

## NEW RECORDS OF FISHES FROM THE SEAS AROUND INDIA—PART VII

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### INTRODUCTION

THE present account is the seventh part of the series (Parts I to VI appeared in Vols. 6(2): 285-308, 1965; 7(1): 108-123, 1965; 7(2): 381-400, 1965; 8(1): 163-180, 1966; 9(1): 1-12, 1967; and 10(2): 321-331, 1970 respectively of the same journal) giving information on the new records of fishes from the seas around India. All species recorded herein were collected from the Laccadive Archipelago. In the previous six parts 111 species belonging to 40 families were recorded and in this paper 13 species not known hitherto from the Central Indian Ocean belonging to eleven families are described briefly and figured. Some of these are new records for the entire Indian Ocean. The distribution given for the different species relates to the previous records. Reference is invited to Fig. 28 in Part I of this series for information regarding localities of collection mentioned in the text.

### Family MORINGUIDAE

#### 1. *Moringua javanica* (Kaup) (Fig. 1a)

*Aphthalmichthys javanicus* Raup, *Cat. Apodal Fish. British Mus.*, p. 105, 1856.

*Moringua javanica* Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 3: 342, fig. 164, 1916.

Body extremely elongate, cylindrical. Head 16-17.2, depth of body 77-92, both in total length. Head 11.2-11.7 in trunk. Tail 2.5-2.8 in head and trunk. Eye minute, 40-55 in head. Cleft of mouth 5-5.8 in head, reaching far behind hind border of eye. Lower jaw slightly longer than upper, projecting beyond tip of snout. Teeth conical, pointed, in a single series in jaws, the anterior three pairs in upper jaw stouter and longer. 4-5 teeth on vomer. Anterior nostril tubular, on side of snout near front margin; posterior nostril just in front of eye with raised membraneous rim. Origin of anal fin 1.2-1.4 length of head behind vent. Origin of dorsal fin somewhat opposite to that of anal. Dorsal and anal vestigial, scarcely projecting above the sides of the groove, slightly more elevated in front of somewhat rounded caudal fin with which they are confluent. Pectorals rudimentary, smaller than eye. Colour: Pale yellowish, back slightly dusky.

*Material*: Agathi, 4 specimens, 448 to 770 mm.

*Distribution*: Indonesia, New Guinea, Philippines, Japan, Marshall and Hawaiian Islands. This is the first record from the Central Indian Ocean.

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## 2. *Moringua microchir* Bleeker (Fig. 1b)

*Moringua microchir* Bleeker, *Nat. Tijds. Ned.-Ind.*, 4: 124, 1853. Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 3: 338, 1916. Smith and Smith, *Fishes Seychelles*, p. 56, pl. 47, B, 1963.

*Moringua javanica* Smith, *Fishes Southern Africa*, p. 508, fig. 1094a, pl. 100, 1961 (*nec.* Kaup).

Body elongate, cylindrical. Head 13.5, depth of body 4.5 both in total length. Head 8.2 in trunk. Tail about 2.2 in head and trunk. Eye about 20 in head and about thrice in snout. Cleft of mouth 4.5 in head, reaching behind hind border of eye. Lower jaw projecting slightly beyond tip of snout. Anterior nostrils tubular, on side of snout near its front margin; hind nostril an open pore, just in front of eye. A single series of 12 small conical teeth in each mandible, six conical teeth in each maxillary, 3 pairs of slightly stouter teeth on the intermaxillary and 5 small teeth on vomer. Dorsal and anal low, anteriorly and posteriorly with distinct rays, middle membrane portion rudimentary. Dorsal and anal fins confluent with caudal fin; obtusely rounded. Pectoral very short about equal to eye; base of pectoral fin extending a little over half way down gill opening. Colour: Uniform yellowish.

*Material*: Agathi, 1 specimen, 244 mm.

*Distribution*: East coast of South Africa, Seychelles and from Indonesia to the Philippines, Fiji, Marquesas Islands and New Guinea. This is the first record from the Central Indian Ocean.

## Family OPHICHTHYIDAE

### 3. *Callechelys melanotaenia* Bleeker (Fig. 1h)

*Callechelys melanotaenia* Bleeker, *Atlas Ichth.*, 4: 66, pl. (49) 193, fig. 2, 1864. Weber and de Beaufort, *Fishes Indo-Australian Archipelago* 3: 289, 1916.

*Callechelys striatus* Smith, *Ann. Mag. Nat. Hist.*, 12(10): 838, pl. 27, fig. C, 1957. *Ichth. Bull.*, 24: 450, pl. 65, C, 1962. Smith and Smith, *Fishes Seychelles*, p. 56, pl. 47, D, 1963.

Head 17, depth of body 41, both in total length. Head 10.8 in trunk. Snout about 7.5 in head. Eye 2 in snout. Interorbital space almost equal to length of snout. Anterior nostrils in a short tube midway between tip of snout and eye; hind nostril a slit in fleshy upper lip opposite front border of eye. Cleft of mouth extending behind eye, about 3.5 in head. Teeth uniserial in jaws; 3 somewhat depressible canines on intermaxillary. Origin of dorsal somewhat opposite rictus. Dorsal and anal not confluent, leaving tip of tail free. Anal fin narrow. Pectorals absent. Colour: Whitish. Head with three transverse brown bands and a broad black band from side of head along upper part of body and tail. Head with dusky spots, 3 along upper jaw, 3 along mandible, 2 behind rictus, 2 postocular, and one frontal. Margin of dorsal fin black.

*Material*: Kavarathi, 1 specimen, 580 mm.

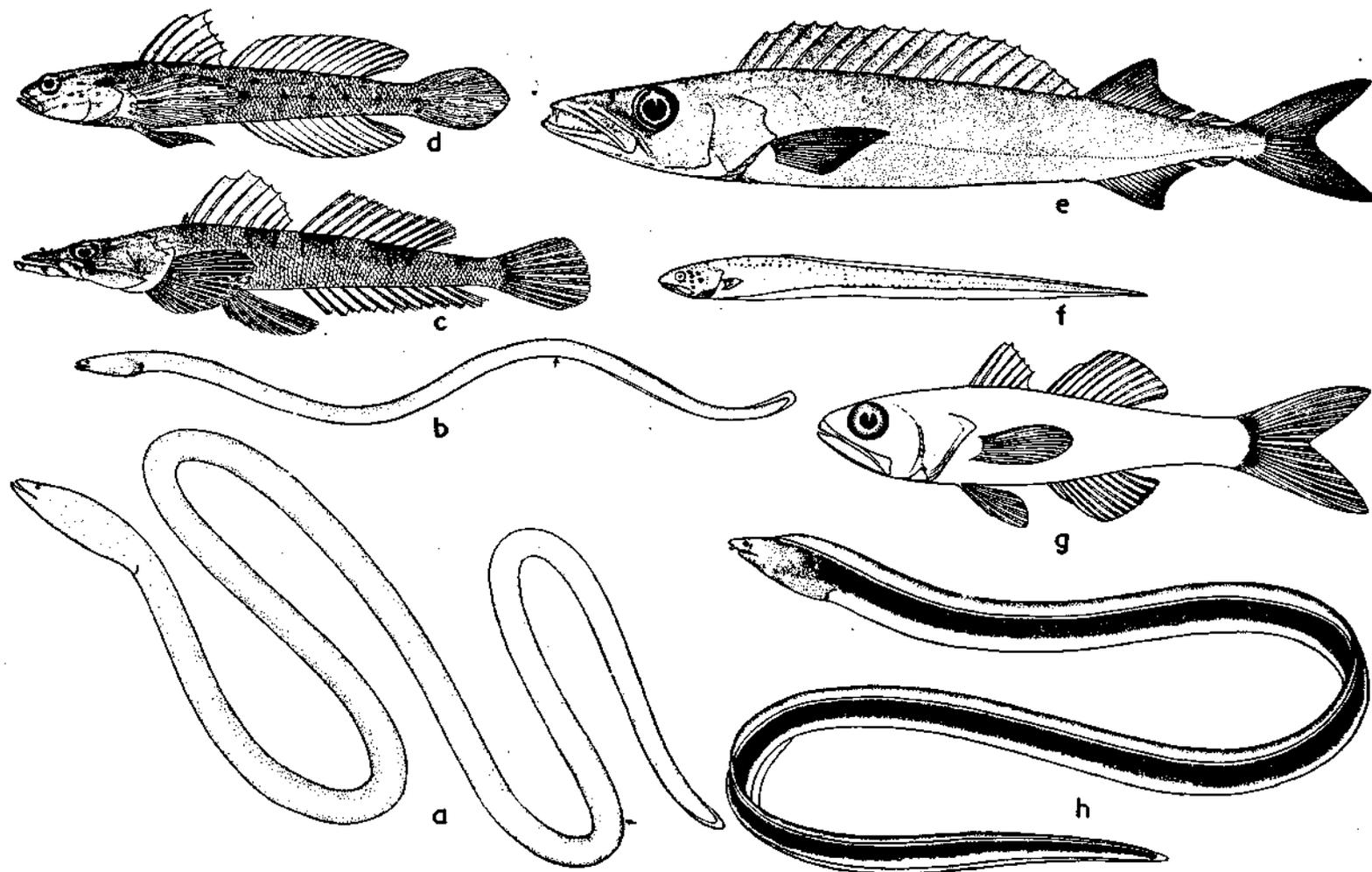


FIG. 1. a. *Moringua javanica* (Kaup), 770 mm.; b. *M. microchir* Bleeker, 244 mm.; c. *Platycephalus malayanus* Bleeker, 134 mm.; d. *Ctenogobius crocineus* Smith, 39 mm.; e. *Promethichthys prometheus* (Valenciennes), 415 mm.; f. *Carapus mourlani* (Petit), 75 mm.; g. *Gymnapogon africanus* Smith, 31 mm.; and h. *Callechelys melanotaenia* Bleeker, 580 mm.

*Distribution* : Previously known from Red Sea, Aldabra, Seychelles, Mauritius, Indonesia, Ryukyu Islands, Lord Howe, Gilbert Islands and Palmyra Island. This is the first record from the Central Indian Ocean.

#### Family APOGONIDAE

##### 4. *Gymnapogon africanus* Smith (Fig. 1g)

*Gymnapogon africanus* Smith, *Ann. Mag. Nat. Hist.*, 7 (12): 775, 1954. *Ichth. Bull.*, 22: 411, fig. 10, 1961. Smith and Smith, *Fishes Seychelles*, p. 17, pl. 16, fig. G, 1963.

D1. VI ; D2. I, 9 ; A. II, 9 ; P. 14 ; V. I, 5.

Head 2.5 in standard length, 3.3 in total length. Depth of body 3.8 in standard length, 4.9 in total length. Eye 3.4 in head, 0.8 in snout and 0.9 in interorbital space. Maxillary reaching a vertical through posterior margin of eye. Preoperculum with a stout triangular spine at posterior margin and a transparent preopercular flap below the spine. Minute papillae present on top of head, lower jaw, cheek, opercles and sides of body. Teeth small, in a single series in posterior three-fourths of upper jaw, 3 canines on each side anteriorly in upper jaw, 2 canines on each side of symphysis of lower jaw and 4 recurved canine teeth along middle half of lower jaw on each side and a single row of villiform teeth posteriorly. Vomer with one caninoid tooth and palatines with four or five small teeth. Body completely scaleless. Lateral line not evident. Pectoral equal to head without snout. Ventral equal to postorbital part of head. Caudal forked. Colour: Uniform light tan; tip of snout, chin and occiput with some pigmentations. Fins transparent; two dark marks at base of caudal fin.

*Remarks* : *Gymnapogon urospilotus* Lachner (*Bull. U.S. Nat. Mus.*, 1(202): p. 493, 1953) is closely allied to this species.

*Material* : Kavarathi, 1 specimen, 31 mm.

*Distribution* : Previously known from Bazaruto, Mozambique and Seychelles in the Western Indian Ocean. This is the first record from outside the above region.

#### Family : POMACENTRIDAE

##### 5. *Pomacentrus melanopterus* Bleeker (Fig. 2d)

*Pomacentrus melanopterus* Bleeker, *Nat. Tijds. Ned.-Ind.*, 3: 562, 1852. de Beaufort, *Fishes Indo-Australian Archipelago*, 8: 380, 1940.

D. XIV, 13-14 ; A. II, 14-15 ; P. ii, 15(16) ; V. I, 5 ; Ll. 18+8-9 ; Ltr. 2+1+9.

Head 3.4-3.6 in standard length, 4.4-4.6 in total length. Depth of body 2-2.2 in standard length, 2.5-2.7 in total length. Eye 2.7-2.9 in head, 1-1.1 in interorbital space and 0.5-0.6 in snout. Maxillary not reaching to below front border of eye. Preorbital ending posteriorly in a flat spine. Preopercle finely serrate. Preorbital and sub-orbital naked. Two rows of scales on preopercle and one row on inferior

limb. Pectoral longer than head. Ventral longer than pectoral, the first ray slightly produced. Dorsal spines increasing gradually in length posteriorly, the last as long as snout and eye together. Colour: Dark brown; upper part of head and edges of scales on sides of body darker. Some scales anterior to origin of lateral line with dark spots. Dorsal, anal and caudal fins dark, edges of membranes between dorsal spines darker. A broad black band across base of pectoral, pectoral fin lighter.

*Material*: Kavarathi, 5 specimens, 56 to 71 mm.

*Distribution*: Previously known from Indonesia, Ryukyu Islands, Formosa, Philippines, Solomon Islands, Samoa and Marshall Islands. This is the first record from the Central Indian Ocean.

#### 6. *Chromis simulans* Smith (Fig. 2a)

*Chromis simulans* Smith, *Ichth. Bull.*, 19 : 326, fig. 4, 1960.

D. XIII, 11-12; A. II, 11-12; P. ii, 17; V. I, 5; Ll. 17-18+9; Ltr. 2+1+8.

Head 3-3.2 in standard length, 4.2-4.4 in total length. Depth of body 2.3-2.5 in standard length, 3.4-3.6 in total length. Eye 2.8-3 in head, 0.7 in blunt snout and 0.8-0.9 in interorbital space. Preorbital and sub-orbital scaly. Three rows of scales on preopercle. 4th or 5th dorsal spine longest, about 2 in head. Second anal spine slightly shorter than longest dorsal spine. Pectoral about half length of snout shorter than head. Ventral equal to or slightly longer than pectoral. Caudal lobes pointed. Colour: Somewhat uniform bluish gray above, lighter below. A dark stripe along hind preopercle edge and a dusky stripe along upper part of gill opening. Pectoral clear. Axil of pectoral pale to slightly dusky. Spinous dorsal and three or four front rays of soft dorsal dusky, hind rays light. Anal fin dusky except four hind rays. A dark longitudinal bar along lobes of caudal, median rays light. Front rays of ventral slightly dusky.

*Material*: Kadamat, 21 specimens, 20 to 36 mm. Kavarathi, 12 specimens, 25 to 35 mm.

*Distribution*: Bazaruto northwards, over most of Western Indian Ocean. This is the first record of this species from the Central Indian Ocean.

#### Family: LABRIDAE

#### 7. *Cheilinus oxycephalus* Bleeker (Fig. 2e)

*Cheilinus oxycephalus* Bleeker, *Nat. Tijds. Ned.-Ind.*, 5 : 349, 1853. de Beaufort, *Fishes Indo-Australian Archipelago*, 8 : 78, 1940. Smith, *Fishes Southern Africa*, p. 569, 1961. Smith and Smith, *Fishes Seychelles*, p. 38, pl. 84, G, 1963.

D. IX, 10; A. III, 8; P. ii, 10; V. I, 5; Ll. 14+9; Ltr. 2+1+6.

Head 2.5 in standard length, 3.2 in total length. Depth of body 2.6 in standard length, 3.3 in total length. Eye 5.2 in head, 1.6 in snout and 1.2 in slightly convex

interorbital space. Two rows of scales on preopercle, hind edge naked. Dorsal spines increasing gradually in length posteriorly, the last as long as twice eye diameter. Pectoral slightly longer than postorbital length of head. Ventral slightly shorter than pectoral. Colour: Greenish brown. Upper lip with two brownish spots on either side just behind tip. Spinous dorsal greenish with a narrow submarginal band and a dark brown spot between first and second spines. Caudal brownish with some brown transverse bars. Pectoral hyaline. Ventral greenish brown.

*Material*: Kavarathi, 1 specimen, 90 mm.

*Distribution*: East coast of South Africa, Seychelles, Kavarathi, Indonesia, Philippines, Marshall and Society Islands and North Queensland. This is the first record from the Central Indian Ocean.

#### Family: CLINIDAE

##### 8. *Tripterygion gymnauchen* Weber (Fig. 2c)

*Tripterygion gymnauchen* Weber, *Notes Leiden Mus.*, 31: 149, 1909. *Siboga Exp. Fische*, p. 548, fig. 119, 1913.

*Tripterygion gymnauchen* de Beaufort, *Fishes Indo-Australian Archipelago*, 9: 394, 1951.

D1. III; D2. XIV; D 3. 9-10; A. 20-21; P. 16; L. lat. 42-44.

Head 3.2-3.4 in standard length, 3.7-3.8 in total length. Depth of body 4.8-5.2 in standard length, 5.6-6.1 in total length. Eye 3-3.2 in head, about 0.8 in snout and 0.3 in interorbital space. Head, narrow portion below first dorsal and of anterior part of second dorsal and breast naked. Lateral line with 24-26 scales, ending below second ray of third dorsal. First spine of first dorsal equal to about two-thirds of length of first spine of second dorsal. Pectoral equal to or slightly shorter than head. Inner ray of ventral longest, equal to postorbital part of head with half eye diameter. Colour: Pale to brownish, sides of body sometimes with irregular dark bars. Lower part of head and pectoral base with dark brown pigments. Dorsal fins and caudal dusky to brownish. Anal dusky in some specimens. Lower rays of pectoral dusky, upper rays brownish.

*Material*: Kavarathi, 9 specimens, 20 to 35 mm.

*Distribution*: Previously known from Timor in Indonesia. This is the first record from the Indian Ocean.

#### Family: CARAPIDAE

##### 9. *Carapus mourlani* (Petit) (Fig. 1f)

*Fierasfer mourlani* Petit, *Bull. Mus. Hist. Nat. Paris*, 2(6): 393, 1934.

*Carapus mourlani* Schultz, *Bull. U.S. Nat. Mus.*, 202, 2: 393, pl. 120, E, 1960.

Head 8.2, depth of body 12.5, both in total length. Eye about 5.5 in head. 3.5 in postorbital length of head and a little more than interorbital space,

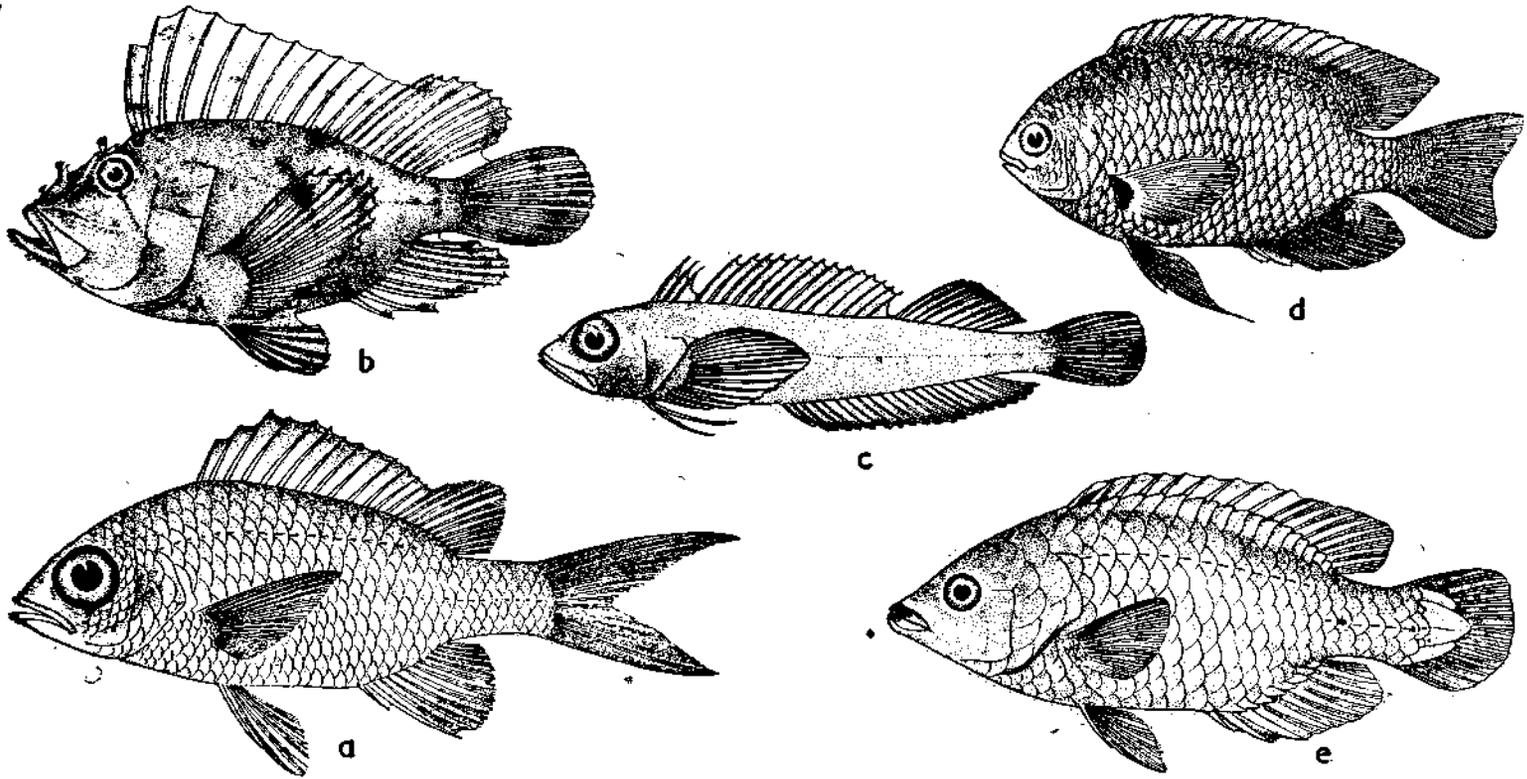


FIG. 2. a. *Chromis simulans* Smith, 34 mm.; b. *Taenianotus triacanthus* Lacépède, 38 mm.; c. *Tripterygion gymnauchen* Weber, 34 mm.; d. *Pomacentrus melanopterus* Bleeker, 71 mm.; and e. *Cheilinus oxycephalus* Bleeker, 90 mm.

Postorbital length of head 1.6 in head. Maxilla free, movable, reaching behind a vertical through hind border of eye. Width of head about half length of head. Width of body about 1.6 in its height. Vent slightly in front of a vertical through origin of pectoral. Three gill rakers on lower limb of first gill arch near angle elongate, others short. Five conical teeth in two series in upper jaw, a pair of short canines near symphysis. Teeth in lower jaw in two rows, outer row slightly larger. Three large curved teeth on vomer with smaller ones on either side. A narrow band of conical teeth on palatines. Pectoral fin about three in head. Colour: Translucent in life, becoming pale on preservation. Sides of head, underside of lower jaw and sides of body with brown spots, those behind eye larger.

*Material*: Thinnakara, 1 specimen, 75 mm. Collected from the body cavity of *Culcita novaguineae*.

*Distribution*: So far reported from Marshall Islands and Oahu Island in the Pacific and Madagascar in the Western Indian Ocean. This is the first record from the Central Indian Ocean.

#### Family: GEMPYLIDAE

##### 10. *Promethichthys prometheus* (Valenciennes) (Fig. 1e)

*Gempylus prometheus*, Cuvier and Valenciennes, *Hist. Nat. Poissons*, 8: 213, pl. 222, 1831.

*Gempylus solandri* Cuvier and Valenciennes, *Hist. Nat. Poissons*, 8: 215, 1831.

*Thyrsites prometheus* Günther, *Cat. Fishes British Mus.*, 2: 351, 1860.

*Promethichthys prometheus* Goode and Bean, *Oceanic Ichthyology*, p. 200, 1895.

D1. XVIII; D2. II, 18+2; A. II, 16+2; P. 14.

Head 3.1 in standard length, 3.7 in total length. Depth of body 5.8 in standard length, 6.9 in total length. Eye about 5 in head, 1.7 in snout and 1.1 in slightly concave interorbital space. Lower jaw prominent; maxillary reaching to a point midway between anterior border of eye and the pupil. A single row of fang-like teeth in upper jaw, four teeth in front much larger and two smaller teeth in between the second pair. Lower jaw with a single row of similar teeth, two front teeth larger. Palatines with a single row of small, sharp teeth. Anterior nostril slightly behind the midpoint between tip of snout and front border of eye; hind nostril closer to anterior nostril than to front border of eye. Origin of first dorsal slightly behind a vertical from hind border of preopercle; first two dorsal spines shorter than sixth or seventh which is 1.3 eye diameter. Second dorsal as high as longest spine of first dorsal; anal similar. Two isolated finlets behind soft dorsal and anal. Pectoral slightly longer than half length of head. Ventral is reduced to an inconspicuous spine, slightly in advance of the pectorals. Scales small, deciduous. Lateral line single, descending obliquely below 4th or 5th dorsal spine to a little ventral to the midline of body and ending on caudal. Colour: Bluish brown, head darker. Spinous dorsal hyaline with dark outer portion especially in front. Soft dorsal, anal and caudal brownish, darker distally.

*Material* : Off Kavarathi, 1 specimen, 415 mm.

*Distribution* : Circumtropical ; in rather deep water. St. Helena, Canary Islands, New Holland, Madeira, Cuba, Bermuda, Leyte, Cook Island, Tahiti, Gilbert Islands and Hawaiian Islands. This is the first record of this species from the Central Indian Ocean.

Family : GOBIIDAE

11. *Ctenogobiops crocineus* Smith (Fig. 1d)

*Ctenogobiops crocineus* Smith, *Ichth. Bull.*, 13 : 191, pl. 11, K, 1959. Smith and Smith, *Fishes Seychelles*, p. 47, pl. 64, K, 1963.

D1. VI ; D2. I, 12 ; A. I, 11 ; P. 18. Ll. 55 ; Ltr. 13.

Head 4 in standard length, 5.1 in total length. Depth of body 5.7 in standard length, 6.9 in total length. Eye 4.5 in head and equal to snout. Eyes adjacent. Gill openings wide, reaching to front of preopercle margin. Mouth slightly oblique, maxillary reaching to below hind third of eye. Two moderate canines in front on each side of upper jaw. A narrow band of five teeth in lower jaw, the anterior ones larger. Second dorsal spine longest, slightly shorter than head. Pectoral equals head. Ventral slightly shorter than pectoral. Head, nape, chest and base of pectoral naked. Caudal somewhat rounded. Colour : Pale yellowish with 8 dark spots in a row on middle of sides ; another row of smaller spots above and a few dark spots along base of dorsal fins. A few dark spots on nape. Fins pale yellowish.

*Remarks* : Differs from the description of Smith (1959) being more slender and head 4 and depth 5.7 in standard length as against 3.3 and 4.8-5.2 respectively given by Smith.

*Material* : Agathi, 1 specimen, 39 mm.

*Distribution* : Previously known only from 3 specimens from Mahe in the Seychelles group of islands. This is the first record from outside the above region.

Family : SCORPAENIDAE

12. *Taenianotus triacanthus* Lacépède (Fig. 2b)

*Taenianotus triacanthus* Lacépède, *Hist. Nat. Poissons*, 4 : 303, 1802. de Beaufort, *Fishes Indo-Australian Archipelago*, 11 : 58, fig. 12.

*Taenianotus triacanthus* Smith and Smith, *Fishes Seychelles*, p. 52, pl. 51, C, 1963.

D. XII, 10 ; A. III, 7 ; P. 14 ; V. I, 5. Ll. 23.

Head and body greatly compressed. Head 2.3 in standard length, 2.9 in total length. Depth of body 2.1 in standard length, 2.7 in total length. Eye 4.4 in head, 1.5 in snout and about 0.7 in concave interorbital space. Mouth oblique, maxillary reaching to below middle of eye. A cutaneous flap at anterior nostril and above eye. Hind border of preopercle with two blunt spines. Two ridges on opercle ending in

small spines. A spine above hind quarter of eye and two spines below origin of dorsal. Soft dorsal connected to by membrane to dorsal edge of caudal fin. First spine of dorsal slightly longer than postorbital part of head, second and third spines subequal, as long as head without snout. Third anal spine longest, slightly shorter than first spine of dorsal. Pectoral slightly shorter than head, ventral equal to head without snout. Colour : Pale yellowish with irregular brown marking below 6th to 7th dorsal spines extending obliquely towards anal origin. Fins clear with some brown patches on first two spines of dorsal, distal part of soft rays, hind part of caudal, distal part of anal and tip of pectoral.

*Material* : Kavarathi, 1 specimen, 38 mm.

*Distribution* : East coast of Africa, Seychelles, Indonesia, Solomon, Marshall, Gilbert, Fiji, Samoa, Society, Hawaiian and Tuamotu Islands. This is the first record from the Central Indian Ocean.

Family : PLATYCEPHALIDAE

13. *Platycephalus malayanus* Bleeker (Fig. 1c)

*Platycephalus malayanus* Bleeker, *Nat. Tijds. Ned.-Ind.*, 5 : 498, 1853. de Beaufort, *Fishes Indo-Australian Archipelago*, 11 : 152, 1962.

D1. IX ; D2. 11 ; A. 12 ; P. ii, 19 ; V. I, 5 ; LI. 52-56 ; Ltr. 7+1+26. GR 1+1+4-5.

Head 3-3.2 in standard length, 3.3-3.7 in total length. Depth of body 7-8.8 in standard length, 8.6-10.5 in total length. Eye 4.2-4.8 in head, 1.3-1.6 in snout and 0.2-0.3 in concave interorbital space. Maxillary reaching to below front border of eye. Villiform teeth in jaws, two oval patches of teeth on vomer and a narrow band of teeth on palatines. Two small spines between anterior nostrils. A strong spine on anterior orbital rim. Supraorbital ridge smooth anteriorly and posterior part serrated from above middle of eye with 7-12 spines, continued as the superior postorbital ridge with 3-4 spines. The inferior postorbital ridge with 5 spines, the last two in line with the lateral line. Sub-orbital ridge smooth anteriorly with one spine below middle of eye and 2 to 4 spines posteriorly. Three preopercular spines, the upper one longest and the lowest minute. Opercle with two flat spines. Sub-opercle with somewhat well-developed skinny flap. First dorsal spine small, third longest, equal to postorbital part of head. Pectoral as long as postorbital part of head or longer. Ventrals about half eye diameter shorter than head. Lateral line smooth except for the two anteriormost scales which are spiny. Colour : Pale yellowish. Head with 3-4 narrow dark lines from eye to cheek. 4 faint broad dark cross bands on dorsal side of body one below the posterior half of first dorsal, the second below the origin of soft dorsal, the third below the middle of soft dorsal and the fourth on caudal peduncle. The spines of first dorsal and rays of second dorsal with brown spots. Spots on pectoral and pelvic rays in the form of irregular cross bands. The distal margin of anal rays sometimes dusky. Caudal rays with dusky spots.

*Material* : Kavarathi, 9 specimens, 52 to 137 mm.

*Distribution* : Previously known from Indonesia to New Guinea, Philippines, Queensland and Samoa. This is the first record from the Central Indian Ocean.