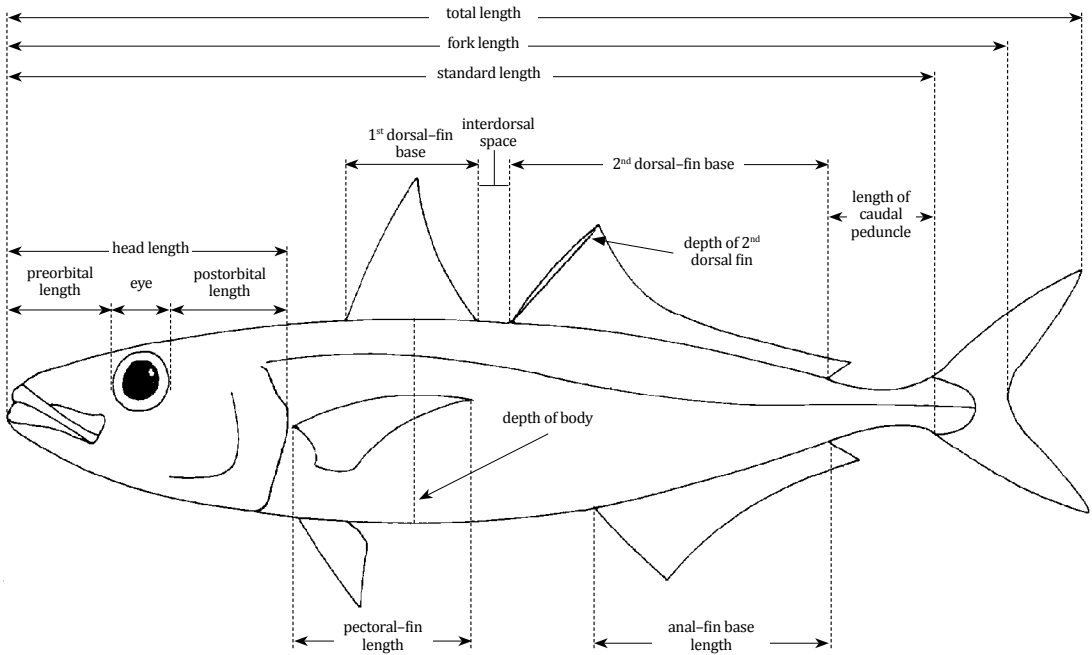


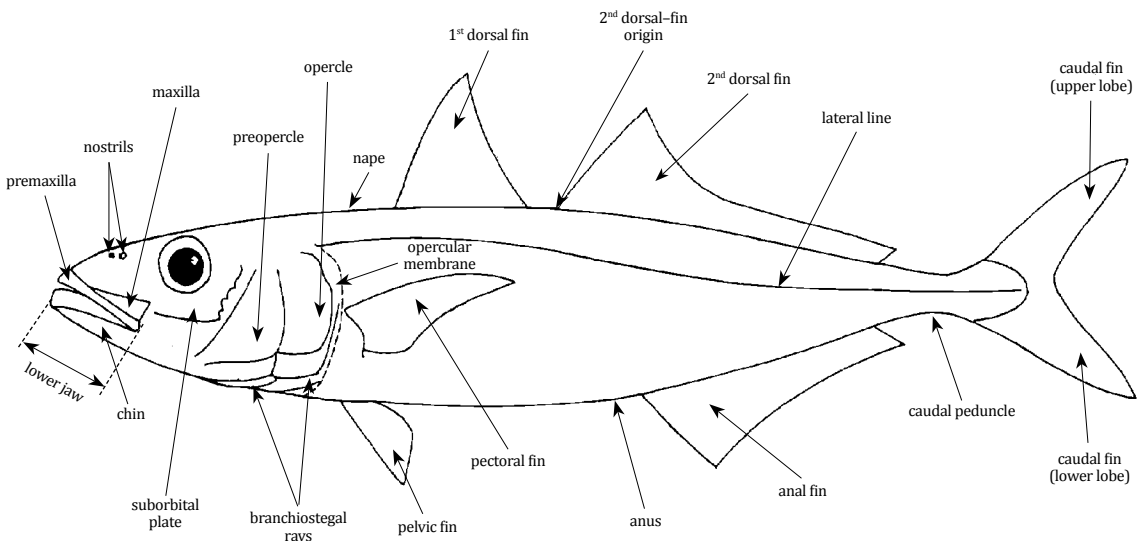
BONY FISHES

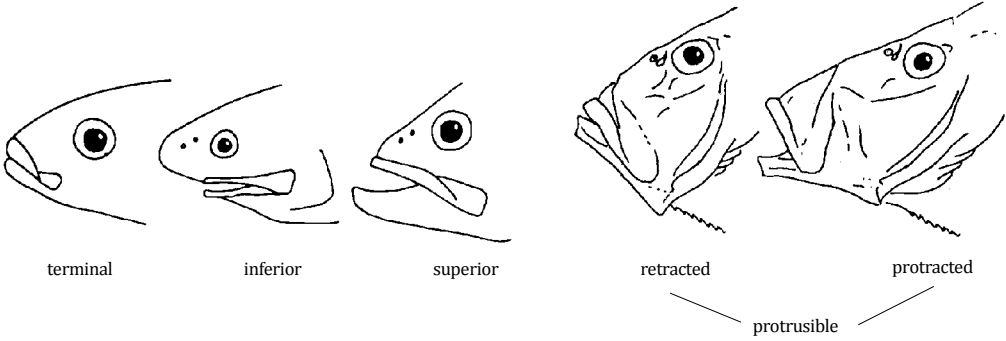
The “Guide to Orders and Families”, includes a total of 28 Orders and 160 Families. These are arranged by order (and suborder in the case of some Perciformes) using the classification adopted by Eschmeyer & Fricke (2011) which best reflects current use. Page numbers refer to those families that are treated in more detail in the species identification guide. The “Guide to Species”, includes 633 species belonging to 95 families. **Not all species present in the guide have been officially recorded in Kenya waters, but having been reported in neighboring countries, such as Somalia and Tanzania, were considered likely to occur in Kenya. These are marked with an asterisk besides the scientific name.** In case of a first record of one of these species, the user can follow the instructions present in the introduction regarding its preservation and/or contact the FishFinder Programme.

TECHNICAL TERMS AND MEASUREMENTS

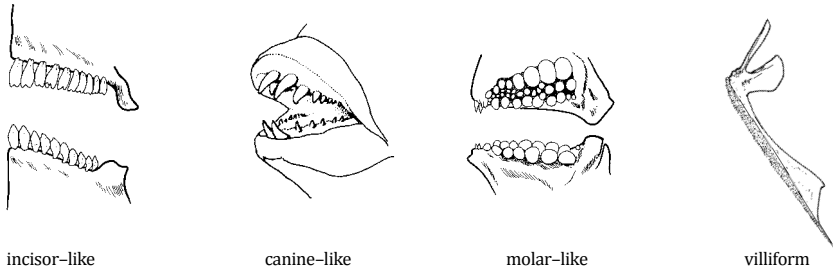


General Nomenclature of the External Morphology

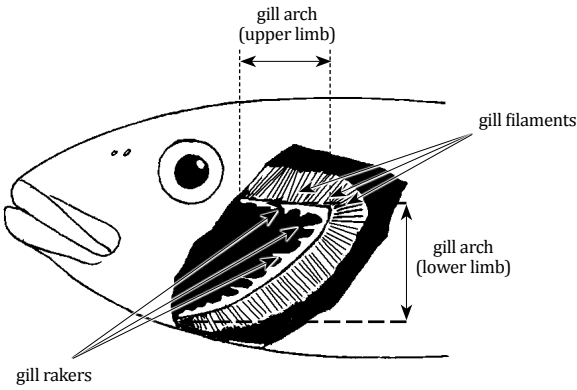




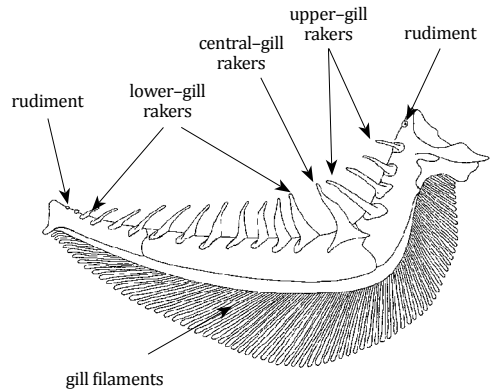
Mouth position and protusibility



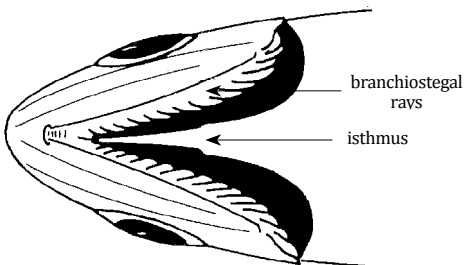
Common types of teeth



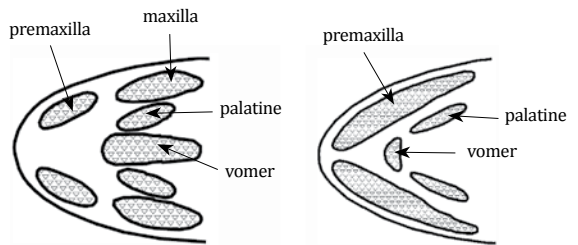
Position of 1st left gill arch with gill cover removed



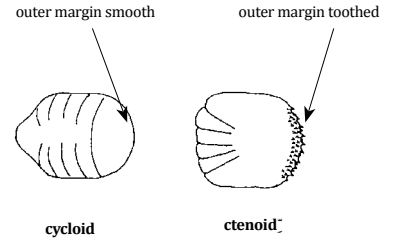
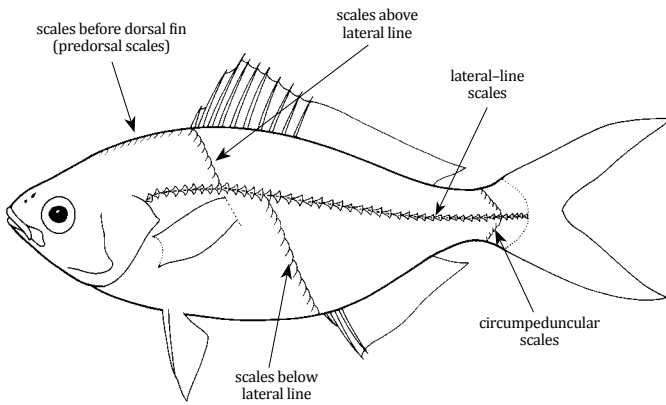
Structures of 1st left gill



Structures on ventral side of head

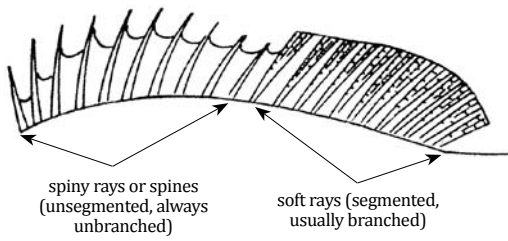


Roof of mouth and upper jaw

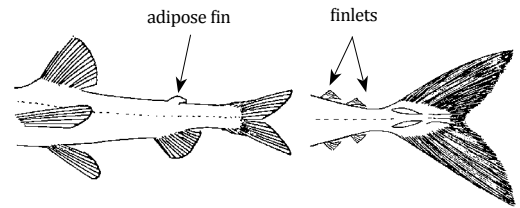


Schematic examples of typical scales

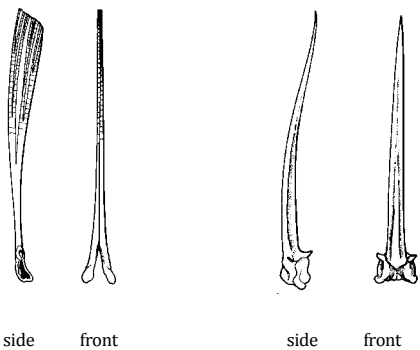
Common scale counts



Example of a continuous dorsal fin of a spiny-rayed fish



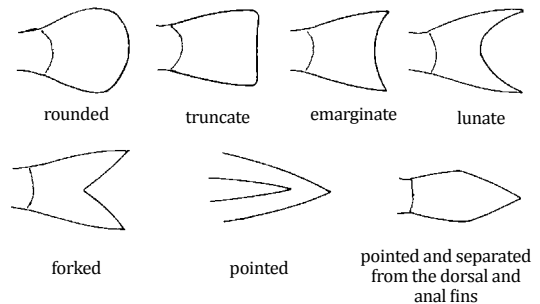
Accessory dorsal and anal fins: adipose fin and finlets



soft rays (branched, segments, 2 halves)

spines (solid)

Construction of fin rays



Most common types of caudal fins

GUIDE TO ORDERS AND FAMILIES

Order ELOPIFORMES – Tarpons and allies

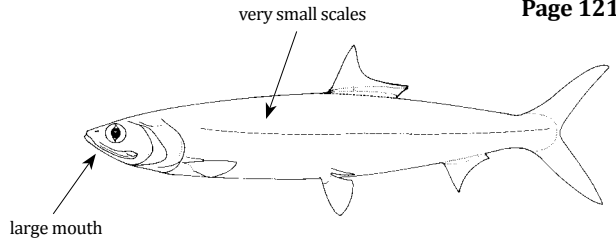
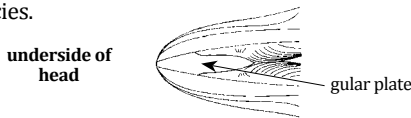
Fin spines absent; a single dorsal fin located above middle of body; pelvic fins in abdominal position; lateral line present; 23–25 branchiostegal rays; upper jaw extending past eye; tip of snout not overhanging mouth; colour silvery.

ELOPIDAE

Page 121

Ladyfishes

To 90 cm. Coastal marine waters and estuaries; pelagic. A single species included in the Guide to Species.

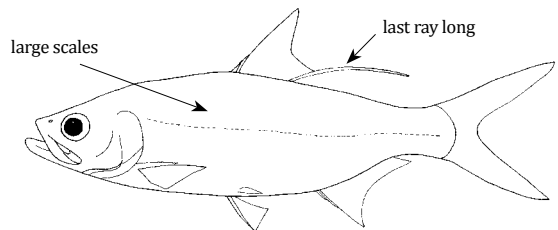
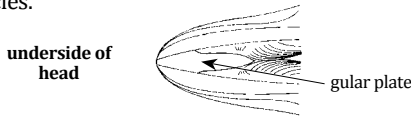


MEGALOPIDAE

Page 121

Tarpons

To 55 cm. Coastal marine waters and estuaries; pelagic. A single species included in the Guide to Species.



Order ALBULIFORMES – Bonefishes

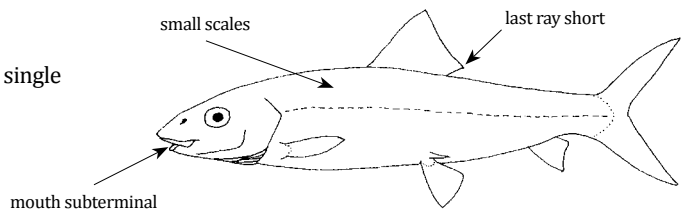
Fin spines absent; a single dorsal fin located above middle of body; pelvic fins in abdominal position; lateral line present; 6–16 branchiostegal rays; upper jaw not extending as far as front of eye; tip of snout overhanging mouth; colour silvery.

ALBULIDAE

Page 121

Bonefishes

To 100 cm. Coastal marine waters; pelagic. A single species included in the Guide to Species.



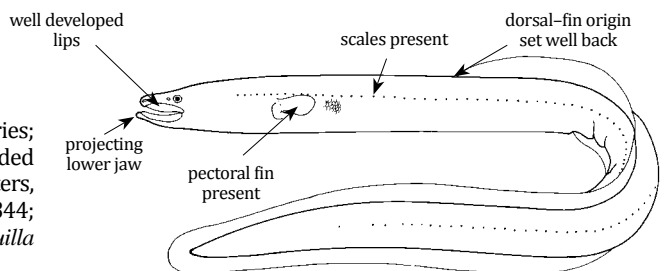
Order ANGUILLIFORMES – Eels

Body very elongate; fin spines absent; usually scaleless.

ANGUILLIDAE

Freshwater eels

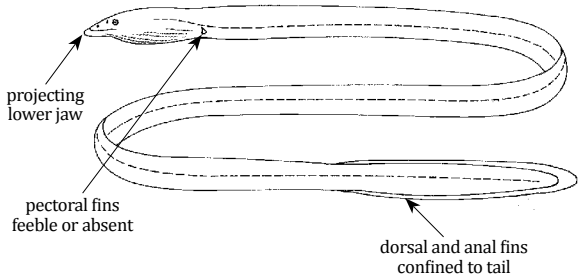
To 120 cm. Mainly freshwater, but enter estuaries; benthic. Of interest to fisheries. Four species recorded in Kenya waters: *Anguilla bengalensis labiata* (Peters, 1852); *Anguilla bicolor bicolor* McClelland, 1844; *Anguilla marmorata* Quoy & Gaimard, 1824; *Anguilla mossambica* (Peters, 1852).



MORINGUIDAE

Spaghetti eels

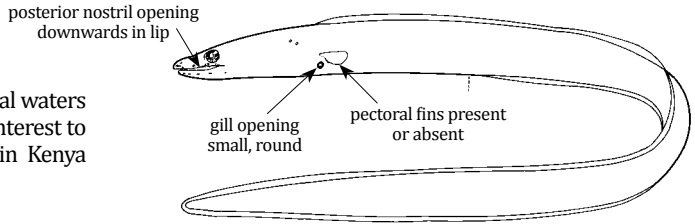
To 50 cm. Marine; mostly inshore waters; benthic, burrowing by day, but pelagic at night. Of no interest to fisheries. Three species recorded in Kenya waters: *Moringua ferruginea* Bliss, 1883; *Moringua javanica* (Kaup, 1856); *Moringua microchir* Bleeker, 1853.



CHLOPSIDAE

False morays

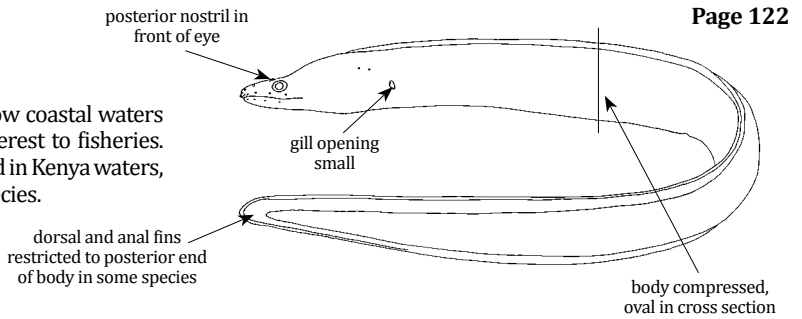
To about 50 cm. Marine; from shallow coastal waters to depths of at least 300 m; benthic. Of no interest to fisheries. One species has been recorded in Kenya waters: *Chlopsis dentatus* (Seale, 1917).



MURAENIDAE

Morays

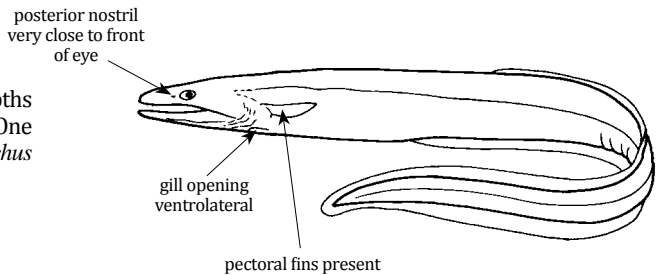
To 400 cm. Marine; mostly in shallow coastal waters to depths of 165 m; benthic. Of interest to fisheries. Eighteen species have been recorded in Kenya waters, and are included in the Guide to Species.



SYNAPHOBRANCHIDAE

Cutthroat eels

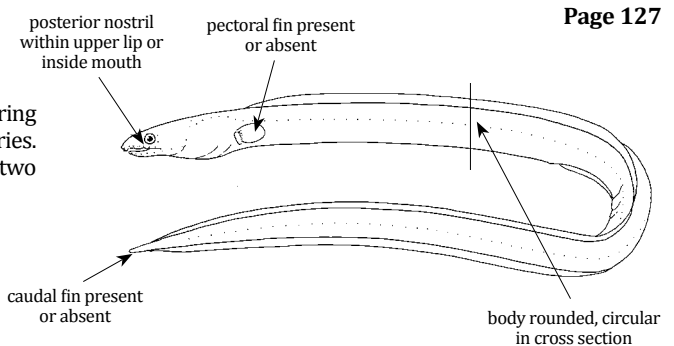
To about 100 cm. Marine; from costal waters to depths of 4000 m; benthic. Of no interest to fisheries. One species is present in Kenya waters: *Synaphobranchus kaupii* Johnson, 1862.



OPHICHTHIDAE

Snake eels

To 100 cm. Marine and estuarine, one species entering freshwater; benthic. Of limited interest to fisheries. Six species have been recorded in Kenya waters, two of which are included in the Guide to Species.

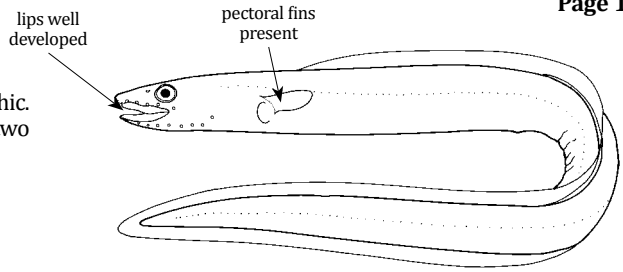


CONGRIDAE

Page 127

Conger eels

To 80 cm. Marine, coral reefs, and mud banks; benthic. Of interest to fisheries. Many species, of which two are included in the Guide to Species.

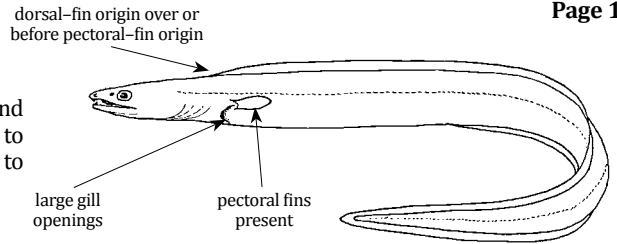
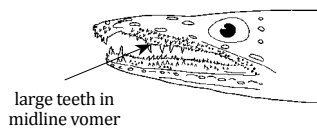


MURAENESOCIDAE

Page 128

Pike congers

To 250 cm. Marine, shallow coastal waters and estuaries to a depth of 100 m; benthic. Of interest to fisheries. Two species are included in the Guide to Species.



Order CLUPEIFORMES – Herrings and allies

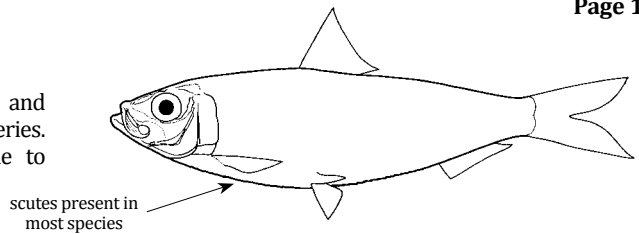
Fin spines absent; a single dorsal fin located above middle of body; pelvic fins in abdominal position; lateral line absent; a row of scutes along ventral profile (except *Chirocentridae*, some *Clupeidae* and some *Engraulidae*); colour silvery.

CLUPEIDAE

Page 129

Sardines – Sardinellas

To 25 cm. Coastal marine waters, estuaries and freshwater; mainly pelagic. Of interest to fisheries. Seventeen species are included in the Guide to Species.

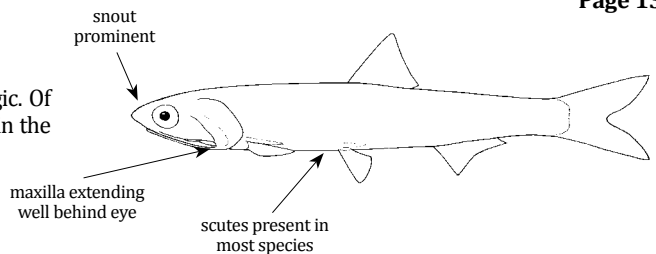


ENGRAULIDAE

Page 133

Anchovies

To 18 cm. Coastal marine waters, mainly pelagic. Of interest to fisheries. Nine species are included in the Guide to Species.

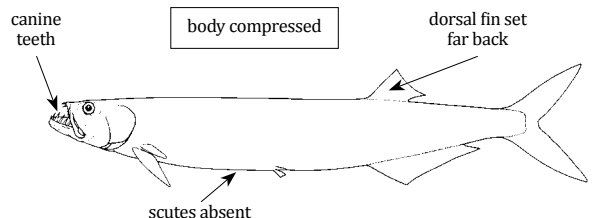


CHIROCENTRIDAE

Page 135

Wolf-herrings

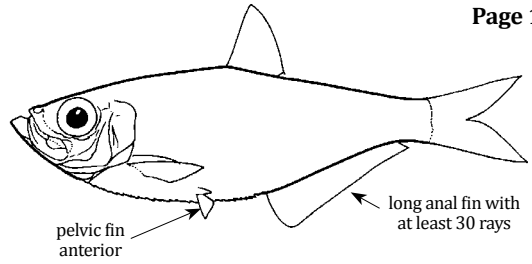
To 100 cm. Coastal marine waters, mainly pelagic. Of interest to fisheries. Two species are included in the Guide to Species.



PRISTIGASTERIDAE

Pristigasterids

To 20 cm. Coastal marine waters, mainly pelagic. Of interest to fisheries. One species included in the Guide to Species.



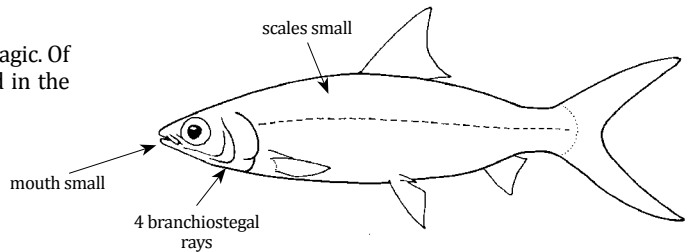
Order GONORHYNCHIFORMES – Milkfish and allies

Fin spines absent; a single dorsal fin located above middle of body; pelvic fins in abdominal position; lateral line present; 4 branchiostegal rays; mouth small, jaws toothless or teeth reduced; colour silvery.

CHANIDAE

Milkfish

To 180 cm. Marine and estuarine waters; pelagic. Of interest to fisheries. One species is included in the Guide to Species.



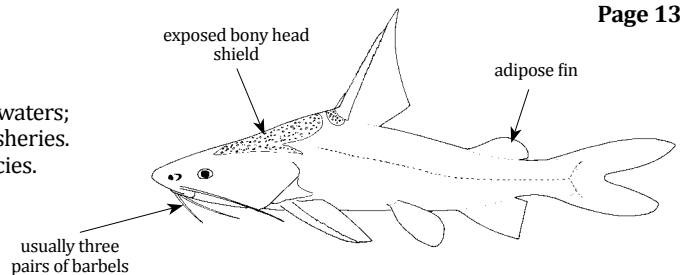
Order SILURIFORMES – Catfishes

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

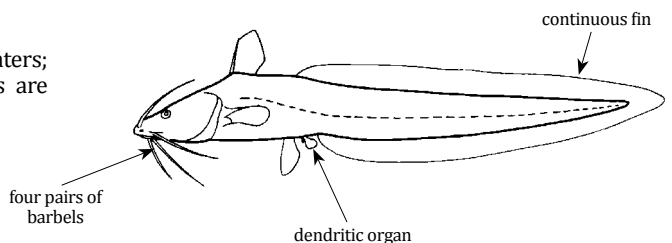
To 180 cm. Coastal marine and estuarine waters; also freshwaters; benthic. Of interest to fisheries. Five species are included in the Guide to Species.



PLOTOSIDAE

Eel catfishes

To 40 cm. Marine, entering brackish and freshwaters; benthic. Of interest to fisheries. Two species are included in the Guide to Species.



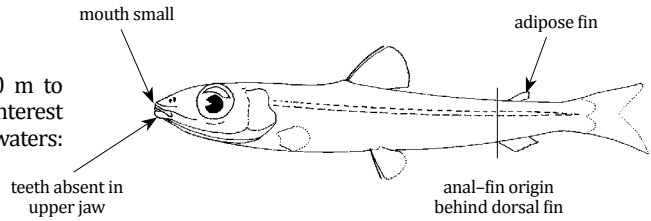
Order OSMERIFORMES - Argentines and allies

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

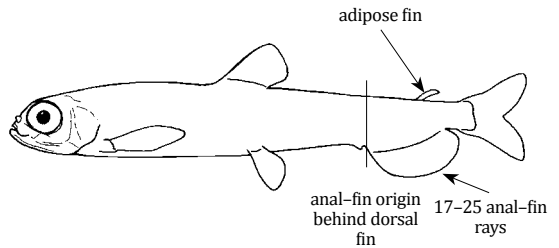
To about 40 cm. Marine, from depths of 80 m to 400 m; benthopelagic and pelagic. Of no interest to fisheries. One species recorded in Kenya waters: *Argentina euchus* Cohen, 1961.



BATHYLAGIDAE

Deepsea smelts

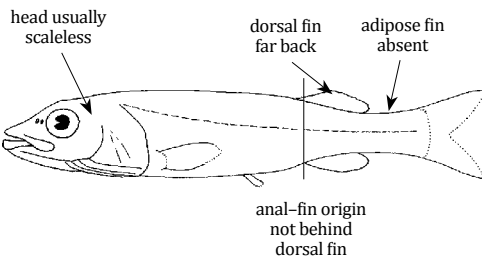
To about 20 cm. Marine, from the surface down to below 200 m; epipelagic to bathypelagic. Of no interest to fisheries. Probably two species occur in Kenya waters, even if never recorded: *Dolicholagus longirostris* (Maul, 1948); *Melanolagus bericoides* (Borodin, 1929).



ALEPOCEPHALIDAE

Slickheads

To about 70 cm. Marine, usually at depths of below 1000 m. Of no interest to fisheries. Perhaps several species, but no official records.

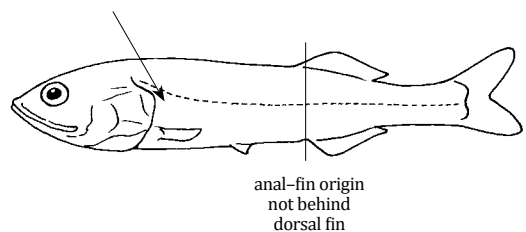


PLATYTROCTIDAE

Tube shoulders

To about 20 cm. Marine, between depths of 200 m and 4000 m; meso- and bathypelagic. Of no interest to fisheries. Perhaps several species, but no official records.

a tube behind shoulder girdle just below lateral line leading to a large sac containing luminous fluid under skin



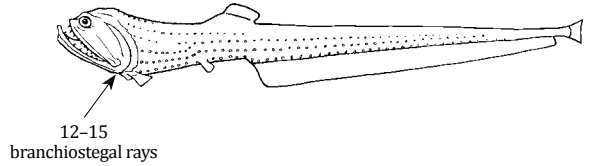
Order STOMIIFORMES - Hatchetfishes - Viperfishes and allies

Deepsea fishes, having light organs (photophores); chin barbels present in some; premaxilla and maxilla both with teeth, and included in gape of mouth; ventral adipose fin present in some.

GONOSTOMATIDAE

Bristlemouths

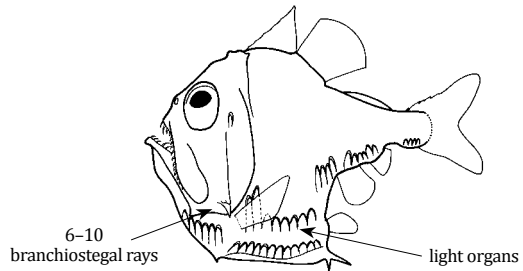
To about 25 cm. Marine, mostly deeper waters at depths below 200 m; meso- and bathypelagic. Of no interest to fisheries. Perhaps several species, but only three species recorded in Kenya waters: *Cyclothone alba* Brauer, 1906, *Cyclothone pallida* Brauer, 1902, *Cyclothone signata* Garman, 1899.



STERNOPTYCHIDAE

Marine hatchetfishes

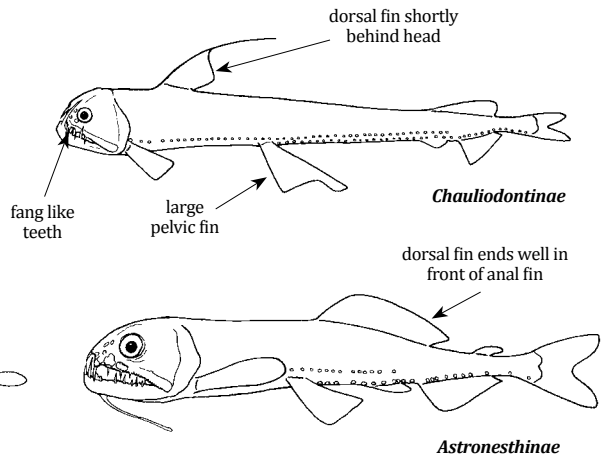
To 20 cm. Marine, from the surface to depths below 300 m; meso- and bathypelagic. Of no interest to fisheries. Three species recorded in Kenya waters: *Polyipnus bruuni* Harold, 1994, *Polyipnus matsubarai* Schultz, 1961, *Polyipnus meteori* Kotthaus, 1967.



STOMIIDAE

Barbeled dragonfishes

To about 40 cm. Marine, deep water, often migrating to near-surface at night. Of no interest to fisheries. Several species recorded in Kenya waters.



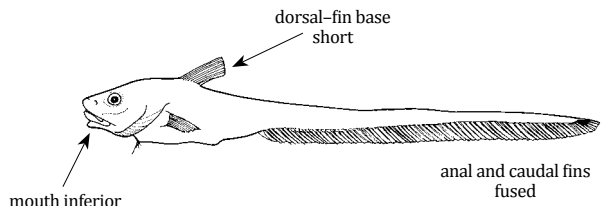
Order ATELEPODIFORMES - Jellynose fishes

Caudal fin reduced, united with the long anal fin; pelvic fin of adults with single ray on throat (young specimens and *Guentherus* have several rays, and the pelvics of the latter are behind the pectorals).

ATELEPODIDAE

Jellynose fishes

To 180 cm. Marine, from depths of about 200 m to 660 m; benthopelagic. Of no interest to fisheries. One species occurs in the western Indian Ocean: *Ateleopus natalensis* Regan, 1921.



Order AULOPIFORMES – Greeneyes – Lizardfishes and allies

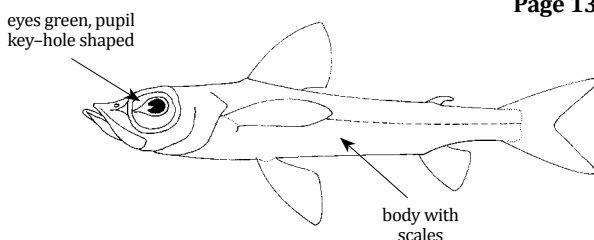
Premaxilla forming the gape of the mouth (maxilla excluded); upper jaw not protrusible; adipose fin present; caudal fin forked.

CHLOROPHTHALMIDAE

Page 138

Greeneyes

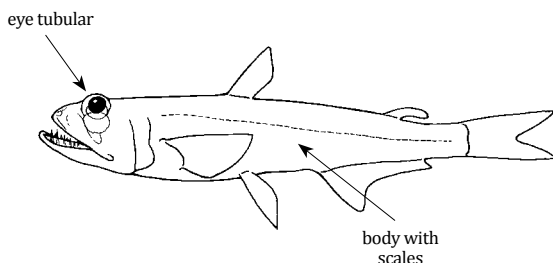
To 17 cm. Deep water, from depths of 150 m to 379 m; benthic. Often in great abundance and of potential interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.



SCOPELARCHIDAE

Pearleyes

To 13 cm. Marine, from the surface to depths below 2300 m; mostly below 300 m; meso- and bathypelagic. Of no interest to fisheries. Several species recorded in Kenya waters.

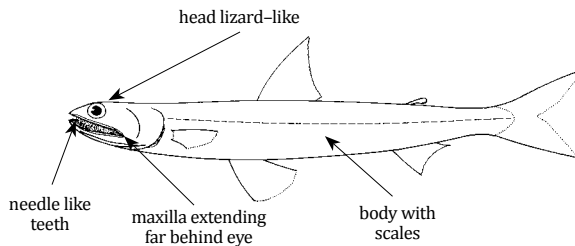


SYNODONTIDAE

Page 139

Lizardfishes

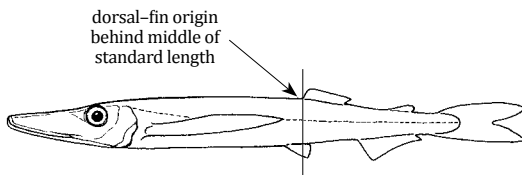
To 50 cm. Marine, from shallow waters to depths of 200 m, benthic. Of interest to fisheries. Eight species included in the Guide to Species.



PARALEPIDIDAE

Barracudinas

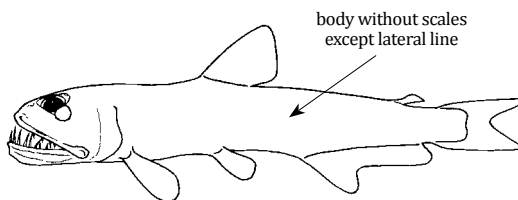
To 13 cm. Marine, deep water, often migrating to near-surface at night. Of no interest to fisheries. Several species recorded in Kenya waters.



EVERMANNELLIDAE

Sabertooth fishes

To 12 cm. Marine, often migrating to near-surface at night; mesopelagic. Of no interest to fisheries. Perhaps four species occur in Kenya waters but no official records.



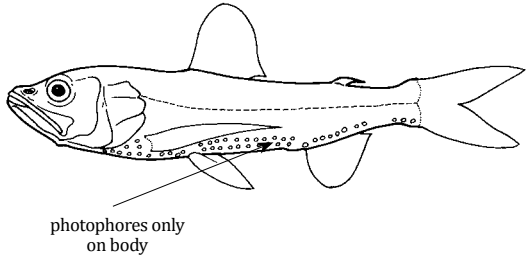
Order MYCTOPHIFORMES - Lanternfishes and allies

Fin spines absent; adipose fin present; light organs (photophores) sometimes present; deep sea fishes.

NEOSCOPELIDAE

Blackchins

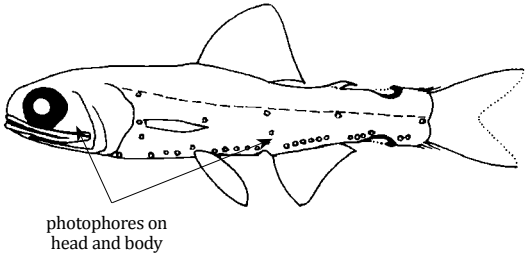
To about 30 cm. Marine, from the surface to depths below 500 m; pelagic or benthopelagic. Of no interest to fisheries. One species occurs in Kenya waters: *Neoscopelus macrolepidotus* Johnson, 1863.



MYCTOPHIDAE

Lanternfishes

To 30 cm. From the surface (at night) to depths below 2000 m; mesopelagic to bathypelagic. Of little interest to fisheries. Several species occur in Kenya waters.



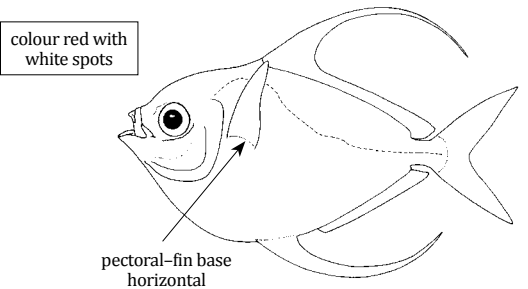
Order LAMPRIFORMES - Opahs and allies

A diverse group of often strange looking fishes. No true spines in fins; pelvic fins under bases of pectorals.

LAMPRIDAE

Opahs

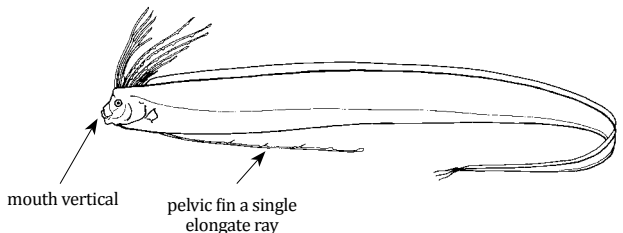
To 180 cm. Marine, well offshore; epipelagic. Of little interest to fisheries, but flesh excellent. One species in the Indian Ocean: *Lampris guttatus* (Brünnich, 1788).



REGALECIDAE

Oarfishes

To at least 700 cm. Marine, from the surface to a depth of 1000 m; epi- to mesopelagic. Of no interest to fisheries. Possibly one species: *Regalecus glesne* Ascanius, 1772.

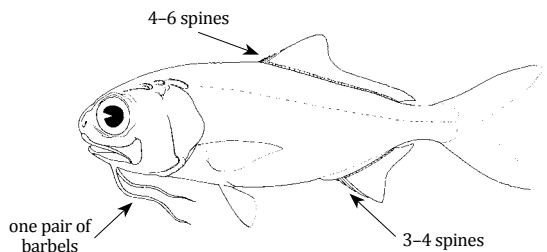


Order POLYMIXIIFORMES - Beardfishes

POLYMIXIIDAE

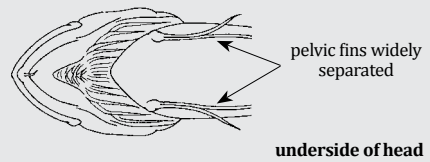
Beardfishes

To about 35 cm. Marine, from depths of about 100 m to 650 m; benthic. Of no interest to fisheries. One species occurs in Kenya waters: *Polymixia berndti* Gilbert, 1905.



Order GADIFORMES – Cods – Hakes

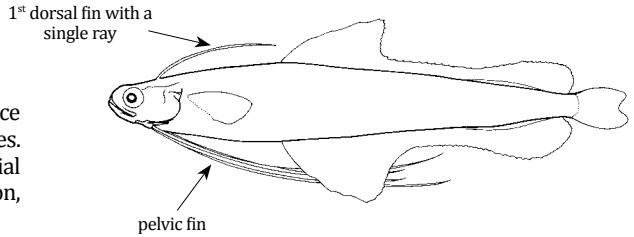
No sharp spines in fins (except in dorsal fin of some macrourids); pelvic fins below or anterior to pectoral fins and widely separated from each other, usually entire, but reduced to filaments in some species; barbels often present on chin.



BREGMACEROTIDAE

Codlets

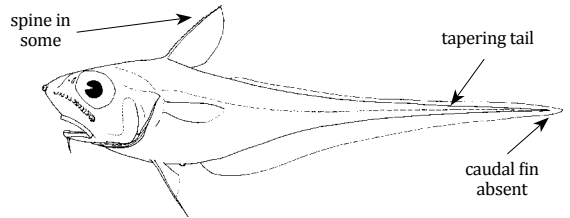
To 10 cm, but usually smaller. Marine, from the surface to depths of 2000 m; pelagic. Of no interest to fisheries. Perhaps three species occur in Kenya waters. Official record only for *Bregmaceros maclellandi* Thompson, 1840.



MACROURIDAE

Grenadiers

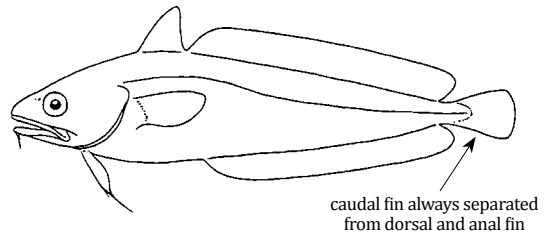
To 52 cm. Marine, from depths between 200 m and 1000 m; benthopelagic. Of no interest to fisheries. Numerous species in the Indian Ocean. Four species recorded in Kenya waters, three of which are included in the Guide to Species.



MORIDAE

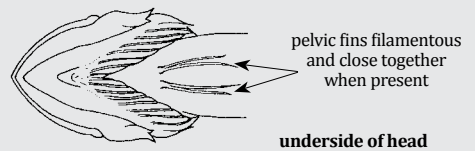
Morid cods

To about 25 cm. Marine, in deeper waters; benthopelagic. Of no interest to fisheries. Numerous species in the Indian Ocean. Three species recorded in Kenya waters



Order OPHIDIIFORMES – Cusk eels – Brotulas

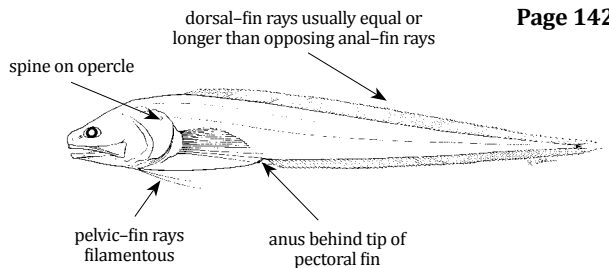
No sharp spines in fins; pelvic fins absent in some species; when present these fins are placed anterior to pectoral fins, sometimes far forward on underside of head; they are always close together and filamentous, each with not more than 2 rays; caudal fin separate or joined to dorsal and anal fins; snout without barbels.



OPHIDIIDAE

Cusk eels

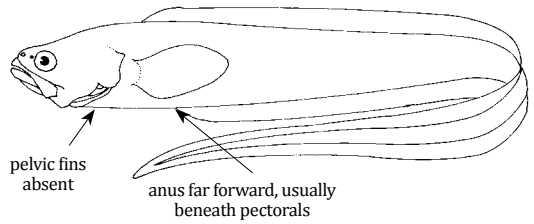
To 50 cm. Marine, at depths of 650 m; benthic. Of no interest to fisheries. Perhaps several species occur in Kenya waters. Official records only for *Neobythites kenyaensis* Nielsen, 1995 and *Brotula multibarbata* Temminck & Schlegel, 1846, the latter included in the Guide to Species.



CARAPIDAE

Pearlfishes

To about 20 cm. Marine, shallow coastal waters; benthic. Living as commensals in holothurians, molluscs and ascidians, which they enter tail first. Of no interest to fisheries. Numerous species in the Indian Ocean. Three species recorded in Kenya waters.



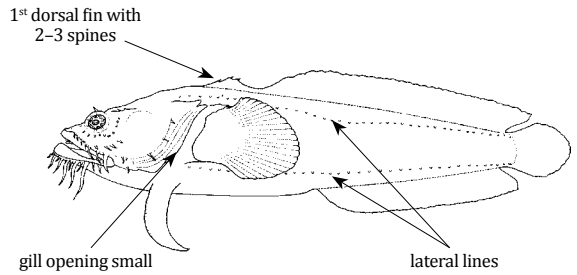
Order BATRACHOIDIFORMES - Toadfishes

Head large and depressed, body compressed; two dorsal fins, the 1st with 2 or 3 spines; pelvic fins under throat; gill openings restricted to sides of head; one to several lateral lines on body.

BATRACHOIDIDAE

Toadfishes

To about 20 cm. Coastal waters; benthic. Of no interest to fisheries. Five species occur in the Indian Ocean. No information for Kenya waters.



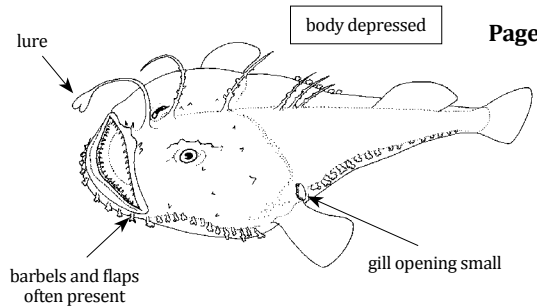
Order LOPHIIFORMES - Anglerfishes and allies

Body globulose or depressed; 1st spine of dorsal fin modified to form a 'fishing pole'; gill openings small and circular, usually located below or behind pectoral fins.

LOPHIIDAE

Goosefishes

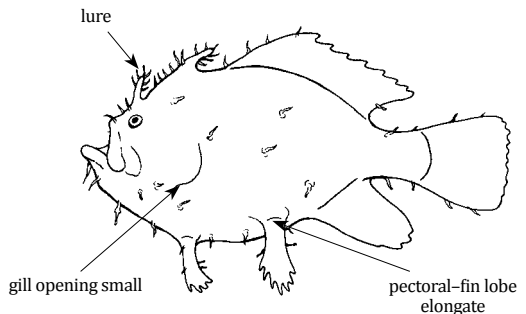
To 45 cm. Marine, mainly deep water, at depths between 50 m and 500 m. Of little interest to fisheries. Two species occur in Kenya waters, and are included in the Guide to Species.



ANTENNARIDAE

Frogfishes

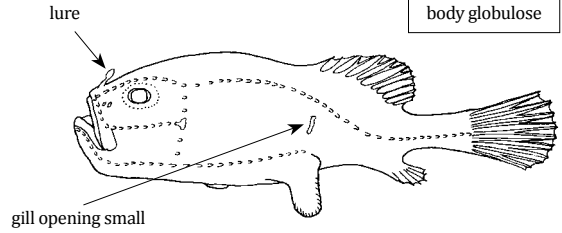
To 25 cm. Marine, coastal and surface waters to a depth of 100 m; mostly benthic. Of little interest to fisheries. Several species occur in Kenya waters.



CHAUNACIDAE

Sea tods

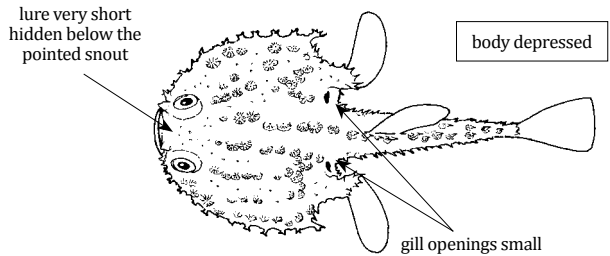
To about 45 cm. Marine, offshore waters in depths between 300 m and 1000 m; benthic. Of no interest to fisheries. Two species occur in Kenya waters: *Chaunax penicillatus* McCulloch, 1915 and *Chaunax pictus* Lowe, 1846.



OGCOEPHALIDAE

Batfishes

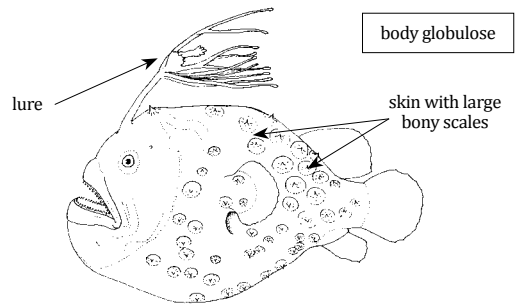
To 20 cm. Marine, coastal and deep waters to at least 2000 m; benthic. Of no interest to fisheries. Several species occur in the Indian Ocean. Only one species recorded in Kenya waters: *Malthopsis lutea* Alcock, 1891.



HIMANTOLOPHIDAE

Footballfishes

To about 60 cm. Marine, from near the surface to depths below 500 m, pelagic. Of no interest to fisheries. Two species occur in the Indian Ocean. No records in Kenya waters.



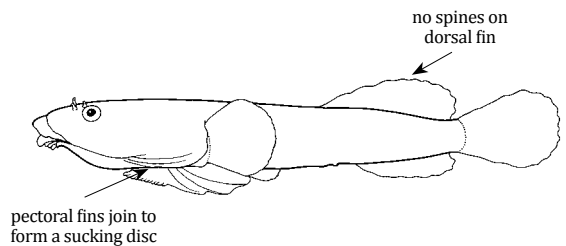
Order GOBIESOCIFORMES - Clingfishes

Pectoral fins joined to form an adhesive disc on ventral surface of body at juncture of head and body; a single dorsal fin without spines.

GOBIESOCIDAE

Clingfishes

To 15 cm, but most species less than 8 cm. Marine, entering also estuaries and freshwater; benthic. Of no interest to fisheries. Two species recorded in Kenya waters.



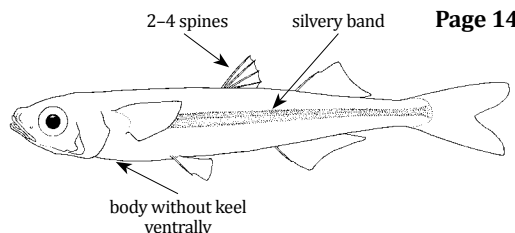
Order ATHERINIFORMES - Silversides and allies

Small fishes; 2 well separated dorsal fins, the 1st spiny, but often inconspicuous; a silvery stripe on sides.

ATHERINIDAE

Silversides

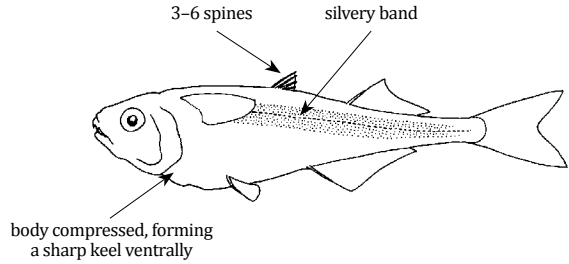
To 15 cm. Coastal marine waters, estuaries, coastal lagoons; pelagic. Of little interest to fisheries. Four species occur in Kenya waters, and are included in the Guide to Species.



NOTOCHEIRIDAE

Surf sardines

To about 9 cm. Marine, coastal surf waters. Of no interest to fisheries. One species occurs in the western Indian Ocean: *Iso natalensis* Regan, 1919.



Order BELONIFORMES - Flyingfishes and allies

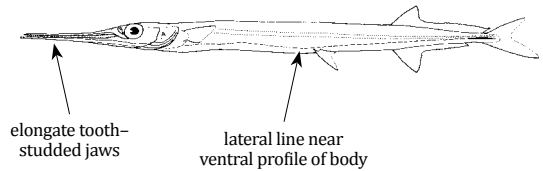
Either snout beak-like with upper or lower jaws greatly prolonged, or with enlarged, wing-like pectoral, and sometimes also pelvic fins; lateral line near ventral profile of body; a single dorsal fin consisting of soft rays; pelvic fins abdominal.

BELONIDAE

Page 144

Needlefishes

To about 150 cm. Marine, coastal and offshore waters, some entering estuaries and even freshwater; generally pelagic, swimming near the surface. Of interest to fisheries. Four species recorded in Kenya waters, 1 in neighboring countries, all included in the Guide to Species.

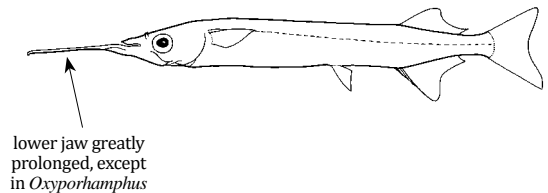


HEMIRAMPHIDAE

Page 146

Halfbeaks

To 44 cm. Marine, coastal and offshore waters, some entering estuaries and even freshwater; generally pelagic, swimming near the surface. Of interest to fisheries. Four species recorded in Kenya waters, 1 in neighboring countries, all included in the Guide to Species.

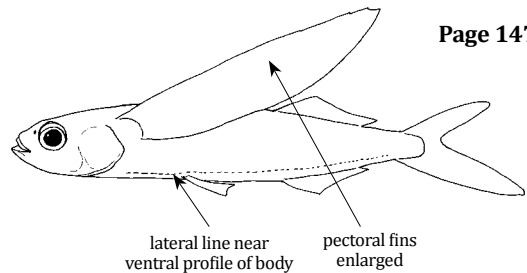


EXOCOETIDAE

Page 147

Flyingfishes

To 30 cm. Marine, pelagic in surface waters; capable of jumping out of the water and gliding for long distances. Of little interest to fisheries. Twelve species occur in Kenya waters, all included in the Guide to Species.



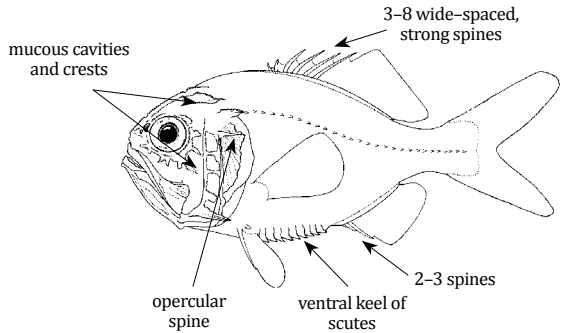
Order BERYCIFORMES – Squirrelfishes and allies

Head with spines and crests well developed; fin spines well developed; scales heavy and strongly ctenoid (rough).

TRACHICHTHYIDAE

Slimeheads

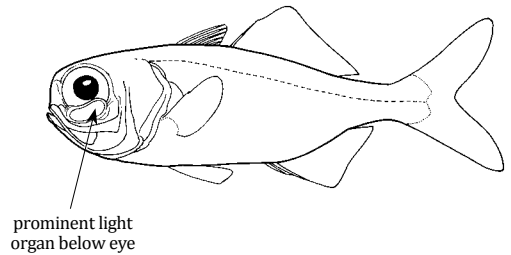
To about 60 cm. Marine, from depths of about 100 m to 1000 m, rarely below 600 m; benthic. Of little interest to fisheries. Probably several species.



ANOMALOPIDAE

Lanterneye fishes

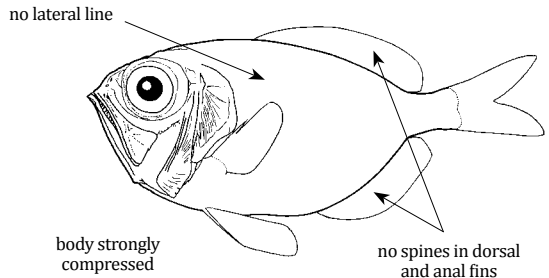
To 30 cm. Marine, from shallow waters at night to depths below 100 m; benthic. Of no interest to fisheries. One species in western Indian Ocean, never recorded in Kenya waters: *Photoblepharon steinitzi* Abe & Haneda, 1973.



DIRETMIDAE

Spinyfins

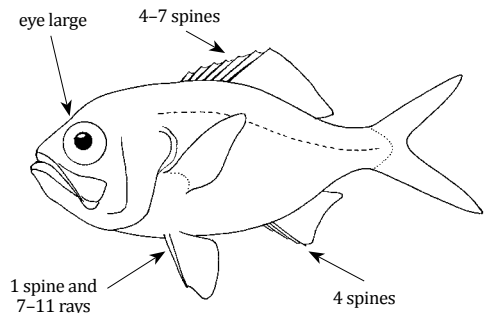
To 15 cm. Marine, from depths of 500 m to 700 m; benthic. Of no interest to fisheries. One species occurs in Kenya waters: *Diretmus argenteus* Johnson, 1864.



BERYCIDAE

Alfonsinos

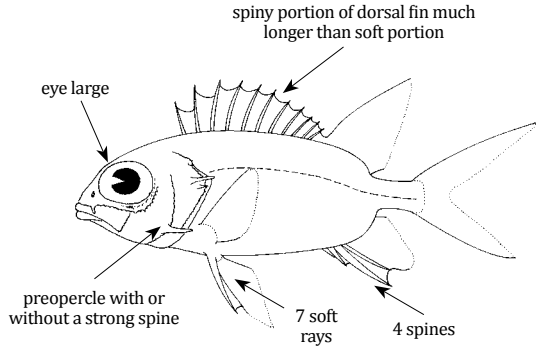
To 70 cm. Marine, from depths of 200 m to 600 m; bathypelagic. Of little interest to fisheries. Two species occur in the western Indian Ocean, one of which has been recorded in Kenya waters and is included in the Guide to Species.



HOLOCENTRIDAE

Squirrelfishes - Soldierfishes

To 45 cm. Marine, from shallow coastal waters to depths below 200 m; benthic. Of little interest to fisheries. Eleven species have been recorded in Kenya waters, six species in neighboring countries, all of which are included in the Guide to Species.



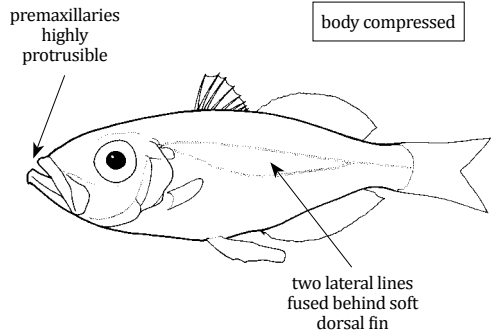
Order ZEIFORMES - Dories and allies

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

PARAZENIDAE

Parazens

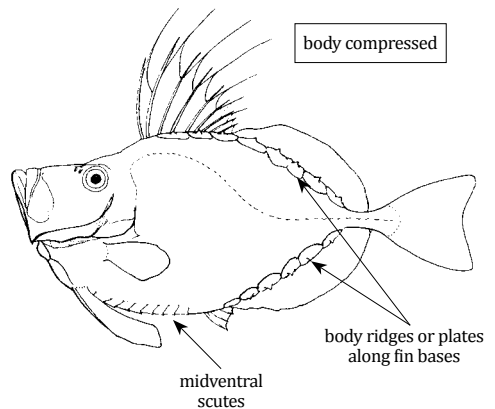
To 30 cm. Marine, outer continental slope, from depths of 150 m to 730 m. Of no interest to fisheries. One species recorded in neighboring countries and included in the Guide to Species.



ZEIDAE

Dories

To 70 cm. Marine, outer continental slope, from depths of 90 m to 300 m. Of little interest to fisheries, but flesh excellent. One species recorded in Kenya waters and included in the Guide to Species.



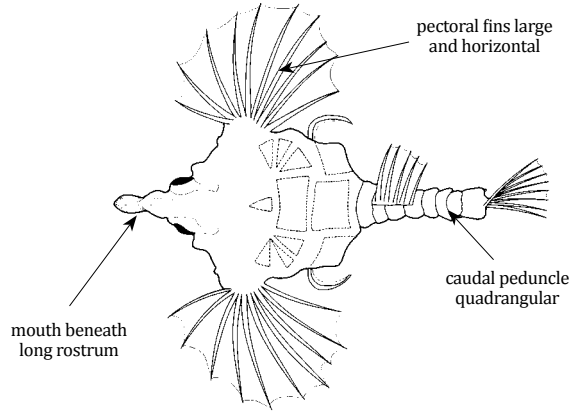
Order GASTEROSTEIFORMES - Seamoths and Sticklebacks

Reduced number of branchiostegal rays (1-5); small mouth, often tubular; body covered with armor of dermal plates in most members.

PEGASIDAE

Seamoths

To about 16 cm. Marine, coastal waters; benthic. Of no interest to fisheries. One species recorded in neighboring countries: *Eurypegasmus draconis* (Linnaeus, 1766).



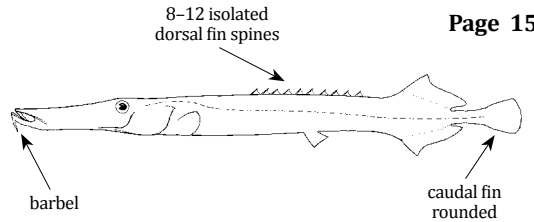
Order SYGNATHIFORMES - Pipefishes and allies

Body elongate, snout tube-like, mouth small; scales sometimes modified to form series of body plates.

AULOSTOMIDAE

Trumpetfishes

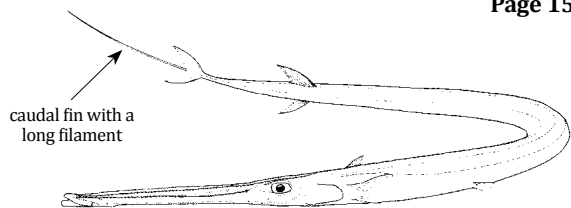
To about 75 cm. Marine, shallow coastal waters. Of little interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.



FISTULARIIDAE

Cornetfishes - Flutemouths

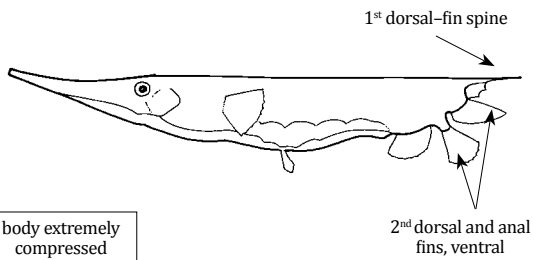
To about 200 cm. Marine, shallow coastal waters. Of little interest to fisheries, but flesh excellent. Two species recorded in Kenya waters both included in the Guide to Species.



CENTRISCIDAE

Snipefishes and Shrimpfishes

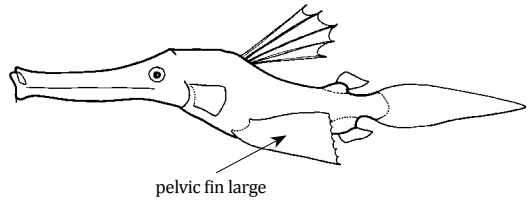
To about 20 cm. Coastal marine waters to depths of 80 m. Of no interest to fisheries. Two species occur in Kenya waters: *Aeoliscus punctulatus* (Bianconi, 1854); *Aeoliscus strigatus* (Günther, 1861).



SOLENOTOMIDAE

Ghost pipefishes

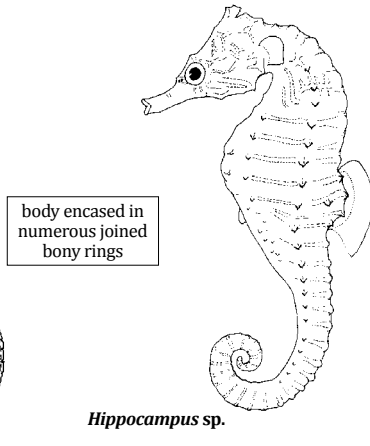
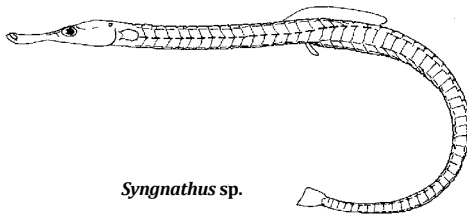
To about 15 cm. Marine, coastal waters. Of no interest to fisheries. One species recorded in Kenya waters: *Solenostomus cyanopterus* Bleeker, 1854.



SYNGNATHIDAE

Pipefishes and Seahorses

To about 30 cm. Coastal marine waters to depths of about 90 m, littoral pools, lagoons, estuaries, and freshwater; mostly benthic. Of no interest to fisheries, some species of interest of aquarium trade. Many species recorded in Kenya waters.

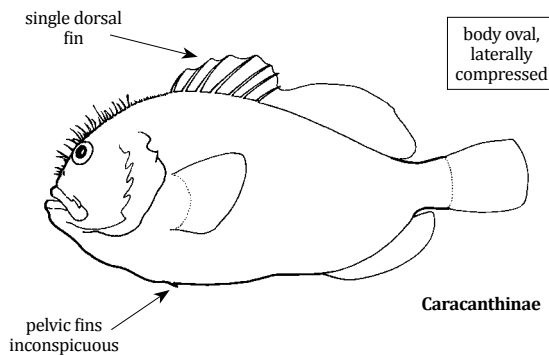
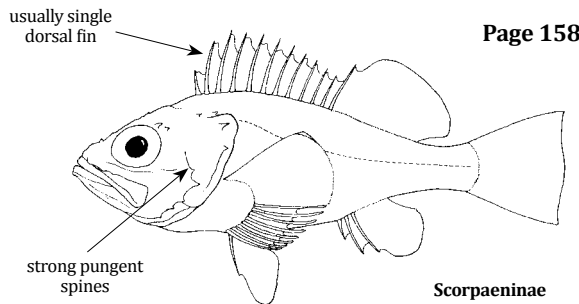


Order SCORPAENIFORMES - Scorpionfishes and allies
Cheeks with a bony strut (posterior extension of suborbital bone to preopercle), usually well developed spines on head and prominent spines in dorsal fin; pectoral fins usually rounded, sometimes greatly enlarged; membranes between lower rays often incised; caudal fin rarely forked.

SCORPAENIDAE

Scorpionfishes - Rockfishes - Velvetfishes

To 40 cm. Marine, from the coastline to depths of 400 m; benthic. Of interest to fisheries. Nineteen species occur in Kenya waters, eleven of which are included in the Guide to Species.

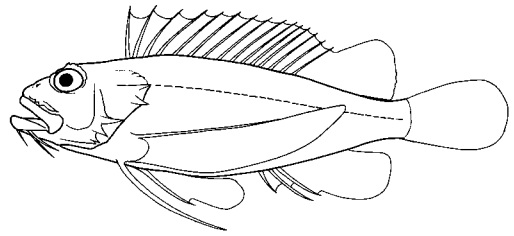


APISTIDAE

Page 162

Wasp scorpionfishes

To about 20 cm. Marine. Of no interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.



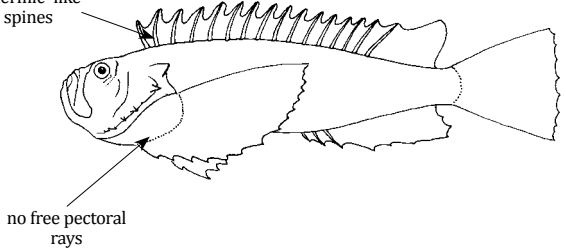
SYNANCEIIDAE

Page 162

Stonefish

To about 40 cm. Marine, coastal waters. Of no interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.

Venom glands present near base of hypodermic-like dorsal-fin spines

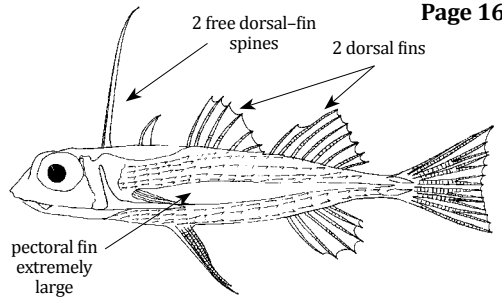


DACTYLOPTERIDAE

Page 163

Flying gurnards

To 40 cm. Marine, shallow coastal waters; benthic. Of no interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.

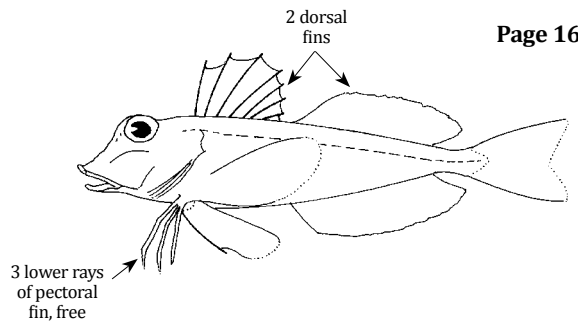


TRIGLIDAE

Page 163

Gurnards

To about 16 cm. Marine coastal and deeper waters; benthic. Of little interest to fisheries. Four species occur in Kenya waters, three of which are included in the Guide to Species.

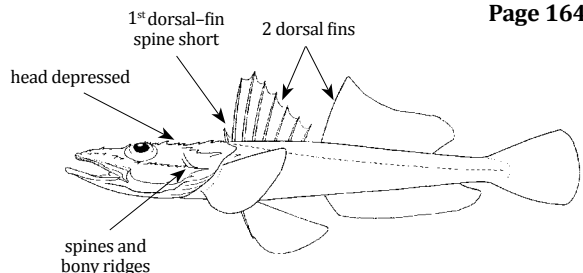


PLATYCEPHALIDAE

Page 164

Spiny flatheads

To 100 cm. Marine, on sand and mud bottoms down to a depth of about 70 m. Of little interest to fisheries. Five species recorded in Kenya waters, one in neighboring countries, all included in the Guide to Species.



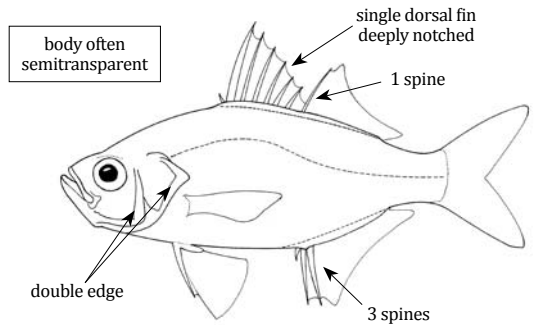
Order PERCIFORMES: PERCOIDEI – Perch-like fishes

Shape extremely variable; either two dorsal fins, or one dorsal fin with anterior elements being sharp spines; pelvic fins usually with one spine and five soft rays, placed well forward on ventral surface of body; maxillary bone not included in gape of mouth, but dorsal to the tooth-bearing premaxilla.

AMBASSIDAE

Asiatic glassfishes

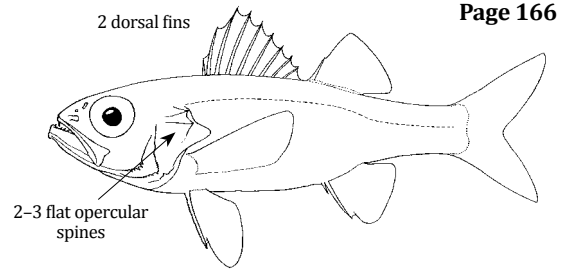
To about 15 cm. Shallow coastal waters and estuaries, entering freshwater. Of no interest to fisheries. Three species occur in Kenya waters: *Ambassis gymnocephalus* (Lacepède, 1802); *Ambassis natalensis* Gilchrist & Thompson, 1908; *Ambassis productus* Guichenot, 1866.



ACROPOMATIDAE

Lanternbellies

To 30 cm. Marine, from depths of 100 m to 600 m; benthic. Of little interest to fisheries. Three species occur in Kenya waters and are included in the Guide to Species.

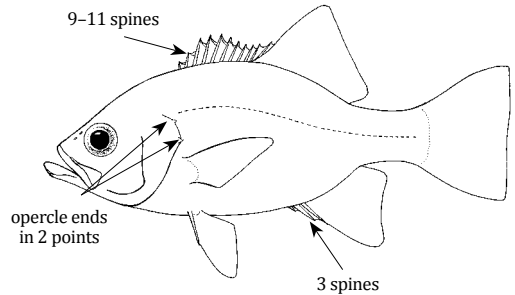


Page 166

DINOPERCIDAE

Cavebasses

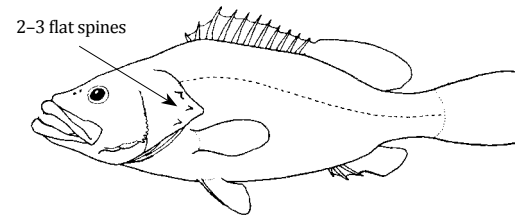
To 65 cm. Marine, on rocky reefs to depths beyond 50 m; benthic. Of no interest to fisheries. A single species occurs in Kenya waters: *Dinoperca petersi* (Day, 1875).



SERRANIDAE

Groupers – Seabasses – Rockcods – Hinds – Combers – Coral trouts – Lyretails – Soapfishes

To 250 cm. Marine, from the coastline to depths beyond 380 m; also estuarine; mostly benthic; a large and diverse family. Of major interest to fisheries. Fifty-five species occur in Kenya waters, 47 of which are included in the Guide to Species.

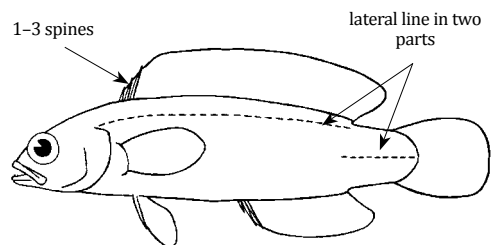


Page 167

PSEUDOCHROMIDAE

Dottybacks

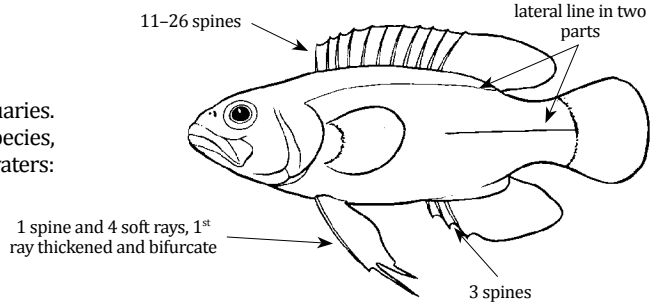
To about 10 cm, but most species less than 5 cm. Shallow coastal waters, especially coral reefs to depths of about 100 m; benthic. Of interest to the aquarium trade. Ten species have been recorded in Kenya waters.



PLESIOPIDAE

Roundheads

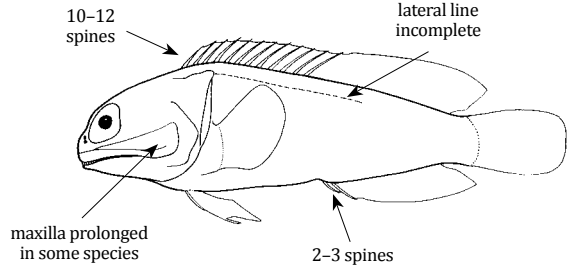
To about 25 cm. Marine coastal waters and estuaries. Of no interest to fisheries. Perhaps several species, but only one species recorded in Kenya waters: *Plesiops coeruleolineatus* Rüppell, 1835.



OPISTOGNATHIDAE

Jawfishes

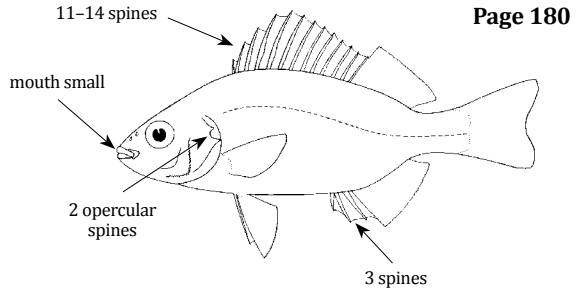
To about 35 cm, but most species smaller than 11 cm. Marine, in shallow waters to depths of 200 m; benthic on sandy bottoms. Of no interest to fisheries. Ten species occur in the western Indian Ocean; one recorded in Kenya waters: *Opistognathus margaretae* Smith-Vaniz, 1983.



TERAPONTIDAE

Grunters

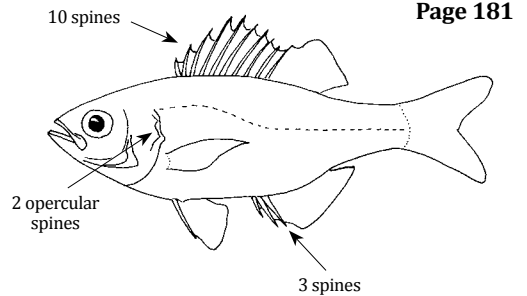
To about 30 cm. Marine, coastal waters and estuaries. Of little interest to fisheries. Four species recorded in Kenya waters and included in the Guide to Species.



KUHLIIDAE

Aholeholes

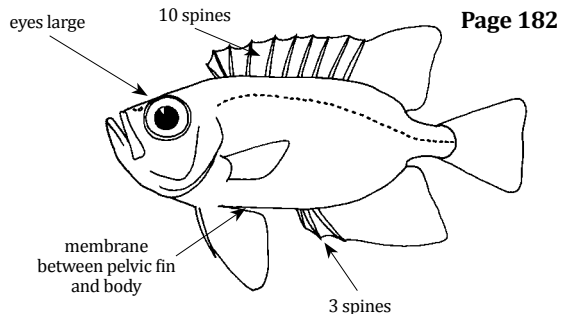
To 40 cm. Marine coastal waters, estuaries, and entering freshwater. Of little interest to fisheries. Two species recorded in Kenya waters and included in the Guide to Species.



PRIACANTHIDAE

Bigeyes

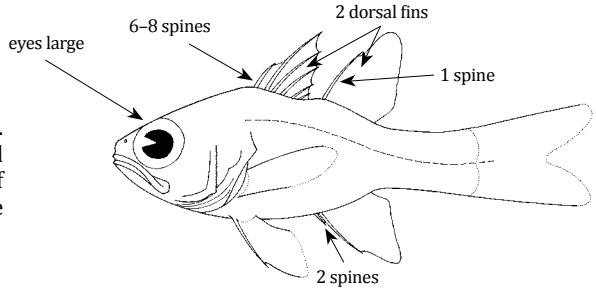
To 50 cm. Marine, from the coastline to a depth of about 200 m; benthic. Of little interest to fisheries. One species has been recorded in Kenya waters; five in neighboring countries.



APOGONIDAE

Cardinalfishes

To about 20 cm, but most species less than 12 cm. Shallow coastal waters, and some in brackish and freshwater; benthic and benthopelagic at night. Of interest to the aquarium trade. Several species have been recorded in Kenya waters.

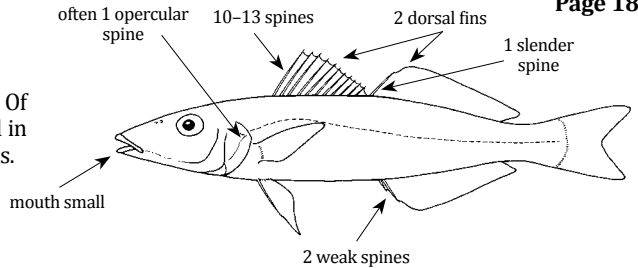


Page 184

SILLAGINIDAE

Smelt-whitings

To 35 cm. Marine coastal waters and estuaries. Of little interest to fisheries. Three species recorded in Kenya waters and included in the Guide to Species.

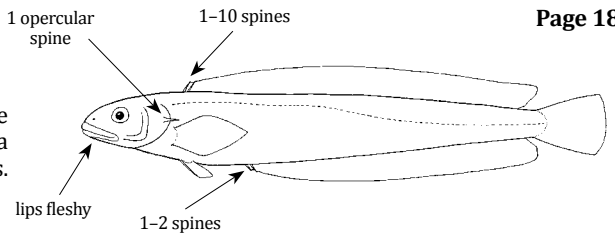


Page 184

MALACANTHIDAE

Tilefishes

To 45 cm. Marine, coastal waters; benthic. Of little interest to fisheries. Four species recorded in Kenya waters, one of which included in the Guide to Species.

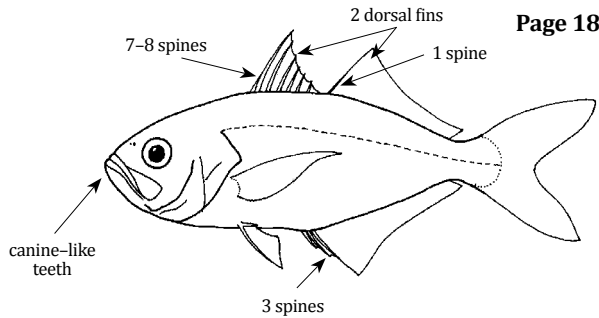


Page 185

LACTARIIDAE

False trevallies

To 40 cm. Marine coastal waters. Of little interest to fisheries. One species occurs in Kenya neighboring countries and is included in the Guide to Species.

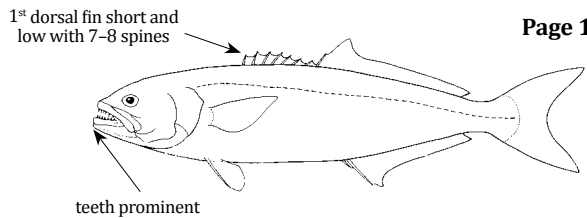


Page 185

POMATOMIDAE

Bluefishes

To 130 cm. Marine, brackish; pelagic-oceanic; oceanodromous. Of major interest to fisheries. One species circumglobal and included in the Guide to Species.

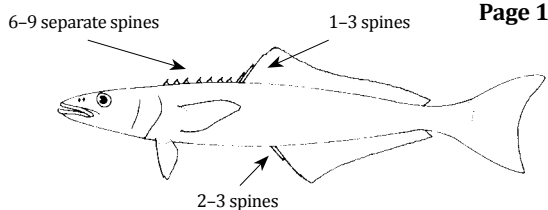


Page 185

RACHYCENTRIDAE

Cobias

To 200 cm. Marine, pelagic in coastal waters, occasionally in estuaries. Of interest to fisheries. One species present in Kenya waters and included in the Guide to Species.

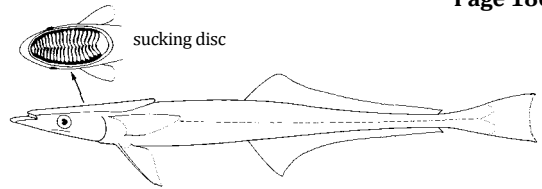


Page 186

ECHENEIDAE

Remoras - Sharksuckers

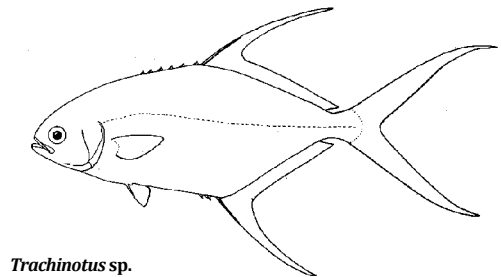
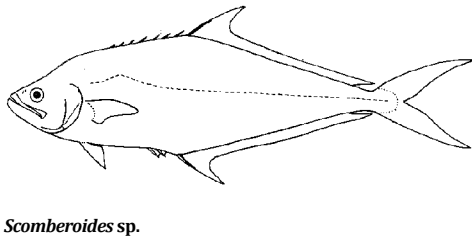
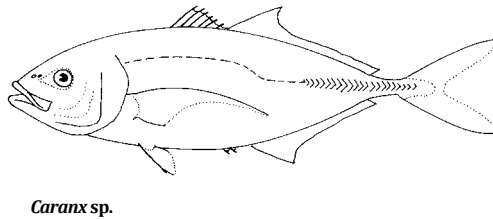
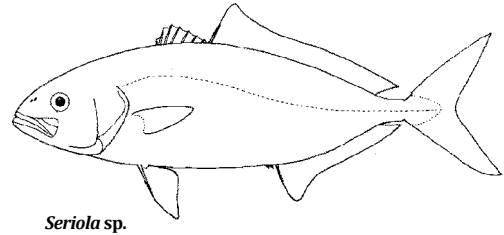
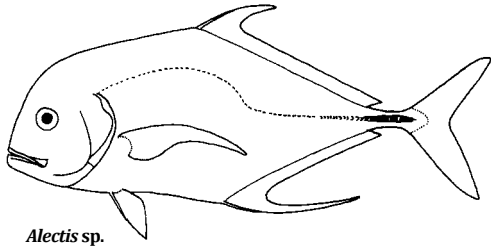
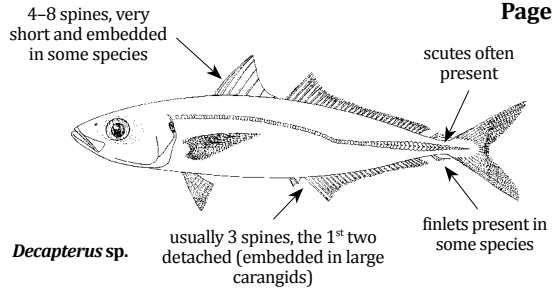
To about 90 cm. Marine, pelagic; attach to larger marine animals such as sharks, turtles, and marine mammals. Of no interest to fisheries. Eight species worldwide, one of which recorded in Kenya waters and included in the Guide to Species.



CARANGIDAE

Jacks - Trevallies - Scads - Queen-fishes - Runners - Pompanos

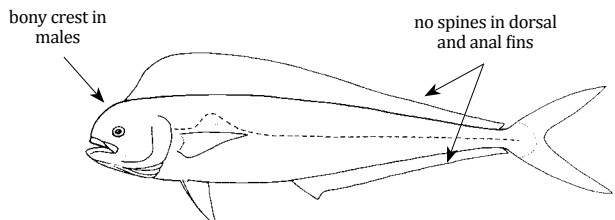
To about 165 cm. Marine, from coastal waters to a depth of 200 m; a few species entering brackish waters; coastal pelagic or oceanic pelagic; a large and diverse family. Of major interest to fisheries. Forty-five species recorded in Kenya waters and included in the Guide to Species.



CORYPHAENIDAE

Dolphinfishes

To 200 cm. Marine, oceanic pelagic, but sometimes close to the coast. Of major interest to fisheries. Two species recorded in Kenya waters and included in the Guide to Species.

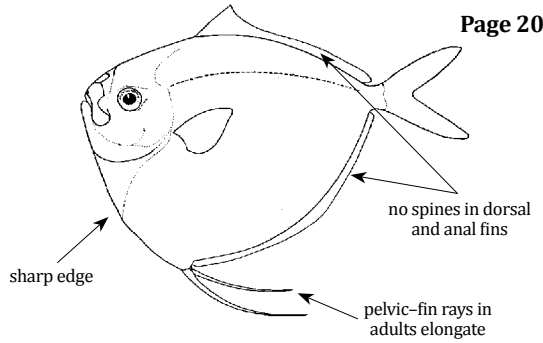


MENIDAE

Page 202

Moonfishes

To 24 cm. Marine, coastal waters, entering estuaries. Of no interest to fisheries. A single species recorded in Kenya waters.

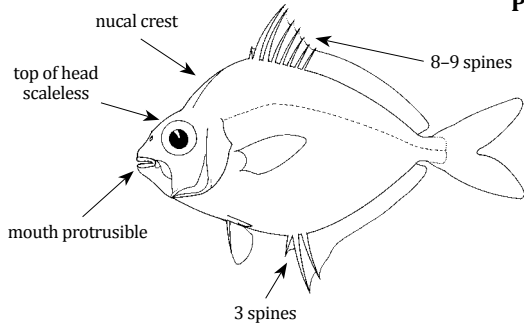


LEIOGNATHIDAE

Page 202

Ponyfishes - Slipmouths - Tooth-ponies

To 21 cm. Marine, coastal waters, to a depth of 25 m and estuaries; schooling; benthic. Of no interest to fisheries. Seven species recorded in Kenya waters, two in neighboring countries, all included in the Guide to Species.

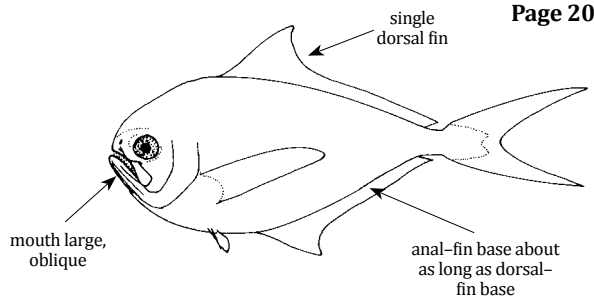


BRAMIDAE

Page 205

Pomfrets

To about 60 cm. Marine, epipelagic. Of interest to fisheries. Two species recorded in Kenya waters, one of which included in the Guide to Species.

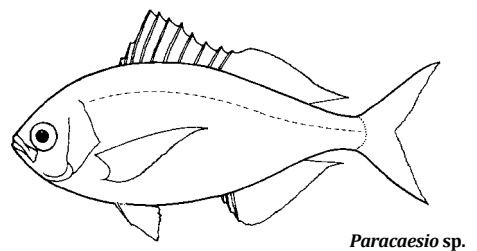
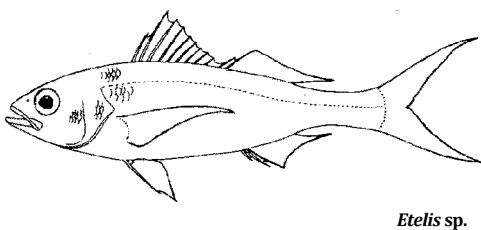
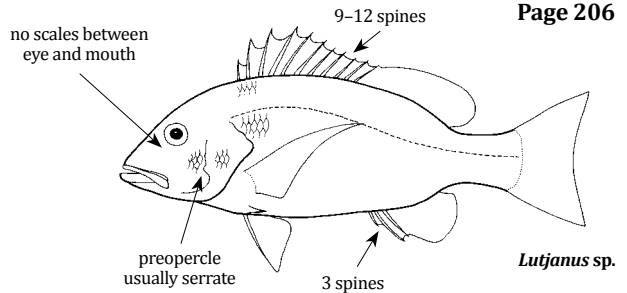


LUTJANIDAE

Page 206

Snappers

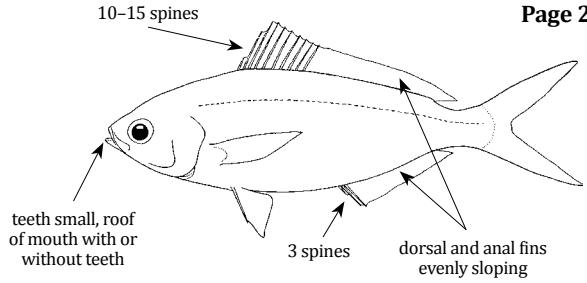
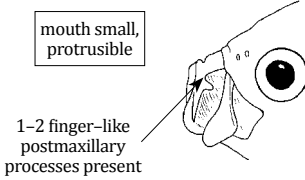
To 120 cm. Mostly marine, from the coastline to a depth of 360 m; some species enters estuaries and even rivers; benthic. Of interest to fisheries. Twenty-six species recorded in Kenya waters and included in the Guide to Species.



CAESIONIDAE

Fusiliers

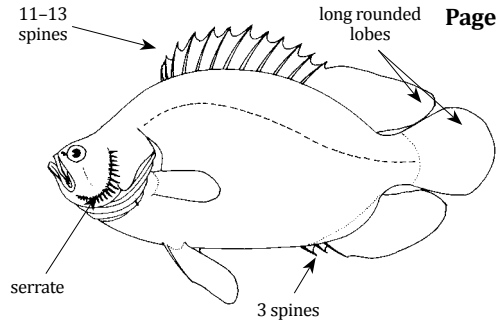
To about 40 cm. Marine, coastal waters, associated with reefs, to a depth of about 60 m; pelagic. Of little interest to fisheries. Twelve species have been recorded in Kenya waters, one in neighboring countries, all included in the Guide to Species.



LOBOTIDAE

Tripletails

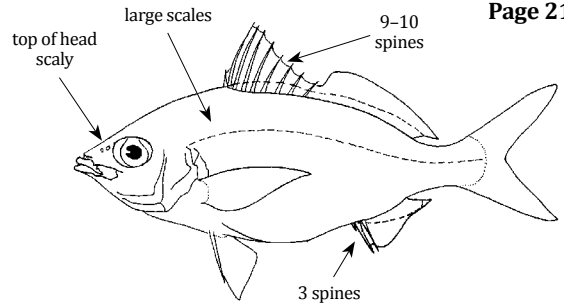
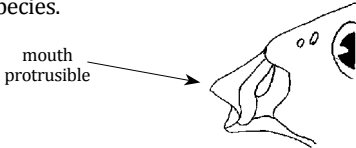
To 100 cm. Marine, oceanic-pelagic, drifting near the surface. Of no interest to fisheries. A single species recorded in Kenya waters, included in the Guide to Species.



GERREIDAE

Silverbiddies - Mojarras

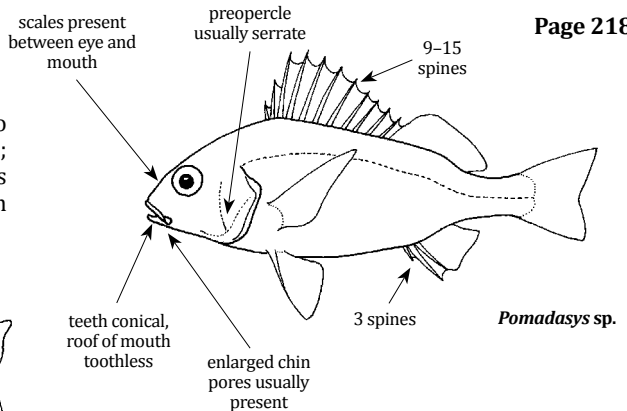
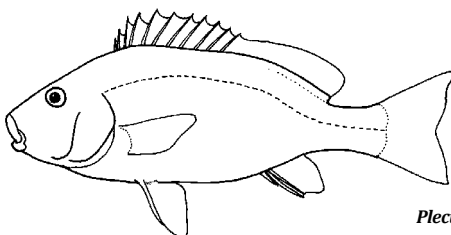
To 35 cm. Coastal marine waters to depths of about 60 m; also estuaries, coastal lagoons and freshwater; benthic. Of no interest to fisheries. Four species recorded in Kenya waters, included in the Guide to Species.



HAEMULIDAE

Grunts - Sweetlips - Rubberlips

To 90 cm. Mostly marine, from the coastline to a depth of about 200 m, and in brackish waters; benthic. Of interest to fisheries. Twenty-two species recorded in Kenya waters, 20 of which have been included in the Guide to Species.

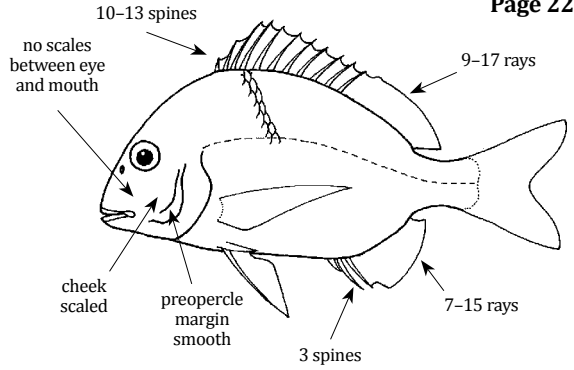
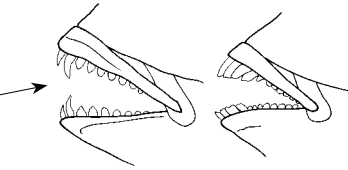


SPARIDAE

Porgies – Seabreams – Pinfishes

To 90 cm. Marine, coastal waters, to a depth of about 150 m; occasionally entering estuaries; benthic. Of major interest to fisheries. Fourteen species have been recorded in Kenya waters, 10 of which have been included in the Guide to Species.

teeth canine-like, conical or incisor-like, molars often present, roof of mouth toothless

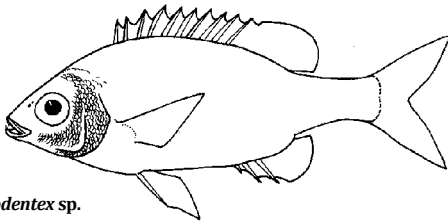


LETHRINIDAE

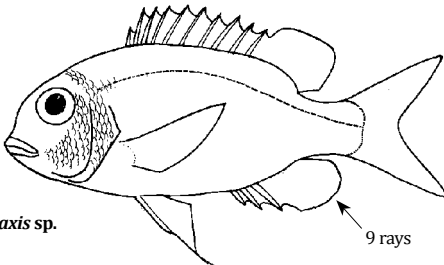
Emperors – Scavengers

To 100 cm. Coastal marine waters to depths of about 185 m; benthic. Of interest to fisheries. Sixteen species recorded in Kenya waters, included in the Guide to Species.

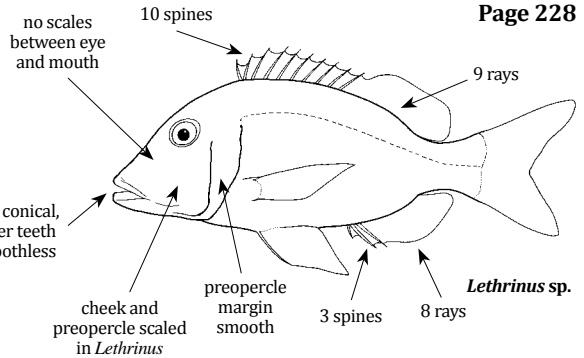
outer teeth canine-like or conical, molars often present, inner teeth villiform, roof of mouth toothless



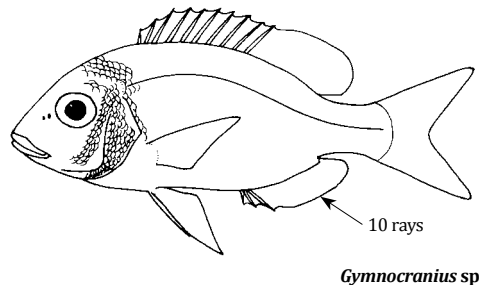
Gnathodentex sp.



Monotaxis sp.



Lethrinus sp.



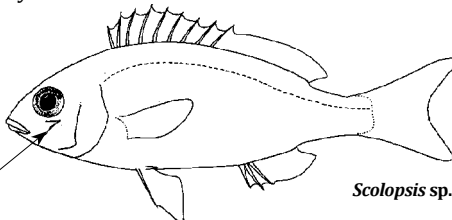
Gymnocranius sp.

NEMIPTERIDAE

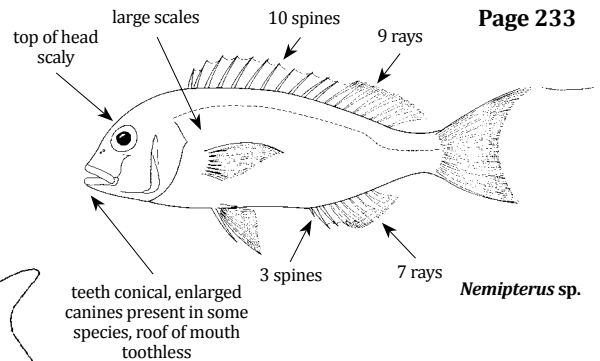
Threadfin breams – Monocle breams – Dwarf monocle breams

To 30 cm. Coastal marine waters to depths of about 400 m; benthic. Of interest to fisheries. Nine species recorded in Kenya waters and included in the Guide to Species.

suborbital spine present in some species



Scolopsis sp.

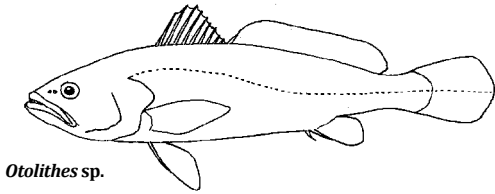


Nemipterus sp.

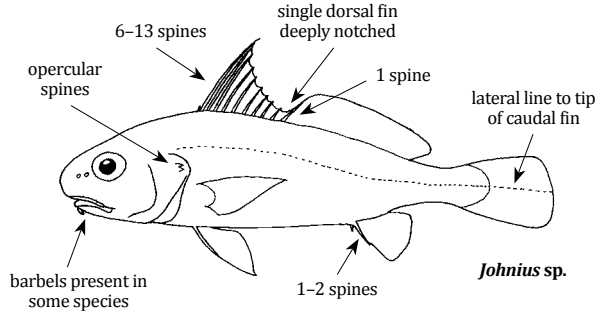
SCIAENIDAE

Croakers - Drums - Meagres - Weakfishes

To 80 cm. Marine, from coastal waters to a depth of about 100 m; benthic. Of interest to fisheries. Five species recorded in Kenya waters, included in the Guide to Species.



Otolithes sp.

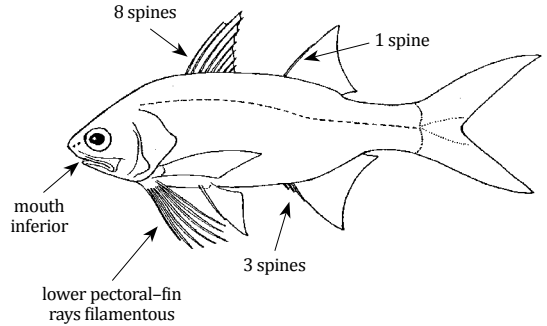


Johnius sp.

POLYNEMIDAE

Threadfins

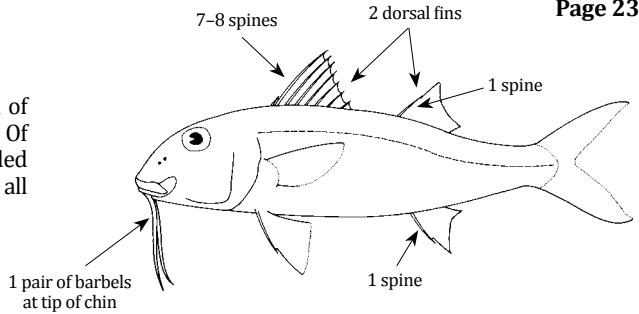
To 45 cm. Coastal marine waters, estuaries and coastal lagoons; fresh river mouths; benthic. Of little interest to fisheries. Two species recorded in Kenya waters.



MULLIDAE

Goatfishes - Red mullets

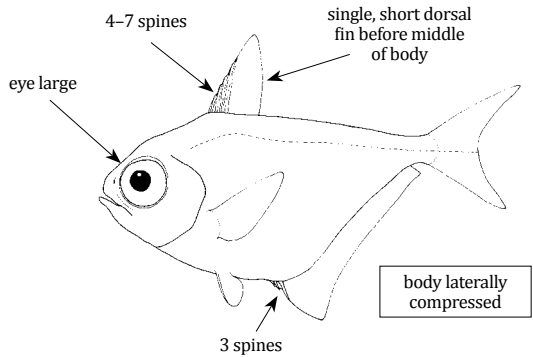
To 50 cm. Marine, from the coastline to a depth of about 100 m; occasionally in estuaries; benthic. Of interest to fisheries. Seventeen species recorded in Kenya waters, 1 in neighboring countries, all included in the Guide to Species.



PEMPHERIDAE

Sweepers

To about 17 cm. Coastal marine waters. Of no interest to fisheries. Perhaps several species in Kenya waters.



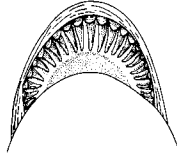
KYPHOSIDAE

Seachubs - Rudderfishes - Stonebreams

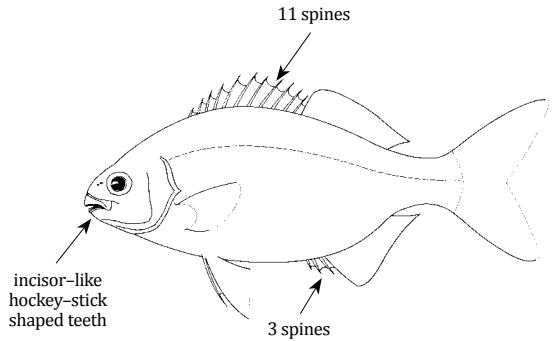
To 75 cm. Marine reef areas; benthic. Of interest to fisheries. Three species recorded in Kenya waters, included in the Guide to Species.



individual tooth lateral view



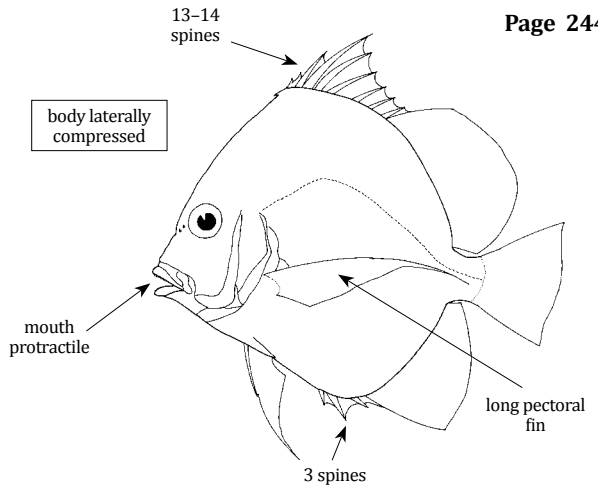
upper jaw viewed from below



DREPANEIDAE

Sicklefishes

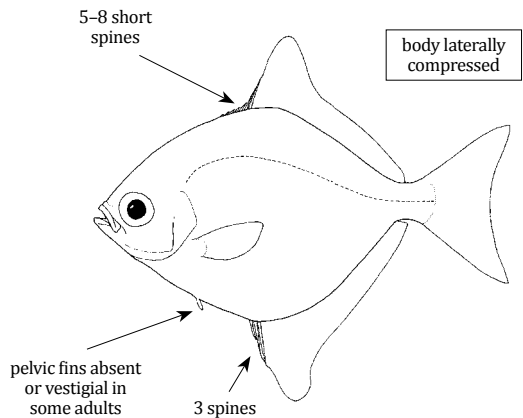
To 40 cm. Marine, mud banks, to a depth of 40 m; benthic. Of interest to fisheries. One species recorded in Kenya waters, included in the Guide to Species.



MONODACTYLIDAE

Moonies

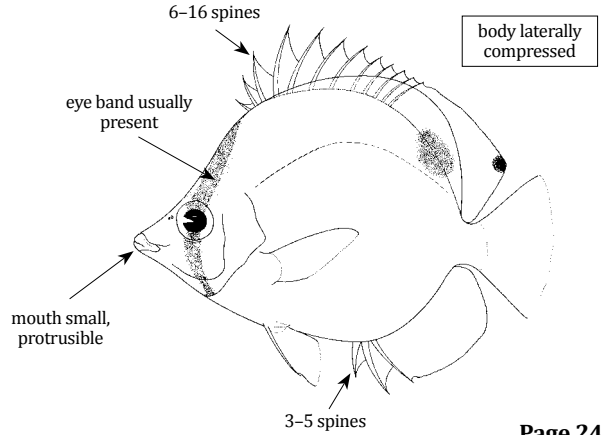
To 25 cm. Marine, coastal waters, estuaries and entering freshwater. Of little interest to fisheries. Two species recorded in Kenya waters, included in the Guide to Species.



CHAETODONTIDAE

Butterflyfishes

To about 20 cm. Marine, usually in shallow waters but occasionally to a depth of about 100 m; benthic. Of no interest to fisheries; some species of interest of the aquarium trade. Several species recorded in Kenya waters.

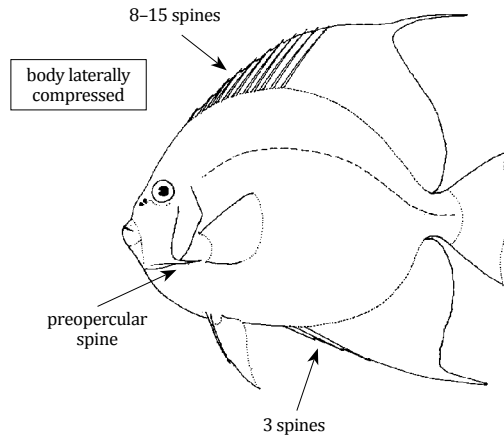


Page 245

POMACANTHIDAE

Angelfishes

To 50 cm. Marine, from the coastline to a depth of about 70 m; benthic. Of no interest to fisheries; some species of interest of the aquarium trade. Six species recorded in Kenya waters, one in neighboring countries, all included in the Guide to Species.

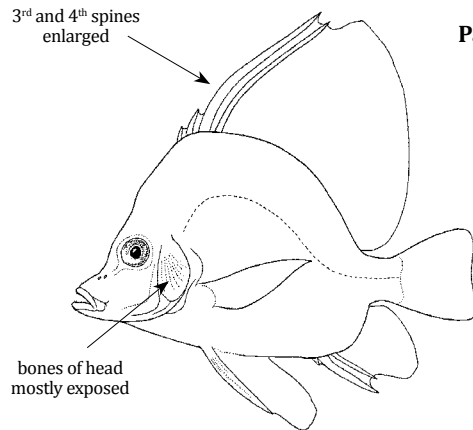


Page 248

PENTACEROTIDAE

Armorheads

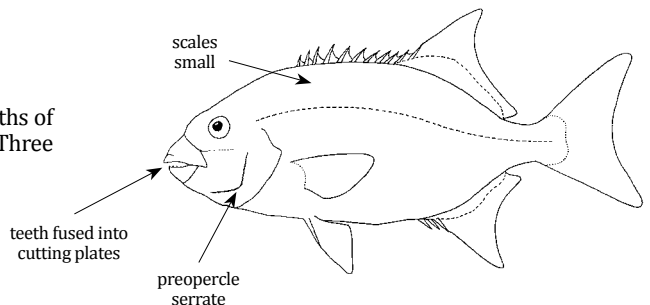
To 35 cm. Marine, on the continental shelf and slope at depths of about 400 m; benthic. Of no interest to fisheries. One species occurs in neighboring countries, and is included in the Guide to Species.



OPLEGNATHIDAE

Knifejaws

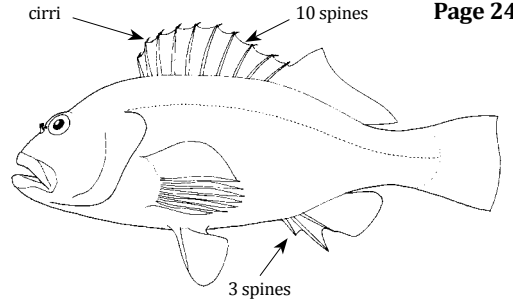
To 30 cm. Marine, from shallow waters to depths of 150 m; benthic. Of little interest to fisheries. Three species occur in the western Indian Ocean.



CIRRHITIDAE

Hawkfishes – Curleyfins

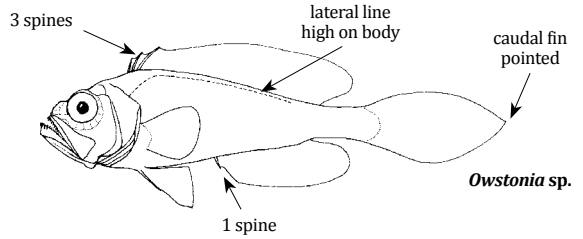
To 30 cm. Marine, from shallow waters to depths of 120 m; benthic. Smaller species of some interest to the aquarium trade. Of no interest to fisheries. Three species occur in Kenya waters and are included in the Guide to Species.



CEPOLIDAE

Bandfishes

To about 52 cm. Marine, from shallow waters to a depth of about 475 m; benthic. Of no interest to fisheries. One species recorded in Kenya waters: *Owstonia weberi* (Gilchrist, 1922).



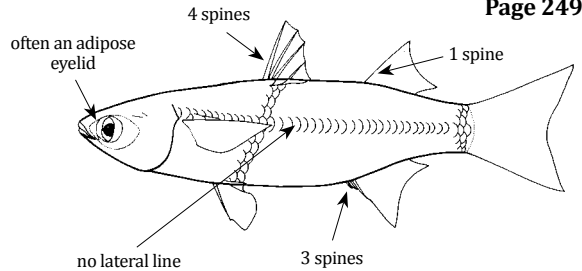
Order PERCIFORMES: MUGILOIDEI – Mulletts

Body elongate; head flattened; mouth small; pectoral fins high on body; 2 dorsal fins; sides silvery; no lateral line.

MUGILIDAE

Mulletts

To 90 cm. Coastal marine, estuaries and freshwater, at shallow depths (less than 20 m); mostly benthic in food habits, but usually swim near the surface. Of interest to fisheries. Nine species recorded in Kenya waters and included in the Guide to Species.



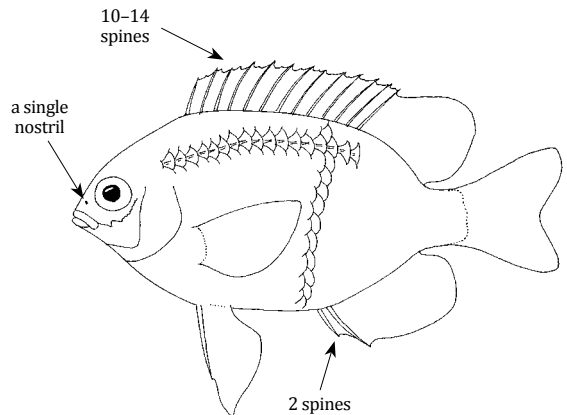
Order PERCIFORMES: LABROIDEI – Wrasses and allies

Well developed teeth, coalesced into plates in the Scaridae; scales usually large and cycloid (smooth); body compressed; usually colourful species.

POMACENTRIDAE

Damsel-fishes

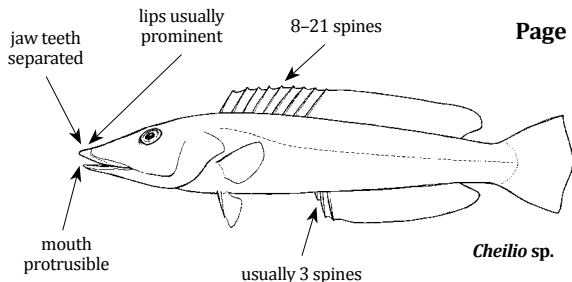
To about 25 cm, but most species smaller than 5 cm. Coastal marine waters and estuaries; mostly benthic. Of no interest to fisheries, some species of interest of the aquarium trade. Several species recorded in Kenya waters.



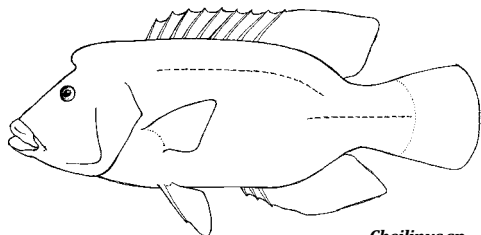
LABRIDAE

Wrasses - Hogfishes - Coris - Tuskfishes

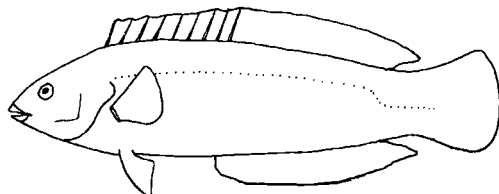
To about 200 cm, but most species smaller than 25 cm. Coastal marine waters to a depth of about 160 m; benthic. Of interest to fisheries. A large and diverse group; 58 species have been included in the Guide to Species.



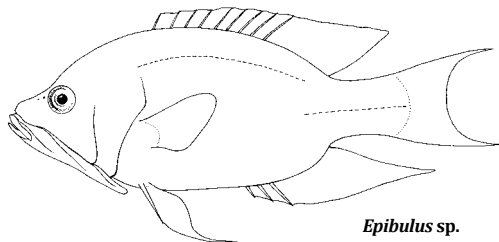
Cheilio sp.



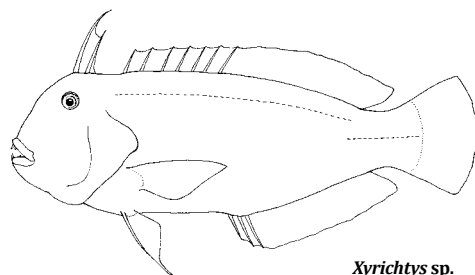
Cheilinus sp.



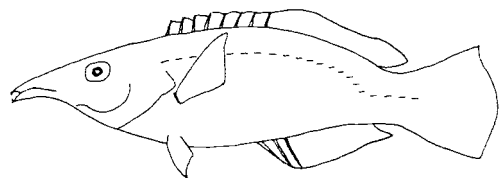
Coris sp.



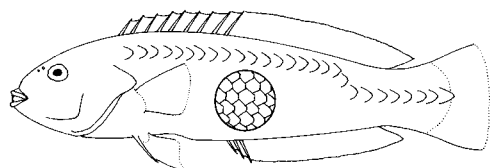
Epibulus sp.



Xyrichtys sp.



Gomphosus sp.

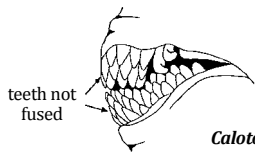
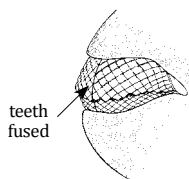


Halichoeres sp.

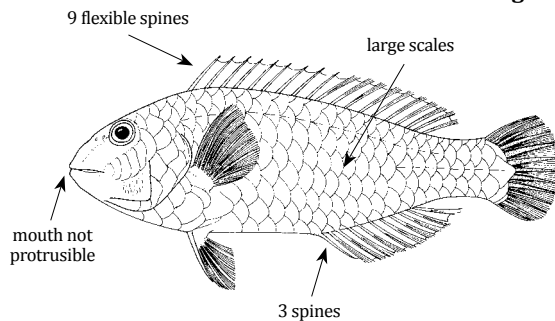
SCARIDAE

Parrotfishes

To 120 cm. Marine, in shallow waters rarely below 60 m; benthic. Of major interest to fisheries; 21 species have been included in the Guide to Species.



Calotomus sp.



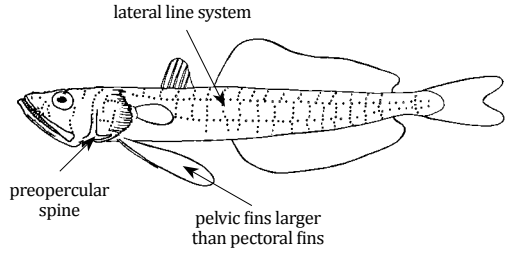
Order PERCIFORMES: TRACHINOIDEI - Weeverfishes and allies

A diverse assemblage of families difficult to characterize as a group.

CHAMPSODONTIDAE

Crocodile toothfishes

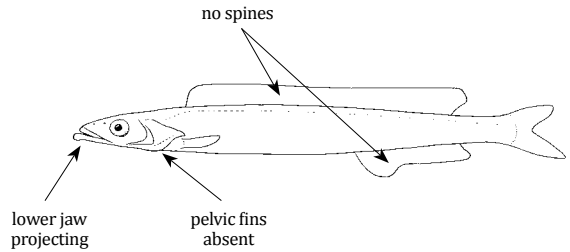
To about 20 cm. Marine, from surface at night to a depth of 500 m, mesopelagic. Of no interest to fisheries. One species recorded in Kenya waters: *Champsodon capensis* Regan, 1908.



AMMODYTIDAE

Sand lances

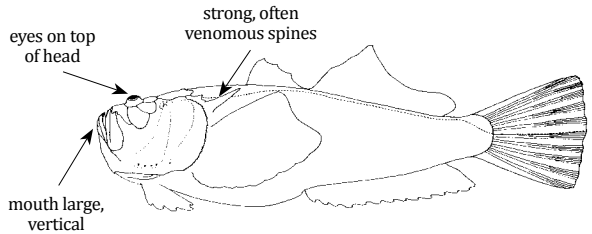
To about 30 cm. Marine, from coastline to a depth of about 50 m; benthic or pelagic. Of no interest to fisheries, used as bait. Possibly one species: *Ammodytoides xanthops* Randall & Heemstra, 2008.



URANOSCOPIDAE

Stargazers

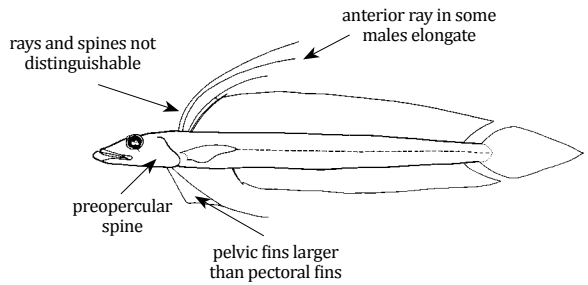
To about 60 cm. Marine and estuarine; benthic to a depth of 500 m, mesopelagic. Of no interest to fisheries. Several species occur in Kenya waters.



TRICHONOTIDAE

Sanddivers

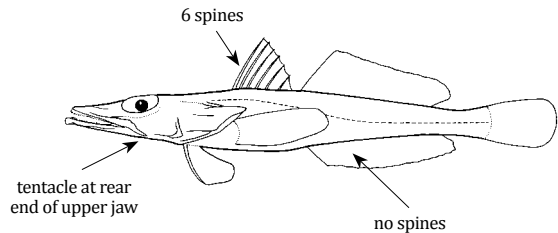
To about 18 cm. Marine, coastal waters; benthic. Of no interest to fisheries. No species recorded in Kenya waters.



PERCOPHIDAE

Duckbills

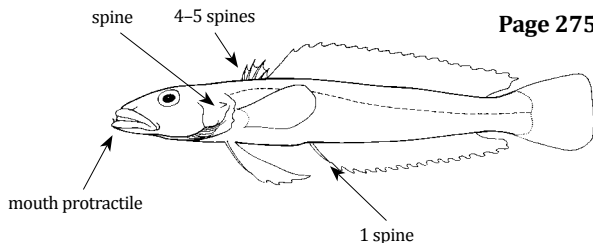
To about 25 cm. Marine, from depths of about 250 m; benthic. Of no interest to fisheries. Possibly one species in Kenya waters: *Pteropsaron natalensis* (Nelson, 1982).



PINGUIPEDIDAE

Grubfishes

To about 30 cm. Marine, coastal waters; benthic. Of little interest to fisheries. One species recorded in Kenya waters, one species in neighboring countries, both included in the Guide to Species.

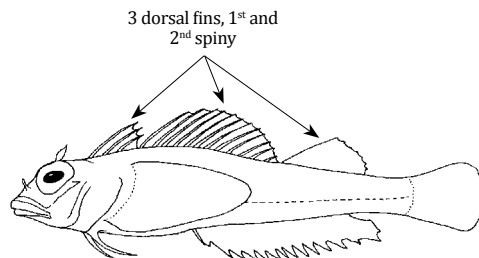


Order PERCIFORMES: BLENNIOIDEI - Blennies and allies
 Dorsal fin long; pelvic fins reduced, with 1 hidden spine and 2 to 4 soft rays, located ahead of pectoral fins; tentacles often present on head; 2 anal-fin spines (one of them often difficult to see).

TRIPTERYGIIDAE

Triplefins

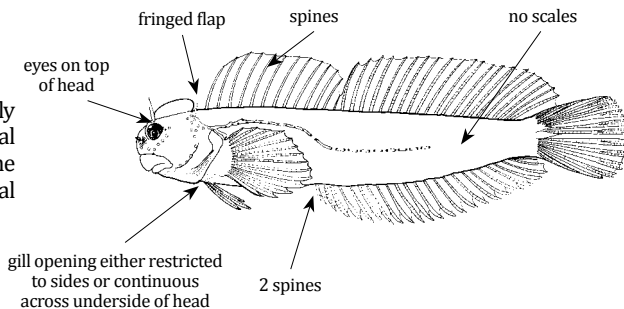
To about 6 cm. Marine, in shallow coastal waters; benthic. Of no interest to fisheries. Several species occur in the western Indian Ocean; three species recorded in Kenya waters: *Enneapterygius elegans* (Peters, 1876); *Enneapterygius fasciatus* (Weber, 1909); *Helcogramma fuscopinna* Holleman, 1982.



BLENNIIDAE

Blennies

To about 20 cm. Marine, in coastal waters, usually at depths less than 20 m; also estuaries and coastal lagoons; benthic. Of no interest to fisheries; some species of interest to the aquarium trade. Several species recorded in Kenya waters.

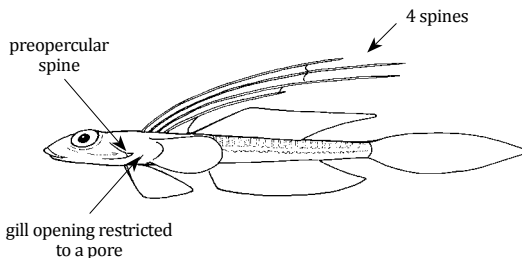


Order PERCIFORMES: CALLIONYMOIDEI - Dragonets
 A sharp preopercular spine; a small gill opening on upper part of head; size usually less than 25 cm.

CALLIONYMIDAE

Dragonets

To about 25 cm. Marine, mainly from coastal reefs; benthic. Of no interest to fisheries; some species of interest to the aquarium trade. Two species recorded in Kenya waters, one of which included in the Guide to Species.



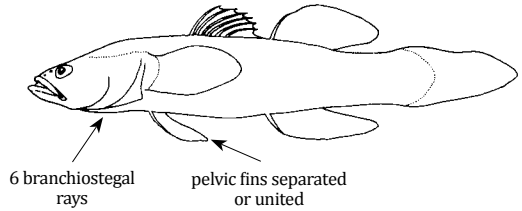
Order PERCIFORMES: GOBIOIDEI - Gobies and allies

Usually small fishes with pelvic fins either very close together or united into a single cup-like structure.

ELEOTRIDAE

Sleepers

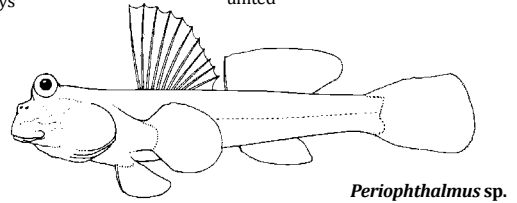
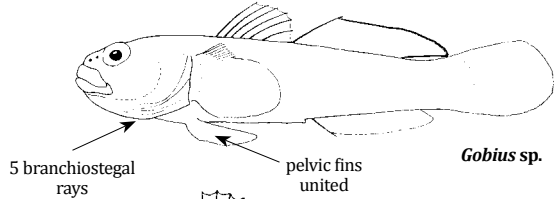
To about 30 cm. Adults generally in freshwater, but entering brackish and coastal marine waters; benthic. Of no interest to fisheries. Three species recorded in Kenya waters: *Butis butis* (Hamilton, 1822); *Eleotris fusca* (Forster, 1801); *Ophiocara porocephala* (Valenciennes, 1837).



GOBIIDAE

Gobies

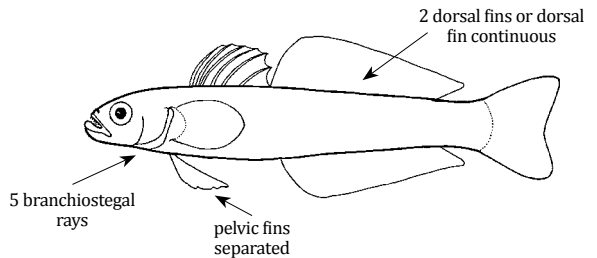
To about 30 cm, but most species below 10 cm. Marine and brackish waters and some in freshwaters; usually in shallow waters, but a few species to a depth of below 150 m; benthic. The largest family of fishes. Of no interest to fisheries. Several species recorded in Kenya waters.



MICRODESMIDAE

Wormfishes - Dartfishes

To 28 cm. Marine, in shallow coastal waters; benthic. Of no interest to fisheries. One species recorded in Kenya waters: *Ptereleotris evides* (Jordan & Hubbs, 1925).



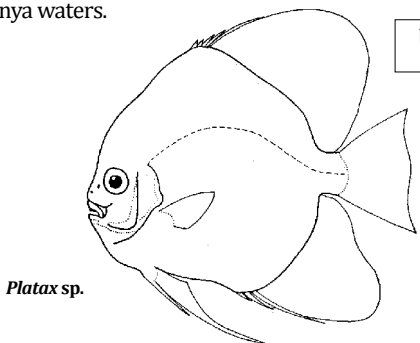
Order PERCIFORMES: ACANTHUROIDEI - Surgeonfishes and allies

Small scales; some species have strong, moveable, forward-projecting spine(s) mid-laterally on caudal peduncle.

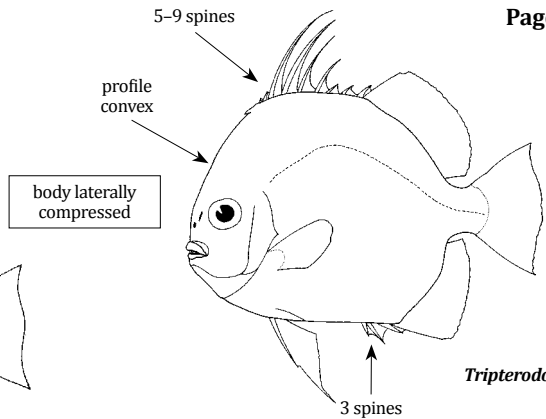
EPHIPPIDAE

Spadefishes - Batfishes

To 75 cm. Marine, shallow waters on mud banks; benthic. Of little interest to fisheries. Four species recorded in Kenya waters.



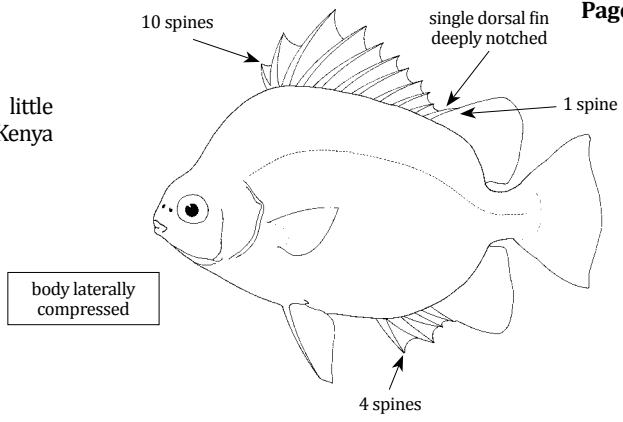
Platax sp.



SCATOPHAGIDAE

Scats

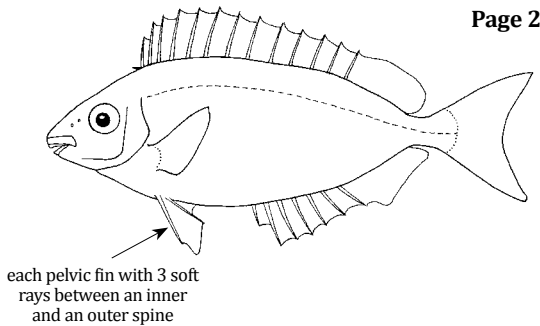
To about 30 cm. Marine and estuarine. Of little interest to fisheries. One species recorded in Kenya waters, and included in the Guide to Species.



SIGANIDAE

Rabbitfishes

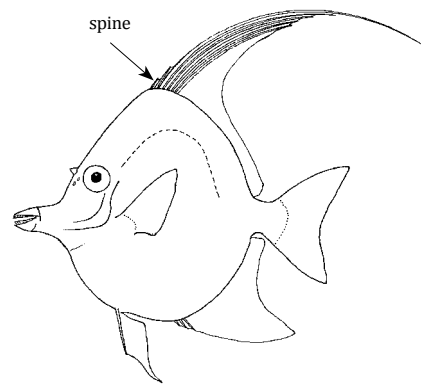
To 45 cm. Marine, coastal waters around reefs. Of major interest to fisheries. Six species recorded in Kenya waters and included in the Guide to Species.



ZANCLIDAE

Moorish idol

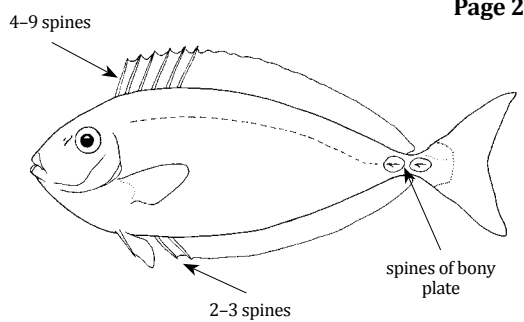
To about 20 cm. Marine, coral reefs waters; benthic. Of no interest to fisheries. One species recorded in Kenya waters: *Zanclus cornutus* (Linnaeus, 1758).



ACANTHURIDAE

Surgeonfishes - Tangs - Unicornfishes

To about 70 cm. Marine, in shallow waters associated with reefs, usually at a depth of less than 50 m; benthic. Of interest to fisheries. Twenty-one species recorded in Kenya waters, four in neighboring countries, all included in the Guide to Species.



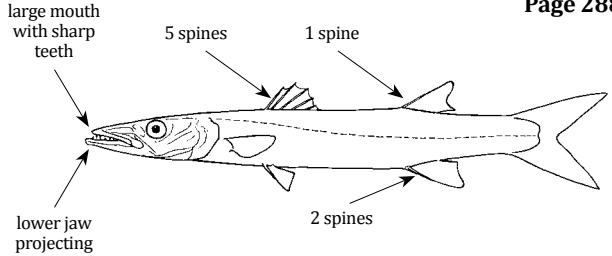
Order PERCIFORMES: SPHYRAENOIDEI - Barracudas

Body elongate, generally silvery on sides; head and snout both very long; teeth strong; two dorsal fins.

SPHYRAENIDAE

Barracudas

To 180 cm. Marine, from coastal waters to a depth of about 100 m; pelagic neritic. Of interest to fisheries. Six species recorded in Kenya waters, one in neighboring countries, all included in the Guide to Species.



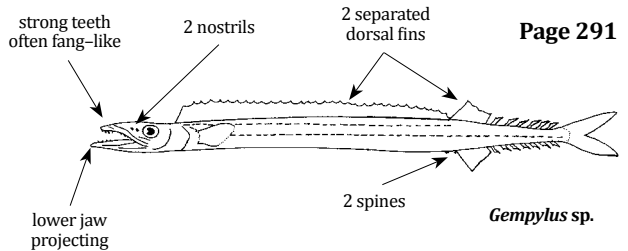
Order PERCIFORMES: SCOMBROIDEI - Tunas and allies

Finlets usually present at posterior ends of dorsal and anal fins; 1 to 3 keels on either side of caudal peduncle (except in most species of Gempylidae).

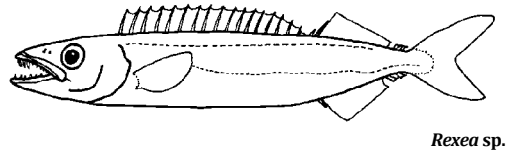
GEMPYLIDAE

Snake mackerels - Barracoutas - Escolars - Oilfishes

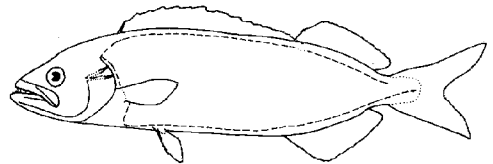
To about 200 cm. Marine, from the surface (at night) to depths below 600 m; pelagic. Of interest to fisheries. Six species recorded in Kenya waters, 1 in neighboring countries, all included in the Guide to Species.



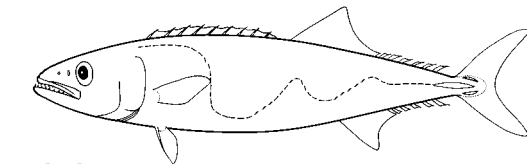
Gempylus sp.



Rexea sp.



Neopinnula sp.

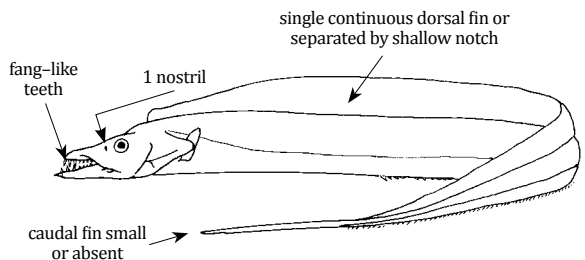


Lepidocybium sp.

TRICHIURIDAE

Cutlassfishes - Hairtailfishes - Frostfishes - Scabbardfishes

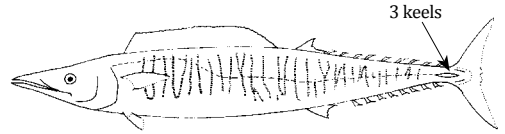
To 120 cm. Marine, from the surface (mainly at night) to depths below 1000 m; benthic and pelagic. Of interest to fisheries. One species recorded in Kenya waters.



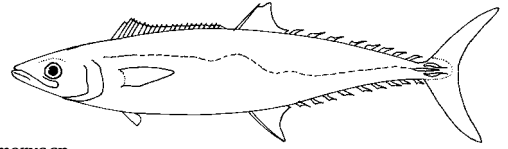
SCOMBRIDAE

Albacores – Bonitos – Kawakawas – Mackerels – Seerfishes – Tunas – Wahoos

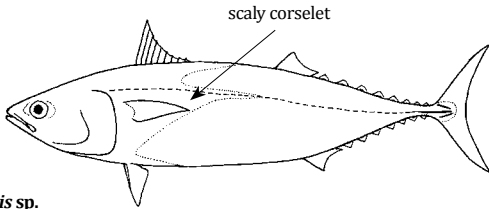
To 250 cm. Marine, from surface waters to depths below 200 m; pelagic. Of major interest to fisheries. Twelve species recorded in Kenya waters, two in neighboring countries, all included in the Guide to Species.



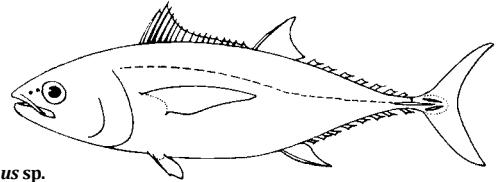
Acanthocybium sp.



Scomberomorus sp.



Auxis sp.



Thunnus sp.

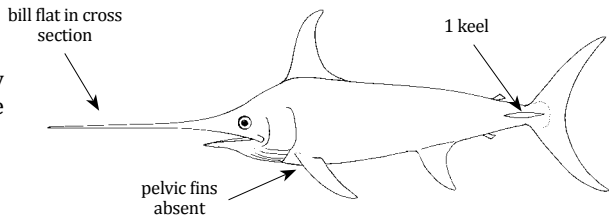
Order PERCIFORMES: XIPHIOIDEI – Billfishes

Characterized by the prolongation of the upper jaw, much beyond the lower jaw into a long rostrum which is flat and swordlike (swordfish) or rounded and spearlike (sailfishes, spearfishes and marlins).

XIPHIIDAE

Swordfishes

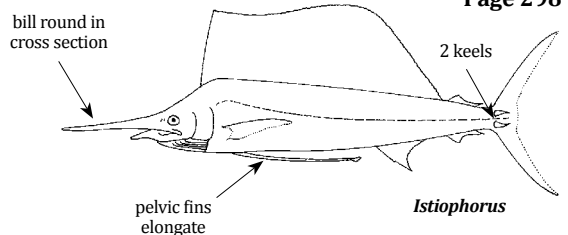
To 445 cm. Marine, from the surface to depths below 800 m; pelagic. Of major interest to fisheries. A single species worldwide, included in the Guide to Species.



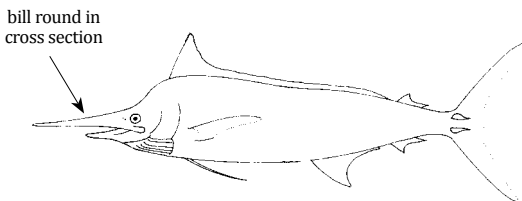
ISTIOPHORIDAE

Marlins – Sailfishes – Spearfishes

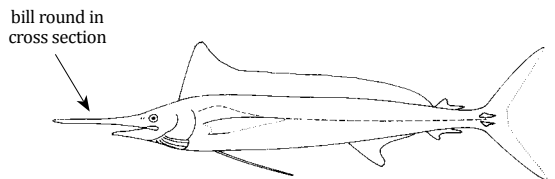
To 460 cm. Marine, pelagic oceanic, usually above the thermocline. Of major interest to fisheries. Five species recorded in Kenya waters, included in the Guide to Species.



Istiophorus



Makaira



Tetrapturus

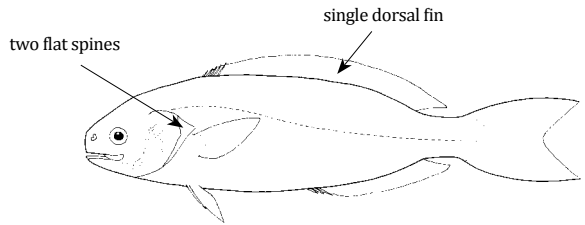
Order PERCIFORMES: STROMATEOIDEI - Harvestfishes and allies

Shape variable; snout blunt and thick; toothed saccular outgrowths (pharyngeal sacs) present in the gullet immediately behind the last gill arch; teeth small, approximately uniserial.

CENTROLOPHIDAE

Ruffs

To 20 cm. Marine, between depths of 250 m and 300 m; mesopelagic to demersal. Of little interest to fisheries. One species recorded in Kenya waters.

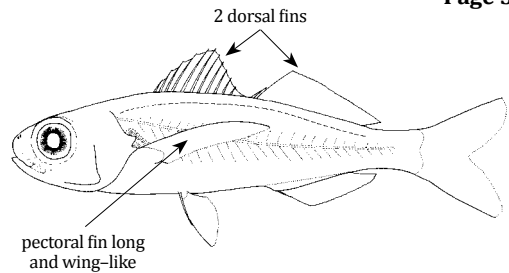


NOMEIDAE

Man-of-war fishes

To 18 cm. Marine, deeper waters of the continental slope; epi- and mesopelagic. Of little interest to fisheries. One species recorded in Kenya waters, one in neighboring countries, both included in the Guide to Species.

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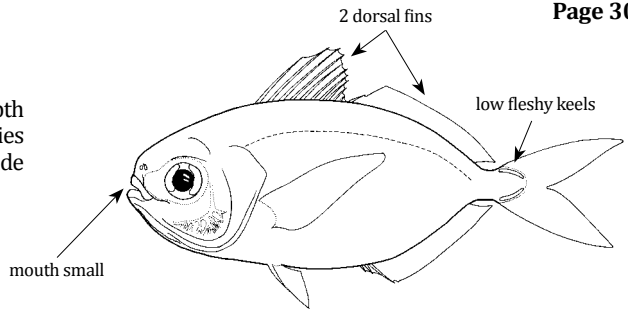


ARIOMMATIDAE

Ariommas - Driftfishes

To 250 cm. Marine, continental waters, to a depth of 300 m. Of little interest to fisheries. One species recorded in Kenya waters, and included in the Guide to Species.

Page 300



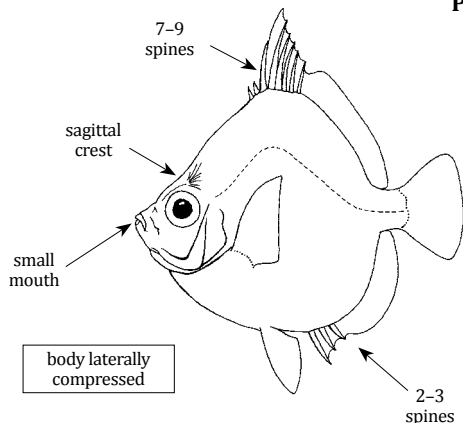
Order PERCIFORMES: CAPROIDEI - Boarfishes

CAPROIDAE

Boarfishes

To 22 cm. Marine, from depths of 65 m to 600 m. Of no interest to fisheries. One species recorded in Kenya waters.

Page 301



Order PLEURONECTIFORMES – Flatfishes

Flattened body shape; eyes present on one side of body only.

PSETTODIDAE

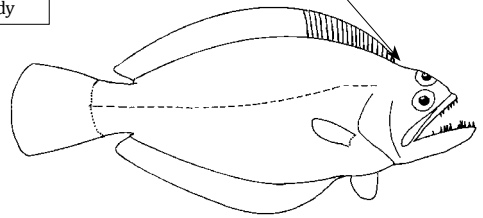
Spiny turbot

To 60 cm. Marine, coastal waters to depths of 100 m. Of interest to fisheries. One species recorded in Kenya waters and included in the Guide to Species.

eyes on left or right side of body

dorsal-fin origin posterior to position of eye

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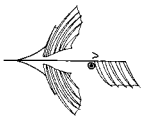
PARALICHTHYIDAE

Short pelvic flounders

To about 35 cm. Marine, coastal waters to depths of 200 m. Of little interest to fisheries. Two species recorded in Kenya waters, and included in the Guide to Species.

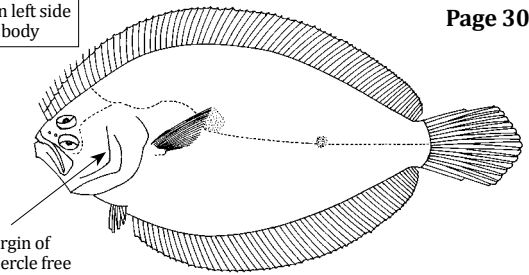
eyes on left side of body

Page 301



pelvic-fin bases nearly symmetrical

margin of preopercle free



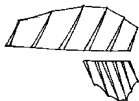
BOTHIDAE

Lefteye flounders

To about 40 cm. Marine, from the coastline to a depth of about 600 m; benthic. Of little interest to fisheries. Eight species recorded in Kenya waters, six of which are included in the Guide to Species.

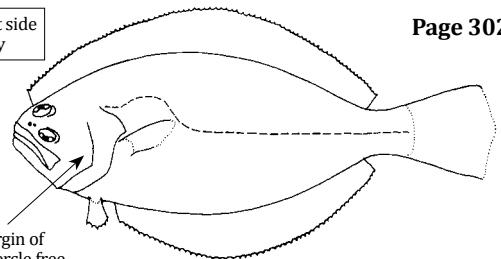
eyes on left side of body

Page 302



pelvic-fin base on eyed side longer

margin of preopercle free



PLEURONECTIDAE

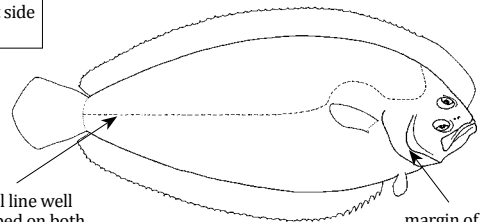
Righteye flounders

To 17 cm. Marine, continental waters, to a depth of 300 m. Of little interest to fisheries. One species recorded in Kenya waters.

eyes on right side of body

lateral line well developed on both sides of body

margin of preopercle free



SAMARIDAE

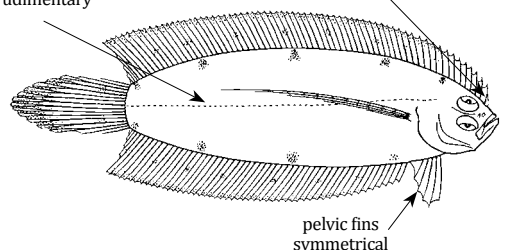
Crested flounders

To 22 cm. Marine, primarily in deep waters; benthic. Of no interest to fisheries. One species recorded in Kenya waters; one in neighboring countries.

lateral line well developed or rudimentary

dorsal-fin origin in front of eyes

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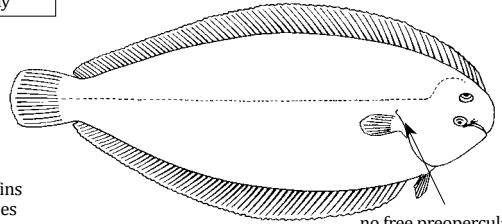
pelvic fins symmetrical

SOLEIDAE

Soles

To 32 cm. Marine, shallow coastal waters; some species in estuaries; benthic. Of interest to fisheries. Two species recorded in Kenya waters, one in neighboring countries, all included in the Guide to Species.

eyes on right side of body



pectoral fins sometimes absent

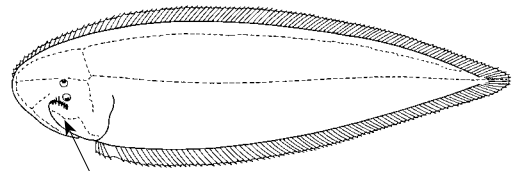
no free preopercular margin

CYNOGLOSSIDAE

Tonguesoles

To 46 cm. Marine, from shallow coastal waters to depths of about 200 m. Of little interest to fisheries. Six species recorded in Kenya waters, five of which are included in the Guide to Species.

eyes on left side of body



no free preopercular margin

pectoral fins absent

Order TETRAODONTIFORMES – Pufferfishes and allies

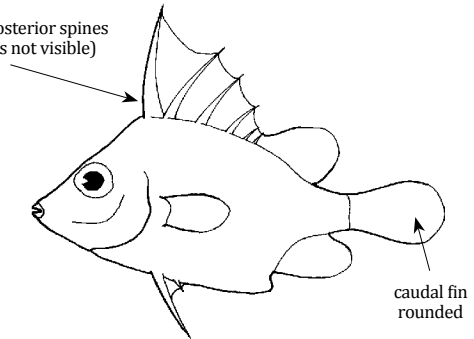
Pelvic fins absent or strongly reduced; a small mouth with strong teeth, frequently coalesced into a biting plate; a small gill opening; skin thick or rough, sometimes with prickles, spines or scaly plates.

TRIACANTHODIDAE

Spikefishes

To 25 cm. Marine, between depths of 30 m and 300 m; benthic. Of no interest to fisheries. Two species recorded in Kenya waters: *Bathyphylax bombifrons* Myers, 1934; *Macrorhamphosodes uradoi* (Kamohara, 1933).

6 spines (posterior spines sometimes not visible)



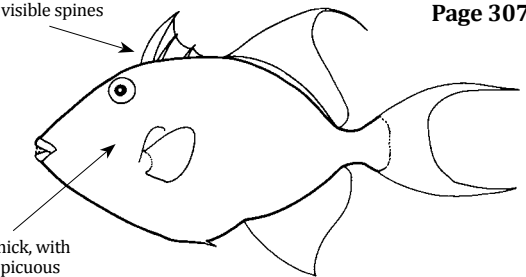
caudal fin rounded

BALISTIDAE

Triggerfishes and Durgons

To about 70 cm. Marine, from the coastline to a depth of about 100 m; mostly benthic, a few benthopelagic. Of interest to fisheries. Fourteen species recorded in Kenya waters; three in neighboring countries, all included in the Guide to Species.

3 visible spines

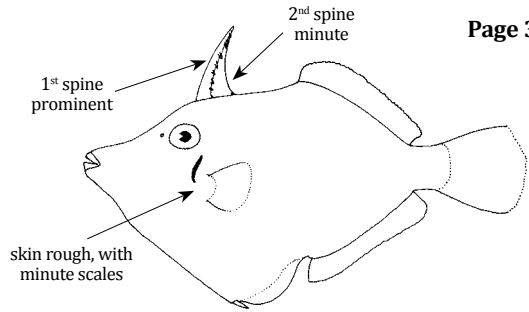


skin thick, with conspicuous plate-like scales

MONACANTHIDAE

Filefishes - Leatherjackets

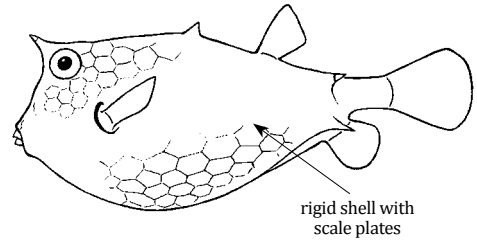
To 100 cm, but most smaller than 10 cm. Marine, from the coastline to a depth of about 100 m; mostly benthic. Of no interest to fisheries. Seven species recorded in Kenya waters, four of which included in the Guide of Species; four species in neighboring countries.



OSTRACIDAE

Boxfishes - Cowfishes

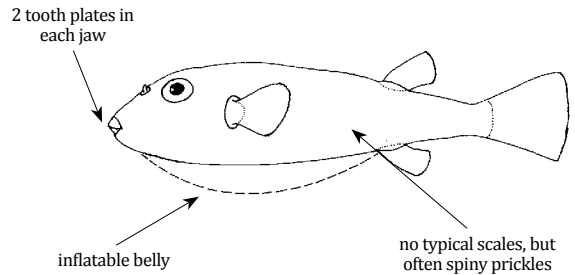
To 50 cm. Marine, from the coast to a depth of about 100 m; benthic. Of no interest to fisheries, but of interest of the aquarium trade. Five species recorded in Kenya waters.



TETRAODONTIDAE

Puffers

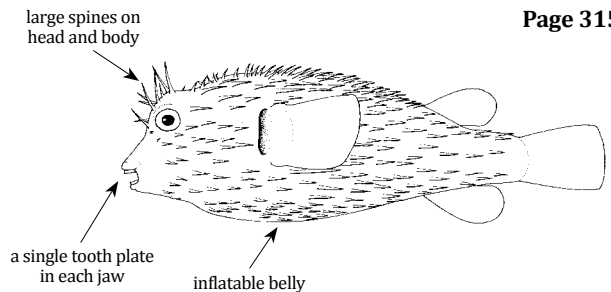
To about 100 cm. Coastal marine waters, estuaries, brackish lagoons, and occasionally freshwater; from the coastline to a depth of about 180 m; benthic. Poisonous and not eaten. Several species recorded in Kenya waters.



DIODONTIDAE

Porcupinefishes

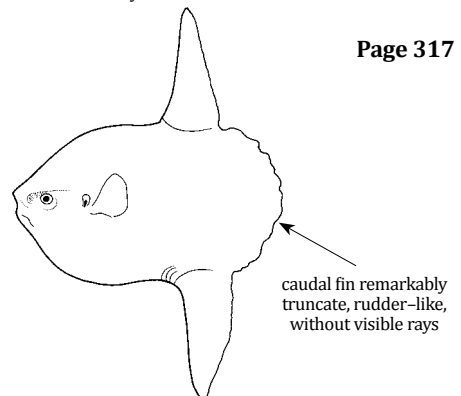
To 60 cm. Marine, from the coastline to a depth of about 100 m; mostly benthic. Of no interest to fisheries. Three species recorded in Kenya waters, three in neighboring countries, all included in the Guide to Species.



MOLIDAE

Molas - Ocean sunfishes - Headfishes

To 300 cm or more. Marine, from the surface to a depth of about 360 m; pelagic oceanic. Of little interest to fisheries. Three species worldwide.



ELOPIDAE

Ladyfishes – Tenpounders

Elops machnata (Forsskål, 1775)

FAO names: Tenpounder (En)

Local name(s): N: Ipawa; S: Makamekuzia (M), Kopani (K).

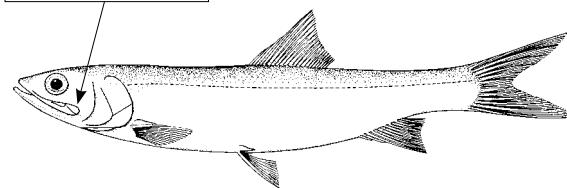
Habitat: Pelagic in coastal waters entering lagoons and estuaries.

Fisheries: Trolling lines, Gillnets, Handlines, Bottom trawls.

Distinctive Characters: Teeth on jaws villiform; no spines in fins; single dorsal fin with 20–27 rays, its origin a little behind mid-point of body; anal fin short, with 14–17 rays, its origin well behind dorsal-fin base; pelvic fin little, in front of dorsal-fin origin.

Colour: Back blue–grey, sides silvery with a yellow tinge; fins faint yellow.

Mouth large, upper jaw reaching well beyond eye



Gular plate underside of head

Size: To 100 cm, common 50 cm

MEGALOPIDAE

Tarpons

Megalops cyprinoides (Broussonet, 1782)

(Plate I, 1)

FAO names: Indo–Pacific tarpon (En)
Tarpon Indo–Pacifique (Fr)

Local name(s): N: Ipawa; S: Makamekuzia (M), Kopani (K).

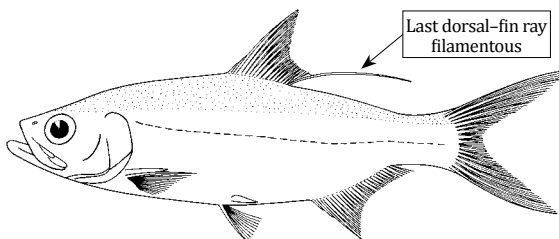
Habitat: Pelagic in coastal waters entering lagoons and estuaries.

Fisheries: Trolling lines, Seines, Gillnets, Handlines, Bottom trawls.

Distinctive Characters: Lower jaw projecting; fins lacking spines; dorsal-fin origin at about midpoint of body; anal-fin origin a little behind end of dorsal-fin base; 26–27 branchiostegal rays; large scales, 30–40 on lateral line.

Colour: Back blue–green, flanks silvery.

Last dorsal-fin ray filamentous



Gular plate underside of head

Size: To 100 cm, common 30 cm

ALBULIDAE

Bonefishes

Albula vulpes (Linnaeus, 1758)

FAO names: Bonefish (En)
Banane de mer (Fr)

Local name(s): N: Nyimbwi; S: Nyimbi (M), Mkizi mume (K).

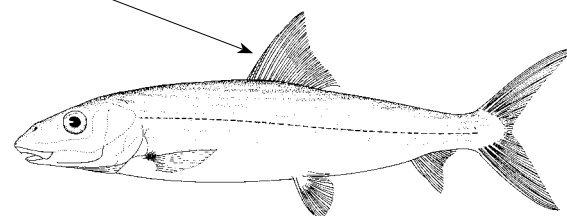
Habitat: Inshore, shallow waters on sandy and muddy bottoms.

Fisheries: Gillnets, Hooks and Line, Cast nets.

Distinctive Characters: Upper jaw short, 3.05–3.25 in head length; lower jaw angular, with a pointed symphysis; a single long scale on each side of membrane between each ray of dorsal and anal fins; 63–69 scales in lateral line.

Colour: Sides bright silvery; back blue–green to olive; belly pale whitish.

Dorsal fin with 15–19 soft rays



Size: To 104 cm, common 35 cm

MURAENIDAE**Morays*****Echidna nebulosa* (Ahl, 1789)**

Local name(s): N: Mkunga; S: Mkunga (M), Mkunga samaki (K).

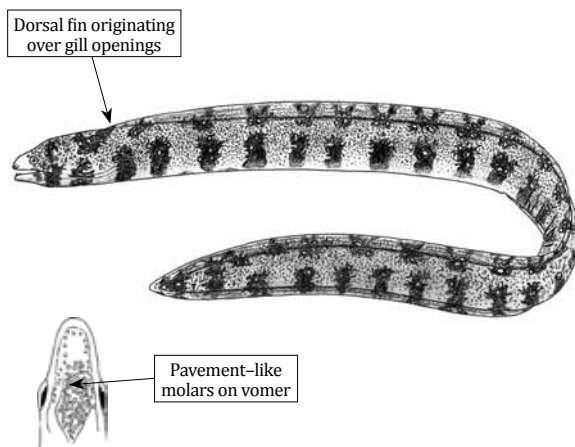
Habitat: Shallow reef areas from 2 m to 48 m.

Fisheries: Lines, Traps, Gillnets, Seines.

Distinctive Characters: Pectoral and pelvic fins absent; teeth conical and granular in 2 rows on jaws, but all teeth more conical in young; no obvious lateral line, reduced to two pores above and before gill opening which is a difficult mid lateral hole or slit.

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

FAO names: Snowflake moray(En)



Size: To 100 cm, common 50 cm

***Echidna polyzona* (Richardson, 1845)**

Local name(s): N: Mkunga wimbi; S: Mkunga wimbi (M), Mkunga nyono (K).

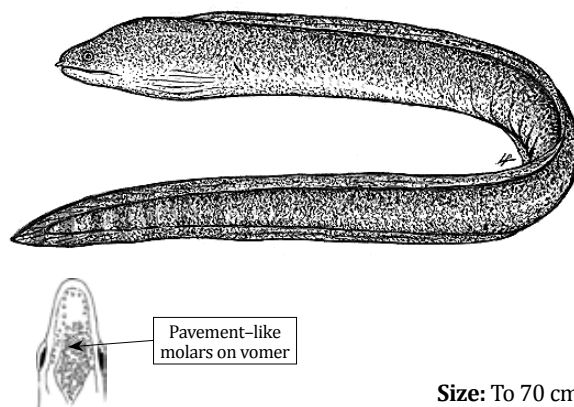
Habitat: Benthic in shallow waters among rocks and coral heads.

Fisheries: Lines, Traps, Gillnets, Seines.

Distinctive Characters: No canines; 5 irregular rows of conical teeth at front of upper jaw; lower jaw with 2-4 rows of teeth, anterior ones conical, posterior molariform; all teeth much smaller than vomerine teeth.

Colour: Body with 25-30 contrasting dark and pale bars, conspicuous in young, becoming mottled dark and indistinct with age, remaining most distinct near end of tail.

FAO names: Barred moray (En)



Size: To 70 cm

***Gymnomuraena zebra* (Shaw, 1797)**

Local name(s): N: Mkunga ndovu; S: Mkunga ndovu (M), Mkunga nyoka (K).

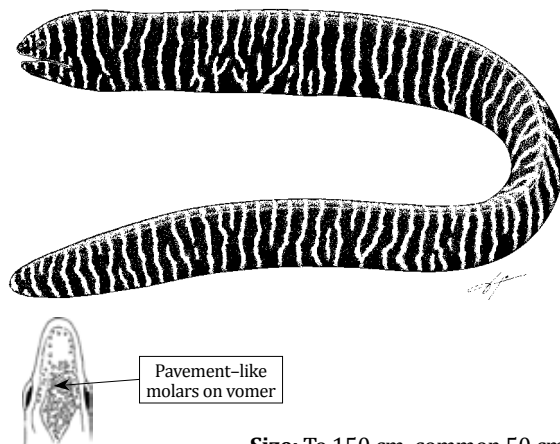
Habitat: Benthic in shallow creeks from 10 m to 50 m.

Fisheries: Lines, Traps, Gillnets, Seines.

Distinctive Characters: Anus well behind midpoint of body; pectoral and pelvic fins absent; no obvious lateral line, reduced to 2 pores above and before gill opening; teeth molariform in 2-3 rows on jaws, 5-6 on palate.

Colour: Body velvety, blackish-brown, with 25 (young individuals) to 100 (adults) narrow white to yellowish bars.

FAO names: Zebra moray (En)



Size: To 150 cm, common 50 cm

***Gymnothorax favagineus* Bloch & Schneider, 1801**

FAO names: Laced moray (En)

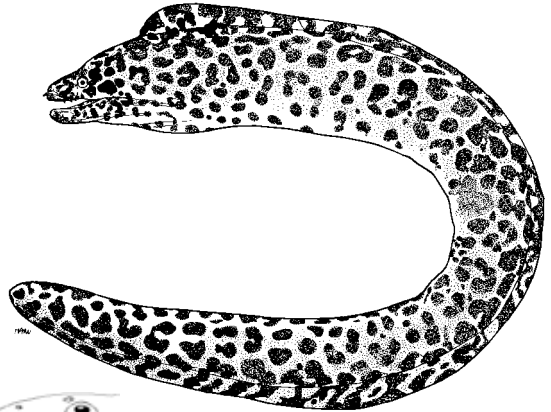
Local name(s): N: Mkunga chui; S: Mkunga chui (M/K).

Habitat: Benthic in shallow waters on coral and rocky reefs from 5 m to 40 m.

Fisheries: Hooks and Line, Spears, Traps.

Distinctive Characters: Dorsal-fin origin on head; front of jaws usually with 4 large canines on each side, the more posterior much smaller.

Colour: Basically white with black blotches and interspaces forming a honeycomb pattern; some individuals have a near black overall appearance; blotches variable between individuals and size, often in relation to habitat: those in clear coral reefs usually have proportionally less black than those found in turbid waters.



Intermaxillary teeth in 1 row

Size: To 300 cm

***Gymnothorax flavimarginatus* (Rüppell, 1830)**

(Plate I, 2)

FAO names: Yellow-edged moray (En)

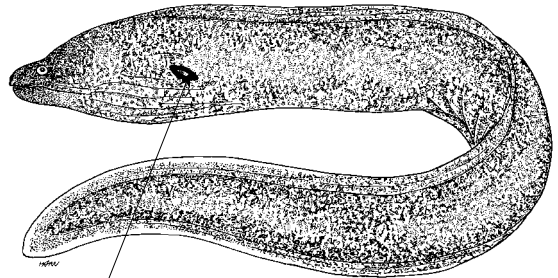
Local name(s): N: Mkungu; S: Mkunga (M/K).

Habitat: Coral and rock reefs, from 3 m to 150 m.

Fisheries: Hooks and Line, Spears, Traps.

Distinctive Characters: One row of 1–3 canines at the front center of upper jaw; sides of top jaw with 2 rows of teeth, the outer one larger at front of upper jaw.

Colour: Reddish eyes; body yellowish, densely mottled with dark brown; front of head purplish-grey; posterior margins of fins yellow-green.



Gill opening in a black blotch

Size: To at least 125 cm

***Gymnothorax griseus* (Lacepède, 1803)**

FAO names: Geometric moray (En)

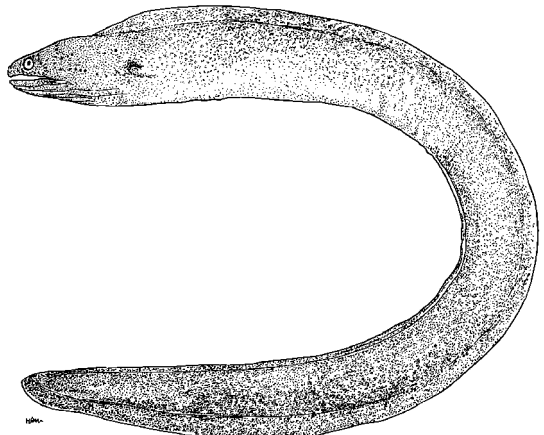
Local name(s): N: Mkunga; S: Mkunga (M/K).

Habitat: Benthic in shallow waters, on coral and rocky reefs. Maximum depth 40 m.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: Teeth on roof of mouth sharp, fang-like in 2 rows.

Colour: Body whitish, densely mottled with light brown spots; black pores on head forming lines.



Size: To 65 cm

Gymnothorax javanicus (Bleeker, 1859) (Plate I, 3)

FAO names: Giant moray (En)

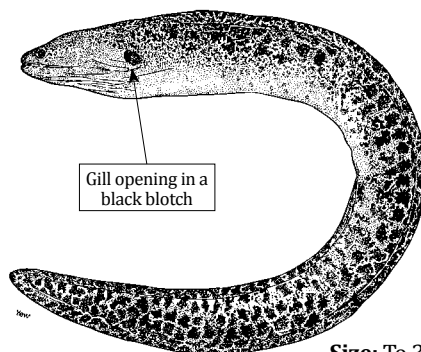
Local name(s): N: Mkunga chui-mweupe; S: Mkunga chui-mweupe (M/K).

Habitat: Coral and rocky reefs from 10 m to 50 m.

Fisheries: Hooks and Line, Spears, Traps.

Distinctive Characters: Teeth uniserial, 18–19 on each side of jaws; premaxillary with 2 inner median fang-like teeth; vomerine band of teeth short and bifurcated anteriorly.

Colour: Juveniles are tan with numerous large black spots; adults have black specks that grade into leopard-like spots behind the head and a black area surrounding the gill opening.



Size: To 300 cm

Gymnothorax meleagris (Shaw, 1795)

FAO names: Turkey moray (En)

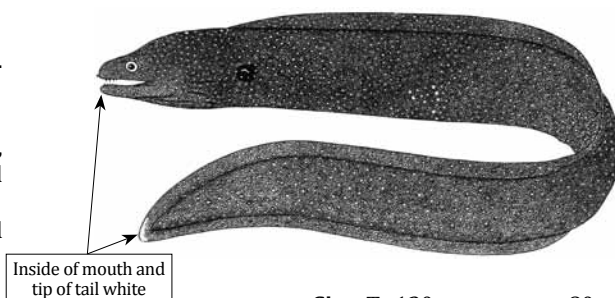
Local name(s): N: Mkunga; S: Mkunga (M/K).

Habitat: Benthic, on coral reefs and rocks. Maximum depth 36 m.

Fisheries: Gillnets, Traps, Spears

Distinctive Characters: Usually two rows of teeth, the ones on vomer sharp, fang-like, in one row; gill opening black.

Colour: Body orangish brown with small round yellow spots, less than eye diameter in size.



Size: To 120 cm, common 80 cm

Gymnothorax monochrous (Bleeker, 1856)

FAO names: Drab moray (En)

Local name(s): N: Mukunga nyoka-maji;

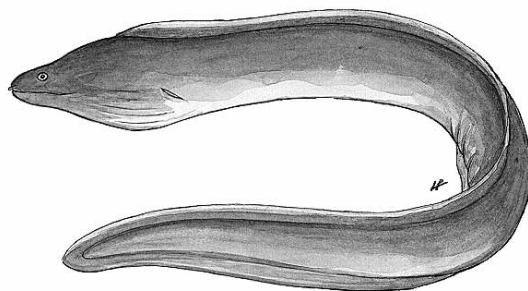
S: Mkunga maji (M/K).

Habitat: Benthic, in shallow coastal reefs.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: A single series of conical teeth in upper jaw and 2–3 fangs on each side; a row of 3 larger canines on intermaxillary; mandibles with a single series of teeth; vomerine teeth uniserial.

Colour: Body uniformly light brown, without darker markings.



Size: To 80 cm

Gymnothorax nudivomer (Günther, 1867) *

FAO names: Yellowmouth moray (En)

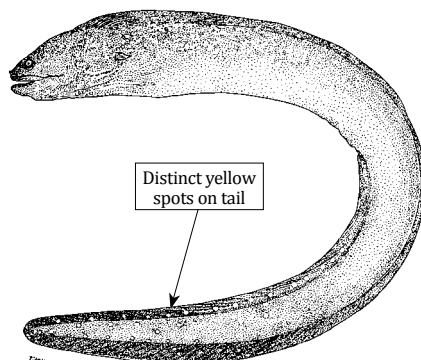
Local name(s): N: Mkunga nitakate; S: Mkunga (M/K).

Habitat: Coastal areas from 4 m to 270 m.

Fisheries: Traps, Spears, Gillnets, Lines.

Distinctive Characters: One row of compressed and triangular teeth; no canines; no teeth on vomer in adults; one possible front middle tooth in upper jaw.

Colour: Body dark yellow-brown; numerous spots smaller than pupil, that become small and numerous anteriorly, but large and widely spaced posteriorly; inside of mouth yellow.



Size: To 180 cm

***Gymnothorax pictus* (Ahl, 1789)**

FAO names: Peppered moray (En)

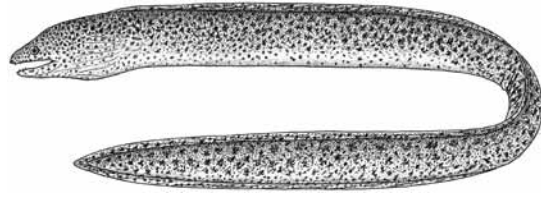
Local name(s): N: Mkunga; S: Mkunga (M/K).

Habitat: Benthic, in shallow coastal waters on rock and corals.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: Teeth on roof of mouth sharp, fang-like in 2 rows; no obvious lateral line, reduced to two pores above and before gill opening.

Colour: Adults greyish or whitish, with irregular dark spots; juveniles yellow with dark blotches.



Size: To 140 cm

***Gymnothorax rueppellii* (McClelland, 1844)**

FAO names: Banded moray (En)

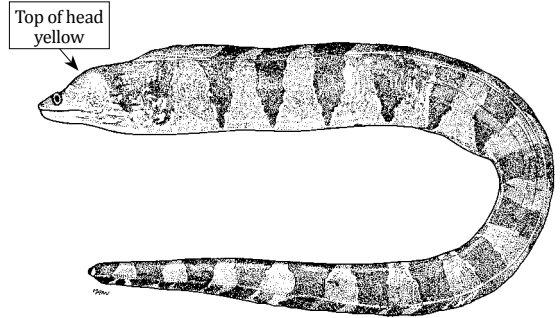
Local name(s): N: Mkunga; S: Mkunga (M/K).

Habitat: Benthic in shallow coastal reefs down to 40 m.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: Teeth anteriorly in jaws in one row, with long canines alternating to 2-3 small teeth; median row of 3 canines at front of upper jaw considerably long; side of upper jaw with 1-3 slender canines.

Colour: Body light greyish-brown with 15-20 darker bars; dark spot at corner of mouth.



Size: To 80 cm

***Gymnothorax undulatus* (Lacepède, 1803)**

FAO names: Undulated moray (En)

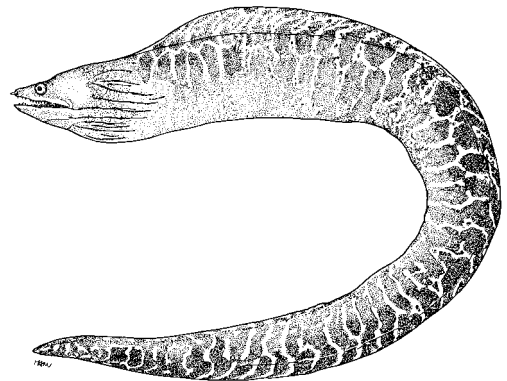
Local name(s): N: Mkunga chui; S: Mkunga chui (M/K).

Habitat: Corals reefs and rocks down to 110 m.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: Long canine teeth anteriorly in jaws, some alternating with very small teeth, the longest in 1 row of 3 teeth at front of upper jaw.

Colour: Body yellow or orange, with irregular red-brown blotches in rows separated by pale yellowish ground colour; top of head may be greenish-yellow.



Size: To 150 cm

Pseudechidna brummeri* (Bleeker, 1858)

FAO names: White ribbon eel (En)

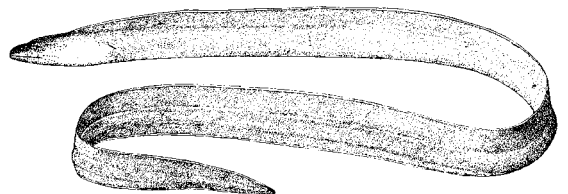
Local name(s): N: Mkunga; S: Mkunga (M/K).

Habitat: Benthic, in shallow coastal waters.

Fisheries: Gillnets, Traps, Spears.

Distinctive Characters: Body ribbon-like, extremely slender, its depth 3 times in head length; fins wide.

Colour: Body pale dirty white, with hyaline fins.



Size: To 103 cm

Scuticaria tigrina (Lesson, 1828)

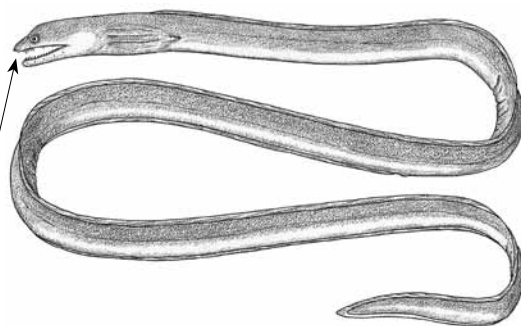
FAO names: Tiger reef-eel (En)

Local name(s): N: Mkunga; S: Mkunga (M/K).**Habitat:** Reefs in shallow waters.**Fisheries:** Traps, Spears, Gillnets, Hooks and Line.**Distinctive Characters:** Dorsal and anal fins barely visible reduced to rudiments on tip of tail; teeth conical, sharp, in 2 rows along jaws; 1 row of 4–5 teeth on roof of mouth.**Colour:** Yellowish to russet brown, with yellow-edged black spots and jaw speckled with black.

Size: To 105 cm

Strophidon sathete (Hamilton, 1822)

FAO names: Slender giant moray (En)

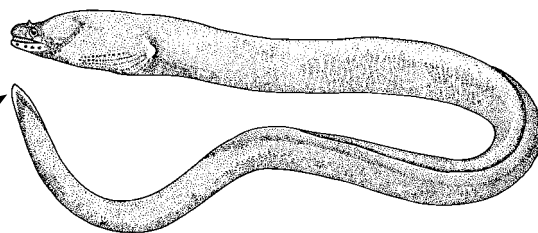
Local name(s): N: Mkunga; S: Mkunga (M/K).**Habitat:** Benthic, in shallow coastal waters, muddy areas, estuaries and river mouths.**Fisheries:** Traps, Hooks and Line.**Distinctive Characters:** Dorsal fin originating on head before gill opening; scales absent; two rows of compressed canines at sides of upper jaw and front of lower jaw; four longest depressible canines medially on intermaxilla.**Colour:** Body brownish-grey above, lighter below.

Mouth large, extending to well beyond eye

Size: To 400 cm, common 70 cm

Uropterygius concolor Rüppell, 1838

FAO names: Unicolor snake moray (En)

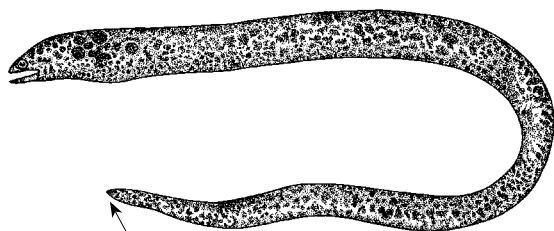
Local name(s): N: Mkunga; S: Mkunga (M/K).**Habitat:** Reefs and shallow waters.**Fisheries:** Traps, Spears, Gillnets, Hooks and Line.**Distinctive Characters:** Inner row of teeth on the lower jaw extending only about 2/3 of the way back along the outer row; vomerine teeth present.**Colour:** Drab brown in colour; tip of tail yellow.

Dorsal and anal fins reduced to rudiments on tip of the tail

Size: To 50 cm

Uropterygius marmoratus (Lacepède, 1803)

FAO names: Marbled reef-eel (En)

Local name(s): N: Mkunga; S: Mkunga (M/K).**Habitat:** Occurs on reefs in shallow waters.**Fisheries:** Traps, Spears, Gillnets, Hooks and Line.**Distinctive Characters:** Teeth in jaws in 3 rows, the marginal series of numerous small close set teeth, the two inner series with fewer, longer and depressible teeth; the maxillary encloses numerous longer and depressible teeth; vomerine teeth long, biserial anteriorly, uniserial posteriorly.**Colour:** Body yellowish or brownish, lighter below and finely or coarsely marbled with darker brown spots.

Dorsal and anal fins reduced to rudiments on tip of the tail

Size: To 62 cm

OPHICHTHIDAE

Snake eels – Worm eels

Lamnostoma orientalis (McClelland, 1844)*

Local name(s): N: Mkunga; S: Mkunga (M/K).

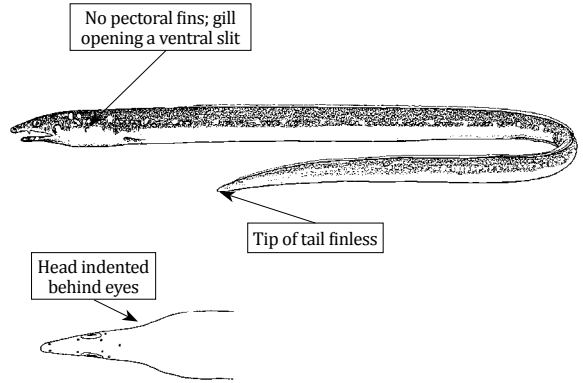
Habitat: Benthic in estuaries and inshore areas with turbid waters.

Fisheries: Caught mainly with nets and by hand; used as fresh bait.

Distinctive Characters: Dorsal-fin origin just behind gill opening; both dorsal and anal fins poorly developed.

Colour: Dark grey to blue-black above to below lateral line, lighter below; a series of prominent light spots on head and along lateral line; pores lighter than surrounding skin.

FAO names: Oriental worm-eel (En)
Serpenton oriental (Fr)



Size: To 36 cm

Pisodonophis boro (Hamilton, 1822)

Local name(s): N: Mkunga; S: Mkunga (M/K).

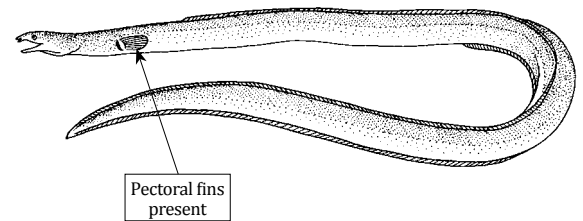
Habitat: Lagoons and estuaries, enters freshwater and paddy fields.

Fisheries: Caught incidentally in bag nets; used as bait.

Distinctive Characters: Teeth on roof of mouth granular to molariform; tip of tail finless; eye relatively small; dorsal fin originating behind pectoral fins.

Colour: Uniformly brownish-olive above, lighter below; dorsal fin with a narrow black edge.

FAO names: Rice-paddy eel (En)
Serpenton des rizières (Fr)



Size: To 100 cm

CONGRIDAE

Conger eels

Conger cinereus Rüppell, 1830

Local name(s): N: Mkunga; S: Mkunga (M), Mkunga samaki (K).

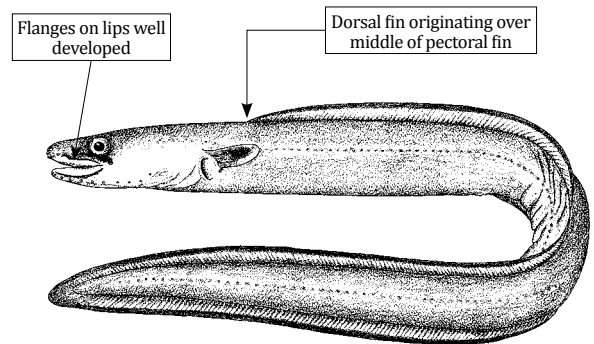
Habitat: Benthic on reefs and active at night.

Fisheries: Bottom trawls, Hooks and Line.

Distinctive Characters: Teeth on outer row longer, close-set and compressed to form a cutting edge; 6th infraorbital pore located close and slightly above posterior angle of jaw.

Colour: Grey to brown with a broad black margin on median fins; a black spot on pectoral fins (absent on juveniles) and a black bar under the eye; in life with dark crossbars.

FAO names: Longfin African conger (En)



Size: To 130 cm, common 50 cm

Uroconger lepturus (Richardson, 1845)

Local name(s): N: Mkunga; S: Mkunga (M), Mkunga samaki (K).

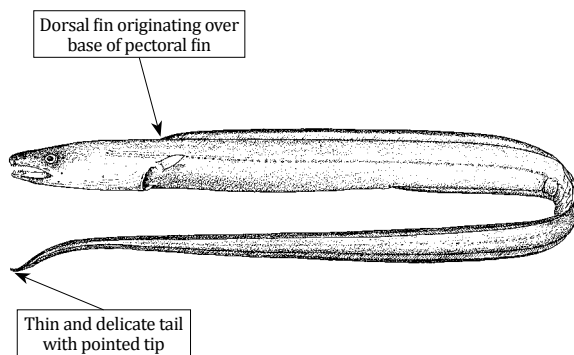
Habitat: Offshore on soft sand–mud bottoms.

Fisheries: Fine meshed shrimp trawls.

Distinctive Characters: Poorly developed lips; teeth multiserial, forming a band, but no cutting edge; vomerine teeth in a single row extending far back on roof of mouth; pectoral fins small and delicate.

Colour: Light greyish–brown, darker on opercle, the lower surface of head and trunk white; lateral–line pores white; posterior part of dorsal and anal fins black.

FAO names: Slender conger (En)



Size: To 52 cm, common 30 cm

MURAENESOCIDAE

Pike congiers

Muraenesox bagio (Hamilton, 1822)

Local name(s): N: Mkunga; S: Mkunga (M), Mkunga samaki (K).

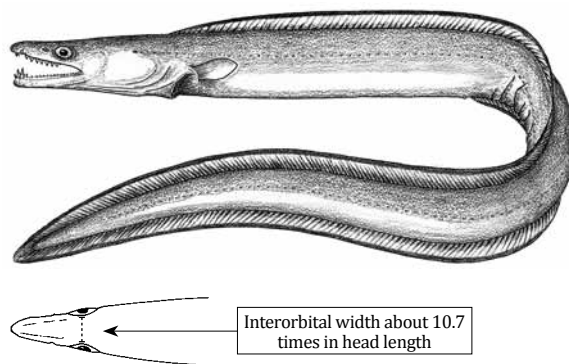
Habitat: Benthic on soft bottoms in deeper waters down to 100 m.

Fisheries: Longlines, Bottom trawls, Driftnets, Bag nets.

Distinctive Characters: Body robust and eel-shaped; snout long; eye diameter 3 times in snout length; posterior nostrils only slightly nearer to eye than to anterior nostrils; teeth on vomer triangular, blade–like; 33 to 39 lateral–line pores before level of anus.

Colour: Light greyish–brown with olive–bronze above, lighter below; dorsal and anal fins with narrow black edges.

FAO names: Common pike conger (En)
Morénésoce commun (Fr)



Size: To 200 cm, common 150 cm

Muraenesox cinereus (Forsskål, 1775)

Local name(s): N: Mkunga; S: Mkunga (M), Mkunga samaki (K).

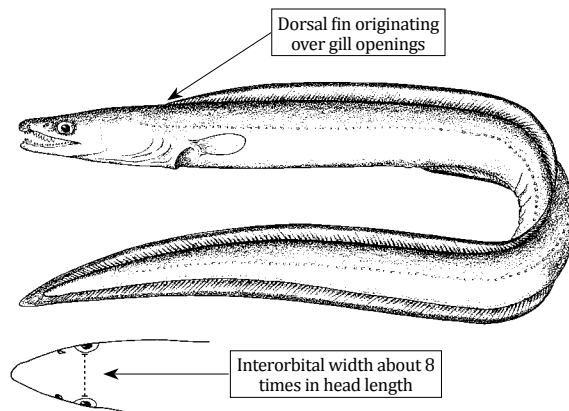
Habitat: Benthic, on soft bottoms, in estuaries, lagoons and shallow coastal inlets down to 100 m.

Fisheries: Longlines, Bottom trawls, Driftnets, Bag nets.

Distinctive Characters: Teeth in upper and lower jaws in three series; principal teeth in lower jaw triangular; large median vomerine teeth triangular in lateral view; 40–47 lateral–line pores before level of anus.

Colour: Light to dark greyish–brown above, lighter below; dorsal and anal fins with narrow black edges.

FAO names: Daggertooth pike conger (En)
Murénésoce–dague (Fr)



Size: To 80 cm, common 50 cm

CLUPEIDAE

Herrings – Shads – Gizzard shads – Sardines – Sardinellas

***Amblygaster leiogaster* (Valenciennes, 1847)**

Local name(s): N: Simu/Kerenge; S: Simu koko (M/K).

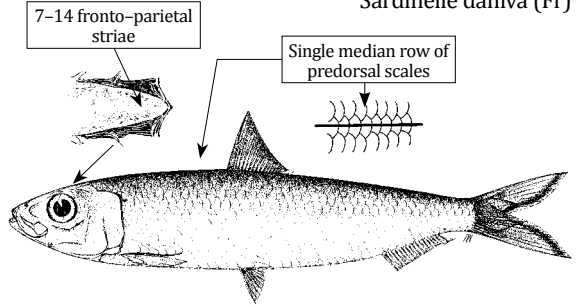
Habitat: Pelagic coastal schooling species.

Fisheries: Seines, Gillnets, Bottom trawls.

Distinctive Characters: Belly rounded with weak scutes; dorsal-fin origin at midpoint of body; 8 pelvic fin rays; anal-fin origin well behind dorsal-fin base; 31–33 gill rakers on lower limb of 1st arch.

Colour: Back blue–green; flanks silvery without spots; dorsal fin black or dusky when fully extended.

FAO names: Smoothbelly sardinella (En)
Sardinelle daniva (Fr)



Size: To 23 cm, common 18 cm

***Amblygaster sirm* (Walbaum, 1792)**

Local name(s): N: Simu/Kerenge; S: Simu koko (M/K).

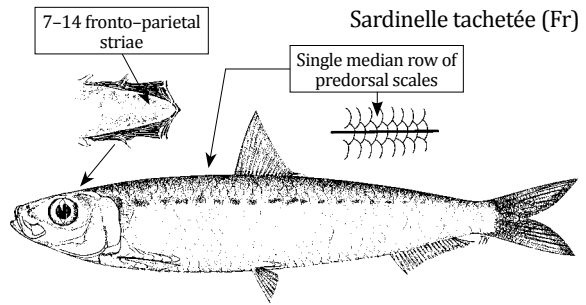
Habitat: Pelagic coastal schooling species.

Fisheries: Seines, Gillnets, Bottom trawls.

Distinctive Characters: Belly rounded, with weak scutes; anal-fin origin well behind dorsal-fin base; 33 to 43 gill rakers on lower limb of 1st arch.

Colour: Back blue–green, flanks silvery with a series of 10 to 12 golden–green spots.

FAO names: Spotted sardinella (En)
Sardinelle tachetée (Fr)



Size: To 27 cm, common 20 cm

***Dussumieria acuta* Valenciennes, 1847**

Local name(s): N: Simu/Kerenge; S: Simu koko (M/K).

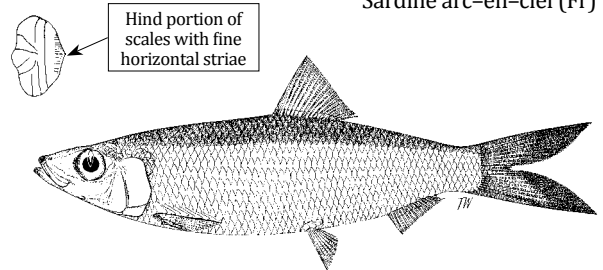
Habitat: Pelagic in inshore waters.

Fisheries: Seines, Gillnets, Bottom trawls.

Distinctive Characters: Belly rounded, without scutes; dorsal-fin origin behind mid-point of body; pelvic fins below dorsal-fin base; 19–26 gill rakers on lower limb of 1st arch.

Colour: Back iridescent blue with a shiny golden–brass line below; flanks silvery; caudal fin with a dark hind margin.

FAO names: Rainbow sardine (En)
Sardine arc-en-ciel (Fr)



Size: To 20 cm, common 15 cm

***Dussumieria elopsoides* Bleeker, 1849**

Local name(s): N: Simu/Kerenge; S: Simu koko (M/K).

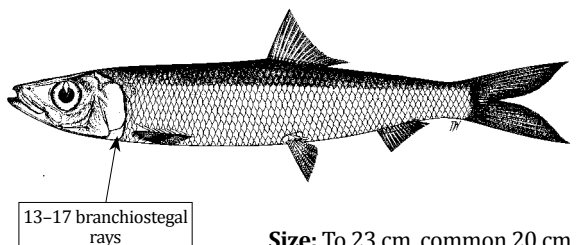
Habitat: A Pelagic inshore species.

Fisheries: Seines, Gillnets.

Distinctive Characters: Body slender; belly rounded without scutes; no striae on posterior part of scales; pelvic fins more advanced; 21 to 32 gill rakers on lower limb of 1st arch.

Colour: Back blue, flanks silvery; all fins dark.

FAO names: Slender rainbow sardine (En)
Sardine arc-en-ciel gracile (Fr)



Size: To 23 cm, common 20 cm

Etrumeus teres (DeKay, 1842)

Local name(s): N: Simu/Kerenge; S: Simu uzio (M/K).

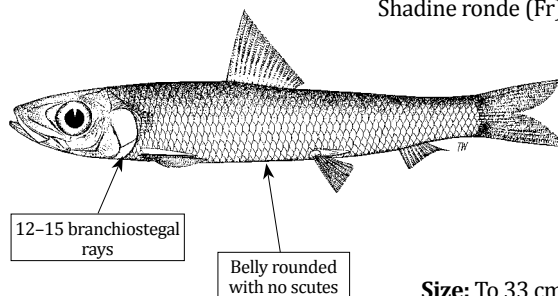
Habitat: Pelagic inshore species.

Fisheries: Purse seines.

Distinctive Characters: Body fairly elongate sub-cylindrical in cross-section; gill rakers 30 to 35 on lower limb of 1st arch; pelvic-fin origin below last dorsal-fin ray; anal fin with 10–13 soft rays.

Colour: Back blue–green, flanks silvery.

FAO names: Red-eye round herring (En)
Shadine ronde (Fr)

***Herklotsichthys punctatus*** (Rüppell, 1837)

Local name(s): N: Simu/Kerenge; S: Simu uzio (M/K).

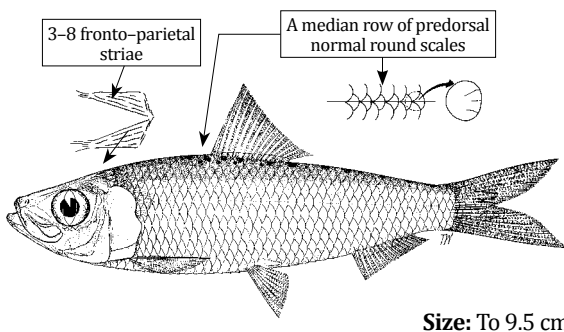
Habitat: Pelagic in coastal waters.

Fisheries: Seines, Bottom trawls, Cast nets.

Distinctive Characters: Belly with a distinct keel of scutes.

Colour: Back blue–green with small scattered dark spots, flanks silvery; no dark blotch on dorsal fin.

FAO names: Spotted herring (En)
Hareng tacheté (Fr)

***Herklotsichthys quadrimaculatus*** (Rüppell, 1837)

Local name(s): N: Simu/Kerenge; S: Simu uzio (M/K).

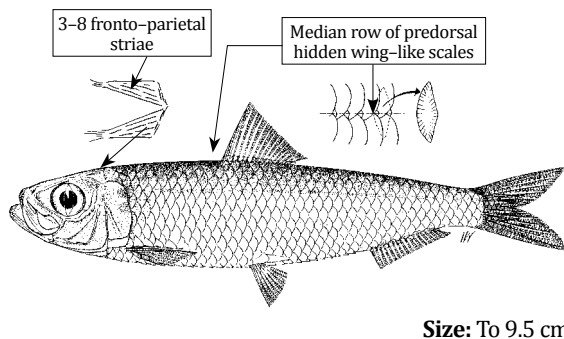
Habitat: Pelagic in coastal waters.

Fisheries: Seines, Cast nets, Shallow trawls.

Distinctive Characters: Belly with a distinct keel of scutes.

Colour: Back blue–green; flanks silvery with 2 orange spots behind gill opening in life and a blue midlateral band.

FAO names: Bluestripe herring (En)
Hareng à bande bleue (Fr)

***Herklotsichthys spilurus*** (Guichenot, 1863)

Local name(s): N & S: Simu/Kerenge (M/K).

Habitat: Pelagic in coastal waters.

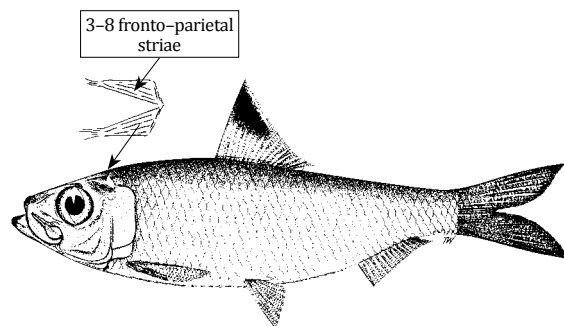
Fisheries: Seines, Cast nets, Shallow trawls.

Distinctive Characters: Body moderately deep; belly sharp with a keel of scutes.

Colour: Flame–silvery without dark spots on flanks; a bright yellow or orange patch behind gill opening; dark blotch on tip of dorsal fin.

Remarks: Overlaps range of *H. quadrimaculatus*, which has elongate wing-like scales underneath the normal paired pre-dorsal scales.

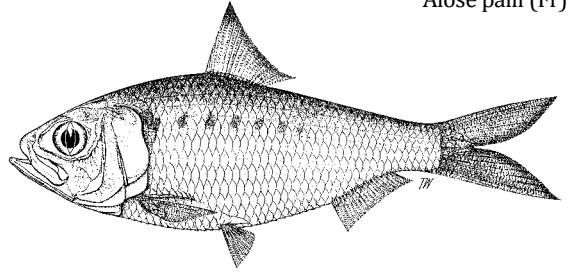
FAO names: Reunion herring (En)



Hilsa kelee (Cuvier, 1829)

FAO names: Kelee shad (En)
Alose palli (Fr)

Local name(s): N & S: Simu/Kerenge (M/K).
Habitat: Pelagic in coastal waters, enters estuaries.
Fisheries: Seines, Gillnets, Cast nets, Bottom trawls.
Distinctive Characters: Belly with a distinct keel of scutes; top of head with numerous fronto-parietal striae; upper jaw with a distinct median notch; a series of small triangular scales above axil of pectoral fins; hind part of body scales perforated.
Colour: Back blue-green, flanks silvery with 4-10 dark spots.

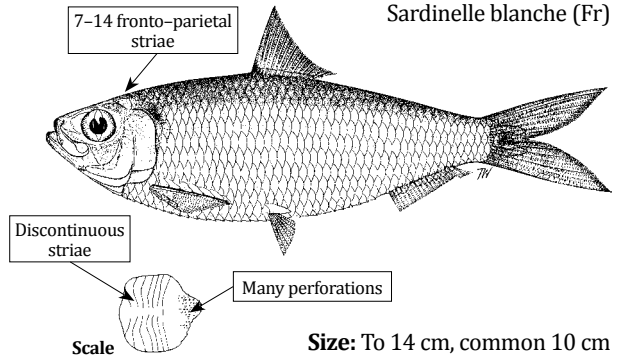


Size: To 35 cm, common 16.5 cm

Sardinella albella (Valenciennes, 1847)

FAO names: White sardinella (En)
Sardinelle blanche (Fr)

Local name(s): N & S: Simu/Kerenge (M/K).
Habitat: Pelagic in coastal waters.
Fisheries: Seines, Gillnets, Bottom trawls.
Distinctive Characters: Body fusiform, moderately compressed, belly with a sharp keel of 30-32 scutes; predorsal scales paired and overlapping.
Colour: Back blue/green, flanks silvery; a dark spot at dorsal-fin origin.

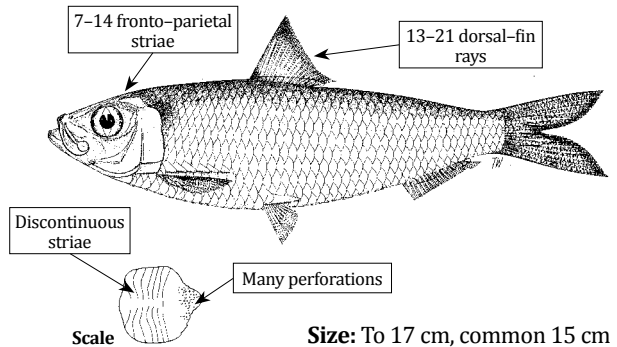


Size: To 14 cm, common 10 cm

Sardinella gibbosa (Bleeker, 1849)

FAO names: Goldstripe sardinella (En)
Sardinelle dorée (Fr)

Local name(s): N & S: Simu/Kerenge (M/K).
Habitat: Pelagic in coastal waters.
Fisheries: Seines, Gillnets, Bottom trawls.
Distinctive Characters: Body moderately compressed, belly with a sharp keel of 32-34 scutes; predorsal scales paired and overlapping.
Colour: Back blue-green, flanks silvery; tip of dorsal fin and margin of caudal fin dusky, remainder of caudal faintly yellow, other fins clear; a small black spot at dorsal-fin origin.

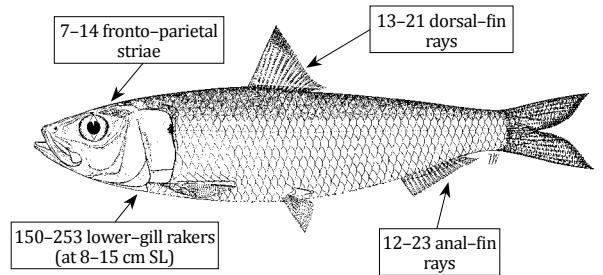


Size: To 17 cm, common 15 cm

Sardinella longiceps Valenciennes, 1847

FAO names: Indian oil sardine (En)
Sardinelle indienne (Fr)

Local name(s): N & S: Simu/Kerenge (M/K).
Habitat: Pelagic in coastal waters.
Fisheries: Boat seines, Gillnets, Shore seines.
Distinctive Characters: Belly rounded with a low keel of scutes; pelvic fin with 1 branched and 8 unbranched rays; predorsal scales paired and overlapping.
Colour: Back blue-green, flanks silvery; a black spot on hind edge of gill cover.
Remarks: Often misidentified as *Sardinella neglecta* Wongratana, 1983.



Size: To 23 cm, common 20 cm

Sardinella melanura (Cuvier, 1829)

Local name(s): N & S: Simu/Kerenge (M/K).

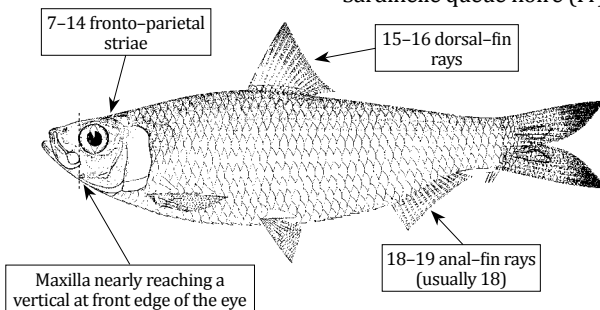
Habitat: Pelagic in coastal waters.

Fisheries: Seines, Gillnets, Bottom trawls.

Distinctive Characters: Belly with a sharp keel, with 27–31 scutes; predorsal scales paired and overlapping; no perforations on posterior part of scales; lower-limb gill rakers 38–74.

Colour: Back blue–green, flanks silvery; tips of caudal fin black (character retained in preserved specimens) distinguish this species from all other *Sardinella* species in the area.

FAO names: Blacktip sardinella (En)
Sardinelle queue noire (Fr)



Size: To 15 cm (SL), common 10 cm

Sardinella neglecta Wongratana, 1983

Local name(s): N & S: Simu/Kerenge (M/K).

Habitat: Coastal pelagic, schooling in bays and over shallow banks from 1 m to 60 m.

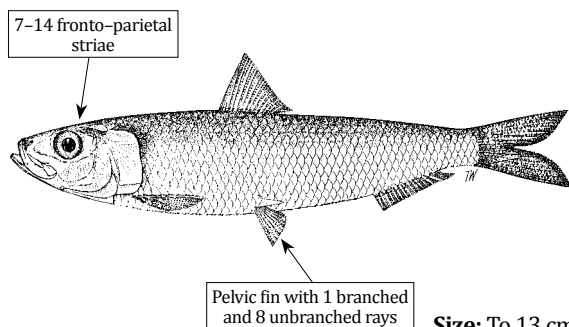
Fisheries: Seines, Cast nets, Bottom trawls.

Distinctive Characters: Predorsal scales paired and overlapping; 144–188 lower gill rakers (at 9–13 cm SL).

Colour: A faint golden spot behind gill opening, followed by a faint golden mid-lateral line.

Remarks: Often misidentified as *Sardinella longiceps* Valenciennes, 1847.

FAO names: East African sardinella (En)



Size: To 13 cm

Spratelloides delicatulus (Bennett, 1832)

Local name(s): N & S: Simu/Kerenge (M/K).

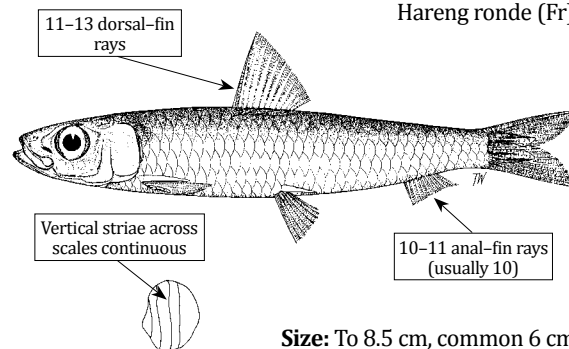
Habitat: Pelagic in shallow waters.

Fisheries: Beach seines, Cast nets.

Distinctive Characters: No pre-pelvic or post-pelvic scutes, except for a W-shaped pelvic scute; usually 7 branchiostegal rays below mouth; 26–32 lower-limb gill rakers.

Colour: No bright silver band along flanks; two prominent dark streaks on caudal-fin base.

FAO names: Delicate round herring (En)
Hareng ronde (Fr)



Size: To 8.5 cm, common 6 cm

Spratelloides gracilis (Temminck & Schlegel, 1846)

Local name(s): N & S: Simu/Kerenge (M/K).

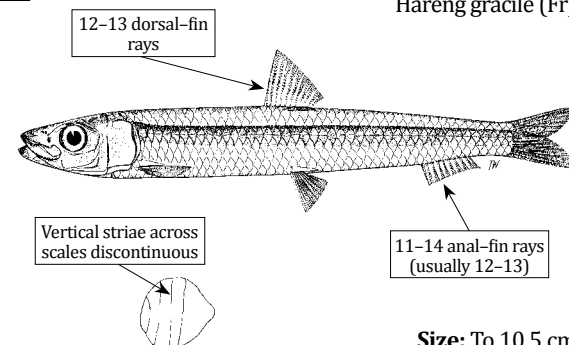
Habitat: Pelagic in shallow waters.

Fisheries: Beach seines, Cast nets.

Distinctive Characters: No pre-pelvic or post-pelvic scutes, except for a W-shaped pelvic scute; usually 7 branchiostegal rays below mouth; dorsal fin at about mid-point of body; anal fin very short and far behind dorsal-fin base.

Colour: Back blue–green, flanks with a distinct silvery stripe.

FAO names: Silver-stripe round herring (En)
Hareng gracile (Fr)



Size: To 10.5 cm

Spratellomorpha bianalis (Bertin, 1940)

Local name(s): N & S: Simu/Kerenge (M/K).

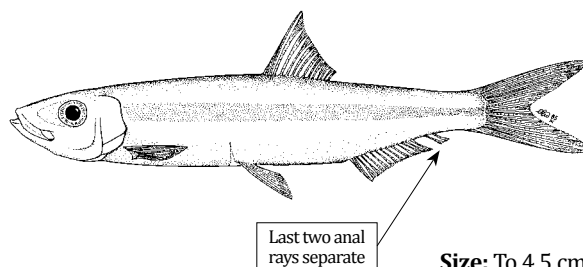
Habitat: Coastal pelagic in marine and brackish waters.

Fisheries: Seines, Cast nets, Bottom trawls.

Distinctive Characters: Body a little compressed, belly rounded, without pre-pelvic scutes, but a pelvic present with slender vertical arms; snout pointed, lower jaw projecting slightly.

Colour: No information.

FAO names: Two-finned round herring (En)

**ENGRAULIDAE**

Anchovies

Encrasicholina devisi (Whitley, 1940)*

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

Habitat: Pelagic in coastal waters down to 200 m.

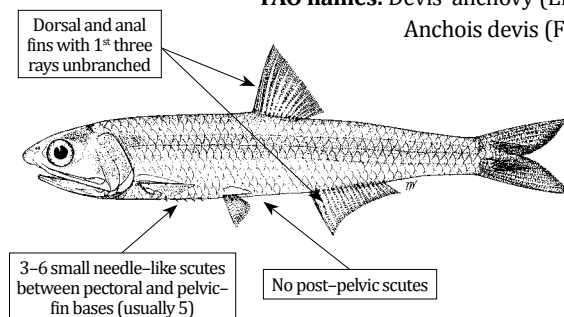
Fisheries: Seines, Stake traps.

Distinctive Characters: Maxilla tip pointed reaching into preopercle; anal-fin origin behind base of last dorsal-fin ray.

Colour: Light transparent fleshy brown, with a pink tinge, and a broad silver stripe with a thin blue line above.

FAO names: Devis' anchovy (En)

Anchois devis (Fr)



Size: To 8 cm, common 7 cm

Encrasicholina heteroloba (Rüppell, 1837)

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

Habitat: Pelagic in coastal waters.

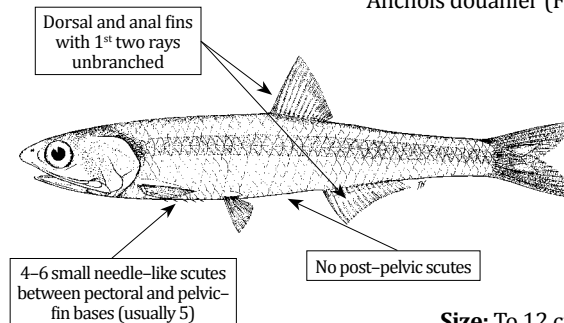
Fisheries: Seines, Stake traps.

Distinctive Characters: Maxilla tip pointed, reaching onto preopercle; anal-fin origin behind base of last dorsal-fin ray.

Colour: Light transparent fleshy brown, with a silvery stripe down flanks.

FAO names: Shorthead anchovy (En)

Anchois douanier (Fr)



Size: To 12 cm

Encrasicholina punctifer Fowler, 1938

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

Habitat: Pelagic in coastal waters.

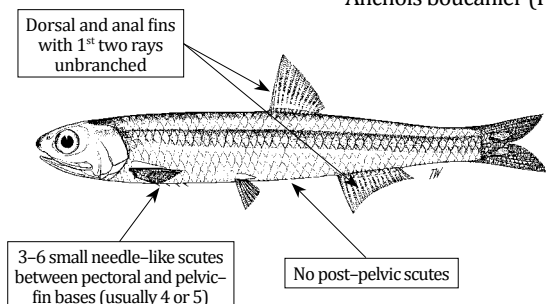
Fisheries: Seines, Stake traps.

Distinctive Characters: Maxilla short and bluntly rounded at the tip; dorsal fin with 12-15 rays; anal fin with 14-17 rays; anal-fin origin clearly posterior to rear base of dorsal fin.

Colour: Light transparent fleshy brown, with a silvery stripe down flanks.

FAO names: Buccaneer anchovy (En)

Anchois boucanier (Fr)



Size: To 9 cm

Stolephorus commersonii Lacepède, 1803

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

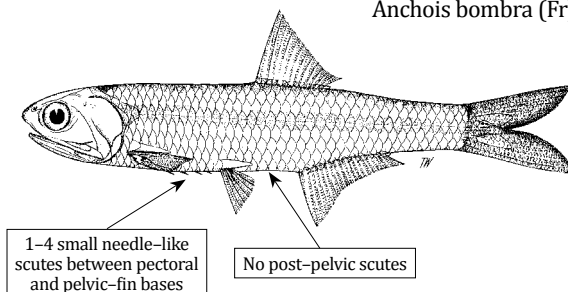
Habitat: Pelagic in coastal waters.

Fisheries: Seines.

Distinctive Characters: Maxilla long reaching to gill opening; pelvic-fin tips reaching beyond dorsal-fin origin.

Colour: Body light transparent fleshy brown, with silvery band down flanks; back with 2 pigmented areas behind head; a double pigmented line before dorsal-fin origin.

FAO names: Commerson's anchovy (En)
Anchois bombra (Fr)



Size: To 10 cm, common 8 cm

Stolephorus indicus (van Hasselt, 1823)

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

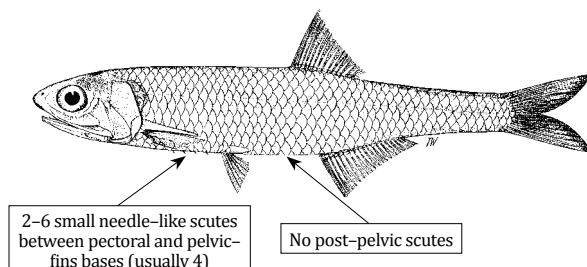
Habitat: Pelagic in coastal waters.

Fisheries: Seines, Bottom trawls, Stake traps.

Distinctive Characters: Maxilla tip short, not reaching gill opening; pelvic-fin tips not reaching to dorsal-fin origin; anal-fin origin below dorsal-fin base.

Colour: Light transparent fleshy brown, with a silver band down flanks; no dark pigment lines on back between head and dorsal-fin origin.

FAO names: Indian anchovy (En)
Anchois indien (Fr)



Size: To 15.5 cm (SL), common 12 cm (SL)

Stolephorus insularis Hardenberg, 1933

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

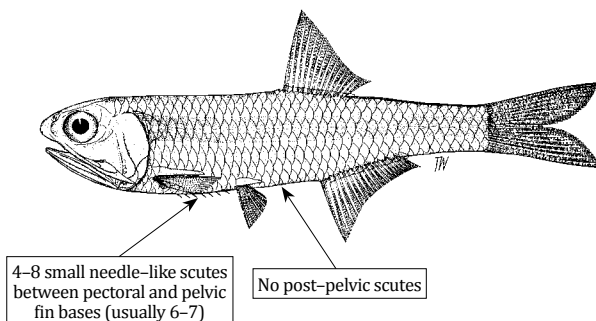
Habitat: Pelagic schooling in coastal waters.

Fisheries: Seines, Bottom trawls, Stake traps.

Distinctive Characters: Maxilla tip pointed, reaching to or beyond hind boarder of preopercle; anal fin short, usually with 14-17 rays, its origin below about middle of dorsal-fin base.

Colour: A double pigmented line on back behind dorsal fin; tail deep yellow.

FAO names: Hardenberg's anchovy (En)



Size: To 8 cm (SL)

Thryssa baelama (Forsskål, 1775)

Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

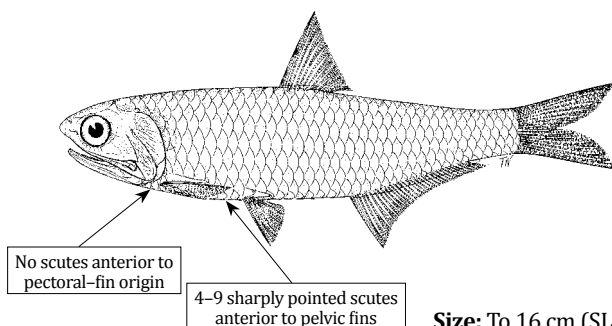
Habitat: Pelagic mostly in inshore waters, bays, lagoon, harbours, mangroves pools and estuaries.

Fisheries: Seines, Shallow trawls.

Distinctive Characters: Maxilla short, not reaching to edge of gill cover; anal fin moderately long, usually with 26-30 branched rays.

Colour: Back blue-green or brown, flanks silvery; a dark venulose area behind gill opening.

FAO names: Baelama anchovy (En)
Anchois-moustache sardin (Fr)



Size: To 16 cm (SL)

Thryssa setirostris (Broussonet, 1782)

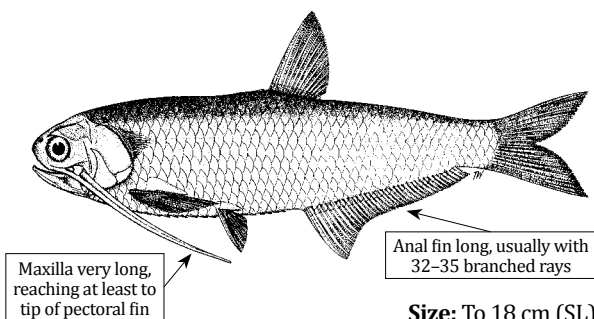
Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

Habitat: Pelagic, mostly inshore, enters bays and estuaries.

Fisheries: Boat seines, Gillnets, Bottom trawls.

Distinctive Characters: Belly with a sharp keel of scutes; tip of snout at level of eye centre; scutes present before and behind pelvic-fin base.

Colour: Back blue-green or brown, flanks silvery; a dark venulose area behind gill opening; dorsal and caudal fins faint yellow.



Size: To 18 cm (SL)

Thryssa vitrirostris (Gilchrist & Thompson, 1908)

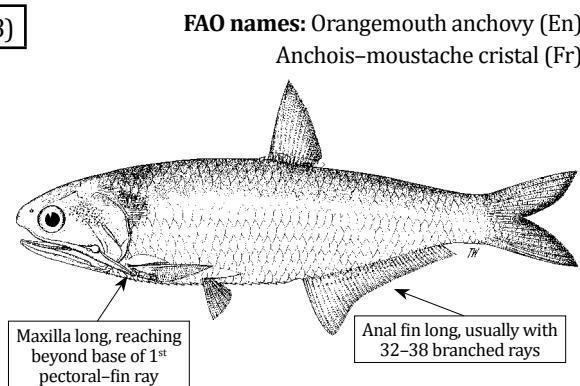
Local name(s): N: Dangaa/Dagaa; S: Mwatiko (K).

Habitat: Pelagic in inshore areas, enters estuaries and lagoons.

Fisheries: Boat seines, Gillnets, Shallow trawls.

Distinctive Characters: Body fusiform; belly with a sharp keel of scutes before and behind pelvic-fin base; tip of snout at level of eye centre.

Colour: Back blue-green, flanks silvery; a dark blotch behind upper part of gill opening; inside of gill cavity bright orange.



Size: To 20 cm

CHIROCENTRIDAE**Wolf-herrings*****Chirocentrus dorab*** (Forsskål, 1775)

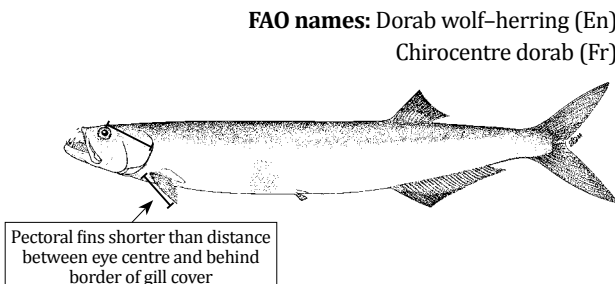
Local name(s): N: Panga; S: Panga (M), Mkonje (K).

Habitat: Pelagic in coastal waters down to 120 m.

Fisheries: Gillnets, Seines, Traps, Bottom trawls; used as bait for large scombroids in trolling.

Distinctive Characters: Dorsal fin with 16-19 rays; anal fin with 29-36 rays.

Colour: Back with bands of green and blue; tip of dorsal fin and front of anal fin black.



Size: To 100 cm (SL), common 60 cm

Chirocentrus nudus Swainson, 1839 (Plate I, 4)

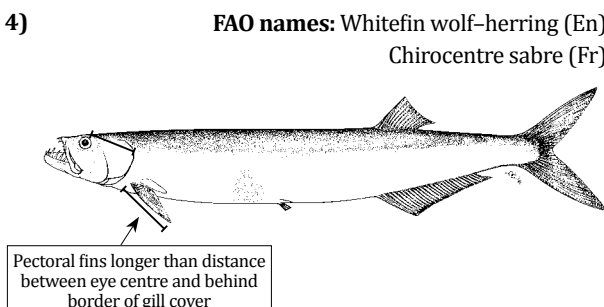
Local name(s): N: Panga; S: Panga (M), Mkonje (K).

Habitat: Pelagic in coastal waters down to 150 m.

Fisheries: Gillnets, Seines, Shallow water trawls; used as bait for large scombroids in trolling.

Distinctive Characters: Dorsal fin with 16-19 rays; anal fin with 29-36 rays.

Colour: Dorsal and anal fins colourless; back with bands of green and blue.



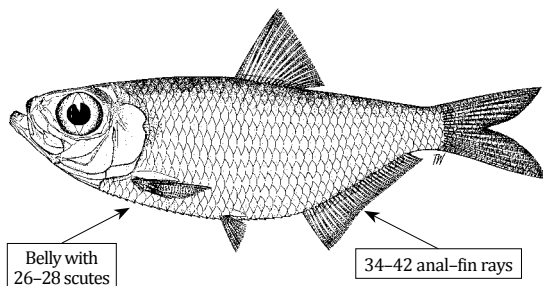
Size: To 100 cm (SL), common 60 cm

FAO names: Dorab wolf-herring (En)
Chirocentre dorab (Fr)

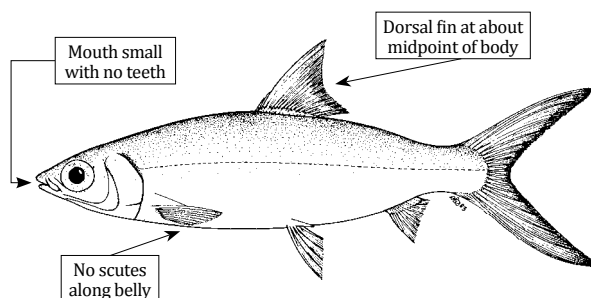
FAO names: Whitefin wolf-herring (En)
Chirocentre sabre (Fr)

PRISTIGASTERIDAE

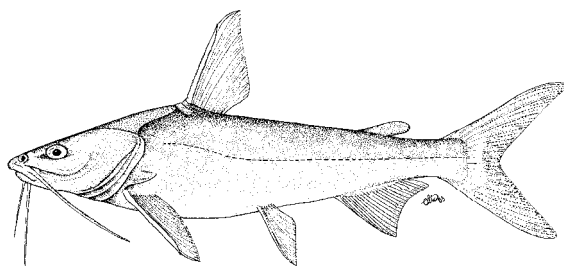
Pristigasterids

Pellona ditchela Valenciennes, 1847**FAO names:** Indian pellona (En)
Alose-écaille indienne (Fr)**Local name(s):** N & S: Simu/Kerenge (M/K).**Habitat:** Pelagic in coastal waters, in estuaries, lagoons and rivers.**Fisheries:** Seines, Cast nets.**Distinctive Characters:** Body moderately deep, compressed; eye very large, lower jaw projecting; upper jaw toothed; dorsal-fin origin near midpoint of body; scales with upper and lower vertical striae slightly overlapping each other at center of scales.**Colour:** Back blue-green or grey, flanks silvery.**Size:** To 16 cm (SL), common 13 cm**CHANIDAE**

Milkfish

Chanos chanos (Forsskål, 1775) (Plate I, 5)**FAO names:** Milkfish (En)
Chano (Fr)**Local name(s):** N: Borodi/Fupefupe; S: Mwatiko (M/K).**Habitat:** Coastal pelagic, entering rivers.**Fisheries:** Scoop nets, Seines, Gillnets, Traps, Hooks and Line; important to fisheries for culture in fresh and brackish waters.**Distinctive Characters:** Lower jaw with a small tubercle at tip; dorsal fin with 2 spines and 13-17 rays; anal fin with 2 spines and 8-10 rays; scales small; lateral line present.**Colour:** Back olive green, flanks silvery; dorsal, anal and caudal fins with dark margins.**Size:** To 180 cm, common 100 cm**ARIIDAE**

Sea catfishes

Arius africanus Günther, 1867**FAO names:** African sea catfish (En)
Mâchoiron africain (Fr)**Local name(s):** N: Fumi/Yahudhi; S: Fumi (M/K).**Habitat:** Estuaries but mainly freshwater.**Fisheries:** Gillnets, Stake traps, Hooks and Line.**Distinctive Characters:** Three pairs of barbels around mouth, the maxillary pair extending to slightly beyond pectoral-fin base; median longitudinal groove on head shallow, extending to just behind posterior margin of orbit anteriorly, not reaching supraoccipital process posteriorly; 1st dorsal and pectoral fins each with a strong spine; 19 to 21 total anal-fin rays.**Colour:** Back brownish, sides silvery, belly white.**Size:** To 45 cm

Arius madagascariensis Vaillant, 1894 *

Local name(s): N: Fumi/Yahudhi; S: Fumi (M/K).

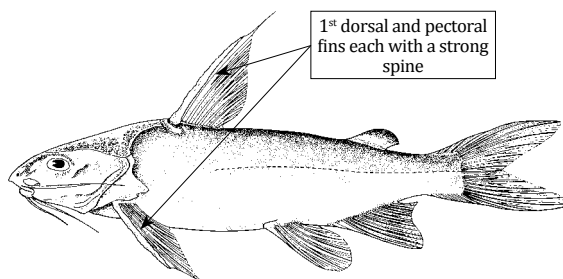
Habitat: Estuaries but mainly freshwater.

Fisheries: Stake traps, Hooks and Line, Gillnets.

Distinctive Characters: Three pairs of barbels around mouth, the maxillary pair extending to pectoral-fin base; head shield granulated behind orbit with a blunt conical protuberance above eye; median longitudinal groove shallow; dorsal and pectoral fins outermost ray prolonged.

Colour: Steel blue above, silvery on sides, pinkish-yellow on belly; dorsal and caudal fins greyish.

FAO names: Madagascar sea catfish (En)
Mâchoiron malgache (Fr)



Size: To 70 cm (SL), common 20 cm

Arius venosus Valenciennes, 1840 *

Local name(s): N: Fumi/Yahudhi; S: Fumi (M/K).

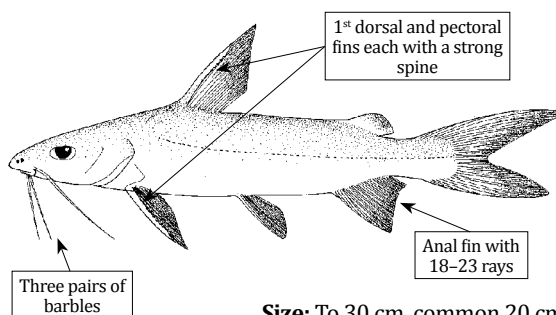
Habitat: Coastal waters. Maximum depth 100 m.

Fisheries: Bottom trawls, Gillnets, Stake traps, Beach seines, Hooks and Line.

Distinctive Characters: Head shield nearly smooth with few rugosities bordering the median longitudinal groove.

Colour: Dark reddish-brown, or dark grey-blue above, white below; all fins generally hyaline, unpaired fins darker terminally; paired fins grey or black above; upper half of adipose fin spotted with black.

FAO names: Veined catfish (En)



Size: To 30 cm, common 20 cm

Plicofollis dussumieri (Valenciennes, 1840)

Local name(s): N: Fumi/Yahudhi; S: Fumi (M/K).

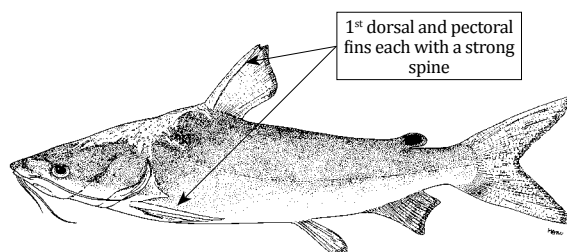
Habitat: Purely marine waters down to 100 m.

Fisheries: Bottom trawls, Gillnets, Stake traps, Beach seines, Hooks and Line.

Distinctive Characters: Three pairs of barbels around mouth; head shield not very granulated or rugose, except at occiput and occipital process; predorsal plate V-shaped; anal fin with 14–16 rays.

Colour: Bluish-black on dorsal surface and sides, dull white below; fin tips edged with black.

FAO names: Blacktip sea catfish (En)



Size: To 62 cm (SL)

Plicofollis polystaphylodon (Bleeker, 1846) *

Local name(s): N: Fumi/Yahudhi; S: Fumi (M/K).

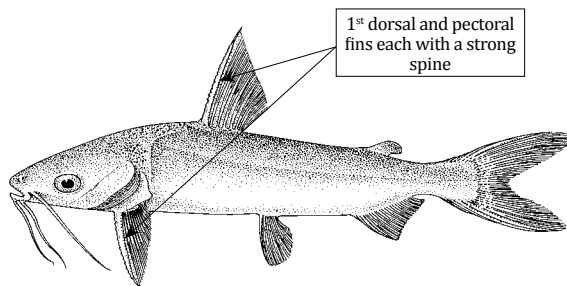
Habitat: Coastal marine waters and estuaries.

Fisheries: Stake traps, Beach seines, Gillnets, Hooks and Line, Bottom trawls.

Distinctive Characters: Three pairs of barbels around mouth, maxillary pair extending slightly to beyond orbit, relatively longer in small specimens; head shield rugose and granulated in the hind part near the occipital region; anal fin with 15–17 rays.

Colour: Greyish-brown above, silvery below; fins dusky.

FAO names: Mozambique sea catfish (En)
Mâchoiron barbarin (Fr)



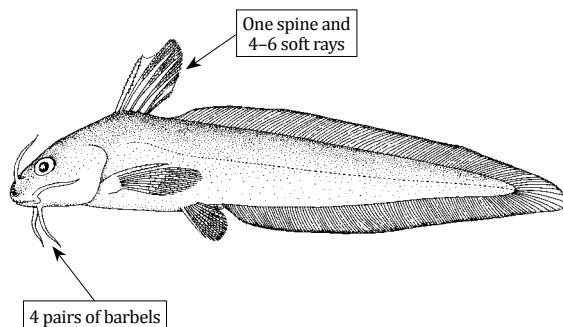
Size: To 35 cm (SL)

PLOTOSIDAE

Eel catfishes

Plotosus limbatus Valenciennes, 1840

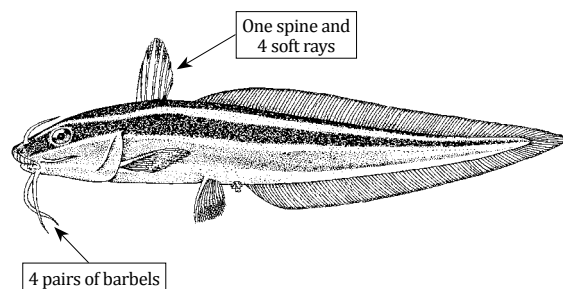
FAO names: Darkfin eel catfish (En)

Local name(s): N: Tondi; S: Ngogo/Mtozi (M), Msilimu (K).**Habitat:** Open coastal waters and estuaries.**Fisheries:** Bottom trawls, Seines, Hooks and Line.**Distinctive Characters:** Head moderately large, arched from snout tip to dorsal-fin origin; pectoral fins with 13–16 soft rays; pelvic fins with 12–16 rays; dorsal fin with 13–16 soft rays; anal fin with 12–16 rays; caudal fin (2nd dorsal fin) with 106–133 rays; anal fin with 87–126 soft rays.**Colour:** Body reddish brown to dark brown, sometimes fading to a lighter brown ventrally; fins often blackish brown, usually with a black border.**Remarks:** Dorsal and pelvic spines are venomous and may be fatal.

Size: To 41 cm (SL)

Plotosus lineatus (Thunberg, 1787)

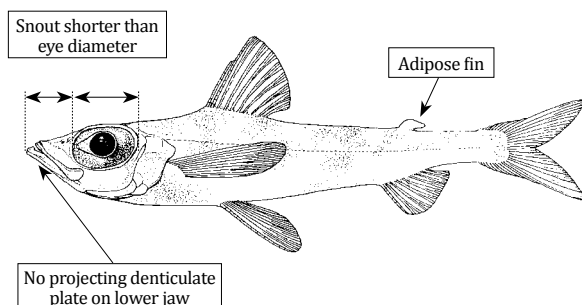
FAO names: Striped eel catfish (En)

Local name(s): N: Tondi; S: Ngogo/Mtozi (M), Ngogo (K).**Habitat:** Reefs, estuaries and tidal pools in schools.**Fisheries:** Bottom trawls, Seines, Hooks and Line.**Distinctive Characters:** Head moderately large, profile slightly arched from tip of snout to dorsal-fin origin; dorsal procurrent caudal fin (or second dorsal fin) with 69 to 115 rays; pectoral fins with 9–13 soft rays; pelvic fins with 10–13 rays.**Colour:** Brown or black above, whitish below, with 2–3 stripes (white or yellow in life); 2 of the stripes from snout to near caudal peduncle.**Remarks:** Dorsal and pelvic spines are venomous and may be fatal.

Size: To 32 cm, common 25 cm

CHLOROPHTHALMIDAE

Greeneyes

Chlorophthalmus agassizi Bonaparte, 1840FAO names: Shortnose greeneye (En)
Eperlan du large (Fr)**Local name(s):** N & S: No information.**Habitat:** Benthic, inhabits shelf and offshore waters from 150 m to 980 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Origin of dorsal fin much closer to tip of snout than to adipose fin.**Colour:** Brownish or yellowish, covered with large dark blotches, especially the dorsal half; eyes green; ventral surface of body around anus, pharyngeal and peritoneal lining black; gill cover black with metallic luster; inner pelvic-fin rays blackish.

Size: To 40 cm

SYNODONTIDAE

Lizardfishes

Saurida gracilis (Quoy & Gaimard, 1824)

(Plate I, 6)

FAO names: Gracile lizardfish (En)
Anoli grêle (Fr)

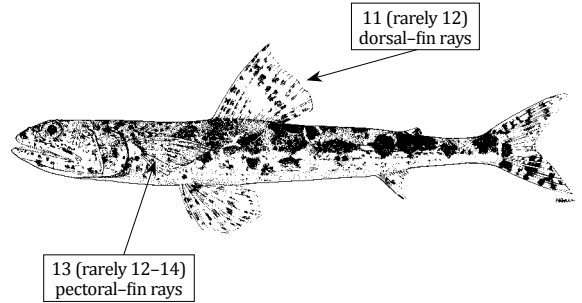
Local name(s): N: Goromwe; S: Spika (K).

Habitat: Shallow waters, sandy areas near coral reefs.

Fisheries: Bottom trawls.

Distinctive Characters: A vertical from tip of pectoral fins passes through 2nd or 3rd predorsal scale; anal fin with 9–10 soft rays.

Colour: White or pale yellow, with dark brown and black spots on back and sides; darker crossbars on back; all fins with dark bars and spots.



Size: To 30 cm

Saurida tumbil (Bloch, 1795)

FAO names: Greater lizardfish (En)
Anoli tumbil (Fr)

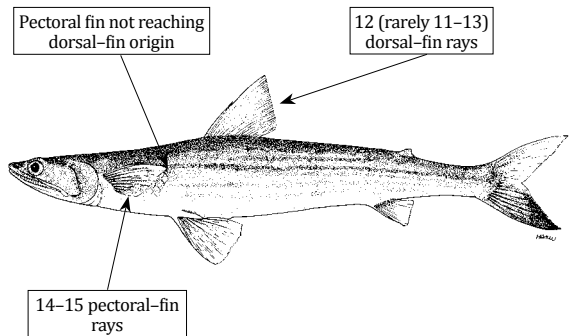
Local name(s): N: Goromwe; S: Spika (K).

Habitat: Muddy bottoms from 20 m to 60 m.

Fisheries: Bottom trawls.

Distinctive Characters: Head and caudal peduncle somewhat depressed; several rows of teeth visible in both jaws even when mouth is closed.

Colour: Back and sides brown, belly pale or silvery; distal parts of dorsal, pectoral and particularly caudal fins, dusky; otherwise, no markings.



Size: To 60 cm

Saurida undosquamis (Richardson, 1848)

FAO names: Brushtooth lizardfish (En)
Anoli à grandes écailles (Fr)

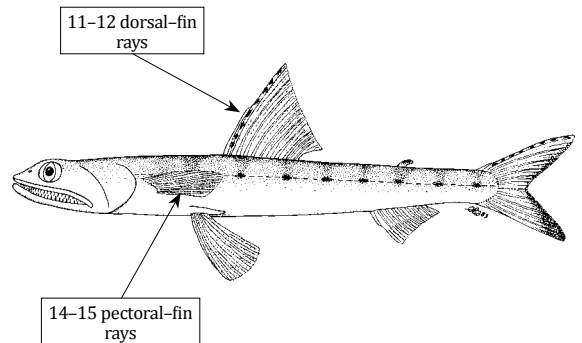
Local name(s): N: Goromwe; S: Spika (K).

Habitat: Muddy bottoms from 20 m to 350 m.

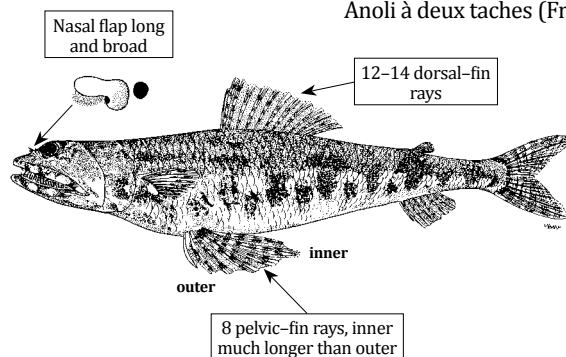
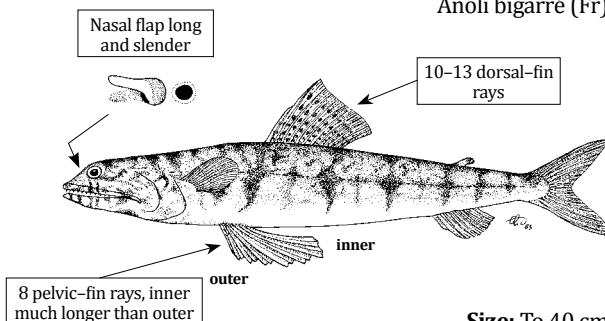
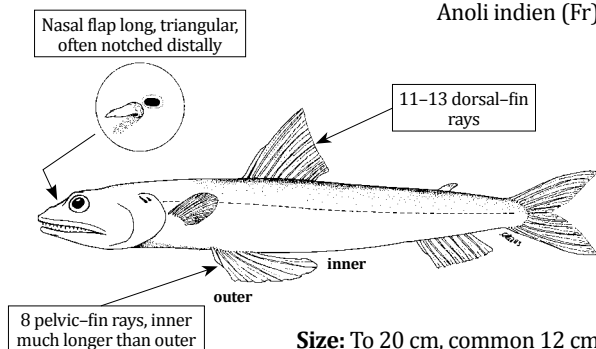
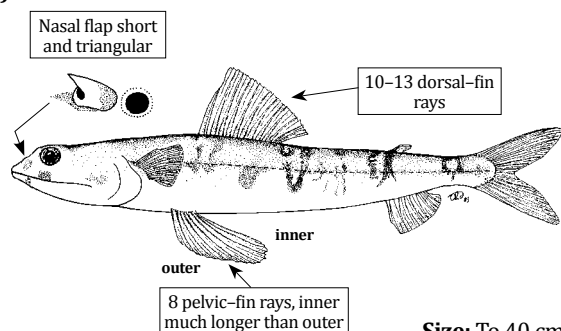
Fisheries: Bottom trawls.

Distinctive Characters: Cigar-shaped, rounded or slightly compressed; the head pointed and depressed; the snout rounded; longest pectoral ray extending to about dorsal-fin origin; 9 pelvic-fin rays, inner barely longer than outer.

Colour: Back and sides brown, belly pale or silvery; 8–10 bars often visible along lateral line; 2nd dorsal-fin ray and upper caudal ray with dark spots.

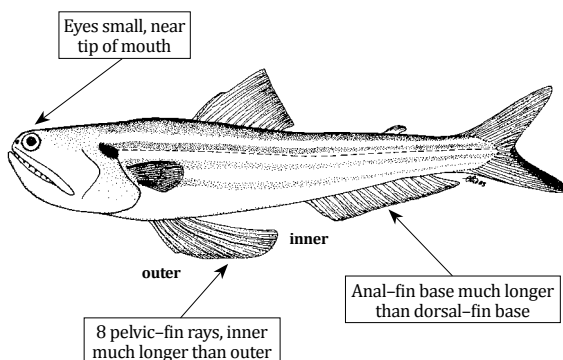


Size: To 50 cm

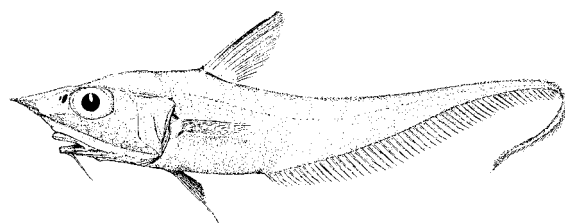
***Synodus binotatus* Schultz, 1953** * (Plate I, 7)**Local name(s):** N: Goromwe; S: Spika (K).**Habitat:** Shallow waters down to 10 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Cheek behind mouth scaled; palatine teeth in a single band on each side (characteristic of the genus); pectoral fins reaching well beyond a line connecting origin of dorsal and pelvic fins; 8–10 anal–fin rays.**Colour:** Two black spots on snout; a series of 4 dark brown dorsal saddle-like bands on tan background; all fins barred.**FAO names:** Two-spot lizardfish (En)
Anoli à deux taches (Fr)**Size:** To 18 cm***Synodus dermatogenys* Fowler, 1912** (Plate I, 8)**Local name(s):** N: Goromwe; S: Spika (K).**Habitat:** Shallow waters down to 20 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Cheek behind mouth scaled; palatine teeth in a single band on each side (characteristic of the genus); pectoral fins short not reaching the line between origins of dorsal and pelvic fins; 8–10 anal–fin rays.**Colour:** Background tan; a series of 8–9 dark brown squared blotches with pale centers along lateral line; peritoneum pale.**FAO names:** Banded lizardfish (En)
Anoli bigarré (Fr)**Size:** To 40 cm***Synodus indicus* (Day, 1873)****Local name(s):** N: Goromwe; S: Spika (K).**Habitat:** Coastal waters from 20 m to 100 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Anterior palatine teeth short, not forming a discrete group; 8–11 anal–fin rays; posterior pelvic process wide.**Colour:** Body dusky pink above, with pale blue-grey blotches and stripes; two small pigmented spots at upper distal corner of operculum; 9–11 peritoneal spots.**FAO names:** Indian lizardfish (En)
Anoli indien (Fr)**Size:** To 20 cm, common 12 cm***Synodus variegatus* (Lacepède, 1803)** (Plate I, 9)**Local name(s):** N: Goromwe; S: Spika (K).**Habitat:** Shallow waters down to 10 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Anterior palatine teeth long and forming a discrete group; 8–10 anal–fin rays; posterior pelvic process wide.**Colour:** Adults variable from grey to red; on some individuals, the saddle-shaped markings along the sides may be obliterated by an almost solid dark red band.**FAO names:** Variegated lizardfish (En)**Size:** To 40 cm

***Trachinocephalus myops* (Forster, 1801)**

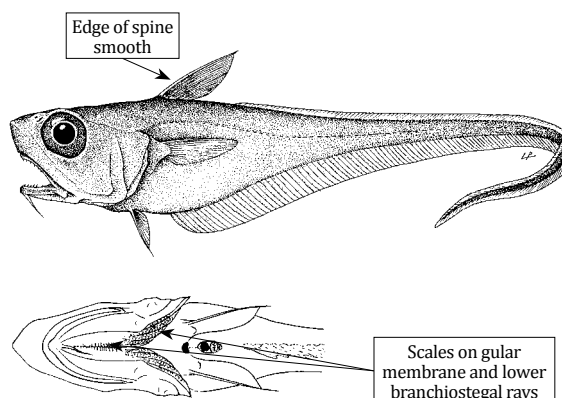
FAO names: Snakefish (En)

Local name(s): N: Goromwe; S: Spika (K).**Habitat:** Sand, shell, rock or mud bottoms from the shoreline down to 400 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Mouth oblique with a single row of teeth on upper jaw visible even when mouth is closed; 14–15 anal-fin rays.**Colour:** A series of longitudinal blue and yellow stripes cover back and sides; belly pale yellow or gold; a large, dark, oblique spot at upper corner of gill cover.**Size:** To 40 cm, common 25 cm**MACROURIDAE****Grenadiers*****Coelorinchus denticulatus* Regan, 1921**

FAO names: Filesnout grenadier (En)

Local name(s): N: Tondi; S: No information.**Habitat:** Benthopelagic, occurs in waters between 64 m and 335 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Light organ a dark streak extending forward from anus to chest, streak broadened at either end but anterior fossa not broadly naked; spinules on scales slender, conical, recurved, in irregular subparallel rows to somewhat quincunx pattern.**Colour:** Body light brownish to grey-brown with faint diagonal bands in some individuals; 1st dorsal fin with a dark band across the middle; pelvic fins black-tipped, their base blackish.**Size:** To 28 cm***Malacocephalus laevis* (Lowe, 1843)**

FAO names: Softhead grenadier (En)

Local name(s): N: Tondi; S: No information.**Habitat:** Benthopelagic on the continental slope between 200 m and 1000 m.**Fisheries:** Bottom trawls.**Distinctive Characters:** Upper jaw teeth in 1 row, outer series enlarged and widely spaced; dorsal fin with 2 spines and 9–13 rays, plus more than 220 soft rays; anal fin with more than 210 soft rays; pectoral fins with 16–22 soft rays.**Colour:** Body brown; 1st dorsal fin, pectoral fins, ventral fins and belly, blackish.**Size:** To 60 cm, common 40 cm

***Ventrifossa petersonii* (Alcock, 1891)**

FAO names: Peterson's grenadier (En)

Local name(s): N: Tondi; S: No information.
Habitat: Benthopelagic, occurs in deep waters between 300 m and 1000 m.
Fisheries: Bottom trawls.
Distinctive Characters: Teeth small; mandibular teeth in 2 or 3 rows; no scales on branchiostegal rays; scales rather large, with short, slender, conical spinules, many with broadened bases, arranged in widely divergent V rows or quincunx pattern.
Colour: Snout with a black margin along leading edge; 1st dorsal fin with a prominent black blotch across middle to lower portions.

Dorsal fin with 2 spines (the 2nd one serrated) and 8-10 soft rays



Size: To 42 cm

OPHIDIIDAE

Cusk eels – Brotulas

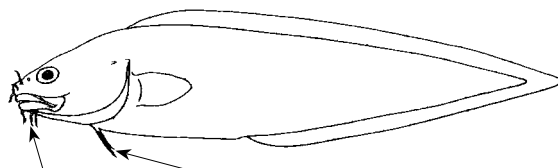
***Brotula multibarbata* Temminck & Schlegel, 1846**

FAO names: Goatsbeard brotula (En)
 Brotula barbe-de-boue (Fr)

Local name(s): N: Tondi; S: No information.
Habitat: Benthic on continental shelf and slope in deeper waters. Maximum depth 650 m.
Fisheries: Hooks and Line, Traps, Bottom trawls.
Distinctive Characters: Body elongate with a tapering caudal fin; fine teeth present on jaws and on palate; fins spineless; dorsal and anal fins long, continuous with caudal fin; body completely covered with small, cycloid (smooth) scales.
Colour: Uniform silvery, dusky to brown.

12 barbels present on snout and chin

Pelvic fins with 2 rays each



Size: To 100 cm

LOPHIIDAE

Goosefishes

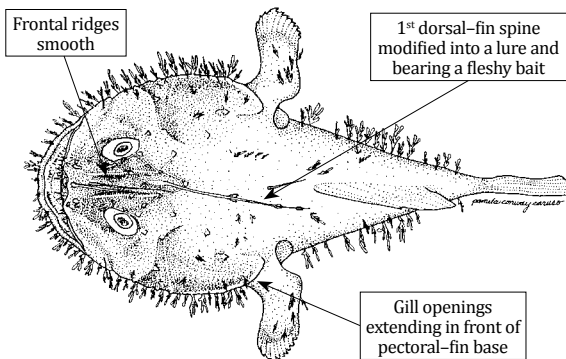
***Lophiodes mutilus* (Alcock, 1894)**

FAO names: Smooth angler (En)
 Baudroie marache (Fr)

Local name(s): N: Shinda dovu/Guguye; S: Bocho (M).
Habitat: Inshore benthic on muddy to rocky bottoms, coral and rocky reefs; meso- and bathypelagic between 300 m and 500 m.
Fisheries: Bottom trawls.
Distinctive Characters: Head with numerous sharp spines on dorsal and lateral surfaces; 2nd cephalic dorsal-fin spine scarcely longer than 1st; 2nd (soft) dorsal fin with 8 rays; anal fin with 6 rays.
Colour: Uniformly light to dark brown above, lighter below; pectoral fins darker distally; all fin rays with pale tips.

Frontal ridges smooth

1st dorsal-fin spine modified into a lure and bearing a fleshy bait



Gill openings extending in front of pectoral-fin base

Size: To 45 cm, common 30 cm

***Lophiomus setigerus* (Vahl, 1797) ***

FAO names: Blackmouth angler (En)

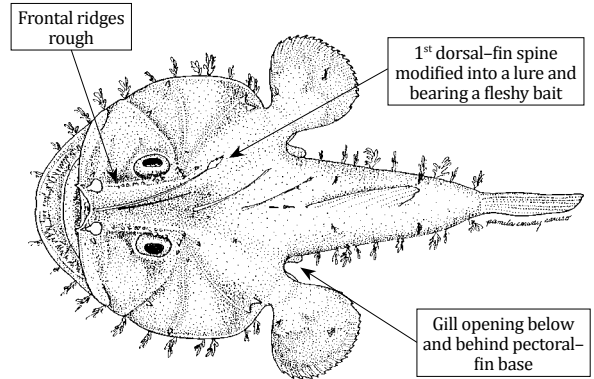
Local name(s): N: Shinda dovú/Guguye; S: Bocho (M).

Habitat: Inshore benthic on muddy to rocky bottoms, coral and rocky reefs to meso- and bathypelagic at depths from 30 m to 800 m.

Fisheries: Bottom trawls.

Distinctive Characters: Floor of mouth with a distinct reticulate pattern; 2nd cephalic dorsal-fin spine stout and darkly pigmented; 2nd (soft) dorsal fin with 8 rays; anal fin with 6 rays.

Colour: Light to dark brown above, lighter below; dorsal surface frequently mottled; all fin rays with pale tips; 2nd cephalic dorsal-fin spine darkly pigmented.



Size: To 40 cm, common 30 cm

ATHERINIDAE

Silversides

***Atherinomorus duodecimalis* (Valenciennes, 1835)**

FAO names: Tropical silverside (En)
Athérine tropicale (Fr)

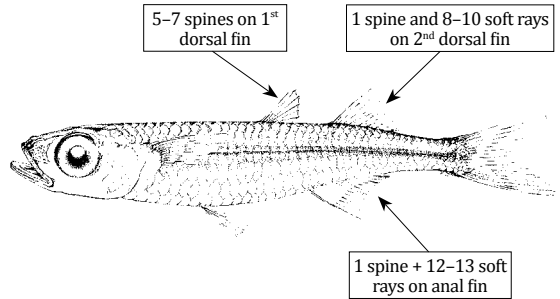
Local name(s): N: Makame kuoza; S: Hanithi/Mambangumu (M), Mambangumu (K).

Habitat: Restricted to coastal waters and harbours.

Fisheries: Seines, Cast nets.

Distinctive Characters: The distal end of upper jaw extending slightly backward beyond vertical through anterior border of orbit; the anus is 2 to 4 scales in front of the pelvic-fin tips, rarely more than 3 scales.

Colour: Scales above the midlateral stripe heavily pigmented with edges outlined by chromatophores; midlateral stripe narrow.



Size: To 11 cm (SL)

***Atherinomorus lacunosus* (Forster, 1801)**

FAO names: Hardyhead silverside (En)
Athérine tête (Fr)

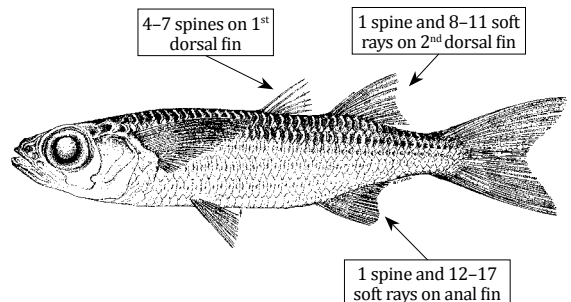
Local name(s): N: Makame kuoza; S: Hanithi/Mambangumu (M), Mambangumu (K).

Habitat: Schooling along shores sometimes with sardines.

Fisheries: Seines, Cast nets.

Distinctive Characters: Head and eyes moderately large; posterior edge of preopercle straight, anterior edge with a distinct notch; 18-25 gill rakers on lower limb of 1st gill arch; body scales large.

Colour: Greenish-grey with a broad silvery stripe on side of body, its upper edge with an iridescent blue line; a dark blotch on pectoral fins.



Size: To 25 cm

***Hypoatherina barnesi* Schultz, 1953**

FAO names: Barnes' silverside (En)

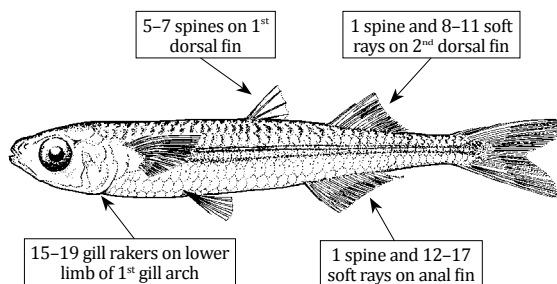
Local name(s): N: Makame kuoza; S: Hanithi/ Mambangumu (M), Mambangumu (K).

Habitat: Coastal waters and lagoons.

Fisheries: Seines, Cast nets.

Distinctive Characters: Body slender; body scales large; pectoral fins with 12–15 rays.

Colour: A black mid-dorsal line running from head to end of caudal peduncle; midlateral stripe wide, broadest between anus and anal fin extending onto caudal fin forming a triangular blotch on upper half of fin base; rows of spots on lower sides occasionally present.



Size: To 10 cm, common 4 cm

***Hypoatherina temminckii* (Bleeker, 1854)**

FAO names: Samoan silverside (En)

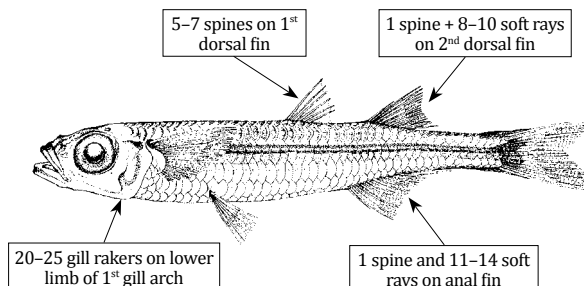
Local name(s): N: Makame kuoza; S: Hanithi/ Mambangumu (M), Mambangumu (K).

Habitat: Restricted to coastal waters and harbours.

Fisheries: Seines, Cast nets.

Distinctive Characters: Body slender; anus always behind pelvic-fin tips.

Colour: Transparent and blue-green in colour; silvery narrow midlateral stripe; scales above it heavily pigmented with edges outlined by chromatophores.



Size: To 11 cm, common 5 cm

BELONIDAE

Needlefishes

***Ablennes hians* (Valenciennes, 1846)**FAO names: Flat needlefish (En)
Orphie plate (Fr)

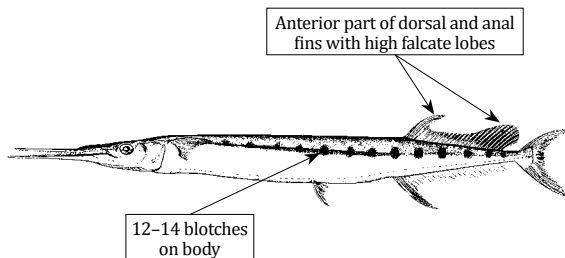
Local name(s): N: Mtumbuudau/Mgendi/Mgezi; S: Mtumbuudau (M), Tsatsarika/Ngarengare (K).

Habitat: Pelagic, inhabiting offshore surface waters, abundant around islands.

Fisheries: Seines, Cast nets, Trolling gears, Gillnets, Handlines.

Distinctive Character: Dorsal fin with 23–26, usually 24–25 rays; anal fin with 24–28, usually 26–27 rays; pectoral fins falcate with 13–15 rays; caudal peduncle without lateral keels.

Colour: Bluish green above, silvery white below.

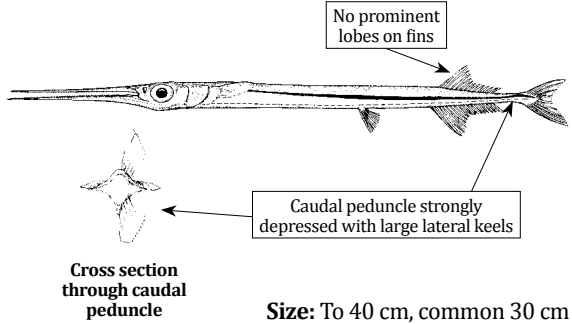


Size: To 140 cm, common 70 cm

***Platybelone platyura* (Bennett, 1832) ***

Local name(s): N: Mtumbuudau/Mgendi/Mgezi; S: Mtumbuudau (M), Tsatsarika/Ngarengare (K).
Habitat: Pelagic in off-shore waters.
Fisheries: Castnets, Trolling gears, Lured hooks, Seines, Handlines.
Distinctive Character: Dorsal fin with 12–15 rays; anal fin with 15–20 rays; pectoral fins not falcate.
Colour: Bluish–green above, silvery below; a dark blue stripe along sides; scales and bones green.

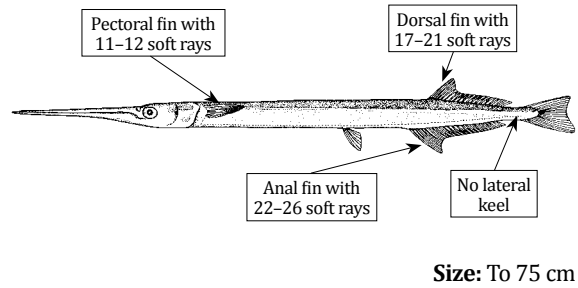
FAO names: Keeltail needlefish (En)
 Orphie carénée (Fr)



***Strongylura leiura* (Bleeker, 1850)**

Local name(s): N: Mtumbuudau/Mgendi/Mgezi; S: Mtumbuudau (M), Tsatsarika/Ngarengare (K).
Habitat: In coastal areas, also enters estuaries.
Fisheries: Drift nets, Seines, Lines.
Distinctive Character: Body almost rectangular in cross section; origin of dorsal fin over 7th to 10th ray of anal fin.
Colour: Back greenish, sides silvery, white ventrally; a black bar on cheek between opercle and preopercle; pectoral fins dark distally, the tip yellow.

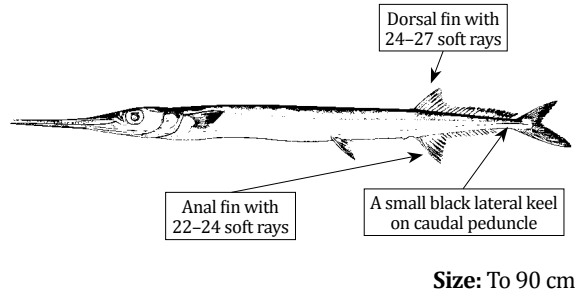
FAO names: Banded needlefish (En)



***Tylosurus acus melanotus* (Bleeker, 1850)**

Local name(s): N: Mtumbuudau/Mgendi/Mgezi; S: Mtumbuudau (M), Tsatsarika/Ngarengare (K).
Habitat: Pelagic in off-shore waters, also found in coastal waters.
Fisheries: Cast nets, Trolling gears, Lured hooks, Gillnets, Seines.
Distinctive Characters: Caudal fin deeply forked, lower lobe much longer than upper; longer jaws with more numerous teeth and narrower caudal lobe than *T. crocodilus*.
Colour: Dark bluish above, silvery white below.

FAO names: Agujon needlefish (En)
 Aiguille voyeuse (Fr)

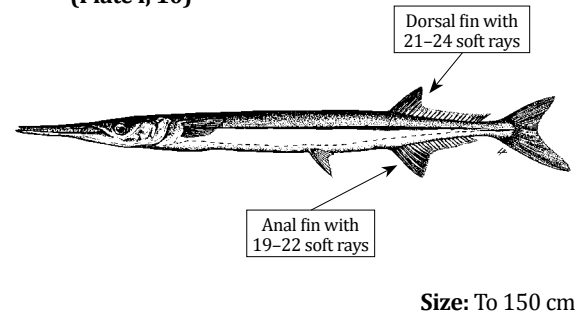


***Tylosurus crocodilus crocodilus* (Péron & Lesueur, 1821)**

Local name(s): N: Mtumbuudau/Mgendi/Mgezi; S: Mtumbuudau (M), Tsatsarika/Ngarengare (K).
Habitat: Pelagic in coastal waters, but also off-shore.
Fisheries: Castnets, Trolling gears, Purse seines, Drift nets, Gillnets, Lines.
Distinctive Character: Caudal fin deeply forked, lower lobe much longer than upper; a small black lateral keel on caudal peduncle.
Colour: Dark bluish green above, silvery below; a dark blue stripe along sides; a distinct black lateral keel on caudal peduncle.

FAO names: Hound needlefish (En)
 Aiguille crocodile (Fr)

(Plate I, 10)



HEMIRAMPHIDAE

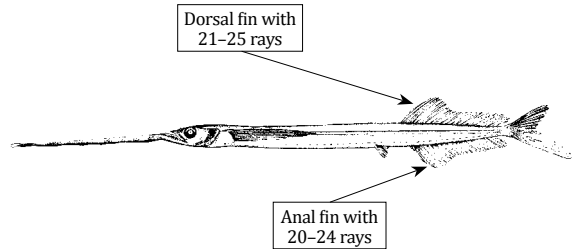
Halfbeaks

Euleptorhamphus viridis (van Hasselt, 1823)**Local name(s):** N: Chuchungi/Mkeke/Mgezi

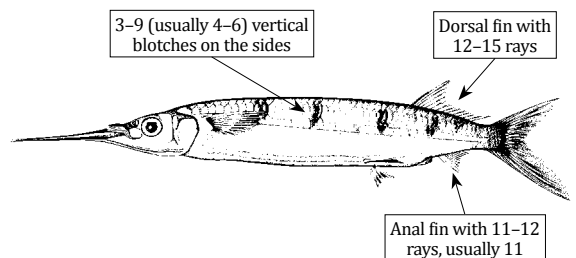
S: Chuchungi (M), Kidau (K).

Habitat: Off-shore waters.**Fisheries:** Gillnets, Shore seines; common in catches particularly in the south coast.**Distinctive Characters:** Lower jaw very prolonged; upper jaw short, triangular, and scaly; pectoral fins long.**Colour:** Fins unpigmented; fold of skin at edges of lower jaw, grey with transverse black bands.**FAO names:** Ribbon halfbeak (En)

Demi-bec allongé (Fr)

**Size:** To 50 cm***Hemiramphus far*** (Forsskål, 1775) (Plate II, 11)**Local name(s):** N: Chuchungi/Mkeke/Kule

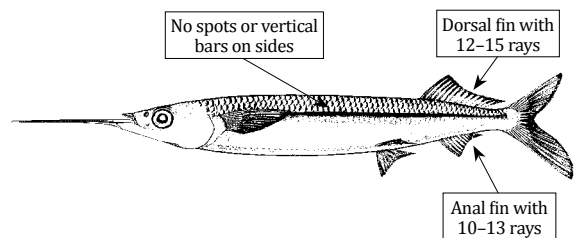
S: Chuchungi (M), Kidau (K).

Habitat: Common in off-shore waters rich in submerged vegetation.**Fisheries:** Gillnets, Seines.**Distinctive Characters:** Lower jaw very prolonged; upper jaw short triangular and scaleless; pectoral fins short; total number of gillrakers on first gill arch 25 to 36, usually 29 to 33.**Colour:** Dark bluish above, silvery white below.**FAO names:** Black-barred halfbeak (En)**Size:** To about 45 cm, common to 27 cm***Hemiramphus lutkei*** Valenciennes, 1847***Local name(s):** N: Chuchungi /Mkeke/Kiroho

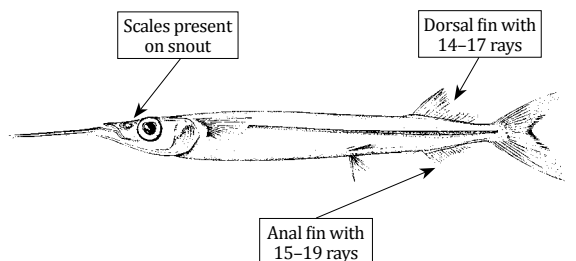
S: Chuchungi (M), Kidau (K).

Habitat: Off-shore waters.**Fisheries:** Shore seines, Gillnets, Lines.**Distinctive Characters:** Prolonged lower jaw; upper jaw short, triangular and scaleless; total number of gillrakers on first gill arch 33 to 46; pectoral fins long, reaching beyond anterior margin of nasal pit when folded forward.**Colour:** Dark bluish above, silvery white below.**FAO names:** Lutke's halfbeak (En)

Demi-bec de Lutke (Fr)

**Size:** To 40 cm, common 25 cm***Hyporhamphus affinis*** (Günther, 1866)**Local name(s):** N: Chuchungi/Mkeke/Mgezi

S: Chuchungi (M), Kidau (K).

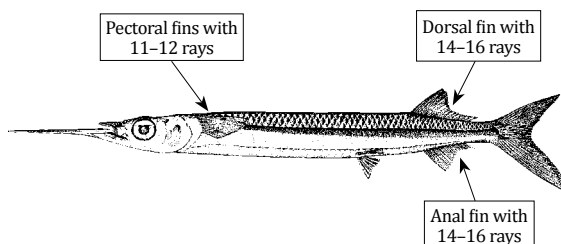
Habitat: Clear waters particularly around reefs.**Fisheries:** Shore seines, Purse seines, Gillnets.**Distinctive Characters:** Lower jaw very prolonged; upper jaw short; front part of dorsal fin and entire anal fin covered with scales.**Colour:** Body deep blue above, silvery white below; silvery stripe on side; caudal fin bluish, other fins unpigmented; tip and distal half of underside of lower jaw bright carmine red.**FAO names:** Tropical halfbeak (En)**Size:** To 38 cm

Hyporhamphus dussumieri (Valenciennes, 1847)**Local name(s):** N: Chuchungi/Mkeke;

S: Chuchungi (M), Kidau (K).

Habitat: Occurs around islands and coral reefs.**Fisheries:** Shore seines, Gillnets, Lines.**Distinctive Characters:** Greatly prolonged beak-like lower jaw; upper jaw short, triangular and scaly; caudal fin forked with lower lobe longer than upper.**Colour:** Greenish above, silvery white below; fleshy tip of beak red.**FAO names:** Dussumier's halfbeak (En)

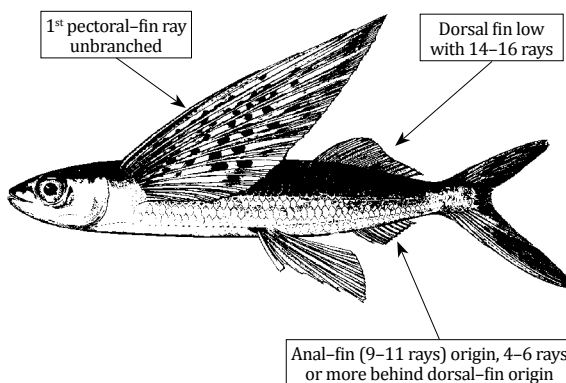
Demi-bec de Dussumier (Fr)

**Size:** To 38 cm, common 20 cm**EXOCOETIDAE**

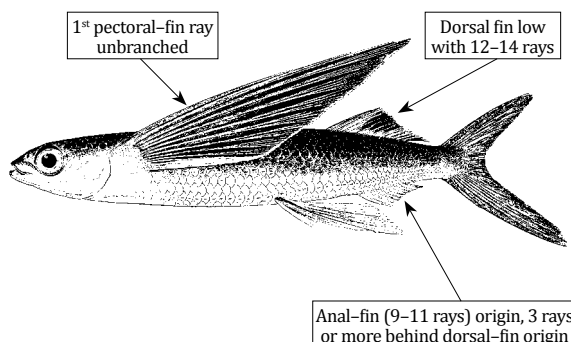
Flyingfishes

Cheilopogon atrisignis (Jenkins, 1903)***Local name(s):** N: Pandi mai (maji); S: Panzi (M/K).**Habitat:** Pelagic in surface waters of both oceanic and neritic areas.**Fisheries:** Gillnets, Seines, Hand nets.**Distinctive Characters:** Head shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; dorsal-fin rays at anterior end, the longest; pelvic fins abdominal, large, reaching well beyond anal-fin origin.**Colour:** Dark above, pale below; pectoral fins brownish with numerous scattered spots.**FAO names:** Glider flyingfish (En)

Exocet planeur (Fr)

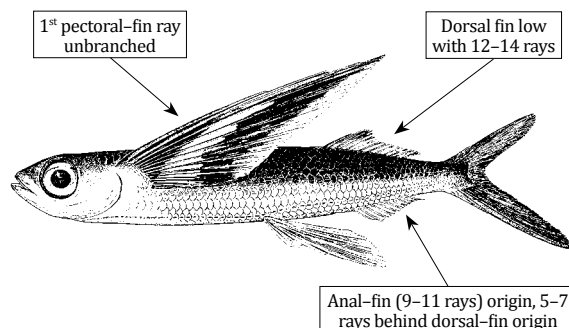
**Size:** To 35 cm***Cheilopogon cyanopterus*** (Valenciennes, 1847)***Local name(s):** N: Pandi mai (maji); S: Panzi (M/K).**Habitat:** Pelagic in surface waters in both oceanic and neritic areas.**Fisheries:** Gillnets, Seines, Hand nets.**Distinctive Characters:** Head approximately equal to distance between dorsal-fin origin and origin of upper caudal-fin lobe; dorsal-fin rays at anterior end the longest; pelvic fins abdominal, large, reaching well beyond anal-fin origin.**Colour:** Dark above, pale below; dorsal with a prominent black spot; pectoral fins blue in life; without stripes or spots.**FAO names:** Margined flyingfish (En)

Exocet cadène (Fr)

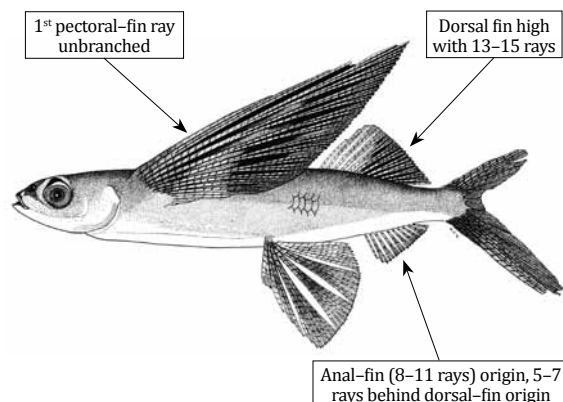
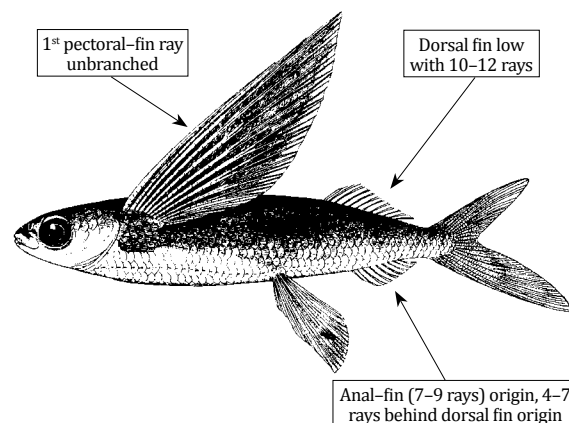
**Size:** To 40 cm

Cheilopogon furcatus* (Mitchill, 1815)

FAO names: Spotfin flyingfish (En)

Local name(s): N: Pandi mai (maji); S: Panzi (M/K).**Habitat:** Pelagic in oceanic surface waters.**Fisheries:** Gillnets, Seines, Hand nets.**Distinctive Characters:** Head considerably shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; dorsal rays at anterior end the longest; caudal fin forked with lower lobe much longer than upper.**Colour:** Body dark iridescent blue above, silvery-white below; pectoral fins dark grey, with a broad pale margin crossed by a pale stripe becoming narrower toward anterior fin margin; pelvic fins pale.**Size:** To 35 cm***Cheilopogon nigricans* (Bennett, 1840)***

FAO names: Blacksail flyingfish (En)

Local name(s): N: Pandi mai (maji); S: Panzi (M/K).**Habitat:** Pelagic in oceanic surface waters.**Fisheries:** Gillnets, Seines, Hand nets. By-catch in various types of gears.**Distinctive Characters:** Head shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; pelvic fins abdominal, large, reaching well beyond anal-fin origin.**Colour:** Dorsal fin with a prominent black spot; pectoral fins black with a central portion crossed by a yellow or greenish-yellow transverse stripe becoming narrow towards fin margin; pelvic fins with prominent black spot.**Size:** To 28 cm***Cypselurus naresii* (Günther, 1889)***FAO names: Pharao flyingfish (En)
Exocet pharaon (Fr)**Local name(s):** N: Pandi mai (maji); S: Panzi (M/K).**Habitat:** Pelagic in oceanic surface waters.**Fisheries:** Gillnets, Seines, Hand nets.**Distinctive Characters:** Head approximately equal to the distance between dorsal-fin origin and origin of upper caudal-fin lobe; insertion of pelvic fins closer to anal-fin origin than to pectoral-fin insertion.**Colour:** Dorsal fin greyish; pectoral fins brownish, unpigmented below the 9th ray.**Size:** To 21 cm

***Cypselurus oligolepis* (Bleeker, 1865) ***

Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

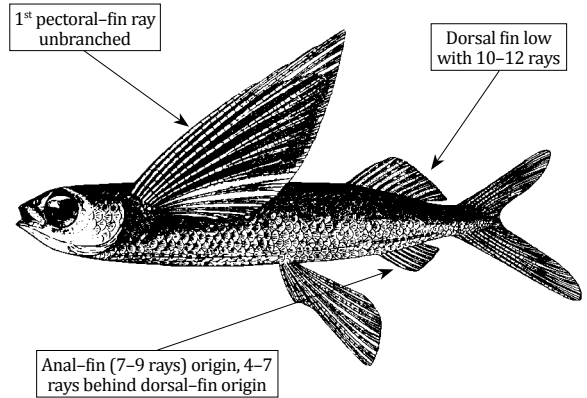
Habitat: Pelagic in surface waters of inshore areas.

Fisheries: Gillnets, Seines, Handnets.

Distinctive Characters: Head much shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; pelvic-fin insertion closer to anal-fin origin than to pectoral-fin insertion and much nearer to hind margin of head than to origin of lower caudal-fin lobe.

Colour: Pectoral fins greyish-brown, lower portion and posterior tip colourless.

FAO names: Largescale flyingfish (En)
Exocet à grandes écailles (Fr)



Size: To 27 cm

***Cypselurus poecilopterus* (Valenciennes, 1847) ***

Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

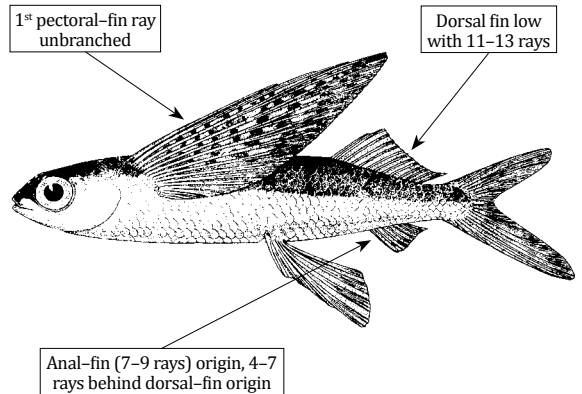
Habitat: Pelagic in neritic surface waters; rare in the open ocean.

Fisheries: Gillnets, Seines, Hand nets.

Distinctive Characters: Head shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; insertion closer to anal-fin origin than to pectoral-fin insertion and much nearer to hind margin of head than to origin of lower caudal-fin lobe.

Colour: Pectoral fins brownish-grey (yellowish-brown in life) with numerous dark spots.

FAO names: Yellowing flyingfish (En)



Size: To 27 cm

***Exocoetus monocirrhus* Richardson, 1846**

Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

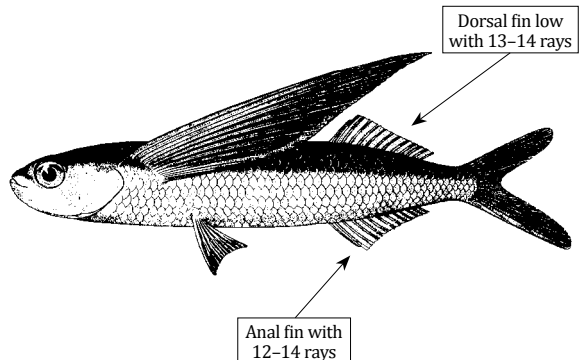
Habitat: Pelagic in oceanic surface waters.

Fisheries: Gillnets, Seines, Hand nets.

Distinctive Characters: Upper jaw not protrusible; gillrakers on first arch 21 to 29; pelvic fins short, far from reaching anal fin; usually 7 transverse rows of scales between dorsal-fin origin and lateral line.

Colour: Body dark iridescent blue above, silvery-white below; pectoral fins and caudal fin greyish or brownish, other fins unpigmented.

FAO names: Barbel flyingfish (En)
Exocet boue (Fr)



Size: To 20 cm

Parexocoetus brachypterus (Richardson, 1846)

FAO names: Sailfin flyingfish (En)

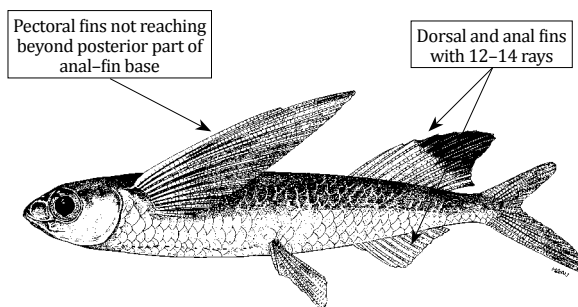
Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

Habitat: Pelagic in neritic surface waters, rare in the open ocean.

Fisheries: Gillnets, Seines, Hand nets.

Distinctive Characters: Upper jaw protrusible; dorsal fin high, reaching well beyond origin of upper caudal-fin lobe when depressed.

Colour: Body iridescent greenish-blue dorsally, silvery-white ventrally; dorsal fin black except for base and posterior rays which are pale; pelvic fins greyish, other fins transparent.



Size: To 14 cm

Parexocoetus mento (Valenciennes, 1847)FAO names: African sailfin flyingfish (En)
Exocet voilier africain (Fr)

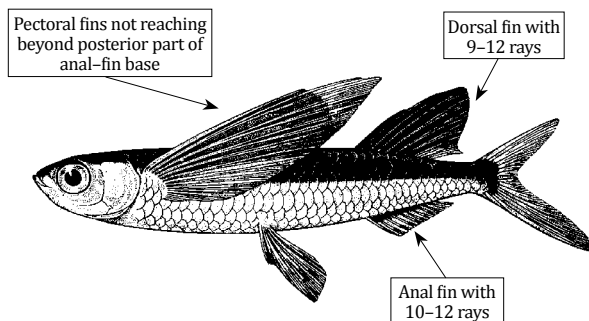
Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

Habitat: Pelagic in neritic surface waters, absent in the open ocean.

Fisheries: Gillnets, Seines, Hand nets.

Distinctive Characters: Upper jaw protrusible; dorsal fin high almost reaching the origin of upper caudal-fin lobe when depressed; pelvic fins abdominal, medium-sized, reaching beyond anal-fin origin, their insertion closer to anal-fin origin than to pectoral-fin insertion.

Colour: Dorsal fin mostly blackish; pectoral fins and caudal greyish, other fins transparent.



Size: To 11 cm

Prognichthys brevipinnis (Valenciennes, 1847)

FAO names: Shortfin flyingfish (En)

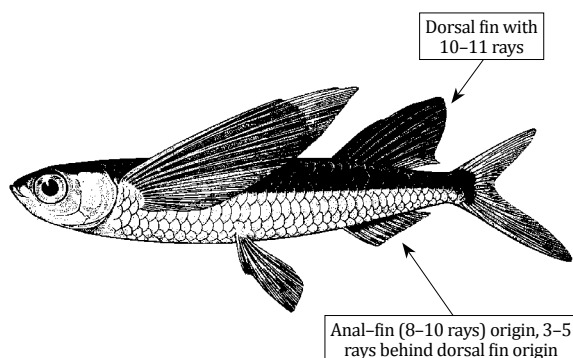
Local name(s): N: Pandi mai (maji); S: Panzi (M/K).

Habitat: Pelagic in neritic surface waters, rare in the open ocean.

Fisheries: Gillnets, Seines, Hand nets.

Distinctive Characters: Head shorter than distance between dorsal-fin origin and origin of upper caudal-fin lobe; lower jaw a little shorter than the upper; first 3 rays of pectoral fins unbranched; pelvic-fin insertions closer to anal-fin origin than to pectoral-fin insertion and much nearer to hind margin of head than to origin of lower caudal-fin lobe.

Colour: Dorsal fin greyish; pectoral fins grey above, lower part and tip transparent; pelvic fins unpigmented.



Size: To 19 cm

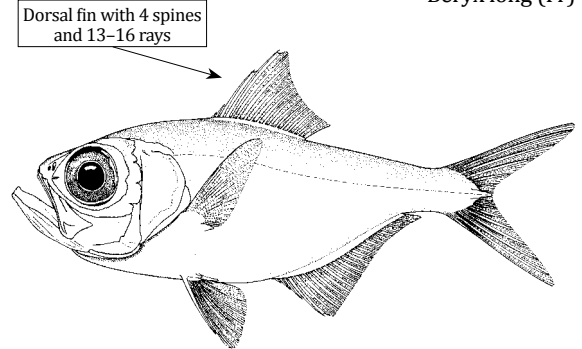
BERYCIDAE

Alfonsinos

Beryx splendens Lowe, 1834

Local name(s): N & S: No information.
Habitat: Bathypelagic, over the continental slope, in depths from about 200 m to 600 m.
Fisheries: Longlines, Bottom trawls.
Distinctive Characters: Body depth 2.5 to 2.8 times in standard length; first infraorbital bone with a spine projecting laterally on anterior end; lateral line extends to caudal fin; a fleshy disk on inner face of exposed area of scale; in young fishes the 2nd dorsal ray is elongate.
Colour: Body orange-red with silvery reflections ventrally.

FAO names: Splendid alfonsino (En)
 Béryx long (Fr)



Size: To about 70 cm, common 40 cm

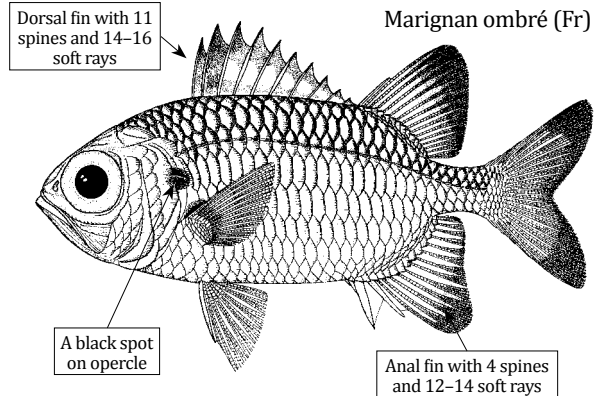
HOLOCENTRIDAE

Squirrelfishes – Soldierfishes

Myripristis adusta Bleeker, 1853

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).
Habitat: Common in shallow waters around coral reefs; hides in caves during day.
Fisheries: Hooks and Line, Gillnets, Spears, Seines.
Distinctive Characters: One or two (usually one) pairs of tooth patches at front of lower jaw outside mouth.
Colour: Pale salmon pink; edges of scales dorsally on body deep blue to black; median fins with broad black outer border.

FAO names: Shadowfin soldierfish (En)
 Marignan ombré (Fr)

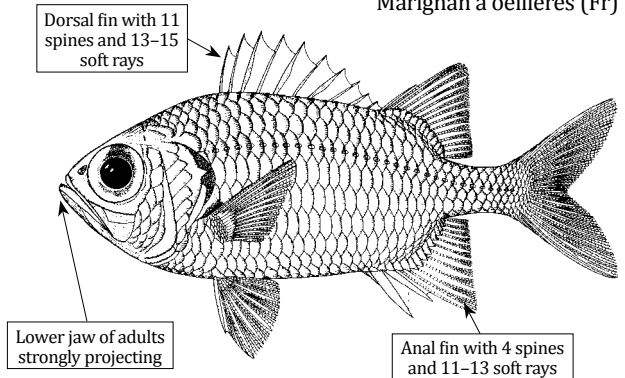


Size: To 35 cm, common 20 cm

Myripristis berndti Jordan & Evermann, 1903*

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).
Habitat: Shallow waters around coral reefs.
Fisheries: Hooks and Line, Gillnets; caught at night.
Distinctive Characters: One pair of tooth patches at front of lower jaw outside mouth; 11th dorsal spine more than twice length of 10th and closely applied to soft portion of fin.
Colour: Spiny dorsal fin orange-yellow; opercular membrane black; leading edge of soft dorsal, anal caudal and pelvic fins white.

FAO names: Blotcheye soldierfish (En)
 Marignan à ocellères (Fr)



Size: To 30 cm, common 22 cm

Myripristis kuntzei Valenciennes, 1831

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

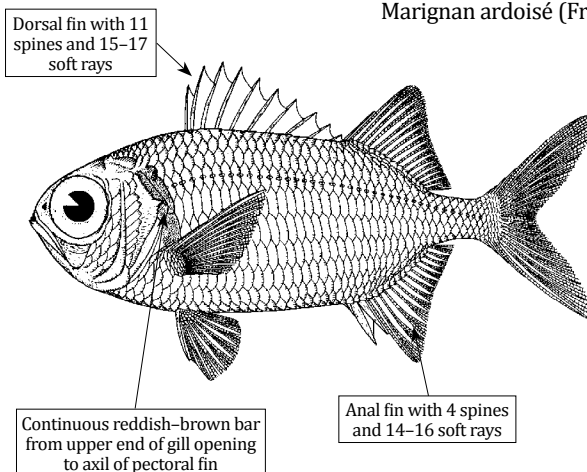
Habitat: Shallow waters around coral reefs; caught at night.

Fisheries: Hooks and Line, Gillnets.

Distinctive Characters: One pair of tooth patches at front of lower jaw outside mouth; corner of preopercle with a sharp spine; 11th dorsal spine about twice the length of 10th spine and closely applied to soft portion of fin.

Colour: Silvery orange-red; red pigment in soft dorsal and anal fins concentrated in a large spot at tips of fins.

Remarks: Has smaller scales than most other similar species and the higher number along the body is quite obvious.



Size: To 26 cm, common 16 cm

Myripristis murdjan (Forskål, 1775)

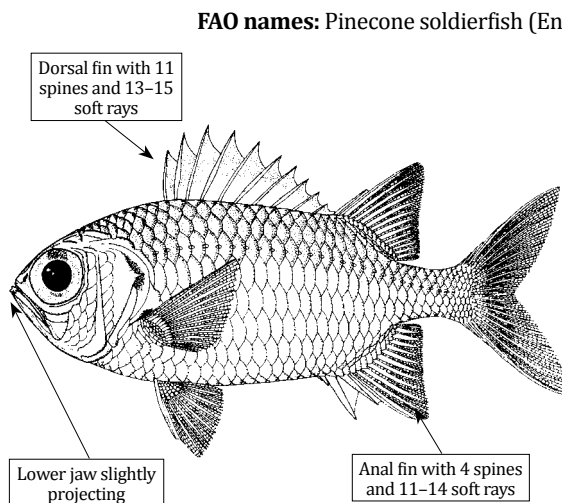
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Coral reefs, hiding in caves and crevices by day.

Fisheries: Hooks and Line, Gillnets; caught at night.

Distinctive Characters: Snout short; lower jaw slightly projecting when mouth is closed; a single pair of tooth patches at front of lower jaw outside mouth; caudal fin deeply forked.

Colour: Body colour silvery-pink; edge of scales red; opercular margin black; all fins red; submarginal band in each caudal-fin lobe; leading edges of median fins white.



Size: To 30 cm, common 20 cm

Neoniphon opercularis (Valenciennes, 1831)

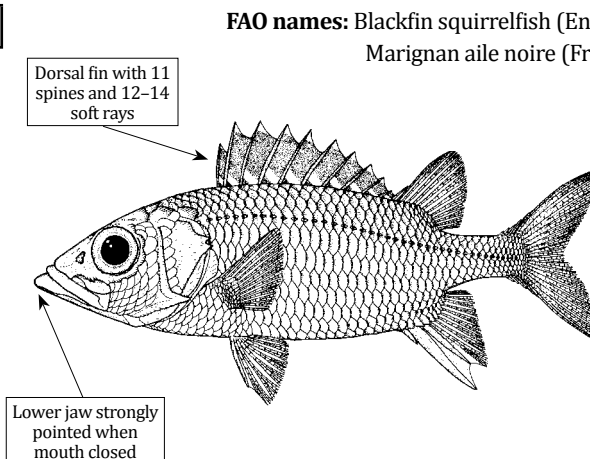
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: A reef species found in shallow to moderate depths.

Fisheries: Hooks and Line, Traps.

Distinctive Characters: Body moderately elongated; corner of preopercle with a sharp spine; anal fin with 4 spines and 8-9 soft rays.

Colour: Body iridescent silvery with dark red or black markings on each scale; spinous portion of dorsal fin black; soft dorsal, anal and caudal fins reddish-yellow; pectoral fins pink; pelvic fins white.



Size: To 35 cm, common 23 cm

Neoniphon sammara (Forsskål, 1775)

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/ Kifufu (M), Mwanaasha (K).

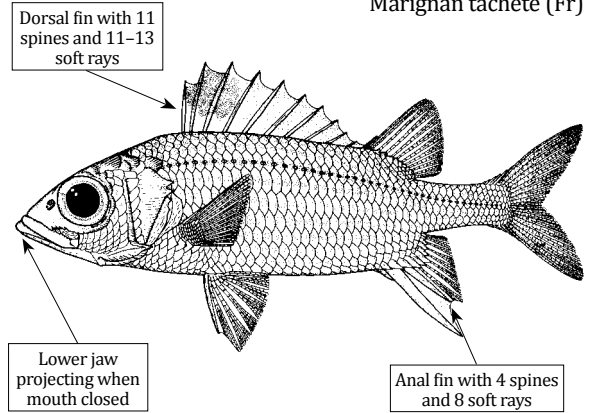
Habitat: Coral reefs, most often in shallow waters of bays and lagoons.

Fisheries: Hooks and Line, Traps, Seines.

Distinctive Characters: Body moderately elongated; corner of preopercle with a sharp spine.

Colour: Silvery with blue-green iridescence; a reddish stripe following lateral line; snout and top of head red; spiny portion of dorsal fin with a large black spot tinged with red on first 3 membranes.

FAO names: Sammara squirrelfish (En)
Marignan tacheté (Fr)



Size: To 30 cm, common 23 cm

Ostichthys archiepiscopus (Valenciennes, 1862) *

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/ Kifufu (M), Mwanaasha (K).

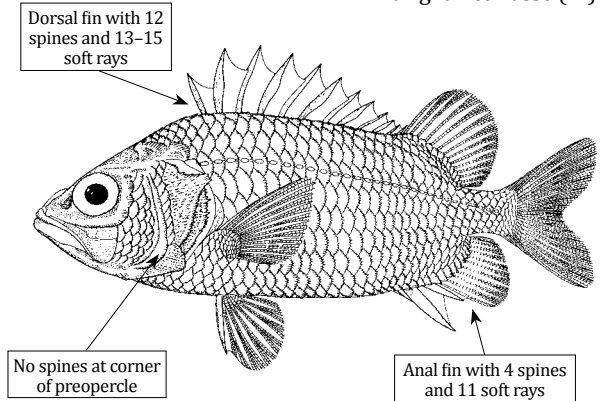
Habitat: Associated with reefs down to 200 m.

Fisheries: Bottom trawls, Hooks and Line.

Distinctive Characters: Dorsal profile of head straight; dorsal fin continuous though deeply notched between spiny and soft portions.

Colour: Light red, the centers of the scales paler, thus forming faint longitudinal bands.

FAO names: Longsnout soldier (En)
Marignan cuirassé (Fr)



Size: To 32 cm, common 24 cm

Sargocentron caudimaculatum (Rüppell, 1838)

(Plate II, 12) **FAO names:** Silverspot squirrelfish (En)

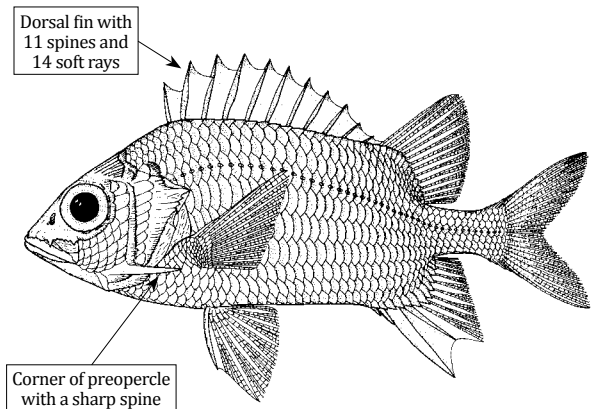
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/ Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Associated with reefs.

Fisheries: Hooks and Line, Traps.

Distinctive Characters: Dorsal profile of head of adults nearly straight; very large scales on posterior part of opercle; anal fin with 4 spines and 9 soft rays.

Colour: Head and body red, edges of scales silver; silvery white spot antero-dorsally on caudal peduncle (often disappears after death); spinous part of dorsal fin mottled light red, the outer part of the membranes bright red.



Size: To 25 cm, common 18 cm

Sargocentron diadema (Lacepède, 1802)

(Plate II, 13)

FAO names: Crown squirrelfish (En)

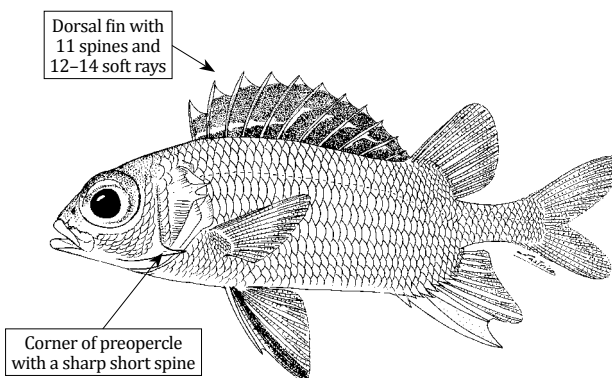
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Coral reefs from 2 m to 30 m.

Fisheries: Hooks and Line.

Distinctive Characters: Anal fin with 4 spines and 8–9 soft rays.

Colour: Body with alternating stripes of red and silvery-white; head red with 2 vertical white streaks on the opercle, one on its edge and an oblique one below the eye; distinctive reddish-black to black dorsal fin with two white streaks.



Size: To 17 cm

Sargocentron ittodai (Jordan & Fowler, 1902) *

FAO names: Samurai squirrelfish (En)

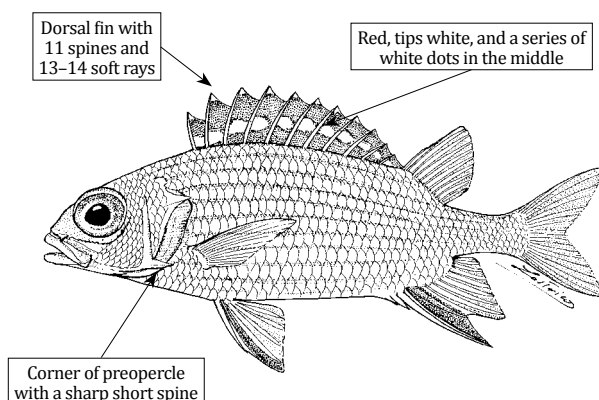
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Associated with coral reefs.

Fisheries: Hooks and Line.

Distinctive Characters: Anal fin with 4 spines and 8–10 soft rays.

Colour: Body with red and white stripes following the scale rows, the red stripes slightly narrower than the white ones; inner base of pectoral fins with a black spot.



Size: To 20 cm

Sargocentron macrosquamis Golani, 1984

FAO names: Bigscale squirrelfish (En)

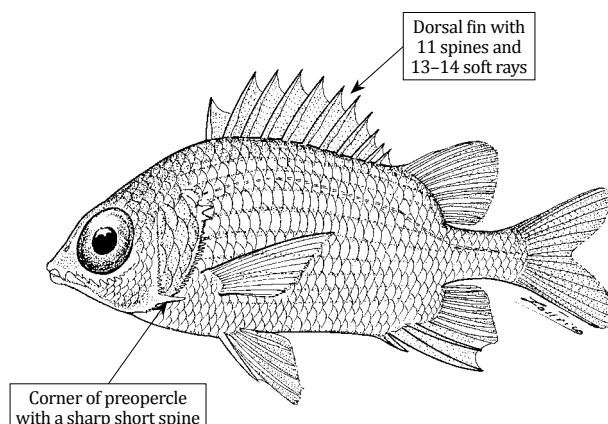
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Shallow inshore waters from 4 m to 10 m.

Fisheries: Traps, Seines, Hooks and Line, Gillnets.

Distinctive Characters: Very large scales on posterior part of preopercle; anal fin with 4 spines and 9–10 soft rays; pectoral fins with 14–16 soft rays; mouth terminal to slightly inferior; maxilla extending to a vertical at front edge of pupil or slightly before or beyond to it; broadly rounded caudal fin lobes.

Colour: Body red with silvery reflections on many scales, shading to silvery-white on lower part of the head, thorax, and anterior abdomen.



Size: To 9 cm

Sargocentron melanospilos (Bleeker, 1858) *

FAO names: Blackblotch squirrelfish (En)

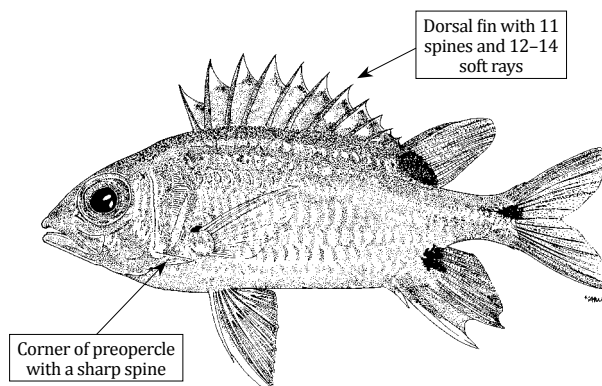
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha (K).

Habitat: Shallow coastal waters down to 90 m.

Fisheries: Traps, Seines, Hooks and Line, Gillnets.

Distinctive Characters: Anal fin with 4 spines and 12 soft rays (3rd spine stoutest, but the 4th slightly longer).

Colour: Body with red–orange and silvery stripes; dark spots at origin of pectoral fins, end of caudal peduncle and bases of soft rayed portions of dorsal and anal fins.



Size: To 25 cm

Sargocentron praslin (Lacepède, 1802)

FAO names: Dark-striped squirrelfish (En)

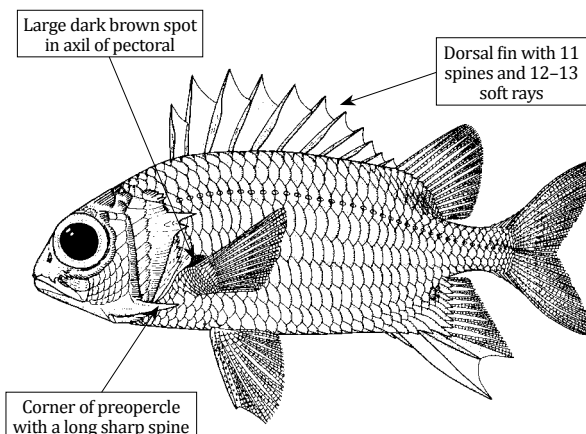
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Shallow waters, often around coral reefs.

Fisheries: Traps, Hooks and Line, Seines, Gillnets.

Distinctive Characters: Body deep; anal fin with 4 spines and 9 soft rays; 13–15 pectoral–fin rays (rarely 13).

Colour: Body with brownish–red stripes alternating with silvery white ones; the upper 2 dark stripes often ending in an elongate dark brown spot at the base of the dorsal–fin soft portion; the 3rd curving downward to end at mid–base of caudal fin; the 4th ending just before the caudal peduncle; the 5th and 6th converging posteriorly on lower edge of caudal peduncle; 7th and 8th ending in a dark blotch at the rear soft anal–fin base; soft portions of dorsal and anal fins with a dark spot each.



Size: To 32 cm

Sargocentron punctatissimum (Cuvier, 1829) *

FAO names: Peppered squirrelfish (En)

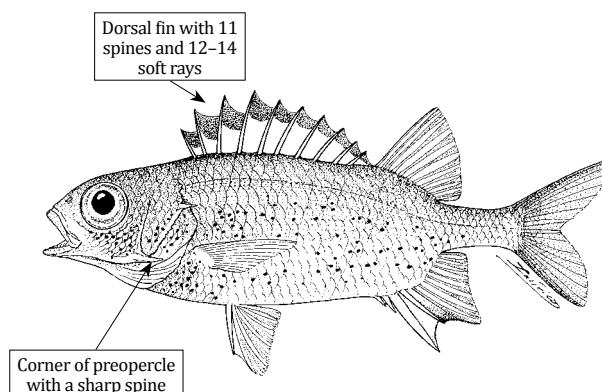
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Rocky shores and reefs exposed to wave action, often in shallow waters.

Fisheries: Traps, Hooks and Line, Seines, Gillnets.

Distinctive Characters: Small mouth, terminal to slightly inferior, maxilla reaching from below front of iris to below center of eye; anal fin with 4 spines and 9 soft rays; pectoral fins with 14–16 soft rays.

Colour: Body reddish–silvery, iridescent bluish dorsally; scales finely dotted with black; spiny dorsal–fin silvery white, with broad red margin.



Size: To 16 cm

Sargocentron rubrum (Forsskål, 1775)

FAO names: Redcoat (En)
Marignan rouget (Fr)

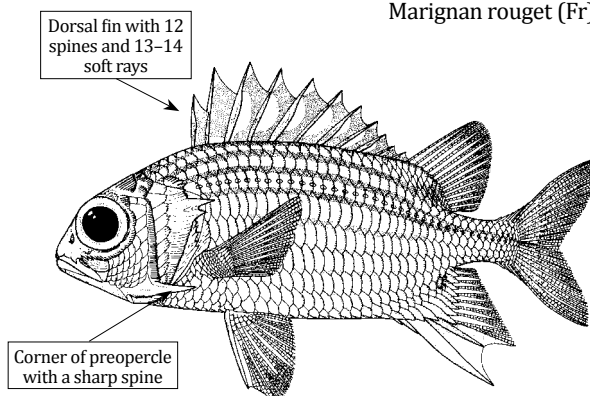
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Shallow water species found in protected habitats such as bays and lagoons.

Fisheries: Traps, Hooks and Line, Seines, Gillnets.

Distinctive Characters: Mouth terminal to slightly inferior; maxilla usually extending nearly to or a short distance beyond a vertical through center of eye; anal fin with 4 spines and 8–9 soft rays.

Colour: Body with alternate stripes of red and silvery–white; spiny dorsal–fin red with white tips and a median band of white spots; no dark spots at pectoral–fin base, but with dark spots at bases of soft dorsal and anal fins.



Size: To 32 cm, common 27 cm

Sargocentron spiniferum (Forsskål, 1775) *

FAO names: Sabre squirrelfish (En)
Marignan sabre (Fr)

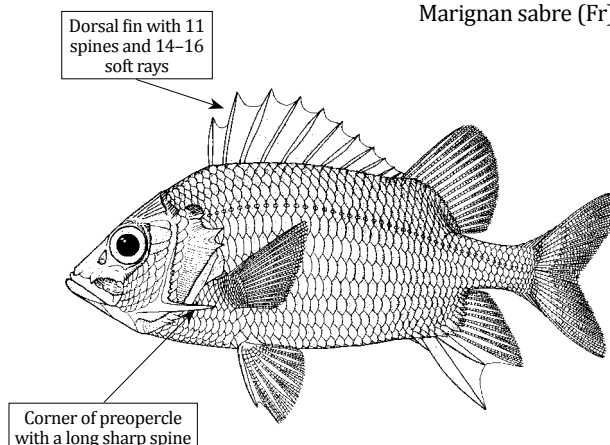
Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

Habitat: Associated with coral reefs; hides by day and emerges with the onset of darkness.

Fisheries: Hooks and Line, Traps, Gillnets, Spears.

Distinctive Characters: Lower jaw projecting when mouth closed; maxilla extending posteriorly to a vertical at front edge of the orbit; anterior end of nasal bone often with 2 close-set, short spines; anal fin with 4 spines and 9–10 soft rays; 15 pectoral–fin rays.

Colour: Head and body red, darker dorsally; a large vertically elongate deep red spot behind eye; pectoral axil and region above pectoral–fin base deep red.



Size: To 45 cm, common 35 cm

Sargocentron violaceum (Bleeker, 1853) (Plate II, 14)

FAO names: Violet soldierfish (En)

Local name(s): N: Sheemiito/Idazi; S: Bwanaheri/Kifufu (M), Mwanaasha, Kijame, Kifudu (K).

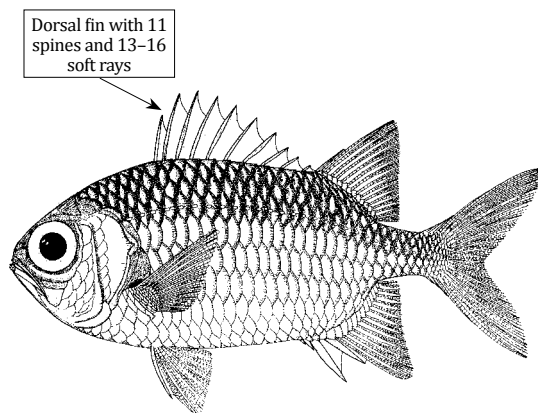
Habitat: Coral reefs of shallow waters.

Fisheries: Traps, Hooks and Line, Gillnets.

Distinctive Characters: A single pair of tooth patches at front of lower jaw outside gape; anal fin with 4 spines and 12–14 soft rays.

Colour: Body colour brownish to purplish red; head primarily red; upper part of opercular membrane blackish; dorsal margin of scales dark brown to nearly black; median fins light–red, red distally, with white edges anteriorly on soft dorsal, anal, caudal and pelvic fins.

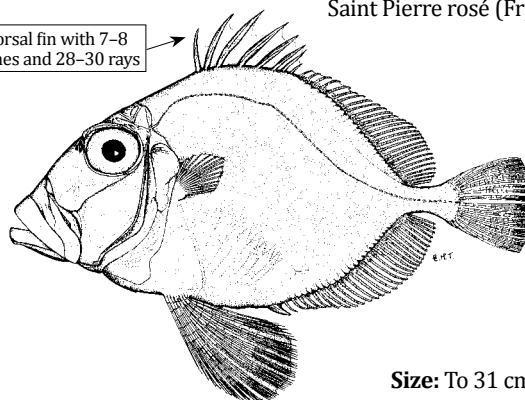
Remarks: Has a high body similar to *S. spiniferum*, but differs in coloration and does not get as large.



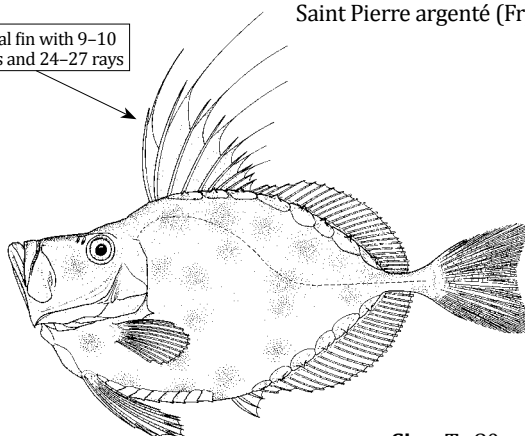
Size: To 45 cm, common 20 cm

PARAZENIDAE

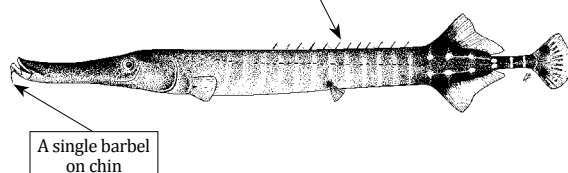
Parazens

Cyttopsis rosea (Lowe, 1843)***FAO names:** Rosy dory (En)
Saint Pierre rosé (Fr)**Local name(s):** N: Sese/Ngamia; S: No information.**Habitat:** Bathypelagic from 65 m to 600 m.**Fisheries:** Gillnets, Seines, Bottom trawls.**Distinctive Characters:** Upper edge of orbit with small spines anteriorly; two large keeled scutes, each ending in a spine between pelvic-fin rays; anal fin with 2 spines, the 1st immovable and the 2nd movable, the 1st much larger than the 2nd, and 28–30 soft rays; pelvic fins with 9–10 segmented and branched soft rays.**Colour:** Rosy pink and silvery in life; pelvic fins reddish, the membrane black.Dorsal fin with 7–8
spines and 28–30 rays**Size:** To 31 cm**ZEIDAE**

Dories

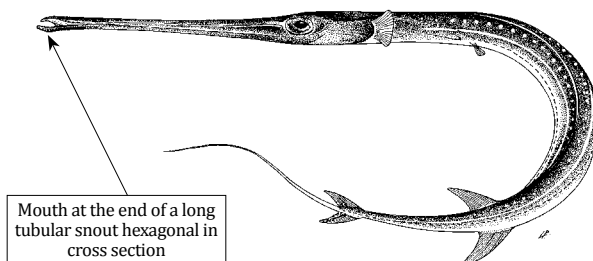
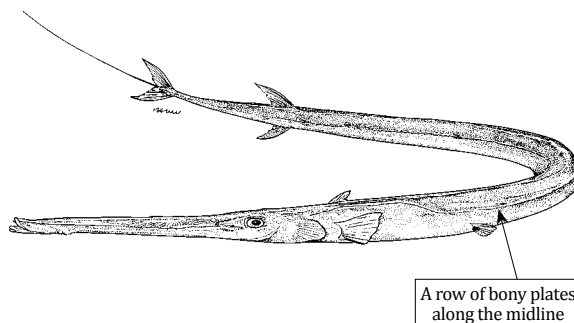
Zenopsis conchifer (Lowe, 1852)**FAO names:** Silvery John dory (En)
Saint Pierre argenté (Fr)**Local name(s):** N: Sese/Ngamia; S: No information.**Habitat:** Mesopelagic from 90 m to 600 m.**Fisheries:** Gillnets, Seines, Bottom trawls.**Distinctive Characters:** Seven pairs of keeled bony scutes between pelvic fins and 1st anal spine; 1–3 bony plates at base of 1st dorsal fin, 4–5 along base of soft dorsal and 5–7 along base of anal fin; anal fin with 3 spines and 24–26 soft rays; pelvic fins with 6–7 rays.**Colour:** Body silvery, with a dusky mid lateral spot just posterior to and slightly above end of pectoral fins; fin membranes of spinous dorsal, pectoral, pelvic and caudal fins blackish.Dorsal fin with 9–10
spines and 24–27 rays**Size:** To 80 cm**AULOSTOMIDAE**

Trumpetfishes

Aulostomus chinensis (Linnaeus, 1766)**FAO names:** Chinese trumpetfish (En)
Trompette chinoise (Fr)**Local name(s):** N: Misusa; S: Misonjo/Mziwa (M), Mrara, Unjasi (K).**Habitat:** Clear, shallow waters, in rocky and coral areas of protected and seaward reefs.**Fisheries:** Lines, Gillnets, Bottom trawls.**Distinctive Characters:** Second dorsal fin with 24–27 soft rays; anal fin with 26–29 segmented soft rays; pelvic fins small, abdominal, with 6 rays.**Colour:** Background colour brownish with irregular light vertical bars; dorsal and anal fins light, with a dark basal bar; caudal fin usually with two round black spots; a black spot at base of pelvic fin.1st dorsal fin with 8–12
isolated spines**Size:** To 80 cm, common 50 cm

FISTULARIIDAE

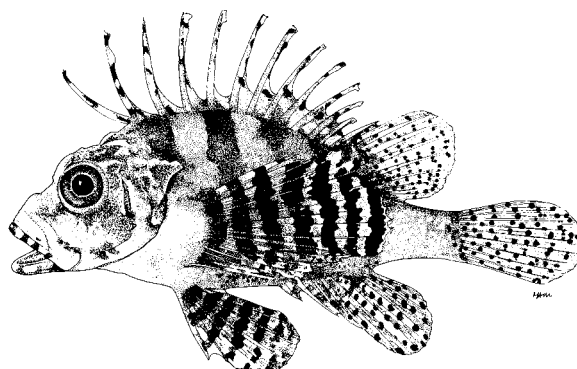
Cornetfishes – Flutemouths

Fistularia commersonii Rüppell, 1838FAO names: Bluespotted cornetfish (En)
Cornette à taches bleues (Fr)**Local name(s):** N: Misusa; S: Misonjo/Mziwa (M), Mrara, Unjasi (K).**Habitat:** Seagrass beds and coral reefs in shallow waters.**Fisheries:** Lines, Gillnets, Bottom trawls.**Distinctive Characters:** Dorsal and anal fins short-based and opposite, with 15–17 and 14–16 segmented soft rays, respectively; pectoral fins with 13–15 rays; pelvic fins small and abdominal, with 6 rays.**Colour:** Brownish to olive above, lighter to silvery below; a pair of blue stripes or a row of blue spots along back; dorsal and anal fins with an orange cast becoming transparent at base; caudal filament white.**Size:** To 160 cm, common 100 cm***Fistularia petimba*** Lacepède, 1803FAO names: Red cornetfish (En)
Cornette rouge (Fr)**Local name(s):** N: Misusa; S: Misonjo/Mziwa (M) Mrara, Unjasi (K).**Habitat:** In coastal areas over soft beds down to more than 10 m.**Fisheries:** Lines, Gillnets, Bottom trawls.**Distinctive Characters:** Body elongate and depressed; mouth at end of a long tubular snout, hexagonal in cross section; dorsal and anal fins short-based and opposite, with 14–16 segmented soft rays; pectoral fins with 15–16 rays; pelvic fins small and abdominal, with 6 rays.**Colour:** Background colour red to orange-brown above, silvery below; vertical fins also have an orange cast.**Size:** To 200 cm, common 100 cm**SCORPAENIDAE**

Scorpionfishes – Rockfishes

Dendrochirus brachypterus (Cuvier, 1829) (Plate II, 15)

FAO names: Shortfin turkeyfish (En)

Local name(s): N: Mchafe; S: Bocho (M), Chale (K).**Habitat:** Benthic on sandy and muddy bottoms down to 70 m.**Fisheries:** Bottom trawls (incidentally), Spears.**Distinctive Characters:** Dorsal fin with 13 spines and 9–10 soft rays; anal fin with 3 spines and 5–6 soft rays; mid-dorsal spines shorter than body depth.**Colour:** Body reddish with vague broad bars; paired fins with bars; median fins with small dark spots.**Size:** To 17 cm