

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

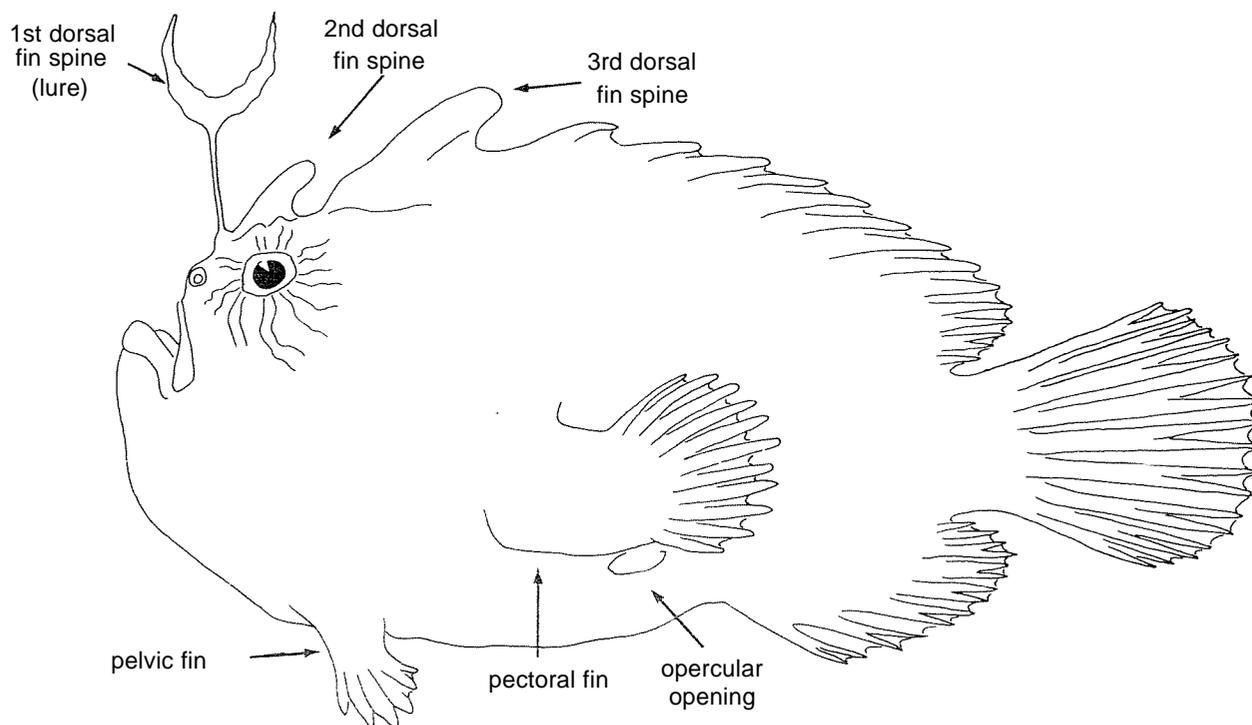
ANTENNARIIDAE

Frogfishes (also sea mice, anglerfishes)

Body short, globose, slightly compressed. Mouth large, oblique to vertical, with numerous, small, villiform teeth. Opercular (gill) opening restricted to a small pore located behind and below pectoral fin base. First dorsal fin spine free and modified as a lure, second and third dorsal fin spines also free from rest of fin, well-developed, and covered by skin; pectoral fin lobe elongate, leg-like. Skin spinulose or naked, often with membranous filaments or flaps.

Colour usually in two phases: a more common light phase with light tan to yellow, brown or rust background usually overlaid with black, brown, pink, or bright yellow streaks, bars, and/or spots on head, body and fins; a dark phase with dark brown to black background with streaks, bars, or spots showing through as deeper black, tips of rays of paired fins often white.

Frogfishes spend the greater part of their lives squatting on the bottom in shallow water or, as in the case of *Histrio*, clinging in floating Sargassum weed. Despite their sedentary nature, nearly all are voracious carnivores that sit quietly waiting for smaller fishes to pass by at which time they enticingly wriggle their bait to attract the potential prey to their cavernous mouths. Some frogfishes may reach sizes to over 50 cm total length, but besides their value in the aquarium trade, they are of no significant economic interest in the Western Indian Ocean where they are caught incidentally in bottom trawls and said to be utilized for fishmeal. Some species are occasionally eaten by local populations in the Caribbean and Indo-West Pacific.



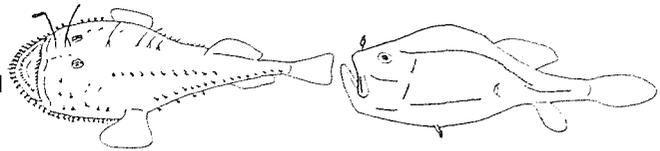
SIMILAR FAMILIES OCCURRING IN THE AREA:

Lophiidae: body greatly depressed (flattened dorsoventrally), not globose.

Chaunacidae: second and third dorsal fin spines reduced and embedded beneath skin.

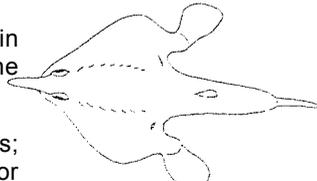
Ococephalidae: remnant of second dorsal fin spine embedded beneath skin, third dorsal fin spine absent; body greatly depressed, not globose.

Bathypelagic anglerfish families: no pelvic fins; second and third dorsal fin spines greatly reduced or absent.

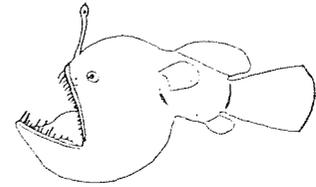


Lophiidae

Chaunacidae



Ococephalidae



Bathypelagic anglerfish families

KEY TO GENERA OCCURRING IN THE AREA:

1a. Skin naked, but often with membranous filaments or flaps; pectoral fin lobe free from body (Fig.1); associated with floating Sargassum weed Histrio

1b. Skin spinulose; pectoral fin lobe broadly connected to body (Fig.2); associated with mud, sand, rock or coral substratum

2a. A filamentous or bulbous bait present at tip of first dorsal fin spine Antennarius

2b. Bait absent, first dorsal fin spine tapering to a fine point Antennatus

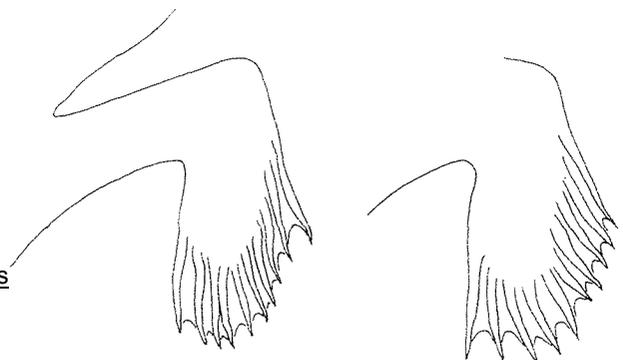


Fig.1

Fig.2

pectoral fins

LIST OF SPECIES OCCURRING IN THE AREA :

- Antennarius coccineus (Cuvier, in Lesson, 1831)
- Antennarius commersoni (Latreille, 1804)
- Antennarius dorehensis Bleeker, 1859
- Antennarius hispidus (Bloch & Schneider, 1801)
- Antennarius indicus (Schultz, 1964)
- Antennarius nummifer (Cuvier, 1817)
- Antennarius pictus (Shaw & Nodder, 1794)
- Antennarius rosaceus Smith & Radcliffe, 1912
- Antennarius striatus (Shaw and Nodder, 1794)

Antennatus tuberosus (Cuvier, 1817)

Histrio histrio (Linnaeus, 1758)

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Original illustrations provided by author

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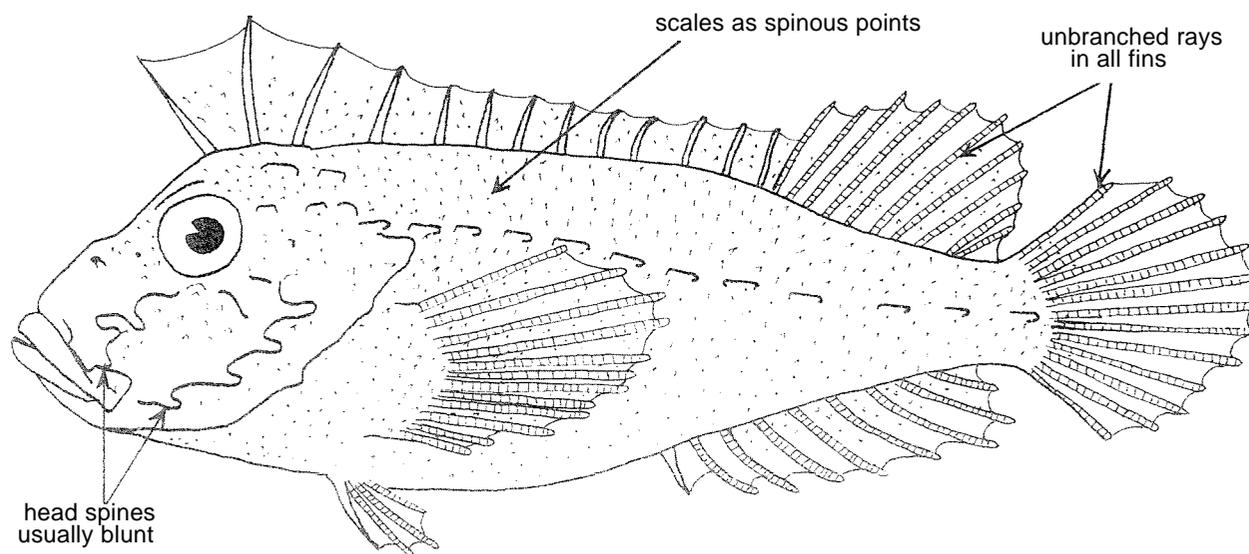
APLOACTINIDAE*

Velvetfishes

Small bottom fishes, with large heads, most with an oblong, compressed body, others more robust, elongate. A small fleshy, papillose extension on anterior part of isthmus (except where gill slits are restricted); a ridge of bone (suborbital stay) extends back under eye to preopercle; preopercular margin with 1 to 5 spines; spines on head usually blunt; lacrimal bone usually movable, with well developed spines; mouth terminal; small villiform teeth on premaxillae, mandible, and vomer; palatines toothless; gillrakers shaped as short knobs; no slit behind last gill arch; pseudobranch much reduced, with 0 to 10 filaments. Segmented rays in all fins simple, unbranched; dorsal fin continuous, originating over, or anterior to eye, with 9 to 16 spines and 7 to 11 segmented rays; dorsal fin membrane connected to caudal peduncle posteriorly; 1 or 2 well developed spines in anal fin; pectoral fins usually large, rounded, and fan-like, with 9 to 14 rays; pelvic fins thoracic, with 1 spine and 2 or 3 segmented rays; caudal fin rounded. Body usually covered with modified scales that form spinous points.

Colour: usually brown or reddish brown, often mottled with spots or bars of darker brown pigment on a light background. Colour not known, for most species.

Bottom-living fishes found primarily near shore to depths of about 100 m. About 40 species are described in the family which is distributed in the Indo-Pacific, primarily on the continental shelf. Not utilized commercially. Curious highly specialized cryptic fishes of unusual morphology. Closely related to the Scorpaenidae and considered part of this family by some authors. Some species have venomous spines and should be handled with extreme caution. Wounds can result in intense pain and swelling. Immerse wounded area in hot water to help relieve pain. See a doctor for treatment of shock or infection.

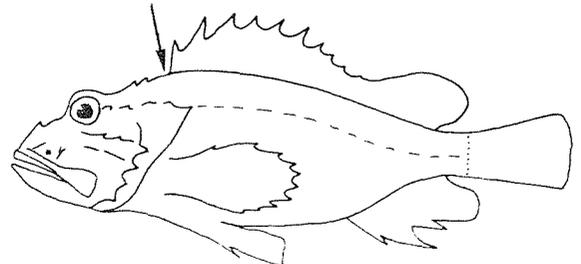


* Family diagnosis does not apply to some genera outside of Western Indian Ocean.

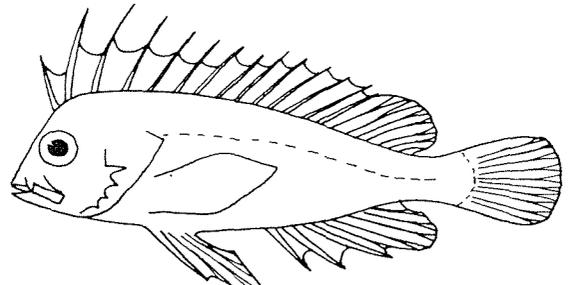
SIMILAR FAMILIES OCCURRING IN THE AREA:

Scorpionfishes, stingfishes, stonefishes, and wasp-fishes (family Scorpaenidae): have a suborbital stay but scales, if present, do not form spinous points (except in Taenianotus). Dorsal fin originates before eye in wasp-fishes (tetrarogine scorpaenids) but in these species all spines are sharp and there is no fleshy extension on the anteriormost part of the isthmus. Pelvic fins with 1 spine and 3 to 5 segmented rays (1 spine and 2 or 3 segmented rays in Aploactinidae); caudal fin rays always branched (except in Coccotropsis and Minous); other fins, except pectorals, usually with branched rays (all segmented rays unbranched in Aploactinidae). Eyes on top of head or lower pectoral fin rays detached in some species (never true of Aploactinidae).

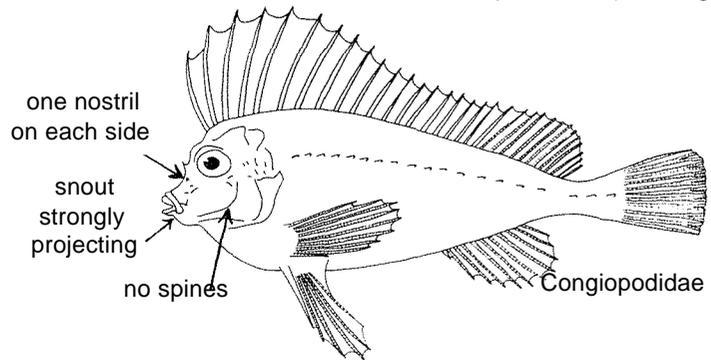
Horsefishes (Congiopodidae): also have a suborbital stay and spinous points on scales, but have a strongly projecting snout, branched rays in the caudal fin (other fins with unbranched rays as in Aploactinidae), pelvic fins with 1 spine and 5 segmented rays, one nostril on each side (2 in Aploactinidae), and no spines on margin of preopercle.



Scorpaenidae (Scorpaeninae)



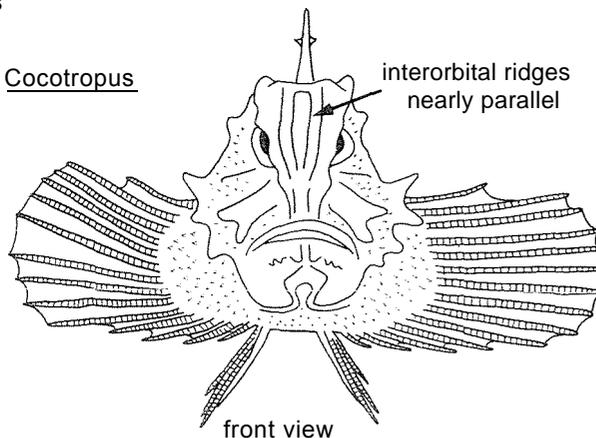
Scorpaenidae (Tetraroginae)



KEY TO THE GENERA OCCURRING IN THE AREA:

1a. Pelvic fins with 1 spine and 3 segmented rays; scales densely covering body; each scale forming a spinous point; 11 to 14 pectoral fin rays

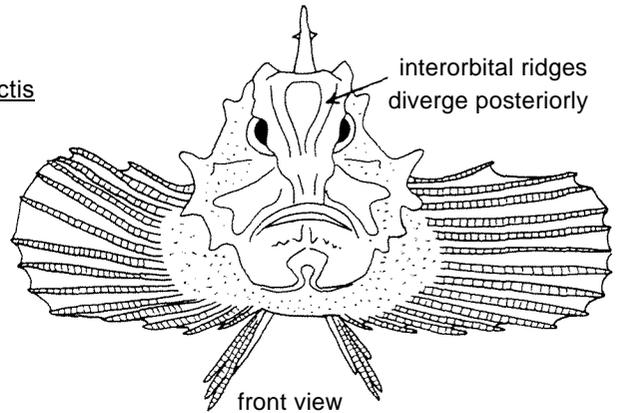
2a. Interorbital ridges parallel or converging posteriorly (Fig.1) Cocotropus



Cocotropus

Fig.1

2b. Interorbital ridges strongly diverging posteriorly (Fig.2) Paraploactis



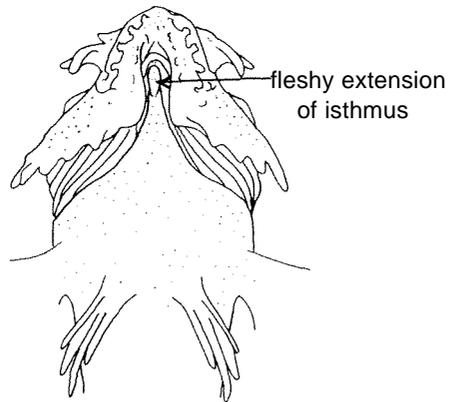
interorbital ridges diverge posteriorly

Paraploactis

Fig.2

1b. Pelvic fins with 1 spine and 2 segmented rays; scales on body absent or extremely small and sparse; 9 or 10 pectoral fin rays

3a. Gill openings not restricted to side of head; isthmus with fleshy papillose extension (Fig. 3); preorbital spines small, sharp; preopercular spine(s) weakly developed; body extremely compressed; dorsal, anal, and pelvic fin spines sharp, each spine with conspicuous venom gland; anal fin with 2 spines and 4 to 7 segmented rays (Fig.4)..... Ptarmus

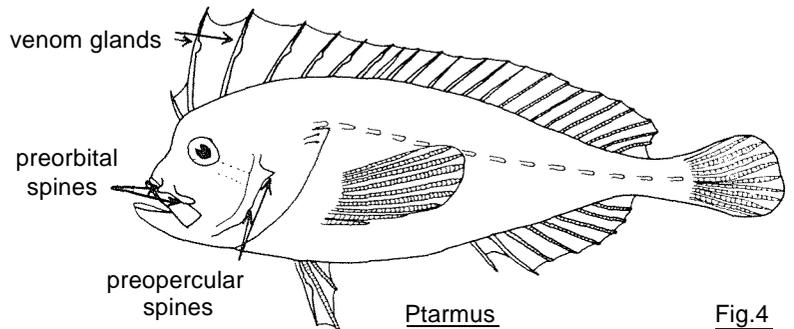


fleshy extension of isthmus

Ptarmus

Fig.3

3b. Gill openings restricted to sides of head; isthmus without papillose extension; 2 preorbital spines, enormous relative to head, blunt; preopercular spines well developed; body not extremely compressed; dorsal, anal and pelvic fin spines blunt, without conspicuous venom glands; anal fin with 1 spine and 6 to 8 segmented rays (Fig.5) Acanthosphex



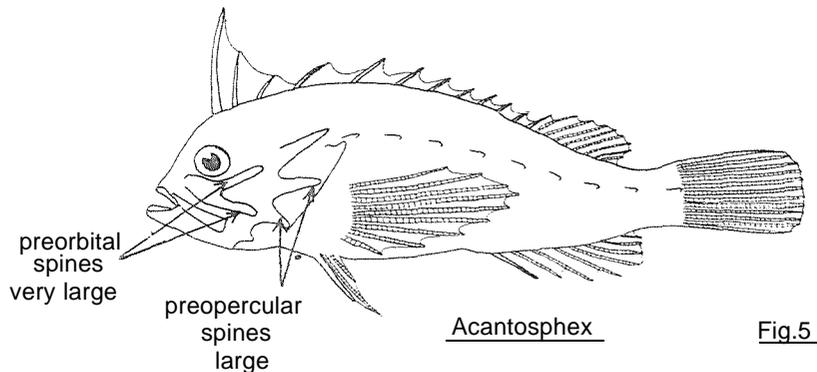
venom glands

preorbital spines

preopercular spines

Ptarmus

Fig.4



preorbital spines very large

preopercular spines large

Acanthosphex

Fig.5

LIST OF SPECIES OCCURRING IN THE AREA: *

Acanthosphex leurynnis (Jordan & Seale, 1905)**

Cocotropus dermacanthus (Bleeker, 1852)

Cocotropus monacanthus (Gilchrist, 1906)

Cocotropus roseus Day, 1878

Cocotropus steinitzi Eschmeyer & Dor, 1978

Paraploactis taprobanensis (Whitley, 1933)

Ptarmus gallus (Kossman & Räuber, 1877)

Ptarmus jubatus (Smith, 1935)

Prepared by S.G. Poss, California Academy of Sciences, Golden Gate Park, San Francisco, California 94118, USA

Original figures provided by author

* Does not include undescribed species. All members of this poorly known family are extremely rare. Users of the Identification Sheets are urged to send any specimens of this group to S.G. Poss for taxonomic study

**Possibly represents a distinct family (Bathyploactinidae) closely allied to the Aploactinidae