

NEW RECORDS OF FISHES FROM THE SEAS AROUND INDIA—  
PART VI

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THE present account is the sixth part of the series (Parts I to V appeared in Vols. 6(2): 285-308, 1965; 7(1): 108-123, 1965; 7(2): 381-400, 1965; 8(1): 163-180, 1966 and 9(1): 1-12, 1967 respectively of the same Journal) giving information on the new records of fishes from the seas around India. All the species recorded herein were collected from Minicoy Island in the Laccadive Archipelago. In the previous five parts 99 species belonging to 38 families were recorded and in this paper 11 species not hitherto recorded from the Central Indian Ocean and one new species are briefly described and figured. The distribution given for the different species relates to the previous records.

Family : MURAENIDAE

1. *Enchelynassa canina* (Quoy and Gaimard) (Fig. 1)

*Muraena canina* Quoy and Gaimard, *Voy. Uranie, Zoology*, p. 247, 1824.

*Enchelynassa canina* Smith, *Ichth. Bull.*, 23, p. 430, pl. 54, B, 1962.

*Muraena (Enchelynassa) canina* Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 3, p. 390, fig. 191 and 192, 1916.

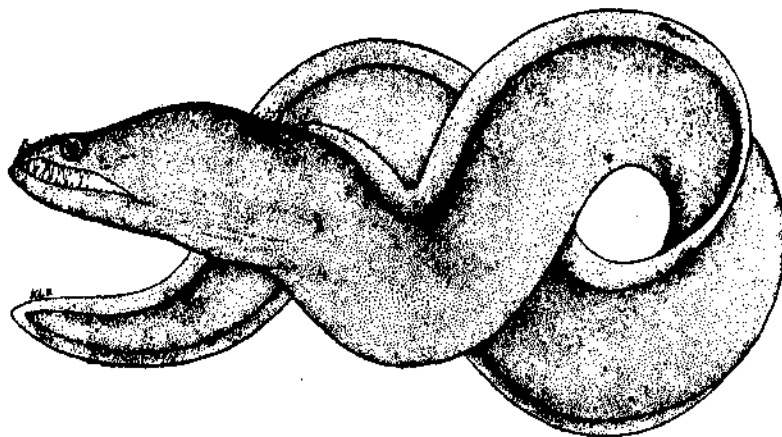


FIG. 1, *Enchelynassa canina* (Quoy and Gaimard), 890 mm.

Head 7.3-7.5, depth of body 14-14.7, both in total length. Tail one-fourth of length of head shorter than head and trunk. Eye 10.5-11.2 in head, 1.8-2 in snout

and 1.3-1.4 in interorbital space. Anterior nostrils with a low rim and a curled bilobed flap behind. Posterior nostrils with elevated membranous rim, between anterior nostrils and eye, its diameter slightly less than eye. Cleft of mouth 2.1-2.2 in head. Origin of dorsal before a level from the gill openings. Two series of compressed teeth on the maxillary, the anteriormost small, the inner series large depressible fangs. A single series of teeth on the intermaxillary with two median depressible fangs. A single series of large teeth on the mandibles and an inner series of 3 large depressible fangs anteriorly. Two conical teeth on vomer. Colour: Uniform dark brown; dorsal and anal fins lighter posteriorly.

*Material*: Minicoy, 2 specimens, 840 and 890 mm.

*Distribution*: Previously recorded from Mauritius, Indonesia, Samoa, Tahiti, Raiatea, Hawaii, Marshall Islands and Phoenix Islands. This is the first record from the Central Indian Ocean.

#### Family: ECHELIDAE

#### 2. *Muraenichthys macropterus* Bleeker (Fig. 2)

*Muraenichthys macropterus* Bleeker, *Act. Soc. Sc. Indo-neerl.*, 2, p. 91, 1857. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 3, p. 275, 1916. Smith, *Ichth. Bull.*, 24, p. 461, fig. 7, 1962.

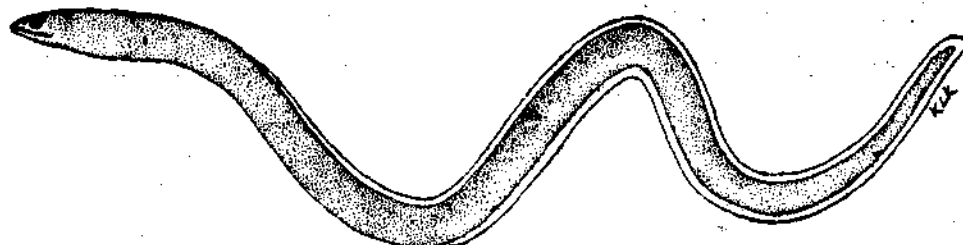


FIG. 2. *Muraenichthys macropterus* Bleeker, 255 mm

Head 10.5, depth of body 32, both in total length. Head 2.9 in trunk. Eye 11.5 in head and 1.7 in snout. Head and trunk 1.6 in tail. Anterior nostrils tubular, near front of snout. Posterior nostrils on upperlip, with valvular flap below front edge of eye. Teeth small, subconical in maxillary and mandibles. A single series of teeth on vomer. Origin of dorsal nearer to eye than to vent. Caudal confluent with dorsal and anal. Colour: Pale yellowish.

*Material*: Minicoy, 1 specimen, 255 mm

*Distribution*: Mozambique, Indonesia, Philippines, Japan, New Caledonia, Marshall Islands, Tongatabu and Australia. This is the first record from the Central Indian Ocean.

## Family : PSEUDOGRAMMIDAE

3. *Aporops allfreei* Smith (Fig. 3)

*Aporops allfreei* Smith, *Ann. Mag. Nat. Hist.*, 12(6), p. 553, fig. 2, 1953. Smith and Smith, *Fishes Seychelles*, p. 13, pl. 9, H, 1963.

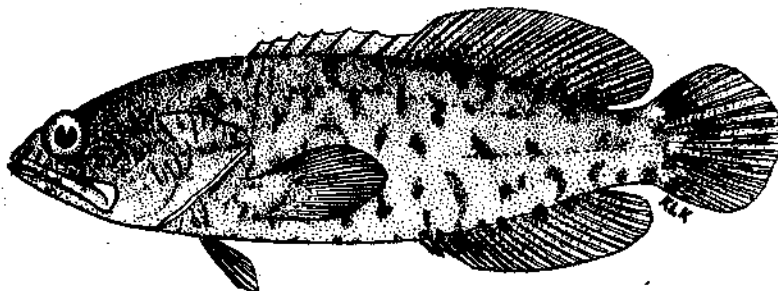


FIG. 3. *Aporops allfreei* Smith, 52 mm

D. VII, 22-23 ; A. III, 20-21 ; P. i, 16 ; V. I, 5. Ll. 40+30 ; Ltr. 7+1+28.  
GR. 4-5+1+5-6.

Head 2.6-2.7 in standard length, 3.2-3.3 in total length. Depth of body 3.5-3.7 in standard length, 4.3-4.5 in total length. Eye 4.8-5 in head, slightly more than snout and 0.4 in inter-orbital space. Mouth oblique, maxillary reaching far behind a vertical from the hind border of eye. Villiform band of teeth in jaws, vomer and palatines. A flat spine at upper angle of preopercle. Upper margin of opercular membrane joined to the shoulder by a membranous flap. Pectoral shorter than head without snout. Ventral longer than half length of postorbital part of head. Scales very small extending to basal part of fins. Dorsal lateral line reaching to below hind half of soft dorsal ; hinder lateral line beginning over origin of anal. Soft dorsal rays longer than dorsal spines. Second anal spine longer than third. Colour : Light brown with several irregular dark brown blotches on body and dark brown markings on head. A dark brown line along anterior margin of eye. Fins brownish.

Material : Minicoy, 2 specimens, 52 and 60 mm

Distribution : Known previously from Kisiti Island and Pemba off the east coast of Africa. This is the first record from outside the above area.

## Family : APOGONIDAE

4. *Foa brachygramma* (Jenkins) (Fig. 4)

*Fowleria brachygrammus* Jenkins, *Bull. U.S. Fish Comm.*, 22, p. 448, fig. 20, 1903.

*Foa brachygramma* Smith, *Ichth. Bull.*, 22, p. 383, pl. 48, C, 1961. Smith and Smith, *Fishes Seychelles*, p. 18, pl. 61, C, 1963.

D1. VII ; D2. I, 9 ; A. II, 8 ; P. ii, 10 ; V. I, 5. Ll. 9-10 ; Ltr. 1+1+6.

Head 2.4-2.6 in standard length, 3-3.3 in total length. Depth of body 2.2-2.4 in standard length, 2.8-3 in total length. Eye 3.3-3.4 in head, 0.6-0.7 in snout and 0.6 in interorbital space. Preopercle, opercle and suborbital entire. Maxilla

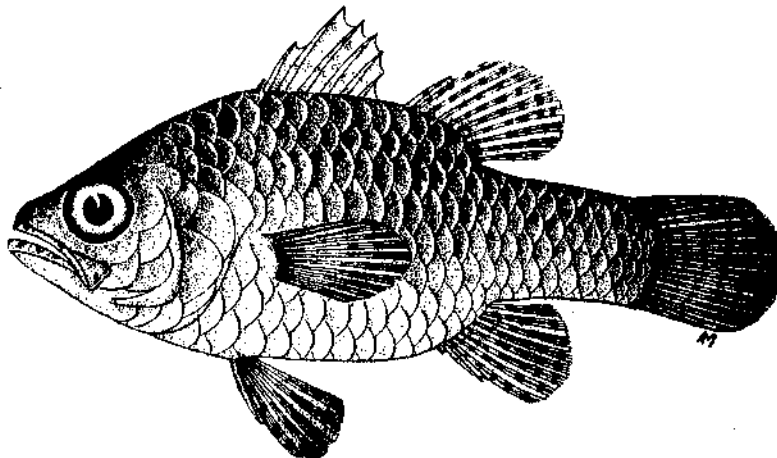


FIG. 4. *Foa brachygramma* (Jenkins), 41 mm

extending behind a vertical from the hind margin of pupil. Villiform bands of teeth in jaws and on vomer and a narrow band on palatines. Third dorsal spine longest, about 1.5 times eye. Second anal spine about equal to eye. Pectoral longer than postorbital length of head. Ventral as long as pectoral. Lateral line incomplete, ending below front rays of second dorsal. Colour: Yellowish brown. Dark spots on dorsal, anal and caudal. Ventral dark. Pectoral pale yellowish.

*Material*: Minicoy, 3 specimens, 34 to 41 mm

*Distribution*: Natal northwards to Mozambique and Kenya and Seychelles in the Western Indian Ocean and Hawaiian Islands and just south of Philippines in the Pacific. This is the first record from the Central Indian Ocean.

#### Family: POMACENTRIDAE

##### 5. *Abudefduf manikfani*, new species (Fig. 5)

*Holotype*.—Specimen measuring 53 mm in standard length collected from Minicoy on 10-12-1967 and kept in the reference collection of the Central Marine Fisheries Research Institute No. CMFRI-LA-F. 67/518.

*Paratypes*.—4 specimens measuring 31 to 48 mm in standard length collected from Minicoy on 10-12-1967 and kept in the reference collection of the Central Marine Fisheries Research Institute.

D. XII, 16-17; A. 11, 14; P. ii, 16, V. I, 5. Ll. 20-21+8-9; Ltr. 3+1+9.

Head 2.9-3.2 in standard length, 3.8-4.2 in total length. Depth of body 1.8-2 in standard length, 2.4-2.6 in total length. Eye 3-3.3 in head, 0.7-0.8 in snout and

1-1.1 in interorbital space. A single series of slender, compressed teeth in jaws. Preorbital, suborbital, preopercle, opercle, subopercle and interopercle without any serrations. Scales on head reaching to nostrils. Preorbital naked. First spine

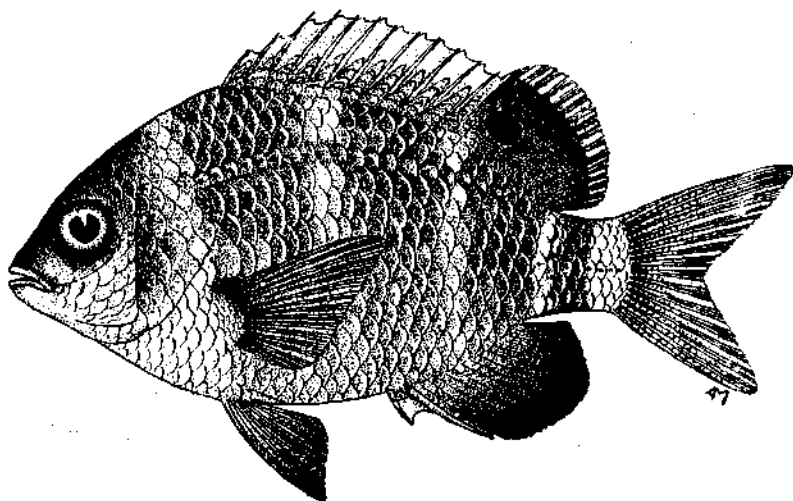


FIG. 5. *Abudedefduf manikfani*, new species, 53 mm.

of dorsal slightly shorter than eye diameter, third or fourth dorsal spine longest, slightly shorter than snout and eye together. Second anal spine as long as third dorsal spine. Pectoral fin equal to or slightly shorter than head. Ventral shorter than pectoral. Colour: Chocolate brown, breast and lower sides of head lighter. Four vertical white bars on sides, the first from nape across hind border of opercle, second from base of 4th to 5th or 6th dorsal spine down to front of vent, third from base of last dorsal spine and first dorsal ray to base of middle of anal and the fourth on caudal peduncle. A broad dark brown ring on caudal peduncle immediately behind the fourth white transverse bar. Dorsal grayish brown, distal part of soft dorsal clear; a black spot at basal part of 2nd to 6th or 7th dorsal rays. Anal fin dark brown. Caudal pale yellowish. Pectoral gray, axil of pectoral blackish. Ventral grayish brown.

**Remarks:** This species differs from *Abudedefduf phoenixensis* Schultz, a closely related species from the Pacific by its fewer pectoral rays (ii, 16 as against ii, 18-19 in *A. phoenixensis*), the third or fourth dorsal spine longest (12th spine longest in *A. phoenixensis*) and the black spot on the basal part of 2nd to 6th or 7th dorsal rays (black spot near margin of 4th to 7th dorsal rays in *A. phoenixensis*). Differs from *A. albofasciatus* Hombron and Jacquinot in fin formula and in having a spot on soft dorsal.

We have great pleasure in naming the new species after Mr. M. Ali Manikfan of this Institute who collected the above specimens, in appreciation of the extensive collections of fishes he had made from the Laccadives.

## Family : BLENNIIDAE

6. *Enchelyurus kraussi* (Klunzinger) (Fig. 6)

*Petroscirtes kraussi* Klunzinger, *Verh. Zool. bot. Ges. Wien*, **21**, p. 497, 1871.

*Enchelyurus kraussi* Smith, *Ichth. Bull.*, **14**, p. 234, pl. 18, J, 1959. Smith and Smith, *Fishes Seychelles*, p. 50, pl. 37, C, 1962.

*Petroscirtes kraussi* de Beaufort, *Fishes Indo-Australian Archipelago*, **9**, p. 378, 1951.

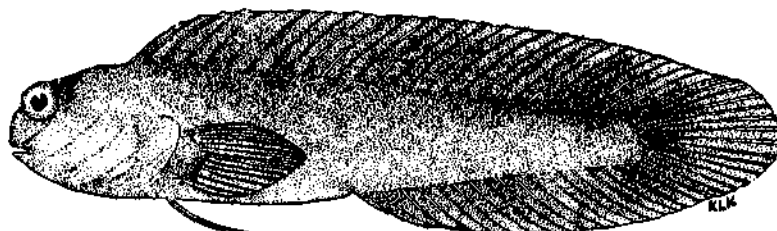


FIG. 6. *Enchelyurus kraussi* (Klunzinger), 26 mm.

D. 29 ; A. 19 ; P. 15 ; V. I, 2.

Head 3.7 in standard length, 4.4 in total length. Depth of body 4.5 in standard length, 5.4 in total length. Eye 3.8 in head and 0.6 in slightly convex interorbital space. Teeth in a single series in jaws ; a strong canine on each side of lower jaw and a shorter canine on each side of upper jaw. Lower edge of gill opening opposite upper third of base of pectoral. Dorsal rays increasing in length posteriorly, hind rays equal to postorbital part of head. Anal rays slightly shorter than those of dorsal. Dorsal and anal fully confluent with caudal. Pectoral equal to postorbital length of head and half eye diameter. Ventral shorter than pectoral. Caudal rounded. Lateral line along base of dorsal. Colour : Dark brown ; lower part of head with five oblique dark blue stripes ; fins brown, a pale longitudinal stripe on anal ; pectoral pale hyaline.

*Material* : Minicoy, 1 specimen, 26 mm.

*Distribution* : Previously known only from Red Sea, Malindi, Aldabra and Seychelles in the Western Indian Ocean and from Indonesia. This is the first record from the Central Indian Ocean.

7. *Cirripectus variolosus* (Valenciennes) (Fig. 7)

*Salarias variolosus* Valenciennes, *Hist. Nat. Poissons*, **11**, p. 317, pl. 330, 1836.

*Cirripectus variolosus* Chapman (in Weber and de Beaufort), *Fishes Indo-Australian Archipelago*, **9**, p. 249, 1951. Smith, *Ichth. Bull.*, **14**, p. 238, pl. 19, L, 1959.

D. XII, 14-15 ; A. II, 15-16 ; P. 15 ; V. I, 4.

Head 3.3-3.5 in standard length, 4.4-2 in total length. Depth of body 3.2-3.4 in standard length, 3.9-4.1 in total length. Eye 3.8-4.2 in head, 0.5 in blunt snout

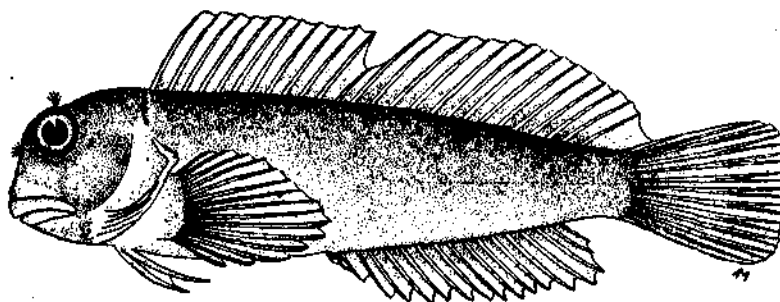


FIG. 7. *Cirripectus variolosus* (Valenciennes), 55 mm.

and 0.4 in interorbital space. Nasal cirrus with 4-6 filaments. Supraorbital cirrus with 3-5 filaments arising from a fleshy base. A row of 32-36 cilia across nape. Upper lip weakly crenulate. Lower lip weakly crenulate in posterior quarter. Teeth in jaws numerous, movable. A canine present posteriorly on each side of the lower jaw. Lateral line abruptly curving to midlengthwise axis of body behind pectoral and extending to base of caudal. Spinous dorsal as high as soft dorsal rays, last spine short. Dorsal deeply notched. Membrane of last dorsal ray attached to base of caudal. Pectoral shorter than head. Colour: Dull brown. Vertical fins brown; pectoral and upper edge of caudal lighter.

*Material*: Minicoy, 4 specimens, 30 to 55 mm.

*Distribution*: East coast of Africa and Seychelles, Indonesia to the Philippines and Samoan, Society, Solomon, Hawaiian and Marshall Islands and Australia. This is the first record of this species from the Central Indian Ocean.

#### 8. *Cirripectus sebae* (Valenciennes) (Fig. 8)

*Salarias sebae* Valenciennes, *Hist. Nat. Poissons*, 11, p. 323, 1836.

*Cirripectus sebae* Chapman (in Weber and de Beaufort), *Fishes Indo-Australian Archipelago*, 9, p. 251, 1951; Schultz and Chapman, *Bull. 202, U.S. Nat. Mus.*, 2, p. 313, pl. 114, A and B, 1960.

D. XII, 14-15; A. II, 15-16; P. 15; V. I, 4.

Head 3.2-3.5 in standard length, 3.9-4.3 in total length. Depth of body equal to length of head. Eye 3.6-4.2 in head, about twice length of snout and about 0.4 in interorbital space. Upper lip weakly crenulate. Posterior corner of lower lip only weakly crenulate. Numerous movable teeth in a single series in jaws, a strong canine posteriorly in lower jaw. Nasal cirrus with 4-7 simple filaments; supraorbital cirrus with 4-5 slender filaments. 32-40 simple filaments across nape. Lateral line abruptly curved behind pectoral, then extending to base of caudal along mid-

lengthwise axis of body. Spinous dorsal higher than soft dorsal; first dorsal spine generally longer than second. Anal spines swollen; anal rays much shorter than dorsal rays. Last ray of dorsal attached to upper caudal ray by membrane.

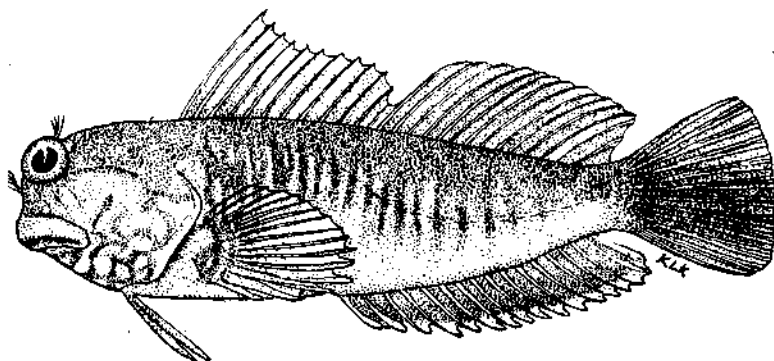


FIG. 8. *Cirripectus sebae* (Valenciennes), 59 mm.

Colour : Brown with 8-14 dark brown vertical bars on sides of body. Sides of head, throat and breast with numerous pale spots or with reticulated brown lines. Fins brown, upper part of spinous dorsal and caudal fin pale or clear. Young specimens with a broad dark stripe from behind eye to caudal base.

Material : Miniçoy, 32 specimens, 25 to 59 mm.

Distribution : Indonesia to Japan, Marshall, Phoenix, Samoan, Solomon, Fiji and Marianas Islands and Bismark Archipelago. This is the first record from the Indian Ocean west of Indonesia.

#### 9. *Cirripectus quagga* (Fowler and Ball) (Fig. 9)

*Rupiscaetes quagga* Fowler and Ball, *Proc. Acad. Nat. Sci. Philadelphia*, 76, p. 273, 1924.

*Cirripectes quagga* Schultz and Chapman, *Bull. 202, U.S. Nat. Mus.*, 2, p. 314, pl. 116, A-C, 1960.

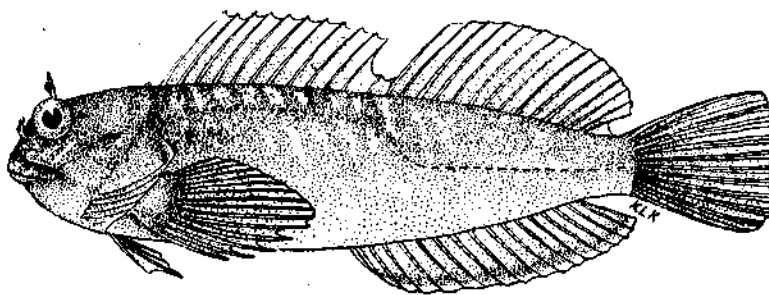


FIG. 9. *Cirripectus quagga* (Fowler and Ball), 45 mm.



D. XII, 15 ; A. II, 16 ; P. 15 ; V. I, 4.

Head 3.7 in standard length, 4.4 in total length. Depth of body 3.8 in standard length, 4.5 in total length. Eye 3.7 in head and 0.4 in interorbital space. Nasal cirrus with 3 simple filaments. Supraorbital cirrus arising from a fleshy base, with 4 filaments. 28 simple filaments in a row across nape. Upper lip deeply crenulate ; lower lip weakly crenulate. A single series of numerous fine movable teeth in jaws ; a strong canine posteriorly on each side of lower jaw. Lateral line arched over pectoral and then along midlengthwise axis of body and ending just in front of caudal base. First dorsal spine longest, equal to longest soft dorsal rays. Pectoral shorter than head by half length of snout. Ventral shorter than postorbital length of head. Colour : Light brown with 13 dark brown vertical bars on sides. A narrow dark brown streak from below middle of eye to upper lip; one from hind lower edge of eye to upper lip and another behind on gill membrane. Fins dusky ; upper part of caudal and pectoral lighter.

*Material* : Minicoy, 1 specimen, 45 mm.

*Distribution* : Wake Island to Marshall Islands in the Pacific. This is the first record of this species from the Indian Ocean.

#### Family : ELEOTRIDAE

##### 10. *Mucogobius liolepis* (Koumans) (Fig. 10)

*Callogobius liolepis* Koumans, *Prel. Rev. Gobioid Fishes*, p. 75, 1931. Koumans (in Weber and de Beaufort), *Fishes Indo-Australian Archipelago*, 10, p. 97, 1953.

*Mucogobius liolepis* Smith, *Ichth. Bull.*, 11, p. 147, pl. 3, K, 1958.

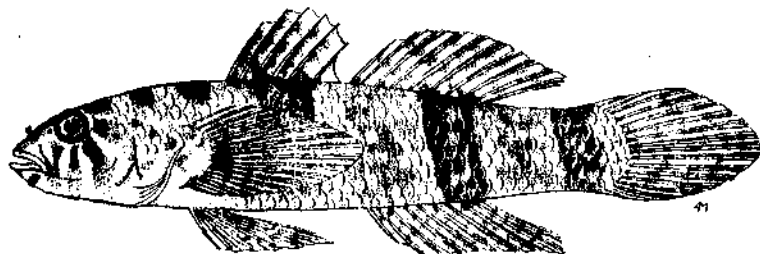


FIG. 10. *Mucogobius liolepis* (Koumans), 40 mm.

D1. VI ; D2. I, 9 ; A. I, 9 ; P. 19-20 ; V. I, 5. Ll. 39-42 ; Ltr. 12.

Head 3.3-3.5 in standard length, 4.1-4.3 in total length. Depth of body 4-4.5 in standard length, 5-5.5 in total length. Eye 4.4-4.8 in head, 1.1-1.3 in snout and about 0.7 in interorbital space. Maxillary extending to below front border of eye. Lower jaw prominent. A band of fine teeth in jaws, outer row slightly enlarged. Head with numerous papillae and two longitudinal mucous canals on cheek. Third or fourth dorsal spine longest, slightly longer than longest soft dorsal rays. Pectoral as long as head. Ventral slightly longer than head without snout. Caudal rounded. Scales on body cycloid. 17-18 predorsal scales. Scales on head

reaching to behind eye. Cheek and opercle with a few concealed scales. Colour : Dusky green, mottled with dark and three dark broad irregular cross bars on body, the first below first dorsal, second below second dorsal and the third on caudal peduncle. Fins dusky, spotted with dark ; a black blotch on base of pectoral.

*Material* : Minicoy, 13 specimens, 27 to 40 mm.

*Distribution* : Pemba in the Western Indian Ocean, Indonesia, New Hebrides and Solomon Islands. This is the first record from the Central Indian Ocean.

#### Family : GOBIIDAE

##### 11. *Fusigobius neophytus* (Günther) (Fig. 11)

*Gobius neophytus* Günther, *Fishes der Südsee*, 2, pl. 108, Fig. E, 1877.

*Fusigobius neophytus* Koumans (in Weber and de Beaufort), *Fishes Indo-Australian Archipelago*, 10, p. 146, fig. 35, 1953.

*Fusigobius neophytus africanus* Smith, *Ichth. Bull.*, 13, p. 208, pl. 11, F, 1959. Smith & Smith, *Fishes Seychelles*, p. 47, pl. 64, F, 1963.

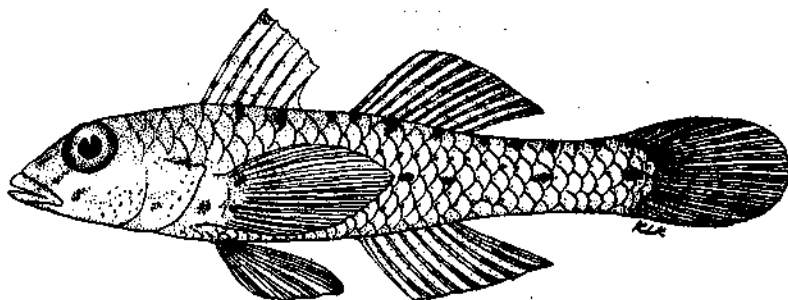


FIG. 11. *Fusigobius neophytus* (Günther), 35 mm.

D1. VI ; D2. I, 9 ; A. I, 8 ; P. 1, 15-16 ; V. I, 5. Ll. 23-24.

Head 3.1-3.3 in standard length, 4.1-4.3 in total length. Depth of body 4.2-4.4 in standard length, 5.4-5.6 in total length. Eye 3.2-3.5 in head and 1-1.1 in snout. Interorbital space very narrow. Mouth horizontal, maxillary reaching to a vertical from front margin of eye. Fine teeth in a narrow band in each jaw, outer series enlarged, 2 or 3 on side of lower jaw caninoid. Scales on head beginning behind eyes. Midline of nape naked. Scales on body ctenoid, deciduous. First dorsal spine equal to postorbital part of head with half eye diameter. Rays of second dorsal and anal slightly shorter than first spine of dorsal. Pectoral slightly shorter than head. Ventral half length of snout shorter than head. Colour: Whitish with 5-6 rows of brown spots on sides, a large black spot on base of caudal and a dark stripe from eye to upper jaw. A blackish spot between tip of first and second spine of dorsal, rest of the fin with dusky markings or spots, dorsal and caudal with dusky spots. Base of pectoral with two spots, ventral and anal lighter.

*Material* : Minicoy, 4 specimens, 24 to 35 mm.

*Distribution* : Pinda, Zanzibar, Shimoni, Aldabra and Seychelles in the Western Indian Ocean and from Indonesia to the Philippines and Ryukyu, Caroline, Samoan, Society and Fiji Islands. This is the first record from the Central Indian Ocean.

Family : TRIACANTHIDAE

12. *Triacanthus nieuhoi* Bleeker (Fig. 12)

*Triacanthus nieuhoi* Bleeker, *Verh. Bat. Gen.*, 24, p. 26, 1852.

*Triacanthus nieuhoi* de Beaufort, *Fishes Indo-Australian Archipelago*, 11, p. 275, 1962.

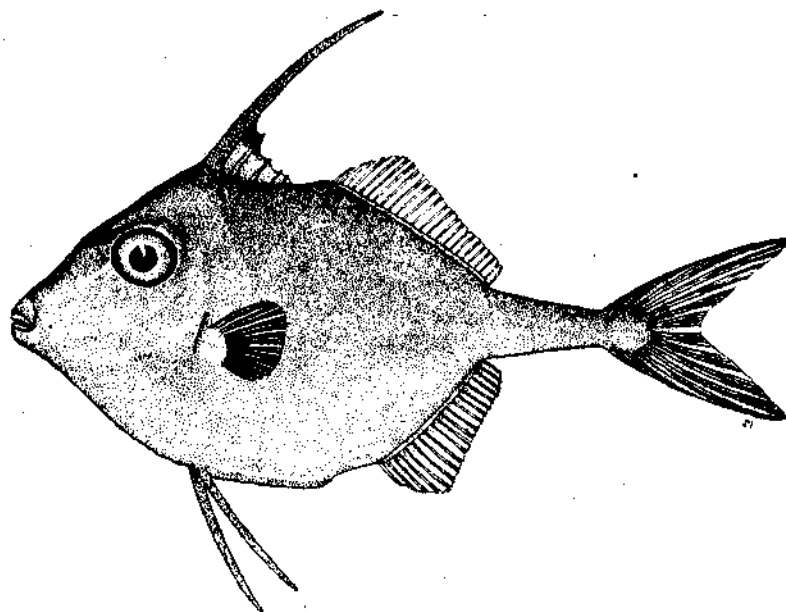


FIG. 12. *Triacanthus nieuhoi* Bleeker, 48 mm.

D1. V ; D2. 24 ; A. 20 ; P. 15 ; V. I.

Head 3.2-3.3 in standard length, 4.1-4.2 in total length. Depth of body 1.8-1.9 in standard length, 2.3-2.4 in total length. Eye 2.7-3 in head, 1.6 in snout and equal to interorbital space. Profile of snout nearly straight. Interorbital space with a median ridge. First spine of dorsal slightly longer than head. Ventral spine shorter than head. Pectoral 1.3 times eye diameter. Caudal peduncle about 4.5 in standard length. Colour : Back grayish, silvery on sides and below and a broad dark area from base of first dorsal towards belly. Membrane between first and third dorsal spines dark.

*Material* : Minicoy, 2 specimens, 40 and 48 mm.

*Distribution* : Previously known from Malaysia, Indonesia, and China. This is the first record from the Central Indian Ocean.