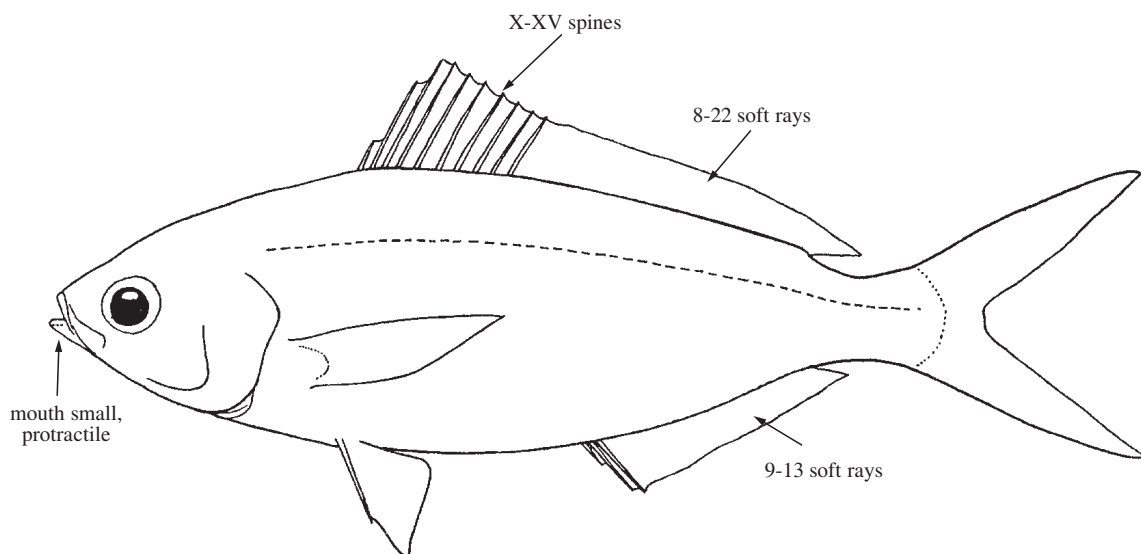


## CAESIONIDAE

## Fusiliers

by K.E. Carpenter

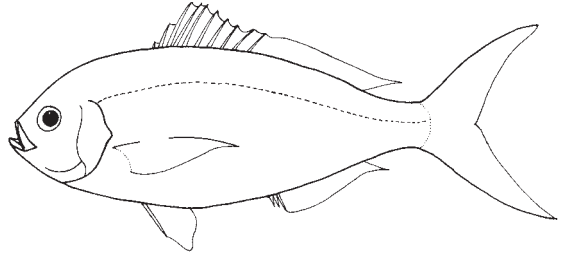
**Diagnostic characters:** Oblong to fusiform, moderately compressed, medium-sized to small (to about 50 cm) lutjanoid fishes; **longitudinal axis from tip of snout to middle of caudal fin passing through centre of eye.** Eye moderately large, its diameter longer than snout length. **Mouth small and highly protrusible;** 1 or 2 finger-like postmaxillary processes on dorsoposterior surface of premaxilla (Figs 1 and 2); angle of jaw oblique, about 40° to horizontal. Dentition variously reduced; **small or minute conical teeth;** premaxillae, vomer, and palatines with or without teeth. Caudal fin deeply forked. Margin of dorsal and anal fins more or less evenly sloping; third or fourth dorsal-fin spines longest; second or third anal-fin spines longest, remaining spines and rays gradually decreasing in length (except in *Dipterygonotus* with dorsal fin profile not evenly sloping, last IV-V dorsal-fin spines small and nearly separate, connected only at their bases by membrane, and dorsal-fin rays much longer than these spines). **Dorsal fin with X to XV slender weak spines and 8 to 22 soft rays;** **anal fin with III spines and 9 to 13 soft rays;** pelvic fins with I spine and 5 soft rays; pectoral fins with 16 to 24 rays; **caudal fin distinctly forked, with pointed lobes.** Branchiostegal rays 7. Scales moderate to small, weakly ctenoid; lateral-line scales 45 to 88; **scale rows on body running horizontally;** **dorsal and anal fins with scales except for *Gymnocaesio gymnoptera* and *Dipterygonotus balteatus*.** Ascending premaxillary process a separate ossification from premaxilla; ethmo-maxillary ligament absent; a separate A1' section of the adductor mandibulae which originates on the subocular shelf. Supraneural configuration 0/0/0+2/1+1/, /0+0/0+2/1+1/, or /0+0/2/1+1/. Epineurals 10 to 15. Procurent caudal-fin rays typically 7 to 10. Hypurals 1-2 and 3-4 typically fused in all species (except some juveniles). Openings in external wall of pars jugularis 2 to 5. **Colour:** sides with or without longitudinal stripes; caudal fin either without markings, with a blackish blotch on tips of lobes, or with a longitudinal blackish streak in middle of each lobe; **axil of pectoral fins black.**



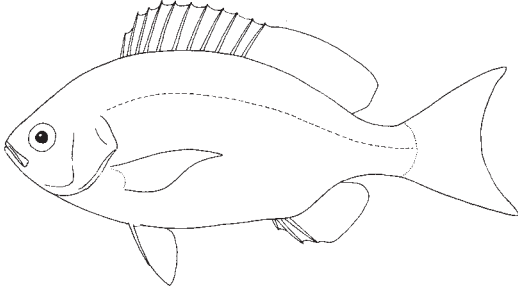
**Habitat, biology, and fisheries:** Mostly on coral reefs; occur near the surface to depths of 60 m. Feed by picking zooplankton. Schooling, often in groups with more than one species. Major importance in coral-reef fisheries where drive-in nets are employed. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a yearly catch of around 24 600 and 55 400 t of Caesionidae from the Western Central Pacific. However, much larger catches are expected in small-scale fisheries for which statistics are not available. Marketed mostly fresh but sometimes dried and as fermented fish paste.

**Similar families occurring in the area**

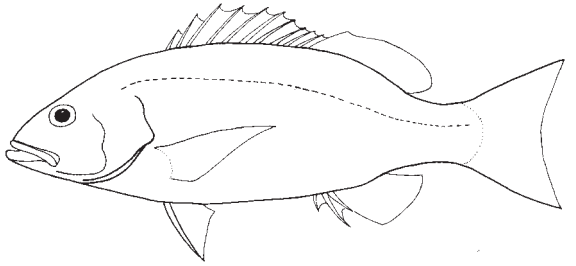
Lutjanidae: difficult to distinguish from Caesionidae on the basis of any single external character, but most members of the Lutjanidae are deeper bodied, have the eye well above the horizontal axis of the body, and lack a strongly forked caudal fin; those lutjanid genera that have the horizontal passing near the centre of the eye either have scale rows running obliquely upward, fewer than 9 anal-fin rays, no scales on dorsal and anal fins, or have the caudal fin much less deeply forked.



*Paracaesio* (Lutjanidae)

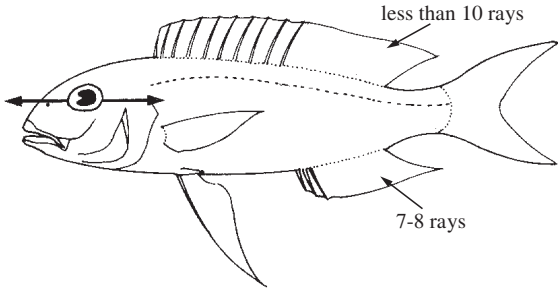


*Pinjalo* (Lutjanidae)

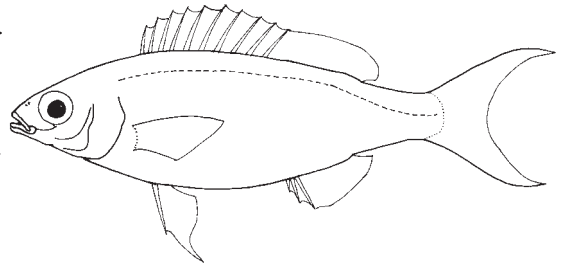


*Lutjanus* (Lutjanidae)

Nemipteridae: eye above horizontal axis of body in most species; 9 dorsal-fin rays (13 to 22 in all caesionids except for *Dipterygonotus balteatus*, which usually has 10 soft rays but rarely 8 or 9) and only 7 or 8 anal-fin rays (9 to 13 in Caesionidae).



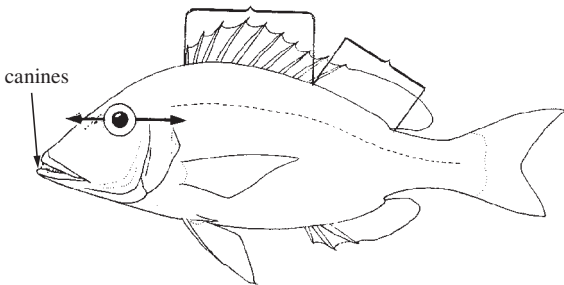
*Nemipterus* (Nemipteridae)



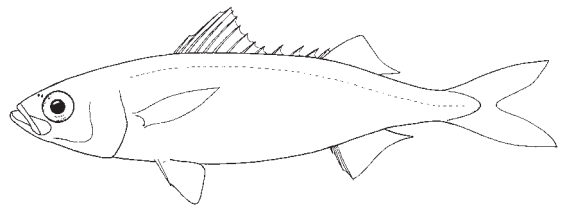
*Pentapodus* (Nemipteridae)

Lethrinidae: eye always above, and usually well above horizontal axis of body; base of soft part of dorsal fin generally shorter than base of spinous part (soft part generally longer than spinous part in Caesionidae); 8 to 10 soft rays in anal fin (usually 11 or more in caesionids except in *Dipterygonotus balteatus* which has 9 to 11); usually enlarged canines in front of jaws, sometimes lateral molars.

Emmelichthyidae: superficially similar but caught in deep water; maxilla fully scaly (not scaly in Caesionidae); dorsal fin with XI spines and usually 12 soft rays.



Lethrinidae

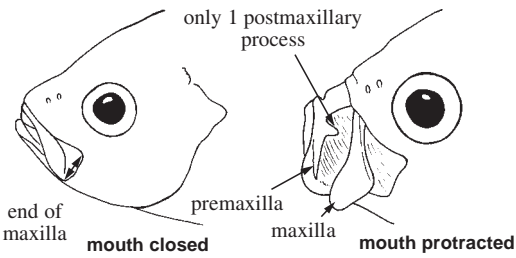


Emmelichthyidae

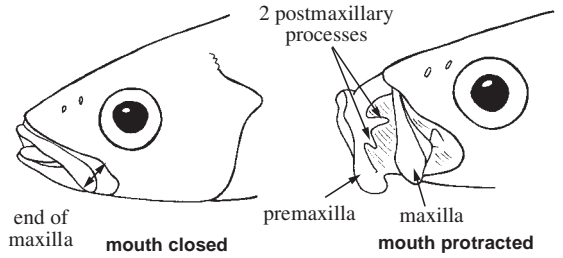
**Key to the species of Caesionidae occurring in the area**

Remarks on key characters: there has been much confusion with species names of caesionids because preserved specimens are difficult to identify. The species of this family are easily distinguished on the basis of colours of living or fresh specimens, but these colour patterns usually do not preserve well. The morphological features of caesionids are often difficult to use in identification due to the feebleness of the structures. Scales readily detach, and rays are slender and easily broken; teeth are small and weak and often require staining for proper characterization. When these elements are not broken or detached, they are useful taxonomically. The overlaps in counts, however, are such that, based on meristics alone, there is often a possibility of misidentification. For this reason, when life colours are not known, it is better to base identifications on a number of specimens.

- 1a. A single postmaxillary process; posterior end of maxilla blunt, its greatest depth posterior to end of premaxilla (Fig. 1) . . . . . (*Caesio*) → 2
- 1b. Two postmaxillary processes; posterior end of maxilla tapered, its greatest depth anterior to end of premaxilla (Fig. 2) . . . . . (*Dipterygonotus*, *Gymnocaesio*, *Pterocaesio*) → 6

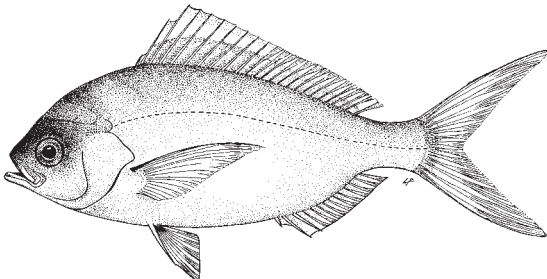
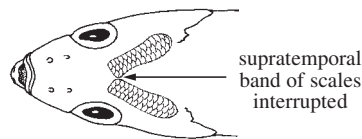
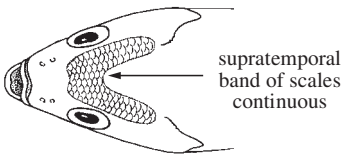


**Fig. 1 *Caesio***

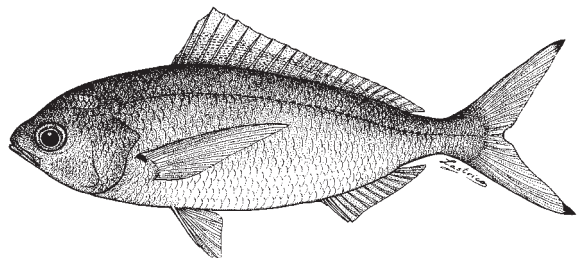


**Fig. 2 *Dipterygonotus***

- 2a. Anal fin usually with 11 soft rays . . . . . → 3
- 2b. Anal fin usually with 12 soft rays . . . . . → 4
- 3a. Dorsal fin usually with 15 soft rays; supratemporal band of scales confluent at dorsal midline (Fig. 3); caudal fin without any prominent blackish markings (Fig. 3) . . . . . *Caesio cuning*
- 3b. Dorsal fin usually with 14 soft rays; supratemporal band of scales interrupted at dorsal midline by a thin scaleless zone (Fig. 4); tips of caudal-fin lobes with a blackish blotch (Fig. 4) . . . . . *Caesio lunaris*



**Fig. 3 *Caesio cuning***



**Fig. 4 *Caesio lunaris***

- 4a. Lateral-line scales 57 to 65; scale rows on spinous portion of dorsal fin horizontal (Fig. 5a); caudal fin not yellow, each lobe with a median blackish streak (Fig. 6) . *Caesio caerulea*
- 4b. Lateral-line scales 51 to 61; upper scale rows on spinous portion of dorsal fin usually oblique (Fig. 5b); caudal fin yellow in life, without blackish markings . . . . . → 5

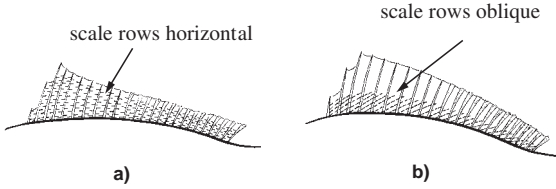


Fig. 5 dorsal fin

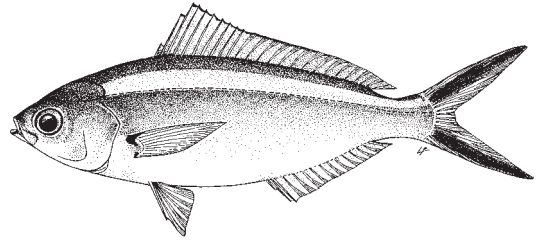


Fig. 6 *Caesio caerulea*

- 5a. Body yellow dorsally, blue on side, the demarcation horizontal from interorbital space across upper third of body; predorsal and supratemporal region not considerably darker than dorsal part of caudal peduncle in alcohol-preserved specimens (Fig. 7) . . . *Caesio xanthonota*
- 5b. Body yellow dorsally, blue on side, the demarcation oblique from slightly anterior to origin of dorsal fin to lower posterior part of caudal peduncle (in western and Central Pacific the yellow region in adults is restricted to caudal peduncle); predorsal region, especially supratemporal and interorbital region, considerably darker than dorsal part of caudal peduncle in alcohol-preserved specimens (Fig. 8) . . . . . *Caesio teres*

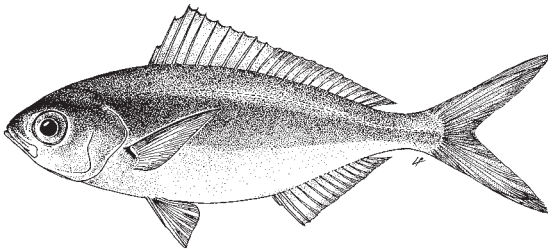


Fig. 7 *Caesio xanthonota*

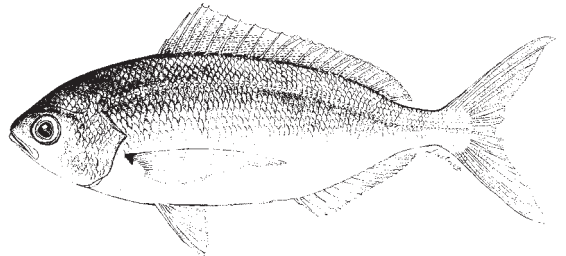


Fig. 8 *Caesio teres*

- 6a. Dorsal and anal fins scaly; premaxilla with small conical teeth, sometimes restricted to front of jaw . . . . . (*Pterocaesio*) → 7
- 6b. Dorsal and anal fins without scales; premaxilla without teeth . (*Dipterygonotus, Gymnoaesio*) → 15

- 7a. Dorsal fin with XI or XII (rarely X) spines and 19 to 22 soft rays; a blackish streak in each caudal-fin lobe (Fig. 9) . . . . . *Pterocaesio tile*
- 7b. Dorsal fin with X or XI (usually X) spines and 14 to 16 soft rays; tips of caudal-fin lobes with a black blotch . . . . . → 8

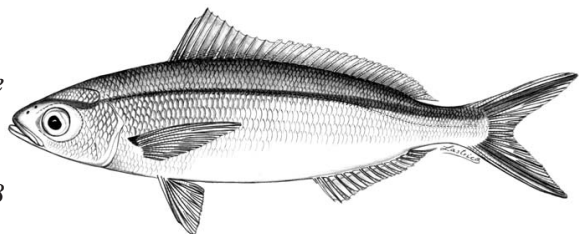
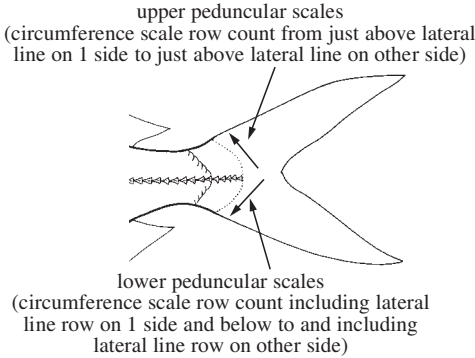
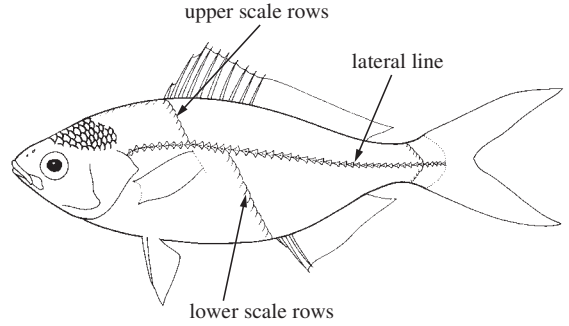


Fig. 9 *Pterocaesio tile*

- 8a. Dorsal peduncular scales usually 11 (rarely 12) (Fig. 10); lateral-line scales 62 to 75; pectoral-fin rays 17 to 21 (most frequently 19 or 20); scales above lateral line to dorsal-fin origin usually 8 or 9 (Fig. 11); scales below lateral line to anal-fin origin usually 13 to 17 (Fig. 11); side with or without stripes . . . . . → 9
- 8b. Dorsal peduncular scales usually 12 or 13 (rarely 11 or 14) (Fig. 10); lateral-line scales 66 to 88; pectoral-fin rays 20 to 24 (always most frequently 21 or above); scales above lateral line to dorsal-fin origin 9 to 11 (Fig. 11); scales below lateral line to anal-fin origin usually 16 to 18 (Fig. 11); side with 1 or more longitudinal stripes . . . . . → 11

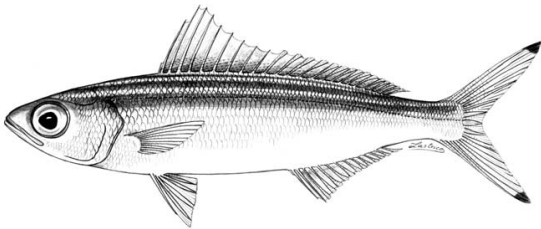


**Fig. 10** scale counts on caudal peduncle

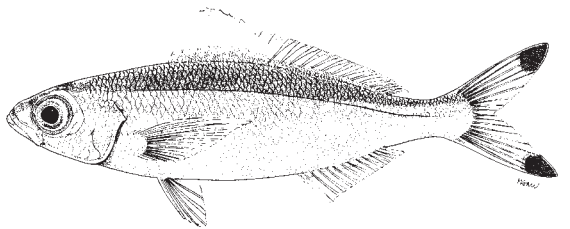


**Fig. 11** counts of scale rows above and below lateral line (do not include lateral line or midline scale rows)

- 9a. Pectoral-fin rays usually 19 to 21 (most frequently 20); 3 light and 3 dark stripes on upper side in life (Fig. 12) . . . . . *Pterocaesio trilineata*
- 9b. Pectoral-fin rays 17 to 20 (most frequently 19); side without stripes or with at most, 2 stripes . . . . . → 10
- 10a. Body without stripes on side, its colour reddish or greenish blue . . . . . *Pterocaesio pisang*
- 10b. Two yellow stripes on side in life, one on dorsal midline on nape and along base of dorsal fin, and the other, which is broader anteriorly, directly below lateral line for most its length, except above lateral line on caudal peduncle (Fig. 13) . . . . . *Pterocaesio chrysozona*

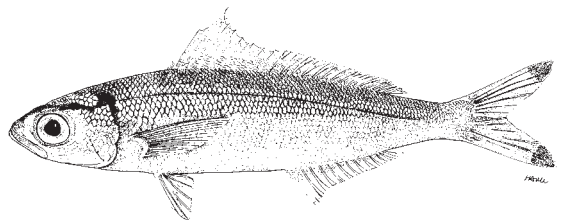


**Fig. 12** *Pterocaesio trilineata*



**Fig. 13** *Pterocaesio chrysozona*

- 11a. Lateral-line scales 74 to 88; pectoral-fin rays 21 to 23 (most frequently 22); a broad yellow stripe on side in life, wider anteriorly, covering lateral line for most its length (Fig. 14) . . . . . *Pterocaesio lativittata*
- 11b. Lateral-line scales 66 to 80; pectoral-fin rays either 20 to 22 (most frequently 21) or 22 to 24 (most frequently 23); either a thin yellow stripe on side or a large yellow blotch above pectoral-fin base . . . . . → 12



**Fig. 14** *Pterocaesio lativittata*

**12a.** Pectoral-fin rays 22 to 24 (most frequently 23); 2 thin yellow stripes on side, the lower stripe covering lateral line for most its length, above lateral line on caudal peduncle, the upper stripe mostly 1 or 2 scales below the dorsal profile of the body (Fig. 15) . . . *Pterocaesio marri*

**12b.** Pectoral-fin rays 20 to 22 (most frequently 21); 1 or 2 yellow lines or a large yellow blotch on side (if there are 2 lines, the lower one is distinctly below lateral line for most its length, except on caudal peduncle where it is above lateral line) . . . . . → 13

**13a.** A large yellow blotch above pectoral fins in life; no stripes on side (Fig. 16) . . . *Pterocaesio randalli*

**13b.** No large yellow blotch above pectoral fins; 1 or 2 yellow stripes on side . . . . . → 14

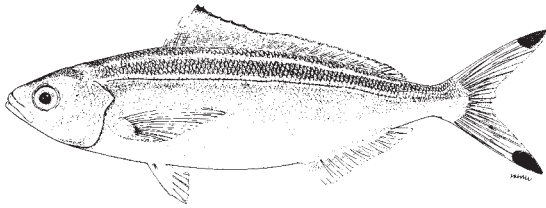


Fig. 15 *Pterocaesio marri*

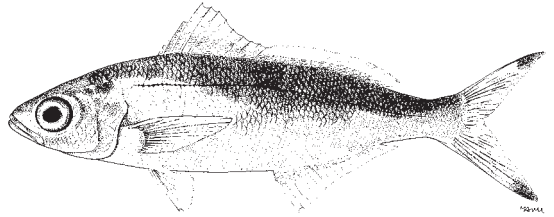


Fig. 16 *Pterocaesio randalli*

**14a.** A single thin yellow stripe on side covering lateral line for most its length, on caudal peduncle above lateral line (Fig. 17) . . . . . *Pterocaesio tessellata*

**14b.** Two thin longitudinal stripes on side, the lower distinctly below lateral line for most its length, on caudal peduncle above lateral line, the upper following dorsal profile (Fig. 18) . *Pterocaesio digramma*

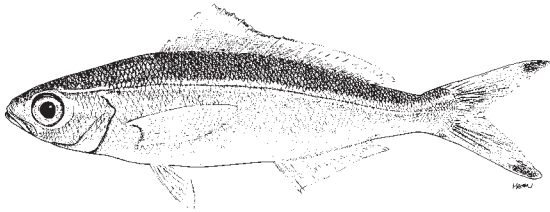


Fig. 17 *Pterocaesio tessellata*

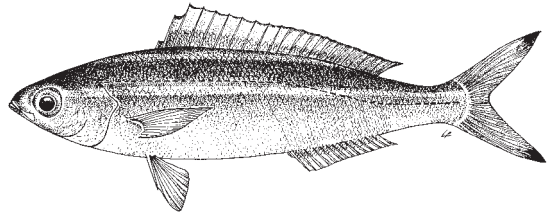


Fig. 18 *Pterocaesio digramma*

**15a.** Dorsal fin with X or XI (usually X) spines and 14 to 16 (usually 15) soft rays, the fin not deeply notched; anal fin with III spines and 11 to 13 (usually 12) soft rays; pectoral-fin rays 20 to 22 (Fig. 19) . . . . . *Gymnocaesio gymnoptera*

**15b.** Dorsal fin with XII to XV (usually XIV) spines and 8 to 11 (usually 10) soft rays, the fin deeply notched, the last few spines joined only at base by fin membrane; anal fin with III spines and 9 to 11 (usually 10) soft rays; pectoral-fin rays 16 to 19 (Fig. 20) . . . . . *Dipterygonotus balteatus*

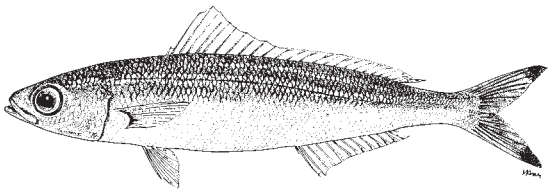


Fig. 19 *Gymnocaesio gymnoptera*

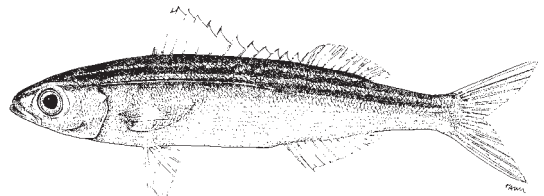











Fig. 20 *Dipterygonotus balteatus*

**List of species occurring in the area**

The symbol  is given when species accounts are included.

-  *Caesio caerulaurea* Lacepède, 1801
-  *Caesio cuning* (Bloch, 1791)
-  *Caesio lunaris* Cuvier, 1830
-  *Caesio teres* Seale, 1906
-  *Caesio xanthonota* Bleeker, 1853
-  *Dipterygonotus balteatus* (Valciennes, 1830)
-  *Gymnocaesio gymnoptera* (Bleeker, 1856)
-  *Pterocaesio chrysozona* (Cuvier, 1830)
-  *Pterocaesio digramma* (Bleeker, 1865)
-  *Pterocaesio lativittata* Carpenter, 1987
-  *Pterocaesio marri* Schultz, 1953
-  *Pterocaesio pisang* (Bleeker, 1853)
-  *Pterocaesio randalli* Carpenter, 1987
-  *Pterocaesio tessellata* Carpenter, 1987
-  *Pterocaesio tile* (Cuvier, 1830)
-  *Pterocaesio trilineata* Carpenter, 1987

**References**

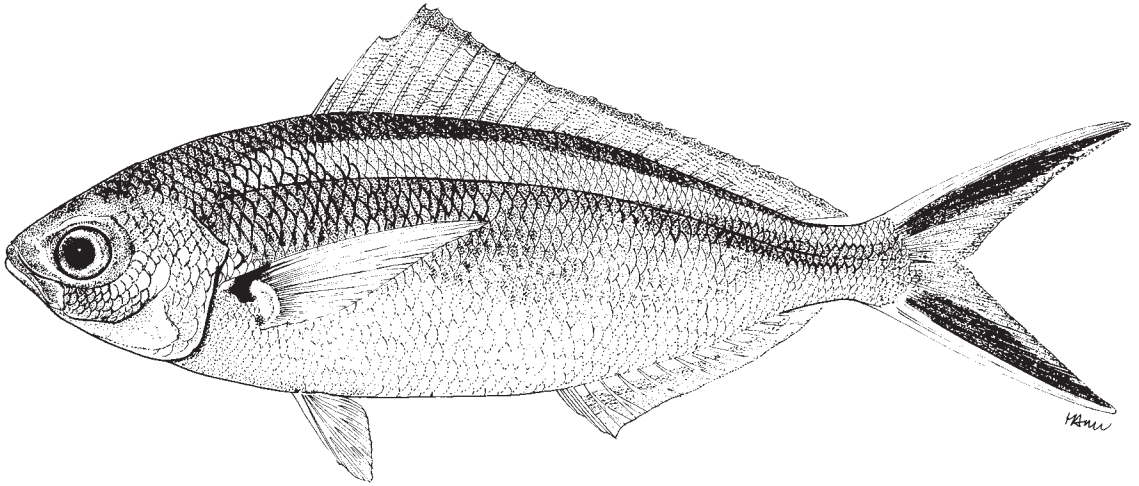
- Carpenter, K.C. 1987. Revision of the Indo-Pacific fish family Caesionidae (Perciformes: Lutjanioidea), with descriptions of five new species. *Indo-Pac. Fish.*, (15):56 p.
- Carpenter, K.C. 1988. Fusilier fishes of the world. An annotated and illustrated catalogue of caesionid species known to date. *FAO Fish. Synop.*, (125)Vol. 8:75 p.

*Caesio caerulea* Lacepède, 1801

(Plate XI, 75)

**Frequent synonyms / misidentifications:** None / *Caesio varilineata* non Carpenter, 1987.

**FAO names:** En - Blue-and-gold fusilier; Fr - Caesio azuror; Sp - Fusilero azul.

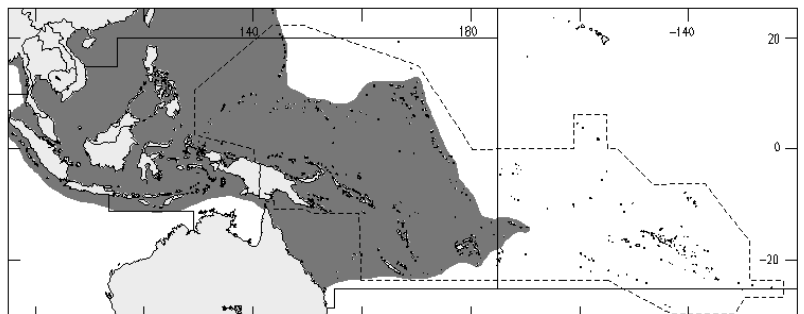


**Diagnostic characters:** Body moderately deep, fusiform, elongate, and moderately compressed. Ratio of eye diameter to head length usually around 3.4 to 4.2; **a single postmaxillary process**; small conical teeth in jaws, vomer, and palatines. Dorsal fin with X spines and 15 (rarely 14 or 16) soft rays; **anal fin with III spines and 12 (rarely 13) soft rays**; pectoral fins with 20 to 22 (rarely 19) rays. **Scales in lateral line 57 to 65 (most frequently around 61)**; upper peduncular scale rows usually 11, lower peduncular scale rows usually 15; scale rows above lateral line to origin of dorsal fin 8 to 10 (most frequently 9); scale rows below lateral line to origin of anal fin usually 15 to 17; scale rows on cheek usually 4; predorsal scales usually 22 to 25; dorsal and anal fins scaly, the spinous part of dorsal fin with about 3/4 of its greatest height covered with scales, **the scale rows on spinous part of dorsal fin horizontal**; **supratemporal bands of scales often interrupted at dorsal midline by a scaleless zone, always a V-shaped scaleless zone anteriorly at midline intruding between the supratemporal band of scales**. **Colour:** upper body bluish, lower body white to pale bluish; **a single yellow stripe directly above lateral line except on caudal peduncle where it is about 1 scale above lateral line, the yellow stripe 2 or 3 scales wide, bordered directly above and below by a white or light blue stripe which is about 1 scale wide** (juveniles sometimes have another black stripe between the yellow stripe and each of the whitish outer stripes); **caudal-fin lobes with a black median streak**, the tips not markedly darker than the streak; outer margin of each caudal-fin lobe often bordered in white, and inner margins pale; pectoral, pelvic, and anal fins white; axil of pectoral fins black, and a black triangular patch on outside upper base; dorsal fin light blue to pale with a black distal border.

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

**Habitat, biology, and fisheries:** Inhabits coastal areas, primarily around coral reefs to depths of around 40 m. Feeds by picking zooplankton. Schooling, often feeding in large midwater aggregations; commonly schools together with *Caesio varilineata*, *C. striata*, and *Pterocaesio tile*. Moderately important in coastal fisheries. Common in markets in Indonesia and the Philippines. Caught by drive-in nets, gill nets, traps, trawls, and handlines. Marketed fresh and sometimes dried-salted. Juveniles are important as tuna baitfish in some areas.

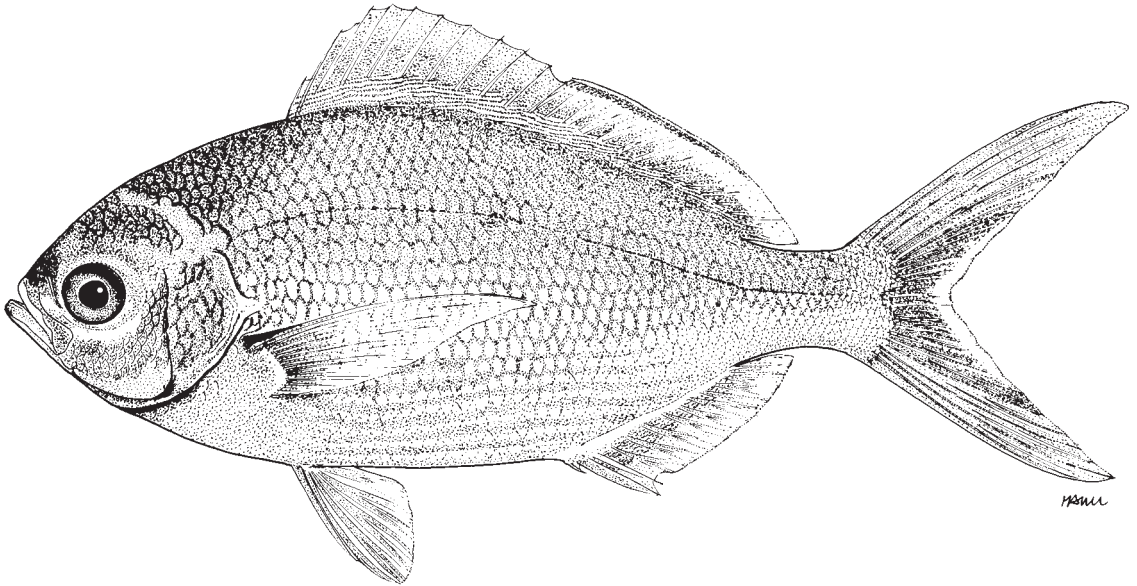
**Distribution:** Widespread in the tropical Indo-West Pacific, from East Africa, including the Red Sea but not the Persian Gulf, to Samoa; north to southern Japan and south to Mauritius and New Caledonia.





***Caesio cuning*** (Bloch, 1791)

(Plate XI, 76)

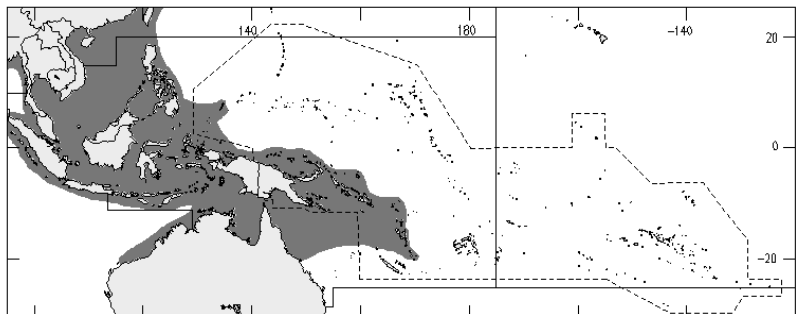
**Frequent synonyms / misidentifications:** *Caesio erythrogaster* Cuvier, 1830 / None.**FAO names:** En - Redbelly yellowtail fusilier; Fr - Caesio ventre rouge; Sp - Fusilero vientre colorado.

**Diagnostic characters:** Body fairly deep and compressed. **A single postmaxillary process;** small, conical teeth in jaws, vomer, and palatines. **Dorsal fin with X spines and 15 (rarely 14 or 16) soft rays; anal fin with III spines and 11 (rarely 10 or 12) soft rays;** pectoral fins with 18 or 19 (rarely 17 or 20) rays. Scales in lateral line 45 to 51 (most frequently 49); upper peduncular scales usually 9 or 10, lower peduncular scales usually 13 or 14; scales above lateral line to origin of dorsal fin usually 8 or 9; scales below lateral line to origin of anal fin usually 15 to 17; 4 or 5 scale rows on cheek; predorsal scales usually 21 to 25; dorsal and anal fins scaly, the dorsal fin with about 1/2 of its greatest spinous height covered with scales; **supratemporal band of scales confluent at dorsal midline. Colour: caudal fin, upper caudal peduncle and posterior portion of back yellow; upper body, where not yellow, greyish blue;** lower sides and belly white or pinkish; pectoral, pelvic, and anal fins white to pink; axil and upper base of pectoral fins black; dorsal fin yellow posteriorly and greyish blue anteriorly.

**Size:** Maximum total length about 50 cm.

**Habitat, biology, and fisheries:** Inhabits coastal areas, usually over rocky and coral reefs to depths of around 60 m. Of all the caesionids, *Caesio cuning* appears most tolerant of murky water; it is usually the most abundant caesionid in reef areas characterized by low underwater visibility. This species ranges widely between reefs as it is often captured by trawl net over soft bottom. A schooling fish, found in small to large aggregations. Feeds primarily on zooplankton in midwater. A moderately important food fish in many areas. Common in markets in the Gulf of Thailand where it is taken in trawls; also caught in Indonesia, the Philippines, and Papua New Guinea by a variety of methods including drive-in nets, fish traps, and gill nets. Marketed mostly fresh.

**Distribution:** Tropical eastern Indian Ocean to the western Pacific, from Sri Lanka to Vanuatu, and from southern Japan to northwestern and northeastern Australia.

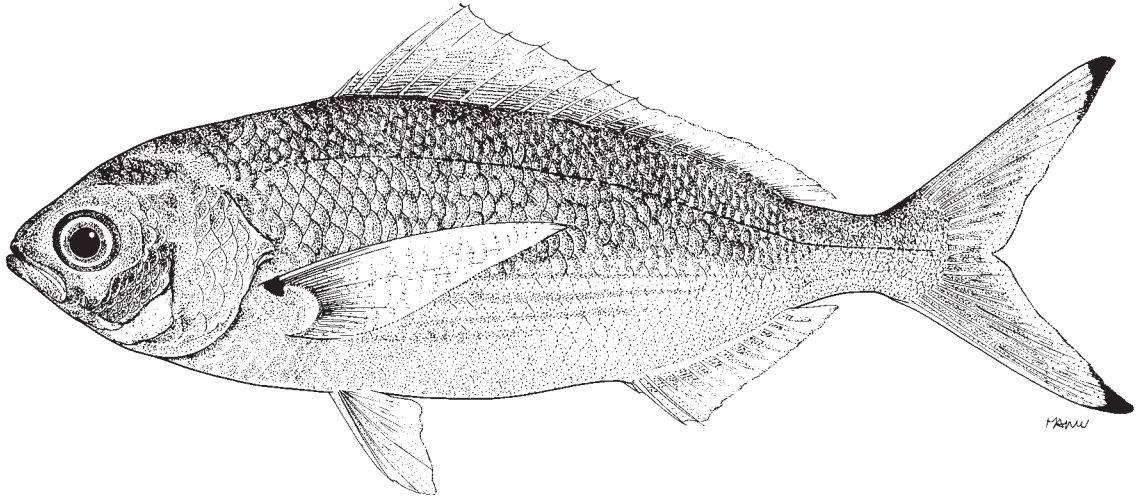


*Caesio lunaris* Cuvier, 1830

(Plate XI, 77)

**Frequent synonyms / misidentifications:** None / None.

**FAO names:** En - Lunar fusilier; Fr - Caesio croissant; Sp - Fusilero luna.

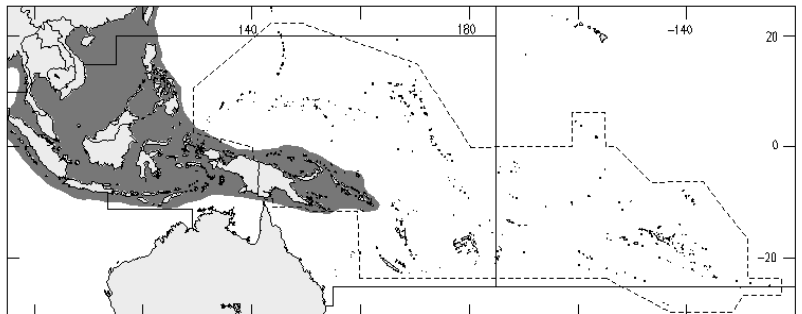


**Diagnostic characters:** Body fairly deep, fusiform, and moderately compressed. **A single postmaxillary process;** small conical teeth in jaws, vomer, and palatines. **Dorsal fin with X spines and 14 (rarely 13 or 15) soft rays; anal fin with III spines and 11 (rarely 10) soft rays;** pectoral fins with 19 or 20 (rarely 18 or 21) rays. Scales in lateral line 45 to 53 (most frequently 49); upper peduncular scales usually 10 or 11, lower peduncular scales usually 14 or 15; scales above lateral line to origin of dorsal fin usually 8 or 9; scales below lateral line to origin of anal fin usually 15 to 19; usually 4 scale rows on cheek; predorsal scales usually 20 to 23; dorsal and anal fins scaly, the dorsal fin with about 3/4 of its greatest spinous height covered with scales; **supratemporal band of scales generally interrupted at dorsal midline by a narrow scaleless zone.** **Colour:** body bluish, belly paler than upper sides; **tips of caudal-fin lobes, axil of pectoral fins, and upper base of pectoral fins black;** caudal fin blue (except in juveniles where caudal fin and portions of caudal peduncle often yellow); pectoral, pelvic, and anal fins white to pale blue; dorsal fin bluish.

**Size:** Maximum size about 40 cm.

**Habitat, biology, and fisheries:** Found in coastal areas, mainly on or near coral reefs. They feed on zooplankton in large aggregations. Unlike most other caesionids, this species changes colour during development. As juveniles, they stay close to the reef and school with other juvenile caesionids; commonly with *Caesio cuning*. During this stage, they typically have a yellow caudal fin and peduncle. As adults, they mostly feed a little further off the reef than other fusiliers, in deep, clear water; returning to the reef only at night to shelter. Adults lose the yellow coloration, perhaps because it is conspicuous in clear, deep water. Of minor importance to fisheries in most areas. Caught primarily by drive-in net, seines, and fish traps. Marketed mostly fresh.

**Distribution:** Widespread in the Indo-West Pacific, from East Africa, including the Red Sea and the Persian Gulf, to southern Japan and the Solomon Islands.



*Caesio teres* Seale, 1906

(Plate XI, 78)

**Frequent synonyms / misidentifications:** None / *Caesio xanthonota* non Bleeker, 1853.

**FAO names:** **En** - Yellow-and-blueback fusilier; **Fr** - Fusilier à dos jaune et bleu; **Sp** - Fusilero amarillo azulado.

**Diagnostic characters:**

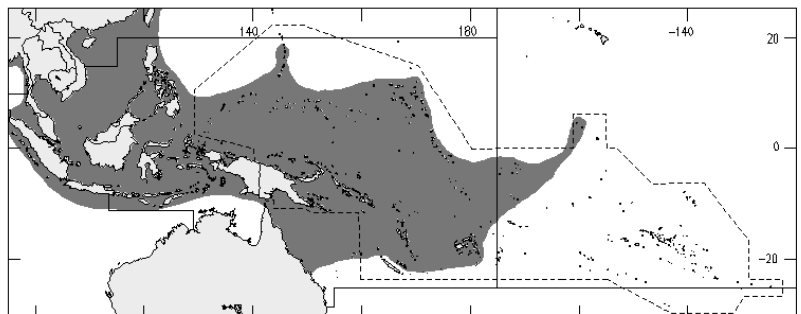
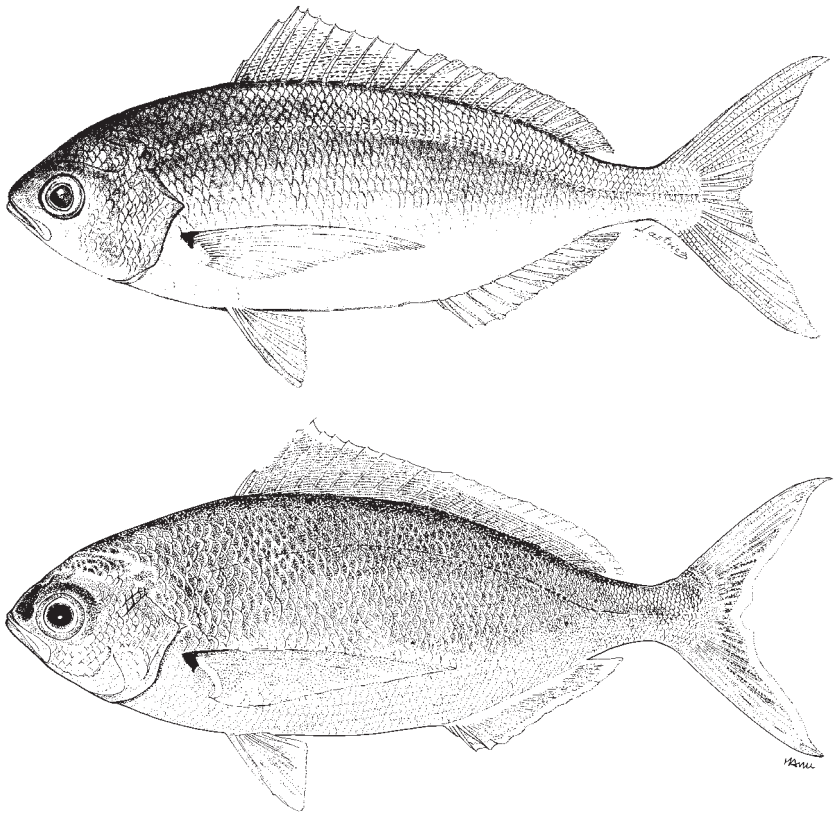
Body moderately deep, fusiform, and compressed. **A single post-maxillary process;** small teeth in jaws, vomer, and palatines. Dorsal fin with X spines and 15 (rarely 14 or 16) soft rays; **anal fin with III spines and 12 (rarely 13) soft rays;** pectoral fins usually with 20 to 22 (most frequently 21) rays. **Scales in lateral line 51 to 61 (most frequently 55);** upper peduncular scales 11 to 13, lower peduncular scales usually 15 or 16; scales above lateral line to origin of dorsal fin usually 8 to 10 (most frequently 8); scales below lateral line to origin of anal fin usually 17 to 20; 4 or 5 scale rows on cheek; predorsal scales usually 21 to 25; dorsal and anal fins scaly, the dorsal fin with about 2/3 of its greatest spinous

height covered with scales; supratemporal band of scales interrupted at dorsal midline by a narrow scaleless zone. **Colour:** bright yellow on caudal fin, caudal peduncle, and body above a diagonal from just anterior to dorsal-fin origin to ventral origin of caudal peduncle, except in large individuals particularly in the western Pacific where the yellow does not extend as far anteriorly; remainder of upper two-thirds of body bright blue, the lower third silvery white; axil and upper base of pectoral fins black; pectoral, pelvic, and anal fins white; dorsal fin bluish proximally and yellow distally.

**Size:** Maximum size about 40 cm.

**Habitat, biology, and fisheries:** Found primarily around coral reefs, with a preference for coralline lagoons. A rapidly moving schooling fish which ranges widely around reefs. Feeds on zooplankton in large midwater groups. Schools together with other caesionids; most often with *Caesio xanthonota*. It spawns in large aggregations around the full moon. Eggs pelagic, spherical, unpigmented, usually with a single transparent oil globule, and a diameter of 0.77 to 0.78 mm. Of minor to moderate importance in coastal fisheries. Caught by drive-in nets, gill nets, handlines, and traps. Marketed mostly fresh.

**Distribution:** Widespread tropical Indo-West Pacific, from East Africa, not including the Red Sea or the Persian Gulf, to the Line Islands.

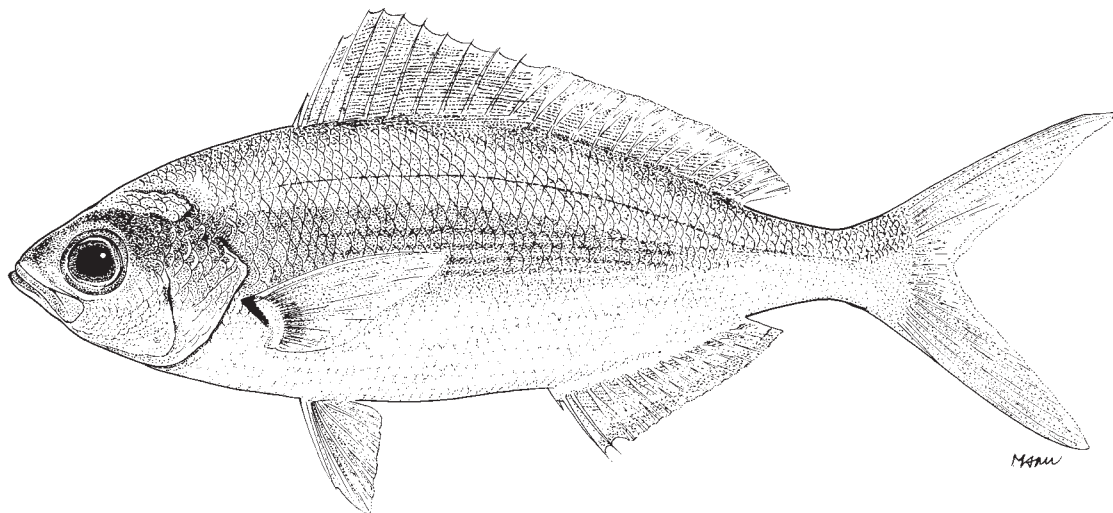


*Caesio xanthonota* Bleeker, 1853

(Plate XI, 79)

**Frequent synonyms / misidentifications:** None / *Caesio teres* non Seale, 1906.

**FAO names:** En - Yellowback fusilier; Fr - Fusilier à dos jaune; Sp - Fusilero de lomo amarillo.



**Diagnostic characters:** Body moderately deep, fusiform, and compressed. **A single postmaxillary process;** small conical teeth in jaws, vomer, and palatines. Dorsal fin with X spines and 15 (rarely 14) soft rays; **anal fin with III spines and 12 (rarely 11) soft rays;** pectoral fins with 20 to 22 (most frequently 21) rays. **Scales in lateral line 52 to 59 (most frequently 56);** upper peduncular scales 11 or 12, lower peduncular scales usually 15; scales above lateral line to origin of dorsal fin usually 9 or 10; scales below lateral line to origin of anal fin usually 18 or 19; 4 or 5 scale rows on cheek; predorsal scales usually 21 to 23; dorsal and anal fins scaly, the dorsal fin with about 2/3 of its greatest spinous height covered with scales; supratemporal band of scales interrupted at dorsal midline by a narrow scaleless zone. **Colour: upper third of body and head, including interorbital region, and caudal fin bright yellow, middle third blue, lower third white;** axil and upper base of pectoral fins black; pectoral, pelvic, and anal fins white; dorsal fin yellow.

**Size:** Maximum size about 40 cm.

**Habitat, biology, and fisheries:** Inhabits coastal areas, primarily around coral reefs. A schooling fish; feeds on zooplankton in large midwater aggregations. This species ranges widely among reefs during the day but shelters on the reef at night. It sometimes schools together with *Caesio teres*, which has a similar colour pattern. *C. xanthonota* appears to prefer the coralline lagoon habitat more than most other species of caesionids. Of minor to moderate importance in coastal fisheries. Caught by gill net, traps, and handline. Marketed mostly fresh.

**Distribution:** Primarily Indian Ocean, from East Africa, not including the Red Sea or the Persian Gulf, to Indonesia.

