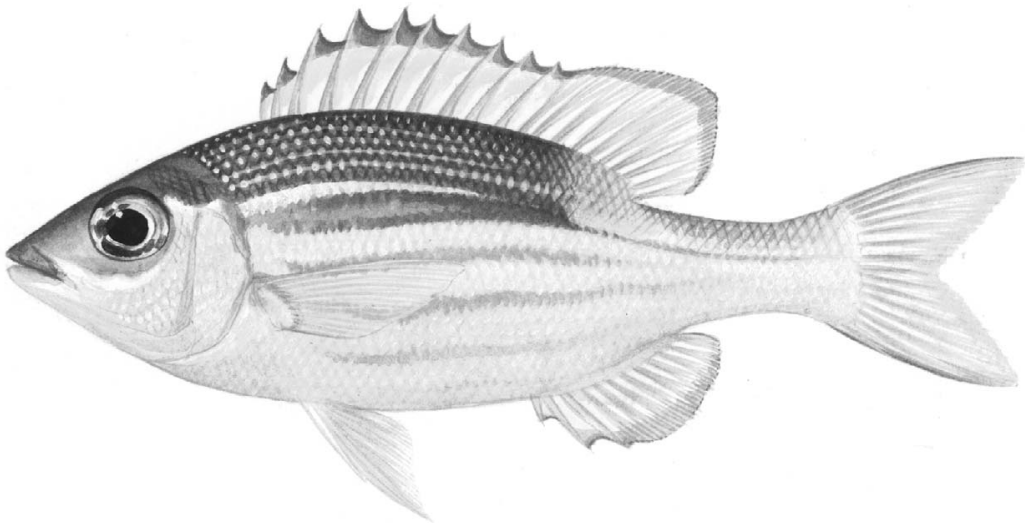
click for previous page

Gnathodentex aurolineatus (Lacepède, 1802) **(Plate XVII, 122)**

Frequent synonyms / misidentifications: None / None.

FAO names: En - Striped large-eye bream; **Fr** - Empereur strié; **Sp** - Emperador estriado.

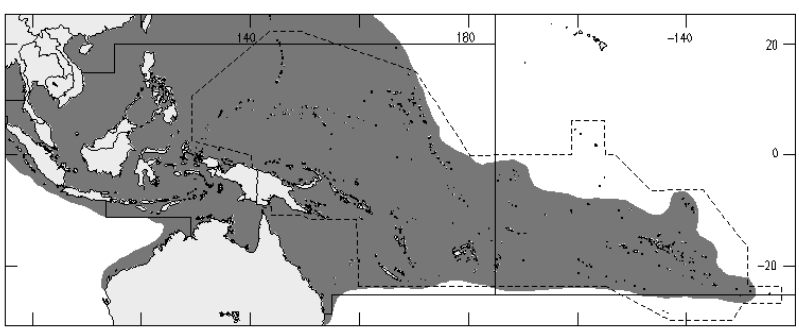


Diagnostic characters: Body oblong, its depth 2.3 to 2.8 times in standard length. Dorsal profile of head moderately sloped; eye relatively large, its diameter about equal to length of snout. **Jaw teeth in a narrow villiform band bordered by an outer series of conical teeth**; 4 moderate-sized canines at front of upper jaw and 6 at front of lower jaw; **maxilla (upper jaw) with a longitudinal denticulated ridge**; a pair of close-set, round nasal openings on each side of snout in front of eyes. Dorsal fin with X slender spines and 10 soft rays, the first to fourth spines increasing in length, the remaining spines about equal; **anal fin with** III slender spines and **8 or 9 (usually 9) soft rays; pectoral-fin rays 15** (including small splint-like uppermost element); **caudal fin strongly forked with pointed tips**. Lateral-line scales about 68 to 74; **cheek with 4 to 6 rows of scales**; 5 scale rows between lateral line and base of middle dorsal-fin spines; **inner surface of pectoral-fin axil scaleless. Colour:** upper one-third of side (i.e. back region) dark brown with narrow silvery stripes, corresponding with each horizontal scale row; remainder of head and body mainly silver to grey except 4 or 5 brownish orange stripes on lower two-thirds of side, uppermost stripe is the widest and originates at upper corner of gill flap (operculum); a prominent golden yellow to orange blotch directly below posterior part of dorsal fin and just in front of caudal-fin base; snout and lips often with a yellowish tinge; iris golden; a broad pearly stripe on preorbital region, continuing below eye to its posterior margin; fins mainly clear, although dorsal, anal, and caudal fins sometimes light reddish; yellow-orange spot at upper base of pectoral fins.

Size: Maximum total length about 30 cm; commonly to 20 cm.

Habitat, biology, and fisheries: Generally found on coral reefs, sometimes in aggregations containing 100 or more individuals. The depth range is between about 3 and 20 m. Feeds chiefly on bottom-living invertebrates. Frequently found in markets. Caught mainly with spears, traps, gill nets, and handlines. Average quality flesh that is marketed mostly fresh.

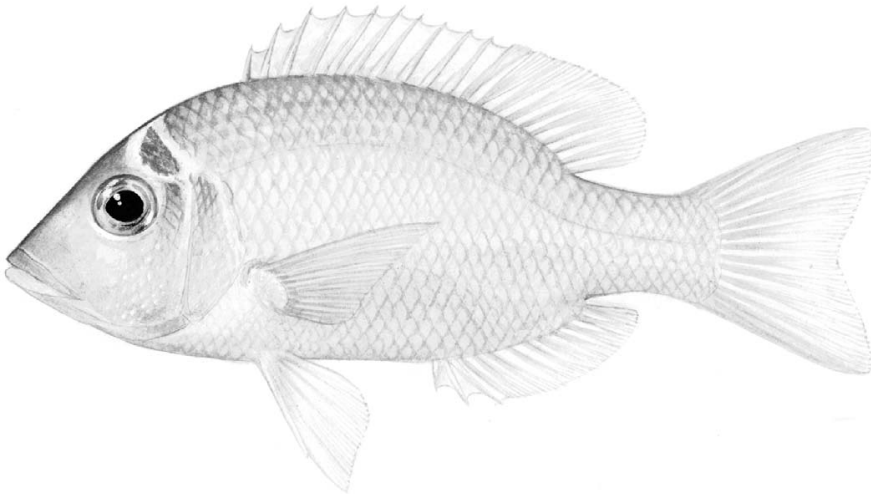
Distribution: Widespread in the Indo-West and Central Pacific (excluding Hawaii) from the Tuamotu Islands to the east coast of Africa, and from Australia northwards to Japan.



Gymnocranius audleyi Ogilby, 1916 **(Plate XVII, 123)**

Frequent synonyms / misidentifications: *Gymnocranius bitorquatus* Cockerell, 1916 / None.

FAO names: En - Collared large-eye bream.

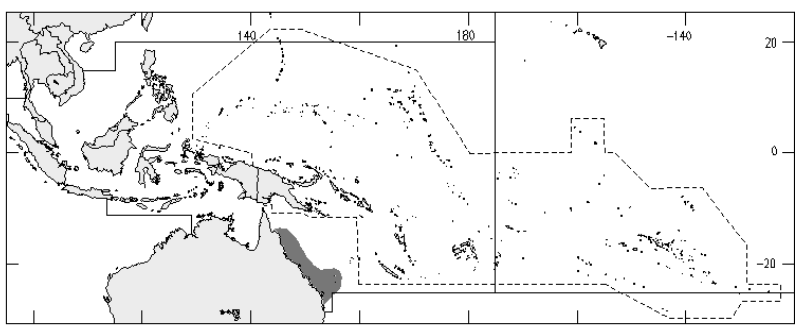


Diagnostic characters: Body oblong, its depth 2.2 to 2.4 times in standard length. Snout profile relatively steep, a bony mid-dorsal ridge on nape of adults; lower edge of eye well above a line from snout tip to middle of caudal-fin fork; eye relatively large, its diameter usually less than snout length; interorbital space flattened to slightly convex, its width less than eye diameter; suborbital space about equal to eye diameter or slightly less; jaws extending to a vertical through nostrils; **outer surface of maxilla smooth**; a pair of small, slender canines at front of each jaw; lateral teeth villiform (small and slender) with a few larger outer conical teeth. Dorsal fin with X slender spines and 10 soft rays, first 3 or 4 spines gradually increasing in length, the remainder about equal, the middle soft rays of dorsal and anal fins slightly elevated; anal fin with III slender spines and 9 or 10 soft rays; pectoral-fin rays 10; caudal fin only moderately forked with pointed tips, the median rays longer than eye diameter. Lateral-line scales 48 plus 2 tubed scales extending onto base of caudal fin; **cheek with 4 or 5 transverse scale rows; 4 to 6 rows of scales on cheeks; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral fins scaleless. Colour:** overall silver or whitish, often light brown or olive on upper sides; each scale on sides with a brown spot forming longitudinal rows, those on back darkest; top of head dull brownish or grey; cheek and opercle silvery, sometimes with a golden sheen; **parietal scale patch (on side of nape, above and behind eye) blackish surrounded by a brilliant white margin**; fins uniformly clear to slightly yellowish. Some individuals, especially those freshly dead, have scattered brown flecks on sides. Also a blackish bar running through the eye may be evident.

Size: Maximum total length about 40 cm; commonly to 35 cm.

Habitat, biology, and fisheries: Inhabits sand or rubble areas adjacent to reefs, usually at depths between about 8 to 40 m. It feeds mainly on bottom-living invertebrates. Occasionally seen in markets, although not a high-priority commercial fish. It sometimes has a distasteful iodine flavour that can actually be smelled on freshly hooked fishes. However, “untainted” fishes are good eating.

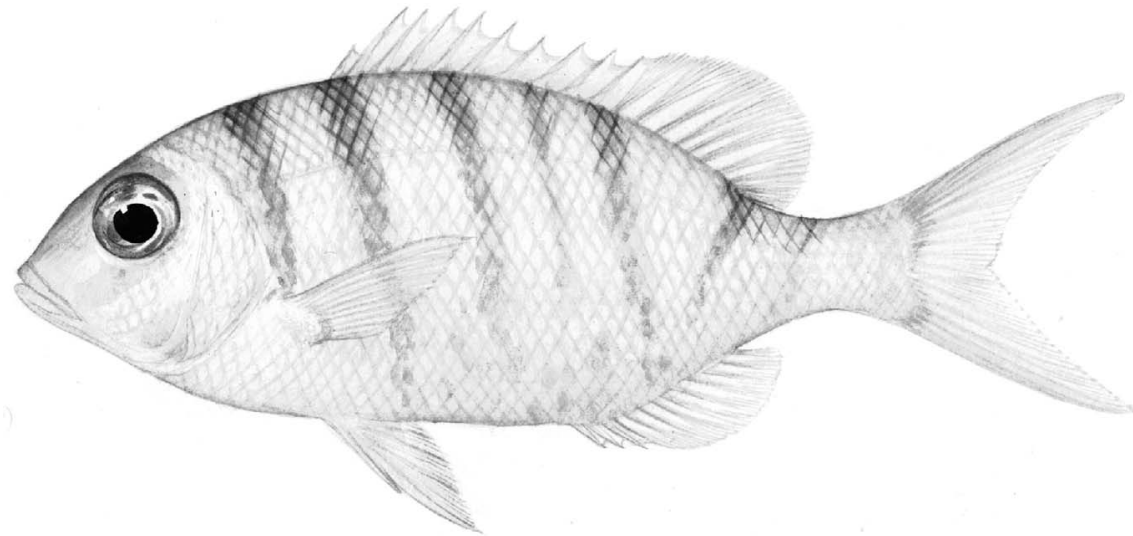
Distribution: East coast of southern Queensland, Australia. Also occurs on the southern half of the Great Barrier Reef.



Gymnocranius elongatus Senta, 1973

Frequent synonyms / misidentifications: None / None.

FAO names: En - Forktail large-eye bream.

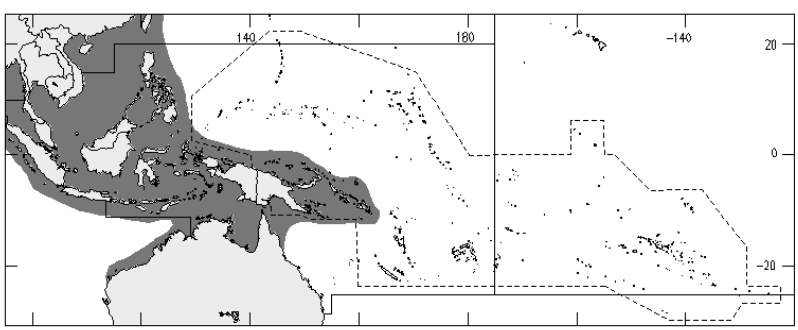


Diagnostic characters: Body oblong, its depth 2.2 to 2.4 times in standard length. Head profile evenly rounded, snout somewhat pointed; lower edge of eye intersected by line from snout tip to middle of caudal-fin fork; eye large, its diameter usually about equal to length of snout; interorbital space convex, about equal to eye diameter; preorbital width less than eye diameter; mouth relatively small, posteriormost part of jaws not reaching a vertical through front of eye; **outer surface of maxilla smooth**; 2 or 3 pair of small, slender canines at front of each jaw, lateral teeth villiform to conical; a pair of close-set, round nasal openings on each side of snout in front of eyes. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin deeply forked with pointed tips, the median rays shorter than eye diameter**. Lateral-line scales 46 to 48 plus 2 to 4 tubed scales extending onto base of caudal fin; **cheek with 4 to 6 transverse scale rows**; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; **inner surface of pectoral-fin axil scaleless. Colour:** overall silvery, sometimes slightly brownish dorsally; about 8 transverse brown bars on sides, the first crossing through eye, the remainder below dorsal fin and across caudal peduncle; scattered blotches and speckling sometimes evident on sides; fins clear to yellow-orange; caudal-fin margins and tips often deep red. There is considerable variation in the intensity of the dark bars on the sides of the body.

Size: Maximum total length about 35 cm; commonly to 25 cm.

Habitat, biology, and fisheries: Inhabits trawling grounds of the continental shelf, usually at depths between about 50 and 100 m. Feeds mainly on bottom-living invertebrates. Occasionally seen in markets, mainly fresh. Caught mostly with bottom trawls.

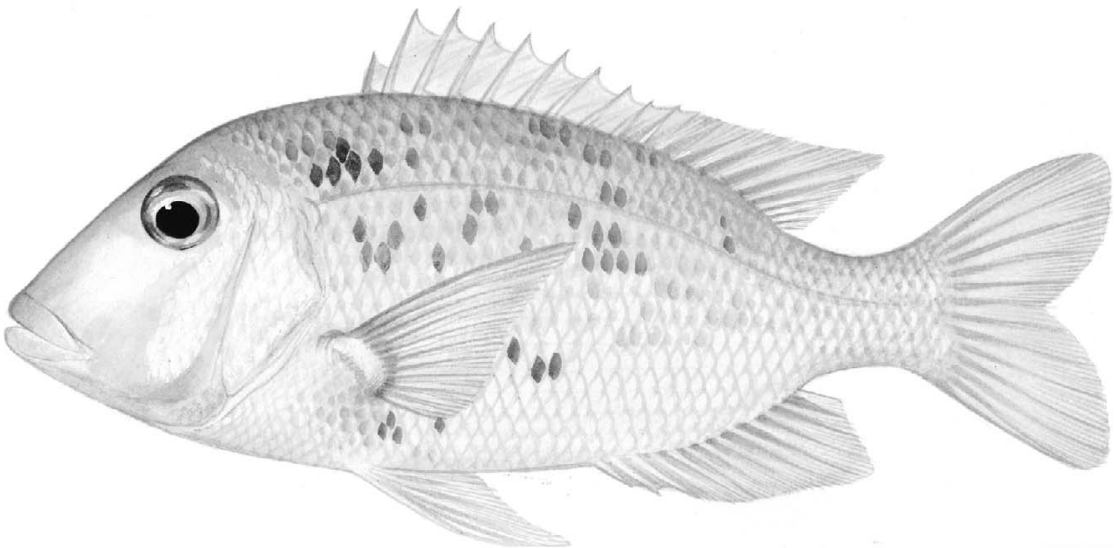
Distribution: Coastal and shelf waters of the West Pacific and eastern Indian oceans from Japan to northern Australia. It has also been reported from the western Indian Ocean, but this needs to be confirmed.



Gymnocranius euanus Günther, 1879

Frequent synonyms / misidentifications: *Gymnocranius japonicus* Akazaki, 1961 / None.

FAO names: En - Japanese large-eye bream.

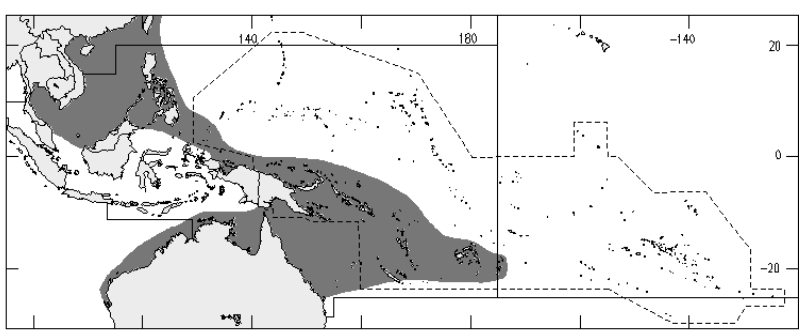


Diagnostic characters: Body oblong, its depth 2.4 to 2.5 times in standard length. Dorsal profile of head sloping steeply; lower edge of eye well above a line from tip of snout to middle of caudal-fin fork; eye relatively large, although its diameter less than interorbital space and width of preorbital width (at least in adults); mouth relatively small, posterior part of jaws reaching to about level of nostril openings; **outer surface of maxilla smooth**; 2 or 3 pairs of small, slender canines at front of each jaw, other teeth villiform, but well developed molars on lateral sections of jaws. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin moderately forked, inner edge of fork slightly convex, with blunt tips, the median rays slightly longer than eye diameter**. Lateral-line scales 48 or 49 plus 3 or 4 tubed scales extending onto base of caudal fin; **cheek with 4 or 5 transverse scale rows; 4 ½ scale rows between lateral line and base of middle dorsal-fin spines**; **inner surface of pectoral-fin axil scaleless. Colour:** overall silvery white to greyish; scales of back and sides with a small brownish basal spot; scattered prominent black blotches mainly on anterior half of body; a very faint bar sometimes present below eye to lower edge of cheek; fins mainly clear to reddish, caudal fin sometimes dusky reddish brown; faint spots may be evident on dorsal, caudal, and anal fins.

Size: Maximum total length about 45 cm; commonly to 35 cm.

Habitat biology, and fisheries: Inhabits sand and rubble bottoms adjacent to rock and coral reefs, usually at depths between 15 and 50 m. It feeds mainly on small bottom-living gastropod molluscs. Occasionally seen in markets, usually fresh. Caught mainly with bottom longlines and handlines, sometimes speared.

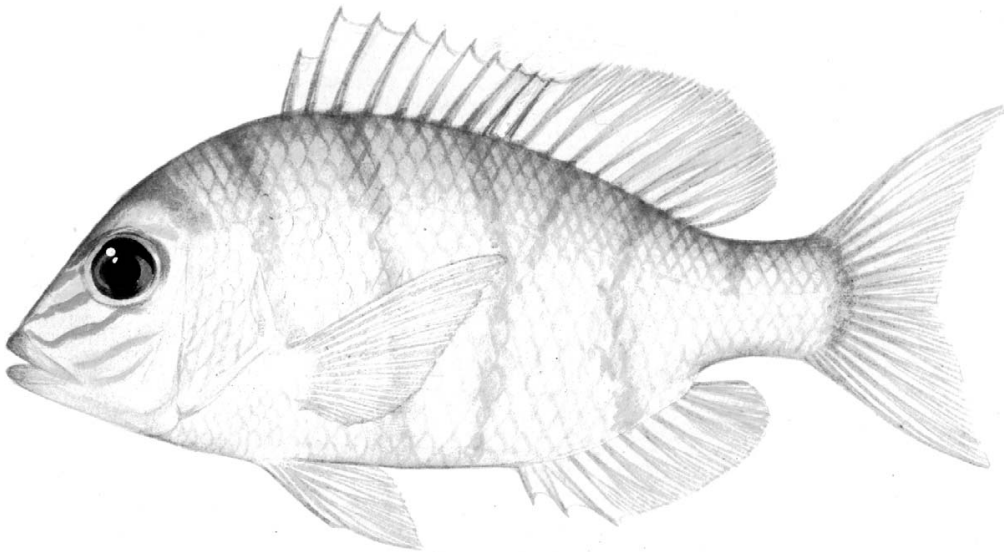
Distribution: Western Pacific Ocean including southern Japan, South China Sea, western Australia to the Great Barrier Reef of Australia, Coral Sea, New Caledonia, and Tonga.



Gymnocranius frenatus Bleeker, 1873

Frequent synonyms / misidentifications: None / None.

FAO names: En - Yellowsnout large-eye bream.

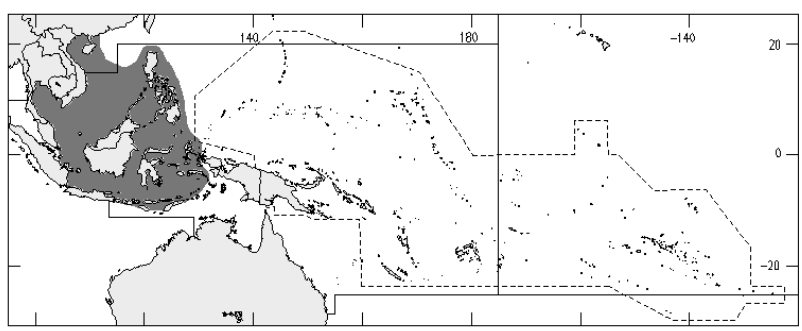


Diagnostic characters: Body oblong, its **depth 2.3 to 2.4 times in standard length**. Dorsal profile of head sloping steeply, the upper forehead profile somewhat angular, lower edge of eye well above a line from tip of snout to middle of caudal-fin fork in adults; eye relatively large, its diameter slightly greater than interorbital space and preorbital width (at least in adults); mouth relatively small, posterior part of jaws reaching to about level of nostril openings; **outer surface of maxilla smooth**; 2 or 3 pair of small, slender canines at front of upper jaw and an enlarged outward-projecting tusk on each side at front of lower jaw; other teeth villiform, but well developed molars on lateral sections of jaws. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin moderately forked, inner edge of fork straight, with pointed tips, the median rays longer than eye diameter**. Lateral-line scales 48 or 49 plus 3 or 4 tubed scales extending onto base of caudal fin; **cheek with 4 or 5 transverse scale rows; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral-fin axil scaleless**. **Colour:** overall silvery white, greyish on upper back; about 5 to 7 narrow, irregular dark bars (may be very faint) on sides; **a prominent blue-edged, yellow band from front of eye to above upper lip, encompassing nostrils**; **cheek yellowish with 3 or 4 oblique, blue bands** sloping upwards from above upper jaw towards rear part of eye; fins mainly clear or whitish; a black spot at base of upper pectoral-fin rays and narrow brown bar across base of entire fin.

Size: Maximum total length about 35 cm; commonly to 30 cm.

Habitat, biology, and fisheries: Inhabits sand, mud, and rubble bottoms, usually at depths between about 20 and 80 m. It feeds mainly on small bottom-living gastropod molluscs. Common in some markets of Malaysia, Thailand, and Viet Nam, usually fresh or dried-salted. Caught mainly with bottom trawls, but sometimes with bottom longlines and handlines.

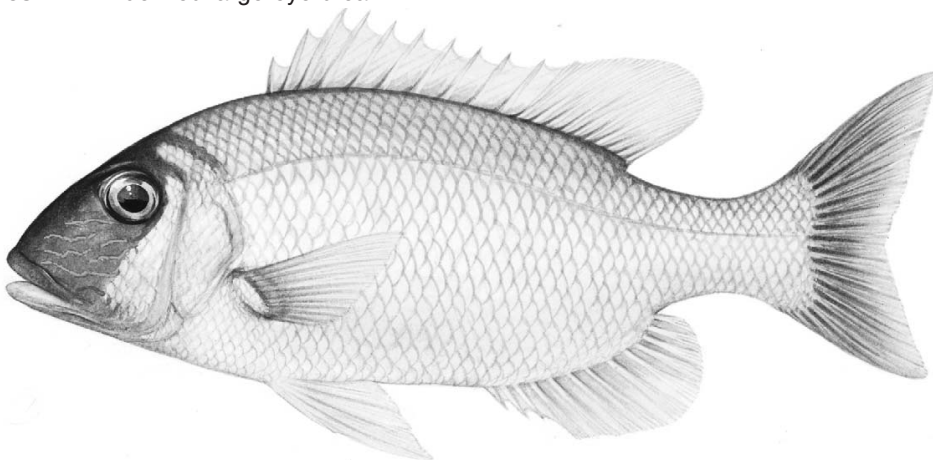
Distribution: Indo-Malaysian Archipelago and South China Sea.



Gymnocranius grandoculis (Valenciennes, 1830) **(Plate XVII, 124)**

Frequent synonyms / misidentifications: *Gymnocranius robinsoni* (Gilchrist and Thompson, 1909) / None.

FAO names: En - Bluelined large-eye bream.

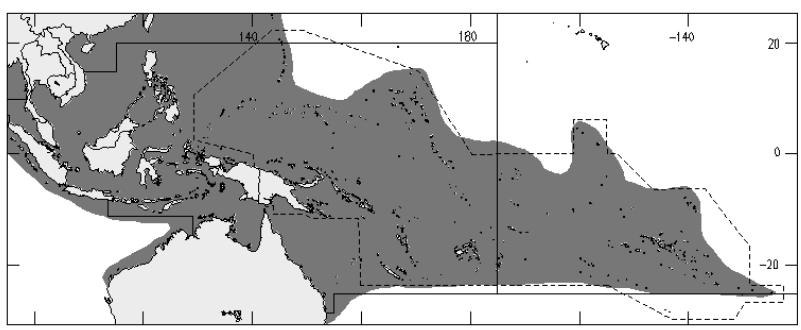


Diagnostic characters: Body oblong, its **depth usually 2.4 to 2.5 times in standard length**. Forehead profile moderately steep; large adults developing a bony ridge on nape and bony shelf over front part of eyes; lower edge of eye well above a line from tip of snout to middle of caudal-fin fork; eye relatively large, about equal to or larger than interorbital space and preorbital width in small specimens (less than about 40 cm), but much smaller in comparison to interorbital and preorbital widths in large fishes; mouth relatively small, posterior part of jaws not reaching a vertical through front of eye; **outer surface of maxilla smooth**; 2 or 3 pairs of slender canines at front of each jaw, although the outer canine on each side of lower jaw is usually enlarged; other teeth villiform, becoming strongly conical on lateral sections of jaws. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin only moderately forked with pointed tips, the median rays much longer than eye diameter**. Lateral-line scales 48 plus 2 or 3 additional tubed scales extending onto base of caudal fin; **cheek with 3 or 4 transverse scale rows; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral-fin axil scaleless**. **Colour:** overall silvery with thin brown scale margins; anterior half of head often brown; a series of narrow undulating, longitudinal lines on cheek and side of snout; fins clear to yellow or orange; caudal fin frequently dusky grey-brown; a narrow brown bar across base of pectoral fins. Juveniles under about 25 cm standard length **often with 5 or 6 irregular dark bars on side and dark bar below eye**. The bar at the level of the pectoral-fin base is usually the widest and the dark coloration extends onto the pelvic fins.

Size: Maximum total length about 80 cm, commonly to 50 cm.

Habitat, biology, and fisheries: Inhabits trawling grounds of the continental shelf and offshore rocky bottoms, usually at depths between about 50 and 100 m. It feeds mainly on bottom-living invertebrates and small fishes. Occasionally seen in markets, mostly fresh. Caught mainly with bottom longlines and bottom trawls. A good potential commercial fish if sufficient stocks can be located.

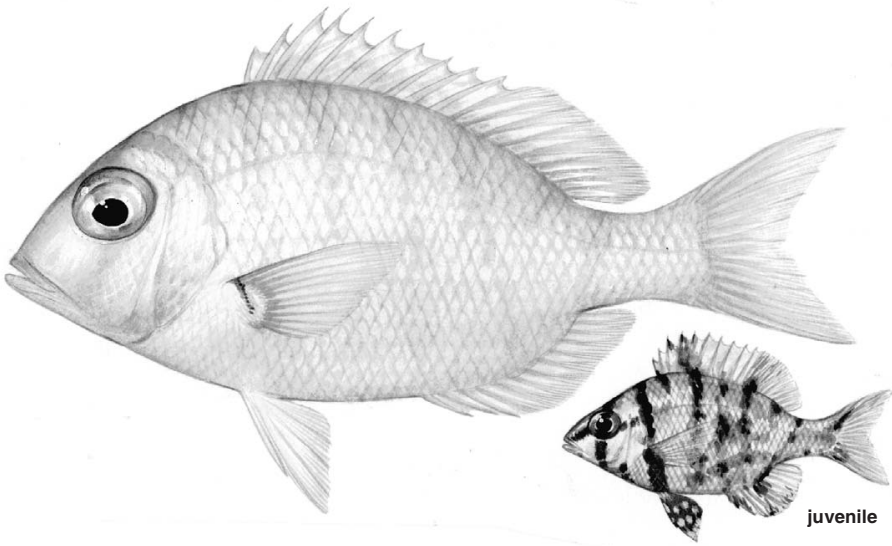
Distribution: Widely distributed in the Indian Ocean and western edge of the Pacific Ocean, from East Africa to southeastern Oceania and Australia northward to Japan.



Gymnocranius griseus (Schlegel, 1844)

Frequent synonyms / misidentifications: None / *Gymnocranius grandoculis* (Valenciennes, 1830) (juveniles).

FAO names: En - Grey large-eye bream; **Fr** - Empereur gris; **Sp** - Emperador gris.

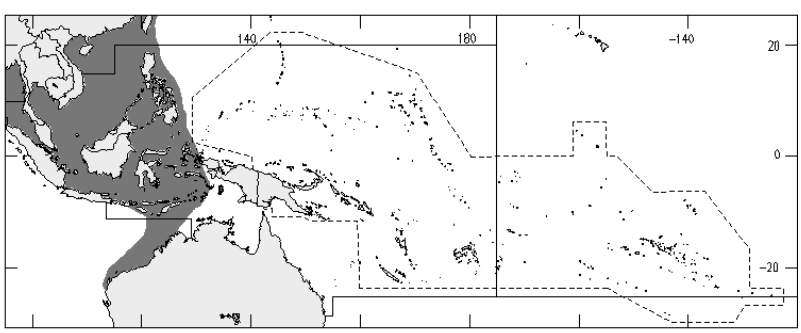


Diagnostic characters: Body oblong, its **depth usually 1.9 to 2.3 times in standard length**. Dorsal and ventral profile of head evenly convex or ventral profile slightly straighter; lower edge of eye slightly above a line from tip of snout to middle of caudal-fin fork; eye relatively large, its diameter about equal to or slightly larger than preorbital and interorbital widths, mouth relatively small, posterior part of jaws reaching to about level of anterior nostrils; **outer surface of maxilla smooth**; 2 or 3 pairs of small, slender canines at front of each jaw, other teeth villiform, becoming conical on lateral sections. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin moderately forked with pointed tips, the median rays slightly longer than eye diameter**. Lateral-line scales 46 to 48 plus 2 or 3 additional tubed scales extending onto base of caudal fin; **cheek with 4 transverse scale rows; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral-fin axil scaleless**. **Colour:** overall silvery, **frequently with a diffuse to vivid pattern of 5 to 8 narrow dark bars on side, including 1 through eye and across cheek**; fins mainly clear to yellowish, sometimes diffuse mottling or spotting on dorsal, caudal, and anal fins; often a narrow brown bar across bases of pectoral fins. Some adults with a few scattered blue spots or scribbling on the snout and cheek.

Size: Maximum total length reported as 80 cm, but it is doubtful that the species grows that large; maximum reliable total length about 35 cm, commonly to 25 cm.

Habitat, biology, and fisheries: Inhabits coastal trawling grounds, usually at depths between about 20 and 80 m. It feeds mainly on bottom-living invertebrates. Sexual maturation occurs at a fairly small size, about 15 to 17 cm standard length. Common in markets, mainly fresh, occasionally dried. Caught mainly with bottom trawls, but sometimes with handlines.

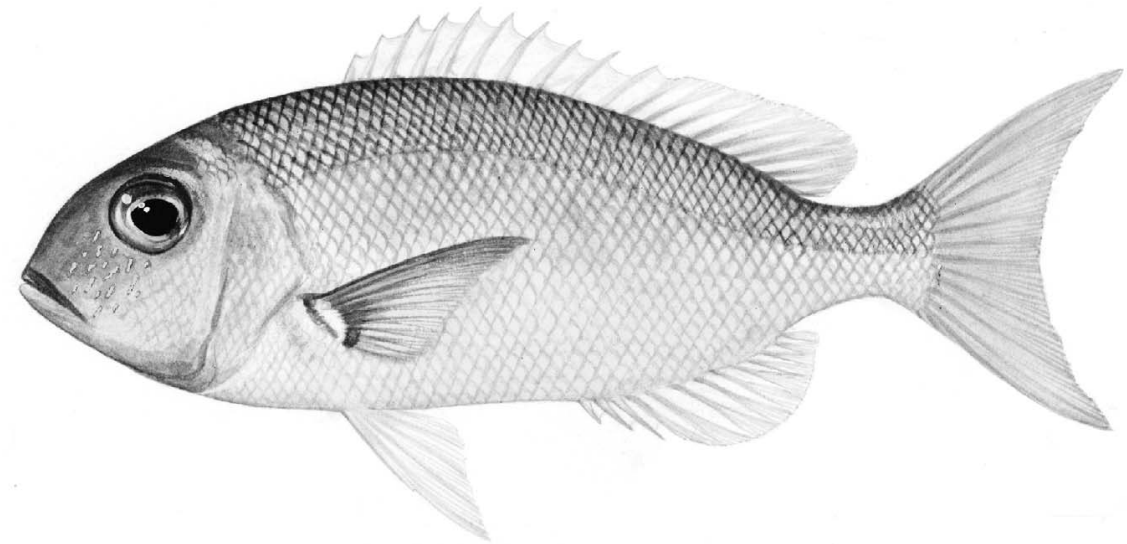
Distribution: Southern Japan to the Indo-Malaysian region, western Australia, and possibly eastward to India. The species has often been confused with the young of *Gymnocranius grandoculis*, hence the true distributional limits are somewhat obscure. Records of *G. griseus* from the western Indian Ocean probably pertain to *G. grandoculis*.



Gymnocranius microdon (Bleeker, 1851) **(Plate XVII, 125)**

Frequent synonyms / misidentifications: None / None.

FAO names: En - Bluespotted large-eye bream.

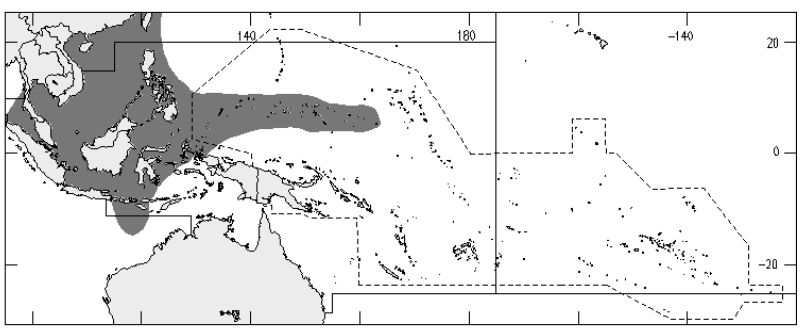


Diagnostic characters: Body oblong, its **depth 2.5 to 3 times in standard length**. Forehead profile moderately steep; lower edge of eye well above a line from tip of snout to middle of caudal-fin fork; eye large, about equal to width of preorbital and interorbital spaces; mouth relatively small, posterior part of jaws reaching to about level of nostril openings; **outer surface of maxilla smooth**; 2 or 3 pairs of small, slender canines at front of each jaw, other teeth villiform becoming conical on lateral sections of jaws. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin moderately forked with pointed tips, median rays longer than eye diameter**. Lateral-line scales 48 or 49 plus 2 or 3 tubed scales extending onto base of caudal fin; **cheek with 3 or 4 transverse scale rows; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral-fin axil scaleless**. **Colour:** overall silvery to brownish, scale margins with a narrow brown border; **numerous vertically elongate blue spots on snout and cheek**, and sometimes on operculum; fins clear to yellow or reddish, caudal fin sometimes dusky brown.

Size: Maximum total length about 45 cm; commonly to 35 cm.

Habitat, biology, and fisheries: Inhabits sand and rubble bottoms adjacent to rock and coral reefs, usually at depths between about 20 and 50 m. It feeds mainly on small bottom-living invertebrates. Occasionally seen in markets, usually fresh. Caught mainly with bottom longlines and handlines.

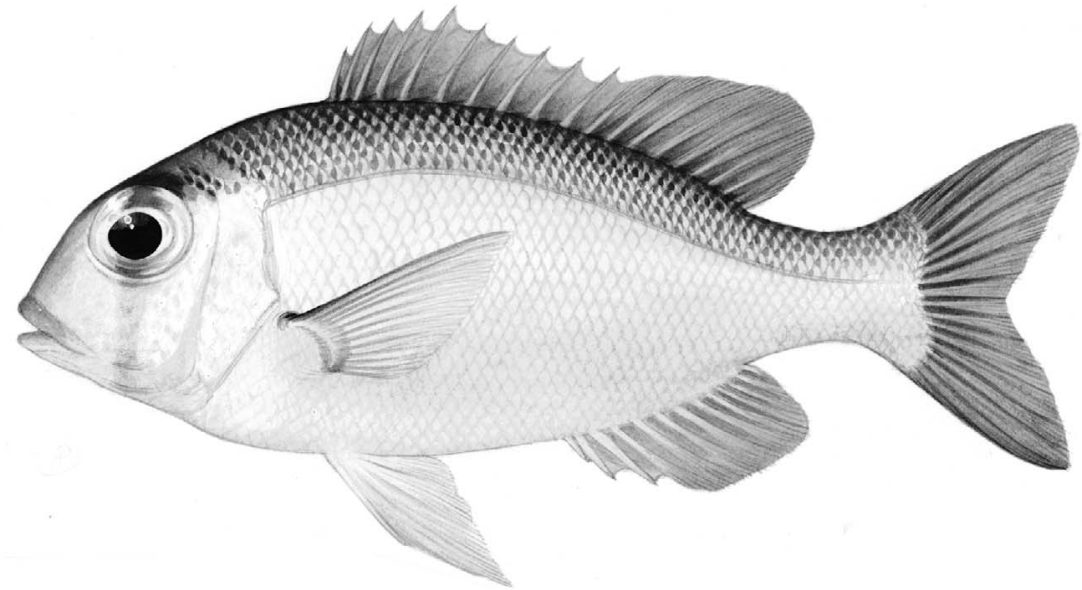
Distribution: Known thus far only from southern Japan, the South China Sea to Scott reef off northwestern Australia, the Marshall Islands, and off Phuket, Thailand in the Andaman Sea.



Gymnocranius sp.

Frequent synonyms / misidentifications: None / *Gymnocranius lethrinoides* (non Bleeker, 1850).

FAO names: En - Blacknape large-eye bream.

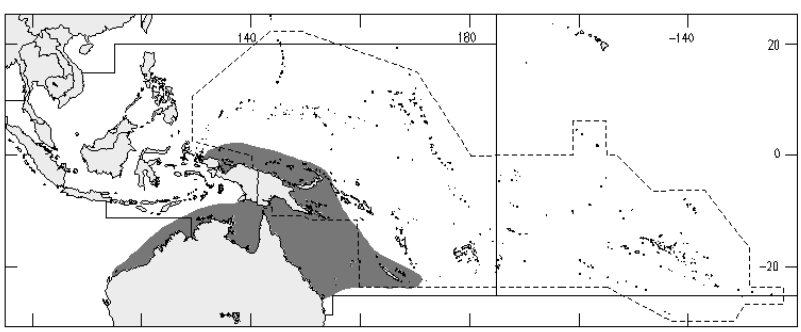


Diagnostic characters: Body oblong, its depth 2.4 to 2.5 times in standard length. Dorsal profile of head convex, the snout sloping steeply; lower edge of eye well above a line from tip of snout to middle of caudal-fin fork; eye large, its diameter about equal to interorbital space and larger than width of preorbital; mouth relatively small, posterior part of jaws reaching to about level of nostril openings; **outer surface of maxilla smooth**; 2 or 3 pairs of small, slender canines at front of each jaw, other teeth villiform, becoming conical on lateral sections of jaws. Dorsal fin with X slender spines and 10 soft rays; anal fin with III slender spines and 10 soft rays; pectoral-fin rays 14; **caudal fin moderately forked, inner edge of fork slightly convex, with blunt tips, the median rays slightly longer than eye diameter**. Lateral-line scales 47 or 48 plus 3 or 4 tubed scales extending onto base of caudal fin; **cheek with 4 or 5 transverse scale rows; 5 ½ scale rows between lateral line and base of middle dorsal-fin spines; inner surface of pectoral-fin axil scaleless**. **Colour:** overall silvery or silvery white; **scales of back (and sometimes lower on sides) with a prominent blackish basal spot forming longitudinal rows**; area immediately above eye (supraorbital shelf) blackish; a blackish (may be very faint) bar below eye to lower edge of preopercle; fins mainly clear to reddish, caudal fin sometimes dusky reddish brown.

Size: Maximum total length about 45 cm; commonly to 35 cm.

Habitat, biology, and fisheries: Inhabits sand and rubble bottoms adjacent to rock and coral reefs, usually at depths between 15 and 40 m. It feeds mainly on small bottom-living gastropod molluscs. Sexual maturation is attained by a total length of at least 27 cm. Occasionally seen in markets, usually fresh. Caught mainly with bottom longlines and handlines, sometimes speared.

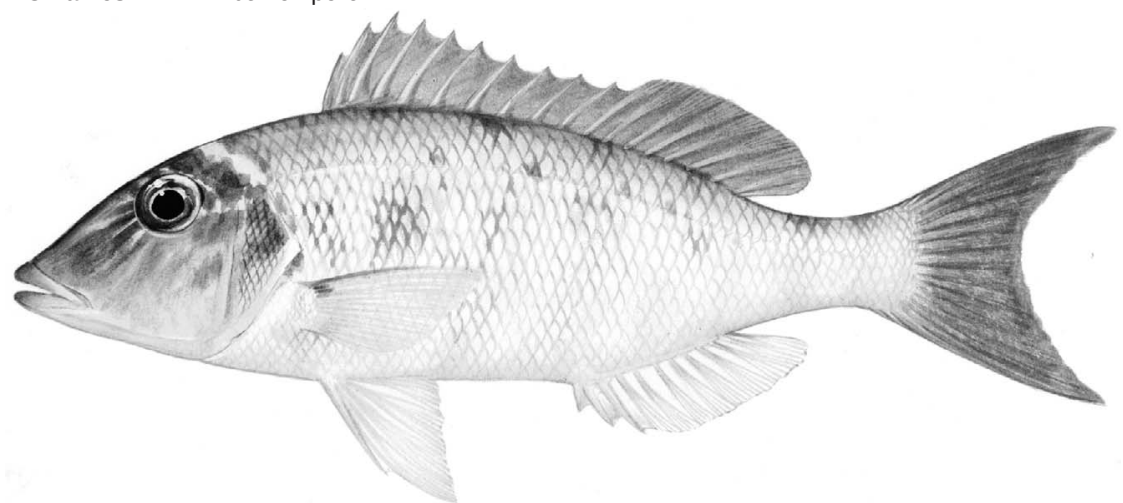
Distribution: Known only from southern Japan, western Australia to the Great Barrier Reef of Australia, Coral Sea, and New Caledonia.



Lethrinus amboinensis Bleeker, 1854 **(Plate XVII, 126)**

Frequent synonyms / misidentifications: None / *Lethrinus microdon* non Valenciennes, 1830; *L. olivaceous* non Valenciennes, 1830.

FAO names: En - Ambon emperor.

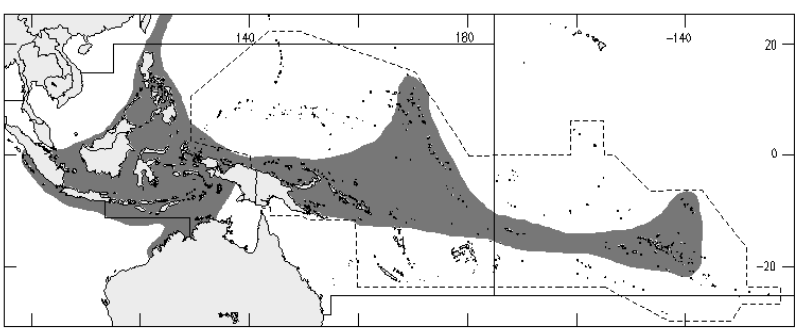


Diagnostic characters: Body moderately elongate, its **depth 2.8 to 3.3 times in standard length. Head length 1.1 to 1.3 times the body depth**, 2.5 to 2.8 times in standard length, dorsal profile in front of eye nearly straight; **snout moderately long**, its length about 1.7 to 1.9 times in head length, **measured without the lip the snout is 0.7 to 0.9 times in cheek height**, its dorsal profile concave or nearly straight, snout angle relative to upper jaw between 45° and 58°; **interorbital space convex; posterior nostril an oblong longitudinal opening**, about half-way between orbit and anterior nostril; eye not situated close to dorsal profile, its length 3.3 to 6.1 times in head length; cheek not very high, its height 2.5 to 4.0 times in head length; lateral teeth in jaws conical; outer surface of maxilla smooth, or with a longitudinal ridge. Dorsal fin with X spines and 9 soft rays, the third dorsal-fin spine usually the longest, its length 2.4 to 2.7 times in body depth; anal fin with III spines and 8 soft rays, the first soft ray usually the longest, its length much less than base of soft portion of anal fin and 1.5 to 1.9 times in length of entire anal-fin base; pectoral-fin rays 13; **pelvic-fin membranes between rays closest to body with dense melanophores**. Lateral-line scales 46 to 48; **cheek without scales; 4 ½ scale rows between lateral line and base of middle dorsal-fin spines; usually 16 or 17 scale rows in transverse series between origin of anal fin and lateral line**; 15 or 16 (usually 15) rows in lower series of scales around caudal peduncle; 5 to 11 scales in supratemporal patch; **inner surface of pectoral-fin base without scales**; posterior angle of operculum fully scaly. **Colour:** body yellowish with scattered indistinct dark blotches; head brown, sometimes with light streaks; lips reddish; **axil of pectoral fins orangish**; basal portion of centre rays of pectoral fins white, the outer edges yellow; pelvic and anal fins white or yellowish; dorsal and caudal fins mottled brown or yellow with and orange or reddish edge.

Size: Maximum reported total length about 70 cm; commonly between 30 and 50 cm.

Habitat, biology, and fisheries: Inhabits deeper waters of coral reefs and adjacent sandy bottoms. Feeds primarily on fishes and crustaceans. Very little is known of the biology of this species, perhaps because it is easily mistaken for either *Lethrinus microdon* or *L. olivaceus*, particularly larger individuals. Caught primarily with handlines; marketed fresh.

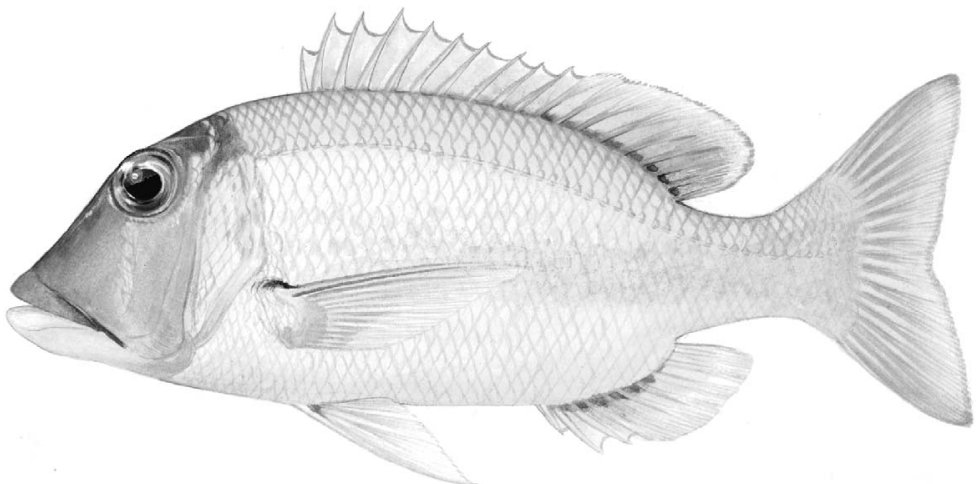
Distribution: Indonesia, northwestern Australia, Philippines to southern Japan, eastward through the Marshall Islands, Solomons, Samoa, and the Marquesas.



Lethrinus atkinsoni Seale, 1910 **(Plate XVII, 127)**

Frequent synonyms / misidentifications: None / *Lethrinus mahsena* (non Forsskål, 1775).

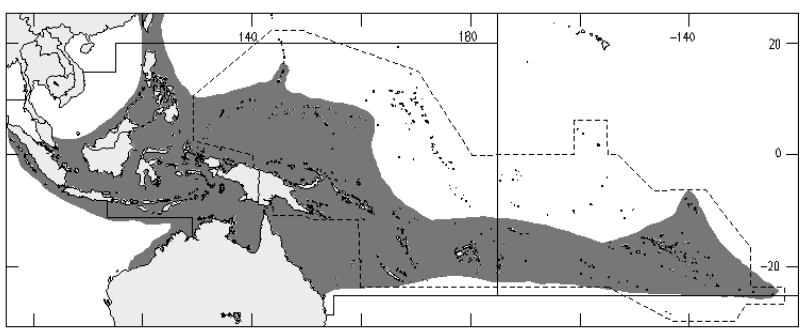
FAO names: En - Pacific yellowtail emperor.



Diagnostic characters: Body moderately deep, its depth 2.3 to 2.6 times in standard length. Head length 0.8 to 0.9 times in body depth, 2.7 to 2.9 times in standard length, dorsal profile near eye convex to approximately straight; snout moderately short and blunt, its length about 1.9 to 2.6 times in head length, measured without the lip the snout is 0.9 to 1.1 times in cheek height, its profile steep and nearly straight, **snout angle relative to upper jaw between 65° and 70°**; interorbital space convex or slightly convex; posterior nostril an oblong longitudinal opening, closer or slightly closer to orbit than to anterior nostril; eye situated close to dorsal profile, its length 3.2 to 3.8 times in head length; cheek high, its height 2.1 to 2.8 times in head length; **lateral teeth in jaws rounded or molars**; outer surface of maxilla smooth, or with a slight longitudinal ridge. Dorsal fin with X spines and 9 soft rays, the third or fourth dorsal-fin spine usually the longest, its length 2.6 to 4 times in body depth; anal fin with III spines and 8 soft rays, **the first soft ray usually the longest, its length equal to or longer than base of soft portion of anal fin and 1.1 to 1.4 times in length of entire anal-fin base**; pectoral-fin rays 13; pelvic-fin membranes between rays closest to body without dense melanophores. Lateral-line scales 46 to 47; **cheek without scales; 4 ½ scale rows between lateral line and base of middle dorsal-fin spines**; 14 to 16 scale rows in transverse series between origin of anal fin and lateral line; **13 to 15 (usually 14) rows in lower series of scales around caudal peduncle**; 4 to 8 scales in supratemporal patch; **inner surface of pectoral-fin base densely covered with scales**; posterior angle of operculum fully scaly. **Colour:** upper sides bluish grey, tan or yellowish, white ventrally, the caudal peduncle and sometimes a broad indistinct band on sides yellow; head brown, lips reddish; fins pale yellowish, orange, or reddish; the base of pectoral fins, basal membranes of anal fin and edges of pelvic, dorsal, anal, and caudal fins often reddish.

Size: Maximum size reported as about 40 to 50 cm total length; commonly between 30 and 35 cm.

Habitat, biology, and fisheries: Inhabits outer reef slopes, sandy areas in lagoons and seagrass beds to depths of about 30 m. Reported as both typically solitary and swimming in schools. Feeds primarily on crustaceans, molluscs, and fishes. Caught primarily by handline, trawl, shore seine, and gill net. Marketed mostly fresh. Good eating but not as sought after as other emperors in some areas due to its small size. Puts up a good fight on a handline. Reported to contribute about 4% to the total commercial catch in New Caledonia.

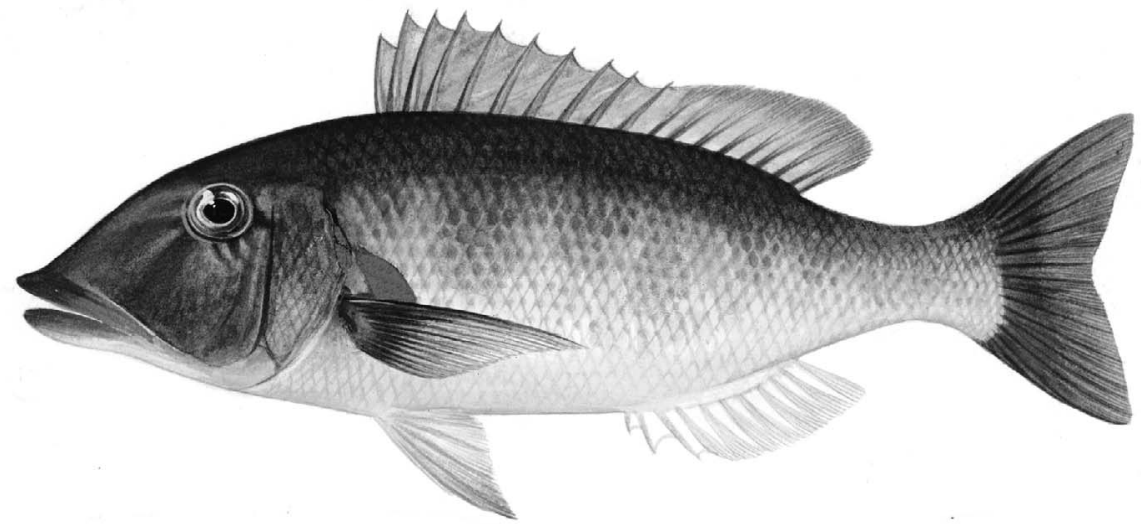


Distribution: Indonesia, northern Australia, Philippines to southern Japan, widespread throughout West Pacific to the Tuamotus.

Lethrinus conchyliatus Smith, 1959 **(Plate XVII, 128)**

Frequent synonyms / misidentifications: None / None.

FAO names: En - Redaxil emperor; **Fr** - Empereur guele de vin; **Sp** - Emperador boca de vino.

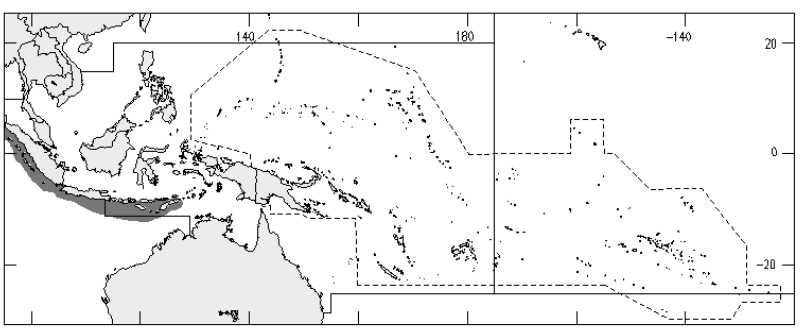


Diagnostic characters: Body moderately elongate, its depth 3.2 to 3.4 times in standard length. Head length about 1.1 to 1.3 times in body depth, about 2.5 to 2.8 times in standard length, dorsal profile near eye convex; snout length about 1.7 to 1.9 times in head length, measured without the lip the snout is about 0.7 to 0.9 times in cheek height, its dorsal profile concave with a hump in front of eye, snout angle relative to upper jaw between 45° and 60°; interorbital space convex; posterior nostril a longitudinal oblong opening, closer to orbit than anterior nostril; eye not close to dorsal profile, its length about 4.0 to 6.0 times in head length; cheek height about 2.6 to 3.2 times in head length; lateral teeth in jaws conical; outer surface of maxilla smooth. Dorsal fin with X spines and 9 soft rays, **the third or fourth dorsal-fin spine the longest**; anal fin with III spines and 8 soft rays, the first soft ray usually the longest, its length shorter than length of base of soft-rayed portion of anal fin and about 1.7 to 1.9 times in length of entire anal-fin base; pectoral-fin rays 13; pelvic-fin membranes between rays closest to body with or without dense melanophores. Lateral-line scales 47 or 48; **cheek without scales; 4 ½ scale rows between lateral line and base of middle dorsal-fin spines**; usually 16 or 17 scale rows in transverse series between origin of anal fin and lateral line; usually 15 rows in lower series of scales around caudal peduncle; 9 to 11 scales in supratemporal patch; **inner surface of pectoral-fin base without scales; a large, distinct scaleless patch above base of pectoral fins**; posterior angle of operculum fully scaly. **Colour:** body and head brownish or grey, lighter ventrally; lips, pectoral-fin base, patch above base of pectoral fins, and edge of operculum red; fins orangish, dusky, or mottled.

Size: Maximum total length 76 cm; commonly to 50 cm.

Habitat, biology, and fisheries: Inhabits deep reefs to depths of 220 m. Feeds primarily on fishes and crustaceans. Caught mostly by handline, traps, and trawl.

Distribution: Indian Ocean, from Tanzania, northern Madagascar, Chagos, Andamans, and southwestern Indonesia.



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