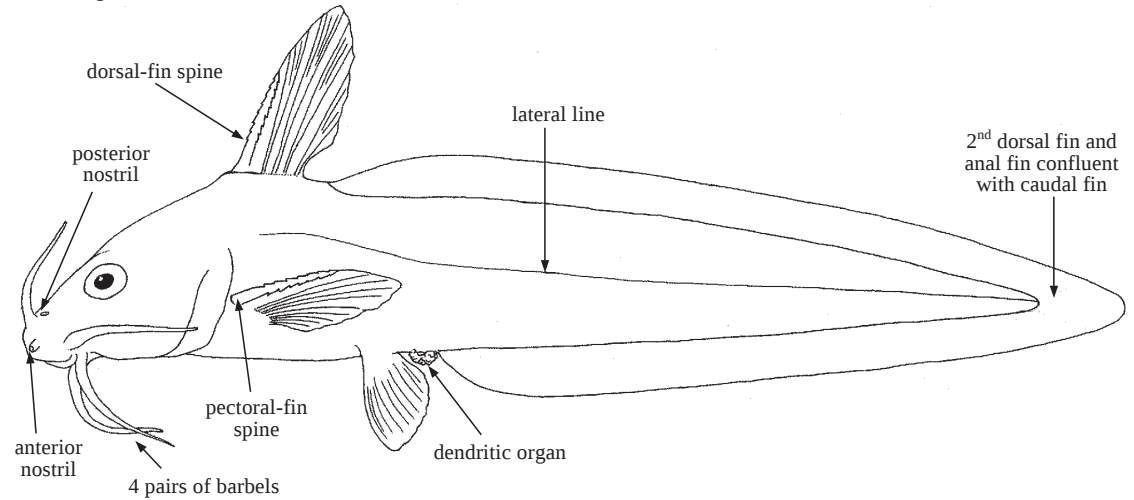


PLOTOSIDAE

Eeltail catfishes (also eel catfishes, stinging catfishes, and coral catfishes)

by C. Ferraris

Diagnostic characters: Small to medium-sized fishes with elongate, compressed body that tapers posteriorly. Body without scales or bony plates. Lateral line complete, running along middle of body and extending nearly to caudal-fin base. **A dendritic organ, located along ventral midline of body just anterior to anal-fin origin and posterior to anus, found in all marine, and some fresh-water species.** Head broad, slightly depressed. Dorsal profile of head from snout tip to dorsal-fin origin straight or arched. **Mouth surrounded with barbels in 4 pairs; 1 pair between widely separated anterior and posterior nostrils;** 1 pair at corner of mouth and 2 pairs on lower jaw. Posterior nostril slit-like, located at base of nasal barbel; anterior nostril with rounded opening; anterior nostril located either above upper lip margin or within fleshy lip. Teeth present on jaws, except on upper jaw of some fresh-water species. **Palate with teeth, often molariform; molariform teeth sometimes found in lower jaw.** Dorsal and pectoral fins located just posterior of head, each with a pungent serrated spine at leading edge; **fin spines venomous and capable of producing painful sting; anal fin long and continuous with rounded or pointed caudal fin; dorsal series of procurent caudal-fin rays consists of elongate rays which, in marine species, extend the fin anteriorly to at least vertical line at anal-fin origin, thus forming a second dorsal fin that is continuous with caudal fin;** dorsal adipose fin absent. **Colour** (in preservative): tan, brown, or black on sides and dorsum; lighter ventrally; sometimes with light stripes along side of body, extending onto head.



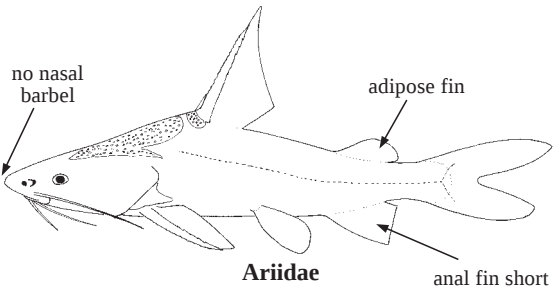
Habitat, biology, and fisheries: Found in fresh, brackish, and marine waters of tropical and subtropical regions of the Indo-Pacific. Fresh-water species are restricted to Australia and New Guinea; marine species are widespread along continental and island margins, especially in estuaries, lagoons, sand flats, and reefs. Marine species sometimes found in river mouths in nearly fresh waters.

Large individuals seen beneath overhangs, in caves, and crevices. during daylight hours. Juveniles of some species, especially *Plotosus lineatus*, seen on reef flats in ball-like aggregations. Feed primarily on crustaceans, molluscs, and fishes. Incidental catch throughout range; taken by beach seine, trawl, and on hook-and-line. Marketed mostly fresh and locally may be important.

Similar families occurring in the area

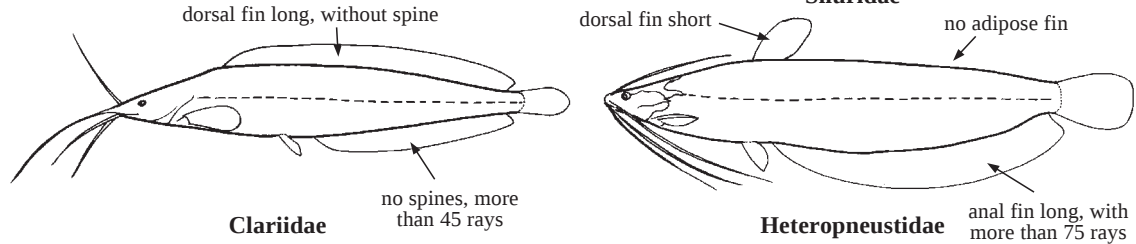
Marine eeltail catfishes differ from all other catfish families in possessing a dendritic organ at the base of the anal fin. Furthermore, additional characters can be used to distinguish them from the following families that are found in the region:

Ariidae: caudal fin forked, adipose fin present, anal-fin base short, not confluent with caudal fin; anterior and posterior nostrils close together; no nasal barbel.



Siluridae (fresh water): dorsal procurent rays not extending onto dorsum past posterior extent of anal fin; caudal fin usually forked or truncated, rarely rounded or pointed; dorsal fin without pungent spine.

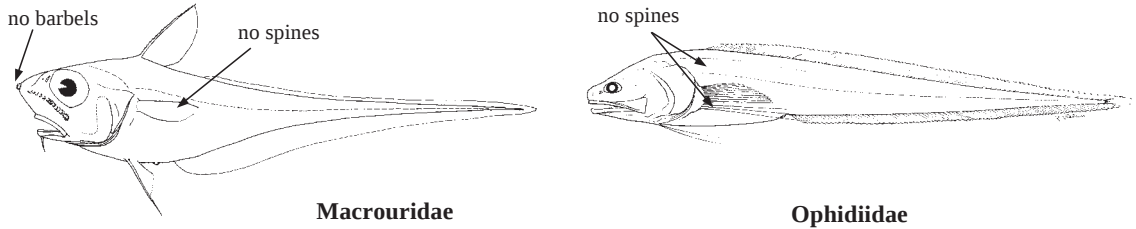
Clariidae and Heteropneustidae (fresh water): dorsal fin without pungent spine, and not confluent with caudal fin.



Non-catfish families:

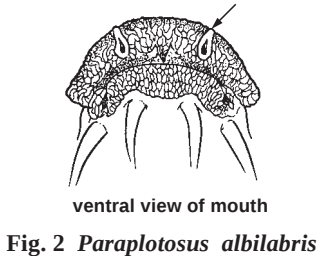
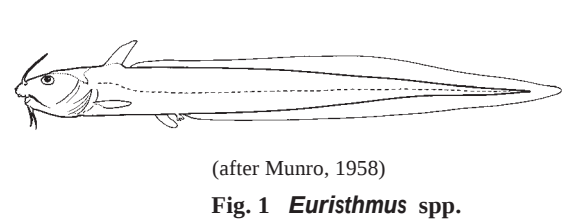
Macrouridae: body scaled; pectoral fins without spine; mouth not surrounded by barbels.

Ophidiidae: body scaled; pectoral and dorsal fins without spines.



Key to the marine species of Plotosidae occurring in the area

- 1a. Body very elongate, depth at first dorsal-fin origin less than 11% of standard length (Fig. 1) *Euristhmus* spp.^{1/}
- 1b. Body less elongate, depth at first dorsal-fin origin usually greater than 15% of standard length (Figs 3 and 4) → 2
- 2a. Anterior nostril a round tube situated within folds of upper lip, opening directed ventrally (Fig. 2); second dorsal-fin origin situated immediately behind first dorsal fin and anterior to vertical line extending from pelvic-fin origin, appressed first dorsal fin extends past origin of second dorsal fin; gill membranes joined broadly across isthmus and attached to isthmus anteriorly (*Paraplotosus*) → 3
- 2b. Anterior nostril a round tube situated dorsal to upper lip, opening directed anteriorly; second dorsal-fin origin posterior to vertical line from pelvic-fin origin, appressed dorsal fin not reaching origin of second dorsal fin; gill membranes narrowly attached across isthmus (*Plotosus*) → 5



^{1/} Species of *Euristhmus* are difficult to distinguish and in need of revision.

- 3a. Dorsal-fin height greater than length of head; pectoral-fin margin angular; nasal barbel extends well beyond opercular margin *Paraplotosus butleri*
(northern and western Australia, from Shark Bay to the Gulf of Carpentaria)
- 3b. Dorsal-fin height less than, or equal to, length of head; pectoral-fin margin rounded; nasal barbel not extending beyond opercular margin, often falling far short of margin → 4

- 4a. Dorsal fin short, its height 50 to 70% of head length; eye small, its diameter 5 or more times in head length *Paraplotosus albilabris*
- 4b. Dorsal-fin height 75 to 100% of head length; eye larger, its diameter 4 times or less in head length *Paraplotosus muelleri*
(northern Australia, from Dampier Archipelago to the Gulf of Carpentaria)

- 5a. Nasal and maxillary barbels long, reaching at least to pectoral-fin base; body uniform in colour, without stripes; total fin rays in confluent median fins 247 to 281 *Plotosus canius*
- 5b. Nasal and maxillary barbels short, reaching to, or only slightly past, posterior margin of eye; body usually with 2 or 3 whitish stripes, 2 of which extend onto head; total fin rays in confluent median fins 139 to 200 *Plotosus lineatus*

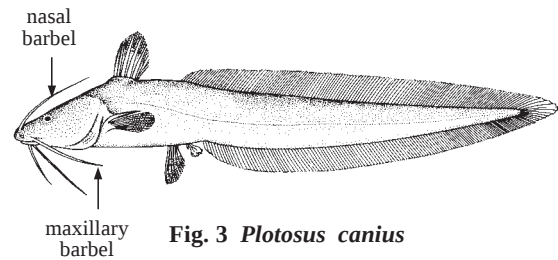


Fig. 3 *Plotosus canius*

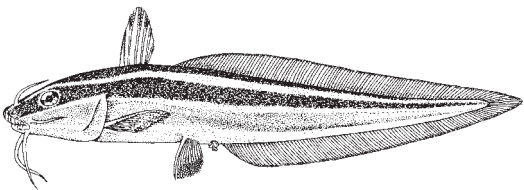


Fig. 4 *Plotosus lineatus*

List of species occurring in the area

The symbol ➦ is given when species accounts are included.

- Euristhmus lepturus* (Günther, 1864) (Australia and New Guinea)
- Euristhmus nudiceps* (Günther, 1880) (Australia and New Guinea)
- ➦ *Paraplotosus albilabris* (Valenciennes, 1840)
- Paraplotosus butleri* Allen, 1998
- Paraplotosus muelleri* (Klunzinger, 1880)
- ➦ *Plotosus canius* Hamilton, 1822
- ➦ *Plotosus lineatus* (Thunberg, 1787)

References

Allen, G.R. 1998. A review of the marine catfish genus *Paraplotosus* (Plotosidae) with the description of a new species from north-western Australia. *Raffl. Bull. Zool.*, 46(1):123-134.

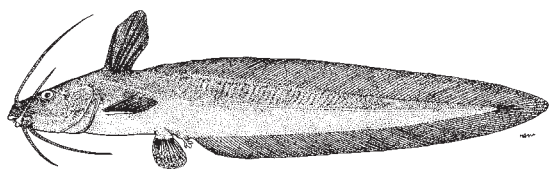
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Weber, M. and L.F. de Beaufort. 1913. The fishes of the Indo-Australian Archipelago. II - Malacopterygii, Myctophoidae, Ostariophysi: I, Siluroidea. Leiden, E.J. Brill Ltd., 404 p.

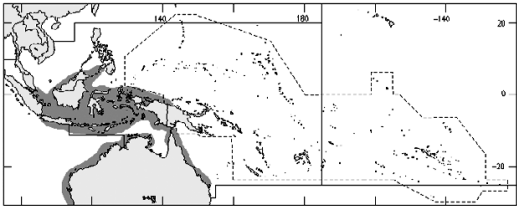
***Paraplotosus albilabris* (Valenciennes, 1840)**

En - Whitelipped eel catfish.

Maximum length about 130 cm, usually 40 cm or less. Nearshore; reefs and open coastal areas. Adults solitary or in small groups, usually beneath ledges or in recesses in reef. Spines associated with anterior fins have potent venom. Indo-Australian Archipelago northward at least to Sulu Archipelago, western New Guinea, Australia from southern part of Western Australia to southern part of Great Barrier Reef.



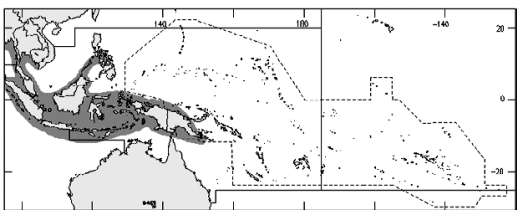
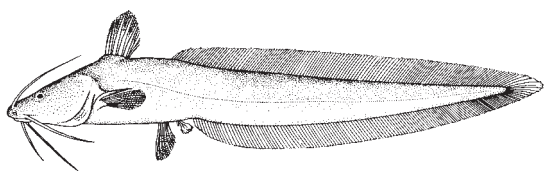
(after Weber and de Beaufort, 1913)



***Plotosus canius* Hamilton, 1822**

En - Eel catfish; **Fr** - Balibot canin; **Sp** - Patuna canina.

Maximum length about 150 cm, usually 80 cm or less. Nearshore; usually in lagoons and estuaries; sometimes found in rivers. Juveniles may form dense aggregations. Incidental catch in seines, trawls, and by hook-and-line. Spines associated with anterior fins have potent venom. Indo-Australian Archipelago north to central Philippines, Southern India, Sri Lanka, Myanmar, New Guinea, and northern Australia.



***Plotosus lineatus* (Thunberg, 1787)**

En - Striped eel catfish; **Fr** - Balibot rayé; **Sp** - Patuna rayada.

Maximum length about 30 cm. Nearshore; reefs, open coastal areas, and estuaries. Adults solitary or in small groups, usually beneath ledges or in recesses in reef; juveniles form dense aggregations in open areas. Incidental catch in beach seines, trawls and by hook-and-line. Spines associated with anterior fins have potent venom. Widespread throughout Indo-Pacific eastward to Andesite line.

