

***Pterothrissus bellocci* Cadenat, 1937** (plate IV, 27)

**ALBULIDAE**

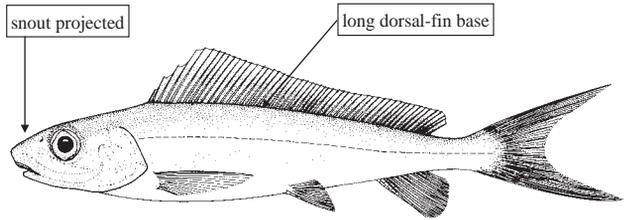
**FAO names:** **En** - Longfin bonefish; **Fr** - Banane gisu; **Sp** - Macabí badejo.

**Local names:** Langvin-beenvis (Ak); Großflossen-Grätenfisch (Gr).

**Size:** To 35 cm.

**Fisheries:** Commonly caught incidentally in bottom and pelagic trawls.

**Habitat and biology:** Found between depths of 50 and 500 m on muddy bottoms. The elongate larvae of this species (leptocephalus larvae) found in Walvis Bay indicate a possible breeding area, maybe in deeper waters.



***Notacanthus sexspinis* Richardson, 1846** (plate IV, 28)

**NOTACANTHIDAE**

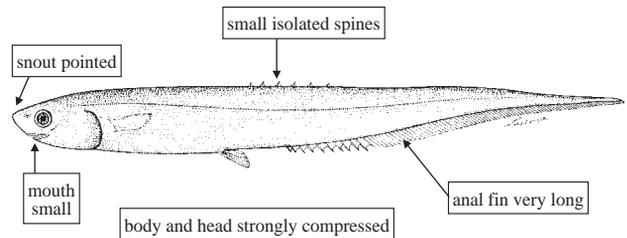
**FAO names:** **En** - Spiny-back eel; **Fr** - Tapir du Cap; **Sp** - Espinado del Cabo.

**Local names:**

**Size:** To 60 cm.

**Fisheries:** Commonly caught in bottom trawls. A bycatch of the deep-water fishery.

**Habitat and biology:** Lives over the bottom from depths of 320 to 1 100 m. Mainly between Walvis Bay and Lüderitz.



***Mystriophis rostellatus* (Richardson, 1844)**

**OPHICHTHIDAE**

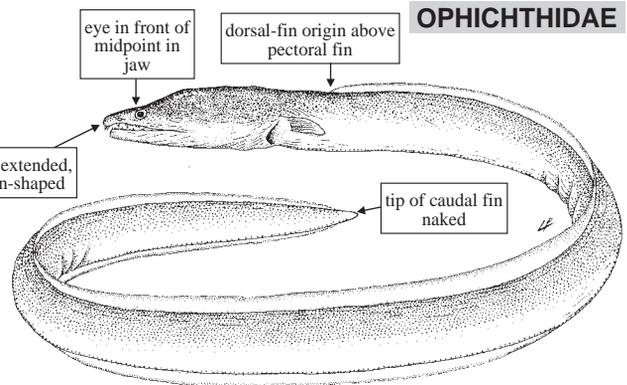
**FAO names:** **En** - African spoon-nose eel; **Fr** - Serponton gris; **Sp** - Tieso gris.

**Local names:** West coast snake-eel; Weskus-slangpaling (Ak).

**Size:** To 140 cm.

**Fisheries:** Commonly caught by anglers in the Lüderitz lagoon.

**Habitat and biology:** Demersal in shallow depths down to 40 m.



***Ophisurus serpens* (Linnaeus, 1766)**

**OPHICHTHIDAE**

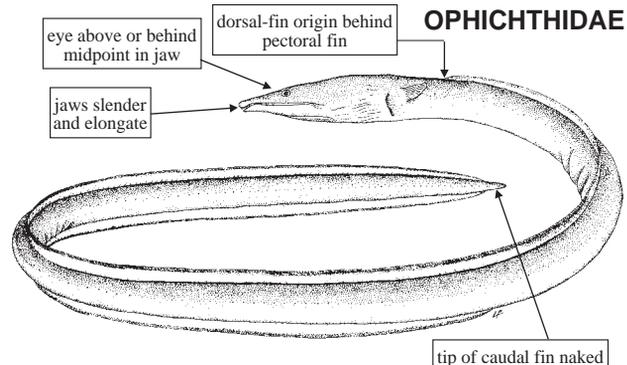
**FAO names:** **En** - Serpent eel; **Fr** - Serponton à nez long; **Sp** - Tieso trompudo.

**Local names:** Sand snake-eel; Sandslangetjie (Ak); Mittelmeer-Schlangenaai (Gr).

**Size:** To 250 cm.

**Fisheries:** Rarely taken with bottom trawl.

**Habitat and biology:** Lives buried in the sand, only its head exposed, on the continental shelf and to depths of 300 m.



*Bassanago albescens* (Barnard, 1923)

(plate IV, 29)

**CONGRIDAE**

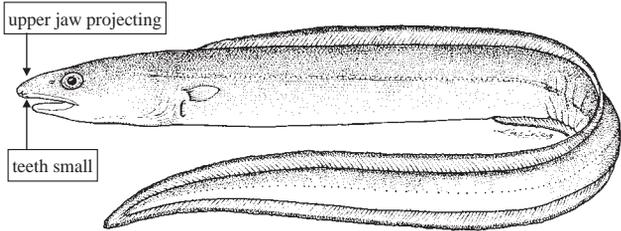
**FAO names:** **En** - Hairy conger; **Fr** - Congre crin; **Sp** - Congrio crin.

**Local names:** Harige seepaling (Ak).

**Size:** To 100 cm.

**Fisheries:** Caught incidentally in bottom trawls as a bycatch of the deep-water fishery.

**Habitat and biology:** Benthic.



body flabby, creamish in colour,  
covered by small papillae

after Smith and Heemstra, 1986

*Bathyroconger vicinus* (Vaillant, 1888)

(plate IV, 30)

**CONGRIDAE**

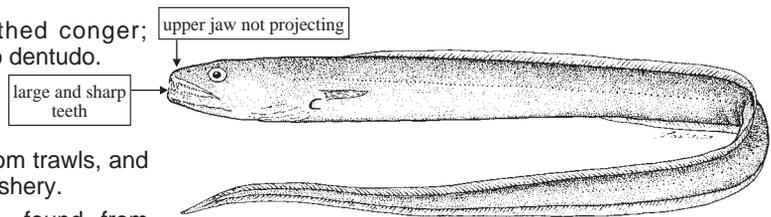
**FAO names:** **En** - Large-toothed conger; **Fr** - Congre denté; **Sp** - Congrio dentudo.

**Local names:**

**Size:** To 65 cm.

**Fisheries:** Rarely caught in bottom trawls, and as a bycatch of the deep-water fishery.

**Habitat and biology:** Benthic, found from depths of about 120 to over 800 m.



body firm, dark brown to black

after Smith and Heemstra, 1986

*Etrumeus whiteheadi* Wongratana, 1983

(plate IV, 32)

**WRR** **CLUPEIDAE**

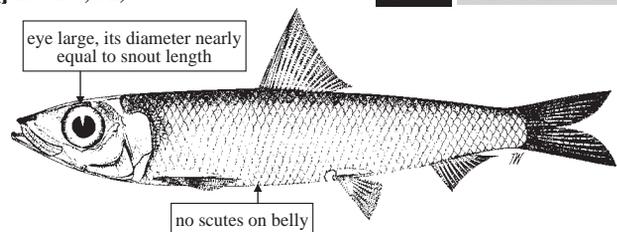
**FAO names:** **En** - Whitehead's round herring; **Fr** - Sardine de Whitehead; **Sp** - Sardina angoleña.

**Local names:** Redeye roundherring; Rooi-oog-rondeharing (Ak).

**Size:** To 20 cm.

**Fisheries:** Purse seines, utilized for the production of fish meal and fish oil.

**Habitat and biology:** Pelagic, mainly inshore, found to a depth of about 200 m. Until recently confused with *E. teres* which does not occur in the Eastern Atlantic. Often forms shoals together with pilchard and anchovy particularly as juveniles. Feeds on larger types of zooplankton.



*Sardinella aurita* Valenciennes, 1847

(plate IV, 31)

**SAA** **CLUPEIDAE**

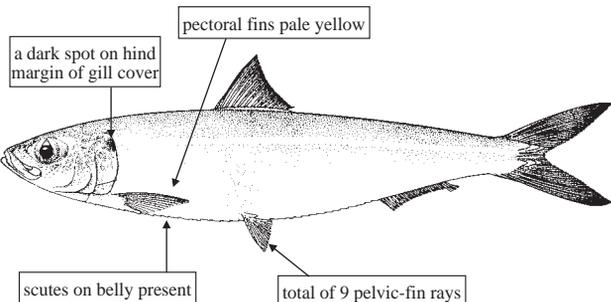
**FAO names:** **En** - Round sardinella; **Fr** - Allache; **Sp** - Allacha.

**Local names:** Goue sardinelle (Ak); Ohrensardine, Sardinelle (Gr).

**Size:** To 30 cm (standard length).

**Fisheries:** Rarely caught in Namibia with purse seines.

**Habitat and biology:** Coastal, pelagic, preferring clear saline waters, usually with maximum temperatures below 24°C. A schooling migratory species, rising toward the surface at night. Feeds on zooplankton, juveniles on phytoplankton. Found only in northern Namibia typically during warm weather; common in southern Angolan waters.



***Sardinella maderensis*** (Lowe, 1839)

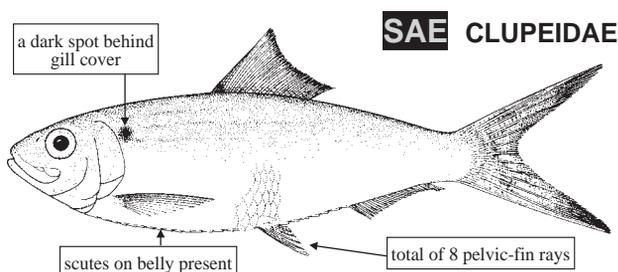
**FAO names:** **En** - Madeiran sardine; **Fr** - Grande allache; **Sp** - Machuelo.

**Local names:** Madeiran sardinelle; Madeira-sardinelle (Ak); Madeira-Sardinelle (Gr).

**Size:** Maximum to 30 cm (standard length).

**Fisheries:** Rarely caught in Namibia with purse seines.

**Habitat and biology:** Pelagic in coastal water from surface down to depths of 50 m. Tolerant of low salinities. Schooling. Common in Angolan waters, rare in Namibia.

***Sardinops ocellatus*** (Pappe, 1854) (plate X, 74)**PIA** CLUPEIDAE

**FAO names:** **En** - Southern African pilchard; **Fr** - Sardinops d'Afrique du Sud; **Sp** - Sardina sudafricana.

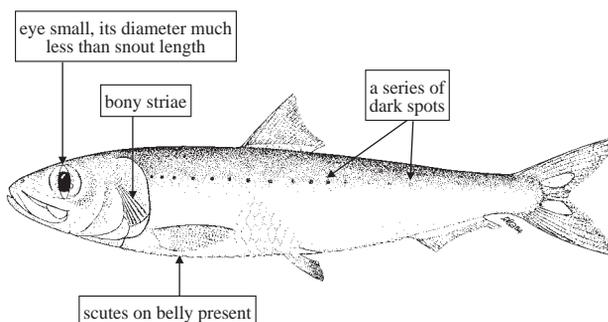
**Local names:** Sardyn, Suid-Afrikaanse pelser (Ak); Südafrikanische Sardine (Gr).

**Size:** To 30 cm (standard length).

**Fisheries:** Purse seines. This species constituted for many years the backbone of the Namibian pelagic fishing industry, with catches over 1 million t per year in the 1960's, but fluctuated around 50 000 t in the 1980's.

**Habitat and biology:** Coastal pelagic from south coast of South Africa to southern Angola, forms large schools. Juveniles feed on zooplankton, adults become opportunistic feeders on phytoplankton and zooplankton (krill, larval crabs, and other small crustaceans). Preyed upon by game fish, birds, dolphins, and seals.

**Remarks:** Parrish et al. (1989) concluded that the species of *Sardinops* off western South America is the same species as the pilchard off Namibia. This would make the species in Namibia *S. agax*. However, pending further evidence, we follow Whitehead (1985) in recognizing separate species of *Sardinops*.

***Engraulis capensis*** Gilchrist, 1913 (plate V, 33)**ANC** ENGRAULIDAE

**Synonyms:** Misidentified as *E. japonicus* in "Smith's Sea Fishes" (1986). *E. encrasicolus* is another commonly used name.

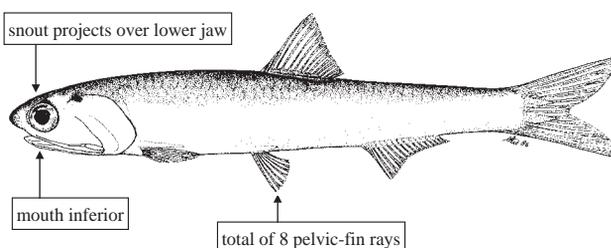
**FAO names:** **En** - Southern African anchovy; **Fr** - Anchois de l'Afrique australe; **Sp** - Anchoa de Africa austral.

**Local names:** Cape anchovy; Kaapse ansjovis (Ak); Südafrikanische Sardelle (Gr).

**Size:** Maximum to 17 cm.

**Fisheries:** Caught with purse seines. Important in the Namibian pelagic fisheries for the production of fish meal and fish oil.

**Habitat and biology:** Pelagic in coastal waters, but reported to a depth of over 450 m. Juvenile anchovy feed on zooplankton; adults both filter-feed (phytoplankton) and particulate-feed (zooplankton).



***Arius latiscutatus* (Günther, 1864)**

**ARIIDAE**

**FAO names:** En - Roughhead seacatfish; Fr - Mâchoiron de Gambie; Sp - Bagre de Gambia.

**Local names:**

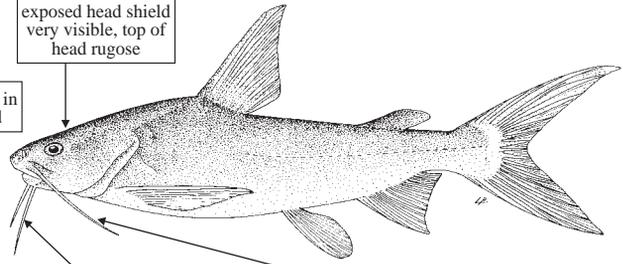
**Size:** To about 50 cm.

**Fisheries:** None at present.

**Habitat and biology:** Inshore in shallow water. Found only in the extreme northern part of Namibia around the Kunene River.

a long narrow fleshy groove in median depression in head

exposed head shield very visible, top of head rugose



4 barbels on lower jaw

2 barbels on upper jaw

***Galeichthys feliceps* Valenciennes, 1840**

**GAT ARIIDAE**

**FAO names:** En - White barbel; Fr - Barbillon blanc; Sp - Bagre barba blanca.

**Local names:** White seacatfish, Barbel; Wit seebaber (Ak); Katzen-Kreuzwels (Gr).

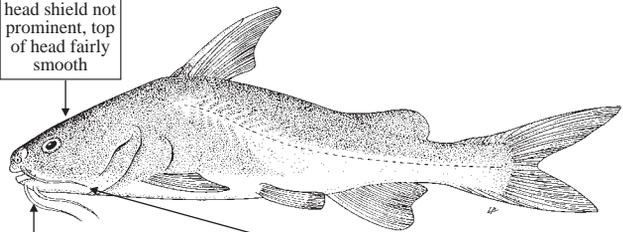
**Size:** To 55 cm.

**Fisheries:** Caught occasionally in shallow water bottom trawls and commonly by shore anglers. Caught commercially by ski-boats and marketed smoked.

**Habitat and biology:** Occurs in shallow coastal waters to about a depth of 120 m; also in estuaries and rivers. Feeds on the bottom, especially in very muddy areas, on crayfish, small fish, and crabs. The spines are poisonous and wounds from these should be treated immediately.

very slight or no fleshy groove in median depression on head

head shield not prominent, top of head fairly smooth



4 barbels on lower jaw

2 barbels on upper jaw

***Bajacalifornia megalops* (Lütken, 1898)**

(plate X, 75)

**ALEPOCEPHALIDAE**

**FAO names:** En - Bigeye slickhead.

**Local names:**

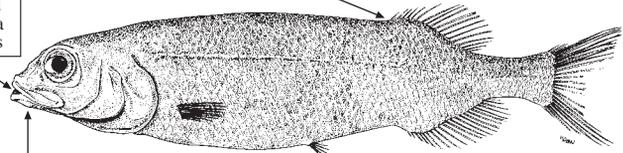
**Size:** To 40 cm standard length.

**Fisheries:** Common in bycatch of orange roughly fishery.

**Habitat and biology:** Mesopelagic to benthopelagic, commonly at depths between 800 and 1 400 m.

teeth present on maxilla and dentary, in a single series

dorsal-fin origin slightly in front of the anal fin



symphysis of lower jaw with a prominent pointed downward-directed knob

body with scales

dorsal and anal fins posterior to middle of body

***Chlorophthalmus agassizi* Bonaparte, 1840**

**FAO names:** **En** - Shortnose greeneye; **Fr** - Eperlan du large; **Sp** - Ojiverde.

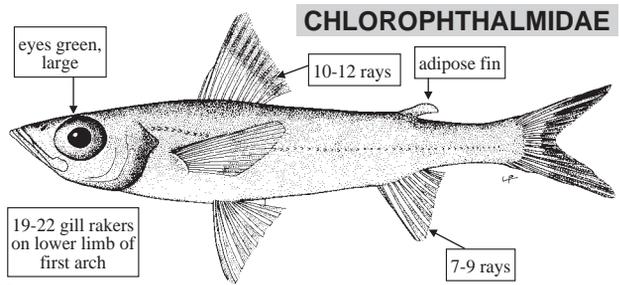
**Local names:**

**Size:** To 40 cm.

**Fisheries:** Caught commonly in bottom trawls.

**Habitat and biology:** Deeper continental shelf and upper slope, between 50 and 1000 m.

**Remarks:** *Chlorophthalmus atlanticus* Poll, 1953 is now considered a junior synonym of this species.



**CHLOROPHTHALMIDAE**

***Chlorophthalmus punctatus* Gilchrist, 1904**

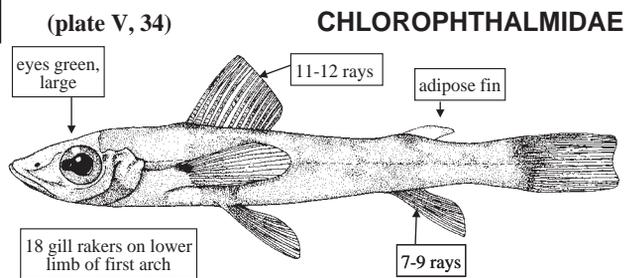
**FAO names:** **En** - Spotted greeneye; **Fr** - Eperlan du large tacheté; **Sp** - Ojiverde manchado.

**Local names:**

**Size:** 20 cm.

**Fisheries:** Caught rarely in bottom trawls.

**Habitat and biology:** Occurs on the deeper part of the shelf and upper slope, most common between depths of about 280 and 450 m.



**CHLOROPHTHALMIDAE**

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

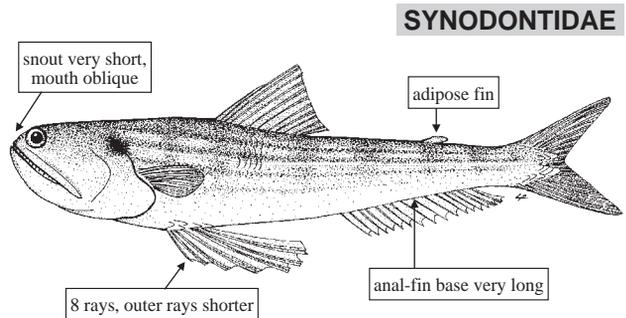
**FAO names:** **En** - Bluntnose lizardfish; **Fr** - Anoli serpent; **Sp** - Lagarto fiato.

**Local names:** Painted lizardfish; Beskilderde-akkedisvis (Ak).

**Size:** To 35 cm.

**Fisheries:** To about 38 cm total length.

**Habitat and biology:** A demersal species, mainly on sandy bottoms of the continental shelf, to depths of 200 m.



**SYNODONTIDAE**

**Note on the identification of lanternfishes:** There are approximately 49 species of Myctophidae that are likely to be found in Namibia and these are difficult to identify without a comprehensive key. Five of these species are common in Namibia (P.A. Hulley, personal communication) and illustrated here. However, their occurrence in fisheries varies greatly depending on where and when fishing is done. For a comprehensive key to all lanternfishes likely to occur in Namibia, see P. A. Hulley in Smith and Heemstra (1986).

***Diaphus hudsoni* Zubrigg and Scott, 1976**

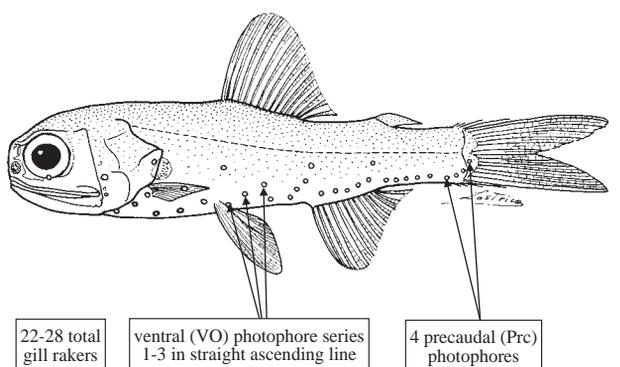
**FAO names:** **En** - Hudson's lanternfish; **Fr** - Lanternules de Hudson; **Sp** - Linternillas de Hudson.

**Local names:**

**Size:** To over 8 cm.

**Fisheries:** Common in midwater trawls.

**Habitat and biology:** Generally found far off-shore (oceanic) over the outer edge of the continental shelf and upper regions of the slope, mainly at depths below 250 m. Commonly taken as prey by hakes, kingklip, and Cape horse mackerel. From northern Namibia to the Orange River.



**MYCTOPHIDAE**



***Diaphus meadi*** Nafpaktitis, 1978

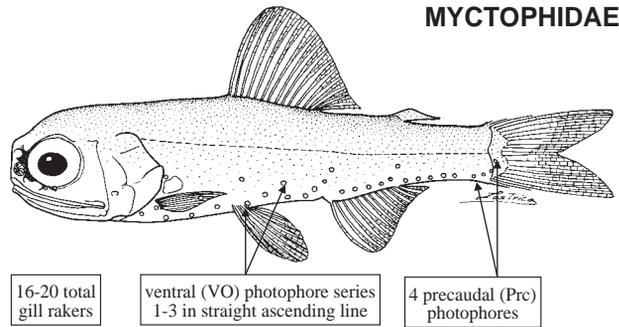
**FAO names:** **En** - Mead's lanternfish; **Fr** - Lanternules de Mead; **Sp** - Linternillas de Mead.

**Local names:**

**Size:** To almost 5 cm.

**Fisheries:** Midwater trawls and purse seines.

**Habitat and biology:** Over the continental shelf and slope above depths of 250 m at night. Commonly taken as prey by hakes, kingklip, and Cape horse mackerel.



**MYCTOPHIDAE**

***Lampanyctodes hectoris*** (Günther, 1876)

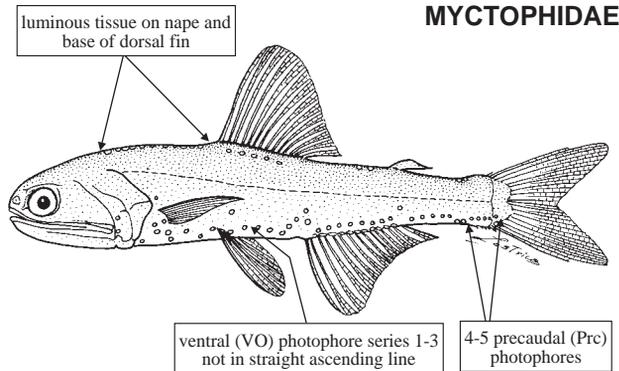
**FAO names:** **En** - Hector's lanternfish; **Fr** - Lanternules de Hector; **Sp** - Linternillas de Hector.

**Local names:**

**Size:** To about 6 cm.

**Fisheries:** Purse seines. A potential commercially important species that can be used for the production of fish meal.

**Habitat and biology:** Over the continental shelf and slope; pelagic, near surface at night. The most common lanternfish in Namibia.



**MYCTOPHIDAE**

***Lampanyctus australis*** Tåning, 1928

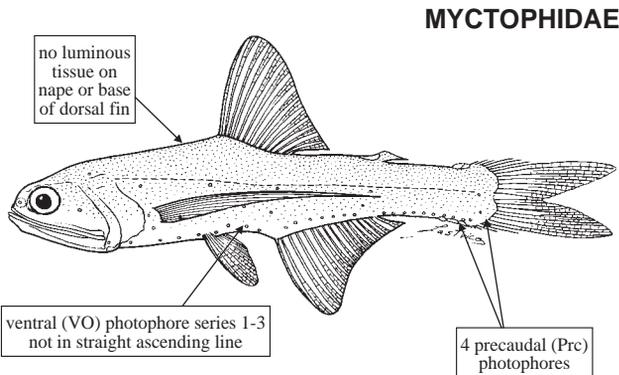
**FAO names:** **En** - Southern lanternfish; **Fr** - Lanternules du Sud; **Sp** - Linternillas del Sur.

**Local names:**

**Size:** To about 13 cm.

**Fisheries:** Midwater trawls.

**Habitat and biology:** Generally found far offshore (oceanic) over the outer edge of the continental shelf and upper regions of the slope generally deeper than 500 m. Commonly taken as prey by hakes, kingklip, and Cape horse mackerel.



**MYCTOPHIDAE**

***Symbolophorus boops*** (Richardson, 1845)

(plate X, 76)

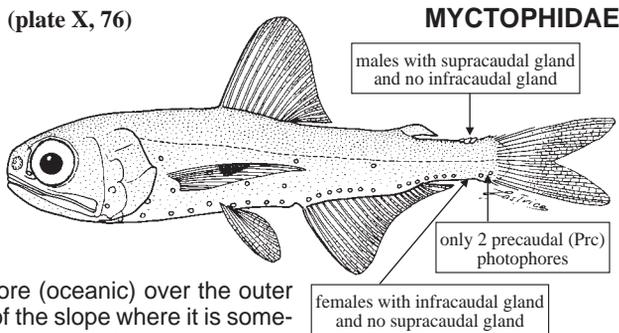
**FAO names:** **En** - Bogue lanternfish; **Fr** - Lanternules de Bogue; **Sp** - Linternillas de Bogue.

**Local names:**

**Size:** To about 16 cm.

**Fisheries:** Midwater trawl. Perhaps too far offshore to be of potential interest to fisheries.

**Habitat and biology:** Generally found far offshore (oceanic) over the outer edge of the continental shelf and upper regions of the slope where it is sometimes abundant; mesopelagic, during the daytime at depths between 400 and 500 m, and migrates to surface layers at night. In southern Namibia.

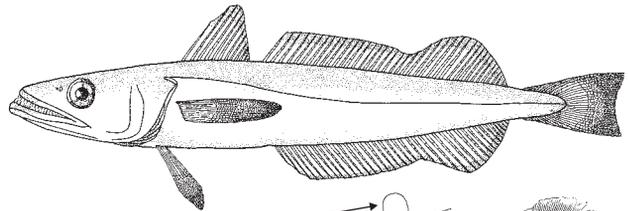


**MYCTOPHIDAE**

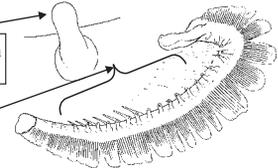
***Merluccius capensis*** Castelnau, 1861

(plate V, 35)

49-53 total vertebrae

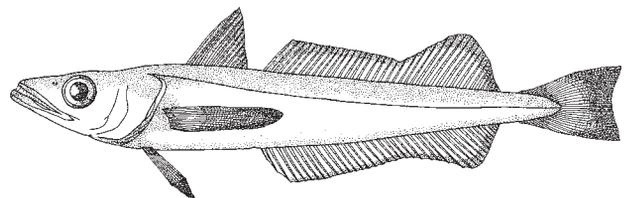
**HKK** MERLUCCIIDAE**FAO names:** **En** - Cape hake; **Fr** - Merlu du Cap; **Sp** - Merluza del Cabo.**Local names:** Shallow-water hake; Vlakwater-stokvis (Ak); Kap-Hecht (Gr).**Size:** To 110 cm.**Fisheries:** Caught with bottom trawls and long line and as bycatch of midwater trawlers. Important fish of the Namibian demersal fishing industry. Juveniles are occasionally caught as a bycatch of the purse-seine fleet.**Habitat and biology:** Essentially a bottom living species, inhabits waters from depths of 50 to over 1 000 m, but most common between 150 and 450 m; it carries out extensive vertical migrations, rising toward the surface at night. Juveniles feed mainly on pelagic crustaceans and myctophids, adults are opportunistic feeders and prey on a wide range of fishes, including lanternfishes, rattails, horse mackerel, and juvenile hake; cannibalism is common. Hakes are preyed upon by snoek, sharks, other hakes, seals, and occasionally by seabirds. Breeding occurs throughout the year but peaks of reproductive activity have been observed in August and September.

in adults, no prominent pigmentation on tip of gill tubercles

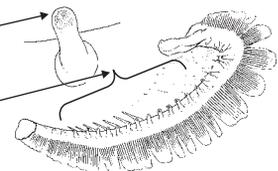
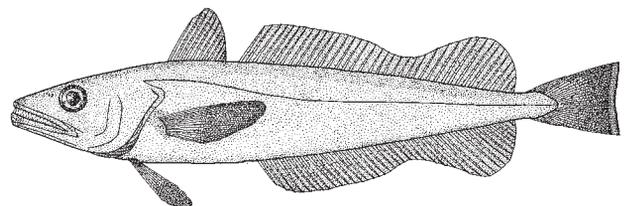
15-20 gill rakers on 1<sup>st</sup> arch***Merluccius paradoxus*** Franca, 1960

(plate V, 36)

54-58 total vertebrae

**HKO** MERLUCCIIDAE**FAO names:** **En** - Deepwater Cape hake; **Fr** - Merlu profond; **Sp** - Merluza de cantil.**Local names:** Deepwater hake; Diepwater-stokvis (Ak); Tiefenwasser-Kapseehecht (Gr).**Size:** To 115 cm.**Fisheries:** Caught with bottom trawls, and rarely as a bycatch of the midwater and deepwater fisheries. An important species to the Namibian demersal fishing industry.**Habitat and biology:** Generally in deeper waters than *M. capensis*, between depths of 200 and 1 000 m. Juveniles feed mainly on crustaceans, adults on mesopelagic fishes and hake. Juveniles of deepwater Cape hake are preyed upon by adults of Cape hake.

in adults, prominent pigment spots on tip of gill tubercles

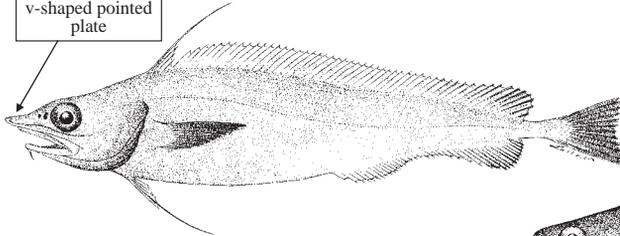
18-23 gill rakers on 1<sup>st</sup> arch***Merluccius polli*** Cadenat, 1950**MERLUCCIIDAE****FAO names:** **En** - Benguela hake; **Fr** - Merlu d'afrigue tropicale; **Sp** - Merluza de Benguela.**Local names:** Benguela-Seehecht (Gr).**Size:** Maximum to 80 cm, common to 38 cm.**Fisheries:** Occurs outside of the demersal fishing grounds.**Habitat and biology:** Demersal from depths between 50 and 550 m. This is the least common of the hakes in Namibia and is mostly confined to the extreme northern part of Namibia.8-12 gillrakers on 1<sup>st</sup> arch

All species of **MORIDAE** reported from Namibia

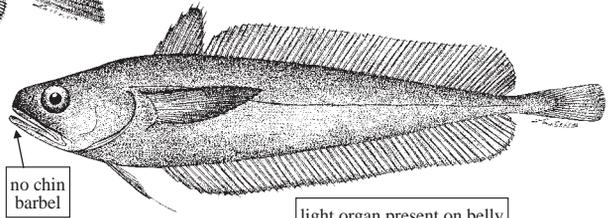
**MORIDAE**

**Moras**

snout depressed to form a broadly v-shaped pointed plate



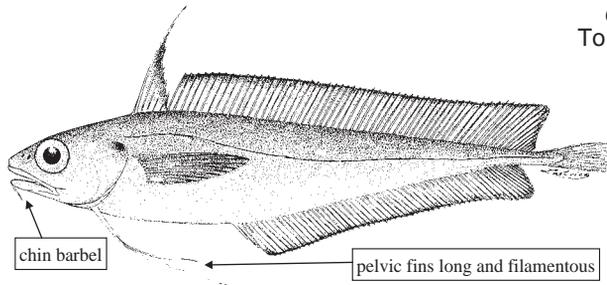
*Antimora rostrata* (Günther, 1878)  
To about 60 cm.



no chin barbel

light organ present on belly

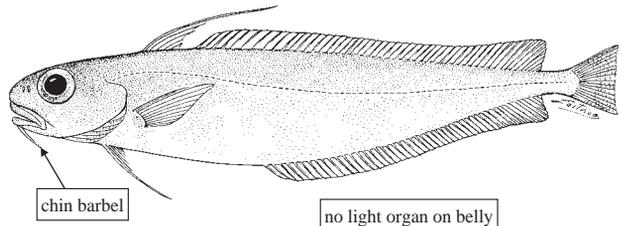
*Gadella imberbis* (Vaillant, 1888)  
To 23 cm. Uncommon, northern Namibia.



chin barbel

pelvic fins long and filamentous

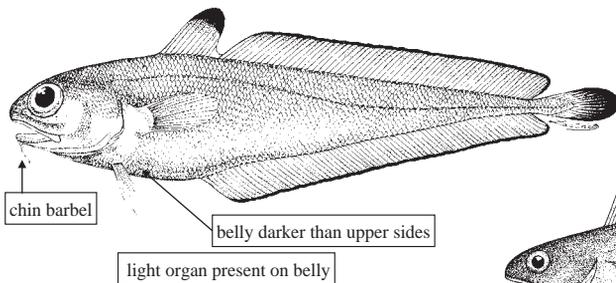
*Laemonema laureysi* Poll, 1953  
To 30 cm. (plate X, 78)



chin barbel

no light organ on belly

*Lepidion capensis* Gilchrist, 1922  
To 50 cm. Uncommon, southern Namibia.

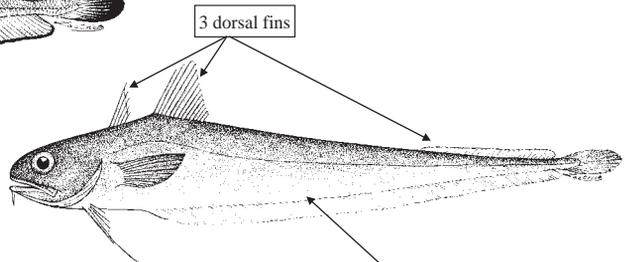


chin barbel

belly darker than upper sides

light organ present on belly

*Physiculus capensis* Gilchrist, 1922  
To 18 cm. (plate V, 37)



3 dorsal fins

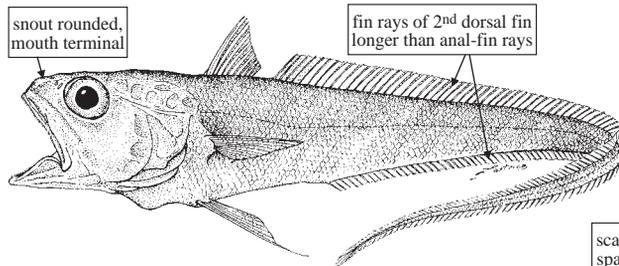
*Tripterophysic gilchristi* Boulenger, 1902  
To 20 cm.

anal-fin base much longer than 3<sup>rd</sup> dorsal-fin base

Species of **MACROURIDAE** commonly reported from Namibia

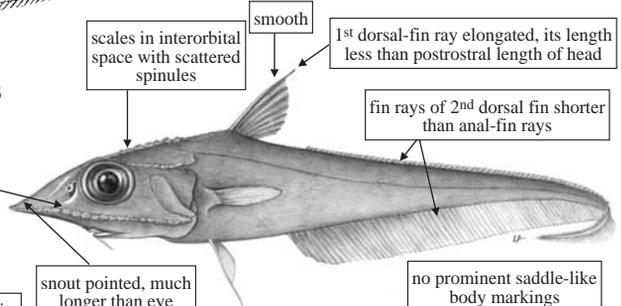
**MACROURIDAE**

**Grenadiers, Rattails**

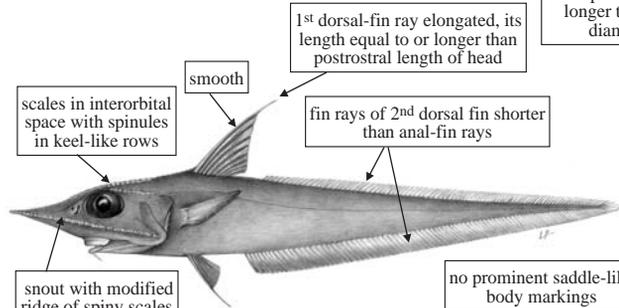


*Bathygadus melanobranchus* Vaillant, 1888  
To 40 cm. Depth range 640-1590 m.

snout with modified ridge of spiny scales extending from tip of snout to angle of preopercle



*Caelorinchus acanthiger* Bernard, 1925  
To 40 cm. Depth range 800-1270 m.



snout with modified ridge of spiny scales extending from tip of snout to angle of preopercle

smooth

1st dorsal-fin ray elongated, its length equal to or longer than postrostral length of head

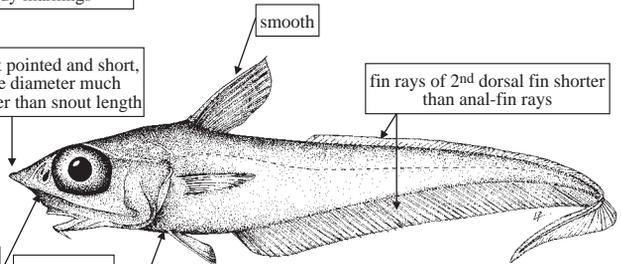
fin rays of 2nd dorsal fin shorter than anal-fin rays

no prominent saddle-like body markings

snout pointed, much longer than eye diameter

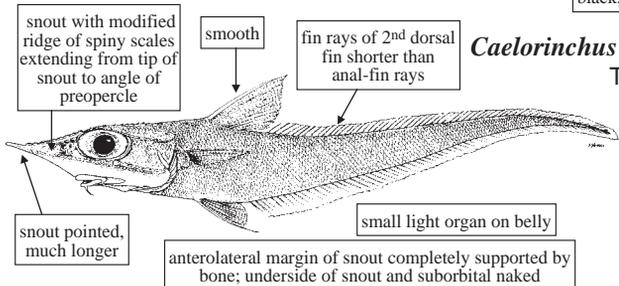
*Caelorinchus braueri* Bernard, 1925  
To 40 cm. Depth range 450-1200 m.  
(plate X, 79)

snout pointed and short, eye diameter much greater than snout length



snout with modified ridge of spiny scales extending from tip of snout to angle of preopercle

*Caelorinchus caelorhincus polli* Marshall and Iwamoto, 1973  
To 30 cm. Depth range 230-360 m.



snout pointed, much longer

smooth

fin rays of 2nd dorsal fin shorter than anal-fin rays

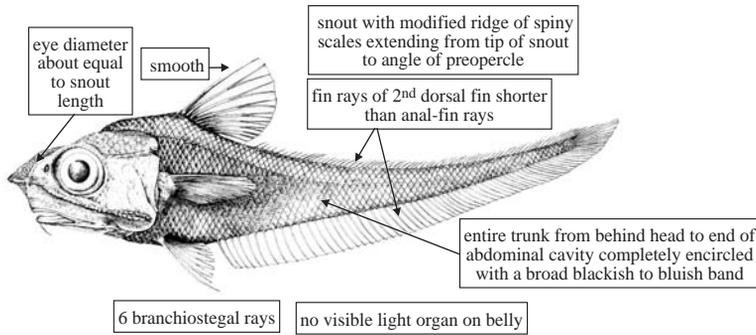
small light organ on belly

anterolateral margin of snout completely supported by bone; underside of snout and suborbital naked

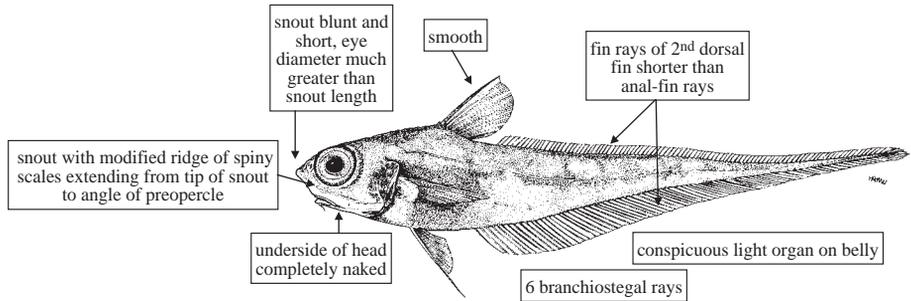
*Caelorinchus karrerae* Trunov, 1984  
To at least 35 cm. Depth range 260-1100 m.



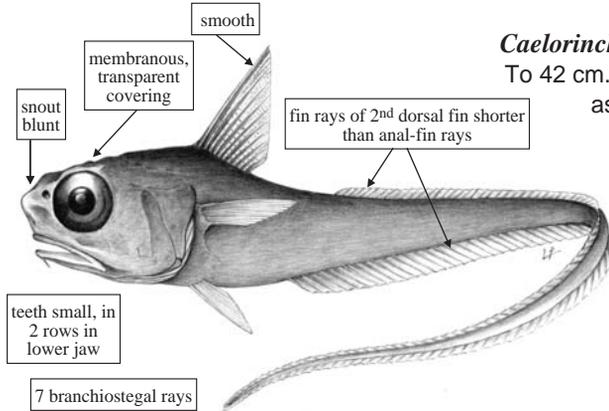
MACROURIDAE



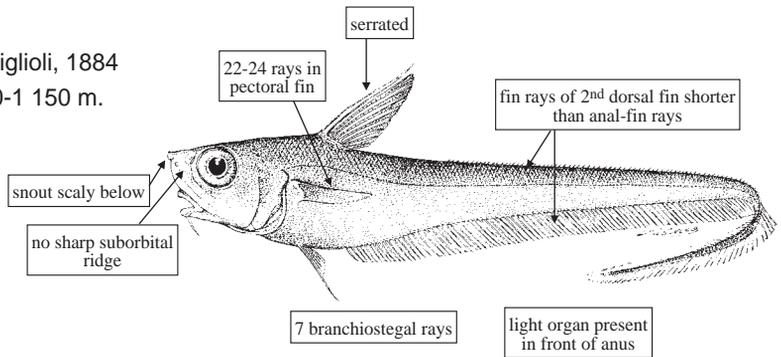
*Caelorinchus matamua* (McCann and McKnight, 1980)  
To 65 cm. Depth range 440-900 m. (plate X, 80)



*Caelorinchus simorhynchus* Iwamoto and Anderson, 1994  
To 42 cm. Depth range 140-990 m. (Formerly referred to as *Coelorinchus fasciatus*). (plate XI, 81)

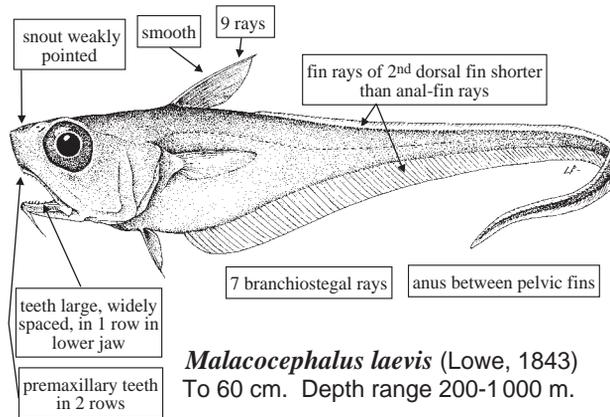


*Hymenocephalus italicus* Giglioli, 1884  
To 20 cm. Depth range 500-1 150 m.

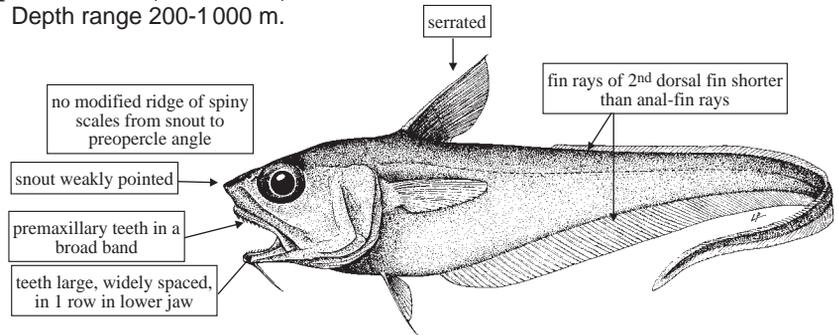


*Kuronezumia leonis* (Barnard, 1925)  
To 40 cm. Depth range 165-850 m.

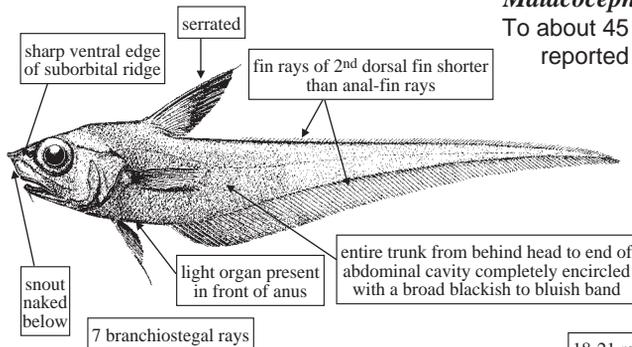
MACROURIDAE



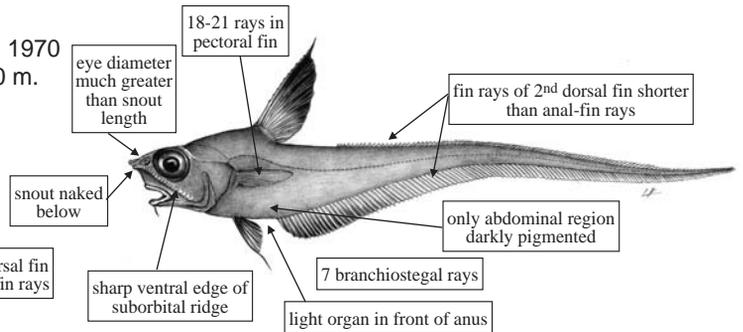
*Malacocephalus laevis* (Lowe, 1843)  
To 60 cm. Depth range 200-1 000 m.



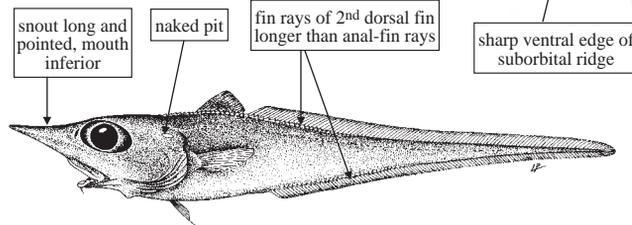
*Malacocephalus occidentalis* Goode and Bean, 1885  
To about 45 cm. Depth range 200-600 m. So far only reported in northern Namibia off Kunene River.



*Nezumia micronychodon* Iwamoto, 1970  
To 35 cm. Depth range 195-950 m.  
(plate XI, 82)



*Nezumia milleri* Iwamoto, 1973  
To 38 cm. Depth range 320-620 m.



*Trachyrincus scabrus* (Rafinesque, 1810)  
To 60 cm. Depth range 395-1 495 m.  
(plate V, 38)



***Dicrolene intronigra* Goode and Bean, 1883****OPHIDIIDAE**

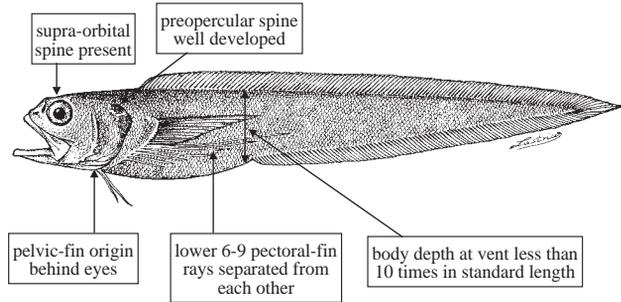
**FAO names:** **En** - Digitate cusk eel; **Fr** - Abadèche doigts; **Sp** - Pagador.

**Local names:**

**Size:** To 30 cm.

**Fisheries:** Rarely caught in bottom trawls.

**Habitat and biology:** On the continental slope from depths of 200 to 1 000 m, especially in the Walvis Bay area. *Dicrolene pallidus* is also reported from Namibia, but commonly at depths greater than 2 700 m. *D. pallidus* has the supra-orbital and preopercular spine absent or weak.

***Genypterus capensis* (Smith, 1847)**

(plate V, 39)

**KCP OPHIDIIDAE**

**Synonyms:** *Xiphiurus capensis* Smith, 1847.

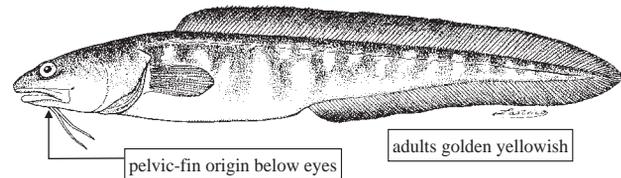
**FAO names:** **En** - Kingklip; **Fr** - Abadèche du Cap; **Sp** - Rosada.

**Local names:** Koningklip (Ak); Südafrikanischer Kingklip (Gr).

**Size:** To 160 cm.

**Fisheries:** Caught mainly with longlines and in bottom trawls. Was important commercially, but was heavily overfished and catches now amount to a few thousand tonnes a year.

**Habitat and biology:** A bottom-dwelling fish inhabiting rocky areas of the continental shelf and upper slope from depths of 50 to 500 m, but reported to be abundant between 250 and 350 m; juveniles occur in shallower waters than adults. Feeds mainly on the bottom, on dragonets, mantis shrimps, hake, squid, and a variety of fish. Sexual maturity is reached at 4 to 5 years (50-60 cm). Spawning takes place from August to October. Occurs mainly in the south.

***Lamprogrammus exutus* Nybelin and Poll, 1958****OPHIDIIDAE**

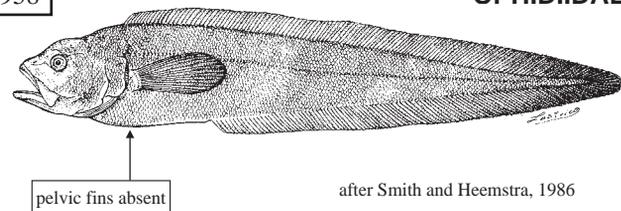
**FAO names:** **En** - Legless cuskeel; **Fr** - Abadèche sans jambes; **Sp** - Cabellera.

**Local names:**

**Size:** To 40 cm.

**Fisheries:** Caught occasionally in bottom trawls.

**Habitat and biology:** Caught on or above the continental slope, from depths of 260 to 800 m, but mainly between 550 and 700 m. From northern Namibia south to Walvis Bay.

***Selachophidium guentheri* Gilchrist, 1903**

(plate V, 40)

**OPHIDIIDAE**

**FAO names:** **En** - Gunther's cuskeel; **Fr** - Abadèche de Günther; **Sp** - Lengua de lagarto.

**Local names:**

**Size:** To 30 cm.

**Fisheries:** Caught occasionally in bottom trawls. A bycatch of the deep-water fishery.

**Habitat and biology:** On the upper slope, from depths of about 100 to 800 m; a typical deep-water shelf-break inhabitant. Most abundant in the Walvis Bay region, at depths between 200 and 400 m.

