

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

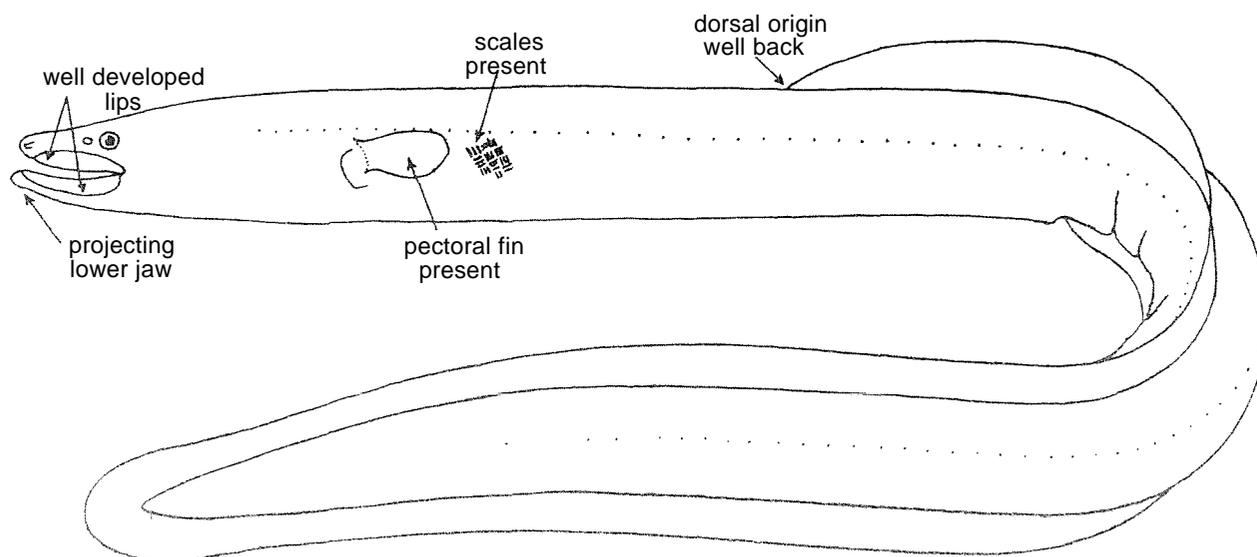
ANGUILLIDAE

Freshwater eels

Body elongate, but never greatly so, cylindrical in front, and only moderately compressed along the tail. Snout rounded, mouth terminal with the lower jaw projecting slightly, and moderately large, but never extending back much beyond eye; teeth always small, conical and multiserial to form narrow to broad bands on jaws and vomer (roof of mouth). Eye relatively small but lips well developed; nostrils separated, the anterior one a sort, free tube, the posterior one a simple aperture in front of eye; branchiostegal rays long but not overlapping ventrally; gill opening a nearly vertical slit in front of pectoral fin. No spines in fins; dorsal and anal fins continuous around tail; dorsal fin begins variously between pectoral fin and anus or over anus; pectoral fins always present; no pelvic fins. Minute, oval scales present, embedded in skin. Lateral line system present but not especially prominent. typically as a series of minute, white pores.

Colour: some species are plain yellowish, brownish or olive to black, lighter or silvery below; other species are variously mottled or variegated; vertical fins with light to dark edging.

Freshwater eels are small- to large-sized fishes (to about 200 cm total length) occurring in most fresh waters of the world except principally those of the western side of the American continent and those bordering the South Atlantic. They are rather secretive during the day but actively forage at night, feeding mainly on a wide range of small bottom-dwelling invertebrates. These eels breed in the open ocean and ocean currents move the young larvae (leptocephali) coastward to where the juveniles invade fresh water. Most of the life is subsequently spent in lakes, streams and rivers but as maturity approaches the adults migrate seaward to spawn. Freshwater eels are an important source of food in many parts of the world and several species are cultured artificially in Asia and Europe and there is some potential for their culture elsewhere.



SIMILAR FAMILIES OCCURRING IN THE AREA:

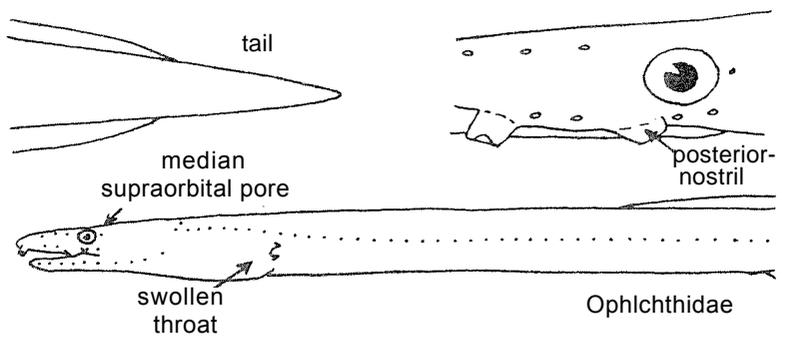
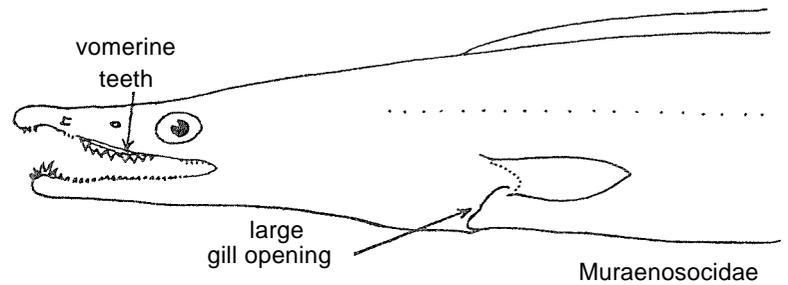
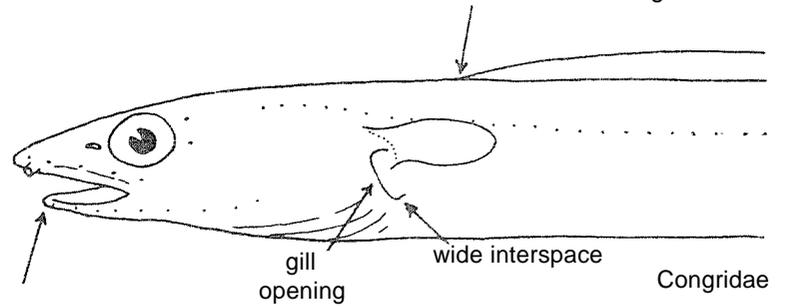
Congridae: no scales (present in Anguillidae); lower jaw equal to, or shorter than upper (projects in Anguillidae); dorsal fin begins above or before pectoral tips (further back in Anguillidae).

Muraenesocidae: no scales; mouth very large, extending to beyond eye (mouth in Anguillidae barely reaches rear margin of eye); vomerine teeth prominent, fang-like (very small in Anguillidae); gill openings nearly meet each other across ventral mid-line.

Ophichthidae: no scales; in most genera no caudal fin but tail tip a hard, burrowing point (caudal fin present in Anguillidae); posterior nostril usually inside mouth or in some way penetrating upper lip (a simple aperture in Anguillidae); throat swollen, supported by many branchiostegal rays overlapping in mid-line; a median supraorbital pore present.

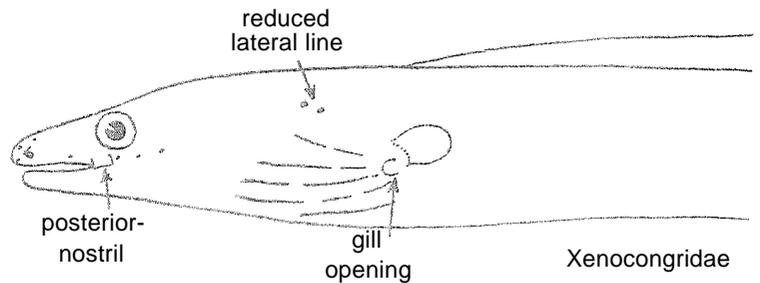
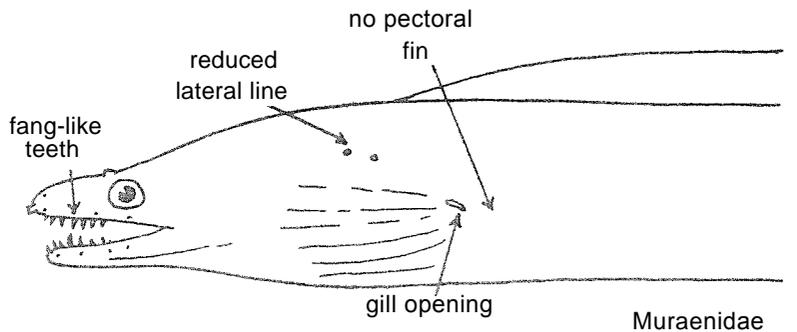
Muraenidae: no scales; no pectoral fins (always present in Anguillidae); gill opening a small hole (a vertical slit in Anguillidae); teeth fang-like or molar-like (small and conical in Anguillidae); typically brightly banded, spotted or mottled.

Xenocoegradae: gill opening a small hole (a vertical slit in Anguillidae); vomerine teeth (on roof of mouth) in two divergent rows (a broad to narrow band in Anguillidae); lateral line system reduced (relatively conspicuous in Anguillidae); posterior nostril low on snout or flange-like; pectoral fins present or absent.



GENERA OCCURRING IN THE AREA:

Anguilla only.



LIST OF SPECIES OCCURRING IN THE AREA:

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

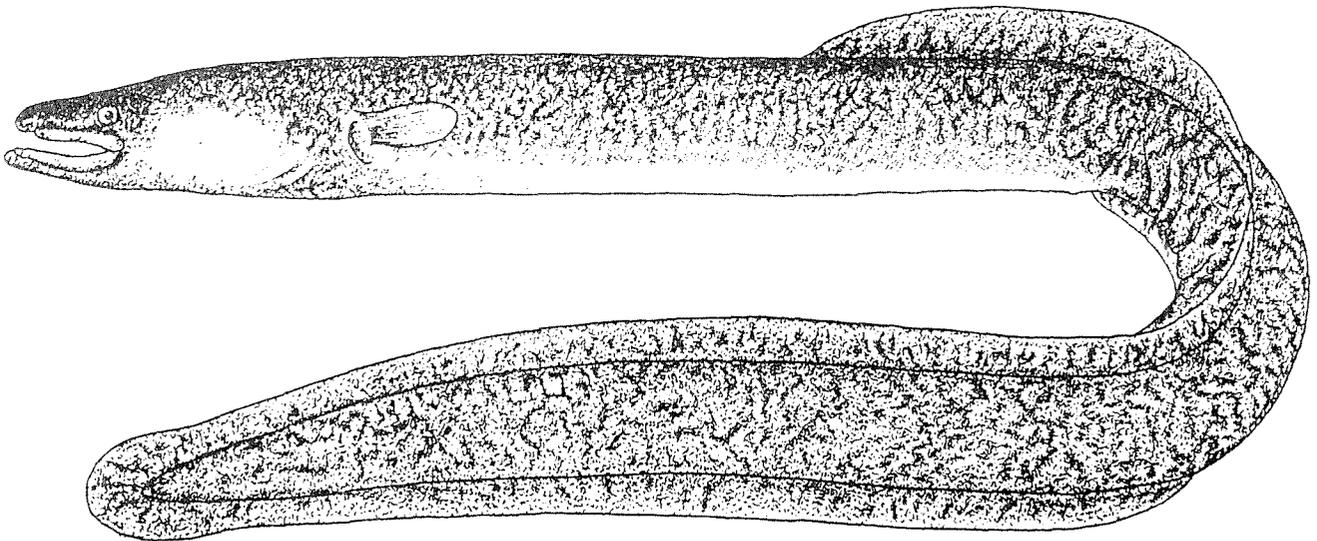
<u>Anguilla bengalensis bengalensis</u> (Gray, 1831)	ANGUIL Anguil 3a
<u>Anguilla bengalensis labiata</u> (Peters, 1852)	ANGUIL Anguil 3b
<u>Anguilla bicolor bicolor</u> McClelland, 1844	ANGUIL Anguil 4
<u>Anguilla marmorata</u> Quoy & Gaimard, 1824	ANGUIL Anguil 5
<u>Anguilla mossambica</u> (Peters, 1852)	ANGUIL Anguil 6

Prepared by P.H.J. Castle, Department of Zoology, Victoria University of Wellington, Wellington, New Zealand

Illustrations provided by author

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ANGUILLIDAE

FISHING AREA 51
(W. Indian Ocean)Anguilla bengalensis bengalensis (Gray, 1831)OTHER SCIENTIFIC NAMES STILL IN USE : Anguilla nebulosa nebulosa McClelland, 1844

VERNACULAR NAMES:

FAO: En - Indian longfin eel
Fr - Anguille indienne
Sp - Anguila Indica

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, cylindrical in front, somewhat compressed along Tail. Head conical, flattened dorsally; anterior nostril a narrow tube on face of snout; upper and lower lips prominent; lower jaw longer than upper, projecting; angle of mouth appreciably behind rear margin of eye; eye relatively small; teeth small, inconspicuous, multiserial, forming relatively narrow bands on the jaws and in an anteriorly broad, but posteriorly narrow band on the vomer (roof of mouth); teeth on upper jaw more or less in 3 longitudinal rows, those in the middle row larger, and the 2 outer rows separated for most of their length from the inner row by a tooth-free groove; vomerine band narrows conspicuously before its mid-length. Dorsal fin origin nearer anus than gill opening; pectoral fins present. Minute elongate-oval scales present all over body, embedded in skin. Vertebrae 106 to 112.

Colour: typically yellowish to olive or brown, mottled with dark brown, lighter below; juveniles not mottled. (Changes in colour and in sizes of eye, mouth, and snout occur as maturity approaches.)

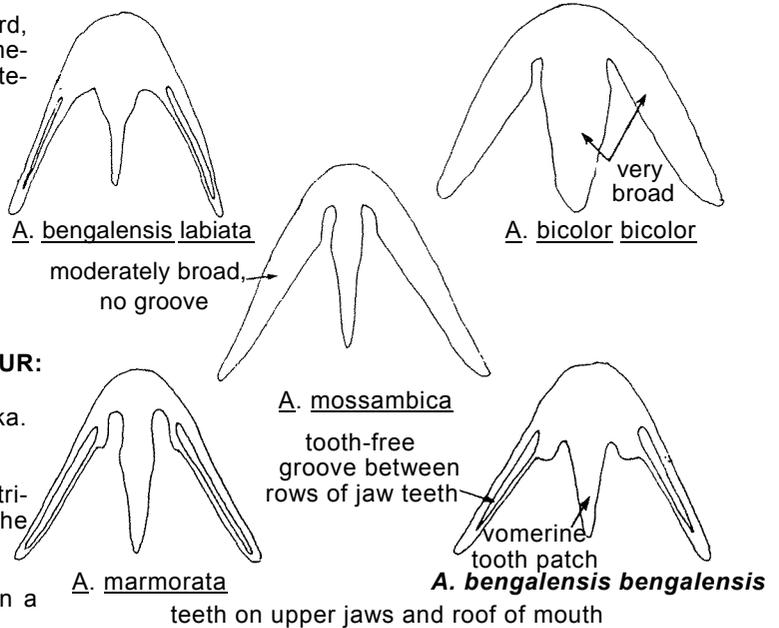
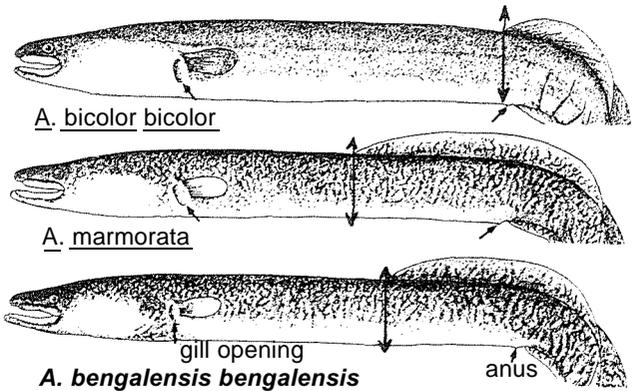
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA

Anguilla bengalensis labiata (restricted to East Africa): slightly more vertebrae (107 to 115, against 106 to 112 in A. bengalensis bengalensis).

A. bicolor bicolor: dorsal begins further back, more or less over anus; plain coloration (although migratory phase may be silver below); bands of teeth on jaws and vomer very broad.

A. mossambica: plain coloration; dorsal fin origin more forward, nearer gill opening than anus; bands of teeth on jaws moderately broad, without a tooth-free groove separating inner row from outer rows; fewer vertebrae (100 to 106).

A. marmorata: dorsal fin origin more forward, nearer gill opening than anus; constriction of vomerine tooth band placed further back; fewer vertebrae (100 to 110).



SIZE:

Maximum: 120 cm; common to about 80 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Pakistan, west coast of India and Sri Lanka. Also east coast of India to Sumatra.

Inhabits freshwaters within its area of distribution although it also occurs in estuaries and in the sea during very early life and near maturity.

Forages actively at night, feeding mainly on a wide range of bottom invertebrates.

PRESENT FISHING GROUNDS:

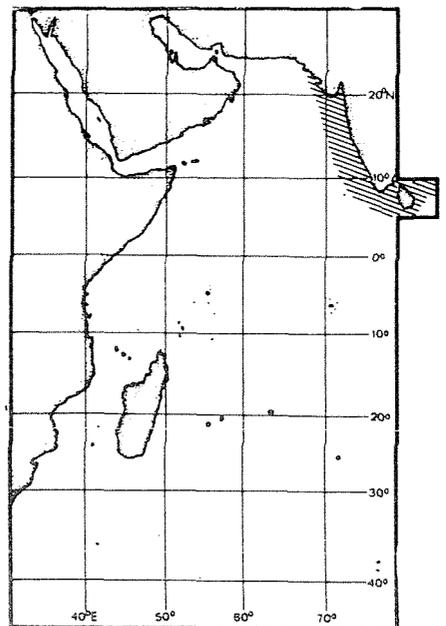
No definite fishing grounds, caught rather infrequently especially in freshwaters throughout its range

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION :

Separate statistics are not reported for this species.

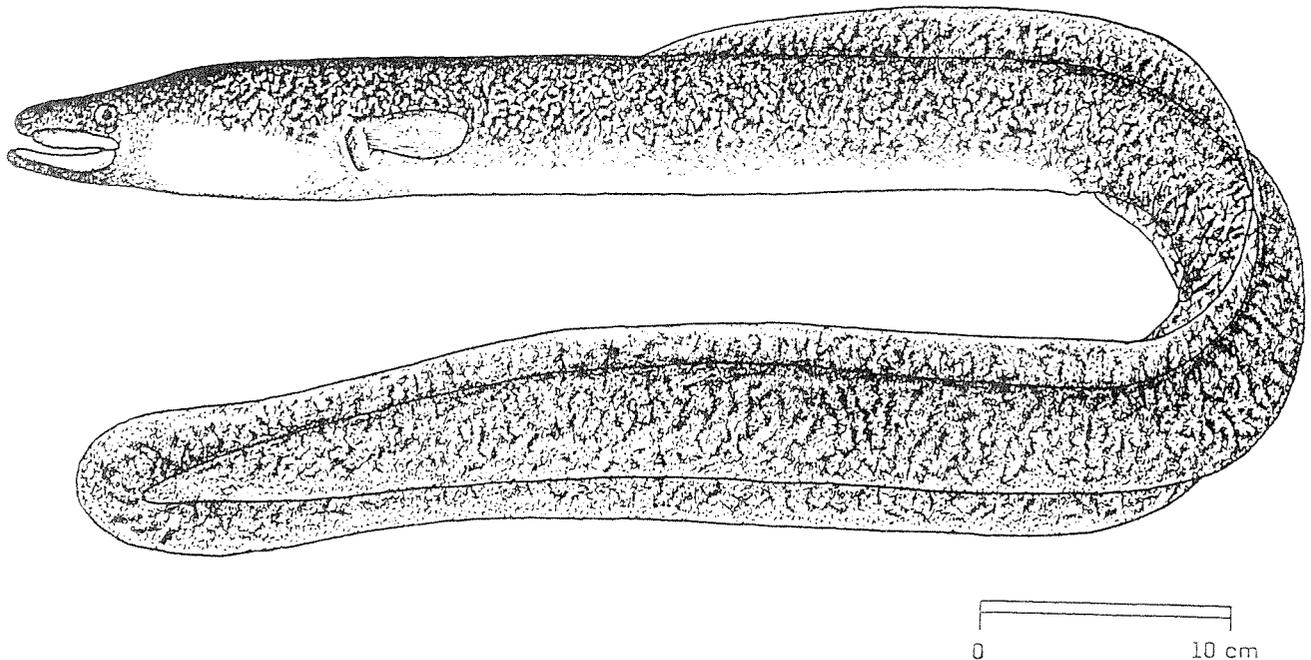
Caught mainly by various types of nets, traps and by hook and line.

Marketed mainly fresh.



FAO SPECIES IDENTIFICATION SHEET

FAMILY: ANGUILLIDAE

FISHING AREA 51
(W. Indian Ocean)*Anguilla bengalensis labiata* Peters, 1852OTHER SCIENTIFIC NAMES STILL IN USE: *anguilla nebulosa labiata*, (Peters, 1852)

VERNACULAR NAMES:

FAO: En - African mottled eel
Fr - Anguille marbrée (d'Afrique)
Sp - Anguila moteada (de Africa)

NATIONAL :

DISTINCTIVE CHARACTERS:

Body elongate, cylindrical in front, somewhat compressed along tail. Head conical, flattened dorsally; for nostril a narrow tube on face of snout; upper and lower lips prominent; lower jaw longer than upper, projecting angle of mouth appreciably behind rear margin of eye; eye relatively small; teeth small, inconspicuous, multiserial forming relatively narrow bands on the jaws and an anterior broad but posteriorly narrow band on the vomer (roof of mouth); teeth on upper jaw more or less in 3 longitudinal rows, those in the middle row larger and the 2 outer rows separated for most of their length from the inner row by a tooth-free groove; vomerine band narrows conspicuously before its mid-length. Dorsal origin nearer anus than gill opening, pectoral fins present. Minute elongate-oval scales present all over body, embedded in skin. Vertebrae 107 to 115.

Colour: typically yellowish to olive or brown, mottled with dark brown, lighter below; juveniles not mottled. (Change in colour and in sizes of eye, mouth and snout occur as maturity approaches.)

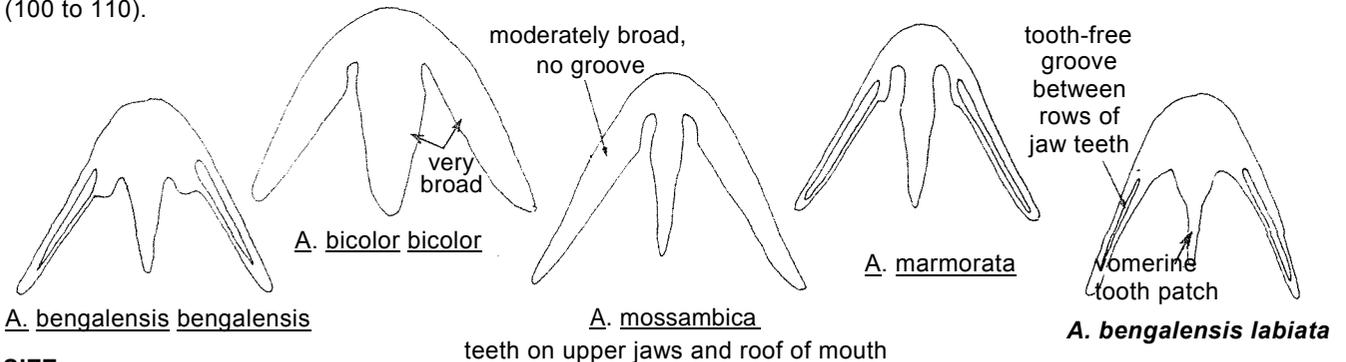
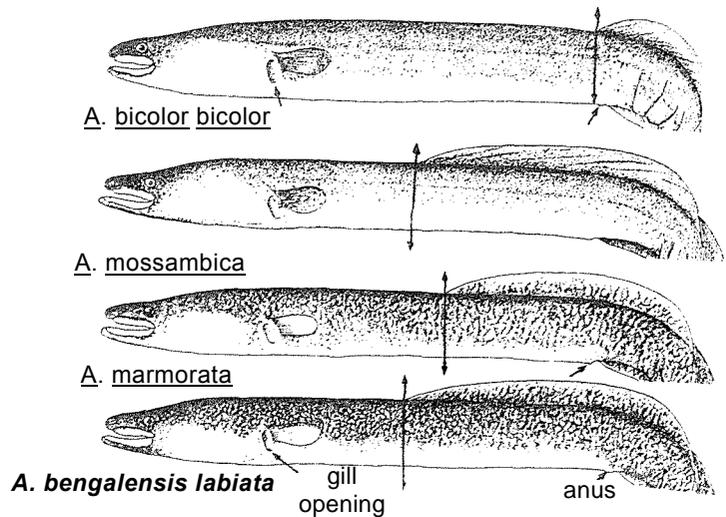
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Anquilla bengalensis bengalensis restricted to eastern part of area, from Pakistan to Sumatra); slightly fewer vertebrae !106 to 112, against 107 to 115 in A. bengalensis labiata).

A. bicolor bicolor: dorsal begins further back, more or less over anus; plain coloration (although migratory phase may be silver below); bands of teeth on jaws and vomer -very broad.

A. mossambica: plain coloration; dorsal fin origin more forward, nearer to gill opening than to anus; bands of teeth on jaws moderately broad, without a tooth-free groove separating inner row from outer rows; fewer vertebrae (100 to 106).

A. marmorata: dorsal fin origin more forward, nearer to gill opening than to anus; constriction of vomerine tooth band further back; fewer vertebrae (100 to 110).



SIZE:

Maximum: 100 cm; common to about 60 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

East Africa from Beira to Kenya.

Inhabits lowland freshwaters within its area of distribution although it also occurs in estuaries and in the sea during very early life and near maturity.

Forages actively at night, feeding mainly on a wide range of bottom invertebrates.

PRESENT FISHING GROUNDS:

No definite fishing grounds; caught rather infrequently especially in lowland freshwaters throughout its range.

CATCHES , FISHING GEAR AND FORMS OF UTILIZATION

Separate statistics are not reported for this species.

Caught mainly by various types of nets, craps and by hook and line

Marketed mainly fresh.

