

FAO SPECIES IDENTIFICATION SHEETS

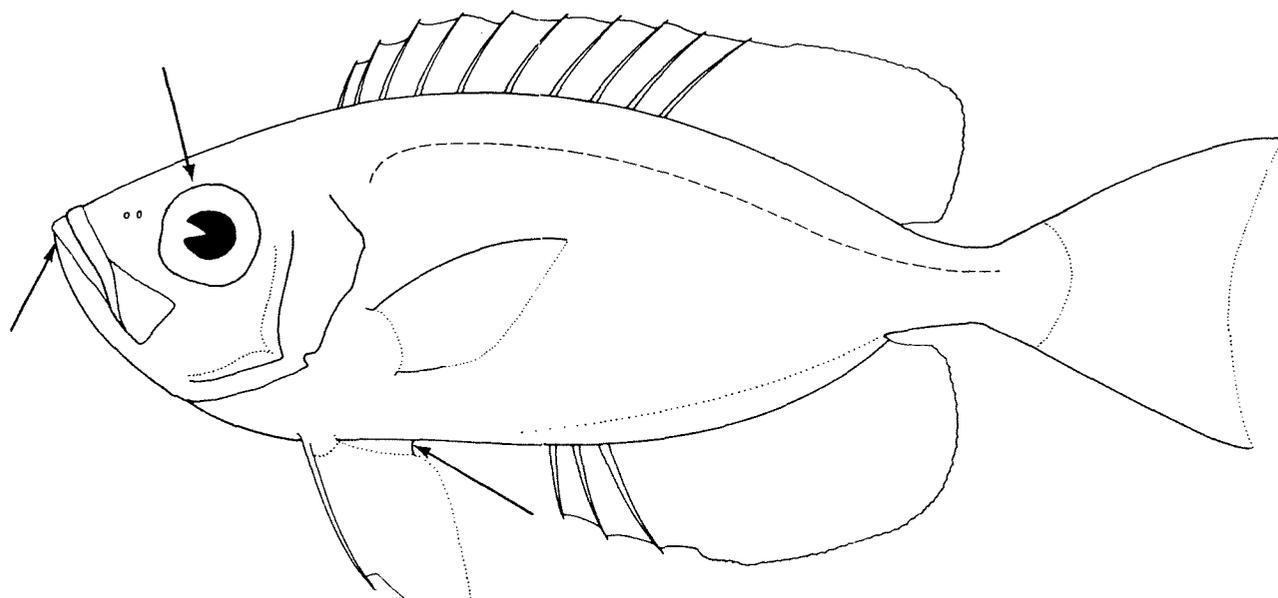
FISHING AREA 51
(W. Indian Ocean)

PRIACANTHIDAE

Small to moderate-sized fishes with relatively deep, compressed bodies. Eyes very large, near dorsal profile of head; mouth large, strongly oblique, the lower jaw projecting; small conical teeth in a narrow band in jaws. A continuous dorsal fin of 10 spines and 10 to 15 soft rays, without a notch or only slightly notched between spinous and soft portions; anal fin with 3 spines and 9 to 16 soft rays; pelvic fins large, with 1 spine and 5 rays, inserted anterior to pectoral fins, and broadly joined to the body by a membrane; caudal fin with 16 principal rays (14 branched) varying from slightly emarginated to rounded. Scales small, ctenoid (rough to touch), completely covering head (including maxilla).

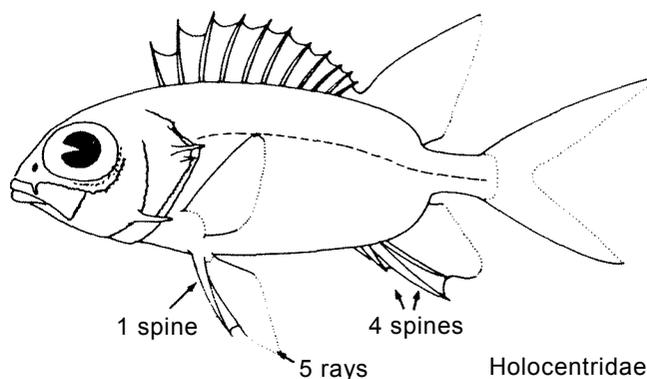
Colour: generally bright red, but some species can vary from pinkish silver through mottled red to solid red.

Bigeyes are bottom-dwelling carnivorous fishes, primarily nocturnal but may feed by day. They eat mainly the large elements of the zooplankton such as small fishes, crustaceans and polychaete worms. They are excellent food fishes.



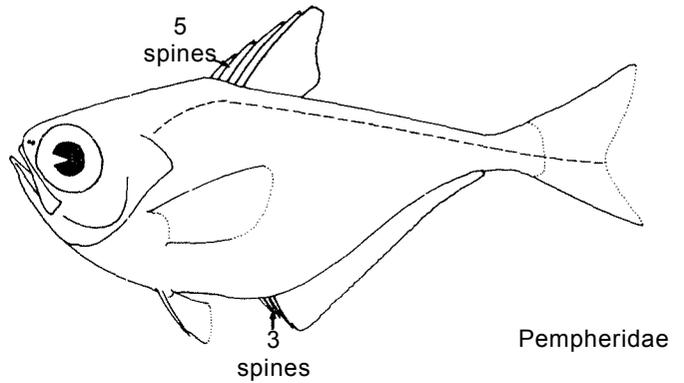
SIMILAR FAMILIES OCCURRING IN THE AREA:

Holocentridae: also red in colour and with large eyes, but readily distinguished from the Priacanthidae by their more coarsely ctenoid scales, their spinous head bones and deeply forked caudal fin; also, pelvic fins with 1 spine and 7 rays (1 spine and 5 rays in Priacanthidae) and anal fin with 4 spines (3 in Priacanthidae).

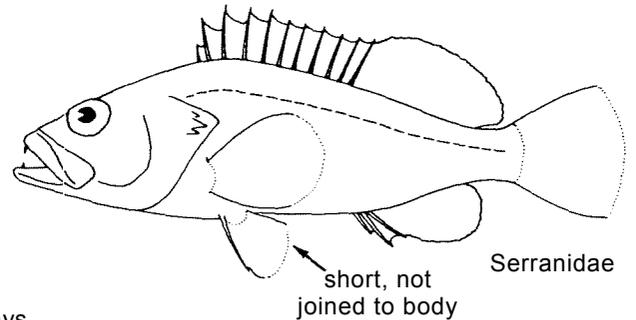


Pempheridae: moderately compressed fishes with large eyes and coppery in colour, but dorsal fin short, with 4 or 5 spines and 8 or 9 soft rays (10 spines and 10 to 15 soft rays in Priacanthidae) and anal fins very long, with 3 spines and 22 to 35 soft rays (9 to 16 soft rays in Priacanthidae).

Serranidae: pelvic fins not very long (not reaching anal-fin origin) and not joined by a membrane the whole length of the inner ray to the body; some teeth more or less developed as canines; body rarely as deep and compressed as in Priacanthidae; colour not bright red.



Pempheridae

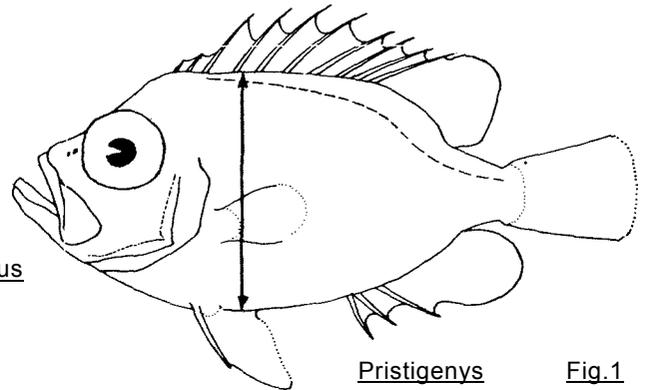


Serranidae

short, not joined to body

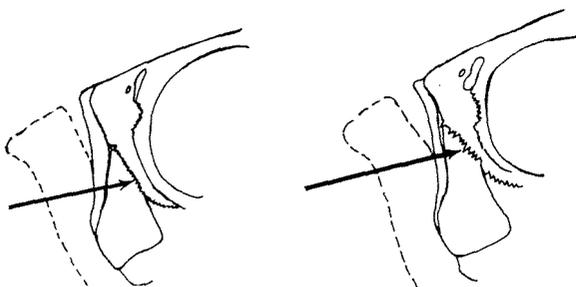
KEY TO GENERA OCCURRING IN THE AREA:

- 1a. Spinous part of dorsal fin rounded, with posterior spines shorter than the middle ones; lateral line scales 32 to 50; anal soft rays 9 to 11; body very deep in young (less than 10 cm TL), the depth about 1.7 to 1.9 times in standard length (2.2 times in large adults) (Fig.1) Pristigenys
- 1b. Spinous dorsal fin with longest spine posteriorly; lateral line scales 55 to 90; anal soft rays 12 to 15; body more elongate (depth 2.0 to 3.1 in standard length in specimens of all sizes) (Figs. 2,3)
 - 2a. Denticles on leading edge of lachrymal (bone before eye) of about uniform size throughout (Fig.2a); pelvic fins less than, or about equal to head length (Fig.3)..... Priacanthus



Pristigenys

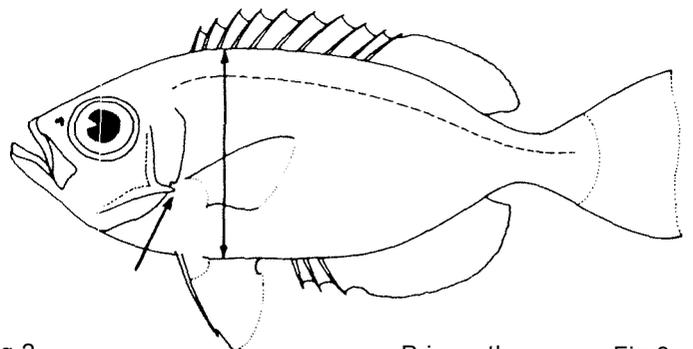
Fig.1



a) Priacanthus

b) Cookeolus

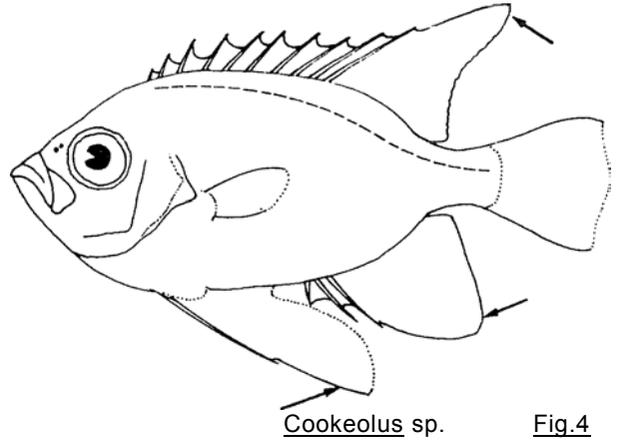
Fig.2



Priacanthus

Fig.3

2b. Upper 10 or so denticles of the lachrymal bone enlarged to spinous proportions, protruding over maxilla (Fig.2b); pelvic fins very long, 1.4 (young) to 1.1 (adults) times longer than head (Fig.4)..... Cookeolus



LIST OF SPECIES OCCURRING IN THE AREA:

Cookeolus boops (Bloch & Schneider)

Priacanthus blochii Bleeker, 1853

Priacanthus cruentatus (Lacepède, 1802)

Priacanthus hamrur (Forsskål, 1775)

Priacanthus tayenus Richardson, 1846

Priacanthus sp.

Pristigenys nipponia (Cuvier, in Cuv. & Val..)

PRIAC Priac 5

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PRIAC Priac 3

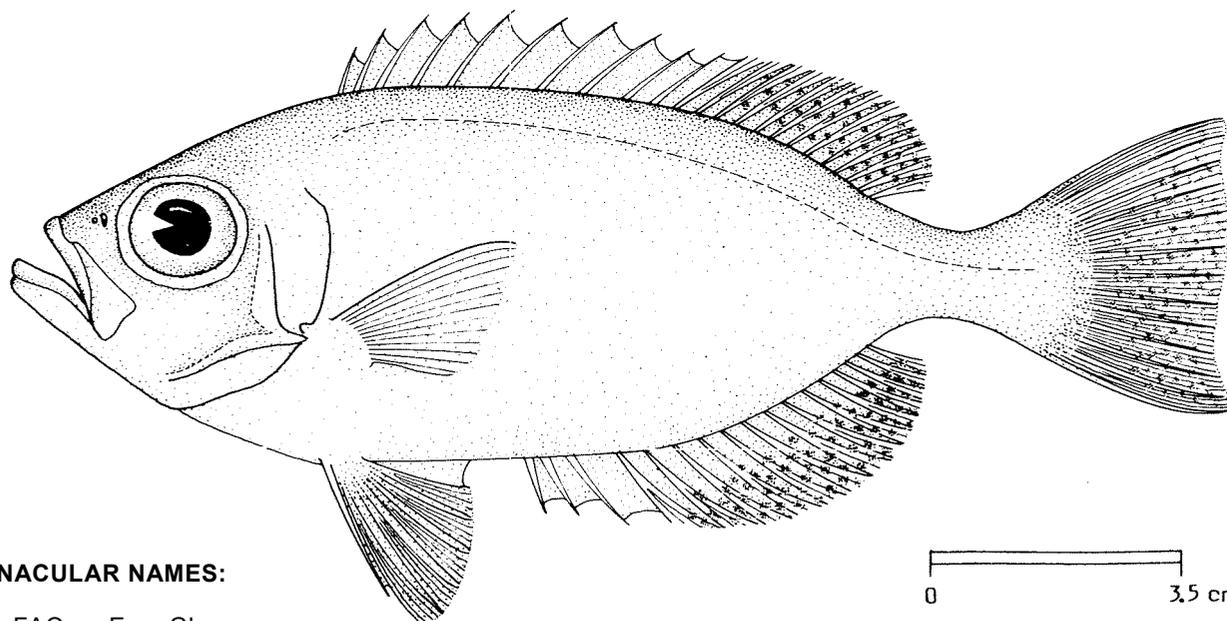
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FAO SPECIES IDENTIFICATION SHEETS

FAMILY : PRIACANTHIDAE

FISHING AREA 51
(W. Indian Ocean)*Priacanthus cruentatus* (Lacepède, 1802)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO: En – Glasseye
Fr – Beauclaire de roche
Sp – Catalufa de roca

NATIONAL:

DISTINCTIVE CHARACTERS:

Body relatively deep (the depth contained 2.5 to 2.9 times in standard length) and compressed. Eyes very large; mouth large and oblique, the lower jaw strongly projecting, the maxilla reaching approximately to below front margin of pupil; denticles on leading edge of lachrymal (bone before eye) of about uniform size; a well developed spine at corner of preopercle which nearly reaches the margin of the opercle; striate posterior portion of preopercle above and below base of spine scaleless or nearly so; teeth small, conical, in a narrow band in jaws; gill rakers on lower limb of first arch 16 to 20. Dorsal fin continuous, with 10 spines and 13 soft rays; anal fin with 3 spines and 13 or 14 soft rays; pelvic fins relatively short, contained 1.5 or slightly more times in head length and broadly joined to the body by a membrane; caudal fin may be slightly double emarginate in larger specimens. Scales small, ctenoid (rough to touch), 69 to 85 on lateral line.

Colour: varying from red to mottled silvery pink; small dusky spots usually appear on membranes of soft dorsal and anal fins and dash-like spots often appear on the caudal fin membrane.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Priacanthus hamrur and Priacanthus blochii: pelvic fins much darker and longer, contained 1.2 to 1.3 times in head (1.5 or slightly more in P. cruentatus); posterior portion of preopercle above and below spine well scaled; preopercular spine poorly developed in adults; fins light to dusky black but lacking spots except for a basal spot on pelvic fins; caudal fin crescentic in adult, P. hamrur.

P. tavenus: soft portions of dorsal and anal fins angulate or pointed; only 11 or 12 dorsal soft rays (13 in P. cruentatus); caudal fin lunate in large adults; purplish black spots present on pelvic fins but lacking in other fins.

Priacanthus sp.: fin membrane between first and third dorsal spines blackened, rest of fin light; soft dorsal and anal fins pointed.

Cookeolus boops: upper 10 or so denticles of lachrymal bone enlarged to spiny proportions, protruding over the maxilla; pelvic fins longer than head; soft portions of dorsal and anal fins produced; caudal fin rounded. Generally occurring at depths of 180 m or more.

Pristigenys nipponia: body deeper, contained about 1.7 to 2.2 times in standard length; posterior dorsal spines shorter than middle spines 4 to 6; soft dorsal and anal fins short and rounded with 11 or 12 and 10 or 11 rays respectively (13 and 13 or 14, respectively in P. cruentatus); scales larger, 50 or less in lateral line (69 to 85 in P. cruentatus).

SIZE:

Maximum: 30 cm; common to 20 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

A circumtropical species, possibly present throughout Area 51, except perhaps in the Red Sea and upper "Gulf".

A shallow-water species found on coral reefs and rocky bottoms in coastal continental regions but most common around oceanic islands. Solitary and primarily nocturnal.

Feeds primarily on small fishes (especially post-larvae) and the larger planktonic crustaceans and molluscs.

PRESENT FISHING GROUNDS:

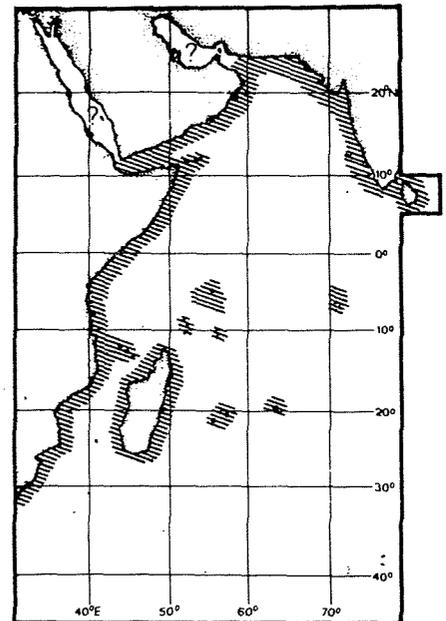
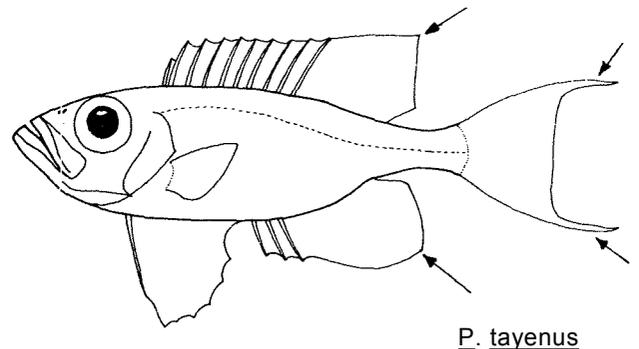
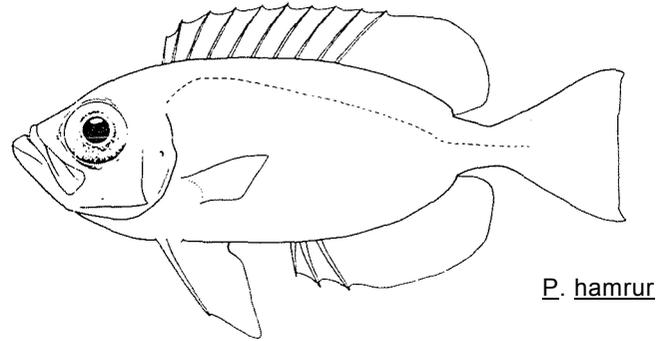
Caught incidentally throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught chiefly on hook and line, also in traps.

Marketed mostly fresh. Flesh of good quality.



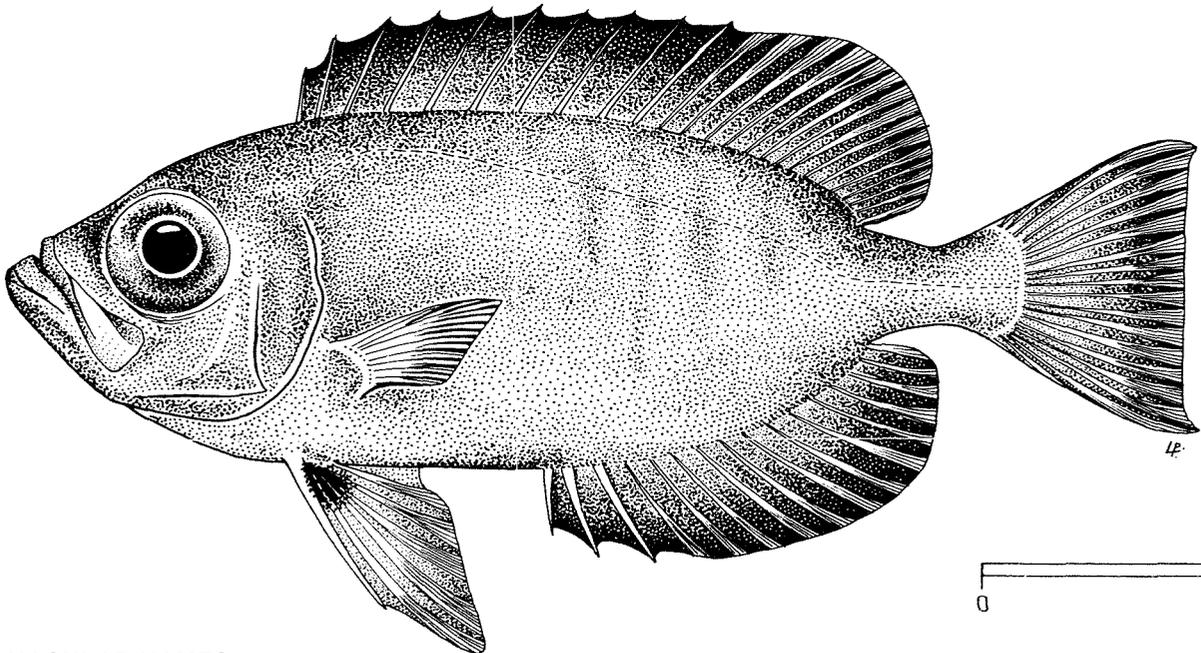
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PRIACANTHIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Priacanthus hamrur</i> (Forsskål, 1775)
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OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Moontail bullseye
 Fr - beauclair miroir
 Sp - Catalufa espejuelo

NATIONAL:

DISTINCTIVE CHARACTERS:

Body relatively deep and compressed, the depth contained about 2.7 to 2.8 times in standard length. Eyes very large; mouth large and oblique, the tip of the maxilla reaching to a vertical through front margin of pupil; spine at corner of preopercle short in adults, variable in young; posterior portion of preopercle above and below spine scaled; gill rakers on lower limb of first arch 18 to 24. Soft portions of dorsal and anal fins rounded, each with 13 to 15 rays; pelvic fins shorter than head contained about 1.2 to 1.3 times therein, and joined to body by a membrane; caudal fin emarginate, becoming crescentic with age. Scales small, ctenoid rough to touch), 73 to 93 in lateral line.

Colour: body crimson with dusky bars sometimes present, especially in young; fins dusky to blackish, being darker near the margins; a black basal spot on the dorsal surface of pelvic fin bases.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Priacanthus blochii: in Area 51, maybe restricted to islands of the Southwest Indian Ocean; one possible record from India; fins light dusky but not blackened; caudal fin not crescentic in adults; gill rakers on lower limb of first arch 15 or 16 (18 to 24 in P. hamrur).

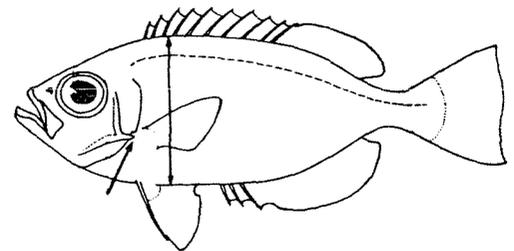
P. cruentatus: preopercular spine well developed in adults; posterior portion of preopercle above and below spine scaleless or nearly so; pelvic fins lighter and shorter, contained about 1.5 or more times in head (1.2 to 1.3 times in P. hamrur); soft dorsal and anal fins and caudal fin with dark spots.

P. tavenus: preopercular spine well developed in adults; soft dorsal and anal fins angulate, with 11 or 12 and 12 or 13 rays, respectively (both with 13 to 15 rays in P. hamrur); caudal fin lunate in large adults; pelvic fins with several dark spots (1 basal spot in P. hamrur).

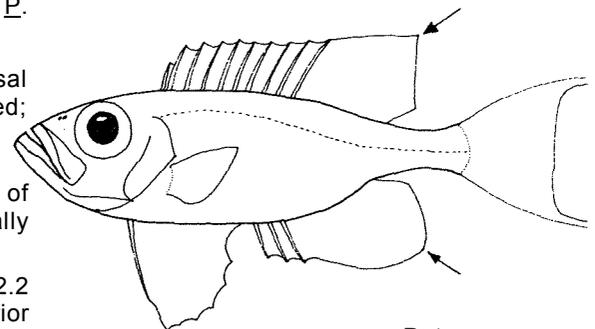
Priacanthus sp: fin membrane between first and third dorsal spines blackened, rest of fin light; soft dorsal and anal fins pointed; gillrakers 15 to 17 on lower arch.

Cookeolus boops: pelvic fins longer than head; soft portions of dorsal and anal fins produced; caudal fin rounded. Generally occurring at depths of 180 m or more.

Pristigenys nipponia: body deeper, contained about 1.7 to 2.2 times in standard length (2.7 or 2.8 times in P. hamrur); posterior dorsal spines shorter than middle spines 4 to 6 (last spine longest in P. hamrur); soft portions of dorsal and anal fins short and rounded, with 11 or 12 and 10 or 11 rays, respectively; scales large, 50 or less on lateral line (73 to 93 in P. hamrur).



P. cruentatus



P. tavenus

SIZE:

Maximum: 40 cm; common to 30 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Present throughout Area 51 in shallower waters, but perhaps absent from the upper "Gulf"; South African specimens appear at least racially distinct. Eastward it extends into the Western Pacific region.

Lives near the bottom in shallow waters (mostly in less than 25 m depth) where it is associated with coral or rocky bottoms.

Feeds on small fish, crustaceans, and other small invertebrates.

PRESENT FISHING GROUNDS

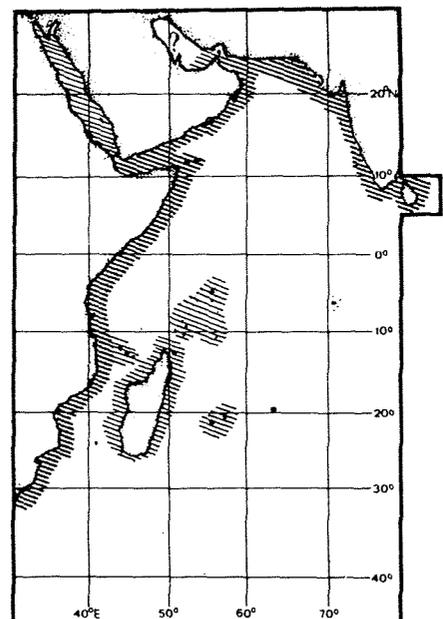
Shallow coastal waters.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught with handlines and gillnets.

Marketed fresh.



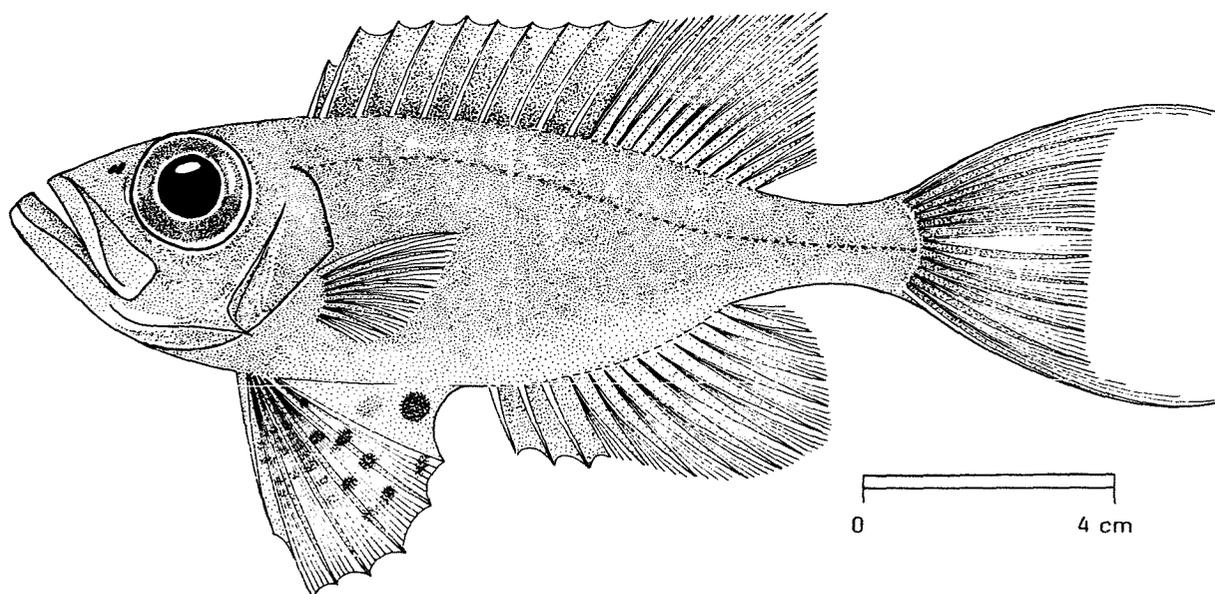
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PRIACANTHIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Priacanthus tayenus</i> Richardson, 1846

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Purple-spotted bigeye
 Fr - Beauclaire pintade
 Sp - Catalufa pintada

NATIONAL:

DISTINCTIVE CHARACTERS:

Body moderately deep and compressed, its depth contained about 3 times in standard length. Eyes very large; spines at corner of preopercle well developed; posterior portion of preopercle above and below spine well scaled; gillrakers on lower limb of first arch 17 to 20. Soft arts of dorsal and anal fins angulated or pointed with 11 or 12 and 12 or 13 rays, respectively; pelvic fins nearly as long as head (1.0 to 1.3 times in head length), joined to the body by a membrane; caudal fin lunate in large adults. Scales small, ctenoid (roung to touch), 55 to 67 on lateral line.

Colour: body crimson, paler ventrally. Pelvic fins and membranes with purplish-black spots; other fins plain.

DISTINGUISHING CHARACTERS DE SIMILAR SPECIES OCCURRING IN THE AREA:

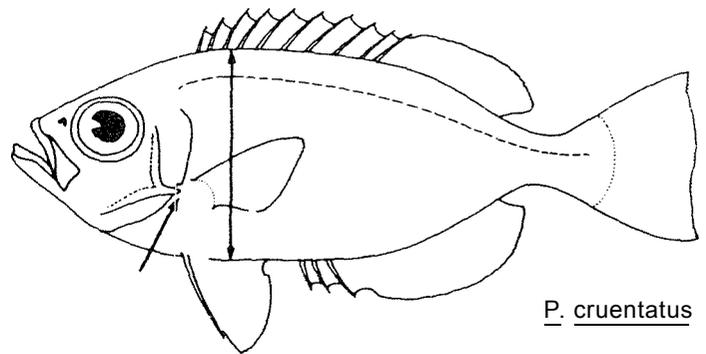
Priacanthus cruentatus: pelvic fins shorter (contained 1.5 or more times in head in P. tavenus) and lacking spots; soft portions of dorsal and anal fins as well as caudal fin with spots; posterior portion of preopercle lacking scales.

P. hamrur and Priacanthus blochii: preopercular spine very short in adults; posterior portion of preopercle above and below spine well scaled; soft portions of dorsal and anal fins rounded; pelvic fins lacking spots except for a single basal spot.

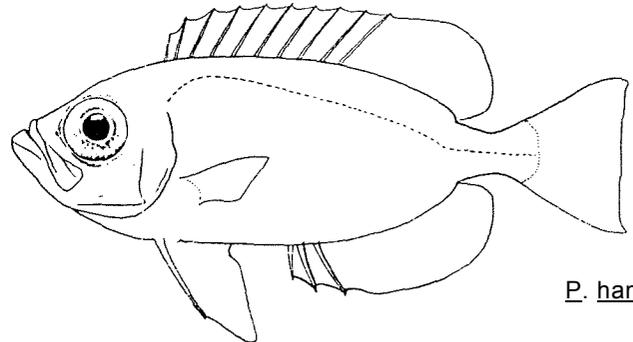
Priacanthus sp.: fin membrane between first and third dorsal spines blackened, rest of fin light; preopercle spine short.

Cookeolus boops: pelvic fins longer than head, uniformly dark, lacking spots; caudal fin slightly rounded. Generally occurring at depths of 180 m or more.

Pristigenys nipponia: body deeper, contained about 1.7 to 2.2 times in standard length; posterior dorsal spines shorter than middle spines 4 to 6; soft portions at dorsal and anal fins short and rounded, the anal with 10 or 11 rays (12 or 13 in P. tavenus); scales large, 50 or less in lateral line (55 to 67 in P. tavenus).



P. cruentatus



P. hamrur

SIZE:

Maximum: 30 cm, common to 25 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Throughout the northern part of the area, from the "Gulf" (and perhaps eastern Africa?) eastward to the Pacific.

A bottom fish found in shallow waters and to depths of 150 to 200 m, inhabiting coral or rocky areas. Occasionally form aggregations; smaller fish occur mainly inshore.

Feeds on a wide range of bottom-living animals.

PRESENT FISHING GROUNDS:

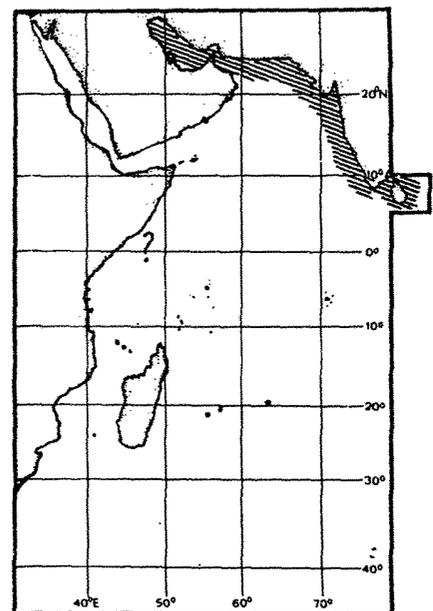
Mainly shallower waters of the continental shelf throughout the range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught chiefly with bottom trawls, the catch rates being higher at dawn and dusk; also taken with handlines.

Marketed mostly fresh.



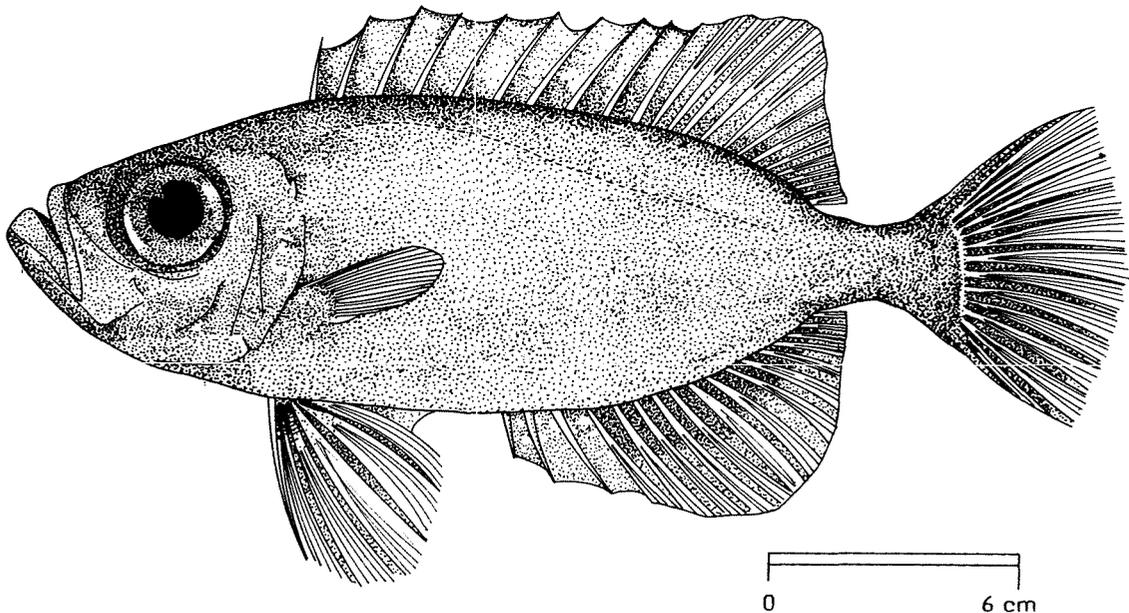
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PRIACANTHIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Priacanthus blochii</i> Bleaker, 1853
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OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Paeony bulleye
 Fr - Beauclaire pivoine
 Sp - Catalufa florera

NATIONAL:

DISTINCTIVE CHARACTERS:

Body relatively deep, (its depth contained 2.7 to 2.9 times in standard length) and compressed. Eyes very large; mouth large and oblique, the lower jaw strongly projecting, the maxilla reaching approximately to below front margin of pupil; gillrakers on lower limb of first arch 14 to 17; spine at corner of preopercle short in adults, variable in young; posterior portion of preopercle above and below spine scaled. Soft portions of dorsal and anal fins broadly rounded; soft dorsal fin with 13 or 14 rays, soft anal fin with 14 or 15 rays; pelvic fins about equal to head length (1.0 to 1.2 times in head length) and joined to body by a membrane; caudal fin rounded. Scales small, ctenoid (rough to touch), 65 to 75 in lateral line.

Colour: body and fins pinkish to scarlet; pelvic fin with a black spot basally; iris red.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING THE AREA:

Priacanthus sp.: fin membrane between first and third dorsal spines blackened; soft portions of dorsal and anal fins pointed.

P. cruentatus: preopercular spine well developed in adults; posterior portion of preopercle above and below spine lacking scales; pelvic fins shorter (1.5 or so times in head length, against about 1 time in P. blochii).

P. hamrur: caudal fin crescentic in adults; gill-rakers on lower limb of first arch 18 to 24 (14 to 17 in P. blochii).

P. tayenus: pelvic fins and connective membrane with large dark spots; preopercular spine well developed in adults; caudal fin lunate in adults.

Cookeolus boops: pelvic fins longer than head and usually dusky throughout; leading edge of lachrymal (bone before eye) spiny rather than denticulate or serrated. Generally occurring at depths of 180 m or more.

Pristigenys nipponia: body deeper; contained about 1.7 to 2.2 times in standard length (2.7 or 2.9 times in P. blochii); posterior dorsal spines shorter than medians; soft dorsal and anal fin rays short and rounded, with 11 or 12 and 10 or 11 rays, respectively (13 or 14, and 14 or 15 rays, respectively, in P. blochii); scales large, 50 or less in lateral line.

SIZE:

Maximum: at least to 35 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In Area 51, known by the author only from Seychelles Islands, and possibly India or the Laccadives, but probably present at least in other insular areas of southwestern Indian Ocean and perhaps elsewhere in the area. Also occurs in the eastern Indian Ocean and the western Pacific from Indonesia to Samoa.

Lives near the bottom in shallow waters over reef or rocky bottoms usually at depths of 25 m or more.

Feeds on small fishes and invertebrates.

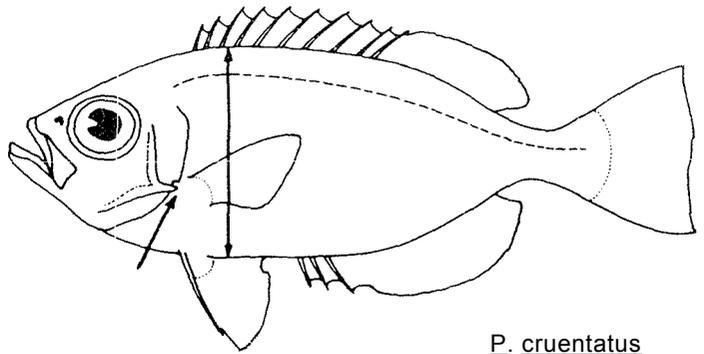
PRESENT FISHING GROUNDS:

Shallow coastal waters.

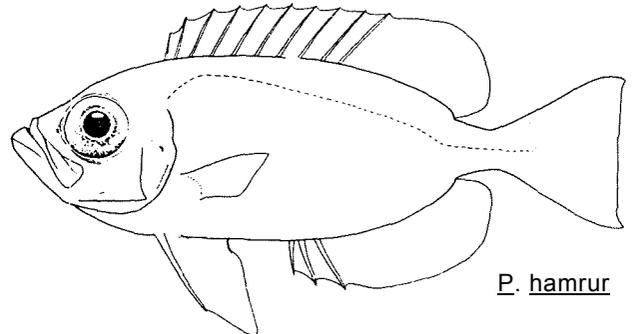
CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

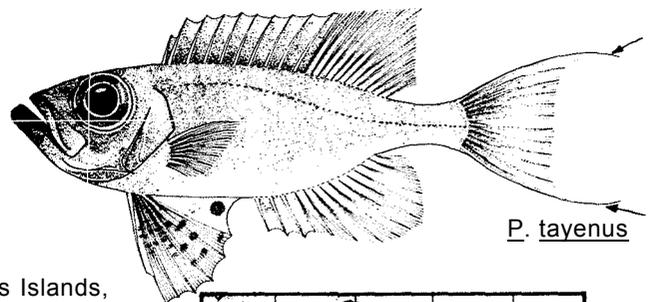
Probably infrequently taken on handlines.



P. cruentatus



P. hamrur



P. tayenus

