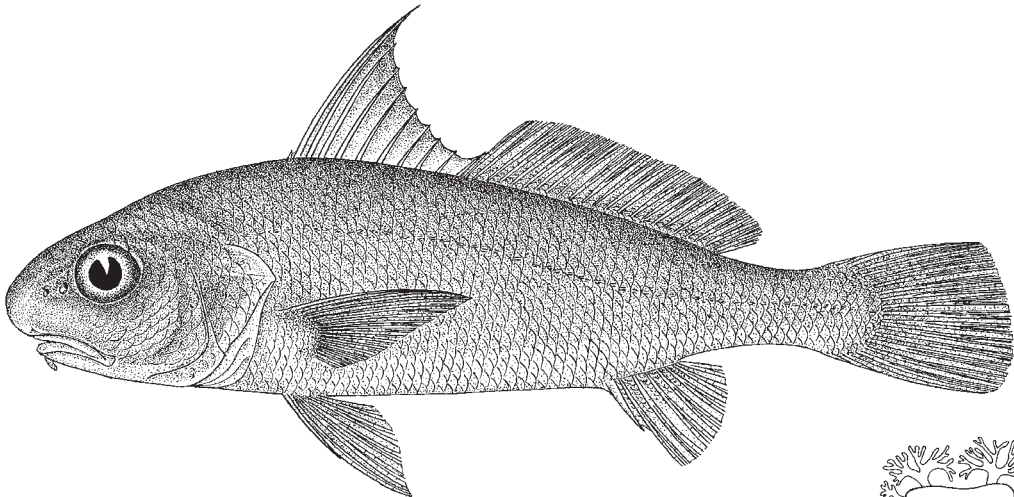


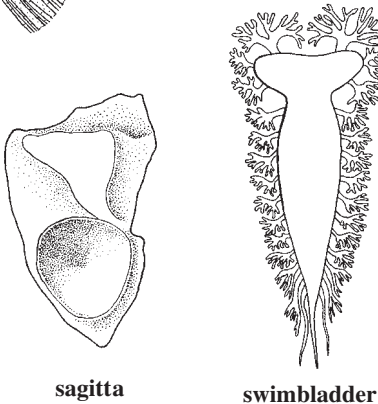
Johnius (Johnius) amblycephalus (Bleeker, 1855)

Frequent synonyms / misidentifications: *Johnius dussumieri* (Valenciennes, 1833) / *Johnius macropterus* (Bleeker, 1853); *Dendrophysa russelli* (Cuvier, 1830).

FAO names: **En** - Bearded croaker; **Fr** - Courbine barbiche; **Sp** - Corvina barba.



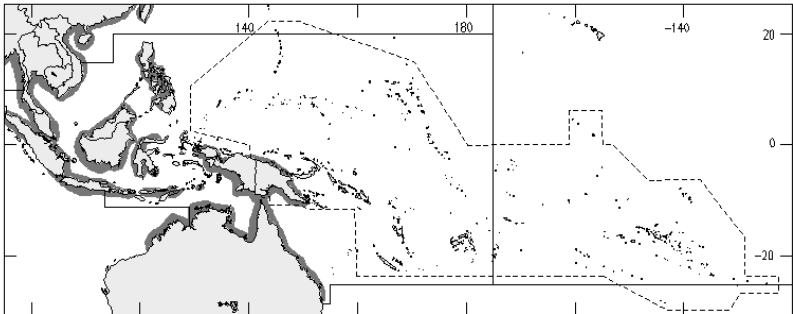
Diagnostic characters: A small to medium-sized species with a moderately deep body. Snout steep, bluntly rounded, projecting in front of upper jaw; mouth inferior; **a stiff, blunt barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open at base of the barbel in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, and forming outer series; **lower jaw with a band of villiform teeth**. Gill rakers stiff, less than 1/2 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 **23 to 26 soft rays, second to fifth spines prolonged**; **anal fin with II spines** and 7 soft rays, **second spine moderately short, 24 to 40% of head length**; **caudal fin slightly rhomboidal, S-shaped or truncate**. Scales small, 7 to 12 scale rows above lateral line to origin of dorsal fin, 13 to 18 scale rows below lateral line to origin of anal fin; scales on head and body cycloid (smooth to touch); small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to hind margin of caudal fin. **Swimbladder hammer-shaped**, with 14 or 15 pairs of arborescent appendages along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch**. **Sagitta (large earstone) with a tadpole-shaped impression**, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone, connected with the head by a narrow groove. **Colour:** back and flanks black or dark brown, belly whitish or cream yellow; upper part of the rather high spinous part of dorsal fin black.



Size: Maximum standard length about 25 cm, commonly to 15 cm.

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

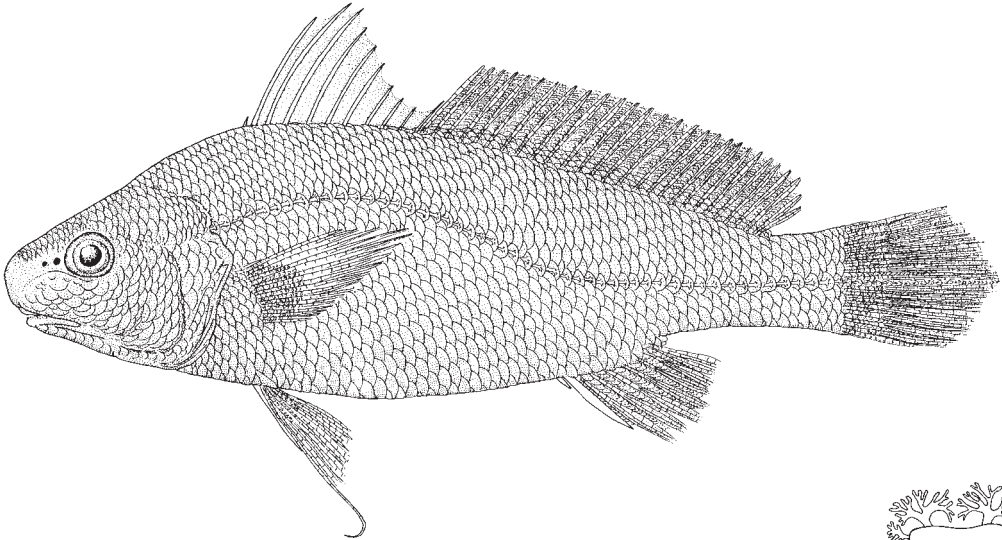
Distribution: Indo-West Pacific, west to Pakistan, east to southern China and north-eastern Australia.



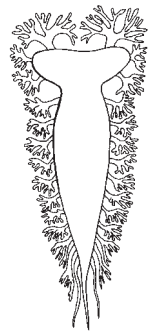
***Johnius (Johnius) australis* (Günther, 1880)**

Frequent synonyms / misidentifications: None / *Johnius belangerii* (Cuvier, 1830); *J. carouna* (Cuvier, 1830).

FAO names: En - Bottlenose jewfish.



Diagnostic characters: A small to medium-sized species with a moderately deep body; body depth 25 to 30% of standard length. Eye rather small, 18 to 24% of head length. Interorbital width 21 to 28% of head length. Snout steep, bluntly rounded, slightly projecting in front of upper jaw; mouth small, inferior; upper jaw extending backward below middle of eye; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close together behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, and forming outer series; **lower jaw with a band of villiform teeth**. Gill rakers blunt, about 1/2 length of gill filaments at angle of arch, 7 to 10 on lower limb of first arch. Dorsal fin with IX to XI (usually X) spines, followed by a notch, second part of fin with I spine and 26 to 31 soft rays; **anal fin with II spines and 7 soft rays, second spine long, stiff, 38 to 51% of head length** (around 6 to 11 cm in standard length), 29 to 42% (around 11 to 20 cm); caudal fin rhomboidal. **Scales moderately small, 8 to 10 scale rows above lateral line to origin of dorsal fin, 11 to 16 scale rows below lateral line to origin of anal fin; scales cycloid (smooth) on snout, below eye, and throat**, ctenoid (rough to touch) elsewhere; small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped**, with about 16 pairs of arborescent appendages along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch**. Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone, connected with the head by a narrow groove. Vertebrae 25. **Colour:** body silvery, everywhere so clouded with brown dots as to quite obscure the ground colour; **pectoral and pelvic fins pale**.

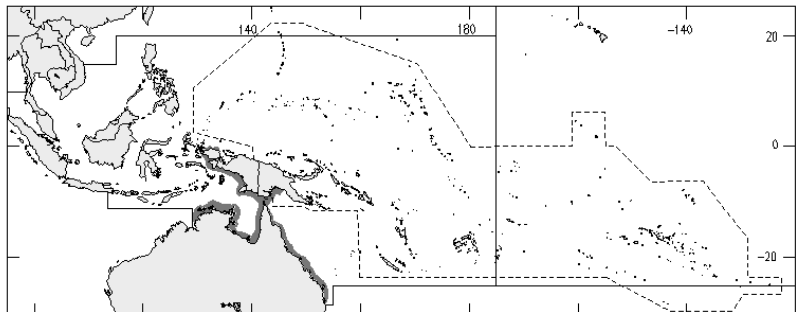


swimbladder

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

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

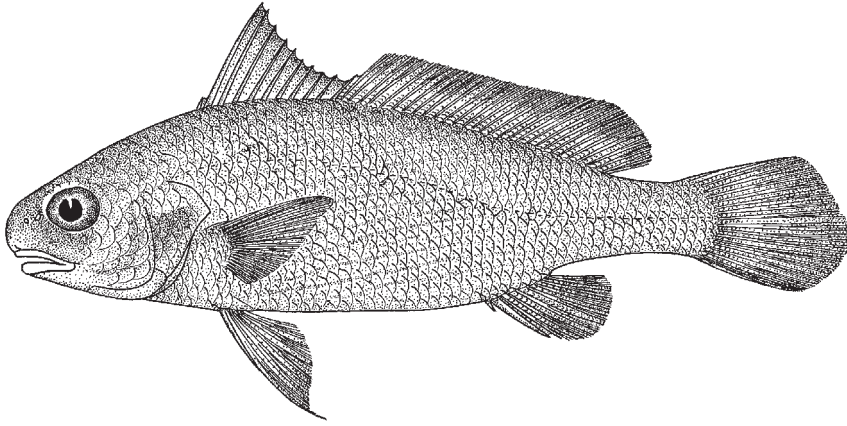
Distribution: Along coasts of northern and northeastern Australia and New Guinea.



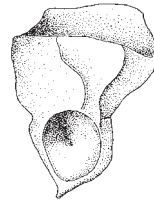
Johnius (Johnius) belangerii (Cuvier, 1830)

Frequent synonyms / misidentifications: *Johnius fasciatus* Chu, Lo, and Wu, 1963 / *Johnius carouna* (Cuvier, 1830); *J. australis* (Günther, 1880); *J. weberi* Hardenberg, 1936.

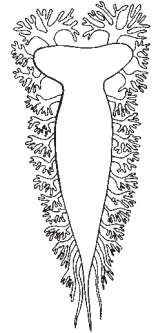
FAO names: En - Belanger's croaker; Fr - Courbine de Belanger; Sp - Corvina de Belanger.



Diagnostic characters: A small to medium-sized species with a moderately deep body; body depth 26 to 32% of standard length. **Eye large, 23 to 28% of head length.** Interorbital width 18.5 to 28% of head length. Snout steep, obtusely rounded, slightly projecting in front of upper jaw; mouth small, inferior; upper jaw extending backward below middle of eye; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers very short, club-shaped, less than 1/2 length of gill filaments at angle of arch, 8 to 10 on lower limb of first gill arch. Dorsal fin with IX or X (most frequently X) spines, followed by a notch, second part of fin with I spine and 27 to 31 soft rays; **anal fin with II spines** and 7 soft rays, **second spine long, stiff, 38 to 49% of head length**; caudal fin rhomboidal. Scales moderately small, 7 to 11 scale rows above lateral line to origin of dorsal fin, 12 to 17 scale rows below lateral line to origin of anal fin; **scales cycloid (smooth to touch) on snout, strongly ctenoid (very rough to touch) on other parts of head and body**; small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to tip of caudal fin. Swimbladder hammer-shaped, with 11 to 15 pairs of arborescent appendages along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone, connected with the head by a narrow groove. Vertebrae 25. **Colour:** dark pigmented, but pigments sometimes irregular and irregularly concentrated into short, dark bars along back or on dorsal fin; spinous part of dorsal fin black, **lower fins also black in many cases**; dark blotch shows through gill cover.



sagitta

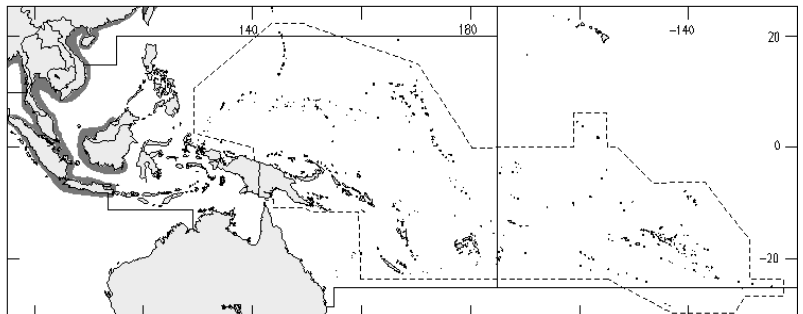


swimbladder

Size: Maximum standard length 20 cm, commonly 15 cm.

Habitat, biology, and fisheries: Inhabits shallow coastal waters down to 40 m.

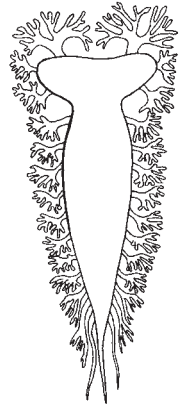
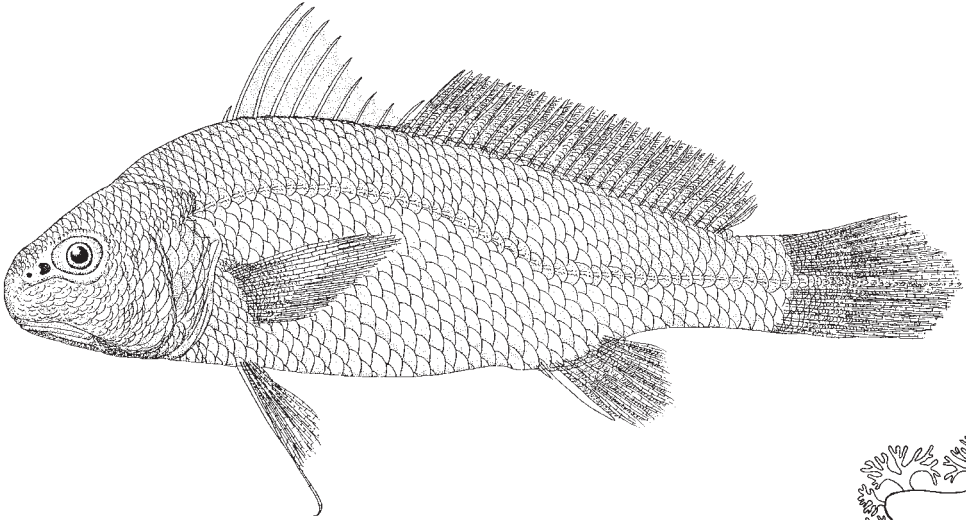
Distribution: Indo-West Pacific, west to the Persian Gulf, east to southern China and Indonesia.



***Johnius (Johnius) carouna* (Cuvier, 1830)**

Frequent synonyms / misidentifications: None / *Johnius australis* (Günther, 1880); *J. belangerii* (Cuvier, 1830); *J. weberi* Hardenberg, 1936.

FAO names: En - Caroun croaker; Fr - Courbine caroune; Sp - Corvina caruna.



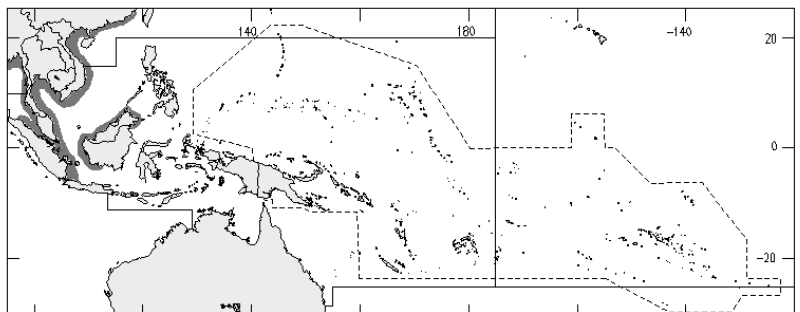
swimbladder

Diagnostic characters: A small to medium-sized species with a moderately deep body; body depth 26 to 33% of standard length. Eye large, 21 to 28% of head length. Interorbital width 22 to 28% of head length. **Snout bluntly rounded, slightly projecting in front of upper jaw;** mouth small, inferior; upper jaw extending backward below middle to hind margin of eye; **no barbel on chin;** upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only,** the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers short, stiff, about 1/2 length of gill filaments at angle of arch, **10 to 12 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 30 soft rays; **anal fin with II spines** and 7 soft rays, **second spine long, stiff, 41 to 58% of head length;** caudal fin rhomboidal. Scales moderately large, 6 to 9 scale rows above lateral line to origin of dorsal fin, 10 to 14 scale rows below lateral line to origin of anal fin; **scales cycloid (smooth) on snout, cheek, and throat,** but ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins;** lateral-line scales reaching to tip of caudal fin. Swimbladder hammer-shaped, with 14 or 15 pairs of arborescent appendages along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove. Vertebrae 25. **Colour:** upper 2/3 of body light grey or with a white sheen, lower 1/3 yellowish; **pectoral, pelvic, and anal fins and lower part of caudal fin with yellow tinge.**

Size: Maximum standard length 25 cm, commonly to 16 cm.

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

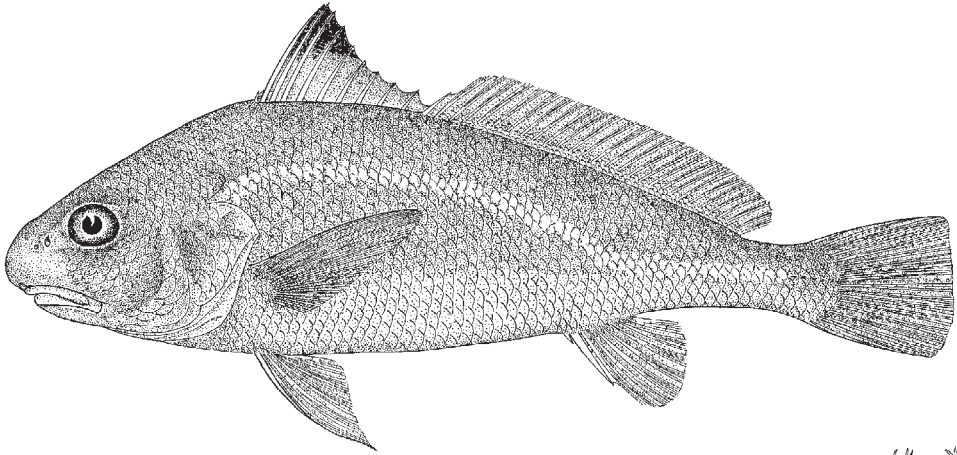
Distribution: Gulf of Thailand, Sumatra, and Borneo; north to southern China, west to India.



***Johnius (Johnius) carutta* Bloch, 1793**

Frequent synonyms / misidentifications: None / None.

FAO names: **En** - Karut croaker; **Fr** - Courbine carutte; **Sp** - Corvina carota.

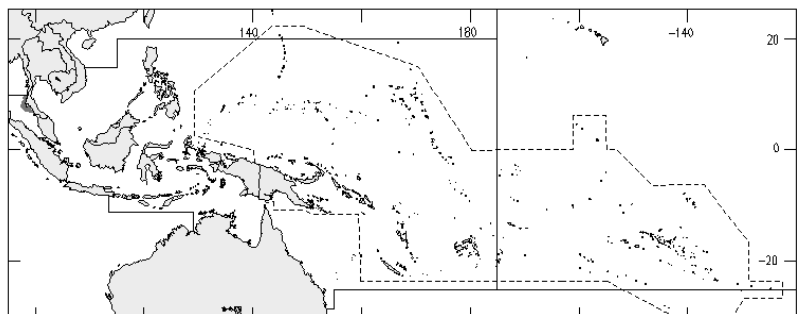
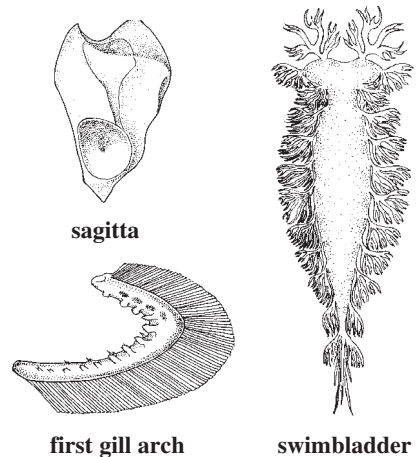


Diagnostic characters: A small to medium-sized species with a moderately deep body; body depth 28 to 32% of standard length. **Eye small to moderate sized, 19 to 24% of head length.** Interorbital width 25 to 31% of head length. **Snout bluntly rounded, slightly projecting in front of upper jaw;** mouth small, inferior; upper jaw extending backward below middle of eye; **no barbel on chin;** upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only,** the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers short, stiff, less than 1/2 length of gill filaments at angle of arch, 8 or 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 26 to 29 soft rays; **anal fin with II spines and 7 soft rays, second spine short, 25 to 35% of head length;** caudal fin truncate or weakly S-shaped. Scales small, 7 to 9 scale rows above lateral line to origin of dorsal fin, 12 to 16 scale rows below lateral line to origin of anal fin; **scales cycloid (smooth) on head and upper part of body,** weakly ctenoid (slightly rough to touch) on other parts of body; **small scales present on soft parts of dorsal and anal fins;** lateral-line scales reaching to hind margin of caudal fin. **Swimbladder hammer-shaped, with about 16 pairs of arborescent appendages** along its sides, the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch. **Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove.** Vertebrae 25. **Colour:** upper two-thirds of body dark grey or brown with a yellow or white streak along lateral line; belly whitish; upper two-thirds of first dorsal fin black.

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

Habitat, biology, and fisheries: Inhabits shallow coastal waters down to 40 m.

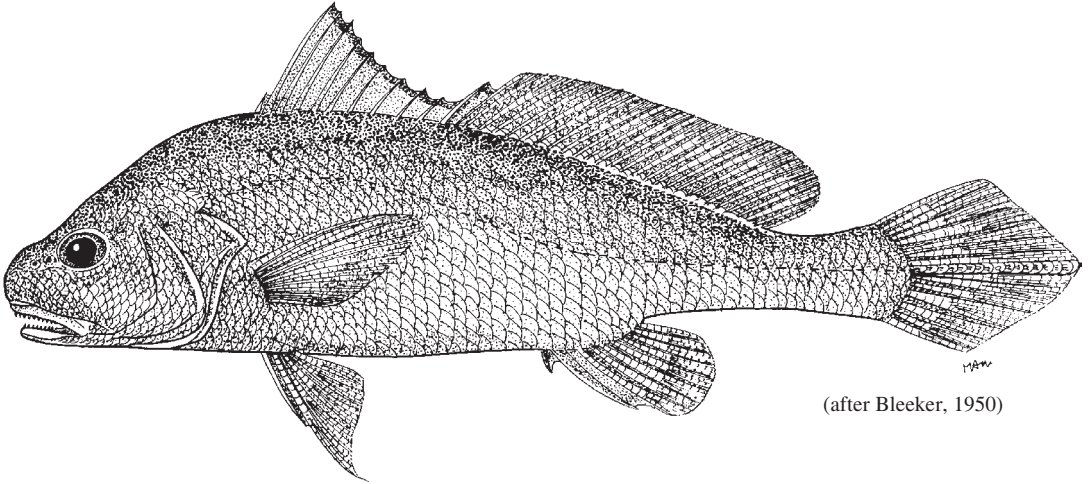
Distribution: West coasts of Malay Peninsula to Pakistan.



***Johnius (Johnius) coitor* (Hamilton, 1822)**

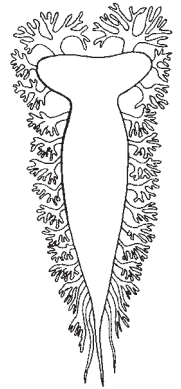
Frequent synonyms / misidentifications: None / *Johnius laevis* Sasaki and Kailola, 1991.

FAO names: En - Coitor croaker.



(after Bleeker, 1950)

Diagnostic characters: A small species with a slender to moderately deep body; body depth 24 to 30% of standard length. **Eye small, 13 to 24% of head length.** Interorbital width 22 to 29% of head length. Snout pointed, projecting in front of upper jaw; mouth small, inferior; upper jaw extending backward below middle of eye; **no barbel on chin;** upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only,** the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers slender, $\frac{1}{2}$ to $\frac{2}{3}$ length of gill filaments at angle of arch, 9 to 12 on lower limb of first gill arch. Dorsal fin with IX to XI (most frequently 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 6 to 8 (most frequently 7) soft rays, **second spine long, stiff, 37 to 59% of head length;** caudal fin rhomboidal. Scales small, 7 to 10 scale rows above lateral line to origin of dorsal fin, 11 to 16 scale rows below lateral line to origin of anal fin; scales cycloid (smooth) on snout, ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins;** lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped, with 14 or 15 pairs of arborescent appendages** along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** **Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove.** **Vertebrae 26.** **Colour:** light golden yellow with a light purple or blue sheen; spinous part of dorsal fin with dusky to black border; soft parts of dorsal, anal and caudal fins with a dull green or grey border.

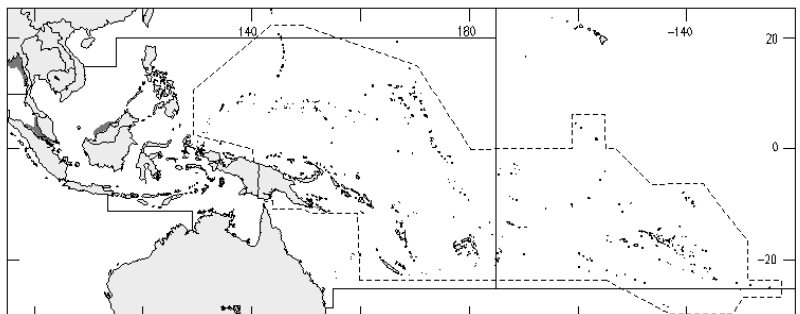


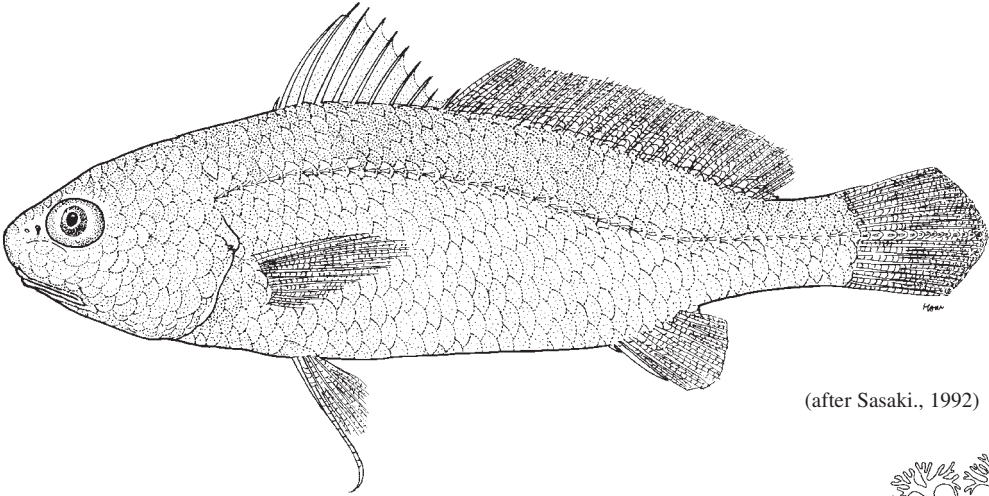
swimbladder

Size: Maximum standard length 16 cm, commonly to 12 cm.

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

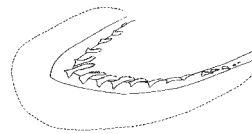
Distribution: Borneo and Malay Peninsula, east to India.



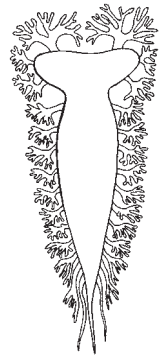
Johnius (Johnius) heterolepis* Bleeker, 1873*Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Largescale croaker.

(after Sasaki., 1992)

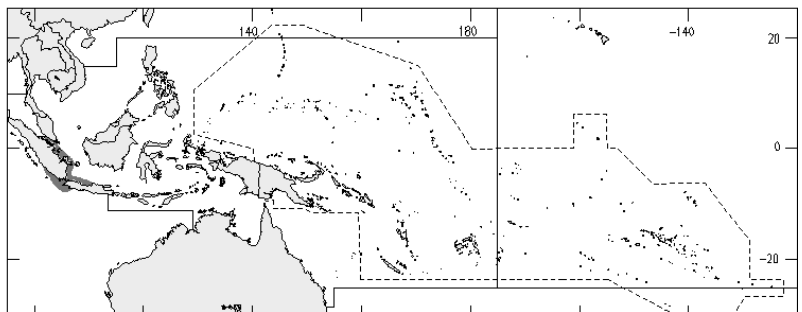
Diagnostic characters: A small species with a moderately deep body; body depth 25 to 27% of standard length. Eye small to moderately large, 19 to 27% of head length. Interorbital width 23 to 28% of head length. Snout pointed, projecting slightly in front of upper jaw; mouth small, inferior; upper jaw extending backward below hind margin of pupil; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth**. Gill rakers slender, about 1/2 length of gill filaments at angle of arch, 9 to 11 on lower limb of first gill arch. Dorsal fin with X or XI (usually X) spines, followed by a deep notch, second part of fin with I spine and 25 to 28 soft rays; **anal fin with II spines and 7 soft rays, second spine short, slender, 25 to 34% of head length**; caudal fin rhomboidal. Scales large, those on flanks much larger than those on lateral line; 5 scale rows above lateral line to origin of dorsal fin, 10 or 11 scale rows below lateral line to origin of anal fin; scales cycloid (smooth) on snout, cheek, and anterior half of gill cover, ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins**; lateral-line scales reaching to tip of caudal fin. Swimbladder hammer-shaped, with about 14 pairs of arborescent appendages along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch**. Sagitta (large earstone) with a tadpole-shaped impression, the tail of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove. Vertebrae 25. **Colour:** greenish or bluish grey above, silvery below; fins yellowish.



first gill arch



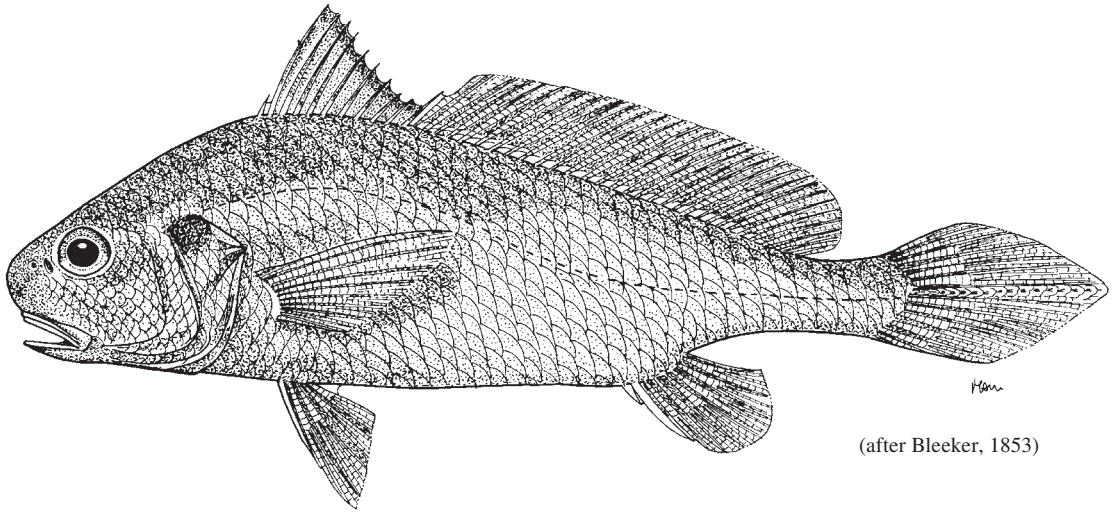
swimbladder

Size: Maximum standard length 15 cm, commonly to 12 cm.**Habitat, biology, and fisheries:** Inhabits shallow coastal waters.**Distribution:** Malaysia and Indonesia.

***Johnius (Johnius) hypostoma* (Bleeker, 1853)**

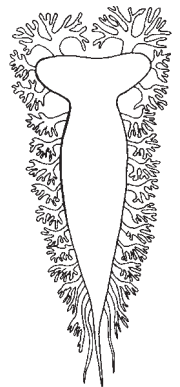
Frequent synonyms / misidentifications: None / None.

FAO names: En - Smallmouth croaker.



(after Bleeker, 1853)

Diagnostic characters: A small species with a moderately deep body; body depth 24 to 34% of standard length. **Eye small, 19 to 23% of head length.** Interorbital width 28 to 34% of head length. Snout bluntly rounded, projecting slightly in front of upper jaw; mouth small, inferior; upper jaw extending backward below posterior half of eye; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers slender, about 1/2 length of gill filaments at angle of arch, 11 or 12 on lower limb of first gill arch. Dorsal fin with IX to XI (most frequently X) spines and 31 to 33 soft rays; anal fin with II spines and 7 soft rays, **second spine moderately long, stiff, 30 to 48% of head length**; caudal fin rhomboidal. **Scales large, those on flanks much larger than those on lateral line**; 5 or 6 scale rows above lateral line to origin of dorsal fin, 9 or 10 scale rows below lateral line to origin of anal fin; scales cycloid (smooth) on snout and cheek, ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins**; lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped, with about 10 pairs of arborescent appendages along its sides, the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove. Vertebrae 25. **Colour:** greenish above, silvery below; fins yellowish.

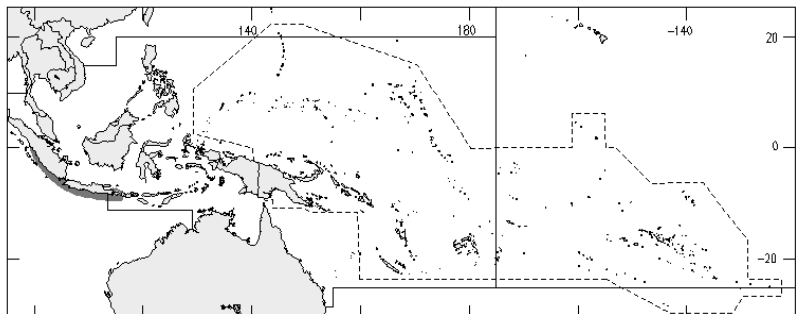


swimbladder

Size: Maximum standard length 12 cm, commonly to 10 cm.

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

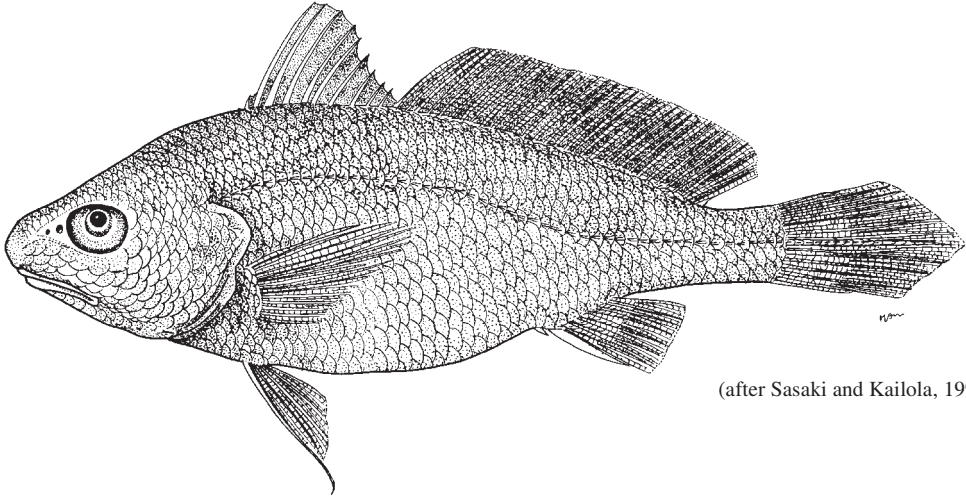
Distribution: Known only from Indonesia.



***Johnius (Johnius) laevis* Sasaki and Kailola, 1991**

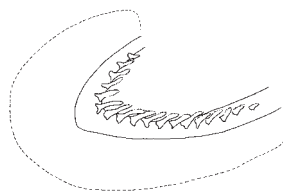
Frequent synonyms / misidentifications: None / *Johnius coitor* (Hamilton, 1822).

FAO names: En - Smooth croaker.



(after Sasaki and Kailola, 1991)

Diagnostic features: A small species with a deep body; body depth 27 to 34% of standard length. Eye large, 22 to 30% of head length. Interorbital width 25 to 30% of head length. Snout pointed, projecting well in front of upper jaw; mouth small, inferior; upper jaw extending backward below middle to posterior margin of eye; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth**. Gill rakers slender, about 1/2 length of gill filaments at angle of arch, 10 to 12 on lower limb of first gill arch. **Dorsal fin with X to XI (usually X) spines**, followed by a notch, second part of fin with I spine and 29 to 34 soft rays; **anal fin with II spines** and 7 soft rays, **second spine moderately long, stiff, 29 to 52% of head length**; caudal fin rhomboidal. **Scales large**, those on flanks much larger than those on lateral line, 5 or 6 scale rows above lateral line to origin of dorsal fin, 8 to 10 scale rows below lateral line to origin of anal fin; **scales cycloid (smooth)** on head and throat, weakly ctenoid on other parts of body, ctenii (small spines along posterior margin of scales) poorly developed, smooth to touch; small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to tip of caudal fin. Swimbladder hammer-shaped, with 11 to 14 pairs of arborescent appendages along its sides, the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch. Sagitta (large earstone) with a tadpole-like impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded as a hollow cone connected with the head by a narrow groove. Vertebrae 25. **Colour:** head and upper body iridescent mauve or bronze, lower part of body silvery white; fins yellow, black margins to dorsal and caudal fins.



first gill arch

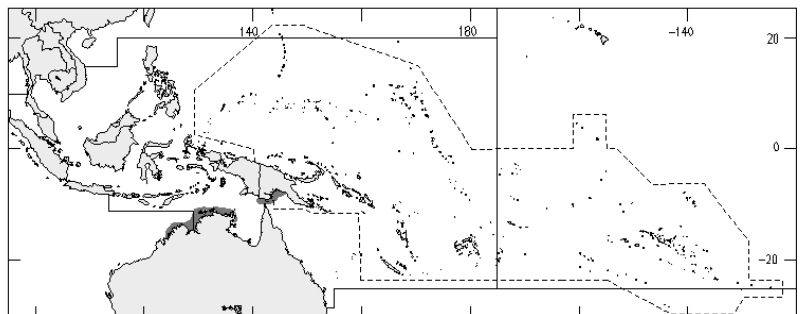


scales

Size: Maximum standard length 14 cm, commonly to 11 cm.

Habitat, biology, and fisheries: Inhabits coastal waters down to 60 m.

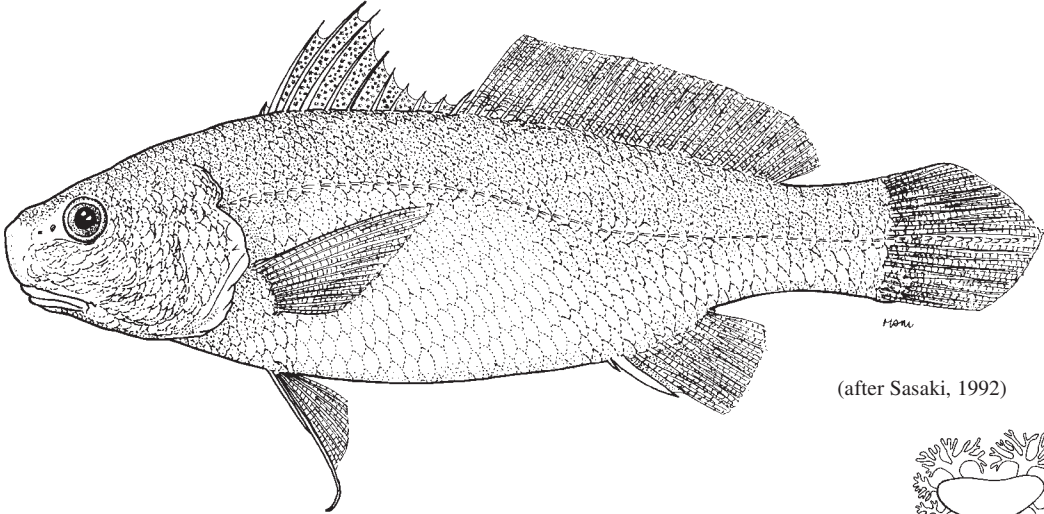
Distribution: Northern Australia and southern Papua New Guinea.



Johnius (Johnius) latifrons Sasaki, 1992

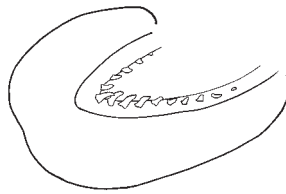
Frequent synonyms / misidentifications: None / None.

FAO names: En - Broadhead croaker.

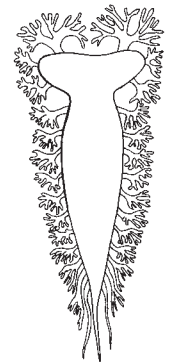


(after Sasaki, 1992)

Diagnostic characters: A small species with a moderately deep body; body depth 25 to 30% of standard length. **Eye small to moderately large, 17 to 26% of head length.** Interorbital width 26 to 31% of head length. Snout steeply rounded, projecting slightly in front of upper jaw; mouth small, inferior, upper jaw extending backward below middle of eye; **no barbel on chin**; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth.** Gill rakers stiff, about 1/3 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 deep notch, second part of fin with I spine and 25 to 29 soft rays; **anal fin with II spines and 7 soft rays, second spine short, stiff, 32 to 37% of head length (around 7 to 11 cm in standard length), 26 to 32% (around 11 to 16 cm);** caudal fin rhomboidal. **Scales moderate in size, 7 to 9 scale rows above lateral line to origin of dorsal fin, 11 to 14 scale rows below lateral line to origin of anal fin;** scales cycloid (smooth) on snout, ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins;** lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped, with about 14 pairs of arborescent appendages along its sides, the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove. Vertebrae 25. **Colour:** light brown dorsally, creamy white ventrally.



first gill arch



swimbladder

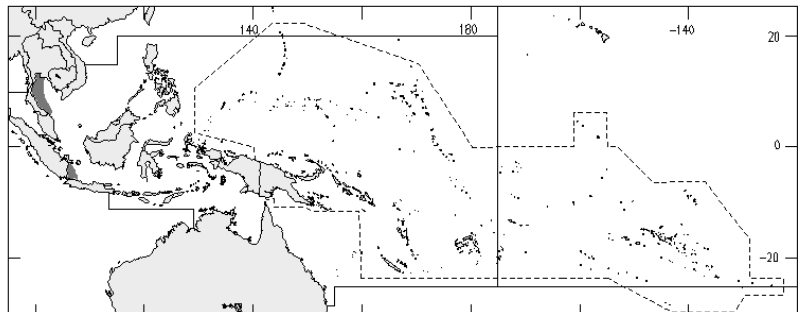
lower jaw with a band of villiform teeth. Gill rakers stiff, about 1/3 length of gill filaments at angle of arch, 7 to 9 on lower limb of first gill arch. Dorsal fin with X spines, followed by a deep notch, second part of fin with I spine and 25 to 29 soft rays; **anal fin with II spines and 7 soft rays, second spine short, stiff, 32 to 37% of head length (around 7 to 11 cm in standard length), 26 to 32% (around 11 to 16 cm);** caudal fin rhomboidal. **Scales moderate in size, 7 to 9 scale rows above lateral line to origin of dorsal fin, 11 to 14 scale rows below lateral line to origin of anal fin;** scales cycloid (smooth) on snout, ctenoid (rough to touch) on other parts of head and body; **small scales present on soft parts of dorsal and anal fins;** lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped, with about 14 pairs of arborescent appendages along its sides, the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch.** Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove.

Vertebrae 25. **Colour:** light brown dorsally, creamy white ventrally.

Size: Maximum standard length 16 cm, commonly to 12 cm.

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

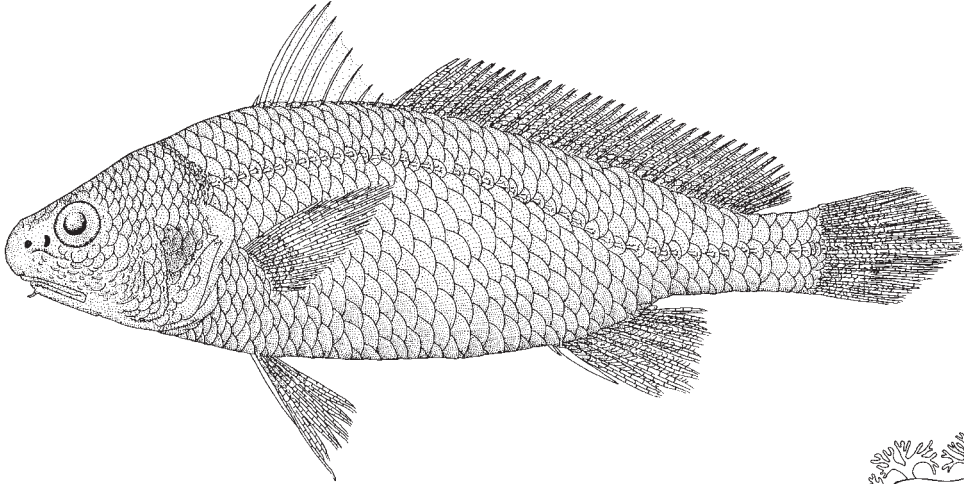
Distribution: Thailand and Indonesia.



***Johnius (Johnius) macropterus* (Bleeker, 1853)**

Frequent synonyms / misidentifications: *Sciaena macroptera* (Bleeker, 1853) / *Johnius amblycephalus* (Bleeker, 1855).

FAO names: En - Largefin croaker; Fr - Courbine à grande nagoire; Sp - Corvina aletona.



Diagnostic characters: A small species with a moderately deep body. Eye small to moderately large, 18 to 26% of head length. Snout rounded, slightly projecting in front of upper jaw; mouth small, inferior; upper jaw extending backward below middle of eye; upper rostral pores 5, marginal rostral pores 5; mental pores in 3 pairs, the first open close behind symphysis in a common pit; **a short, stiff barbel at chin; teeth differentiated into large and small in upper jaw only**, the large ones close-set, not canine-like, forming outer series; **lower jaw with a band of villiform teeth**. Gill rakers stiff, less than 1/2 length of gill filaments at angle of arch, 7 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 **29 to 34 soft rays**; **anal fin with II spines** and 7 soft rays, **second spine stiff, 32 to 56% of head length**; caudal fin rhomboidal. Scales large, those on flanks much larger than those on lateral line, 4 to 7 scale rows above lateral line to origin of dorsal fin, 9 to 12 scale rows below lateral line to origin of anal fin; scales cycloid (smooth) on head, ctenoid (rough to touch) on body; small scales present on soft parts of dorsal and anal fins; lateral-line scales reaching to tip of caudal fin. **Swimbladder hammer-shaped, with 14 or 15 pairs of arborescent appendages** along its sides, **the first pair entering head beyond transverse septum and sending a palmate branch to the front of pectoral arch**. **Sagitta (large earstone) with a tadpole-shaped impression, the head of which has its long axis lying obliquely to that of sagitta and the tail expanded and deepened as a hollow cone connected with the head by a narrow groove**. **Colour:** back dark brown, flanks and belly whitish with silvery reflections; spinous part of dorsal fin dark; pectoral fins hyaline.

Size: Maximum standard length 13 cm, commonly to 10 cm.

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

Distribution: Indo-West Pacific, west to India and Sri Lanka, east to New Guinea.

