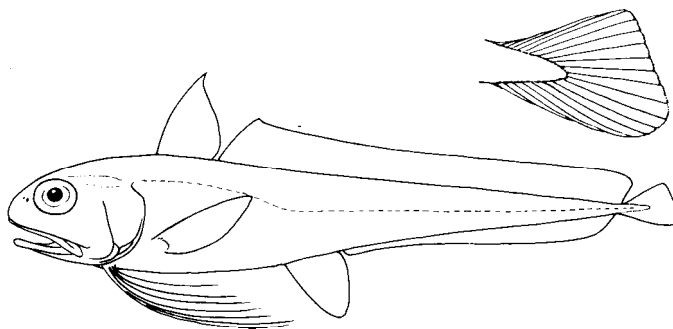


2. SYSTEMATIC CATALOGUE OF SPECIES

2.1 Key to Families

1a. Gill openings extending upward to at least the level of the pectoral fins. Scales rounded and overlapping in most, not at angles to each other

2a. Anterior dorsal fin originating at rear of or behind head, not widely separate from following rays (in all but the New Zealand morid **Auchenoceros**). Lateral line on side of body (except in a few grenadiers)



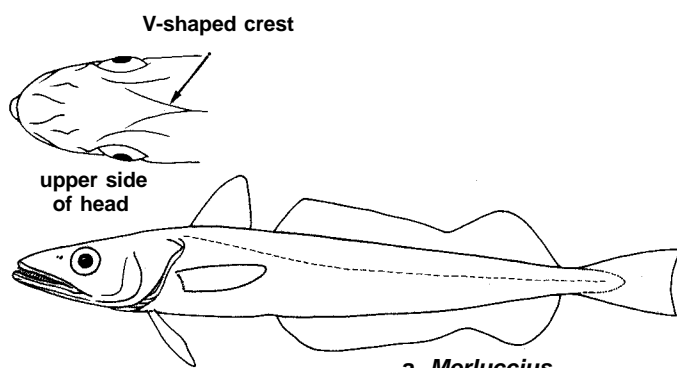
Euclichthyidae

Fig. 18

3a. Tail fin externally asymmetrical (Fig. 18) **Family Euclichthyidae*** (Fig. 18)

3b. Tail fin externally symmetrical or absent

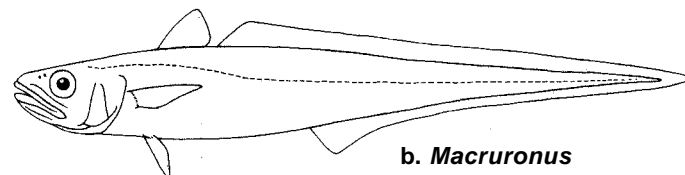
4a. Top of skull with a pair of more or- less well developed ridges in a V-shape with the point directed posteriorly (Fig. 19a)** **Family Merlucciidae** (Fig. 19)



a. Merluccius

4b. Top of skull various, not as described above

5a. No tail fin (except a microscopic one in **Trachyrinchus**) . . . **Family Macrouridae** (Fig. 20)

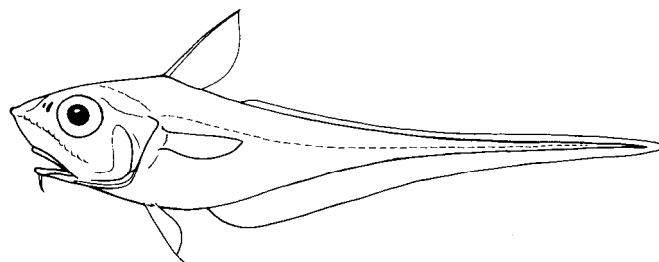


b. Macruronus

Merlucciidae

Fig. 19

5b. Tail fin present



Macrouridae

Fig. 20

* A single genus and species, **Euclichthys polynemis**, from the continental slopes of New Zealand and Australia
A small fish, relatively rare

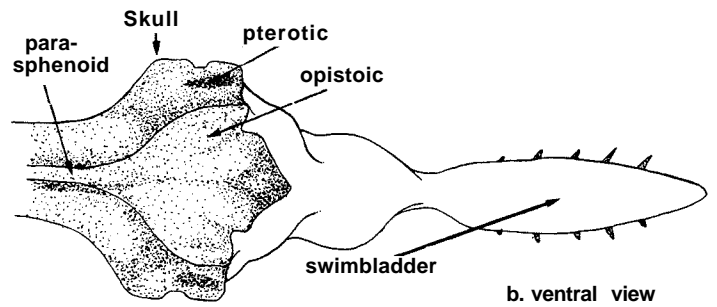
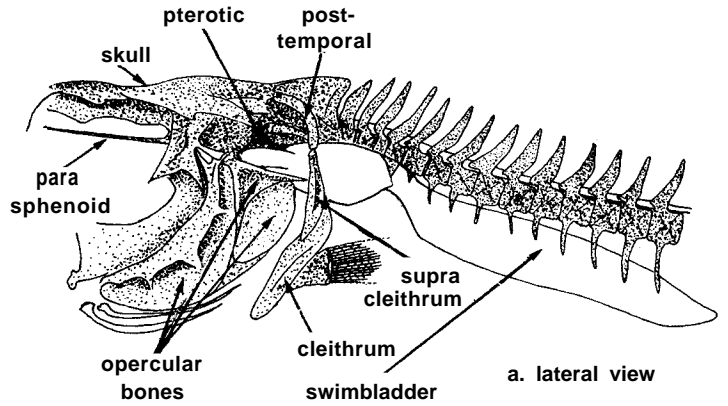
** This character works well for **Merluccius** and **Macruronus**, less well for **Lyconus** and **Steindachneria**

6a. Elongate anterior projections of the swimbladder attached to openings at rear of the skull (Fig. 21).....**Family Moridae** (Fig. 22)

6b. Swimbladder either lacking anterior projections or, if present, not attached to rear of skull.

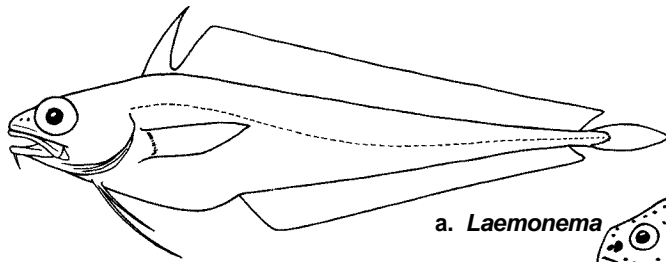
7a. Numerous procurrent caudal fin rays extending far forward on a very slender caudal peduncle, scarcely separated from the posterior rays of dorsal and anal fins (Fig. 23).....**Family Melanonidae***

7b. Caudal fin and peduncle various, not as above.....**Family Gadidae** (Fig. 24)

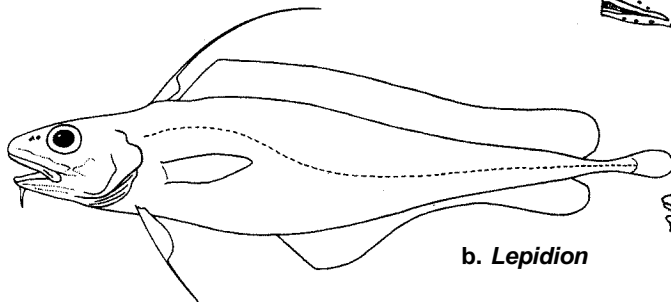


Swimbladder attachment to skull (Moridae)
(after Paulin, in Cohen, 1989)

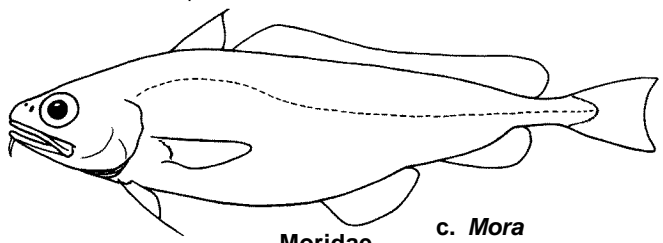
Fig. 21



a. *Laemonema*

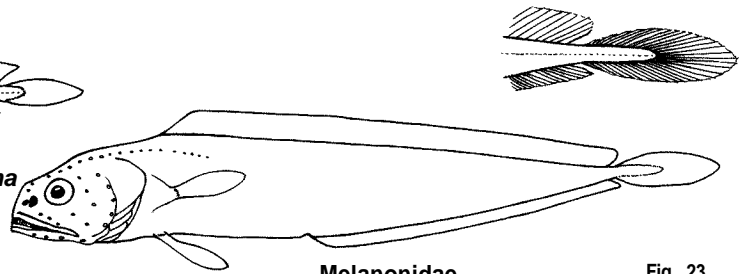


b. *Lepidion*



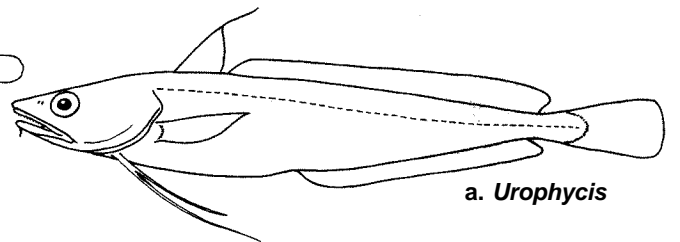
Moridae

c. *Mora*

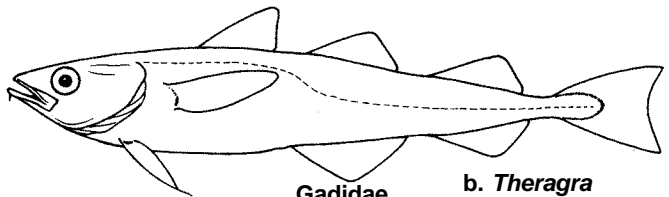


Melanonidae

Fig. 23



a. *Urophycis*



Gadidae

b. *Theragra*

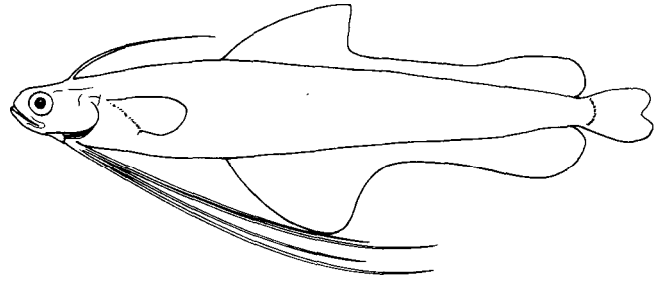
Examples of body shapes and fin patterns Fig. 22

Examples of body shapes and fin patterns Fig. 24

*

One genus, *Melanonus*, with two species of small, meso- to bathypelagic fishes. Not further treated

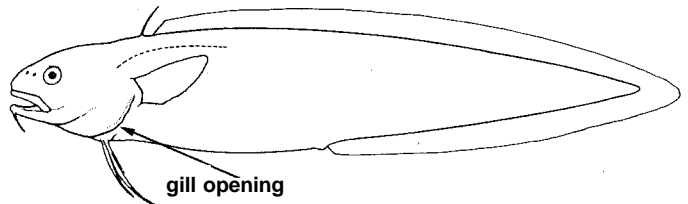
2b. First dorsal fin a single, elongate ray, widely separated from following rays, and inserted on top of head; when depressed fitting into a mid-dorsal groove between the dorsally directed lateral lines..... **Family Bregmacerotidae** (Fig. 25)



Bregmacerotidae

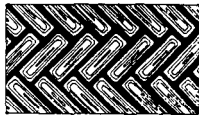
Fig. 25

1b. Gill openings restricted, not extending above the pectoral fins; scales elongate, non-overlapping, set at angles to each other (Fig. 26) **Family Muraenolepididae*** (Fig. 26)



Muraenolepididae

Fig. 26



arrangement of scales (schematic)

*

One genus, **Muraenolepis**, not well known taxonomically, with fewer than a dozen, relatively rare species (several undescribed), all cold-water fishes from far southern seas.