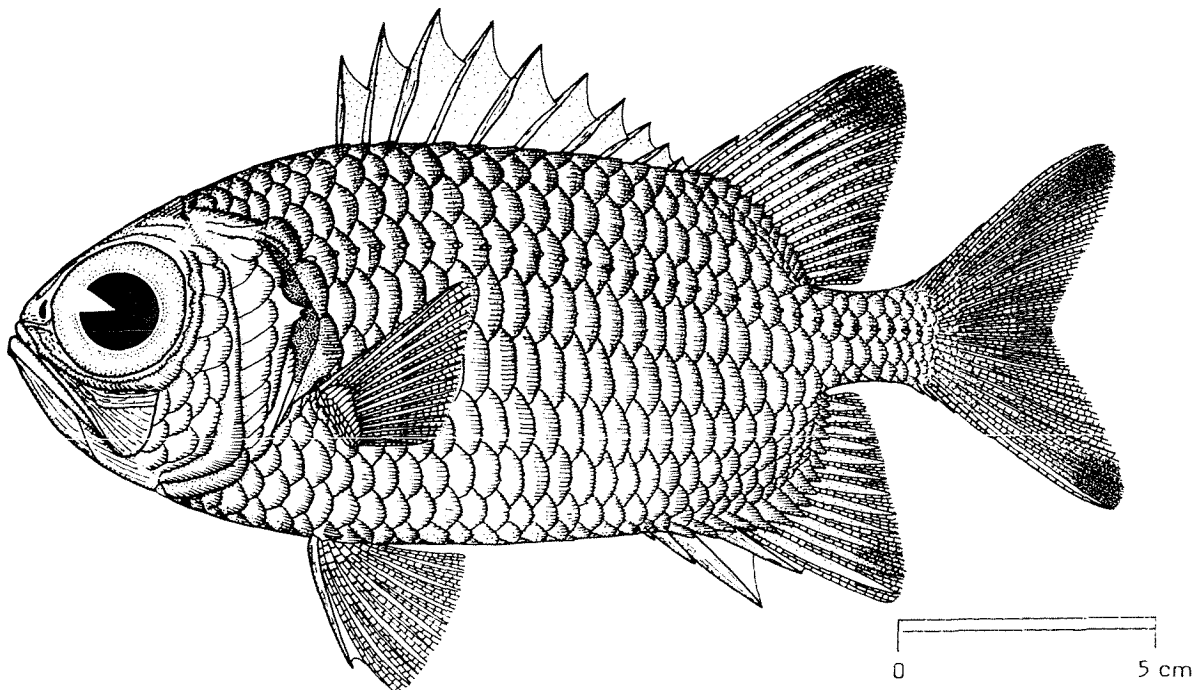


FAO SPECIES IDENTIFICATION SHEETS

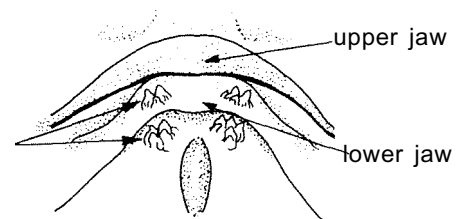
FAMILY: HOLOCENTRIDAE

FISHING AREA 51
(W. Indian Ocean)*Myripristis melanostictus* Bleeker, 1863OTHER SCIENTIFIC NAMES STILL IN USE : *Myripristis hexagonus* (misidentification)

VERNACULAR NAMES:

FAO : En - Blacktip soldierfish
Fr - Marignan potelé
Sp - Candil rechoncho

NATIONAL:



front view of mouth

DISTINCTIVE CHARACTERS:

Body oblong, depth 2.1 to 2.45 times in standard length. Snout 4.2 to 4.7 times in head; interorbital width 4.5 to 5.65 times in head; lower jaw not prominently projecting when mouth closed; two pairs of tooth patches, one above the other, at front of lower jaw just outside mouth; vomerine teeth in a triangular patch with rounded corners. Dorsal fin with 11 spines and 14 or 15 (usually 14) soft fin rays, notched to back between last two spines, the 11th spine about twice length of 10th and closely applied to soft portion of fin; anal fin with 4 spines and 12 soft fin rays (3rd spine stoutest, but the 4th slightly longer). Lateral line scales 27 to 29; no scales in axil of pectoral fins. Gillrakers 32 to 38.

Colour: silvery white, the edges of the scales rimmed with red (brownish red dorsally); black pigment of opercular membrane extending to about level of lower edge of eye; outer part of spinous dorsal fin and most of soft dorsal and anal fins red; tips of soft dorsal and anal fins and caudal lobes with a blackish spot, the leading edges of these fins white.

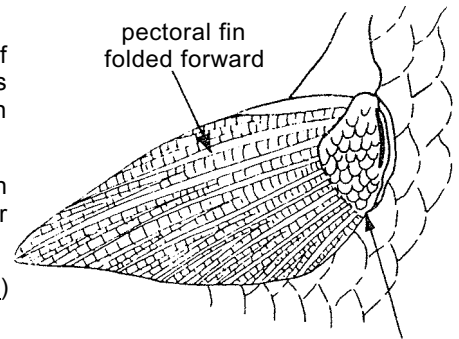
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Myripristis hexagonus: also a small species with 2 pairs of tooth patches at front of lower jaw, but has small scales in axil of pectoral fins, no black spot on tips of median fins and gillrakers 36 to 43 (32 to 38 in M. melanostictus).

M. adustus: usually only 1 pair of tooth patches at front of lower jaw; also 1 or 2 scales in axil of pectoral fins and spinous dorsal fin broadly edged in black (in addition to remaining median fins).

Other Myripristis species: no dark patches at tips of median fins and/or more than 30 lateral line scales and/or only a single pair of tooth patches outside lower jaw.

Other Holocentridae: 12 dorsal spines (11 in M. melanostictus) or a sharp spine at angle of preopercle.



scales of axil of pectoral fin

M. hexagonus

SIZE:

Maximum: 28 cm; common to 24 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Sri Lanka to East Africa, not recorded from the Red Sea, but ranges as far south as the Natal coast. Elsewhere, in the Western Pacific, southern Japan to New Caledonia and Fiji.

A species of moderate to deep water (generally more than 30 m). Observed in the shelter of reefs by day, but has been taken in trawls at night (as off Sri Lanka), hence must range out over open bottoms at night.

PRESENT FISHING GROUNDS:

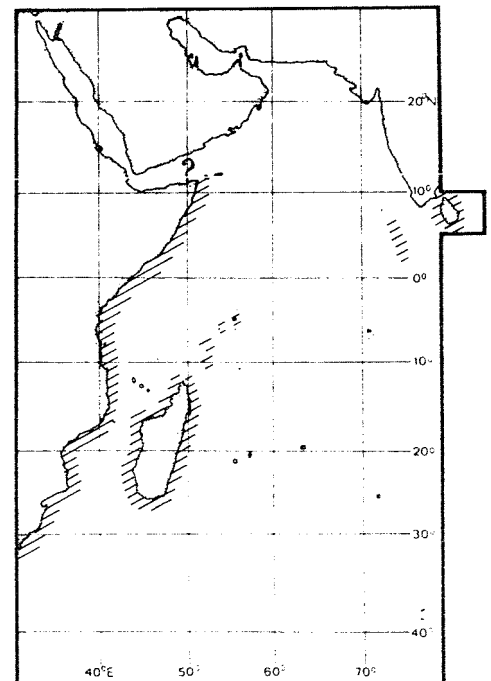
No special fishing areas.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

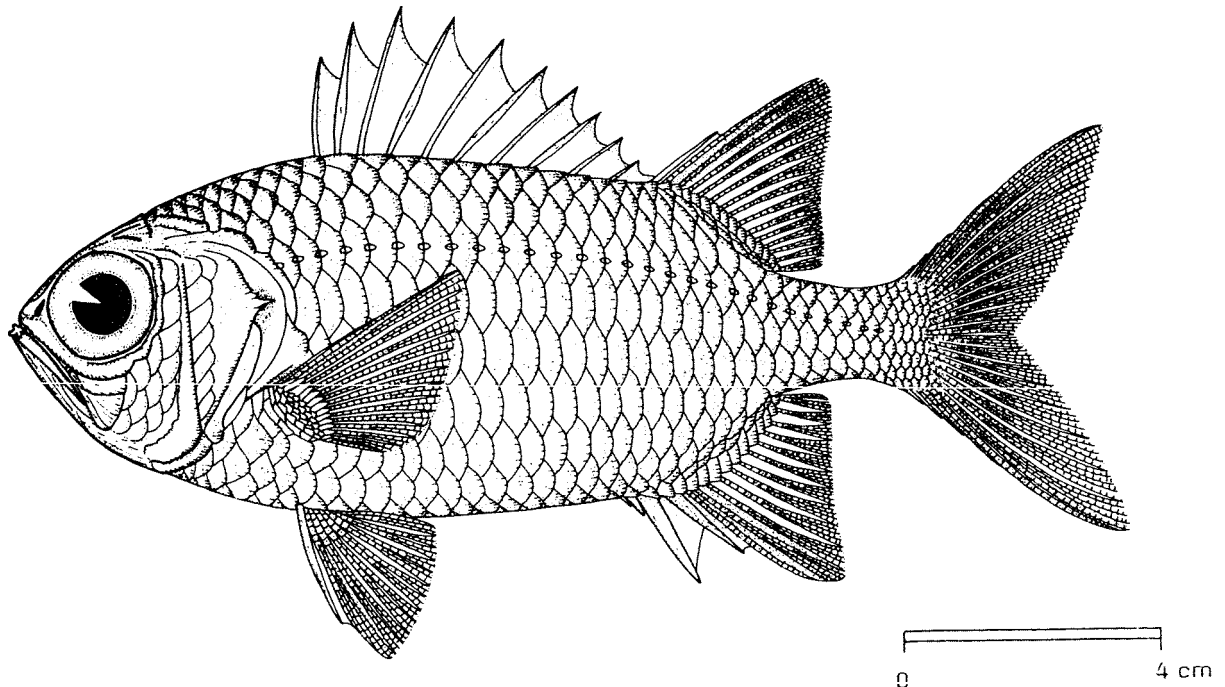
Hook and line and by trawling.

Marketed fresh.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HOLOCENTRIDAE

FISHING AREA 51
(W. Indian Ocean)Myripristis murdjan (Forsskål, 1775)OTHER SCIENTIFIC NAMES STILL IN USE : Myripristis parvidens Cuvier, 1829

VERNACULAR NAMES:

FAO : En - Pinecone soldierfish
Fr - Marignan pomme de pin
Sp - Candil piñón

NATIONAL

DISTINCTIVE CHARACTERS:

Body oblong, depth 2.3 to 2.5 times in standard length. Snout short, its length 4.9 to 5.3 times in head; interorbital space relatively broad, its width 3.8 to 4.4 times in head; lower jaw slightly projecting when mouth closed; a single pair of tooth patches at front of lower jaw just outside mouth; vomerine teeth in a triangular patch with rounded corners. Dorsal fin with 11 spines and 13 to 15 (usually 14) soft fin rays, notched to back between last two spines, the 11th spine more than twice as long as 10th and closely applied to soft portion of fin; anal fin with 4 spines and 11 to 13 soft fin rays (3rd and 4th spines about equal in length, the 3rd stoutest). Lateral line scales 27 to 32; lower 1/4 to 3/4 of pectoral axil with small scales. Gillrakers 36 to 44.

Colour: light red, the edges of the scales brown; opercular membrane dark brown to about level of middle of eye; axil of pectoral dark brown; spinous dorsal fin light red on basal 2/3, deep red on outer third; leading edges of soft dorsal, anal, caudal and pelvic fins white, sometimes with blackish pigment submarginal to the white on the soft dorsal and anal fins.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

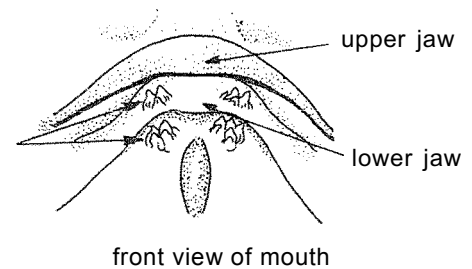
Myripristis berndti: interorbital space relatively narrow, its width 4.3 to 5.2 times in head (3.8 to 4.4 in M. murdjan); lower jaw strongly projecting when mouth closed; outer part of spinous dorsal fin orange-yellow in life.

M. hexagonus: black pigment of opercular membrane extending down to about level of lower edge of eye; also, 2 pairs of teeth outside lower jaw.

M. seychellensis: mouth terminal or lower jaw slightly inferior when mouth closed; posterior border of patch of teeth on vomer rounded; soft dorsal fin rays usually 15 (usually 14 in M. murdjan).

Other Myripristis species: upper scales brown or black-rimmed (M. violaceus), or median fins margins black (M. adustus), or 2 pairs of teeth outside lower jaw, or more than 31 lateral line scales.

Other Holocentridae: 12 dorsal spines (11 in M. murdjan) or a sharp spine at angle of preopercle.



M. hexagonus

SIZE

Maximum: 23 cm; common to 18 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR

The most common species of Myripristis in the Red Sea and Gulf of Aden, reaching down East African coast to Tanzania and perhaps beyond. Elsewhere, generally in Indo-Pacific, but absent from the Hawaiian Islands and French Polynesia.

A coral reef species hiding in caves and crevices by day.

PRESENT FISHING GROUNDS

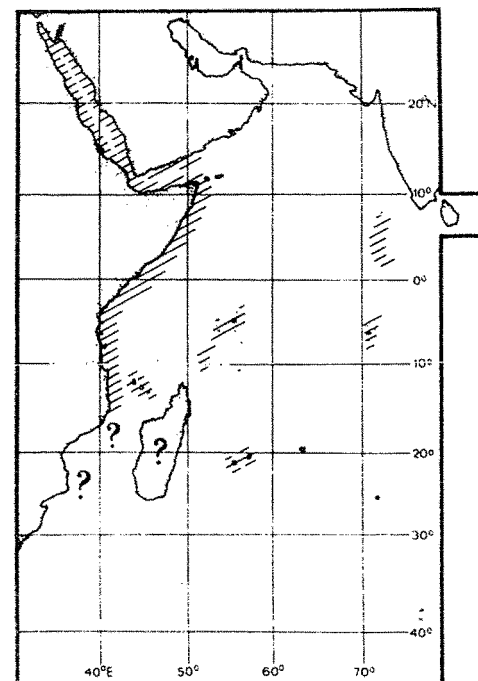
No special fishing areas.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Usually caught by hook and line or gillnets at night or by spearing.

Marketed fresh.

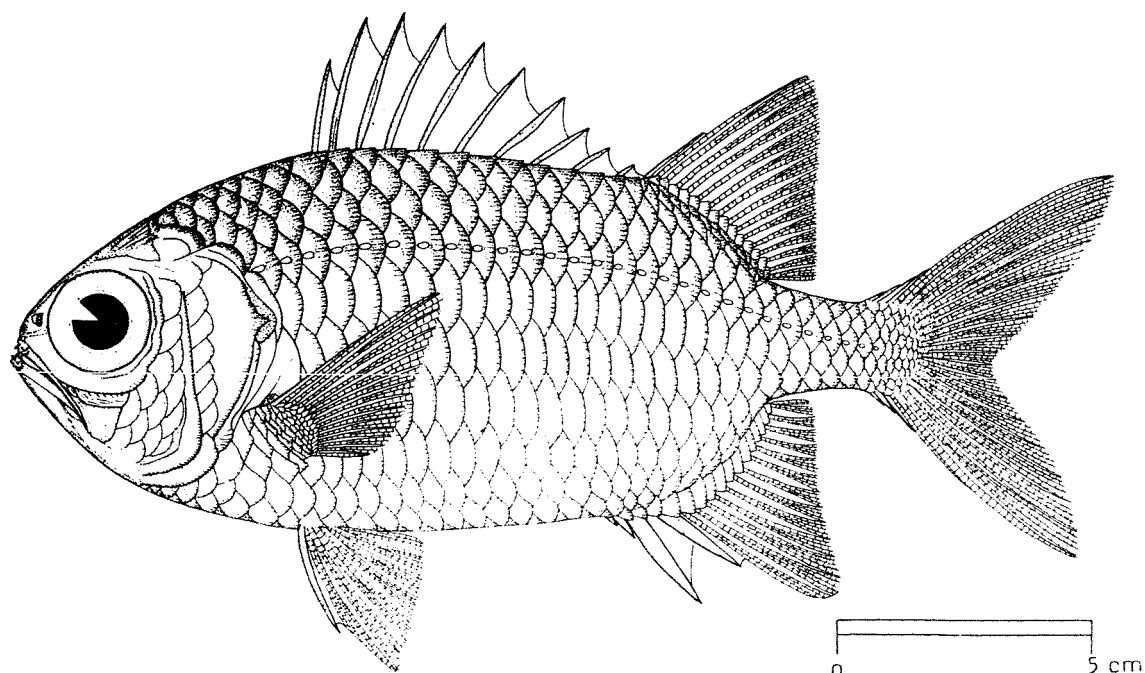


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HOLOCENTRIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Myripristis violaceus</i> Bleeker, 1851
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OTHER SCIENTIFIC NAMES STILL IN USE: *Myripristis microphthalmus* Bleeker, 1852

VERNACULAR NAMES:

FAO : En - Violet soldierfish
 Fr - Marignan violacé
 Sp - Candil guru-guru

NATIONAL:

DISTINCTIVE CHARACTERS:

Body oblong, depth 1.9 to 2.5 times in standard length. Snout short, 4.5 to 6.0 times in head; a single pair of tooth patches at front of lower jaw outside mouth; vomerine teeth in a subtriangular patch with posterior border convex. Dorsal fin with 11 spines and 13 to 16 soft fin rays, notched to back between last two spines, the 11th spine more than twice length of 10th and closely applied to soft portion of fin; anal fin with 4 spines and 12 to 14 soft fin rays (3rd spine strongest, about equal in length to 4th). Lateral line scales 27 to 29; small scales usually present on lower half of pectoral axil. Gillrakers 34 to 48.

Colour: scales of upper part of body silvery pink, broadly rimmed with deep purplish or blue to dark brown (broadest and darkest on nape); scales on sides and ventrally silvery, rimmed with red; spinous dorsal fin, including outer part, largely red; distal part of soft dorsal, anal and caudal fins broadly red. Opercular membrane reddish brown.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

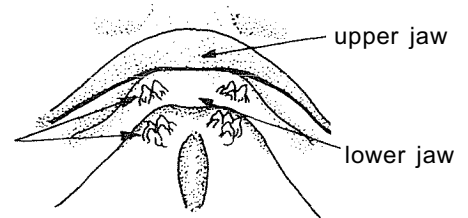
Myripristis melanostictus: 2 pairs of tooth patches at front of lower jaw outside mouth; gillrakers 32 to 36 (34 to 48 in M. violaceus); soft dorsal, anal and caudal fins with a large distal black spot.

M. adustus: median fins edged with black, broadest at tips of lobes; 4th anal fin spine longer than 3rd.

M. hexagonus: 2 pairs of tooth patches at front of lower jaw outside mouth; scales of upper part of body not dark-rimmed.

Other Myripristis species: scales of upper part of body not dark-rimmed.

Other Holocentridae: 12 dorsal spines (11 in M. violaceus) or a sharp spine at angle of preopercle.



front view of mouth

M. melanostictus and M. hexagonus

SIZE:

Maximum: 23 cm; common to 18 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Absent from the Red Sea, but ranges southward possibly to the Natal coast and Madagascar. Elsewhere, generally in Indo-Pacific.

A coral reef species of shallow water, particularly in protected waters

PRESENT FISHING GROUNDS:

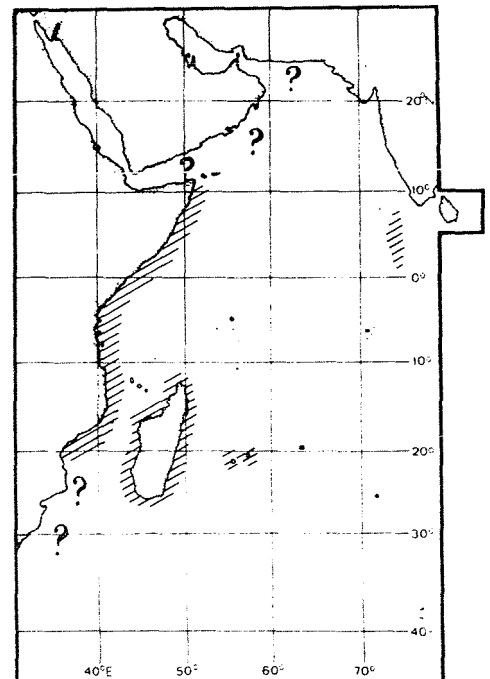
No special fishing areas. Although common in some areas, of negligible commercial importance due to relatively small size.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught chiefly on hook and line and gillnets at night.

Marketed fresh.

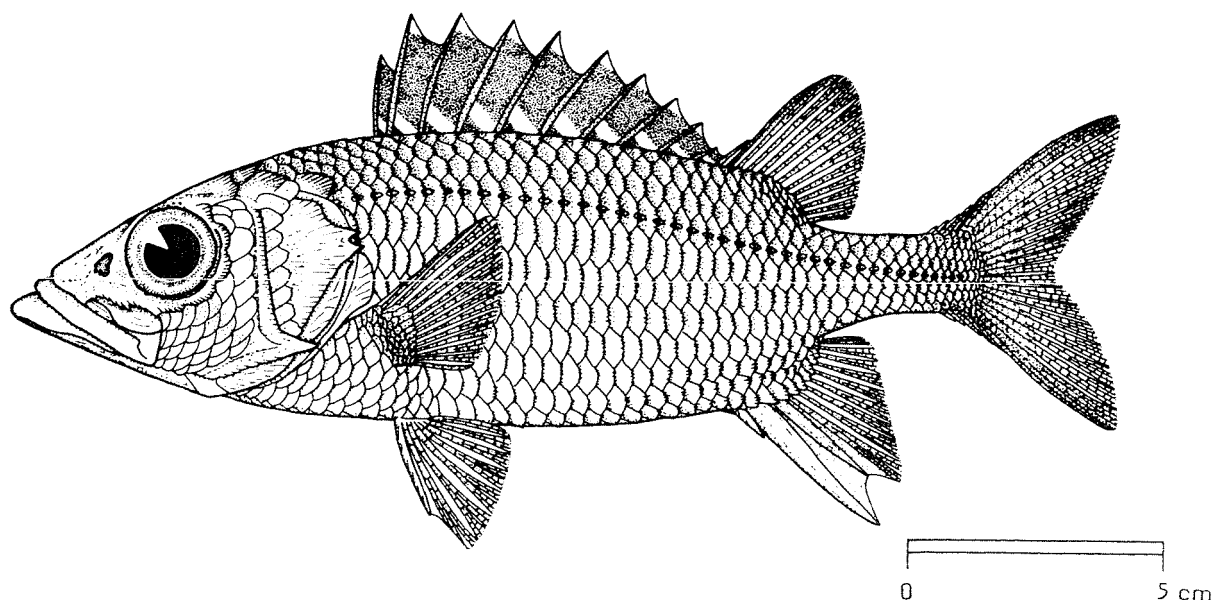


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HOLOCENTRIDAE

FISHING AREA 51
(W. Indian Ocean)Neoniphon opercularis (Valenciennes, 1831)

OTHER SCIENTIFIC NAMES STILL IN USE: Flammeo opercularis (Valenciennes, 1831)
Holocentrus opercularis: Smith & Smith, 1963
Kutaflammeo opercularis: Carcasson, 1977



VERNACULAR NAMES:

FAO : En - Blackfin squirrelfish
 Fr - Marignan aile noire
 Sp - Candil de aleta negra

NATIONAL:

DISTINCTIVE CHARACTERS:

Body moderately elongate, depth 3.1 to 3.3 times in standard length. Dorsal profile of head slightly convex; snout pointed; lower jaw strongly projecting when mouth closed; preopercular spine short, less than half eye diameter. Nasal fossa large, without spinules. Dorsal fin with 11 spines, the last longer than the penultimate and close to 1st soft fin ray, the soft fin rays 13; anal fin with 4 spines and 9 soft fin rays; pectoral fin rays 13 or 14 (usually 1.4). Lateral line scales 38 to 40; scales above lateral line to middle of spinous portion of dorsal fin 2.5.

Colour: silvery pink (scale centres light red, the edges broadly silver); snout and top of head light red; spinous dorsal fin black, the membranes tipped with white, with a diagonal white spot near base of each membrane; lobes of caudal fin broadly light red, the rest of fin yellowish; soft dorsal and anal fins yellow, tinged with pink; pectoral fins light red; pelvic fins pinkish white.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Neoniphon sammara: soft dorsal fin rays 11 or 12; anal fin rays 7 or 8; a large reddish black spot at front of dorsal fin between first and fourth dorsal spines.

N. argenteus: pectoral fin rays 12 or 13 and spinous portion of dorsal fin pale, without black markings (Flammeo laevis (Günther, 1854) is a junior synonym).

Sargocentron species: last dorsal spine the smallest, not close to 1st soft fin ray.

Other Holocentridae: no sharp spine at angle of preopercle.

SIZE:

Maximum: 32 cm; common to 23 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East African coast, probably as far south as Mozambique, but not recorded from the Red Sea. Elsewhere, generally in Indo-Pacific.

A reef species which may be found in shallow to moderate depths. The largest member of the genus Neoniphon.

PRESENT FISHING GROUNDS:

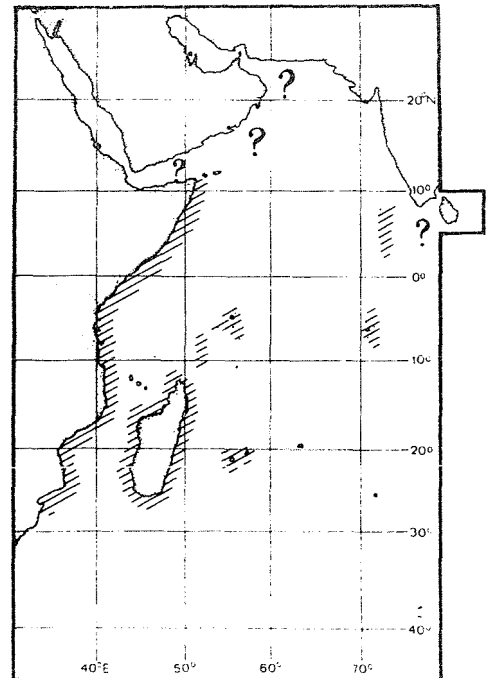
No special fishing areas

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Taken by hook and line and traps.

Marketed fresh.

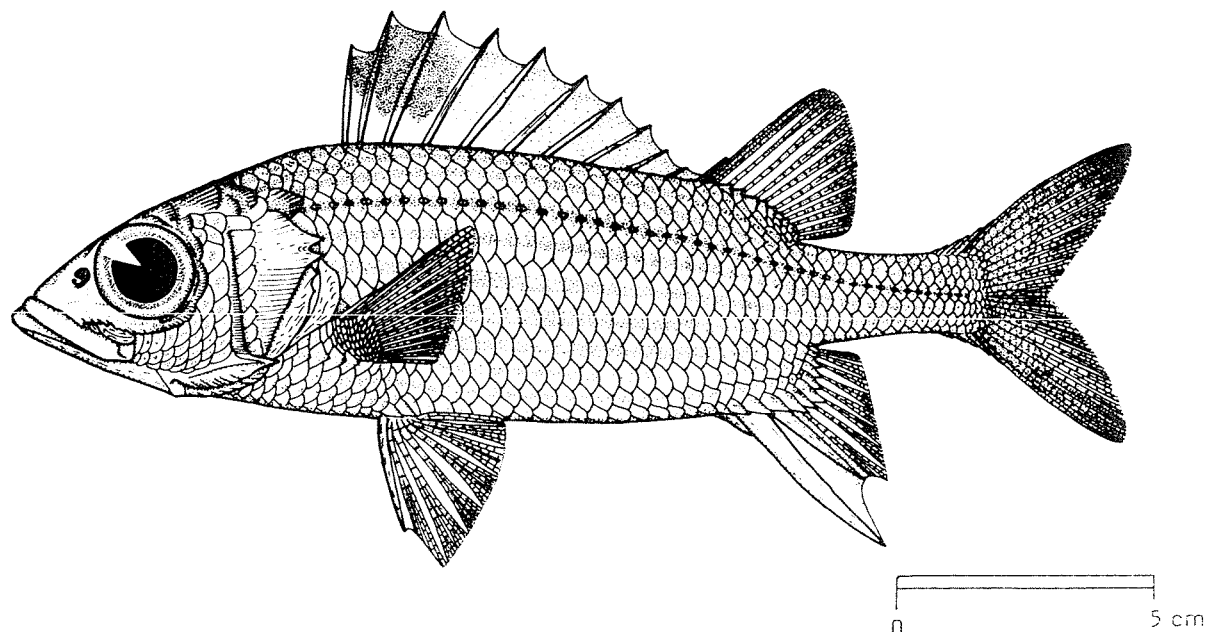


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HOLOCENTRIDAE

FISHING AREA 51
(W. Indian Ocean)Neoniphon sammara (Forsskål, 1775)

OTHER SCIENTIFIC NAMES STILL IN USE:

Flammeo sammara (Forsskål, 1775)Holocentrus sammara: Smith & Smith, 1963Kutaflammeo sammara: Carcasson, 1977

VERNACULAR NAMES:

FAO : En - Samrnara squirrelfish
 Fr - Marignan tacheté
 Sp - Candil samara

NATIONAL:

DISTINCTIVE CHARACTERS:

Body moderately elongate, depth 3.0 to 3.6 times in standard length. Dorsal profile of head slightly convex; snout pointed; lower jaw projecting when mouth closed; preopercular spine short, about 1/3 eye diameter. Nasal fossa large, without spinules. Dorsal fin with 11 spines, the last longer than the penultimate and close to 1st soft fin ray, the soft fin rays 11 or 12 (usually 12); anal fin with 4 spines and 7 or 8 (mostly 8) soft fin rays; pectoral fin rays 13 or 14. Lateral line scales 39 to 43; scales above lateral line to middle of spinous portion of dorsal fin 2.5.

Colour: silvery, each scale with a horizontally elongate dark reddish brown spot, thus forming longitudinal dark lines on body; a reddish stripe following lateral line; snout and top of head light red; spinous portion of dorsal fin with a large black spot tinted with red on membranes between first and fourth spines; caudal fin yellowish with a broad red band at margins of lobes; a reddish streak anteriorly in soft dorsal and anal fins.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Neoniphon opercularis: soft dorsal fin rays 13; anal fin rays 9; spinous dorsal fin black with white tip and a row of diagonal white spots near base.

N. argenteus: pectoral fin rays 12 or 13 and spinous portion of dorsal fin pale, without black markings (Flammeo laevis (Günther, 1859) is a junior synonym).

Sargocentron species: last dorsal spine the smallest, not close to 1st soft fin ray.

Other Holocentridae: no sharp spine at angle of preopercle.

SIZE:

Maximum: 28 cm; common to 23 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Found from the Red Sea south to Durban and Madagascar. Elsewhere, generally in Indo-Pacific.

Associated with coral reef; most often seen in shallow water of protected bays and lagoons. Among the first to leave shelter with the advent of darkness for feeding. About 67% of the diet consists of crabs and about 15% small fishes.

PRESENT FISHING GROUNDS:

No special fishing areas.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught by hook and line and in traps.

Marketed fresh.

