

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

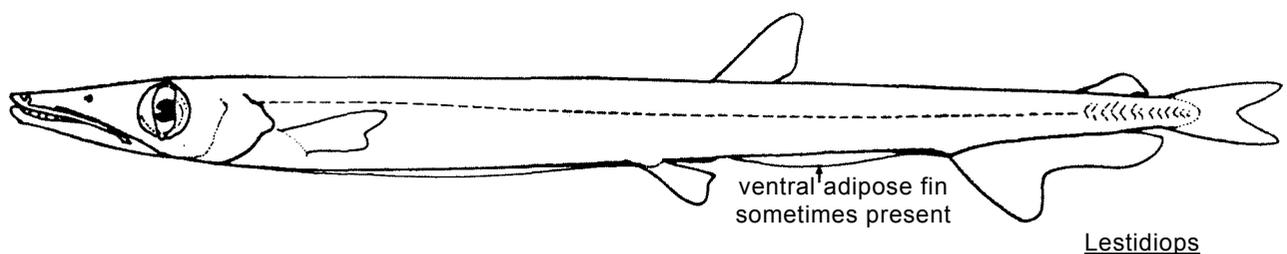
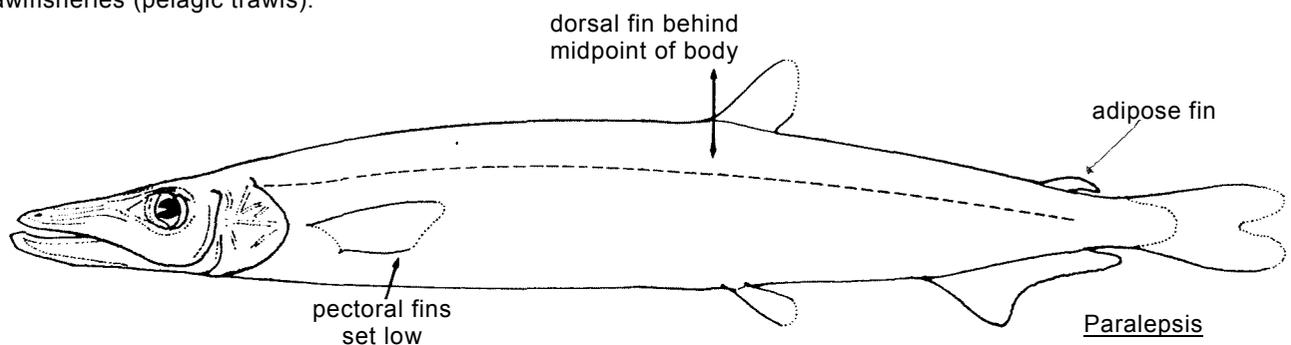
PARALEPIDIDAE

Barracudinas

Body elongate and slender, subcylindrical to laterally compressed. Snout pointed, mouth terminal, the lower jaw projects by a non-ossified process; alternately fixed and depressible fang-like teeth on dentary (lower jaw) and palatines roof of mouth; premaxilla of upper jaw with fangs at tip followed by small saw-like canines; gill rakers reduced to teeth or spines in multiple series on bony shields. No spiny rays in fins; the single short dorsal fin set behind midpoint of body; a dorsal adipose fin always present above last anal fin rays; a ventral adipose fin also present in some genera; anal fin long, with 20 to 50 rays, its origin well behind dorsal fin except for one species; pectoral fins short, set low on body. Lateral line conspicuous. Scales, when present, cycloid (smooth to touch) and very easily shed. Light organs present in two genera (Lestidium and Lestrolepis). No swimbladder.

Colour: adults are either silvery with a brownish dorsal band or completely black, some species with saddle-like dark blotches; juveniles are yellowish transparent.

Small to medium-sized fishes ranging from about 15 to 50 cm in total length. They are meso- to bathypelagic and may occur in very large numbers from near the surface to mid-depths (over 800 m); some species are common over the continental shelf. They are swift swimmers and some have been observed to move in vertical position making abrupt full turns from head-up to head-down positions. Despite their abundance, many of the species are not well known, the adults being able to avoid nets and other collecting gear. A few species have been caught in sizeable quantities, but the possible interest of others as a potential resource in future mid-water fisheries operations is yet to be tested. In Fishing Area 51, barracudinas are taken as bycatch in offshore trawlfisheries (pelagic trawls).

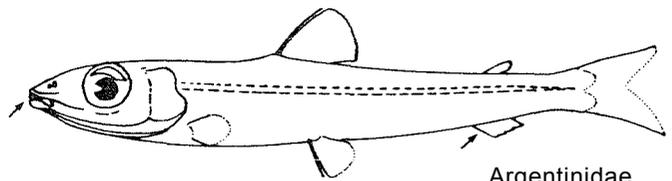


SIMILAR FAMILIES OCCURRING IN THE AREA:

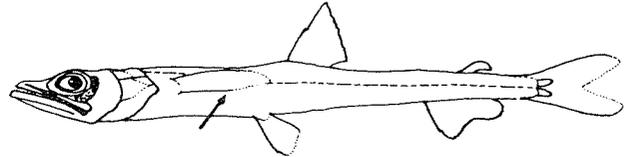
Argentinidae: anal fin short, with less than 18 rays (20 to 50 rays in Paralepididae); mouth small; no teeth on premaxilla or maxilla; swim-bladder present.

Notosudidae (Scopelosauridae): gillrakers lath-like, not in the form of teeth or spines; pectoral fins fully lateral in position, set higher on body than in Paralepididae; anal fin rather short, with 16 to 21 rays; branchiostegal rays 4 to 6 (8 in Paralepididae).

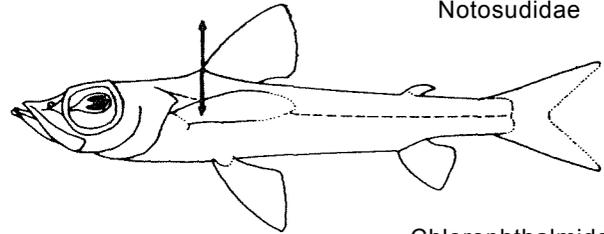
Chlorophthalmidae and Synodontidae: dorsal fin set on anterior half of body; anal fin short.



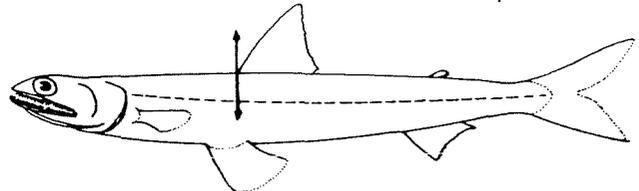
Argentinidae



Notosudidae



Chlorophthalmidae



Synodontidae

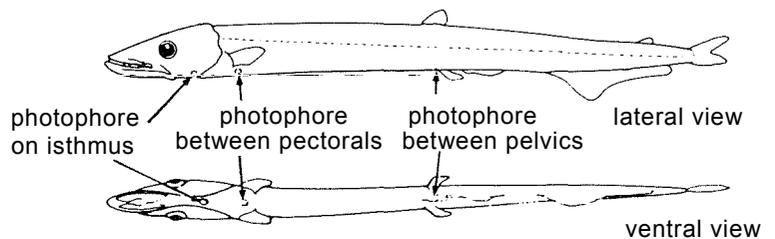
KEY TO SPECIES OCCURRING IN THE AREA:

1 a. Photophores or luminous tissue on belly

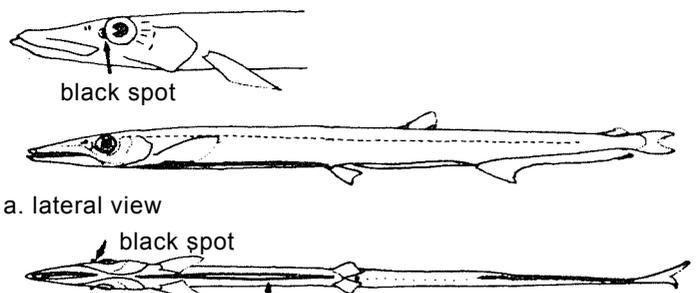
2a. Three separate photophores on ventral midline, located on isthmus, between bases of pectoral fins and between bases of pelvic fins respectively (Fig. 1) Lestidium bigelowi

2 b. Ventral bands of luminous tissue on belly

3 a. Two parallel ventral bands of luminous tissue on belly from between pelvic fins to isthmus (Fig. 2b); a prominent black spot immediately before eye (Fig. 2a) Lestrolepis



Lestidium bigelowi Fig.1

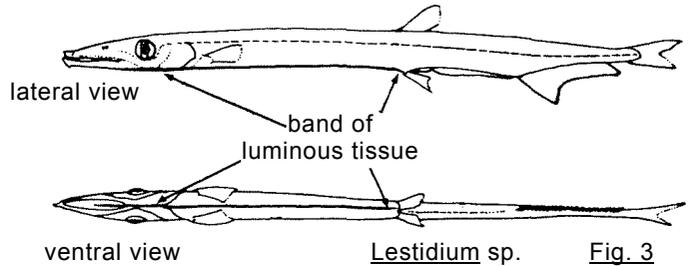


a. lateral view
b. ventral view
black spot
2 bands of luminous tissue
Lestrolepis Fig.2

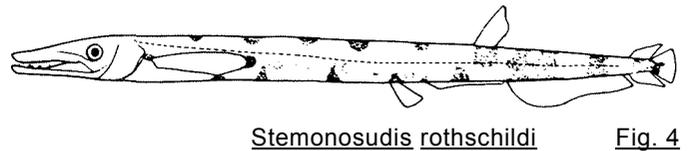
- 3 b. One band of luminous tissue on ventral midline from between pelvic fins to isthmus between opercles (Fig. 3) Lestidium atlanticum,
Lestidium nudum

1 b. No luminous organs present

- 4 a. Origin of pelvic fins well in front of a vertical from first dorsal fin ray (by at least one length of dorsal fin base) (Figs. 4,5)

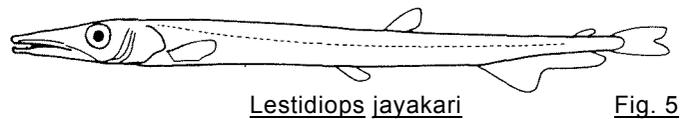


- 5 a. Dorsal and ventral saddle-like blotches on trunk, confluent on tail; dorsal fin set far behind body, last dorsal fin ray above or slightly before a vertical from first anal fin ray (Fig. 4)..... Stemonosudis rothschildi



- 5 b. No saddle-like blotches (occasionally transitory dorsal blotches in young adolescents); last dorsal fin ray distinctly before first anal fin ray (Fig. 5)

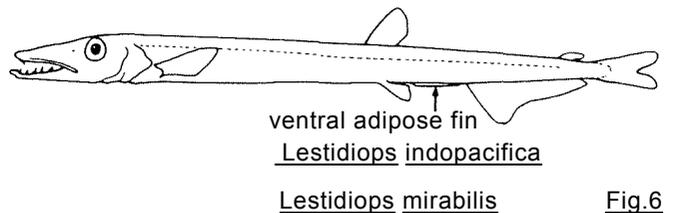
- 6a. Head less than 5 times in standard length (Fig. 5) Lestidiops jayakari



- 6b. Head more than 5 times in standard length.....Stemonosudis sp.*

- 4 b. Origin of pelvic fins slightly in front of a vertical from first dorsal fin ray (less than one length of dorsal fin base), or behind this vertical (Fig. 4)

- 7a. Ventral adipose fin present between vent and anal fin (Fig. 6); body naked except for lateral line scales. Lestidiops indopacifica
Lestidiops mirabilis

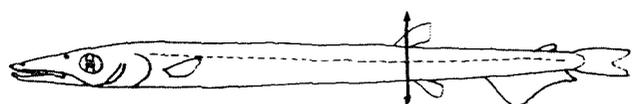


*All these species known from young adolescents only

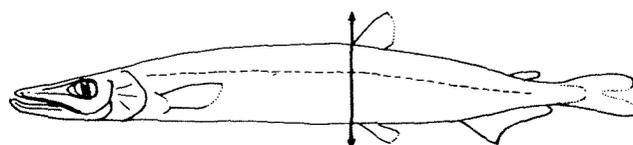
7 b. No ventral adipose fin; body scaled, but scales very delicate and easily shed

8 a. Pelvic fin origins well behind a vertical from midpoint of dorsal fin base (Fig. 7); gillrakers forming numerous rows of short needle-like filaments (Fig. 9); more than 28 rays in anal fin Notolepis

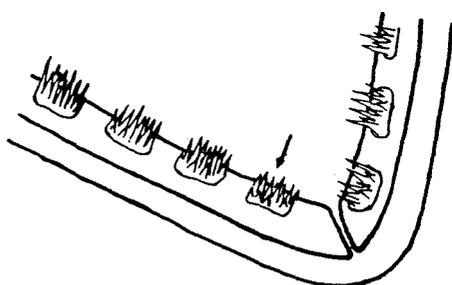
8 b. Pelvic fin origins slightly before or behind a vertical from first dorsal ray (Fig. 8); gillrakers on first arch formed by 3 to 10 slender, flexible needle-like filaments (Fig. 10); less than 26 rays in anal fin .. Paralepis



Notolepis Fig.7

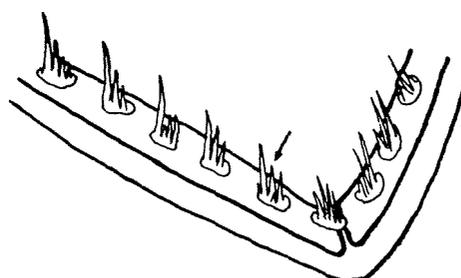


Paralepis Fig.8



Notolepis
gill arch

Fig. 9



Paralepis
gill arch

Fig.10

LIST OF SPECIES OCCURRING IN THE AREA:

Code numbers are given for those species for which Identification Sheets are included

Lestidiops indopacifica (Ege, 1953)

Lestidiops jayakari (Boulenger, 1889)

Lestidiops mirabilis (Ege, 1933)

Lestidium atlanticum Borodin, 1928

Lestidium bigelowi Graae, 1967

Lestidium nudum Gilbert, 1905

Lestrolepis intermedia (Poey, 1868)

Notolepis rissoi (Bonaparte, 1840)

Paralepis atlantica Krøyer, 1868

Paralepis brevirostris (Parr, 1928)

Stemonosudis elegans (Ege, 1933)

Stemonosudis elongatus (Ege, 1933)

Stemonosudis gracilis Ege, 1933

Stemonosudis macrura (Ege, 1933)

Stemonosudis rothschildi (Richards, 1967)

Stemonosudis unicellus Ege, 1933)

Uncisudis denticulate Kotthaus, 1967

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FISHING AREA 51
(W. Indian Ocean)

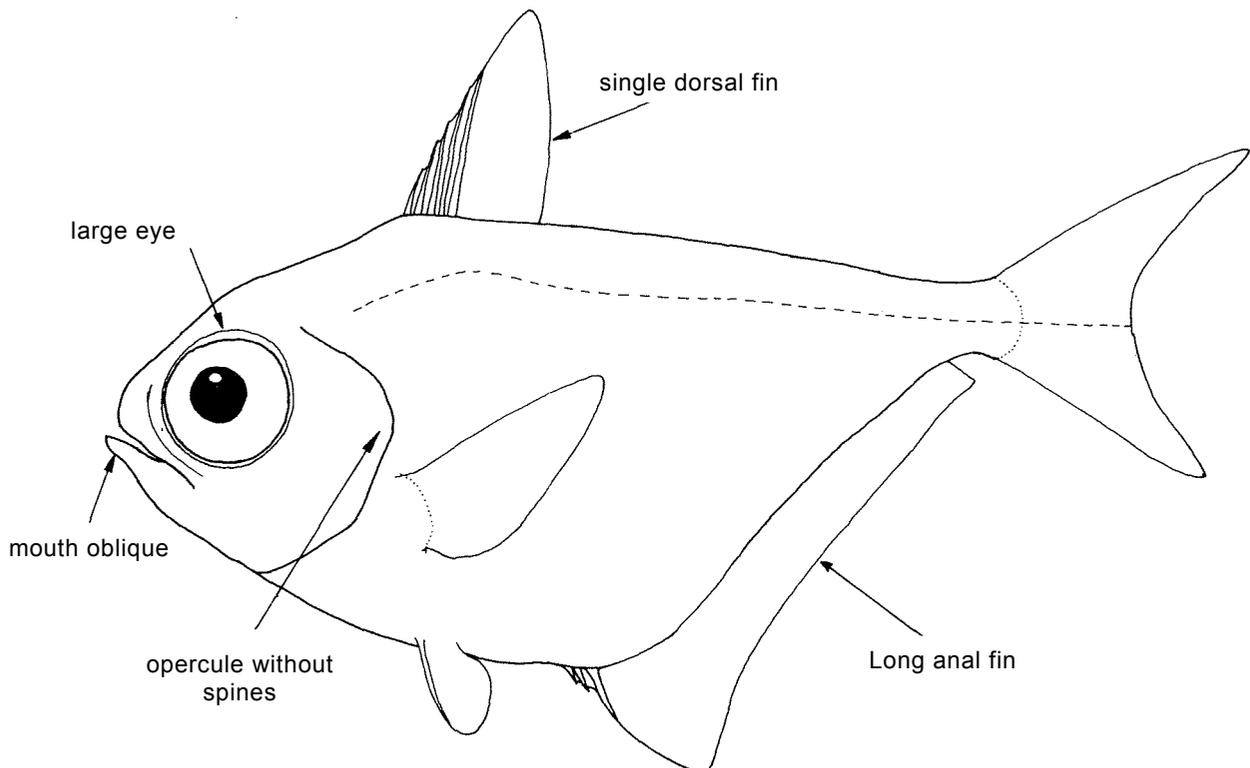
PEMPHERIDAE

Bullseyes, sweepers

Body deep and strongly compressed. Head compressed, eye very large, mouth oblique, opercle and jaws scaled, opercle without spines or bony processes; teeth on maxilla, dentary and roof of mouth (vomer and palatines); gill membranes separate from isthmus. A single dorsal dorsal fin, higher and much shorter than anal fin, with 4 to 6 spines; anal fin long, with 3 spines increasing in size posteriorly; caudal fin forked to emarginate. Lateral line well developed, following roughly the dorsal profile of the body. Internal bioluminescent organs present in some species. Scales ctenoid (rough) or cycloid (smooth) and ctenoid.

Colour: generally dark reddish brown to rosy yellow, with stripes in some species. Fins usually pinkish, translucent, sometimes with dark markings.

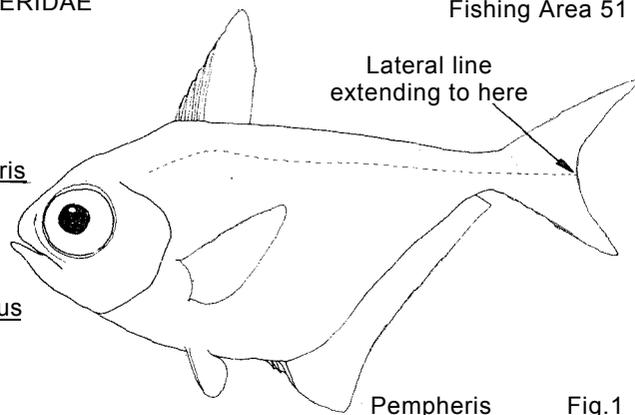
Rather small, nocturnal fishes, to about 20 cm in length, widely distributed throughout tropical, subtropical and temperate coastal waters of the Indo-Pacific and Western Atlantic, between 0 and 100 m, but mainly occurring in shallow waters. Generally found shoaling around caves and among corals and rocks; some enter river estuaries. They feed mainly on crustaceans and polychaete worms. Sweepers are not of commercial importance but they are taken as bycatch in artisanal coastal fisheries. They are edible and also used for bait.

**SIMILAR FAMILY OCCURRING IN THE AREA:**

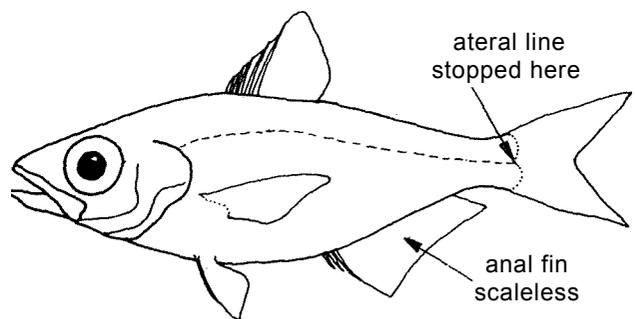
The single, short dorsal fin coupled with the long anal fin and the general body shape readily distinguishes the sweepers from other fish families occurring in the area.

KEY TO GENERA OCCURRING IN THE AREA:

- 1a. Body deep, anal fin scaled, lateral line extending to hind margin of caudal fin (Fig.1)..... Pempheris
- 1b. Body more elongate, anal fin scaleless, lateral line not extending to hind margin of caudal fin (Fig.2) Parapriacanthus



Pempheris Fig.1



Parapriacanthus Fig.2

LIST OF SPECIES OCCURRING IN THE AREA:

- Parapriacanthus guentheri (Klunzinger)
- Pempheris moluca Cuvier, 1831
- Pempheris oualensis Cuvier, 1831
- Pempheris schwenkii Bleeker, 1877
- Pempheris vanicolensis Cuvier, 1831

Prepared by J.M. Rose, Paris, France

Revised by J.R. Paxton, The Australian Museum, Sydney, Australia

*The Indo-West Pacific species of the family are in urgent need of revision

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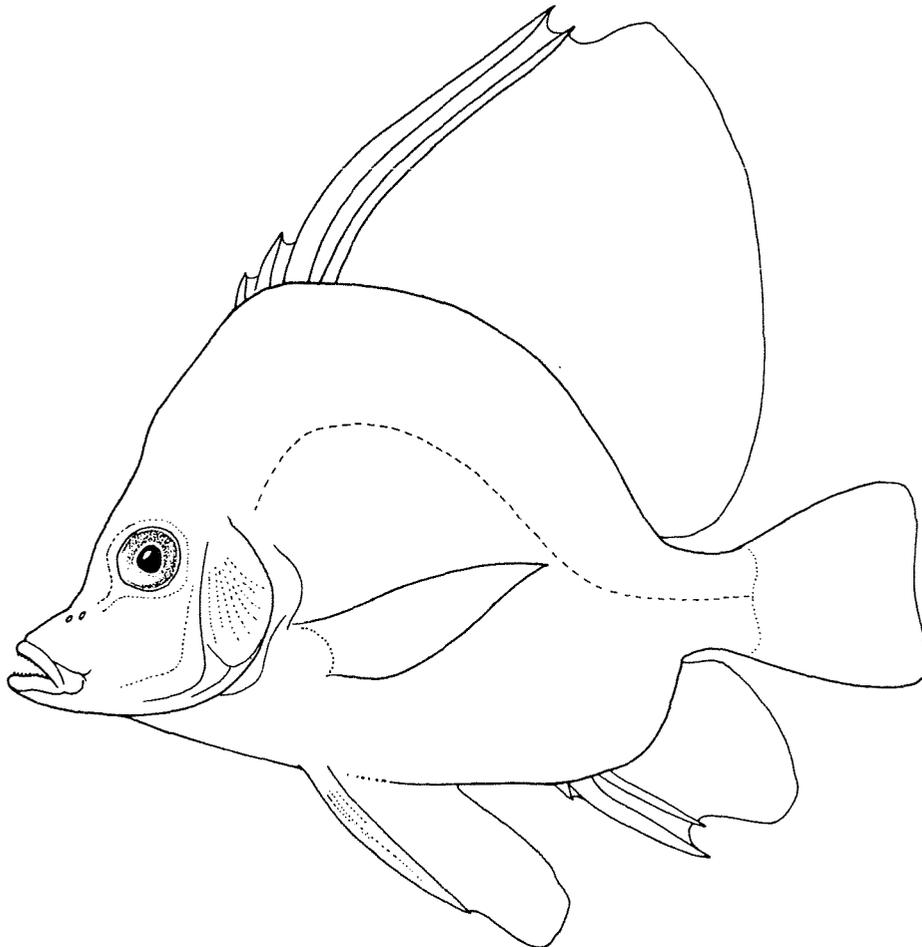
FISHING AREA 51
(W. Indian Ocean)

PENTACEROTIDAE

Armourheads

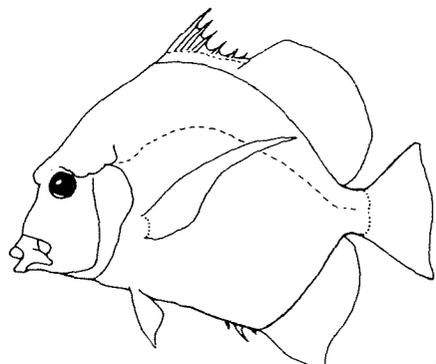
Body oblong-oval, compressed. Bones of head mostly exposed, rugose, covered with small spines and knobs in small juveniles. Dorsal fin continuous, with 4 to 14 spines and 9 to 27 soft rays; anal fin with 3 to 6 spines and 7 to 10 soft rays; caudal fin truncate to slightly emarginate; pelvic fins with 1 spine and 5 rays. Scales ctenoid, small to moderate.

Medium-sized fishes occurring over the continental shelf from about 40 m depth and the slope (to about 400 m). Although they cannot be considered at present to be of any commercial importance, they appear as bycatch especially in trawl catches from deeper waters and are reported to be consumed locally; flesh excellent.

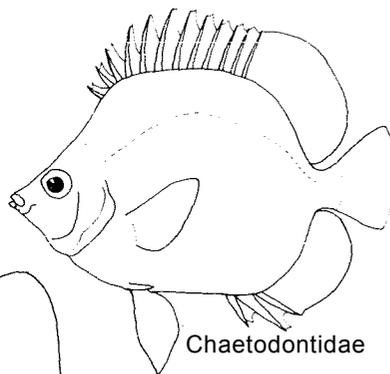


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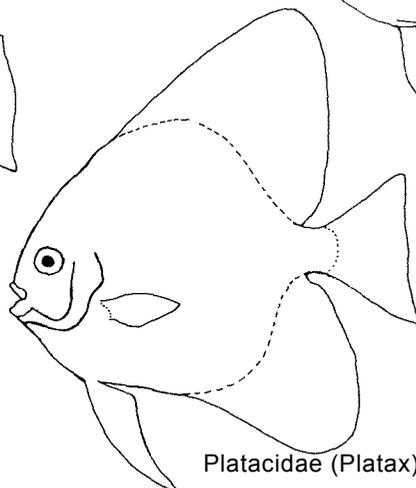
Chaetodontidae, Drepanidae, Platacidae and Scatophagidae: head covered with scales; anal fin rays 14 or more (7 to 10 in Pentacerotidae).



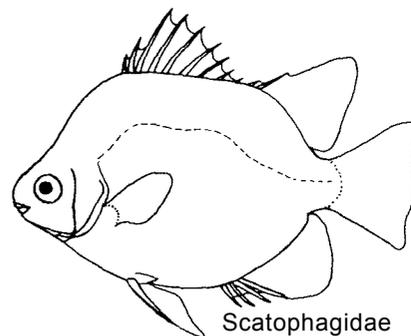
Drepanidae (Drepane)



Chaetodontidae



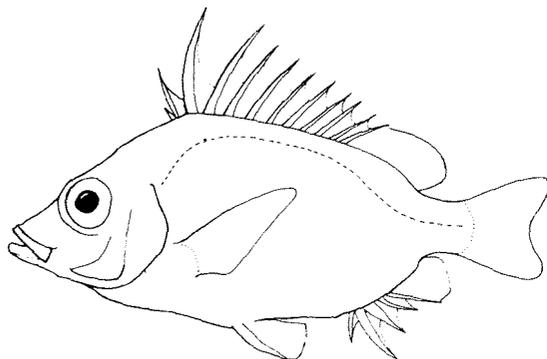
Platacidae (Platax)



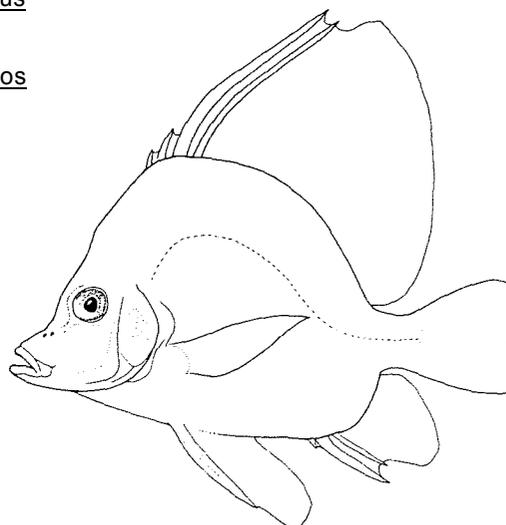
Scatophagidae

KEY TO GENERA OCCURRING IN THE AREA:

- 1a. Dorsal fin with 4 spines and 25 to 27 soft rays (Fig.1) Histiopterus
- 1b. Dorsal fin spines 12 to 14 and 9 to 12 soft rays (Fig.2) Pentaceros



Pentaceros Fig.2



Histiopterus Fig.1

LIST OF SPECIES OCCURRING IN THE AREA:

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Histiopterus typus Temminck & Schlegel, 1844

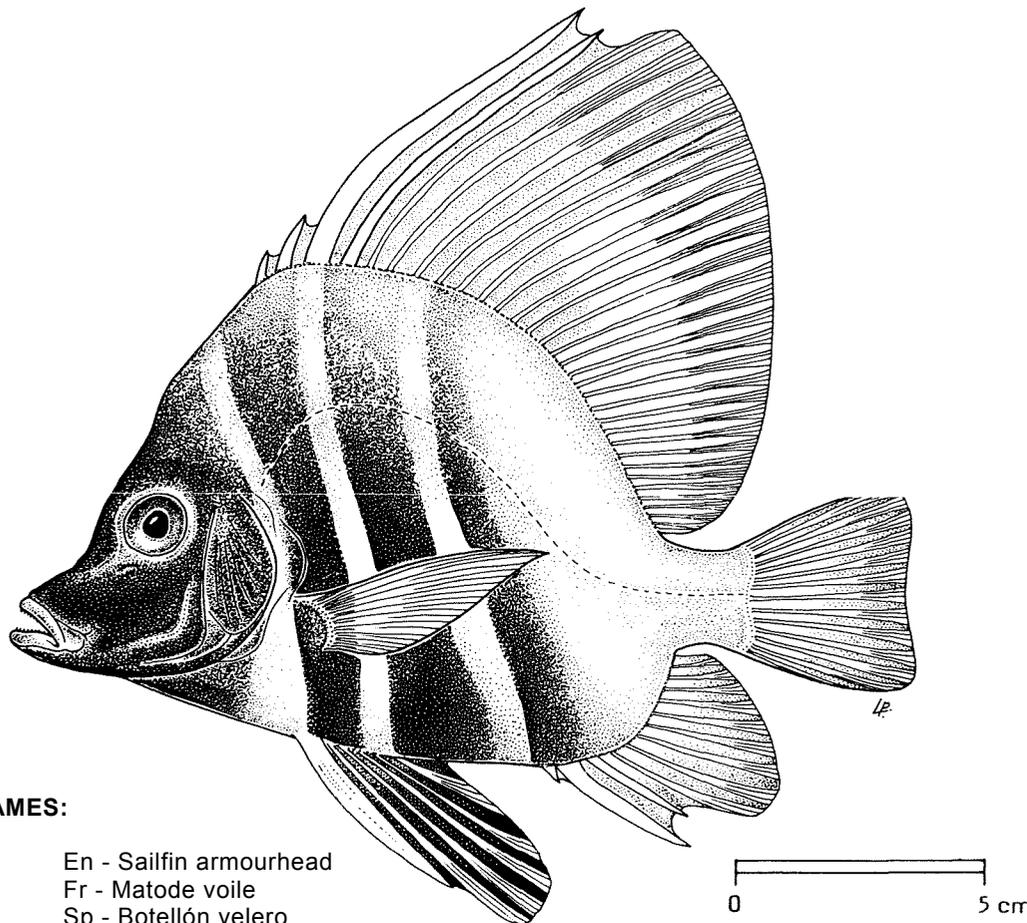
PENTAC Histio 1

Pentaceros capensis Cuvier, 1829

PENTAC Pent 1

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PENTACEROTIDAE

FISHING AREA 51
(W. Indian Ocean)Histioporus typus Temmínck & Schlegel, 1844OTHER SCIENTIFIC NAMES STILL IN USE: Histioporus spinifer Gilchrist, 1904

VERNACULAR NAMES:

FAO: En - Sailfin armourhead
Fr - Matode voile
Sp - Botellón velero

NATIONAL

DISTINCTIVE CHARACTERS:

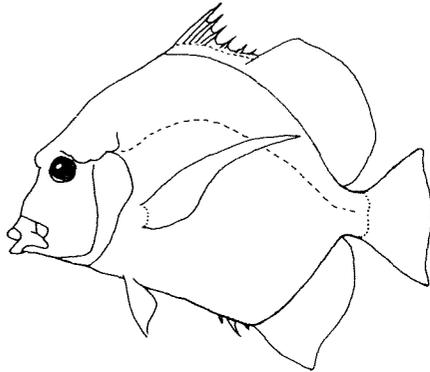
Body depth much greater than head length. Chin with a patch of fine barbels or papillae, more numerous with age; fine teeth in bands in jaws, none on palate. Dorsal fin very high, sail-like, with 4 spines; the first two short, the 3rd and 4th much enlarged, longer than head, subequal to first soft ray. Dorsal soft rays 25 to 27, anal fin with 3 spines 2nd longer and stronger than 3rd and 8 to 10 soft rays. Lateral line scales 60 to 65.

Colour: small juveniles pale, with prominent dark blotches on body, dorsal, anal and pelvic fins; dark blotches enlarge and coalesce with age, the body then dark, with more or less distinct narrow pale vertical bands.

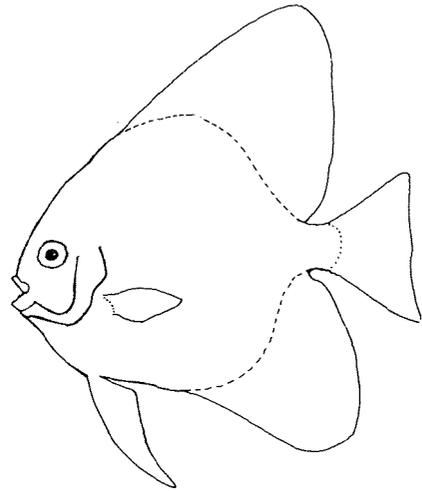
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Drepane (Drepanidae), Scatophagus (Scatophagidae) and Chaetodontidae: dorsal fin spines 10 or more (4 in H. typus).

Platax (Platacidae): anal fin similar in size and shape to dorsal fin; dorsal and anal fins covered with scales.



Drepane



Platax

SIZE:

Maximum: 35 cm; common to 20 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Northwestern Arabian Sea, from the Gulf of Oman to the Gulf of Aden and lower part of the Red Sea; also off South Africa from Cape Agulhas to Natal. Elsewhere off Korea, the Philippines and Japan.

PRESENT FISHING GROUNDS:

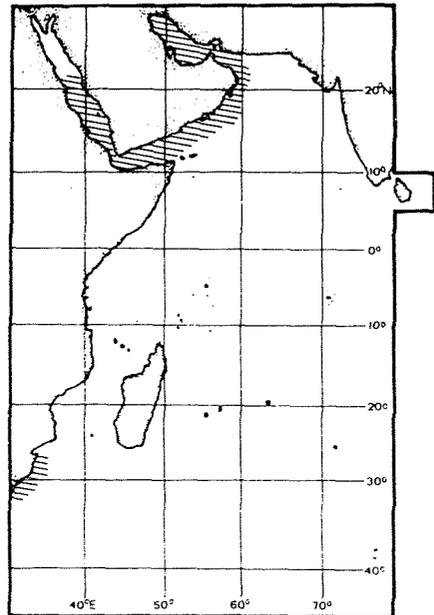
Trawlable bottoms in depths of 40 to 400 m.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught with trawls.

Marketed mostly fresh.

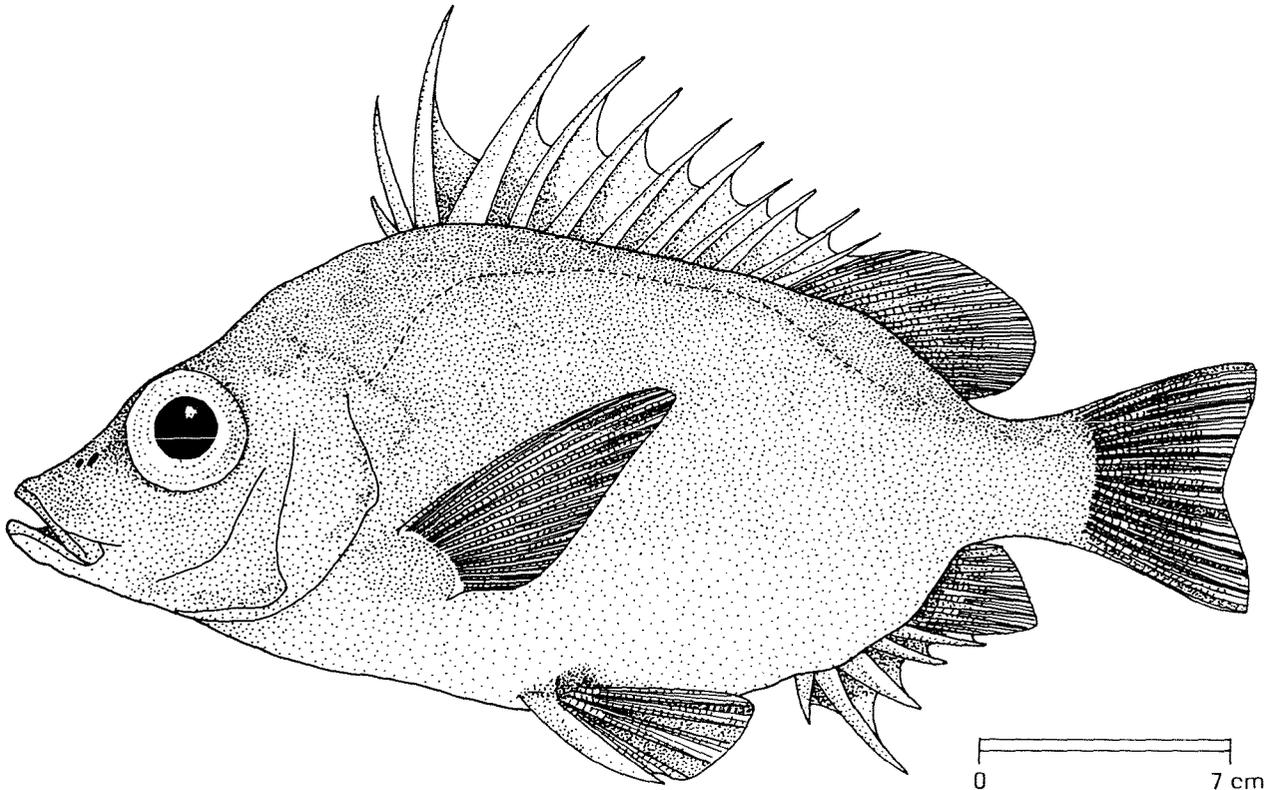


FAO SPECIES IDENTIFICATION SHEETS

FAMILY: PENTACEROTIDAE

FISHING AREA 51
(W. Indian Ocean)

<i>Pentaceros capensis</i> Cuvier, 1829

OTHER SCIENTIFIC NAMES STILL IN USE: *Quinquarius capensis* (Cuvier)

VERNACULAR NAMES:

FAO : En - Cape armourhead
 Fr - Matode du Cap
 Sp - Botellón del Cabo

NATIONAL:

DISTINCTIVE CHARACTERS:

Body depth greater than head length, contained 1.7 to 2.3 times in standard length. Dorsal fin with 12 spines and 12 soft rays, base of spinous part of dorsal fin much longer than base of soft-rayed part; anal fin with 4 or 5 spines and 7 or 8 soft rays; front spines or dorsal and anal fins with locking mechanism; pectoral fin rays 17. Lateral line scales about 50. Gillrakers 5 or 6 on lower and 15 to 17 on upper limbs of first arch.

Colour: uniformly brownish.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Polyprion americanus (Polyprionidae), Pomadasys (Haemulidae), Lutjanus (Lutjanidae): anal fin spines 3 (4 or 5 in P. capensis ; pelvic fin origin below or slightly in front of pectoral fin base (behind pectoral fin base in P. capensis).

SIZE:

Maximum: 35 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Known only from South Africa and southern Mozambique.

PRESENT FISHING GROUNDS:

Trawlable bottoms in depths of 20 to 100 m.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught with trawls.

Sold fresh in local markets.

