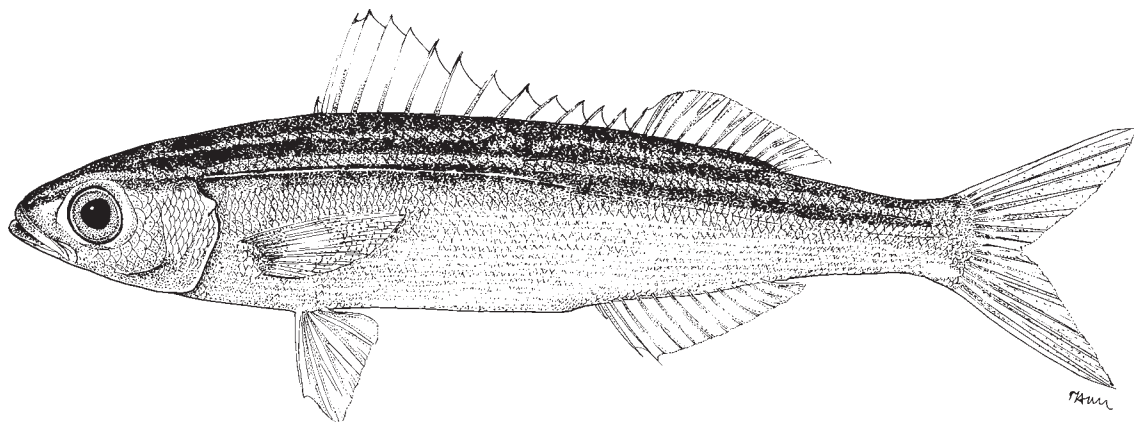


***Dipterygnotus balteatus*** (Valenciennes, 1830)

(Plate XI, 80)

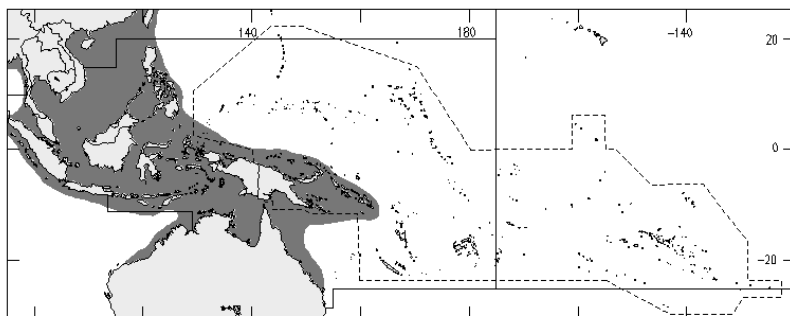
**Frequent synonyms / misidentifications:** *Dipterygnotus leucogrammicus* Bleeker, 1849 / None.**FAO names:** En - Mottled fusilier; Fr - Fusilier marbré; Sp - Fusilero jaspeado.

**Diagnostic characters:** Body slender, fusiform, elongate, and moderately compressed. **Two postmaxillary processes;** small conical teeth on dentary and vomer; **premaxilla and palatines without teeth.** **Dorsal fin deeply notched, with XIV spines and 8 to 11 soft rays; anal fin with III spines and usually 9 or 10 soft rays;** pectoral fins with 16 to 19 rays; procurrent caudal-fin rays typically 7 or 8. Scales in lateral line 68 to 80; upper peduncular scales 11 to 14, lower peduncular scales 15 to 18; scales above lateral line to origin of dorsal fin 9 to 11; scales below lateral line to origin of anal fin 15 to 18; usually 6 to 9 scale rows on cheek; predorsal scales usually 29 to 34; **dorsal and anal fins without scales,** supratemporal band of scales indistinct, scales in interorbital region near ascending premaxillary process. **Colour:** upper body brownish bronze; a thin, straight, tan stripe about 1 scale wide from orbit to caudal fin, directly above lateral line for anterior half of its length, about 2 scales above lateral line on caudal peduncle; above and parallel to this stripe 2 thin, irregular, and usually interrupted stripes of same colour; lower body silvery white; dorsal, anal, pelvic, and pectoral fins clear to pinkish; axil of pectoral fins black; caudal fin tan to pinkish; when captured at night, the entire body and fins are often reddish.

**Size:** The smallest of all fusiliers, attaining a maximum size of about 14 cm.

**Habitat, biology, and fisheries:** This is the only caesionid that is primarily nearshore pelagic rather than most typically found near coral reefs. In the markets of the Philippines, *Dipterygnotus balteatus* is most frequently found mixed with sardines and anchovies. As juveniles, they school together with other juvenile caesionids on coral reefs. Feeds on zooplankton. Occasionally marketed fresh along with sardines and anchovies in the Philippines. Caught at night using lights and dip nets.

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

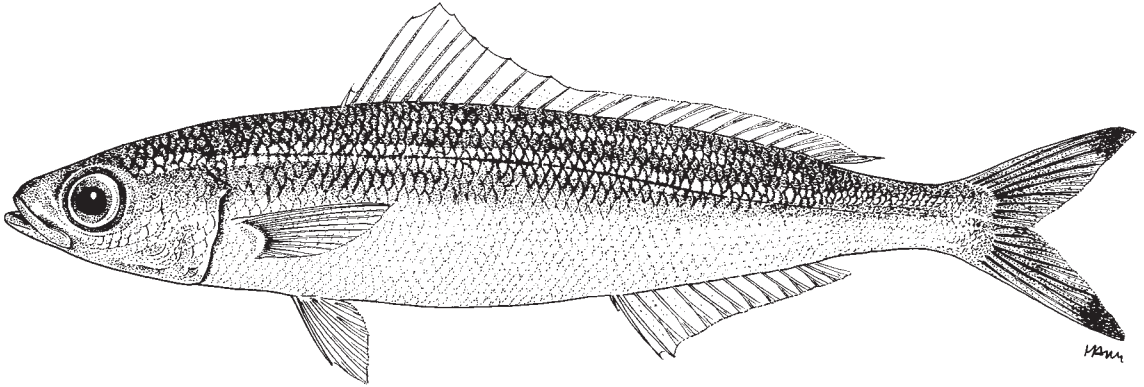


*Gymnocaesio gymnoptera* (Bleeker), 1856

(Plate XI, 81)

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

**FAO names:** En - Slender fusilier; Fr - Fusilier élégant; Sp - Fusilero elegante.

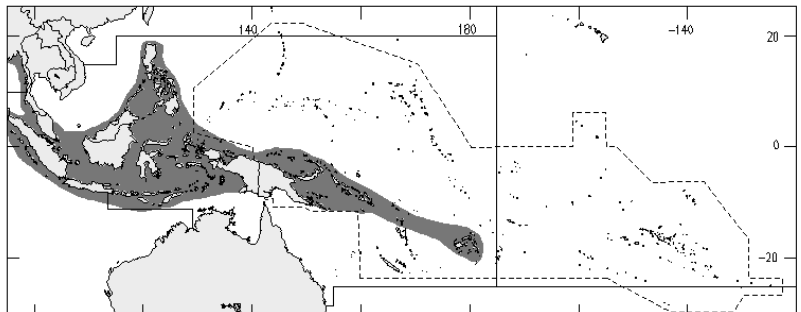


**Diagnostic characters:** Body slender, fusiform, elongate, and moderately compressed. **Two postmaxillary processes;** posterior end of maxilla tapered, its greatest depth anterior to posterior end of the premaxilla; small conical teeth on dentary and vomer; **premaxilla and palatines without teeth. Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays; anal fin with III spines and 12 (rarely 11 or 13) soft rays;** pectoral fins with 20 to 22 rays. Scales in lateral line 64 to 74 (most frequently 70); upper peduncular scales usually 11, lower peduncular scales usually 14 or 15; scales above lateral line to origin of dorsal fin 7 to 9; scales below lateral line to origin of anal fin usually 13 or 14; usually 4 scale rows on cheek; predorsal scales usually 23 to 26; **dorsal and anal fins without scales. Colour:** upper body bluish green, the centres of scales lighter, giving a striped appearance; a single yellow or brown stripe about 1 scale wide covering lateral line for most of its length, running dorsal to lateral line on caudal peduncle; often a bright blue longitudinal band directly below lateral line stripe covering up to 1/3 of side; body silvery white ventrally; axil of pectoral fins black; pectoral, pelvic, dorsal, and anal fins white; caudal fin dusky, the tips of lobes black.

**Size:** Maximum size about 18 cm.

**Habitat, biology, and fisheries:** Inhabits coastal areas ranging widely around coral reefs. Feeds on zooplankton in large midwater aggregations. A schooling fish, often in groups with members of the genus *Pterocaesio*. Of minor importance to fisheries. Occasionally caught with traps and drive-in nets and marketed fresh in the Philippines. Used as a baitfish for tuna fisheries.

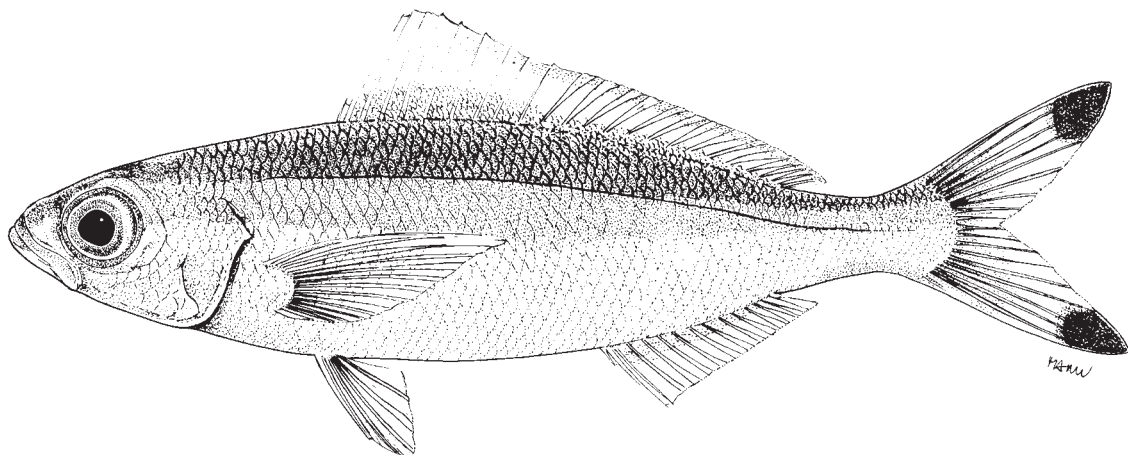
**Distribution:** Widespread Indo-West Pacific, from East Africa, including the Red Sea, to Fiji.



***Pterocaesio chrysozona*** (Cuvier, 1830) (Plate XI, 82)

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

**FAO names:** En - Goldband fusilier; Fr - Caesio ceinture d'or; Sp - Fusilero cinta dorada.

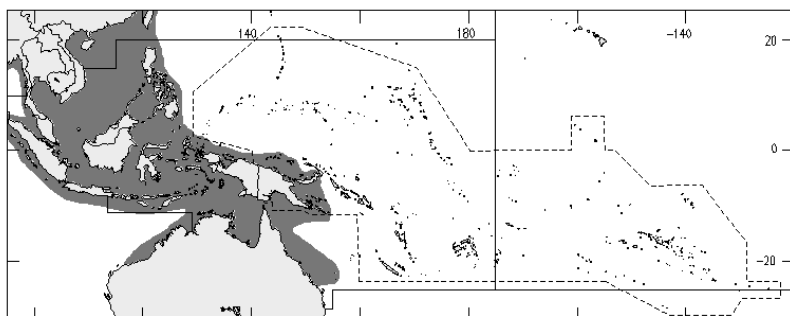


**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws**, vomer, and palatines. **Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays**; anal fin with III spines and 12 (rarely 11 or 13) soft rays; **pectoral fins with 17 to 20 (most frequently 19) rays**. **Scales in lateral line usually 64 to 69**; **upper peduncular scales usually 11**, lower peduncular scales usually 15; scales above lateral line to origin of dorsal fin 7 to 9; scales below lateral line to origin of anal fin usually 14 to 16; usually 4 scale rows on cheek; predorsal scales usually 23 to 26; **dorsal and anal fins scaly**, the dorsal fin with about 1/2 of its greatest spinous height covered with scales. **Colour:** upper body light blue to brownish, lower body white to pinkish; **a bright yellow band directly below lateral line for most of its length, from behind eye to base of caudal fin, 2 to 3 scales wide anteriorly, tapering to 1 scale in width on caudal peduncle where it is above lateral line**; a less conspicuous yellow stripe along dorsal midline; fins white to pinkish; axil of pectoral fins black; dorsal fin slightly dusky distally; **tips of caudal-fin lobes black**.

**Size:** Maximum size about 21 cm.

**Habitat, biology, and fisheries:** Ranges widely around coral reefs in schools. Often found in groups with other caesionids. Feeds on zooplankton in large midwater aggregations. Moderately important as a food fish in some areas. Common in the markets of Philippines. Caught by drive-in net, gill net, traps, handline, and, occasionally by trawl. A valuable tuna baitfish in some areas.

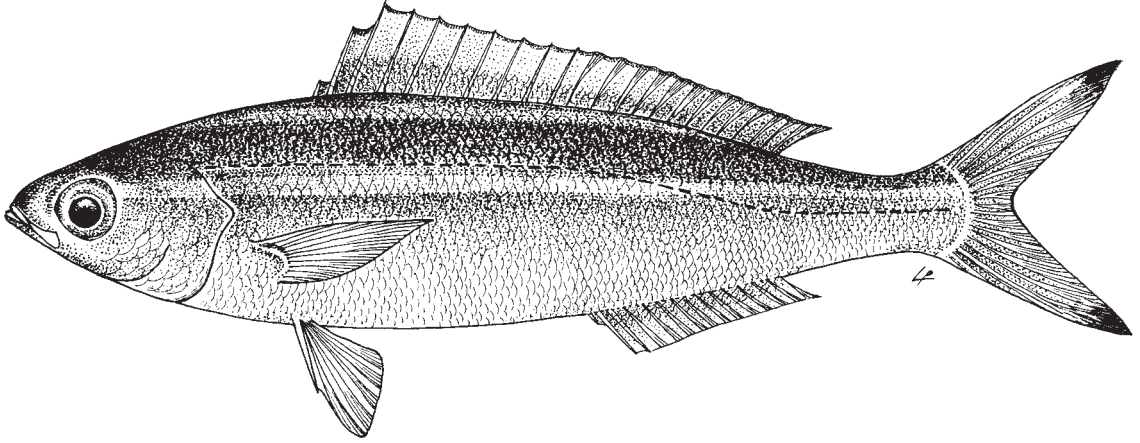
**Distribution:** Widespread Indo-West Pacific, from East Africa, including the Red Sea to eastern Australia.



***Pterocaesio digamma*** (Bleeker, 1865) (Plate XII, 83)

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

**FAO names:** En - Doublelined fusilier; Fr - Fusilier deux bandes jaunes; Sp - Fusilero de dos bandas.



**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; 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 11) soft rays; **pectoral fins usually with 20 to 22 rays. Scales in lateral line 66 to 75 (most frequently 72); upper peduncular scales usually 12 or 13**, lower peduncular scales usually 16 or 17; scales above lateral line to origin of dorsal fin 9 to 11; scales below lateral line to origin of anal fin usually 17 or 18; 4 or 5 scale rows on cheek; predorsal scales usually 26 to 28; **dorsal and anal fins scaly**, the dorsal fin with about 1/2 of its greatest spinous height covered with scales. **Colour:** body blue to greenish dorsally, white ventrally; **2 longitudinal stripes laterally**, the lower running from behind upper orbit about 1 scale below the lateral line to a vertical at about middle of soft portion of dorsal fin where it crosses and usually passes above lateral line for the length of caudal peduncle; upper stripe 1 to 2 scales below dorsal profile for most of length of body, ending dorsally on caudal peduncle; fins white to pinkish; axil of pectoral fins black; dorsal fin slightly dusky distally; **tips of caudal-fin lobes black.**

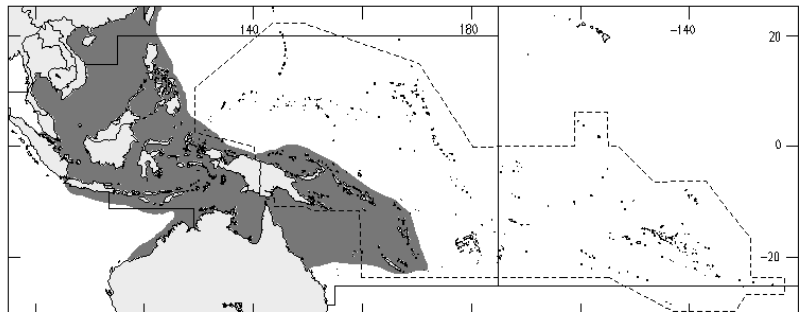
**Size:** Maximum size about 30 cm.

**Habitat, biology, and fisheries:** Found in coastal areas, primarily around coral reefs. A schooling fish, often in mixed species groups containing other species of *Pterocaesio*. Feeds on zooplankton in midwater aggregations.

**Size:** Maximum size about 30 cm.

**Interest to Fisheries:** Moderately important as a food fish. This species is one of the most common caesionids in Philippine markets. Caught mostly by drive-in net, gill net, and traps. Marketed mostly fresh; sometimes dried salted.

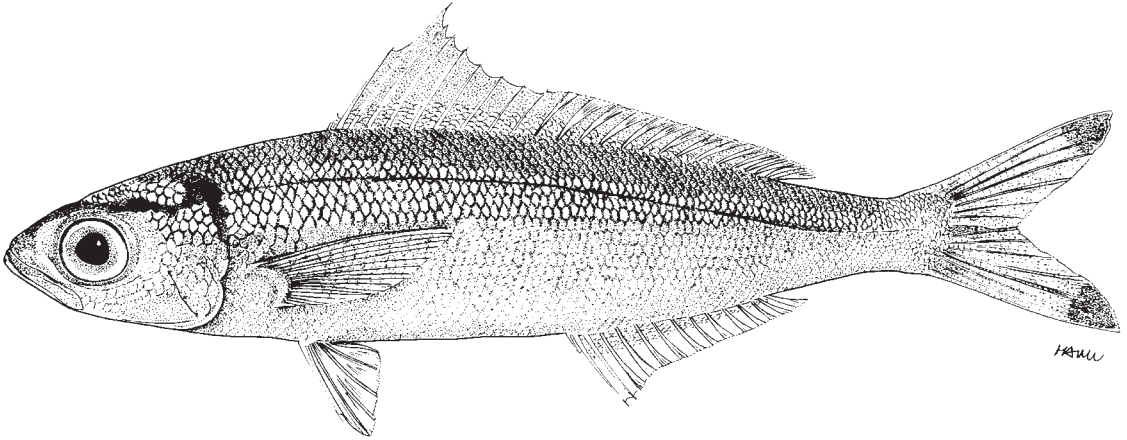
**Distribution:** Primarily West Pacific, from Indonesia and western Australia to New Caledonia, north to southern Japan.



***Pterocaesio lativittata*** Carpenter, 1987 (Plate XII, 84)

**Frequent synonyms / misidentifications:** None / *Pterocaesio chrysozona* non Cuvier, 1830.

**FAO names:** En - Wideband fusilier; Fr - Fusilier à bande large; Sp - Fusilero de banda ancha.

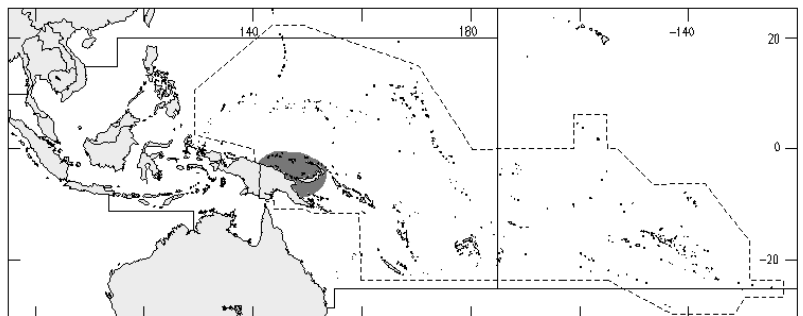


**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws** and vomer; palatines without teeth. Dorsal fin with X spines and 15 (rarely 14 or 16) soft rays; anal fin with III spines and 12 (rarely 13) soft rays; **pectoral fins with 21 to 23 rays. Scales in lateral line 74 to 88; upper peduncular scales 12 to 14**, lower peduncular scales usually 16 or 17; scales above lateral line to origin of dorsal fin usually 9 or 10; scales below lateral line to origin of anal fin usually 16 to 18; usually 4 scale rows on cheek; predorsal scales 23 to 30; **dorsal and anal fins scaly**, the dorsal fin with about 1/2 of its spinous height covered with scales; supratermporal band of scales confluent at dorsal midline. **Colour:** upper body bluish or reddish, lighter ventrally; **a bright yellow band straddling lateral line for most of its length, from tip of snout to base of caudal fin, 3 to 5 scales wide anteriorly, tapering to 1 scale in width on caudal peduncle where it is above lateral line**; fins white to pinkish; dorsal fin slightly dusky distally and yellowish near base; axil of pectoral fins with a black blotch; **tips of caudal-fin lobes black.**

**Size:** Maximum size estimated to be about 20 cm.

**Habitat, biology, and fisheries:** Inhabits coastal areas around coral reefs. A schooling fish, sometimes in groups with other species of *Pterocaesio*. Feeds on zooplankton in midwater aggregations. Of minor importance in fisheries; rarely seen in markets.

**Distribution:** Eastern Indian Ocean and western Pacific, from the Chagos Archipelago to Papua New Guinea.

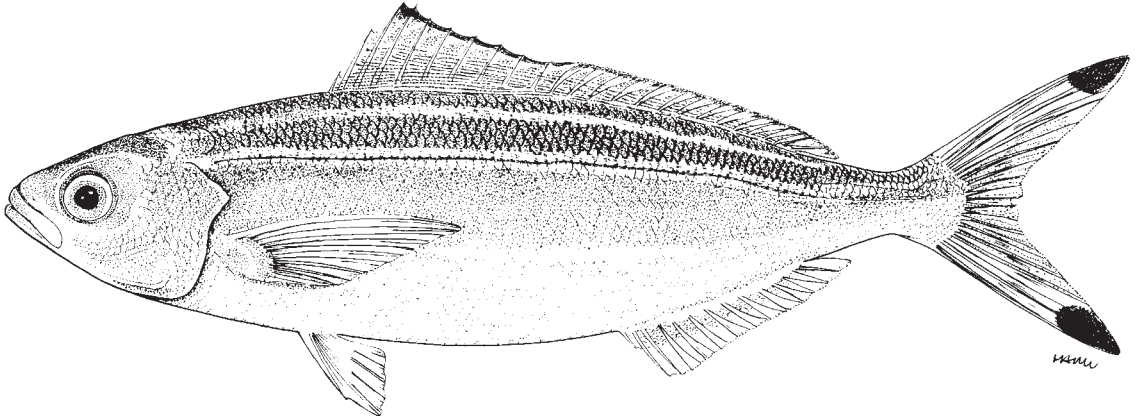


*Pterocaesio marri* Schultz, 1953

(Plate XII, 85)

**Frequent synonyms / misidentifications:** *Pterocaesio kohleri* Schultz, 1953 / *Pterocaesio digramma* (non Bleeker, 1865).

**FAO names:** En - Marr's fusilier; Fr - Fusilier de Marr; Sp - Fusilero de Marr.

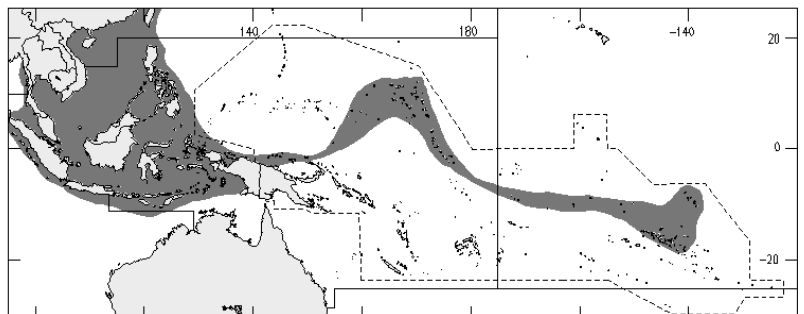


**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws;** vomer and palatines without teeth. **Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays;** anal fin with III spines and 12 (rarely 11 or 13 soft rays); **pectoral fins with 22 to 24 soft rays. Scales in lateral line usually 70 to 75; upper peduncular scales usually 12 or 13, lower peduncular scales usually 16 or 17; scales above lateral line to origin of dorsal fin 9 to 11; scales below lateral line to origin of anal fin usually 16 to 18; usually 5 scale rows on cheek; predorsal scales usually 26 to 30; 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:** body blue to greenish dorsally, white ventrally; **2 longitudinal stripes laterally, about 1 scale wide each, the lower running from behind supratemporal membrane, covering lateral line to a vertical at about middle of soft portion of dorsal fin where it passes above lateral line for the length of caudal peduncle;** upper stripe 1 to 2 scales below dorsal profile for most of length of body, ending dorsally on caudal peduncle; fins white to pinkish, dorsal fin slightly dusky distally; axil of pectoral fins and **tips of caudal-fin lobes black.**

**Size:** Maximum size about 35 cm.

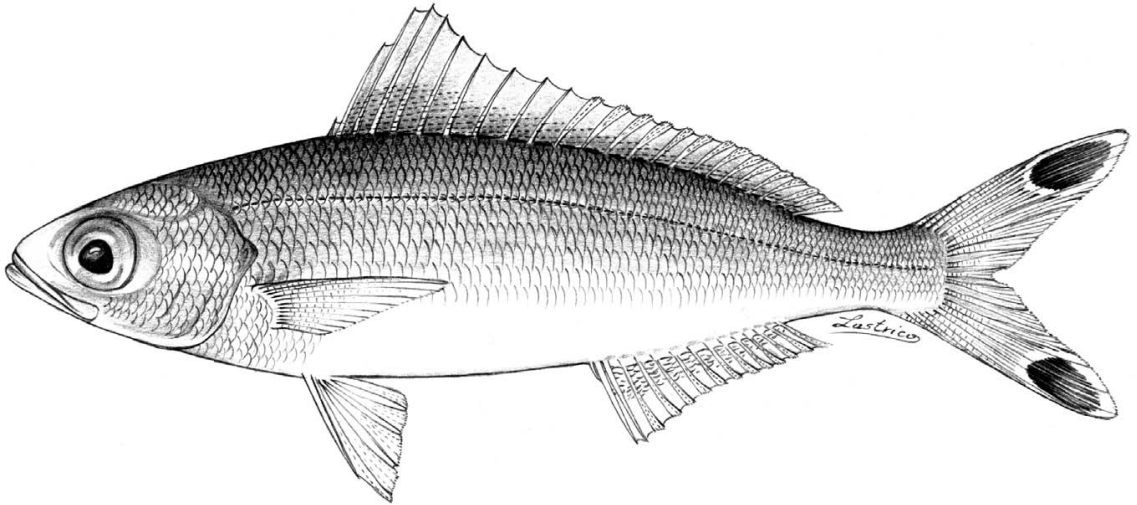
**Habitat, biology, and fisheries:** Ranges widely around coral reefs in schools. This species appears to prefer clear waters of oceanic islands or reefs far from large land masses. Feeds on zooplankton in midwater aggregations. Of minor importance to fisheries. Caught fairly often by drive-in net in western Palawan (Philippines) and in other areas occasionally by gill net and traps. Sometimes used as baitfish in tuna fisheries.

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



***Pterocaesio pisang*** (Bleeker, 1853)

(Plate XII, 86)

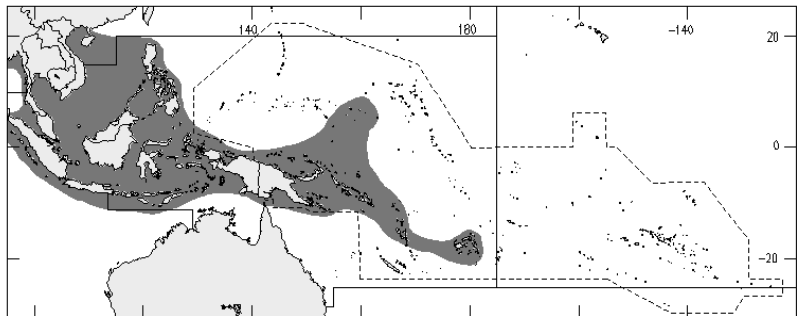
**Frequent synonyms / misidentifications:** None / None.**FAO names:** En - Banana fusilier; Fr - Fusilier banane; Sp - Fusilero banana.

**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws**, vomer, and palatines. **Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays**; anal fin with III spines and 12 (rarely 11 or 13) soft rays; **pectoral fins with 18 to 20 rays**. **Scales in lateral line usually 63 to 71; upper peduncular scales usually 11**, lower peduncular scales usually 15; scales above lateral line to origin of dorsal fin 8 to 10; scales below lateral line to origin of anal fin usually 14 or 15; usually 4 scale rows on cheek; predorsal scales usually 23 to 26; **dorsal and anal fins scaly**, the dorsal fin with about 1/2 of its greatest spinous height covered with scales. **Colour:** body coloration variable, dark red to silvery, paler ventrally; lateral line darker than background coloration; **no stripes or bands on side**; snout often yellowish; axil of pectoral fins black; **tips of caudal-fin lobes dark red to black**.

**Size:** Maximum size about 21 cm.

**Habitat, biology, and fisheries:** Ranges widely around coral reefs. A schooling fish, sometimes in groups with other species of *Pterocaesio*. Feeds on zooplankton in midwater aggregations. A common food fish in the Philippines; of minor importance in other areas. Caught mostly by drive-in net, gill net, and traps. Marketed fresh and sometimes as dried salted. An important tuna baitfish.

**Distribution:** Widespread Indo-West Pacific, from East Africa, not including the Red Sea or the Persian Gulf, and eastward to Fiji.

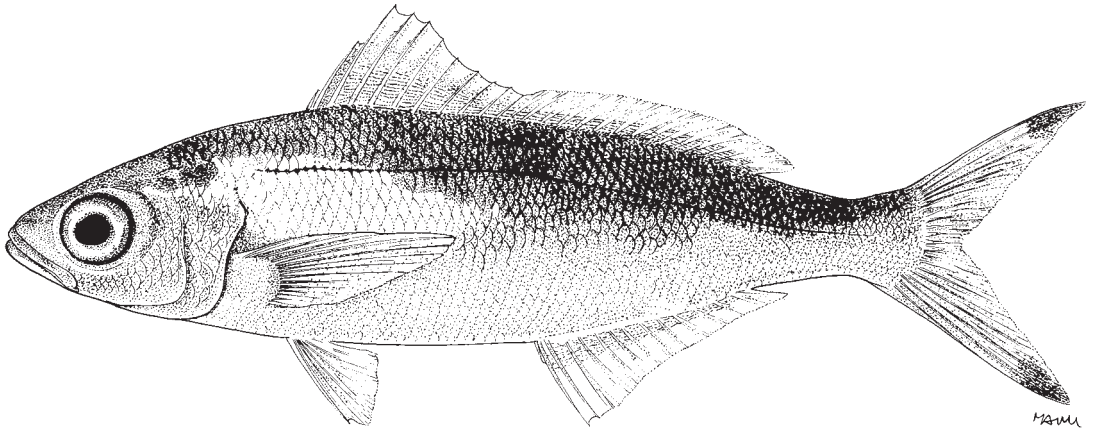


*Pterocaesio randalli* Carpenter, 1987

(Plate XII, 87)

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

**FAO names:** En - Randall's fusilier; Fr - Fusilier de Randall; Sp - Fusilero de Randall.

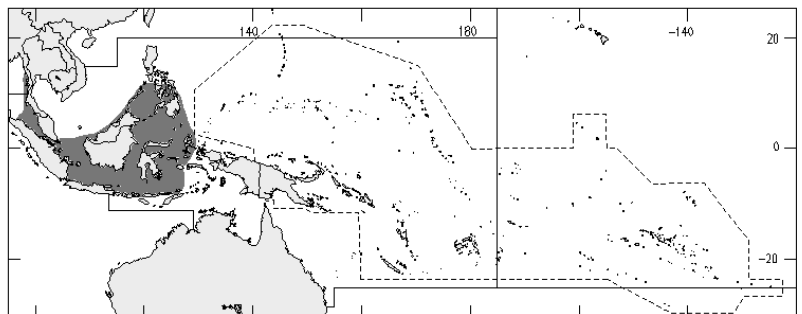


**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws;** vomer and palatines without teeth. **Dorsal fin with X spines and 15 (rarely 14 or 16) soft rays;** anal fin with III spines and 12 soft rays; **pectoral fins with 20 to 22 rays. Scales in lateral line 69 to 80; upper peduncular scales usually 11 to 13, lower peduncular scales usually 15 or 16;** scales above lateral line to origin of dorsal fin usually 9 or 10; scales below lateral line to origin of anal fin usually 16 or 17; 4 scale rows on cheek; predorsal scales 22 to 27; **dorsal and anal fins scaly,** the dorsal fin with about 1/2 of its spinous height covered with scales; supratemporal band of scales confluent at dorsal midline. **Colour:** body blue-green to reddish dorsally, lighter ventrally; **a large yellow blotch of variable size above pectoral fins, roughly rhomboid in shape,** with the oblique side slanting anteriorly, typically starting posterior to upper rim of orbit, covering the operculum above pectoral base and 2 or 3 scales above lateral line, stretching posteriorly to about a vertical at anal-fin origin, 6 or 7 scales in height and about 14 scales in width; pectoral, pelvic, and anal fins white to pinkish; dorsal fin blue-green to pinkish; axil of pectoral fins and **tips of caudal-fin lobes black.**

**Size:** Maximum size about 25 cm.

**Habitat, biology, and fisheries:** Ranges widely around coral reefs in schools. Often in groups with other species of *Pterocaesio*. Feeds on zooplankton in midwater aggregations. Of minor importance to fisheries. Occasionally caught by drive-in net, gill net, traps, and handline.

**Distribution:** Eastern Indian Ocean and West Pacific, from the Andaman Sea to the Philippines.

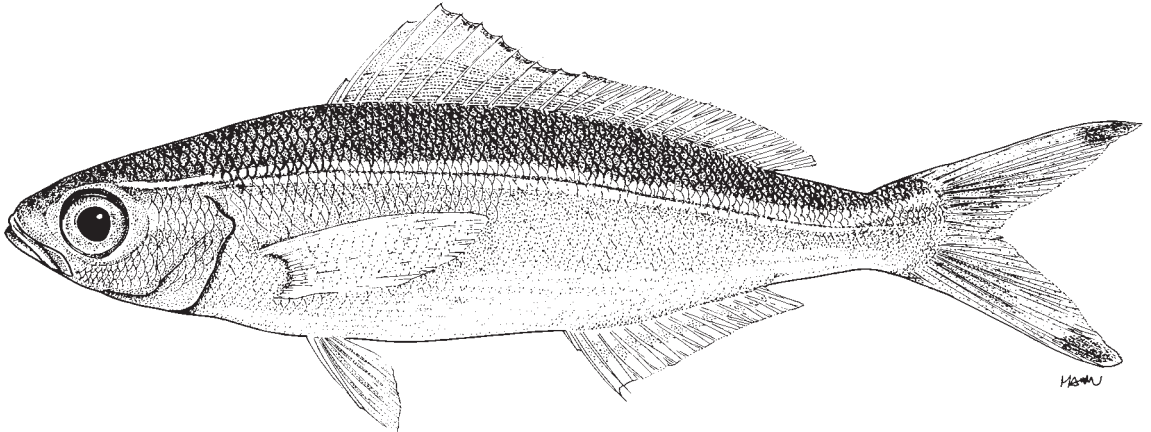




*Pterocaesio tessellata* Carpenter, 1987 (Plate XII, 88)

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

**FAO names:** En - Onestripe fusilier; Fr - Fusilier à une bande; Sp - Fusilero de una bande.

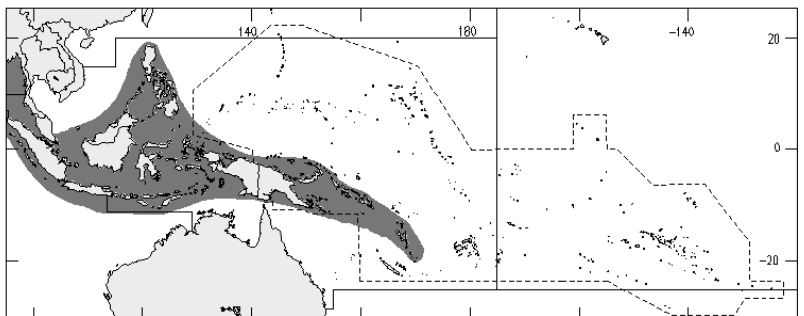


**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws** and vomer; palatines without teeth. **Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays;** anal fin with III spines and 12 (rarely 11 or 13) soft rays; **pectoral fins with 20 to 22 rays. Scales in lateral line usually 69 to 75; upper peduncular scales usually 11 to 13,** lower peduncular scales 15 to 17; scales above lateral line to origin of dorsal fin usually 9 or 10; scales below lateral line to origin of anal fin usually 16 to 18; usually 5 scale rows on cheek; predorsal scales 22 to 29; **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:** upper body light bluish green; body white ventrally; centres of scales on upper two-thirds of body lighter than distal portion, giving a checkered appearance (in many individuals the scale rows are uneven, giving a mosaic appearance); **a single yellow longitudinal stripe laterally, about 1 scale wide, covering lateral line for most of its length, usually running dorsal to lateral line on caudal peduncle;** pectoral, pelvic, and anal fins white to pinkish; axil of pectoral fins black; dorsal fin light bluish green; **caudal fin dusky, the tips of lobes black.**

**Size:** Maximum size about 25 cm.

**Habitat, biology, and fisheries:** Inhabits coastal areas around coral reefs. A schooling fish, often found in groups with other species of *Pterocaesio*. Feeds on zooplankton in midwater aggregations. Moderately important as a food fish. Common in markets in the Philippines. Caught primarily by drive-in net, gill net, and traps. Marketed mostly fresh.

**Distribution:** Central and eastern Indian Ocean and western Pacific, from the Maldives to Vanuatu.

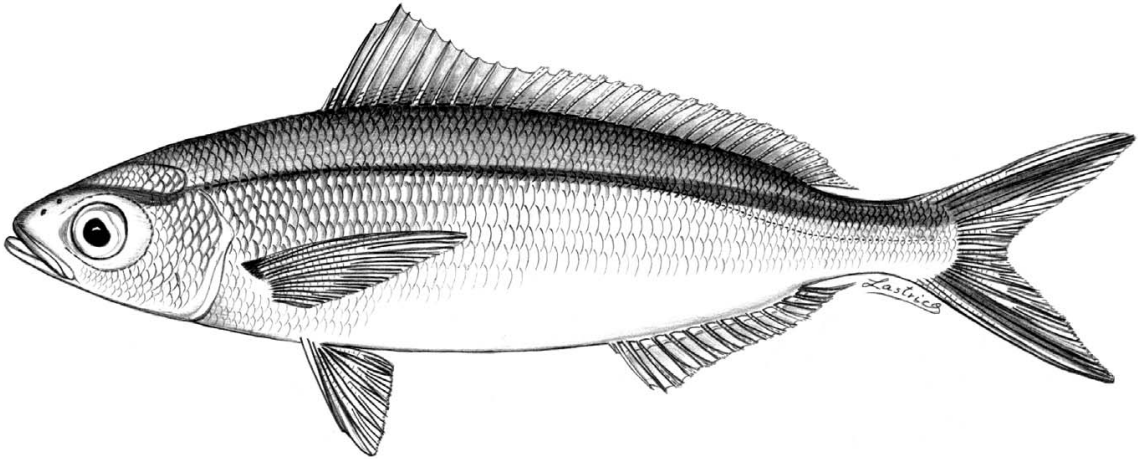


*Pterocaesio tile* (Cuvier), 1830

(Plate XII, 89)

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

**FAO names:** **En** - Darkbanded fusilier; **Fr** - Fusilier ligne olive; **Sp** - Fusilero aceitunero.

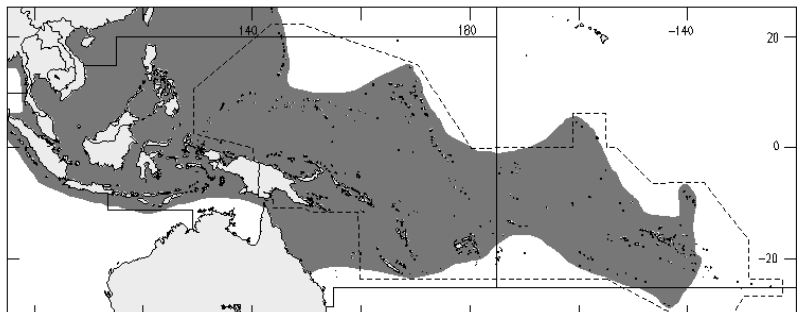


**Diagnostic characters:** Body fusiform, elongate, and compressed. **Two postmaxillary processes; small conical teeth in jaws**, vomer, and palatines. **Dorsal fin with XI or XII (rarely X) spines and 19 to 22 soft rays**; anal fin with III spines and 13 soft rays; pectoral fins with 22 to 24 rays. Scales in lateral line 69 to 76 (most frequently 71); upper peduncular scales usually 11 or 12, upper peduncular scales usually 15 or 16; scales above lateral line to origin of dorsal fin 7 or 8; scales below lateral line to origin of anal fin usually 16 or 17; usually 4 scales on cheek; predorsal scales usually 27 to 30; **dorsal and anal fins scaly**, the dorsal fin with about 1/2 of its greatest spinous height covered with scales. **Colour:** scales above lateral line bluish green in their centre and black on their margins, giving the appearance of a checkered pattern; **lateral line covered for most of its length by a black stripe about 1 scale wide (on caudal peduncle this stripe is above lateral line)**; a brilliant light blue zone below black stripe, usually covering middle third of body, but sometimes restricted to anterior part of body, and sometimes absent; lower third of body white to pinkish; pectoral, pelvic, and anal fins white to pinkish; axil and upper base of pectoral fins black; dorsal fin light bluish green to pinkish; **caudal fin with a black streak within each lobe**, the upper streak continuous with lateral stripe.

**Size:** Maximum size about 30 cm.

**Habitat, biology, and fisheries:** Ranges widely around coral reefs. A schooling fish, sometimes in groups with other caesionids. Feeds on zooplankton in midwater aggregations. Moderately important in small-scale fisheries. Caught by drive-in net, gill net, traps, and handline. Marketed fresh and dried-salted. Important as tuna baitfish.

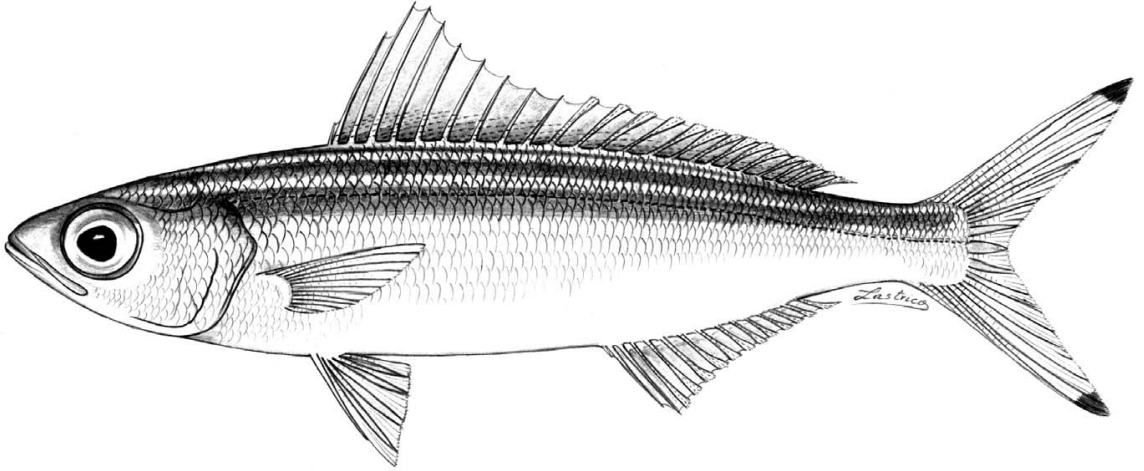
**Distribution:** Widespread Indo-West Pacific, from East Africa, not including the Red Sea or the Persian Gulf, to the Tuamotu Archipelago, as far north as southern Japan and south to Mauritius and the Austral Islands.



*Pterocaesio trilineata* Carpenter, 1987 (Plate XII, 90)

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

**FAO names:** En - Threestripe fusilier; Fr - Fusilier à trois bandes; Sp - Fusilero de tres bandas.



**Diagnostic characters:** Body fusiform, elongate, and moderately compressed. **Two postmaxillary processes; small conical teeth in jaws;** vomer and palatines without teeth. **Dorsal fin with X (rarely XI) spines and 15 (rarely 14 or 16) soft rays;** anal fin with III spines and 12 (rarely 11) soft rays; **pectoral fins usually with 19 to 21 rays. Scales in lateral line usually 63 to 69; upper peduncular scales usually 11, lower peduncular scales usually 15; scales above lateral line to origin of dorsal fin usually 8 or 9; scales below lateral line to origin of anal fin 14 to 17 (most frequently 15); usually 4 scale rows on cheek; predorsal scales 20 to 30; dorsal and anal fins scaly,** the dorsal fin with about 1/3 of its spinous height covered with scales; supratemporal band of scales confluent at dorsal midline. **Colour: 3 brown to yellow and 3 bluish white longitudinal stripes on upper side;** lowest dark stripe about 2 scales wide, originating on snout and upper orbit, and covering lateral line for most of its length, running dorsal to lateral line on caudal peduncle; middle dark stripe about 2 scales wide, originating on snout, running about midway between dorsal profile and lower dark stripe; uppermost stripe originating on snout and straddling dorsal profile for about 1 scale to either side; bluish white stripes about 1 to 1 ½ scales wide, covering spaces between dark stripes and just below lowest dark stripe; body whitish ventrally; pectoral, pelvic, and anal fins white; axil of pectoral fins black; dorsal fin light bluish; **caudal fin dusky with lobe tips black.**

**Size:** Maximum size about 20 cm.

**Habitat, biology, and fisheries:** Ranges widely around coral reefs in schools. Feeds on zooplankton in midwater aggregations. Not common as a food fish. A fairly important tuna baitfish.

**Distribution:** Western Pacific, from the Philippines to Fiji.

