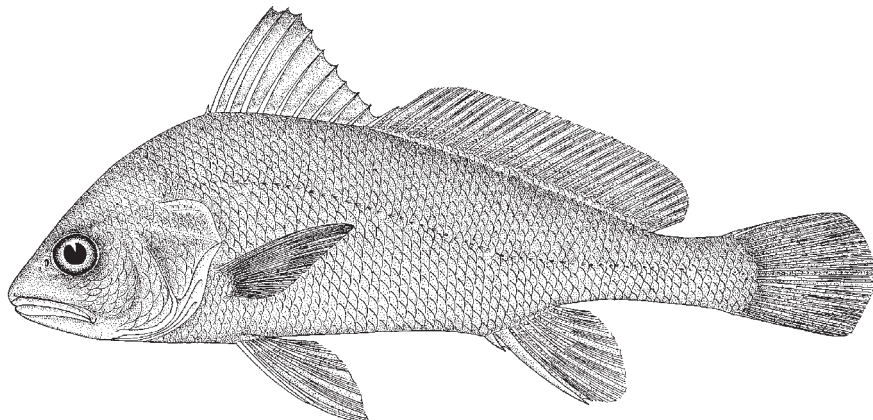


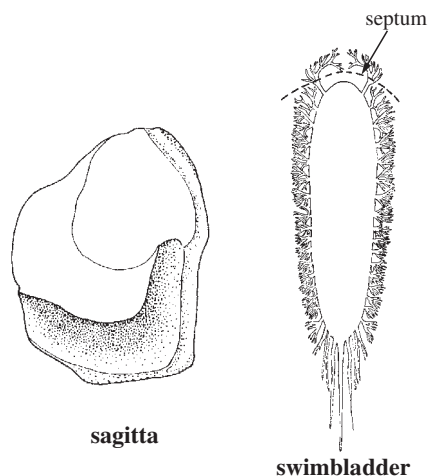
Nibeia soldado (Lacepède, 1802)

Frequent synonyms / misidentifications: None / *Nibeia leptolepis* (Ogilby, 1918).

FAO names: **En** - Soldier croaker; **Fr** - Courbine sodat; **Sp** - Corvina soldado.



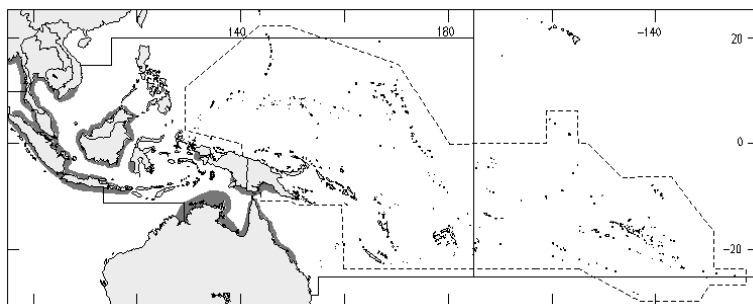
Diagnostic characters: A fairly large species with an arched back and deep body. **Snout rounded, but not swollen or projecting**; mouth large, terminal; upper jaw extending backward below hind margin of eye, **upper jaw length 38 to 44% of head length, lower jaw length 44 to 53% of head length**; no barbel on chin; upper rostral pores 3, marginal rostral pores 5; **mental pores in 3 pairs, the first close together, united by a crescent-shaped groove just behind symphysis**; **teeth differentiated into large and small in both jaws**, the large ones widely spaced, not canine-like, forming outer series in upper jaw, inner series in lower jaw. Gill rakers slender, equal to or slightly shorter than gill filaments at angle of arch, 7 to 12 on lower limb of first gill arch. Dorsal fin with IX to X (most frequently X) spines, followed by a notch, second part of fin with I spines and 27 to 33 soft rays; **anal fin with II spines** and 7 soft rays, **second spine long, stiff, 39 to 59% of head length**; caudal fin rhomboidal. Scales in lateral line 48 to 51, **8 to 13 scale rows above lateral line to origin of dorsal fin, 12 to 17 scale rows below lateral line to origin of anal fin (total 21 to 29 scale rows)**; scales on head cycloid (smooth), those on body ctenoid (rough to touch); **small scales present on soft parts of dorsal and anal fins**; lateral-line scales reaching to tip of caudal fin; **swimbladder carrot-shaped, with 18 to 22 pairs of aborescent appendages** along its sides, **the first pair entering head beyond transverse septum**. **Sagitta (large earstone) with a tadpole-shaped impression, the tail of which J-shaped**. **Colour:** silvery with faint series of oblique stripes along scale rows; margin of soft part of dorsal fin dark, pectoral and pelvic fins with yellow tinge.



Size: Maximum standard length 60 cm, commonly to 40 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters and estuaries.

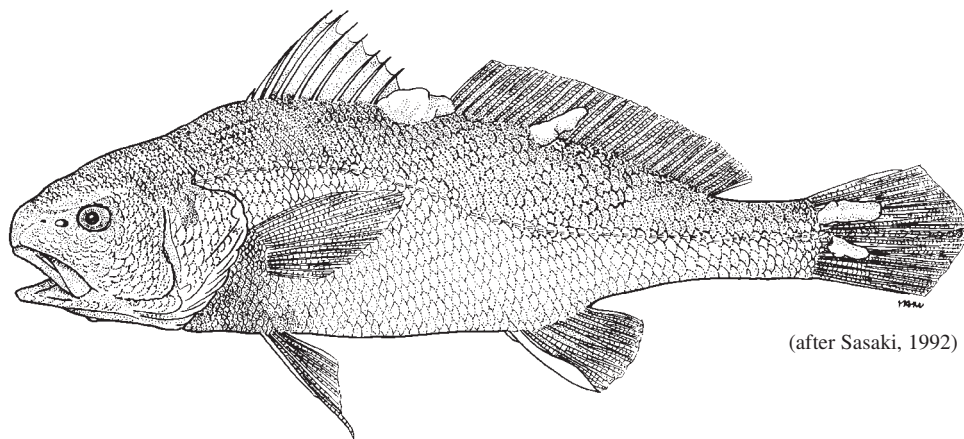
Distribution: Indo-West Pacific, west to India, east to Queensland coasts of Australia.



***Nibea squamosa* Sasaki, 1992**

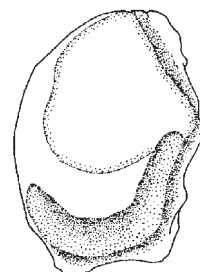
Frequent synonyms / misidentifications: None / *Nibea semifasciata* Chu, Lo, and Wu, 1963.

FAO names: En - Scale croaker.



(after Sasaki, 1992)

Diagnostic characters: A fairly large species with a moderately elongate body. Snout blunt, obtusely rounded, slightly projecting in front of upper jaw; mouth small, inferior; upper jaw extending backward below hind margin of pupil, upper jaw length 31 to 38% of head length, lower jaw length 34 to 40% of head length; no barbel on chin; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first close together, united by a crescent-shaped groove just behind symphysis; teeth differentiated into large and small in upper jaw only; the large ones closely spaced, not canine-like, forming outer series; a band of villiform teeth on lower jaw. Gill rakers stiff, about 1/4 length of gill filaments at angle of arch, 6 to 9 on lower limb of first gill arch. Dorsal fin with X spines, followed by a notch, second part of fin with I spine and 27 to 31 soft rays; bony lumps generally present on dorsal and caudal fins in specimens longer than 30 cm standard length; anal fin with II spines and 7 soft rays, second spine long, stiff, 38 to 64% of head length, progressively thicker with age and size; caudal fin rhomboidal. Lateral-line scales numerous, 57 to 60, scale rows above lateral line to origin of dorsal fin 9 to 13, scale rows below lateral line to origin of anal fin 12 to 18 (total 22 to 30 scale rows); scales on snout, cheek, and throat cycloid (smooth), those on other parts of head and body ctenoid (rough to touch); small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to tip of caudal fin. Swimbladder carrot-shaped, with about 18 pairs of aborescent appendages along its sides, the first pair entering head beyond transverse septum. Sagitta with a tadpole-shaped impression, the tail of which J-shaped. Colour (in preservative): uniformly brownish yellow, slightly paler ventrally; a series of oblique dark spots along scale rows on anterior part of body below spinous dorsal fin.

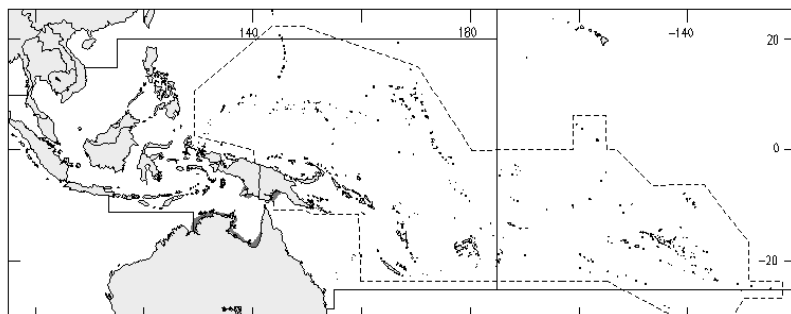


sagitta

Size: Maximum standard length 60 cm, commonly to 50 cm.

Habitat, biology, and fisheries: Shallow coastal waters, estuaries, and rivers; known also from fresh water up to about 500 km away from sea.

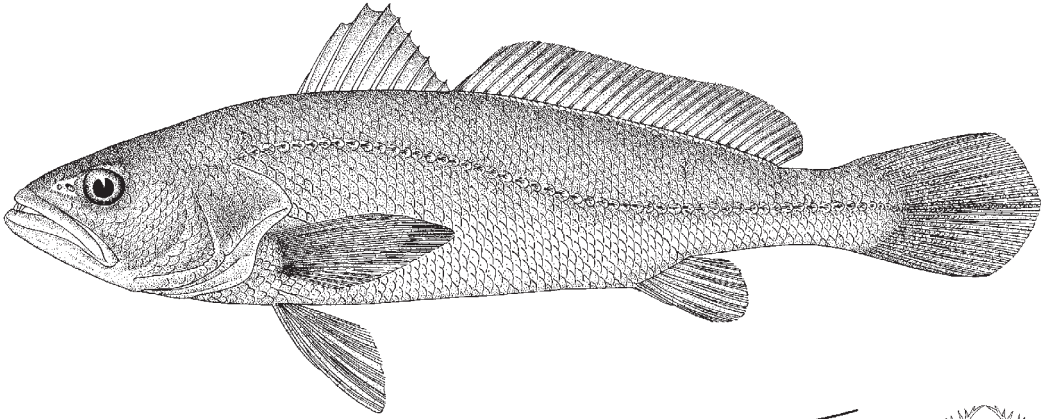
Distribution: New Guinea and northern Australia.



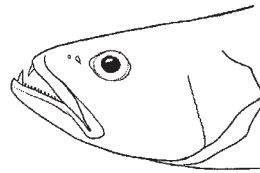
Otolithes ruber (Bloch and Schneider, 1801)

Frequent synonyms / misidentifications: *Otolithes argenteus* (Cuvier, 1830) / None.

FAO names: En - Tigertooth croaker; Fr - Grande verrue tigre; Sp - Bombache tigre mayor.



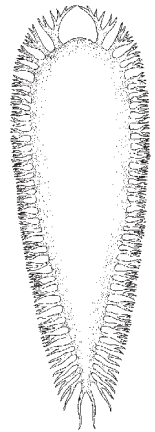
Diagnostic characters: Medium-sized to large species with a slender, cylindrical body. Snout not swollen or projecting; its dorsal profile rising evenly to origin of dorsal fin; mouth large, strongly oblique; upper jaw extending backward below hind margin of eye; chin without barbel; upper rostral pores absent, marginal rostral pores 3, mental pores indistinct; teeth differentiated into large and small in both jaws, with 1 or 2 pairs of strong canines at front of one or both jaws. Gill rakers slender, about equal to or 2/3 length of gill filaments at angle of arch, 8 to 11 on lower limb of first gill arch. Dorsal fin with IX to X spines (most frequently IX in the western Indian Ocean, X in the Bay of Bengal and West Pacific), followed by a notch, second part of fin with I spine and 26 to 30 soft rays; anal fin with II spines and 7 soft rays, second spine short, slender, 14 to 23% of head length; caudal fin rhomboidal. Scales cycloid (smooth), but a few ctenoid (rough to touch) on lower part of caudal peduncle; lateral-line scales reaching to tip of caudal fin. Swimbladder carrot-shaped with 32 to 36 pairs of fan-like appendages along sides, each appendage lodged beside bladder and none widely lapping dorsal surface of bladder wall, the first pair not entering head. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which only slightly curved, ending in a disc near the posterior edge. **Colour:** brownish above, silvery with a golden sheen on flanks and belly, often with oblique dark streaks dorsally; pectoral, pelvic, and anal fins reddish or light brown.



head



sagitta

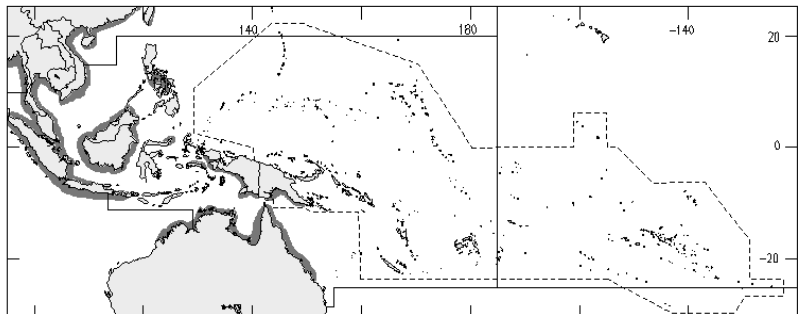


swimbladder

Size: Maximum standard length 70 cm, commonly to 40 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters down to 40 m. In India, the majority are mature at 20 cm total length, all are ripe at 26 cm total length and above. Feeds mainly on fishes and prawns.

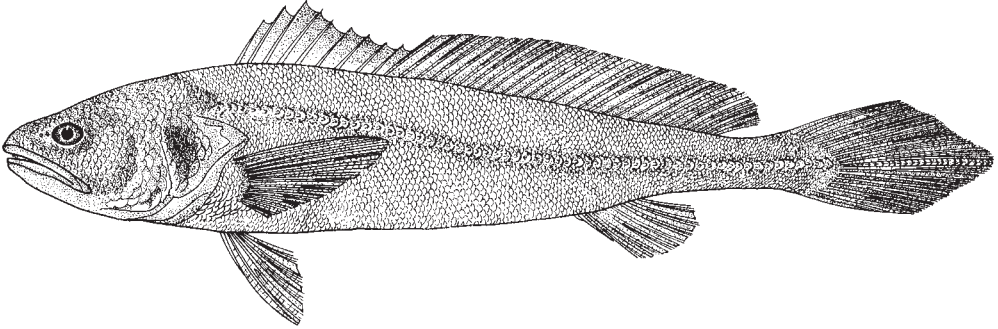
Distribution: Widespread along coasts of the Indian Ocean and West Pacific, west to South Africa, east to southern China and Queensland, Australia.



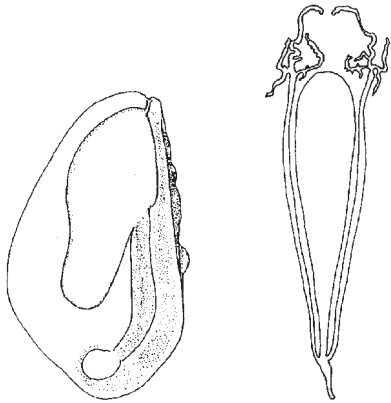
Otolithoides biauritus (Cantor, 1850)

Frequent synonyms / misidentifications: *Otolithoides brunneus* (Day, 1873) / None.

FAO names: En - Bronze croaker; Fr - Verrue bronzée; Sp - Bombache bronzeado.



Diagnostic characters: A large species with a slender, cylindrical body. Eye small, 13 to 15% of head length. Snout pointed, but not projecting in front of upper jaw; mouth large, oblique; upper jaw extending backward well beyond hind margin of eye; chin without barbel; upper rostral pores 3, marginal rostral pores 5; **mental pores in 2 pairs, the first small, at front of chin, separated by symphysis**; teeth differentiated into large and small in both jaws; the large ones widely spaced, not canine-like, forming outer series in upper jaw, inner series in lower jaw. Gill rakers slender, about 2/3 length of gill filaments at angle of arch, 10 to 12 on lower limb of first gill arch. **Dorsal fin with IIX to IX (most frequently IX) spines**, followed by a notch, second part of fin with I spine and 27 to 32 soft rays; **anal fin with II spines** and 6 or 7 (most frequently 7) soft rays, **second spine short, slender, 16 to 20% of head length**; caudal fin pointed. **Scales cycloid (smooth) on head and back**, elsewhere ctenoid (rough to touch); lateral-line scales reaching to tip of caudal fin. **Swimbladder carrot-shaped, with a single pair of tube-like appendages arising from posterior end of bladder and running forward beside main body of bladder and in front of it into head beyond transverse septum, where they branch under skull. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which only slightly curved and ending in a disc.** **Colour:** head and back green or grey, flanks gold or orange, paler toward belly, minutely dotted with brown. Lateral line golden yellow; dorsal, anal, and caudal fins brown or yellow to pale orange, pelvic fins pale orange, pectoral fins brown with black spot at base.



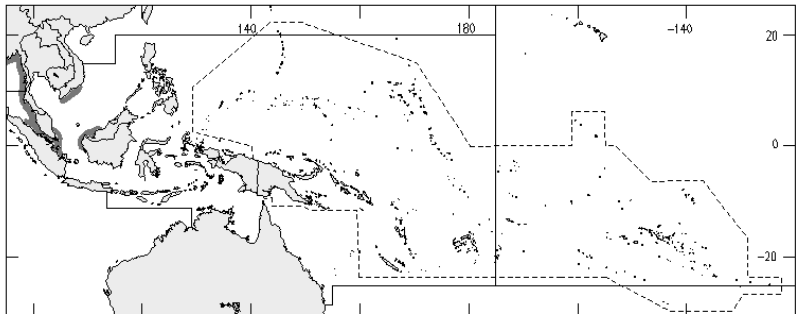
sagitta

swimbladder

Size: Maximum standard length about 160 cm, commonly to 100 cm.

Habitat, biology, and fisheries: Inhabits coastal and inshore waters.

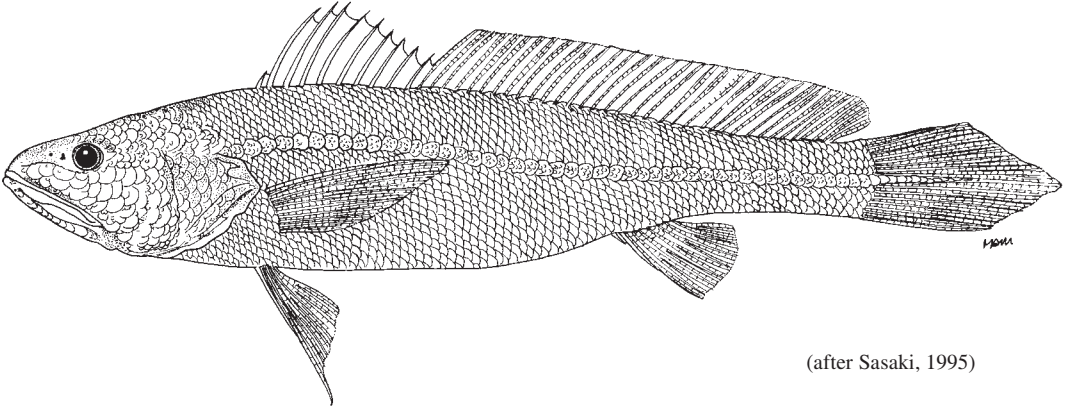
Distribution: India to Malay Peninsula, Sumatra, Borneo, and Viet Nam.



Panna microdon (Bleeker, 1849)

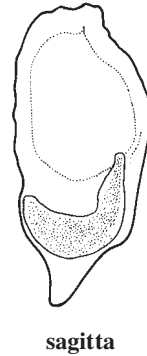
Frequent synonyms / misidentifications: None / None.

FAO names: En - Panna croaker; Fr - Courbine ragane; Sp - Corvina ragana.



(after Sasaki, 1995)

Diagnostic characters: A medium-sized species, with a slender, cylindrical body. Eye small, 13 to 20% of head length. Snout pointed, but not swollen or projecting in front of upper jaw; mouth large, terminal; upper jaw extending backward below hind margin of eye; chin without barbel; upper rostral pores 3, marginal rostral pores 5; mental pores in 3 pairs, the first small, at front of chin, separated by symphysis; teeth differentiated into large and small in both jaws; the large ones widely spaced, not canine-like, forming outer series in upper jaw, inner series in lower jaw. Gill rakers slender, 2/3 to equal length of gill filaments at angle of arch, 9 to 11 on lower limb of first gill arch. Dorsal fin with IX to X (most frequently X) spines and 33 to 36 soft rays, the fin not incised between the 2 parts; anal fin with II spines and 6 or 7 (most frequently 7) soft rays, second spine short, slender, 16 to 35% of head length; caudal fin pointed. Scales on head and throat cycloid (smooth), those on body finely ctenoid (rough to touch); lateral-line scales, with a coating of small secondary scales, reaching to tip of caudal fin; scales absent on soft parts of dorsal and anal fins. Swimbladder carrot-shaped, with 1 pair of tube-like appendages arising at anterior end and immediately dividing into an anterior branch entering head, and ramifying under skull and a posterior tube lying beside the main bladder to its posterior end. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which broad and deep with a sharp bend between shorter proximal part and a longer proximal part. **Colour:** greyish above, becoming silvery on flanks and belly; pectoral and pelvic fins yellow; dorsal and anal fins dusky with dark margin.



sagitta

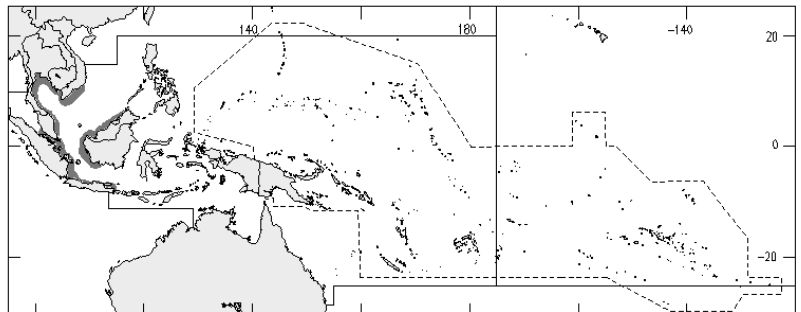


swimbladder

Size: Maximum standard length about 30 cm, commonly to 20 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters and estuaries; young and juveniles occur in mangrove swamps. Caught with bottom-trawls, gill nets, and handlines. Marketed fresh; also dried salted.

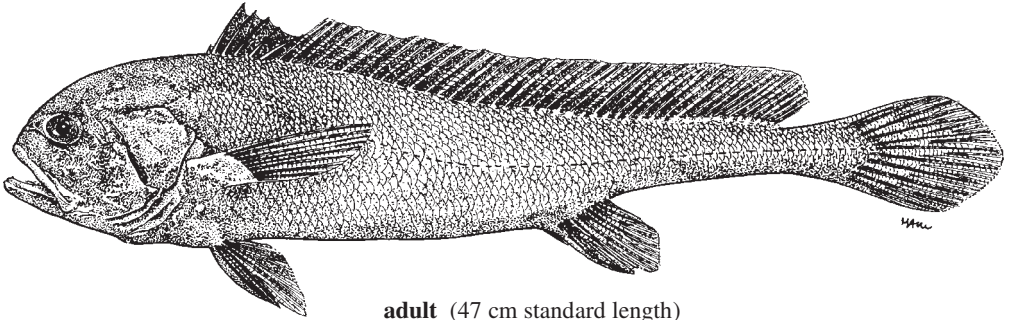
Distribution: Thailand, Malaysia, Viet Nam, and Indonesia.



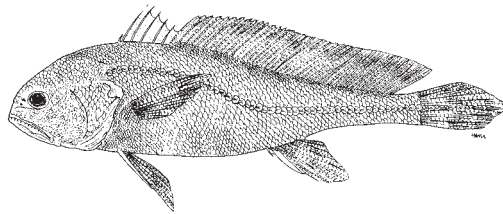
Panna perarmatus (Chabanaud, 1926)

Frequent synonyms / misidentifications: *Otolithoides perarmatus* (Chabanaud, 1926) / None.

FAO names: En - Armour croaker.



adult (47 cm standard length)



young specimen (16 cm standard length)
(after Sasaki, 1995)



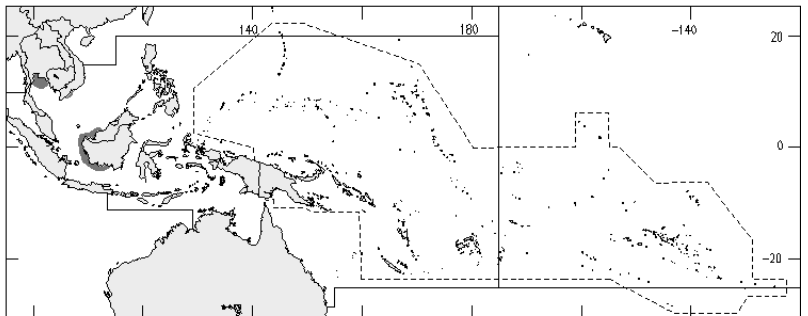
swimbladder

Diagnostic characters: A large species, with an elongate, cylindrical body. Eye small, 14 to 24% of head length. Snout very steeply rounded, but not projecting in front of upper jaw; mouth large, oblique; upper jaw extending backward below posterior margin of eye; chin without barbel; upper rostral pore median one only, marginal rostral pores 5; **mental pores in 2 pairs, the first small, rounded, at front of chin, separated by symphysis;** teeth differentiated into large and small in both jaws, the large ones widely spaced, not canine-like, forming outer series in upper jaw, inner series in lower jaw. **Gill rakers long, slender, equal to or slightly longer than gill filaments at angle of arch, 12 to 14 on lower limb of first gill arch.** Dorsal fin with VI to VII spines and 42 to 44 soft rays, not incised between the 2 parts; anal fin with II spines and 7 or 8 soft rays, second spine long, stiff, its length 37 to 46% of head length; the last dorsal, second anal, and pelvic-fin spines progressively thicker with age or size; caudal fin rhomboidal. Scales cycloid (smooth) on head, ctenoid (rough to touch) on body; lateral-line scales reaching to tip of caudal fin; small scales present on soft parts of dorsal and anal fins. **Swimbladder carrot-shaped, with 1 pair of tube-like appendages arising at anterior end and immediately dividing into an anterior branch entering head and ramifying under skull, and a short posterior tube.** **Colour:** body brownish or dark greenish; opercular membrane and fins blackish.

Size: Maximum standard length about 50 cm, commonly to 30 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters and estuaries.

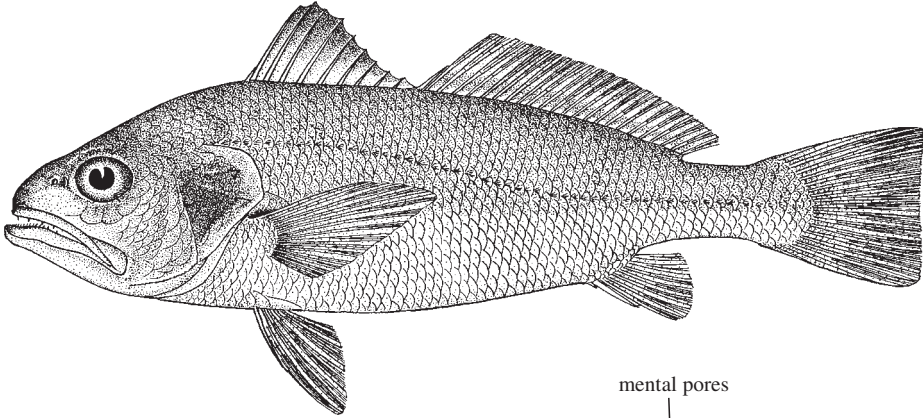
Distribution: Thailand, Viet Nam, and Borneo.



Pennahia anea (Bloch, 1793)

Frequent synonyms / misidentifications: *Pennahia macrophthalmus* (Bleeker, 1850) / None.

FAO names: En - Donkey croaker.

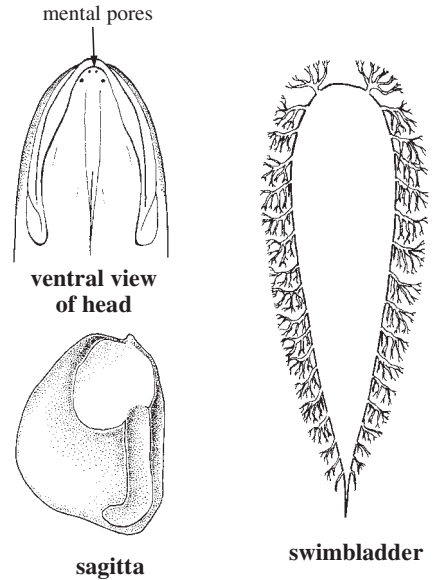
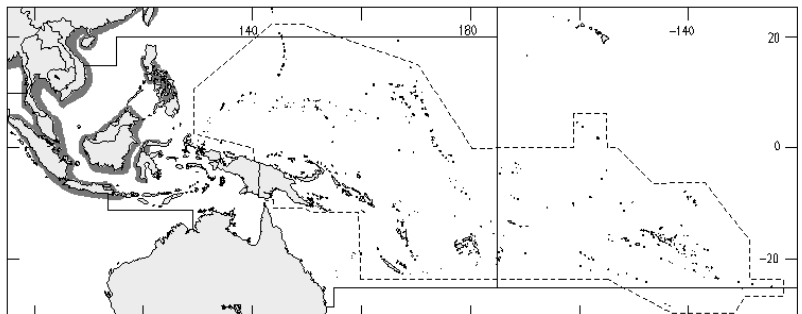


Diagnostic characters: A fairly small, moderately deep-bodied species. Snout pointed, but not swollen or projecting; mouth large, oblique; upper jaw extending backward below hind margin of eye; chin angular, without barbel; upper rostral pores absent or minute, marginal rostral pores 5; **mental pores in 2 pairs, both small, the first pair at front of chin, separated by symphysis**; teeth well differentiated into large and small in both jaws, but none canine-like, the large ones widely spaced, forming outer series in upper jaw, inner series in lower jaw. **Gill rakers slender, as long as gill filaments at angle of arch, 9 to 12 on lower limb of first gill arch. Dorsal fin with IX to X (most frequently X) spines, followed by a notch, second part of fin with I spine and 22 to 24 soft rays; anal fin with II spines and 7 soft rays, second spine short, slender, 22 to 36% of head length; caudal fin truncate. Scales cycloid (smooth) on head and flanks, elsewhere ctenoid (rough to touch); lateral-line scales reaching to hind margin of caudal fin. Swimbladder carrot-shaped, with 17 to 22 pairs of fan-like appendages along its sides, the first not entering head. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which only slightly curved. Colour:** head and body greyish light brown on back, becoming paler ventrally with increasing silvery reflection to whitish abdomen; gill cover with diffused dark blotch; upper two-thirds of spinous dorsal fin dusky.

Size: Maximum standard length 30 cm, commonly to 20 cm.

Habitat, biology, and fisheries: Inhabits coastal waters down to 60 m. Caught with bottom trawls and seine nets. Marketed fresh and dried salted.

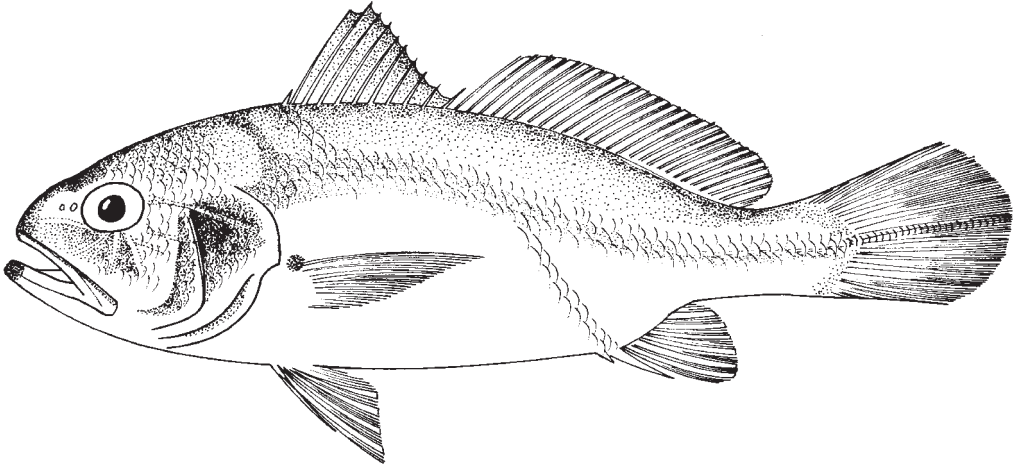
Distribution: Indo-West Pacific, west to the Persian Gulf, east to Indonesia.



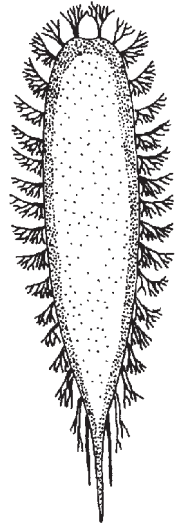
Pennahia macrocephalus (Tang, 1937)

Frequent synonyms / misidentifications: *Argyrosomus macrocephalus* (Tang, 1937) / None.

FAO names: En - Bighead pennah croaker.



Diagnostic characters: A fairly small, deep-bodied species. Snout pointed, but not projecting or swollen; mouth large, oblique; upper jaw extending backward below middle to hind margin of eye; chin angular, without barbel; upper rostral pores 3, marginal rostral pores 5; mental pores in 3 pairs, **the first small, at front of chin, separated by symphysis**; teeth well differentiated into large and small in both jaws, but none canine-like; the large ones widely spaced, forming outer series in upper jaw, inner series in lower jaw. **Gill rakers slender, as long as gill filaments at angle of arch, 10 to 13 on lower limb of first gill arch.** Dorsal fin with X spines, followed by a deep notch, second part of fin with I spine and 26 to 29 soft rays; **anal fin with II spines and 7 soft rays, second spine moderately long, stiff, 28 to 39% of head length**; caudal fin rhomboidal. **Scales on head and anterior part of body cycloid (smooth), ctenoid (rough) posteriorly; lateral-line scales reaching to tip of caudal fin. Swimbladder carrot-shaped, with about 18 pairs of fan-like appendages along its sides, none entering head. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which only slightly curved.** **Colour:** counter-shaded from metallic blue above to white below; lining of mouth and gill cover dark grey; a black spot at tip of lower jaw and one above base of pectoral fins; pectoral, pelvic, and anal fins yellowish.

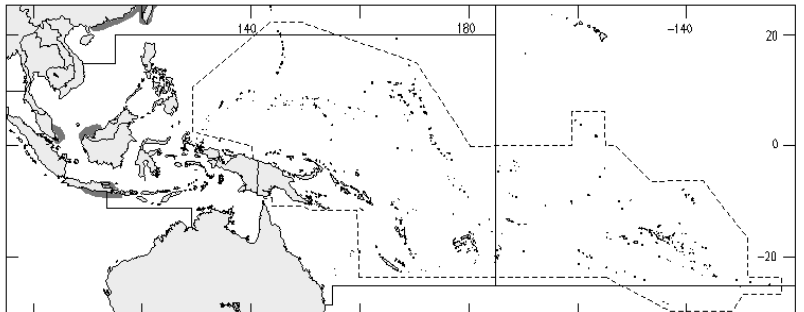


swimbladder

Size: Maximum standard length 23 cm, commonly to 18 cm.

Habitat, biology, and fisheries: Inhabits coastal water on continental shelf down to 100 m.

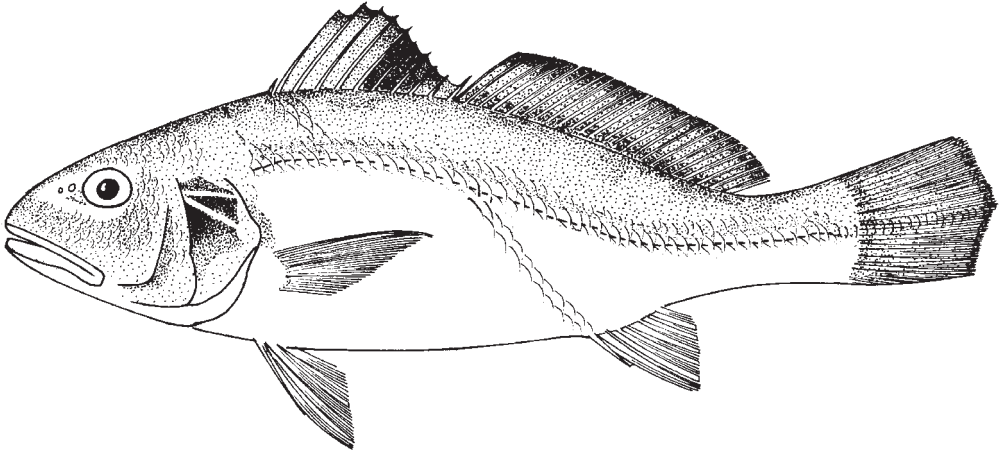
Distribution: East and South China seas and Java, Indonesia. Records from the Bay of Bengal are based on misidentification of *Pennahia ovata* Sasaki, 1996.



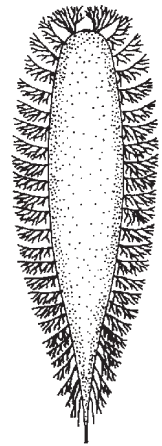
Pennahia pawak (Lin, 1940)

Frequent synonyms / misidentifications: *Argyrosomus pawak* Lin, 1940 / None.

FAO names: En - Pawak croaker.



Diagnostic characters: A small to medium-sized, fairly deep-bodied species. Snout pointed, but not swollen or projecting; mouth large, slightly oblique; upper jaw extending backward below middle of eye; chin rounded, without barbel; upper rostral pores 3, marginal rostral pores 5; **mental pores in 3 pairs, the first small, rounded, at front of chin, separated by symphysis**; teeth differentiated into large and small in both jaws, but none canine-like; the large ones widely spaced, forming outer series in upper jaw, inner series in lower jaw. Gill rakers slender, 2/3 to equal length of gill filaments at angle of arch, 7 to 9 on lower limb of first gill arch. **Dorsal fin with X spines**, followed by a notch, second part of fin with I spine and **23 to 25 soft rays**; **anal fin with II spines** and 7 soft rays, **second spine short, slender, its length 17 to 31% of head length**; **caudal fin rhomboidal**. Scales on head cycloid (smooth), those on body ctenoid (rough to touch); lateral-line scales reaching to tip of caudal fin. **Swimbladder carrot-shaped, with 24 to 27 pairs of fan-like appendages along its sides, none entering head**. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which only slightly curved. **Colour:** body bronze, greenish brown above; a large, characteristic blotch on spinous dorsal fin; black lining of gill cover shows through conspicuously; a pale band between basal and distal dark zones in soft dorsal fin; caudal fin dark at margin.

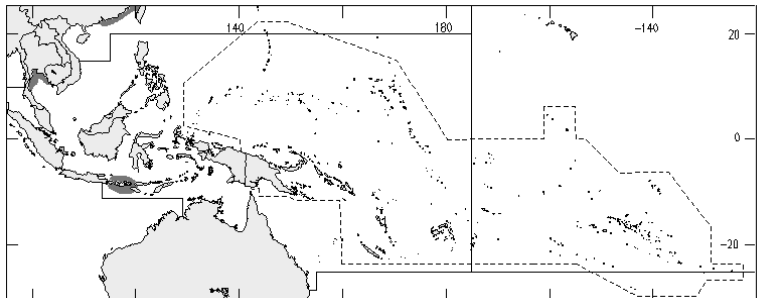


swimbladder

Size: Maximum standard length 22 cm, commonly to 20 cm.

Habitat, biology, and fisheries: Inhabits coastal waters on continental shelves.

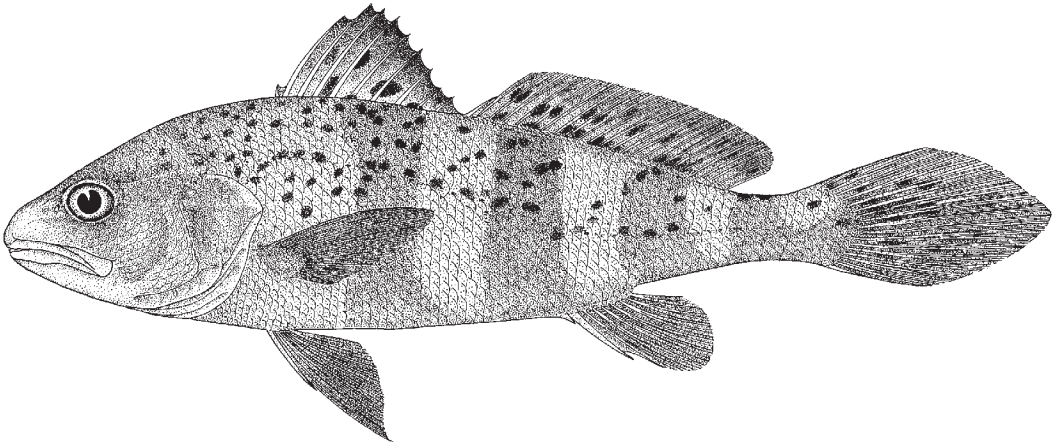
Distribution: South China Sea and southern Indonesia.



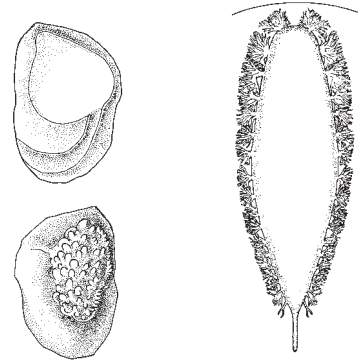
Protonibea diacantha (Lacepède, 1802)

Frequent synonyms / misidentifications: *Nibea diacanthus* (Lacepède, 1802) / None.

FAO names: En - Spotted croaker; Fr - Courbine pintade; Sp - Corvina pintade.



Diagnostic characters: A large species with a slender body. Eye small, 16 to 21% of head length. Snout acutely pointed, but not swollen or projecting; mouth large, slightly oblique; upper jaw extending backward below hind margin of eye; chin without barbel; upper rostral pores 3, marginal rostral pores 5; **mental pores in 3 pairs, the first small, close together, united by a crescent-shaped groove just behind symphysis**; teeth differentiated into large and small in both jaws, but none canine-like; the large ones well spaced, forming outer series in upper jaw, inner series in lower jaw. **Gill rakers stiff, about 1/2 length of gill filaments at angle of arch, 7 or 8 on lower limb of first arch. Dorsal fin with IX or X (most frequently X) spines, followed by a notch, second part of fin with I spine and 22 to 25 soft rays; anal fin with II spines and 7 soft rays; second spine short, slender, 27 to 33% of head length; caudal fin rhomboidal.** Scales cycloid (smooth) on snout and below eye, ctenoid (rough to touch) elsewhere; lateral-line scales reaching to tip of caudal fin. **Swimbladder carrot-shaped, with 16 to 20 pairs of arborescent appendages along its sides, none entering head. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which bends sharply at about an angle of 90°, very narrowly separated from the ventral edge.** **Colour:** 3 to 5 dark bars along back and many small black spots (about size of pupil) on top of head, upper half of body and caudal fin; pectoral, pelvic, and anal fins and lower part of caudal fin black; in larger fishes, bars and spots obscure or absent.



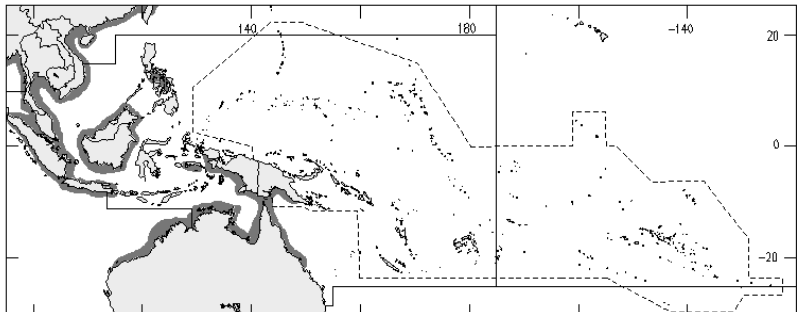
sagitta

swimbladder

Size: Maximum standard length 150 cm, commonly to 100 cm.

Habitat, biology, and fisheries: Inhabits coastal waters down to 60 m. Also ascends tidal rivers and estuaries. In India, matures at around 85 cm standard length (3 or 4 years). Feeds mainly on prawns and fishes. Caught with bottom trawls and gill nets. Marketed fresh and dried-salted.

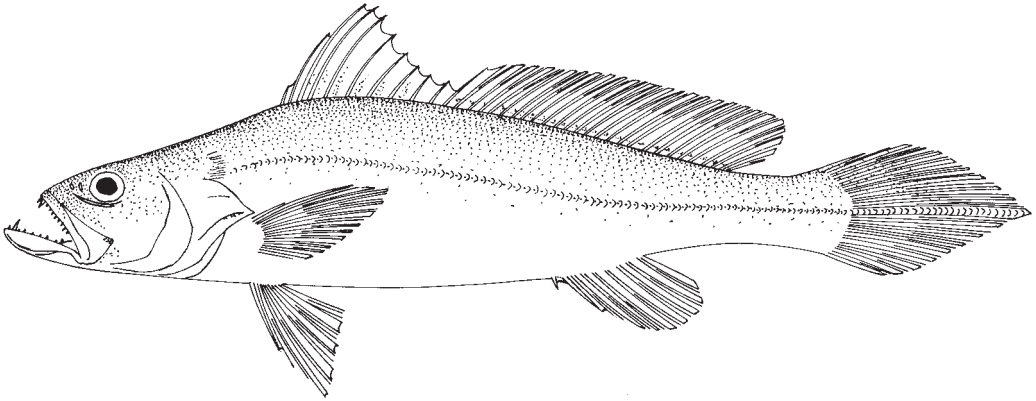
Distribution: Indo-West Pacific, west to the Persian Gulf, east to northern Australia and southern China, and Taiwan Province of China.



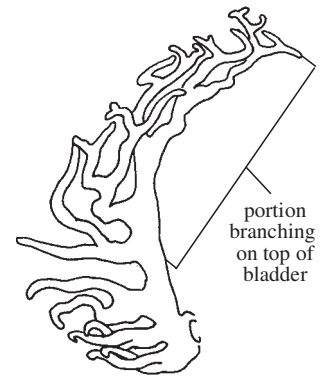
Pterotolithus lateoides (Bleeker, 1850)

Frequent synonyms / misidentifications: *Otolithes lateoides* Bleeker, 1850 / None.

FAO names: En - Bigmouth croaker.



Diagnostic characters: A fairly large species, with a slender, cylindrical body. **Eye small, 16 to 19% of head length.** Snout pointed, its upper profile rising evenly and almost horizontally to origin of dorsal fin; mouth large, strongly oblique; upper jaw extending backward below hind margin of pupil; chin prominent, without barbel; **upper rostral pores absent**, marginal rostral pores 5; mental pores inconspicuous; teeth in a single series in both jaws, with **1 or 2 pairs of strong canines at tip of upper jaw and 1 pair at tip of lower jaw.** Gill rakers slender, about 2/3 length of gill filaments at angle of arch, 8 to 12 on lower limb of first gill arch. **Dorsal fin with X spines**, followed by a notch, second part of fin with I spine and **24 to 27 soft rays**; anal fin with II spines and 7 or 8 soft rays, **second spine short, slender, 23 to 31% of head length**; caudal fin pointed. Scales cycloid (smooth) on head, elsewhere ctenoid (rough to touch); lateral-line scales reaching to tip of caudal fin. **Swimbladder carrot-shaped, with about 40 pairs of arborescent appendages, some of the dorsal limbs long and lie on the dorsolateral surface of the bladder, none entering head.** Sagitta (large earstone) with a tadpole-shaped impression, the tail of which J-shaped. **Colour:** greyish above, silvery flanks and belly; fins yellow, brown spots between soft dorsal-fin rays.



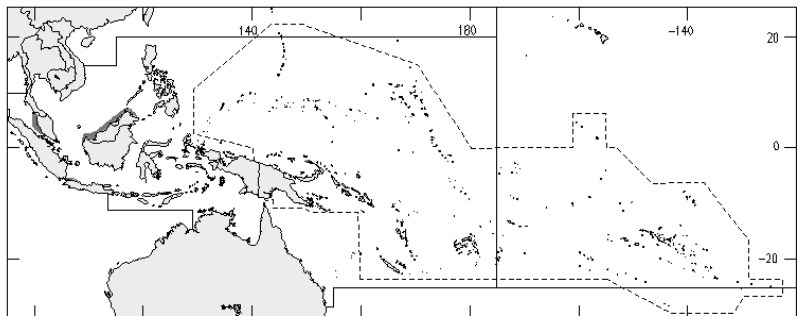
portion
branching
on top of
bladder

swimbladder appendage

Size: Maximum standard length 50 cm, commonly to 40 cm.

Habitat, biology, and fisheries: Inhabits coastal waters and estuaries. Caught with bottom trawls, gill nets, and handlines. Marketed fresh; also dried-salted; swimbladder dried.

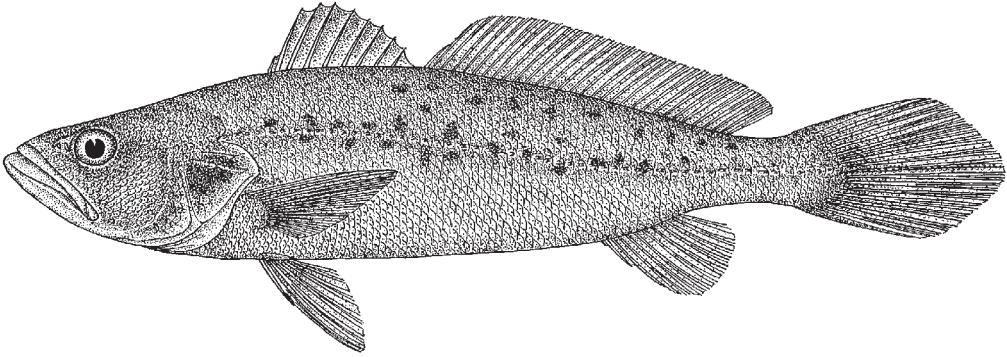
Distribution: Malay Peninsula, Java, and Borneo.



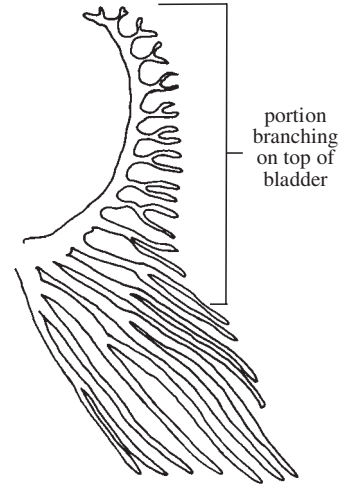
Pterotolithus maculatus (Cuvier, 1830)

Frequent synonyms / misidentifications: *Otolithes maculatus* Cuvier, 1830 / None.

FAO names: En - Blotched tigertoothed croaker.



Diagnostic characters: A fairly large species with a slender, cylindrical body. **Eye small, 21 to 22% of head length. Snout pointed, its upper profile rising evenly and almost horizontally to origin of dorsal fin;** mouth large, strongly oblique; upper jaw extending backward below middle of eye; chin prominent, without barbel; **upper rostral pores absent**, marginal rostral pores 5, mental pores inconspicuous; teeth differentiated into large and small in both jaws, **a pair of strong canines at front of both jaws**. Gill rakers slender, about 2/3 length of gill filaments at angle of arch, 8 to 11 on lower limb of first gill arch. **Dorsal fin with IX spines**, followed by a notch, second part of fin with I spine and 30 to 34 soft rays; **anal fin with II spines and 10 to 12 soft rays, second spine short, slender, 23 to 30% of head length;** caudal fin rhomboidal. **Scales on head and body cycloid (smooth);** lateral-line scales extending to tip of caudal fin. **Swimbladder carrot-shaped, with numerous (50 or more) pairs of branched appendages, the stems of the ventral limbs forming a parallel series of tubes, those of the dorsal limbs roofing the swimbladder with filigree of silvery branched tubules, none entering head. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which J-shaped.** **Colour:** upper part of body marked with numerous black blotches, about 1/2 size of eye or larger; fins yellow.

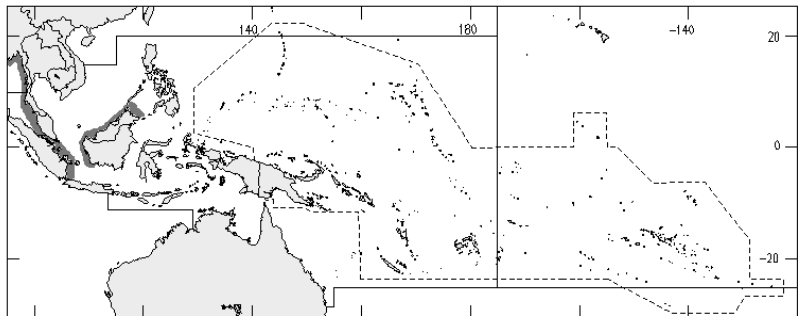


swimbladder appendage

Size: Maximum standard length 45 cm, commonly to 40 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters and estuaries. Caught with bottom trawls, gill nets, and handlines. Marketed fresh; also dried-salted; swimbladder dried.

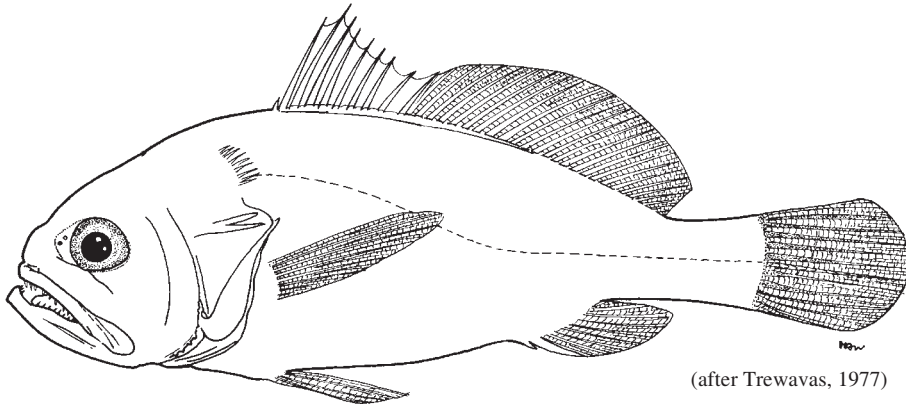
Distribution: Bay of Bengal to Borneo.



Sonorolux fluminis Trewavas, 1977

Frequent synonyms / misidentifications: None / None.

FAO names: En - Estuary croaker.

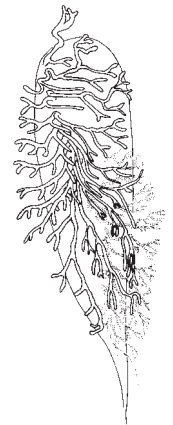


(after Trewavas, 1977)

Diagnostic characters: A small species with a **deep, rounded body**. Eye moderately large, 22 to 23% of head length. Snout steeply rounded, but not inflated or projecting; mouth large, oblique, upper jaw extending backward slightly beyond hind margin of eye; lower jaw upturned, chin prominent, without barbel; **upper rostral pores absent, marginal rostral pore median one only; 2 or 3 pairs of mental pores, the first small, rounded, at front of chin, separated by symphysis;** teeth differentiated into large and small in both jaws, but none canine-like; the large ones widely spaced, forming outer series in upper jaw, inner series in lower jaw. **Gill rakers long, slender, about 1.5 times as long as gill filaments at angle of arch, 16 or 17 on lower limb of first gill arch.** Dorsal fin with X or XI spines and 28 to 29 soft rays, the fin not deeply incised into 2 parts; anal fin with II spines and 7 or 8 soft rays, the second spine moderately long, slender, 33 to 37% of head length; caudal fin rhomboidal. **Scales on head and anterior part of body cycloid (smooth), elsewhere ctenoid (rough to touch);** lateral-line scales reaching to tip of caudal fin; **small scales present on soft parts of dorsal fins; many of ventral scales covering patches of yellow, luminous tissue.** Swimbladder carrot-shaped, with about 20 pairs of arborescent appendages along its side, each with a well-developed dorsal and ventral limb, the first pair entering head beyond transverse septum. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which nearly straight, only slightly curved, ending in a rounded disc. **Colour:** unknown.



sagitta



swimbladder
(right side)

Size: Known only from 2 specimens, both about 8 cm standard length.

Habitat, biology, and fisheries: Inhabits estuaries.

Distribution: Known from Sarawak, Borneo.

