

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

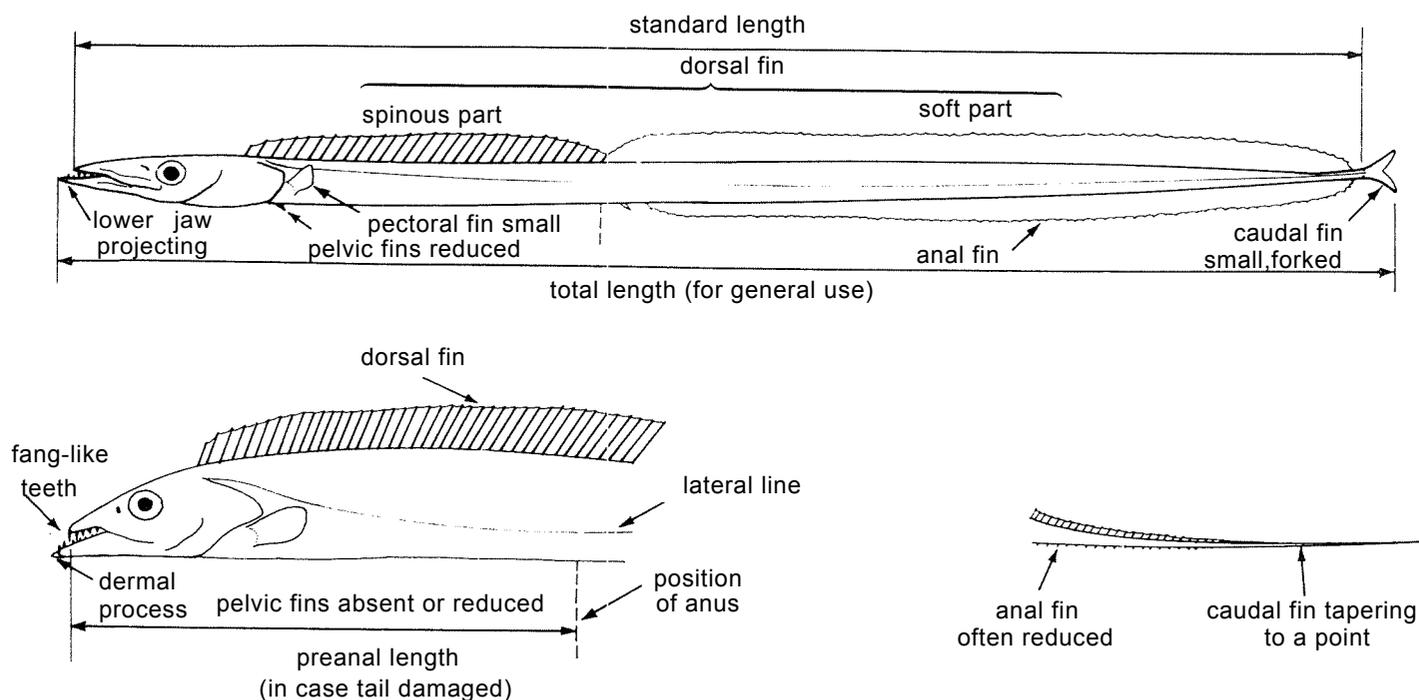
TRICHIURIDAE

Cutlassfishes, hairtailfishes, frostfishes, scabbardfishes

Body extremely elongate, compressed and ribbon-like. Mouth large, usually not protrusible, lower jaw projecting; usually a dermal process at tip of each jaw; strong canine teeth in jaws, those at front of upper jaw fang-like; maxilla concealed by preorbital bone; a single nostril on each side. Dorsal fin low and long, beginning shortly behind eye, its anterior spinous part shorter than the posterior soft portion, the two parts separated by a distinct notch in *Benthodesmus* and *Aphanopus*; anal fin low or reduced to short spinules; pectoral fins short and low on body; pelvic fins reduced to a scale-like spine (plus a rudimentary ray in *Benthodesmus*) or completely absent (in *Trichiurus* and *Lepturacanthus*); caudal fin either small and forked or absent, the body tapering to a point. Lateral line single. Scales absent.

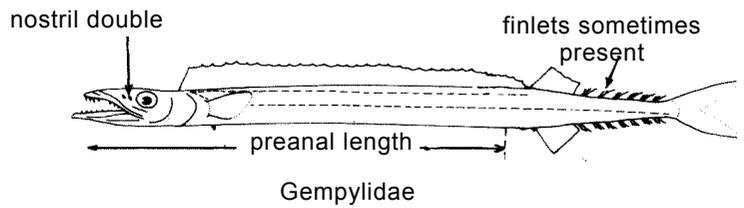
Colour: body generally silvery (but copper-coloured in *Aphanopus carbo*), a little darker on back; usually no distinct marks or blotches on body; dorsal and anal fins sometimes tinged with pale yellow; pectoral fins semi-transparent.

Voracious predators distributed in tropical and temperate seas. They generally inhabit deeper waters over the continental shelf and the slope, but some species (*Eupleurogrammus*, *Lepturacanthus* and *Trichiurus*) are common in shallow coastal waters. *Trichiurus lepturus* forms the object of local fisheries. The catch of Trichiuridae reported from the area in 1981 totalled about 30 000 t. The flesh is edible and tasty, but scanty.



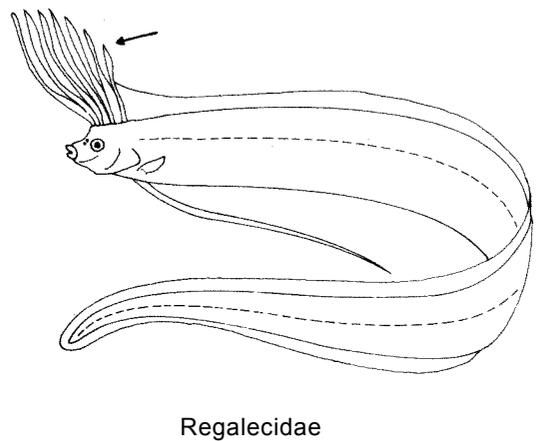
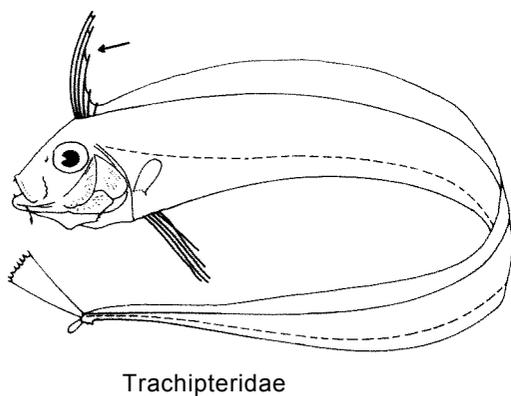
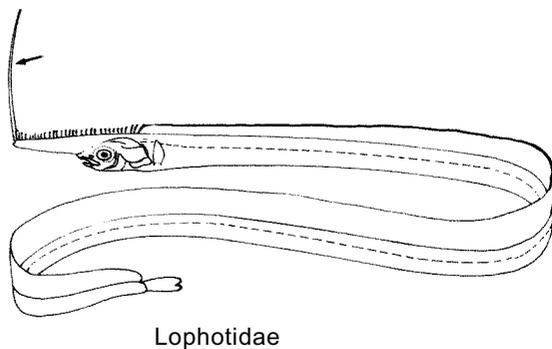
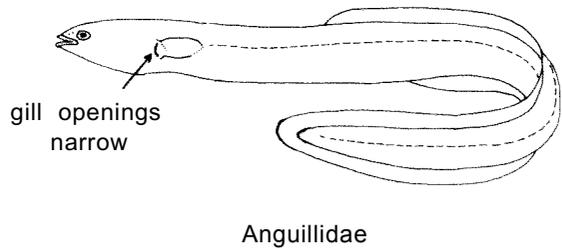
SIMILAR FAMILIES OCCURRING IN THE AREA:

Gempylidae: nostril double; soft (2nd) dorsal fin always distinct from, and shorter than the spinous (1st) dorsal fin; anal fin always well defined; soft rays of 2nd dorsal and anal fins decreasing in height posteriorly and followed by 2 to 7 finlets in most genera; preanal length half or more than half of standard length (less than half in Trichiuridae); minute or deformed scales present.



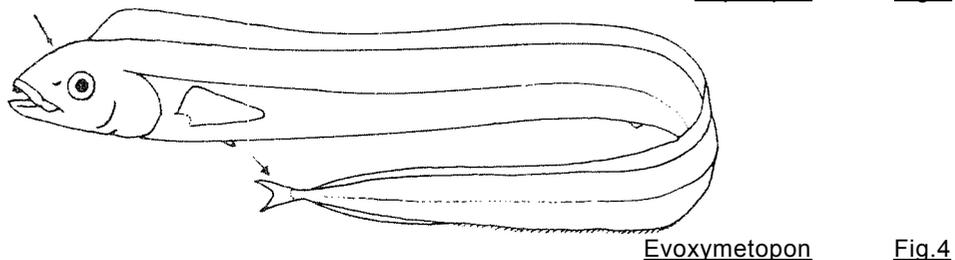
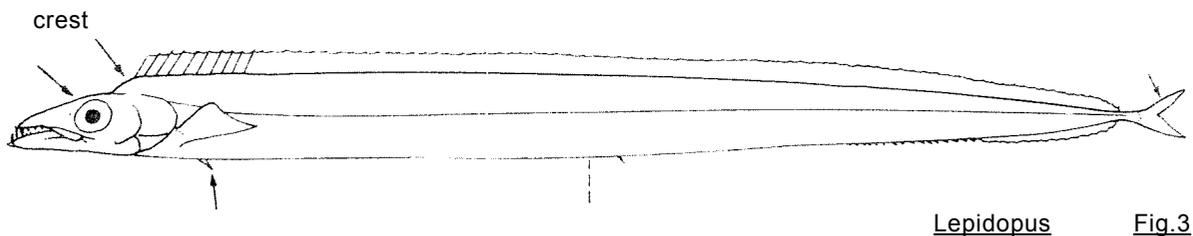
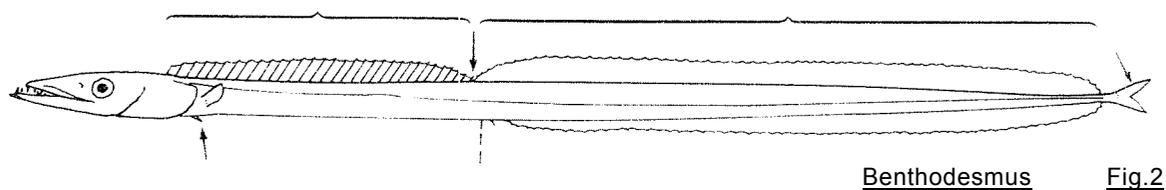
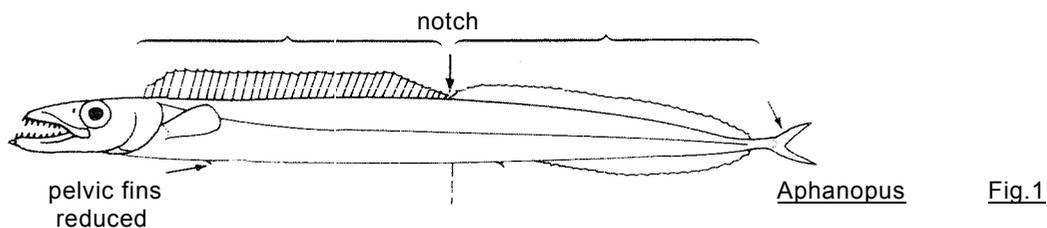
Anguillidae and related (eel-like) fishes: body more cylindrical; caudal fin rounded; no spines in dorsal and anal fins; gill openings narrow.

Trachipteroid fishes (Lophotidae, Regalecidae and Trachipteridae): usually anterior part of dorsal fin variously elongate, each dorsal fin ray with a lateral spine at its base; anal fin short or absent; pelvic fin rays 0 to 10.

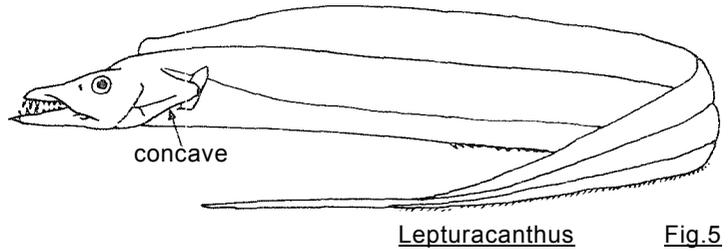


KEY TO SPECIES OCCURRING IN THE AREA:

- 1a. Caudal fin present, small and forked; pelvic fins present but strongly reduced or modified to a scale-like process (Figs 1. to 4, Subfamily Lepidopinae)
 - 2a. Head profile rising very gently from snout tip to dorsal fin origin; a notch between spinous and soft parts of dorsal fin (Figs 1 and 2)
 - 3a. Spinous part of dorsal fin slightly shorter than soft part (Fig.1); dorsal fin elements 91 to 95 Aphanopus
 - 3b. Spinous part of dorsal fin half as long as soft part (Fig.2); dorsal fin elements more than 100 Benthodesmus
 - 2b. Head profile with a prominent crest from snout tip to dorsal fin origin; no notch between spinous and soft parts of dorsal fin (Figs 3 and 4)
 - 4a. Dorsal rays about 100; eye close to dorsal profile (Fig.3) Lepidopus
 - 4b. Dorsal rays about 90; eye not. close to dorsal profile (Fig.4) Evoxymetopon

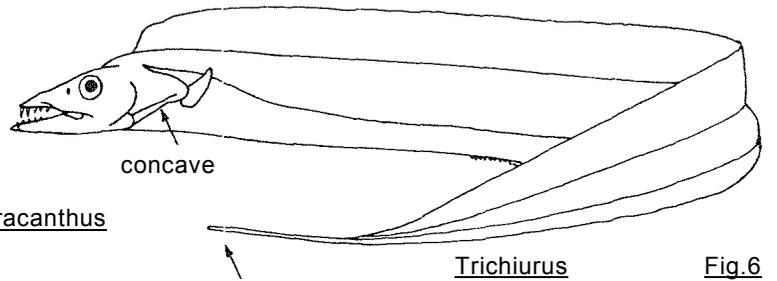


1b. Caudal fin absent, body tapering to a point (Figs 5 to 8) ; pelvic fins absent or modified to scale-like process (Subfamily Trichiurinae)

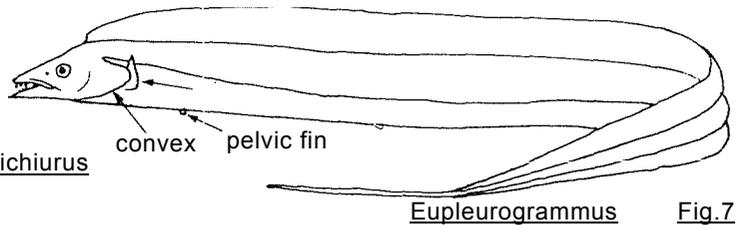


5a. Pelvic fins absent; lower hind margin of gill cover concave (Figs 5 and 6)

6a. First anal spine large, half of eye diameter, soft anal rays pungent, spinules, breaking ventral skin; 2 small, forward directed canine teeth in upper jaw, a small slit present on ventral side of lower jaw for receiving anteriormost fang of upper jaw (Fig.5) *Lepturacanthus*

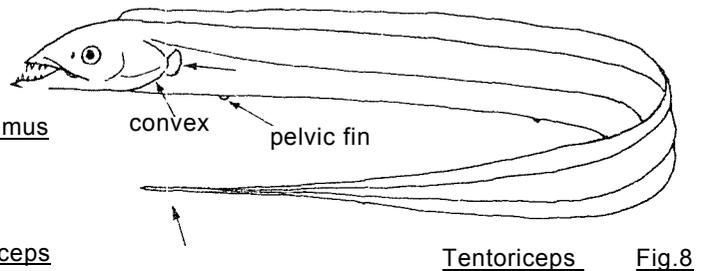


6b. First anal spine small, shorter than diameter of pupil; soft anal rays slightly breaking through skin in small specimens (not breaking through skin in larger specimens); no forward directed canine teeth in upper jaw, no slit on ventral side of lower jaw (Fig.6) *Trichiurus*



5b. Pelvic fins scale-like; lower hind margin of gill cover convex (Figs 7 and 8)

7a. Pectoral fins long, extending above lateral line (Fig.7) *Eupleurogrammus*



7b. Pectoral fins short, not reaching to lateral line (Fig.8) *Tentoriceps*

LIST OF SPECIES OCCURRING IN THE AREA:

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

Aphanopus Garbo Lowe, 1839

Benthodesmus elongatus (Clarke, 1879)

Benthodesmus tenuis (Günther, 1877)

Eupleurogrammus glossodon (Bleeker, 1860)

Eupleurogrammus muticus (Gray, 1831)

Evoxymetopon taeniatus (Poey, 1863)

TRICH Eupl 1

TRICH Eupl 2

FAO Sheets

TRICHIURIDAE

Fishing Area 51

Lepidopus caudatus (Euphrasen, 1788)

Lepturacanthus pantului (Gupta, 1966)

Lepturacanthus savala (Cuvier, 1829)

Tentoriceps cristatus (Klunzinger, 1844)

Trichiurus auriga Klunzinger, 1884

Trichiurus gangeticus Gupta, 1966

Trichiurus lepturus Linnaeus, 1758

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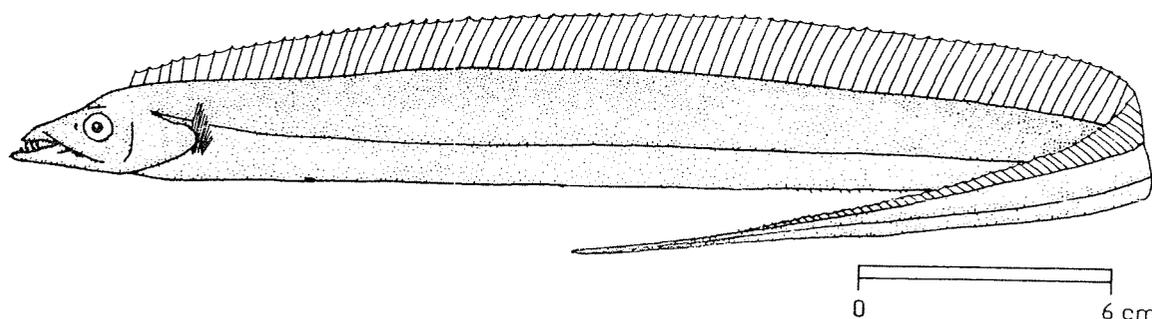
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FAO SPECIES IDENTIFICATION SHEETS

FAMILY : TRICHIURIDAE

FISHING AREA 51
(W. Indian Ocean)Eupleurogrammus glossodon (Bleeker, 1860)

OTHER SCIENTIFIC NAMES STILL IN USE: Trichiurus glossodon Bleeker, 1860
Eupleurogrammus intermedius (Gray, 1831)
Trichiurus intermedius Gray, 1831



VERNACULAR NAMES:

FAO : En - Longtooth hairtail
 Fr - Poisson sabre dentu
 Sp - Pez sable dentón

NATIONAL :

DISTINCTIVE CHARACTERS:

Body extremely elongate and strongly compressed, ribbon-like, tapering to a point. Mouth large with a dermal flap on tip of each jaw; 2 or 3 fangs (usually without barbs in upper jaw, a pair of fangs at tip of lower jaw, a single series of sharp compressed lateral teeth in both jaws; eye small, its diameter contained about 7 or 8 times in head length, located close to dorsal profile of head; lower hind margin of gill cover convex. A single, long-based dorsal fin with 3 spines and about 125 soft rays; anal fin reduced to minute spinules buried in skin, originating beneath 32nd or 33rd dorsal fin ray; pectoral fins slightly shorter than snout, with 1 spine and 13 soft rays; pelvic fins present but reduced to a small scale-like process; caudal fin absent. Lateral line running almost straight along midbody, slightly nearer to ventral contour. Anus elongate and fairly large.

Colour: in fresh specimens, body steely blue with metallic reflections, becoming silvery grey after death. Dorsal fin membrane slightly tinged with black along spines, dorsal side of posterior part of fin slightly tinged with black; dermal flaps at tip of each jaw black; a black spot present just behind dermal flap of ventral side of lower jaw.

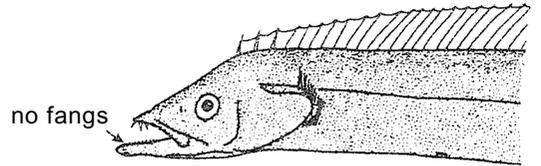
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Eupleurogrammus muticus: no fangs at tip of lower jaw; eye not near head contour; dorsal fin membrane pale, both dorsal and ventral sides of its posterior part black, no black spot behind dermal flap of lower jaw.

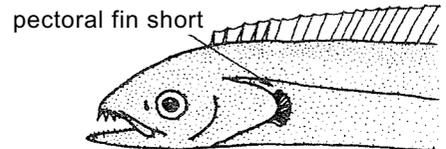
Tentoriceps cristatus: pectoral fin short, not reaching to lateral line and anal fin originating below 47th to 50th dorsal ray (originating beneath 32nd or 33rd dorsal ray in E. glossodon).

Other species of Trichiurinae: pelvic fins absent;; lower hind margin of gill cover concave.

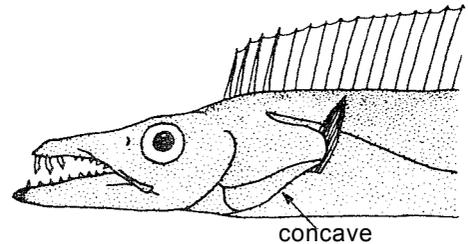
Species of Lepidopinae: caudal fin present, small and forked.



E. muticus



Tentoriceps cristatus



Other species of Trichiurinae

SIZE:

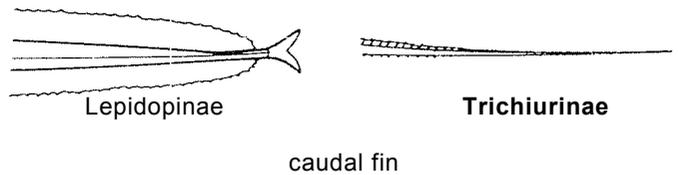
Maximum: 50 cm standard length; common to 40 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, found in the "Gulf" and off India and Sri Lanka. Elsewhere, from India to Malaysia and Indonesia.

Benthopelagic, living in coastal waters down to about 80 m depth; often comes near the surface at night.

Feeds on crustaceans, squids and fishes, (*Atherina forskali*, *Eupleurogrammus glossodon*, species of *Stolephorus*, *Escualosa*, *Sardinnella*, *Leiognathus*, *Dussumeria*, *Thryssa*, *Sphyraena*, *Hemirhamphus*, etc., in Palk Bay).



PRESENT FISHING GROUNDS:

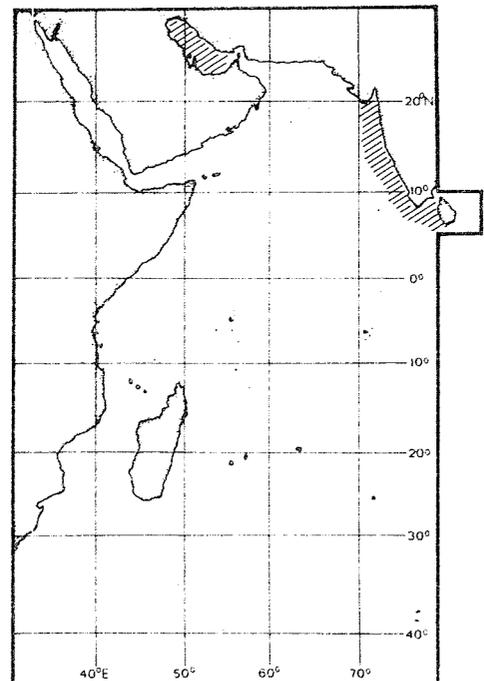
Coastal waters down to about 50 m depth in West Bengal to Madras, Palk Bay and Gulf of Mannar.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

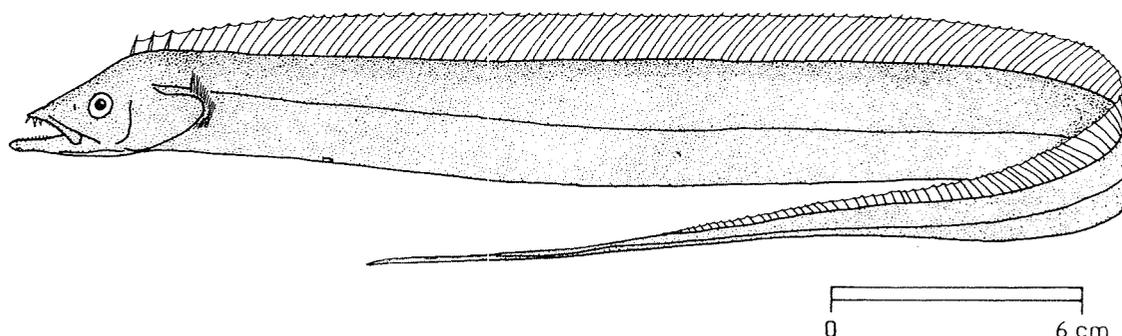
Caught mainly with shore seines, bagnets and coastal bottom trawls.

Marketed mostly dried, mixed with other trichiurids, also salted or fresh.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: TRICHIURIDAE

FISHING AREA 51
(W. Indian Ocean)Eupleurogrammus muticus (Gray, 1831)OTHER SCIENTIFIC NAMES STILL IN USE: Trichiurus muticus Gray 1831

VERNACULAR NAMES:

FAO : En - Smallhead hairtail
 Fr - Poisson sabre asbas
 Sp - Pez sable asbas

NATIONAL:

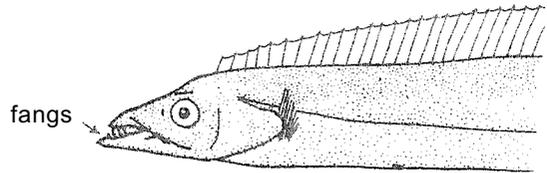
DISTINCTIVE CHARACTERS:

Body extremely elongate and strongly compressed, ribbon-like tapering to a point. Mouth large with a dermal flap at tip of each jaw; 2 or 3 mostly 3 fangs usually without barbs in upper jaw, no fangs at tip of lower jaw, a single series of sharp compressed lateral teeth in both jaws; eye small, its diameter contained 6 to 8 times in head length, located far from dorsal profile of head; lower hind margin of gill cover convex. A single, long-based dorsal fin with 3 spines and about 140 soft rays; anal fin reduced to minute spinules buried in skin originating beneath 41st to 43rd dorsal fin ray; pectoral fins about as large as snout, with 1 spine and 12 soft rays; pelvic fins present, but reduced to a small scale-like process; caudal fin absent. Lateral line running almost straight along midbody. Anus small.

Colour: in fresh specimens, body steely blue with metallic reflections, becoming silvery grey after death. Dorsal fin membrane semi-transparent, both dorsal and ventral sides of posterior part of fin black; dermal flap of upper jaw black, dermal flap of lower jaw black above and grey below.

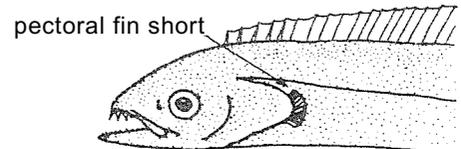
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Eupleurogrammus glossodon: a pair of fangs at tip of lower jaw; eye close to dorsal profile of head; dorsal fins membrane slightly tinged with black along spines, dorsal side of its posterior part slightly black; a black spot present just behind dermal flap of ventral side of lower jaw.



E. glossodon

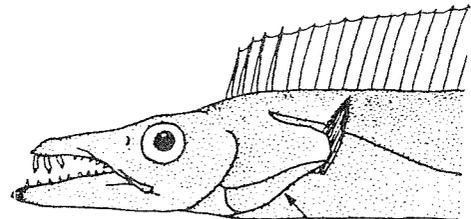
Tentoriceps cristatus: pectoral fin short, not reaching to lateral line and anal fin originating below 47th to 50th dorsal ray (below 41st to 43rd in E. muticus).



Tentoriceps cristatus

Other species of Trichiurinae: pelvic fins absent; lower hind margin of gill cover concave.

Species of Lepidopinae: caudal fin present, small and forked.



concave
other species of Trichiurinae

SIZE:

Maximum: 70 cm standard length; common to 50 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, found in the "Gulf" and off India and Sri Lanka. Elsewhere, extending eastward to Indonesia and China.



Lepidopinae

caudal fin

Trichiurinae

Benthopelagic, living in coastal waters down to about 80 m depth; often comes near the surface at night.

Feeds on a wide varieties of small fishes and crustaceans.

PRESENT FISHING GROUNDS:

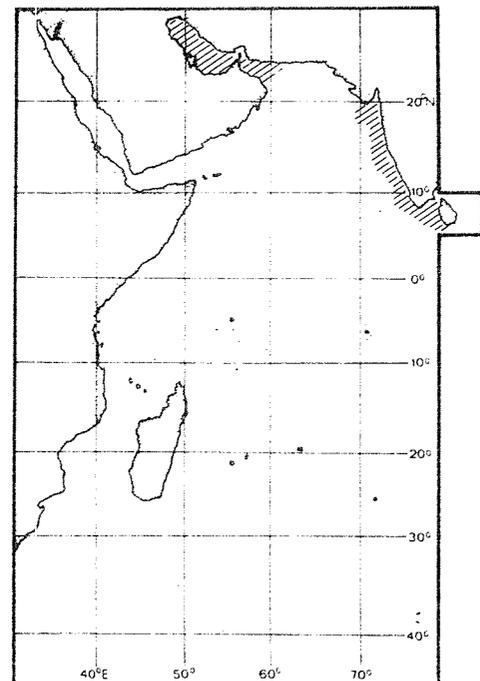
Coastal waters down to about 50 m depth in West Bengal to Madras, off the east coast of India, and around Bombay, off the west coast of India.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION :

Separate statistics are not reported for this species.

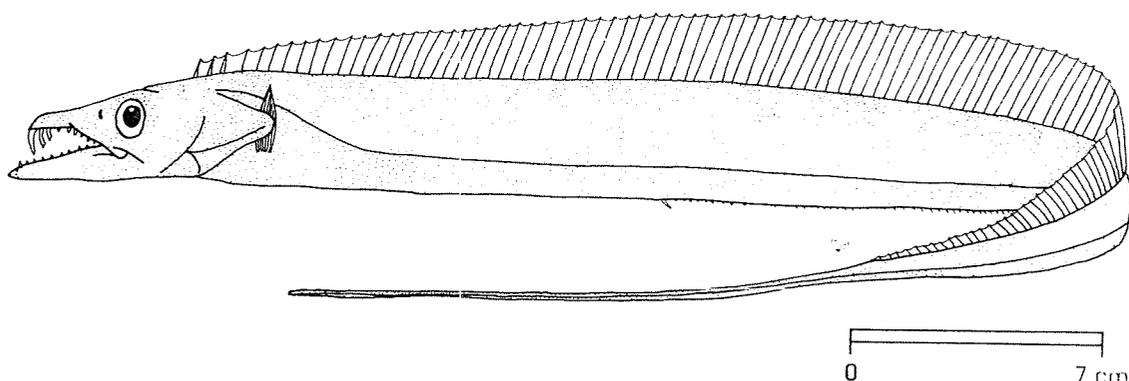
Caught mainly with shore seines, bagnets and coast al bottom trawls.

Marketed mostly dried and salted, mixed with other trichiurids, sometimes fresh.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY : TRICHIURIDAE

FISHING AREA 51
(W. Indian Ocean)Lepturacanthus pantului (Gupta, 1966)OTHER SCIENTIFIC NAMES STILL IN USE : Trichiurus pantului Gupta, 1966

VERNACULAR NAMES:

FAO : En - Coromandel hairtail
 Fr - Poisson sabre becune
 Sp - Pez sable coromandélico

NATIONAL:

DISTINCTIVE CHARACTERS:

Body extremely elongate and strongly compressed, ribbon-like, gradually tapering to a point. Snout short, contained about 3 times in head length; mouth large with a dermal flap at tip of each jaw; 3 (sometimes 4) fangs with barbs and 2 smaller forward directed canine teeth resert in upper jaw, anteriormost fan very long, coming out through a small slit on ventral side of lower jaw (when mouth is tightly closed); a pair of fangs (usually without barbs) present at tip of lower jaw; eye large, its diameter contained about 5 to 7 times in head length, suborbital space about half as large as eye; lower hind margin of gill cover concave. A single, long-based, dorsal fin with 3 spines and 120 to 131 soft rays; anal fin reduced to small spinules (74 to 84), breaking through skin, the anteriormost fairly long; pectoral fins slightly shorter than snout, with 1 spine and 10 or 11 soft rays. Anal fin origin situated beneath 36th to 40th dorsal fin ray; pelvic and caudal fins absent. Lateral line nearer to ventral than to dorsal profile of body.

Colour: in fresh specimens, body steely blue with metallic reflections becoming silvery grey after death. Tapering part black, margin of anus black, usually margin of dorsal fin membrane sooty; tip of both jaws black; a very small black spot present on anterior base of pectoral fin; inside of opercle and anterior part of shoulder girdle, jet black.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Lepturacanthus savala: snout contained 2 to 2.5 times in head length (3 times in L. pantului); eye small, its diameter contained 7 to 9 times in head length (5 to 7 times in L. pantului); suborbital space slightly smaller than eye; no black spot on anterior base of pectoral fin, inside of opercle and anterior part of shoulder girdle pale black, margin of anus pale, tapering part white.

Trichiurus species: first anal fin spine small, shorter than diameter of pupil; no small teeth directly forward in upper jaw and no slit on ventral side of lower jaw.

Other species of Trichiurinae (Eupleurogrammus, Tentoriceps): pelvic fins present, as small, scale-like processes; lower hind margin of gill cover convex; no slit on ventral side of lower jaw.

Species of Lepidopinae: caudal fin present, small and forked.

SIZE:

Maximum: 92 cm standard length; common to 50 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, found only in the Gulf of Mannar (southeast India), elsewhere extending along the east coast of India to the Hoogly estuary (Calcutta). Not known from anywhere else.

Benthopelagic or pelagic, living in estuaries and coastal waters down to about 80 m depth.

Feeds on a wide variety of small fishes and crustaceans (chiefly on prawns, young clupeoids, Harpodon nehereus and Trichiurus species in Hooghly estuaries).

PRESENT FISHING GROUNDS:

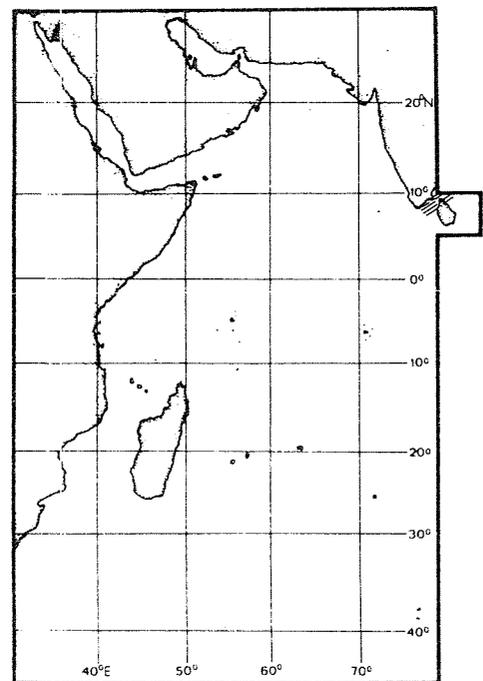
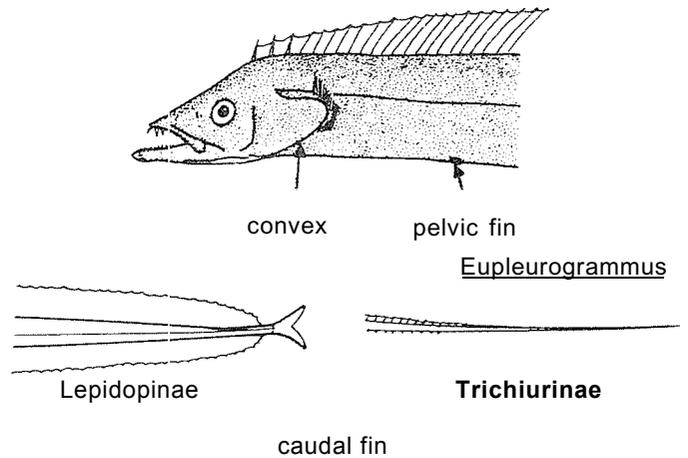
Coastal waters throughout its range.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

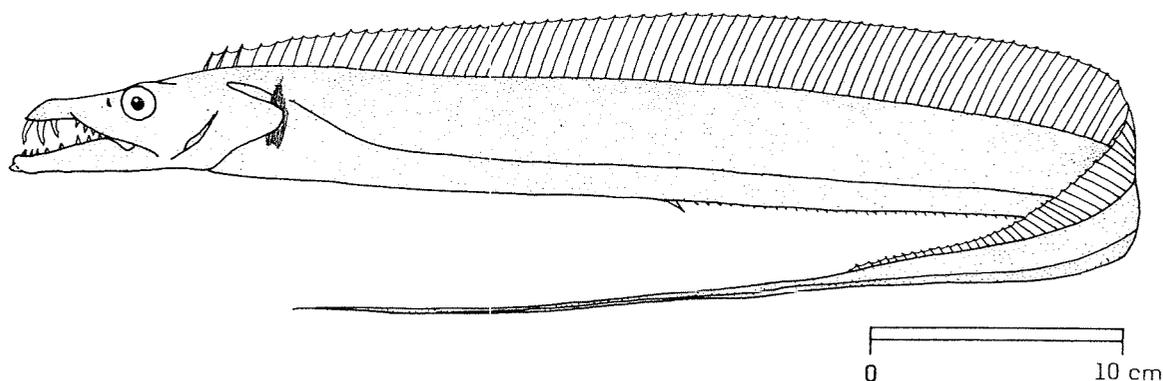
Caught mainly with bagnets in estuaries, with seines in inshore waters, and with trawls in offshore waters.

Marketed fresh as well as dried salted.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: TRICHIURIDAE

FISHING AREA 51
(W. Indian Ocean)Lepturacanthus savala (Cuvier, 1829)OTHER SCIENTIFIC NAMES STILL IN USE: Trichiurus savala Cuvier, 1829

VERNACULAR NAMES:

FAO: En - Savalai hairtail
Fr - Poisson sabre savalai
Sp - Pez sable savalai

NATIONAL :

DISTINCTIVE CHARACTERS:

Body extremely elongate and strongly compressed, ribbon-like, tapering to a point (caudal tapering part very long). Snout long, contained 2 to 2.5 times in head length; mouth very large with a dermal flap at tip of each jaw; 2 or 3 (mostly 3) fangs with barbs and 2 small forward directed canine teeth present in upper jaw, anteriormost fang very long, coming out through a small slit on ventral side of lower jaw (when mouth is tightly closed); a pair of fangs (usually without barbs) present at tip of lower jaw; eye small, its diameter contained about 7 to 9 times in head length and slightly longer than suborbital space; lower hind margin of gill cover concave. A single, long-based, dorsal fin with 3 or 4 spines and 110 to 120 soft rays; anal fin reduced to small spinules (about 75) breaking through skin, the anteriormost fairly long, its origin situated beneath 36th to 39th dorsal fin ray; pectoral fins slightly shorter than snout, with 1 spine and 10 soft ray; pelvic and caudal fins absent. Lateral line nearer to ventral contour than to dorsal contour of body.

Colour: in fresh specimens, body steely blue, with metallic reflections; tapering part white. Margin of anus pale; usually margin of dorsal fin membrane white; tip of both jaws black; inside of opercle and anterior part of shoulder girdle, pale black.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Lepturacanthus pantului: snout contained about 3 times in head length (2 to 2.5 times in L. savala); eye large, its diameter contained, 5 to 7 times in head length (7 to 9 times in L. savala), suborbital space about half as large as eye; a very small black spot present on anterior base of pectoral fin, inside of opercle and anterior part of shoulder girdle jet black, margin of anus black, tapering part black.

Trichiurus species: first anal fin spine small, shorter than diameter of pupil; no small, forward directed teeth in upper jaw and no slit on ventral side of lower jaw.

Other species of Trichiurinae (Eupleurogrammus, Tentoriceps): pelvic fins present as small scale-like processes; lower hind margin of gill cover convex; no slit on ventral side of lower jaw.

Species of Lepidopinae: caudal fin present, small and forked.

SIZE:

Maximum: 100 cm standard length; common to 70 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

In the area, common along the west coast of India and Sri Lanka. Elsewhere, from India to Malaysia, Singapore, Indonesia, New Guinea, northern Australia, the Philippines, Thailand and China.

Benthopelagic, living in coastal waters down to about 100 m depth; often comes near surface at night

Feeds on a wide variety of small fishes and crustaceans (chiefly on prawns and species of Setipinna, Anchoviella, Trichiurus and on Harpodon nehereus, in Hooghly estuaries).

PRESENT FISHING GROUNDS:

Coastal waters to about 50 m depth in almost all coastal areas in India and Sri Lanka.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with shore seines, bagnets and bottom trawls.

Marketed fresh as well as dried salted.

