

**Geographical Distribution** : Central western Atlantic (Fig. 748).

**Habitat and Biology** : Outer shelf and upper slope, on soft bottoms.

**Size** : Maximum total length recorded from Suriname, 27.7 cm.

**Interest to Fisheries** : None at present. Often taken in large quantities at depths of 400 to 500 m in the northern Gulf of Mexico.

**Literature** : Goode & Bean (1896)

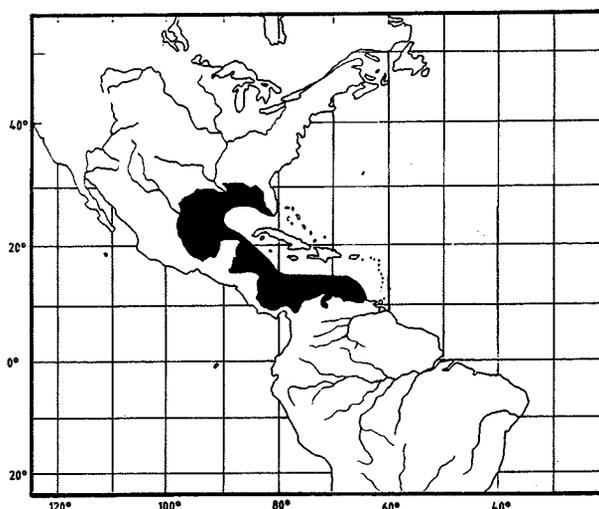


Fig. 748

## 2.8

## FAMILY MORIDAE

## MOR

**Family Name with Reference** : Morini Moreau, 1881, *Hist.nat.Poiss.France*, 3:247.

**FAO Names** : En - Moras; Fr - Moros; Sp - Moros

**General Features** : Body, in most species, tapering to a very narrow caudal peduncle. No V-shaped ridge on top of skull; gill openings wide; extending upward above level of pectoral fins; mouth usually terminal or inferior. Teeth few or lacking on head of vomer (roof of mouth). Fins lacking spines; two or three dorsal fins and one or two anal fins; pelvic fins thoracic, never very close together at their bases; caudal fin always separate from dorsal and anal fins, end externally symmetrical. Scales overlapping and rounded, not set at right angles to each other. Spine on top of first vertebra tightly connected to a narrow crest at rear of skull. Anterior paired projections of swimbladder attached to a membranous area at the rear of the cranium. Several hypural bones attached to last vertebra. For additional characters, see Svetovidov, 1937, Marshall & Cohen, 1973, Paulin, 1983, and several authors in Cohen, 1989. **Colour**: brown to black; some species pink or reddish or with silvery areas.

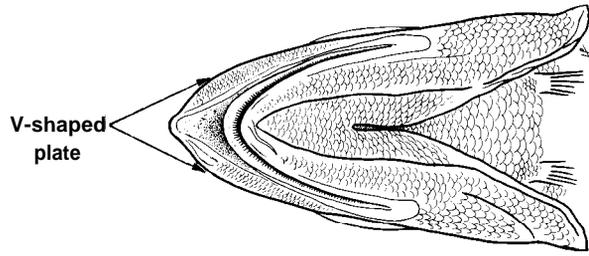
**Habitat, Distribution and Biology** : Benthopelagic to pelagic species ranging from shallow coastal areas (occasionally even estuaries) to deep waters (beyond 2 500 m). Found in all oceans.

**Interest to Fisheries** : Morids are of less present and probably less potential value to the fishery than either Gadidae, Merlucciidae or Macrouridae. Most species are of rather small size, live in fairly deep water over hard bottom, and apparently do not form dense aggregations. The highest present and potential importance is in the temperate Southern Hemisphere. Overall landings for the family In 1986 were 37 000 t.

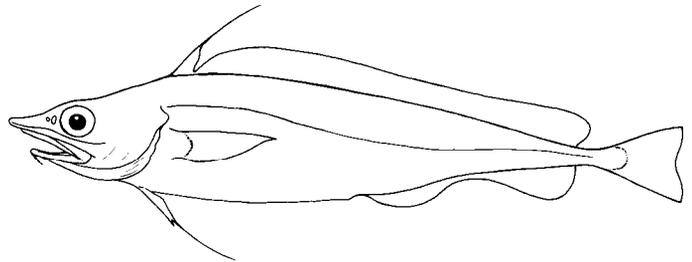
**Remarks** : The genera and species now included in this family were placed in Gadidae until Svetovidov (1937) recognized a separate family; most ichthyologists agree with him. Although Paulin, 1989 (in Cohen, 1989) presents an overview of Moridae, there is neither an up-to-date general classification of the perhaps 100 species, nor any substantial agreement as to how many genera should be recognized for them. Hence the following list of genera and species is tentative and incomplete. Because of unsolved taxonomic problems two generic keys are presented, one to Atlantic genera and one to Pacific-Indian Ocean genera.

**Key to Atlantic Genera\*:**

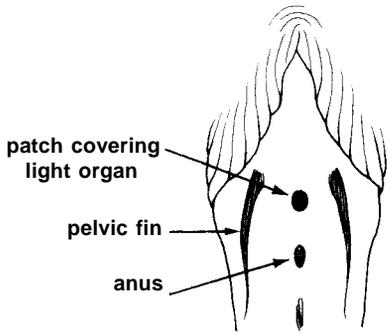
- 1a. Snout depressed to form a broadly V-shaped plate (Fig. 749) ..... **Antimora** (Fig. 750)
- 1b. Snout not as above
  - 2a. Ventral light organ present (Fig. 751)
    - 3a. Chin barbel present
      - 4a. Teeth lacking on vomer ..... **Physiculus** (Fig. 752)
      - 4b. Teeth present on vomer in a small patch (Fig. 753a) ..... **Salilota** (Fig. 753b)
    - 3b. Chin barbel absent ... **Gadella** (Fig. 754)



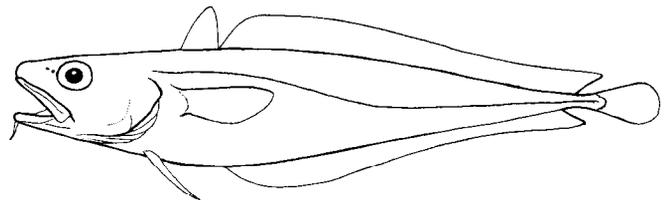
underside **Antimora** Fig. 749



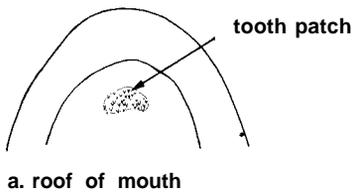
**Antimora** Fig. 750



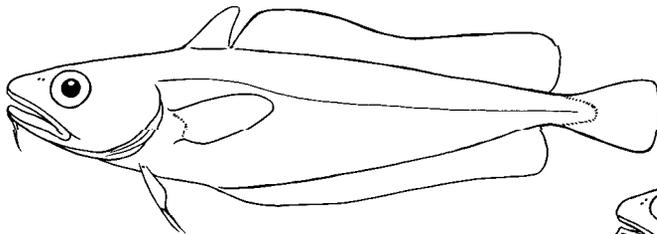
underside Fig. 751



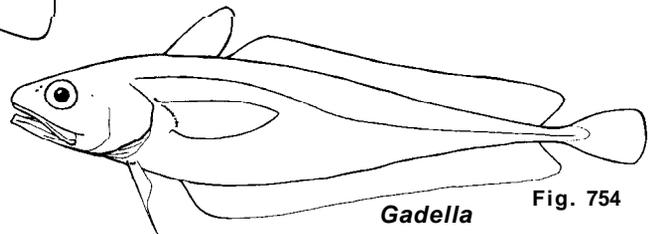
**Physiculus** Fig. 752



a. roof of mouth



b. lateral view **Salilota** Fig. 753



**Gadella** Fig. 754

\* Excluded are the nominal genera **Eretmophorus**, **Rhynchogadus** and **Svetovidovia** which are either based on early life history stages of other genera, or are neotenic forms. Also **Paralaemonema** Trunov, 1990, which has been described too recently for inclusion, and **Momonatira**, recently recorded from the Atlantic by Trunov, 1989.

2b. Ventral light organ lacking

5a. Anal fin notably indented; sometimes appearing as two fins

6a. Chin barbel absent ..... **Halargyreus**  
(Fig. 755)

6b. Chin barbel present

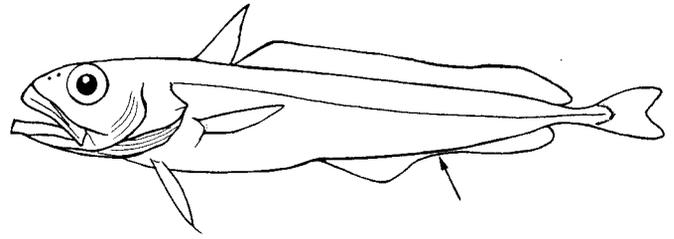
7a. Longest ray in first dorsal fin much shorter than head length ..... **Mora**  
(Fig. 756)

7b. Longest rays in first dorsal fin about equal to or longer than head length ..... **Lepidion**  
(Fig. 757)

5b. Anal fin not notably indented

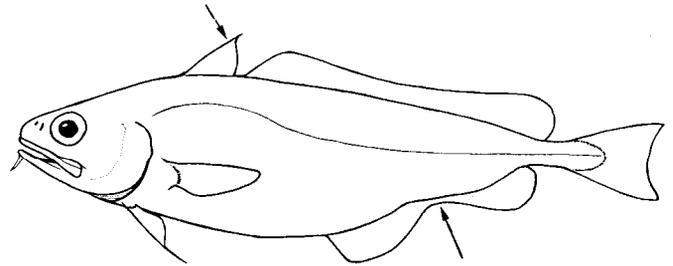
8a. Pelvic fin composed of two well-developed long rays (sometimes with several rudimentary rays at the base) ..... **Laemonema**  
(Fig. 758)

8b. Pelvic fin composed of more than two rays (although outer two are longer than others) ..... **Austrophycis**  
(Fig. 759)



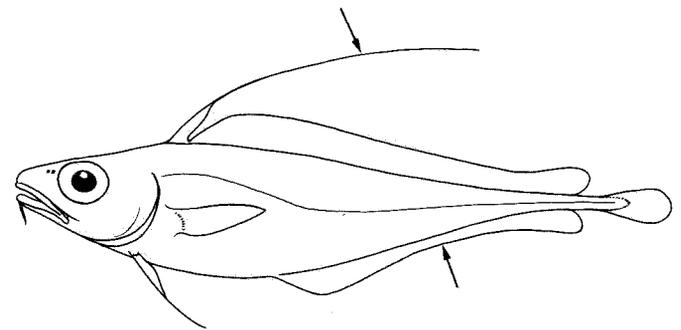
**Halargyreus**

**Fig. 755**



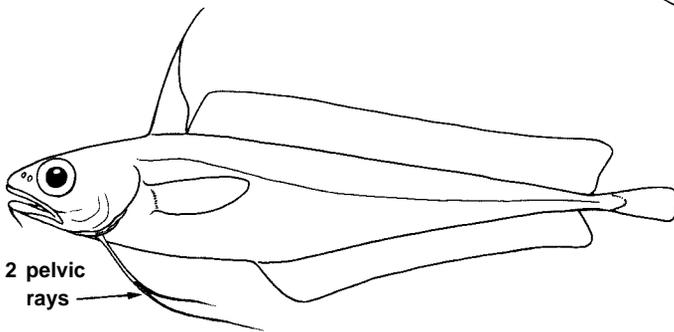
**Mora**

**Fig. 756**



**Lepidion**

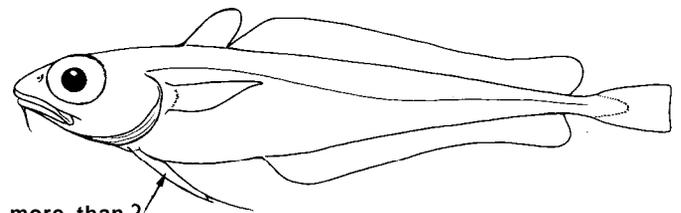
**Fig. 757**



2 pelvic rays

**Laemonema**

**Fig. 758**



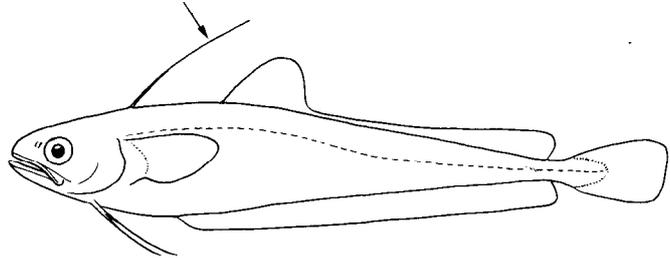
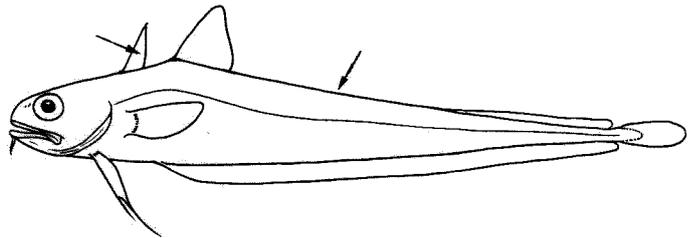
more than 2 pelvic rays

**Austrophycis**

**Fig. 759**

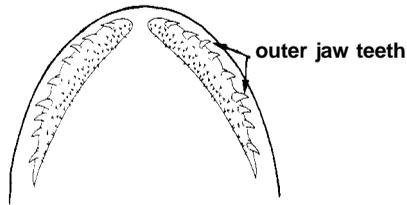
## Key to Pacific and Indian Ocean Genera:

- 1a. Snout depressed to form a broadly V-shaped plate (Fig. 749) ..... **Antimora**  
(fig. 750)
- 1 b. Snout not as above
- 2a. First dorsal fin appearing as a single elongate ray ..... **Auchenoceros**  
(Fig. 760)
- 2b. First dorsal fin with three or more rays
- 3a. Dorsal fins appearing as three due to deep indentation in second dorsal fin ..... **Tripterophycis**  
(Fig. 761)
- 3b. Dorsal fins appearing as two
- 4a. Ventral light organ present (Fig. 751)
- 5a. Teeth lacking on vomer
- 6a. Chin barbel present ..... **Physicolus**  
(Fig. 752)
- 6b. Chin barbel absent ..... **Gadella**  
(Fig. 754)
- 5b. Teeth present on vomer in a small patch (Fig. 753a) ..... **Salilota**  
(Fig. 753b)
- 4b. Ventral light organ absent
- 7a. Anal fin notably indented, sometimes appearing as two fins
- 8a. Chin barbel absent ..... **Halargyreus**  
(Fig. 755)
- 8b. Chin barbel present

**Auchenoceros****Fig. 760****Tripterophycis****Fig. 761**

9a. Longest ray in first dorsal fin much shorter than head length ..... **Mora**  
(Fig. 756)

9b. Longest ray in first dorsal fin about equal to or longer than head length ..... **Lepidion**  
(Fig. 757)



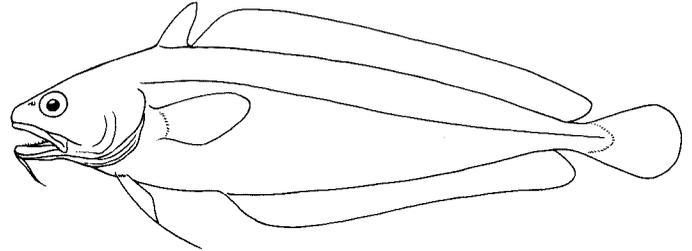
a. roof of mouth

7b. Anal fin not notably indented

10a. Pelvic fin composed of two well-developed long rays (sometimes with several rudimentary rays at the base) ..... **Laemonema**  
(Fig. 758)

10b. Pelvic fin composed of more than two rays (although outer two may be longer than others)

11a. Upper jaw teeth in two separate series, the outer one much larger (Fig. 762a) ..... **Lotella**  
(Fig. 762b)



b. lateral view  
**Lotella**

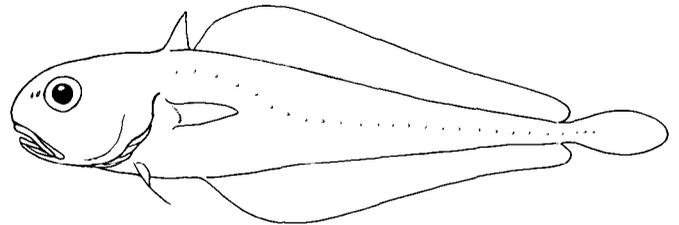
Fig. 762

11b. Upper jaw teeth in a single band, the teeth about equal-sized

12a. Eye diameter equal to or greater than postorbital length of head ..... **Austrophycis**  
(Fig. 759)

12b. Eye diameter less than postorbital length of head

13a. Chin barbel absent or very small ..... **Momonatira**  
(Fig. 763)



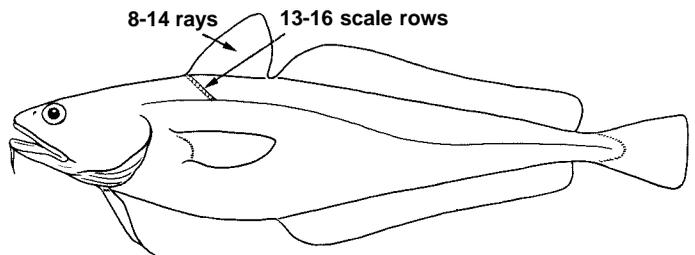
**Momonatira**

Fig. 763

13b. Chin barbel present, prominent

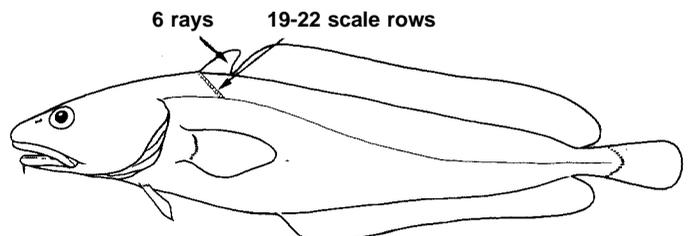
14a. First dorsal fin with 8 to 14 rays; scale rows between first dorsal fin and lateral line 13 to 16 ..... **Pseudophycis**  
(Fig. 764)

14b. First dorsal fin with 6 rays; scale rows between first dorsal fin and lateral line 19 to 22 ..... **Eeyorius**  
(Fig. 765)



**Pseudophycis**

Fig. 764



**Eeyorius**

Fig. 765

## TENTATIVE LIST OF GENERA

	Number of species known	Species treated here
<i>Antimora</i>	2	2
<i>Auchenoceros</i>	1	1
<i>Austrophycis</i>	1	1
<i>Eretmophorus*</i>	?	-
<i>Eeyorius</i>	1	1
<i>Gadella</i>	8	2
<i>Halargyreus</i>	1	1
<i>Laemonema</i>	18	2
<i>Lepidion</i>	9	3
<i>Lotella</i>	4	-
<i>Momonatira</i>	2	-
<i>Mora</i>	1	1
<i>Paralaemonema**</i>	3	-
<i>Physiculus</i>	31	2
<i>Pseudophycis</i>	3	3
<i>Rhynchogadus*</i>	?	-
<i>Salilota</i>	2	1
<i>Tripterochycis</i>	2	1

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\* A problematic name, either based on early life history stages and not yet linked with known adults, or a neotenic form. If any of these genera are valid, it is not possible to say how many species might be in each

\*\* Described too recently (Trunov, 1990) for further treatment herein.