

Order PERCIFORMES

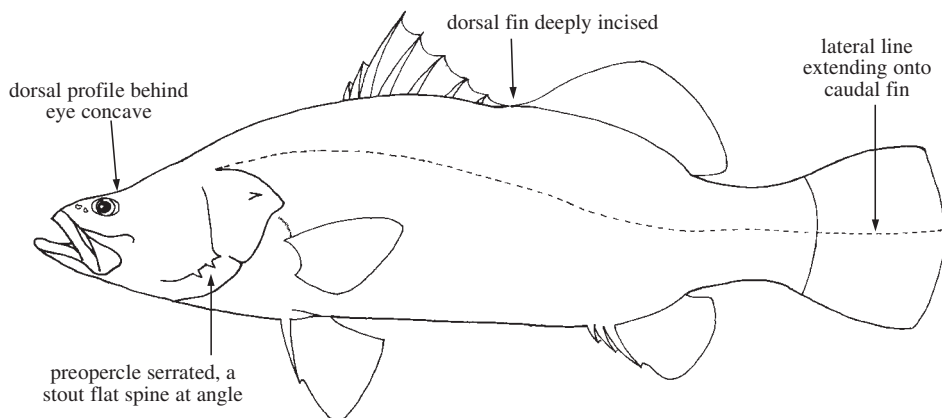
Suborder PERCOIDEI

CENTROPOMIDAE

Sea perches

by H.K. Larson

Diagnostic characters: Elongate, compressed, medium to large (to 2 cm) percoid fishes with **dorsal profile behind eyes concave or convex**. Eyes medium sized, relatively close to tip of snout and dorsal profile. **Preopercle with serrated posterior or ventral margins and a stout flat spine at angle**; opercle with small flat spine; serrated supracleithrum exposed, near beginning of lateral line. Snout rounded. **Mouth large**, almost horizontal, reaching at least to below eyes. **Teeth small, in villiform bands** on upper and lower jaws, vomer, and palatines (may be present on tongue). Branchiostegal rays 7. First gill arch with 3 to 7 gill rakers on upper limb, 9 to 14 on lower limb. **Dorsal fin deeply incised** before last dorsal-fin spine, or with distinct gap between spiny and soft portions of fin. **Caudal fin rounded**. Dorsal fin with VII to IX strong spines and 10 to 14 soft rays; anal fin with III spines and 7 to 9 soft rays; pelvic fins with axillary scale, and I spine and 5 soft rays; pectoral fins with 16 or 17 rays and spiny flap exposed just above fin base. **Scales large, ctenoid**; scale rows on body running horizontally; bases of caudal, soft dorsal, and anal fins covered with scales. Lateral-line scales 45 to 50; lateral line extends onto caudal fin, nearly to rear margin, in 1 or 3 series. Vertebrae 11+14=25. Three predorsal bones present. Five hypurals (all separate), 2 epurals, and 1 or 2 uroneurals. Swimbladder with strong ligament running anterodorsally to posttemporal. Supraoccipital extended forward, separating posterior portions of frontals. **Colour: adults greenish or silvery grey to brown**, juveniles with stripes; **eyes with characteristic red reflection**.

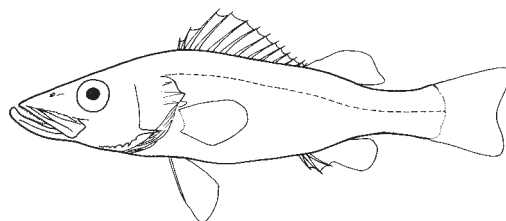


Habitat, biology, and fisheries: Contains 2 subfamilies, the Centropominae, with 9 species, and Latinae, with 9 species. Coastal marine and estuarine to fresh water, inhabiting mangrove estuaries and rocky to coral reefs. Feed on crustaceans (mostly prawns) and fishes. Solitary or in small groups. *Lates calcarifer* move up into brackish or fresh water during parts of their life cycle; other centropomids remain in the sea or fresh water. Popular and sought-after fishes, with some species of very considerable economic importance.

Similar families occurring in the area

Serranidae: preopercle smooth or serrated, usually without large flat spines or serrations; opercle with 3 flat spines; teeth conical, pointed, in rows; lateral line not extending onto caudal fin; dorsal fin single and not divided in most species. Most similar species in the area: *Nippon spinosus*.

Moronidae (*Lateolabrax japonicus*, occurs near the northern part of the area): usually forked caudal fin; opercle with 2 spines on upper part; preopercle serrated, several large flat spines along lower edge; pelvic fins without axillary scale; lateral line does not extend onto caudal fin.

Serranidae (*Nippon spinosus*)

Key to the species of Centropomidae occurring in the area

- 1a. Jaws reach back to rear of eyes (Fig. 1); lower edge of preopercle with 3 or 4 large flat spines *Lates calcarifer*
- 1b. Jaws reach back to under eyes (Fig. 2); lower edge of preopercle smooth, without spines, only 1 spine present at angle *Psammoperca vaigiensis*

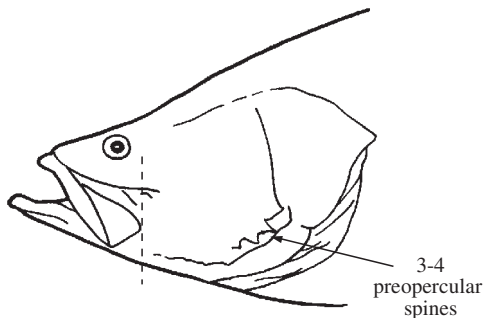


Fig. 1 *Lates calcarifer*

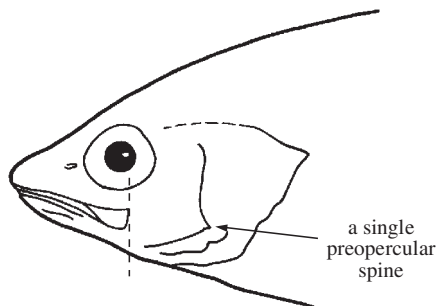





Fig. 2 *Psammoperca vaigiensis*

List of species occurring in the area

The symbol  is given when species accounts are included.

-  *Lates calcarifer* (Bloch, 1790)
-  *Psammoperca vaigiensis* (Cuvier, 1828)

References

Copland, J.W. and D.L. Grey (eds). 1987. Management of wild and cultured sea bass/barramundi (*Lates calcarifer*). Canberra, Australian Centre for International Agricultural Research. *ACIAR Proceedings*, (20):210 p.

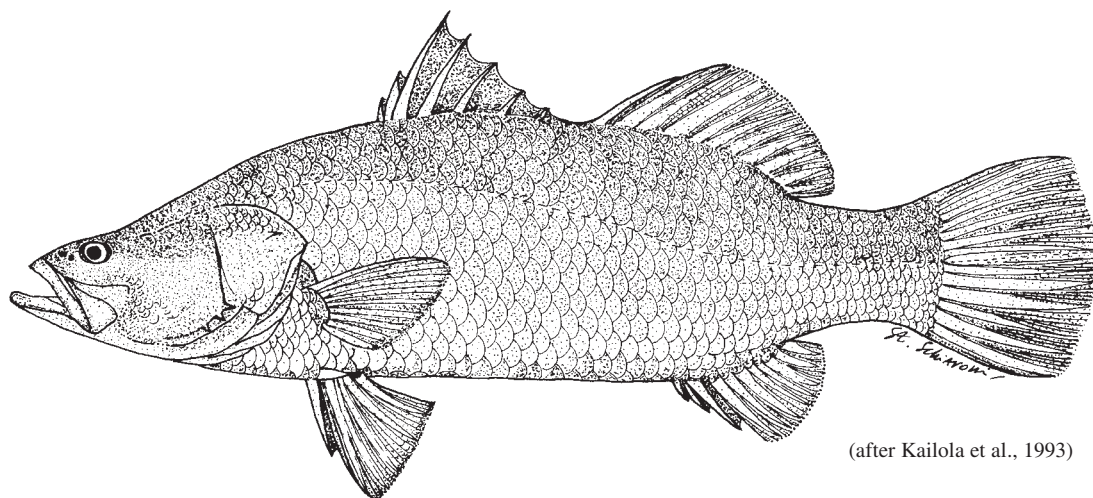
Greenwood, P.H. 1976. A review of the family Centropomidae (Pisces, Perciformes). *Bull. Brit. Mus. (Nat. Hist.) Zool.*, 29(1):1-81.

Lates calcarifer (Bloch, 1790)

GIP

Frequent synonyms / misidentifications: None / *Lateolabrax japonicus* (Cuvier 1828) (family Moronidae).

FAO names: En - Barramundi (= giant seaperch, Fishing Areas 57/72); Fr - Barramundi; Sp - Barramundi.



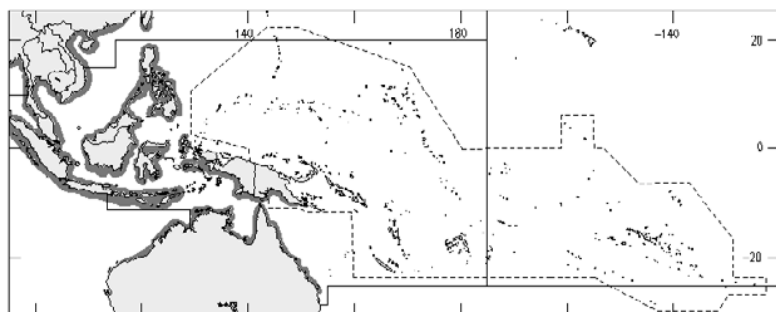
(after Kailola et al., 1993)

Diagnostic characters: Body moderately deep, elongate, and compressed; caudal peduncle distinct. **Dorsal profile concave anteriorly**, convex in front of dorsal fin; snout and jaws pointed. **Lower edge of preopercle with 3 or 4 (rarely more) large flat triangular spines. Nostrils on each side of head close together near eye. Mouth large, jaws reaching past eyes.** Lower limb of first gill arch with 16 or 17 gill rakers. **Dorsal fin deeply incised before last (small) dorsal-fin spine**, the fin with VII to IX spines and 10 or 11 soft rays. Anal fin with III spines and 7 or 8 soft rays. Caudal fin rounded. Scales firmly fixed, ctenoid. Lateral line extends onto caudal fin. Low scaly sheath at base of soft dorsal and anal fins. **Colour:** adults silver with olive-grey or grey-blue backs (fish from turbid waters are darker and duller); juveniles brown to greyish brown with 3 white stripes on head and scattered white patches on sides (white markings can be intensified or turned off at will); eyes brown to golden, with bright red reflective glow; fins without markings.

Size: Maximum total length over 2 m; commonly to 1.5 m and over 55 kg.

Habitat, biology and fisheries: Inhabits coastal marine and estuarine to fresh-water habitats; adults mainly in estuaries (mangroves and river mouths), younger fish extending up rivers into fresh water. Adults return to estuaries to breed, forming spawning aggregations. Barramundi change sex during their life cycle, with most fish maturing first as functional males then becoming females after 3 to 5 years of age. Feed on fishes and some crustaceans (mostly prawns). Popular and sought-after fishes of very considerable economic importance. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of around 20 200 to 42 800 t of *Lates calcarifer* from the Western Central Pacific. Gill nets mostly used, but recreational fishery (rod-and-line) becoming increasingly important. Farming presently carried out, for example in Thailand, Indonesia, and Australia. Marketed mostly fresh.

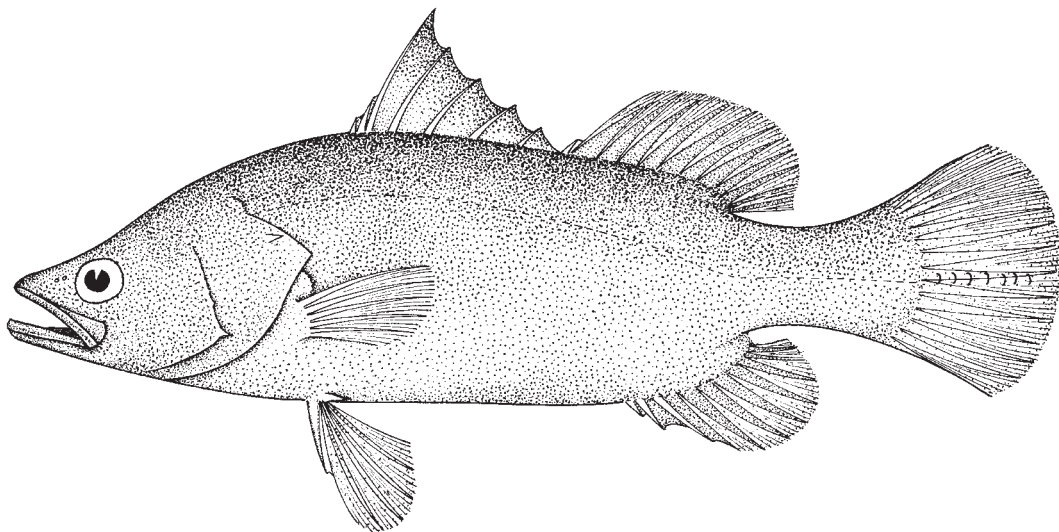
Distribution: Widely distributed in coastal areas of the Indo-West Pacific, from the eastern edge of the Persian Gulf to China and southern Japan, and southwards to northern Australia and southern Papua New Guinea.



Psammoperca vaigiensis (Cuvier, 1828)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Waigieu seaperch; Fr - Brochette de mer; Sp - Perca de mar.

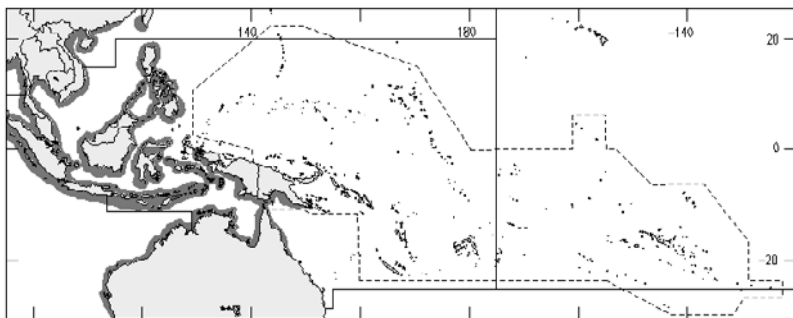


Diagnostic characters: Body moderately deep, elongate, and compressed; caudal peduncle distinct. **Dorsal profile concave anteriorly**, convex in front of dorsal fin; snout and jaws pointed, snout tip slightly rounded. **Lower edge of preopercle smooth, 1 large flat spine at rear angle of preopercle. Nostrils on each side of head widely separated. Mouth moderate, jaws reaching to below middle of eyes.** Lower limb of first gill arch with 12 to 14 gill rakers. **Dorsal fin deeply incised before last (small) dorsal-fin spine, the fin with VII or VIII spines and 12 to 14 soft rays.** Anal fin with III spines and 8 or 9 soft rays. Caudal fin rounded. Scales firmly fixed, ctenoid. Lateral line extends onto caudal fin. Low scaly sheath at base of soft dorsal and anal fins. **Colour:** light silvery grey to dark brown, usually coppery brown, paler ventrally, darker brown lines may follow scale rows along length of body; eyes golden-brown with distinct red reflection; fins unmarked.

Size: Maximum total length about 47 cm; commonly between 20 and 30 cm.

Habitat, biology, and fisheries: Coastal, marine, found on shallow rocky or coral reefs especially near algal beds (such as *Sargassum*). Secretive during the day, hiding in crevices or under overhangs. Hunts at night for small fishes and crustaceans. No fishery statistics available. Fished mostly with handlines, rod-and-line, or gill nets. Marketed mostly fresh.

Distribution: Distributed in the tropical east Indo-West Pacific, from Bay of Bengal, Indo-Australian Archipelago and northern Australia, Philippines, Japan, and the China Sea.



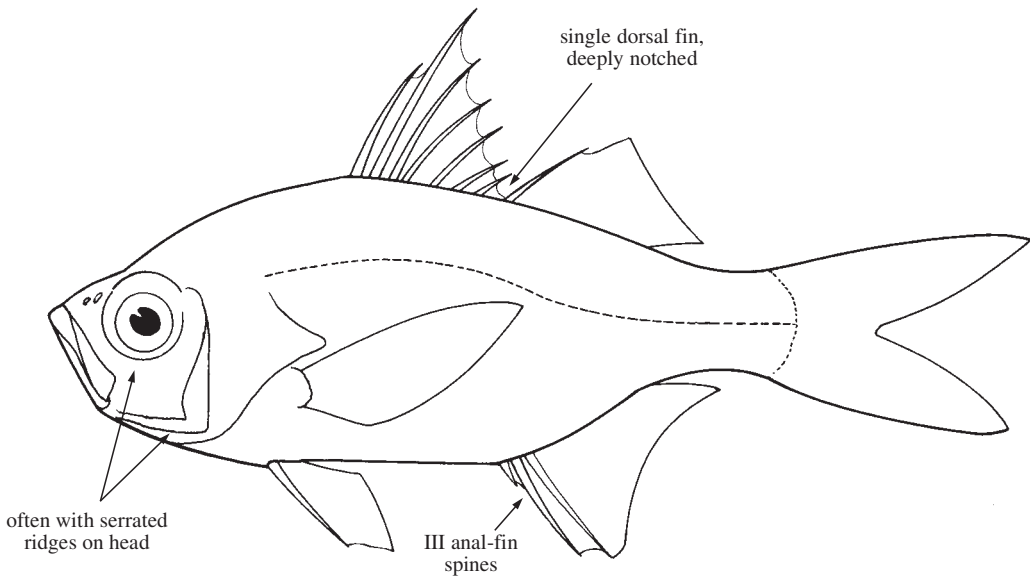
AMBASSIDAE

(= Chandidae)

Perchlets, glassfishes

by G.R. Allen

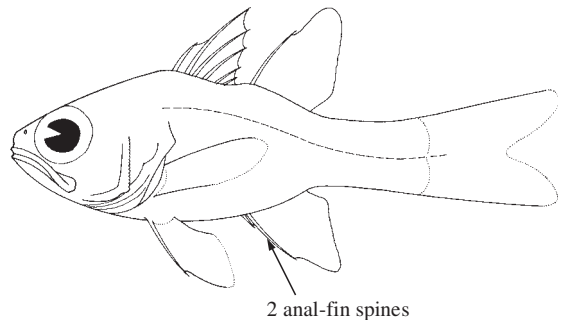
Diagnostic characters: Small (to 12 cm) percoid fishes; body oblong to oval-shaped and compressed. Eyes large, much greater than snout length. **Margins and ridges of preorbital, suborbital, supraorbital, preopercle, and interopercle frequently serrate.** Mouth moderately large, only slightly protractile, jaws equal or lower one slightly protruding; angle of jaw oblique, about 40° to horizontal. Bands of villiform teeth on jaws, vomer, and palatines. First gill arch with 16 to 29 gill rakers on lower limb. **A deeply notched dorsal fin,** the front portion of fin with VII spines, the rear portion with I spine and 8 to 11 soft rays. Anal fin with III spines and 8 to 11 soft rays. Caudal fin forked. Pelvic fins with I spine and 5 soft rays. Pectoral fins with 11 to 17 rays. Branchiostegal rays 6. Scales large and cycloid, extending onto head and base of median fins; cheeks and operculum scaly; lateral line continuous or interrupted in middle portion; scales in midlateral series 24 to 34. **Colour:** semitransparent, usually with dark scale outlines and silvery sheen on side of head and belly.



Habitat, biology, and fisheries: Mangrove shores, brackish estuaries, and fresh waters, always in shallow depths. Forms resting aggregations during the day among the roots of mangrove trees, log snags, and aquatic plants. They disperse at night to feed on micro-crustaceans (cladocerans, ostracods, and copepods), aquatic and terrestrial insects, and occasional fishes. Too small to be commercially important, although they are sometimes dried and salted; also used as bait fishes.

Similar families occurring in the area

Apogonidae: dorsal fin consisting of 2 completely separate parts; only II anal-fin spines.

**Apogonidae**

Key to marine and estuarine species of Ambassidae occurring in the area

Remarks on key characters: the serrated margins and ridges on various head bones are useful features for identifying ambassid fishes (Fig. 1).

- 1a. Supraorbital spines usually 3 to 5 (rarely 2); nasal spine well developed → 2
- 1b. Single suborbital spine; nasal spine well developed or absent → 4
- 2a. Hind margin of preopercle (i.e. vertical limb) with about 6 to 13 small serrae (Fig. 2) *Ambassis vachellii*
(Indo-Australian Archipelago)
- 2b. Hind margin of preopercle usually smooth or weakly crenate without distinct serrae (Figs 3 and 4) → 3

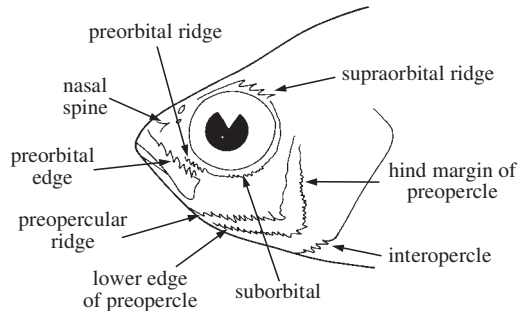


Fig. 1 serrated ridges and edges of head bones used in the identification key

- 3a. Soft anal-fin rays usually 10 (rarely 11); predorsal scales 16 to 18; eye relatively small, 10.7 to 12.7% of standard length; caudal peduncle relatively short and deep, its length and depth 16.1 to 20.8% and 14.4 to 16.3% of standard length, respectively (Fig. 3) *Ambassis marianus*
(southern Queensland and northern New South Wales, Australia)
- 3b. Soft anal-fin rays usually 9; predorsal scales 11 to 14; eye larger, 13 to 13.9% of standard length; caudal peduncle more slender, its length and depth 20.6 to 22.2% and 13 to 14.8% of standard length, respectively (Fig. 4) *Ambassis gymnocephalus*
(Indo-West Pacific)

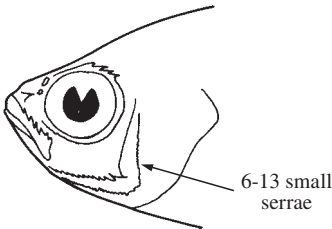


Fig. 2 *Ambassis vachellii*

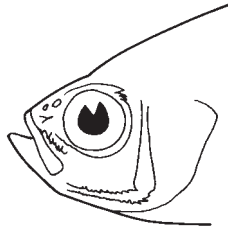


Fig. 3 *Ambassis marianus*

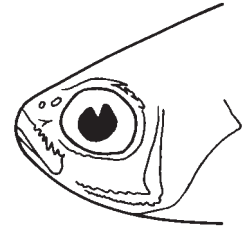


Fig. 4 *Ambassis gymnocephalus*

- 4a. Cheek with 1 row of scales (Fig. 5) *Ambassis urotaenia*
(Indo-Australian Archipelago)
- 4b. Cheek with 2 or more scale rows → 5
- 5a. Lateral line continuous from upper edge of gill opening to caudal-fin base → 6
- 5b. Lateral line interrupted in middle portion → 10
- 6a. Pectoral-fin rays usually 16 or 17 (rarely 15); nasal spine absent (Fig. 6); body relatively deep, maximum depth 45.3 to 50.6% of standard length *Ambassis nalua*
(India to New Guinea and Australia)
- 6b. Pectoral-fin rays 13 to 15; nasal spine present, but may be blunt and hidden under skin; body more slender, maximum depth 29.2 to 44.7% of standard length → 7

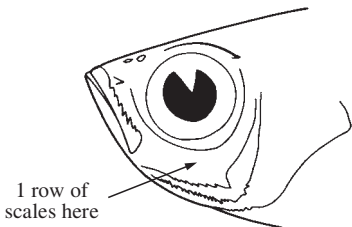


Fig. 5 *Ambassis urotaenia*

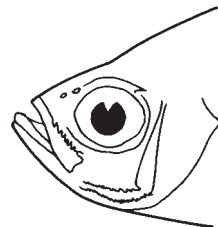
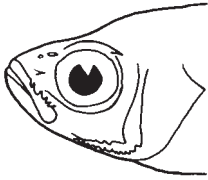
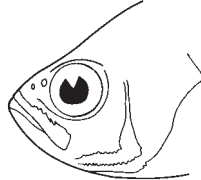
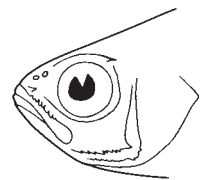
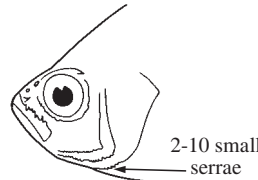
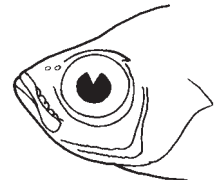


Fig. 6 *Ambassis nalua*

- 7a.** Dorsal-fin spines relatively weak and flexible; soft dorsal-fin rays usually 10 (occasionally 9 or 11); soft anal-fin rays usually 8 or 9; body slender, maximum depth 29.2 to 33.2% of standard length; head length 32 to 34% of standard length (Fig. 7) *Ambassis jacksoniensis*
(New South Wales and southern Queensland, Australia)
- 7b.** Dorsal-fin spines relatively strong and stiff; soft dorsal-fin rays usually 9 (rarely 10); soft anal-fin rays usually 9 or 10; body deeper, maximum depth 33.4 to 44.7% of standard length; head length 35.5 to 41.4% of standard length → 8
- 8a.** Predorsal scales 17 to 22; horizontal scale rows from anal-fin origin to base of dorsal fin 12 or 13 (Fig. 8) *Ambassis macracanthus*
(Sumatra to New Guinea)
- 8b.** Predorsal scales 8 to 15; horizontal scale rows from anal-fin origin to base of dorsal fin 9 to 11 → 9
- 9a.** Predorsal scales 8 to 11; second dorsal-fin spine longer than third spine; horizontal scale row from anal-fin origin to base of dorsal fin 11 or 12 *Ambassis kopsi*
(Malay Peninsula, Kalimantan Sabah, and the Philippines)
- 9b.** Predorsal scales 12 to 15; second dorsal-fin spine slightly shorter than third spine; horizontal scale row from anal-fin origin to base of dorsal fin 9 or 10 (Fig. 9) *Ambassis miops*
(India to Australia and New Guinea)

Fig. 7 *Ambassis jacksoniensis*Fig. 8 *Ambassis macracanthus*Fig. 9 *Ambassis miops*

- 10a.** Margin of interopercle with 2 to 10 small serrae (Fig. 10); height of spinous dorsal fin 34 to 38% of standard length; maximum depth of body 37.2 to 47.8% of standard length *Ambassis interruptus*
(Andaman Islands to Vanuatu and New Caledonia)

Fig. 10 *Ambassis interruptus*Fig. 11 *Ambassis buruensis*

- 10b.** Margin of interopercle smooth (Fig. 11); height of spinous dorsal fin 27.6 to 32.7% of standard length; maximum depth of body 32.9 to 39.5% of standard length *Ambassis buruensis*
(Sumatra to New Guinea and the Philippines)

List of marine-estuarine species occurring in the area

Ambassis buruensis Bleeker, 1857
Ambassis gymnocephalus (Lacepède, 1802)
Ambassis interruptus Bleeker, 1852
Ambassis jacksoniensis (Macleay, 1881)
Ambassis kopsi Bleeker, 1858
Ambassis macracanthus Bleeker, 1849)
Ambassis marianus Günther, 1880
Ambassis miops Günther, 1871
Ambassis nalua (Hamilton, 1822)
Ambassis urotaenia Bleeker, 1852
Ambassis vachellii Richardson, 1846

References

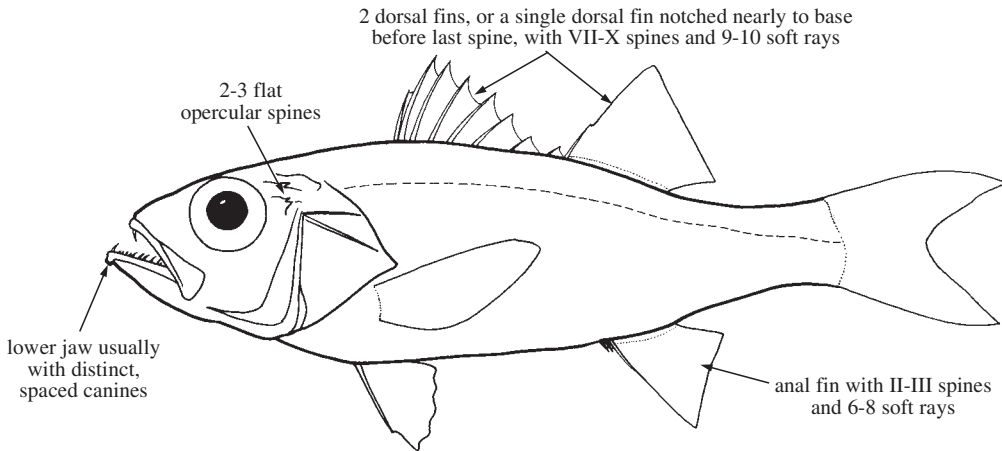
- Allen, G.R. and W.E. Burgess. 1990. A review of the glassfishes (Chandidae) of Australia and New Guinea. *Rec. West. Aust. Mus. Supplement*, 34:139-206.
- Fraser-Brunner, A. 1954. A synopsis of the centropomid fishes of the subfamily Chandinae, with descriptions of a new genus and two new species. *Bull. Raffles Mus.*, 25:185-213.

ACROPOMATIDAE

Temperate ocean-basses (lanternbellies, splitfins)

by K.E. Carpenter

Diagnostic characters: Body moderately compressed (size to about 40 cm). Eyes large, their diameter greater than snout length. **Usually 2, sometimes 3 flat spines on opercle.** Mouth subterminal, the lower jaw slightly projecting; small teeth present on jaws and usually on vomer and palatines; usually canine teeth in jaws; maxillae not covered by preorbitals, not scaly, and broadened distally. Gill membranes free from isthmus. Branchiostegal rays 7. **Separate spiny and soft dorsal fins, or dorsal fin notched to base before last spine; first dorsal fin with VII to X spines, and second fin with 0 to I spines and 8 to 10 soft rays.** **Anal fin with II or III spines and 6 to 8 soft rays.** Caudal fin usually forked, sometimes deeply forked or emarginate. Vertebrae with 10 precaudal and 16 caudal elements. **Colour:** body either pink or reddish and whitish or silvery ventrally, silvery, or mostly brownish or blackish; the 2 species of *Acropoma* have a light organ and their anus situated near pelvic-fin base.



Habitat, biology, and fisheries: Demersal, generally over soft bottom in deep water, found at depths between 20 and 700 m. Incidentally caught in deep bottom trawls and generally too small or not abundant enough to be exploited commercially; occasionally consumed, some are considered food fish in Japan.

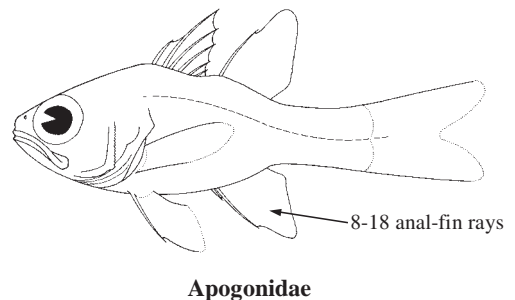
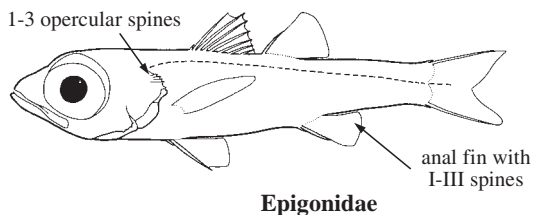
Remarks: The relationships and affinities of the Acropomatidae have been very much confused. Members of this family have variously been placed in the Percichthyidae, Apogonidae, Howellidae, and Polyprionidae. The Percichthyidae is now restricted to temperate fresh-water perches and the marine forms put in the Acropomatidae. A species included here under *Howella* is provisionally placed here and is perhaps better treated as a separate family (although sometimes also included under the Apogonidae). The species of *Polyprion* which apparently are restricted to temperate waters outside the WCP area, are also perhaps better treated in the separate family, Polyprionidae.

Similar families occurring in the area

Acropomatids are distinguishable from most other similar percoid fishes (including the Serranidae, their presumed close relatives) by their divided or nearly divided spinous and soft dorsal fins. Other similar-shaped families with this dorsal-fin configuration include:

Apogonidae: anal fin with 8 to 18 soft rays (6 to 8 in Acropomatidae); a single opercular spine (2 or 3 in Acropomatidae).

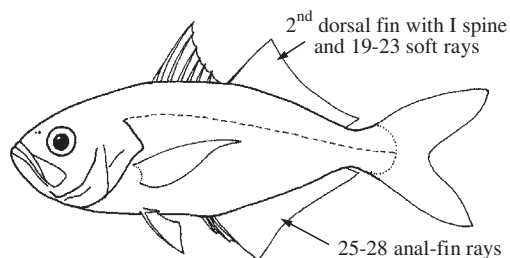
Epigonidae: anal fin with I to III spines (II or III in Acropomatidae); opercle with 1 or 3 spines (2 or 3 in Acropomatidae); maxilla narrow (tip of maxilla broad in Acropomatidae).



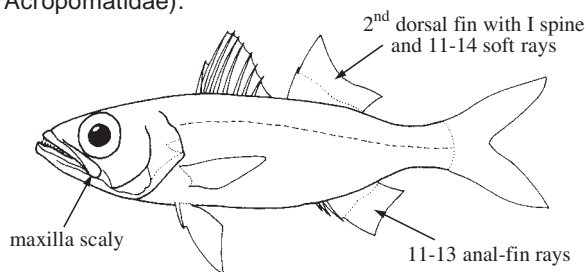
Lactariidae: second dorsal fin with I spine and 19 to 23 soft rays (0 to I spines and 8 to 10 soft rays in Acropomatidae); anal fin with 25 to 28 soft rays (6 to 8 soft rays in Acropomatidae).

Scombropidae: second dorsal fin with I spine and 11 to 14 soft rays (0 to I spines and 8 to 10 soft rays in Acropomatidae); anal fin with 11 to 13 soft rays (6 to 8 soft rays in Acropomatidae); maxilla scaly (not scaly in Acropomatidae).

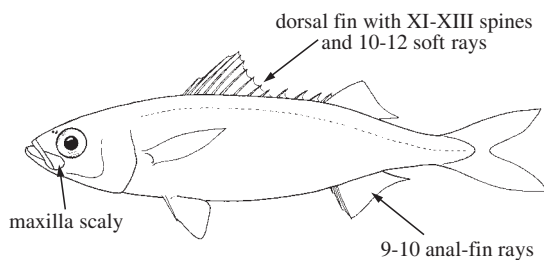
Emmelichthyidae: dorsal fin with XI to XIII spines and 10 to 12 soft rays (VII to X spines and 8 to 10 soft rays in Acropomatidae); anal fin with 9 or 10 soft rays (6 to 8 soft rays in Acropomatidae); broad, scaly maxilla (not scaly in Acropomatidae).



Lactariidae



Scombropidae



Emmelichthyidae

List of species occurring in the area

- Acropoma japonica* Günther, 1859
Acropoma lecorneti Fourmanoir, 1988
Apogonops anomalus Ogilby, 1896
Bathysphyraenops simplex Parr, 1933^{1/}
Doederleinia berycoides (Hilgendorf, 1879)
Doederleinia gracilispinis Fowler, 1943
Howella brodiei Ogilby, 1899
Malakichthys elegans Döderlein, 1883
Malakichthys sp.
Neoscombrops pacificus Mochizuki, 1979
Pseudohowella intermedia Fedoryako, 1976
Synagrops analis Katayama, 1957
Synagrops argyrea (Gilbert and Cramer, 1896)
Synagrops japonicus (Döderlein, 1884)
Synagrops malayanus Weber, 1913
Synagrops philippinensis Günther, (1880)
Synagrops serratospinosa Smith and Radcliffe, 1912

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- Paxton, J.R. and J.E. Hanley. 1989. Family Percichthyidae. *In* *Zoological catalogue of Australia 7. Pisces. Petromyzontidae to Carangidae*, edited by J.R. Paxton, D.F. Hoese, G.R. Allen, and J.E. Hanley. Canberra, Australian Government Publishing Service, 665 p.

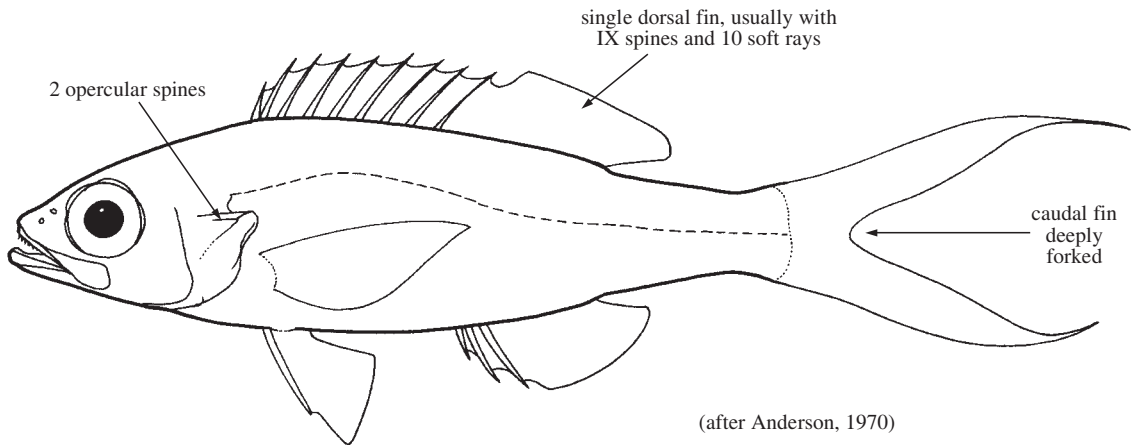
^{1/} Listed here provisionally, most recently considered 'incertae sedis' in the Percoidei.

SYMPHYSANODONTIDAE

Bunquelovelies (also wampeejawed fishes, slopefishes, and shelf beauties)

by W.D. Anderson, Jr.

Diagnostic characters: Body slender to moderately deep, somewhat compressed (size to about 17 cm). Head moderate. Eyes moderate to large, their diameter about equal to snout length to considerably longer than snout. **Suborbital extremely narrow, its height (width) about 1% of standard length.** Opercular spines 2. Snout relatively blunt. **Anterior ends of premaxillae incised, forming conspicuous symphyseal notch that receives anterior ends of dentaries.** Mouth terminal and oblique; jaws about equal. **Extreme dorsalmost margin of maxilla covered by very narrow suborbital with mouth closed.** Premaxilla with small teeth (usually larger anteriorly); symphyseal notch toothless. Dentary with small teeth usually extending from posterior elevation of the bone almost to symphysis; teeth on and near posterior elevation usually larger; **usually a number of relatively large exerted teeth at anterior end of dentary, these teeth fitting into symphyseal notch in premaxillae when mouth closed.** Teeth, when present, small on vomer, palatines, and pterygoids; no teeth on tongue. Branchiostegal rays 7. First gill arch with 9 to 14 gill rakers on upper limb and 20 to 29 on lower limb (total 29 to 42). Dorsal fin not incised at junction of spinous and soft rays. Caudal fin deeply forked. Both lobes of caudal fin and pelvic fins extremely produced in some individuals. **Dorsal fin usually with IX spines and 10 soft rays.** Anal fin with III spines and 7 or 8 soft rays. Principal caudal-fin rays 17 (9 in upper lobe, 8 in lower lobe); branched caudal-fin rays 15 (8 in upper lobe, 7 in lower lobe). Pectoral-fin rays 15 to 18 (usually 16 or 17). Pelvic fins with I spine and 5 soft rays. Dorsal and anal fins without scales, but with scaly sheaths at their bases. Axillary scales of pelvic fins and scaly interpelvic process well developed. **Most of head, including maxillae and dentaries, covered with scales.** Scales moderate, ctenoid. Tubed lateral-line scales 42 to 61. Vertebrae 10+15=25. **Colour:** mainly shades of red or orange.



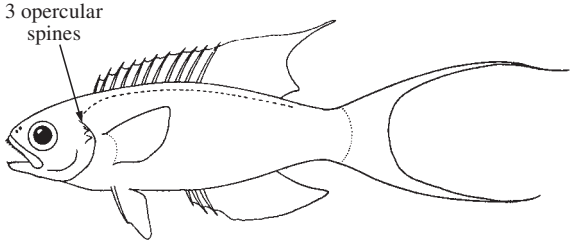
Habitat, biology, and fisheries: Bottom-associated fishes, known from depths of 50 to 500 m on the continental shelf and upper continental slope, around islands, and over reefs and submarine ridges. Probably planktivorous.

Remarks: Have been considered by various workers to be members of either the family Serranidae or the family Lutjanidae, but species of Symphysanodontidae possess characters that clearly distinguish them from serranids and lutjanids and lack characters that would associate them with either of those groups of fishes.

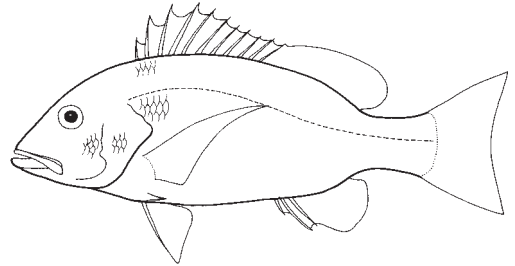
Similar families occurring in the area

Serranidae: 3 opercular spines (2 in Symphysanodontidae); dorsal-most margin of maxilla not covered by suborbital when mouth closed; vertebrae rarely 25, usually 24 or 26 (25 in Symphysanodontidae).

Lutjanidae: maxilla covered to considerable degree by suborbital when mouth closed; anterior ends of premaxillae not incised to form conspicuous symphysial notch that receives anterior ends of dentaries when mouth closed; X to XII dorsal-fin spines (almost always IX dorsal-fin spines in Symphysanodontidae); vertebrae 24 (25 in Symphysanodontidae).



Serranidae (subfamily Anthiinae)



Lutjanidae



Key to the species of Symphysanodontidae occurring in the area

Remarks on key characters: counts of lateral-line scales are of tubed scales along the body, excluding those posterior to the base of the caudal fin. Counts of gill rakers include rudiments, when present.

- 1a. Lateral-line scales 42 to 49; first gill arch with 9 to 11 gill rakers on upper limb and 20 to 26 on lower limb (total 29 to 37); length of pelvic fins 22 to more than 80% of standard length; length of upper caudal-fin lobe 29 to 75% of standard length; length of lower caudal-fin lobe 29 to 76% of standard length (individuals with well-produced to extremely produced caudal-fin lobes and pelvic fins are probably males). *Symphysanodon maunaloae*
- 1b. Lateral-line scales 52 to 55; first gill arch with 10 to 12 gill rakers on upper limb and 25 to 28 on lower limb (total 36 to 40); length of pelvic fins 22 to 26% of standard length; both lobes of caudal fin produced slightly, but apparently never extremely produced, as in some individuals of *S. maunaloae* *Symphysanodon typus*

List of species occurring in the area

The symbol  is given when species accounts are included.

-  *Symphysanodon maunaloae* Anderson, 1970
-  *Symphysanodon typus* Bleeker, 1878

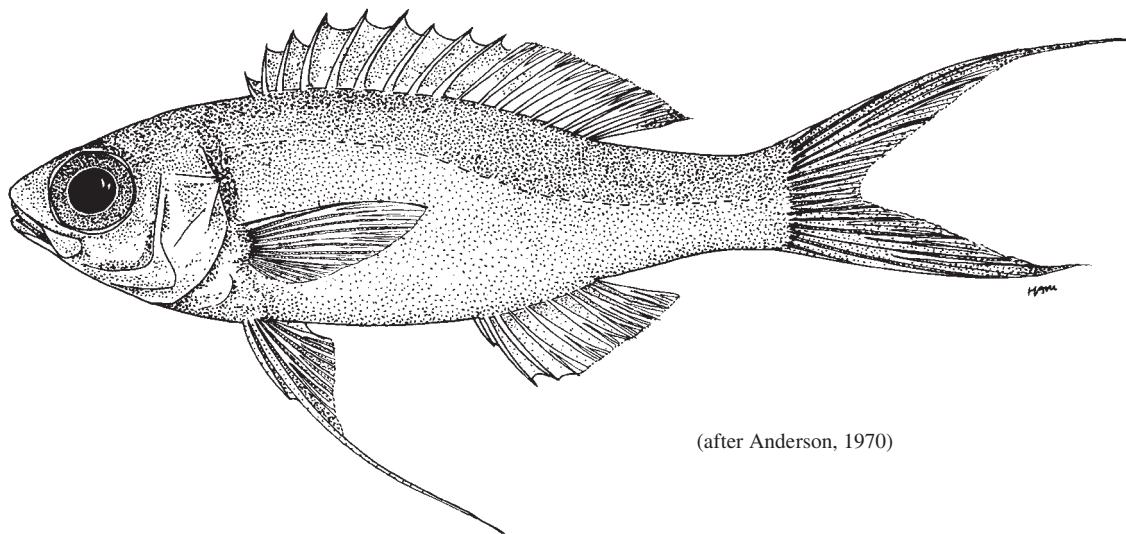
Reference

Anderson, W.D., Jr. 1970. Revision of the genus *Symphysanodon* (Pisces: Lutjanidae) with descriptions of four new species. *Fish. Bull.*, 68(2):325-346.

Symphysanodon maunaloae Anderson, 1970

Frequent synonyms / misidentifications: None / *Symphysanodon typus* Bleeker, 1878.

FAO names: En - Beautimous wampeejaw.



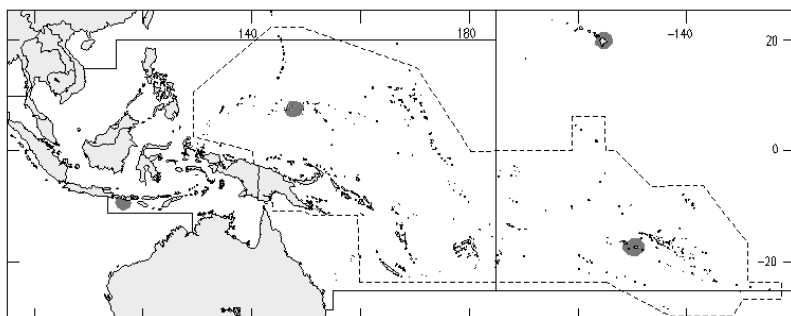
(after Anderson, 1970)

Diagnostic characters: Body slender to moderately deep, its depth 21 to 33% of standard length (depth tending to become relatively greater with increase in standard length). First gill arch with **9 to 11 gill rakers on upper limb and 20 to 26 on lower limb (total 29 to 37)**. Caudal fin deeply forked, both lobes produced; **length of upper caudal-fin lobe 29 to 75% of standard length; length of lower caudal-fin lobe 29 to 76% of standard length**. **Length of pelvic fins 22 to more than 80% of standard length**. (Individuals with well-produced to extremely produced caudal-fin lobes and pelvic fins are probably males.) **Lateral-line scales 42 to 49**. **Colour:** upper body and caudal fin light red; iris pink; dark bar between eyes; dark vertical bar just behind operculum.

Size: Maximum standard length about 16 cm; commonly to 9 cm.

Habitat, biology, and fisheries: Occurs in depths of 150 to 500 m. No other information available.

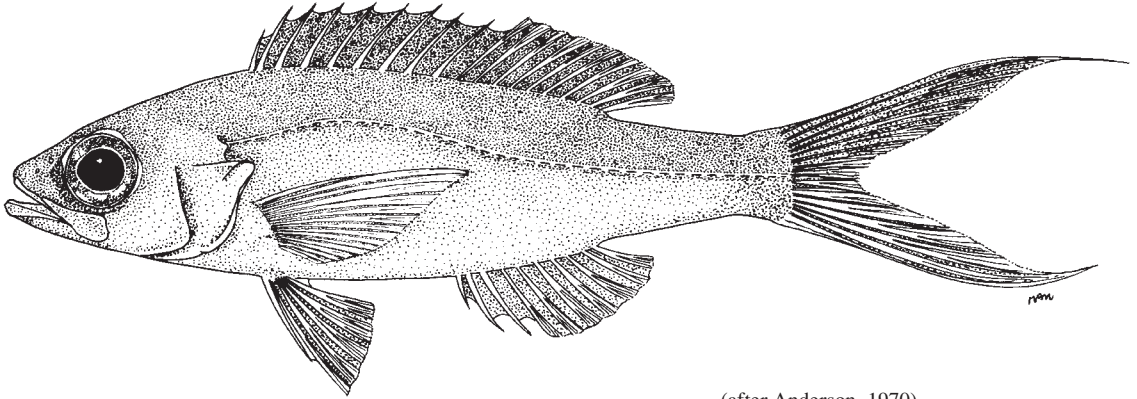
Distribution: Wide ranging from the eastern South Pacific (Sala y Gómez Ridge) and Hawaii to Indonesia (off Lombok) and the Kyushu-Palau Ridge.



Symphysanodon typus Bleeker, 1878

Frequent synonyms / misidentifications: None / None.

FAO names: En - Aristocratic bunquelovely.



(after Anderson, 1970)

Diagnostic characters: Body slender, its depth 22 to 29% of standard length (depth tending to become relatively greater with increase in standard length). First gill arch with **10 to 12 gill rakers on upper limb and 25 to 28 on lower limb (total 36 to 40)**. Caudal fin deeply forked, both lobes produced, but apparently never produced into extremely long filaments. **Pelvic fins short, not reaching anal fin; length of pelvic fins 22 to 26% of standard length. Lateral-line scales 52 to 55.** **Colour:** (from literature descriptions) body rose above, silvery below; caudal fin yellowish; other fins apparently some shade of red.

Size: Maximum standard length about 17 cm.

Habitat, biology, and fisheries: Occurs in depths of 50 to 235 m. No other information available.

Distribution: Wide ranging from Hawaii to the Philippines (off Luzon) and Indonesia (off Lombok and the Kai Islands).

