

## FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51  
(W. Indian Ocean)

## OPHIDIIDAE

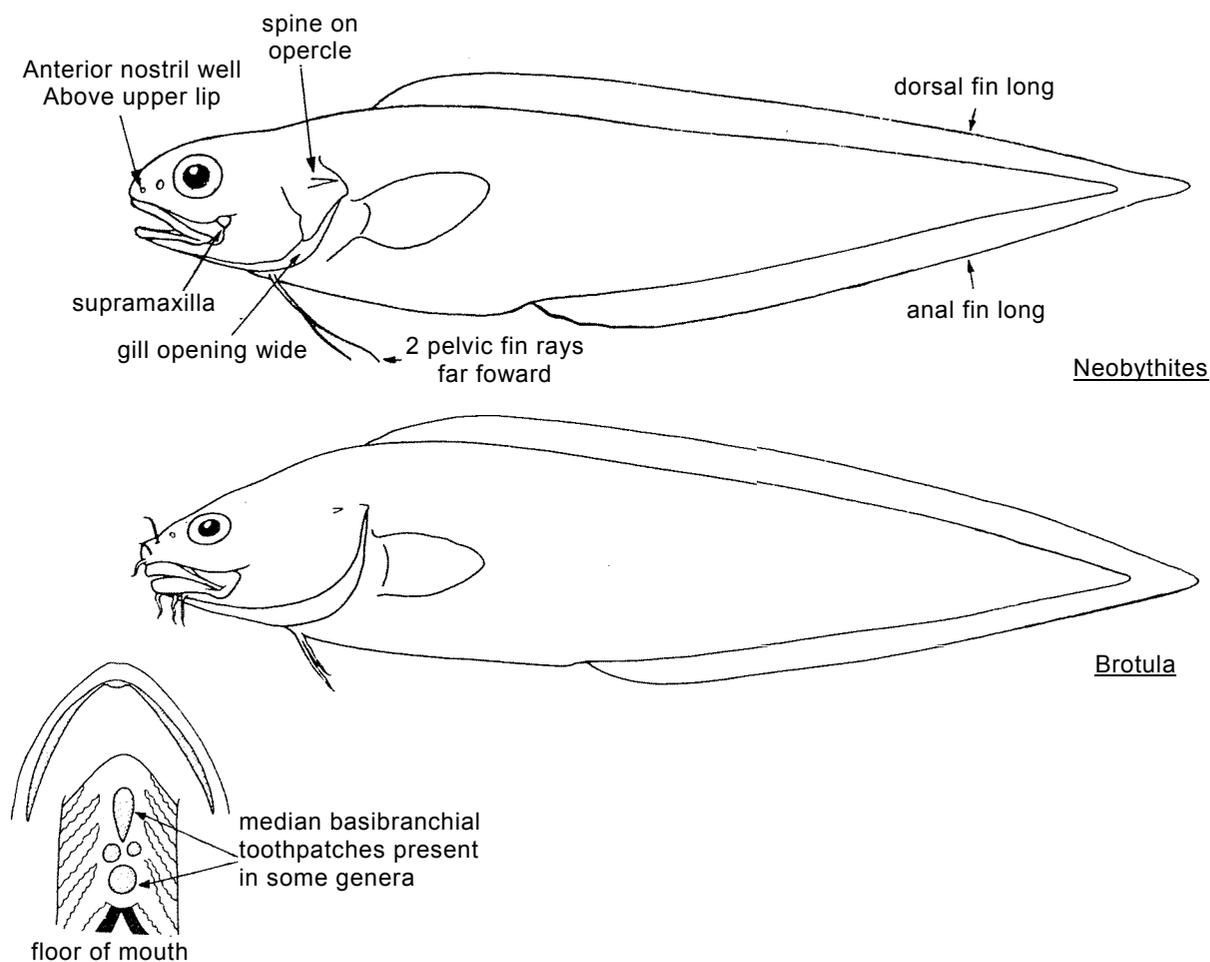
(including the cuskeels, here treated as a subfamily, Ophidiinae, and the oviparous species of the Brotulidae, a family no longer recognized)

Cusk eels, brotulas and kingklips

Body short to elongate, its length ranging from a few centimetres to more than a metre. Supramaxilla present; anterior nostril well above upper lip in most species. Median basibranchial tooth patches present or absent. Gill openings wide. Pelvic fins with 1 or 2 soft rays or absent, placed close together below preopercle or further anterior; dorsal and anal fins with long bases, united with caudal fin; dorsal fin rays usually equal to or longer than opposing anal rays; all fins lacking spines. Oviparous, males lacking a developed external copulatory organ.

Colour: generally brown/grey. Some species with dark spots on dorsal and anal fins and on body.

Members of this family occur from shallow waters to 5 000 m depth and they are rarely fished commercially. Some species of the genus Neobythites are landed as bycatch.



**SIMILAR FAMILIES OCCURRING IN THE AREA:**

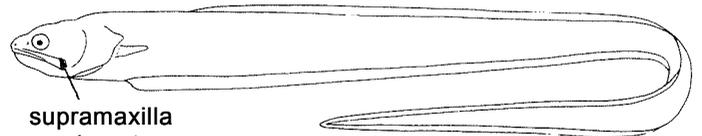
Carapidae: supramaxilla absent; anal fin rays longer than opposing dorsal fin rays.

Bythitidae: anterior nostril immediately above upper lip in most species; median basi-branchial tooth patches absent; viviparous (live bearers), males with a developed external copulatory organ.

Macrouridae: pelvic fins separated, each with more than 2 rays; often 2 dorsal fins (1 in Ophiidiidae).

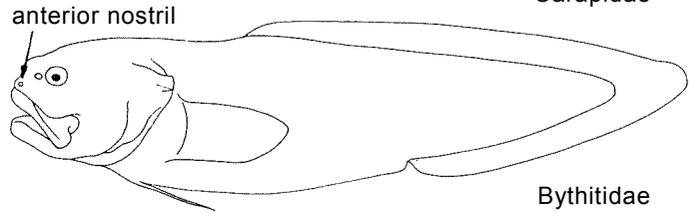
Gadidae and Moridae: pelvic fins widely separated; dorsal and anal fins not, united with caudal fin.

Congridae and other eel families: maxilla toothed and not exposed below and behind eye; gill opening restricted to a lateral or ventral slit or hole on each side; pelvic fins absent.



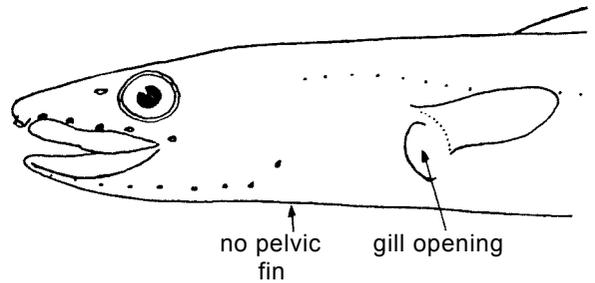
supramaxilla absent

Carapidae



anterior nostril

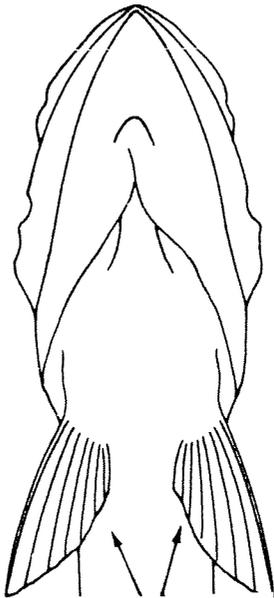
Bythitidae



no pelvic fin

gill opening

Congridae



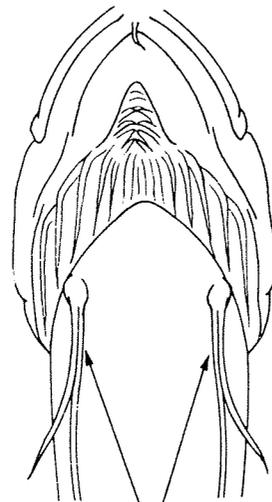
pelvic fins well separated, with more than two rays

Macrouridae



pelvic fins close together, with two or less rays

Ophiidiidae



pelvic fins far apart

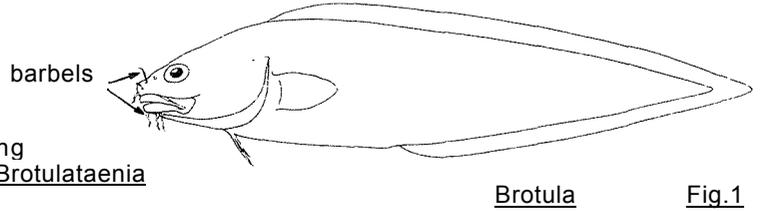
Gadidae

underside of head

**KEY TO GENERA OCCURRING IN THE AREA:**

1a. Barbels present on snout and chin (Fig.1) ..... Brotula

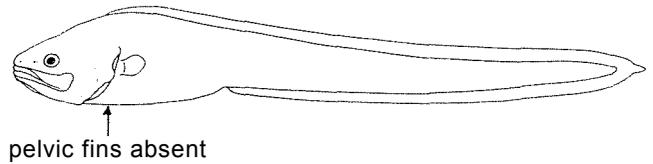
1b. Barbels absent



2a. Scales in form of small, non-overlapping prickles; pelvic fins absent (Fig.2) ..... Brotulataenia

2b. Scales cycloid (smooth); pelvic fins absent or present

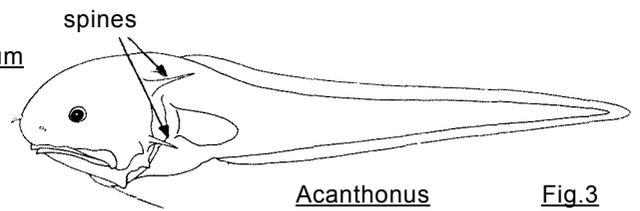
3a. Very strong spines on preopercle and opercle (Figs 3 and 4)



4a. Prominent bifid spine on snout (Fig.3) ..... Acanthonus

4b. No spine on snout (Fig.4)..... Tauredophidium

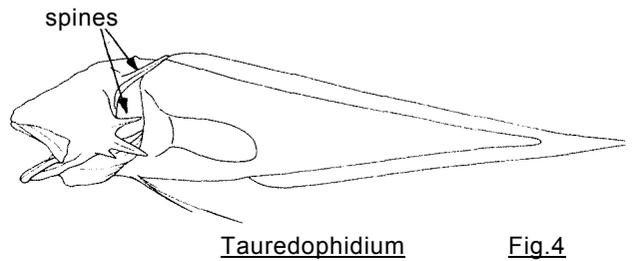
3b. Spines on opercle and preopercle more or less well developed, but never very strong



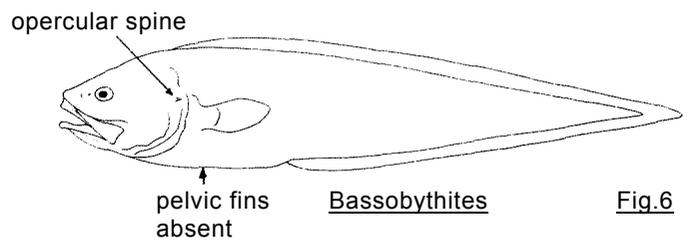
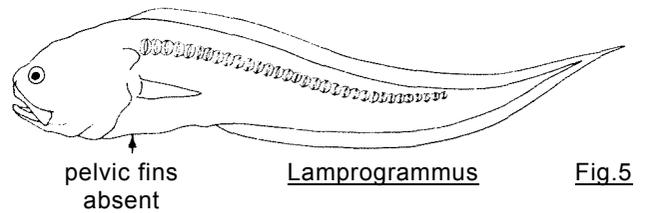
5a. Pelvic fins absent or rudimentary (Figs 5 and 6)

6a. Opercular spine absent or weak (Fig.5).. Lamprogrammus

6b. Opercular spine strong, round in cross section (Fig.6) ..... Bassobythites



5b. Pelvic fins present



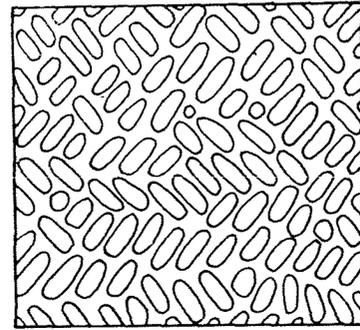
7a. Pelvic fins inserted below or anterior to eye

8a. Few scales developed, all elongate and arranged at oblique angles to each other (Fig.7) ..... Ophidion

8b. Scales rounded and in regular rows

9a. Three strong spines at angle of preopercle (Fig.8) ..... Hoplobrotula

9b. No spines on preopercle (Fig.9) ..... Genypterus



scale pattern  
Ophidion

Fig.7

7b. Pelvic fins inserted below gill cover

10a. Developed gillrakers 4 or fewer

11a. Preopercle with 2 or 3 spines at lower angle (Fig.10) ..... Pycnocraspedum

11b. Preopercle with 0 or 1 spine at lower angle

12a. One spine on opercle (Fig.11) ..... Luciobrotula

12b. No spine on opercle (Fig.12) ..... Hypopleuron

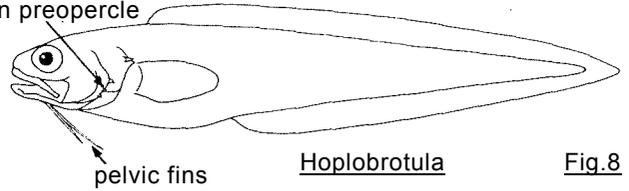
10b. Developed gillrakers 7 or more



Hypopleuron

Fig.12

3 strong spines on preopercle



Hoplobrotula

Fig.8

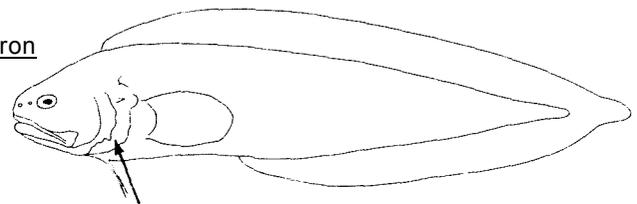
pelvic fins



Genypterus

Fig.9

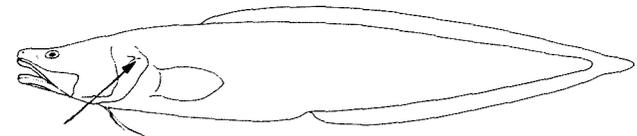
pelvic fins



Pycnocraspedum

Fig.10

spines at angle of preopercle

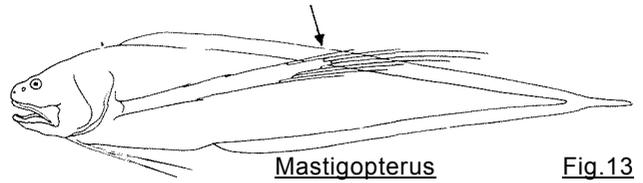


Luciobrotula

Fig.11

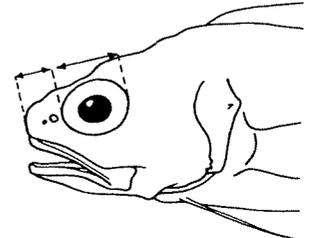
1 spine on opercle

13a. Opercular spine absent or weak, if present broad and flattened



14a. Pectoral fin narrow and constricted, proximally originating on only part of pectoral peduncle, some of its rays greatly elongated (Fig.13)..... Mastigopterus

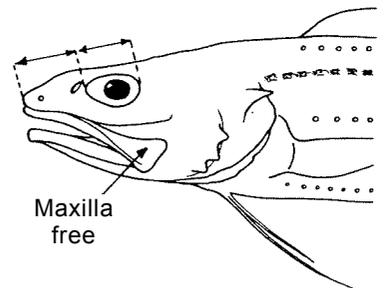
14b. Pectoral fin not constricted proximally, originating on the entire pectoral peduncle, fin short or only lower rays greatly prolonged



15a. Eye diameter equal to or greater than snout length (Fig.14) ..... Glyptophidium

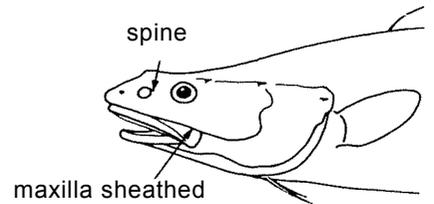
15b. Eye diameter less than snout length

16a. Maxilla free posterodorsally (Fig.15) ..... Porogadus



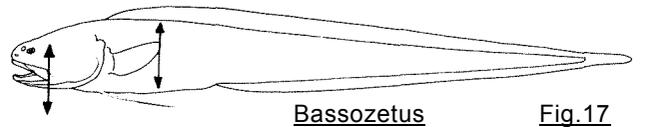
16b. Maxilla sheathed posterodorsally (Fig.16)

17a. Rear margin of maxilla at level or anterior to rear margin of eye (Fig.16); a sharp spine behind posterior nostril ..... Alcockia

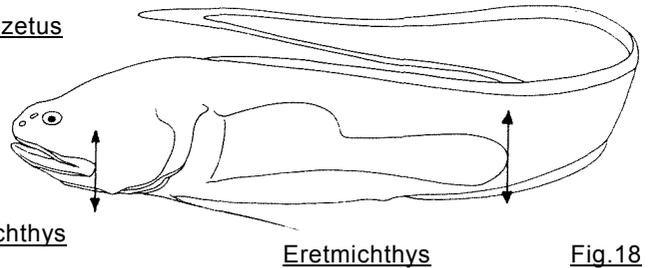


17b. Rear margin of maxilla well posterior to rear margin of eye; no spine behind posterior nostril

18a. Pectoral fin extending a short distance, if at all, beyond anus, not divided (Fig.17). Bassozetus

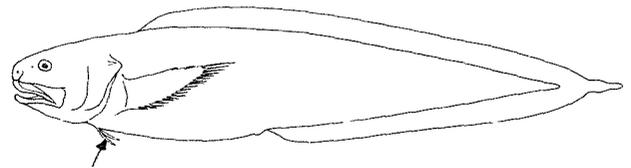


18b. Lower part of pectoral fin extending well beyond anus, or if rays not prolonged the fin is divided (Fig.18)..... Eretmichthys



13b. Opercular spine sometimes hidden but strong, narrow, usually rounded in cross section

19a. Lower pectoral fin rays free; pelvic fins with 2 rays in each



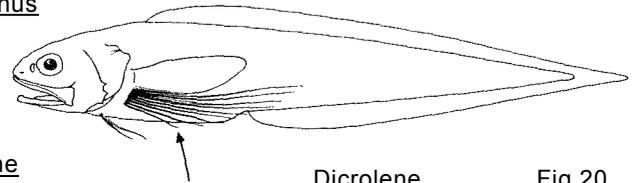
Holcomycteronus

Fig.19

20a. Eye diameter much less than half of snout length; lower pectoral fin rays shorter than upper rays; pelvic fin rays flattened (Fig.19).... Holcomycteronus

rays flattened

20b. Eye diameter equal to half or more of snout length; lower pectoral fin rays longer than upper rays; pelvic fin rays filamentous (Fig.20)..... Dicrolene

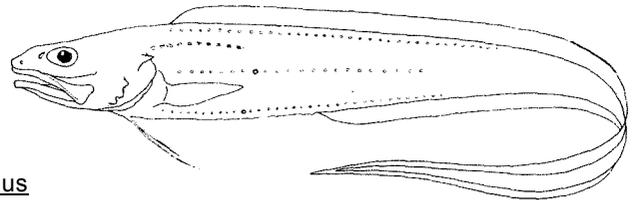


Dicrolene

Fig.20

19b. Pectoral fin entire; pelvic fins each with 1 or 2 rays

21a. Caudal fin with 5 or 6 rays; body depth at vent 10 times or more in standard length (Fig.21) ..... Porogadus



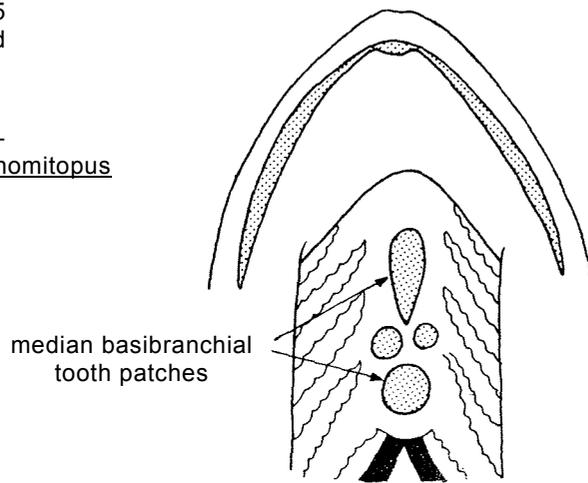
Porogadus

Fig.21

21b. Caudal fin with 8 or more rays; body depth at vent 8.5 times or less in standard length

22a. One median basibranchial tooth patch ..... Monomitopus

22b. Two median basibranchial tooth patches (Fig.22 )



median basibranchial tooth patches

floor of mouth

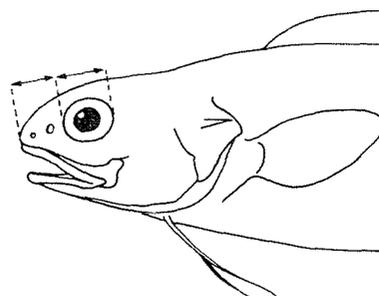
Fig.22

23a. Teeth larger, needle-like, separate from each other ..... Epetriodus

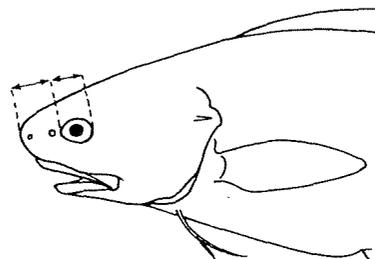
23b. Teeth small, granular, close set

24a. Eye diameter about equal to or greater than snout length (Fig.23); many species with prominent spots, blotches or bands.. Neobythites

24b. Eye diameter less than snout length (Fig.24); no spots, blotches or bands.. Barathrodemus



Neobythites Fig.23



Barathrodemus Fig.24

**LIST OF SPECIES OCCURRING IN THE AREA:**

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

Acanthonus armatus Günther, 1878

Alcockia rostratus (Günther, 1878)

Barathrodemus sp.

Bassobythites braunswigi Brauer, 1906

Bassozetus glutinosus (Alcock, 1890)

Brotula muitibarбата Temminck & Schlegel, 1846 OPHID Brotul 2

Brotulataenia crassa Parr, 1934

Dicrolene nigricaudis (Alcock, 1891) Dicrolene vaillanti Alcock, 1890)

Epetriodus freddyi Cohen & Nielsen, 1978

Eretmichthys remifer Smith & Radcliffe, 1913

Genypterus capensis Smith, 1847 OPHID Geny 1

Glyptophidium longipes Norman, 1939

Glyptophidium macropus Alcock, 1894

Glyptophidium oceanicum Smith & Radcliffe, 1913

Holcomycteronus aequatoris (Smith & Radcliffe, 1913)

Holcomycteronus pterotus (Alcock, 1890)

Hoplobrotula gnathopus Regan, 1921

Hypopleuron caninum Smith & Radcliffe, 1913

Lamprogrammus fragilis Alcock, 1892

Lamprogrammus niger Alcock, 1891

Luciobrotula bartschi Smith & Radcliffe, 1913

Mastigopterus imperator Smith & Radcliffe, 1913

Monomitopus conjugator (Alcock, 1896)

Monomitopus microlepis Smith & Radcliffe, 1913

Monomitopus nigripinnis (Alcock, 1889)

Neobythites analis Bernard, 1927

Neobythites steatius Alcock, 1893

Neobythites trifilis Kotthaus, 1979

Ophidion spp.

Porogadus melampeplus (Alcock, 1896)

Porogadus trichturus Alcock, 1890)

Pycnocraspedum squamipinne Alcock, 1889

Selachophidium guentheri Gilchrist, 1903

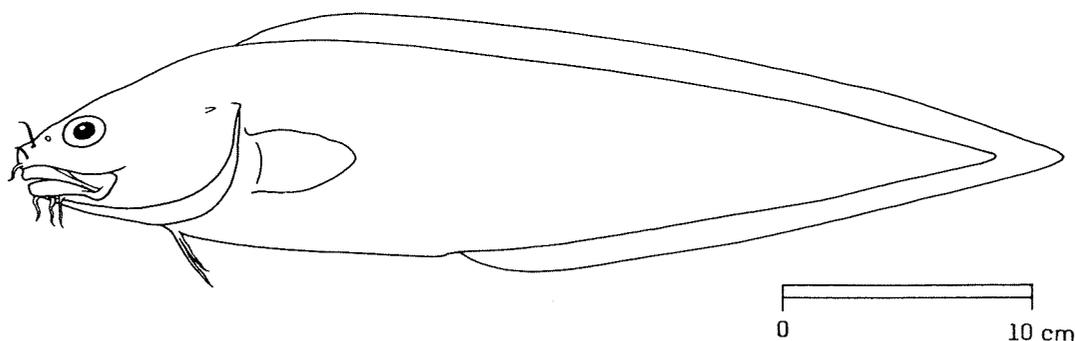
Tauredophidium hextii Alcock, 1890

## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: OPHIDIIDAE

FISHING AREA 51  
(W. Indian Ocean)*Brotula multibarbata* (Temminck & Schlegel, 1846)

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

FAO :           En - Goatsbeard brotula  
                  Fr - Brotule barbe-de-boue  
                  Sp - Brotula barba de carnero

NATIONAL:

## DISTINCTIVE CHARACTERS:

Body elongate with a tapering caudal part. A total of 12 barbels present on snout and chin; fine teeth present on jaws and on palate (roof of mouth); 4 fewer well developed rakers on anterior gill arch; fins spineless; dorsal and anal fins long, continuous with caudal fin; pelvic fins with 2 rays each, placed below gill cover. Body completely covered with small, cycloid (smooth) scales.

Colour: uniform silvery dusky to brown.

**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

All other members of this family lack barbels on chin and snout.

**SIZE:**

Maximum: at least 50 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

Scattered records from all over the area and eastward to Hawaii.

Adults are bottom dwelling, on the continental shelf and slope, down to 650 m depth; early stages are pelagic and are usually found in reef areas.

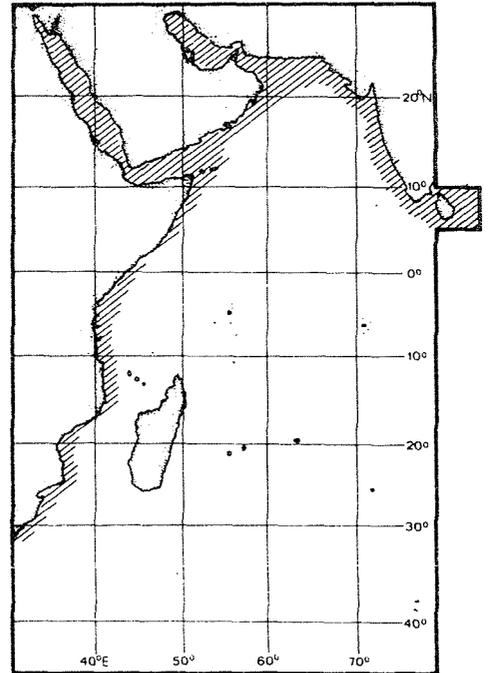
**PRESENT FISHING GROUNDS:**

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

Caught on lines and in traps.

Only occasionally marketed, usually fresh. A good food-fish.





**DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:**

Hoplobrotula gnathopus: 3 strong spines at angle of preopercle.

Ophidion sp: the few developed scales are elongate and arranged at oblique angles to each other.

Bassobythites braunswigi and Lamproarammus species: pelvic fins absent or rudimentary.

Acanthonus armatus and Tauredophidium hextii: very strong spines present on preopercle and opercle.

Brotulataenia crassa: pelvic fins absent.

Brotula multibarbata: barbels present on snout and chin.

All other species of Ophidiidae: have pelvic fins inserted below gill cover.

**SIZE:**

Maximum: at least 150 cm.

**GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

In the area, found from Algoa Bay (about 20°S) southward. Elsewhere, extending along the South African coast up to Walvis Bay (about 20°S, Eastern Atlantic).

A bottom living species, found at depths down to 500 m.

Carnivorous.

**PRESENT FISHING GROUNDS:**

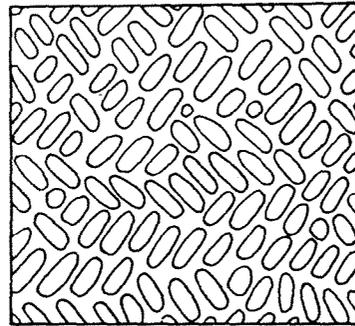
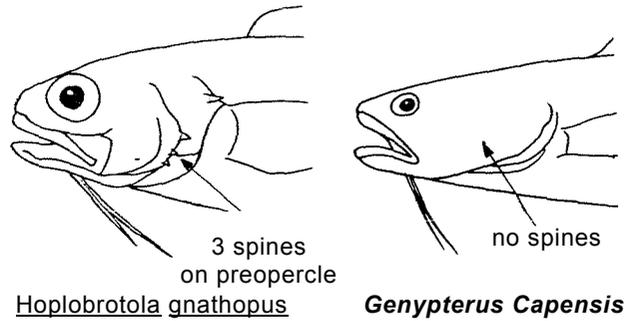
Accidentally caught in deep waters throughout its range.

**CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:**

Separate statistics are not reported for this species.

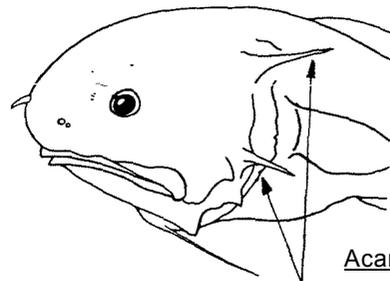
Caught on with trawls and line gear.

Marketed fresh, flesh excellent.



scale pattern on body

Ophidion



strong spines on opercle and preopercle

