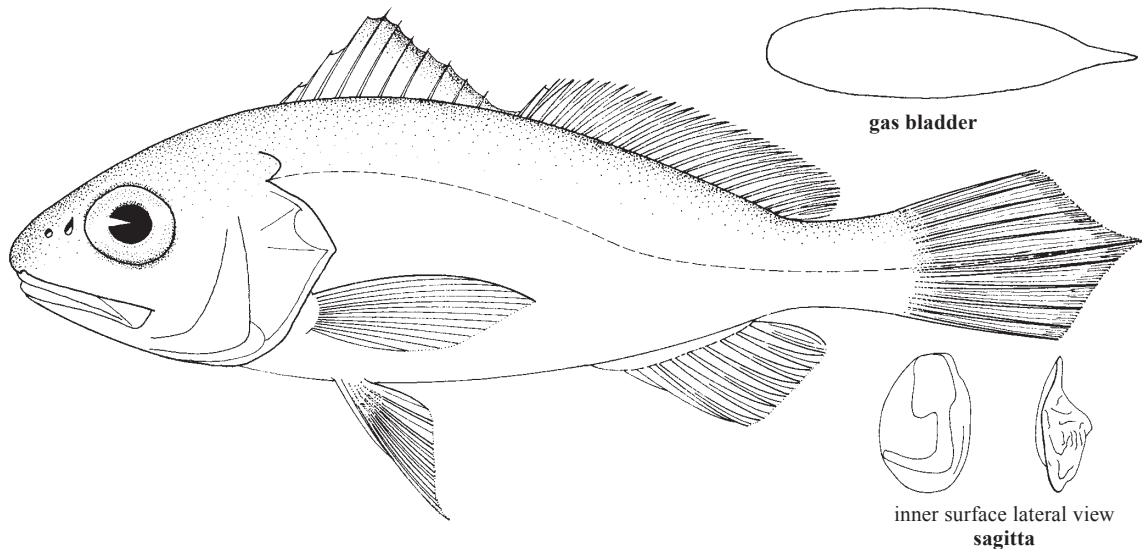


Protosciaena bathytatos (Chao and Miller, 1975)

IAY

Frequent synonyms / misidentifications: *Sciaena bathytatos* (Chao and Miller, 1975) / None.**FAO names:** **En** - Deepwater drum; **Fr** - Courbine de fond; **Sp** - Corvina de fondo.

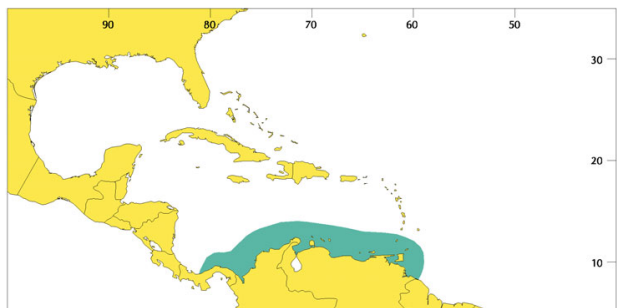
Diagnostic characters: A medium-sized fish, body oblong and moderately compressed. **Eye very large, about 3 times in head length. Mouth large, subterminal, slightly oblique;** maxilla reaching below middle of eye. Teeth villiform, set in narrow bands on both jaws, outer-row teeth on upper jaw sharp and widely spaced; inner-row teeth on lower jaw slightly enlarged, gradually increasing in size posteriorly. **Chin without barbel** but with 5 mental pores; snout with 10 pores (5 rostral and 5 marginal). Gill rakers 17 to 20, short, and stout. Preopercle margin lightly serrated. Spinous dorsal fin with 10 (rarely 9) spines, posterior portion with 1 spine and 21 to 23 soft rays; anal fin with 2 spines and 7 soft rays, second spine long and stout; pectoral fins moderately long, reaching vertically above vent; caudal fin rhomboidal to S-shaped **with a pointed tip. Gas bladder simple, carrot-shaped, without diverticula.** Peritoneal membrane black. **Sagitta ovoid and thick in the middle**, lapillus rudimentary. Scales all ctenoid except cycloid on cheeks and snout; soft dorsal fin naked except with 2 or 3 rows of small scales along its base. **Colour:** silvery grey to brownish; base of pectoral fin with a dark spot, spinous dorsal fin and caudal fin with darker tips. Inner side of gill cover and roof of mouth jet black.

Size: Maximum at least 31 cm; common to 20 cm.

Habitat, biology, and fisheries: One of the few species of Sciaenidae from deeper waters; found over mud bottoms from 70 to 300 m. Caught with bottom trawls and handlines (but primarily in exploratory fisheries), often taken as bycatch in offshore shrimp and snapper fishery off Colombia and Venezuela.

Distribution: In deeper coastal waters of Caribbean coast from Panama to eastern Venezuela and Trinidad.

Note: The generic name *Sciaena* is only valid for the monotypic *Sciaena umbra* Linnaeus, endemic to Mediterranean Sea and adjacent Atlantic coast. New World species bearing the generic name '*Sciaena*' are not related to *S. umbra*. Sasaki (1989) proposed a new generic name *Protosciaena* for *Sciaena trewavasae* Chao and Miller for lack of derived character state. Here I suggest including the similar species, *Sciaena bathytatos* in *Protosciaena*.

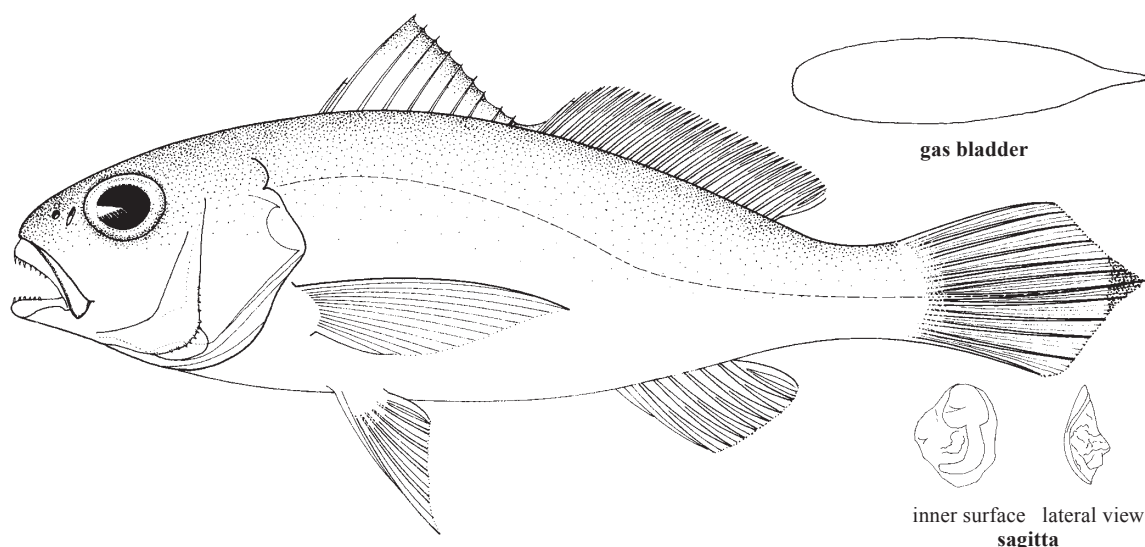


Protosciaena trewavasae (Chao and Miller, 1975)

OTW

Frequent synonyms / misidentifications: *Sciaena trewavasae* Chao and Miller, 1975 / None.

FAO names: **En** - New Grenada drum; **Fr** - Courbine grenadine; **Sp** - Corvina granadina.



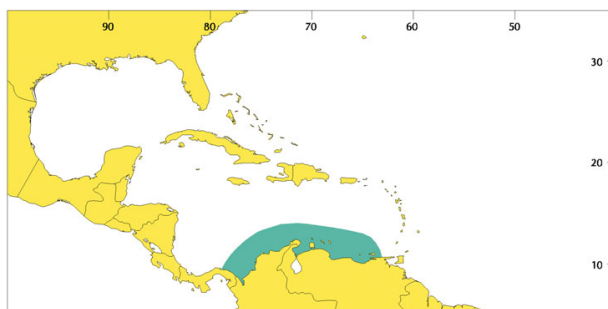
Diagnostic characters: A medium- to small-sized fish, body elongate and compressed. **Eye very large, about 3 times in head length. Mouth large, subterminal, nearly horizontal;** maxilla reaching below middle of eye. Teeth villiform, set in narrow bands on both jaws, outer row teeth on upper jaw sharp and widely spaced; inner row teeth on lower jaw slightly enlarged, gradually increase in size posteriorly. **Chin without barbel** but with 5 mental pores; snout with 10 pores (5 rostral and 5 marginal). Gill rakers short and slender, 19 to 21 on first gill arch. Preopercle margin slightly serrate. Spinous dorsal fin with 10 spines, posterior portion with 1 spine and 24 to 26 soft rays; anal fin with 2 spines and 7 soft rays, second spine long and stout; pectoral fins long, reaching vertically to vent; caudal fin rhomboidal to S-shaped with a pointed tip. **Gas bladder simple carrot-shaped, without appendages. Peritoneal membrane black. Sagitta rounded and thick,** lapillus rudimentary. Scales ctenoid, except cycloid on cheeks and snout; soft dorsal fin naked except with 2 or 3 rows of small scales along its base. **Colour:** silvery grey, back often with oblique stripes along scale rows; a diffuse dark area at pectoral-fin axial; dorsal, anal, and caudal fins with dark edges. Inner side of gill cover and roof of mouth jet black.

Size: Maximum, at least to 21 cm; common to 15 cm.

Habitat, biology, and fisheries: One of the few species of Sciaenidae from deeper waters, found usually over mud bottoms at depths between 70 and 220 m. Feeds mainly on shrimps and possibly small fishes. Caught mainly with handline and bottom trawls (but primarily in exploratory fisheries). No special fishery but taken as bycatch in the offshore shrimp catches off Colombia and western Venezuela. Not marketed for human consumption.

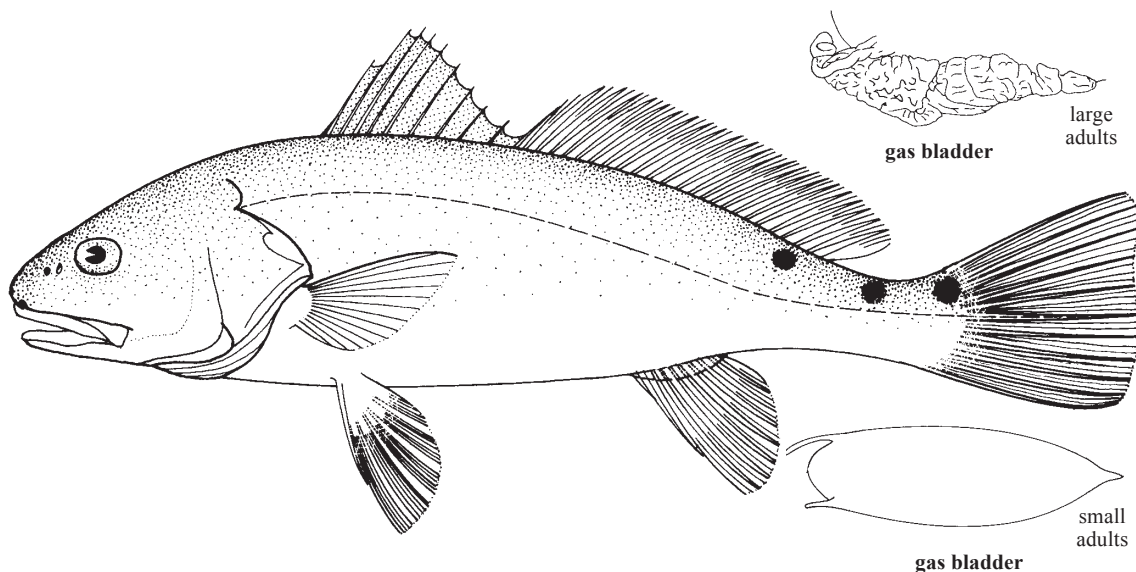
Distribution: Along the Caribbean coast of South America from western Colombia to central Venezuela, also found off Puerto Rico.

Note: The generic name *Sciaena* is only valid for monotypic *Sciaena umbra* Linnaeus, endemic to Mediterranean Sea and adjacent Atlantic coast. New World species bearing the generic name '*Sciaena*' are not related to *S. umbra*. Therefore a new generic name, *Protosciaena*, was proposed by Sasaki (1989) for *S. trewavasae* for a species lacking derived character states among Sciaenidae.



Sciaenops ocellata (Linnaeus, 1766)

RDM

Frequent synonyms / misidentifications: None / None.**FAO names:** En - Red drum; Fr - Tambour rouge; Sp - Corvinón ocelado.

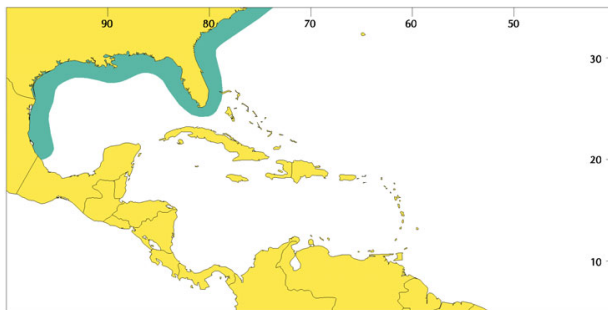
Diagnostic characters: A large fish, body elongate and moderately compressed, its ventral profile nearly straight. **Mouth inferior, horizontal**; maxilla reaching below hind margin of eye. Teeth villiform, set in bands on jaws, outer row in upper jaw slightly enlarged. **Chin without barbel**, but with 5 mental pores; snout with 10 pores (5 rostral and 5 marginal). Gill rakers 12 to 14, moderately short and stout. Preopercle margin densely serrate in young, but smooth in adult. Spinous dorsal fin with 10 spines, posterior portion with 1 spine and 23 to 25 soft rays; anal fin with 2 spines and 8 or 9 soft rays, second spine about 1/2 of first soft ray height; caudal fin truncate in adults, rhomboidal in juveniles. **Gas bladder with a pair of small tube-like diverticula anteriorly, becoming increasingly complex in large adults by additional outgrowth of lateral chambers.** Sagitta oval to nearly rectangular in large adults, lapillus rudimentary. Scales large and ctenoid on body, cycloid on head and breast; soft dorsal fin naked except 1 or 2 rows of scales along its base. **Colour:** body iridescent silvery with a copper cast, darker above; side with oblique and horizontal wavy stripes become less prominent with growth; **1 to several black oscillated spots about eye size under soft portion of dorsal fin to base of caudal fin.**

Size: Maximum 160 cm; common to 100 cm.

Habitat, biology, and fisheries: Found over sand and sandy mud bottoms in coastal waters, young often enter estuaries. Abundant in surf zone south of Cape Hatteras and Texas coast; apparently undergoing seasonal migrations. Feeds mainly on crustaceans, molluscs, and fishes. Caught mainly with haul seines, pound nets, and gill nets; also in large quantities by anglers. Aquaculture of the species has been well established. Marketed mostly fresh, a highly esteemed foodfish and popular gourmet dish (blackened red drum in New Orleans).

Distribution: Atlantic coast from Long Island to Florida, Gulf of Mexico from west coast of Florida to at least Laguna Madre, Mexico.

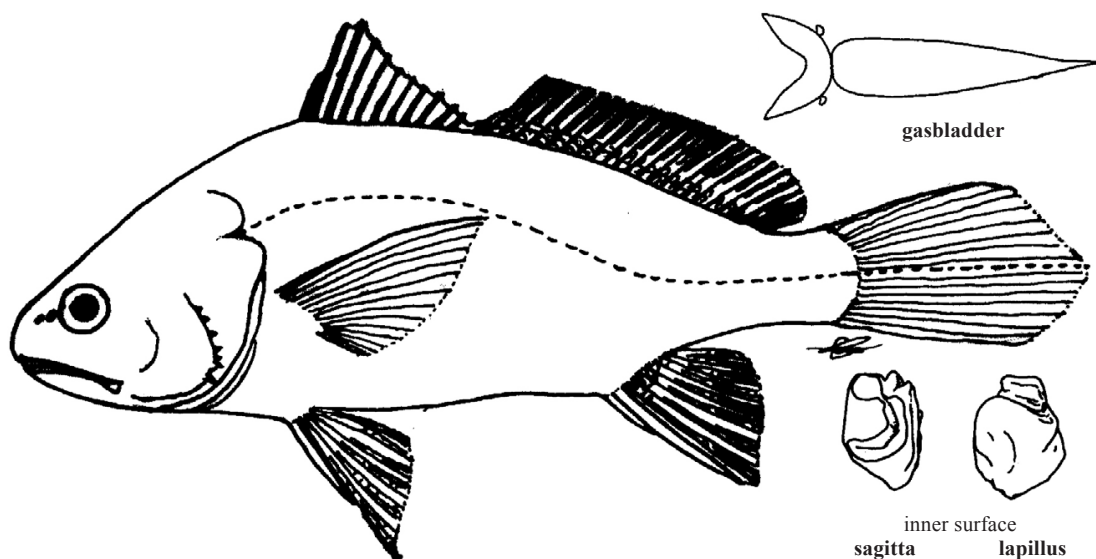
Note: The success of aquaculture of this large sciaenid species is very significant for future captive breeding programmes to save other large sciaenids, especially the weak fishes (*Cynoscion*), which may become threatened or endangered in the near future.



Stellifer colonensis Meek and Holdebrand, 1925

Frequent synonyms/misidentifications: None / often confused with other species of *Stellifer*.

FAO names: En - Colon stardrum; Sp - Corvinilla.



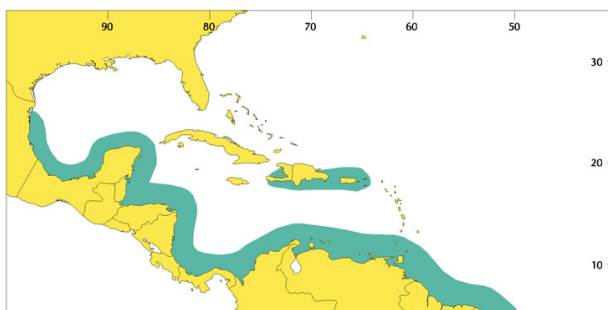
Diagnostic characters: A small fish, oblong, moderately compressed. **Head broad, slightly concave at nape, with cavernous canals on top of head, but firm to touch.** Mouth moderately large, subterminal; maxilla passing behind eye. Teeth villiform, set in narrow bands on jaws, outer-row teeth in upper jaw and inner-row teeth in lower jaw enlarged. **Chin without barbel but with 6 mental pores;** snout with 8 pores (3 rostral and 5 marginal). Gill rakers 27 to 34, moderately long-equal to filament at angle. Preopercle margin serrated with spines, lower ones stronger. Spinous dorsal fin with 10 or 11 spines, posterior portion with 1 spine and 21 to 25 soft rays; anal fin with 2 spines and 7 or 8 soft rays, second spine sharp, long, and strong over 2/3 of first ray height; caudal fin long, double truncate to pointed. **Gas bladder with 2 chambers, anterior one yoke-shaped with a pair of small knob-like appendages; posterior chamber simple, carrot-shaped;** drumming muscles present in males only; peritoneal membrane silvery. Lapillus enlarged, about the size of sagitta. Scales ctenoid on body, mostly cycloid on breast and head; soft dorsal fin with 2 or 3 rows of small scales along its base and 2 rows of elongated cycloid scales behind each soft ray. **Colour:** silvery, greyish above and pale below; fins pale to dusky; tip of spinous dorsal fin darkish; inner side of gill speckled with large melanophores.

Size: Maximum 20 cm; common to 10 cm.

Habitat, biology, and fisheries: Found over hard sandy mud bottoms in coastal waters and at edge of reefs to about 20 m; also common in river estuaries. Feeds mainly on small crustaceans. Caught frequently with bottom trawls, occasionally with seines. No special fishery, but common in bycatch of coastal bottom trawl. Not marketed for human consumption.

Distribution: Caribbean coast from Vera Cruz, Mexico to the Isthmus of Panama; Colombia and Venezuela; also recorded from Puerto Rico and Haiti.

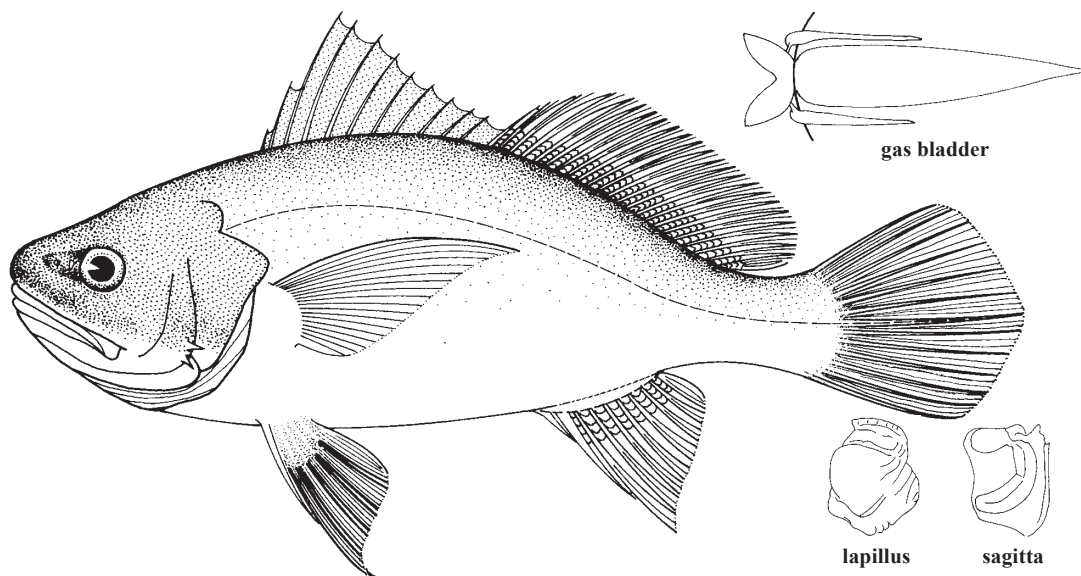
Note: Slight differences of body shape, eye size, and body depth are found among populations from Antilles.



Stellifer griseus Cervigón, 1966

Frequent synonyms / misidentifications: None / often confused with other *Stellifer* species.

FAO names: **En** - Grey stardrum; **Fr** - Magister gris; **Sp** - Corvinilla lucia.



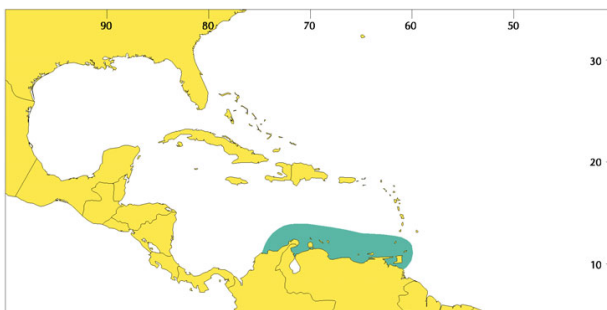
Diagnostic characters: A small fish, body robust and moderately compressed. **Head broad, with conspicuous cavernous canals on top, spongy to touch. Mouth large, oblique;** maxilla reaching below hind margin of eye. Teeth conical, set in narrow bands in jaws, outer row in upper jaw and inner row in lower jaw slightly enlarged. **Chin without barbel but with 6 mental pores** (median pair small); snout with 8 pores (3 rostral and 5 marginal). **Gill rakers 51 to 59, long and densely packed. Preopercle margin with 2 strong spines at angle.** Spinous dorsal fin with 10 or 11 spines, posterior portion with **1 or 2 spines, 21 to 23 soft rays;** anal fin with 2 spines and 8 or 9 soft rays, second spine longer than 3/4 of first ray; **pectoral fins long, extending to anal-fin origin; caudal fin rhomboidal in adults. Gas bladder 2-chambered, anterior one yoke-shaped with a pair of long tubular diverticula extending posterolaterally to middle of simple, carrot-shaped posterior chamber. Lapillus enlarged, about the size of sagitta.** Scales ctenoid on body, cycloid on head and breast; soft dorsal fin naked except 2 or 3 rows of scales along its base. **Colour:** greyish silvery, darker above; anal and pelvic fins yellowish, other fins dusky, darker at margins. Inner side of gill cover dusky.

Size: Maximum 20 cm; common to 15 cm.

Habitat, biology, and fisheries: Found over sandy mud bottoms in coastal waters to about 50 m. Feeds mainly on small crustaceans. Caught with bottom trawls and shrimp seines as bycatch. No special fishery, but abundant north of the Araya Peninsula; sometime caught in large quantities in the Orinoco delta. Usually not marketed for human consumption.

Distribution: Reported only from Venezuela, but possibly more widely distributed.

Note: Species of *Stellifer* are similar in morphology and distribution; it is highly recommended to use the key for specific identification and check its range of distribution.

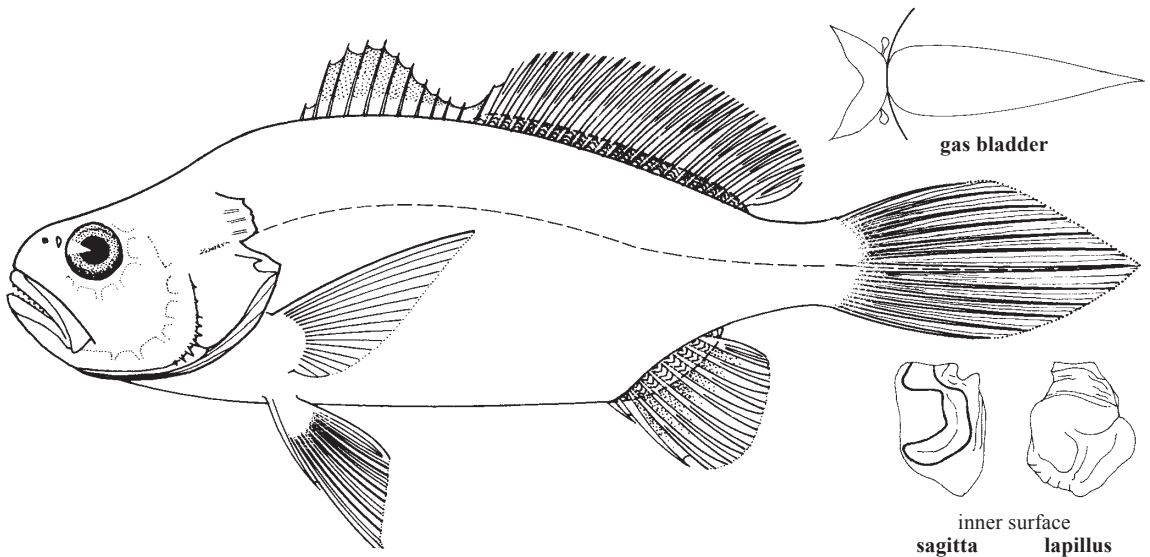


Stellifer lanceolatus (Holbrook, 1855)

EFL

Frequent synonyms / misidentifications: None / None.

FAO names: En - American stardrum (AFS: Star drum); Fr - Magister étoilé; Sp - Corvinilla lanzona.

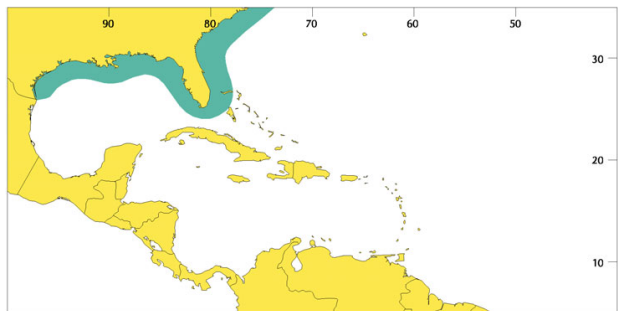


Diagnostic characters: A small fish, body oblong and moderately compressed. **Head broad, slightly concave at nape, with conspicuous cavernous canals on top of head, spongy to touch. Mouth large, strongly oblique and terminal;** maxilla reaching below middle of eye. Teeth villiform, set in narrow bands on jaws, outer row in upper jaw and inner row in lower jaw slightly enlarged. **Chin without barbel but with 6 pores;** snout with 8 pores (3 rostral and 5 marginal). Gill rakers 32 to 36, long, and slender. **Preopercle margin serrated with 4 to 6 distinct spines.** Spinous dorsal fin with 11 spines (rarely 12), posterior portion with 1 spine and 20 to 25 soft rays; anal fin with 2 spines and 8 or 9 soft rays, second spine sharp, about 2/3 of first ray height; **caudal fin long, pointed to rhomboidal. Gas bladder with 2 chambers, anterior one yoke-shaped with a pair of knob-like appendages; posterior chamber simple, carrot-shaped; drumming muscles present only in males; peritoneal membrane silvery with scattered melanophores. Lapillus enlarged, about the size of sagitta.** Scales ctenoid on body, become cycloid anteriorly and on head; lateral line extending to tip of caudal fin; soft dorsal fin with 2 or 3 rows of small scales along its base and covering almost entire membrane between soft rays. **Colour:** silvery, greyish olive above, pale below, sometimes with a pinkish cast; fins pale to dusky; tip of spinous dorsal fin darkish. Inner side of gill cover dusted with melanophores.

Size: Maximum 20 cm; common to 10 cm.

Habitat, biology, and fisheries: Found over hard sandy mud bottoms in coastal waters to about 20 m; also common in river estuaries. Feeds mainly on small crustaceans. Females ripe at 10 cm total length in July. Caught frequently with bottom trawls, occasionally with seines. No special fishery, but an abundant bycatch of coastal bottom trawl operations south of Cape Hatteras. Not marketed for human consumption.

Distribution: Only species of *Stellifer* from North America. Chesapeake Bay to Florida, Gulf of Mexico from Florida to Bay of Campeche, Mexico; also reported from Belize.

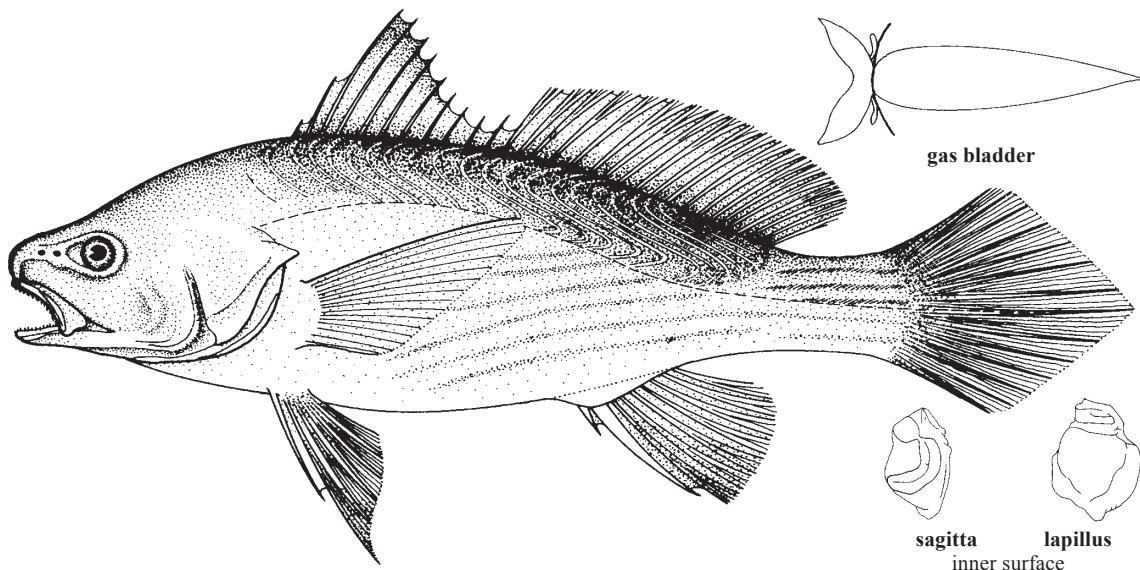


Stellifer microps (Steindachner, 1864)

EFM

Frequent synonyms / misidentifications: *Ophioscion microps* (Steindachner, 1864) / *Ophioscion punctatissimus* Meek and Hildebrand, 1925; often confused with other species of *Stellifer*.

FAO names: **En** - Smalleye stardrum; **Fr** - Magister tiyeux; **Sp** - Corvinilla ojo chico.



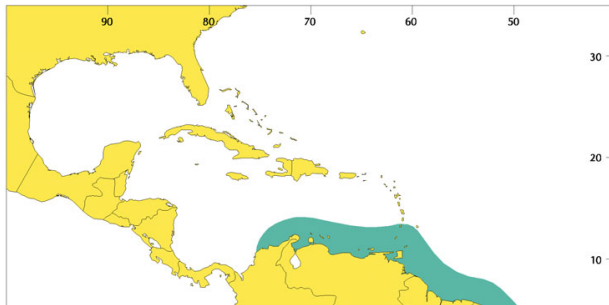
Diagnostic characters: A small fish, body oblong and compressed. Top of head broad and cavernous, but top not spongy to touch. **Mouth moderately large, slightly oblique, and inferior;** maxilla reaching below middle of eye. Teeth villiform, set in narrow bands on jaws, outer row in upper jaw and inner row in lower jaw slightly enlarged. **Chin without barbel but with 6 mental pores;** snout with 8 pores (3 rostral and 5 marginal). Gill rakers 20 to 24, moderately long and slender, but shorter than gill filament. **Preopercle margin serrate with more than 10 spines.** Spinous dorsal fin with 10 (rarely 11) spines, posterior portion with 1 spine and 19 to 23 soft rays; anal fin with 2 spines and 8 to 10 (usually 9) soft rays, second spine stout about 1/2 of first ray height; **caudal fin long, and pointedly rhomboidal.** **Gas bladder with 2 chambers, anterior one yoke-shaped with a pair of finger-like appendages on hind margin pointing laterally, posterior chamber simple, carrot-shaped; drumming muscles present only in males; peritoneal membrane dark.** **Lapillus enlarged, about the size of sagitta.** Peritoneum punctuated. Scales ctenoid on body, cycloid on head and breast; soft dorsal fin with 2 or 3 rows of small scales along its base and covering almost entire membrane between soft rays. **Colour:** body greyish silvery, darker above; fins pale to yellowish, spinous dorsal fin with dark tip. Inner side of gill cover mostly pale with melanophores dusted dorsally. Dark peritoneal membrane often visible externally in juveniles

Size: Maximum 25 cm; common to 15 cm.

Habitat, biology, and fisheries: Found over sandy mud bottoms in coastal waters to about 30 m; also in river estuaries. Feeds on bottom-dwelling organisms. Caught with bottom trawls and shrimp seines. No special fishery, but very common in trawls as bycatch, especially in the Orinoco delta and off Guyana. Usually not marketed as foodfish, but large specimens are sold in local markets.

Distribution: Along the Caribbean and Atlantic coasts of South America from Colombia to northern Brazil (Pará).

Note: Species of *Stellifer* are similar in morphology and distribution; it is highly recommended to use the key for specific identification and check its range of distribution.

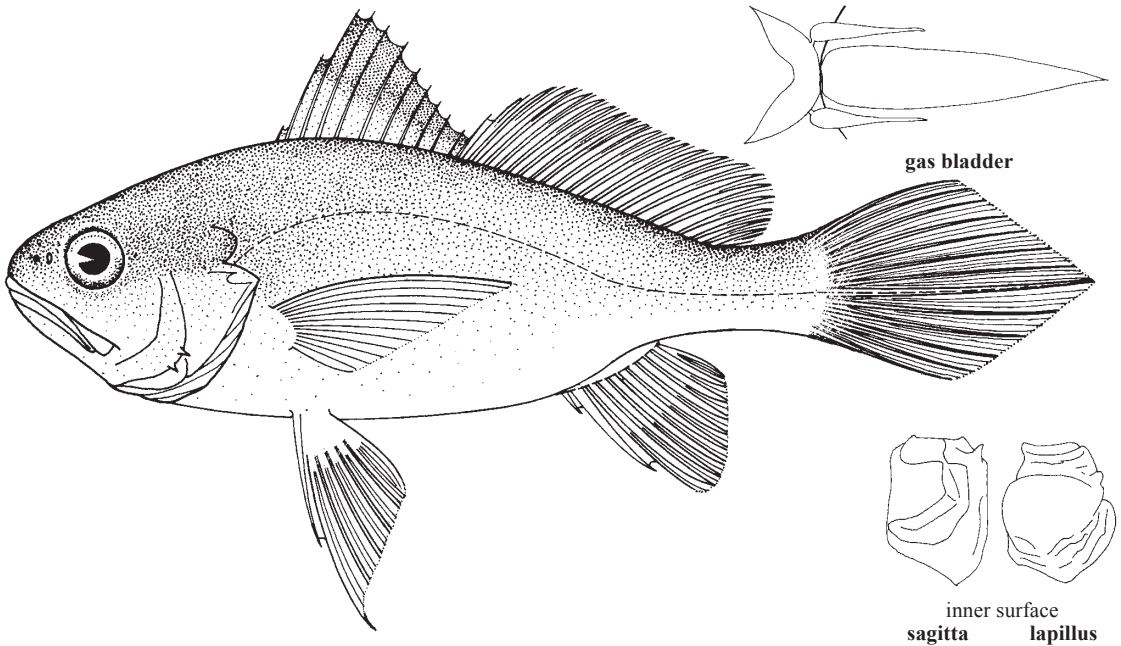


Stellifer rastrifer (Jordan, 1889)

EFR

Frequent synonyms / misidentifications: None / other *Stellifer* species.

FAO names: En - Rake stardrum; Fr - Magister fourche; Sp - Corvinilla rastra.

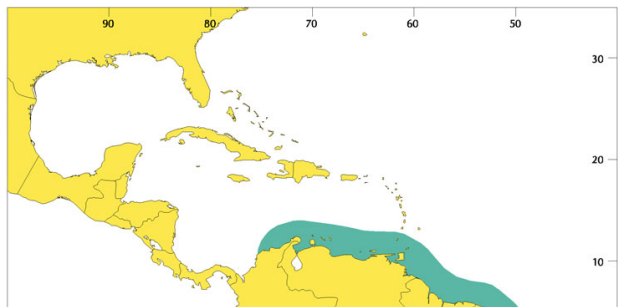


Diagnostic characters: A small fish, body oblong and compressed. **Head broad with conspicuous cavernous canals on top, but not spongy to touch. Mouth large, oblique, and terminal;** maxilla reaching below hind margin of eye. Teeth villiform, set in narrow bands on jaws, outer row of upper jaw and inner row of lower jaw slightly enlarged. **Chin without barbel but with 6 mental pores;** snout with 8 pores (3 rostral and 5 marginal). **Gill rakers long and slender, 40 to 50 on first arch. Preopercle margin serrate with 2 distinct spines at angle.** Spinous dorsal fin with 10 to 12 (usually 11) spines, **posterior portion with 1 (rarely 2) spines and 21 to 23 soft rays;** anal fin with 2 spines and 9 (rarely 8) soft rays, second spine strong, over 2/3 height of first ray; **caudal fin long and pointedly rhomboidal. Gas bladder with 2 chambers, anterior one yoke-shaped with a pair of long club-shaped appendages, posterior chamber carrot-shaped; drumming muscle present in both sexes; peritoneal membrane silvery, dusted with melanophores. Lapillus enlarged, about same size of sagitta.** Scales ctenoid (comb-like) on body, cycloid (smooth) on head and breast; soft dorsal fin with 2 or 3 rows of small scales along its base and very fine scales on membranes between soft rays over 1/2 of fin height. **Colour:** body yellowish brown, darker above; upper third of spinous dorsal, pectoral, and anal fins dusky often with dark tip, pelvic fins pale to yellowish. **Inner side of gill cover and roof of mouth black.**

Size: Maximum: 25 cm; common to 15 cm.

Habitat, biology, and fisheries: Found in in-shore waters and especially in brackish waters and coastal lagoons over muddy or sandy bottoms. Feeds mainly on small planktonic crustaceans. Caught mainly with bottom trawls and artisanal beach seines. No special fishery, but abundant in trawls as bycatch off Guyana and northeast Brazil. Usually not marketed for human consumption, larger ones consumed in some areas.

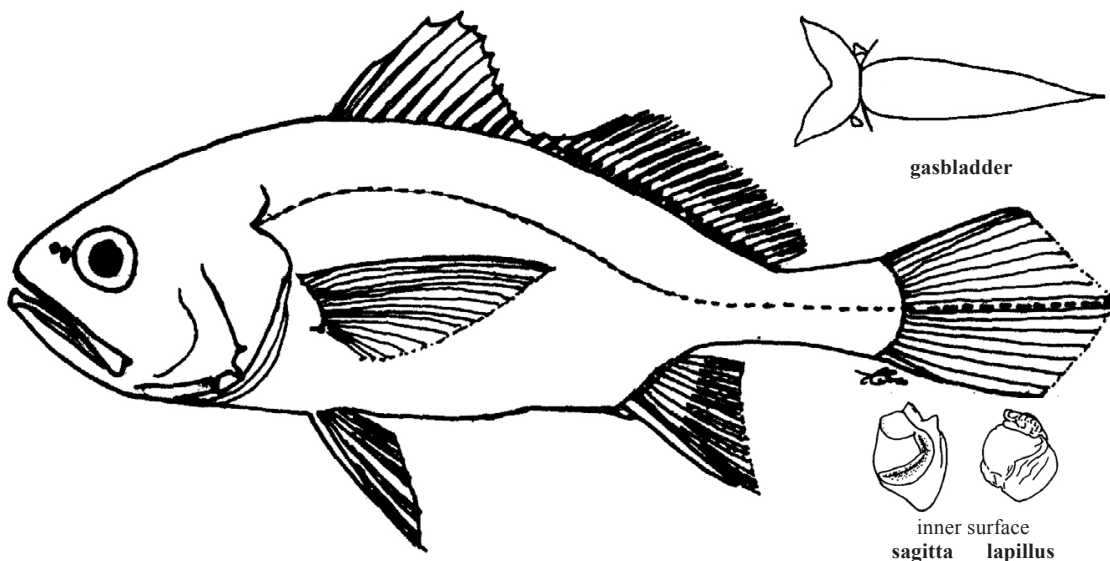
Distribution: Along Caribbean and Atlantic coasts of South America from Colombia to southern Brazil; possibly Caribbean coast of Central America.



Stellifer stellifer (Bloch, 1790)

Frequent synonyms / misidentifications: *Stellifer mindii* Meek and Hildebrand, 1925 / often confused with other species of *Stellifer*.

FAO names: En - Stardrum; Sp - Corvinilla estriela.

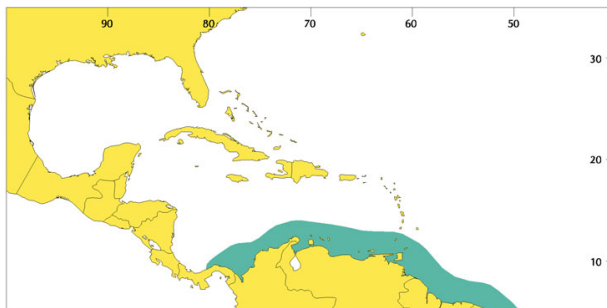


Diagnostic characters: A small fish, body oblong and moderately compressed. **Head deep, interorbital broad and cavernous, spongy to touch. Mouth large, oblique, and terminal;** maxilla reaching below hind margin of eye. Teeth villiform, set in narrow bands on jaws, outer row of upper jaw and inner row of lower jaw slightly enlarged. **Chin without barbel but with 6 mental pores;** snout with 8 pores (3 rostral and 5 marginal). Gill rakers 33 to 39, long and slender. **Preopercle margin with 3 distinct spines at angle;** Spinous dorsal fin with 10 or 11 spines, **posterior portion with 1 or 2 spines (rarely 3), 17 to 20 soft rays;** anal fin with 2 spines and 8 (rarely 9) soft rays, **second spine long and strong, near height of first ray;** caudal fin long and pointedly rhomboidal. **Gas bladder with 2 chambers, anterior one yoke-shaped with a pair of short, pear-shaped appendages, posterior chamber carrot-shaped; drumming muscle present only in males; peritoneal membrane silvery. Lapillus enlarged, about same size as sagitta.** Scales ctenoid (comb-like) on body, cycloid (smooth) on head and breast; soft dorsal fin with 2 or 3 rows of small scales along its base and heavily invested with fine scales on membranes between soft rays over 2/3 of fin height. **Colour:** body silvery gray, darker above; upper third of spinous dorsal, pectoral, and anal fins dusky often with dark tip, pelvic fins pale to yellowish; inner side of gill cover and roof of mouth pale.

Size: Maximum: 20 cm; common to 12 cm.

Habitat, biology, and fisheries: Most abundant in warm inshore waters and over muddy or sandy bottoms. Feeds mainly on small planktonic crustaceans and fishes. Mature females found in August. No specific fishery but common in bycatches from bottom trawls and artisan beach seines off Guyana and northeast Brazil.

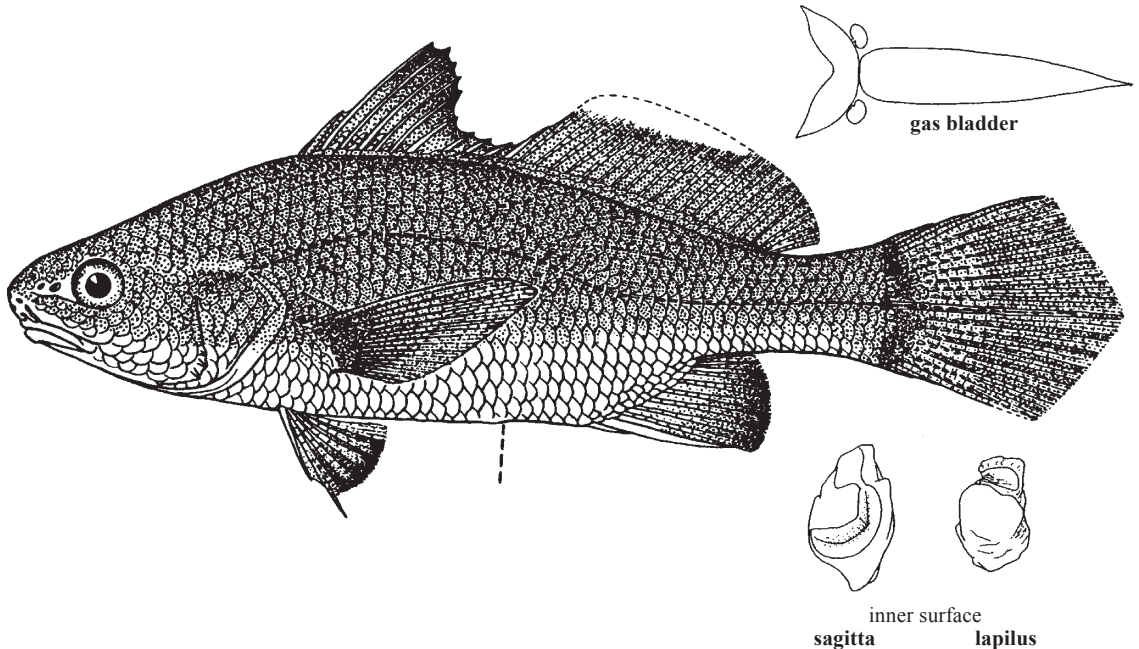
Distribution: Along Caribbean and Atlantic coasts of South America from Panama to southeast Brazil; also in Trinidad and Tobago.



Stellifer venezuelae (Schultz, 1945)

Frequent synonyms/ misidentifications: *Ophioscion venezuelae* Schultz, 1945 / *Ophioscion punctatissimus* Meek and Hildebrand, 1925; *Stellifer naso* Jordan, 1889.

FAO names: **En** - Venezuelan stardrum; **Fr** - Magister venezuela; **Sp** - Corvinilla venezuela.



Diagnostic characters: A small fish, oblong and compressed. Top of head cavernous but firm with strong frontal ridges. **Mouth inferior**; maxilla reaching below middle of eye. Teeth villiform, set in narrow bands on jaws, outer row in upper jaw closely set, slightly enlarged and lower jaw teeth uniform. **Chin without barbel but with 5 mental pores**; snout with 8 pores (3 rostral and 5 marginal). Gill rakers 25 to 31, moderately spaced, short but slender. Preopercle margin serrated. Spinous dorsal fin with 10 or 11 spines, posterior portion with 1 or 2 spines and 20 to 22 soft rays; anal fin with 2 spines and 8 soft rays, second spine short and stout, about 1/2 of first ray height; **pectoral fins much shorter than pelvic fins**; caudal fin long, rhomboidal. **Gas bladder with two chambers, anterior one yoke-shaped with a pair of kidney-shaped appendages**, posterior chamber simple carrot-shaped; drumming muscles present only in males; peritoneal membrane dark. **Lapillus enlarged, about the size of sagitta**. Peritoneum silvery punctuated. Scales ctenoid on body and head, cycloid only on snout and fins; soft dorsal fin with 2 or 3 rows of small scales along its base and extending to almost entire membrane anteriorly, but naked posteriorly. **Colour:** body brassy silvery, darker above; fins pale to yellowish, spinous dorsal fin with dark tip; lips, tongue and inside of mouth pale. Inner side of gill cover mostly pale with melanophores dusted anterodorsally.

Size: To 25 cm; common to 15 cm.

Habitat, biology, and fisheries: Found over sandy mud bottoms in coastal waters; also in river estuaries. Feed on bottom-dwelling organisms. Often caught with bottom trawls and shrimp seines. No special fishery, not common in trawls as bycatch. Larger specimens may be found at local fish markets.

Distribution: Along the Caribbean from Honduras to Venezuela, also from Trinidad and Tobago.

