

2.3

TRICHIURIDAE

TRICH

2.3.1 Diagnostic Features of the Family Trichiuridae

Synonyms: Lepidopidae (in part).
FAO Names: **En** - Cutlassfishes, Hairtails, Scabbardfishes, Frostfishes; **Fr** - Sabres, Poissons sabres; **Sp** - Pez sable, Cintilla, Sable, Tajali.

Field Characters: Body exceptionally elongate and compressed, with a small forked. or hair-like caudal fin. One nostril on each side of snout. Strong teeth in jaws, those at front of upper jaw fang-like. Pelvic fins absent, or reduced to I scale-like spine and 0 to 2 rudimentary soft rays. A single lateral line usually situated closer to the ventral contour than the dorsal contour on posterior part of body.

Diagnostic Features: Body remarkably elongate and compressed, ribbon-like, with a tapered tail or small forked caudal fin. A single nostril on each side of head; mouth large, not protractile; lower jaw extends anterior to upper jaw; teeth extremely strong, fang-like in anterior part of upper jaw and sometimes in anterior part of lower jaw. Gill rakers spinescent. A single dorsal fin, running almost the entire length of the body, the spinous portion either short and continuous with a very short soft portion (in *Assurger*, *Eupleurogrammus*, *Evoxymetopon*, *Lepidopus*, *Lepturacanthus*, *Tentoriceps* and *Trichiurus*), or the spinous part moderately long (slightly shorter than soft part in *Aphanopus*) and separated from soft portion by a notch (*Benthodesmus*); anal fin preceded by II free spines behind anus (first inconspicuous and second variously enlarged as a leaf-like or keeled scute, or as a stout spine), with absent or reduced soft rays (sometimes restricted to posterior part of the fin); pectoral fins rather small and situated mid-laterally or lower on sides; pelvic fins absent or reduced to I flattened spine and 0 to 2 tiny soft rays; caudal fin either small and forked or absent. Lateral line single. Scales absent. No keels or notch on caudal peduncle region. There are 9 genera and 32 species known so far.

Biology, Habitat and Distribution: Benthopelagic on continental shelves and slopes and underwater rises, from surface to about 2 000 m deep, found in tropical to warm temperate waters. Voracious predators feeding on fish, squid and crustaceans. Spawning throughout the year in warm waters. Eggs and larvae pelagic.

Interest to Fisheries: *Trichiurus*, *Eupleurogrammus*, *Lepturacanthus*, *Lepidopus* and *Aphanopus* exploited commercially. Though flesh scanty, meat excellent to eat. Marketed mostly fresh or salted, sometimes also frozen. The degree to which its flesh is esteemed varies locally.

2.3.2 Illustrated Key to the Genera of Trichiuridae:

- 1a. Caudal fin present, small and forked (Fig. 102); pelvic fins present, but strongly reduced or modified to a scale-like process (flattened spine) with 0 to 2 tiny soft rays (may be absent in some species) (Fig. 102). → 2
- 1b. Caudal fin absent, or tapering into a hair-like process (Fig. 103); pelvic fins absent or modified into a scale-like process (Fig. 103).→ 6

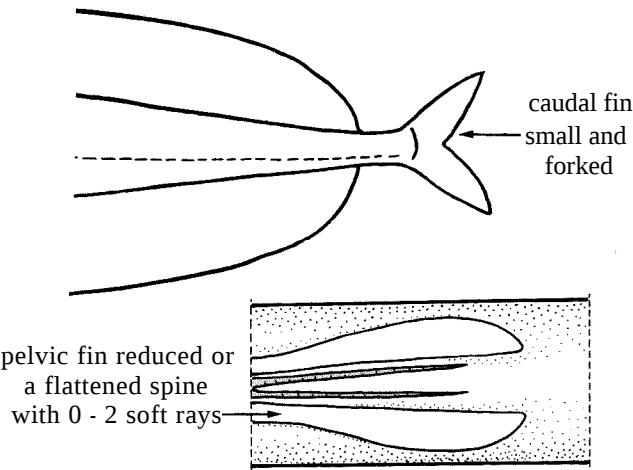


Fig. 102

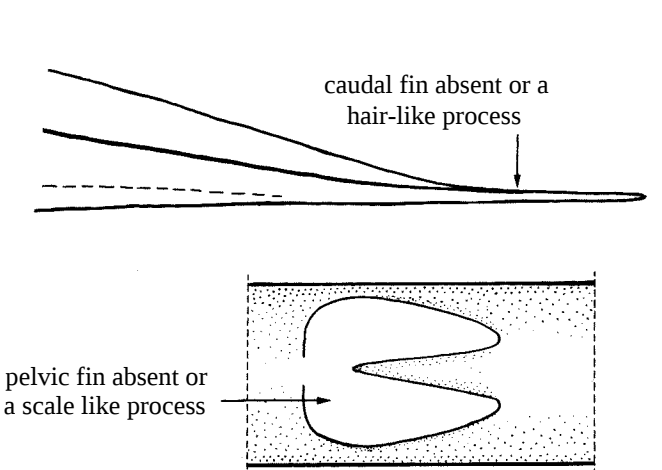
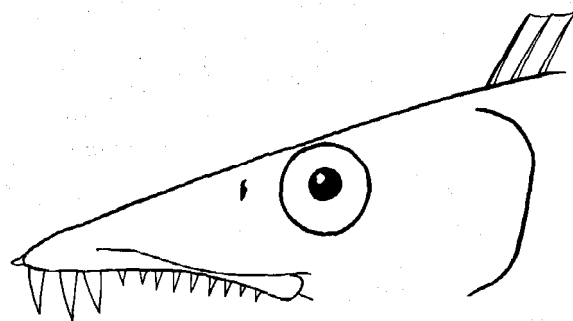


Fig. 103

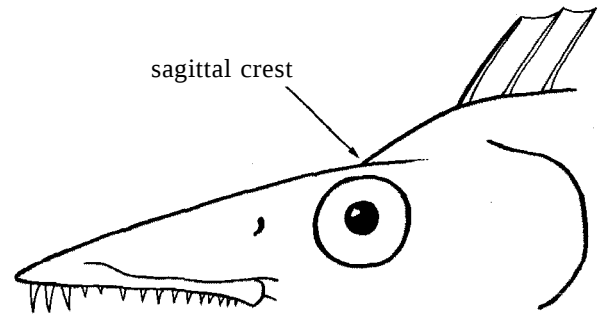
- 2a. Head profile rising very gradually from tip of snout to origin of dorsal fin without forming a sagittal crest (Fig. 104); a notch between the spinous and soft part of dorsal fin (Fig. 104) → 3
- 2b. Head profile with a prominent sagittal crest (Figs 105, 106, 107); no notch between the spinous and soft part of dorsal fin (Fig. 105)→ 4



dorsal fin with a notch



Fig. 104



sagittal crest

dorsal fin without a notch

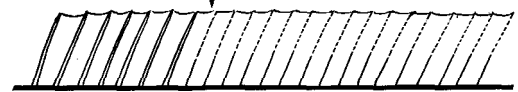


Fig. 105

- 3a. Spinous part of dorsal fin about half as long as the soft part; 102 to 155 dorsal-fin elements *Benthodesmus*
- 3b. Spinous part of dorsal fin only slightly shorter than the soft part; 90 to 109 dorsal-fin elements *Aphanopus*
- 4a. Head length 7 times in total length; eye fairly large, situated near dorsal contour (Fig. 106) *Lepidopus*
- 4b. Head length 8 times in total length; eye moderate in size, situated laterally (Fig. 107) → 5

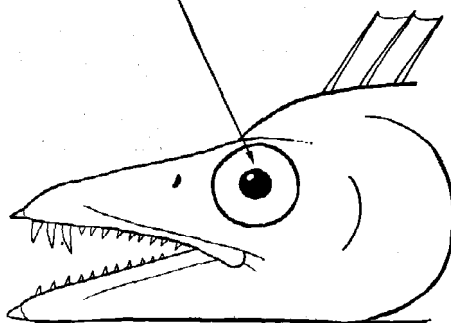
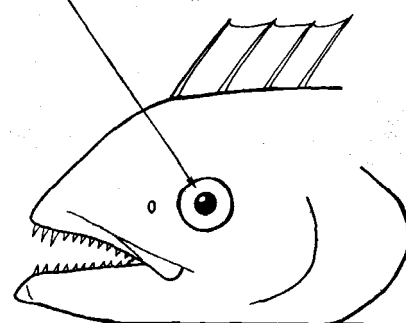
large eyes near
dorsal contourFig. 106 *Lepidopus*moderate eyes
situated laterally

Fig. 107

- 5a. Dorsal-fin elements 116 to 123 *Assurger*
- 5b. Dorsal-fin elements 81 to 93 *Evoxymetopon*

- 6a. Pelvic fins absent; free margin of subopercle concave (Fig. 108)→ 7
- 6b. Pelvic fins scale-like; free margin of subopercle convex (Fig. 109)→ 8

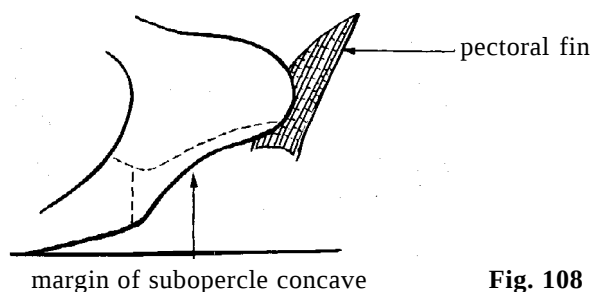


Fig. 108

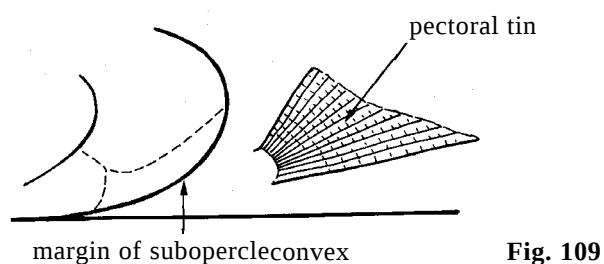
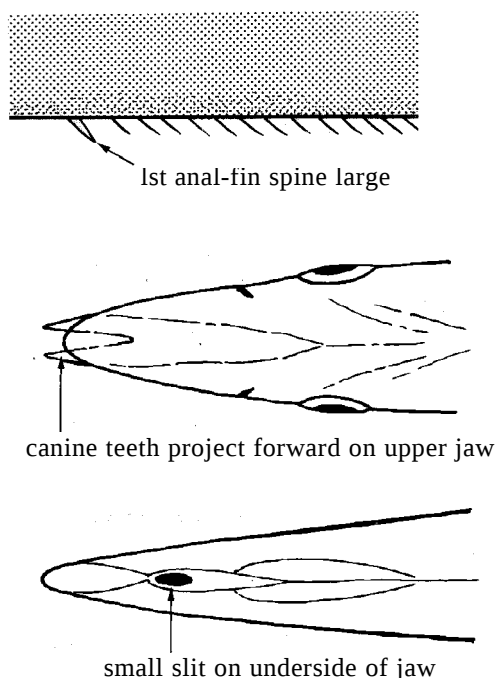
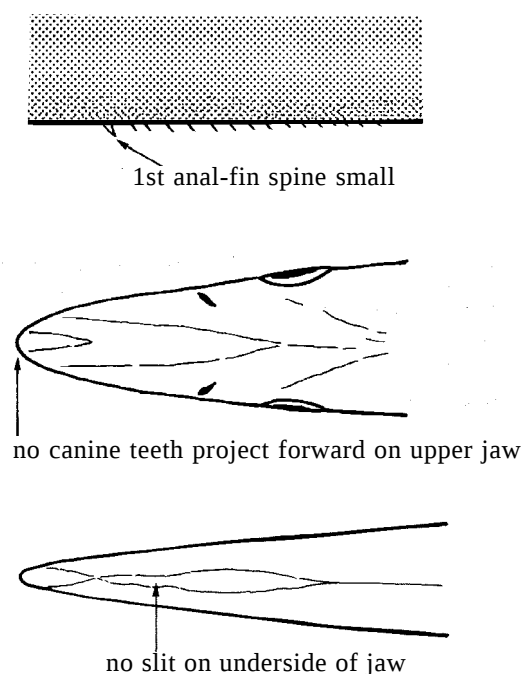
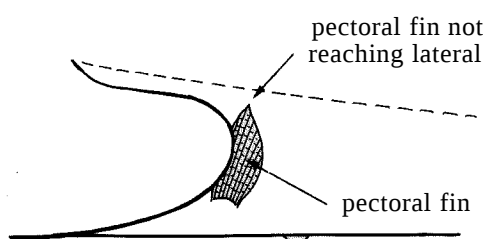
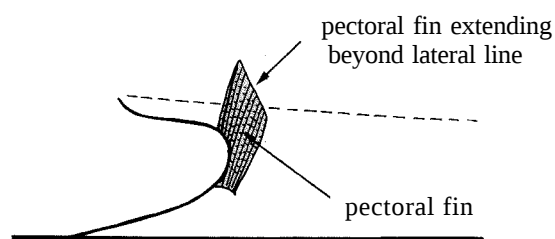


Fig. 109

- 7a. First anal-fin spine large, its length half of eye diameter; soft anal-fin rays pungent spinules breaking through ventral skin (Fig. 110); two small canine teeth on upper jaw projects forward (Fig. 110); a small slit present on ventral side of lower jaw for receiving anteriormost fang of upper jaw (Fig. 110)*Lepturacanthus*
- 7b. First anal-fin spine small, its length less than pupil of eye; soft anal-fin rays slightly breaking through ventral skin in smaller specimens (Fig. 111); no canine teeth on upper jaw projects forward (Fig. 111); no slit on ventral side of lower jaw (Fig. 111)*Trichiurus*

Fig. 110 *Lepturacanthus*Fig. 111 *Trichiurus*

- 8a. Pectoral fins short, not reaching lateral line (Fig. 112); anal-fin origin below 47th to 50th soft dorsal-fin ray *Tentoriceps*
- 8b. Pectoral fins long, extending beyond lateral line (Fig. 113); anal-fin origin below 31st to 35th or 41 st to 43rd soft dorsal-fin ray *Eupleurogrammus*

Fig. 112 *Tentoriceps*Fig. 113 *Eupleurogrammus*