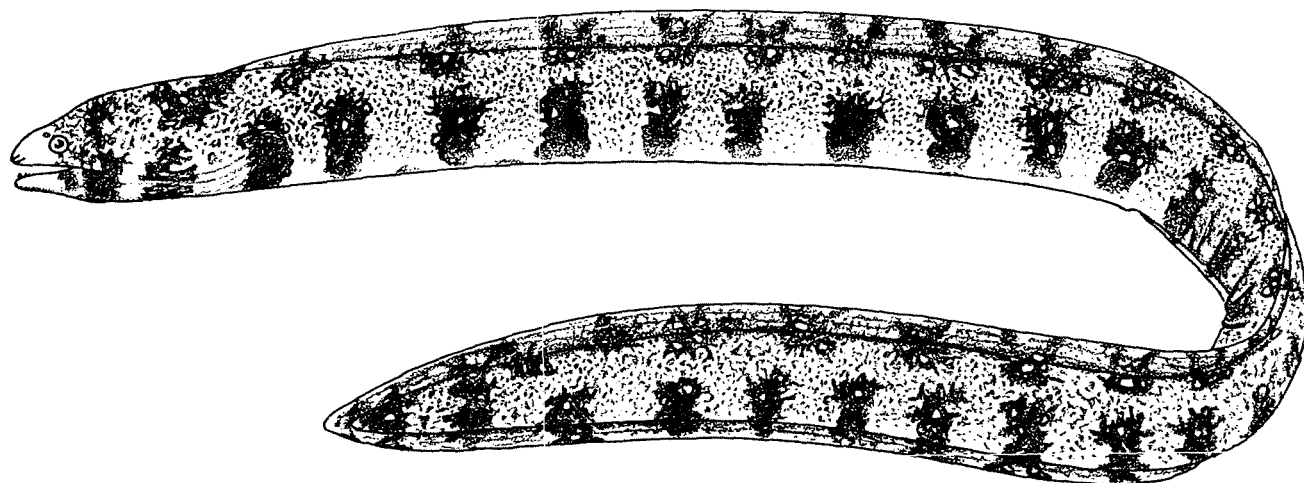


## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MURAENIDAE

FISHING AREA 51  
(W. Indian Ocean)Echidna nebulosa (Ahl, 1789)

OTHER SCIENTIFIC NAMES STILL IN USE: None



## VERNACULAR NAMES:

FAO : En - Starry moray  
Fr - Murène étoilée  
Sp - Morena estrellada



NATIONAL:

## DISTINCTIVE CHARACTERS:

Body moderately elongate, cylindrical anteriorly, compressed along tail. Head with a steep profile, snout short and blunt; eye relatively small; anterior nostril a short tube, posterior nostril a simple hole with a raised rim, above and before eye; teeth mostly blunt and in 2 rows on jaws, pavement-like molars on vomer (roof of mouth), but all teeth more conical in young. Dorsal fin origin on head, before gill opening; pectoral and pelvic fins absent. No obvious lateral line, reduced to two pores above and before gill opening which is a distinct midlateral hole or slit. Scales absent. Vertebrae 120 to 128.

Colour: variable, but typically yellowish-brown with 2 or 3 longitudinal series of darker, star-shaped spots along the body, each with a yellow centre, the spots variably combined to form vertical bands; smaller spots and mottlings occur between the starry blotches.

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

Echidna delicatula: greyish with fine dark mottling of irregular blotches and marbling.

Echidna fascigula: dark brown with dark lines along sides of head and a few white rings at end of tail.

Echidna leucotaenia: light brown with edges of dorsal and anal fins white and a dark mark on corner of mouth; vertebrae 121 to 124.

Echidna polyzona: brown with 25 to 30 lighter greyish to grey-yellow narrow. vertical bars in young; in adults the cross-bars become less distinct. and the anterior part of the body is mottled; vertebrae 118 to 120.

Echidna unicolor: uniform yellowish-brown. the dorsal fins with a light yellow edge. and eye with a narrow brown ring around it; vertebrae 100 to 111.

Echidna xanthospilus: brownish with distinct yellowish. round to oval patches and irregular streaks.

Echidna zebra: deep blackish-brown with numerous narrow, yellow. vertical bars. some of which join each other and which turn white on preservation; anus well behind midpoint of body; vertebrae 128 to 137.

Siderea picta: young with distinct dark spots, but these form a smaller speckling with age.

Other species of Muraenidae: teeth on roof of mouth sharp, slender.

#### **SIZE:**

Maximum: about 80 cm; common to about 50 cm.

#### **GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:**

East Africa from Natal to the Red Sea, eastward to include Madagascar, Réunion and Mauritius, the Indian coast and Sri Lanka. Also widespread in the tropical Indo-West Pacific, eastward to Pacific Central America.

A very common and familiar moray, living wherever there are coral reefs and elsewhere.

Mainly active over reef flats at night and feeding variously on small reef animals, particularly crustaceans.

#### **PRESENT FISHING GROUNDS:**

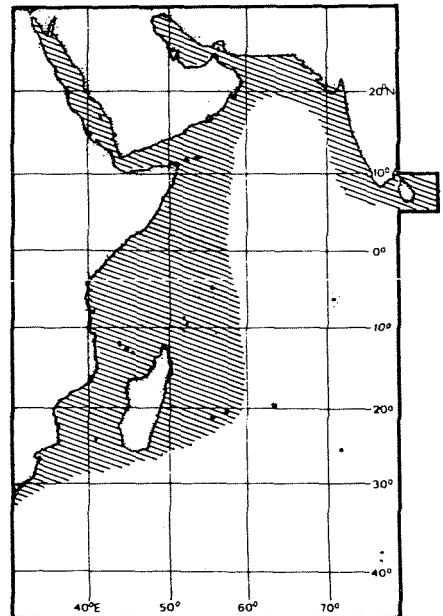
No definite fishing grounds; mainly caught irregularly in shallow, reefy areas.

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

Separate statistics are not reported for this species.

Caught variously by line, net, trap and spear.

Marketed mainly fresh and consumed locally.



## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MURAENIDAE

FISHING AREA 51  
(W. Indian Ocean)

<i>Echidna zebra</i> (Shaw, 1797)
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OTHER SCIENTIFIC NAMES STILL IN USE: *Arndha zebra* (Shaw, 1797)

## VERNACULAR NAMES:

FAO : En - Zebra moray  
Fr - Murène zébrée  
Sp - Murena zebra

NATIONAL:

## DISTINCTIVE CHARACTERS:

Body strong, muscular, moderately elongate, cylindrical anteriorly, compressed along tail. Head with a very steep profile, snout short and blunt; eye relatively small; anterior nostril a short tube, posterior nostril a simple hole with a raised rim, above and before eye; teeth mostly blunt, and in 2 or 3 rows on jaws, pavement-like molars on vomer (roof of mouth), but all teeth more conical in young. Dorsal fin origin on head, before gill opening; pectoral and pelvic fins absent. No obvious lateral line, reduced to 2 pores above and before gill opening which is a distinct midlateral hole or slit. Scales absent. Vertebrae 128 to 137.

Colour: rich velvety blackish-brown, with numerous narrow, yellow, vertical bars, some of which join each other and which turn white on preservation.

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

Echidna delicatula: greyish with fine dark mottling of irregular blotches and marbling.

Echidna fascigula: dark brown with dark lines along sides of head and a few white rings at end of tail.

Echidna leucotaenia: light brown with edges of dorsal and anal fins white and a dark mark on corner of mouth; vertebrae 121 to 124.

Echidna nebulosa: yellowish-brown with 3 longitudinal series of darker, star-shaped spots along body; vertebrae 120 to 128.

Echidna polyzona: brown with 25 to 30 lighter greyish to grey-yellow narrow, vertical bars in young; in adults the cross-bars become less distinct. and the anterior part of the body is mottled; vertebrae 113 to 120.

Echidna unicolor: uniform yellowish-brown, the dorsal fins with a light yellow edge, and eye with a narrow brown ring around it; vertebrae 100 to 111.

Echidna xanthospilus: brownish, with distinct yellowish, round to oval patches and irregular streaks.

Other species of Muraenidae: teeth on roof of mouth sharp, slender.

## SIZE:

Maximum: about 120 cm; common to about 50 cm.

## GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East Africa from Natal to the Red Sea, eastward to include Madagascar, Réunion and Mauritius, the Indian coast and Sri Lanka. Also widespread in the tropical Indo-West Pacific.

A fairly common and distinctive moray feeding variously on small reef animals, particularly crustaceans.

## PRESENT FISHING GROUNDS:

No definite fishing grounds; mainly caught irregularly in shallow, reefy areas.

## CATCHES, FISHING GEAR AND FORMS OF UTILIZATION

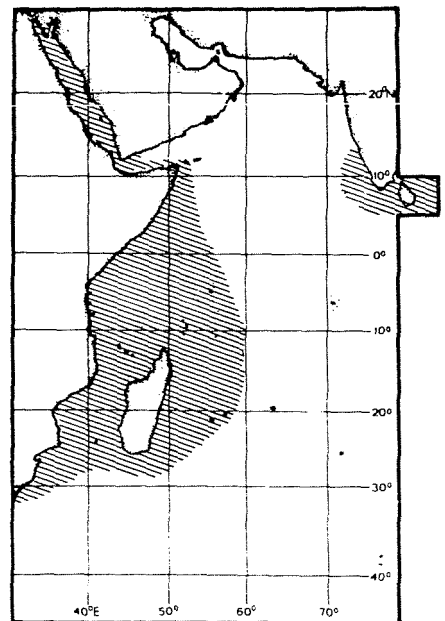
Separate statistics are not reported for this species.

Caught variously by line, net, trap and spear.

Marketed mainly fresh and consumed locally.

Caught variously by line, net, trap and spear.

Marketed mainly fresh and consumed locally.



## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MURAENIDAE

FISHING AREA 51  
(W. Indian Ocean)Lycodontis meleagris (Shaw & Nodder, 1795)OTHER SCIENTIFIC NAMES STILL IN USE: Gymnothorax meleagris (Shaw & Nodder, 1795)

## VERNACULAR NAMES

FAO :      En - Turkey moray  
             Fr - Murène voie lactée  
             Sp - Morena via lactéa

NATIONAL:

## DISTINCTIVE CHARACTERS:

Body strong, muscular, moderately elongate, cylindrical in front, compressed along tail. Head with a steep profile; snout rounded but not blunt; eye relatively small; anterior nostril a short tube, posterior nostril a simple hole with a raised rim, above and before eye; teeth very sharp, more or less in 2 rows on jaws the inner series larger; a group of very large, sharp, depressible teeth on intermaxillar (at front of upper jaw); some similar teeth on front of lower jaw; a single row of smaller but sharp teeth on vomer (roof of mouth). Dorsal fin originating on head before gill opening; pectoral and pelvic fins absent. No obvious lateral line, reduced to two pores above and before gill opening which is a distinct midlateral hole or slit. Scales absent. Vertebrae 127 to 131.

Colour: dark purplish-brown covered with numerous, very small, yellow spots, less than eye diameter; gill opening black; inside of mouth white; tip of tail yellow or orange. The small yellow spots are more crowded on the front part of the body than on the tail where they are more widely but more evenly spaced; they fade to white after preservation.

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

Lycodontis elegans: regularly spaced light spots about the size of eye, coalescing to vertical bands on tail, and extending on to median fins.

Lycodontis eurostus: ground colour and pattern of light spots similar, but front part of body with regularly scattered, round, eye-sized, dark spots overlying light spots; vertebrae 120 to 123 (127 to 131 in L. meleagris).

Lycodontis johnsoni: light brown with eye-sized light spots, relatively widely spaced, but smaller and more irregular on front part of body; vertebrae 135.

Lycodontis nudivomer: brownish-yellow with a fine network of yellowish lines on front part of body; distinct yellow spots on tail; vertebrae 126 to 129.

Lycodontis tile: brownish-yellow to greenish. lighter below, with pupil-sized white specks. but these may be absent in adults; vertebrae about 122.

All other Lycodontis species are plain, mottled or barred in some way.

Gymnothorax socotrensis: serrated teeth on jaws; reddish brown with pupil-sized, roundish, white spots covering whole of body; vertebrae 140.

Siderea picta: no long, depressible teeth in front of intermaxillary; greyish to whitish with variable dark speckling of fine, irregular marks, but young yellowish with relatively few spots.

## SIZE:

Maximum: about 120 cm; common to about 80 cm.

## GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East Africa from Natal to the Red Sea eastward to include Mauritius, the Indian coast and Sri Lanka. Also widespread in the tropical Indo-West Pacific.

A relatively common, distinctive moray, more typical of deeper reef areas.

It is active and predaceous, feeding on a variety of smaller reef fishes.

## PRESENT FISHING GROUNDS:

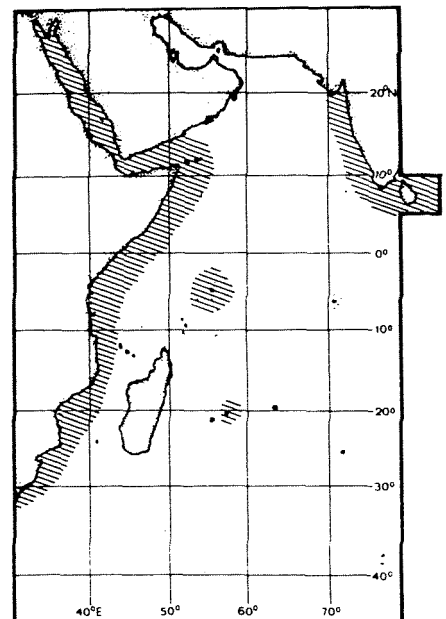
No definite fishing grounds; mainly caught irregularly in deeper reefy areas.

## CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

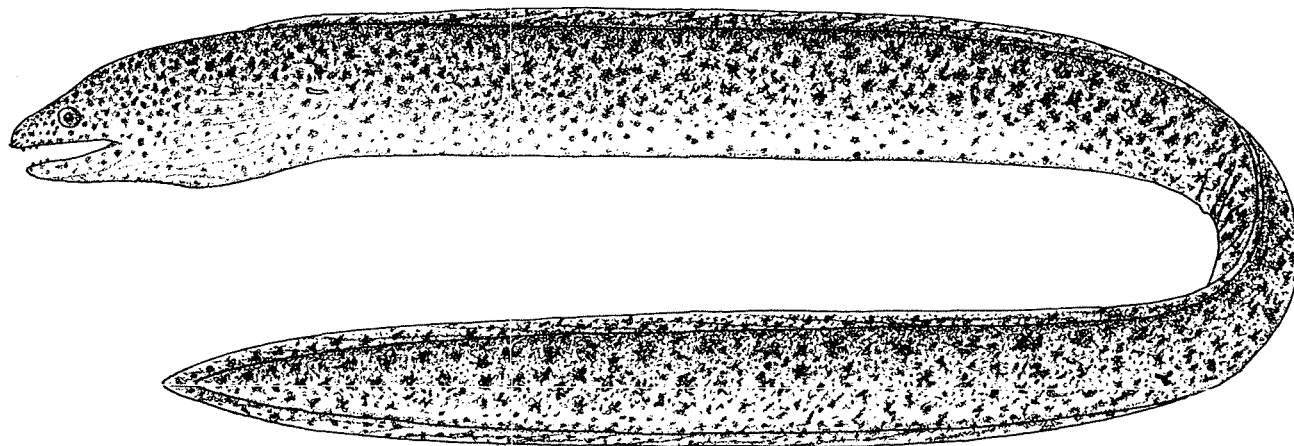
Caught mainly by various types of nets and traps, and speared.

Marketed mainly fresh and consumed locally.



## FAO SPECIES IDENTIFICATION SHEETS

FAMILY: MURAENIDAE

FISHING AREA 51  
(W. Indian Ocean)Siderea picta (Ahl, 1789)OTHER SCIENTIFIC NAMES STILL IN USE: Gymnothorax pictus (Ahl, 1789)  
Lycodontis pictus (Ahl, 1789)

## VERNACULAR NAMES:

FAO : En - Speckled siderial moray  
Fr - Murène sidérale  
Sp - Morena sideral

NATIONAL:



young

## DISTINCTIVE CHARACTERS:

Body moderately elongate, relatively slender, cylindrical in front, compressed along tail. Head with a steep profile; snout fairly short and blunt; eye relatively small; anterior nostril with a short tube, posterior nostril a simple hole with a raised rim, above and before eye; teeth conical uniserial on jaws biserial and smaller on vomer (roof of mouth); a single, median tooth on intermaxillary (at front of upper jaw). Dorsal fin originating on head just before gill opening; pectoral and pelvic fins absent. No obvious lateral line, reduced to two pores above and before gill opening. Scales absent. Vertebrae 127 to 133.

Colour: greyish or whitish, covered with minute, dark, irregular, intermingling specks; young individuals yellow with larger ocelli which become relatively smaller and more numerous with age.

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

Siderea grisea: head brownish, body lilac with darker spots and marblings; young paler but with age the gill openings become dusky and the marbling becomes more obvious; all stages with a more or less regular series of dark spots on the head; vertebrae about 131 to 136 (127 to 133 in S. picta).

Siderea thyrsoidea: brownish, dotted and speckled with darker brown and white.

Lycodontis meleagris: adults purplish brown with minute, yellow spots, but in young the spots are relatively much larger.

### SIZE:

Maximum: about 140 cm; commonly much smaller.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East Africa from Natal to the Red Sea eastward to include Madagascar, Réunion, Mauritius, Seychelles, the Indian coast and Sri Lanka. Also widespread in the Indo-West Pacific eastward to Pacific Central America.

One of the commonest morays, typically sluggish and found over open reef flats where it feeds variously on small reef animals.

### PRESENT FISHING GROUNDS:

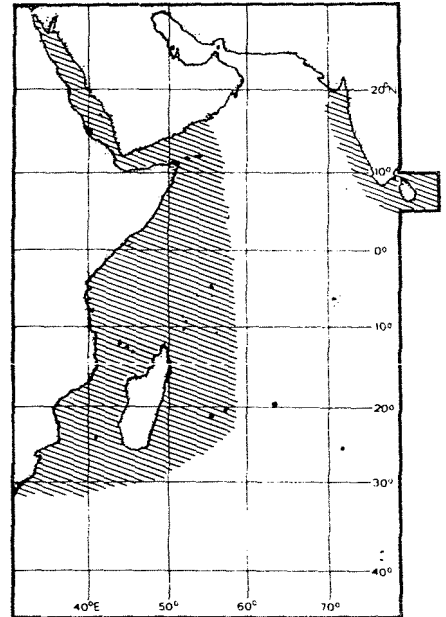
Caught incidentally throughout its range.

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

Separate statistics are not reported for this species.

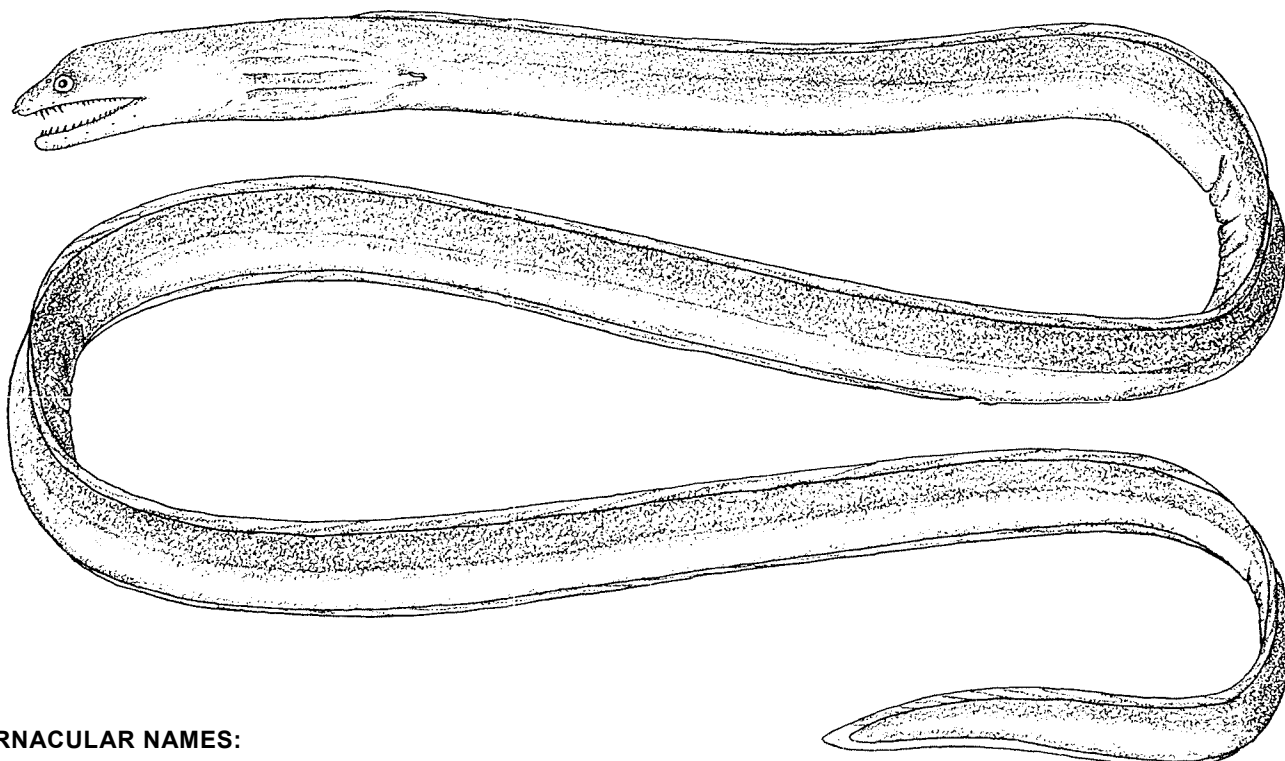
Caught mainly with various types of nets and traps, and speared.

Marketed mainly fresh and consumed locally.



## FAO SPECIES IDENTIFICATION SHEETS

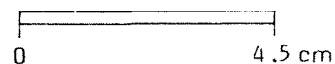
FAMILY: MURAENIDAE

FISHING AREA 51  
(W. Indian Ocean)Thyrsoidea macrura (Bleeker, 1854)OTHER SCIENTIFIC NAMES STILL IN USE: Evenchelys macrurus (Bleeker, 1854)

## VERNACULAR NAMES:

FAO : En - Giant slender moray  
Fr - Murène fil géante  
Sp - Morenilla gigante

NATIONAL:



## DISTINCTIVE CHARACTERS:

Body extremely elongate, compressed for most of its length, especially along tail. Head not obviously distinct from trunk although the profile is moderately steep; mouth very large, extending to well beyond eye; snout relatively short; anterior nostril a very short tube, posterior nostril a simple hole above and before eye; teeth biserial in jaws large, sharp, those of outer row larger; several large, slender, sharp, de resible teeth on intermaxillary (at front of upper jaw); teeth on vomer (roof of mouth) uniserial, smaller. Dorsal fin originating on head before gill opening; pectoral and pelvic fins absent. Scales absent. No obvious lateral line, reduced to two pores above and before gill opening which is a round, midlateral hole or slit. Vertebrae about 216.

Colour: brownish-grey above, lighter below.

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

*Pseudechidna brummeri*: tail only 1.3 times the rest of body, dorsal fin begins nearer tip of snout than to gill opening; colour light brown-yellow with black around head pores and on postorbital area.

### SIZE:

Maximum: 400 cm; common to about 70 cm.

### GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East Africa from Natal to Mozambique, eastward to Madagascar and Réunion, the Indian coast and Sri Lanka. Also widespread but uncommon in the Indo-West Pacific.

A very distinctive elongate moray, typically living in turbid water of estuaries and river mouths, feeding on a variety of small fishes and crustaceans.

### PRESENT FISHING GROUNDS:

No definite fishing grounds.

Caught mainly in shallow water.

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

Separate statistics are not reported for this species.

Caught mainly by various types of nets and traps and by hook and line.

Marketed mainly fresh and consumed locally.

