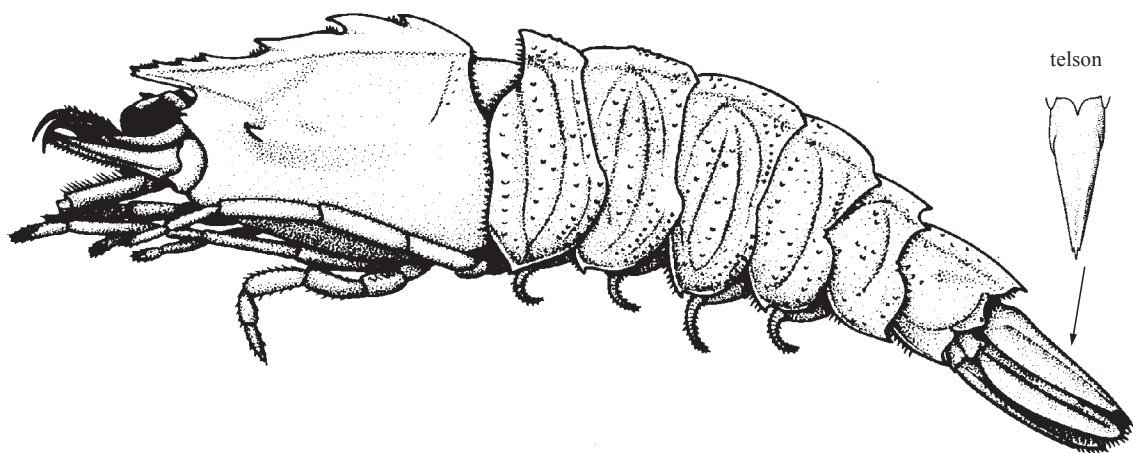


SICYONIIDAE

Rock shrimps

Diagnostic characters: Body robust, rigid, of stony appearance. Rostrum short (not over-reaching antennular peduncle, armed with dorsal teeth, ventral margin toothless); bases of eyestalks with styliform projections on their inner surfaces and without a tubercle on their mesial borders. **Carapace without postorbital spines; cervical grooves very faint or absent.** Last 2 pairs of pereopods well developed. **Second pair of pleopods in males bearing only appendix masculina; third and fourth pairs of pleopod single branched.** Telson usually armed with a fixed spine on each side of tip. A single well-developed arthrobranch on penultimate thoracic segment.



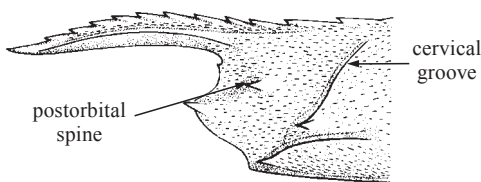
Habitat, biology, and fisheries: All of the representatives of this family are marine, but only 2 of the species occurring in the Western Central Atlantic are of economic interest.

Remarks: One genus, *Sicyonia* H. Milne Edwards, 1830, and 43 species, all marine, have been recognized in this family; 2 species occurring in the Western Central Atlantic are of economic interest, *Sicyonia brevirostris* and *Sicyonia typica*.

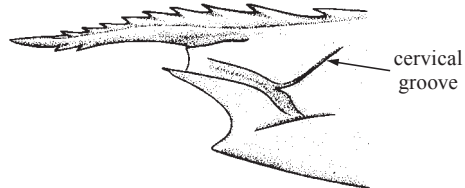
Similar families occurring in the area

Solenoceridae, Aristeidae and Penaeidae: integument thinner and less rigid; abdomen without deep grooves or tubercles. Further distinguishing characters of these families are the following:

Solenoceridae: carapace with postorbital spines; cervical grooves long, usually ending at or close to dorsal midline; endopods of second pair of pleopods in males bearing appendix masculina, appendix interna, and lateral projection; 2 well-developed arthrobranches on penultimate thoracic segment.



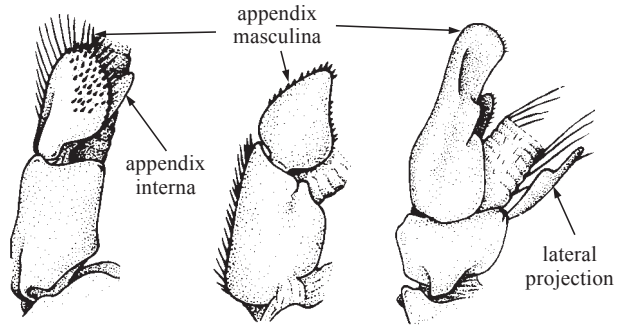
Solenoceridae



Penaeidae

Aristeidae: cervical grooves long, ending at or close to dorsal midline; second pair of pleopods in males bearing appendix masculina and appendix interna; spines on each side of tip of telson movable; 2 well-developed arthrobranchs on penultimate thoracic segment.

Penaeidae: cervical grooves short, ending well below dorsal midline; third and fourth pairs of pleopods biramous; telson without spines, or with fixed or movable spines on each side of tip.



endopod of second pleopod in male

Aristeidae

Penaeidae

Solenoceridae

Key to the species of Sicyoniidae occurring in the area

- 1a. Postrostral carina with 2 teeth → 2
- 1b. Postrostral carina with 3 teeth or more → 6

- 2a. Ventral margin of rostrum straight and concave → 3
- 2b. Ventral margin of rostrum concave → 5

- 3a. Rostrum with 2 or rarely 1 dorsal tooth *Sicyonia typica*
- 3b. Rostrum with 3 or more dorsal teeth → 4

- 4a. Postrostral carina with the last tooth near posterior margin of carapace *Sicyonia burkenroadi*
- 4b. Postrostral carina with the last tooth until 2/3 of carapace *Sicyonia stimpsoni*

- 5a. Postrostral carina with first tooth preceding hepatic spine *Sicyonia dorsalis*
- 5b. Postrostral carina with first tooth at the same level or behind the hepatic spine *Sicyonia wheeleri*

- 6a. Rostrum with 2, rarely 1 dorsal tooth → 7
- 6b. Rostrum with 3 or more dorsal teeth → 8

- 7a. Antennal spine absent *Sicyonia laevigata*
- 7b. Antennal spine present *Sicyonia brevirostris*

- 8a. Postrostral carina with first tooth preceding hepatic spine *Sicyonia olgae*
- 8b. Postrostral carina with first tooth at the same level or behind the hepatic spine *Sicyonia parri*

List of species occurring in the area

The symbol is given when species accounts are included.

- Sicyonia brevirostris* Stimpson, 1871.
- Sicyonia burkenroadi* Cobb, 1971.
- Sicyonia dorsalis* Kingsley, 1878.
- Sicyonia laevigata* Stimpson, 1871.
- Sicyonia olgae* Pérez Farfante, 1980.
- Sicyonia parri* Burkenroad, 1980.
- Sicyonia stimpsoni* Bouvier, 1905.
- Sicyonia typica* (Boeck, 1864).
- Sicyonia wheeleri* Gurney, 1943.

References

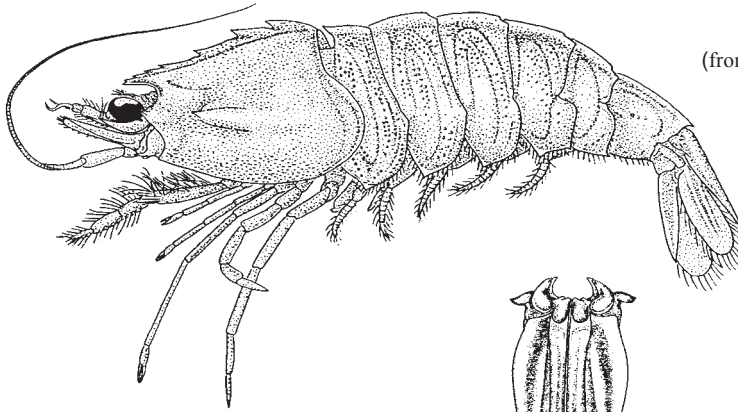
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- Holthuis, L.B. 1980. FAO Species Catalogue. I. Shrimps and prawns of the world. An annotated catalogue of species of interest to fisheries. *FAO Fish. Synop.*, (125)1:271 p.
- Huff, J.A. and S.P. Cobb. 1979. Penaeoid and sergestoid shrimps (Crustacea: Decapoda). *Memoirs of the Hourglass Cruises*, 5(4):1-102.
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- Pérez Farfante, I. 1988. Illustrated key to the penaeoid shrimps of commerce in the Americas. *NOAA Tech. Rep.*, 64:32.
- Pérez Farfante, I. and B. Kensley. 1997. Penaeoid and Sergestoid shrimps and prawns of the world. Key and diagnoses for the families and genera. *Mémoires du Muséum national d'Histoire naturelle, Paris*, 175:1-233.
- Williams, A. B. 1984. *Shrimps, lobsters, and crabs of the Atlantic coast of the Eastern United States, Maine to Florida*. Smithsonian Institution Press, 550 p.

Sicyonia brevirostris Stimpson, 1874

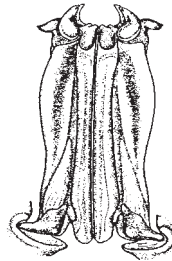
RSH

Frequent synonyms / misidentifications: None / None.

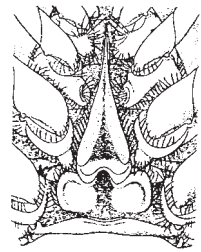
FAO names: **En** - Rock shrimp; **Fr** - Boucot ovetgernade; **Sp** - Camarón de piedra.



(from Pérez Farfante and Kensley, 1997)



petasma



thelycum

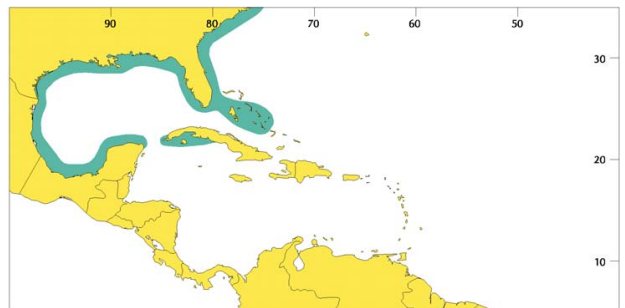
Diagnostic characters: Body thick, rigid, covered with short hair; abdomen with deep transverse grooves and numerous tubercles. Rostrum very short, not exceeding eye and with 2 or 3 teeth along dorsal margin and another 2 or 3 at tip; ventral margin toothless. Postrostral crest high and armed with 3 or 4 teeth, the last 3 large.

Pleura of the 4 anterior abdominal segments terminating anteriorly in a ventral angle armed on the third and fourth (sometimes also second) segments with a blunt outward pointing spine; pleura of the last 2 or 3 segments bearing a posterior ventral spine. Petasma (in males) with 2 distal projections on each side curved in opposite directions. Thelycum (in females) with a triangular median process on sternite 13 ending in a long slender tip and lying against trilobular border of transverse plate on sternite 14. **Colour:** variable, whitish or pinkish with the hair grey, sometimes showing a yellowish tinge; dorsal crest barred with white; appendages reddish purple, pereiopods barred with white; ventral side of abdomen and uropods reddish. This shrimp can also be brown on the dorsal side, white along marginal portion of sides; ventral margin of carapace, antennal scales, and pleopods intense pink; telson, sides, and ventral part of abdomen pinkish; dorsal teeth on carapace and hind part of dorsal keels on abdominal segments white; postrostral crest mahogany; pereiopods striped with violet or red and white; flagella of antennae mauve at bases, blue in the middle, and white at tips.

Size: Maximum length: 153 mm.

Habitat, biology, and fisheries: Lives mainly on sandy or white shelly sand bottoms, at depths ranging from a few metres to 190 m, rarely as deep as 330 m; the largest concentrations are found in waters shallower than 100 m. Active at night, when the largest catches are made. Off northeast Florida and in the Gulf of Mexico from Alalachicola to the Mississippi delta, Sanibel Dry Tortuga Islands; huge catches were reported from off Cape Canaveral, Fort Pierce and Yucatán. Exploitable concentrations have been found between 34 and 55 m. The total reported catch was 300 t in 1972 and 909 t in 1975, heads on shrimp, USA only. From 1984 to 1998 the capture production reported from the USA totaled 43 317 t (mean capture production was 2 887 t/year). There are no separate statistics for this species in the other countries of Area 31. Caught with shrimp trawls and seines (American type). Marketed mostly frozen.

Distribution: Western Atlantic: from Virginia to Texas, Bahamas; Cuba; Gulf of Mexico, Yucatán. Records of *S. brevirostris* from the eastern Pacific (Gulf of Tehuantepec, southern Mexico) are scattered; Hendrickx (1996: 72) maintain that all known records from the Pacific coast of Mexico are previous to 1964 and none has been confirmed since.

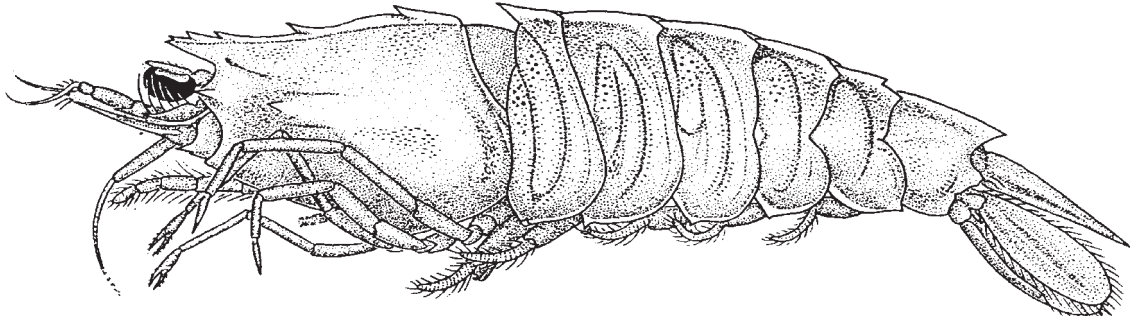


Sicyonia typica (Boeck, 1864)

YIT

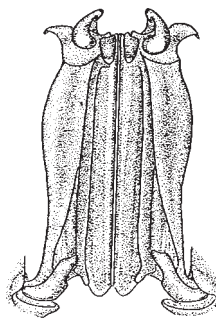
Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Kinglet rock shrimp; **Fr** - Boucot roitelet; **Sp** - Camarón reyecito.

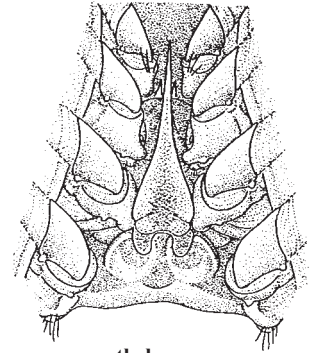


(from Pérez Farfante and Kensley, 1997)

Diagnostic characters: Body thick, rigid, covered with short hair; abdomen with deep transverse grooves and numerous tubercles. Rostrum very short, directed obliquely upward, not exceeding eye and with 1 or 2 teeth along dorsal margin not counting tip; ventral margin toothless. Postrostral crest high and armed with 2 or 3 teeth. Pleura of the 4 anterior abdominal segments terminating anteriorly in a ventral angle armed on the third and fourth (sometimes also second) segments with a blunt outward pointing spine; pleura of the last 2 or 3 segments bearing a posterior ventral spine. Petasma with 2 distal projections on each side curved in opposite directions. Thelycum with a triangular median process on sternite 13 ending in a long slender tip and lying against trilobular border of transverse plate on sternite 14. **Colour: blue spots on tail prominent in life; bright red blotch surrounding rostrum.**



petasma

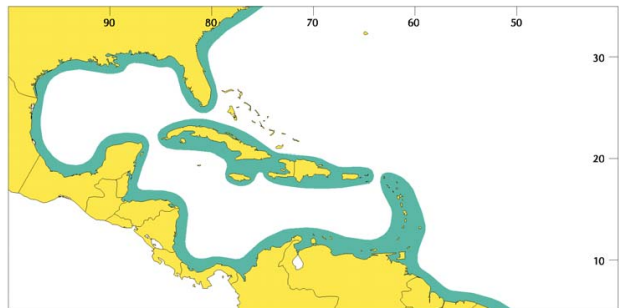


thelycum

Size: Maximum length: 77 mm.

Habitat, biology, and fisheries: Marine, from shallow water to 101 m. Occurs on mud, sand, shelly sand, rocky bottoms, and areas densely covered with algae. This species is fished commercially in southwestern Cuba and occurs in commercial quantities in the Gulf of Campeche. Outside the area it is also of secondary commercial importance (northern Brazil). Caught with shrimp trawls. Marketed fresh and frozen.

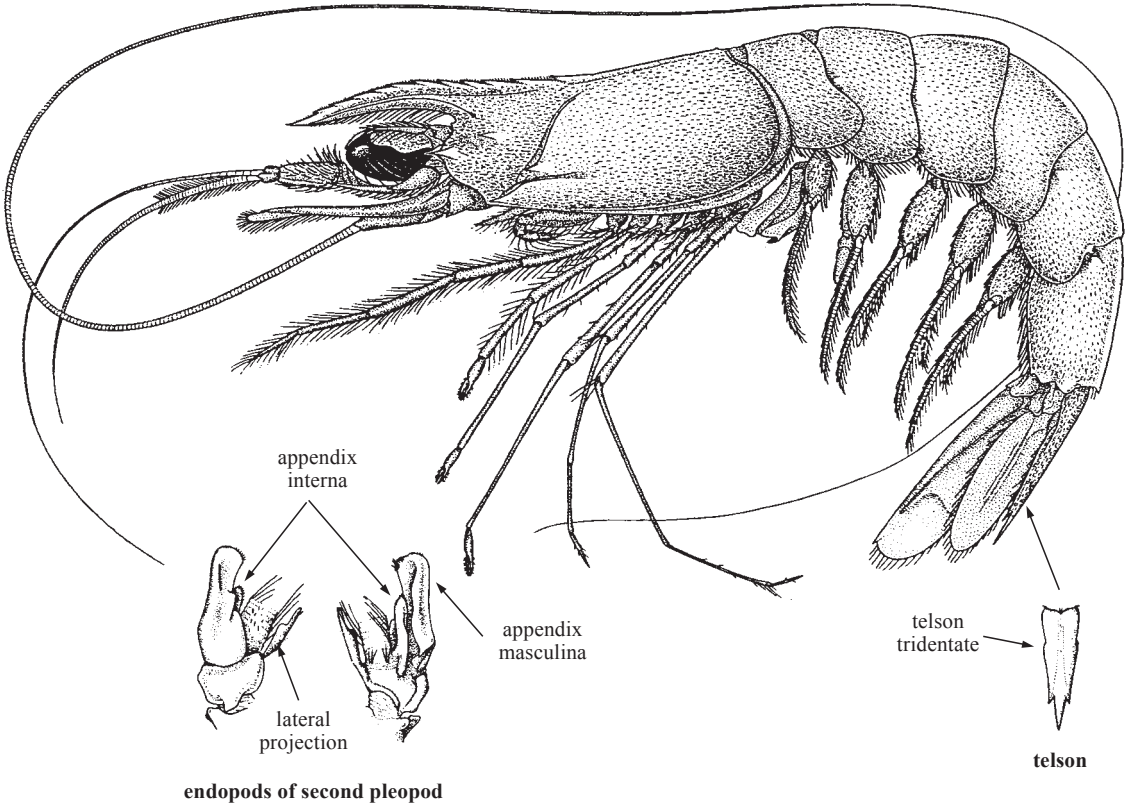
Distribution: Western Atlantic: North Carolina through Gulf of Mexico, including Central America; Cuba through West Indies, Venezuela, Suriname, French Guiana, and Brazil (from Pará to Rio Grande do Sul).



SOLENOCERIDAE

Solenocerid shrimps

Diagnostic characters: Shrimps with a well-developed and toothed rostrum which extends to or beyond distal edge of eyes; no styliform projections at bases of eyestalks **but a tubercle present on their mesial (inner) border.** Carapace with **postorbital spines and long cervical grooves which end at, or close to, dorsal midline.** Last 2 pairs of pereiopods well developed; **endopods of second pair of pleopods in males bearing appendix masculina, appendix interna, and lateral projection;** third and fourth pairs of pleopods biramous. **Telson tridentate** (with a fixed spine on each side of tip). Two well-developed arthrobranches on the penultimate thoracic segment (hidden beneath the carapace).

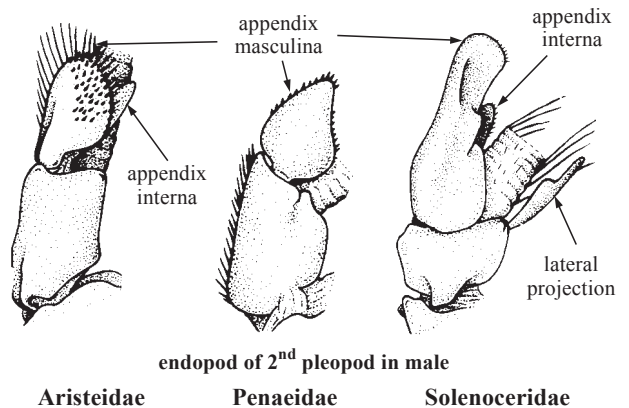


Habitat, biology, and fisheries: This family includes only marine representatives. Only 1 species occurring in the area is abundant and big enough to be of economic interest.

Similar families occurring in the area

Aristeidae, Penaeidae and Sicyoniidae: postorbital spines on carapace absent. Further distinguishing characters of these families are the following:

Aristeidae: telson bearing movable spines; endopods of second pair of pleopods in males bearing appendix masculina and appendix interna but no lateral projection.

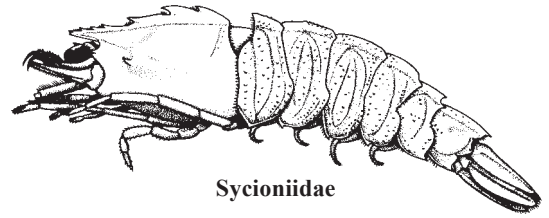


endopod of 2nd pleopod in male
Aristeidae Penaeidae Solenoceridae

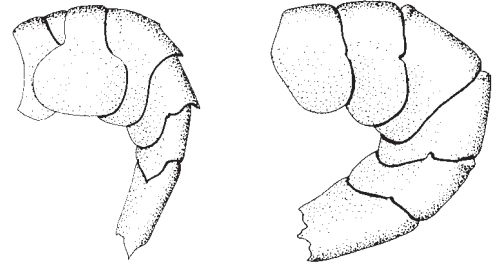
Penaeidae: eyestalks without tubercles on inner border; cervical grooves much shorter, ending well below dorsal midline of carapace; endopods of second pair of pleopods in males bearing appendix masculina only; a single well-developed arthrobranch on penultimate thoracic segment (hidden beneath carapace).

Sycioniidae: body thick, stony in appearance; abdomen with deep grooves and numerous tubercles; cervical groove very faint or absent; third and fourth pairs of pleopods single-branched; endopods of second pair of pleopods in males bearing an appendix masculina only; a single well-developed arthrobranch on penultimate thoracic segment.

Shrimps belonging to the Infraorder Caridea: pleura of second abdominal segment overlapping those of first and third segments; no pincers on third pair of pereopods.



Sycioniidae



abdomen

Key to the genera of Solenoceridae occurring in the area

Caridea

Penaeidae

(from Pérez Farfante and Kensley, 1997)

- 1a. Movable lateral telsonic spines present → 2
- 1b. Movable lateral telsonic spines absent → 3

- 2a. Postcervical spine present, situated dorsal to hepatic spine *Gordonella*
- 2b. Postcervical spine lacking *Haliporus*

- 3a. Orbital spine present → 4
- 3b. Orbital spine absent → 6

- 4a. Both antennular flagella flattened (Fig. 1a) *Solenocera*
- 4b. Both antennular flagella subcylindrical or ventral flagellum flattened (Fig. 1b,c) → 5



a) *Solenocera*



b) *Pleoticus*



c) *Mesopenaeus*

Fig. 1 cross section of antennular flagella

- 5a. Both antennular flagella subcylindrical (Fig. 1b) *Pleoticus*
- 5b. Ventral flagellum flattened (Fig. 1c) *Mesopenaeus*

- 6a. Suprahepatic spine present *Haliporoides*
- 6b. Suprahepatic spine absent → 7

- 7a. Neither fourth nor fifth pereopods flagelliform *Cryptopenaeus*
 7b. Fifth or fourth and fifth pereopods flagelliform → 8
- 8a. Fifth pereopod flagelliform, considerably longer than fourth *Hadropenaeus*
 8b. Fourth and fifth pereopods flagelliform *Hymenopenaeus*

List of species occurring in the area

The symbol  is given when species accounts are included.

Hadropenaeus affinis (Bouvier, 1906).


Hadropenaeus modestus (Smith, 1885).

Hymenopenaeus aphoticus Burkenroad, 1936.

Hymenopenaeus debilis Smith, 1882.

Hymenopenaeus laevis (Bate, 1881).

Mesopenaeus tropicalis (Bouvier, 1905).

 *Pleoticus robustus* (Smith, 1885).

Solenocera acuminata Pérez Farfante and Bullis, 1973.

Solenocera atlantidis Burkenroad, 1939.

Solenocora geijoskesi Holthuis, 1959.

Solenocera necopina Burkenroad, 1939.

Solenocera vioscai Burkenroad, 1934.

References

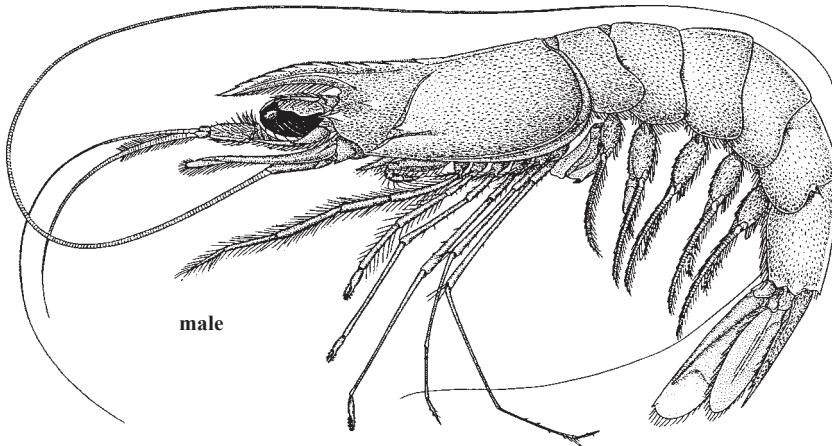
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Pleoticus robustus (Smith, 1885)

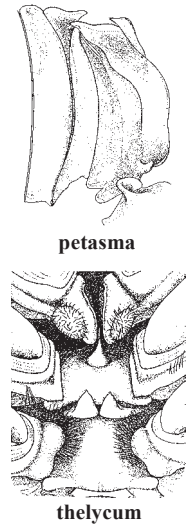
RRS

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Royal red shrimp; **Fr** - Crevette salicoque; **Sp** - Camarón rojo real.



(from Pérez Farfante and Kensley, 1997)

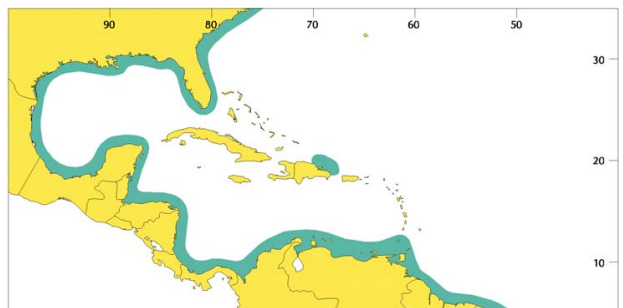


Diagnostic characters: Body completely covered with short hair. Rostrum with ventral margin toothless; 10 to 12 teeth on dorsal margin, separated by intervals regularly decreasing toward the tip; postrostral carina well defined and long, nearly reaching to hind margin of carapace from which it is separated by a small tubercle; pterygostomian spines absent; postorbital spines small. Both antennular flagella cylindrical in cross-section; antennae very long (up to 5 times body length). Petasma (on first pair of pleopods in males) lacking distomarginal projections, its lateral lobes extended distally as triangular, inward-curved tongues; thelycum (in females) with a pair of triangular projections at front end of last thoracic segment. **Colour:** milky white, pink, salmon, or orange: usually one of these colours predominates while the others form lines, bands and spots of various sizes. The general colour pattern changes from light in daytime to darker shades at night.

Size: Maximum length: females, 225 mm; males, 180 mm.

Habitat, biology, and fisheries: Inhabits upper regions of the continental slope from 180 to about 730 m depth (occasionally in shallower waters of about 140 m depth), but large concentrations are usually found at depths between 250 and 475 m over blue/black mud, sand, muddy sand, or white calcareous mud. Apparently it does not burrow into the substrate, but digs grooves in search of food. Feeds on small bottom-living organisms. Fishing grounds off northeastern Florida, from St. Augustine to Cape Kennedy, and Gulf of Mexico from the Mississippi delta to Tampa, Florida, and south-southwest of the Dry Tortugas Islands. Found in large concentrations only off northeastern Florida, to the southwest of the Dry Tortugas Islands and to the southeast of the Mississippi delta. The species has also been taken trawled off the coast of Venezuela. The total catches for this species in 1975 was 122 t, heads on shrimp (USA). From 1984 to 1998 the capture production reported from USA totaled 2 227 t (mean capture production was 148 t/year). From 1984 to 1989 the capture production never reached 100 t/year (mean production was 48 t/year), while from 1990 to 1998 the capture production was never below 135 t/year, peaking to 297 t in 1993 (mean production was 215 t/year). There are no separate statistics for this species in the other countries of Area 31. Caught with shrimp trawls (American type) by using stronger winches and longer warps than in the fishery for other shrimp species; taken by day as well as at night. Marketed whole and peeled, either fresh or precooked (breaded) and frozen.

Distribution: Throughout most of the area; continental slope off the east coast of the USA from south of Martha's Vineyard (Massachusetts) to French Guiana, almost to the Brazilian border.



PALAEMONIDAE**Palaemonid shrimps**

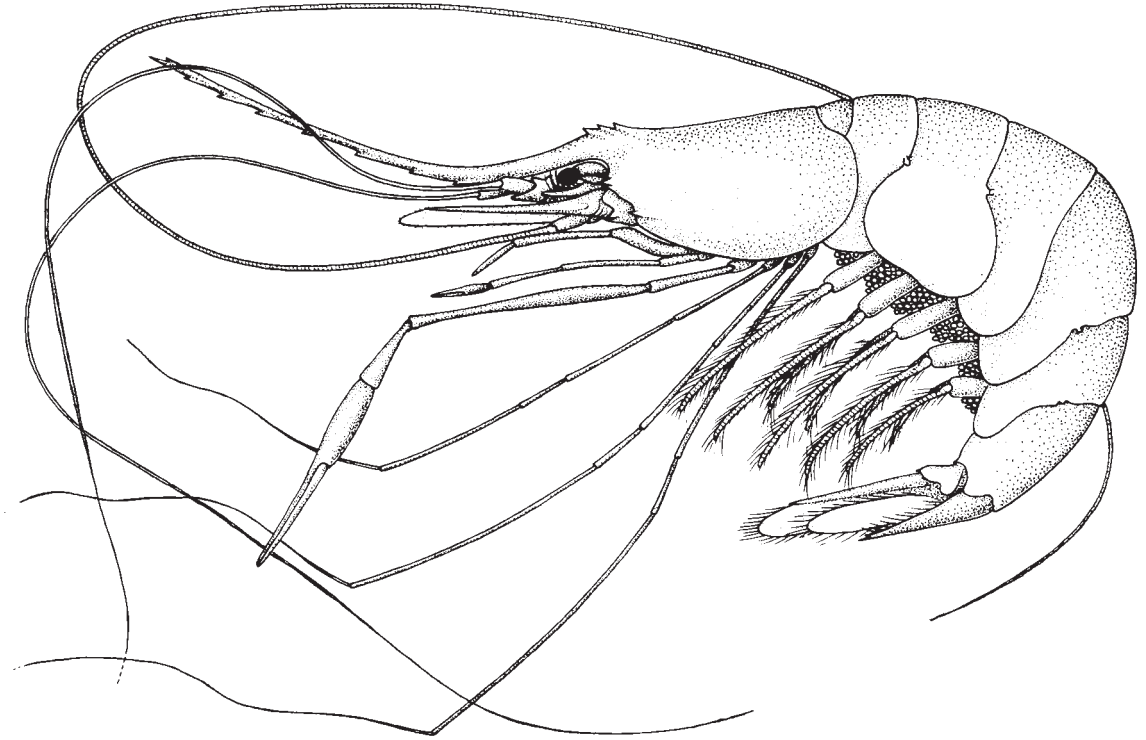
A single species of interest to fisheries occurring in the area.

Nematopalaemon schmitti (Holthuis, 1950)

NLC

Frequent synonyms / misidentifications: None / None.

FAO names: En - White belly prawn; Fr - Bouquet covac; Sp - Camarón couac.



Diagnostic characters: Carapace smooth, without minute depressions. Rostrum very long (longer than carapace), slender, and directed upward, its dorsal margin armed with **3 to 5 teeth forming a high basal crest and a single tooth near tip; ventral margin with 7 to 9 teeth set in regular intervals along anterior three-fourths of its length.** Carapace without hepatic spines or branchiostegal grooves, with antennal and branchiostegal spines, both followed by a short crest. **Third abdominal segment without dorsal spine; pleura of fifth abdominal segment extended posteriorly as rounded lobes.** Telson truncate, with a minute median projection flanked by 2 spines. Dorsal antennular flagellum bifid; **second pair of pereopods with long pincers and undivided carpus. Last 3 pairs of pereopods with very long and slender dactyls (longer than carpus and propodus combined).** **Colour:** white with reddish spots, or pink; more intense on rostrum, hind margin of abdominal segments, and tail fan; flagella and pereopods pink, pleopods very light pink.

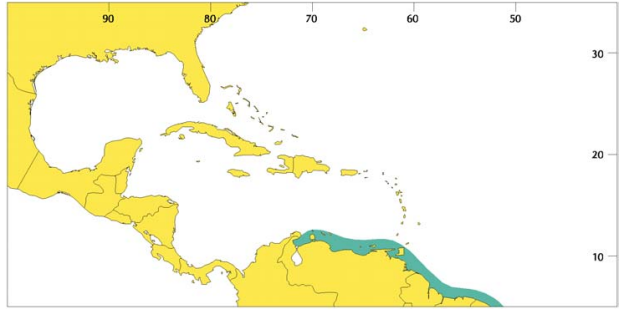
Similar families occurring in the area

Pandalidae and Crangonidae: Palaemonidae can be distinguished by the first pair of pereopod ending in clearly distinct pincers (pincers of first pair of pereopods microscopically small or absent in the Pandalidae; first pair of pereopods subchelate in the Crangonidae).

Size: Maximum length: 80 mm.

Habitat, biology, and fisheries: In marine and estuarine waters. Mud, sand mud, and gravel bottoms, from very shallow waters to 75 m. Venezuela, Guyana, Suriname, French Guiana; outside the area, Brazil (from Amapá to São Paulo). Of considerable commercial importance in Guyana, Suriname, and Brazil. Separate statistics are not reported for this species. Caught mainly with Chinese shrimp traps in Guyana and Suriname. Marketed fresh and dried.

Distribution: From the southern part of the area (Venezuela, Guyana, Suriname and French Guiana) to Brazil (from Amapá to São Paulo).



References

- Holthuis, L.B. 1980. FAO Species Catalogue. I. Shrimps and prawns of the world. An annotated catalogue of species of interest to fisheries. *FAO Fish. Synop.*, (125)1:271 p.
- Pérez Farfante, I. 1978. Shrimps and Prawns. In *FAO Species Identification Sheets for Fisheries Purposes. Western Central Atlantic (Fishing Area 31), Volume VI*, edited by W. Fischer. Rome, FAO (unpaginated).
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HIPPOLYTIDAE

Cock shrimps

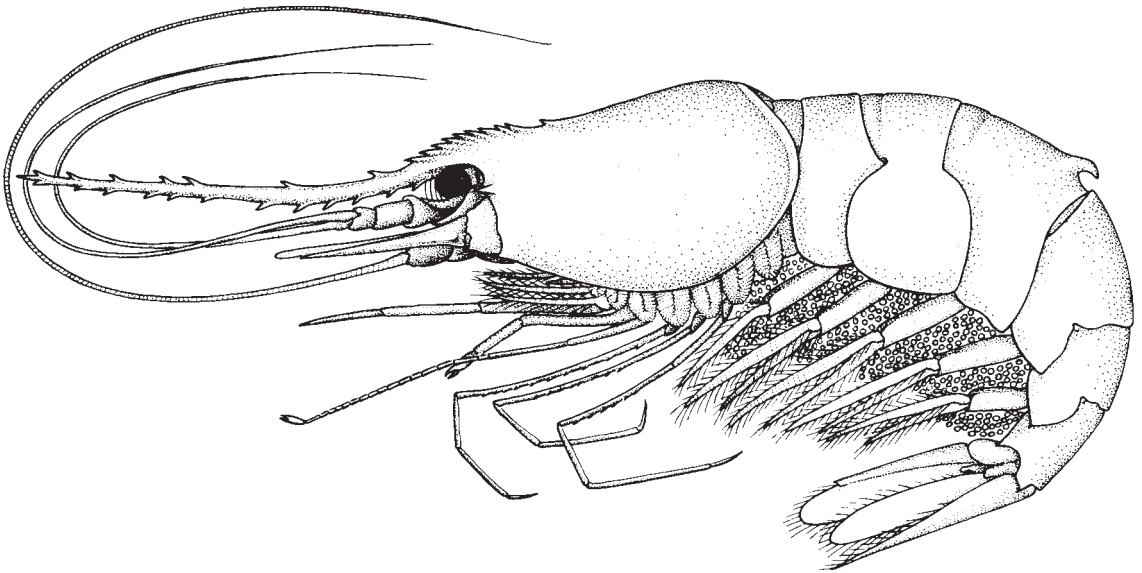
A single species of interest to fisheries occurring in the area.

Exhippolysmata oplophoroides (Holthuis, 1948)

XHO

Frequent synonyms / misidentifications: None / None.

FAO names: En - Cock shrimp; Fr - Crevette buhotte; Sp - Camarón gallo.



Diagnostic characters: Carapace smooth, with minute depressions. Rostrum very long (longer than carapace) and slightly turned upward, its **dorsal margin armed with a basal crest of 9 to 12 small teeth and 5 to 7 teeth on remaining part; ventral margin with 10 to 13 teeth distributed throughout its length.** Carapace with antennal and pterygostomian spines. **Third abdominal segment with a very prominent dorsal spine; pleura of fifth abdominal segment ending posteriorly in a spine.** Telson with a long, pointed tip and without lateral spines. Dorsal antennular flagellum unbranched. **Second pair of pereopods with short pincers, and carpus subdivided into more than 7 articles; dactyls of last 3 pairs of pereopods undivided and much shorter than respective propodi.** **Colour:** white or light red; pleopods red.

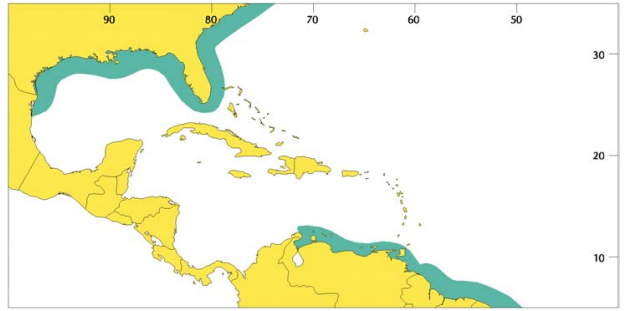
Similar families occurring in the area

Pandalidae and Crangonidae: Hippolytidae can be distinguished by the first pair of pereopod ending in clearly distinct pincers (pincers of first pair of pereopods microscopically small or absent in the Pandalidae; first pair of pereopod subchelate in the Crangonidae).

Size: Maximum length: 80.5 mm.

Habitat, biology, and fisheries: Lives on mud, mud and clay, mud and shells, sand, calcareous sand, or sandy mud bottoms, marine and estuarine (temperature 16 to 27°C; salinity 15 to 35‰) between 5 and 45 m. This species may be caught with *Xiphopenaeus kroyeri* and *Nematopalaemon schmitti*. Records from the USA are sporadic; negligible in Suriname and Guyana; outside the area, along the north and northeast coasts of Brazil, the species is of considerable commercial importance. Separate statistics are not reported for this species. The catches from Guyana and Suriname are apparently small. In Guyana and Suriname it is mainly caught with Chinese shrimp traps; in Brazil, mostly with shrimp seines. Marketed fresh or dried.

Distribution: Off Cape Fear River, North Carolina, to Port Aransas, Texas; Venezuela to the north of Uruguay.



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