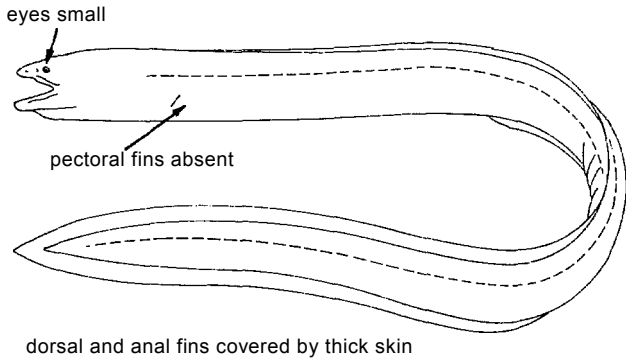


BONY FISHES
GUIDE TO FAMILIES

HETERENCHELYIDAE

Heterenchelids

To about 150 cm; in marine coastal waters and estuaries; benthic; burrowing in mud or sand.



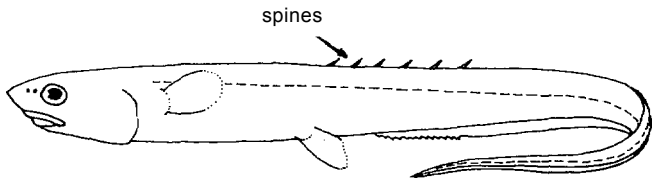
SPINY EELS - Notacanthiformes

Body very elongate; snout projecting; either a series of spines along back, or a single short-based and soft-rayed dorsal fin; anal fin long.

NOTACANTHIDAE

Spiny eels

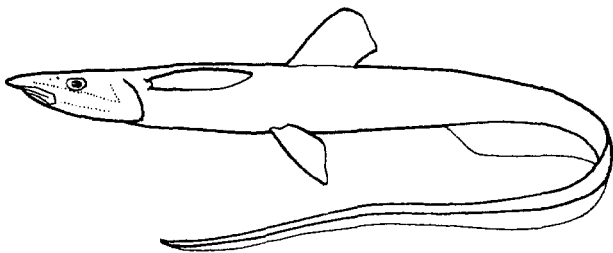
To 45 cm; marine, from coastal waters to below 800 m depth; benthic.



HALOSAURIDAE

Halosaurs

To about 55 cm, marine, from about 400 to below 3000 m depth; benthic.



CATFISHES - Siluriformes

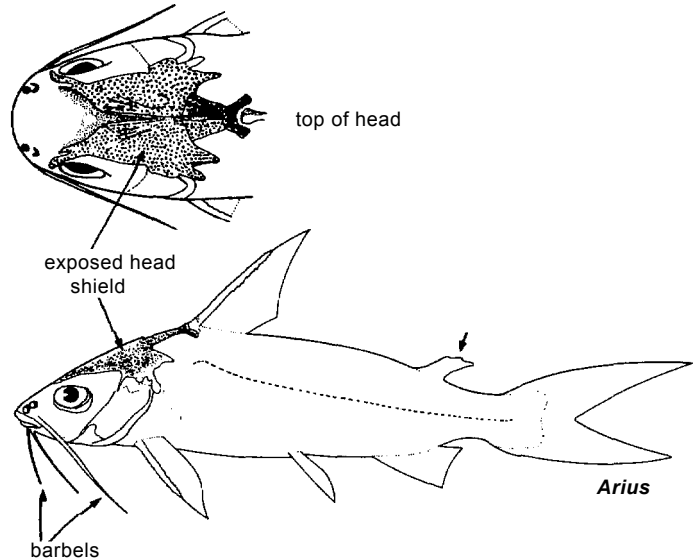
Barbels present around mouth; a strong spine usually present at front of dorsal and pectoral fins; an adipose fin often present; scales absent, but a bony head shield often present.

ARIIDAE

Sea catfishes

page 40

To over 120 cm; in coastal marine waters, estuaries and freshwaters; benthic.



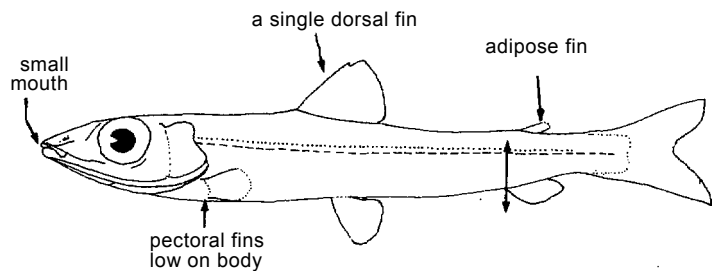
ARGENTINES AND ALLIES - Salmoniformes

A diverse assemblage of families characterized by the inclusion of the maxilla in the gape of mouth; fin spines absent; adipose fin often present.

ARGENTINIDAE

Argentines

To about 30 cm; marine, from 80 to about 400 m depth; benthopelagic and pelagic. A single species present in the area.

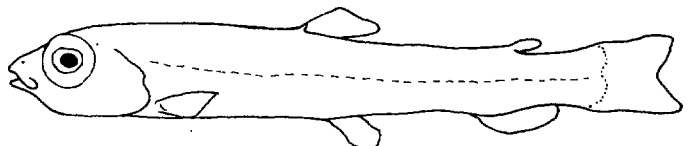


Glossanodon polli

BATHYLAGIDAE

Deep-sea smelts

To about 20 cm; marine, from the surface to below 2000 m depth; epipelagic to mesopelagic and bathypelagic.

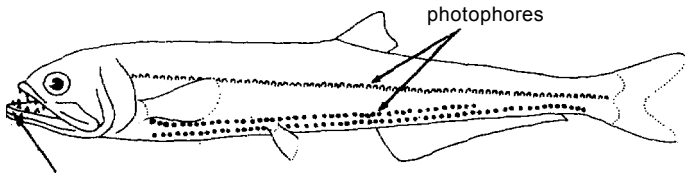


BONY FISHES
GUIDE TO FAMILIES

GONOSTOMATIDAE

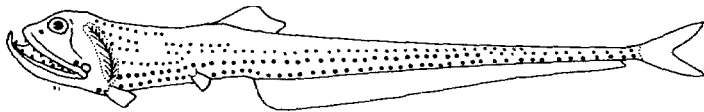
Bristlemouths

To about 25 cm; mostly in deep water (usually below 200 m), but some species coming up to about 50 m at night; mesopelagic to bathypelagic.

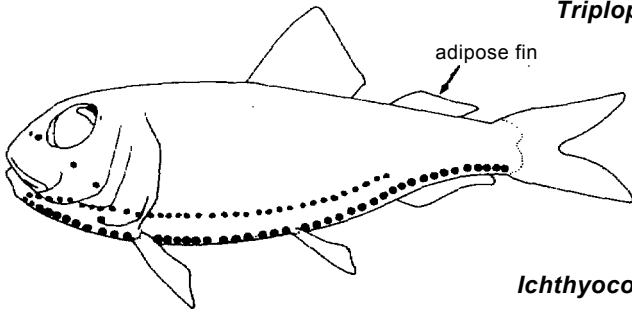


mouth large

Diplophos



Triplophos

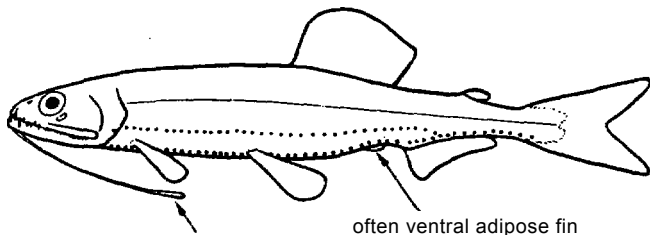


Ichthyococcus

ASTRONESTHIDAE

Snaggleteeths

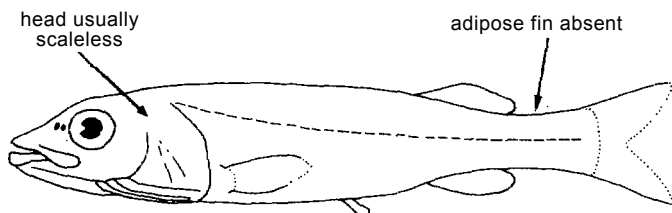
To about 20 cm; marine, from about 150 to below 2000 m depth; mesopelagic.



ALEPOCEPHALIDAE

Slickheads

To about 55 cm; oceanic waters, most species below 1000 m depth; benthopelagic to pelagic.



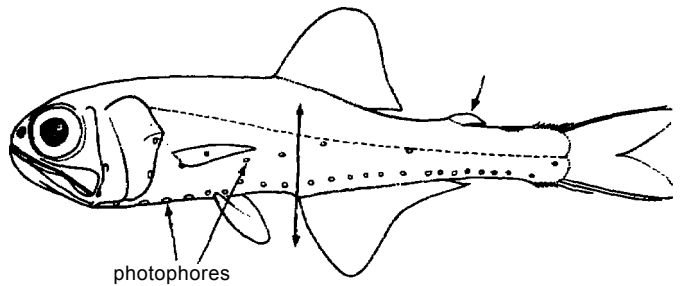
LANTERNFISHES AND ALOES - Myctophiformes

Fin-spines absent; adipose fin present; light organs (photophores) sometimes present.

MYCTOPHIDAE

Lanternfishes

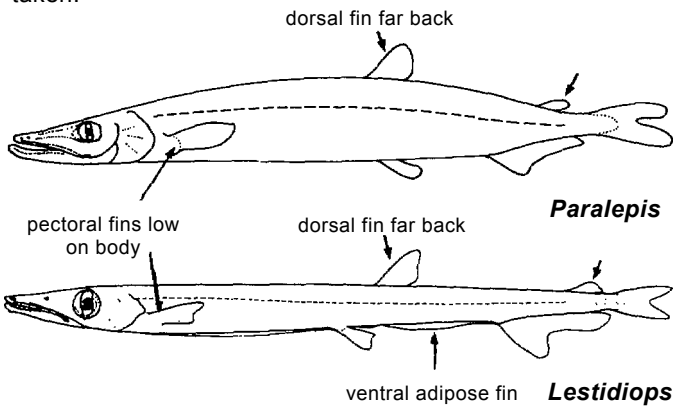
To 30 cm, but most species less than 10 cm; from the surface (at night) to below 2000 m depth; mesopelagic to bathypelagic. Many genera and species, mainly of potential interest.



PARALEPIDIDAE

Barracudinas

To 50 cm; marine, from the surface to below 800 m; mesopelagic to bathypelagic. Many species occasionally taken.

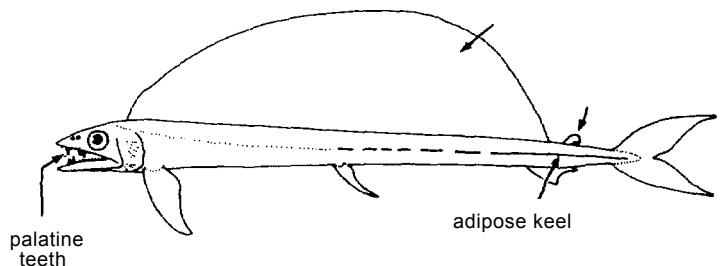


Several other genera occur in the area.

ALEPISAUROIDAE

Lancetfishes

To over 200 cm; marine, from about 40 m (mainly at night) to great depths; pelagic. Two species occasionally taken in offshore waters.

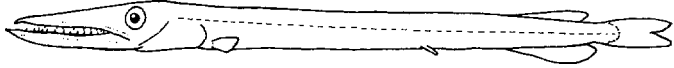


BONY FISHES
GUIDE TO FAMILIES

ANOPTERIDAE

Dagger tooth

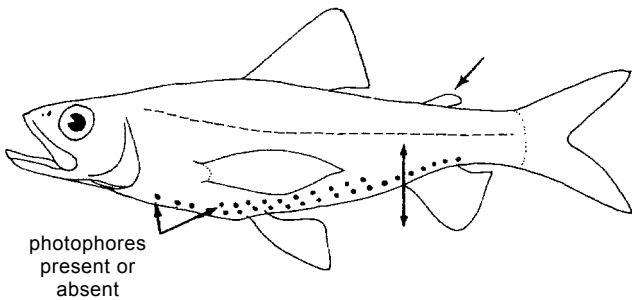
To at least 45 cm; marine, pelagic. A single species in the area.



NEOSCOPELIDAE

Neoscopelids

To about 30 cm; marine, from the surface to below 500 m depth; pelagic or benthopelagic.



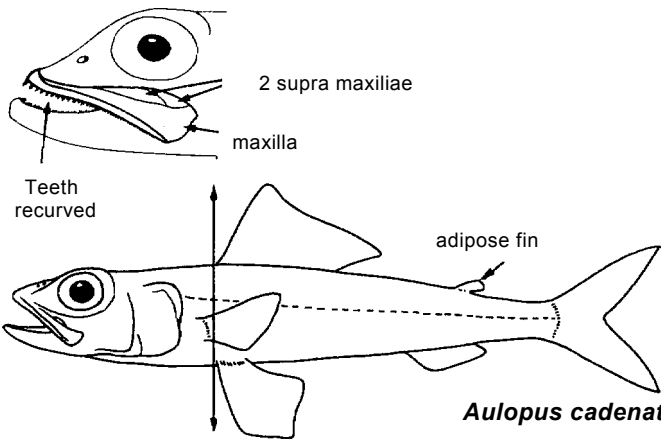
photophores present or absent

AULOPODIDAE

Flagfishes

page 42

To 45 cm; marine; from about 75 to at least 300 m depth; benthic. A single species in the area.



2 supra maxillae

maxilla

Teeth recurved

adipose fin

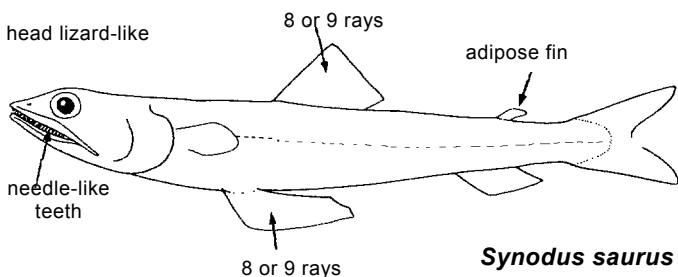
Aulopus cadenati

SYNODONTIDAE

Lizardfishes

page 120

To 55 cm; marine, from shallow waters to below 500 m depth; benthic.



head lizard-like

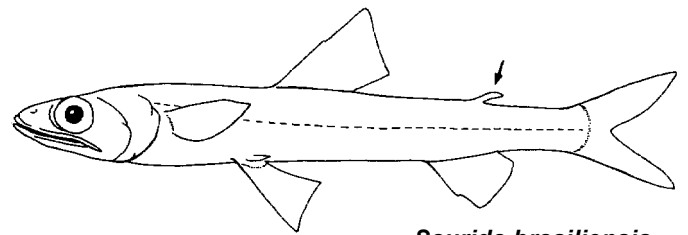
8 or 9 rays

adipose fin

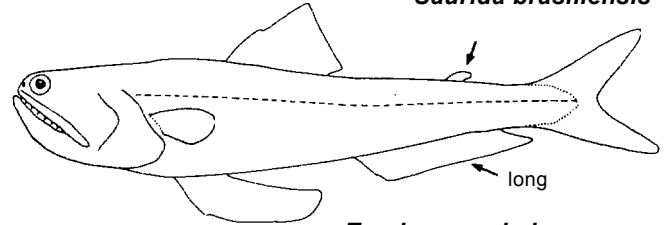
needle-like teeth

8 or 9 rays

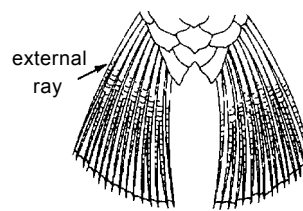
Synodus saurus



Saurida brasiliensis



Trachinocephalus myops



external ray



Saurida

Synodus, Trachinocephalus

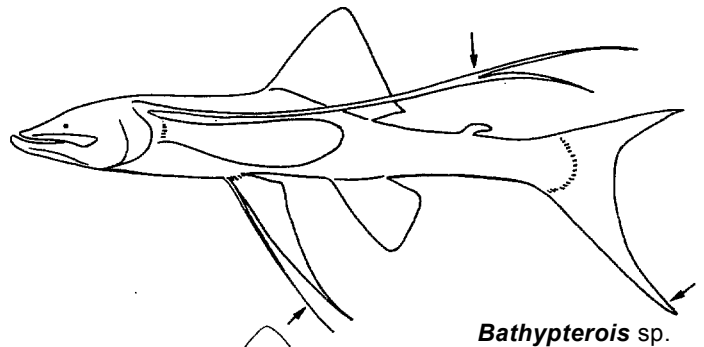
pelvic fins

CHLOROPHTHALMIDAE

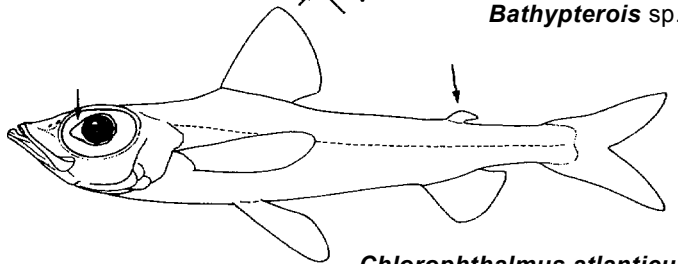
Greeneyes

page 57

To 30 cm; marine, from about 75 m to abyssal depths; benthic.



Bathypterois sp.



Chlorophthalmus atlanticus

TOADFISHES - Batrachoidiformes

Head large and depressed, body compressed; two dorsal fins, the first with 2 or 3 spines; pelvic fins under throat; gill openings restricted to sides of head; one to several lateral lines on body.

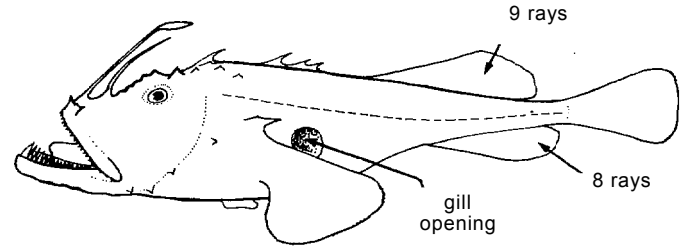
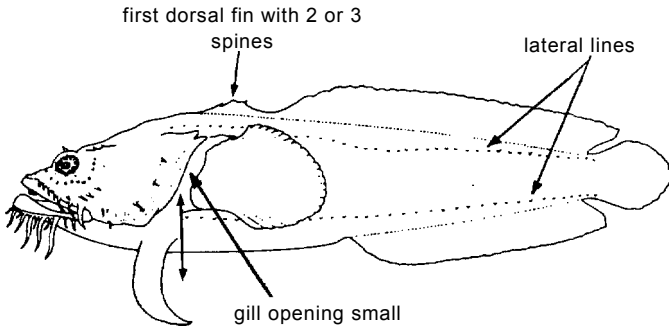
BONY FISHES GUIDE TO FAMILIES

BATRACHOIDIDAE

Toadfishes

page 43

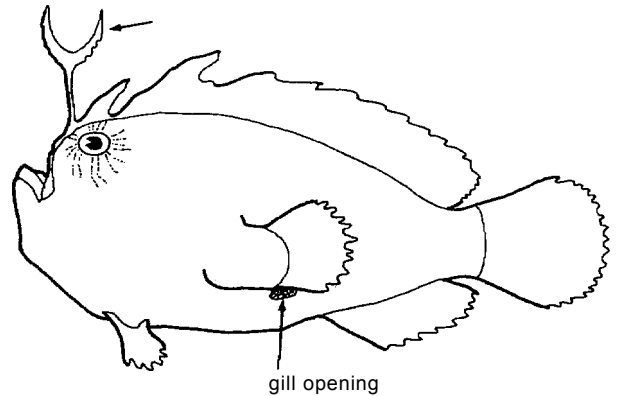
To about 45 cm; in coastal marine waters to at least 250 m depth; also in estuaries and freshwaters; benthic. Two species in the area.

*Lophius vaillanti*

ANTENNARIIDAE

Frogfishes

To 28 cm; marine, from coastal and surface waters to below 100 m depth; mostly benthic.



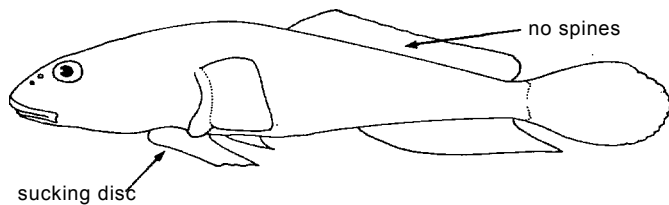
CLINGFISHES - Gobiesociformes

A sucking disc under anterior part of body (formed by pectoral and pelvic fins); a single dorsal fin without spines.

GOBIESOCIDAE

Clingfishes

To 15 cm, but most species less than 8 cm; littoral marine, also in estuaries and freshwater.



OGCOEPHAUDAE

Batfishes

To 15 cm; marine, from 100 to 300 m depth; benthic. A single species in the area. (Probably another undescribed species which is larger and occurs at depths between 1250 and 2350 m).

ANGLERFISHES AND ALLIES - Lophiiformes

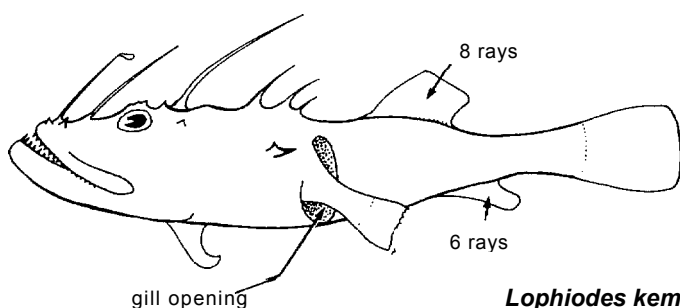
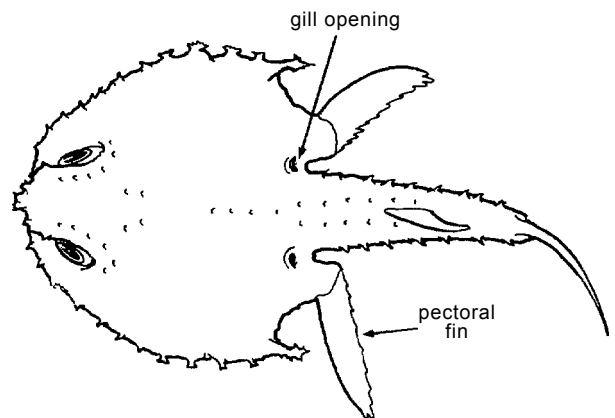
Body globose or depressed; first spine of dorsal fin modified to form a "fishing pole", gill openings small and circular, usually located below or behind pectoral fins.

LOPHIIDAE

Anglerfishes

page 78

To about 100 cm; marine, from coastal waters to below 800 m depth; benthic.

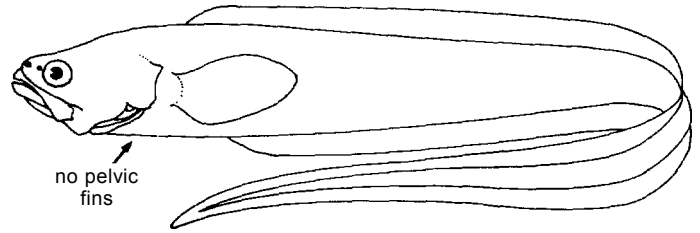
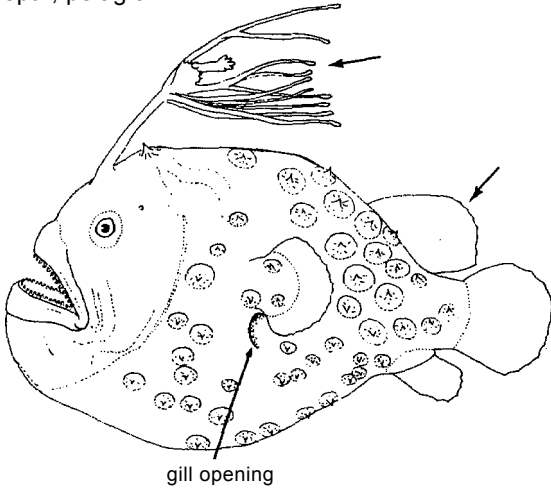
*Lophiodes kempii*dorsal view *Dibranchius atlanticus*

BONY FISHES
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HIMANTOLOPHIDAE

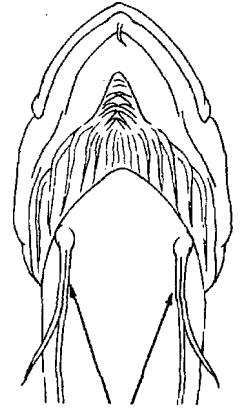
Footballfishes

To about 60 cm; marine, from near the surface to below 500 m depth; pelagic.



CODS, HAKES AND ALLIES - Gadiformes

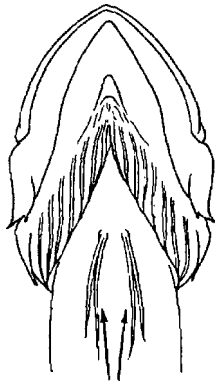
No sharp spines in fins (except in dorsal fin of some macrourids); pelvic fins below or anterior to pectoral fins and widely separated from each other, usually entire, but reduced to filaments in some species; barbels often present on chin (on snout of a single species).



underside of head

CUSKEELS, BROTLAS AND ALLIES - Ophidiiformes

No sharp spines in fins; pelvic fins absent in some species; when present, these fins are placed anterior to pectoral fins, sometimes far forward on underside of head; they are always close together and filamentous, each with no more than 22 rays; caudal fin separate or joined to dorsal and anal fins; snout without barbels (except for a single species).



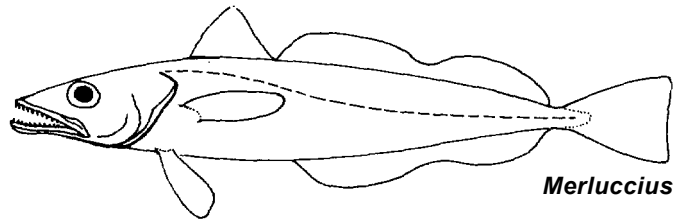
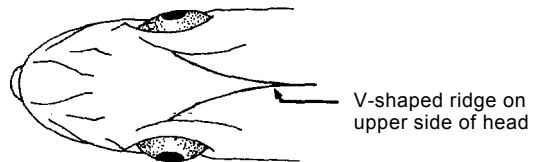
underside of head

MERLUCCIIDAE

Hakes

page 82

To 130 cm; marine, from coastal waters to about 1000 m depth; benthopelagic or pelagic. A single species in the area.

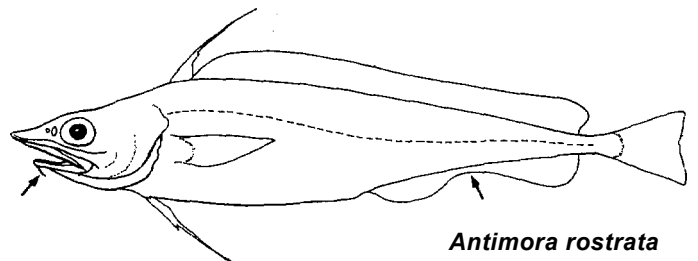


MORIDAE

Moras

page 82

To over 50 cm; marine, from 200 to below 1000 m depth; benthopelagic.

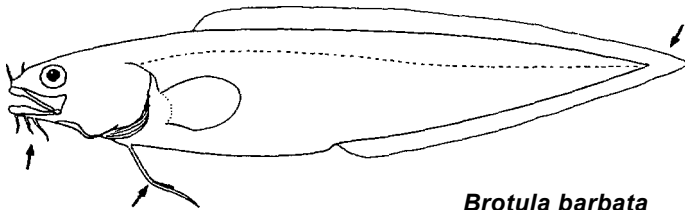


OPHIDIIDAE

Cuskeels, brotlas (including Brotulidae)

page 89

To 150 cm; but most around 30 cm; marine, from the shore to 8000 m depth; benthic.



Other poorly known genera occur in the area.

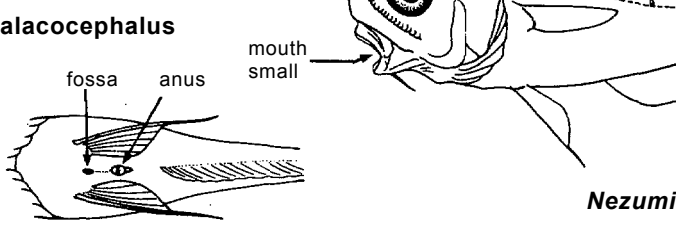
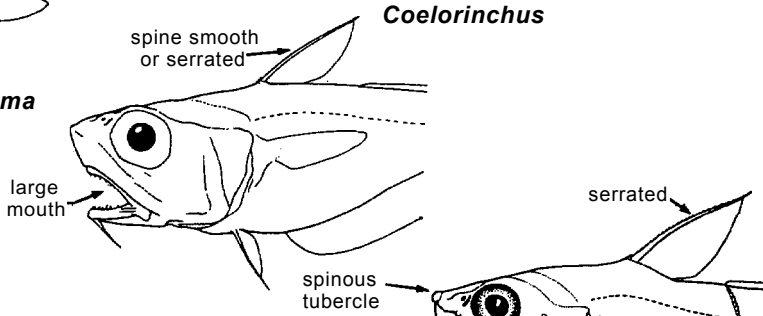
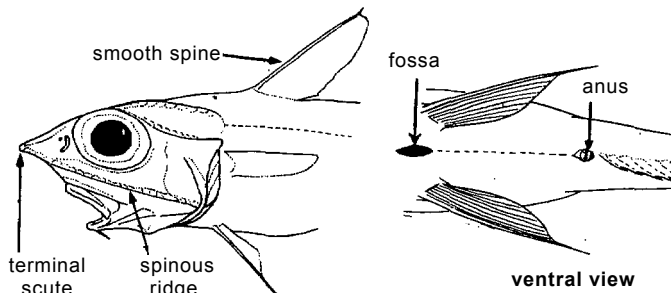
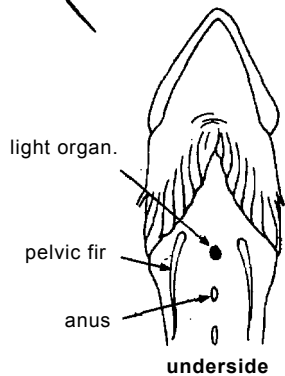
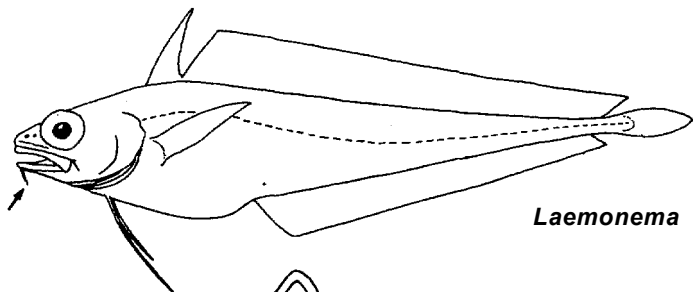
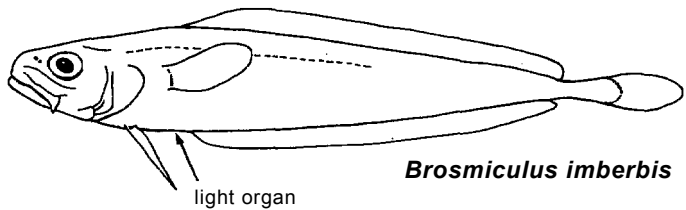
CARAPIDAE

Pearlfishes

To about 20 cm; marine from shallow coastal waters to the continental slope; mostly benthic, living in sea cucumbers, clams, sea urchins, tunicates and starfish, but 1 species free-living.

BONY FISHES
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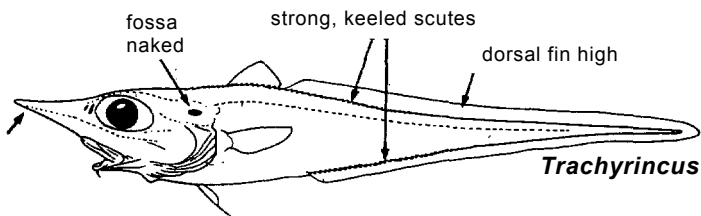
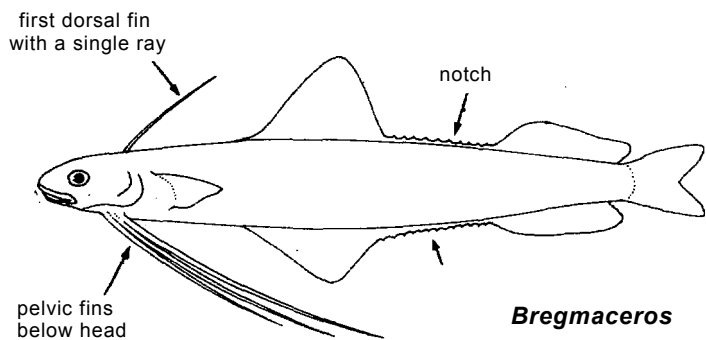
Main genera occurring in the area:



ventral view
Malacocephalus, Nezumia

BREGMACEROTIDAE Codlets

To 10 cm, but usually smaller; marine in oceanic waters from the surface to below 1000 m depth; pelagic.



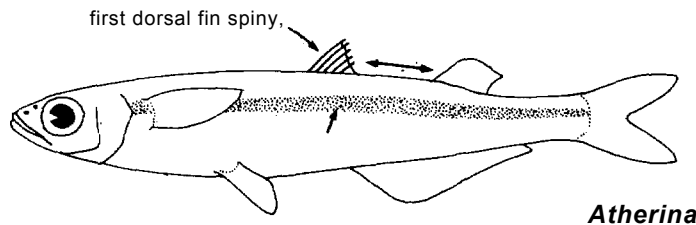
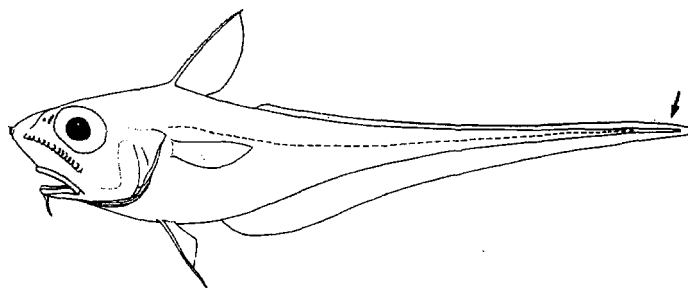
SILVERSIDES AND ALLIES - Atheriniformes
Small fishes; 2 well separated dorsal fins, the first spiny, but often inconspicuous; a silvery stripe on sides.

MACROURIDAE Grenadiers page 80

To about 60 cm; marine, from about 250 to below 2000 m depth; benthopelagic. Several species taken in bottom trawls.

ATHERINIDAE Silversides

To about 15 cm, but usually smaller; coastal marine waters, estuaries, coastal lagoons and freshwater.



BONY FISHES
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FLYINGFISHES AND ALLIES - Beloniformes

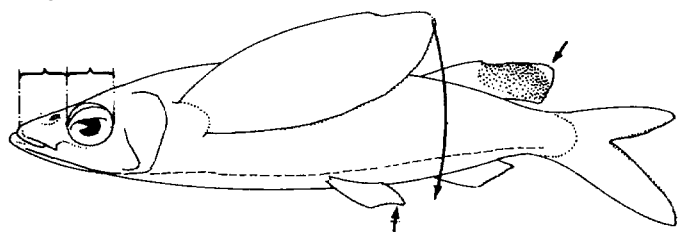
Either snout beak-like with upper and/or lower jaws greatly prolonged (except in 2 genera), or with enlarged, wing-like pectoral, and sometimes also pelvic fins; lateral line near ventral profile of body; a single dorsal fin consisting of soft rays; pelvic fins abdominal.

EXOCOETIDAE

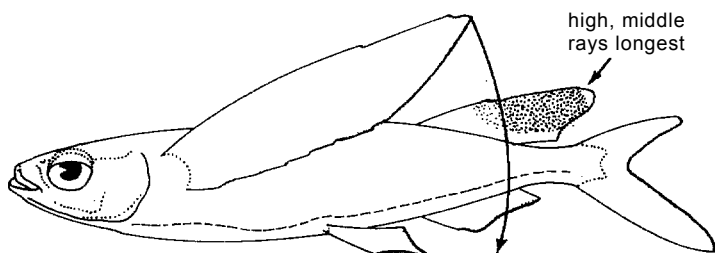
Flyingfishes

page 64

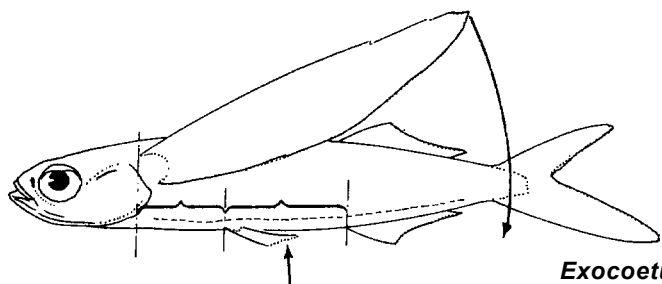
To 40 cm; marine; pelagic in surface waters. Capable of jumping out of the water and gliding for long distances; several species taken accidentally in trammel nets and drifting set nets.



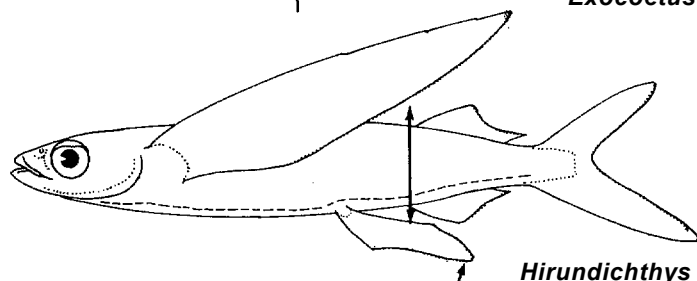
Fodiator acutus



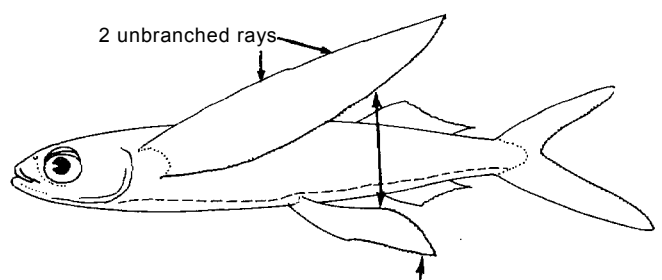
Parexocoetus brachypterus



Exocoetus

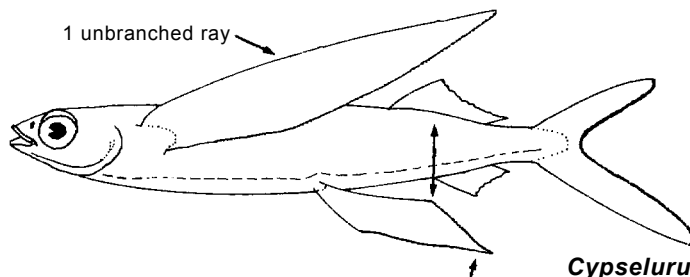


Hirundichthys



Prognichthys gibbifrons

1 unbranched ray



Cypselurus

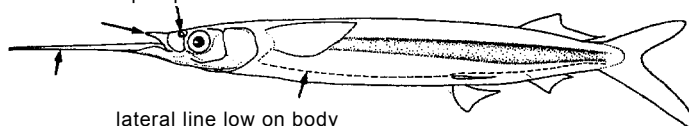
HEMIRAMPHIDAE

Halfbeaks

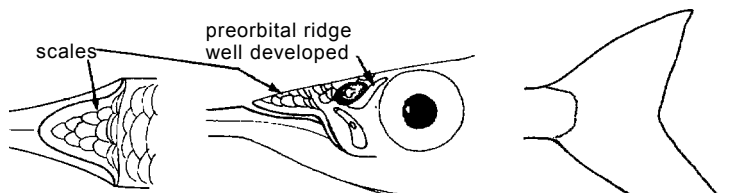
page 72

To about 40 cm; marine, coastal and offshore waters, estuaries and freshwater, near the surface.

nostrils in an open pit



lateral line low on body

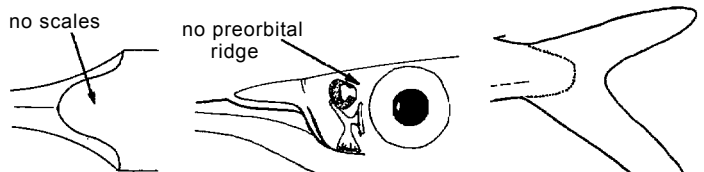


top of head

lateral view of head

caudal fin

Hyporampus picarti

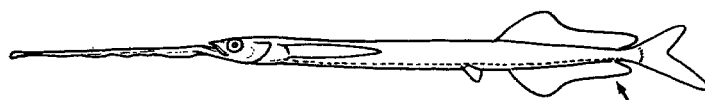


top of head

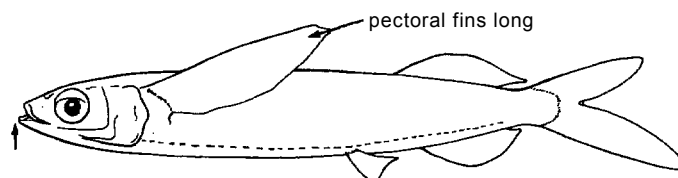
lateral view of head

caudal fin

Hemirampus brasiliensis



Euleptorhamphus velox



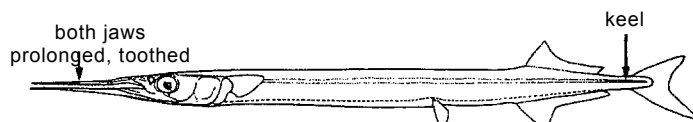
Oxyporhamphus micropterus

BELONIDAE

Needlefishes

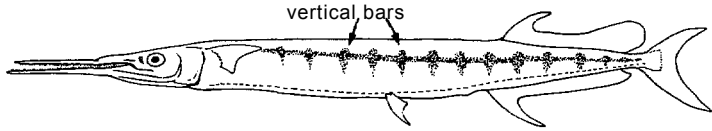
page 44

To about 130 cm; marine coastal and offshore waters, estuaries, coastal lagoons and freshwater; pelagic, close to the surface.

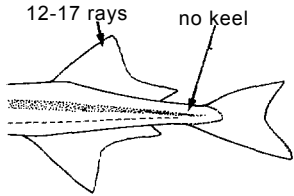
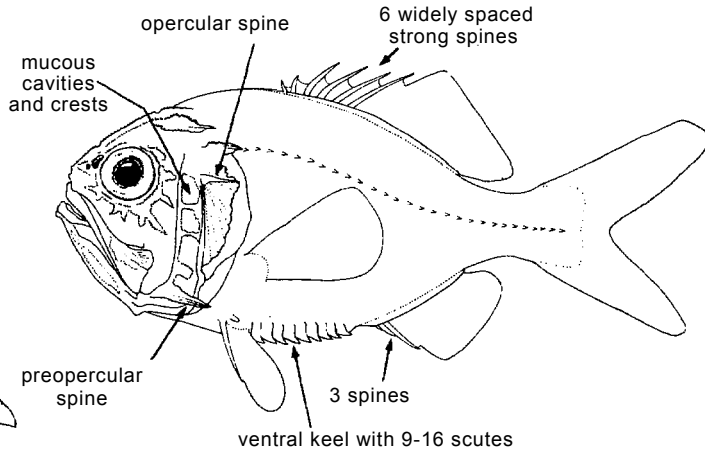


Platybelone argalus

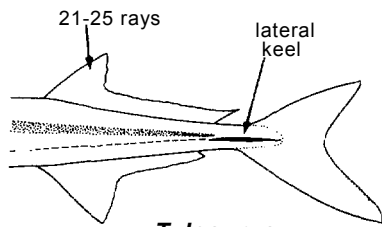
BONY FISHES
GUIDE TO FAMILIES



Ablennes hians



Strongylura senegalensis

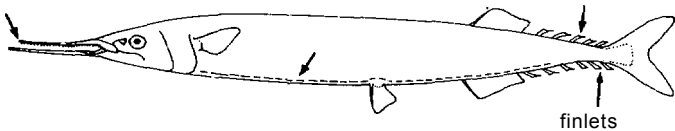


Tylosurus

SCOMBERESOCIDAE

Sauries

To 50 cm; marine, pelagic in surface waters. A single species possibly present in the area.



Nannichthys simulans

SQUIRRELFISHES AND ALLIES - Beryciformes

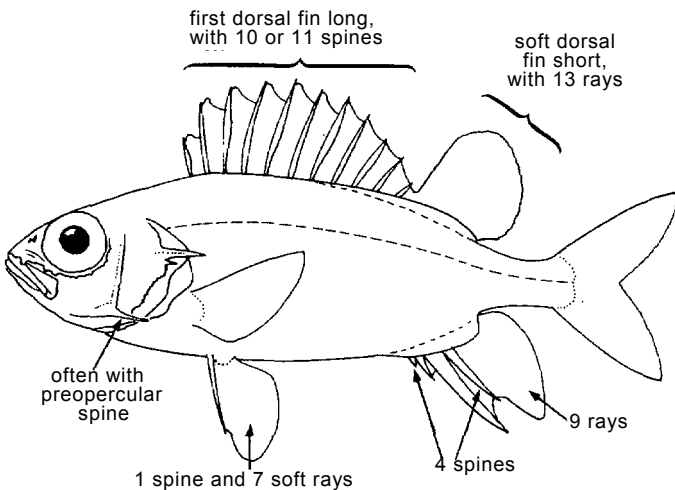
Head spines and/or crests well developed; fin-spines well developed except in Diretmidae; scales heavy and strongly ctenoid (rough).

HOLOCENTRIDAE

Squirrelfishes, soldierfishes

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To at least 45 cm; marine, from shallow coastal waters to below 200 m depth; benthic.



TRACHICHTHYIDAE

Slimeheads

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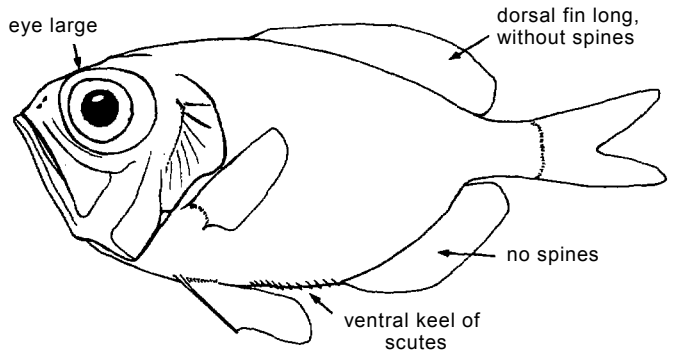
To about 60 cm; marine, from about 100 to 1000 m depth, rarely below 600 m; benthic. Three species taken occasionally.

DIRETMIDAE

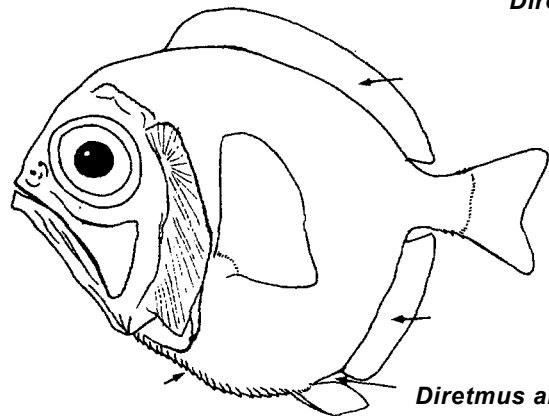
Diretmids

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To about 40 cm, but usually smaller; marine, from about 400 to below 1000 m depth; benthic. Three species taken occasionally.



Diretmoides



Diretmus argenteus

DORIES AND ALLIES - Zeiformes

Body usually compressed and deep; jaws greatly distensible; prominent spines in anterior part of dorsal fin.

ZEIDAE

Dories

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To about 65 cm; marine, coastal waters to about 600 m depth; benthic to benthopelagic.