

***Gymnocranius grandoculis*** (Valenciennes, 1830)

Fig 54, Plate II, 6

LETH Gymno 2

*Cantharus grandoculis* Valenciennes in Cuvier & Valenciennes, 1830, *Hist. nat. poissons*, Vol. 6: 341 (Seychelles).

**Synonyms:** *Dentex rivulatus* Rüppell (1838); *Dentex lethrinoides* Bleeker (1851a); *Pentapus dux* Valenciennes (1862); *Pentapus curtus* Guichenot (1865); *Dentex robinsoni* Gilchrist & Thompson (1908); *Paradentex marshalli* Whitley (1936); *Gymnocranius rüppellii* Smith (1941).

**FAO Names:** En - Blue-lined large-eye bream.

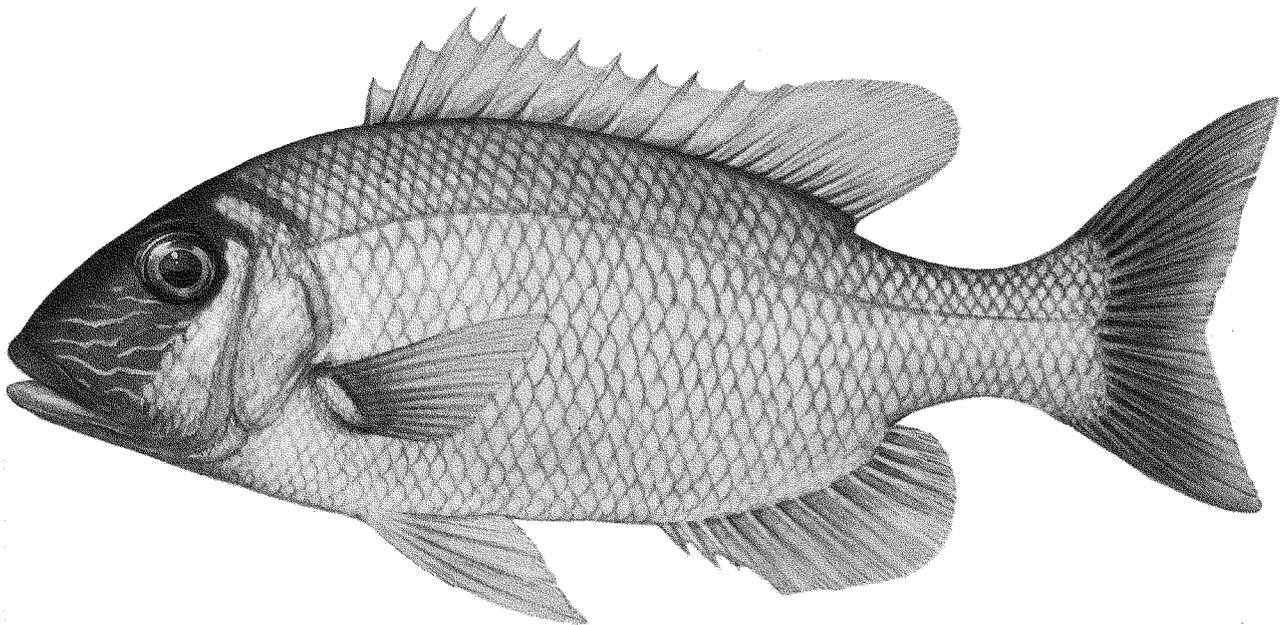


Fig. 54

**Diagnostic Features:** 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 fish; mouth relatively small, posterior part of jaws not reaching a vertical through front of eye; 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 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral 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 on to base of caudal fin; cheek with 3 or 4 transverse scale rows; 5 1/2 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.

**Geographical 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 (Fig. 55).

**Habitat and Biology:** 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.

Estimates of asymptotic length ( $L_{\infty}$ ), coefficient of growth ( $K$ ) and natural mortality ( $M$ ) have been made for the population around New Caledonia:  $L_{\infty}$  = 46.4 mm SL,  $K$  = 0.23 and  $M$  = 0.57.

**Size:** Maximum total length about 80 cm; common to 50 cm.

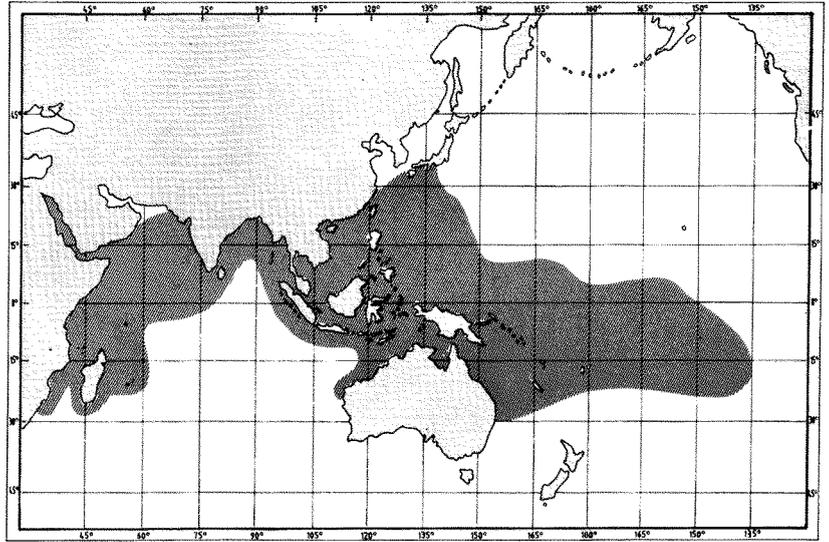


Fig. 55

**Interest to Fisheries:** Occasionally seen in markets, mainly fresh. Caught mainly with bottom longlines and bottom trawls. A good potential commercial fish if sufficient stocks can be located.

**Local Names:** AUSTRALIA: Robinson's sea bream; JAPAN: Sazanamidai; NEW CALEDONIA: Bossu blanc grosserace; MADAGASCAR: Bariadiva, Barialava, Tsivaravaramena; SEYCHELLES: Capitaine blanc; SOUTH AFRICA: Rippled barenose of Gerimpelde kaalheus; TANZANIA: Thangu-chaa.

**Literature:** (as *G. robinsoni*): Kyushin *et al.* (1977); Fischer & Bianchi (eds.) (1984); Masuda *et al.* (1984); Kyushin *et al.* (1982); Sato (1986); Allen & Swainston (1988).

**Remarks:** This species has been referred to as *G. robinsoni* in recent literature.

*Gymnocranius griseus* (Schlegel, 1844)

Fig. 56, Plate II, 7,8

LETH Gymno 1

*Dentex griseus* Schlegel in Temminck & Schlegel, 1844, *Fauna Japonica*: 72 (Japan).

**Synonyms:** *Lobotes microprion* Bleeker (1851b); *Gymnocranius orbis* Fowler (1938).

**FAO Names:** En - Grey large-eye bream.

**Diagnostic Features:** 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. Two or 3 pair of small, slender canines at front of each jaw, other teeth villiform, becoming conical on lateral sections.

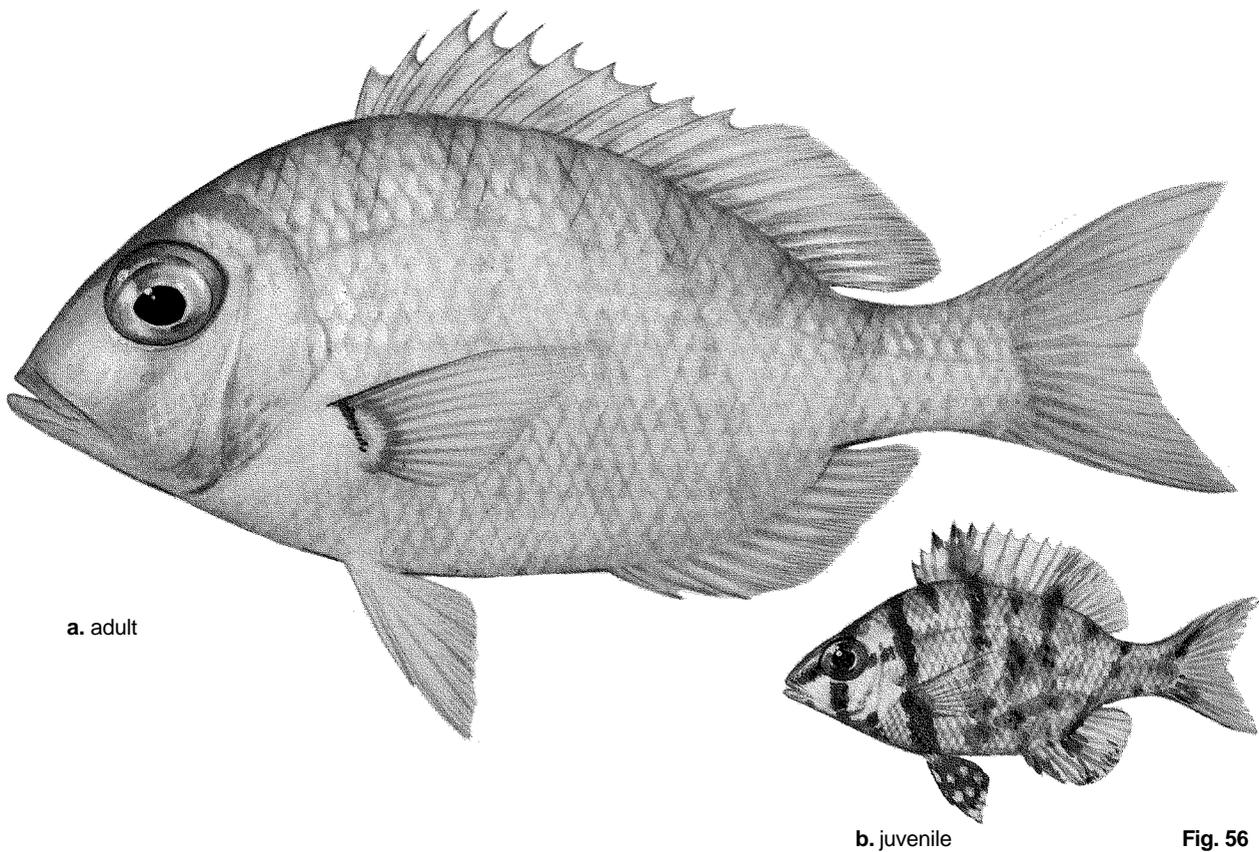


Fig. 56

Dorsal fin with 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral 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 on to base of caudal fin; cheek with 4 transverse scale rows; 5 1/2 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 one 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 adult individuals possess a few scattered blue spots or scribbling on the snout and cheek.

**Geographical Distribution:** Southern Japan to the Indo-Malaysian region and possibly eastward to India (Fig. 57). The species has often been confused with the young of *G. grandoculis*, hence the true distributional limits are somewhat obscure. Records of *G. griseus* from the Western Indian Ocean probably pertain to *G. grandoculis*.

**Habitat and Biology:** 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.

**Size:** Maximum total length has been reported at 80 cm, but it is doubtful that the species grows that large; maximum reliable total length is about 35 cm; common to 25 cm.

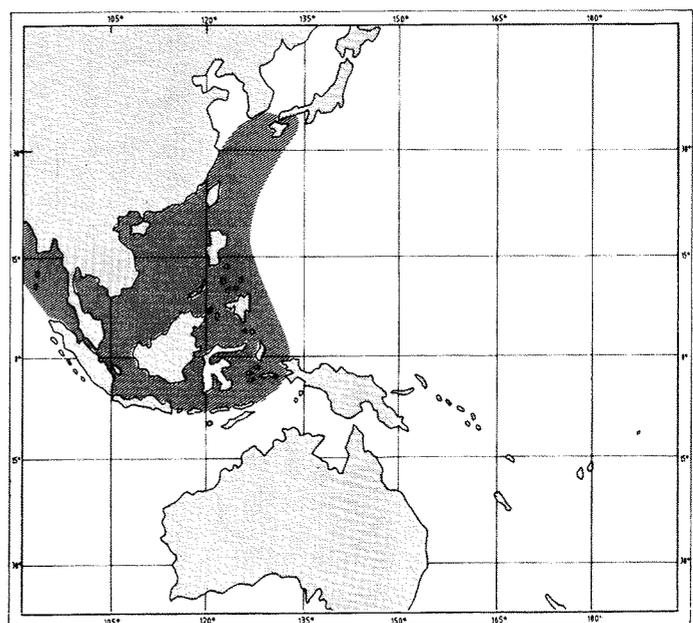


Fig. 57

**Interest to Fisheries:** Common in markets, mainly fresh, occasionally dried. Caught mainly with bottom trawls, but sometimes with bottom longlines and handlines.

**Local Names:** AUSTRALIA: Naked-headed sea bream; JAPAN: Meichidai; PHILIPPINES: Gapas-gapas (Visayan); SOUTH AFRICA: Grey barenose or Grys kaalneus.

**Literature:** (as *G. griseus* except as noted): Kyushin *et al.* (1977); Fischer & Bianchi (eds.) (1984); Masuda *et al.* (1984); Kyushin *et al.* (1984, as *Gymnocranius* sp.); Sato (1986); Allen & Swainston (1988).

**Remarks:** This species is characterised by a relatively deep body in both small juveniles and adults, the depth 1.9 to 2.2 times in standard length. All specimens that were examined, and numerous fish seen at markets on the Gulf of Thailand, had a pattern of 5 to 7 faint bars on the side and a subocular bar. The types were examined at RMNH (Leiden) by Kent Carpenter. The lectotype is a dried specimen (RMNH D2248), 340 mm standard length. Its elongate shape (depth 2.7 in standard length) is perhaps due to distortion. However, there is a possibility that it could represent another species, possibly *G. grandoculis*. The paralectotype (RMNH 1026), 182 mm standard length, has a depth of 2.07 and still shows faint remnants of the barred pattern. *Lobotes microprion* Bleeker is apparently a junior synonym. It was described from small juveniles. We have examined 2 syntypes (RMNH 5680, mixed with holotype of *Dentex lethrinoides*), 51 to 56 mm standard length. They still exhibit faint bars and body depths are 1.96 and 2.03 in the standard length.

*Gymnocranius microdon* (Bleeker, 1851)

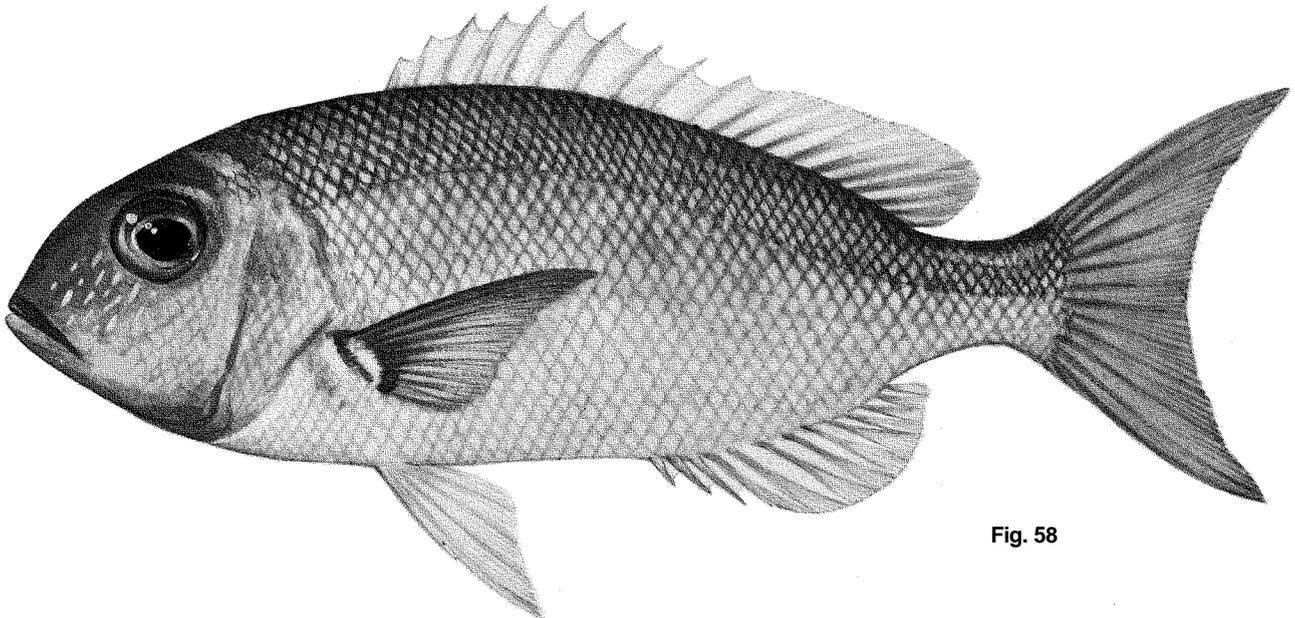
Fig. 58, Plate II, 9

LETH Gymno 7

*Dentex microdon* Bleeker, 1851c, *Nat. Tijdschr. Ned. Indie*, Vol. 2:219 (Celebes)

**Synonyms:** None

**FAO Names:** En - Blue-spotted large-eye bream.



**Diagnostic Features:** Body oblong, its depth 2.5 to 3.0 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; 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 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral 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 on to 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 sometimes dusky brown.

**Geographical Distribution:** Known thus far only from southern Japan, the South China Sea, the Marshall Islands, and off Phuket, Thailand in the Andaman Sea (Fig. 59).

**Habitat and Biology:** 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.

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

**Interest to Fisheries:** Occasionally seen in markets, usually fresh. Caught mainly with bottom longlines and handlines.

**Local Names:** JAPAN: Ome meichidai.

**Literature:** Kyushin *et al.* (1982, as *Gymnocranius* sp.); Masuda *et al.* (1984); Sato (1986).

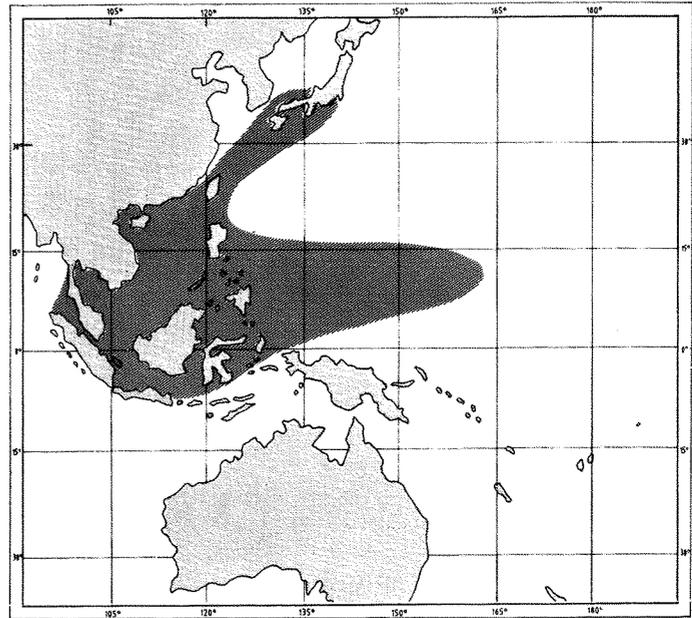


Fig. 59

***Gymnocranius* sp.**

Fig. 60, Plate II, 10

**LETH Gymno 8**

**Synonyms:** *Gymnocranius lethrinoides* (not of Bleeker, 1851a) in Masuda *et al.*, (1984)

**FAO Names:** En - Blacknape large-eye bream.

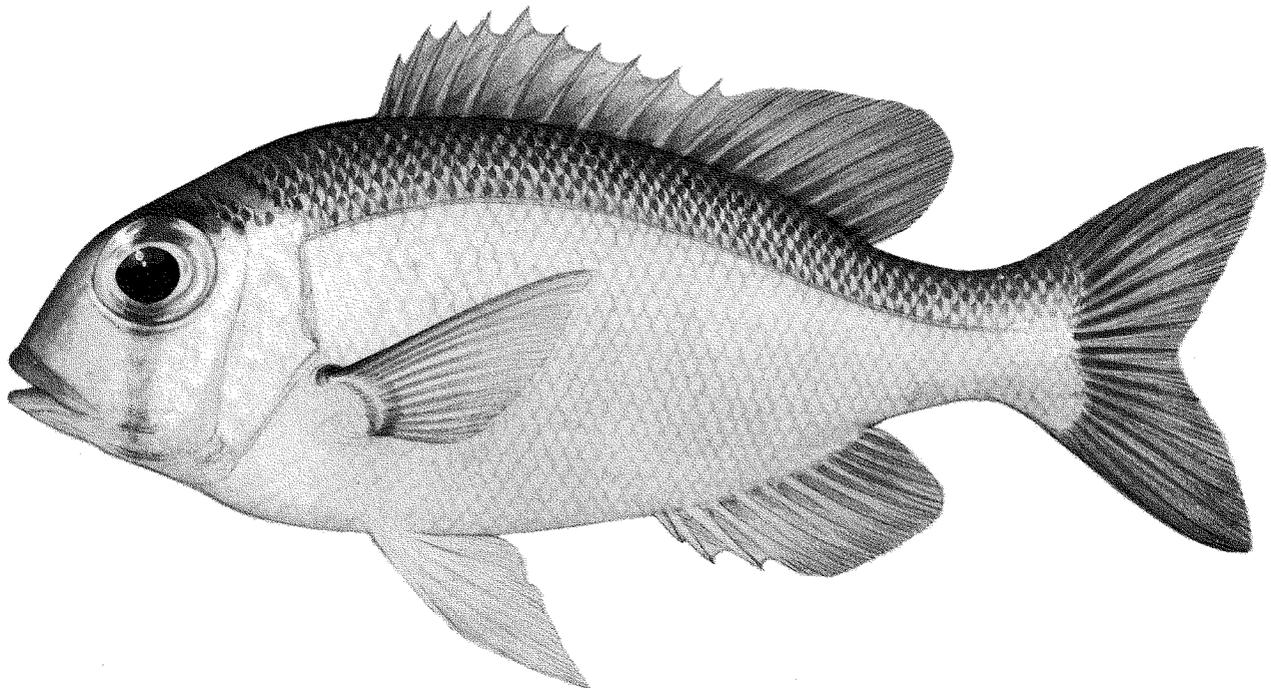


Fig. 60

**Diagnostic Features:** 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; 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 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral 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 on to base of caudal fin; cheek with 4 or 5 transverse scale rows; 5 1/2 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 preoperculum; fins mainly Bear to reddish, caudal sometimes dusky reddish-brown.

**Geographical Distribution:** Known only from southern Japan, the Great Barrier Reef of Australia, Coral Sea, and New Caledonia (Fig. 61).

**Habitat and Biology:** 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.

Estimates of asymptotic length ( $L_{\infty}$ ), coefficient of growth (K) and rate of natural mortality (M) have been made for the population around New Caledonia:  $L_{\infty} = 37$  mm SL,  $K = 0.28$ ,  $M = 0.69$ .

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

**Interest to Fisheries:** Occasionally seen in markets, usually fresh. Caught mainly with bottom longlines and handlines, sometimes speared.

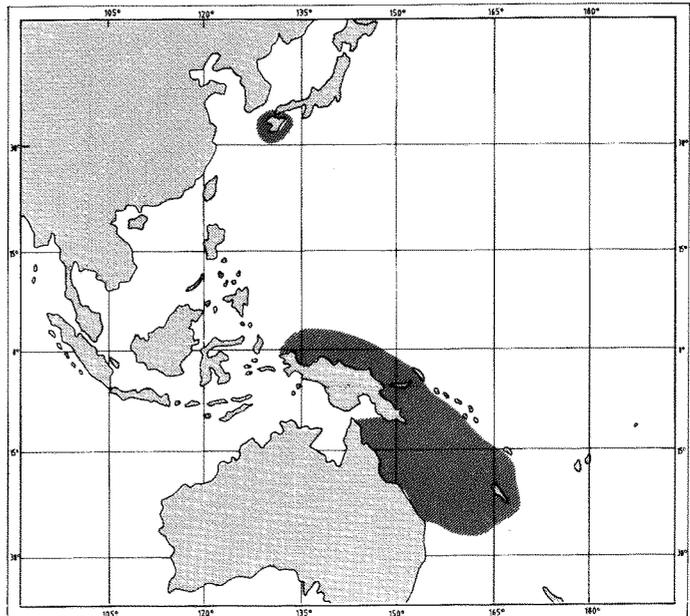


Fig. 61

**Local Names:** AUSTRALIA: Spotted sea bream; JAPAN: Tama-meichi; NEW CALEDONIA: Bossu blanc à nageoires roses.

**Literature:** Masuda *et al.* (1984, as *L. lethrinoides*); Sato (1986).

**Remarks:** This species appears to be undescribed. It has sometimes been referred to as *G. lethrinoides*, a synonym of *G. grandoculis*.