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

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THE present account is the fifth part of the series [Parts I to IV appeared in Vols. 6(2), 285-308, 1965; 7(1), 108-123, 1965; 7(2), 381-400, 1965 and 8(1), 163-180, 1966 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. For localities of collection reference is invited to Fig. 28 in part I of this series. In the previous four parts 86 species belonging to 35 families were recorded and in this paper 13 species not hitherto recorded from the Central Indian Ocean are briefly described and figured. The distribution given for the different species relate to the previous records.

Family : SYNGNATHIDAE

1. *Ichthyocampus belcheri* Kaup (Fig. 1)

Ichthyocampus belcheri Kaup, *Cat. Lophobranchiate Fish.*, p. 30, 1856.

Ichthyocampus kampeni Weber, *Siboga Exped.*, 57, *Fische*, p. 114, fig. 40, 1913 (in part). Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 4, p. 93, fig. 38, 1922 (in part).



FIG. 1. *Ichthyocampus belcheri* Kaup, 58 mm.

D. 21-22 ; A. 3 ; P. 12-13. Rings. 16+28-30.

Head 7.5-8.4 in standard length. Snout as long as postorbital length of head. Head smooth, no distinct opercular ridge. Superior cristae of trunk and tail continuous. Median cristae of trunk extending to the third or fourth tail ring. Median cristae of tail absent. Inferior cristae of trunk and tail continuous. Edges of posterior shields pointed. Caudal fin short. Dorsal insertion anterior to the small

Distribution : Red Sea and east coast of Africa to Seychelles in the Western Indian Ocean and from the Philippines and Marshall Islands. This is the first record from the Central Indian Ocean.

3. *Cheilodipterus lachneri* Klausewitz (Fig. 3)

Cheilodipterus lachneri Klausewitz, *Senken Mus.*, 40, p. 260, fig. 11, 1959. Smith, *Ichth. Bull.*, 22, p. 408, pl. 50, B and C, 1961.

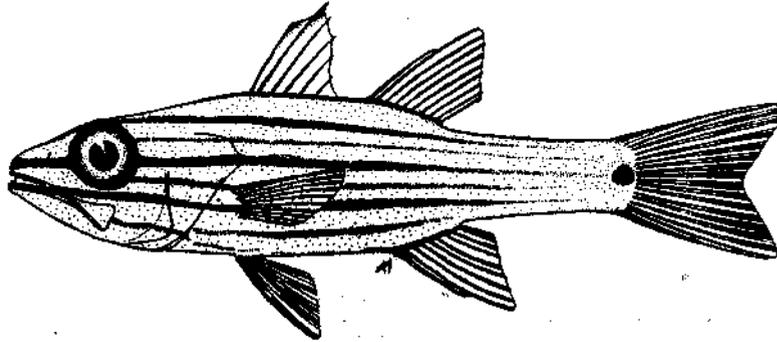


FIG. 3. *Cheilodipterus lachneri* Klausewitz, 53 mm.

D_1 , VI ; D_2 , I, 9 ; A, II, 8 ; P, ii, 10-11 ; V, I, 5. LI, 24 ; Ltr. 2+1+6.

Head 2.6-2.7 in standard length, 3.3-3.4 in total length. Depth of body 3.6-3.7 in standard length, 4.6-4.7 in total length. Eye 3.3-3.3 in head, 0.7 in snout and about 0.7 in interorbital space. Maxilla reaches to below hind border of iris. Upper jaw with villiform teeth in front and 3 canines on each side. Lower jaw with 2 canines on each side ; no villiform teeth in front. Vomer and palatines with a narrow band of teeth. First spine of dorsal more than half length of second which is longest. Pectoral equal to or slightly longer than snout and eye together. Ventral shorter than pectoral. Colour : Yellowish with 8 dark brown lengthwise stripes on sides, the intermediate stripes narrower and a dark brown spot larger than iris at base of caudal. Fins yellowish ; front of spinous dorsal and upper and lower edges of caudal slightly dusky.

Material : Kavarathi, 3 specimens, 26 to 53 mm.

Distribution : Previously recorded from the Red Sea, Inhaca and Wamizi Islands and Bioxo Pinda in Mozambique. This is the first record from outside the Western Indian Ocean.

Family : CHAETODONTIDAE

4. *Chaetodon bennetti* Cuvier and Valenciennes (Fig. 4)

Chaetodon Bennettii Cuvier and Valenciennes, *Hist. Nat. Poissons*, 7, p. 84, 1831.

Chaetodon bennetti Smith, *Fishes Southern Africa*, p. 506, 1949.

Chaetodon (Rhabdophorus) bennetti Weber and de Beaufort, *Fishes Indo-Australian Archipelago*, 7, p. 62, 1936.

Family : ACANTHURIDAE

5. *Naso brachycentron* (Cuvier and Valenciennes) (Fig. 5)

Naseus brachycentron Cuvier and Valenciennes, *Hist. Nat. Poissons*, 10, p. 275, 1835.

Naso rigoletto Smith, *Ann. Mag. Nat. Hist.*, 12 (4), p. 1128, fig. 1, 1951. Smith and Smith, *Fishes Seychelles*, p. 25, pl. 20, E and F, 1963.

Naso brachycentron Smith, *Ichth. Bull.*, 32, p. 653, fig. 6, 1966.

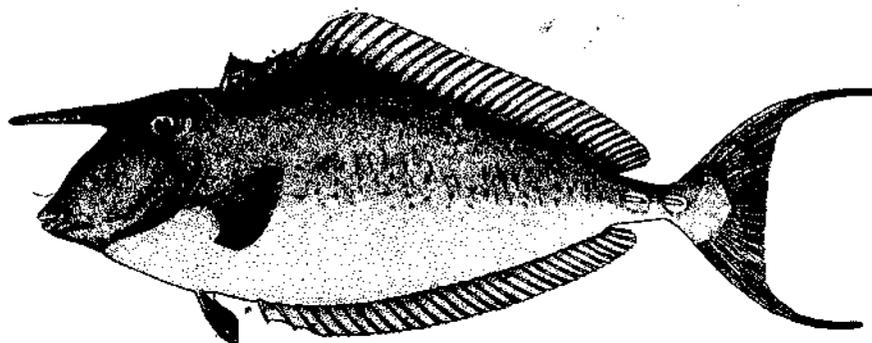


FIG. 5. *Naso brachycentron* (Cuvier and Valenciennes), 400 mm.

D. V, 30 ; A. II, 28 ; P. ii, 15 ; V. I, 3.

Head 3.8 in standard length, 5 in total length. Depth of body 2.6 in standard length, 3.3 in total length. Eye 4.7 in head, 3 in snout and 1.2 in interorbital space. Interorbital with a median longitudinal ridge. Profile of snout oblique. Horn in front of eye long, reaching to before a vertical through tip of snout. A large hump on back beginning at the base of fourth dorsal spine, the second ray situated at the top of hump. First dorsal spine longest, 1.2 eye diameter, first three spines curved forwards at tip and the posterior two spines curved backwards at tip. Soft rays of dorsal higher than spines. Second anal spine longer than the first and is equal to eye diameter ; soft rays longer than spines. Caudal with filamentous lobes. Pectoral as long as snout ; ventral slightly shorter than pectoral. Two caudal plates, each with a knife-like keel. Colour : Dark grey above, lighter below ; a few irregular dark spots on middle of sides. Dorsal and caudal dusky grey. Pectoral dark grey, lighter distally. Ventral pale.

Material : Agathi, 1 specimen, 400 mm.

Distribution : East coast of Africa to Seychelles in the Western Indian Ocean and Indonesia, Philippines, Japan and eastwards to Society and Marquesas Islands. This is the first record from the Central Indian Ocean.

Family : GOBIIDAE

7. *Acentrogobius aestuarius* Smith (Fig. 7)

Acentrogobius aestuarius Smith, *Ichth. Bull.*, 13, p. 202, fig. 18, 1959.

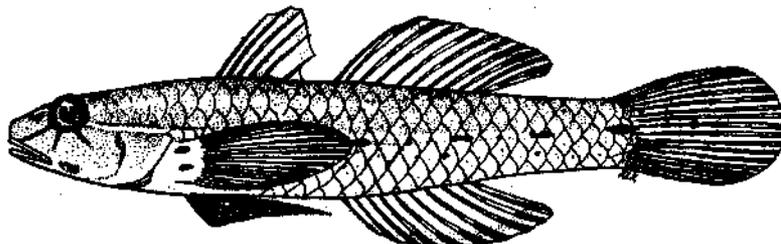


FIG. 7. *Acentrogobius aestuarius* Smith, 34 mm.

D₁. VI ; D₂. I, 10 ; A. I, 9 ; P. i, 17. Ll. 28 ; Ltr. 7.

Head 3·8 in standard length, 4·8 in total length. Depth of body 4·8 in standard length, 6 in total length. Eye 3·6 in head and about 0·8 in snout. Head slightly compressed. Gill opening extends to below base of pectoral. Front nostril a short tube, the hind nostril a plain pore before eye. Maxilla reaching nearly to below middle of eye. Teeth in narrow bands in jaws. Cheek naked. Nape scaled, scales reaching to hind margin of eye. 8 predorsal scales. Pectoral slightly longer than head. Ventral fin as long as head. Colour : Yellowish with five elongate black spots on middle of sides and smaller blackish spots above and below. A dark bar from eye to upper lip, one from lower border of eye to cheek and another from behind border of eye to above gill opening. Fins yellowish, rays of dorsal fins and caudal with dark spots ; pectoral with 3 dark spots at base and anal dusky distally.

Material : Bitra, 1 specimen, 34 mm.

Distribution : Previously known only from two specimens from Inhambane in the Western Indian Ocean. This first record from the Central Indian Ocean is of interest.

8. *Quisquilius inhaca* (Smith) (Fig. 8)

Gobius inhaca Smith, *Ann. Mag. Nat. Hist.*, 12 (2), p. 103, 1949. Smith, *Fishes Southern Africa*, p. 507, pl. 101, fig. 923 a, 1949.

Quisquilius inhaca Smith, *Ichth. Bull.*, 13, p. 210, pl. 12, F, 1963.

? *Quisquilius anthioides* Smith, *Ichth. Bull.*, 13, p. 210, pl. 10, F, 1959. Smith and Smith, *Fishes Seychelles*, p. 47, pl. 63, F, 1963.

D₁. VI ; D₂. I, 10 ; A. I, 8 ; P. 17. Ll. 27-28 ; Ltr. 14.

Head 3·1-3·3 in standard length, 3·9-4·1 in total length. Depth of body 3·8-4 in standard length, 4·7-5 in total length. Eye 3·3-3·4 in head, about 0·8 in snout and

of snout ; chin fleshy, forming part of dorsal profile. Teeth minute in jaws and a few on palatines. Tongue forked. Dorsal with five and anal with one flexible non-striated spiniform rays, other rays simple and striated. Dorsal and anal separate from caudal fin. Origin of dorsal 1.2-1.3 length of head behind tip of snout, fifth spiniform ray separated. Origin of anal below 7th or 8th dorsal ray, midway between tip of snout and base of caudal or slightly nearer to the former, and 2.15-2.3 head length from tip of snout. Pectoral 2.7-3 in head. Ventral about half length of head. Bases of ventrals united, first ray short, inner two rays longest. Colour : Translucent in life and whitish on preservation,

Note : This species generally live buried in loose sand very near to the shore and escapes when disturbed.

Material : Minicoy, 11 specimens, 15 to 28 mm.

Distribution : Previously known from Samoan and Marshall Islands in the Pacific and Seychelles in the Western Indian Ocean. The present find from an intermediate locality is of interest.

Family : TRICHONOTIDAE

10. *Chalixodytes tauensis* Schultz (Fig. 10)

Chalixodytes tauensis Schultz, *U.S. Nat. Mus., Bull.*, 180, p. 263, fig. 24, 1943. *Ibid.*, 202, (2), p. 280, fig. 108, 1960.

Chalixodytes chameleontoculis Smith, *Ann. Mag. Nat. Hist.*, 12 (9), p. 890, fig. 1, 1956.



FIG. 10. *Chalixodytes tauensis* Schultz, 41 mm.

D. 39-40 ; A. 38 ; P. 12 ; V. I, 4. Ll. 58.

Body elongate, moderately compressed. Head 4.8-5 in standard length, 5.3-5.5 in total length. Depth of body 10-10.6 in standard length, 11-11.8 in total length. Eyes small, high up on dorsal profile ; interorbital space narrow. A row of cirri along the edges of lower jaw. Gill openings wide, gill membranes free from isthmus. Mouth horizontal, maxillary extending $\frac{2}{3}$ eye diameter behind a level from hind border of eye. Snout fleshy, projecting beyond the lower jaw. Anterior nostril tubular, behind middle of snout. Teeth in jaws villiform, a few teeth on palatines. Opercular membrane elongated and flap-like, covering base of pectoral. Origin of dorsal opposite to that of anal, one head length behind head. Pectoral as long as half length of head. Ventral about less than half length of pectoral, mid ray longest. Lateral line median anteriorly, running downwards posteriorly and ending at lower edge of base of caudal fin. Scales large, present along lateral line, posterior

midside of body becoming narrower posteriorly and continued as a narrow stripe upto tip of median caudal ray and a narrow bluish stripe from above mouth to below base of pectoral. Dorsal and anal pale basally becoming bluish distally and with very narrow clear outer edge. Pectoral yellowish.

Material : Kadamat, 1 specimen, 40 mm. Minicoy, 2 specimens, 42 and 46 mm.

Distribution : Red Sea, east coast of South Africa and adjacent islands to Seychelles in the Western Indian Ocean ; Indonesia to Caroline, Samoan, Society and Marquesas Islands. This is the first record from the Central Indian Ocean.

12. *Runula rhinorhynchus* (Bleeker) (Fig. 12)

Petroskirtes rhinorhynchus Bleeker, *Nat. Tijds. Ned.-Ind.*, 3, p. 273, 1852.

Aspidontus rhinorhynchus Smith, *Fishes Southern Africa*, p. 346 pl. 21, fig. 962, 1949.

Petroskirtes rhinorhynchus de Beaufort, *Fishes Indo-Australian Archipelago*, 9, p. 361, 1951.

Runula rhinorhynchus Smith, *Ichth. Bull.*, 14, p. 234, pl. 17, fig. 7, 1959. Smith and Smith, *Fishes Seychelles*, p. 50, pl. 93, fig. 7, 1963.

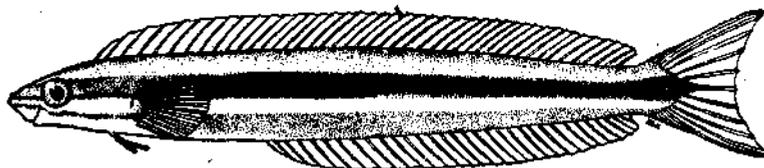


FIG. 12. *Runula rhinorhynchus* (Bleeker), 48 mm.

D. 44-45 ; A. 31-33 ; P. 12 ; V. I, 3.

Head 4.8-5.1 in standard length, 5.8-6.1 in total length. Depth of body 6.5-6.7 in standard length, 7.6-8 in total length. Eye 4 in head 1-1.1 in snout and also in interorbital space. Mouth inferior. Teeth in upper jaw about 40 ; about 70 teeth in lower jaw with a backwardly hooked large canine on each side. Gill opening much shorter than diameter of eye, extending opposite to middle rays of pectoral. Origin of dorsal above hind border of preopercle. Pectoral equal to postorbital length of head plus 1/3 eye diameter. Ventral slightly longer than half length of pectoral. Caudal emarginate. Colour : Preserved specimens brown, slightly lighter below ; two horizontal whitish bands from snout to base of caudal fin, the interspace between them broad and bluish brown. Fins pale yellowish ; base of pectoral dark.

Material : Minicoy, 3 specimens, 31 to 48 mm.

Distribution : East coast of South Africa, Aldabra, Seychelles ; Indonesia, Philippines, Palau Islands and New Hebrides. This is the first record from the Central Indian Ocean.