

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

GRAMMISTIDAE

Soapfishes

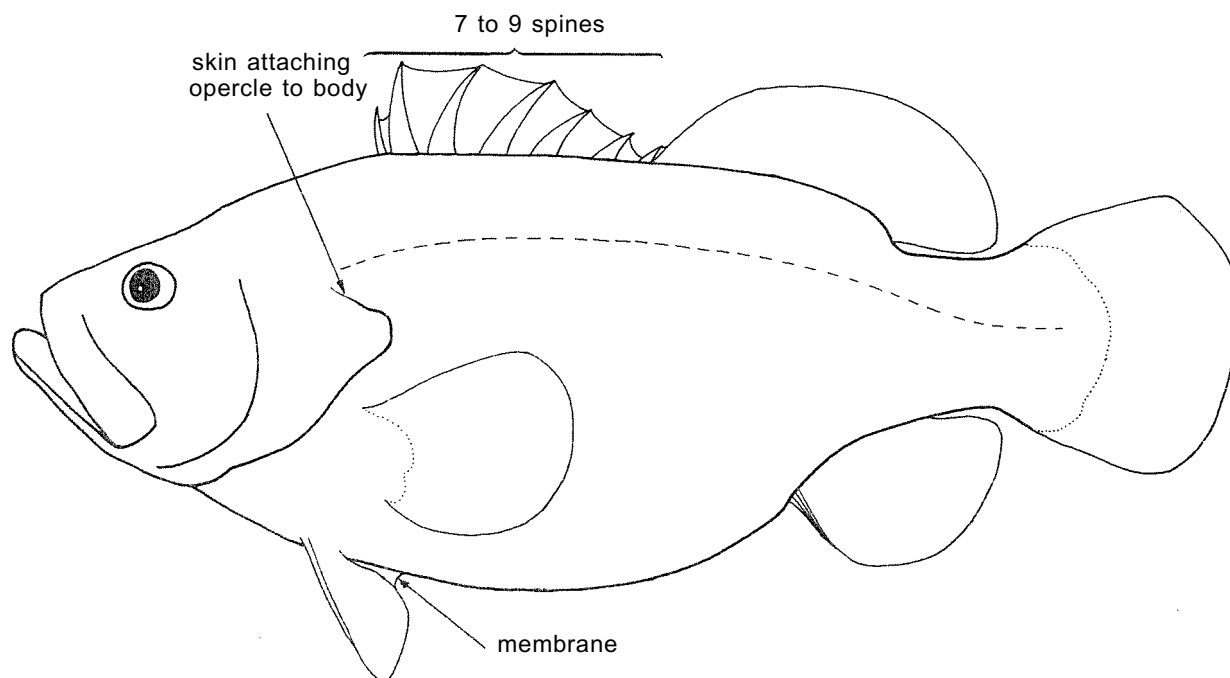
Oblong, compressed fishes with a grouper-like appearance. Mouth large, the lower jaw projecting, the maxilla reaching to or posterior to a vertical at centre of eye; teeth in villiform bands in the jaws, and on roof of mouth (vomer and palatines); branchiostegal rays 7; opercle with 3 spines; margin of preopercle either strongly serrate or with 1 to 4 spines; upper border of opercle attached to body with a flap of skin. One or 2 dorsal fins, the spines varying in number from 7 to 9 (but 2 to 4 in the New World genus Rypticus; anal fin spines 2 or 3 (sometimes buried; none in Rypticus); pelvic fin rays with 1 spine and 5 soft rays, the last ray broadly joined to abdomen by a membrane. A single, complete lateral line. Scales small, often embedded; skin with a thick coat of viscid mucus containing the toxin grammistin.

Colour: highly variable with species.

Soapfishes are named for the copious quantities of mucus they secrete from their skin, particularly when disturbed. If confined in an aquarium and placed under stress, the surface of the water will become frothy from the mucus; soon all fishes except the soapfishes in the tank will die from the grammistin. The toxin-reproducing glands are unicellular in the epidermis of the more primitive genera of the family, Diploprion, Aulacocephalus and Belonoperca. In the more advanced genera such as the monotypic Grammistes and Pogonoperca, the glands are multicellular in the dermis with a duct leading to the surface. The grammistin-laden mucus imparts a bitter taste to the skin which serves to deter the predators.

All Indo-Pacific soapfishes are reef-dwelling species. They tend to hide in caves or beneath ledges by day but emerge at dusk. All are carnivorous. Of negligible commercial importance due to their relatively small size (the maximum total length of the largest species is 33 cm) and infrequent occurrence in commercial landings.

Some authors prefer to classify the soapfishes in the family Serranidae.

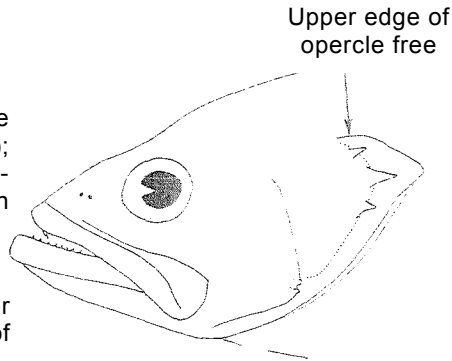


SIMILAR FAMILIES OCCURRING IN THE AREA:

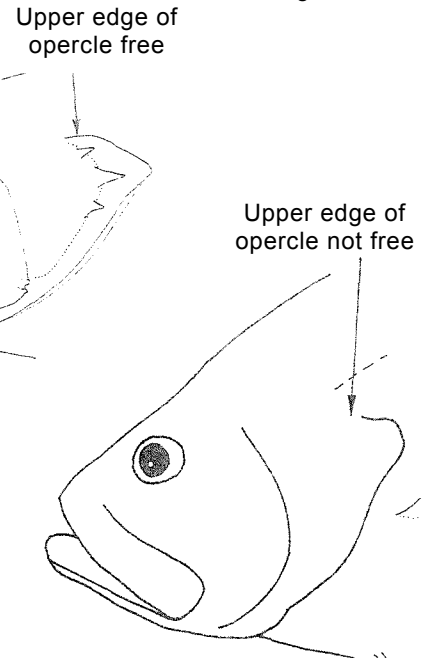
Serranidae: upper edge of opercle free (joined to body by membrane in Grammistidae); most serranids with 9 to 11 dorsal spines (all grammistids except Aulacocephalus and Belonoperca with fewer than 9 dorsal spines); no grammistin.

Pseudogrammidae: lateral line interrupted or incomplete; a single enlarged spine at upper end of preopercular border; vertebrae 26 to 28; no grammistin-secreting glands in skin. Small fishes, less than 9 cm standard length.

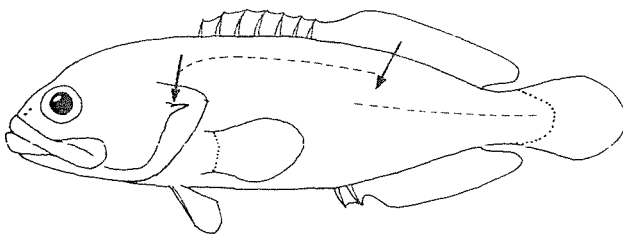
Pseudochromidae: lateral line interrupted; 2 genera in Western Indian Ocean, Pseudochromis, with 3 dorsal spines and 26 vertebrae and Pseudolesios with 2 dorsal spines and 27 vertebrae; no grammistin. Small fishes, less than 7.5 cm standard length.



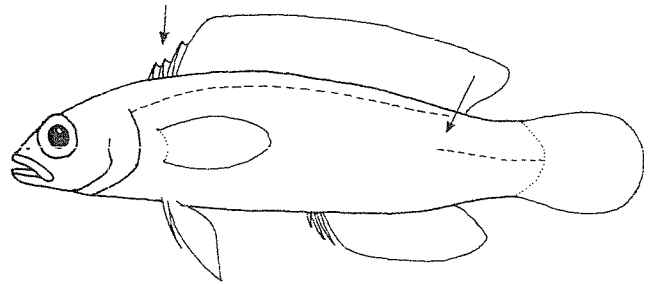
Serranidae



Grammistidae



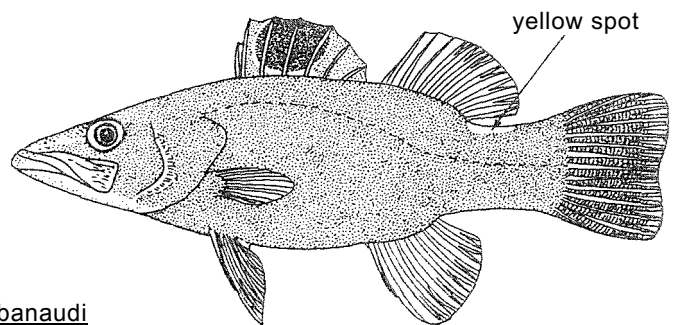
Pseudogrammidae



Pseudochromidae

KEY TO SPECIES OCCURRING IN THE AREA:

- 1a. Scales mainly ctenoid, not embedded; preopercular margin strongly serrate; subopercle and interopercle partially serrate; nasal organ with lamellae arranged in a nearly complete circle
- 2a. Two separate dorsal fins; caudal fin truncate to slightly emarginate; colour dark brown, with a saddle-like bright yellow spot dorsally on caudal peduncle (Fig.1) Belonoperca chabanaudi
- 2b. A single dorsal fin, though deeply notched between spinous and soft portions; caudal fin rounded; colour not as in 2a (Figs 2,3)

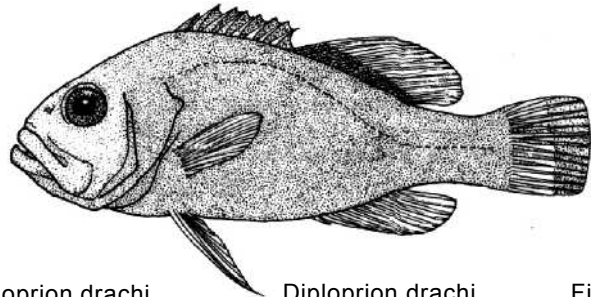


Belonoperca chabanaudi

Fig.1

- 3a. Dorsal fin with 8 spines and 13 to 16 soft rays; anal fin with 2 spines and 12 or 13 soft rays; pelvic fins long, reaching posteriorly to anus; body very compressed, the width 3.3 to 4 times in depth; colour bluish-grey with some yellow on side of head; spinous portion of dorsal fin and base of soft portion of dorsal fin black (Fig.2)

Diploprion drachi

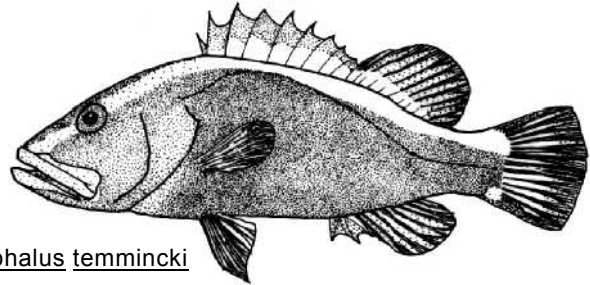


Diploprion drachi

Fig.2

- 3b. Dorsal fin with 9 spines and 12 soft rays; anal fin with 3 spines and 9 soft rays; pelvic fins not long, not reaching anus; body not very compressed, the width about 2.8 times in depth; live colour bright blue, with a bright yellow band from near front of upper jaw through eye, along upper part of back and basally in dorsal fin to upper base of caudal fin (Fig.3) ..

Aulacocephalus temmincki



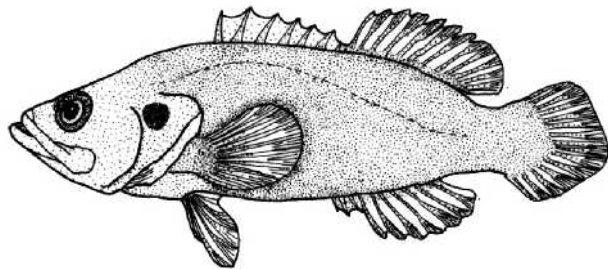
Aulacocephalus temmincki

Fig.3

- 1b. Scales cycloid, often embedded; preopercular margin smooth except for 1 to 4 spines on upper limb; subopercle and interopercle smooth; nasal organ vertically elongate, the lamellae horizontal

- 4a. No fleshy flap on chin; pectoral fin rays 14 or 15; dorsal soft rays 12 (rarely 13); first dorsal fin spine 1.2 to 1.5 times in length of second dorsal spine; Scales extending onto proximal portion of posterior dorsal rays beyond basal scaly sheath; colour grey brown, the head yellowish in life, with a prominent ocellus nearly as large as eye on opercle (Fig.4)

Grammistops ocellatus



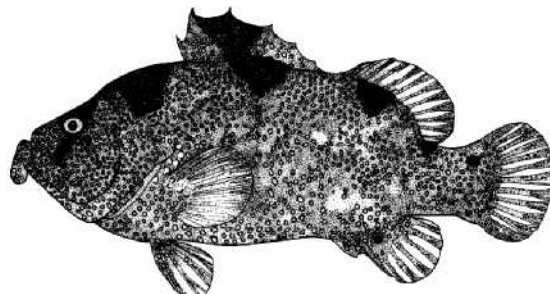
Grammistops ocellatus

Fig.4

- 4b. A fleshy flap on tip of chin; pectoral fin rays 16 to 18; dorsal soft rays 13 or 14; first dorsal spine about 1.7 times in length of second dorsal spine; no scales extending beyond basal scaly sheath of dorsal and anal fins

- 5a. Fleshy flap on chin large, about as long as eye diameter; anal fin with 3 spines and 8 soft rays; colour brownish with numerous, small, dark-edged white spots on head, body and basally on fins; 4 triangular black saddles on back (Fig.5)

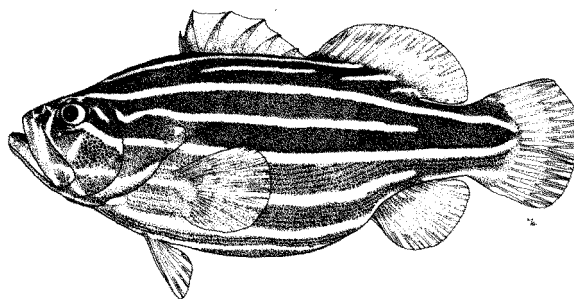
Pogonoperca punctata



Pogonoperca punctata

Fig. 5

- 5b. Fleshy flap on chin very small; anal fin with 2 spines and 9 soft rays; colour dark brown to black with yellow longitudinal stripes (Fig.6) Grammistes sexlineatus



Grammistes sexlineatus

Fig.6

LIST OF SPECIES OCCURRING IN THE AREA :

Code numbers are given for those species for which Identification Sheets are included

Aulacocephalus temmincki Bleaker, 1857

belonoperca chabanaudi Fowler à Bean, 1830

Diploprion drachi Estève, 1955

Grammistes sexlineatus (Thunberg, 1792)

GRAMMIST Gram 1

Grammistops ocellatus Schultz, 1958

Pogonoperca punctata (Cuvier & Valenciennes,, 1830)

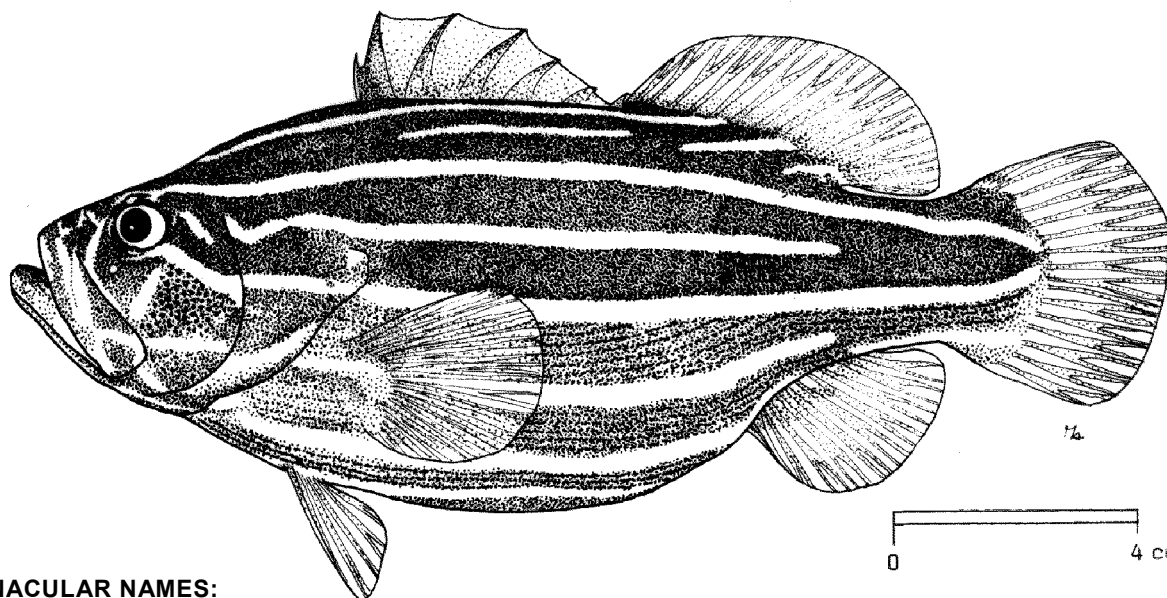
GRAMMIST Pog 1

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: GRAMMISTIDAE

FISHING AREA 51
(W. Indian Ocean)*Grammistes sexlineatus* (Thunberg, 1792)

OTHER SCIENTIFIC NAMES STILL IN USE: None



VERNACULAR NAMES:

FAO : En - Golden-striped soapfish
 Fr - Savon raies d'or
 Sp - Jabonero de rayas doradas

NATIONAL:

DISTINCTIVE CHARACTERS:

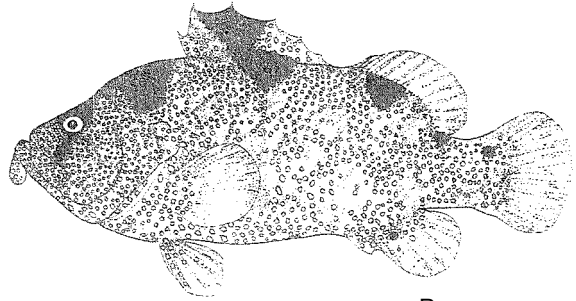
Body oblong, the depth contained 2.3 to 2.8 times in standard length. Mouth large, the maxilla extending posterior to centre of eye; upper preopercular margin with 2 to 4 broad-based spines; margins of subopercle and interopercle smooth; a small fleshy flap (smaller than pupil of eye) on tip of chin. Dorsal fin with 7 spines and 13 or 14 rays, the spinous portion separated from the soft portion by a deep notch; anal fin with 2 spines and 9 rays; pectoral fin rays 16 to 18; pelvic fins short, 1.8 to 2.5 times in head length; caudal fin rounded.

Colour: dark brown to black with yellow stripes (3 in juveniles of about 5 cm standard length, increasing to 8 in large adults; stripes breaking into a series of dashes on very large adults).

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Pogonoperca punctata: fleshy flap on chin large; anal fin with 3 spines and 8 soft rays (2 spines and 9 rays in *G. sexlineatus*); brown with white dots and 4 triangular black saddles on back.

Aulacocephalus temminckii: dorsal fin with 9 spines and 12 soft rays (7 spines and 13 or 14 soft rays in *G. sexlineatus*); no fleshy flap on chin deep blue with a yellow band from snout through eye and along back to upper base of caudal fin.



Pogonoperca punctata

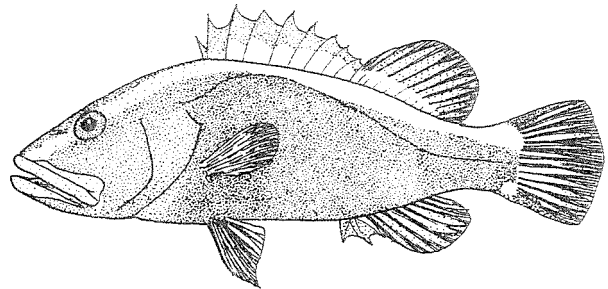
SIZE:

Maximum: 28 cm; common to 18 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

The most broadly distributed species of soapfish. Within the area, along East Africa from Durban northward, in the Red Sea, around Western Indian Ocean islands and off Sri Lanka. Outside the area, it extends eastward to French Polynesia.

Inhabits coral reefs and rocky bottoms where there is good shelter, often in surprisingly shallow water, Carnivorous.



Aulacocephalus temminckii

PRESENT FISHING GROUNDS:

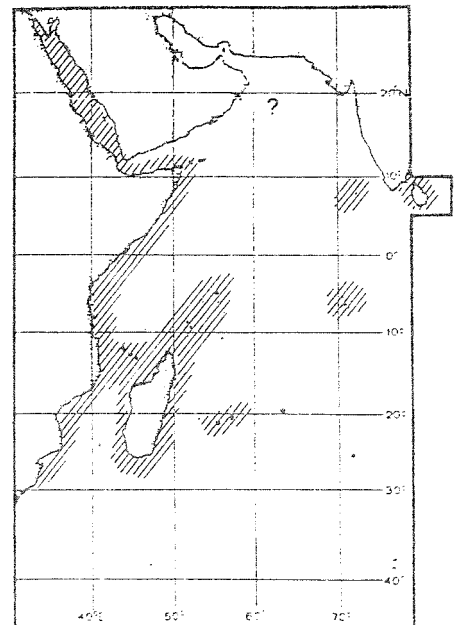
Taken incidentally throughout its range. Of relatively little commercial importance.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

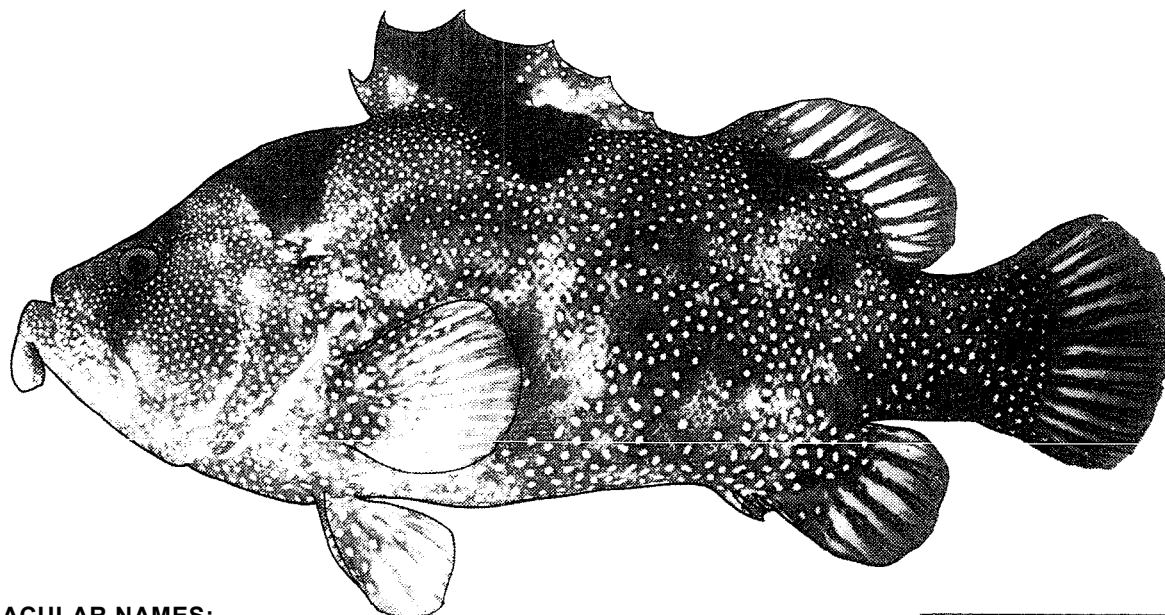
Caught with hook and line and in traps

Marketed fresh.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: GRAMMISTIDAE

FISHING AREA 51
(W. Indian Ocean)Pogonoperca punctata (Cuvier, & Valenciennes, 1830)OTHER SCIENTIFIC NAMES STILL IN USE: Pogonoperca ocellata Günther, 1859

VERNACULAR NAMES:

FAO : En - Bearded soapfish
 Fr - Savon barbu
 Sp - Jabonero barbón



NATIONAL:

DISTINCTIVE CHARACTERS:

Body oblong, the depth contained 2.2 to 2.7 times in standard length. Mouth large, the maxilla extending to or slightly beyond a vertical through centre of eye; upper preopercular margin with 3 to 5 short spines; margins of subopercle and interopercle smooth; a flat fleshy flap as large as eye oriented transversely on tip of chin. Dorsal fin with 8 spines and 12 or 13 rays, the spinous portion nearly separated from the soft portion by a deep notch; anal fin with 3 spines and 8 soft rays; pectoral fin rays 17 or 18; pelvic fins short, 1.7 to 2 times in head length; caudal fin rounded.

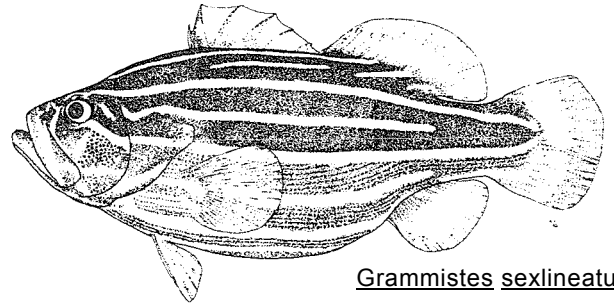
Colour: brown, somewhat blotched, with numerous dark-edged small white spots on head, body and basally on fins; 4 triangular black saddles on back, the first on nape and the last (smallest) anteriorly on caudal peduncle.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

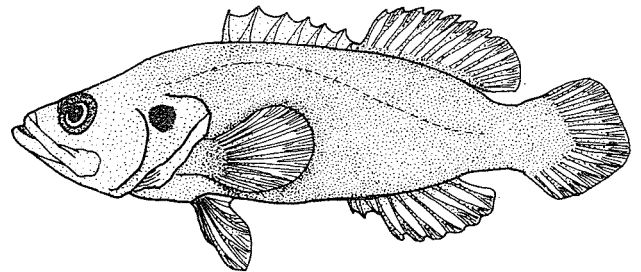
Grammistes sexlineatus: fleshy flap on chin small; anal fin with 2 spines and 9 soft rays (3 spines and 8 rays in P. punctata); dark brown to black with yellow stripes.

Grammistops ocellatus: no fleshy flap on chin; dorsal fin spines 7 (8 in P. punctata); grey-brown, the head yellowish in life, with a dark ocellus nearly as large as eye on opercle.

Diploprion drachi: dorsal soft rays 15 or 16 (12 or 13 in P. punctata); anal fin with 2 spines and 12 soft rays; pectoral fin rays 15 or 16; no fleshy flap on chin; pelvic fins long, reaching to or beyond anal fin; bluish grey, the front of the head orange-yellow; spinous part of dorsal fin and base of soft portion black. Restricted to the Red Sea and the Gulf of Aden.



Grammistes sexlineatus



Grammistops ocellatus

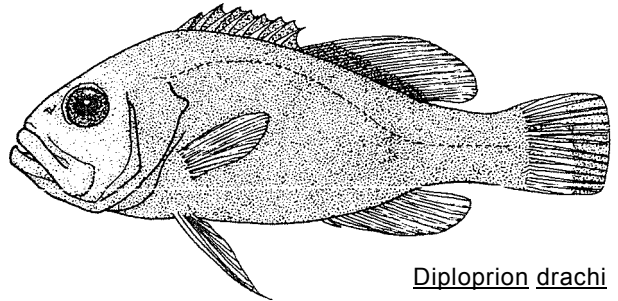
SIZE:

Maximum: 33 cm; common to 22 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, recorded from Madagascar, the Seychelles, Farquhar Islands, Réunion and Mauritius; also found in the Eastern Indian Ocean and Western Central Pacific, extending eastward to the Society Islands.

Occurs on coral reefs.



Diploprion drachi

PRESENT FISHING GROUNDS:

Taken incidentally throughout its range. Not common. Although the largest of the soapfishes, it is of little commercial importance because it is seldom caught.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught incidentally with hook and line or in traps.

Marketed fresh.

