

**Geographical Distribution** : Antitropical in the Atlantic and Pacific Oceans (Fig. 782); not yet caught in the eastern North Pacific.

**Habitat and Biology** : Benthopelagic to pelagic over the continental slope; from 700 to at least 1 400 m depth off southern New Zealand.

**Size** : Maximum total length 56 cm.

**Interest to Fisheries** : Locally abundant but apparently not fished for at present.

**Local Names** : NEW ZEALAND:  
Slender cod.

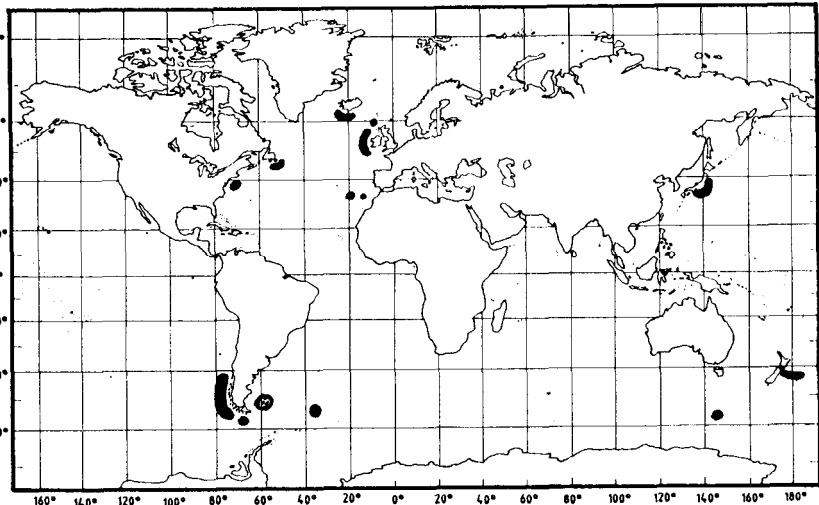


Fig. 782

**Literature** : Recent references are summarized by Paulin (1983).

**Laemonema** Johnson, 1862

**MOR Laem**

**Genus with Reference** : *Laemonema* Johnson, 1862, Proc.Zool.Soc.London, 1862: 171.

**Diagnostic Features** : Two dorsal fins, the first short based, the second and the single anal fin with long bases; anal fin not greatly indented; pelvic fins with two long rays in each; no luminescent organs.

**Habitat, Distribution and Biology** : Benthopelagic on the continental slopes of the tropical to subtropical seas throughout the world. A few species are found at higher latitudes.

**Interest to Fisheries** : Not exploited at present. Only *L. longipes*, discussed below, is perhaps common enough and grows sufficiently large to be of potential interest.

**Remarks** : *Laemonema* is so poorly known taxonomically and many of the 18 or more species that have been referred to it at one time or another are so rare that the following list is only tentative. At least some of these species will be placed in other genera.

**List of Species** :

- Laemonema barbatulum* Goode & Bean, 1883 -Western Atlantic
- Laemonema compressicauda* (Gilchrist, 1903) -South Africa
- Laemonema curtipes* Biscoito & Maui, 1989 - Eastern Central Atlantic
- Laemonema filodorsale* Okamura, 1982 - Kyushu-Palau Ridge
- Laemonema globiceps* Gilchrist, 1906 -South Africa, New Zealand, Australia, Chile
- Laemonema gracillipes* Garman, 1899 - Eastern Pacific
- Laemonema kongi* Markle & Melendez, 1988 - Chile, Argentina, New Zealand
- Laemonema latifrons* Holt & Byrne, 1908 - N.E. Atlantic
- Laemonema laureysi* Poll, 1953 - Subtropical-Tropical eastern Atlantic
- Laemonema longipes* Schmidt, 1939 - Subarctic North Pacific, Bering Sea
- Laemonema melanurum* Goode & Bean, 1896 -Western Atlantic
- Laemonema modesta* (Franz, 1910) -Japan
- Laemonema nana* Taki, 1953 - Japan
- Laemonema rhodochir* Gilbert, 1905 - Central and western Pacific
- Laemonema robustum* Johnson, 1862 - Madeira
- Laemonema verecunda* (Gilbert, 1899) - Tropical eastern Pacific
- Laemonema yarrellii* Lowe, 1841 - Subtropical eastern North Atlantic
- Laemonema yuvto* Parin & Sazonov, 1990 -Southeastern Pacific

***Laemonema laureysi*** Poll, 1953

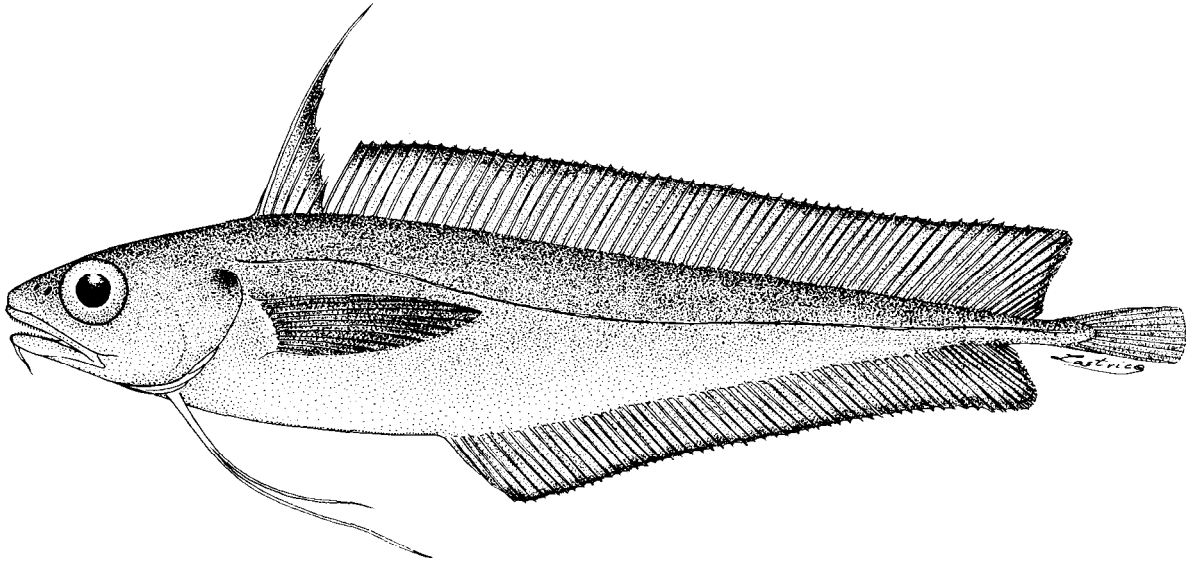
Fig. 783

MOR Laem 1

**Scientific Name with Reference** : *Laemonema laureysi* Poll, 1953, Expéd.Océanogr.Belge Eaux Cot.Afric.Atl.Sud., 4(2): 197.

**Synonyms** : None

**FAO Names** : En - Guinean codling.



(after Poll, 1953)

Fig. 783

**Diagnostic Features** : Body depth 4.5 to 5.5 times in standard length. Eye diameter larger than snout, smaller than postorbital length; barbel present at tip of lower jaw, which is slightly shorter than upper. A moderately elongated filament in first dorsal fin; pectoral fins extending to rear level of anal fin origin. Scale rows between first dorsal fin and lateral line 10 to 12. **Colour** : generally light brown, paler ventrally.

**Geographical Distribution** : Tropical eastern Atlantic (Fig. 784).

**Habitat and Biology** : Benthopelagic on the outer shelf and upper slope at depths ranging from 220 to 500 m, most abundant around 300 m over soft bottom.

**Size** : Maximum total length 30 cm.

**Interest to Fisheries** : Locally abundant, but probably taken only as bycatch at present.

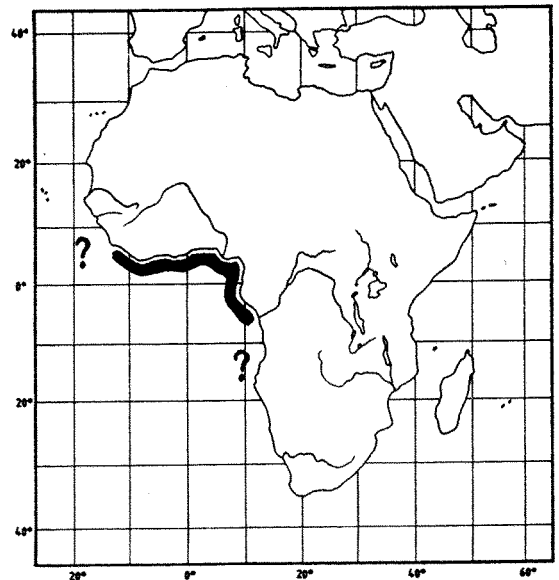


Fig. 784

***Laemonema longipes*** Schmidt, 1938

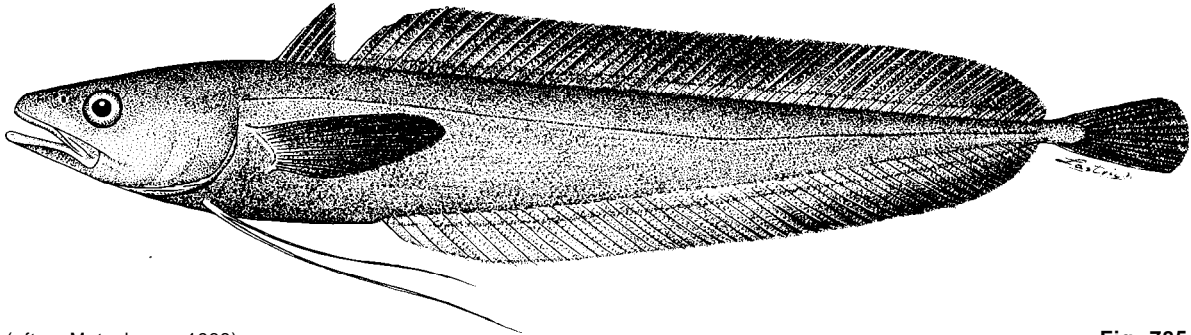
Fig. 785

MOR Laem 2

**Scientific Name with Reference** : *Laemonema longipes* Schmidt, 1938, Compt.Rend.Acad.Sci.URSS, 19:655.

**Synonyms** : *Laemonema morosum* Matsubara, 1938; *Podonema longipes*, Rass, 1954; *Podonematichthys longipes*, Whitley, 1965.

**FAO Names** : En - Longfin codling.



(after Matsubara, 1938)

Fig. 785

**Diagnostic Features** : Body depth at anus about 7 or more times in standard length. Eye diameter less than snout and postorbital length of head. No barbel at tip of lower jaw, which is slightly longer than upper. No elongated filament in first dorsal fin; both pectoral and pelvic fins extending beyond origin of anal fin.

**Geographical Distribution** : Central Japan to the Okhotsk and Bering Seas (Fig. 786).

**Habitat and Biology** : Benthopelagic on the continental slope, from 455 to 1 400 m depth.

**Size** : Maximum total length 60 cm.

**Interest to Fisheries** : None at present. Locally abundant; many specimens taken from a whale stomach. Considered to be a promising potential resource. Experimental fishing has provided catch rates over 6t/h off northern Japan (Amaoka, et al.,1983).

**Local Names** : JAPAN: Itohiki-dara.

**Literature** : Rass (1954); Matsubara (1955); Yabe, Cohen, Wakabayashi & Iwamoto (1981).

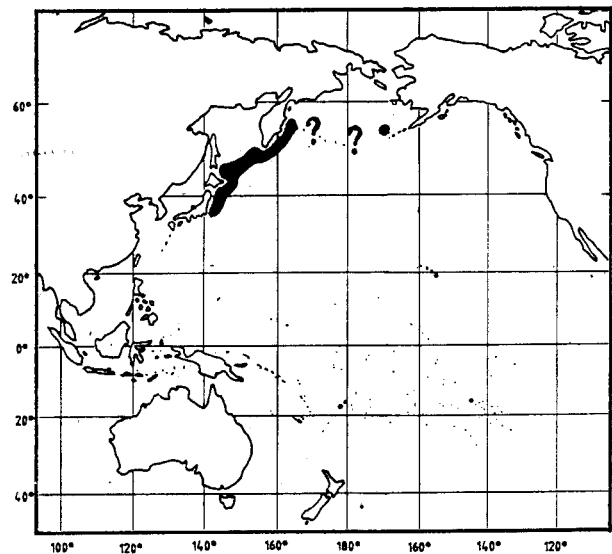


Fig. 786

***Lepidion*** Swainson, 1838

MOR Lep

**Genus with Reference** : *Lepidion* Swainson, 1838, Nat.Hist.Fish.Amphib.Rept., 1:318.

**Diagnostic Features** : Chin barbel present. Jaw teeth granular, a patch of similar teeth present on vomer. First dorsal fin with five or more rays, one notably elongated; anal fin deeply indented at mid-length, originating on anterior half of body, pelvic fin with 5 to 8 rays, one or more variously elongated. Ventral light organ absent.

**Habitat, Distribution and Biology** : Benthopelagic fishes living on the continental slope and lower rise. Neither their taxonomy nor biology are well known. An outdated key is presented by Norman (1935). There may be a dozen or more species.

**Interest to Fisheries** : Marginal at present, but several species are locally abundant in deep water and may represent resources of potential interest.

**Tentative List of Species :**

- Lepidion capensis* Gilchrist, 1922 - South Africa  
*Lepidion ensiferus* (Günther, 1887) - Temperate eastern South Atlantic  
*Lepidion eques* (Günther, 1887) - Temperate North Atlantic  
*Lepidion guentheri* (Giglioli, 1880) - Eastern North Atlantic  
*Lepidion inosimae* (Günther, 1887) - Japan  
*Lepidion lepidion* (Risso, 1810) - Mediterranean  
*Lepidion microcephalus* Cowper, 1956 - Tasmania, New Zealand  
*Lepidion natalensis* Gilchrist, 1922 - South Africa  
*Lepidion schmidtii* Svetovidov, 1936 - Japan, eastern Atlantic.

*Lepidion ensiferus* (Günther, 1887)

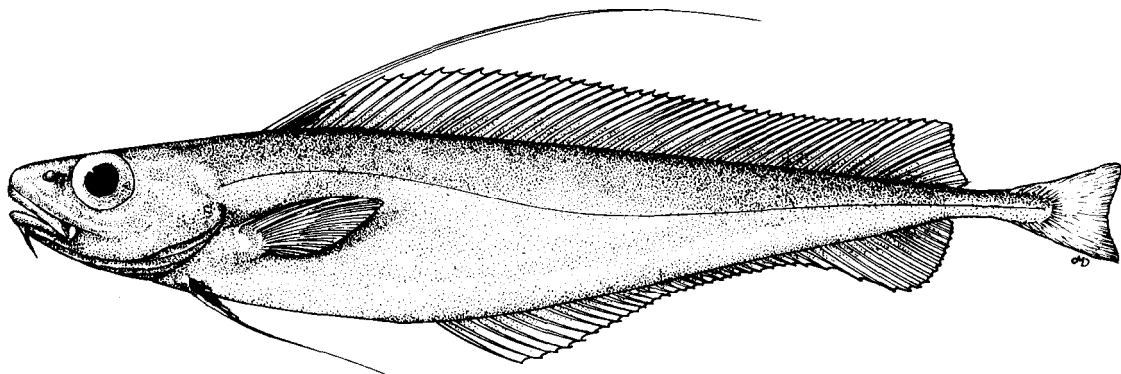
Fig. 787

MOR Lep 1

**Scientific Name with Reference** : *Haloporphyrus ensiferus* Günther, 1887, Challenger Repts., Zool., 22:92.

**Synonyms** : None.

**FAO Names** : En - Patagonian codling



(after Günther, 1887)

Fig. 787

**Diagnostic Features** : Posterior nostril immediately anterior to eye; orbit diameter 2.7 to 3.3 times in head length. Second dorsal fin rays 50 to 56; anal fin rays 45 to 49. Lateral line system on head with pores. Pyloric caeca about 10.

**Geographical Distribution** : So far as known from about 39° to 55°S along the east coast of South America (Fig. 788).

**Habitat and Biology** : Benthopelagic on the upper slope.

**Size** : Maximum total length nearly 40 cm.

**Interest to Fisheries** : No fishery at present, may have some potential as an industrial fish.

**Literature** : Bellisio, López & Tomo (1979) as *Lepidion engiferus*, a misspelling; Nakamura (1986).



Fig. 788

*Lepidion eques* (Günther, 1887)

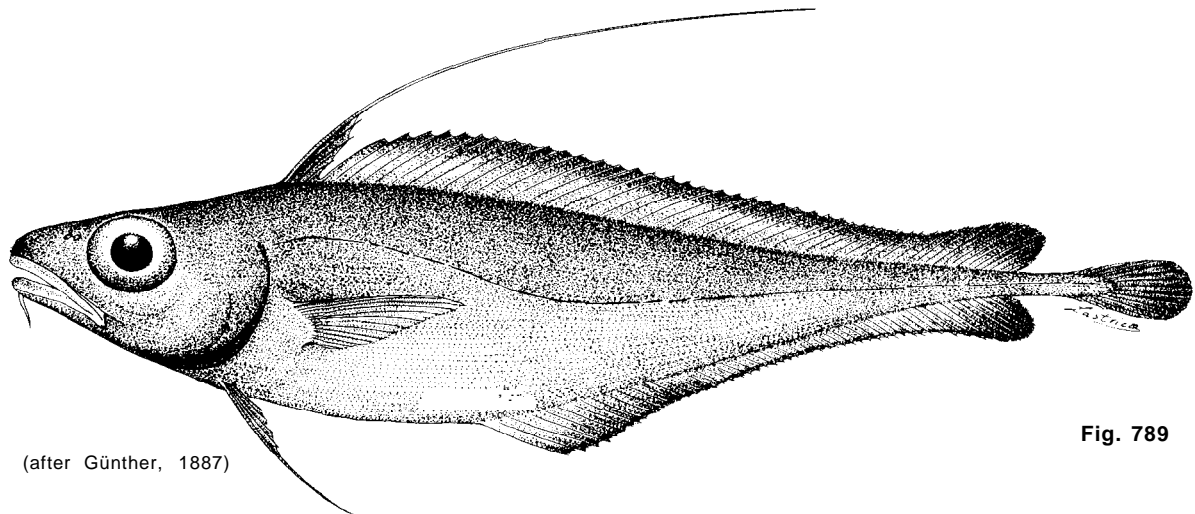
Fig. 789

MOR Lep 2

**Scientific Name with Reference** : *Haloporphyrus eques* Günther, 1887, Challenger Repts., Zool., 22:91.

**Synonyms** : None

**FAO Names** : En - North Atlantic codling



(after Günther, 1887)

Fig. 789

**Diagnostic Features** : Posterior nostril immediately anterior to eye; orbit diameter 2.6 to 3.1 times in head length. Second dorsal fin rays 55 to 60; anal fin rays 50 to 54. Lateral line system on head with pit organs but no pores. Pyloric caeca 8 to 13.

**Geographical Distribution** : Bay of Biscay, along the western slopes of the British Isles, along the Iceland- Faroe Ridge to Iceland, Greenland, Davis Straits, Northern Labrador and the Grand Banks of Labrador (Fig. 790). Rare in the western Atlantic.

**Habitat and Biology** : Benthopelagic between 127 and 1 850 m, with large fish living deeper. Feeds mainly on crustaceans but also on polychaetes. Caught singly but also in aggregations of more than 100 individuals.

**Size** : Maximum total length 44 cm.

**Interest to Fisheries** : None at present.

**Literature** : Templeman (1970).

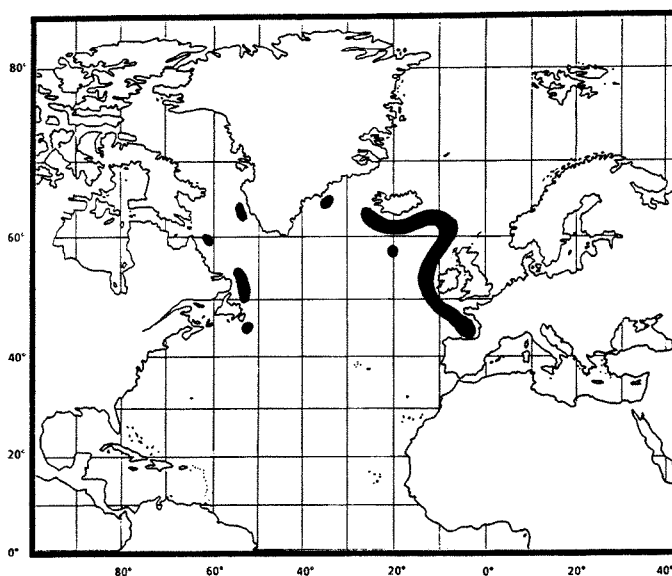


Fig. 790

***Lepidion lepidion*** (Risso, 1810)

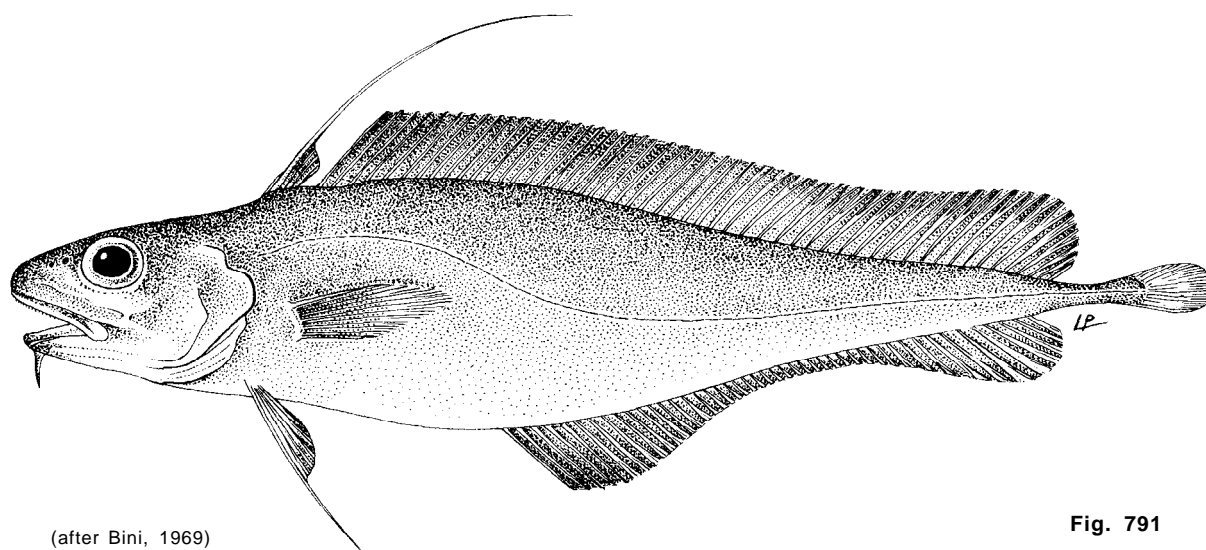
Fig. 791

MOR Lep 3

**Scientific Name with Reference** : *Gadus lepidion* Risso, 1810, Ichth.Nice: 118

**Synonyms** : *Lotta lepidion*, Risso, 1826; *Lotta joptera* Cocco, 1829; *Lepidion rissoi* Swainson, 1838; *Lepidion rubescens* Swainson, 1839; *Haloporphyrus lepidion*, Canestrini, 1871.

**FAO Names** : En - Mediterranean codling.



(after Bini, 1969)

Fig. 791

**Diagnostic Features** : Posterior nostril immediately anterior to eye ; orbit diameter 3.1 to 3.6 times in head length. Second dorsal fin rays 54 to 59; anal fin rays 48 to 51. Lateral line system on head with pit organs but no pores. Pyloric caeca 8 to 10.

**Geographical Distribution** : Northwestern Mediterranean (Fig. 792).

**Habitat and Biology** : Benthopelagic on the continental slopes from 500 to 2 230 m depth, most abundant deeper than 750 m. Feeds mainly on benthic organisms.

**Size** : To 34 cm total length.

**Interest to Fisheries** : Locally abundant; taken in trawls and by longlines. Occasionally found in markets.

**Literature** : Bini (1969); Templeman (1970).

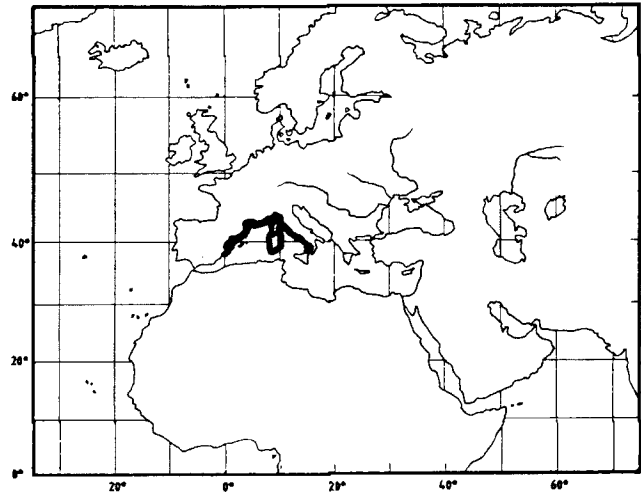


Fig. 792

**Lotella** Kaup, 1858

MOR Lot

**Genus with Reference** : *Lotella* Kaup, 1858, *Arch.Naturgesch.*, 24:88.

**Diagnostic Features** : Chin barbel present; eye diameter less than postorbital length of head. Upper jaw with an outer row of relatively large, widely spaced, sharp-pointed teeth and an inner band of smaller teeth (Fig. 793). First dorsal fin with five or more rays, none greatly elongated; anal fin not greatly indented; pelvic fins with 6 to 9 rays, one or two slightly elongated. No luminescent organ. Scales very small, a dozen or more in a transverse row between the lateral line and the first dorsal fin (Fig. 794). **Colour**: dark brown to black.

**Habitat, Distribution and Biology** : Found in Japan, New Zealand, temperate Australia and at Juan Fernandez Island, in shallow water on rough bottoms.

**Size** : These fishes reach total lengths of at least 25 cm.

**Interest to Fisheries** : Caught most often with hook and line, appearing only occasionally in fish markets.

**Local Names** : AUSTRALIA: Beardie; NEW ZEALAND: Rock cod.

**Literature** : Cohen (1979); Paulin (1983)

**Remarks** : About a dozen nominal species have been placed in *Lotella* at one time or another; however, the genus has never been revised, and it is neither possible to precisely identify the species nor to delimit their ranges. It is known that at least two species are found in Australia, two in New Zealand, two in Japan, and one at Juan Fernandez; however, the extent to which these regions share species, if in fact they do, is unknown.

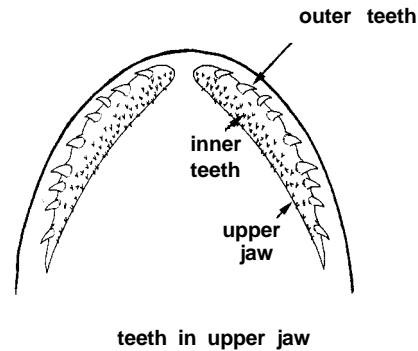
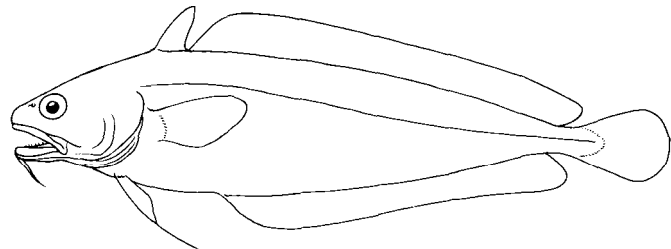
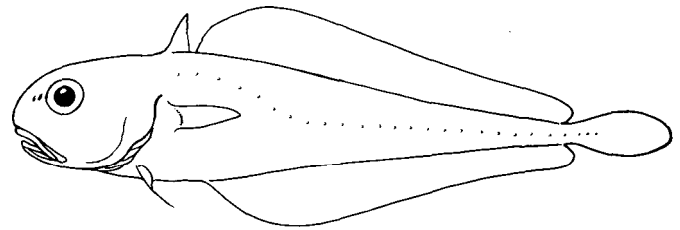


Fig. 793



*Lotella rhacinus*

Fig. 794

**Tentative distribution of some *Lotella* species:****Japan***Lotella phycis* (Temminck & Schlegel, 1846)*Lotella tosaensis* (Kamohara, 1936)**Australia***Lotella rhacinus* (Bloch & Schneider, 1801)*Lotella phycis* (Temminck & Schlegel, 1846)**New Zealand***Lotella rhacinus* (Bloch & Schneider, 1801)*Lotella phycis* (Temminck & Schlegel, 1846)**Juan Fernandez***Lotella fernandeziana* Rendahl, 1921***Momonatira*** Paulin, 1985**MOR Mom****Genus with Reference** : *Momonatira* Paulin, 1985, N.Zeal.J.Zool.,12:357**Diagnostic Features** : Chin barbel lacking or very small; head swollen and globular; upper jaw longer than lower. Bases of dorsal and anal fins fleshy; pectoral fin rays 23 to 30; pelvic fin rays 4 to 6. No luminescent organ (Fig. 795). **Colour** : drab.**Habitat, Distribution and Biology** : Rare fishes, known from a dozen specimens trawled at depths of 1 090 to 1 180 m off the east coast of New Zealand's South Island and from the temperate South Atlantic.**Size** : Reaches 21 cm total length.**Interest to Fisheries** : None.**List of Species** :*Momonatira globosus* Paulin, 1985 - New Zealand*Momonatira paolini* Trunov, 1989 - Temperate South Atlantic***Momonatira paolini*****Fig. 795**



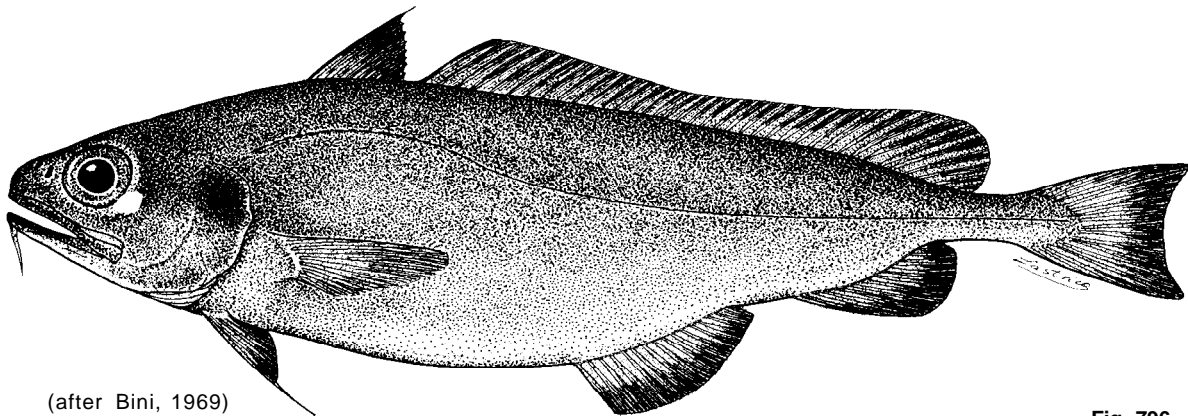
**Mora** Risso, 1826

MOR Mor

**Genus with Reference** : *Mora* Risso, 1826, *Hist.nat.Europ.Merid.*, 3:224.**Remarks** : This genus apparently includes a single species.**Mora moro** (Risso, 1810)

Fig. 796

MOR Mor 1

**Scientific Name with Reference** : *Gadus moro* Risso, 1810, *Ichth.Nice*:116.**Synonyms** : *Mora mediterranea* Risso, 1826; *Asellus canariensis* Valenciennes, 1838; *Mora pacifica* Waite, 1914; *Mora dannevigii* Whitley, 1948.**FAO Names** : En - Common mora; Fr - Moro commun; Sp - Mollera moranella.

(after Bini, 1969)

Fig. 796

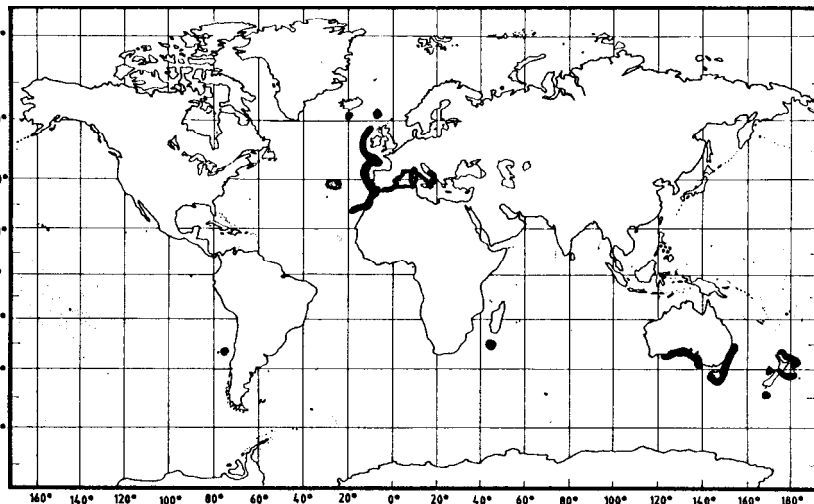
**Diagnostic Features** : Eye diameter greater than snout length, shorter than postorbital length of head Chin barbel present. First dorsal fin with 7 to 11 rays, none greatly elongated; anal fin originating near mid-length of body, deeply indented at mid-length, sometimes appearing as two. Pectoral fin not reaching origin of anal fin, pelvic fins with 5 or 6 rays, one moderately elongated, not reaching anal fin origin. Ventral light organ absent. **Colour**: generally grey.**Geographical Distribution** : In the Atlantic from Iceland and the Faeroes to Cape Bojador, West Africa, and including the Azores, Madeira, and the western Mediterranean; in the Indian Ocean south of Madagascar; in the Pacific known from temperate Australia, New Zealand, and from three catches of 10 specimens taken between Valparaiso, Chile and the Juan Fernandez Islands (Fig. 797).**Habitat and Biology** : Benthopelagic from the outer continental shelf and slope most common between 500 and 800 m depth; occasionally found at 50 m. Spawning season in the Mediterranean probably in winter and early spring. A carnivore, feeding on fishes, crustaceans, molluscs and other invertebrates.

Fig. 797