

Gymnocranius audleyi Ogilby, 1916

Fig. 46, Plate I, 2

LETH Gymno 3

Gymnocranius audleyi Ogilby, 1916 Mem. Queensland Mus., 5:56 (Moreton Bay, Queensland).

Synonyms: *Gymnocranius bitorquatus* Cockerell (1916)

FAO Names: En - Collared large-eye bream.

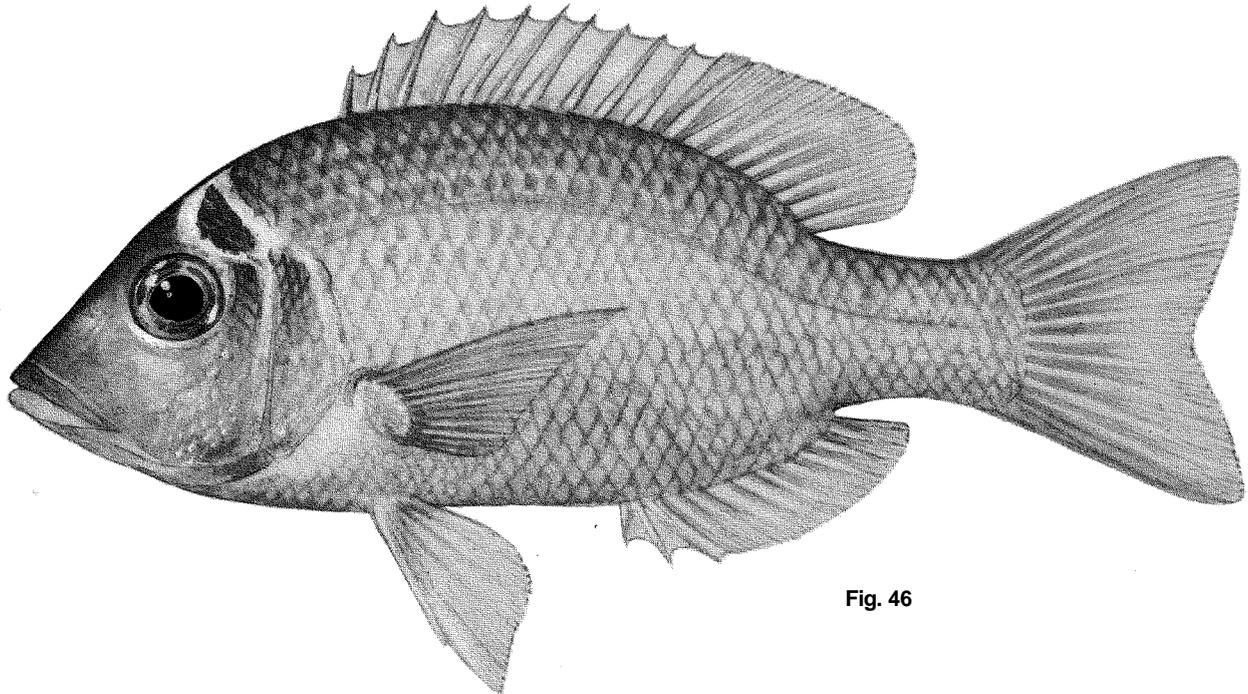


Fig. 46

Diagnostic Features: 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; 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 10 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 3 slender spines and 9 or 10 soft rays; pectoral rays 14; caudal fin only moderately forked with pointed tips, the median rays longer than eye diameter. Lateral-line scales 48 plus 2 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 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.

Geographical Distribution: East coast of southern Queensland, Australia. Also occurs on the southern half of the Great Barrier Reef (Fig. 47).

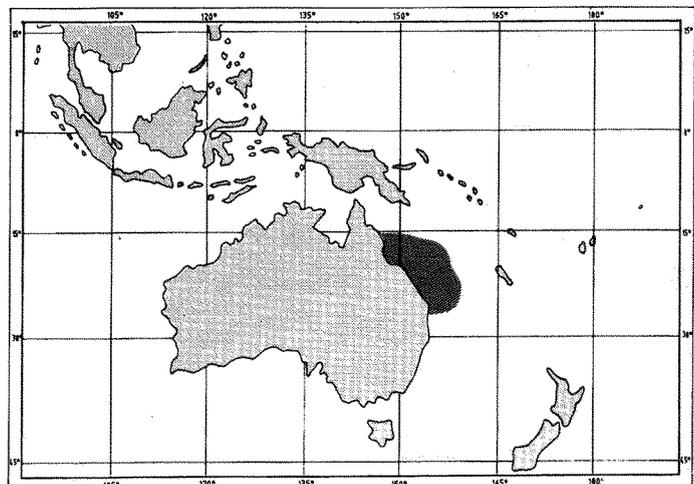


Fig. 47

Habitat and Biology: Inhabits sand or rubble areas adjacent to reefs, usually at depths between about 8 to 40 m. It feeds mainly on bottom-living invertebrates.

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

Interest to Fisheries: Occasionally seen in markets, although not a high-priority commercial fish. According to Grant (1982) it sometimes has a distasteful iodine flavour that can actually be smelled on freshly hooked fish. However "untainted" fish are good eating.

Local Names: AUSTRALIA: Collared sea bream (or Iodine sea bream).

Literature: Fowler (1933); Grant (1982).

Remarks: The name *bitorquatus* has been applied to this species, particularly by Australian authors. It was introduced by Cockerell (1916) in a key to Queensland Sparidae based on scale characteristics, and was not accompanied by a description in the true sense. Cockerell attributed authorship of the species to Ogilby, but the name was not published previously. It is doubtful that the scale characters presented in Cockerell's key are sufficient to constitute a formal description. Both Cockerell's introduction of *G. bitorquatus* and Ogilby's description of *G. audleyi* were published in Mem. Queensland Museum, Vol. 5 (10 July 1916). Therefore as first revisers of this group we give precedence to *audleyi*, in the event that the scale characters are interpreted to constitute a valid description (see Article 24a, International Code of Zoological Nomenclature).

***Gymnocranius elongatus* Senta, 1973**

Fig. 48, Plate I, 3

LETH Gymno 4

Gymnocranius elongatus Senta, 1973, Japan. J. Ichthyol., 20 (3):135-144 (South China Sea).

Synonyms: None

FAO Names: En - Forktail large-eye bream.

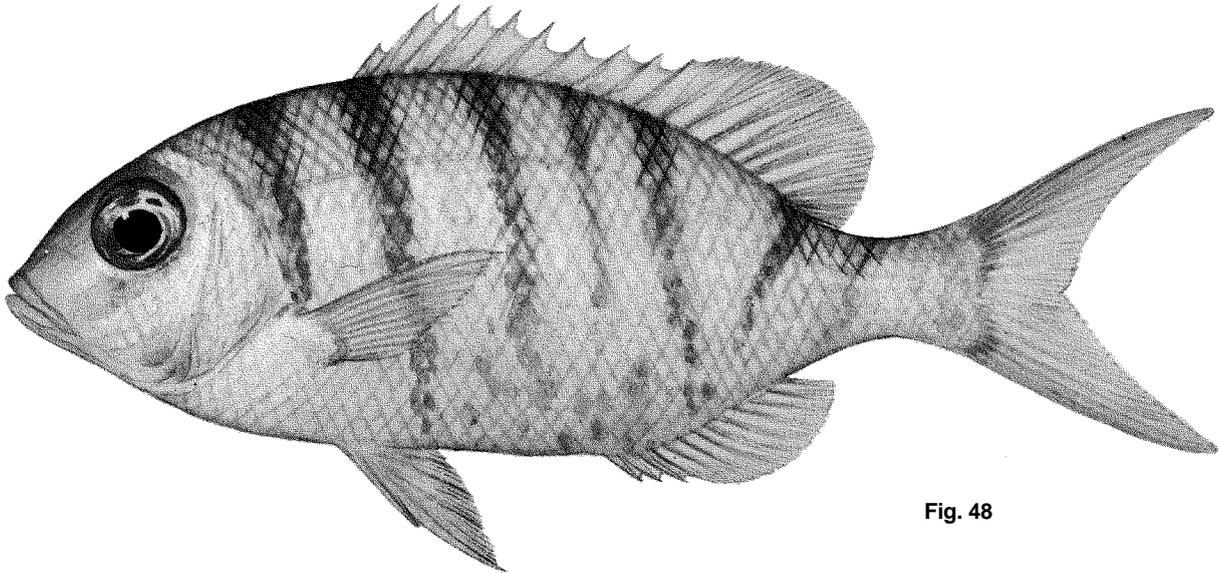


Fig. 48

Diagnostic Features: 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; 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 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral 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 on to 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 margin and tips often deep red. There is considerable variation in the intensity of the dark bars on the sides of the body.

Geographical Distribution: Coastal and shelf waters of the western Pacific and eastern Indian oceans from Japan to northern Australia (Fig. 49). It has also been reported from the western Indian Ocean, but this needs to be confirmed.

Habitat and Biology: Inhabits trawling grounds of the continental shelf, usually at depths between about 50 and 100 m. It feeds mainly on bottom-living invertebrates.

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

Interest to Fisheries: Occasionally seen in markets, mainly fresh. Caught mainly with bottom trawls.

Local Names: AUSTRALIA: Swallowtail sea bream; JAPAN: Onaga-meichidai.

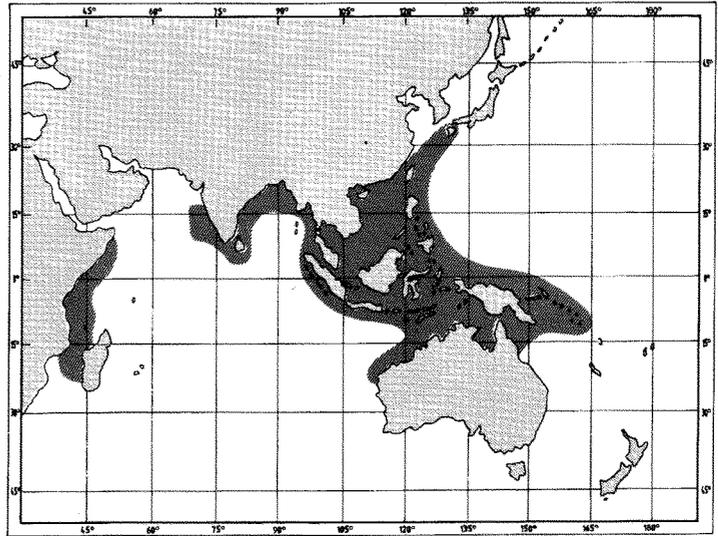


Fig. 49

Literature: Kyushin *et al.* (1982); Masuda *et al.* (1984); Gloerfelt-Tarp & Kailola (1984); Sainsbury *et al.* (1985); Sato (1986); Allen & Swainston (1988).

***Gymnocranius euanus* Günther, 1873**

Fig. 50, Plate I, 4

LETH Gymno 5

Gymnocranius euanus Günther, 1879, *Ann. Mag. Nat. Hist., Ser. V*, 4:136-137 (Friendly Islands).

Synonyms: *Monotaxis affinis* Whitley (1943); *Gymnocranius japonicus* Akazaki (1961).

FAO Names: En - Japanese large-eye bream.

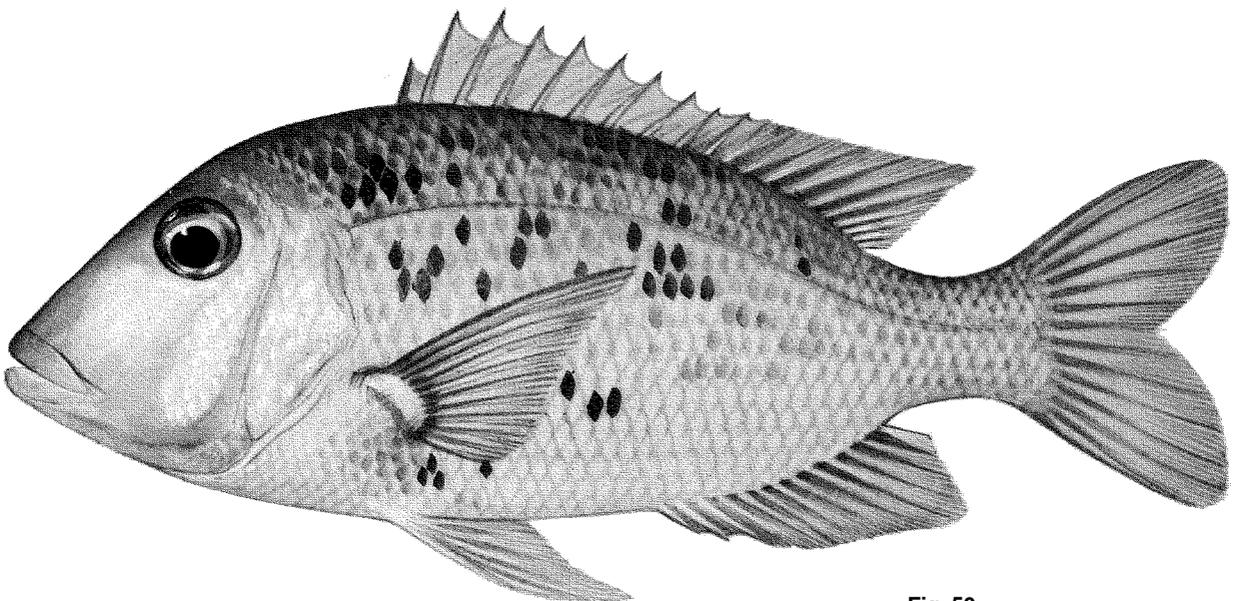


Fig. 50

Diagnostic Features: 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; 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 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 48 or 49 plus 3 or 4 tubed scales extending on to base of caudal fin; cheek with 4 or 5 transverse scale rows; 4 1/2 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 sometimes dusky reddish-brown; faint spots may be evident on dorsal, caudal, and anal fins.

Geographical Distribution: Western Pacific Ocean including southern Japan, South China Sea, the Great Barrier Reef of Australia, Coral Sea, New Caledonia and Tonga (Fig. 51).

Habitat and Biology: 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.

Estimates of asymptotic length (L_{∞}), coefficient of growth (K) and rate of natural mortality (M) have been made for the population in New Caledonia: L_{∞} = 39.5 mm SL for males and 35.1 mm SL for females, K = 0.22 for males and 0.24 for females and M = 0.58 for males and 0.42 for females.

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.

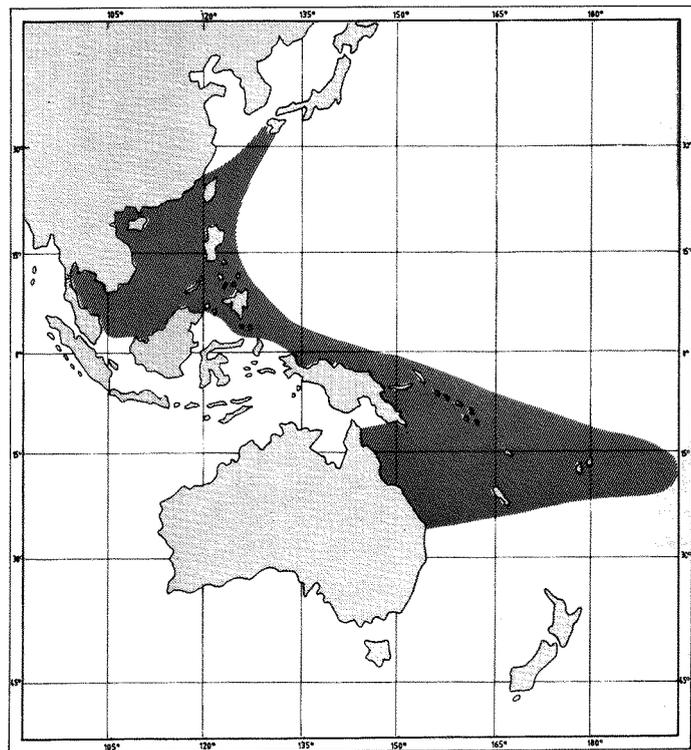


Fig. 51

Local Names: AUSTRALIA: Japanese sea bream; JAPAN: Shirodai; NEW CALEDONIA: Bossu blanc à points noirs.

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

***Gymnocranius frenatus* Bleeker, 1873**

Fig. 52, Plate I, 5

LETH Gymno 6

Gymnocranius frenatus Bleeker, 1873, *Verh.Akad.Amsterdam*, 13: 97 (Celebes).

Synonyms: None

FAO Names: En - Yellow snout large-eye bream.

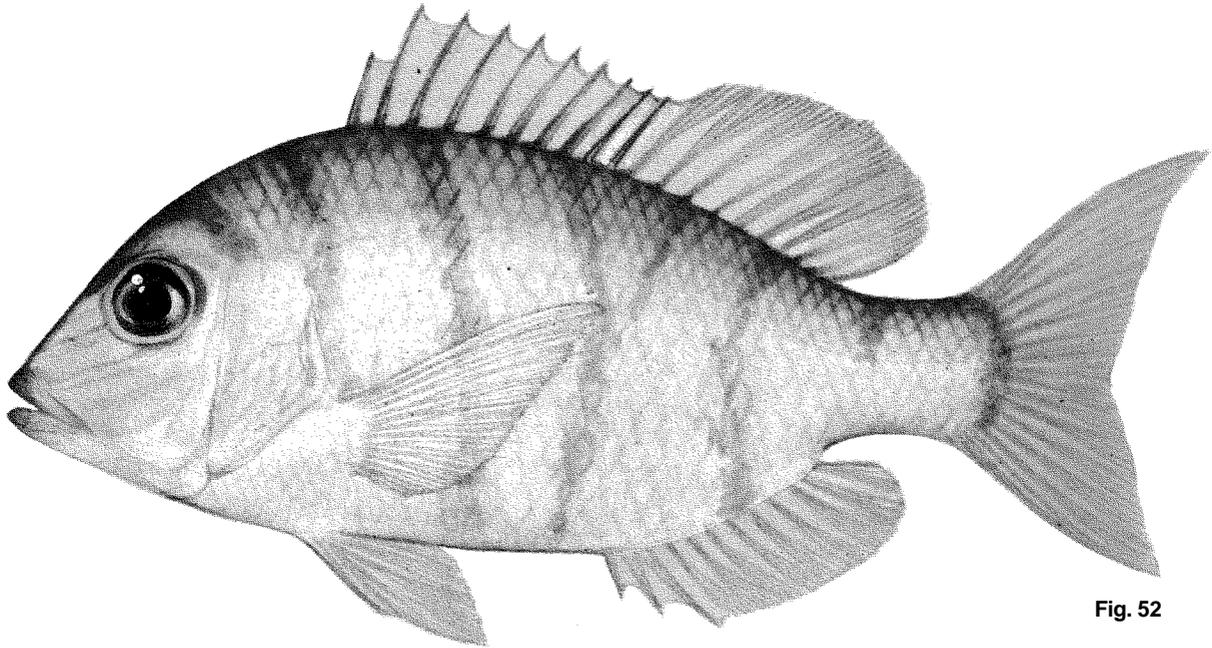


Fig. 52

Diagnostic Features: 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; 2 or 3 pair of small, stender 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 10 stender spines and 10 soft rays; anal fin with 3 stender spines and 10 soft rays; pectoral 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 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-white, greyish on upper back; about 5-7 narrow, irregular dark bars (may be very faint) on sides; a prominent blue-edged, yellow band from front of eye to above upper tip, 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 rays and narrow brown bar across base of entire fin.

Geographical Distribution: Indo Malaysian Archipelago and South China Sea (Fig. 53).

Habitat and Biology: Inhabits sand, mud, and rubble bottoms, usually at depths between about 20 and 80 m. It feeds mainly on small bottom-living gastropod molluscs.

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

Interest to Fisheries: Common in some markets of Malaysia, Thailand, and Vietnam. Usually is fresh or dried-salted. Caught mainly with bottom trawls, but sometimes with bottom longlines and handlines.

Literature: Kyushin et al. (1982, as *G. griseus*).

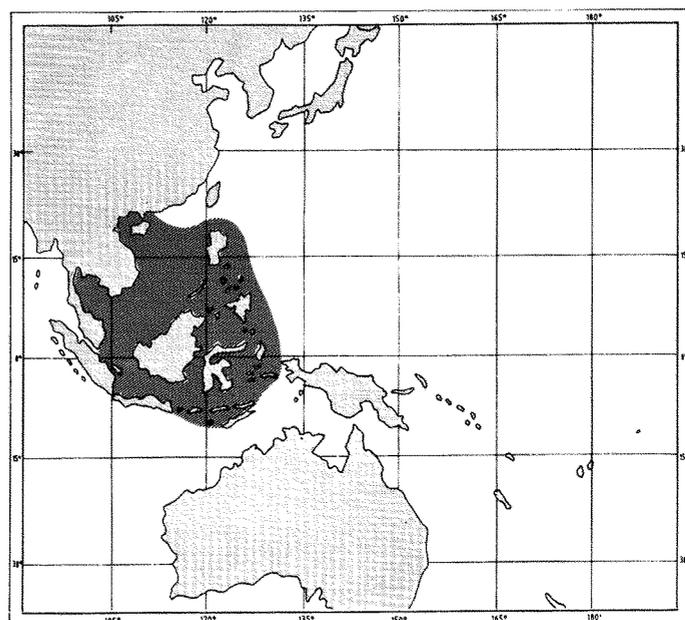


Fig. 53