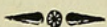


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Natural History Notes from H. M. Indian Marine Survey Steamer 'Investigator,' Commander C. F. Oldham, R. N., commanding. Series II. No. 23. A Supplementary List of the Marine Fishes of India, with Descriptions of 2 New Genera and 8 New Species.—By A. ALCOCK, M.B., C.M.Z.S., Superintendent of the Indian Museum.

[Reed. 5th June:—Read 1st July.]

In Day's *Fishes*, in the *Fauna of British India*, which was published in 1889, 1,418 Indian fishes are described.

Of these about 1,010 are true marine species, most of them being inhabitants of shallow water. During the last eleven years, however, the deeper waters of India have been to a certain extent explored, with the result that 201 (? 202) species of marine fishes have been added to the Fauna known to Dr. Day.

These 201 (? 202) species belong to 118 (119) genera, of which 86 (? 87) are not recorded in the *Fauna of British India*, and to 32 families, of which 8 are not recorded in the *Fauna of British India*.

In describing the latest collection of fishes made by the officers of the "Investigator" I have thought it advisable to bring together in one list all these additions to the Indian Fauna, preliminary to the preparation of a complete and succinct account of the whole.

In this list the Families and Genera new to the Indian Fauna are marked with an asterisk and are numbered serially.

J. II. 39

18572

§ 1. *Descriptions of new species.*Family **Scorpænidæ.**1. *Scorpæna bucephalus*, n. sp.D. XI. $\frac{1}{9-10}$ A. III. 5. L. lat. circ. 40.

Extreme length of head, in the adult, half the total without the caudal: height of body rather more than one-third of the same measure.

Length of snout equal to that of eye, and one-fourth that of head. Interorbital space not quite half an eye-length in breadth, traversed by two diverging ridges that do not end in spines. Spines of head and cheek prominent and acute, supra-orbital margin with one in front and two behind, a fimbriated tentacle about half as long as the eye intervening.

No occipital groove.

The maxilla does not quite reach the level of the posterior border of the orbit. Teeth in the palatine bones.

Scales large, about 40 rows from occiput to base of caudal: vertex, occiput, cheeks, and opercles scaly.

The 3rd, 4th and 5th dorsal spines are the longest—nearly one-third the length of the head: the 2nd anal spine much the longest and strongest—*nearly half the length of the head*. Pectorals hardly longer than the ventrals, not reaching to the anal.

An air-bladder.

Colours in spirit: light reddish yellow, with numerous purplish blotches on the head and on and above the lateral line; fins unspotted hyaline.

A female with gravid ovaries measures rather over $4\frac{1}{2}$ inches.

Off Malabar coast 36 fms., off Coromandel coast 33 fms.

2. *Scorpæna erostris*, n. sp.D. XI. $\frac{1}{9}$ A. III. 5. L. lat. circ. 40.

Very near *Sebastes bougainvillii*, C. V.

Extreme length of head nearly half the total without the caudal. *Profile of snout almost in the same vertical line with the front border of the orbit*. Diameter of eye about one-third the length of the head: interorbital space over half an eye-length in breadth, traversed by two ridges that do not end in spines. Spines of head and cheek small but acute: supra-orbital margin with a tooth and small tentacle in front, and with two spines and a large fimbriated tentacle behind. No occipital groove. The maxilla reaches to the posterior border of the orbit. Palatines

either toothless or with a few teeth anteriorly. About 40 rows of scales from occiput to base of caudal: opercles and cheeks densely, occiput and vertex sparsely, scaly: lateral line with a few long tentacles.

The 2nd, 3rd and 4th dorsal spines much the longest—*considerably more than half the length of the head*: the 2nd anal spine the longest—not quite half the length of the head. The pectorals reach to the anal fin, *only a few of the rays are branched*.

No air-bladder.

Colours in spirit: ventral half of body and all the fins light reddish yellow, dorsal half of head and body mottled purple; a dark purple blot between the 7th and 10th dorsal spines, and a fainter streak of the same colour between the 2nd and 6th dorsal rays.

Length not quite 3 inches.

Off Ceylon in 34 fms.

3. *Pterois macrura*, n. sp.

D. XIII. 9. A. II. 7. L. lat. circ. 45.

Caudal pointed, one at least of its upper rays produced as a slender filament which is as long as the body behind the eye.

Length of the head about two-fifths, height of the body about one-third of the total without the caudal. Snout as long as the eye, or rather more than one-fourth the length of the head: interorbital space deeply concave, its width half the length of the eye. Pre-orbital with spines and finely serrated crests, with a few scales, and with a large tentacle overhanging the angle of the mouth. Spines and crests of the head and cheek well developed and finely serrated.

About 45 rows of scales between the occiput and the base of the caudal: head scaly everywhere except jaws, tip of snout, and middle line of interorbital space.

The pectorals reach to the base of the caudal.

Colours in spirit: sepia with black cross-bars; vertical fins with dark spots which are only distinct along the upper edge of the caudal; pectorals and ventrals nearly black, with white spots.

Three large pyloric cæca.

Off Malabar coast in 45 fms.

Fam. **Squamipinnes.**

Holacanthus alternans, C. V., var. *meleagris*, nov.

This variety differs from the descriptions of the type only in colouration.

The colours in spirit are: head body and all the fins dark indigo-

blue, fading to lavender near the middle of the body, where, however, every alternate scale has a large indigo blotch: edges of dorsal caudal and anal fins, ventral spine and filament of outer ventral ray, light blue, the interradiial membranes of all these fins with numerous light blue spots: head and body with numerous narrow light blue stripes not involving the fins, namely one from the nape, in the middle line, to the snout and chin, one from the angle of the mouth to the isthmus, one from the temple in front of the eye to the interoperculum, one (the plainest of all) from the occiput to the preopercular angle and thence to the ventral spine, five or six (all more or less faint) in concentric series across the body, and three straight across the caudal peduncle.

Length about $7\frac{1}{2}$ inches.

Palk Straits.

Family Ophidiidæ.

4. † *Neobythites* (*Monomitopus*) *conjugator*, n. sp.

B. 8. D. circ. 90. A. circ. 72. P. circ. 28. V. 2 (fused to form a single filament). L. lat. 100–110. L. tr. $\frac{10-12}{25-30}$.

Length of head just under length of distance between gill-opening and vent, and about $4\frac{3}{4}$ in the total; greatest height of body one-sixth total. Snout hardly overhanging the upper jaw, very nearly as long as the eye—which is two-ninths the length of the head—and equal to the width of the flattened interocular space. Mouth wide, the maxilla half as long as the head: villiform teeth in the jaws vomer and palatines, the outer row in the premaxilla slightly but very distinctly enlarged: mucous membrane of mouth and gill-chamber black. Operculum with a strong spine above: angle of preoperculum excised, the angles of the excision strongly spiniform.

Gill-openings wide, gill-membranes free, four gills, about 12 gill-rakers on the outer side of the first arch are elongate, pseudobranchiæ reduced to two small filaments.

The whole body and head, including parts of the gill-membranes, covered with small adherent scales which also cover the basal half of the dorsal and anal fins. Lateral line very distinct anteriorly, becoming indistinct in the posterior fourth of the body.

The dorsal fin begins about an eye-length behind the gill-opening: it and the anal are confluent with the caudal. The pectoral fin broad, short, pointed, about half the length of the head, springing from a fleshy scaly base. The ventrals arise at the pectoral symphysis: each consists of two rays intimately fused throughout.

† Ill. Zool. Investigator, Fishes pl. xvii. fig. 4 (*in preparation*).

Nine very short pyloric cæca and two or three papillæ: a stout-walled air-bladder.

Colours sepia; caudal, distal two-thirds of pectoral, and outer part of dorsal and anal fins black.

Off Ceylon 296-320 fms., and off Travancore coast, 406 fms. This species is very closely related to *Neobythites* (*Monomitopus*) *nigripinnis*.

5. † *Dermatorus melampeplus*, n. sp.

At once distinguished from *Dermatorus trichiurus* and *melanocephalus* (1) by the complete absence of teeth on the vomer, and (2) by its uniform purple-black colour.

In the other two species there are a few scattered teeth on the vomer, and the head alone is black.

The single specimen has been too much damaged for description, but it is undoubtedly a good species.

Laccadive Sea, 931 fms.

Family **Pleuronectidæ.**

BOOPSETTA, n. gen.

Cleft of the mouth narrow: teeth in the jaws only, in broadish villiform bands on the blind side, gradually becoming obsolescent on the coloured side. Eyes on the right side, very large, almost in contact, the upper bulging beyond the dorsal profile, the lower in advance of the upper. The dorsal fin begins above the after part of the upper eye. Both pectorals and both ventrals well developed. Scales of moderate size, stout ctenoid and adherent on the coloured side, thin cycloid and deciduous on the blind side. Lateral line with a strong curve above the pectoral.

Gill-openings somewhat contracted, the membranes very broadly united below the isthmus: gill-rakers styliform.

Closely allied to *Pleuronectes*.

6. § *Boopsetta umbrarum*, n. sp.

B. 6. D. 60. A. 51. C. 18. P. *d.* 8, *s.* 6. V. 6. L. lat. *circ.* 110.

Height of the body one-third, length of the head one-fourth the total, without the caudal.

The mouth is short and broad, the cleft approaching the vertical, the maxilla being a little over three-fourths the length of the eye, which is slightly over one-third the length of the head. The teeth are in broad villiform bands in the jaws on the blind side, the bands gradually becoming narrow and disappearing on the coloured side. The upper eye bulges very strongly beyond the general dorsal profile.

† Ill. Zool. Investigator, Fishes pl. xvii. fig. 3 (*in preparation*).

§ Ill. Zool. Investigator, Fishes pl. xvii. fig. 5 (*in preparation*).

The length of the snout—*i.e.*, of the space between the front wall of the lower orbit and the tip of the knob of the mandibular symphysis—is less than one-third the length of the eye.

The body, and the head excepting only the snout and gill-membranes, are covered with scales.

The rays of the vertical fins are stout, the longest are more than two-fifths the greatest body-height. The caudal is large, with a distinct though broad peduncle.

The coloured pectoral is rather longer than its fellow, the latter being half the length of the head. The coloured ventral is rather longer than its fellow, the latter being as long as the eye.

Colours in spirit: right side blackish-brown, with traces of six opalescent cross-bands: irides and coloured pectoral fin blue-black, the pectoral with a narrow white cross-stripe. Vertical fins (on coloured side), and right ventral, almost black, tipped with milk white. Left side rather dusky.

Length 6.25 inches.

Off Colombo, 180–217 fms.

Fam. **Scopelidæ.**

7. † *Bathypterois atricolor*, n. sp.

B. 13. D. 15. A. 10. P. 2/10. V. 9. L. lat. 52. L. tr. 15.

Length of head a little more than one-fifth, height of body about one-eighth, of total (without caudal).

Length of snout a little more than one-third that of head, and a little more than 5 times that of eye, equal to width of interorbital space.

Few or no teeth on the vomer.

The dorsal fin arises just behind the vertical through the base of the ventrals, and nearly half its extent is in the anterior half of the body (measured without caudal): the anal arises just behind the level of the last dorsal ray: the adipose fin is halfway between the end of the dorsal and the base of the caudal: the lower caudal lobe is very slightly prolonged. Upper two pectoral rays prolonged, coherent in basal part but not fused: outer two ventral rays thickened, unbranched, prolonged as far as 7th or 8th anal ray.

Colours, uniform black, except the pectoral filaments.

Laccadive Sea, 891 fms.

Group **Scopelarchina.**

SCOPELARCHUS, n. gen.

Body elongate compressed, covered with deciduous scales, the scales, however, on the greater part of the lateral line being stout and

† Ill. Zool. Investigator, Fishes pl. xvii. fig. 6 (*in preparation*).

strongly adherent. Cleft of mouth very wide: premaxilla very long, tapering, firmly attached to the long thin maxillæ. A single row of small teeth in the premaxilla: a double row of teeth in the mandible, the inner row being large depressible and barbed at tip; an incompletely double series of similarly enlarged teeth on either palatine, and a long narrow row of almost similar teeth on the tongue and hyoid. Eye large. Gill-openings very wide, gill-membranes not attached to the isthmus, branchiostegals not very numerous (about 6?); pseudo-branchiæ large.

The dorsal fin is short, it arises well in the anterior third of the body (measured with the caudal) and all its extent lies between the pectorals and ventrals: the anal is long, occupying the greater part of the tail. Pectorals large. Ventrals with 8 rays. An adipose dorsal fin. Caudal forked. No luminous spots.

This is a remarkable generalized form of Scopeloid, showing affinities with *Saurus*, *Chlorophthalmus*, *Scopelus*, *Odontostomus*, and *Paralepis*. To casual view it looks just like a *Scopelus* devoid of luminous organs.

8. † *Scopelarchus Guentheri*, n. sp.

D.9. A.26. P.19. V.8. L. lat. (of enlarged adherent scales) circ. 50.

Head and body compressed: shape as of *Scopelus*.

Length of head (with gill-cover) not quite one-fourth, height of body about two-elevenths of the total (without caudal). Snout about three-fourths the length of the eye: the lower jaw in repose fitting within the upper. The eyes are large—between one-third and one-fourth the length of the head—they are separated from one another by a mere linear space, and their visual axis is rather more superior than horizontal.

The mouth-cleft forms a slightly oblique sweep, and the maxilla extends a considerable distance behind the posterior border of the orbit.

The scales of the lateral line are much enlarged, and their vertical diameter is much greater than their antero-posterior diameter, each is chambered, the chamber opening dorsally and ventrally.

The first dorsal ray arises about an eye-length behind the base of the pectorals, the last stands a little in advance of the base of the ventrals. The first anal ray arises near the middle of the body (measured with the caudal), the last is less than an eye-length distant from the rudimentary rays at the base of the caudal. The adipose fin stands in the posterior third of the distance between the dorsal and

† Ill. Zool. Investigator, Fishes pl. xvii. fig. 7 (in preparation).

caudal. Pectorals broad and falciform, several times larger than the ventrals.

Colours in spirit hyaline, occiput and caudal peduncle black.

A single specimen about 5 inches long, and apparently mature, from off the Indus Delta, 947 fms.

It is so fragile that I am afraid to dissect it.

§ 2. *Notes on some of the previously described new forms.*

Family **Spinacidæ.**

Centrosyllium ornatum, Alcock.

Paracentrosyllium ornatum, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 379: Ill. Zool. 'Investigator,' Fishes, pl. viii. fig. 2.

This species, the supposed type of a new genus, was described from three very young and not very well preserved specimens from the Bay of Bengal.

Four much larger specimens—the largest nearly a foot long—have lately been dredged in the Arabian Sea, and these while quite clearly identical with the Bay of Bengal species, also quite clearly belong to Müller and Henle's genus *Centrosyllium*, of which *Paracentrosyllium* now becomes a synonym. The following is the amended diagnosis of the species:—

All the tissues extremely fragile. Head very large, very flat and depressed, branchial regions laterally expanded. Snout much depressed, polygonal: nostrils very large, situated on ventral surface of edge of snout. Under surface of snout with numerous rather large pores, two rows of which form an elegant Y- or V-shaped figure that extends between the nostrils. Eyes very large, their major diameter nearly as long as the snout and nearly a fifth the length of the head (branchial region included). Spiracles rather small, situated on the upper surface of the head, behind the eye. Mouth crescentic, large: minute tricuspid teeth in both jaws. Body covered with minute deciduous placoid scales, the spine of each scale with a stelliform base.

Dorsal spines very strong and acute, the 2nd nearly twice the size of the 1st. The 1st dorsal fin arises in advance of a point midway between the pectorals and ventrals, the 2nd arises immediately behind the level of the base of the ventrals.

Colours uniform jet-black, but the integument is very deciduous.

Family **Ophidiidæ.**

Neobythites, Goode and Bean.

In the definition of this genus the ventral fins should, I think, be stated to consist of either one or two rays, so as to include *Monomitopus*,

mihi. *Monomitopus* agrees with *Neobythites* in every particular, except that each ventral fin consists either of a single ventral ray (*M. nigripinnis*) or of two rays firmly fused throughout their extent (*M. conjugator*).

Dicrolene, Goode and Bean.

In the definition of this genus the branchiostegals should be stated as eight. *Paradicrolene*, mihi, then becomes a synonym of *Dicrolene*. It seems to me almost doubtful whether *Dicrolene* (and *Pteroidonus*) should be kept separate from *Neobythites*. For there is an undoubted *Neobythites* (*N. pterotus*) in which the pectoral rays, in the male at any rate, are much produced, although none of them are strengthened and entirely independent.

Dicrolene intronigra, G. and B.

I have compared Indian specimens with one from the North Atlantic, and the only difference is that, in the former, the inside of the mouth and the fins are much blacker.

There are 8 branchiostegals in both.

Glyptophidium, Alcock.

In the definition of this genus the ventral fins should be stated as consisting of either one or two rays each: the lateral line should be stated to be absent.

Lamprogrammus, Alcock.

To the definition of this genus it should be added that an air-bladder is present.

Family **Macruridæ**.

Macrurus (*Mystaconurus*) *heterolepis*, Alcock.

This species is very probably identical with *Macrurus* (*Mystaconurus*) *cavernosus* (= *Bathygadus cavernosus*) Goode and Bean, from the Gulf of Mexico, 227 fms., a specimen of which I have examined.

Family **Stomiatidæ**.

Thaumastomias, Alcock.

Prof. Chr. Lütken (K. Dansk. Vid. Selsk. Skr. 6 Række, Nat. Math. Afd. VII. 6, 1892, p. 281) considers *Thaumastomias* to be identical with *Photostomias* (Collett, Bull. Soc. Zool. France, XIV. 1889, p. 291), notwithstanding that the dentition and the whole structure of the

mouth are entirely different. He appears to think that *Thaumastomias atrox* is specifically identical with *Photostomias guernei* Collet (*loc. cit.*) but a comparison of the descriptions of the two species will hardly be held to justify this opinion.

§ 3. *Supplementary List of the Fishes of India.*

ORDER CHONDROPTERYGII.

Family **Scyllidæ.**

SCYLLIUM.

1. *Scyllium hispidum*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 21: Ill. Zool. 'Investigator,' Fishes, pl. viii. figs. 3, 3a.

Andaman Sea in 188–220 fms.

2. *Scyllium ?canescens*, Gthr.

Scyllium canescens, Günther, 'Challenger,' Deep Sea Fishes, p. 1, pl. i. fig. A.

A small specimen, from the Arabian Sea 690–620 fms., answers to Dr. Günther's description and figure, except only that the body is almost black.

I. * Family **Spinacidæ.**

i. * CENTROSCYLLIUM, M. & H.

Centroscyllium, Müller and Henle, Plagiostomen, p. 191: Günther, Cat. Fishes Brit. Mus. VIII. p. 425.

Paracentroscyllium, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 379 (immature form).

3. *Centroscyllium ornatum*, Alcock.

Paracentroscyllium ornatum, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 379: Ill. Zool. 'Investigator,' Fishes, pl. viii. fig. 2: and *ante* p. 308.

"Swatch," Bay of Bengal in 405–285 fms., and Arabian Sea, 690–620 fms.

Family **Rajidæ.**

ii. * RAJA, Cuv.

4. *Raja mammillidens*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 380: Ill. Zool. 'Investigator,' Fishes, pl. viii. fig. 1.

Gulf of Manaar at 597 fms.

II. * Family **Chimæridæ.**

iii. * CHIMÆRA.

5. * *Chimaera monstrosa*, Linn. ? An empty egg-capsule from off Coromandel coast in 410 fms. (Ann. Mag. Nat. Hist. (6) X. 1892, p. 347).

iv. * CALLORHYNCHUS.

6. An empty egg-capsule from off the west coast of the Andamans in 561 fms. (Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 21, p. 22 fig. 1.)

Order TELEOSTEI.

Sub-Order ACANTHOPTERYGII.

Family **Serranidæ.**

v. * CHELIDOPERCA, Boulenger.

7. *Chelidoperca investigatoris* (Alcock). *Centropristis investigatoris*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 199 : Ill. Zool. 'Investigator,' Fishes, pl. x. fig. 1. *Chelidoperca investigatoris*, Boulenger, Brit. Mus. Cat. Fishes, (2) I. p. 305.

Off Madras coast in 98-102 fms.

PRIACANTHUS.

8. *Priacanthus fax*, C. V.

Cuvier and Val., Hist. Nat. Poiss. VII. 473 : Sauvage, in Grandier, Hist. Madagascar, Vol. XVI. p. 126, pl. xvi. fig. 1.

Off Ceylon in 32 fathoms.

Mr. Boulenger (Cat. Fishes Brit. Mus. (2) I. p. 354) considers this to be the young of *P. macracanthus*, C. V.

vi. *SYNAGROPS, Gthr.

Synagrops, Günther, 'Challenger' Deep Sea Fishes, p. 16. 1887.

Melanostoma, Döderlein, Denk. Ak. Wien, XLVIII. 1884, p. 5.

Parascombrops, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 296.

9. *Synagrops philippinense* (Gthr.)

Acropoma philippinense, Günther, 'Challenger' Shore Fishes, p. 51 : *Parascombrops pellucidus*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 296, pl. xxii. fig. 1 : *Acropoma philippinense*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1894, p. 116.

Common all along the east coast in 60 to 100 fathoms.

vii. *BREPHOSTOMA.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 383, and (6) VI. 1890, p. 201 (*diagnosis of genus*).

10. *Brephostoma carpenteri*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1889, p. 383, and (6) VI. 1890, p. 201, pl. ix. fig. 4.

Bay of Bengal in 1370—1520 fathoms.

Family **Squamipinnes.**

11. *Chætodon triangulum* (K. v. H.), C. V.

Chætodon triangulum, Klunzinger, Fisch. Roth. Meer. Theil I. 1884, p. 57 (*ubi synonym.*)

[*Tetragonopterus triangulum*, Bleeker, Atlas Ichthyologique, IX. p. 53, Chæt. Tab. XII. fig. 1.]

Andamans.

12. *Holacanthus alternans*, C. V.

Cuv. and Val., Hist. Nat. Poiss. VII. 193: Günther, Cat. Fish. Brit. Mus. II. 53: Playfair and Günther, Fishes of Zanzibar, p. 38: Sauvage in Grandidier, Hist. Madagascar, Vol. XVI. p. 269.

Palk Straits.

Family **Scorpænidæ.**

SEBASTES.

13. *Sebastes serrulatus*, Richardson.

Richardson, Ichthyology of the Seas of China and Japan, p. 215: Günther, Cat. Fishes Brit. Mus. II. p. 106: Alcock, Journ. A. S. B. Vol. LVIII. pt. 2, 1889, p. 298, pl. xxii. fig. 2.

Off Ganjam (Madras coast) in 23 fathoms.

14. *Sebastes hexanema*, Gthr.

Günther, 'Challenger' Shore Fishes, p. 40, pl. xvii. fig. B, and Challenger Deep Sea Fishes, p. 18: Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 23.

Andaman Sea in 188—220 fms.

15. *Sebastes muciparus*, Alcock, Journ. A. S. B. Vol. LVIII. pt. 2, 1889, p. 298, pl. xxii. fig. 3.

Off Ganjam coast in 45 fms.

viii. *LIOSCORPIUS, Gthr.

16. *Lioscorpius longiceps*, Gthr.

Günther, 'Challenger' Shore Fishes, p. 40, pl. xvii. fig. C: Alcock

Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 23, and Ill. Zool. 'Investigator,' Fishes, pl. x. fig. 3.

Andaman Sea in 188-220 fms.

SCORPÆNA.

17. *Scorpæna bucephalus*, ante p. 302.

18. *Scorpæna erostris*, ante p. 302.

PTEROIS.

19. *Pterois macrura*, ante p. 303.

PROSOPODASYUS.

20. *Prosopodasys trachinoides*, (C. V.)

Apistus trachinoides, Cuv. and Val. Hist. Nat. Poiss IV. 401, pl. 92, fig. 1: *Prosopodasys trachinoides*, Günther, Cat. Fishes Brit. Mus. II. 139 (*ubi synonym.*): Bleeker, Atlas Ichthyologique IX. Scorp. Tab. III. fig. 3: Sauvage, Nouv. Archiv. du Mus. (2) I. 1878, p. 131.

Mergui Archipelago.

21. *Prosopodasys leucogaster*, (Richardson).

Apistus leucogaster, Richardson, 'Samarang' Fishes, pl. v. figs. 1-2: *Prosopodasys leucogaster*, Günther, Cat. Fishes Brit. Mus. II. p. 141: *Gymnapistus leucogaster*, Bleeker, Atlas Ichthyologique, IX. Scorp. Tab. I. fig. 6.

Off Makrán (Baluchistán) coast.

MICROPUS.

22. *Micropus unipinna*, Gray.

Gray, Zool. Miscell. p. 20: Günther, Cat. Fishes Brit. Mus. II. 147 and Fische der Sudsee, p. 86.

? *Amphiprionichthys apistus*, Blkr., Günther, *op. cit.* II. 144: ? *Caracanthus apistus*, Bleeker Atl. Ichth. IX. Scorp. Tab. VI. fig. 5: *Amphiprionichthys apistus*, Kner, SB. Ak. Wien, LVIII. 1868, p. 309, pl. iii. fig. 8.

Reefs of Andaman Islands.

MINOUS.

23. *Minous trachycephalus*, Blkr.

Günther, Cat. Fishes Brit. Mus. II. p. 149: Bleeker, Atlas Ichthyologique IX. Scorp. Tab. V. fig. 4.

Off Malabar coast in 45 fms.

24. *Minous coccineus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 428.

Off Ganjam coast in 28–30 fms.

25. *Minous inermis*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 299, pl. xxii. fig. 4; Ann. Mag. Nat. Hist. (6) X. 1892, pp. 207–214; J. A. S. B. Vol. LXII. pt. 2, 1894, p. 116.

Off Coromandel and Malabar coasts in 45–133 fms.

Family **Berycidæ.**

ix. *HOPLOSTETHUS, C. V.

26. *Hoplostethus mediterraneum*, Gthr.

Günther, 'Challenger' Deep Sea Fishes, p. 21 (*ubi synonym.*): Alcock, J. A. S. B. Vol. LXII. pt. 2, 1894, p. 116, and Ill. Zool. 'Investigator,' Fishes, pl. xiv. fig. 3.

Bay of Bengal in 145–250 fms., and off Ceylon in 320–296 fms.

x. *TRACHICHTHYS, Shaw.

27. *Trachichthys intermedius*, Hector.

Hector, Trans. New Zealand Inst. VII. p. 245, pl. xi. fig. 18a: Günther, 'Challenger' Deep Sea Fishes, p. 24, pl. v. fig. D: Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889 p. 380.

Bay of Bengal, off Gangetic Delta in 272 fms.

28. *Trachichthys darwinii*, Johns.

Trachichthys darwinii, Johnson, P. Z. S., 1866, p. 311, pl. xxxii: *Trachichthys japonicus*, Steindachner and Döderlein, Denk. Ak. Wien, XLVII. 1883, p. 218, pl. ii: *Trachichthys darwinii*, Günther, 'Challenger' Deep Sea Fishes, p. 24 (*ubi synonym.*)

Off Ceylon in 320–296 fms.

xi.* MELAMPHAËS, Gthr.

29. *Melamphaës mizolepis*, Gthr.

Günther, 'Challenger' Deep Sea Fishes, p. 28: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 201.

Bay of Bengal in 1310 fms.

30. *Melamphaës* sp., Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 23.

Bay of Bengal in 1644 and 1803 fms.

xii. * POLYMIXIA, Lowe.

31. *Polymixia nobilis*, Lowe.

Polymixia nobilis, Günther, Cat. Fishes Brit. Mus. I. p. 17, and 'Challenger' Deep Sea Fishes, p. 34, pl. i. fig. B (*ubi synonym.*): Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 381, and (6) VIII. 1891 p. 23.

Andaman Sea in 188–271 fms.

HOLOCENTRUM.

32. *Holocentrum punctatissimum*, C. V.

Günther, Cat. Fishes Brit. Mus. I. p. 38: Bleeker, Atl. Ichth. VIII. Trachichth. Tab. V. fig. 2.

Palk Straits.

Family **Scilænidae**.33. *Sciæna ophiceps*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 300.

Orissa coast.

Family **Trichiuridae**.

xiii. * THYRSITES, C. V.

34. *Thyrsites bengalensis*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1894, p. 117, pl. vi. fig. 1, and Ill. Zool. 'Investigator,' Fishes, pl. xv. fig. 10.

Bay of Bengal in 145–250 fms.

May prove to be identical with *Thyrsites prometheoides* Bleeker.

Family **Acronuridae**.35. *Naseus vlamingii*, C. V.

Günther, Fische der Sudsee, p. 123 pl. lxxxi. (*ubi synonym.*)

Off Minnikoy I., Laccadives.

Family **Carangidae**.

xiv. * BATHYSERIOLA.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 202.

36. *Bathyseriola cyanea*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 202, and (6) VIII. 1891, p. 23.

Off Coromandel coast in 98–276 fms.

Family **Cyttidæ.**xv. * **ANTIGONIA**, Lowe.37. *Antigonia capros*, Lowe.

Günther, Cat. Fishes Brit. Mus. II. p. 497: Steindachner and Döderlein, Denk. Ak. Wien, XLIX. 1885, p. 187, pl. v. (*ubi synonym.*): Günther Challenger Deep Sea Fishes, p. 44 (*ubi synonym.*)

Off Ceylon in 320–296 fms.

Family **Trachinidæ.**

URANOSCOPUS.

38. *Uranoscopus cognatus*, Cantor.

Cantor, Cat. Malayan Fishes (J. A. S. B. Oct. 1849, p. 1003) p. 21: Günther, Cat. Fishes Brit. Mus. II. p. 227: Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 301.

Off Orissa and Ganjam coasts at 10–25 fms.

39. *Uranoscopus crassiceps*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 205, and Ill. Zool. 'Investigator,' Fishes, pl. x. fig. 4.

Off Madras coast at 98–102 fms.

xvi. * **CHAMPSODON**, Gthr.40. *Champsodon vorax*, Gthr.

Günther, P. Z. S. 1867, p. 102, and Challenger Shore Fishes, pp. 43, 52, 56, pl. xxiii. fig. A, and Challenger Deep Sea Fishes, p. 49: Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 302, and Ann. Mag. Nat. Hist. (6) IV. 1889, p. 381.

Common all round the coasts of India at about 30 to about 60 fms.

PERCIS.

41. *Percis tetracanthus*, Blkr.

Günther, Cat. Fishes Brit. Mus. II. p. 241, and Fische der Sudsee, p. 158, pl. xciii. fig. B: Kner and Steindachner, SB. Ak. Wien, LIV. 1866, i. p. 362, pl. iii. fig. 18.

Bay of Bengal and Andamans.

xvii. * **BEMBROPS**, Stdr.

Bembrops, Steindachner, SB. Ak. Wien, LXXIV. 1877, i. p. 211: *Hypsicometes*, Goode, Proc. U. S. Nat. Mus. Vol. III. 1881, p. 347, and

Günther, Challenger Deep Sea Fishes, p. 85: *Bathypercis*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1893, p. 177: *Bembrops*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 118.

42. *Bembrops platyrhynchus*, Alcock.

Bathypercis platyrhynchus, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1893, p. 178, pl. ix. fig. 1: *Bembrops platyrhynchus*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 118.

Off Madras coast in 128 fms.

43. *Bembrops caudimacula*, Stdr.

Steindachner, SB. Ak. Wien, 1877, Vol. LXXIV. i. p. 212: Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 118.

Off Madras coast in 107 fms.

xviii. *CHIASMODUS, Johnson.

Chiasmodon, Johnson, P. Z. S. 1863, p. 408, and Ann. Mag. Nat. Hist. (3) XIV. 1864, p. 76: *Chiasmodus*, Günther, Cat. Fishes Brit. Mus. V. p. 435: *Ponerodon*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 203, and (6) VII. 1891, pp. 9, 10. ? *Pseudoscopelus*, Lütken, Vid. Selsk. Skr., 6 Ræk. nat. math. Afd. VII. 6, p. 285, (pl. i.)

44. *Chiasmodus niger*, Johns.

Johnson, P. Z. S. 1863, p. 408, and Ann. Mag. Nat. Hist. (3) XIV. 1864, p. 76: Günther, Cat. Fishes Brit. Mus. V. p. 435, and Challenger Deep Sea Fishes, p. 99: Carter, P. Z. S. 1866, p. 35, pl. ii: Jordan and Gilbert, Cat. Fish. N. Amer. p. 119: A. Agassiz, Bull. Mus. Comp. Zool. XV. 1888, p. 29, fig. 208.

Ponerodon vastator, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 203, pl. ix. fig. 5.

Off Madras coast in 920-690 fms.

Family **Pediculati.**

xix. *LOPHIUS, Art.

45. *Lophius indicus*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 302.

Off Ganjam coast, 25 fms. and off Malabar coast at 28 fms.

46. *Lophius mutilus*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1893, p. 179, and Ill. Zool. Investigator, Fishes, pl. x. fig. 2.

Off Madras coast at 128 fms.

47. *Lophius lugubris*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 118, and Ill. Zool. Investigator, Fishes, pl. xiv. fig. 1.

Off Colombo at 142–400 fms.

xx. * CERATIAS, Kröyer.

48. *Ceratias bispinosus*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 53, pl. xi. fig. B.

Laccadive Sea at 636 fms.

xxi. * PARONEIRODES.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 206.

49. *Paroneiroides glomeratus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 206, pl. ix. fig. 6.

Off Madras coast at 1260 fms.

xxii. * CHAUNAX, Lowe.

50. *Chaunax pictus*, Lowe.

Lowe, Trans. Zool. Soc. III. 1849, p. 340, pl. li: Günther, Cat. Fishes Brit. Mus. III. p. 200, and Challenger Deep Sea Fishes, p. 58, pl. x. fig. A: Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 381.

Bay of Bengal at 272 fms.

HALIEUTÆA.

51. *Halieutæa coccinea*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 382, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 120.

Andaman Sea at 265 fathoms.

52. *Halieutæa nigra*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 24, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 120.

Andaman Sea at 188–220 fms.

53. *Halieutæa fumosa*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, pp. 119, 120, and Ill. Zool. Investigator, Fishes, pl. xiv. fig. 2.

Bay of Bengal at 145–250 fms.

xxiii. * DIBRANCHUS, Peters.

54. *Dibranchus micropus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 25, pl. viii. figs. 2, 2a, 2b, and (6) X. 1892, p. 348.

Bay of Bengal at 240–276 fms., off C. Comorin at 902 fms., and off coast of Travancore at 406 fms.

55. *Dibranchius nasutus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 24, pl. vii. fig. 1.

Andaman Sea at 188–220 fms., and off coast of Travancore at 406 fms.

xxiv. **MALTHOPSIS*.

Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 26.

56. *Malthopsis luteus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 26, pl. viii. figs. 2, 2a.

Andaman Sea at 188–220 fms.

xxv. **HALICMETUS*.

Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 27.

57. *Halicmetus ruber* Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 27, pl. viii. figs. 1, 1a, 1b.

Andaman Sea at 188–220 fms., and off Travancore coast at 406 fms.

Family *Cottidæ*.

58. *Trigla hemisticta*, Schlegel.

Temm. and Schleg. Faun. Japon. Poiss. p. 36, pl. xiv. figs. 3, 4, pl. xiv. B: Günther, Cat. Fishes Brit. Mus. II. p. 201: Day, Fauna Brit. Ind., Fishes, II. p. 241: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 207.

Mentioned by Day as from Muscat, not from India.

Off Madras coast in 98–102 fms.

[? *Prionotus alepis*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 303, pl. xxii. fig. 5.

This species may possibly be the young of *Trigla hemisticta*, but it undoubtedly has a band of teeth on the palatine bones and vomer.

Off Orissa coast in 68 fms.]

xxvi. **LEPIDOTRIGLA*, Gthr.

59. *Lepidotrigla spiloptera*, Gthr.

Günther, Challenger Shore Fishes, p. 42, pl. xviii. fig. C: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 429 (*var. longipinnis*).

Off Ganjam coast in 18 fms., and off Gangetic Delta in about 60 fms.

Family **Cataphracti.**60. *Peristethus murrayi*, Gthr.

Günther, Challenger Shore Fishes, p. 52, pl. xxxii. fig. A : Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 28.

Andaman Sea, in 188–220 fms.

61. *Peristethus rivers-andersoni*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 121, pl. vi. figs. 2, 2a, 2b.

Off Colombo, in 142–400 fms.

62. *Dactylopterus macracanthus*, Bleeker.

Günther, Cat. Fishes Brit. Mus. II. p. 223.

Off Malabar coast, in 28–45 fms., and off Orissa coast in 60 fms.

63. *Dactylopterus chirophthalmus*, Bleeker.

Günther, Cat. Fishes Brit. Mus. II. p. 223.

Off Madras.

Family **Pegasidæ.**64. *Pegasus natans*, L.

Günther, Cat. Fishes Brit. Mus. VIII. p. 148 (*ubi synonym.*)

Off Makrán (Baluchistán) coast.

Family **Gobiidæ.**

65. *Gobius cometes*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 208, pl. viii. fig. 2.

Off Madras coast in 98–102 fms.

66. *Amblyopus arctocephalus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 432.

Off Máhánaddi Delta at 50 fms., and off Vizagapatam coast at 20–25 fms.

67. *Callionymus carebares*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 209, pl. viii. fig. 8.

Off Madras coast at 98–102 fms.

Family **Trichonotidæ.**xxvii. **Tæniolabrus*, Stdr.

Steindachner, SB. Ak. Wien, LV. 1867, i. p. 713.

68. *Tæniolabrus cyclograptus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, pp. 430, 431, fig. 1.

Off Ganjam coast in 10–13 fms.

Suborder ANACANTHINI.

Family Gadidæ.

xxviii. * *Physiculus*, Kaup.

69. *Physiculus roseus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 28, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 122, and Ill. Zool. Investigator, Fishes pl. xi. fig. 2.

Andaman Sea in 188–220 fms.

70. *Physiculus argyropastus*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1893, p. 180, pl. ix. fig. 2, and Vol. LXIII. pt. 2, 1894, pp. 121, 122.

Off Madras and Ceylon coasts in 128–217 fms.

Family Ophidiidæ.

xxix. * *Neobythites*, Goode and Bean.

Neobythites, Goode and Bean, Proc. U. S. Nat. Mus. VIII. 1886, p. 600, and Günther, Challenger Deep Sea Fishes, p. 100. And *ante* p. 308.

Pycnocraspedum, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 386.

Monomitopus, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 297.

71. *Neobythites macrops*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 102, pl. xx. fig. A : Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 385, and VIII. 1891, p. 30.

Andaman Sea in 188–271 fms.

72. *Neobythites steatiticus*, Alcock, J. A. S. B. Vol. LXII. pt. 2, 1893, p. 181, pl. ix. fig. 3.

Off Madras coast in 107–250 fms.

73. *Neobythites pterotus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, pp. 210, 297, and VIII. 1891, p. 30, and Ill. Zool. Investigator, Fishes, pl. xi. fig. 4.

Bay of Bengal in 1310 and 1748 fms. Laccadive Sea, 1000 fms.

74. *Neobythites squamipinnis*, Alcock.

Pycnocraspedum squamipinne, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 386 : *Neobythites squamipinnis*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 123.

Bay of Bengal in 193–250 fms.

75. *Neobythites nigripinnis*, Alcock.

Sirembo nigripinnis, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 384: *Monomitopus nigripinnis*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 297, and VIII. 1891, p. 29, and Ill. Zool. Investigator, Fishes, pl. xi. fig. 3.

Andaman Sea in 490 fms., Bay of Bengal in 561-753 fms., Laccadive Sea in 740-891 fms.

76. *Neobythites conjugator*, ante p. 304.

.xxx. *DICROLENE, Goode and Bean.

Dicrolene, Goode and Bean, Bull. Mus. Comp. Zool. X. 1883 p. 202, and Günther, Challenger Deep Sea Fishes, p. 107. And ante p. 309.

Paradicrolene, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 387.

77. *Dicrolene intronigra*, Goode and Bean.

Goode and Bean, Bull. Mus. Comp. Zool. X. 1883, p. 202: Günther, Challenger Deep Sea Fishes, p. 107: Vaillant, Exp. Sci. Travailleur et Talisman, Poiss. p. 258, pl. xxiii. fig 2. And ante p. 309.

Paradicrolene vaillanti, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 297.

Laccadive Sea in 740 fms., off Ceylon in 406 fms.

78. *Dicrolene multifilis*, Alcock.

Paradicrolene multifilis, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 387, and VIII. 1891, p. 32, and X. 1892, p. 348, and Ill. Zool. Investigator pl. xi. fig. 1.

Bay of Bengal in 193-281 fms.

79. *Dicrolene nigricaudis*, Alcock.

Paradicrolene nigricaudis, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 30, and Ill. Zool. Investigator, Fishes, pl. ii. fig. 4.

Andaman Sea in 188-220 fms.

The "Explanation of the plate" was prepared in my absence, and in it this species, though correctly designated on the plate itself, is wrongly referred to *D. multifilis*.

xxxi. *DINEMATICHTHYS, Blkr.

80. *Dinematichthys piger*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 432.

Great Coco I., Andamans.

xxxii. * *DIPLACANTHOPOMA*, Gthr.81. *Diplacanthopoma brachysoma*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 115, pl. xxiii. fig. C:
Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 385.

Andaman Sea in 490 fms.

82. † *Diplacanthopoma rivers-andersoni*, Alcock, Ann. Mag. Nat. Hist. (6) XVI. 1895, p. 144.

Off Indus Delta in 947 fms.

xxxiii. * *SACCOGASTER*.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 389.

83. *Saccogaster maculata*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 389; VIII. 1891, p. 30, pl. vii. fig. 3; P. Z. S. 1891, pp. 226, 227, fig.

Bay of Bengal in 145-250 fms.

xxxiv. * *BATHYONUS*, Gthr.

84. *Bathyonus glutinosus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 211, and Ill. Zool. Investigator, Fishes, pl. i. fig. 3.

Off Madras coast in 1310 fms.

xxxv. * *DERMATORUS*.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 298.

85. *Dermatorus trichiurus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 298, and Ill. Zool. Investigator, Fishes, pl. i. fig. 1.

Laccadive Sea in 1000 fms., and off Makrán (Baluchistán) coast in 890 fms.

86. *Dermatorus melanocephalus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 32.

Bay of Bengal in 1644-1748 fms.

87. *Dermatorus melampeplus*, ante p. 305.xxxvi. * *TAUREDOPHIDIUM*.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 212.

88. *Tauredophidium hextii*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 213, pl. viii. fig. 1.

Off Madras coast at 1310 fms.

† Ill. Zool. Investigator, Fishes pl. xvii. fig. 1 (*in preparation*).

xxxvii. * GLYPTOPHIDIUM.

Alcock, *Ann. Mag. Nat. Hist.* (6) IV. 1889, p. 390. And *ante* p. 309.

89. *Glyptophidium argenteum*, Alcock, *Ann. Mag. Nat. Hist.* (6) IV. 1889, p. 390, and *Ill. Zool. 'Investigator,' Fishes*, pl. ii. fig. 3.

Andaman Sea in 271 fms., off Travancore coast in 406 fms.

90. *Glyptophidium macropus*, Alcock, *J. A. S. B.* Vol. LXIII. pt. 2, 1894, p. 122, pl. vi. fig. 3, and *Ill. Zool. Investigator, Fishes*, pl. xv. fig. 6.

Bay of Bengal in 145–250 fms.

xxxviii. * LAMPROGRAMMUS.

Alcock, *Ann. Mag. Nat. Hist.* (6) VIII. 1891, p. 32. And *ante* p. 309.

91. *Lamprogrammus niger*, Alcock, *Ann. Mag. Nat. Hist.* (6) VIII. 1891, p. 33, fig. 2, and *Ill. Zool. Investigator, Fishes*, pl. i. fig. 2.

Bay of Bengal, off west coast of Andamans in 561 fms., Andaman Sea in 405 fms.

92. *Lamprogrammus fragilis*, Alcock, *Ann. Mag. Nat. Hist.* (6) X. 1892, p. 348.

Bay of Bengal in 678 fms., off Travancore coast in 406 fms.

xxxix. * HEPHTHOCARA.

Alcock, *Ann. Mag. Nat. Hist.* (6) X. 1892, p. 349.

93. *Hepthocara simum*, Alcock, *Ann. Mag. Nat. Hist.* (6) X. 1892, p. 349, pl. xviii. fig. 1.

Gulf of Manaar in 902 fms.

III. * Family **Macruridæ**.

xl. * MACRURUS, Bl.

94. *Macrurus (Cælorhynchus) parallelus*, Gthr.

Günther, *Challenger Deep Sea Fishes*, p. 125, pl. xxix. fig. A : Alcock, *Ann. Mag. Nat. Hist.* (6) IV. 1889, p. 391, and *J. A. S. B.* Vol. LXIII. pt. 2, 1894, p. 126.

Gulf of Manaar in 597 fms.

95. *Macrurus (Cælorhynchus) flabellispinis*,† Alcock, *J. A. S. B.* Vol. LXIII. pt. 2, 1894, pp. 123, 126, and *Ill. Zool. Investigator, Fishes*, pl. xvi. figs. 2, 2a.

Off N. Maldivé Atoll in 719 fms.

† Erroneously "*flabellispinnis*" on p. 123.

96. *Macrurus* (*Cælorhynchus*) *quadricristatus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 119, and Ill. Zool. Investigator, Fishes, pl. iii. fig. 1, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 126.

Andaman Sea in 188–405 fms.

97. *Macrurus* (*Macrurus*) *investigatoris*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 391; VIII. 1891, p. 121; X. 1892, p. 351, and Ill. Zool. Investigator, Fishes, pl. iii. fig. 4, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 127.

Andaman Sea in 188–490 fms., Bay of Bengal in 193–410 fms.

98. *Macrurus* (*Macrurus*) *petersonii*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 121, and Ill. Zool. Investigator, Fishes, pl. iii. fig. 5, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 127.

Andaman Sea in 188–220 fms.

99. *Macrurus* (*Macrurus*) *semiquincunciatus*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 392; VIII. 1891, p. 121; X. 1892, p. 351, and Ill. Zool. Investigator, Fishes, pl. xii. fig. 2, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 127.

Bay of Bengal in 130–410 fms.

100. *Macrurus* (*Macrurus*) *brevirostris*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 393, and Ill. Zool. Investigator, Fishes, pl. xiii. fig. 3, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 127.

Andaman Sea in 490 fms.

101. *Macrurus* (*Macrurus*) *macrolophus*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 394; VIII. 1891, p. 121; X. 1892, p. 351, fig. 1, p. 352, and Ill. Zool. Investigator, Fishes, pl. xii. fig. 1, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 126.

Bay of Bengal in 240–410 fms., off Travancore coast in 406 fms.

102. *Macrurus* (*Macrurus*) *lophotes*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 395, and Ill. Zool. Investigator, Fishes, pl. iii. fig. 2, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 126.

Bay of Bengal, "Swatch", in 285–405 fms.

103. *Macrurus* (*Macrurus*) *polylepis*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 395, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 127.

Bay of Bengal in 193–272 fms.

104. *Macrurus* (*Macrurus*) *pumiliceps*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, pp. 125, 127, and Ill. Zool. Investigator, Fishes, pl. xvi. fig. 3.

Off N. Maldive Atoll in 719 fms.

105. *Macrurus* (*Macrurus*) *hoskynii*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 214, and Ill. Zool. Investigator, Fishes, pl. ix. fig. 4, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 126.

Off Madras coast in 1310 fms.

106. *Macrurus* (*Macrurus*) *hextii*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 299; X. 1892, p. 351, and Ill. Zool. Investigator, Fishes, pl. xii. fig. 3, and J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 126.

Laccadive Sea in 865–1000 fms.

107. *Macrurus* (*Macrurus*) *wood-masoni*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 301; VIII. 1891, p. 121; X. 1892, p. 353, and Ill. Zool. Investigator, Fishes, pl. xiii. fig. 1, and J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 126.

Laccadive Sea, G. of Manaar, and off Konkan coast, in 559–1000 fms.

108. *Macrurus* (*Mystaconurus*) *heterolepis*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 396; VIII. 1891, p. 122, and Ill. Zool. Investigator, Fishes, pl. iii. fig. 3. And *ante* p. 309.

Neighbourhood of Andaman Is. in 188–271 fms., Gulf of Manaar in 180–217 fms.

109. *Macrurus* (*Chalinurus*) *hispidus*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 397, and Ill. Zool. Investigator, Fishes, pl. xiii. fig. 2.

Off west coast of Andamans in 220–240 fms.

110. *Macrurus* (*Malacocephalus*) *lævis*, Lowe.

Lowe, P. Z. S. 1843, p. 92: Günther. Cat. Fishes Brit. Mus. IV. p. 397, and Challenger Deep Sea Fishes p. 148, pl. xxxix. fig. B: Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 398, and VIII. 1891, p. 123.

Andaman Sea in 188–265 fms.

xli. **BATHYGADUS*, Gthr.

111. *Bathygadus longifilis*, Goode and Bean.

Goode and Bean, Proc. U. S. Nat. Mus. VIII. 1885, p. 599: Günther, Challenger Deep Sea Fishes, p. 157: Vaillant, Exp. Sci. Travailleuse et Talisman, Poiss. p. 218, pl. xxiii. fig. 1: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 302, and VIII. 1891, p. 123.

Laccadive Sea in 740 fms., Andaman Sea in 683 fms.

112. *Bathygadus cottoides*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 154, pl. xlii. fig. A: Alcock, Ann. Mag. Nat. Hist. (6) X. 1892, p. 353.

Bay of Bengal in 410 fms.

113. *Bathygadus furvescens*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 128, and Ill. Zool. Investigator, Fishes, pl. xvi. fig. 1.

Off N. Maldive Atoll in 719 fms.

IV. *Family **Ateleopodidæ**.

xlii. *ATELEOPUS, Schleg.

114. *Ateleopus indicus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, pp. 123, 124, fig. 3, and Ill. Zool. Investigator, Fishes, pl. ii. fig. 2.

Andaman Sea in 188–220 fms.

Family **Pleuronectidæ**.

xliii. *ARNOGLOSSUS, Blkr.

115. *Arnoglossus macrolophus*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 280, pl. xviii. fig. 2, and Ann. Mag. Nat. Hist. (6) VI. 1890, p. 433.

Off Ganjam coast at 25–35 fms.

116. *Arnoglossus brevirectis*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 433.

Off Ganjam coast at 30 fms.

xliv. *BRACHYPLEURA, Gthr.

117. *Brachypleura xanthosticta*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 281, pl. xvii. fig. 3.

Off Orissa and Ganjam coasts at 25–35 fms.

xlvi. *SAMARIS, Gray.

118. *Samaris cristatus*, Gray.

Gray, Zool. Miscell., p. 4: Günther, Cat. Fishes Brit. Mus. IV. p. 420: Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 291, pl. xvii. fig. 4.

Off south and east coast of Ceylon at 26–34 fms.

xlvi. *CHASCANOPSETTA.

Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 128.

119. *Chascanopsetta lugubris*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 129, pl. vi. fig. 4, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 3.

Bay of Bengal at 145–250 fms.

RHOMBODICHTHYS.

120. *Rhomboidichthys angustifrons*, Gthr.

Günther, Challenger Shore Fishes, p. 46, pl. xxi. fig. B: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 435.

Off south-east coast of Ceylon at 32 fms.

121. *Rhomboidichthys azureus*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 283, pl. xvi. fig. 3, and Ann. Mag. Nat. Hist. (6) VI. 1890, p. 435.

Off Ganjam coast at 7-33 fms., off south-east coast of Ceylon at 32 fms.

122. *Rhomboidichthys valde-rostratus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 435.

Off south-east coast of Ceylon at 32 fms.

123. *Rhomboidichthys polylepis*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 290, pl. xvi. fig. 1, and Ann. Mag. Nat. Hist. (6) VI. 1890, p. 434.

Off east and south-east coast of Ceylon at 32-34 fms.

xlvii. *PSETTYLLIS.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 436.

124. *Psettyllis pellucida*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 437, fig. 2 p. 438.

All along Coromandel coast at 7-20 fms.

125. *Psettyllis ocellata*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 437, fig. 3 p. 48.

Off coast of Ganjam and Vizagapatam at 7½-13 fms.

xlviii. *PÆCILOPSETTA, Gthr.

126. *Pæcilopsetta maculosa*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 130, pl. vii. fig. 1, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 1.

Bay of Bengal at 145-250 fms.

127. *Pæcilopsetta prælonga*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 130, pl. vii. fig. 2, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 2.

Off Colombo at 142-400 fms.

xlix. *LÆOPS, Gthr.

128. *Læops guentheri*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 438.

G. of Martaban at 20 fms., off coasts of Vizagapatam, Ganjam and Orissa at 15-60 fms.

I. * SCIANECTES.

Alcock, [J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 284] Ann. Mag. Nat. Hist. (6) VI. 1890, p. 216.

129. *Scianectes macrophthalmus* [Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 292, pl. xvi. fig. 4] Ann. Mag. Nat. Hist. (6) VI. 1890, p. 216.

Off Arakan coast at 100 fms., off Madras coast at 98-102 fms.

130. *Scianectes lophoptera*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 284, pl. xvi. fig. 2.

Off Orissa coast at 68 fms.

II. * BOOPSETTA, ante p. 305.

131. *Boopsetta umbrarum*, ante p. 305.

SOLEA.

132. *Solea (Achirus) oculus*, Alcock, J. A. S. B. Vol. LVIII. pt. 2, 1889, p. 285, pl. xviii. fig. 3.

Off Orissa and Ganjam coasts at 7-10 fms.

Possibly only a variety of *S. harzfeldii*, Blkr.

133. *Solea (Achirus) cyanea*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 439.

Off Ganjam and Vizagapatam coasts at 20-33 fms.

134. *Solea (Achirus) umbratilis*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 131, pl. vii. fig. 3, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 4.

Off Coromandel coast at 91-107 fms., off Kattiwár coast, 82 fms.

SYNAPTURA.

135. *Synaptura quagga* (Kaup).

Aesopia quagga, Kaup, Wieg. Archiv, 1858, p. 98: *Synaptura quagga*, Günther, Cat. Fishes Brit. Mus. IV. p. 85: Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 440 (*nec* J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 286).

Off Coromandel coast at 26-33 fms.

136. *Synaptura altipinnis*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 441.

Off Vizagapatam coast at 25 fms.

lii. * *APHORISTIA*, Kaup.

137. *Aphoristia wood-masoni*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 294, pl. xvii. fig. 1; Ann. Mag. Nat. Hist. (6) X. 1892, p. 354; J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 132; Ill. Zool. Investigator, Fishes, pl. xvi. fig. 4.

Andaman Sea at 490 fms., Bay of Bengal at 475 fms.

138. *Aphoristia gilesii*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 293, pl. xvii. fig. 2, and LXIII. pt. 2, 1894, p. 132; Ill. Zool. Investigator, Fishes, pl. xiv. fig. 4.

Bay of Bengal, "Swatch" at 193 fms., and off Madras coast at 210 fms.

139. *Aphoristia septemstriata*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 125; Ill. Zool. Investigator, Fishes, pl. ii. fig. 1; J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 133.

Andaman Sea at 188–220 fms., off Colombo at 142–400 fms.

140. *Aphoristia trifasciata*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 132, pl. vii. fig. 4, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 5.

Bay of Bengal at 145–250 fms.

CYNOGLOSSUS.

141. *Cynoglossus monopus*, Blkr.

Cynoglossus melanopterus, Günther, Cat. Fishes Brit. Mus. IV. p. 502; *Cynoglossus monopus*, Bleeker, Atl. Ichth. VI. p. 38, pl. cexlv. fig. 4; *Cynoglossus melanopterus*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 289.

Off Ganjam coast at 7 fms.

142. *Cynoglossus versicolor*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 442.

Off Orissa coast at 11 fms.; off Makrán (Baluchistán) coast.

143. *Cynoglossus præcisus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 442.

Off Coromandel coast at 20–33 fms.

144. *Cynoglossus carpenteri*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 287, pl. xviii. fig. 1; and Ann. Mag. Nat. Hist. (6) VI. 1890, p. 217.

Off Coromandel coast at 68–107 fms.

Sub Order PHYSOSTOMI.

V. *Family **Sternoptychidæ.**

liii. *ARGYROPELECUS, Cocco.

145. *Argyropelecus hemigymnus*, Cocco.

Günther, Cat. Fishes Brit. Mus. V. p. 385, and Challenger Deep Sea Fishes, p. 167: Goode and Bean, Bull. Mus. Comp. Zool. Vol. X. 1883, p. 220: Facciola, Nat. Sicil. II. 206: Vinciguerra, Ann. Mus. Genov. (2) II. 469: Carus, Prod. Faun. Medit. II. 568: Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 126.

Bay of Bengal in 1803 fms.

liv. *STERNOPTYX, Herm.

146. *Sternoptyx diaphana*, Herm.

Günther, Cat. Fishes Brit. Mus. V. p. 387, and Challenger Deep Sea Fishes, p. 169, pl. xlv. figs. D. D': Goode and Bean, Bull. Mus. Comp. Zool. Vol. X. 1883 p. 220: A. Agassiz, Bull. Mus. Comp. Zool. Vol. XV. p. 22, fig. 195.

Off Malabar coast in 912-931 fms.

lv. *POLYIPNUS, Gthr.

147. *Polyipnus spinosus*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 170, pl. li. fig. B: Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 398, and VIII. 1891, p. 126.

Off coasts of Andaman Is. in 188-240 fms.

lvi. *GONOSTOMA, Raf.

148. *Gonostoma microdon*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 175 (*ubi synonym.*): Alcock, Ann. Mag. Nat. Hist., (6) IV. 1889, p. 399.

Off coasts of Andamans in 485-265 fms.

149. *Gonostoma elongatum*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 173, pl. xlv. fig. B: Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 127; and X. 1892, p. 354.

Laccadive Sea in 738-1200 fms.

lvii. *CHAULIODUS, Bl. Schn.

150. *Chauliodus sloanii*, Bl. Schn.

Günther, Cat. Fishes Brit. Mus. V. p. 392 (*ubi synonym.*), and Challenger Deep Sea Fishes, p. 179: Goode and Bean, Bull. Ess. Inst. XI. 1879, p. 22: Goode, P. U. S. N. M., III. 1880, p. 483: Facciola, Nat. Sicil. II. 206: Vinciguerra, Ann. Mus. Genov. (2) II. 469: A. Agassiz, Bull. Mus. Comp. Zool. XV. p. 32, fig. 214: Carus, Prod. Faun. Medit. II. 570: Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 399; VIII. 1891, p. 127; X. 1892, p. 355.

Bay of Bengal in 1590 fms., G. of Manaar in 597 fms., Laccadive Sea.

151. *Chauliodus pammelas*, Alcock, Ann. Mag. Nat. Hist. (6) X. 1892, p. 355.

Laccadive Sea in 1370 fms.

Family Scopelidæ.

HARPODON.

152. *Harpodon squamosus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 127, and X. 1892, p. 356.

Bay of Bengal, off east coast of India in 200-300 fms,

lviii. *SCOPELARCHUS, ante, p. 306.

153. *Scopelarchus guentheri*, ante, p. 307.

lix. *BATHYPTEROIS, Gthr.

154. *Bathypterois guentheri*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 450; VIII. 1891, p. 129; and Ill. Zool. Investigator, Fishes, pl. vii. fig. 6.

Off coasts of Andaman Is., 490-561 fms.

155. *Bathypterois insularum*, Alcock, Ann. Mag. Nat. Hist. (6) X. 1892, p. 356.

Laccadive Sea, 1140 fms.

156. *Bathypterois atricolor*, ante, p. 306.

lx. *CHLOROPHTHALMUS, Bonap.

157. *Chlorophthalmus corniger*, Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 133, pl. vi. fig. 5, and Ill. Zool. Investigator, Fishes, pl. xv. fig. 8.

Bay of Bengal in 145-250 fms.

SCOPELUS.

158. *Scopelus pyrsobolus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 218, pl. viii. fig. 3.

Off Madras coast in 920-690 fms.

159. *Scopelus (Myctophum) pterotus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 217, and Ill. Zool. Investigator, Fishes, pl. ix. fig. 3.

Off Madras coast in 98-102 fms.

160. *Scopelus engraulis*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 197, pl. li. fig. C: Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 129.

Andaman Sea in 188-220 fms.

lxi. *NEOSCOPELUS, Johns.

161. *Neoscopelus macrolepidotus*, Johns.

Johnson, P. Z. S. 1863, p. 44, pl. vii: Günther Cat. Fishes Brit. Mus. p. 414, and Challenger Deep Sea Fishes, p. 196 (*Scopelus macrolepidotus*): Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 129.

Andaman Sea in 188-220 fms.

lxii. *SCOPELENGYS.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 302.

162. *Scopelengys tristis*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 303, and Ill. Zool. Investigator, Fishes, pl. vii. fig. 7.

Laccadive Sea in 1000 fms.

lxiii. *ODONTOSTOMUS, Cocco.

163. *Odontostomus atratus*, Alcock, J. A. S. B., Vol. LXII. pt. 2, 1893, p. 182, pl. ix. fig. 4.

Bay of Bengal in 573 fms.

VI. *Family **Stomiati**dæ.

lxiv. *STOMIAS, Cuv.

164. *Stomias nebulosus*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 451, and Ill. Zool. Investigator, Fishes, pl. vii. fig. 1.

Gulf of Manaar in 597 fms.

165. *Stomias elongatus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 129.

Laccadive Sea in 738 fms.

lxv. *MALACOSTEUS, Ayres.

166. *Malacosteus indicus*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 214, pl. liv. fig. B:
Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 452.

Andaman Sea in 650 fms.

lxvi. *THAUMASTOMIAS.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 220, and *ante*, p. 309.

167. *Thaumastomias atrox*, Alcock, Ann. Mag. Nat. Hist. (6) VI.
1890, p. 220, pl. viii. fig. 7.

Off Madras coast in 1310 fms.

Family Clupeidæ.

lxvii. *BATHYCLUPEA.

Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 130.

168. *Bathyclupea hoskynii*, Alcock, Ann. Mag. Nat. Hist. (6) VIII.
1891, p. 131, fig. 4, p. 132.

Andaman Sea in 188–220 fms., off Madras coast in 145–250 fms.

VII. *Family Alepocephalidæ.

lxviii. *ALEPOCEPHALUS, Risso.

169. *Alepocephalus bicolor*, Alcock, Ann. Mag. Nat. Hist. (6) VIII.
1891, p. 133, and Ill. Zool. Investigator, Fishes, pl. iv. fig. 2.

Off Madras coast in 240–276 fms.

170. *Alepocephalus blanfordi*, Alcock, Ann. Mag. Nat. Hist. (6) X.
1892, p. 357, and Ill. Zool. Investigator, Fishes, pl. ix. fig. 1.

Gulf of Manaar in 902 fms.

171. *Alepocephalus edentulus*, Alcock, Ann. Mag. Nat. Hist. (6)
X. 1892, p. 358, pl. xviii. fig. 2.

Off Madras coast in 475 fms.

lxix. *BATHYTROCTES, Gthr.

172. ? *Bathytroctes microlepis* Gthr.

Günther, Challenger Deep Sea Fishes, p. 226, pl. lvii. fig. A:
Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 452.

Andaman Sea in 500 fms.

173. *Bathytroctes squamosus*, Alcock, Ann. Mag. Nat. Hist. (6)
VI. 1890, p. 303, and Ill. Zool. Investigator, Fishes, pl. v. fig. 1.

Off Goa coast in 740 fms.

lxx. **NARCETES*.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 305.

174. *Narcetes erimelas*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890 p. 305; Ill. Zool. Investigator, Fishes, pl. iv. fig. 1.

Off Goa coast in 740 fms.

lxxi. **PLATYTROCTES*, Gthr.

175. *Platytrectes apus*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 229, pl. lviii. fig. A : Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 307.

Off Goa coast in 740 fms.

lxxii. **XENODERMICHTHYS*, Gthr.

176. *Xenodermichthys guentheri*, Alcock, Ann. Mag. Nat. Hist. (6) X. 1892, p. 359, pl. xviii. fig. 3.

Off Madras coast in 678 fms.

lxxiii. **AULASTOMOMORPHA*.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 307.

177. *Aulastomomorpha phosphorops*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 307, and VII. 1891. fig. 1, p. 10; Ill. Zool. Investigator, Fishes, pl. v. fig. 2.

Laccadive Sea in 1000 fms.

lxxiv. **LEPTODERMA*, Vaillant.

178. *Leptoderma macrops*, Vaill.

Vaillant, Exp. Sci. Travailleuse et Talisman, Poiss. p. 166, pl. xiii. fig. 2 : Alcock, Ann. Mag. Nat. Hist. (6) X. 1892, p. 361.

Off Madras coast in 753 fms.

VIII. * Family *Halosauridæ*.lxxv. **HALOSAURUS*, Johns.

Halosaurus, Johnson, P.Z.S. 1863, p. 406 : Günther, Cat. Fishes Brit. Mus. VII. p. 482, and Challenger Deep Sea Fishes, p. 232.

Halosaurichthys, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 454.

179. *Halosaurus affinis*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 241, pl. lix. fig. B : Alcock, Ann. Mag. Nat. Hist. (6) VI. p. 309.

Laccadive Sea in 1000 fms.

180. *Halosaurus hoskynii*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 309, and Ill. Zool. Investigator, Fishes, pl. vii. fig. 3.

Laccadive Sea in 1000 fms.

181. *Halosaurus mediorostris*, Gthr.

Günther, Challenger Deep Sea Fishes, p. 239, pl. lix. fig. C : Alcock, J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 136.

Off N. Maldiva Atoll in 719 fms.

182. *Halosaurus anguilliformis*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 453.

Gulf of Manaar in 675 fms.

183. *Halosaurus parvipennis*, Alcock, Ann. Mag. Nat. Hist. (6) X: 1892, p. 362.

Laccadive Sea in 865–880 fms.

184. *Halosaurus carinicauda*, Alcock, Ann. Mag. Nat. Hist. (6) IX. 1889, p. 454, and Ill. Zool. Investigator, Fishes, pl. vii. figs. 2, 2a.

Andaman Sea in 490 fms.

Family **Murænidæ.**

lxxvi. *NEMICHTHYS, Richdsn.

185. *Nemichthys acanthonotus*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, p. 136, and Ill. Zool. Investigator, Fishes, pl. xiv. fig. 5.

Bay of Bengal in 475 fms.

lxxvii. *GAVIALICEPS, Wood-Mason.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 460.

186. *Gavialiceps microps*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 461 ; X. 1892, p. 364.

Bay of Bengal, off Andamans and Nicobars, 1045 fms., Laccadive Sea in 1370 fms., G. of Manaar in 902 fms.

lxxviii. *DYSOMMA.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 459.

187. *Dysomma bucephalus*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 459 ; VIII. 1891, p. 137, fig 5 : Ill. Zool. Investigator, Fishes, pl. vi. fig. 1 : J. A. S. B. Vol. LXII. pt. 2, 1893, p. 184.

Bay of Bengal, off east coast of Peninsula in 128–276 fms.

lxxix. *DYSOMMOPSIS.

Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 137.

188. *Dysommopsis muciparus*, Alcock, Ann. Mag. Nat. Hist. (6) VIII. 1891, p. 137.

Off Madras coast in 240-270 fms.

lxxx. *COLOCONGER.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 456.

189. *Coloconger raniceps*, Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 456; X. 1892, p. 364: Ill. Zool. Investigator, Fishes, pl. vii. fig. 4.

Andaman Sea in 265-271 fms., Bay of Bengal in 200-400 fms.

lxxxi. *BATHYMYRUS.

Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 305.

190. *Bathymyrus echinorhynchus*, Alcock, J. A. S. B., Vol. LVIII. pt. 2, 1889, p. 305, pl. xxii. fig. 6.

Bay of Bengal in 68-95 fms.

This form connects *Coloconger* and *Congromuræna*.

CONGROMURÆNA.

191. *Congromuræna macrocerus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1889, p. 455; VIII. 1891, p. 135; X. 1892, p. 362: Ill. Zool. Investigator, Fishes, pl. vii. fig. 5: J. A. S. B. Vol. LXIII. pt. 2, 1894, p. 134.

Andaman Sea in 265 fms., Bay of Bengal in 200-300 fms.

= *C. longicauda*, Alcock nec Ramsay and Ogilby.

192. *Congromuræna squaliceps*, Alcock, J. A. S. B., Vol. LXII. pt. 2, 1893, p. 183, and Vol. LXIII. pt. 2, 1894, p. 134.

Off Madras coast in 128-210 fms.

193. *Congromuræna nasica*, Alcock, J. A. S. B., Vol. LXII. pt. 2, 1893, p. 183, and Vol. LXIII. pt. 2, 1894, p. 134; Ill. Zool. Investigator, Fishes, pl. ix. fig. 2.

Off Madras coast in 128-210 fms.

194. *Congromuræna musteliceps*, Alcock, J. A. S. B., Vol. LXIII. pt. 2, 1894, pp. 133, 134, pl. vii. fig. 5: Ill. Zool. Investigator, Fishes, pl. xv. fig. 7.

Off Madras coast in 165-250 fms.

lxxxii. *PROMYLLANTOR.

Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 310.

195. *Promyllantor purpureus*, Alcock, Ann. Mag. Nat. Hist. (6) VI. 1890, p. 310: Ill. Zool. Investigator, Fishes, pl. vi. fig. 2.

Laccadive Sea in 1000 fms.

UROCONGER.

196. *Uroconger vicinus*, Vaillant.

Vaillant, Exp. Sci. Travailleur et Talisman, Poissons, p. 86, pl. vi.
fig. 1: Alcock, Ann. Mag. Nat. Hist. X. 1892, p. 363.

Off Madras coast in 475 fms., Laccadive Sea in 636 fms.

lxxxiii. *SAUROMURÆNESOX.

Alcock, Ann. Mag. Nat. Hist. (6) IV. 1889, p. 457.

197. *Sauromuraenesox vorax*, Alcock, Ann. Mag. Nat. Hist. (6)
IV. 1889, p. 458: Ill. Zool. Investigator, Fishes, pl. vi. fig. 3.

Bay of Bengal in 193–250 fms.

Very closely allied to *Muraenesox*.

lxxxiv. *XENOMYSTAX, Gilbert.

198. *Xenomystax trucidans*, Alcock, J. A. S. B., Vol. LXIII. pt. 2,
1894, p. 134: Ill. Zool. Investigator, Fishes, pl. xvi. fig. 5.

Off N. Maldiva atoll in 719 fms., off Travancore coast in 406 fms.

lxxxv. *NETTASTOMA, Raf.

199. *Nettastoma tæniola*, Wood-Mason, Alcock, Ann. Mag. Nat.
Hist. (6) IV. 1889, p. 460 (*Gavialiceps tæniola*); VIII. 1891, p. 135;
X. 1892, p. 364.

Andaman Sea in 265 fms., Bay of Bengal in 240–280 fms.

Sub-Order PLECTOGNATHI.

Family Sclerodermi.

lxxxvi. *TRIACANTHODES, Blkr.

200. *Triacanthodes ethiops*, Alcock, J. A. S. B., Vol. LXIII. pt. 2,
1894, p. 137, pl. vii. fig. 6: Ill. Zool. Investigator, Fishes, pl. xv. fig. 9.

Off Madras coast in 145–250 fms.

OSTRACION.

201. *Ostracion fornasini*, Bianc.

Bleeker, Atl. Ichth. V. 34, Ostrac. Tab. III. fig. 4: Günther, Cat.
Fishes Brit. Mus. VIII. p. 264.

Off Ceylon in 34 fms.



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