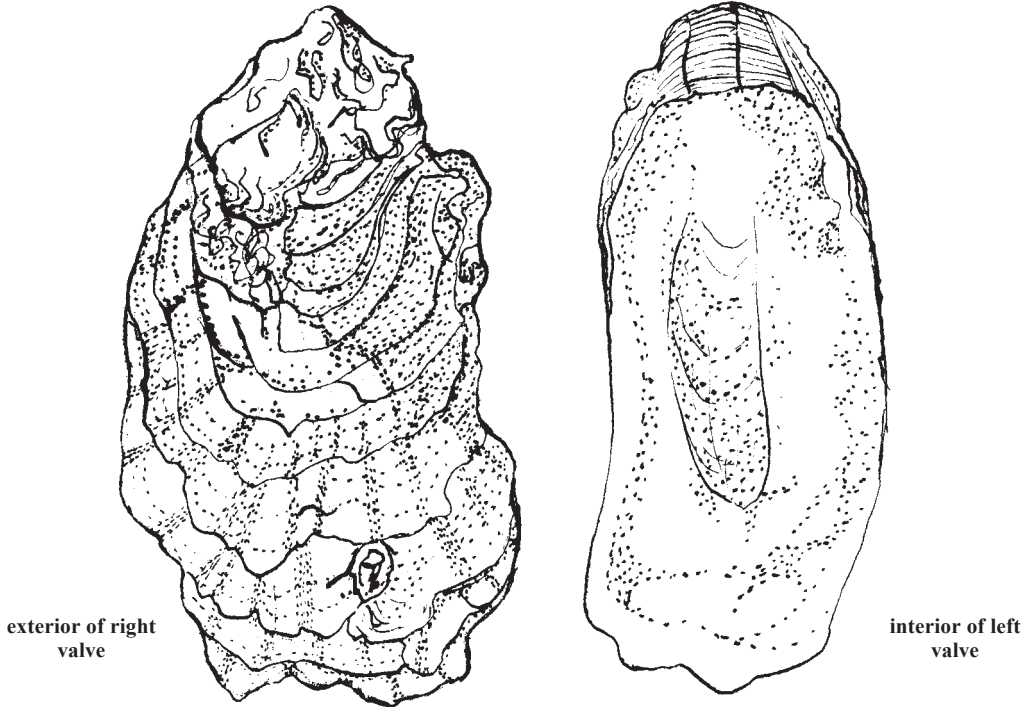
Littlewood, D.T.J. 1989. A bibliography of literature on the mangrove oyster *Crassostrea rhizophorae* (Guilding, 1828). *J. Shell. Res.*, 7:389-393.

Crassostrea rhizophorae (Guilding, 1828)

OYM

Frequent synonyms / misidentifications: None / *Crassostrea virginica* (Gmelin, 1791)

FAO names: **En** - Mangrove cupped oyster; **Fr** - Huître creuse des Caraïbes; **Sp** - Ostión de mangle.

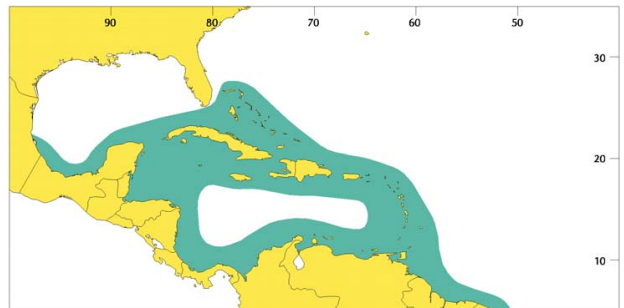


Diagnostic characters: Shell lightweight, deep-cupped, inequivalve, left valve (attached) larger than right. Shell shape and outline variable. Inner margin smooth. Resilium transversally striated. **Colour:** externally dirty light grey, internally whitish or light grey spotted with bluish purple.

Size: To 120 mm.

Habitat, biology, and fisheries: Attached to prop roots of red mangrove, *Rhizophora mangle*, rocks, or other oyster shells. It is mostly an intertidal or shallow-subtidal species. Represents one of the most heavily exploited bivalves in the area. Populations are strongly depleted due to over exploitation or contaminated by organic pollutants. The species may face ecological competition from the introduced Japanese oyster, *Crassostrea gigas* (Thunberg, 1793) in parts of the area. Consumed raw, fried, grilled, or boiled. Canned industrially.

Distribution: Caribbean to Brazil.

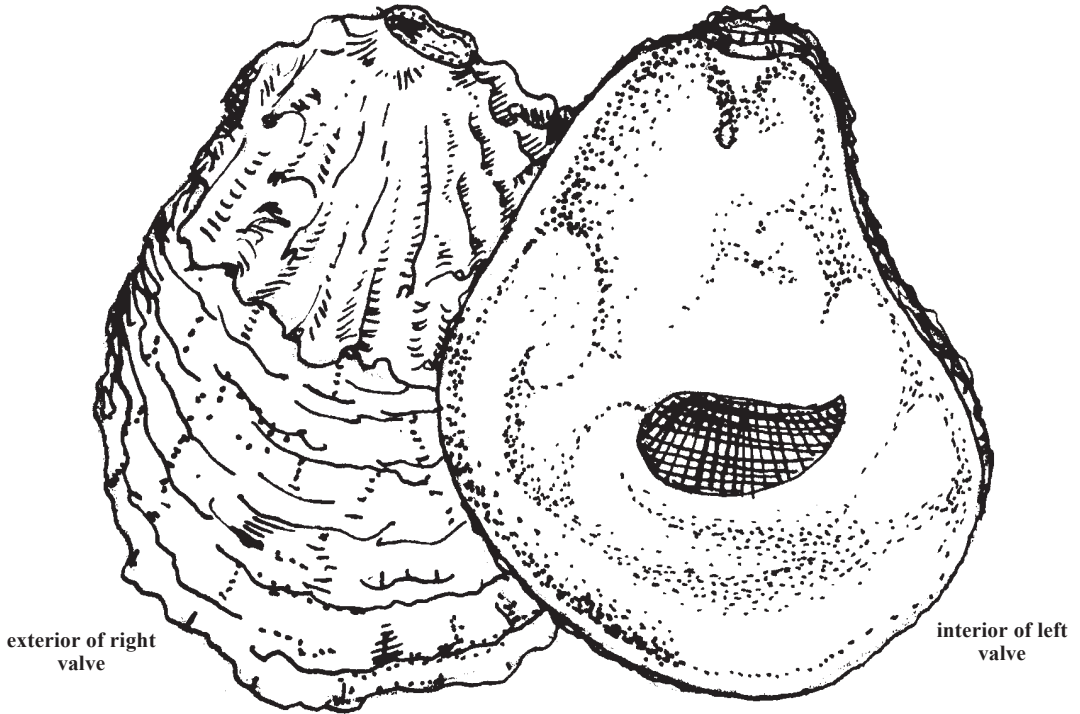


Crassostrea virginica (Gmelin, 1791)

OYA

Frequent synonyms / misidentifications: None / *Crassostrea rhizophorae* (Goulding, 1828).

FAO names: **En** - American cupped oyster (AFS: Eastern oyster); **Fr** - Huître creuse américaine; **Sp** - Ostión americano.



Diagnostic characters: Shell thick and heavy, usually narrow and elongate, but extremely variable in shape. Upper valve flatter, smaller than lower valve; lower valve convex. Shell shape and outline variable. Shell margins undulating to straight. Umbones long and curved. **Colour:** dirty to light grey, internally white with muscle scar deep purple.

Size: To 300 mm.

Habitat, biology, and fisheries: Species represents the northern counterpart of *Crassostrea rhizophorae* (distribution of the 2 species overlaps in the northern Caribbean). Lives attached to rocks, other oyster shells, or other hard substrates. It is mostly an intertidal or shallow-subtidal species. Represents one of the most heavily exploited bivalves in the area. Populations are strongly depleted due to over-exploitation or contaminated by organic pollutants. Consumed raw, fried, grilled, boiled. Canned industrially.

Distribution: Gulf of St. Lawrence (Canada) to the Gulf of Mexico.

