

# A Picture Guide to Shelf Invertebrates from the Northern Gulf of Mexico

Harriet Perry and Kirsten Larsen



Welcome to the *Picture Guide to Shelf Invertebrates of the Northern Gulf of Mexico*. The guide was developed to assist NOAA/NMFS personnel in identification of invertebrates taken during resource trawl surveys in the northern Gulf of Mexico. The plates were designed for identification of fresh specimens at sea and to make use color characteristics as well as other taxonomic aids. Current taxonomic standing has been verified through both the literature and the ITIS website ([www.itis.usda.gov](http://www.itis.usda.gov)).

The guide is a work in progress with new species added as they are collected.

Most of the specimens were identified by the authors with some problematic taxa sent to various specialists for identification or confirmation of identification. Any mistakes are the responsibility of the authors. A full reference list will be available in the near future.

We welcome any comments and ask you to please contact us with any corrections or feedback you may have at [harriet.perry@usm.edu](mailto:harriet.perry@usm.edu), or (228) 872-4218.

*Aequipecten glyptus* (Wood, 1828)  
Red-ribbed Scallop

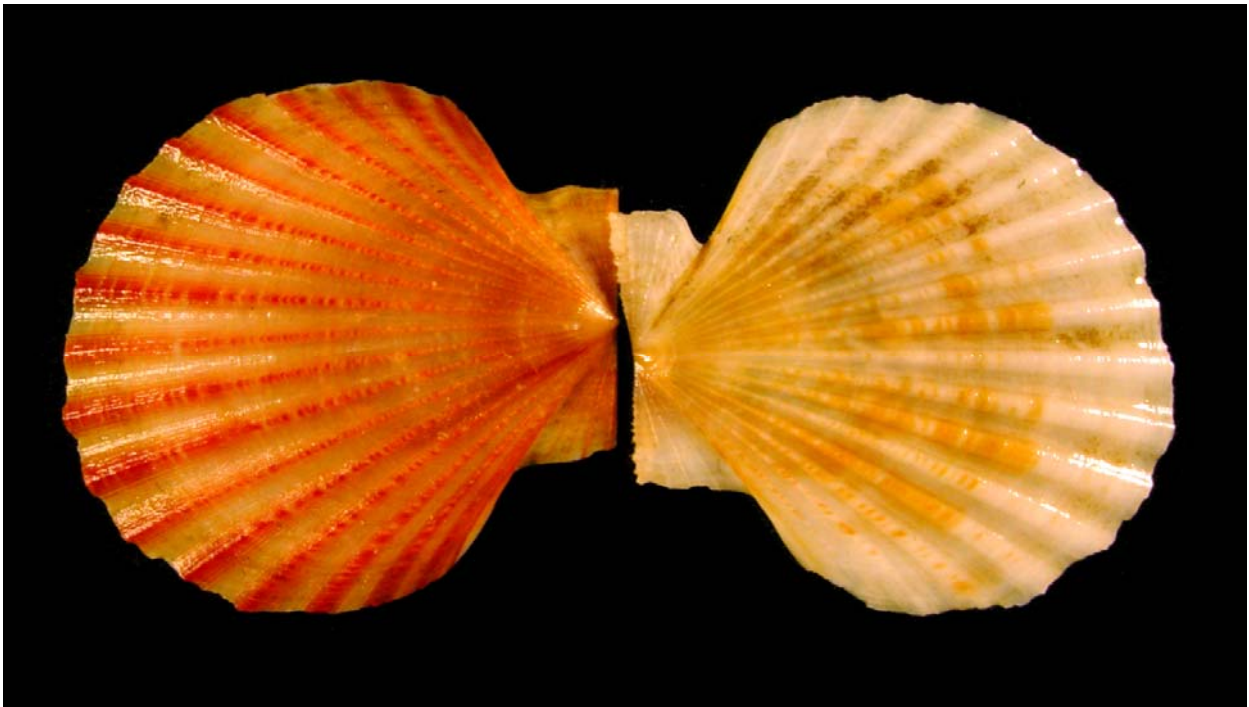
Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 ½ inches in size, both valves flat; 17 ribs which start out prickled but become flattened and indistinct or absent near the margin of the valve; one valve pure-white, the other with broad, rose rays corresponding to the ribs.

**Habitat:** Rare; 151 to 425 m.

**Range:** Cape Cod to Florida through Gulf of Mexico to Texas.



*Agriopoma texasianum* (Dall, 1892)  
Texas Venus

Class Bivalvia  
Family Veneridae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ to 3 inches in length, ¾ as high. Externally resembling *Pitar morrhua*, but much more elongate, having the beaks rolled in under themselves, and with a more elongate, faint lunule. The posterior cardinal is S-shaped in the right valve.

**Habitat:** Uncommon, if not rare. Offshore in silty mud from 7 to 23 m.

**Range:** Northwest Florida to Texas and Mexico.



*Amusium papyraceum* (Gabb, 1873)  
Paper Scallop

Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 2 inches in size, oily-smooth, glossy exterior without ribs, but internally with about 22 very fine ribs which are commonly arranged in pairs. Both valves moderately convex to flattish. Upper valve light-mauve to reddish brown with darker flecks. Lower valve whitish at the center with yellow to cream margins, or all white.

**Habitat:** 55 to 110 m.

**Range:** Gulf of Mexico, south Texas to the West Indies; Brazil.



*Anadara baughmani* Hertlein, 1951  
Baughman's Ark

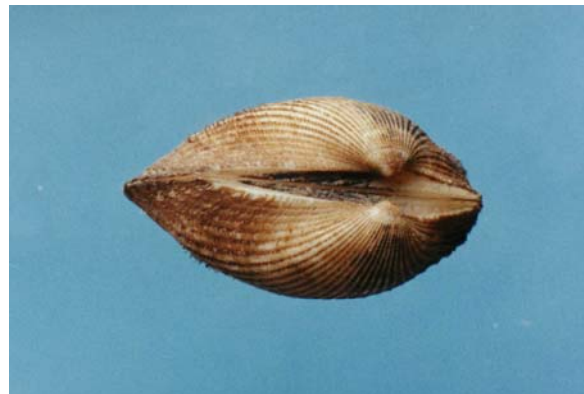
Class Bivalvia  
Family Arcidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ inches in length, fat, with 28 to 30 weakly noduled ribs which are not split, and with a strongly posterior-sloping anterior ventral margin.

**Habitat:** Common offshore down to 91 m.

**Range:** Off Texas, Louisiana, and Mississippi; Brazil.



*Anadara ovalis* (Bruguiere, 1789)  
Blood Ark

Class Bivalvia  
Family Arcidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ to 2 1/3 inches in length, not very thick, roundish to ovate; square, smooth ribs; ligament very narrow and depressed; beaks close together. Periostracum black-brown, hairy. Ribs 26 to 35 in number.

**Range:** Cape Cod to Texas and the West Indies; Brazil.



*Anadara transversa* (Say, 1822)  
Transverse Ark

Class Bivalvia  
Family Arcidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** ½ to 1 ½ inches in length. Left valve overlaps right valve. Ligament fairly long, moderately narrow, rough or pustulose. Ribs on left valve usually beaded, rarely so on right valve; 30 to 35 ribs per valve. Periostracum grayish brown, usually wears off except along base of valves. Distinguished from *A. ovalis* by its longer, wider, more distinct external ligament.

**Habitat:** Fairly common in mud below low water.

**Range:** South of Cape Cod to Florida and Texas.



*Anatina anatina* (Spengler, 1802)  
Smooth Duckclam

Class Bivalvia  
Family Mactridae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 2 to 3 inches in length,  $\frac{3}{4}$  as high, fairly thin but strong. White to tan in color. Moderately smooth, except for irregular growth lines and tiny, but distinct, concentric ribs near the beaks. Posterior end with a distinct radial rib behind which the **shell gapes with flaring edges**.

**Range:** North Carolina to Florida and to Texas; Brazil.





*Anomia simplex* d' Orbigny, 1842  
Common Jingle Shell

Class Bivalvia  
Family Anomiidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in size, irregularly oval, smoothish, thin but strong. The upper or free valve is usually quite convex; the lower valve is flattish and with a hole near the apex. Color either translucent-yellow or dull-orange, some with a silvery sheen. Specimens buried in mud become blackened.

**Habitat:** Very commonly attached to logs, wharfs and boats. The round, calcified base of the byssus from formerly living specimens may remain attached to stones and other shells.

**Range:** Cape Cod, Massachusetts to Florida; Texas to Brazil; Bermuda.



*Arcinella cornuta* Conrad, 1866  
Florida Spiny Jewelbox

Class Bivalvia  
Family Chamidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 1 ½ inches in length, quadrate in outline and rather obese and heavy. Lunule distinct and broadly heart-shaped. With 7 to 9 rows of moderately long, stoutish spines, between which the shell is grossly pitted. Exterior creamy-white, interior white or flushed with bright pinkish mauve. Attached to a small pebble or broken shell by the right valve.

**Habitat:** Common from 5 to 73 m.

**Range:** North Carolina to both sides of Florida to Texas.



*Argopecten gibbus* (Linnaeus, 1758)  
Atlantic Calico Scallop

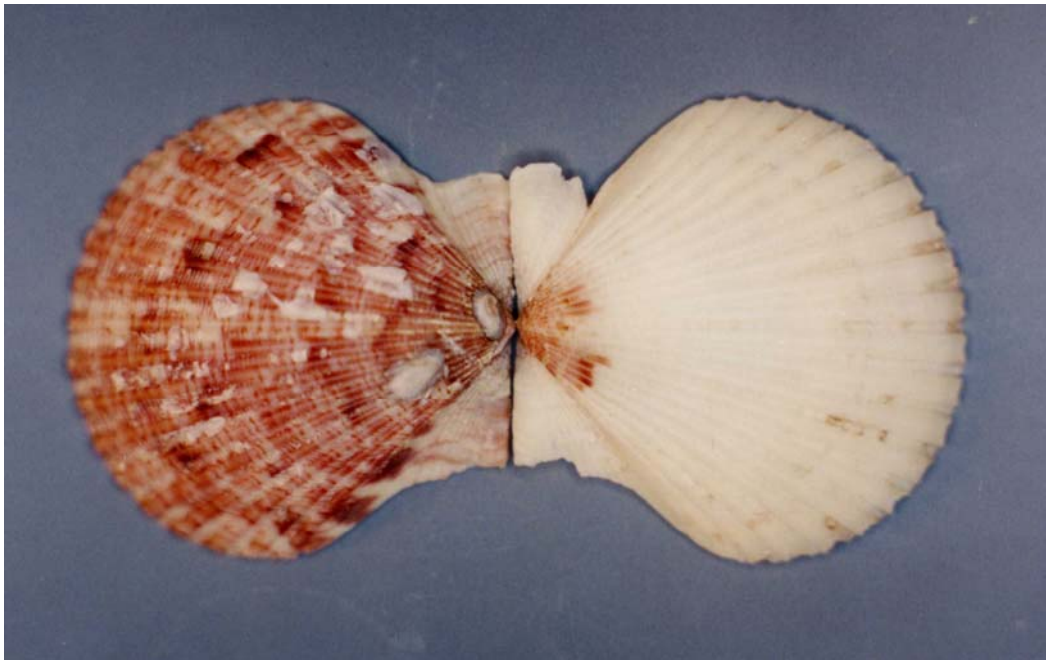
Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 ½ inches. A common, colorful scallop. Both valves quite fat. Ribs usually 20 (19 to 21), quite square in cross-section. Bottom valve commonly whitish with a little color; upper valve can be of many bright hues (lavender-rose, red, whitish with purple or reddish mottlings, etc.).

**Habitat:** Warm, open marine waters from 9 to 366 m. Found abundantly in southern Florida, a little offshore.

**Range:** Off Maryland to Florida and south Texas to Brazil; Bermuda.





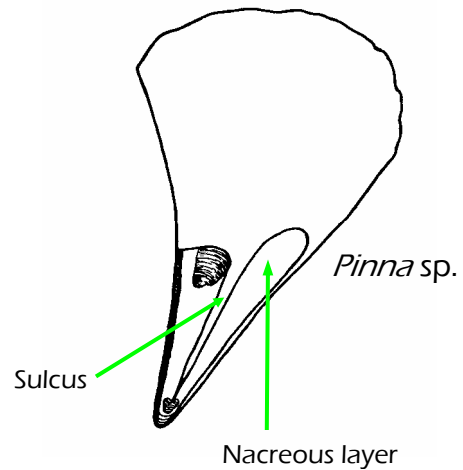
## Family Pinnidae

Description – Large fragile fan shaped bivalves that live in sandy or mud-sand areas, usually in colonies. The apex (pointed end) is buried and there is a mass of byssal threads attached to small stones or shell fragments. The broad end projects above the surface about 1 inch.

### Separating Genus *Pinna* from *Atrina*

*Pinna* – the nacreous layer (mother-of-pearl layer) is discontinuous; there is a sulcus that divides the nacreous layer into dorsal and ventral portions.

*Atrina* – the nacreous layer is continuous.



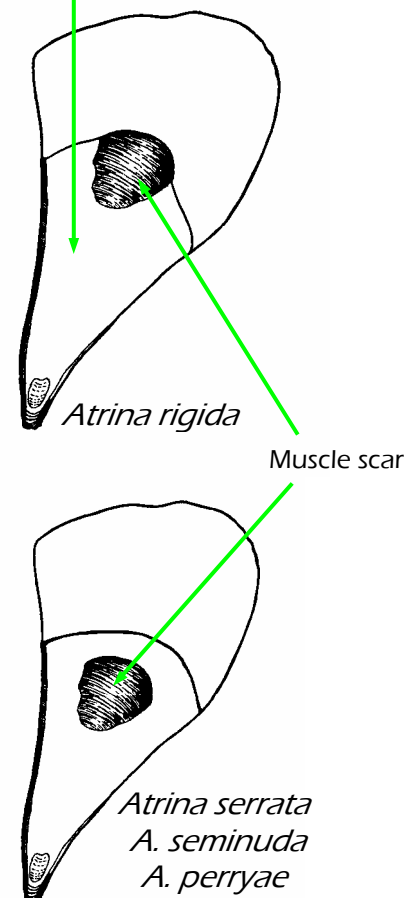
### Separating *Atrina* species

*Atrina rigida* – can be separated from all other species by position of the posterior adductor muscle scar; in this species the muscle scar borders the posterior edge of the nacreous layer; 15-25 ribs.

*A. seminuda* – externally very similar to *A. rigida*, both have radial rows of heavy tubelike spines; muscle scar, well surrounded by the nacreous layer, 10-15 ribs.

*A. serrata* – fine sawtooth serrations that cover most of the shell; 30-40 ribs.

*A. perryae* – no external spines or serrations on valve, many prominent ribs



*Atrina rigida* (Lightfoot, 1786)  
Stiff Pen Shell

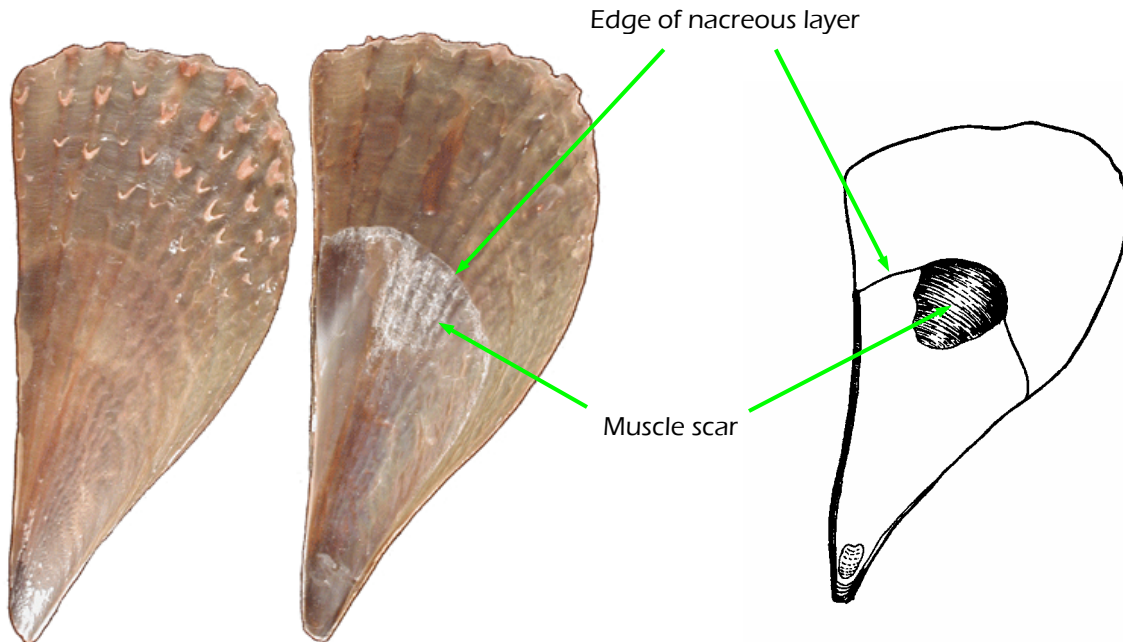
Class Bivalvia  
Family Pinnidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 5 to 11 inches in length, relatively wide, moderately thickened. 15 to 25 radial ribs of heavy tubelike spines. Mantle is bright golden orange; **internal muscle scar borders edge of nacreous layer.**

**Habitat:** Shore to 27 m, sandy or mud-sand areas, usually in colonies. The apex or pointed end is deeply buried and the broad end of the shell projects above the surface of the sand.

**Range:** North Carolina to Florida, Gulf of Mexico, Caribbean.



From Bailey-Matthews Shell Museum

*Atrina seminuda* (Lamarck, 1819)  
Half-naked Pen Shell

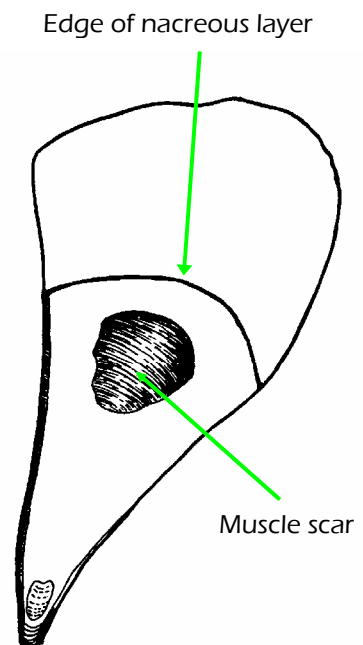
Class Bivalvia  
Family Pinnidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 5 to 9 inches in length, relatively wide, moderately thickened. 10 to 15 radial ribs of heavy tubelike spines. **Externally similar to *A. ridiga*, internal muscle scar well below edge of nacreous layer.**

**Habitat:** Variable and common, just offshore. Sandy or mud-sand areas, usually in colonies. The apex or pointed end is deeply buried and the broad end of the shell projects above the surface of the sand.

**Range:** North Carolina to Texas, to Argentina.



*Atrina serrata* (Sowerby, 1825)  
Saw-tooth pen shell

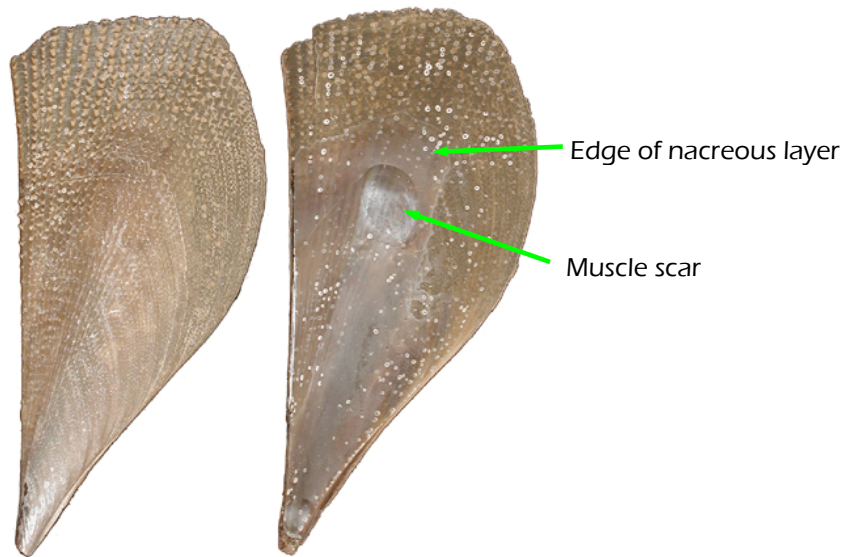
Class Bivalvia  
Family Pinnidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 6 to 12 inches in length, this shell, moderately inflated, with about 30 finely scaled ribs. Internal muscle scar well below edge of nacreous layer.

**Habitat:** Sandy-mud from shore to several fathoms.

**Range:** North Carolina to Florida, Texas, and the West Indies.



From Bailey-Matthews Shell Museum

*Chama congregata* Conrad, 1833  
Corrugate Jewelbox

Class Bivalvia  
Family Chamidae

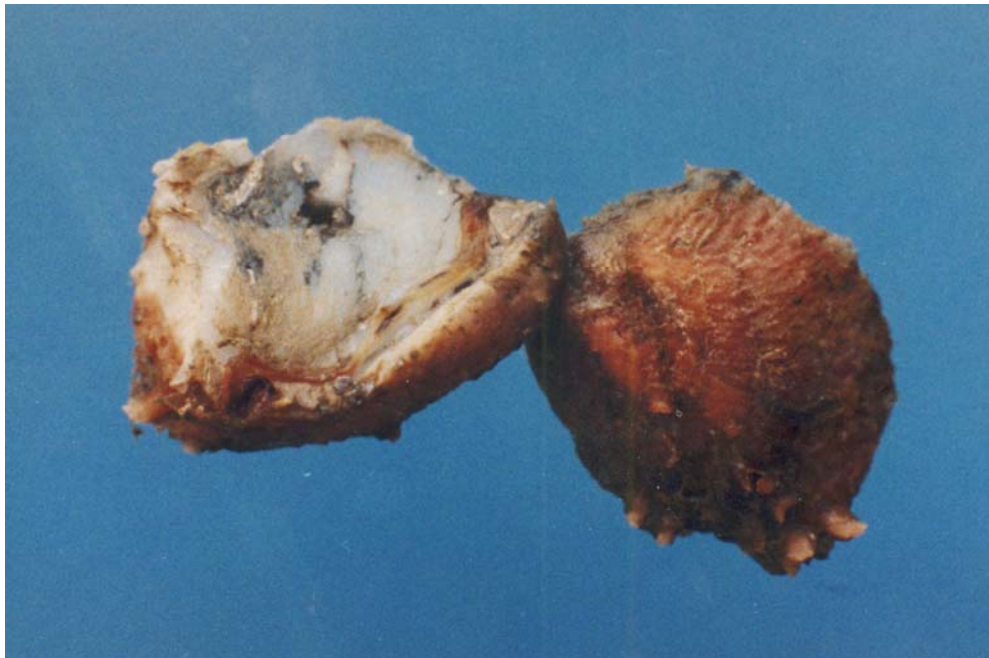
Return all specimens to the laboratory for specific identification.

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Rarely over 1 inch in size. Low axial corrugations or wavy cords; unattached valve may have a few short, flat spines. Fine crenulations on the inner margins of the valves; color is usually gray with reddish specklings.

**Habitat:** In rocky areas they live in crevices and under stones. Commonly found attached to pen and ark shells.

**Range:** North Carolina to Texas to Brazil; Bermuda.





*Pseudochama radians* (Lamarck, 1819)  
Atlantic Jewelbox

Class Bivalvia  
Family Chamidae

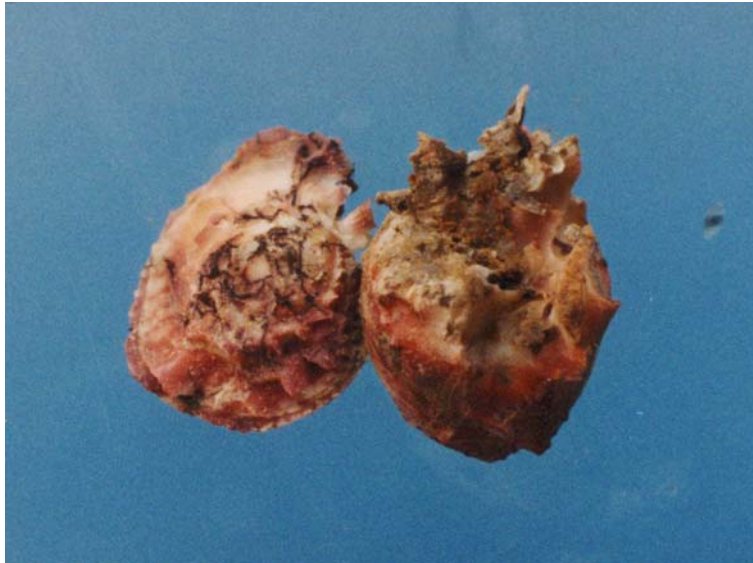
Return all specimens to the laboratory for specific identification.

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 3 inches in size. This is the only species of *Pseudochama* in eastern America. It is not very colorful, and ranges from a dull-white to a dull purplish red. The interior is commonly stained with mahogany-brown. Crenulations are present on the inner edges of the valves.

**Habitat:** Common; 1 to 42 fathoms.

**Range:** North Carolina to Texas and the West Indies; Bermuda; Brazil.



*Circomphalus strigillinus* (Dall, 1902)  
Empress Venus

Class Bivalvia  
Family Veneridae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ inches in length, externally very much like a small *Mercenaria campechiensis*, but not as elongate and with more distinct, concentric riblets. Internally, it is distinguished easily by the extremely small, if not absent, pallial sinus, by the very thick margin of the shell, and in the left valve by the presence of a buttonlike anterior lateral “tooth.” Exterior whitish.

**Habitat:** Dredged occasionally from 36 to 183 m.

**Range:** Off South Carolina to Brazil.



*Eucrassatella speciosa* (A. Adams, 1852)  
Beautiful Crassatella

Class Bivalvia  
Family Crassatellidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ to 2 ½ inches in length, 2/3 as high; heavy, beaks at the center, and the shell somewhat diamond-shaped. Concentric sculpture of neat, rather heavy, closely packed ridges (about 15 per ½ inch). Lunule and escutcheon sunken, lanceolate in shape and about the same size as each other. Exterior with a thin, persistent, nut-brown periostracum. Interior glossy-ivory with either a tan or pink blush.

**Habitat:** Moderately common, just offshore in sand.

**Range:** North Carolina southward; Gulf of Mexico; West Indies.



*Euvola raveneli* (Dall, 1898)  
= *Pecten raveneli*  
Round-rib Scallop

Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 ½ inches in size, **upper valve flat**, deep valve with about 25 distinct ribs which are commonly **whitish in color**. Between them are fairly wide, tan or pinkish grooves. Rarely lemon-yellow or all-orange. In the flat valve, the 25 or so ribs are rounded in cross-section whereas in *P. ziczac* they are flat-topped and much closer together, the deep valve has brown in *P. ziczac*.

**Range:** North Carolina to Florida; south Texas and the West Indies.



*Globivenus rigida* (Dillwyn, 1817)  
= *Ventricolaria rigida*  
Ridged Venus

Class Bivalvia  
Family Veneridae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1½ to 3 inches, almost circular in outline, inflated. Color cream with brown mottlings; interior white or cream. Sculptured with numerous prominent concentric ribs between which are 1 to 3 fine concentric threads. Escutcheon on left valve marked with purplish red.

**Habitat:** 50 m.

**Range:** Florida Keys (rare); West Indies to Brazil.



*Hiatella azaria* (Dall, 1881)  
Dirt Hiatella

Class Bivalvia  
Family Hiatellidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Small species. Shell is irregular due to nestling and boring behavior.

**Habitat:** Sometimes found in sponges.

**Range:** Off Florida; Gulf of Mexico.



*Laevicardium laevigatum* (Linnaeus, 1758)  
Common Eggcockle

Class Bivalvia  
Family Cardiidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in size, higher than long, polished smooth, inflated, fairly thin and obscurely ribbed. Exterior generally whitish, but may be rose-tinted, mottled with brown or flushed with purple, yellow, or burnt-orange. Interior similarly colored. With about 60 very fine, subdued radial ribs.

**Habitat:** Common in shallow water.

**Range:** Atlantic coast from North Carolina southward; Gulf of Mexico; West Indies; Bermuda; Brazil.



Top: *L. mortoni*  
Bottom: *L. laevigatum*

*Laevicardium mortoni* (Conrad, 1830)  
Yellow Eggcockle

Class Bivalvia  
Family Cardiidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:**  $\frac{3}{4}$  to 1 inch in size, ovate, glossy, similar to *L. laevigatum*, commonly with brown, zigzag markings and with fine, concentric ridges which are minutely pimpled.

**Habitat:** Common; shallow water to 4 m.

**Range:** Massachusetts to Florida and to Texas.





*Lindapecten muscosus* (Wood, 1828)  
= *Aequipecten muscosus*  
Rough Scallop

Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:**  $\frac{3}{4}$  to  $1\frac{1}{4}$  inches in size, both valves inflated and fairly deep. Hinge-ears equal to the width of the main part of the shell. 18 to 20 ribs, the center part of each bearing prominent erect, concave scales, and on each side 2 rows of much smaller scales. Color orange-brown, red, lemon-yellow, orange or commonly mottled with purple. Beachworn specimens may lose most of their scaliness.

**Habitat:** Moderately common just offshore to 165 m.

**Range:** North Carolina to Florida; Texas to Brazil; Bermuda.



*Lirophora clenchi* (Pulley, 1952)  
= *Chione clenchi*  
Thick Ringed Venus, Clench Venus

Class Bivalvia  
Family Veneridae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 1 1/3 inches in length, very thick and solid with 12 to 15 bulbous concentric ribs in an inch-long specimen.

**Habitat:** 10 to 30 fathoms.

**Range:** North Texas to the Gulf of Campeche, Mexico.



*Macoma brevifrons* (Say, 1834)  
Short Macoma

Class Bivalvia  
Family Tellinidae

Return all specimens to the laboratory for specific identification.

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ inches, oblong, polished, white, usually with a blush of iridescent-orange in the central and umbonal regions. Below the smooth umbones the shell has numerous close-set growth lines, covered by a light-brown periostracum. Anterior end is slightly shorter and rounded.

**Habitat:** Just offshore; uncommon.

**Range:** South Carolina to Brazil.



*Modiolus americanus* (Leach, 1815)  
American Horsemussel

Class Bivalvia  
Family Mytilidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Adults 2 to 4 inches, very fat, rather fragile; with swollen umbones which are either pinkish or purple (never white). Color chestnut-brown at the anterior end, with a white oblique streak in the middle, and rose purple-rayed and brownish at the posterior end. Periostracal hairs stringlike and smooth. Interior of shell pearly-whitish, usually rose-tinted, rarely purplish.

**Habitat:** Shallow water to 6 m.

**Range:** South Carolina southward; Bermuda; Brazil.



*Nemocardium transversum* Rehder and Abbott, 1951  
Transverse Micro-cockle

Class Bivalvia  
Family Cardiidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 19 mm long, 17 mm high, 14.5 mm wide. White with a few faint brownish maculations. Umbones rose. 80 to 90 nodulose radial riblets on the anterior 2/3 of the shell. A rib separates the posterior 1/3 which has narrower, more distantly spaced, sublamellar riblets. Hinge teeth typical, but the lateral teeth are strong.

**Habitat:** Rare; 53 m.

**Range:** Off Louisiana.



*Noetia ponderosa* (Say, 1822)  
Ponderous Ark

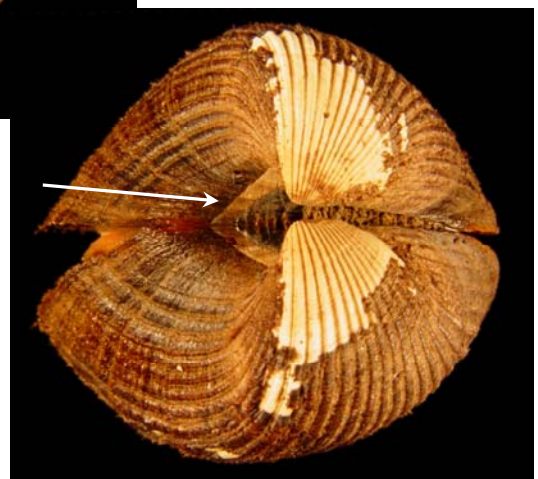
Class Bivalvia  
Family Noetiidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 2 to 2 ½ inches in length; almost as high as long; ribs raised, square and split down the center by a fine incised line; **V-shaped white marking near hinge**; 27 to 31 ribs per valve; periostracum thick, black, but wears off at the beaks.

**Habitat:** Common in shallow water and sand.

**Range:** Virginia to Florida and to Texas.



*Ostrea equestris* (Say, 1834)  
Crested Oyster

Class Bivalvia  
Family Ostreidae

Classification according to Turgeon *et al.* (1988)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 3 inches in length, more or less oval, and with raised margins which are crenulated. The attached valve has a flat interior with a rather high, vertical margin on one side. Interior dull-grayish with a greenish or opalescent-brown stain. Margin sometimes stained a weak-violet. Muscle scar almost central. Edge of upper valve has a row of fine denticles.

**Habitat:** Not very abundant except in some Florida bays. It lives in water that is much saltier than that in which *Crassostrea virginica* lives.

**Range:** Virginia to Texas and West Indies; Brazil.



*Pecten raveneli* Dall, 1898  
Ravenel's Scallop

Class Bivalvia  
Family Pectinidae

Classification according to Turgeon *et al.* (1988)  
References used: Description from Abbott 1974

**Diagnostic characters:** 1 to 2 ½ inches in size, **upper valve flat**, deep valve with about 25 distinct ribs which are commonly **whitish in color**. Between them are fairly wide, tan or pinkish grooves. Rarely lemon-yellow or all-orange. In the flat valve, the 25 or so ribs are rounded in cross-section whereas in *P. ziczac* they are flat-topped and much closer together.

**Range:** North Carolina to Florida; south Texas and the West Indies.





*Periploma fragile* (Totten, 1835)  
Fragile Spoonclam

Class Bivalvia  
Family Periplomatidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** ½ to 1 inch in length, oval, moderately compressed, thin-shelled and dull white with a thin yellowish-gray periostracum. Hinge with a narrow, oblique spoon; ligament absent. Beaks pointing somewhat forward.

**Habitat:** 7 to 73 m.

**Range:** Labrador south along Atlantic Coast to New Jersey; Gulf of Mexico.



*Pitar cordatus* (Schwengel, 1951)  
Schwengel's Venus or Pitar

Class Bivalvia  
Family Veneridae

Classification according to Turgeon *et al.* (1988)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1½ inches in length, oval-elongate, moderately plump with the lunule large and elongate. Very similar to *P. morrhuanus* on the east coast, but much fatter, with more distinct concentric threads on the outside, and with fine crenulations along the inside of the ventral margins of the valves. Interior white, commonly with a pinkish blush.

**Habitat:** From 55 to 91 m.

**Range:** Off the Florida Keys and in the Gulf of Mexico to Texas; Brazil.



*Propeamussium dalli* (Smith, 1886)  
Glass Scallop

Class Bivalvia  
Family Propeamussidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Small, thin-shelled; valves equally slightly convex; sculptured externally with concentric lines; left valve with radial striae; interior with radial ribs.

**Habitat:** 390 to 1,574 m.

**Range:** Off Texas, Gulf of Mexico; West Indies; Bermuda.



*Pteria colymbus* (Röding, 1798)  
Atlantic Wing Oyster

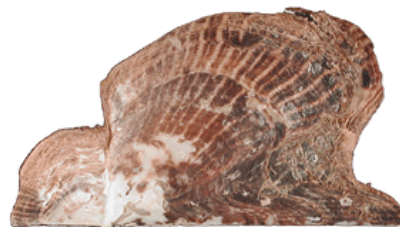
Class Bivalvia  
Family Pteriidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1½ to 3 inches in length, obliquely oval with a long extension of the hinge line toward the posterior end. Left valve inflated. Right valve somewhat flatter and with a strong anterior notch for the byssus. Periostracum matted, brown and with cancellate fimbriations. Exterior color variable: brown, black, or brownish purple with broken, radial lines of cream or white. Interior pearly with a wide, nonpearly margin of purplish black with irregular cream rays.

**Habitat:** Common from low water to several fathoms, usually attached to alcyonarians.

**Range:** North Carolina to Florida, Texas and the West Indies and to Brazil; Bermuda.



From Bailey-Matthews Shell Museum

*Solecurtus cumingianus* Dunker, 1861  
Corrugated Razor Clam, Corrugate Solecurtus

Class Bivalvia  
Family Solecurtidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in length, quadrate to rectangular in shape; gaping at both ends. Outer surface sculptured with coarse, concentric, irregular lines and with sharp, small, oblique wavy threads. Color all white with a dull, yellowish-gray periostracum.

**Habitat:** Uncommon in offshore waters from 25 to 203 m.

**Range:** North Carolina to Texas; Brazil.



*Abralia redfieldi* Voss 1955

Class Cephalopoda  
Order Teuthoidea  
Family Enoploteuthidae

Classification according to Roper *et al.* (1984)

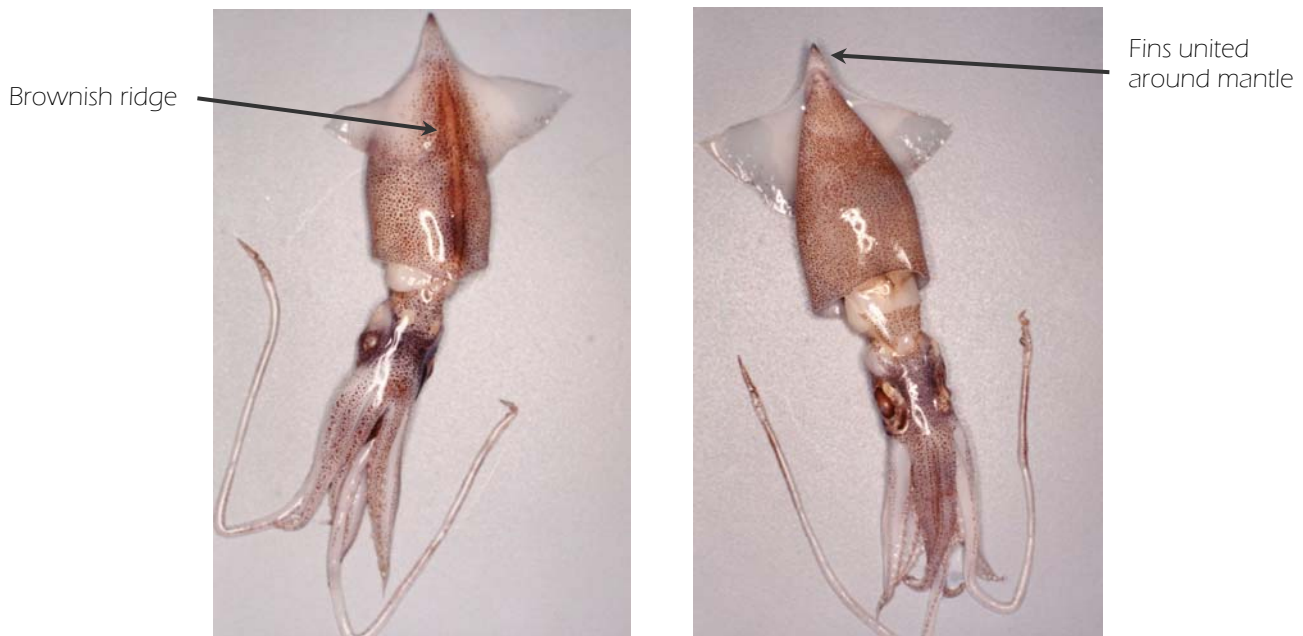
References used: Voss (1955), Vecchione and Roper (1991)

**Return specimens of *Abralia* to the laboratory for specific identification.**

**Diagnostic characters:** Small species; mantle short and stout; **raised, brownish ridge** running length of gladius (pen) on dorsal mantle; fins large and wide, occupying 47-55% of mantle length; **fins united with posterior end of mantle, tapering to long point**; head large, eyes prominent; arms and clubs of tentacles with both hooks and suckers; body, arms, head and eyes with light organs.

**Habitat:** According to Roper *et al.* (1984) members of the family Enoploteuthidae are mesopelagic inhabitants of tropical and subtropical oceans.

**Range:** Noted from the Bahamas and Lesser Antilles.



*Aplysia brasiliana* Rang 1828  
= *A. willcoxi*  
Mottled Seahare

Class Gastropoda  
Family Aplysiidae

Classification according to Turgeon *et al.* (1998)  
References used: Eales (1960), Paul Hamilton (pers. comm.)

**Diagnostic characters:** Relatively large swimming sea hare growing up to 270 mm long. Very variable in color, the background color can vary from translucent yellow, brown, gray, green or black, usually with irregular patches and mottling of different shades of brown and green, and often with lighter spots of white or yellow. There can also be veins and streaks of black or dark brown.

**Range:** New Jersey to Brazil; Gulf of Mexico



Above: Adult (photo by Anne DuPont)  
Right: Small juvenile



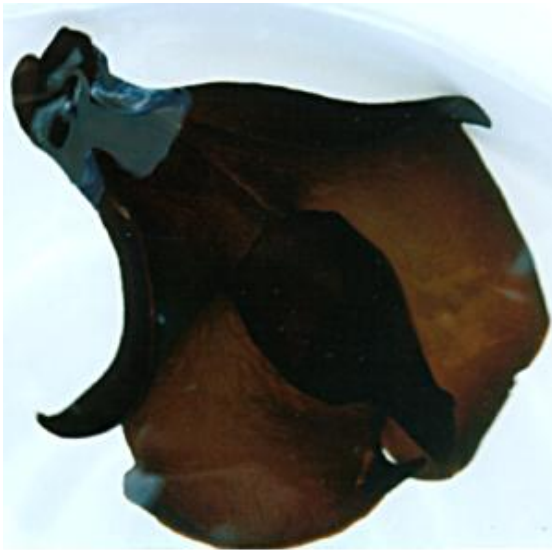
*Aplysia morio* (A.E.Verrill, 1901)  
Sooty Seahare

Class Gastropoda  
Family Aplysiidae

Classification according to Turgeon *et al.* (1998)  
References used: Eales (1960), Paul Hamilton (pers. comm.)

**Diagnostic characters:** Relatively large swimming sea hare growing up to 400 mm long. Variable in color from deep brown to black, no spots, sometimes darker lines and stripes on head and sides.

**Range:** Rhode Island to Florida through Gulf of Mexico to Texas; Bermuda.



Photos by Anne DuPont



*Bathynomus giganteus* A. Milne Edwards, 1879

Superclass Crustacea  
Order Isopoda  
Family Cirolanidae

Classification according to Integrated Taxonomic Information System  
References used: Richardson (1905)

**Diagnostic characters:** Body oblong; large composite eyes; 2 pairs of antennae; distinct calcified segments, one pair of appendages per segment; pale lilac color. Resembles common pill bug or roly-poly.

**Habitat:** Deep waters, depths greater than 300 m.

**Range:** Gulf of Mexico; Atlantic Ocean; Bay of Bengal; Arabian Sea.



*Cranchia scabra* Leach, 1817

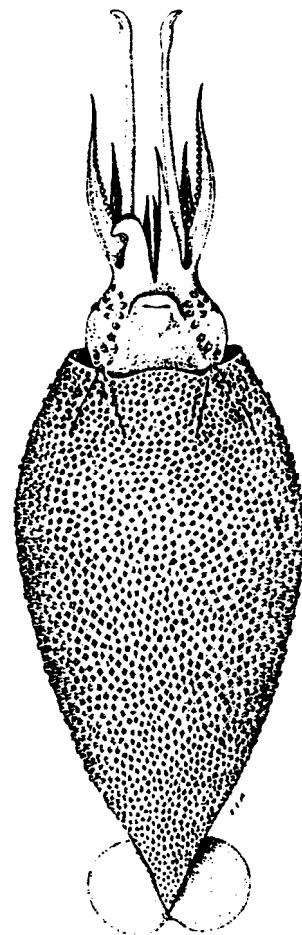
Class Cephalopoda  
Order Teuthoidea  
Family Cranchiidae

Return specimens to the laboratory for archival purposes.

Classification according to Roper *et al.* (1984)  
References used: G. Voss (1955), N. Voss (1980)

**Diagnostic characters:** Sub-globular in form; mantle fused to head in nuchal region and to funnel at its two posterolateral corners; ventral surface of mantle with 2 cartilaginous strips extending posteriorly from anterior apex of funnel-mantle fusions; dorsal mantle heavily tuberculated, ventral surface papillated; fins small, nearly circular; large funnel valve; head with large, round, prominent, sessile eyes occupying entire lateral surface; eyes with 14 oval photophores; small species, 2-3 inches in size.

**Range:** Circumglobal, tropical and subtropical waters, upper 200 meters.



From N. Voss (1980)

*Illex coindetii* (Verany, 1837)  
Southern Shortfin Squid

Class Cephalopoda  
Order Teuthoidea  
Family Ommastrephidae

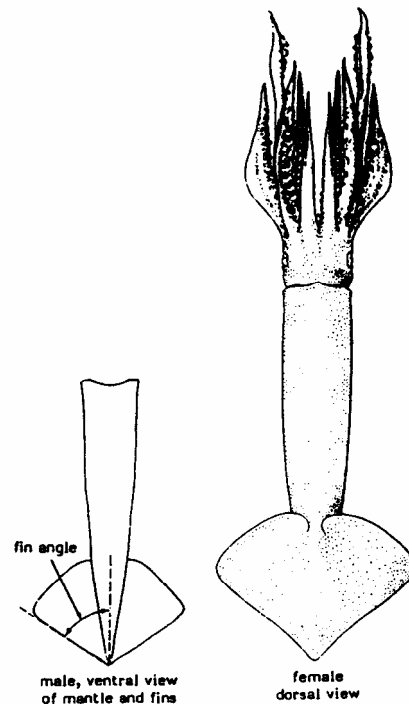
Classification according to Roper *et al.* (1984)

References used: Roper, Sweeney and Nauen (1984), Roper, Lu and Mangold (1969)

**Diagnostic characters:** Funnel locking cartilage an inverted T-shape; funnel groove smooth, without side pockets or foveola; mantle widest at anterior end (except in fully ripe females), moderately long and narrow; tail pointed; fin angle broad, exceeding 50°, fin width greater than fin length; ratio of fin length to fin width is 1:1.5; head large and robust; dactylus of tentacular club with 8 longitudinal rows of small suckers.

**Habitat:** Oceanic and neritic species occurring from the surface to about 1000 meters.

**Range:** Eastern Atlantic; Mediterranean and Black seas; western Atlantic, Caribbean; Gulf of Mexico.



Taken from Roper *et al.* (1984)

*Loligo pealei* Lesueur, 1821  
Longfin Squid

Class Cephalopoda  
Order Teuthoidea  
Family Loliginidae

Classification according to Roper *et al.* (1984)  
References used: Sanchez (1995)

**Diagnostic characters:** Mantle long, cylindrical; head, arms and tentacles large; fin length in relation to mantle length variable, usually exceeding 50% in specimens larger than 70 mm mantle length; gladius (pen) broad, curved (feather shaped), more rounded in females; vane of gladius without ribs, margins thin and curved; junction of vane and rachis gradual, not distinct; ratio of greatest width of vane of gladius to greatest width of rachis (GW/RW ratio) 2.74 to 3.52 in females, 2.26 to 3.36 in males; overall ratio 2.1 to 3.8 (includes small specimens for which sex could not be determined). Using a GW/RW ratio of 2.7 separates 100% of the *L. plei* and 91% of the *L. pealei*.

GW/RW ratio  $\geq 2.7 = L. pealei$ .

**Habitat:** Neritic, occurring over continental shelf to depth of 400 m. In SEAMAP samples usually found at stations exceeding 20 fathoms, more abundant as depths increase.

**Range:** Western Atlantic; Gulf of Mexico; Caribbean Sea.



*Loligo plei* de Blainville, 1823  
Arrow Squid

Class Cephalopoda  
Order Teuthoidea  
Family Loliginidae

Classification according to Roper *et al.* (1984)  
References used: Sanchez (1995)

**Diagnostic characters:** Mantle long, slender, cylindrical, posterior end acutely pointed; head, arms and tentacles smaller than in *L. pealeii* for same mantle length; fins usually less than 50% of the mantle length in juveniles and subadults (in specimens over 120 mm mantle length fins approach and may exceed 50%); gladius (pen) long, slender, (sword or dagger shaped); vane with marginal ribs in both sexes, ribs more pronounced in males; ribs in vane of small specimens not easily distinguished; junction of rachis and vane abrupt and distinct; ratio of greatest width of vane of gladius to greatest width of rachis (GW/RW ratio) 1.85 to 2.34 in males and 1.98 to 2.69 in females; overall **GW/RW ratio less than 2.70**; males usually with ventral streaks.

**Habitat:** Neritic, occurring over continental shelf to depth of 370 m. In SEAMAP samples usually found at stations 20 fathoms or less. Often mixed with *Lolliguncula brevis* at shallow water stations.

**Range:** Western Atlantic; Gulf of Mexico; Caribbean Sea; Brazil.



Females



Males

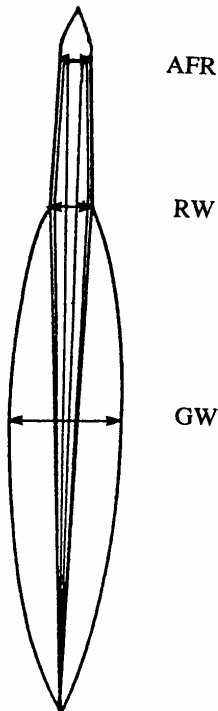
*Loligo* comparisons



*L. plei*      *L. pealei*  
Females



*L. plei*      *L. pealei*  
Males



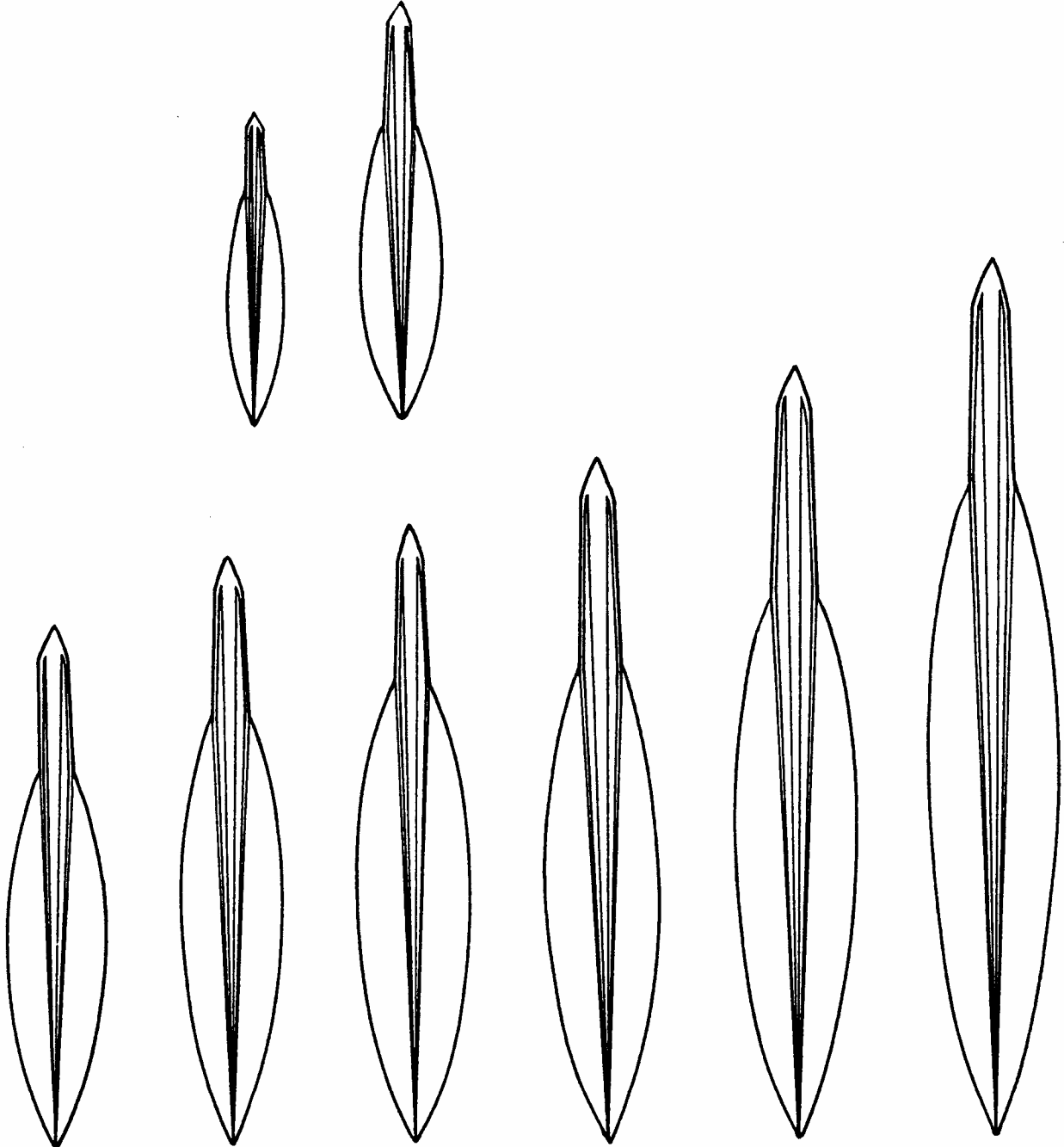
From Sanchez 1995

GW/RW Ratios for *Loligo*

	<i>L. pealei</i>	<i>L. plei</i>
Male	2.26 - 3.36	1.85 - 2.34
Female	2.74 - 3.52	1.98 - 2.69
Average	≥ 2.7	< 2.7

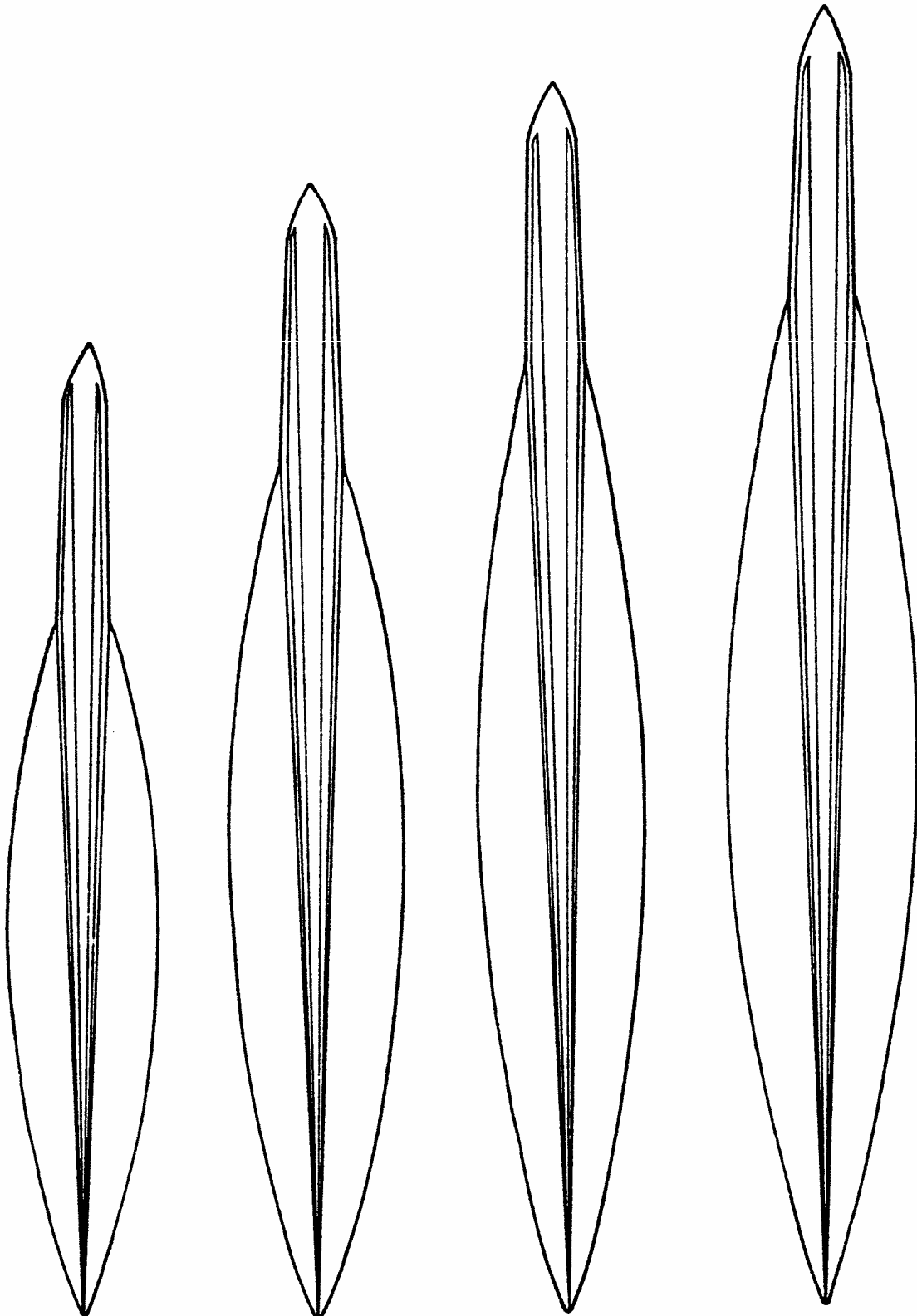
*Loligo pealei* - Male pens

(Drawings from Sanchez 1995)



*Loligo pealei* - Male pens cont.

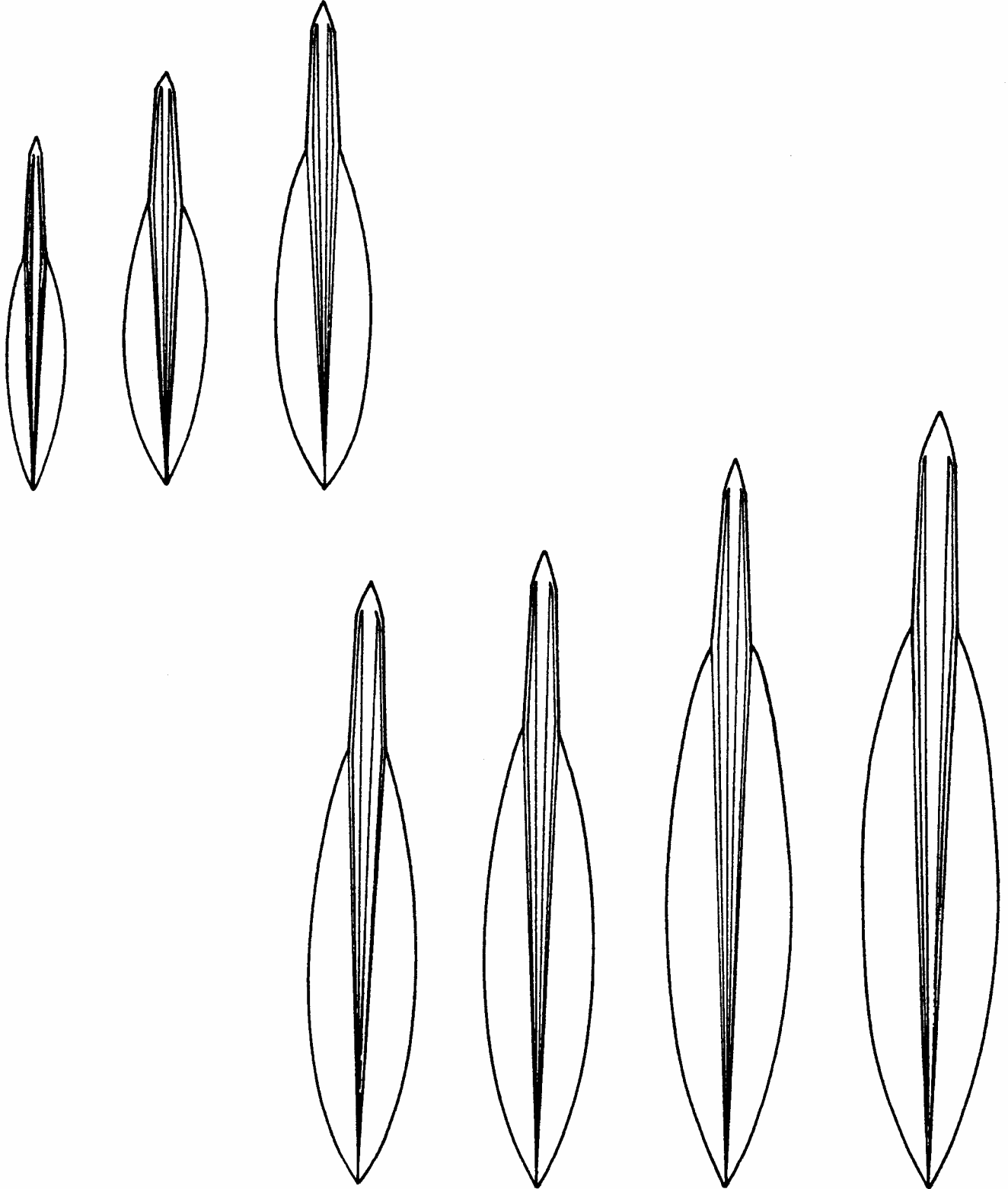
(Drawings from Sanchez 1995)





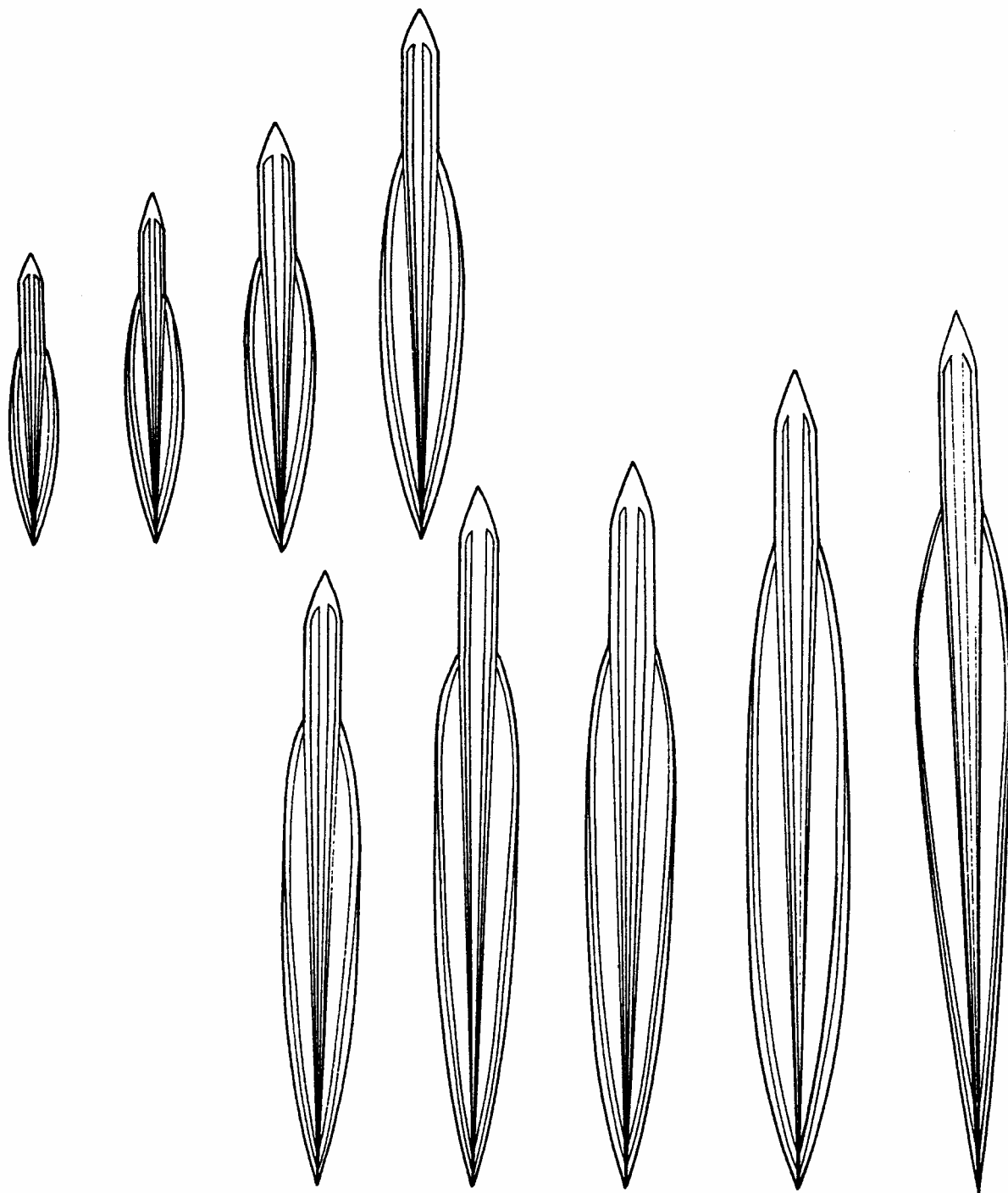
*Loligo pealei* - Female pens

(Drawings from Sanchez 1995)



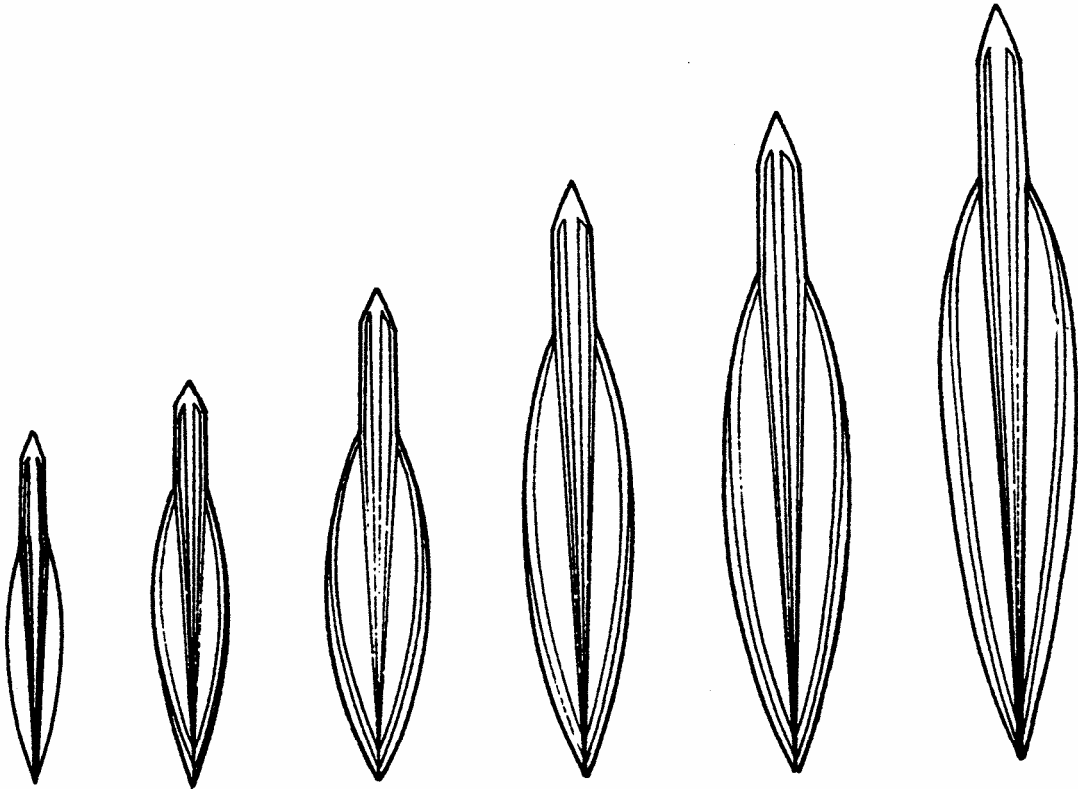
*Loligo plei* - Male pens

(Drawings from Sanchez 1995)



*Loligo plei* - Female pens

(Drawings from Sanchez 1995)



*Lolliguncula brevis* (de Blainville, 1823)  
Atlantic Brief Squid

Class Cephalopoda  
Order Teuthoidea  
Family Loliginidae

Classification according to Roper *et al.* (1984)  
References used: Roper, Sweeney and Nauen (1984)

**Diagnostic characters:** Mantle short and stout, bluntly rounded posteriorly; fins broad, wider than long, rounded; gladius (pen) "feather" shaped.

**Habitat:** Neritic, coastal species restricted to shallow water.

**Range:** Western Atlantic; Gulf of Mexico; Caribbean Sea; Argentina.



*Octopus vulgaris* Lamarck, 1798  
Common Octopus

Class Cephalopoda  
Order Octopoda  
Family Octopodidae

Classification according to Roper *et al.* (1984)  
References used: Roper, Sweeney and Nauen (1984)

**Diagnostic characters:** Medium to large octopus, chunky in appearance; arms stout and about equal in length and thickness, dorsal pair of arms slightly shorter.

**Habitat:** Benthic, occurring over continental shelf to depth of 200 m.

**Range:** Widely distributed in world oceans.



*Semirossia equalis* (Voss, 1950)  
Greater Shining Bobtail

Class Cephalopoda  
Order Sepioidea  
Family Sepiolidae

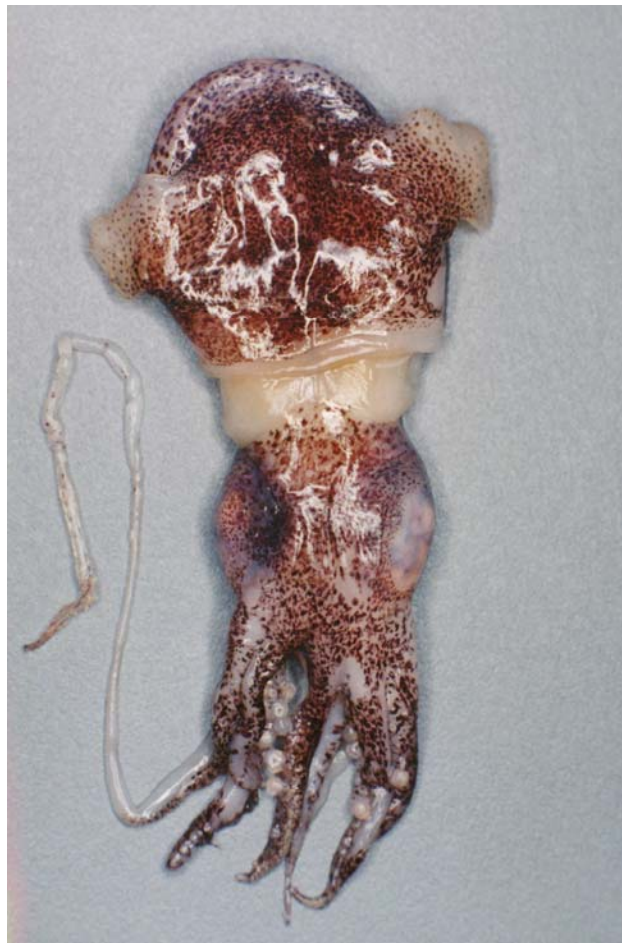
Classification according to Roper *et al.* (1984)  
References used: Roper, Sweeney and Nauen (1984)

Return specimens of *Semirossia* to the laboratory for verification, *S. tenera* also present in the Gulf.

**Diagnostic characters:** Fins large, broad; tentacular clubs moderately expanded; dorsal border of mantle not fused with head; light organs present on ink sac.

**Habitat:** Occurs over muddy bottoms from 130 to 260 m.

**Range:** Gulf of Mexico.



*Acanthocarpus alexandri* Stimpson, 1871  
Gladiator Box Crab

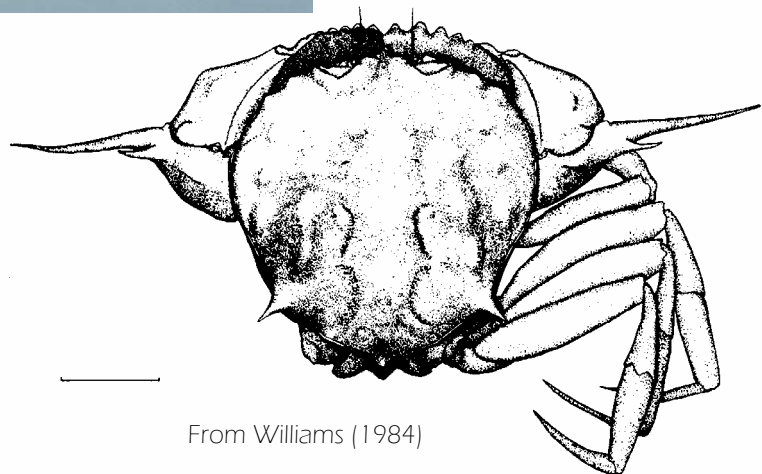
Infraorder Brachyura  
Family Calappidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace ovate, widest in anterior half with single spines on postero-lateral margins; merus of cheliped with 2 spines on outer distal surface, lower spine longer and greatly extended laterally.

**Habitat:** Found on soft bottoms, fine sand, mud and ooze from 68 to 476 m.

**Range:** Massachusetts, through the Gulf of Mexico to Brazil.



From Williams (1984)

*Anasimus latus* Rathbun, 1894  
Stilt Spider Crab

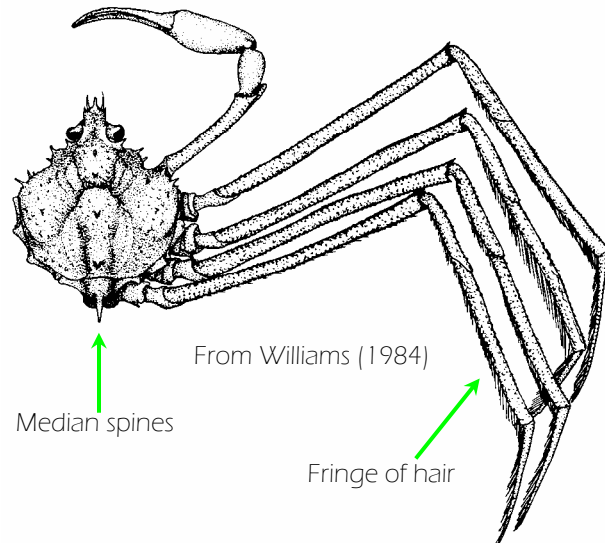
Infraorder Brachyura  
Superfamily Majoidea  
Family Inachoididae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Similar to *Pyromaia cuspidata*; carapace rough with spines, median row of 5 spines with long backward projecting spine at distal end of first abdominal segment, carapace broadly ovate; rostrum short, broadly triangular at base ending in short, sharp, upturned spine; chelipeds of male more than twice length of carapace, granulate, palm swollen; fingers of cheliped slender, curved inward; walking legs long, last two segments with double fringe of hair.

**Habitat:** Found on coarse sand, coral, coral sand and mud and shell substrates from 27 to 274 m.

**Range:** Cape Lookout, NC, through the Gulf of Mexico to Brazil.





*Arenaeus cribrarius* (Lamarck, 1818)  
Speckled Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984)

**Diagnostic characters:** Carapace more than twice as wide as long, six frontal teeth including inner orbitals; anterolateral teeth strong, heavily ciliate beneath; chelipeds of moderate size, merus with 3 spines on anterior border; light brown or light maroon in color covered with small, white to yellow spots.

**Habitat:** Surf zone of ocean beaches to 68 m.

**Range:** Massachusetts through the Gulf of Mexico to Brazil.



*Bathynectes longispina* Stimpson, 1871  
Bathyal Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984), Powers (1977)

**Diagnostic characters:** Four frontal teeth; **five widely spaced antero-lateral teeth** (including outer orbital tooth), posterior tooth elongate; chelipeds spinous; merus of chelipeds with long spine on inner margin and short spine opposite on the outer margin, spine on inner margin triangular with small spines; walking legs long and slender; first pair of walking legs much shorter than second, third pair of walking legs slightly shorter than second; **last segment of fifth legs broad and flat**, lanceolate in shape; terminal segments (dactyls) of legs 2-5 red or scarlet in color; middle portion of propodal segments red or scarlet, **legs appear banded**.

**Habitat:** Shelf/slope species occurring on a variety of bottom types, predominant on sand, gravel, rocky or coral bottoms (55 to 769 fathoms).

**Range:** Atlantic coast of U. S., Gulf of Mexico, Caribbean Sea (Cuba), Colombia, Norway, Scotland, France, Mediterranean and Black Seas.



*Calappa flammea* (Herbst, 1794)  
Flame Box Crab

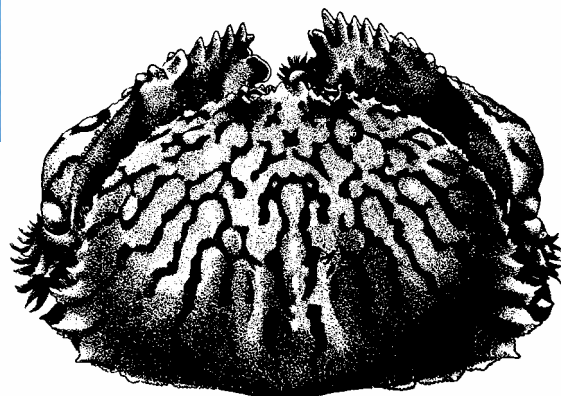
Infraorder Brachyura  
Family Calappidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace wider than long, granular; chela with smooth area on outside lower half of manus (between granular ridges) straight or horizontal throughout length; background color of carapace gray posteriorly, color pattern on carapace variable with purple/brown longitudinal stripes on posterior half, purple/brown stripes on merus, carpus and upper portion of palm of cheliped, distinct round spots of same color on outer palm of cheliped.

**Habitat:** Found on sand bottoms from shore to 73 m, rarely to 229 m.

**Range:** Massachusetts through the Gulf of Mexico to Yucatan, Mexico.



From Williams (1984)

*Calappa sulcata* Rathbun, 1898  
Yellow Box Crab

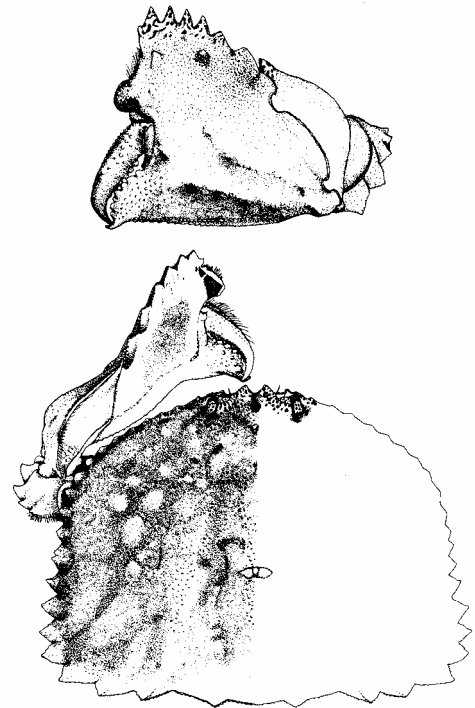
Infraorder Brachyura  
Family Calappidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace somewhat wider than long, covered with uniform granulations giving appearance of being smooth; chela with smooth area on outside lower half of manus (between granular ridges) narrow proximally, widening and turning obliquely upward distally; color varying from dark beige to light vermillion and pink, diminishing in intensity from front to back, becoming yellowish white or ivory at posterior margin; central spot on carapace intense ocher with darker ring inside, 2 smaller spots lateral and a little anterior to central spot.

**Habitat:** Found on sand and sand-mud substrates from shore to 183 m (100 fathoms).

**Range:** Cape Hatteras, NC, through the Gulf of Mexico to Brazil.



From Williams (1984)

*Calappa tortugae* (A. Milne Edwards, 1880)  
= *Calappa angusta*  
Nodose Box Crab

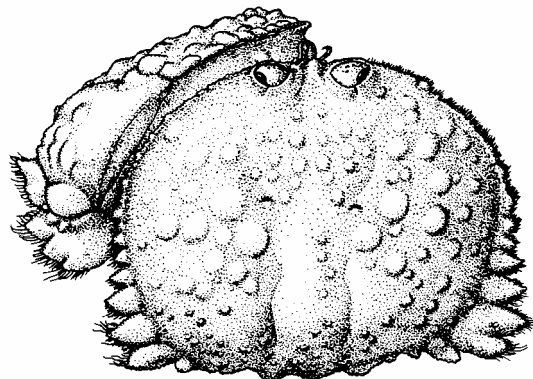
Infraorder Brachyura  
Family Calappidae

References used: Williams (1984), Felder (1973), Williams and Child (1988)

**Diagnostic characters:** Carapace wider than long, granular; anterolateral margins finely granulate with larger granules at intervals; surface covered with protuberances, granulate between; color buff to buff yellow with high spots and lumps on carapace and chelipeds red.

**Habitat:** More abundant offshore than in inshore waters, 14 to to 210 m.

**Range:** Cape Lookout, North Carolina through eastern and southwestern Gulf of Mexico to Venezuela and Grenada.



From Williams and Child (1988)

*Callinectes sapidus* Rathbun, 1896  
Blue Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1974, 1984)

**Diagnostic characters:** Only species of *Callinectes* with 4 frontal teeth. Mature males and females differ in color; males with blue fingers on inner surface and white on outer surface, tipped with reddish purple; mature females with orange/red fingers tipped with reddish/purple.

**Habitat:** Coastal species from freshwater to marine. Common in estuaries over a variety of bottom types. Co-occurs with *C. similis* in northern Gulf of Mexico waters.

**Range:** Nova Scotia through Gulf of Mexico to Argentina; numerous European records; Japan.



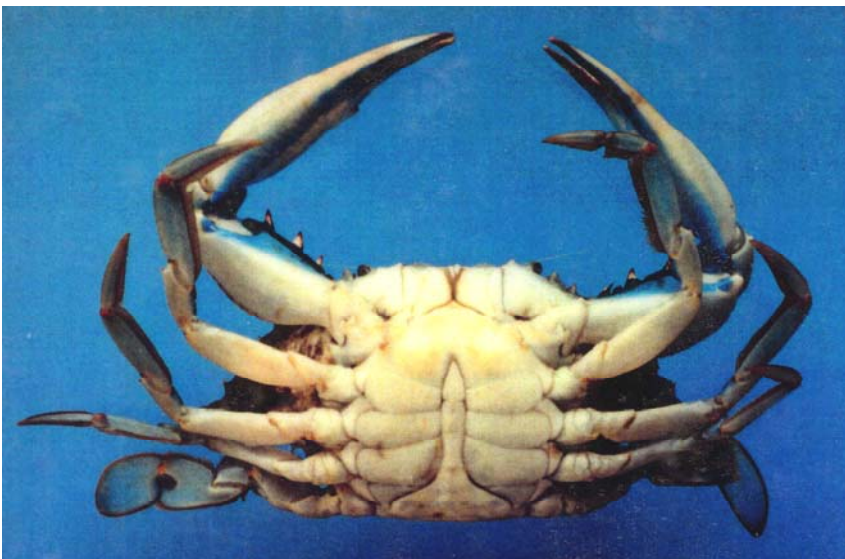
Sex Determination for *C. sapidus*



Immature female



Mature female



Male

*Callinectes similis* Williams, 1966  
Lesser Blue Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1966, 1974, 1984), Powers (1977)

**Diagnostic characters:** Carapace with six frontal teeth including inner orbitals, submedian pair small, but distinct. Closely resembles and often confused with *C. danae* and *C. ornatus*. Morphology of male 1st pleopod easiest separation character. Some geographic separation among the three species - *C. similis* has more Carolinian distribution.

**Habitat:** Open Gulf and high-salinity areas of lower bays. Near-shore to about 40 fathoms. Common over sand and mud bottoms. Co-occurs with *C. sapidus*. Extremely abundant northern Gulf of Mexico.

**Range:** Atlantic coast of U. S., northwestern Florida through Gulf of Mexico to Yucatan, Jamaica, Colombia. With exception of southwest Florida, all Gulf of Mexico records for *C. ornatus* and *C. danae* are referable to *C. similis*.





Key to Adult *Callinectes*, Atlantic, Caribbean, Gulf of Mexico  
(Modified from Williams 1974, 1984)

- 1a. Front of carapace with two frontal teeth between inner orbitals ..... **C. sapidus**
- 1b. Front of carapace with four frontal teeth between inner orbitals or with two prominent teeth separated by space often bearing pair of rudimentary submesial teeth.....2
- 2a. Submesial pair of frontal teeth well developed and more than half as long as lateral pair (measuring from base of lateral notch between teeth) .....3
- 2b. Frontal teeth decidedly unequal in size, submesial pair no more than half as long as lateral pair (measuring from base of lateral notch between teeth) or vestigial.....5
- 3a. Four frontal teeth with rather rounded tips, lateral pair more broadly triangular than submesial pair with mesial slope having more oblique slope than lateral side ..... 4
- 3b. Four frontal teeth acute, lateral pair usually broader than submesial pair (confined to western and southwestern Gulf of Mexico - Mexico, Texas) ..... **C. rathbunae**
- 4a. Anterolateral teeth trending forward; their anterior margins shorter than posterior, reddish/brown or olive green with reddish markings; distal border of sixth abdominal segment in mature females broadly triangular (Caribbean, Atlantic Coast Central and South America) .....**C. bocourti**
- 4b. Anterolateral teeth directed outward, their tips acuminate and margins shouldered at least in anterior portion of row; distal border of sixth abdominal segment in mature females semiellipsoid (geographic distribution restricted, Venezuelan estuaries) .....**C. maracaiboensis**
- 5a. Carapace very smoothly granulate, lines of granules visible but barely perceptible to touch (except epibranchial line variably prominent) .....**C. similis**
- 5b. Carapace coarsely granulate, scattered granules and lines of granules quite evident to sight and touch ...6
- 6a. Anterolateral teeth (exclusive of outer orbital and lateral spine lacking shoulders and swept forward) .....7
- 6b. Anterolateral teeth (exclusive of outer orbital and lateral spine lacking shoulders, not swept forward) .....8
- 7a. Anterolateral teeth well separated, all except first three and lateral spine with anterior margins concave; chelipeds with ridges finely granulated .....**C. larvatus**
- 7b. Anterolateral teeth adjacent, stout, anterior margins not noticeably concave, fifth tooth often largest; chelipeds with ridges coarsely granulated .....**C. exasperatus**
- 8a. Submesial pair of frontal teeth absent or vestigial ..... **C. ornatus**
- 8b. Submesial pair of frontal teeth never vestigial, but no more than half length of lateral pair .....**C. danae**

*Chaceon fenneri* (Manning and Holthuis, 1984)  
Golden Deepsea Crab

Infraorder Brachyura  
Family Geryonidae

References used: Manning and Holthuis (1984, 1989)

**Diagnostic characters:** hexagonal carapace; five anterolateral teeth on each side of carapace; well-developed, large frontal teeth; shallow, rounded orbits; chelipeds unequal; dactyli of walking legs laterally compressed, higher than wide; **color tan to cream.**

**Habitat:** Deep waters; outer edge of continental shelf and continental slope.

**Range:** Eastern Florida, Gulf of Mexico.



*Chaceon quinquedens* (Smith, 1879)  
Red Deepsea Crab

Infraorder Brachyura  
Family Geryonidae

References used: Manning and Holthuis (1984, 1989)

**Diagnostic characters:** hexagonal carapace; five anterolateral teeth on each side of carapace; well-developed, large frontal teeth; shallow, rounded orbits; chelipeds unequal; dactyli of walking legs dorsoventrally flattened, wider than high; **color red to reddish brown.**

**Habitat:** Deep waters; outer edge of continental shelf and continental slope.

**Range:** Gulf of Maine to Florida; Gulf of Mexico.



*Collodes robustus* Smith, 1881

Infraorder Brachyura  
Superfamily Majoidea  
Family Inachoididae

References used: Rathbun (1925), Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Carapace without median spines, granulate; ambulatory legs long and hairy; rostrum divided by notch into 2 teeth, inter-antennular spine not advanced as far as rostrum; basal antennal article with **dentate crests**.

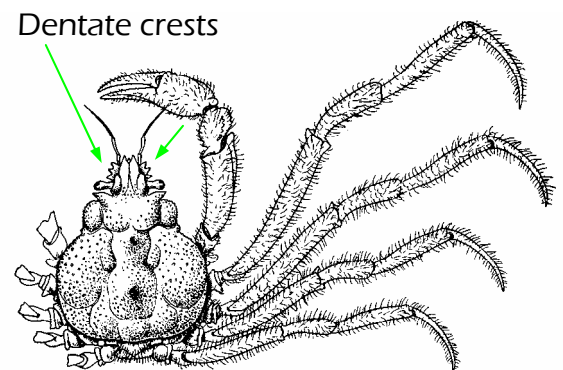
**Range:** Williams (1984) lists range from New England to North Carolina.



Specimen covered in mud when captured



Specimen with mud removed



From Rathbun (1925)

*Cryptodromiopsis antillensis* (Stimpson, 1858)  
= *Dromidia antillensis*  
Hairy Sponge Crab

Infraorder Brachyura  
Section Bromiacea  
Family Dromiidae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Body and legs with thick coat of short pubescence; carapace longer than broad; chelipeds thick and heavy; walking legs slender, last pair turned forward over back and much longer than fourth pair. Usually found carrying a covering of sponge or compound ascidians.

**Habitat:** Shallow water to 311 m. Usually found near rocks, shells or other hard substrates with associated fouling material.

**Range:** North Carolina through Gulf of Mexico and Caribbean Sea to Brazil; Bermuda.



*Danielum ixbauchac* Vazquez-Bader and Gracia, 1995

Infraorder Brachyura  
Family Xanthidae

References used: Vazquez-Bader and Gracia (1995)

**Diagnostic characters:** Carapace subcircular, as wide as long; surface granulate and setose; frontal margin with deep median groove; four acute anterolateral teeth; chelipeds unequal, shorter than first walking legs; all appendages setose; dorsal and ventral surfaces with red blotches; walking legs banded (red and white).

**Notes:** Name derived from Mayan language: ixbau (sea crab) and chac (red).

**Range:** Northern Gulf of Mexico; Campeche, Mexico.



*Dyspanopeus texana* (Stimpson, 1859)  
= *Neopanope texana*  
Gulf Grassflat Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Panopeidae

References used: Abele (1972), Abele and Kim (1986), Martin and Abele (1986)

**Diagnostic characters:** Fronto-orbital border more than half greatest width of carapace; carapace minutely granulate, subhexagonal; interorbital margin arcuate, median sinus a much reduced notch; 5 anterolateral teeth (including outer orbital), anterolateral teeth broad, flat, first and second partially fused; third and fourth anterolateral teeth directed anteriorly; posterolateral border without notch behind fifth anterolateral tooth; chelipeds unequal, major chela without basal tooth on dactyl.

**Habitat:** Common in shallow waters.

**Range:** West coast of Florida (Charlotte County) to Texas.

**Remarks:** This species very similar to *Dyspanopeus sayi*. The most consistent differences between the two species are in the form and length of the fifth pereopod and the form of the male gonopod (Able 1972). *Dyspanopeus texanus* appears to be confined to the Gulf of Mexico, while *D. sayi* is found along the east coast of the United States through the Florida Keys.



*Ethusa microphthalma* Smith, 1881  
Broadback Sumo Crab

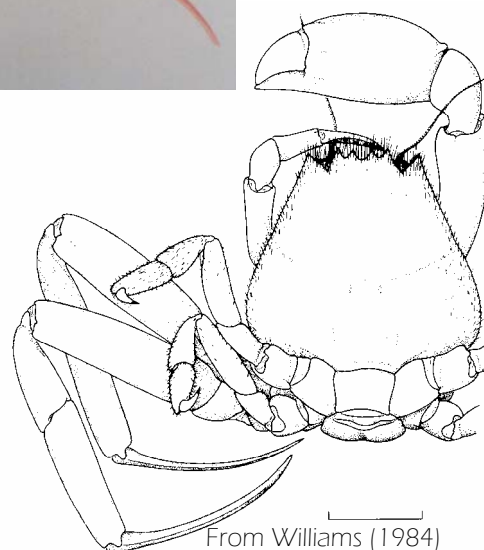
Infraorder Brachyura  
Family Dorippidae

References used: Williams (1984)

**Diagnostic characters:** First two pairs of walking legs long and stout, last two pairs of legs much reduced, **dactyls of first and second walking legs flattened**; **eyestalks short**, not extending beyond anterolateral spines; carapace with anterior narrower than posterior, dorsal surface pubescent; four similar, nearly equidistant teeth between orbits; chelipeds of males very unequal;

**Habitat:** Found from 83 to 752 m.

**Range:** Massachusetts through the Gulf of Mexico; Cuba.





*Euceramus praelongus* Stimpson, 1860  
Olivepit Porcelain Crab

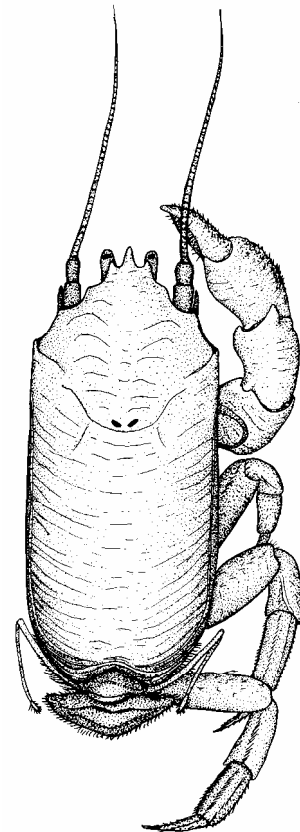
Infraorder Anomura  
Superfamily Galatheoidea  
Family Porcellanidae

References used: Williams (1984)

**Diagnostic characters:** Carapace subcylindrical, elongate; anterolateral margins of carapace with two small (more or less obtuse) spines on each side behind antennae; front tridentate; shallow indentation at posterior edge of carapace; telson much longer than broad.

**Habitat:** Sandy beaches below water line to 38 meters; smooth and broken-shell bottoms.

**Range:** Delaware, through the Gulf of Mexico to Aransas Pass, Texas.



From Williams (1984)

*Euphosynoplax clausa* Guinot, 1969  
Craggy Bathyal Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Pseudorhombilidae

References used: Guinot (1969); Abele and Kim (1986)

**Diagnostic characters:** Carapace xanthoid; orbits of normal size and form; inner angle of carpus of cheliped with one acute tooth.



*Hepatus epheliticus* (Linnaeus, 1763)  
Calico Box Crab

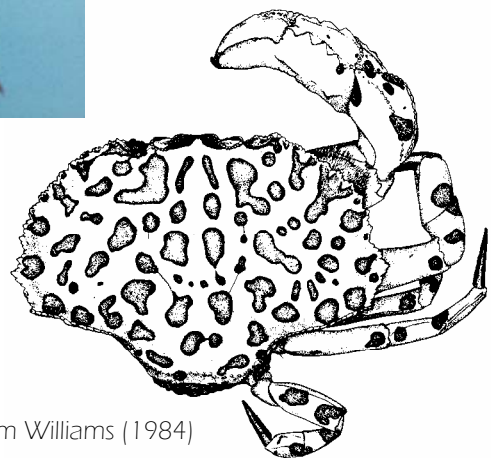
Infraorder Brachyura  
Family Hepatidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace covered with large, usually discrete, red spots, spots more numerous and variable in color among juveniles, spots may be coalesced in transverse rows or reticulate patterns.

**Habitat:** Found on sand, sand-shell and mud-sand substrates from nearshore to 46 m (25 fathoms).

**Range:** Chesapeake Bay through the Gulf of Mexico to Yucatan, Mexico; Cuba, Jamaica, Dominican Republic.



From Williams (1984)

*Homola minima* Guinot and Richer de Fordges, 1995  
= *H. barbata* (Fabricius, 1793)

Infraorder Brachyura  
Family Raninidae

References used: Williams (1984), Guinot and Richer de Fordges (1995)

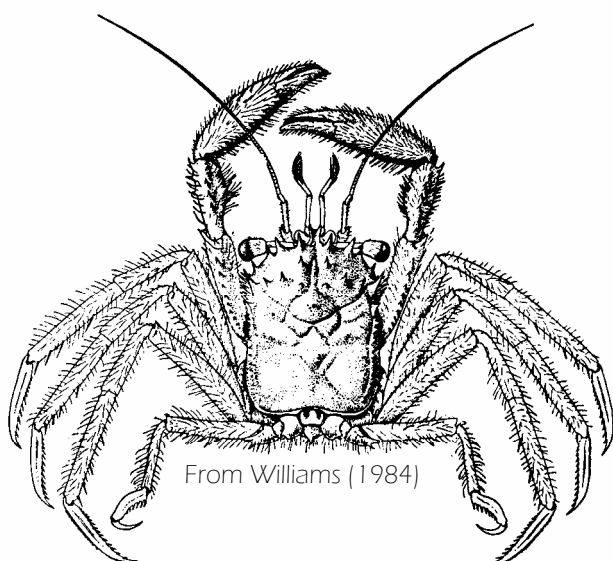
**Diagnostic characters:** Carapace urn-shaped; rostrum bifurcate at tip, one spine on each side at base of rostrum, one at outer orbital angle; eyestalks long, slender at base; cheliped surface granulate and hairy; last walking legs folded forward over back, yellowish-brown or reddish-brown hair, spines red.

**Habitat:** 55 to 682 m.

**Range:** Massachusetts to Brazil.



Bifurcate rostrum with spines  
at base and orbital angle



From Williams (1984)

*Hypoconcha arcuata* Stimpson, 1858  
Granulate Shellback Crab

Infraorder Brachyura  
Section Bromiacea  
Family Dromiidae

References used: Williams (1984), McLay (1993)

**Diagnostic characters:** Carapace flattened, membranous, hourglass shaped, frontal and later margins expanded and covering the eyes; posterior side of orbit raised but never spined; last segment of last two legs crescent shaped; legs all stout, hairy and coarsely granulate. This species does not have the strong postorbital spine or the spines on the frontal margin of the carapace as found on *H. spinosissima*.

**Habitat:** Usually found occupying an empty bivalve shell. Shallow water to 66 m.

**Range:** Cape Lookout, North Carolina to west Florida; Virgin Islands; Surinam to Brazil.



*Hypoconcha spinosissima* Rathbun, 1933  
Spiny Shellback Crab

Infraorder Brachyura  
Section Bromiacea  
Family Dromiidae

References used: Williams (1984), McLay (1993)

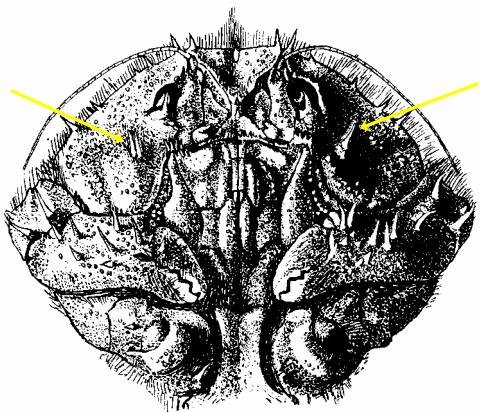
**Diagnostic characters:** Carapace flattened, membranous, hourglass shaped, frontal and lateral margins expanded and covering the eyes with 4 curved spines having sharp tips pointed obliquely downward; strong spine on posterior side of orbit; last segment of last two legs crescent shaped; legs all stout, hairy and coarsely granulate. *H. sabulosa* also has 4 front marginal spines, is lacking the postorbital spines, but has 3 clusters of nodules forming a triangle in the postorbital area.

**Habitat:** Usually found occupying an empty bivalve shell. Shallow water to 66 m.

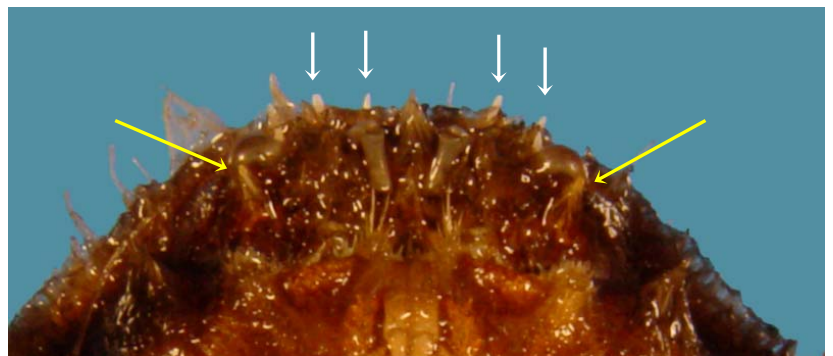
**Range:** Cape Lookout, North Carolina to west Florida; Virgin Islands; Surinam to Brazil.



White arrows indicate 4 front margin spines;  
Yellow arrows indicate postorbital spines



From Williams (1974)



Guide to Shelf Invertebrates, Gulf of Mexico - Perry and Larsen © 2004  
Draft 6/4/04

*Acanthilia intermedia* (Miers, 1886)  
=*Iliacantha intermedia*  
Granulose Purse Crab

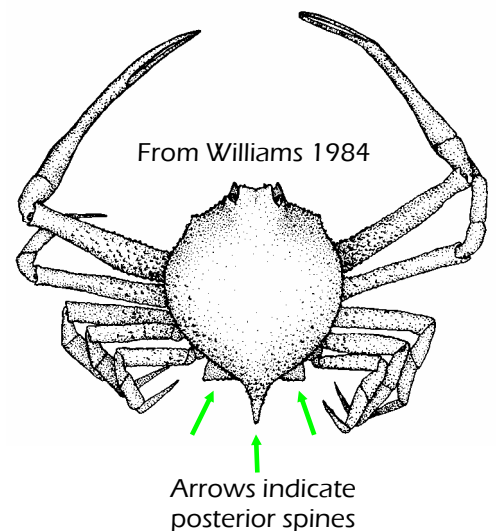
Infraorder Brachyura  
Family Leucosiidae

References used: Williams (1984), Rathbun (1937)

**Diagnostic characters:** Carapace orbicular, smoothly and evenly convex, granulate, 3 posterior spines; lateral spines subtriangular, flattened; median spine higher, longer, conical, and curved upward; fingers of chelipeds slender, shorter than palm; *Iliacantha* spp. similar but carapace less granulate and with fingers longer than palm of hand.

**Habitat:** 10 to 329 m.

**Range:** Beaufort, North Carolina to western Florida, Caribbean, Venezuela and Brazil.



*Iliacantha liodactylus* Rathbun, 1898  
Purse Crab

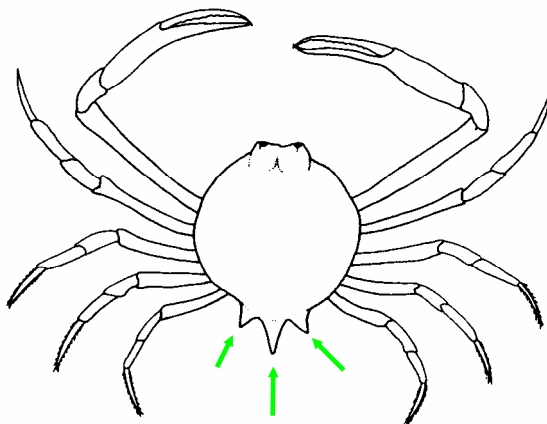
Infraorder Brachyura  
Family Leucosiidae

References used: Williams (1984), Rathbun (1937)

**Diagnostic characters:** Carapace orbicular, smoothly and evenly convex, finely granulate, 3 posterior spines conical, pointed and curved upward; median spine higher, longer; fingers of chelipeds slender, equal to or slightly longer than palm; *Acanthilia intermedia* similar but carapace more granulate and with fingers shorter than palm of hand. Posterior spines of *I. subglobosa* short and blunt.

**Habitat:** 8 to 62 m.

**Range:** West coast of Florida to Trinidad, West Indies.



From Abele and Kim (1986)

Arrows indicate conical posterior spines



*Iliacantha subglobosa* Stimpson, 1871  
Longfinger Purse Crab

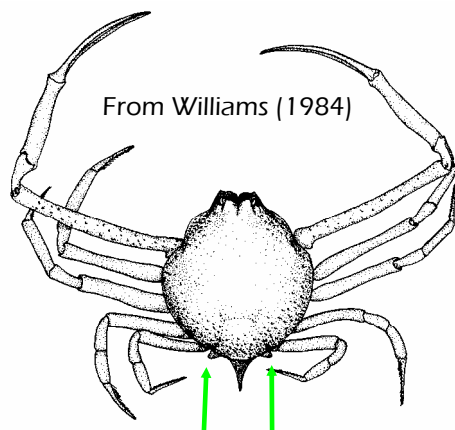
Infraorder Brachyura  
Family Leucosiidae

References used: Williams (1984), Rathbun (1937)

**Diagnostic characters:** Carapace orbicular, smoothly and evenly convex, finely granulate, 3 posterior spines; lateral spines subtriangular, blunt; median spine higher, longer, conical, and curved upward; fingers of chelipeds slender, longer than palm; *Acanthilia intermedia* similar but carapace more granulate and with fingers shorter than palm of hand. Posterior spines of *I. liodactylus* conical and acute.

**Habitat:** 16 to 915 m.

**Range:** Cape Hatteras, North Carolina to Florida through eastern Gulf of Mexico and Caribbean Sea south to Brazil.



Arrows indicate blunt posterior spines

*Myropsis quinquespinosa* Stimpson, 1871  
Fivespine Purse Crab

Infraorder Brachyura  
Family Leucosiidae

References used: Williams (1984), Powers (1977), Felder (1973)

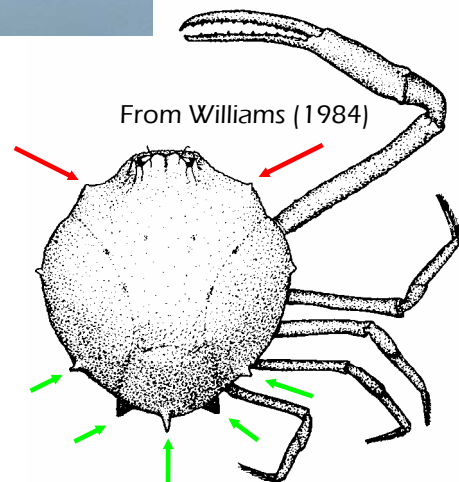
**Diagnostic characters:** Carapace subspherical, granular, with 2 small hepatic spines and 5 posterior spines; chelipeds long and slender, densely granulate; buff to yellowish white in color with buff yellow to pinkish tint on legs.

**Habitat:** Common on mud, also found on sand and shell substrates. Depth range 91 to 1,047 m.

**Range:** Massachusetts through the Gulf of Mexico and Caribbean Sea to Surinam.



Red arrows indicate 2 hepatic spines  
Green arrows indicate 5 posterior spines



*Leiolambrus nitidus* Rathbun, 1901  
White Elbow Crab

Infraorder Brachyura  
Family Parthenopidae

References used: Gore and Scotto (1979), Abele and Kim (1986)

**Diagnostic characters:** Carapace smooth, produced anteriorly and containing cup-like orbits; lateral spines strong, directed outward or slightly backward; chelipeds narrow, anterior margin of arm with many small denticulate teeth.

**Habitat:** Found from 22 to 33 m (12 to 18 fathoms).

**Range:** Northern and western Gulf of Mexico; Caribbean Sea; Central America.



*Libinia emarginata* Leach, 1815  
Portly Spider Crab

Infraorder Brachyura  
Superfamily Majoidea  
Family Pisidae

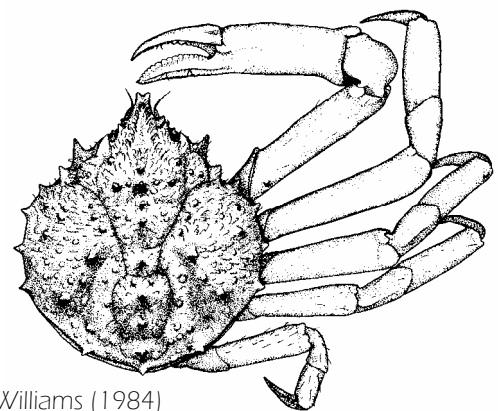
References used: Williams (1984), Powers (1977)

**Diagnostic characters:** Carapace orbicular, spinose, tuberculate, with dense covering of short hairs; median row of **about** 9 large spines from near base of rostrum to posterior border of carapace; five lateral marginal spines on each side; orbits with prominent preorbital spine; chelipeds equal.

**Habitat:** Found on all types of substrates, most common on mud and mud-sand in shallow waters. Shore to 49 m, rarely to 124 m.

**Range:** Nova Scotia to south Florida, Florida Keys, through the Gulf of Mexico.

**Remarks:** Most common large spider crab in the western Gulf of Mexico. Young of *L. emarginata* and *L. dubia* difficult to distinguish. According to Wass (1955) the rostrum of *L. dubia* is much longer, forming a "V".



From Williams (1984)

*Menippe adina* Williams and Felder, 1986  
Western Gulf Stone Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Menippidae

References used: Williams and Felder (1986), Bert and Harrison (1988)

**Diagnostic characters:** Carapace chocolate brown to deep maroon brown, occasional mottling of light to golden brown on dorsal posterior carapace; legs solid (no banding), same color as carapace; chelipeds large and heavy, unequal.

**Habitat:** Estuarine/coastal species.

**Range:** Wakulla County in northwest Florida through the Gulf of Mexico to Tamaulipas State, Mexico.

**Remarks:** The genus *Menippe* in the Gulf of Mexico has recently been revised. Two morphologically distinct populations with narrowly overlapping geographic areas were identified. The peninsular Florida form was delineated as *Menippe mercenaria*, restricted. The western Gulf form was described as a new species, *Menippe adina*. Extensive interbreeding of the two species occurs in the panhandle region of Florida and specimens taken from that area exhibit a variety of phenotypes. Because of the extensive hybridization, Bert (1986) concluded that the two species warrant taxonomic recognition only at the semispecies level.



*Menippe mercenaria* (Say, 1818)  
Florida Stone Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Menippidae

References used: Williams (1984), Williams and Felder (1986)

**Diagnostic characters:** Carapace brownish and spotted; walking legs banded; chelipeds large and heavy, unequal.

**Habitat:** Estuarine/coastal species to 51 m.

**Range:** North Carolina to northwest Florida; Caribbean Sea.

**Remarks:** The genus *Menippe* in the Gulf of Mexico has recently been revised. Two morphologically distinct populations with narrowly overlapping geographic areas were identified. The peninsular Florida form was delineated as *Menippe mercenaria*, restricted. The western Gulf form was described as a new species, *Menippe adina*. Extensive interbreeding of the two species occurs in the panhandle region of Florida and specimens taken from that area exhibit a variety of phenotypes. Because of the extensive hybridization, Bert (1986) concluded that the two species warrant taxonomic recognition only at the semispecies level.



*Metoporphis calcarata* (Say, 1818)  
False Arrow Crab

Infraorder Brachyura  
Superfamily Majoidea  
Family Inachidae

References used: Williams (1984)

**Diagnostic characters:** Carapace triangular, longer than broad, nodulose; rostrum as long as or longer than carapace, tapering to point, often armed with 4 or 5 slender spines projecting outward alternately from opposite sides of lower surface and with distal pair so close to tip as to give tip bi- or trispinose appearance; eyes protuberant; walking legs slender, meri with 1 conspicuous spine and 2 smaller spines at extremity; dactyls longer than propodi, fringed with hair.

**Habitat:** Found on hard substrates; shallow water to 90 m.

**Range:** North Carolina, through the Gulf of Mexico and Caribbean Sea to Brazil.



*Nibilia antilocapra* (Stimpson, 1871)  
Shorthorn Spiny Crab

Infraorder Brachyura  
Superfamily Majoidea  
Family Pisidae

References used: Rathbun (1925), Williams (1984), Able and Kim (1986)

**Diagnostic characters:** Carapace pyriform, spinose, longer than wide; rostrum undivided at base, bifurcate for greater part of length; eyes with commencing orbits and large cupped postocular process into which eyes retract; eyestalks short; walking legs decreasing in length from first to last pair; chelipeds of adult males longer and stouter than walking legs; merus and carpus rough with spines above and below; hand nearly as long as merus and smooth.

**Habitat:** RARE; Reported from sand, broken-shell and coral bottoms from 66 to 256m.

**Range:** North Carolina to Gulf of Mexico east of the Mississippi River Delta.





*Osachila antillensis* Rathbun, 1893  
Jewelbox Crab

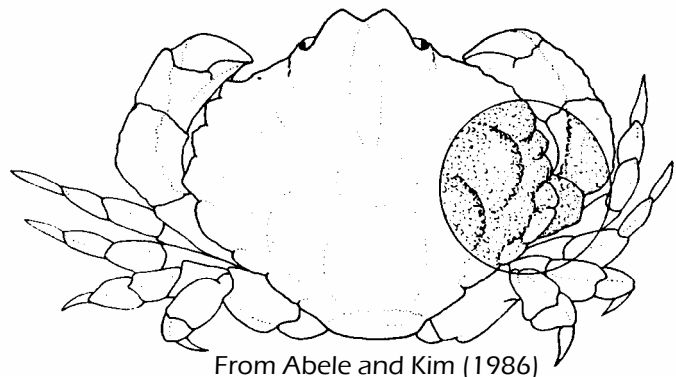
Infraorder Brachyura  
Family Hepatidae

References used: Abele and Kim (1986), Rathbun (1937)

**Diagnostic characters:** Carapace eroded all over (no smooth areas) and octagonal; rostrum thick and bilobed; posterior portion of cardiac region not rounded, tapering to a point; chelipeds short, thick, tuberculate on outer face and with rough margins. **Similar to other *Osachila*, return specimens to laboratory for specific identification.**

**Habitat:** 122 to 300 m.

**Range:** West Indies, Gulf of Mexico.



From Abele and Kim (1986)

*Ovalipes floridanus* Hay and Shore, 1918  
Florida Lady Crab

Infraorder Brachyura  
Family Portunidae

References used: Abele and Kim (1986), Powers (1977)

**Diagnostic characters:** Carapace circular in shape with 5 similar anterolateral teeth; dactyls of swimming legs broadly ovate.

**Habitat:** Found on sandy substrates, also on coral and broken shell bottoms. Coastal lagoons, lower reaches of estuaries to 31 m (17 fathoms).

**Range:** Southwest Florida to south Texas.

**Remarks:** Both *O. gadulpensis* and *O. ocellatus gadulpensis* are invalid; Gulf of Mexico reports should be referred to *O. floridanus*.



*Palicus obesus* (A. Milne-Edwards, 1880)  
Inflated Stilt Crab

Infraorder Brachyura  
Superfamily Ocyppoidea  
Family Palicidae

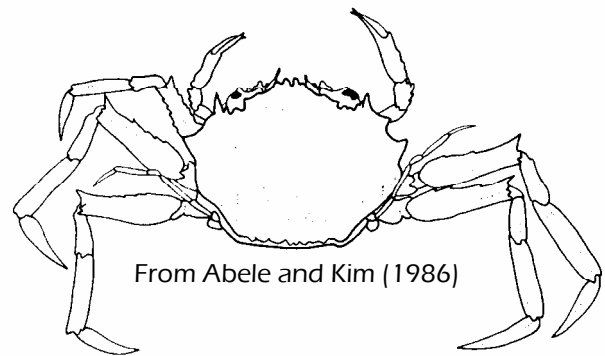
Please return all *Palicus* to the laboratory for specific identification.

References used: Abele and Kim (1986), Rathbun (1917)

**Diagnostic characters:** Carapace subquadrilateral, very convex with prominent tubercles; antero-lateral margins dentate. Chelipeds much reduced in size; three pairs of walking legs slender, long and rough; last pair very short, thin, and delicate.

**Habitat:** 24 to 161 m.

**Range:** Gulf of Mexico.



*Persephona crinita* Rathbun, 1931  
Pink Purse Crab

Infraorder Brachyura  
Family Leucosiidae

References used: Felder (1973)

**Diagnostic characters:** Carapace hemispherical with several tubercles or enlarged granules on each side, 1 at widest part of carapace; coarse granules on lateral areas of carapace not arranged in a single marginal line; color uniform blue-gray.

**Habitat:** Found on mud and mud-sand bottoms from 5.5 to 91 m (3 to 50 fathoms).

**Range:** Northwest Florida through the Gulf of Mexico to Brazil.



*Persephona mediterranea* (Herbst, 1794)  
Mottled Purse Crab

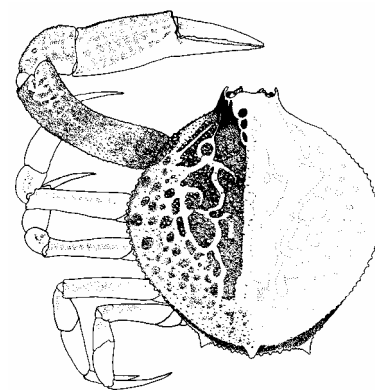
Infraorder Brachyura  
Family Leucosiidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace hemispherical, granular, with 3 sharp recurved spines, 1 at each end of posterior margin and 1 median just above the posterior margin; distinct, single line of coarse granules defining lateral margin; gray to grayish brown in color with darker brownish or red irregular spots or blotches; granules white or tinged with red.

**Habitat:** Found on shell-mud bottoms in shallow water to 55 m (2 to 30 fathoms).

**Range:** New Jersey through the Gulf of Mexico to Brazil, Caribbean.



From Williams (1984)

*Pilumnus sayi* Rathbun, 1897  
Spineback Hairy Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Pilumnidae

References used: Williams (1984), Abele and Kim (1986)

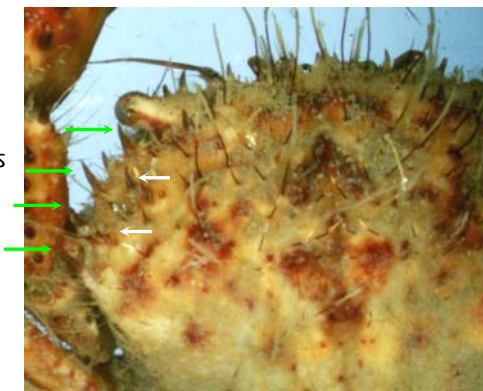
**Diagnostic characters:** Carapace, chelipeds and walking legs covered with long filiform and plumose hairs; least hairy of all *Pilumnus*; anterolateral border with 4 marginal spines including outer orbital; 2 or more spines on hepatic region; chelipeds large, unequal, with strong dark spines.

**Habitat:** Shelly bottom, wharf piles, buoys, offshore reefs; low-water mark to 90 m.

**Range:** North Carolina through Gulf of Mexico, West Indies to Curacao.



Green arrows –  
anterolateral spines  
White arrows –  
hepatic spines



From Williams (1984)

*Plagusia depressa* (Fabricius, 1775)  
Tidal Spray Crab

Infraorder Brachyura  
Superfamily Grapsoidea  
Family Plagusiidae

Please return all *Plagusia* to the laboratory for specific identification.

References used: Abele and Kim (1986), Rathbun (1917)

**Diagnostic characters:** Carapace subhexagonal, wider than long, depressed, covered with short plumose hairs forming scale like pattern around flattened tubercles; front margin of carapace cut into lobes or teeth by antennular clefts visible in dorsal view. Light reddish, dotted with blood red, tubercles bordered with blackish hairs having gray extremities; blood-red spots on legs; underside of body yellowish, chelipeds with purplish spots and stripes.

**Habitat:** Uncommon in the Gulf of Mexico. Found among rocks, on jetties, in tide pools and thought to be transported on ships.

**Range:** Beaufort, North Carolina through Gulf of Mexico and West Indies to Brazil; Africa.



*Platylambrus granulata* (Kingsley, 1879)  
= *Parthenope granulata*  
Bladetooth Elbow Crab

Infraorder Brachyura  
Family Parthenopidae

**Return all specimens to the laboratory for specific identification.**

References used: Gore and Scotto (1979), Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Carapace depressed, heavily tuberculate; convex anterolateral margin with about 11 irregularly triangular teeth in front of longer lateral spine curved obliquely backward; triangular spines on outer margins of chelipeds acute, margins straight; angle formed by posterolateral spine, gastric tubercle and outer orbital margin always 90, or nearly so.

**Habitat:** Found on a variety of bottoms from 10 to 55 m, rarely 677-824 m.

**Range:** North Carolina around Florida to Louisiana; Caribbean.

**Remarks:** *P. serrata* seemingly more tropical in distribution ranging from western Gulf of Mexico to Brazil.





*Podochela lamelligera* (Stimpson, 1871)

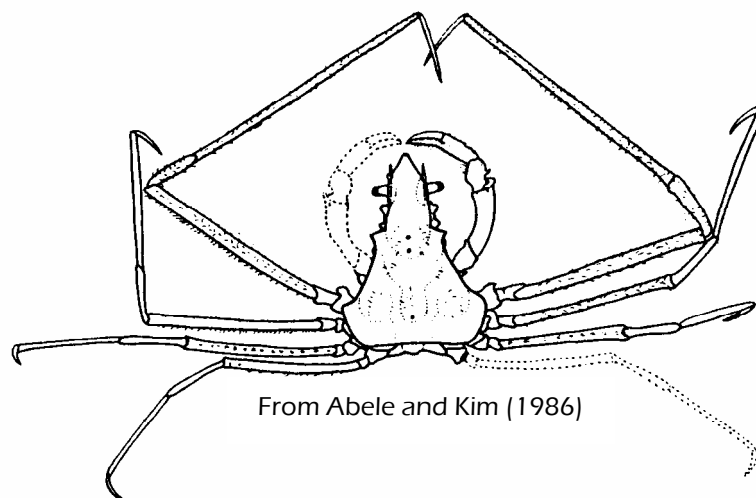
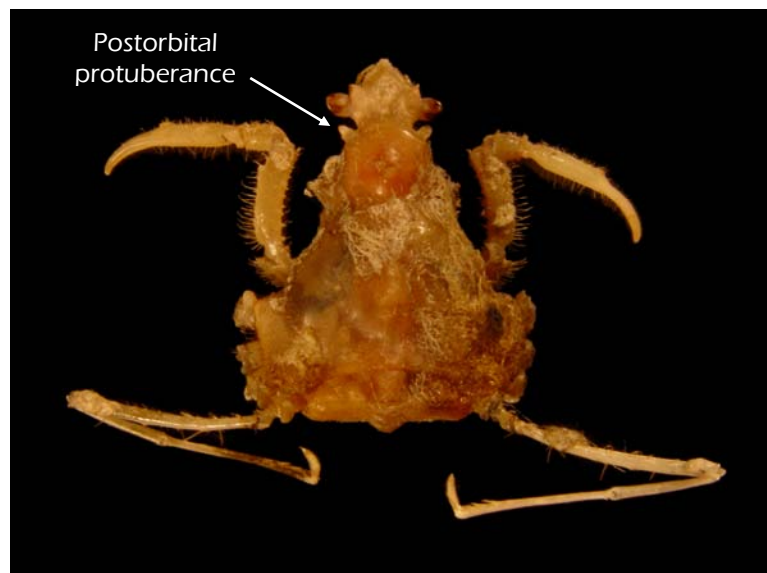
Infraorder Brachyura  
Superfamily Majoidea  
Family Inachidae

References used: Rathbun (1925), Abele and Kim (1986)

**Diagnostic characters:** Rostrum triangular; **postorbital protuberance a large lobe**; supraorbital margin armed with series of spinules or small spines; bases of legs ornamented with laminiform plates enclosing cup-shaped cavities.

**Habitat:** Found on a variety of substrates. 37 to 108 m.

**Range:** Cape Florida through Straits of Florida to Gulf of Mexico.



From Abele and Kim (1986)

*Podochela (Anisonotus) c.f. atlantica* Coelho, 1997  
Shortfinger Neck Crab

Infraorder Brachyura  
Superfamily Majoidea  
Family Inachidae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Rostrum triangular; first pair of walking legs 3 or more times as long as carapace, dactyl of second leg up to  $\frac{1}{2}$  length of propodus, dactyl of third leg up to  $\frac{2}{3}$  length of propodus and of fourth leg up to  $\frac{3}{4}$  length of propodus.

**Habitat:** Found on a variety of substrates. Shallow water to 187 m (102 fathoms).

**Range:** Cape Hatteras, NC, through the Gulf of Mexico to Vera Cruz, Mexico, Cuba.



*Porcellana sayana* (Leach, 1820)  
Spotted Porcelain Crab

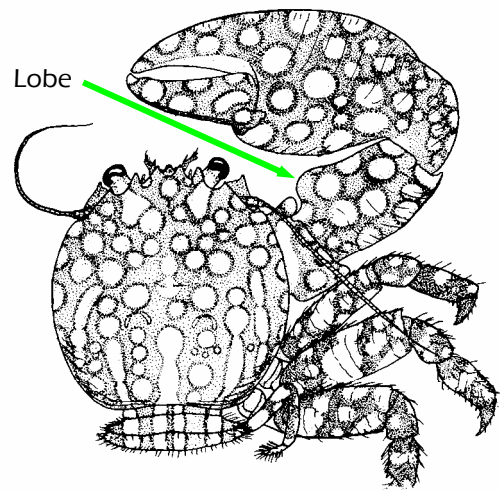
Infraorder Anomura  
Superfamily Galattheoidea  
Family Porcellanidae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Carapace usually a little longer than wide; background color of carapace reddish or rusty brown; all dorsal surfaces and abdomen covered with irregular pattern of yellowish-white, yellow, or bluish-white spots or stripes; **carpus of cheliped with proximal anterior margin produced to form a lobe.**

**Habitat:** Found with oyster shells, among rocks of jetties, or as a commensal of the hermit crabs *Pagurus pollicaris* and *Petrochirus diogenes*. Shallow water to 92 m.

**Range:** Cape Hatteras through the Gulf of Mexico and Caribbean Sea to Brazil.



From Williams (1984)

*Porcellana sigsbeiana* A. Milne Edwards, 1880  
Striped Porcelain Crab

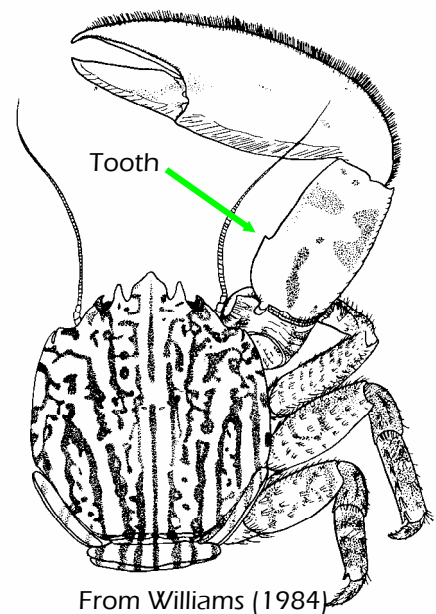
Infraorder Anomura  
Section Galatheidea  
Family Porcellanidae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Carapace longer than wide; carapace mottled, reddish on white background; carpus of cheliped with **small spiniform tooth** on anterior margin.

**Habitat:** Sublittoral, 20 to 215 fathoms.

**Range:** Massachusetts to southwestern Caribbean Sea; northwest Gulf of Mexico (Mississippi River Delta, Texas).



*Portunus gibbesii* (Stimpson, 1859)  
Iridescent Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984)

**Diagnostic characters:** Carapace about twice as wide as long with eight frontal teeth; one or more small, naked iridescent patches near anterolateral margin of carapace (at base of teeth); chelipeds long, slender, especially in males (sexually dimorphic).

**Habitat:** Common in shallow shelf waters, lower reaches of bays. Found on sandy or muddy bottoms, surface to 393 m.

**Range:** Massachusetts through the Gulf of Mexico to French Guiana.



Iridescent patches

Sex Determination for *P. gibbesii*



Immature female



Mature female



Male

*Portunus sayi* (Gibbes, 1850)  
Sargassum Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984), Powers (1977)

**Diagnostic characters:** Carapace with six frontal teeth including inner orbitals, nearly twice as wide as long, smooth and polished to naked eye; chelipeds of moderate length, larger in males than females; brown in color or purplish with cloudings of olive green or light brown, irregular white or flesh-colored spots; orange margins on spines of chelipeds.

**Habitat:** Normally pelagic, living among floating *Sargassum*.

**Range:** Nova Scotia through the Gulf of Mexico to Guianas; Canary Islands; Morocco.



*Portunus spinicarpus* (Stimpson, 1871)  
Longspine Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984)

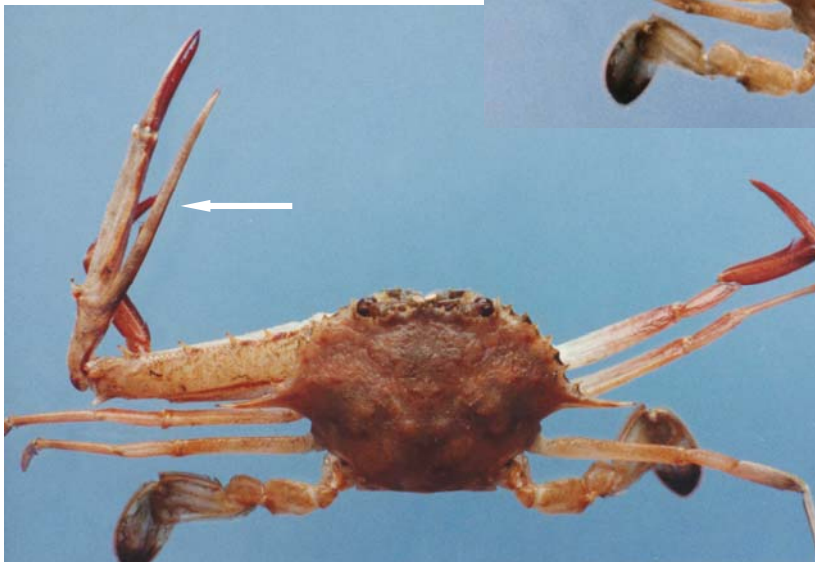
**Diagnostic characters:** Carapace about twice as wide as long with six frontal teeth; chelipeds long, slender; carpus with 2 spines, outer small, inner long and extending along side of hand to near base of dactyl; in females this spine is much shorter.

**Habitat:** Found over mud and sand bottoms from 9 to 550 m.

**Range:** North Carolina through the Gulf of Mexico to Brazil.

Arrows indicate spine along side of hand.

Top: Female  
Bottom: Male





*Portunus spinimanus* Latreille, 1819  
Blotched Swimming Crab

Infraorder Brachyura  
Family Portunidae

References used: Williams (1984), Powers (1977)

**Diagnostic characters:** Carapace with eight frontal teeth including bilobed inner orbitals. Carapace narrow, anterolateral margins forming arc of a circle with center near the cardiac region. One spine on upper margin of palm near articulation of dactyl. Ridges of carapace, spines of chelipeds, fingers and tips of legs reddish-brown; anterolateral teeth reddish at base, white at tips; merus, carpus and hand of chelipeds with white blotches.

**Habitat:** Common in waters over inner continental shelf, occasionally lower reaches of bays. Found on sandy or muddy bottoms, coral reefs.

**Range:** New Jersey through the Gulf of Mexico to Brazil.



Sex Determination for *Portunus spinimanus*



Immature female



Mature female



Male

*Pseudomedeus agassizii* (A. Milne Edwards, 1880)  
Rough Rubble Crab

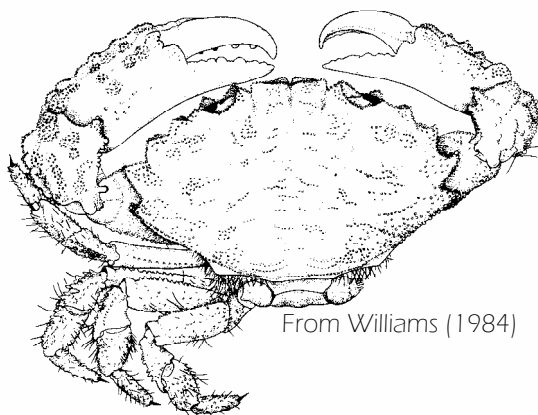
Infraorder Brachyura  
Superfamily Xanthoidea  
Family Xanthidae

References used: Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Small xanthid crab; carapace broad, suboval, flattened, finely granulate posteriorly but anteriorly ornamented with bead granules in transverse lines or clusters; scattered hairs; chelipeds unequal, each hand with upper surface granulate and tuberculate; fingers dark; walking legs each ragged, stout, hairy.

**Habitat:** Rock and other hard substrates with fouling growth of sponges, bryozoans, but also on sand; 7 to 82 m.

**Range:** North Carolina to southern Texas.



From Williams (1984)



*Pseudorhombila quadridentata* (Latreille, 1828)  
Flecked Squareback Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Pseudorhomilidae

References used: Abele and Kim (1986)

**Diagnostic characters:** Carapace xanthoid; fronto-orbital border about half total width of carapace; postero-lateral borders obviously convergent; carapace brown with white specks.



*Pyromaia cuspidata* Stimpson, 1871  
Dartnose Pear Crab

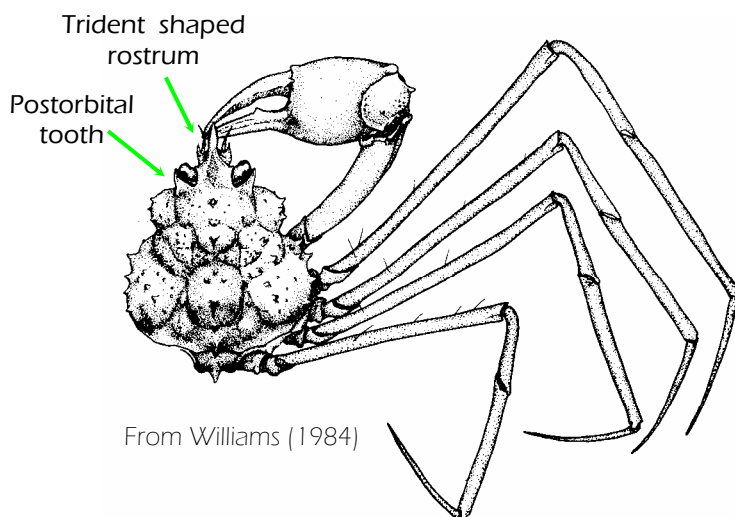
Infraorder Brachyura  
Superfamily Majoidea  
Family Inachoididae

References used: Williams (1984)

**Diagnostic characters:** Similar to *Anasimus latus*, **postorbital tooth** large and curved around eye; rostrum shaped like a trident; **often 6 large median spines**; sexually dimorphic with males larger than females, hand of males inflated.

**Habitat:** Mud, sand, pebble bottoms, 27 to 549 m.

**Range:** North Carolina to west Florida, through the Gulf of Mexico, Cuba and Yucatan to Nicaragua.



*Raninoides loevis* (Latreille, 1825)  
Furrowed Frog Crab

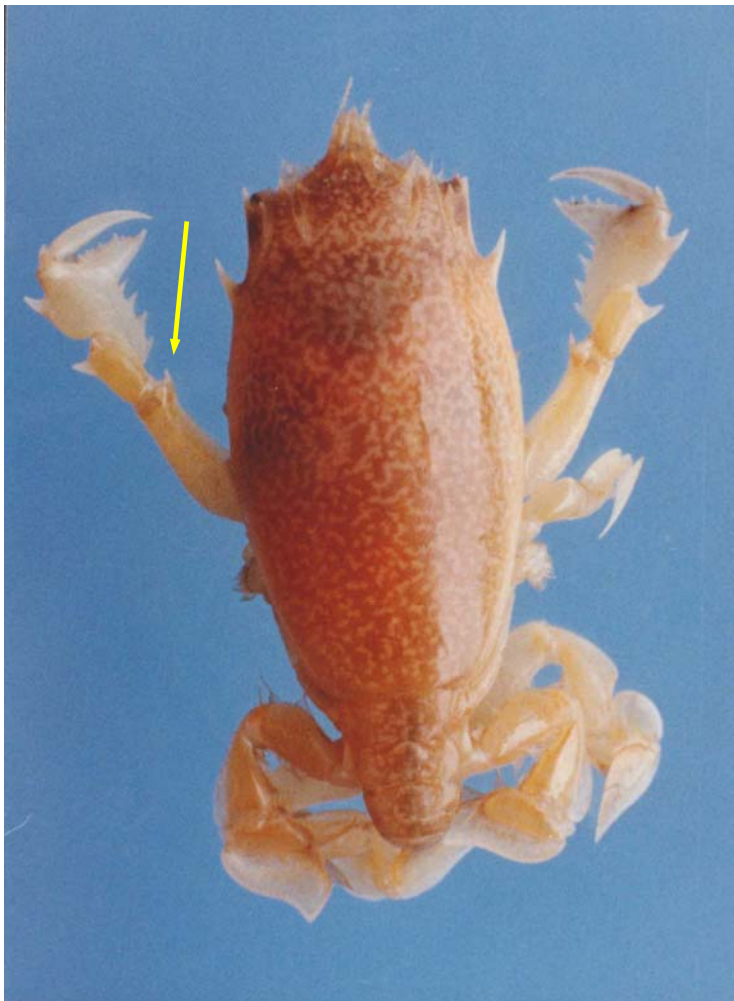
Infraorder Brachyura  
Family Raninidae

References used: Abele and Kim (1986), Williams (1984), Powers (1977)

**Diagnostic characters:** Spine at distal end of merus of cheliped; four spines on lower margin of cheliped manus.

**Habitat:** Coastal/shelf species, found on mud, ooze, shelly mud, coral, and broken shell. Taken from 10-107 fathoms.

**Range:** Florida Keys; Caribbean; Gulf of Mexico; Pacific coasts of Panama and Colombia.



*Raninoides louisianensis* Rathbun, 1933  
Gulf Frog Crab

Infraorder Brachyura  
Family Raninidae

References used: Abele and Kim (1986), Felder (1973)

**Diagnostic characters:** No spine at distal end of merus of cheliped; five or six spines on lower margin of cheliped manus.

**Habitat:** Coastal/shelf species, muddy and fine sand bottoms, taken from 30-115 fathoms.

**Range:** Gulf of Mexico.



*Raymanninus schmitti* (Rathbun, 1931)  
= *Benthochascon schmitti*  
Sharp-ear Swimming Crab

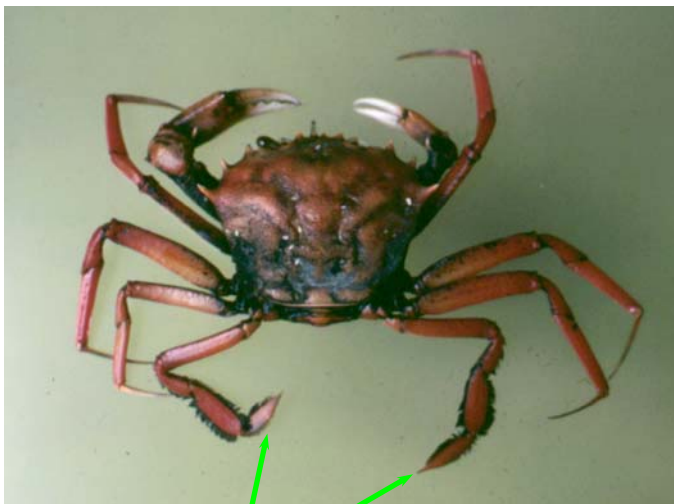
Infraorder Brachyura  
Family Portunidae

References used: Ng (2000)

**Diagnostic characters:** Four short frontal teeth; three long, stout, equidistant antero-lateral teeth, posterior tooth longest; chelipeds shorter than walking legs; merus of chelipeds with forward curving spine on inner margin and short spine opposite on the outer margin; walking legs narrow; last segment of fifth leg narrow and lanceolate; reddish in color; fingers of cheliped mostly white. **Can be confused with juvenile *Chaceon quinquedens***, (last segment of fifth leg not flattened in Chaceon).

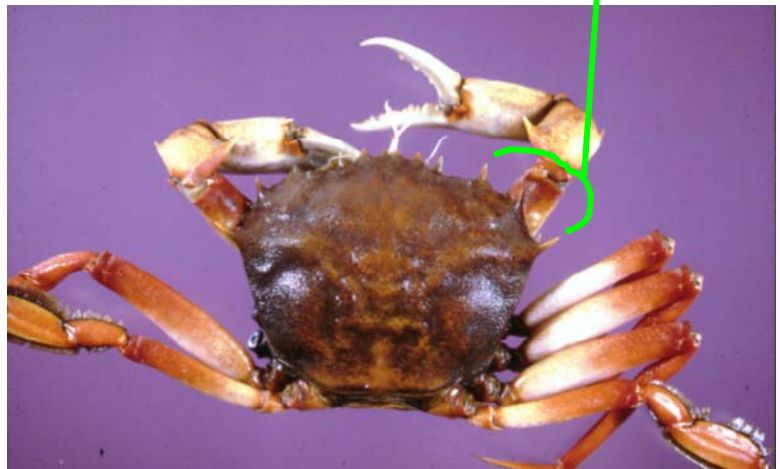
**Habitat:** Shelf/slope species predominant on mud, silt-clay substrates; 110 to 279 fathoms.

**Range:** Atlantic coast of U.S.; Gulf of Mexico.



Paddles pointed and flattened

3 teeth on anterolateral margin of carapace. This includes outer orbital tooth.





*Rochinia crassa* (A. Milne Edwards, 1879)  
Inflated Spiny Crab

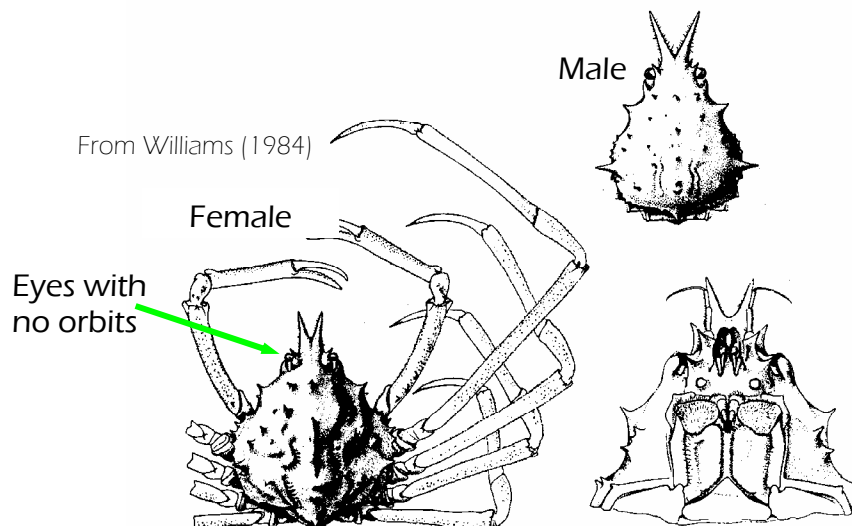
Infraorder Brachyura  
Superfamily Majoidea  
Family Pisidae

References used: Williams (1984)

**Diagnostic characters:** Carapace elongate-triangular, armed with spines; rostrum divided into 2 stout spines. Chelipeds long and slender becoming very elongate in adults; walking legs slender, diminishing in size from first to fourth.

**Habitat:** Mud and sand substrates; 66 to 1216 m.

**Range:** Massachusetts to Texas; northern Cuba; Colombia and French Guiana.



*Speocarcinus lobatus* Guinot, 1969  
Gulf Squareback Crab

Infraorder Brachyura  
Superfamily Xanthoidea  
Family Xanthidae

References used: Guinot (1969), Felder (1973), Powers (1977), Abele and Kim (1986)

**Diagnostic characters:** Carapace xanthoid, widest in anterior half; eyestalks tapering to reduced cornea; carpus of cheliped and dactyli of walking legs conspicuously hairy, carapace somewhat tuberculate with short hairs; in fresh specimens carapace and legs blotched with purple, purple patch on carpus and upper palm of cheliped

**Habitat:** Shallow water to over 20 fathoms. May occur in burrows of other crustaceans and polychaetes.

**Range:** Reported from northern Gulf of Mexico.



*Stenocionops furcata coelata* (A. Milne Edwards, 1878)  
Furcate Spider Crab

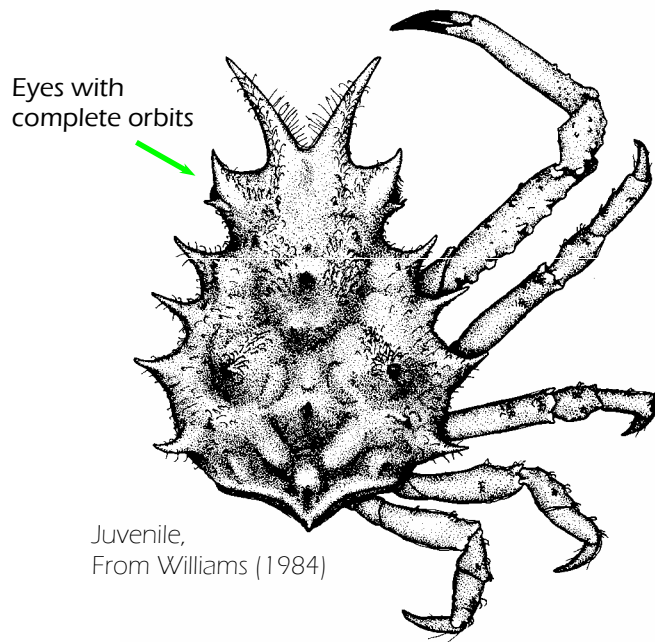
Infraorder Brachyura  
Superfamily Majoidea  
Family Mithracidae

References used: Williams (1984), Powers (1977)

**Diagnostic characters:** Carapace oblong-ovate with strong spines and dense covering of short setae and scattered, longer, hooked hairs; rostrum consisting of two nearly straight diverging horns with rows of hooked setae; eyes small, retractile within tubular orbits; chelipeds in adult males fairly large and nodose, distal half of fingers dark purple to black.

**Habitat:** Found on a variety of sand and sand/shell substrates from nearshore to 110 m, rarely to 509 m.

**Range:** North Carolina through Gulf of Mexico; Yucatan Channel; West Indies to Barbados.



*Stenocionops spinimanus* (Rathbun, 1892)  
Prickly Spider Crab

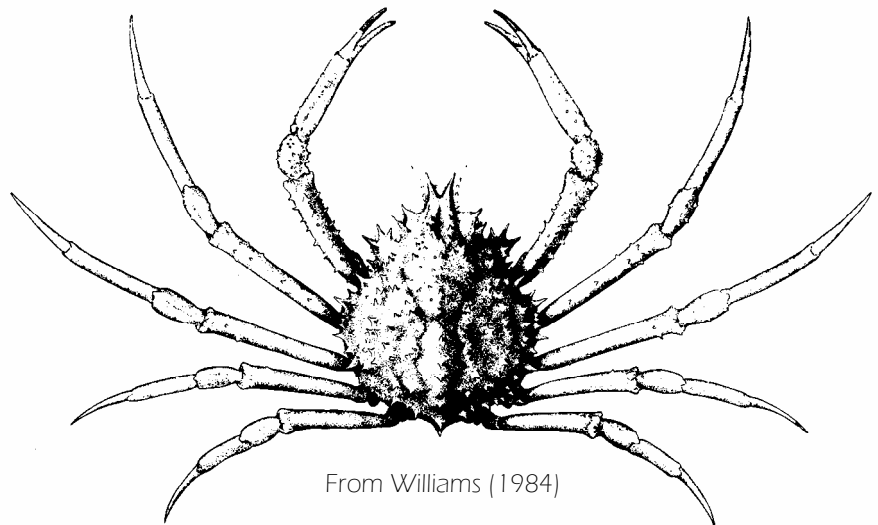
Infraorder Brachyura  
Superfamily Majoidea  
Family Mithracidae

References used: Abele and Kim (1986), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace subpyriform, hepatic region enlarged; carapace with with 10 median spines; 2 marginal hepatic spines.

**Habitat:** Marine waters of open Gulf from 25 to 260 fathoms.

**Range:** North Carolina; south and southwest Florida; off Texas and east coast of Mexico; Cuba; Haiti; Guadeloupe; Dominica; Brazil.



From Williams (1984)

*Stenorhynchus seticornis* (Herbst, 1788)  
Yellowline Arrow Crab

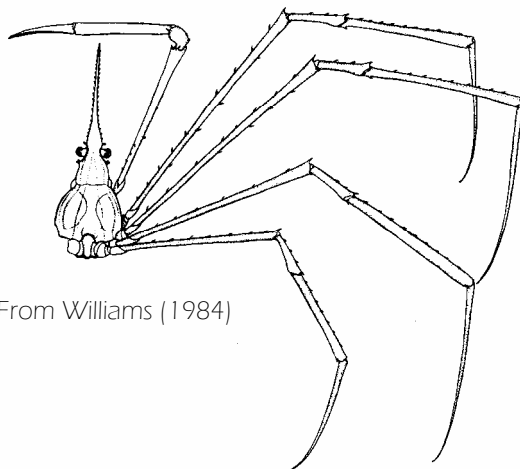
Infraorder Brachyura  
Superfamily Majoidea  
Family Inachidae

References used: Williams (1984), Powers (1977), Felder (1973)

**Diagnostic characters:** Carapace smooth, triangular, longer than broad, diminishing in width to level of eyes; rostrum long, slender, flattened, laterally spinulose, about 2.5 times as long as carapace; orbits not defined; eyes short and not retractile; legs extremely long and slender, finely spinulose.

**Habitat:** Found on a variety of substrates. Shallow water to 1489 m (near surface to 814 fathoms).

**Range:** North Carolina through the Gulf of Mexico to Brazil.



From Williams (1984)

*Allothyone mexicana* (Deichmann, 1946)

Class Holothuroidea  
Order Dendrochirotida  
Family Phyllophoridae

Classification according to Miller and Pawson (1984)

References used: Pawson and Miller (1981), Miller and Pawson (1984)



*Anthenoides piercei* Perrier, 1881

Class Asteroidea  
Order Valvatida  
Family Goniasteridae

Classification according to Clark and Downey (1992)

References used: Clark and Downey (1992)

**Diagnostic characters:** Disc large with five short, narrow arms; marginal plates large, conspicuous, defining the periphery of the starfish; two series of marginal plates; reddish/orange in color.

**Habitat:** Found from 20 to 844 meters.

**Range:** North Carolina to southern Brazil.



*Arbacia punctulata* (Lamarck, 1816)  
Purple-spined Sea Urchin

Class Echinoidea  
Order Arbacioida  
Family Arbaciidae

Classification scheme of Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Opening in test for anus (periproct) within a group of plates (apical system) on aboral surface at terminus of ambulacral and interambulacral plates; ambulacral plates with tube feet not continuing over peristome (opening in test for mouth) in series of plates, only single pair of buccal plates on peristome; interambulacral plates with more than 1 primary tubercle and spine; periproct not displaced offcenter, with 4 or 5 triangular valves composing anal pyramid.

**Habitat:** Sandy shell bottoms, pilings and rock jetties. Shallow water to 255 m, most common in less than 50 m.

**Range:** Massachusetts to Bahama Islands, Cuba and Yucatan Peninsula; Gulf of Mexico; Panama to French Guiana; Lesser Antilles to Barbados.





*Astrocnida isidis* Lyman, 1872

Class Asterozoa  
Subclass Ophiuroidea  
Order Ophiurida  
Family Gorgonocephalidae

Classification according to Fell (1960)

References used: Lyman (1882), Verrill (1899), Fell (1960), Doderlein (1927), Hendler (pers. comm.)

**Diagnostic characters:** Similar to *Asteroporpa*, **Arms dichotomously branched at ends**; disc and arms covered by thick skin; arms annulated; viewed dorsally, *Astrocnida* appears to be composed of five arms, thickened at the base and wedged together to form a disc; color variable.

**Habitat:** 5 to 220 m.

**Range:** West Indies; Gulf of Mexico.



*Asteroporpa annulata* Lutken, 1856  
*Asteroporpa* = *Astroporpa*

Class Asterozoa  
Subclass Ophiuroidea  
Order Ophiurida  
Family Gorgonocephalidae

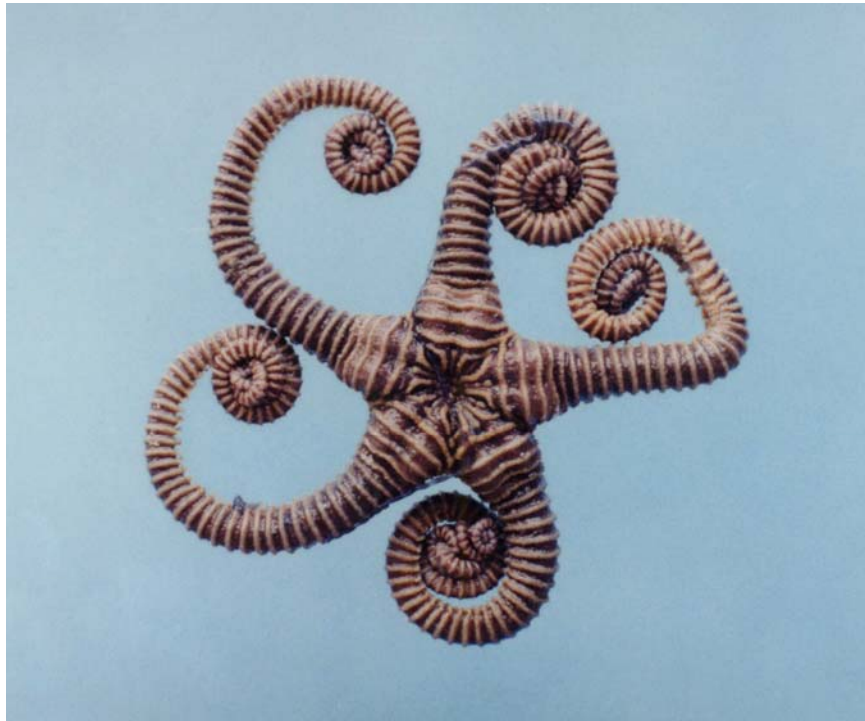
Classification according to Fell (1960)

References used: Lyman (1882), Verrill (1899), Fell (1960), Harry (1976)

**Diagnostic characters:** Similar to *Astrocnida*, **arms simple, not dichotomously branched**; disc and arms covered by thick skin; arms annulated; viewed dorsally, *Asteroporpa* appears to be composed of five arms, thickened at the base and wedged together to form a disc; color variable.

**Habitat:** Associated with gorgonians. Found in waters from 37 to 366 m.

**Range:** North Carolina; Barbados; West Indies; Flower Garden Reef, Texas.



*Astropecten articulatus* (Say, 1825)

Class Asteroidea  
Order Paxillosida  
Family Astropectinidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Five-armed starfish with paxillar areas on the arms about twice the width of the marginals and very compact. Fresh specimens are usually **bright blue or purple with yellow, orange, or white marginals**.

**Habitat:** Coastal/shelf species occurring in depths from 0 to 200 meters.

**Range:** New Jersey through the Gulf of Mexico to northern Brazil.



*Astropecten cingulatus* Sladen, 1883

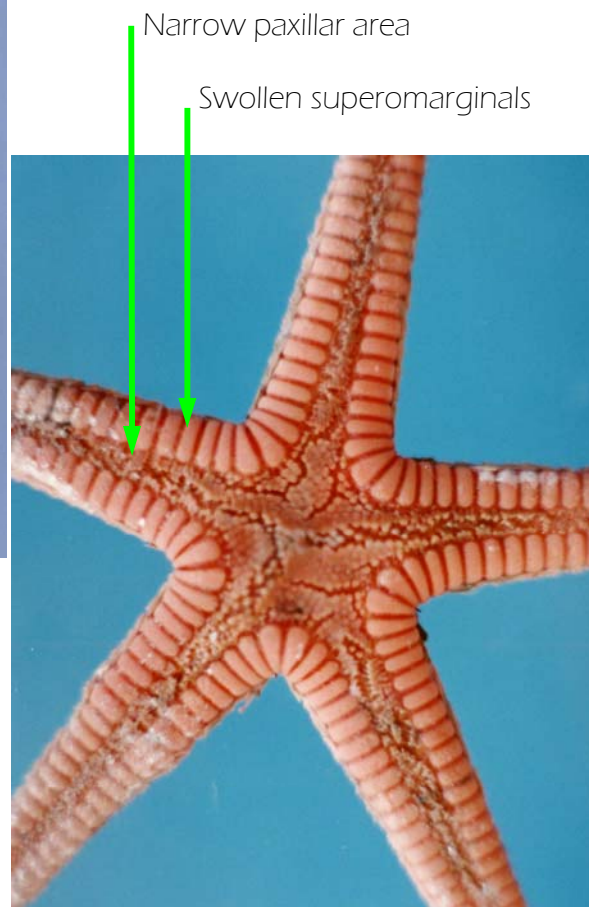
Class Asteroidea  
Order Paxillosida  
Family Astropectinidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Five-armed starfish with a relatively small paxillar area, less than 1/2 the width of the massive superomarginals and somewhat sunken below them. Superomarginals large and tumid, reddish in color.

**Habitat:** Coastal/shelf species occurring in depths from 100 to 1350 meters.

**Range:** North Carolina through the Gulf of Mexico to northern Brazil; West Africa.



*Astropecten duplicatus* Gray, 1840

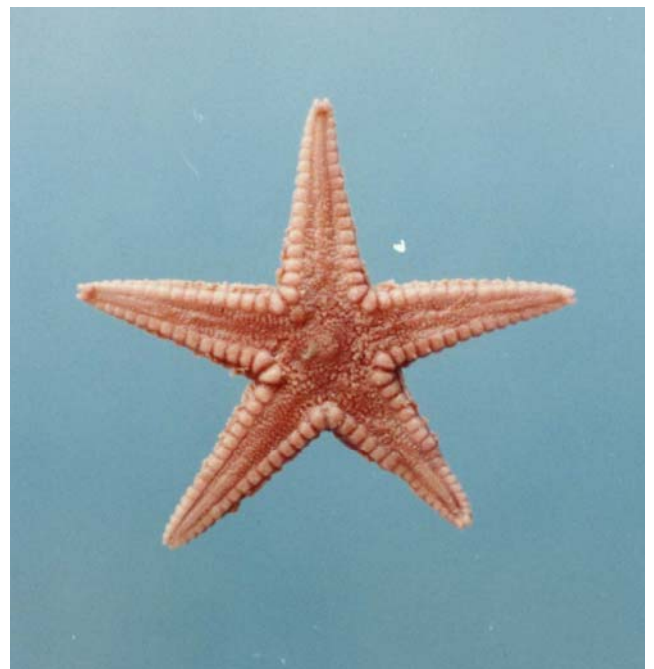
Class Asteroidea  
Order Paxillosida  
Family Astropectinidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Five-armed starfish with a paxillar area on the arms about twice the width of the superomarginals. Marginal area spinous. Superomarginals higher than wide and extend above the paxillar surface. Reddish brown or gray in color.

**Habitat:** Coastal/shelf species occurring in depths 0 to 550 meters.

**Range:** North Carolina through the Gulf of Mexico to northern Brazil.



*Astrocyclus caecilia* Lutken, 1856

Class Asterozoa  
Order Ophiurida  
Suborder Euryalae  
Family Gorgonocephalidae

Classification according to Fell 1960  
References used: Doderlein (1911), Fell (1960)

**Return all basket stars to the laboratory for taxonomic studies, group under revision.**

**Diagnostic characters:** Five arms; arms fork close to disc; radial shields with transverse ridges; five madreporites; specimens in SEAMAP samples variable in color, from reddish brown to cream.

**Habitat:** 100 fathoms.

**Range:** Caribbean.



*Astrogordius cacaoticus* (Lyman, 1874)

Class Asterozoa  
Order Ophiurida  
Suborder Euryalae  
Family Gorgonocephalidae

Classification according to Fell, (1960)  
References used: Lyman (1874), Fell (1960)

**Return all basket stars to the laboratory for taxonomic studies, group under revision.**

**Diagnostic characters:** Five arms; arms slender and fork close to disc; arm-spines occurring before the first fork; arms with hook-bearing ridges feebly raised above surface; radial shields without transverse ridges; five madreporites of similar size; cream to brown in color.

**Habitat:** Littoral.

**Range:** Caribbean.



*Astrophyton muricatum* (Lamarck, 1816)

Class Asterozoa  
Order Ophiurida  
Suborder Euryalae  
Family Gorgonocephalidae

Classification according to Fell (1960)  
References used: Verrill (1899), Harry (1979)

**Return all basket stars to the laboratory for taxonomic studies, group under revision.**

**Diagnostic characters:** Disc swollen; arms dichotomously branched, arms roll into vertical coils; arms spines not beginning until fourth fork or beyond; hooks on aboral side of arms; gonads restricted to disc; one madreporite; disc cream and gray, arms dark gray.

**Habitat:** Associated with gorgonians. Shallow water from 3 to 13 fathoms (Verrill, 1899). Flower Garden Reef, Texas in 70 meters of water (Dubois, 1975).

**Range:** South Carolina, Florida Keys, Bahamas; Gulf of Mexico.





*Astracme mucronata* (Lyman, 1869)

Class Asterozoa  
Order Ophiurida  
Suborder Euryalae  
Family Gorgonocephalidae

Classification according to Fell (1960)  
References used: Lyman (1869,) Doderlein (1927)

**Return all basket stars to the laboratory for taxonomic studies, group under revision.**

**Diagnostic characters:** Arms dichotomously branched; disc and arms with strong conical spines, a few of which are found as far out as the third fork on the upper side of the arm.

**Habitat:** 146 to 527 m.

**Range:** West Indies, Gulf of Mexico.



*Brissopsis*

Class Echinoidea  
Order Spatangoida  
Family Brissidae

Classification according to Serafy (1979)  
References used: Serafy (1979), Chesher (1968)

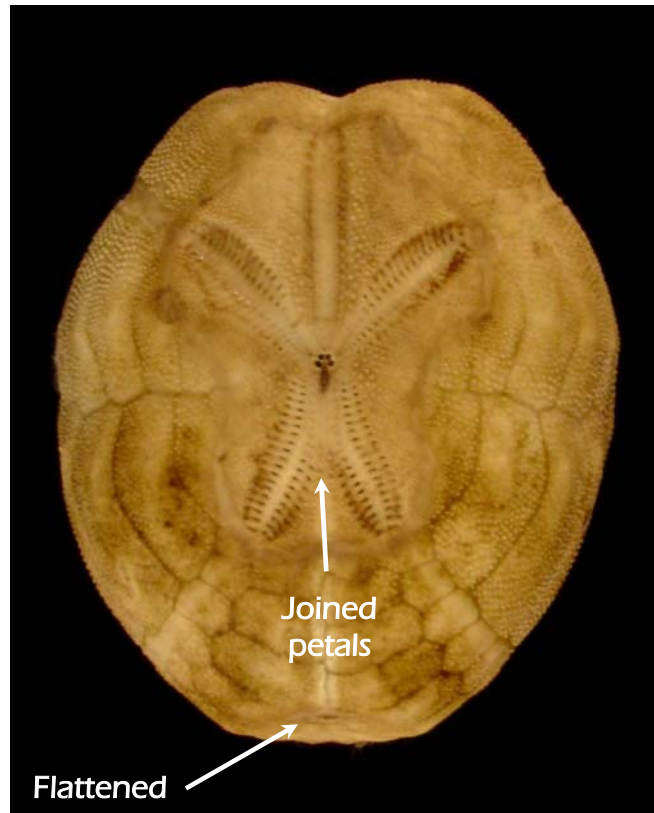
*Brissopsis alta* – posterior petals separated entire length.

*Brissopsis atlantica* – posterior petals conjoined at base and curve outward distally, posterior end flattened.

*Brissopsis alta*



*Brissopsis atlantica*



*Brissopsis alta* Mortensen, 1907

Class Echinoidea  
Order Spatangoida  
Family Brissidae

Classification according to Serafy (1979)  
References used: Serafy (1979), Chesher 1968

**Diagnostic characters:** **Posterior petals divergent entire length**; test high, subglobular.

**Habitat:** Wide variety of muds, greater than 90 m.

**Range:** Southwestern Atlantic, Gulf of Mexico.



*Brissopsis atlantica* Mortensen, 1907

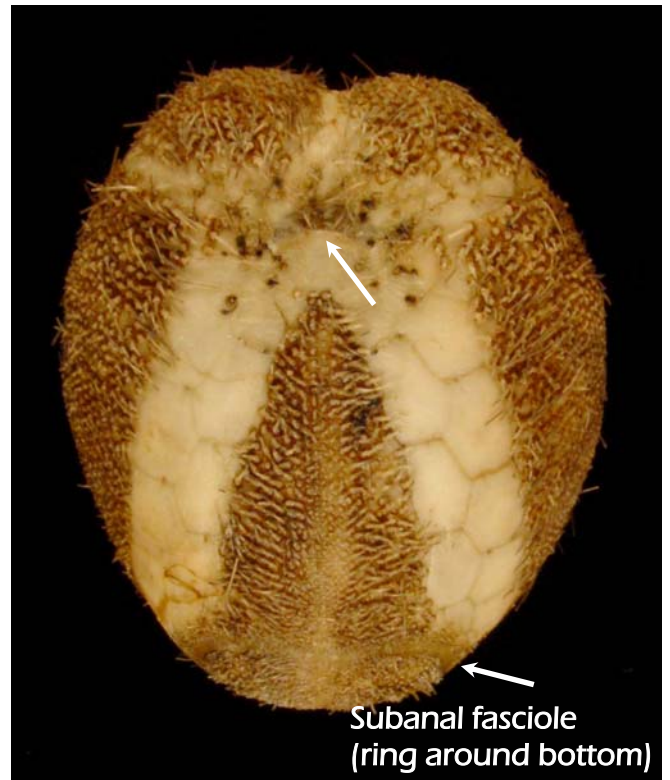
Class Echinoidea  
Order Spatangoida  
Family Brissidae

Classification according to Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Posterior petals confluent proximally, divergent distally; posterior end flattened; labrum curved (if straight across, then *B. elongata*); subanal fasciole reniform (kidney shaped).

**Habitat:** Buried in wide variety of mud substrates, sand, and crushed shell, 26 to 600 m.

**Range:** North Carolina through Caribbean, Gulf of Mexico, Central and South America, Greater and Lesser Antilles.



Posterior flattened



Labrum (mouth)  
curved

*Centrostephanus longispinus rubricingulus* Clark, 1921

Class Echinoidea  
Order Diadematoida  
Family Diadematidae

Classification according to Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Opening in test for anus (periproct) within a group of plates (apical system) on aboral surface at terminus of ambulacral and interambulacral plates; ambulacral plates with tube feet not continuing over peristome (opening in test for mouth) in series of plates, only single pair of buccal plates on peristome, spines present on buccal plates; test height less than half width, not flexible; tubercles of primary spines crenulate and perforate; primary spines banded and hollow.

**Habitat:** Algal sand bottoms from 33 to 310 m.

**Range:** Known from Atlantic and Gulf coasts of southern Florida; Greater and Lesser Antilles to Venezuela.



*Clypeaster prostratus* Ravenel, 1848

Class Echinoidea  
Order Clypeasteroida  
Family Clypeasteridae

Classification according to Serafy (1979)  
References used: Serafy (1970, 1979)

**Diagnostic characters:** Petals distinct, closed distally; oral side nearly flat; test pentagonal in shape; edge of test not thickened.

**Habitat:** Algal sand and crushed shell bottoms from 15 to 75 m.

**Range:** North Carolina around Florida to Pensacola; Yucatan Peninsula; Panama, Colombia and Venezuela in the Caribbean.

Closed Petal



*Clypeaster ravenelii* (A. Agassiz, 1869)

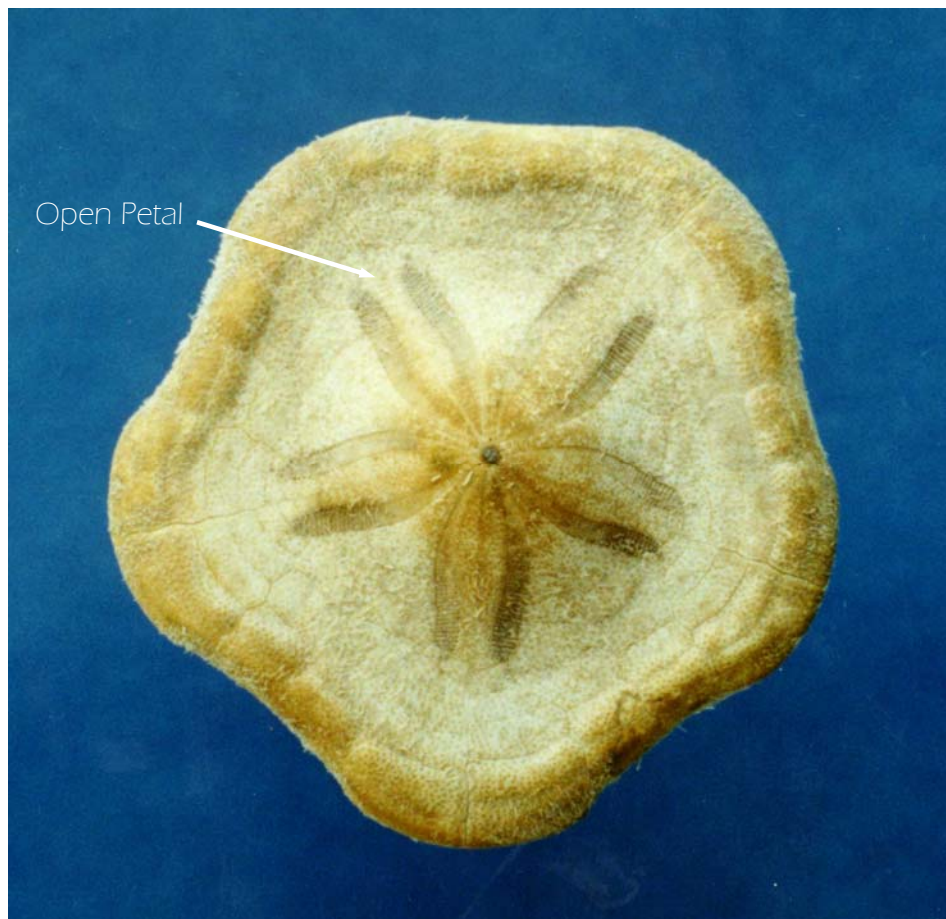
Class Echinoidea  
Order Clypeasteroida  
Family Clypeasteridae

Classification according to Serafy (1979)  
References used: Serafy (1970, 1979)

**Diagnostic characters:** Paired petals (flower-like pattern on upper surface) open distally; test pentagonal, edge of test thickened, forming a marginal ridge.

**Habitat:** Algal sand bottoms from 50 to 230 m.

**Range:** North Carolina southward through the Greater and Lesser Antilles to Grenada. In the Gulf of Mexico from Florida west coast to Flower Gardens off Texas and Campeche Banks, Yucatan.



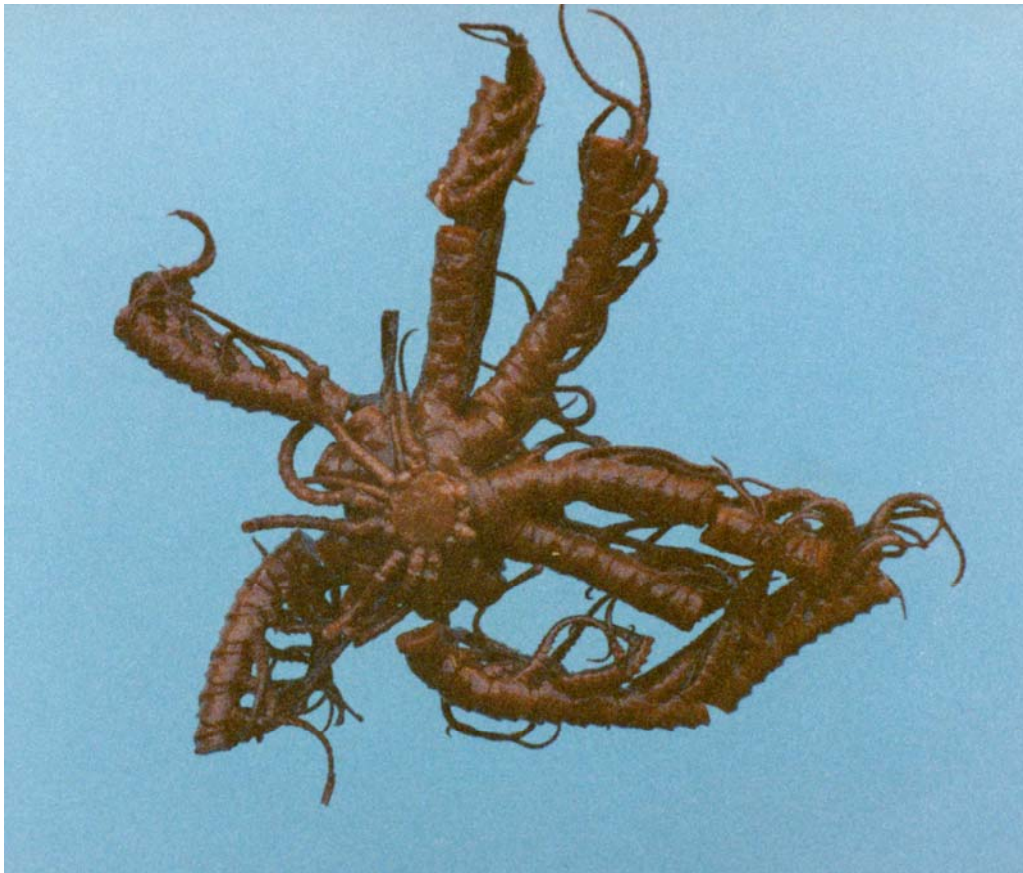
*Comactinia meridionalis hartlaubi* Messing, 1978

Class Crinoidea  
Order Comatulidae  
Family Comasteridae

References used: Messing (1978)

**Habitat:** Non-sessile, found clinging to hard substrates. From 58 to 373 m.

**Range:** Gulf of Mexico; Caribbean; Colombia; Surinam.





*Conolampas sigsbei* (A. Agassiz, 1878)

Class Echinoidea  
Order Cassiduloida  
Family Echinolampadidae

Classification according to Serafy (1979)  
References used: Mooi (1990)

**Diagnostic characters:** Petaloids strongly developed; apical system monobasal; test margin almost circular in outline; oral surface flattened; test high, height greater than 60% total length.

**Habitat:** From 120 to 800 meters.

**Range:** Greater and Lesser Antilles; Florida west coast; north and northeastern coasts of the Yucatan.



*Echinaster* sp.

Class Asteroidea  
Order Spinulosida  
Family Echinasteridae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**There are several recognized species of *Echinaster* in the Gulf of Mexico. Return all specimens to the laboratory for specific identification.**

**Diagnostic characters:** Disc small; five moderately long, smoothly tapering arms; color reddish brown with cream spines.



*Echinaster sentus* (Say, 1825)

*Echinaster serpentarius* Muller and Troschel, 1842



*Encope aberrans* Martens, 1867

Class Echinoidea  
Order Clypeasteroida  
Family Mellitidae

Classification according to Serafy (1979)  
References used: Phelan (1972), Serafy (1979)

**Diagnostic characters:** Single (uppermost) and paired anterior notches are shallow to slight indentations; posterior paired notches are short; deep red in color.

**Habitat:** Sand and crushed shell bottoms from 12 to 90 m.

**Range:** North Carolina to Bahama Islands; Gulf of Mexico.



*Encope michelini* L. Agassiz 1841

Class Echinoidea  
Order Clypeasteroida  
Family Mellitidae

Classification according to Serafy (1979)  
References used: Phelan (1972), Serafy (1979)

**Diagnostic characters:** Notches are open, deep and uniform; posterior paired notches a little deeper than the three anterior ones; very small specimens (prior to development of three anterior notches) of *E. michelini* have marginal outlines similar to *E. aberrans*.

**Habitat:** Sand and shell bottoms from 3 to 90 m.

**Range:** North Carolina through Gulf of Mexico to Yucatan Peninsula.



*Goniaster tessellatus* (Lamarck, 1816)

Class Asteroidea  
Order Valvatida  
Family Goniasteridae

Classification according to Clark and Downey (1992)  
References used: Halpern (1970), and Clark and Downey (1992)

**Diagnostic characters:** Disc large, thick, five short arms; large prominent spines on aboral (dorsal) surface; marginal plates large, conspicuous, defining periphery of the starfish; 15 to 17 superomarginal plates each bearing a large, conical, blunt spine; number of superomarginal spines may be less in small specimens; reddish/orange in color.

**Habitat:** Found from 22 to 43 meters.

**Range:** North Carolina through the Gulf of Mexico to northern Brazil; Morocco to Gabon; Cape Verde Islands.



*Hygrosoma petersi* (A. Agassiz, 1880)  
Leather Urchin

**WARNING:** Live specimens should not be handled with bare hands, secondary spines are tipped with poisonous glands.

Class Echinoidea  
Order Echinothuriidae  
Family Echinothuriidae

Classification according to Serafy (1979)  
References used: Serafy and Fell (1985)

Return all leather urchins to the laboratory for identification.

**Diagnostic characters:** Deep-water urchins with inflated but highly flexible tests that collapse to a disc when taken from the water; purplish in color; spines with expanded cone-shaped hyaline hoof (Hooves or clubs characteristic to the family Echinothuriidae).

**Habitat:** Soft bottoms, 200 to 3,700 m.

**Range:** Known from eastern and western north Atlantic coasts; South Africa; Gulf of Mexico.



Green arrows indicate  
hooves at spine tips



*Luidia alternata* (Say, 1825)

Class Asteroidea  
Order Paxillosida  
Family Luidiidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Five-armed starfish, skeleton not compact; paxillae small, high and well separated; color distinctive, specimens blotched or banded in creamy white and black or brown.

**Habitat:** Coastal/shelf species occurring in depths from 1 to 200 meters.

**Range:** North Carolina through the Gulf of Mexico to northern Argentina.



*Luidia clathrata* (Say, 1825)

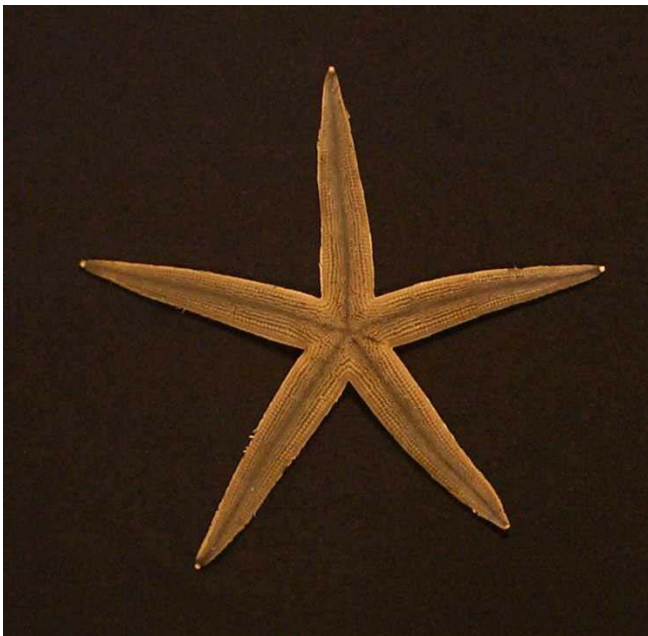
Class Asteroidea  
Order Paxillosida  
Family Luidiidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Five-armed starfish with compact skeleton; paxillae are square, in regular longitudinal and transverse rows except on midregion of arms and disc; specimens are usually gray with a darker gray stripe down the middle of the arm; **some specimens cream, white or brown with dark stripe down middle of arm.**

**Habitat:** Coastal/shelf species occurring in depths from 2 to 74 meters.

**Range:** Chesapeake Bay through the Gulf of Mexico to southern Brazil; Bermuda.





*Mellita quinquiesperforata* (Leske, 1778)

Class Echinoidea  
Order Clypeasteroidea  
Family Mellitidae

Classification according to Serafy (1979)  
References used: Miner (1950), Serafy (1979)

**Diagnostic characters:** Disc circular in shape; test pierced by 5 lunules or slits, one lunule interradial, other 4 lunules between tip of petal and disc margin.

**Habitat:** Sand substrates, shallow water to 180 m, usually less than 30 m.

**Range:** Massachusetts through the Gulf of Mexico to Brazil; West Indies.



*Moira atropos* (Lamarck, 1816)

Class Echinoidea  
Order Spatangoida  
Family Schizasteridae

Classification according to Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Paired petals forming slit-like depressions in test, unpaired petal deeply sunken; subanal fasciole [narrow band of densely arranged, ciliated spines, elliptical in shape, below anal opening (on denuded test a narrow band of small tubercles which bear the spines)] absent; lateral and anal fascioles [(ciliated spines or tubercles (denuded test))] present, passing from under anal opening anterior to peripetalous fasciole; two genital pores.

**Habitat:** Mud and hard sand bottoms from 0 to 445 m, commonly less than 50 m.

**Range:** North Carolina and Bermuda southward through the Greater and Lesser Antilles; Gulf of Mexico; Central and South America to Brazil.



*Narcissia trigonaria* Sladen, 1889

Class Asteroidea  
Order Valvatida  
Family Ophidiasteridae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Disc high, pyramidal; arms long, high, triangular, tapering to acute end; color, cream blotched with rust red.

**Habitat:** Found from 37 to 91 meters.

**Range:** North Carolina to southern Brazil.



*Ophioderma appressum* (Say, 1825)

Class Asterozoa  
Order Ophiurida  
Family Ophiodermatidae

Classification according to Fell (1960)

References used: Clark (1939), Ziesenhenné (1955), Harry (1976)

**Diagnostic characters:** Arms four times the length of disc diameter; disc covered with granules; upper arm plates single and undivided; arm spines 8 to 10, flat, pressed against arm and pointing toward distal end.

**Habitat:** Littoral.

**Range:** South Carolina to Brazil; Bermuda; eastern Atlantic, Senegal and Angola; Caribbean; Gulf of Mexico, off Florida and Texas.



*Ophioderma devaneyi* Hendler and Miller, 1984

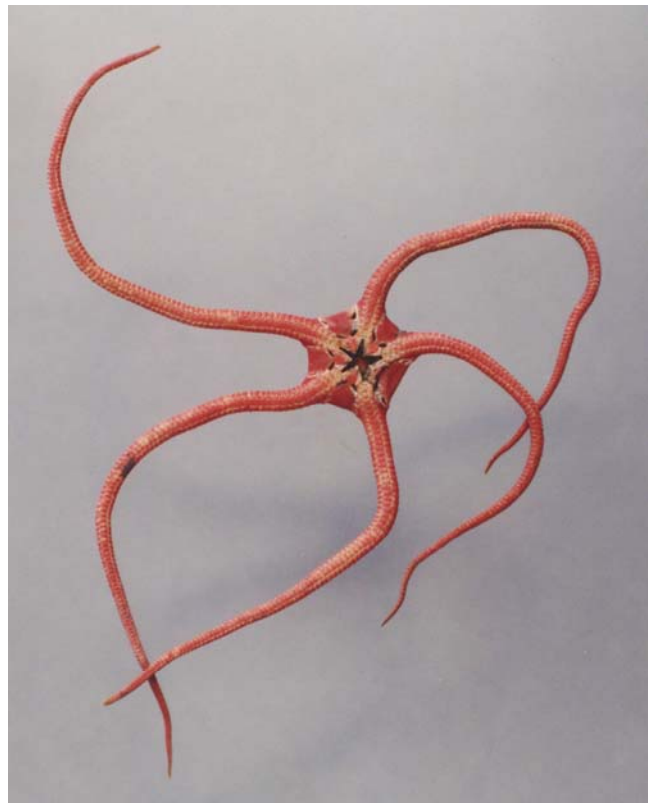
Class Asterozoa  
Order Ophiurida  
Family Ophiodermatidae

Classification scheme of Fell (1960)  
References used: Hendler and Miller (1984)

**Diagnostic characters:** Large, robust, red brittle star; dorsal arm plates subdivided; disc granules round.

**Habitat:** From 54 to 139 m, continental slope break.

**Range:** North Carolina to Straits of Florida, Gulf of Mexico.



*Ophiolepis elegans* Lutken, 1859

Class Asterozoa  
Order Ophiurida  
Family Ophiolepididae

References used: Miner (1950)

**Diagnostic characters:** Aboral side of disc clearly showing all primary plates which together with the well-developed scales completely cover the surface; flower-like rosette in center of disc; color greenish gray to brown; disc measuring 3/4 inch in diameter, length of arms nearly 2 inches.

**Habitat:** Found from 2 to 20 fathoms.

**Range:** North Carolina; Gulf of Mexico; West Indies.



*Ophiothrix angulata* (Say, 1825)

Class Asterozoa  
Order Ophiurida  
Family Ophiothricidae

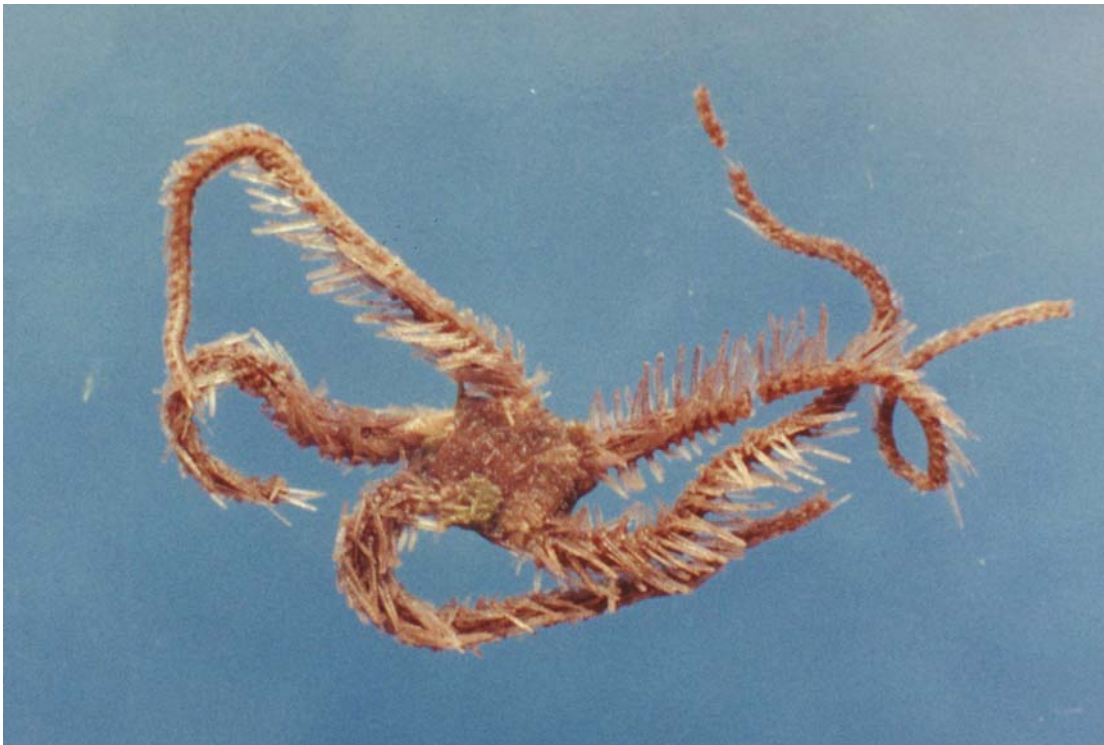
Classification scheme of Fell (1960)

References used: Verrill (1899), Clark (1939), Harry (1979)

**Diagnostic characters:** Arms very spinous, spines rough, glassy in appearance and twice as long as arm width; upper surface of arms with median white line bordered by narrow bands of dark reddish color; whitish spots outside bands separated by dark irregular transverse lines; central disc with many minute spinelets; no oral papillae on jaws, well-developed tooth papillae.

**Habitat:** Shallow water to 262 fathoms.

**Range:** Bermuda; Florida Keys through the Gulf of Mexico; West Indies; Brazil.



*Schizaster orbignyanus* A. Agassiz, 1880

Class Echinoidea  
Order Spatangoida  
Family Schizasteridae

Classification according to Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Paired petals (flower-like pattern on upper surface) well developed, forming depression in test; subanal fasciole [narrow band of densely arranged, ciliated spines, elliptical in shape, below anal opening (on denuded test a narrow band of small tubercles which bear the spines)] absent; lateral and anal fascioles [(ciliated spines or tubercles (denuded test))] present, passing from under anal opening anterior to peripetalous fasciole; anterior pore series of anterior unpaired petal well developed forming distinct petal; two genital pores.

**Habitat:** Found in depths from 26 to 500 m, most common from 75 to 300 m.

**Range:** Massachusetts southward to the Bahamas and Cuba; Gulf of Mexico from southern Florida to Louisiana; Lesser Antilles north to Barbados; Venezuela to French Guiana.





*Stylocidaris affinis* (Philippi, 1845)

Class Echinoidea  
Order Cidaroida  
Family Cidaridae

Classification according to Serafy (1979)  
References used: Serafy (1979)

**Diagnostic characters:** Opening in test for anus (periproct) within a group of plates (apical system) on aboral surface at terminus of ambulacral and interambulacral plates; ambulacral plates with tube feet continuing over peristome (opening in test for mouth) in series of plates between mouth and edge of peristome; test height less than half width, not flexible; interambulacral plates with only one large primary spine, primary spine rough, not smooth; all interambulacral sutures naked; **small flattened spines around the base of the primary spines (scrobicular spines) white with reddish-brown midline stripe.**

**Habitat:** Algal sand bottoms from 50 to 200 m.

**Range:** Known from Atlantic off Maryland and Bermuda; Bahamas through Gulf of Mexico to Flower Gardens off Texas; Greater and Lesser Antilles to Venezuela and Colombia; Mediterranean Sea, Canary Islands, Cape Verde Islands.



*Tethyaster grandis* (Verrill, 1899)

Class Asteroidea  
Order Paxillosida  
Family Astropectinidae

Classification according to Clark and Downey (1992)  
References used: Clark and Downey (1992)

**Diagnostic characters:** Disc with five long, pointed, straight-sided arms, disc large relative to arm length; marginal plates conspicuous, forming a continuous margin along periphery of arms; two series of marginal plates, superomarginals high and narrow, inferomarginals of similar size and shape bearing spines and spinules; mouth plates prominent; reddish/orange in color.

**Habitat:** Occurring in depths from 35 to 162 fathoms.

**Range:** Caribbean; Gulf of Mexico.



*Amaea mitchelli* (Dall, 1896)  
Mitchell's Wentletrap

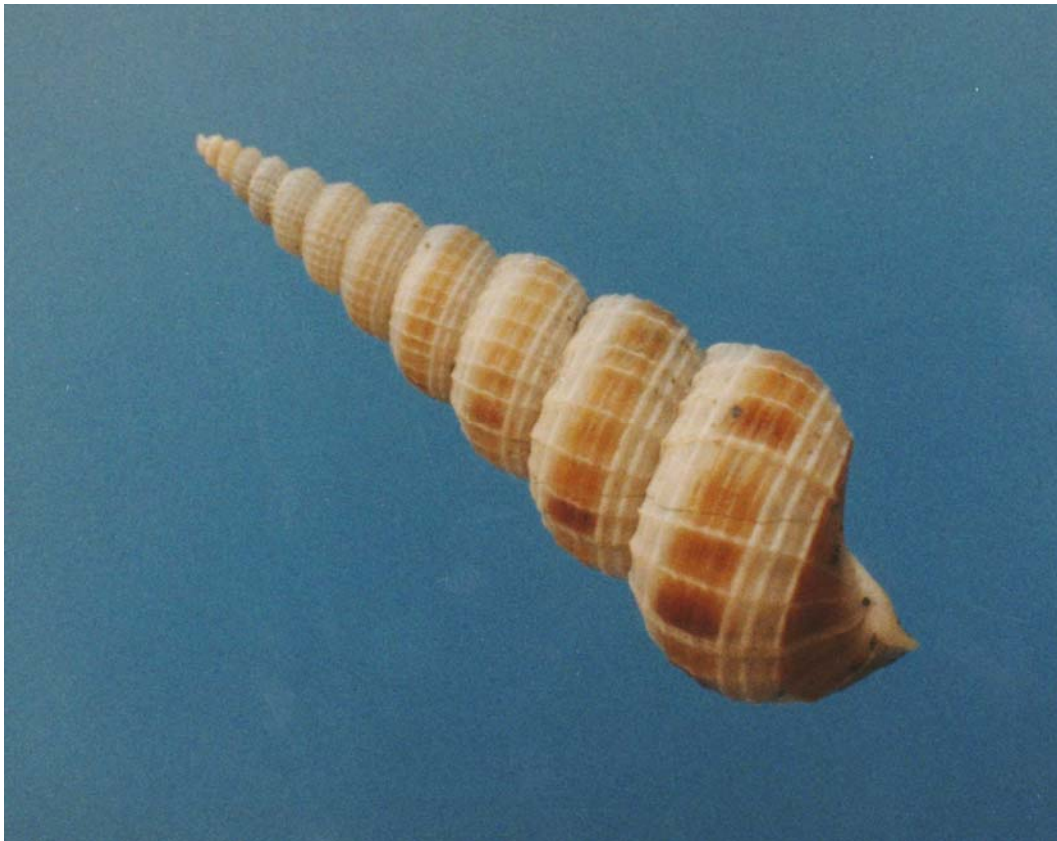
Class Gastropoda  
Family Epitoniidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ to 2 ½ inches in length, thin but strong; without an umbilicus. With about 15 rather strongly convex, pale-ivory whorls which have a dark brownish band at the periphery and a solid brown area below the basal ridge. About 22 low, irregular costae per whorl. Numerous spiral threads are fine, and produce a weak, reticulated pattern.

**Habitat:** Not very common, occasionally washed up on Texas beaches, associated with sea anemones.

**Range:** Texas coast to Panama.



*Antillophos candeanus* (d'Orbigny, 1842)  
Beaded Phos

Class Gastropoda  
Family Buccinidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** ½ to 1 inch, yellowish white, sometimes faintly banded with brown; axial ribs variable in strength and number, 13 to 20 per whorl; upper and inner parietal wall has a strong spiral white ridge disappearing within.

**Habitat:** Commonly found in sand from 1 to 183 m.

**Range:** Off both sides of Florida to the West Indies; Brazil.



*Aplysia brasiliana* Rang 1828  
= *A. willcoxi*  
Mottled Seahare

Class Gastropoda  
Family Aplysiidae

Classification according to Turgeon *et al.* (1998)  
References used: Eales (1960), Paul Hamilton (pers. comm.)

**Diagnostic characters:** Relatively large swimming sea hare growing up to 270 mm long. Very variable in color, the background color can vary from translucent yellow, brown, gray, green or black, usually with irregular patches and mottling of different shades of brown and green, and often with lighter spots of white or yellow. There can also be veins and streaks of black or dark brown.

**Range:** New Jersey to Brazil; Gulf of Mexico



Above: Adult (photo by Anne DuPont)  
Right: Small juvenile



*Aplysia morio* (A.E.Verrill, 1901)  
Sooty Seahare

Class Gastropoda  
Family Aplysiidae

Classification according to Turgeon *et al.* (1998)  
References used: Eales (1960), Paul Hamilton (pers. comm.)

**Diagnostic characters:** Relatively large swimming sea hare growing up to 400 mm long. Variable in color from deep brown to black, no spots, sometimes darker lines and stripes on head and sides.

**Range:** Rhode Island to Florida through Gulf of Mexico to Texas; Bermuda.



*Architectonica nobilis* Röding, 1798  
Common Sundial

Class Gastropoda  
Family Architectonicidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in diameter, heavy, cream with reddish brown spots which are especially prominent just below the suture. Sculpture of 4 or 5 spiral cords, usually beaded. Umbilicus round, deep and bordered by a heavily beaded, spiral cord. Operculum corneous, thin paucispiral, brown and with lamellate growth lines.

**Habitat:** Moderately common in sand below low-water line to a depth of 37 m.

**Range:** North Carolina to Florida; Texas and the West Indies; Brazil; Baja California to Peru.



Right-handed species of *Busycon* and *Busycotypus*

Class Gastropoda  
Family Melongenidae

Classification according to Turgeon *et al.* (1998)  
References used: Hollister 1958, Abbott 1974, Petuch 1987

Geographic Distribution

West of the Mississippi River (Mexico/Texas)

- Busycon candelabrum* (Lamarck, 1816) 2
- Busycon coarctatum* (Sowerby, 1825) 1
- Busycotypus spiratus* (Lamarck, 1816) 4

East of the Mississippi River (Alabama and Florida, deep water > 400 feet)

- Busycon lyonsi* Petuch, 1987 3

Both sides of the Mississippi River (Alabama to Campeche, Mexico)

- Busycotypus plagosus* (Conrad, 1862) 5



*Busycon*



*Busycotypus*



Left-handed species of *Busycon*

Class Gastropoda  
Family Melongenidae

Classification according to Turgeon *et al.* (1998)  
References used: Hollister 1958, Abbott 1974, Petuch 1987

**Geographic Distribution**

**West of the Mississippi River** (Mexico/Texas???)

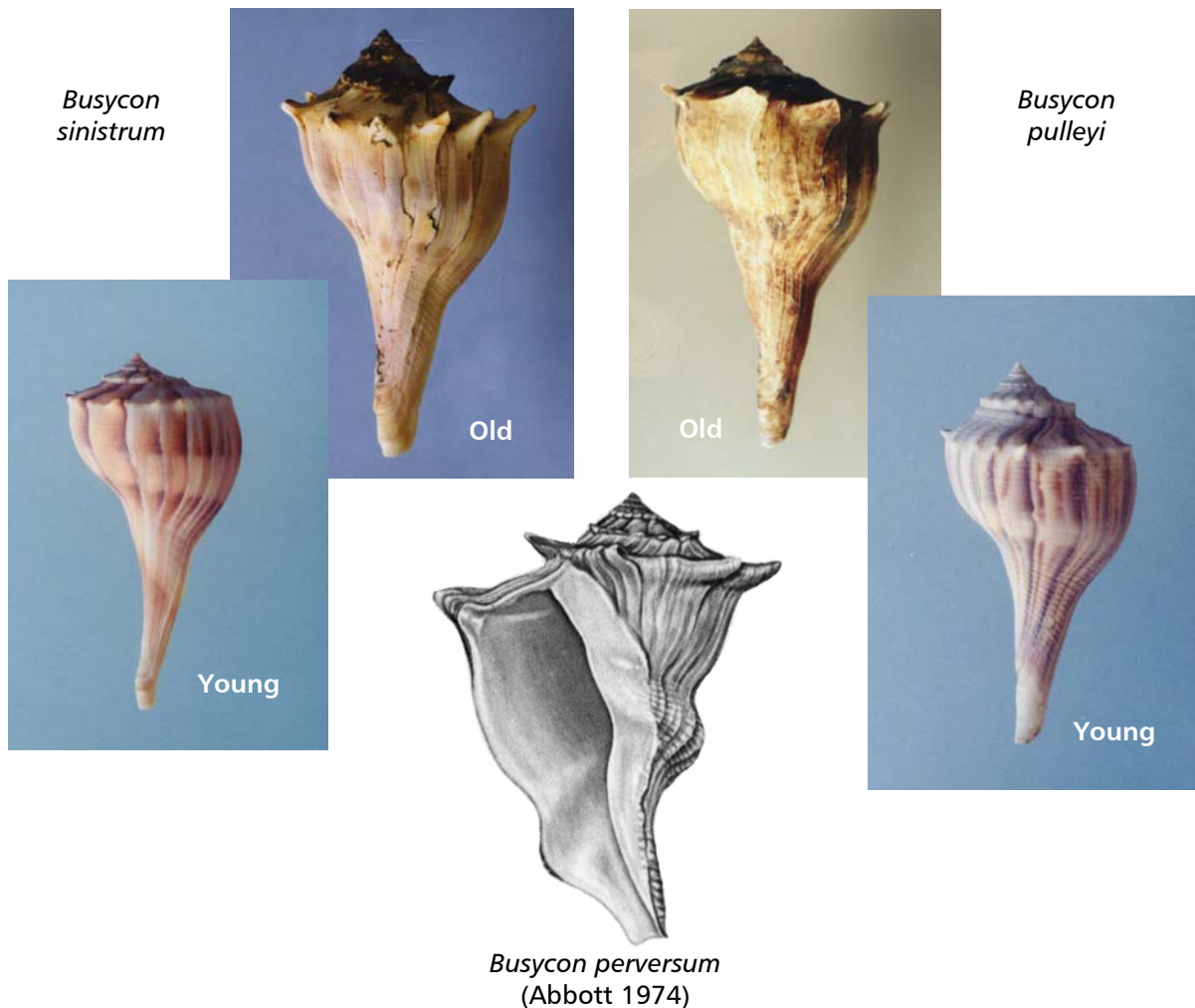
*Busycon perversum* (Linneaus, 1758)

**East of the Mississippi River** (Mobile Bay, Alabama east into Florida and Yucatan, Mexico)

*Busycon sinistrum* Hollister, 1958  
= *B. contrarium*

**Both sides of the Mississippi River** (Breton Sound, Louisiana to northern Mexico)

*Busycon pulleyi* Hollister, 1958



*Cancellaria reticulata* (Linnaeus, 1767)  
Common Nutmeg

Class Gastropoda  
Family Cancellariidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott 1974

**Diagnostic characters:** 1 to 1  $\frac{3}{4}$  inches in length, strong, with numerous spiral rows of small, poorly shaped beads which, with the weak axial and spiral threads, give a reticulate appearance. Columella with 2 folds, the uppermost being very strong and furrowed by 1 or 2 smaller ridges. Color cream to gray with heavy, broken bands and maculations of dark orange-brown. Uncommonly all white in western Florida.

**Habitat:** Common in shallow water in sand and grass from low-tide line to 20 m.

**Range:** North Carolina to both sides of Florida; Texas; Caribbean to Brazil.



*Cantharus cancellarius* (Conrad, 1846)  
Cancellate Cantharus

Class Gastropoda  
Family Buccinidae

Classification according to Turgeon *et al.* (1998)

References used: Description from Abbott (1974) and Andrews (1977)

**Diagnostic characters:**  $\frac{3}{4}$  to  $1 \frac{1}{4}$  inches in length, 5 to 6 convex heavy whorls, spire conical; sharp, spiral threads; narrow axial ribs which cross to make a beaded and cancellate sculpturing. Base of columella with fairly large, white spiral ridge. Posterior siphonal canal absent or weak. Varix very weak.

**Habitat:** Moderately common in shallow water.

**Range:** West coast of Florida to Texas and Yucatan.



*Chicoreus beauii* (P. Fischer and Bernardi, 1857)  
= *Siratus beauii*, *Murex beauii*  
Beau's Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 3 to 5 inches in length. The spiny varices may have prominent, thin, wavy webs. Between the varices there are 5 to 6 rows of low, evenly sized and evenly spaced knobs. Color cream to pale brownish, rarely with spiral rows of yellow-brown flecks. Siphonal canal may be straight or bent.

**Habitat:** Common offshore from 183 to 366 m.

**Range:** South Florida, the Gulf of Mexico to Brazil.



*Chicoreus dilectus* (A. Adams, 1855)  
= *Chicoreus florifer dilectus*, *Murex florifer dilectus*  
Lace Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 3 inches in length. Aperture small, nearly round. 8 to 10 crowded, frondose, scaly spines bordering the outer lip and siphonal canal. Color light-brown, or whitish, and in the latter case, the nuclear whorls at the spire are pinkish. Usually 1 axial low ridge between each varix, although occasionally with more and smaller axial ribs.

**Habitat:** One of Florida's most common species in this genus. It lives in a wide variety of habitats from mangrove, muddy areas to protected rocks and frequently in clear, sandy areas.

**Range:** Southern half of Florida to off South Carolina.



*Chicoreus pomum* (Gmelin, 1791)  
= *Phyllonotus pomum*, *Murex pomum*  
Apple Murex

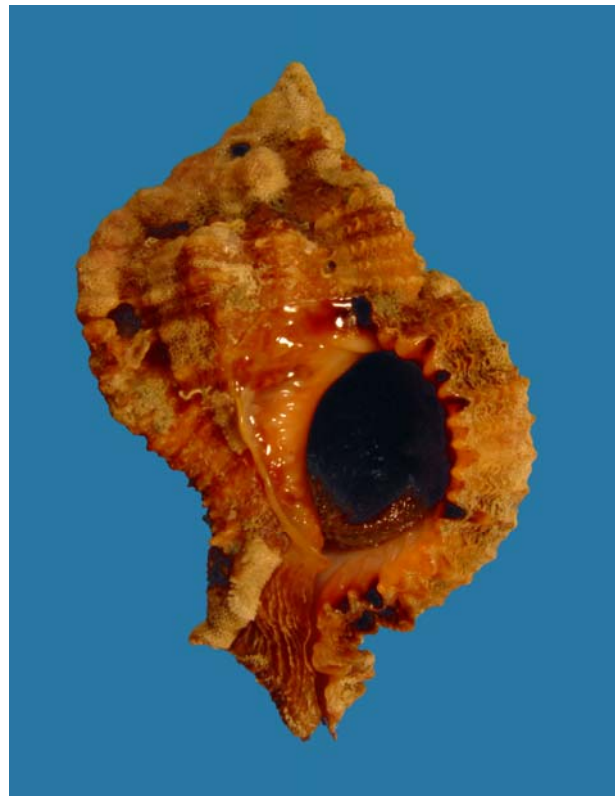
Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 2 to 4 ½ inches in length; sturdy with a rough surface, no long spines; dark brown to yellowish tan.

**Habitat:** Very common in shallow waters.

**Range:** North Carolina to Florida; Brazil.



*Conus cancellatus* Hwass, 1792  
= *C. austini*  
Cancellate Cone

Class Gastropoda  
Family Conidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 2 to 2 ½ inches in length, pure white in color, although some may have a yellow-brown apex. Characterized by numerous odd-sized spiral threads on the sides. Sides of whorls flat to slightly rounded. Shoulders sharp to slightly rounded. Top of whorls slightly concave, with 1 smooth spiral carina and several much smaller threads. Shell sometimes with axial puckering or riblike wrinkles. Periostracum velvety and grayish brown.

**Habitat:** 20 fathoms, common off Yucatan, rare off Florida.

**Range:** Southeast Florida to Yucatan and West Indies.



*Crucibulum auricula* Schumacher, 1817  
Cup-and-Saucer

Class Gastropoda  
Family Calyptraeidae

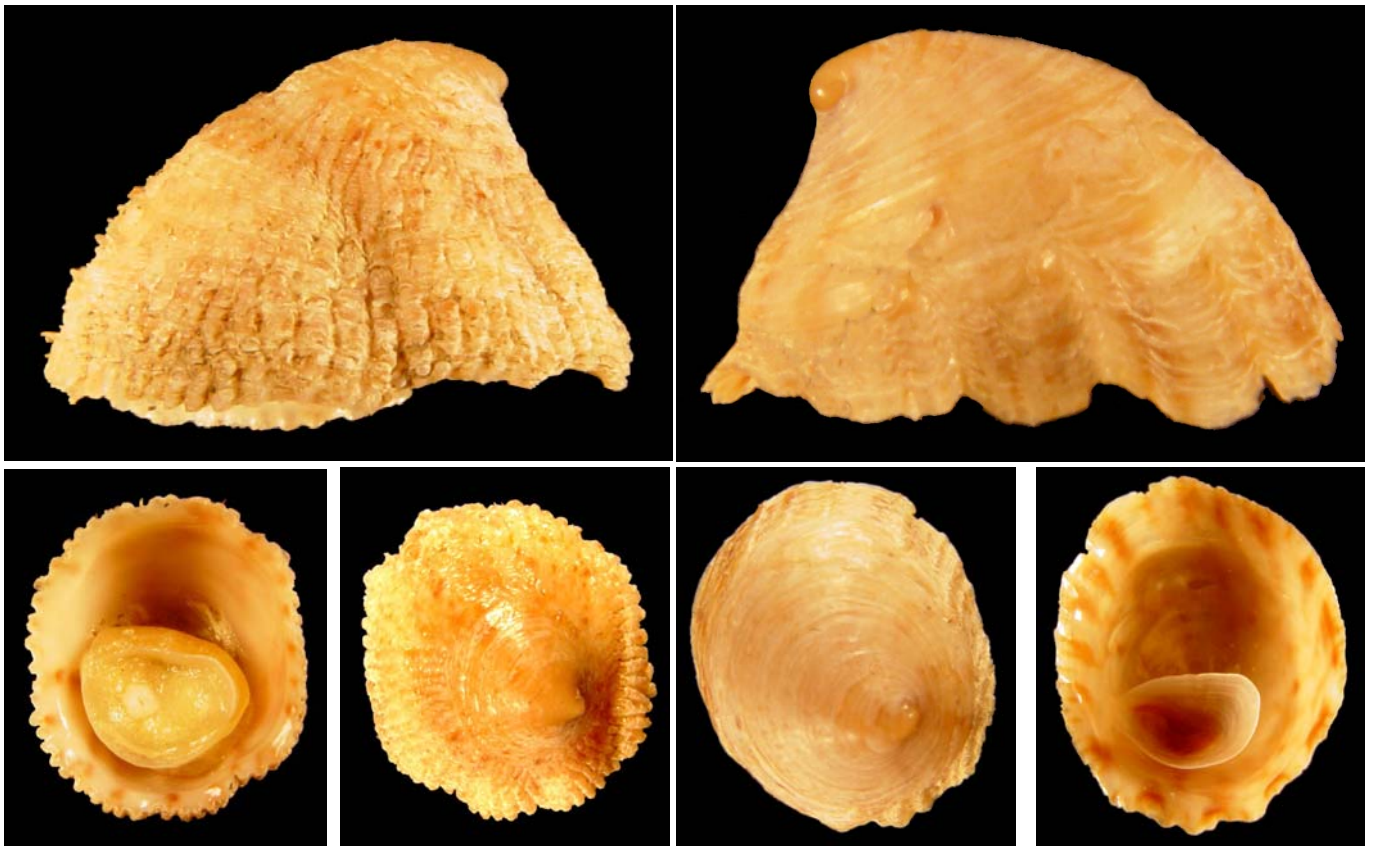
Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Shell cap-shaped with an inner cup attached by its base, the edges of the inner cup entirely free.

**Habitat:** Lives attached to structure, oftentimes other molluscs; shallow water to 37 m.

**Range:** South Carolina to Texas; West Indies to Brazil.

**Remarks:** According to Abbott (1974) the outer surface may show coarse diagonal ribs if the specimen has live attached to a scallop or other ribbed molluscs. Shown here are two different forms. Although *C. auricula* is the only reported Western Atlantic (Gulf of Mexico) species with a cup fully detached from the edges, the Pacific species, *C. spinosum*, is now found worldwide due to transport on ship hulls.





*Cymatium parthenopeum* (von Salis, 1793)  
Giant Hairy Triton

Class Gastropoda  
Family Ranellidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott 1974.

**Diagnostic characters:** 3 to 6 inches, with a very heavy, fuzzy, brown periostracum. Shell light-brown, rarely with light spiral bands. Columella dark reddish brown with strong, white, raised plicae. Outer lip with 5 to 7 brown spots which have 2 to 4 tiny white denticles.

**Habitat:** Low-tide mark to 64 m, not uncommon, usually occurring singly.

**Range:** Off North Carolina to Texas to Brazil; Bermuda; Gulf of California to Galapagos Islands; Japan.



*Distorsio clathrata* (Lamarck, 1816)  
Atlantic Distorsio

Class Gastropoda  
Family Personidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:**  $\frac{3}{4}$  to 3  $\frac{1}{2}$  inches in length; whorls distorted, aperture with grotesque arrangement of the teeth; siphonal canal twisted. Whorls with coarse reticulate pattern. Parietal shield glossy, reticulated with raised threads, colored white to brownish white. Slightly distorted body whorl evenly knobbed or reticulated; the parietal wall is generally reticulated.

**Habitat:** Moderately common, 9 to 119 m.

**Range:** North Carolina to Texas and the Caribbean; Brazil.



*Fasciolaria bullisi* Lyons, 1972  
Yellow Tulip

Class Gastropoda  
Family Fasciolariidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Shell very elongate, with 10 to 12 thin spiral bands, between which may be smaller ones. Background color pale-yellow. No spiral ridge extending onto the upper part of the parietal wall.

**Habitat:** Deep water, 73 to 119 meters, uncommon.

**Range:** Off northwest Florida.



*Fasciolaria liliium hunteria* (G. Perry, 1811)  
Eastern Banded Tulip, Hunter's Tulip

Class Gastropoda  
Family Fascioliidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott 1974.

**Diagnostic characters:** 2 ½ to 3 inches; no axial riblets on early whorls in shallow water colonies. Last whorl with 5 or 6 maroon spiral lines. Background ivory or bluish gray and with mauve axial flames. Upper whorls with 2 brown lines. .

**Range:** Cape Hatteras, North Carolina to Texas.



Pale form, shallow water



Red form, deep water

*Fasciolaria tulipa* (Linnaeus, 1758)  
True Tulip

Class Gastropoda  
Family Fascioliidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott 1974

**Diagnostic characters:** 3 to 8 inches in length, with 2 or 3 small spiral grooves just below the suture, between which the shell surface is often crinkled. Sometimes with broken spiral color lines. A beautiful orange-red color variety is not uncommon on the Lower Florida Keys and Yucatan. Giants reach a length of 10 inches.

**Range:** North Carolina to south half of Florida to Texas and West Indies; Brazil.



*Fusinus* sp.  
Spindles

Class Gastropoda  
Family Fasciolariidae

References used: Abbott (1974), Hadorn ([mypage.bluewin.ch/fusinus](http://mypage.bluewin.ch/fusinus))

**Return all specimens to the laboratory for specific identification.**



*Fusinus eucosmius* (Dall, 1889)  
(= *F. excavatus*)  
Uncommonly dredged offshore  
27 to 165 m



*Fusinus stegeri* Lyons, 1978  
Eastern Gulf of Mexico  
183 to 366 m



*Fusinus couei* (Petit de la Saussaye, 1853)  
Dredged commonly by shrimp fishermen  
16 to 183 m on sandy bottom  
Gulf of Mexico, primarily the western side



*Fusinus helenae* Bartsch, 1939  
Uncommon; 31 to 91 m

*Heilprinia timessa* (Dall, 1889)  
= *Fusinus timessus*  
Turnip Spindle

Class Gastropoda  
Family Fascioliariidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** About 3 to 5 inches in length, solid, pure-white to orange, with a thin, gray periostracum. Aperture round with a flaring, raised parietal wall which, like the inside of the outer lip, is enamel-white and bears numerous spiral threads. Each whorl with 10 to 12 low, short axial ribs at the periphery. Upper whorls with 8 to 9 small, but sharp and slightly wavy, smooth spiral cords. Last whorl and the long siphonal canal with a total of about 30 to 40 small cords between which is often a very fine one.

**Habitat:** Dredged from 20 to 60 fathoms.

**Range:** Both sides of Florida to Texas.



*Haustellum tryoni* (Hidalgo in Tyron, 1880)  
= *Murex tryoni*  
Tryon's Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Abbott (1974), Radwin and D'Atilio (1976)

**Diagnostic characters:** One inch, club-shaped, fragile; siphonal canal with 1 or 2 spines; the body whorl has 3 varices with 3 short straight spines each, between varices are very minute beads arranged in 6 or 7 axial rows. Shell white to pale fleshy pink, the crests of the spiral cords are pale red-brown.

**Habitat:** Rare, 128 to 366 m.

**Range:** Gulf of Mexico and Caribbean.





*Hexaplex fulvescens* (Sowerby, 1834)  
= *Muricanthus fulvescens*, *Murex fulvescens*  
Giant Eastern Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 5 to 7 inches in length. Characterized by the large shell, and the strong, straight, rather short spines. Exterior milky-white to dirty-gray. Aperture enamel-white. Thin spiral color lines are usually prominent on the whorls.

**Habitat:** Shallow areas, 11 to 79 m.

**Range:** North Carolina to Florida and to Texas.



*Latirus infundibulum* (Gmelin, 1791)  
Brown-lined Latirus

Class Gastropoda  
Family Fasciolariidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 3 inches in length, heavy, resembling a *Fusinus* in shape, but characterized by the 3 weak folds on the columella; shell light-tan to light-brown bearing small, darker brown, wavy, glossy, smooth spiral cords. 7 to 8 strong axial nodules per whorl. Umbilicus imperfect, sometimes funnel-shaped.

**Habitat:** 1 to 30 fathoms.

**Range:** Florida, West Indies; Brazil.



*Macrocypraea cervus* (Linnaeus, 1771)  
Atlantic Deer Cowrie

Class Gastropoda  
Family Cypraeidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 3 to 7 inches in length; oblong, light-fawn to light-brown; adult with large white spots over the back, juveniles without spots; darker forms found in deeper waters.

**Habitat:** Moderately common; shallow waters to 40 m.

**Range:** North Carolina to Florida and Cuba; Brazil.



*Murexiella hidalgoi* (Crosse, 1869)  
= *Murex hidalgoi*  
Hidalgo's Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 1 ½ inches in length. Spines frondose and long, with webbing in between which is exquisitely sculptured with scalelike lamellations. Color grayish white to cream. Aperture small, subovate and white. 4 or 5 varices per whorl.

**Habitat:** Uncommon, collected from 139 to 360 m.

**Range:** North Carolina to West Florida; Lesser Antilles.



*Muricanthus fulvescens* (Sowerby, 1834)  
= *Murex fulvescens*  
Giant Eastern Murex

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1988)

References used: Turgeon *et al.* 1988, description from Abbott 1974

**Diagnostic characters:** 5 to 7 inches in length. Characterized by the large shell, and the strong, straight, rather short spines. Exterior milky-white to dirty-gray. Aperture enamel-white. Thin spiral color lines are usually prominent on the whorls.

**Habitat:** Shallow areas, 6 to 43 fathoms.

**Range:** North Carolina to Florida and to Texas.



*Natica marochiensis* (Gmelin, 1791)  
Morocco Moonshell

Class Gastropoda  
Family Naticidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 15 to 27 mm; higher than broad, early whorls blue black, body whorl blurred yellowish gray with 4 or 5 spiral rows of chevron-shaped, blue-gray color marks; narrow white band just below suture; operculum smooth, with a raised sharp rim, white with yellow stains.

**Habitat:** Common on intertidal sand flats.

**Range:** Southeast Florida to Brazil.



*Naticarius canrena* (Linnaeus, 1758)  
= *Natica canrena*  
Colorful Moonshell

Class Gastropoda  
Family Naticidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in length, glossy-smooth except for weak wrinkles near the suture. Color pattern variable; sometimes with axial, wavy, brown lines and with 4 spiral rows or arrow-shaped or squarish brown spots; exterior of hard operculum with about 10 spiral grooves. When alive the animal covers large portions of the shell.

**Habitat:** Moderately common; lives in sand in shallow water.

**Range:** North Carolina to Key West and the West Indies; Bermuda; Brazil.



*Neverita duplicata* (Say, 1822)  
= *Polinices duplicatus*  
Shark Eye, Moon Snail

Class Gastropoda  
Family Naticidae

Classification according to Turgeon *et al.* (1998)

References used: Turgeon *et al.* (1988), description directly from Abbott (1974)

**Diagnostic characters:** 1 to 2 ½ inches in length, glossy-smooth; umbilicus deep but almost covered over by a large, buttonlike brown callus. Color slate-gray to tan; base of shell often whitish. Columella white. The shell is generally flattened and much wider than high, but some specimens are as wide as high and globose in shape. Operculum corneous, brown and thin.

**Habitat:** Common in sand.

**Range:** Cape Ann, Massachusetts to Florida and the Gulf of Mexico.





*Pleurobranchaea inconspicua* Bergh, 1897  
= *Pleurobranchaea hedgpethi*  
Sidegill slug

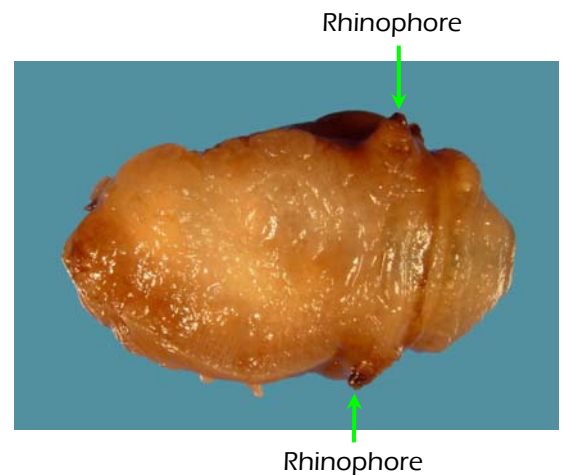
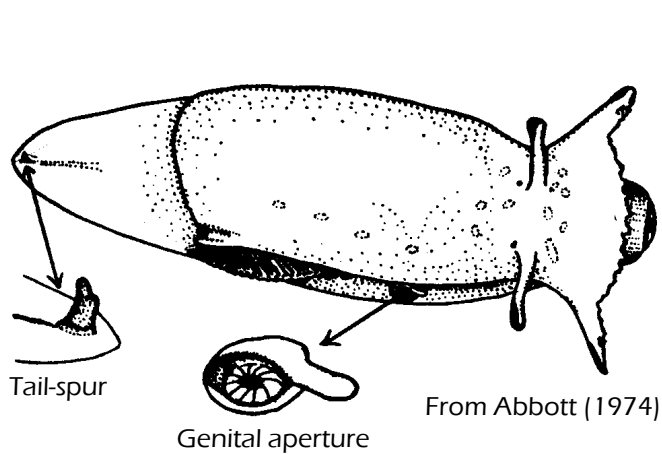
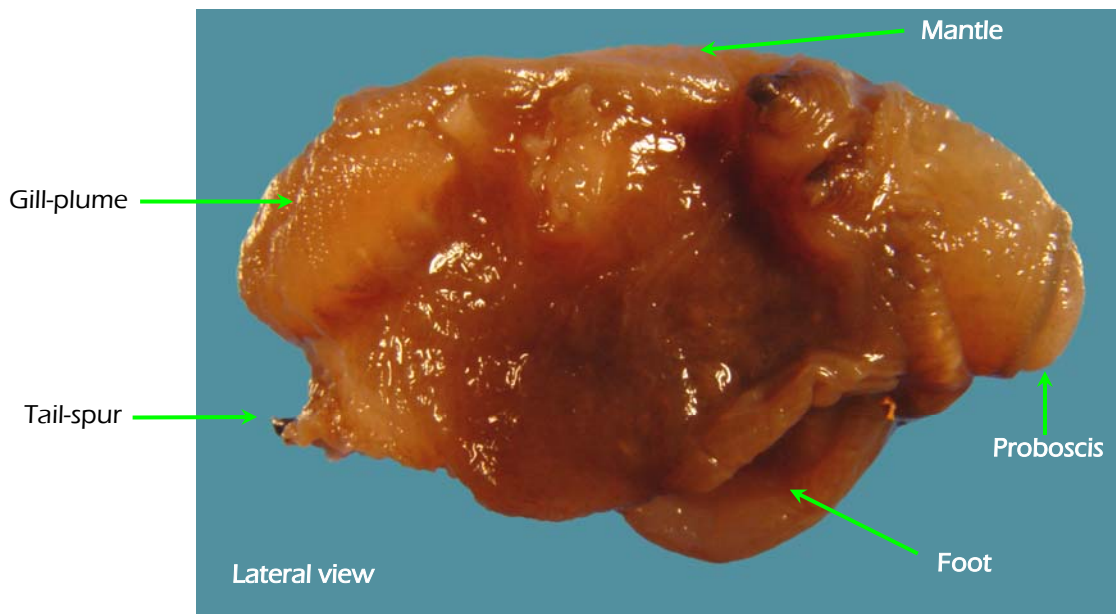
Class Gastropoda  
Order Notaspidea  
Family Pleurobranchidae

Classification according to Turgeon *et al.* (1998)  
References used: Abbott (1974)

**Diagnostic characters:** Gill-plume located externally on the right side of the body; rhinophores and a buccal veil present at the anterior end; rhinophores fastened laterally, bases separate, between the borders of the velum and mantle; **dorsal tail-spur black.**

**Habitat:** Moderately common; 0 to 100 m.

**Range:** North Carolina to Texas; Brazil.



*Pleuroploca gigantea* (Kiener, 1840)  
Florida Horse Conch

Class Gastropoda  
Family Fascioliariidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** Almost 2 feet in length, although usually about 1 foot. Outer surface dirty-white to chalky-salmon, and covered with a fairly thick, black-brown periostracum which flakes off in dried specimens. The young (up to about 3 ½ inches) have a thinner periostracum and the entire shell is a bright orange-red. Soft parts red.

**Range:** North Carolina to Florida; Texas and Yucatan.



*Polystira*

Class Gastropoda  
Family Turridae

Classification according to Turgeon *et al.* (1998)  
References used: Descriptions from Abbott (1974)

*Polystira albida* (G. Perry, 1811)  
White Giant-turris

**Diagnostic characters:** 3 to 4 inches in length, pure-white in color. With about 5 to 7 spiral smooth cords of unequal size between the well-impressed sutures. Sculpture more distinct and smooth than in *P. tellea*. Largest squarish cord behind the slot-like, deep sinus.

**Range:** South Florida to Texas and the West Indies.

*Polystira tellea* (Dall, 1899)  
Delicate Giant-turris

**Diagnostic characters:** 3 to 3 ½ inches in length. Grayish white. Sculpture not so distinct nor smooth as in *P. albida*. Sinus higher on the shoulder and broadly and shallowly V-shaped. Axial minute fimbriations cover the exterior.

**Range:** Off Florida to Louisiana.



*Scaphella dubia kieneri* Clench, 1946  
Kiener's Volute

Class Gastropoda  
Family Volutidae

Return all specimens to the laboratory for specific identification.

Classification according to Turgeon *et al.* (1988)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 3 to 9 inches in length, similar to *S. dohrni*, but more slender, much lighter in weight, usually with fewer rows of spots (5 to 8, instead of 8 to 12, rows of spots). Columellar plicate usually absent but there may be 2 to 4 weak ones in young, heavier forms. Spiral sculpture consists of numerous, silky spiral microscopic threads in small specimens, but absent in older ones.

**Habitat:** Mudbottoms, 100 to 200 m.

**Range:** Off south half of Florida and the Gulf of Mexico.



*Sconsia striata* (Lamarck, 1816)  
Royal Bonnet

Class Gastropoda  
Family Cassidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 ½ to 2 ½ inches in height. Shell hard, polished, often with numerous fine, spiral incised lines. Usually 2 old varices are present. With 4 or 5 spiral rows of brownish spots.

**Habitat:** Moderately common, 91 to 467 m.

**Range:** Southeast Florida to off Texas and to Brazil.



*Sinum perspectivum* (Say, 1831)  
White Baby Ear

Class Gastropoda  
Family Naticidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 1 to 2 inches in maximum diameter; very flat with large white aperture and strongly curved columella; numerous fine spiral lines on top of whorls; dull-white with a light-brown, thin periostracum; animal fully envelopes the shell.

**Habitat:** Common; found in shallow sandy areas.

**Range:** Cape Maryland to Florida to Texas and West Indies; Bermuda; Brazil.



*Stramonita haemastoma canaliculata* (Gray, 1839)  
= *Thais haemastoma*  
Hay's Rock-shell

Class Gastropoda  
Family Muricidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** This subspecies is characterized by its large size (up to 4 ½ inches in length), strongly indented suture and rugose sculpture with a row of double, strong nodules on the shoulder of the whorls.

**Range:** Northwest Florida to Texas.



*Strombus alatus* Gmelin, 1791  
Florida Fighting Conch

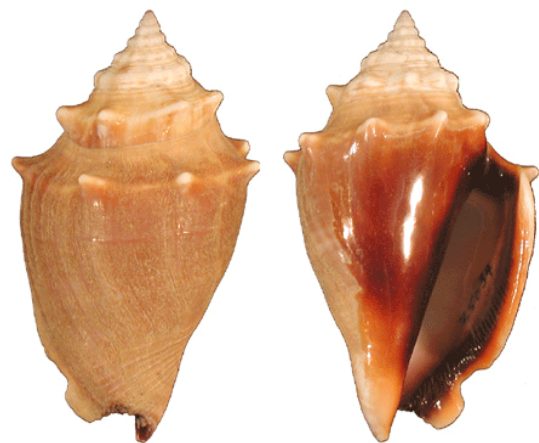
Class Gastropoda  
Family Strombidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 3 to 4 inches in length. With or without short spines on the shoulder of the last whorl. Shoulder of outer lip slopes slightly downward. Color a dark reddish brown, often mottled with orange-brown or having zigzag bars of color on the shiny parietal wall. Periostracum very thin and velvety.

**Habitat:** Common in shallow water, especially on the west coast of Florida.

**Range:** North Carolina to both sides of Florida and to Texas.



From Bailey Matthews Shell Museum



*Tonna galea* (Linnaeus, 1758)  
Giant Tun

Class Gastropoda  
Family Tonnidae

Classification according to Turgeon *et al.* (1998)  
References used: Description from Abbott (1974)

**Diagnostic characters:** 5 to 7 inches in length; shells thin but strong; whitish to light coffee-brown, sometimes slightly mottled; 19 to 21 broad, flattish ribs.

**Habitat:** Uncommon; 0 to 33 m.

**Range:** North Carolina to Texas and the West Indies; Brazil.



*Xenophora caribaea* Petit de la Saussaye, 1857  
Caribbean Carriersnail

Class Gastropoda  
Family Xenophoridae

Classification according to Turgeon *et al.* (1998)

References used: Abbott (1974) and The Academy of Natural Sciences, Philadelphia, PA

**Diagnostic characters:** Top shaped shell with fairly depressed spire and a flat to concave base; 2 to 3 inches in diameter, ½ as high; fragile with a small umbilicus and **bearing few shells**; usually white, tan, beige, or brown in color with a dull finish.

**Habitat:** Moderately common; 30 to 640 m.

**Range:** Off South Carolina to the West Indies; Gulf of Mexico; Brazil.



*Clibanarius vittatus* (Bosc, 1802)  
Thinstripe Hermit

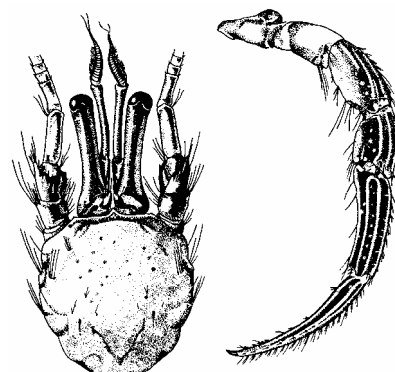
Infraorder Anomura  
Family Diogenidae

References used: Williams (1984)

**Diagnostic characters:** Anterior shield of carapace subquadrate, distinct groove behind anterior margin, few tufts of hairs along lateral margin; chelipeds equal, sparsely hairy; hands thick, inflated, twice as long as broad; fingers opening horizontally, heavy toothed and somewhat gaping at base; greenish to dark brown with longitudinal stripes of gray to white; propodus of walking legs with 4 pairs of light longitudinal stripes con similiar stripes on dactyl and carpus.

**Habitat:** Common on harbor beaches and on borders of mud flats; rock jetties; water line to 22 m.

**Range:** Virginia to Brazil; Gulf of Mexico.



From Williams (1984)

*Dardanus fucosus* Biffar and Provenzano, 1972  
Bareye Hermit

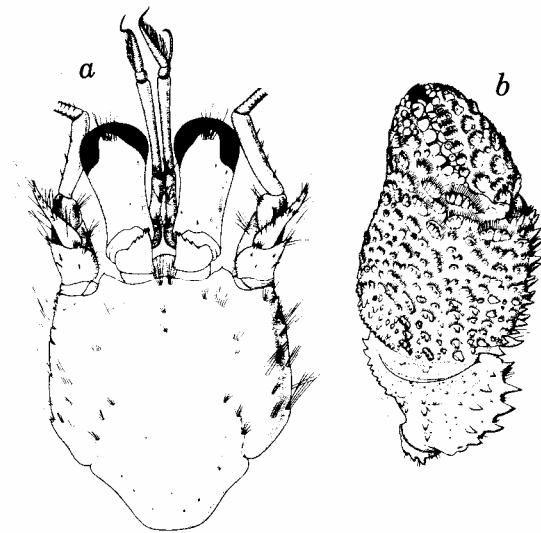
Infraorder Anomura  
Family Diogenidae

References used: Williams (1984)

**Diagnostic characters:** Anterior shield nearly smooth, few tufts of hair near sides and scattered elsewhere; anterior margin lacking rostrum; chelipeds unequal, left much larger than right; outer surface of major chela covered with scalelike tubercles separated by fan-shaped fringes of appressed hairs; propodus of second left walking leg conspicuously hairy; tubercles on major cheliped dark purple or blue; first and second walking legs with narrow bands of brown/orange.

**Habitat:** Found over mud, sand or coral bottoms from shallow water to 134m.

**Range:** North Carolina through the Gulf of Mexico to Brazil.



From Williams (1984)

*Dardanus insignis* (de Saussure, 1858)  
Red Brocade Hermit

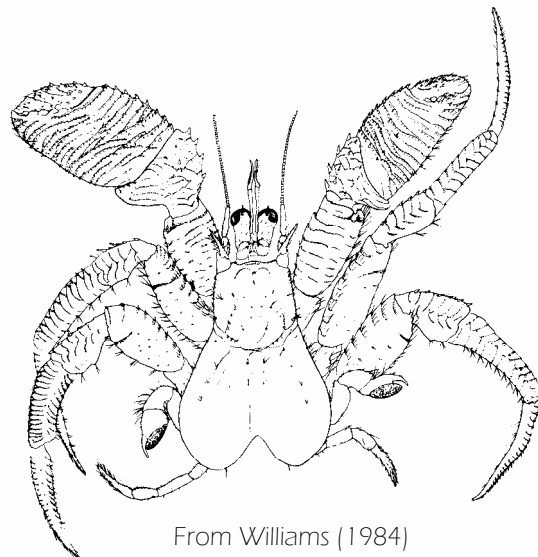
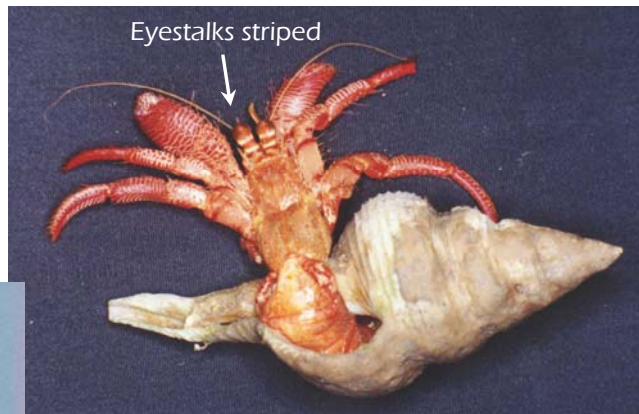
Infraorder Anomura  
Family Diogenidae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Shield with scattered clumps of setae, anterior margin lacking rostrum; chelipeds heavy, left larger than right; outer surface of major chela covered with tubercles fringed with short setae; propodus of second left walking leg not hairy; tubercles on chelipeds and distal portion of first two pairs of walking legs maroon; **eyestalks with maroon bands**.

**Habitat:** Offshore marine waters from 15 to 124 fathoms.

**Range:** North Carolina through the Gulf of Mexico; West Indies to Guadeloupe.



*Manucomplanus unguulatus* (Studer, 1883)  
= *Manucomplanus corallinus* (Benedict, 1892)

Infraorder Anomura  
Family Paguridae

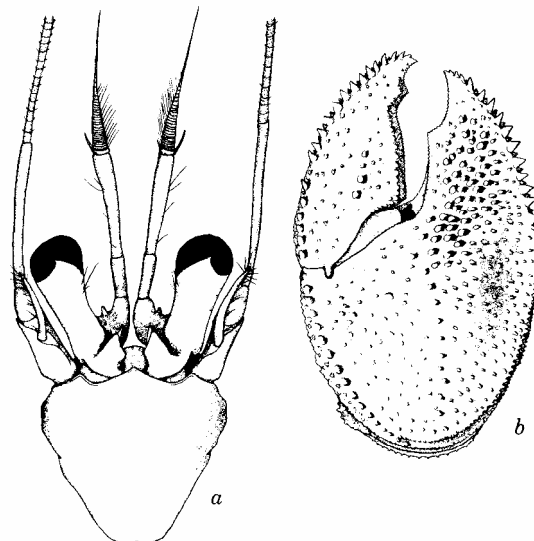
References used: Williams (1984)

**Diagnostic characters:** Anterior shield of carapace smooth; rostrum obtuse, extending beyond rounded lateral projections of shield; eyestalks short and stout; chelipeds unequal, major chela much larger than minor; upper surface of major chela flattened; carpus with sharp, spiny granules, margin with rows of small spines; merus and carpus of major chela blotched red and cream/white; walking legs banded red and cream/white; eyestalks same color as anterior shield, cornea orange.

**Habitat:** Found in tunicates, sponges, hard corals, and bryozoans from 38 to 91 m.

**Range:** North Carolina through Gulf of Mexico to Mississippi River Delta; Yucatan.

**Remarks:** Species is tropical in affinities.



From Williams (1984)

*Paguristes hummi* Wass, 1955

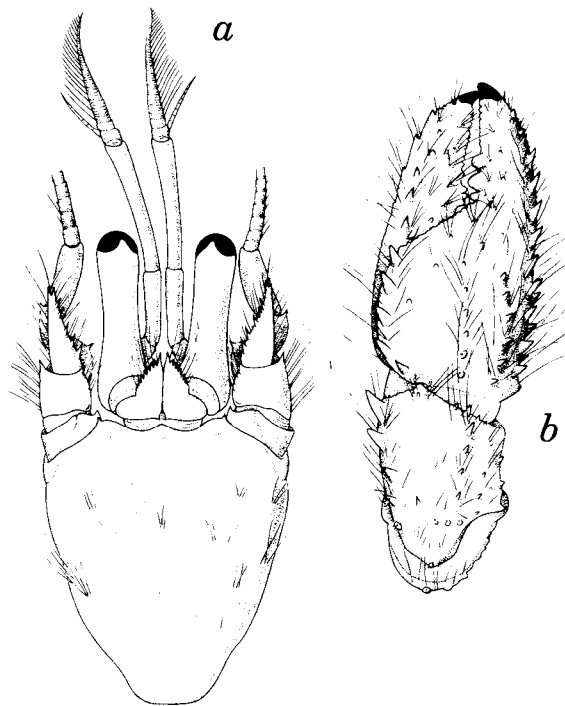
Infraorder Anomura  
Family Diogenidae

References used: Williams (1984)

**Diagnostic characters:** Anterior shield of carapace longer than wide with few setose tubercles; rostrum obtuse and shorter than lateral projections; eyescales adjacent, with 4-7 anterolateral spines; chelipeds equal; **merus of cheliped with blue spot on inner surface, bordered anteriorly by a narrow black line**; eyestalks grey/white.

**Habitat:** Found in *Terebra*, *Murex* and *Olivella* shells and in small sponges. Intertidal to 22 m.

**Range:** North Carolina to Georgia; eastern and north central Gulf of Mexico.



From Williams (1984)

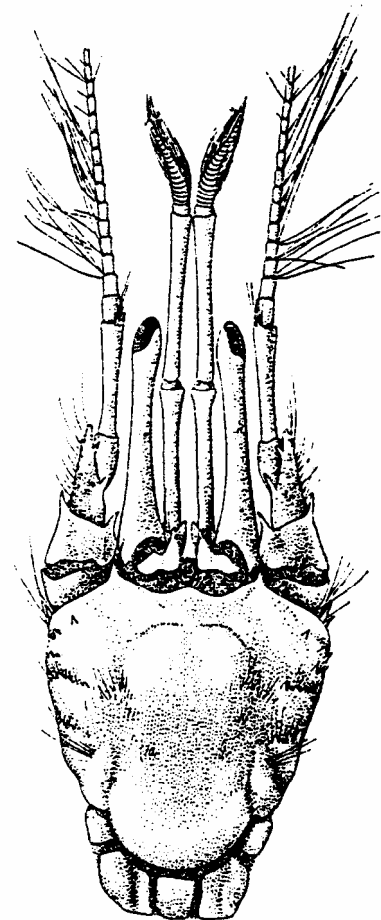
*Paguristes oxyophthalmus* Holthuis, 1959

Infraorder Anomura  
Family Diogenidae

References used: Holthuis (1959)

**Diagnostic characters:** Eyes long and slender, cornea narrow and tapering anteriorly to a blunt point, **eyestalks with small red spots**; chelipeds hairy and equal; walking legs with red banding.

**Range:** West Indies, Gulf of Mexico.



From Holthuis 1959



*Paguristes sericeus* A. Milne Edwards, 1880  
Blue-eye Hermit

Infraorder Anomura  
Family Diogenidae

References used: Williams (1984)

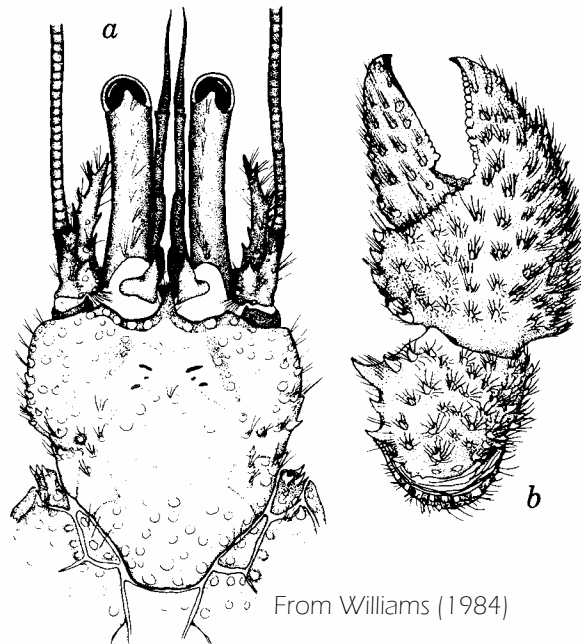
**Diagnostic characters:** Anterior shield of carapace nearly as broad as long, flattened, with several spines on each side; rostrum with acute tip that often reaches approximately 1/2 length of eye scales; eyescales small with acuminate tip; chelipeds subequal, short and broad; upper surfaces of hands and carpi strongly granulate with soft, silky yellow hairs; antennular peduncle not extending beyond eyestalk; eyestalks solid red; body orange/red.

**Habitat:** Found in *Murex*, *Strombus* and *Oliva* shells from 9 to 145 m.

**Range:** North Carolina; Virgin Islands; Gulf of Mexico.



Antennular peduncles not extending  
beyond eyestalks



*Paguristes triangulatus* A. Milne Edwards and Bouvier, 1893

Infraorder Anomura  
Family Diogenidae

References used: Williams (1984)

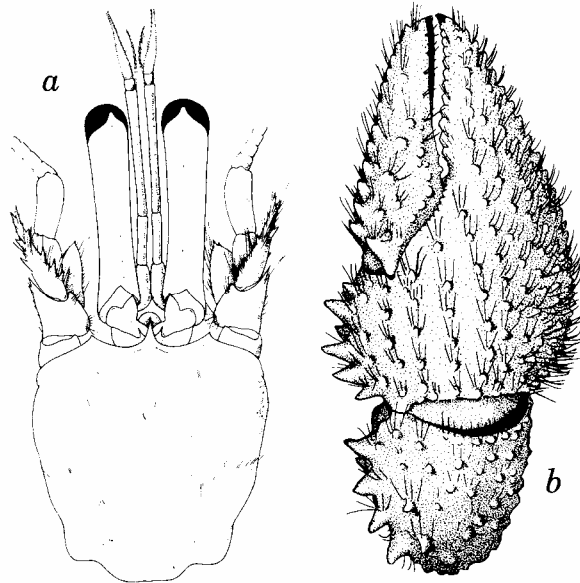
**Diagnostic characteristics:** Anterior shield of carapace not noticeably longer than broad, carapace somewhat hairy toward sides; rostrum pointed and definitely advanced beyond level of lateral projections on front of anterior shield of carapace; eyestalks long; chelipeds subequal, similar, upper surfaces tuberculate and hairy; inner margin of hands, carpi, and bases of dactyls with strong spines corneous at tips; legs and anterior part of cephalothorax tinted pink, eyestalks tinted pink; specimens from Georgia with white or scarlet eyestalks, body and legs mottled white.

**Habitat:** Found in *Murex*, *Distorsio* and *Phalium* shells from 12 to 150 m.

**Range:** North Carolina to Tortugas, Florida, Gulf of Mexico, Barbados and Trinidad.



Antennular peduncles extending beyond eyestalks



From Williams (1984)

*Pagurus bullisi* Wass, 1963

Infraorder Anomura  
Family Paguridae

References used: Wass (1963), Felder (1973)

**Diagnostic characters:** Shield smooth, rostrum equaling lateral teeth; palm of cheliped with inner margin dentate, outer margin serrate to tip of long pollex. Merus of first three pereopods marked by diagonal lines of red near inner distal margins; same color on distoventral half of eyestalks.

**Habitat:** Offshore marine waters from 25 to 125 fathoms.

**Range:** Northern Gulf of Mexico.

**Remarks:** Largest species of *Pagurus* in the Gulf of Mexico.



*Pagurus impressus* (Benedict, 1892)  
Dimpled Hermit

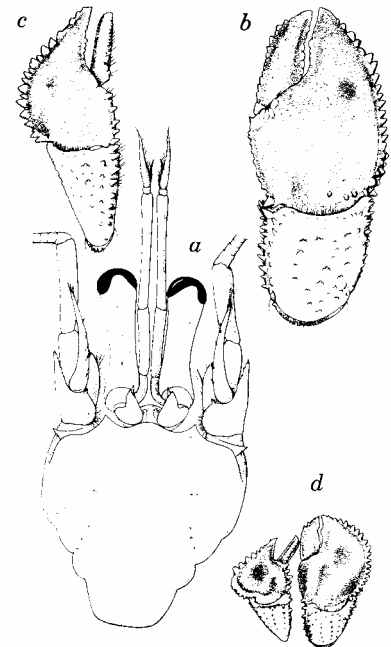
Infraorder Anomura  
Family Paguridae

References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Anterior shield of carapace about as broad as long, flattened; narrow longitudinal notch at anterolateral corners; rostrum rounded; chelipeds unequal, right much larger than left; palms covered with small, closely crowded granules; upper surface of palms dented; chelae chocolate brown; walking legs brown with alternating bands of cream; eyestalks brown above, bright blue below, scarlet at base.

**Habitat:** Estuaries, grass flats, pilings; 1 to 33 m.

**Range:** North Carolina to near Cape Canaveral, Florida; Florida Bay to Pensacola, Florida; Texas.



From Williams (1984)

*Pagurus pollicaris* Say, 1817  
Flatclaw Hermit

Infraorder Anomura  
Family Paguridae

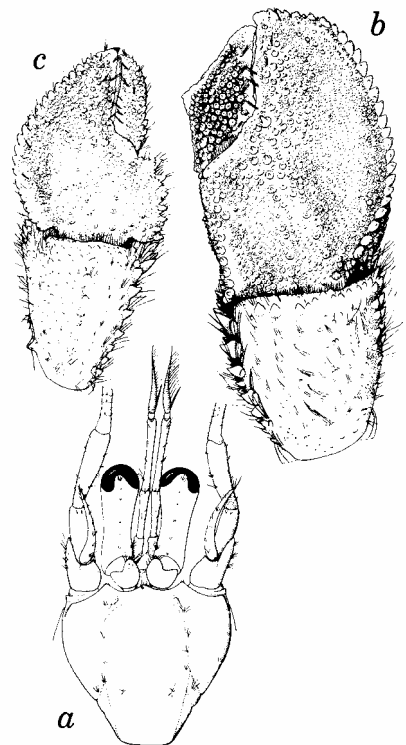
References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Eye scales with single subterminal spine; rostrum slightly less advanced than lateral projections on front of carapace; chelipeds unequal, width of major chela at least 2 length, **dactyl of major chela with sharply produced angle on outer margin**; chelipeds basically white with gray margins mesially, body light gray/tan

**Habitat:** Deep channels of harbors, estuaries to 112 m.

**Range:** New Brunswick to northeast Florida, Key West, through Gulf of Mexico to Texas.

**Remarks:** Atlantic and Gulf of Mexico specimens differ in color. Individuals from west Florida are lighter than those from the northeastern states.



From Williams (1984)

*Petrochirus diogenes* (Linnaeus, 1758)  
Giant Hermit

Infraorder Anomura  
Family Diogenidae

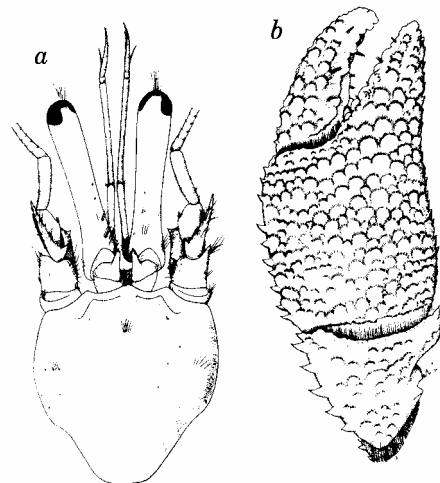
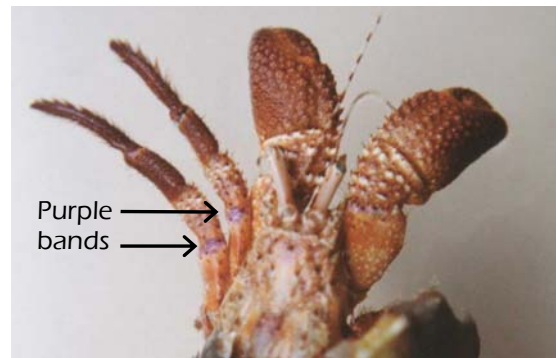
References used: Williams (1984), Felder (1973)

**Diagnostic characters:** Shield with scattered clumps of setae, anterior margin trilobate; chelipeds massive, unequal, right slightly larger than left; hands and carpus of chelae roughened with grouped tubercles separated by appressed setae; generally red in color, chelipeds reddish except between fingers, white spots on carpal area; **walking legs with purple bands.**

**Habitat:** Found on mud, mud/shell and sand bottoms from nearshore to 128m.

**Range:** North Carolina through the Gulf of Mexico to Brazil; West Indies.

**Remarks:** *Petrochirus diogenes* is the **largest hermit crab** in the Carolinian fauna. The species inhabits tun and murex shells offshore. Young specimens may inhabit *Polinices*, *Busycon* or *Terebra dislocata* shells.



From Williams (1984)

*Phimochirus holthuisi* (Provenzano, 1961)  
= *Pylopagurus holthuisi*  
Red-striped Hermit

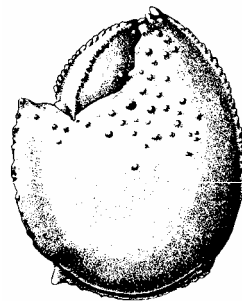
Infraorder Anomura  
Family Paguridae

References used: Provenzano (1961), Williams (1984)

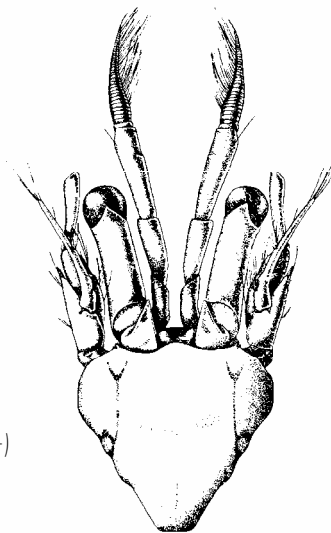
**Diagnostic characters:** Anterior shield of carapace as long as wide; rostrum obsolete, hardly in advance of lateral projections; eyestalks three times longer than wide, widest at cornea; chelipeds unequal, major chela much larger than minor; upper surface of major chela inflated, margins thin and serrated; minor chela narrow, fingers spooned, tufts of heavy setae between fingers and on ventral surface; dactyls of walking legs longer than propodi with 5-6 ventral corneous spines in addition to terminus, a second row of spines mesiodorsally; **walking legs with brownish longitudinal stripes.**

**Habitat:** Found on shell, sand, mud and coral bottoms from 15 to 104 m.

**Range:** North Carolina; northern Gulf of Mexico; West Indies to Surinam.



From Williams (1984)



*Gastroptychus spinifer* (A. Milne Edwards, 1880)

Infraorder Anomura  
Superfamily Galatheoidea  
Family Chirostylidae

Please return all *Gastroptychus* specimens to the laboratory for identification.

References used: Chace (1942), A. Milne Edwards and Bouvier (1897)

**Diagnostic characters:** Dorsal surface of carapace densely spinose; chelipeds slender and long, 4.4 to 7.1 times the length of the carapace and rostrum; carapace and rostrum length 13 to 30 mm.

**Habitat:** 265 to 585 m.

**Range:** West Indies, Cuba, Yucatan, Gulf of Mexico.





*Munida forceps* A. Milne Edwards, 1880  
Squat Lobster

Infraorder Anomura  
Superfamily Galatheoidea  
Family Galatheidae

References used: Pequegnat and Pequegnat (1970), Abele and Kim (1986)

**Diagnostic characters:** Posterior margin of carapace unarmed; no median spine on cardiac region; rostral spine not distinctly spinose on margins; supraocular spines not reaching as far as eyes; eyes distinctly wider than eyestalks; third abdominal segment unarmed; 4 purple bands on carapace.

**Range:** Gulf of Mexico from 45 to 180 fathoms and Cuba.



*Munida spinifrons* Henderson, 1885  
Squat Lobster

Infraorder Anomura  
Superfamily Galatheoidea  
Family Galatheidae

References used: Pequegnat and Pequegnat (1970), Abele and Kim (1986)

**Diagnostic characters:** Posterior margin of carapace unarmed; no median spines on cardiac region; rostral spine armed laterally with distinct spinules.

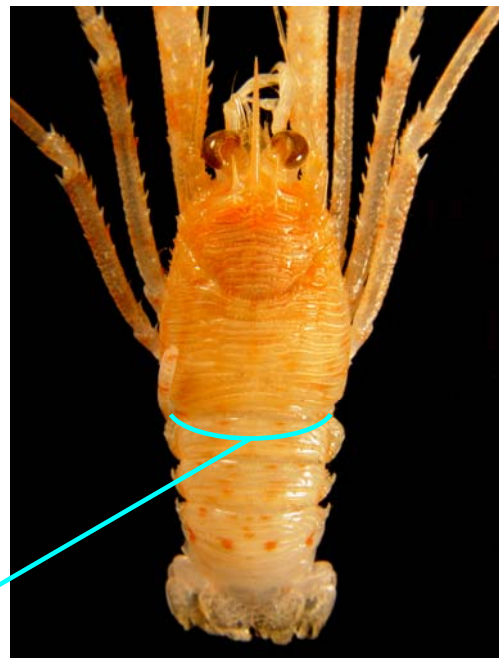
**Range:** Western Atlantic, Gulf of Mexico, Brazil.



Claw variations found  
within *M. spinifrons*



Carapace ridge unarmed



*Munidopsis robusta* (A. Milne Edwards, 1880)  
Squat Lobster

Infraorder Anomura  
Superfamily Galatheoidea  
Family Galatheidae

References used: Takeda (1983)

**Diagnostic characters:** Carapace longitudinally quadrate, surface convex from side to side; short transverse elevations of variable shape and size; a small pointed elevation on each gastric region; rostrum wide at base, tapering distally, strongly curved dorsally; 2<sup>nd</sup> to 4<sup>th</sup> abdominal segments ornamented with a transverse ridge and a median spine curved dorsally.

**Habitat:** 270 to 810 m.

**Range:** Gulf of Mexico; Lesser Antilles.



*Nephropsis aculeata* Smith, 1881  
Florida Lobsterette

Order Decapoda  
  Infraorder Astacidea  
    Family Nephropidae

References used: Takeda (1983)

**Diagnostic characters:** Carapace and abdomen slender and covered with short hairs and fine granules; orbital and antennal spines strong; postcervical groove very deep; rostrum long with a pair of forward-directed spines; 1<sup>st</sup> pereopod with long soft hairs; abdomen with a median linear ridge, each pleura being rather wide. **This species differs from *N. rosea* the absence of an accessory tubercle behind the orbital spine.**

**Habitat:** 137 to 824 m.

**Range:** New Jersey through the Gulf of Mexico; Caribbean Sea to Suriname.



*Polycheles perarmatus* Holthuis, 1952

Infraorder Palinura  
Family Polychelidae

Return all *Polycheles* specimens to the laboratory for specific identification.

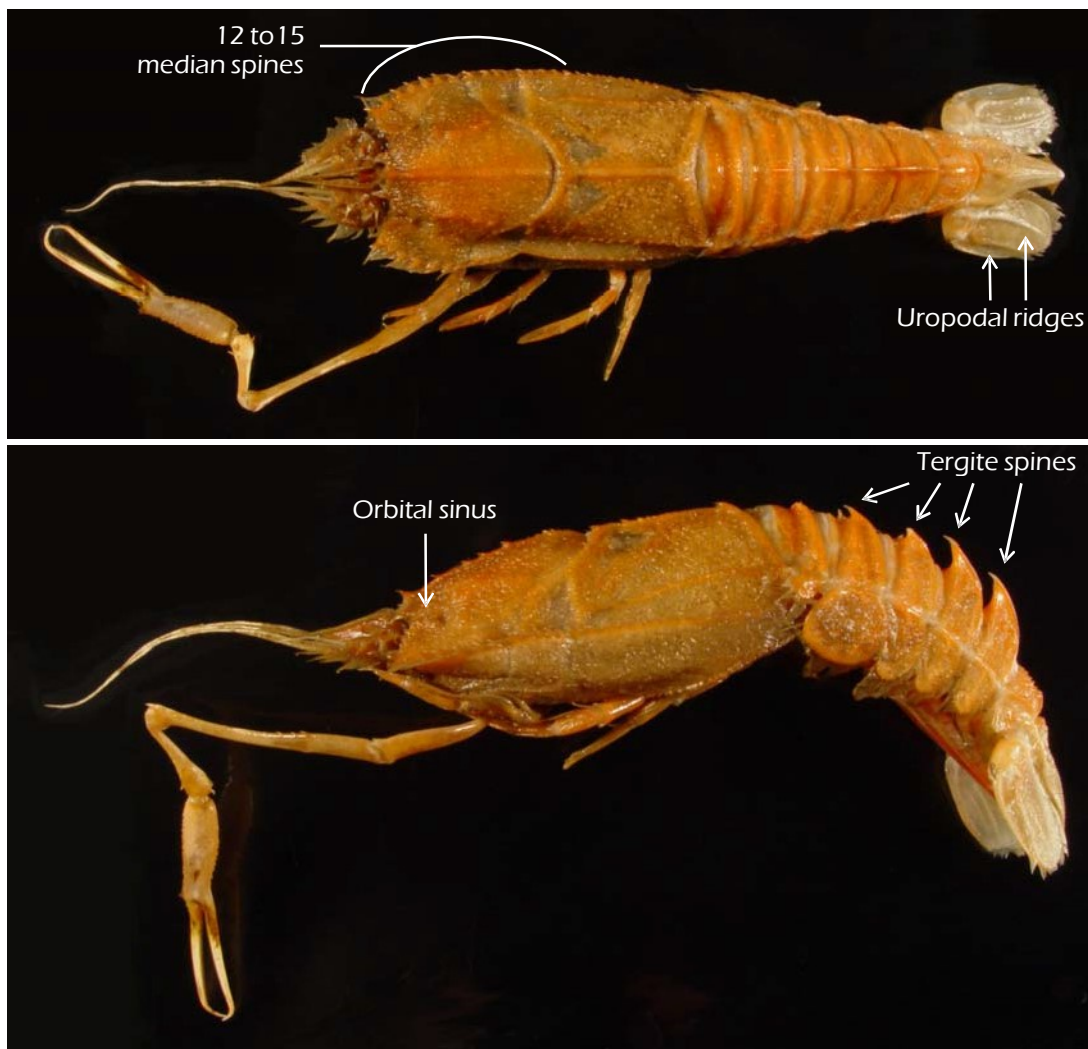
Reference used: Galil (2000)

**Diagnostic characters:** Frontal margin of carapace with orbital sinus; dorsal surface of carapace setose, prominently spinulate; branchial carina prominent, parallel with lateral margin and bearing 12-15 spines; carinae on tergites 2 through 5 bearing antrorse spines, fourth and fifth more prominent; tergite 6 granulate bearing twin parallel rows of granules mesially; anterior margin of the first tergite with ~ 30 denticles; second pleuron rounded.

Can be distinguished from *P. typhlops* by **rounded** second pleuron, three ventral carinae on the uropodal exopod, and the prominently granulate sixth tergite.

Habitat: Deep waters; collected in Gulf of Mexico from 342 to 540 m.

Range: Worldwide



*Scyllarides nodifer* (Stimpson, 1866)  
Ridged Slipper Lobster

Infraorder Palinura  
Family Scyllaridae

References used: Williams (1984), Felder (1973), Lyons (1970)

**Diagnostic characters:** Carapace coarsely and unevenly granulate, granules elevated; anterolateral corners forming nearly right angle terminating in an obtuse tooth; terminal article of antennae with edge nearly smooth or crenulate distally; dark red spot at middle of first abdominal segment.

**Habitat:** Found on mud, shell, coral and sand bottoms from 2 to 91 m.

**Range:** North Carolina through the Gulf of Mexico to Yucatan.



*Scyllarus chacei* Holthuis, 1960  
Chace Slipper Lobster

Infraorder Palinura  
Family Scyllaridae

References used: Williams (1984), Felder (1973), Lyons (1970)

**Diagnostic characters:** Pregastric tooth of carapace broadly rounded, gastric and cardiac teeth blunt; first through fourth abdominal segments with very shallow, broad median notch in posterior margin; posterior margin of fifth segment without notch or median spine.

**Habitat:** Found on bottoms composed of sponge, dead and living coralline algae, with little sand but much silt. Found from 11 to 329 m.

**Range:** North Carolina through the Gulf of Mexico and Caribbean Sea to Brazil.



*Scyllarus depressus* (Smith, 1881)  
Scaled Slipper Lobster

Infraorder Palinura  
Family Scyllaridae

References used: Williams (1984), Lyons (1970)

**Diagnostic characters:** Prominences on carapace not all blunt, 1 gastric and all lateral prominences sharp; first through fourth abdominal segments with **deep subtriangular notch** at midline of posterior margin; posterior margin of fifth segment without notch or median spine.

**Habitat:** Found on bottoms composed of sponge, dead and living coralline algae, with little sand but much silt. Found from 29 to 263 m.

**Range:** Massachusetts through the Gulf of Mexico and West Indies to Brazil.





*Aurelia aurita* (Linnaeus, 1758)  
Moon Jelly

Phylum Cnidaria  
Class Scyphozoa  
Family Ulmaridae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell flatly rounded with scalloped margin, gelatinous substance thickest in center of bell, thinner at edges; bell margin with numerous, fringe-like tentacles; complex system of radiating canals from edge of central stomach to bell margin; four-lobed stomach with conspicuous horseshoe-shaped gonads in mature individuals; translucent white, clear or yellowish-brown in color.

**Range:** Greenland; Caribbean; Gulf of Mexico.



*Balanus trigonus* Darwin, 1854

Superclass Crustacea  
Class Cirripedia  
Order Thoracica  
Family Balanidae

References used: Gittings, Dennis and Harry (1986)

**Diagnostic characters:** Shell with same arrangement of plates and valves on either side of midline; base calcareous; exterior of scutum with parallel rows of longitudinal pits; aperture triangular; shell wall usually purple with white ridges.

**Habitat:** Dominant biofouling species in waters off southwestern Florida. Found in both turbid and clear waters.

**Range:** Cosmopolitan species in tropical and subtropical seas. United States records from Cape Cod (from turtles) through the Gulf of Mexico.



*Bathynomus giganteus* A. Milne Edwards, 1879

Superclass Crustacea  
Order Isopoda  
Family Cirolanidae

Classification according to Integrated Taxonomic Information System  
References used: Richardson (1905)

**Diagnostic characters:** Body oblong; large composite eyes; 2 pairs of antennae; distinct calcified segments, one pair of appendages per segment; pale lilac color. Resembles common pill bug or roly-poly.

**Habitat:** Deep waters, depths greater than 300 m.

**Range:** Gulf of Mexico; Atlantic Ocean; Bay of Bengal; Arabian Sea.



*Calliactis* sp. (LeSueur, 1817)

Phylum Cnidaria  
Class Anthozoa  
Order Actiniaria  
Family Hormathiidae

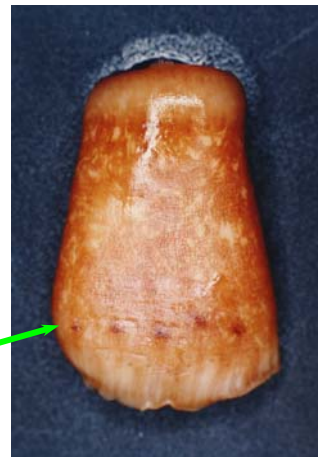
**Photograph all individuals, preserve in 10% formalin, return to the laboratory for specific identification.**

Classification according to Cairns *et al.* (1991)  
References used: Fautin (2002)

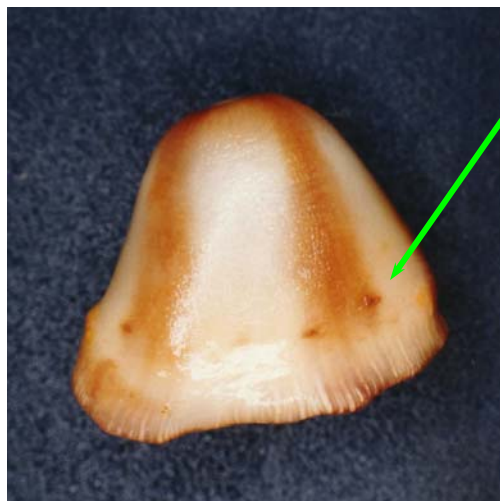
**Diagnostic characters:** Tan-brown colored anenome, commonly with several darker longitudinal stripes; irregular row of dark spots above base. Acontia present (bright orange stringy substance released when handled).

**Habitat:** Usually attached to hermit crab shells or to the carapace of the calico box crab, *Hepatus epheliticus*.

**Range:** World-wide.



Dark spots  
above base



*Chiropsalmus quadrumanus* (F. Muller, 1859)

Phylum Cnidaria  
Class Cubozoa  
Family Chiropsodidae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell dome-shaped, translucent; 4 large, hand-shaped pedalia with 7 to 9 finger-like branches, each branch giving rise to long slender tentacle; tentacles covered with closely set rings of nematocysts.

**Range:** North Carolina; Caribbean; Gulf of Mexico; Mexico; Brazil.



Hand-shaped pedalium with branches



*Chloeia viridis* Schmarda, 1861

Class Polychaeta  
Family Amphinomidae

References used: Hartman (1951), Renaud (1956), Jones (1962)

**Diagnostic characters:** Body short, broad and depressed; covered with white glass-like bristles with red and yellow bars.

**Habitat:** Littoral zones, often associated with reefs, free-swimming.

**Range:** Fort Lauderdale, Florida throughout the Greater and Lesser Antilles; eastern Gulf of Mexico; Pacific side of Panama.



*Chrysaora quinquecirrha* (Desor, 1848)  
Sea Nettle

Phylum Cnidaria  
Class Scyphozoa  
Family Pelagiidae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell nearly hemispherical; 24 to 40 marginal tentacles, primary and secondary marginal tentacles very long, tertiary tentacles short; 4 long mouth-arms, edges of mouth-arms crinkled; bell color variable, clear, yellowish or bluish; bell with 16 reddish-brown radiating stripes, stripes may be faint in some specimens.

**Range:** New England; North Carolina; Gulf of Mexico; Caribbean.



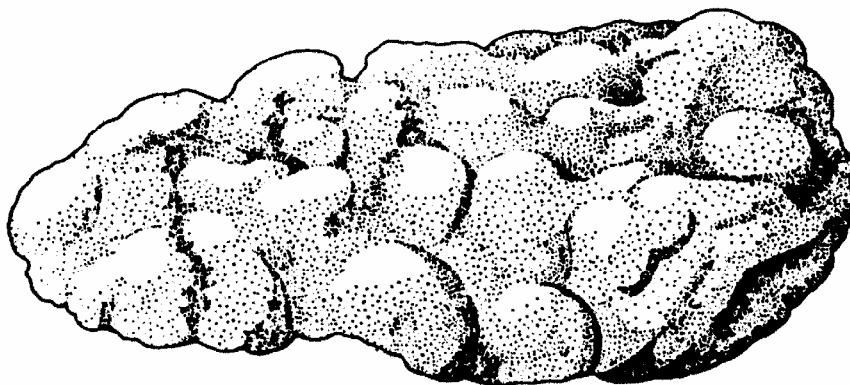
*Geodia gibberosa* (Lamarck, 1815)

Phylum Porifera  
Order Choristida  
Family Geodiidae

**References used:** Wells *et al.* (1960), Little (1963)

**Diagnostic characters:** Large, dirty-white, dense sponge; often a mass of knobby fist-like projections up to 50 cm in diameter (line drawing) or may occur as a spherical mass without projections (photograph); may form massive colonies that resemble rounded calcareous rocks.

**Range:** West Indian species found from North Carolina through the northern Gulf of Mexico.



From Wells *et al.* 1960



*Hermodice carunculata* (Pallas, 1766)

Class Polychaeta  
Family Amphinomidae

References used: Hartman (1951), Renaud (1956)

**Diagnostic characters:** Body greenish to chocolate brown in fresh specimens; branchiae are large and bushy, reddish in life; prostomial caruncle is large, extending back to third or fourth segment.

**Habitat:** Littoral zones.

**Range:** South Florida; Bimini; eastern Gulf of Mexico.



*Molpadia* sp.

Class Holothuroidea  
Order Molpadiida  
Family Molpadiidae

Classification according to Miller and Pawson (1984)  
References used: Deichman (1940)

**Return all specimens to the laboratory for specific identification.**

*Molpadia barbouri* Deichman, 1940



*Molpadia cubana* Deichman, 1940



*Paracaudina chilensis obesacauda* (Clark, 1907)

Class Holothuroidea  
Order Molpadiida  
Family Caudinidae

Classification according to Miller and Pawson (1984)  
References used: Miller and Pawson (1984)



*Paranthus rapiformis* (LeSueur, 1817)

Phylum Cnidaria  
Class Anthozoa  
Order Actiniaria  
Family Actinostolidae

Classification according to Cairns *et al.* (1991)

References used: Gosner (1971), Fotheringham and Brunenmeister (1975)

**Diagnostic characters:** Translucent in color; longitudinal white stripes; resembles a "cocktail onion".

**Habitat:** Burrowing form; littoral to offshore waters.

**Range:** Cape Cod to Cape Hatteras; Gulf of Mexico.



*Pentamera pulcherrima* Ayres, 1854

Class Holothuroidea  
Order Dendrochirotida  
Family Phyllophoridae

Classification according to Miller and Pawson (1984)  
References used: Pawson (1977), Miller and Pawson (1984)



*Phyllorhiza punctata* von Lendenfeld, 1884

Phylum Cnidaria  
Class Scyphozoa  
Family Mastigiidae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell somewhat flattened, gelatinous, colorless, lacking tentacles around the margin; refractive bodies near the surface of the bell give the medusa a spotted appearance; **spots whitish in color.**

**Habitat:** Found in tropical and subtropical waters.



*Physalia physalia* (Linnaeus, 1758)  
Portugese Man-of-War

Phylum Cnidaria  
Class Hydrozoa  
Family Physaliidae

**Diagnostic characters:** Large gas-filled sac; long tentacles with stinging nematocysts; usually blue/purple/pink in color. **CAUTION: nematocysts retain stinging capability even after the animal is dead.**

**Habitat:** Floating on or near the surface of the water.

**Range:** Worldwide.



*Protankyra grayi* Pawson, 1967

Class Holothuroidea  
Order Apodida  
Family Synaptidae

Classification according to Miller and Pawson (1984)  
References used: Pawson (1967)





*Renilla muelleri* Kolliker, 1872  
Sea Pansy

Phylum Cnidaria  
Class Anthozoa  
Family Renillidae

Classification according to Cairns *et al.* (1991)

**Diagnostic characters:** Flattened disc with stalk for anchoring in sediment; colonial, upper surface with protruding polyps; reddish purple in color; resembling "liver".



*Rhacostoma atlanticum* L. Agassiz, 1850

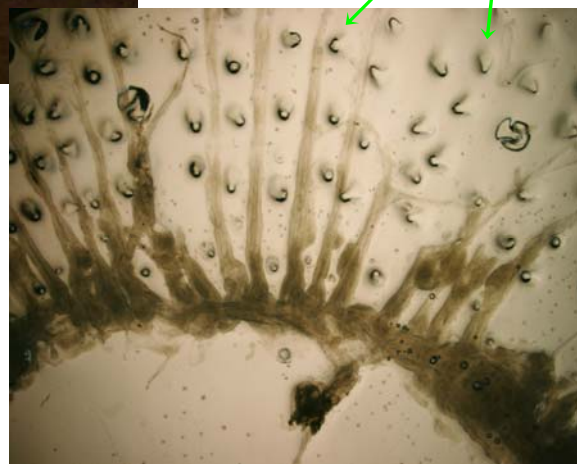
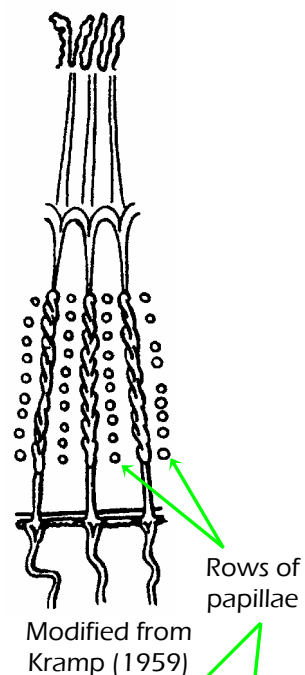
Phylum Cnidaria  
Class Hydrozoa  
Family Aequoreidae

References used: Kramp (1959), Mayer (1910)

**Diagnostic characters:** Disc-like jelly, up to 400 mm disk width, thick in center; 80-100 unbranched, narrow, radial canals, radial rows of gelatinous papillae (wart-like bumps). *Aequorea* are similar, but without papillae and less robust, *Zygocanna* have branched radial canals.

**Habitat:** Pelagic.

**Range:** Nova Scotia to Brazil, Gulf of Mexico, Caribbean.



*Stomolophus meleagris* L. Agassiz, 1862  
Cannonball Jelly

Phylum Cnidaria  
Class Scyphozoa  
Family Rhizostomatidae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell dome-shaped, gelatinous substance thick and rigid, no marginal tentacles; mouth-tube (manubrium) thick and rigid, projecting downward from center of bell; bell milky or yellowish in color, reticulated with brown pigment; this pigment especially dense around bell margin.

**Range:** Chesapeake Bay through Gulf of Mexico to South America; Pacific side of Panama.



*Styela plicata* (Lesueur, 1823)

Phylum Chordata  
Subphylum Urochordata  
Class Ascidiacea  
Family Styelidae

Classification according to Van Name (1921)  
References used: Van Name (1921)

**Diagnostic characteristics:** Large species, variable in appearance; most individuals with dome-shaped elevations giving body surface appearance of cobblestone pavement; color variable, whitish or orange.

**Range:** Widely distributed on coasts of warmer parts of Atlantic, Indian and Pacific Oceans; Caribbean; Gulf of Mexico.



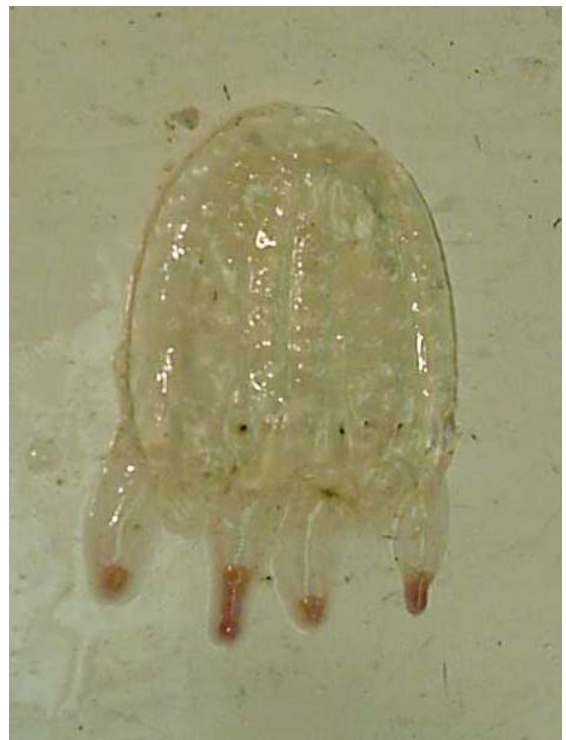
*Tamoya haplonema* F. Muller, 1859

Phylum Cnidaria  
Class Cubozoa  
Family Carybdeidae

Classification according to Cairns *et al.* (1991)  
References used: Mayer (1910)

**Diagnostic characters:** Bell high and transparent; 4 flat, spatula-shaped pedalia extending from bell margin; tentacles long, hollow and very flexible.

**Range:** New York; North Carolina; Caribbean; Gulf of Mexico; Brazil.



Spatula-shaped pedalum

*Thyonella gemmata* (Pourtales, 1851)

Class Holothuroidea  
Order Dendrochirotida  
Family Cucumariidae

Classification according to Miller and Pawson (1984)  
References used: Miller and Pawson (1984)



*Acanthaxius hirsutimanus* (Boesch and Smalley, 1972)  
=*Axiopsis hirsutimana*, =*Calocaris hirsutimana*, =*Calastacus hirsutimana*

Order Decapoda  
  Infraorder Thalassinidea  
    Family Axiidae

References used: Boesch and Smalley (1972)

**Diagnostic characters:** Ocular peduncles large, rounded, exceeding rostrum; antennae nearly as long as carapace plus abdomen; **dorsum of carpi and chelae of first pereiopods densely covered with thick setae**; carapace with two broad pale orange/red bands; dorsum of abdominal terga pale orange; **first pereiopods with broad orange/red band on distal portion of lateral surface of merus**; tips of fingers orange; meri of second through fifth pereiopods with broad orange band.

**Habitat:** Shallow shelf waters (11 to 50 meters).

**Range:** Northern Gulf of Mexico; off northeastern South America.



*Alpheus floridanus* Kingsley, 1878  
Sand Snapping Shrimp

Order Decapoda  
Suborder Pleocyemata  
Infraorder Caridea  
Family Alpheidae

Return specimens of *Alpheus* to the laboratory for identification verification.

References used: Chace (1972)

**Diagnostic characters:** Rostrum very short, only slightly extends beyond eyes; chela of first leg always predominant, large, usually asymmetrical, major first chela up to 6 times as long as broad, minor first chela up to 10 times as long as broad;

**Habitat:** Mud or sandy-mud bottoms; 0 to 37 m.

**Range:** Gulf of Mexico to Brazil; east Atlantic, Guinea to Congo

**Remarks:** Chace (1972) describes two forms of this species, one found in shallow waters and one located on the shelf. Specimens caught in routine SEAMAP sampling are usually of the shelf form. Most likely this will be separated as a distinct species upon further study.





*Aristaeomorpha foliacea* (Risso, 1827)  
Giant Gamba Prawn

Order Decapoda  
Suborder Dendrobranchiata  
Family Aristeidae

References used: Perez Farfante and Kensley (1997)

**Diagnostic characters:** Rostrum long in females and juvenile males, shorter in adult males; more than 3 dorsal rostral teeth, no ventral teeth; differs from *Xiphopenaeus* which has no teeth on elongated portion of rostrum; strong hepatic spine; telson with 4 pairs of movable lateral spines in posterior half.

**Habitat:** Deep waters.

**Range:** Worldwide.



*Aristeus antillensis* A. Milne Edwards and Bouvier, 1909  
Purple Gamba Prawn

Order Decapoda  
Suborder Dendrobranchiata  
Family Aristeidae

References used: Perez Farfante and Kensley (1997)

**Diagnostic characters:** Rostrum long in females and juvenile males, shorter in adult males, only 3 dorsal teeth, no ventral teeth; antennal and branchiostegal spines always present; distal movable meral spine present on 1<sup>st</sup> and 2<sup>nd</sup> pereopods; telson bearing 4 pairs of movable lateral spines;.

**Habitat:** Deep waters

**Range:** Delaware to Florida; Gulf of Mexico; Caribbean Sea to French Guiana.



*Eugonatonotus crassus* (A. Milne Edwards, 1881)

Order Decapoda  
Suborder Pleocyemata  
Family Eugonatonotidae

References used: Pequegnat and Chace (1970), Abele and Kim (1986)

**Diagnostic characters:** Third abdominal somite with high, humped middorsal ridge; rostrum laterally compressed, coarsely dentate, and upturned; ends of fingers of first two pairs of pereiopods dark colored.

**Habitat:** 183 to 914 m.

**Range:** Georgia to the Bahamas, Guianas, and Gulf of Mexico, Yucatan, and Honduras; Borneo through the Phillipines and Japan.



*Glypturus* sp. (undescribed)  
Resembles *G. acanthochirus*

Order Decapoda  
  Infraorder Thalassinidea  
    Family Callinassidae

Return all *Glypturus* specimens to the laboratory for specific identification.

References used: Manning (1987)



*Heterocarpus ensifer ensifer* A. Milne-Edwards, 1881  
Armed nylon shrimp

Order Decapoda  
Suborder Pleocyemata  
Family Pandalidae

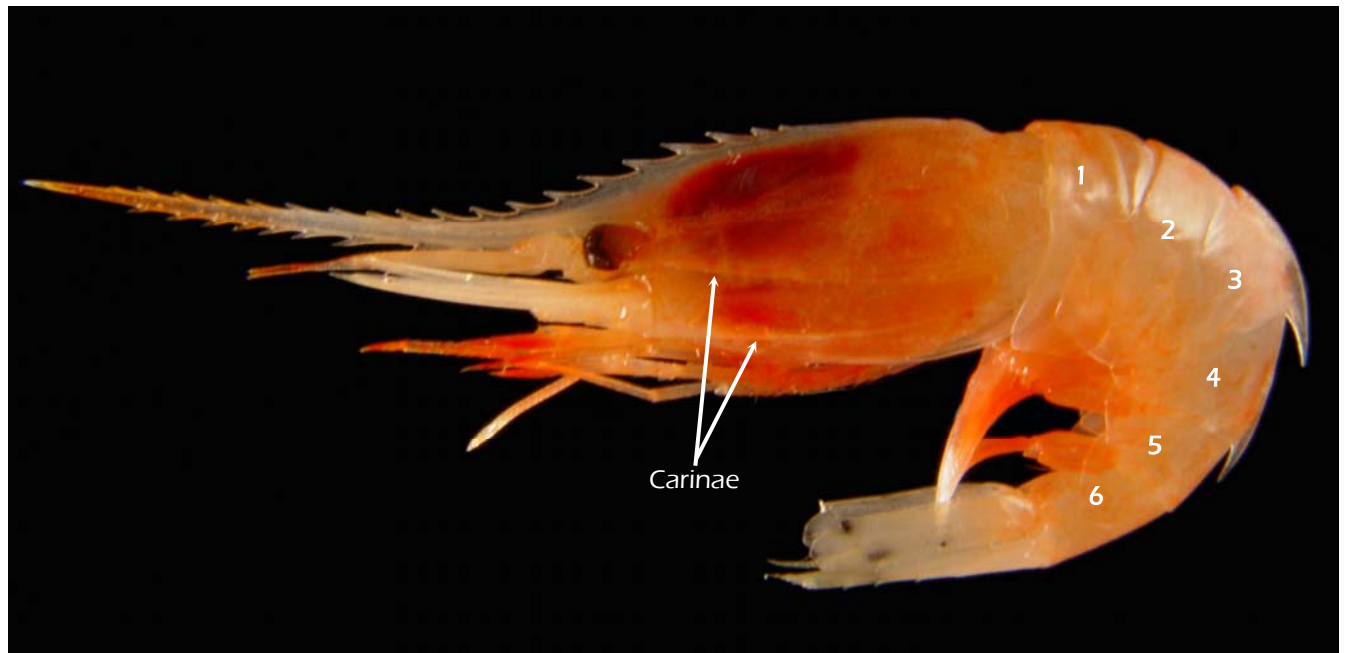
References used: Chace (1985)

**Diagnostic characters:** Rostrum long, tip distinctly overreaching the antennal scale, rostrum proportionately longer on juveniles than adults; 3<sup>rd</sup>, and 4<sup>th</sup> somites with midline spines, 5<sup>th</sup> and 6<sup>th</sup> dorsally rounded and unarmed; 2<sup>nd</sup> pair of peropods unequal and dissimilar; antennal scale with large spine on outer margin, lateral margin of antennule scale dentate (serrated); strong longitudinal carinae on carapace originating directly behind antennal spine.

**Habitat:** 200 to 885 m.

**Range:** North Carolina to the Gulf of Mexico and Caribbean Sea; eastern Atlantic from Spain and Madeira to Angola; subspecies in the Pacific and Philippine-Indonesian Oceans.

**Remarks:** *Heterocarpus oryx* is also found in the Gulf of Mexico. It can be differentiated by a less prominent dorsal carinae not in line with the antennal spine. Return all *Heterocarpus* to the laboratory for identification verification.



*Janicella spinicauda* (A. Milne Edwards, 1883)

Order Decapoda  
Suborder Pleocyemata  
Family Oplophoridae

References used: Chace (1986)

**Diagnostic characters:** Rostrum long with dorsal and ventral teeth, tip distinctly overreaching the antennal scale; 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> somites with midline spines; antennule scale with large spine on outer margin, lateral margin of antennule scale dentate (serrated); sixth somite (abdomen segment) longer than fifth.

**Habitat:** Mesopelagic, tropical seas.

**Range:** Worldwide.

**Remarks:** *Janicella* is a monotypic genus; it can be separated from all other Oplophorids by the spine on the 2<sup>nd</sup> somite and no spine on the 5<sup>th</sup>, all others have spines on the 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> pleura.



*Mesopenaeus tropicalis* (Bouvier, 1905)  
Salmon Shrimp

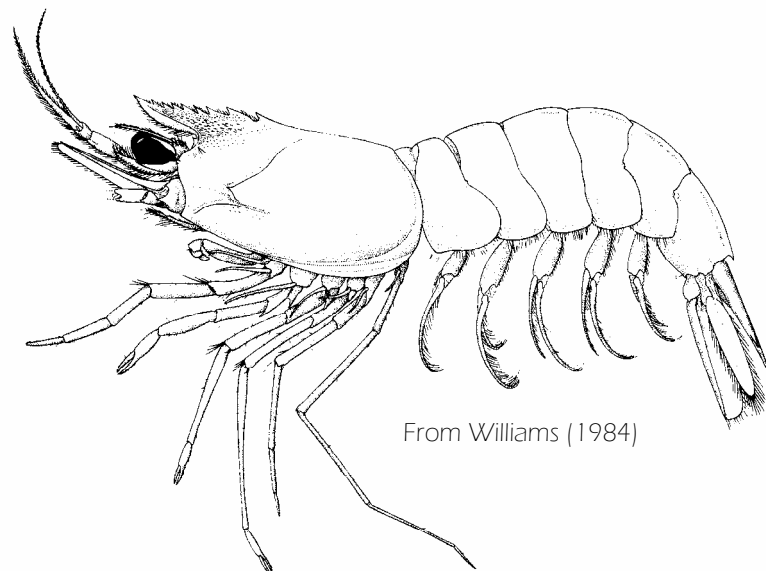
Order Decapoda  
Suborder Dendrobranchiata  
Family Solenoceridae

References used: Perez Farfante and Kensley (1997), Williams (1984)

**Diagnostic characters:** Similar to *Solenocera*, **antennular flagella shorter than in *Solenocera***, rostrum short, straight or slightly upturned at tip, reaching to edge of eye, armed dorsally with 7 to 10 teeth; body translucent salmon, vertical deep yellow stripes, milky white patches on carapace.

**Habitat:** Continental shelf to shelf edge, infrequent in shallow water; 11 to 915 m.

**Range:** North Carolina through Florida Straights to Alabama; Bahamas through Caribbean Sea to Brazil.



*Metapenaeopsis goodei* (Smith, 1885)  
Velvet Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

References used: Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Rostrum with teeth on dorsal margin only; telson tridentate, fixed spine on each side of tip; carapace without transverse or longitudinal sutures; thelycum of female with median plate lacking marginal and coiled strips, anterior part of median plate long; petasma of male with distoventral projection simple, cleft into 2 unequal lobes, right lobe noticeably larger than left; body pubescent, white, mottled with red.

**Habitat:** Found over a variety of bottom types from surface to 329 meters.

**Range:** North Carolina through Florida Straits and eastern Gulf of Mexico; Bermuda; Caribbean; South American coast to Brazil.

**Remarks:** Distinguished from *Parapenaeus* by lack of transverse and longitudinal sutures on carapace.





*Oplophorus gracilirostris* A. Milne Edwards, 1881

Order Decapoda  
Suborder Pleocyemata  
Family Oplophoridae

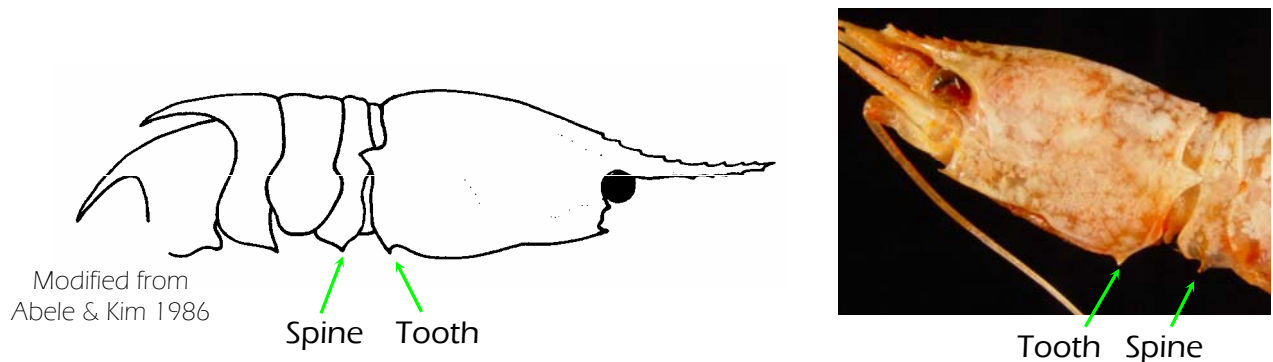
References used: Abele and Kim (1984), Chace (1986)

**Diagnostic characters:** Rostrum long, tip distinctly overreaching the antennal scale; 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> somites with midline spines; carapace with sharp tooth near the posterior end of the ventral margin; ventral margin of first abdominal pleuron with spine; fifth somite (abdomen segment) longer than sixth.

**Habitat:** Mesopelagic.

**Range:** Worldwide.

**Remarks:** Other *Oplophorus* species are found in the Gulf; only *O. gracilirostris* has the tooth and spine. Return all others to the laboratory for specific identification.



*Parapenaeus politus* Smith, 1881  
Rose Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

References used: Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Integument smooth, not setose; carapace with low carina extending almost to posterior margin and bearing epigastric spine some distance behind rostrum; rostrum arched, dorsal margin usually with 7 teeth, ventral margin heavily ciliated; branchiostegal spine present behind anterior margin of carapace; rostrum increasing in length with variable development of unarmed tip in older shrimp.

**Habitat:** Soft mud or muddy sand bottoms from 27 to 330 meters or more.

**Range:** Massachusetts through Gulf of Mexico to Venezuela.



Smooth carapace,  
no setae

Red tipped tails

*Penaeopsis serrata* Bate, 1881  
Pinkspeckled Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

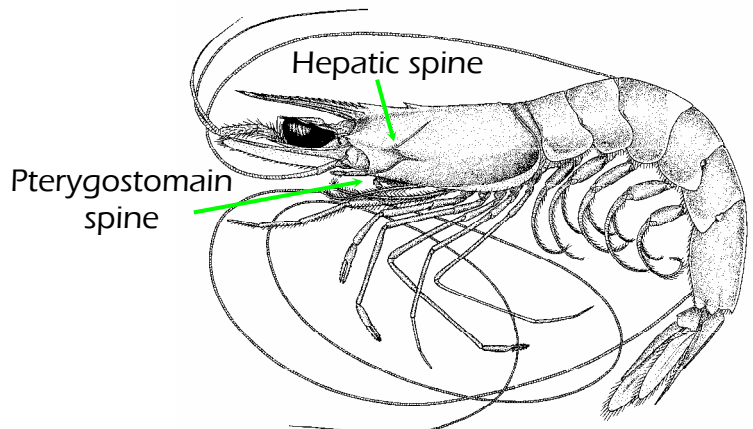
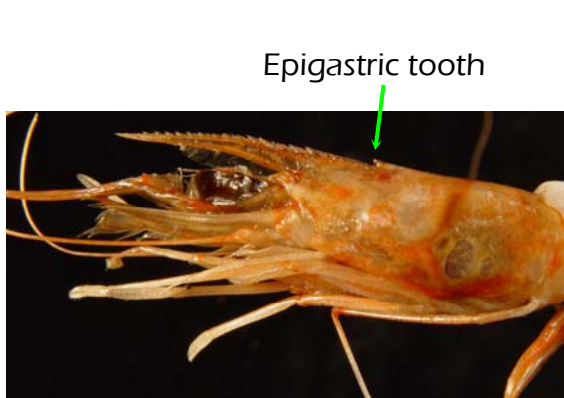
References used: Abele and Kim (1986), Perez Farfante and and Kensley (1997)

**Diagnostic characters:** Rostrum with teeth on dorsal margin only; epigastric tooth separated from first rostral tooth; hepatic sulcus with anterior part accompanied by sharp carina and descending from hepatic spine then turning toward and reaching pterygostomian spine; telson tridentate, fixed spine on each side of tip preceded by several small pairs of movable spines; petasma of male symmetrical, semienclosed.

**Habitat:**

**Range:** New Jersey to Gulf of Mexico; Caribbean Sea to southern Brazil; eastern North Atlantic Ocean.

**Remarks:** Distinguished from *Parapenaeus* by lack of transverse and longitudinal sutures on carapace.



From Perez Farfante and and Kensley (1997)

*Pleoticus robustus* (Smith, 1885)  
= *Hymenopenaeus robustus*  
Royal Red Shrimp

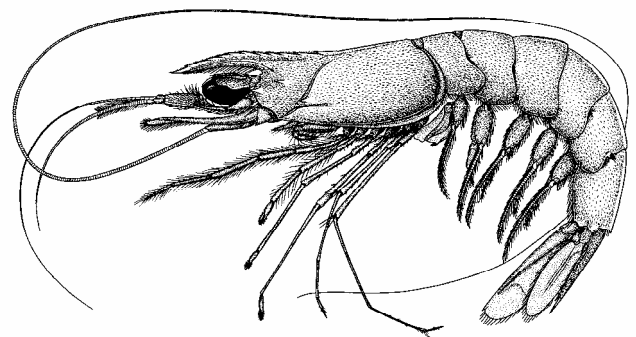
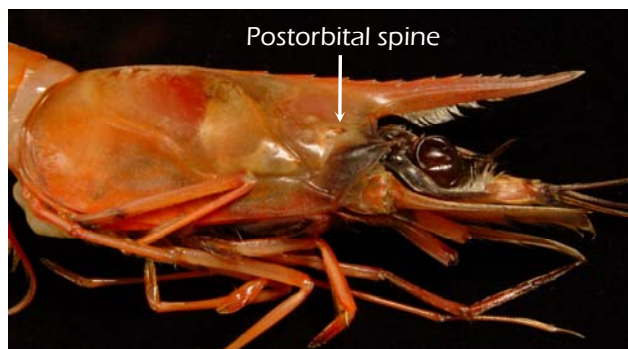
Order Decapoda  
Suborder Dendrobranchiata  
Family Solenoceridae

References used: Perez Farfante and Kensley (1997), NMFS EFH Management Plan

**Diagnostic characters:** Body robust, integument thick and firm; rostrum armed with dorsal teeth only, carapace moderately long; orbital, **postorbital**, antennal, and hepatic spines present; telson armed with pair of conspicuous, fixed, subapical spines.

**Habitat:** Found over blue/black mud, sand, muddy sand, or white calcareous mud; 180 to 730 m.

**Range:** Massachusetts to Gulf of Mexico, Caribbean to French Guiana.



From Perez Farfante & Kensley 1997

*Plesionika edwardsii* (Brandt, 1851)  
Soldier Striped Shrimp

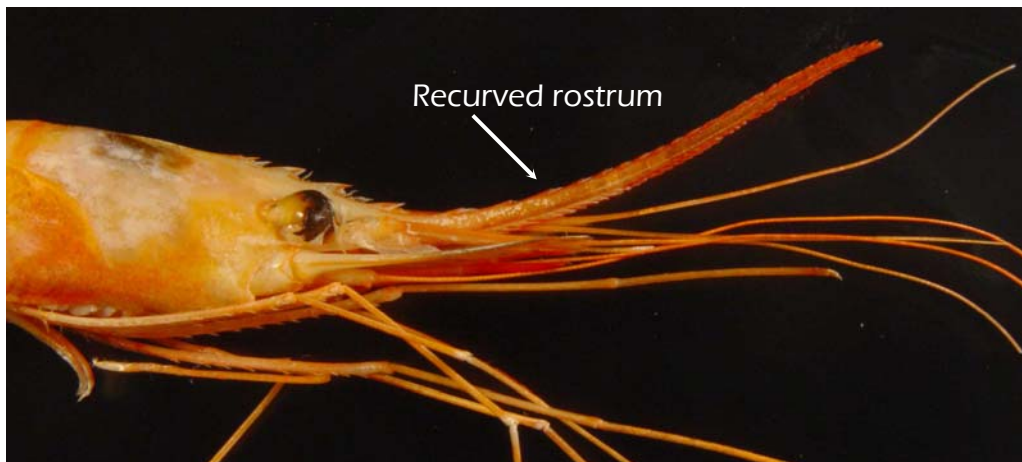
Order Decapoda  
Suborder Pleocyemata  
Infraorder Caridea  
Family Pandalidae

References used: Pequegnat (1970), Abele and Kim (1986)

**Diagnostic characters:** Rostrum at least twice as long as carapace, **strongly recurved**, and armed with about **28 small dorsal teeth, more widely spaced proximally than distally and about 40 ventral teeth**; ventral teeth extend entire length of rostrum; carpus of last three pereopods less than twice the length of propodus; minute epipods on at least first two pereopods; fresh specimens translucent with red stripes running length of abdominal segments and telson.

**Habitat:** 183 to 421 m.

**Range:** Western Atlantic, Carolinas through Florida Straights; Gulf of Mexico, Campeche.



*Plesionika longicauda* (Rathbun, 1901)

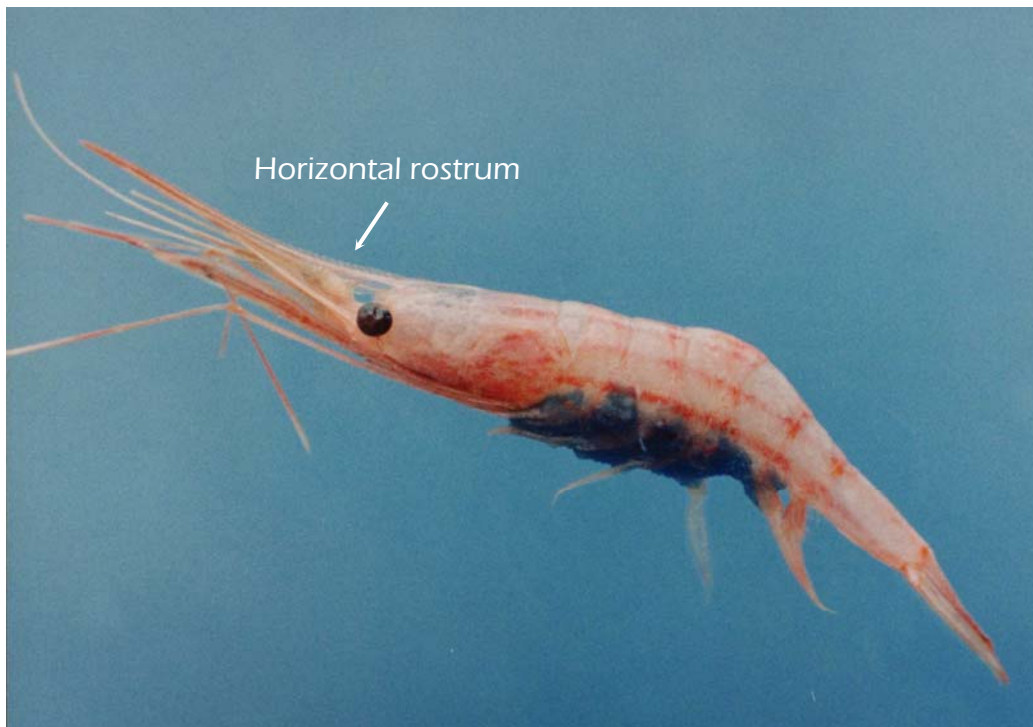
Order Decapoda  
Suborder Pleocyemata  
Infraorder Caridea  
Family Pandalidae

References used: Pequegnat (1970), Abele and Kim (1986)

**Diagnostic characters:** Rostrum at least twice as long as carapace, **nearly horizontal**, and armed with about **40 small, evenly spaced teeth dorsally and about 30 teeth ventrally**; no epipods on any of pereopods; second pereopods unequal, longer one reaching to end of antennal scale and its carpus with about 20 segments; fresh specimens translucent with red stripes running length of abdominal segments and telson; eggs of female bright blue.

**Habitat:** Generally from 53 to 412 m (29 to 225 fathoms).

**Range:** Southwestern North Atlantic; Caribbean Sea; Northeast Gulf of Mexico.



*Rimapenaeus*

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

*Rimapenaeus similis* (Smith, 1885)



*Rimapenaeus constrictus* (Stimpson, 1871)



*Rimapenaeus similis* (Smith, 1885)  
= *Trachypenaeus similis*  
Roughback shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

References used: Abele and Kim (1986), FAO Identification Sheets

**Diagnostic characters:** Carapace covered with setae (“fuzzy head”); rostrum with 7 to 9 teeth on dorsal margin, no teeth on ventral margin; entire dorsal region and anterior part of sides of carapace covered with hair, patches of hair on posterior half of abdomen; thelycum in females devoid of hair; fresh specimens translucent with yellow/orange specks, pereopods and pleopods orange/red with white specks, uropods red edged with white.

**Range:** Florida Keys, Gulf of Mexico; Caribbean Sea to Brazil.





*Rimapenaeus constrictus* (Stimpson, 1874)  
= *Trachypenaeus constrictus*  
Roughneck shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

References used: Abele and Kim (1986), FAO Identification Sheets

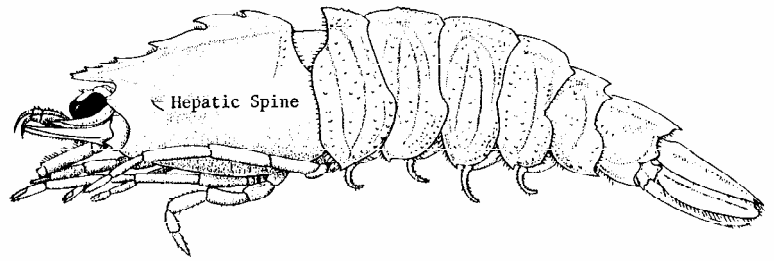
**Diagnostic characters:** Carapace covered with setae (“fuzzy head”); rostrum with 7 to 9 teeth on dorsal margin, no teeth on ventral margin; abdomen smooth except for a band of hair on each side of dorsal keel of the last two segments; thelycum with dense hair on median process in females of sternite XIII and on lateral plates; fresh specimens translucent with small grayish violet specks; pleopods pink.

**Range:** Nova Scotia; Chesapeake Bay to Florida Keys, Gulf of Mexico; Caribbean Sea to Brazil; Bermuda

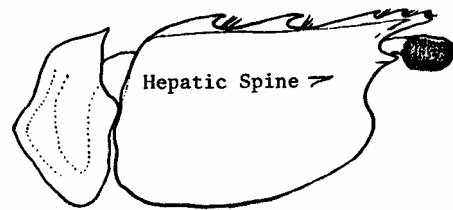


SICYONIA

3 teeth behind hepatic spine - *S. brevirostris*



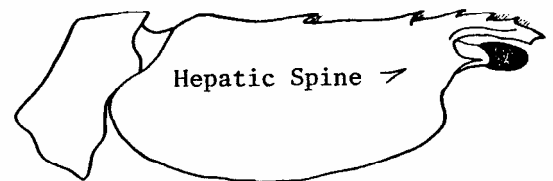
2 teeth behind hepatic spine, none even with hepatic spine - *S. typica*



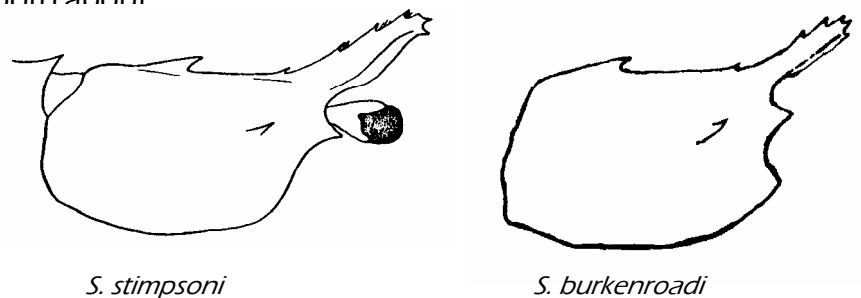
2 teeth behind hepatic spine, 1 tooth even with hepatic spine - *S. laevigata*, *S. parri*



1 tooth behind hepatic spine/1 large tooth even with hepatic spine - *S. dorsalis*



1 tooth behind hepatic spine/1 small tooth about even with or anterior to the level of spine - *S. stimpsoni*, *S. burkenroadi*



*Sicyonia brevirostris* Stimpson, 1871  
Brown Rock Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984)

**Diagnostic characters:** Rostrum variously curved dorsally, slender, narrowing considerably to tip, armed dorsally with 2, sometimes 3, subequal teeth not counting tip; postrostral carina high with 4, occasionally 3, teeth; 3 large teeth behind hepatic spine.

**Habitat:** Shallow water to 329 m; most frequent on sand and shell-sand bottoms of continental shelf.

**Range:** Virginia through Bahamas to Cuba; Gulf of Mexico.



*Sicyonia burkenroadi* Cobb, 1971  
Spiny Rock Shrimp

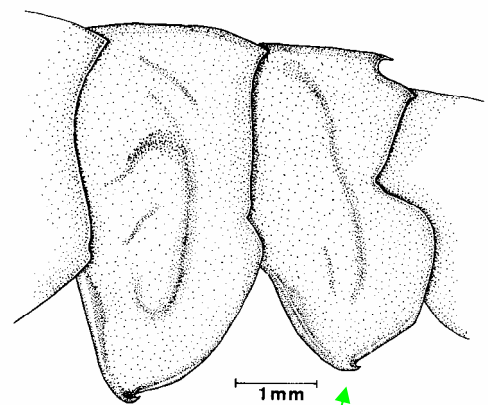
Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984), Huff and Cobb (1979)

**Diagnostic characters:** Rostrum horizontal in males, slightly elevated or deflexed; in females elevated as much as 45°, rarely horizontal; armed dorsally with 3, rarely 4, subequal teeth not counting tip; postrostral carina with 1 tooth about even with or anterior to level of hepatic spine, larger tooth posterior to hepatic spine; carapace with crimson spot edged with yellow; curved spine on the first four abdominal pleura, *S. stimpsoni* identical except lacking spines. Please return all *S. stimpsoni* to the laboratory for species verification.

**Habitat:** Mud, mud-sand or mud-shell bottoms from 33 to 118 m, occasionally deeper.

**Range:** North Carolina through Gulf of Mexico to Brazil.



Abdominal pleura with curved spines  
(From Huff and Cobb 1979)

*Sicyonia dorsalis* Kingsley, 1878  
Lesser Rock Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984)

**Diagnostic characters:** Rostrum extending horizontally or decurved variable distance beyond eye, armed dorsally with 3 teeth not counting tip; postrostral carina with 2 teeth, anterior tooth about even with or just anterior to level of hepatic spine, posterior tooth near midlength of postrostral carapace; dark maroon stripe on abdominal segments 3 and 4.

**Habitat:** Shallow water to 60 m, rarely 420 m; mud and mud/shell bottoms.

**Range:** North Carolina to Texas; Colombia to French Guiana; Brazil.



*Sicyonia laevigata* Stimpson, 1871

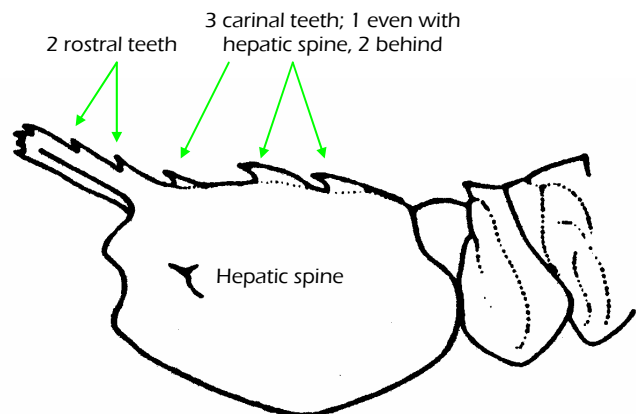
Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984)

**Diagnostic characters:** Rostrum with two dorsal teeth (excluding tip) anterior to posterior orbital margin; rostrum elevated at angle of approximately 20° but angle may vary with age; rostrum about half as long as carapace; carina of carapace armed dorsally with three teeth, two behind hepatic spine and one approximately even with hepatic spine; similar to *S. parri* (species can be separated by the number of teeth (excluding tip) on the rostrum, there are three in *S. parri*, two in *S. laevigata*).

**Habitat:** Shallow water to 100 meters, shelly bottoms.

**Range:** North Carolina; Gulf of Mexico; West Indies to Brazil; Pacific Coast of Panama.



*Sicyonia parri* (Burkenroad, 1934)

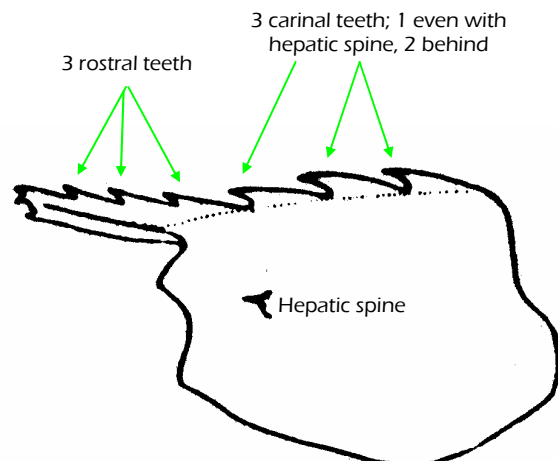
Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984)

**Diagnostic characters:** Rostrum elevated at angle of approximately 15°, armed dorsally with 3 teeth not counting tip; prothrostral carina with 3 large, subequal, almost equidistant teeth, anterior one approximately at level of hepatic spine, similar to *S. laevigata* (species can be separated by the number of teeth (excluding tip) on the rostrum, there are three in *S. parri*, two in *S. laevigata*).

**Habitat:** Shallow water to 83 m, sand bottoms.

**Range:** North Carolina; Gulf of Mexico; West Indies to Brazil.



*Sicyonia typica* (Boeck, 1864)  
Kinglet Rock Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Sicyoniidae

References used: Williams (1984)

**Diagnostic characters:** Rostrum extending halfway along eye, directed obliquely upward, armed dorsally with 1 or 2 small teeth not counting tip; postrostral carina with 2 or 3 teeth, last 2 posterior to level of hepatic spine (third tooth, if present, may look like part of rostral series); **blue spots on tail prominent in fresh specimens.**

**Habitat:** Shallow water to 101 m.

**Range:** North Carolina through the Gulf of Mexico; Cuba through the West Indies to Brazil.



Antenna blue striped

Blue on uropods





*Solenocera atlantis* Burkenroad, 1939  
Dwarf Humpback Shrimp

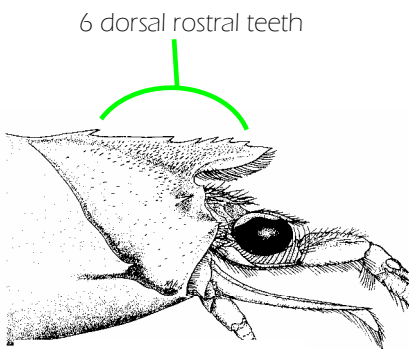
Order Decapoda  
Suborder Dendrobranchiata  
Family Solenoceridae

References used: Perez Farfante and Kensley (1997), Williams (1984)

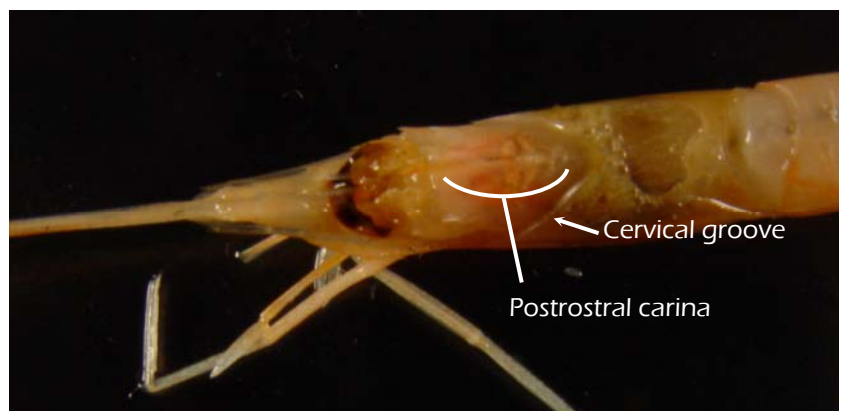
**Diagnostic characters:** Rostrum short, horizontal or slightly uplifted, armed dorsally with 5 to 7, usually 6 teeth; postrostral carina not continuous beyond cervical groove; pale orange in color interspersed with many translucent areas; pigment concentrated on rostrum and antennules and as bands across posterior parts of abdominal terga; anterior part of carapace setose (if glossy, then *S. necopina*).

**Habitat:** Found on mud, mud /sand, shell and coral bottoms from 16 to 232 m, usually less than 75 m.

**Range:** North Carolina to Florida; Gulf of Mexico; West Indies; Caribbean coast of Central and South America to Brazil.



From Williams (1984)



*Solenocera vioscai* Burkenroad, 1934  
Humpback Shrimp

Order Decapoda  
Suborder Dendrobranchiata  
Family Solenoceridae

References used: Williams (1984)

**Diagnostic characters:** Rostrum short, horizontal or slightly uplifted, armed dorsally with 8 to 11, usually 9 teeth; postrostral carina high (ridge running from rostrum to edge of carapace), extending almost to posterior margin of carapace; pale orange in color interspersed with many translucent areas; pigment concentrated on rostrum and antennules and as bands across posterior parts of abdominal terga; patches of opaque white on outer sides of legs and pleopods, on uropods and fifth abdominal segment.

**Habitat:** Found on mud, mud /sand and shell bottoms from 37 to 239 m, usually 50 to 80 m.

**Range:** North Carolina to Dry Tortugas, Florida; northern and western Gulf of Mexico to Tabasco.



*Stenopus scutellatus* Rankin, 1898  
Yellowbanded Coral Shrimp

Order Decapoda  
Suborder Pleocyemata  
Family Stenopodidae

References used: Chace (1972), Williams (1984)

**Diagnostic characters:** Rostrum armed ventrally with 6 to 8 spines; third abdominal segment with lobate boss; carapace covered with slender spinules, body lemon yellow.

**Habitat:** Shallow water to 113 m.

**Range:** Bermuda; South Carolina through the Gulf of Mexico to Brazil.

**Remarks:** Can be distinguished from *S. hispidus* by presence of ventral spines on rostrum.



*Systemellaspis pellucida* (Filhol, 1885)

Order Decapoda  
Suborder Pleocyemata  
Family Oplophoridae

References used: Chace (1986)

Return all *Systemellaspis* to the laboratory for specific identification.

**Diagnostic characters:** Rostrum elongate, overreaching antennal scale; 3<sup>rd</sup>, and 4<sup>th</sup> somites (abdominal segments) with midline spines, spines smaller than those in *Oplophorus*; 6<sup>th</sup> somite twice as long as 5<sup>th</sup>; 1<sup>st</sup> somite armed with distinct lobe or tooth overlapping hind margin of carapace; 3 pairs of small spines on telson; eggs large, less than 50;

**Habitat:** Usually found on or near bottom, commonly from 300 to 600 m.

**Range:** Worldwide.

**Remarks:** *Systemellaspis* can be separated from *Oplophorus* by the length of the 6<sup>th</sup> somite, approximately twice the length of the 5<sup>th</sup> somite.



*Xiphopenaeus kroyeri* (Heller, 1862)  
Seabob

Order Decapoda  
Suborder Dendrobranchiata  
Family Penaeidae

References used: Williams (1984), Abele and Kim (1986)

**Diagnostic characters:** Integument smooth; rostrum laterally compressed, dorsal margin armed with 5 teeth at base, tip greatly elongated and varyingly elevated.

**Habitat:** Shore to 37 m, rarely to 70 m.

**Range:** North Carolina through Gulf of Mexico and Caribbean Sea to Brazil.



*Gibbesia neglecta* (Gibbes, 1850)  
=*Squilla neglecta*

Order Stomatopoda  
Family Squillidae

References used: Manning (1969), Camp (1991), Manning and Heard (1997)

**Diagnostic characters:** Telson with distinct median carina, telson lacking supplementary dorsal carinae; lateral process of fifth thoracic somite a spatulate lobe; dactylus of raptorial claw with 5 teeth; median carina of carapace with anterior bifurcation.

**Habitat:** Littoral to 64 m, usually in shallow water.

**Range:** North and South Carolina, Georgia; northeastern and western Florida, Texas. Distribution disjunct in Florida.



*Squilla empusa* versus *Gibbesia neglecta*

Order Stomatopoda  
Family Squillidae

References used: Manning (1969), Camp (1991)

**Diagnostic characters to separate the two species:**

*S. empusa* 6 teeth on dactylus of raptorial claw  
Curved spine on lateral process of 5<sup>th</sup> thoracic segment

*G. neglecta* 5 teeth on dactylus of raptorial claw  
Spatulate lobe on lateral process of 5<sup>th</sup> thoracic segment



*Squilla empusa*

*Gibbesia neglecta*

*S. empusa*,  
curved spine



*G. neglecta*,  
spatulate lobe



*Lysiosquilla scabricauda* (Lamarck, 1818)

Order Stomatopoda  
Family Lysiosquillidae

References used: Manning (1969)

**Diagnostic characters:** Telson lacking sharp median carina; fifth abdominal somite with posterior spinules; sixth abdominal somite and telson with numerous spinules and tubercles, in males the telson is relatively smooth; dactylus of raptorial claw with 8-11 teeth, usually 9-10; eyes very large and T-shaped, cornea bi-lobed. *L. scabricauda* can be separated from other western Atlantic species of *Lysiosquilla* by the large number of teeth on the dactylus of the raptorial claw. **All *Lysiosquilla* species are conspicuously banded with dark pigment.**

**Habitat:** Coastal/shelf species

**Range:** Both sides of the Atlantic; the Gulf of Mexico through the Caribbean to Brazil.



White arrows: Margin of abdominal segments 5 and 6 armed with spines.

Yellow arrow: Telson broader than long with faintly raised median boss.



*Parasquilla coccinea* (Manning, 1962)

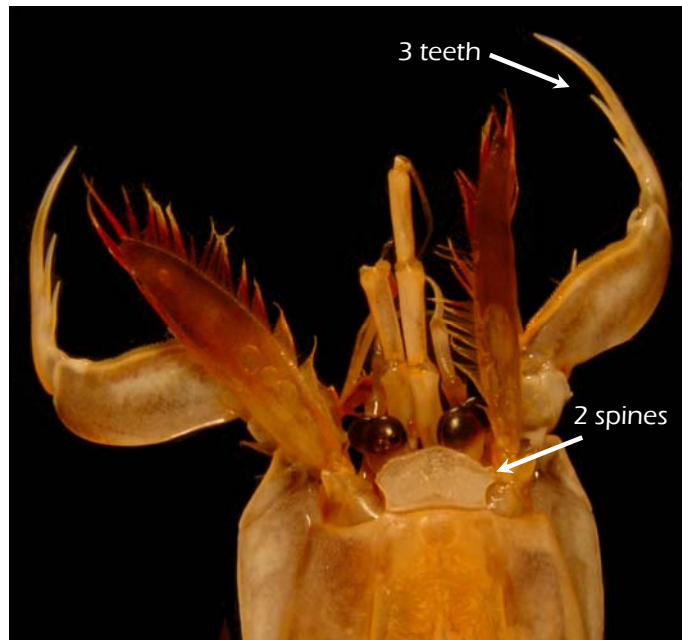
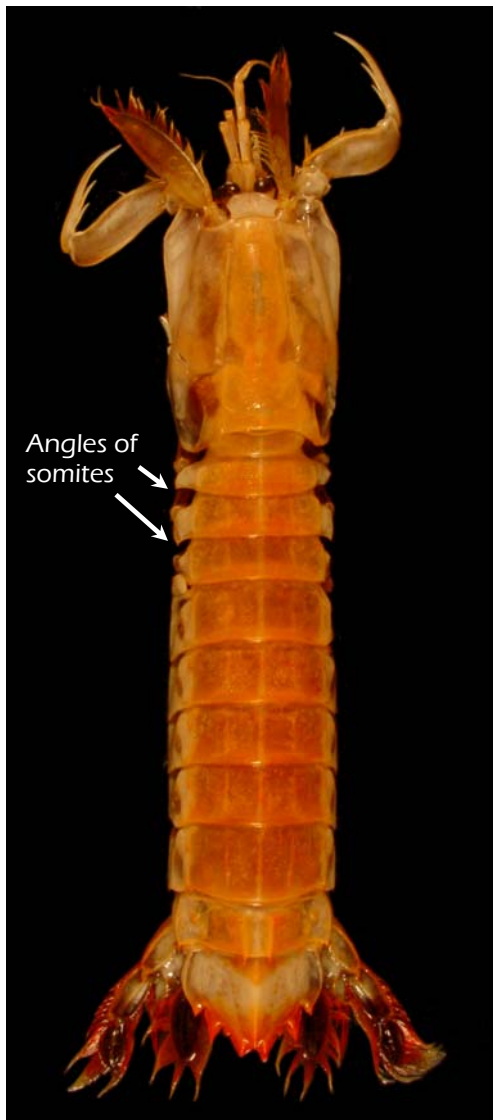
Order Stomatopoda  
Family Gonodactylidae

References used: Manning (1969), Camp (1991)

**Diagnostic characters:** Telson with distinct median carina, submedian denticles on telson; posterolateral angles of 6<sup>th</sup> and 7<sup>th</sup> thoracic somites acute, directed posteriorly; **dactylus of raptorial claw stout with 3 teeth**; anterolateral angles of rostral plate armed with **1 or 2 spines**; outer margin of penultimate segment of uropodal exopod with 7-11 graded, moveable spines, last extending past middle of distal segment;

**Habitat:** Water depths from 82-382 m.

**Range:** Southeast Florida, northern Gulf of Mexico, Gulf of Campeche.



*Squilla chydaea* Manning, 1962

Order Stomatopoda  
Family Squillidae

References used: Manning (1969)

**Diagnostic characters:** Telson with distinct median carina, supplementary dorsal carinae lacking, anterior paired crescents on telson; rostral plate longer than broad with faint median carina, rarely entire; eyes large, cornea set very obliquely on stalk; dactylus of raptorial claw with 6 teeth.

**Habitat:** Coastal/shelf species occurring in depths from 24 to 366 m, generally in less than 200 m.

**Range:** Atlantic coast of Florida through the Gulf of Mexico to Vera Cruz, Mexico.



*Squilla edentata edentata* (Lunz, 1937)

Order Stomatopoda  
Family Squillidae

References used: Manning (1969)

**Diagnostic characters:** Telson with distinct median carina, telson lacking supplementary dorsal carinae; submedian teeth of telson with fixed apices; lateral process of fifth thoracic somite a single, sickle-shaped spine; eyes T-shaped; dactylus of raptorial claw with 6 teeth; lateral processes of sixth and seventh thoracic somites bilobed (anterior lobe small); median carina of carapace with well-defined anterior bifurcation.

**Habitat:** Waters depths of 55 to 319 m, generally 200 m or less.

**Range:** South Carolina to east Florida, northern Gulf of Mexico to Texas.



*Squilla empusa* Say, 1818

Order Stomatopoda  
Family Squillidae

References used: Manning (1969), Camp (1991)

**Diagnostic characters:** Telson with distinct median carina, telson lacking supplementary dorsal carinae; submedian teeth of telson with fixed apices; lateral process of fifth thoracic somite a single, anteriorly-curved spine; eyes T-shaped, stalk not dilated; dactylus of raptorial claw with 6 teeth; lateral processes of sixth and seventh thoracic somites acutely pointed posterolaterally; median carina of carapace with well-defined anterior bifurcation.

**Habitat:** Coastal/shelf species occurring in depths from 0 to 154 m, generally in 40 m or less.

**Range:** Atlantic coast of U. S. through the Gulf of Mexico to Surinam.

