

SOME NEW OR RARE FISHES OF THE INDO-AUSTRALIAN
ARCHIPELAGO IV ¹⁾.

By

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Fam. NARCACIONTIDAE.

NARCINE HENLE.

Narcine timlei (SCHNEIDER).

Disk subcircular, somewhat more broad than long, its length a little shorter than half of total length of animal. Anterior nasal valves short, united into a broad flap, with three slight notches, reaching to mouth, sparsely ciliated. Posterior valves short continued in a fold towards angle of mouth. Mouth small, protactile. Bands of teeth narrow, folded outwards in lower as well as in upper jaw. Each teeth with a sharp point on innerside of the crown. These points are not found on those parts of the bands which are bent outwards. Eyes small. Spiracles large, close behind eyes. Walls of spiracles smooth. Dorsals subequal, their height about equal to the distance between the spiracles. First dorsal situated behind the insertion of the ventrals. Ventrals with an almost straight hindborder. Height of caudal about $1\frac{1}{2}$ in its length. A horizontal fold of skin on each side of tail, beginning behind first dorsal and ending before caudal. Colour reddish brown with darker spots.

One specimen (male) with a total length of 25 cm I received from Bagan si Api Api (Sumatra). Furthermore I got two specimens (females) from Batavia. The teeth of the latter individuals were not so pointed as those of the Sumatran specimen. With one of the females the spot on the back were more numerous and smaller.

Literature consulted:

1. *Narcine timlei* BLEEKER, Natuurkundig Tijdschr. Ned. Indië, 1853, p. 512.
2. *Narcine timlei* GARMAN, Memoirs of the Museum of Comp. Zoöl. Harvard Vol. XXXVI, 1913, p. 300.

Fam. SILURIDAE.

HEMISILURUS BLKR.

Hemisilurus heterorhynchus (BLKR.).

B.11; A.93; P.I.5; V.9.

¹⁾ Cf. Treubia, XIII, p. 411; XIV, p. 215; XIV, p. 287.

Height 4, head 5.2 in length ¹⁾. Eye subcutaneous, 6.6 in head, situated in anterior part. Snout prominent, rounded, 3.3 in head. Anterior nostrils short tubes at top of snout. Posterior nostrils not ending in short tubes, situated far behind and above eye. Maxillary barbels slender, reaching to frontborder of eye, flexible. Mandibulary barbels very small about as long as half eye, situated far backwards from symphysis somewhat before the hyoid bone. The distance between these barbels is somewhat less than 1½ eye. Anal distinctly free from caudal, its length about 5/8 of head and body, foremost rays somewhat shorter than following ones. Ventrals reaching to third anal ray, about as long as longest anal ray. Pectorals reaching to vertical through 8th anal ray, shorter than head. Its osseous spine longer than half of head. Caudal deeply incised with rounded lobes. Fine curved teeth in curved bands on jaws. Two small rounded patches on vomer, covered partly by the velum. 10 gillrakers. Body grayish to brownish darker above. Head with yellowish patches. Fins darkish.

One specimen from the mouth of the Rokan River (Bagan si Api Api Sumatra) with a total length of 45.5 cm. Native name "ikan adang budak".

Literature:

1. *Wallago heterorhynchus* BLEEKER, Nat. Tijdschr. Ned. Ind. V, 1853, p. 514.
2. *Hemisilurus heterorhynchus* BLEEKER, Atl. Ichth. II, 1862, p. 94.
3. *Hemisilurus heterorhynchus* GÜNTHER, Cat. Brit. Mus. II, 1864, p. 54.
4. *Hemisilurus heterorhynchus* WEBER and DE BEAUFORT, Fishes of the Indo-Australian Archipelago Vol. II, 1913, pag. 211.

Hemisilurus scleronema BLKR.

B.10; A.111; P.I.16; V.9.

Height 5.1. Head 6.3 in length. Eyes subcutaneous, 6.0. in head. Length of snout about twice in postorbital part of head. Snout obtuse rounded, prominent. Anterior nostrils ending in short tubes, situated on top of snout, not far distant from each other. Posterior nostrils not tubular, above frontborder of eye. Maxillary barbels stiff, hooked posteriorly, short, broadly compressed at their base. Mandibulary barbels besides the anterior end of the hyoid bone very small, almost invisible. Anal ceases before caudal, its longest rays about 3 in head. Ventrals reaching to fifth anal ray, its length about 4 in height of body. Pectorals reaching to 8th anal ray, its length as long as head without snout. The spine somewhat shorter than postorbital part of head. Fine villiform teeth in bands on jaws. Two small patches of teeth on vomer. Body grayish darker above. Caudal fin powdered with dark, especially at its border, as in the case in the anal.

One specimen with a total length of 46 cm from the mouth of the Rokan River, Bagan si Api Api, Sumatra. Native name: Ikan kumu.

Literature:

1. *Hemisilurus scleronema* BLEEKER, Atl. Ichth. II 1862, p. 93.

¹⁾ With lengths is always meant the length of head and body without the caudal fin.

2. *Hemisilurus scleronema* WEBER and DE BEAUFORT, *Fishes of the Indo-Australian Archipelago II* 1913, p. 214.

***Hemisilurus moolenburghi* WEBER and DE BEAUFORT.**

B.11-12; A.97; P.I.15; V.9.

Height 5.2, head 5.1 in length. Eyes subcutaneous, situated in anterior half of head, 10.3 in head, 3.8 in snout, about 5 in the convexity of interorbital space. Snout about $\frac{2}{3}$ of postorbital part of head, rounded, prominent. Mouth-opening inferior, transverse. Dorsal profile ascending from snout to the convex back with a slight concavity. Highest point of body just behind ventrals. Anterior nostrils tubular, at top of snout. Posterior nostrils situated above and behind eye, bordered by a superior and inferior lip. Maxillary barbels situated laterally and behind anterior nostrils, originating from a rounded base, stiff in the proximal part, distally flexible and setaceous, reaching the anterior border of the opercle. Mandibular barbels far distant from symphysis very slender, about as long as pupil. Anal not united with caudal, the latter deeply forked. Its lobes slender and pointed, much shorter than head. Ventrals reaching to second anal ray, 3.6 in head. Pectorals reaching not so far backwards, 1.3 in head. Teeth in upper jaw in two broad and curved patches. The bands in the lower jaw are more curved and narrowing laterally. Vomerine teeth in two small oval patches. All teeth villiform; 14 short gillrakers. Colour greyish or blueish, lighter below. All fins more or less blackish.

One specimen (male) with a total length of about 31 cm, found in the fishmarket of Pontianak (Borneo) in December 1930 by Mr. COOMANS DE RUITER. It differs from the type-description from WEBER and DE BEAUFORT in having a somewhat smaller eye. Otherwise my specimen is quite identical.

Literature:

1. *Hemisilurus moolenburghi* WEBER and DE BEAUFORT, *Fishes of the Indo-Australian Archipelago II*, 1913, p. 212.

Fam. **ARIIDAE.**

ARIUS C.V.

***Arius leptotacanthus* BLKR.**

B.4; D.I.7; A.20; P.I.11; V.6.

Elongate. Height 4.4 in length. Head 3.4 rather broad than high, its greatest width 1.2 in its length. Shields of head scattered with very fine granulations. The long broad median fontanel reaches to base of the triangular occipital process, which is more shorter than broad, carinated in the middle. Its broad and somewhat emarginated hindborder reaches to the smooth and small basal bone of the dorsal spine. Eyes lateral, with a free orbital margin, 6.2 in head, 2.2 in snout. Snout prominent. Mouth large, transverse. Teeth villiform, in one curved band in upper and in two curved bands in lower jaw. Teeth on vomer in two elongated, pearshaped patches, slightly converging posteriorly. Three

pairs of barbels, which are all broad and flattened. Maxillary ones reaching to beyond gillopening, mental ones reaching just to gillopening. Maxillary barbels lying partly in a groove below the eyes. Dorsal spine serrated on posterior and anterior side, 1.5 in head. Pectoral spine also serrated on both sides, 1.6 in head, slightly curved. Axillary pore present. Adipose fin with a rounded border, about equally long and high. Anal somewhat emarginated, its longest ray 1.6 in head. Ventrals about twice in head. Caudal with equal and broad obtuse lobes. Blueish above, whitish below. All fins blackish, only the ventrals entirely white. Outer side of maxillary barbels powdered with black.

One specimen with a total length of 128 mm from the mouth of the Djambi-river (Sumatra) May 1934.

Literature:

1. *Arius leptotacanthus* BLEEKER, Verh. Bat. Gen. XXII, 1849, Bijdr. Ichth. Madura, p. 11.
2. *Arius leptotacanthus* BLEEKER, Atlas Ichth. II, 1862, p. 32.

Fam. SYNGNATHIDAE.

ICHTHYOCAMPUS KAMP.

Ichthyocampus carce HAM. BUCH.

D.26; A.2; P.13; C.9; Rings 15 + 41. Subdorsal rings from the 2nd to the 9th tail ring.

Body somewhat compressed, heptagonal. Abdominal cristae sharp and prominent. Tail tetragonal, with a transverse section which is more high than broad. Tail about $2\frac{1}{2}$ as long as trunk. Shields with prominent, crenulated edges, transversely striated with a seallike figure in their anterior part. Inferior cristae of trunk and tail continuous. Median cristae of trunk deflecting to inferior cristae, without coalescing with them. Head 8 in length. A median ridge on snout. Eye 7.5 in head, more than 3 in snout which is subequal to postorbital part of head. Operculum with two longitudinal keels, the lower one median and the upper one placed on the upper part of the operculum. From the median keel rugosities are radiating. A keel above the eyes, which is deflecting to the median keel on the snout but not coalescing with it. On the sides of the snout three keels are found of which the upper one is more or less deflecting with a keel below the eyes. Colour brownish, with white spots on each trunk ring on the inferior cristae.

One specimen with a total length of 11.5 cm. Batavia, October 1933.

Literature:

1. *Syngnathus carce* HAMILTON BUCHANAN, Fishes of the Ganges, 1822, p. 13.
2. *Hippichthys heptagonus* BLEEKER, Verh. Bat. Genootsch. XXII, 1849, p. 15.
3. *Syngnathus carce* BLEEKER, Verh. Bat. Genootsch. XXV, 1853, p. 161.
4. *Syngnathus heptagonus* BLEEKER, Nat. Tijdschr. Ned. Ind. IX, 1855, p. 430.
5. *Ichthyocampus carce* GÜNTHER, Cat. Brit. Mus. VIII, 1870, p. 176.
6. *Ichthyocampus carce* DAY, Fishes of India, p. 679.

7. *Ichthyocampus carce* CHAUDHURI, Mem. Indian Museum V, 1916, p. 456.
8. *Ichthyocampus carce* WEBER and DE BEAUFORT, Fishes of the Indo-Australian Archipelago IV, 1922, p. 92.

Fam. POLYNEMIDAE.

POLYNEMUS L.

Polynemus pfeifferi BLKR.

In Treubia Vol. XIV 1934, p. 293 I published a description of a specimen of *Polynemus pfeifferi* from Pelabuan Ratu (South Coast of Java). Since then I got some more specimen closely agreeing with the description mentioned above, through the courtesy of Mr. J. C. VAN DER MEER MOHR. These last specimens were caught near the coast of Medan (Strait Malacca).

Fam. SOLEIDAE.

TYPHLACHIRUS (HUBBS) HARDENBERG.

In Treubia Vol. XIII, 1931, I published the description of a blind sole, *Typhlachirus caecus* nov.gen.nov.spec. In this publication I omitted to give a diagnosis of the genus, which now follows below:

Diagnosis of the genus *Typhlachirus*:-

Rather small fishes, with an oval body, lying on their left side. Only one blind, more or less inconspicuous eye, situated near corner of mouth in upperlip. Head especially on blind side, densely covered with tentacles, which are also found on the lower side of the rays of dorsal and anal. Scales ctenoid on both sides, covered with skin. Anal, caudal and dorsal confluent. Right pectoral minute, almost absent, near upper corner of gillopening. Left pectoral short with a broad base. Right ventral connected with anal. Left ventral free. Occurring on soft muddish bottom in rivermouths.

Hitherto the single known species was only found by me in the mouth of the Rokan River (Sumatra). In May 1934 however I happened to find several individuals in the Banju-asin (mouth of the river Musi). These specimens agree closely with the description given in my above mentioned article.

Fam. CARANGIDAE.

CARANX LACÉPÈDE.

Caranx (Caranx) ignobilis (FORSK.).

D₁. VIII; D₂ I.19; A.II I.16; P.I.18; V.I.6.

Compressed. Height 2.5, head 2.9 in length. Dorsal profile strongly convex till first dorsal, thence slightly convex till caudal peduncle. Ventral profile straight till anal. Eye 4.5 in head, with a narrow posterior adipose eyelid, situated in the anterior half of head, for the greater part above longitudinal axis of

body, about as long as snout. Cleft of mouth about one eyediameter below eye. Jaws subequal. Maxillary reaches to beyond centre of eye. Teeth villiform with an outer row of irregularly placed canines. Villiform teeth on vomer, palatines and tongue. 13 Gillrakers on lower branch of gillarch. Breast naked till somewhat above ventrals, small patch of scales in front of ventrals. On the head scales are present on the cheeks, behind the eyes and on upper part of operculum. Otherwise the head is naked. Anterior part of lateral line moderately arched, becoming straight below seventh soft dorsal ray. Arched portion somewhat shorter than straight part, which bears 28 armed scutes. Third dorsal spine longest, about as long as snout and half diameter of eye. Soft dorsal and anal with an elevated and somewhat falcate lobe, their height, subequal, somewhat longer than postorbital part of head. Pectorals strongly falcate, reaching to 9th anal ray, about as long as height of body. Ventrals surpassing anus, about as long as postorbital part of head. Caudal deeply forked, lobes equal. Colour greenish above, silvery below. Dorsals and caudal with a blackish border, other fins hyaline.

One specimen with a total length of 34 cm from Pelabuan Ratu (South-coast of Java), August 1933.

Literature:

1. *Scomber ignobilis* FORSKÅL, Descr. animal, 1755, p. 55.
2. *Caranx sansun* GÜNTHER, Cat. Brit. Mus. II, 1860, p. 447.
3. *Carangus hippoides* JENKINS, Bull. U.S. Fish. Comm. XXII, 1904, p. 443.
4. *Caranx ignobilis* JORDAN and ÉVERMANN, Bull. U.S. Fish. Comm. XXIII, 1905, p. 188.
5. *Caranx ignobilis* JORDAN and SEALE, Bull. Bur. of Fish. XXV, 1906, p. 231.
6. *Caranx ignobilis* JORDAN and RICHARDSON, Bull. Bur. of Fish. XXVII, 1908, p. 250.
7. *Caranx ignobilis* WEBER, Siboga Exp. Fische, 1913, p. 398.
8. *Caranx ignobilis* WAKIYA, Ann. Carnegie Museum XV, 1924, p. 193.
9. *Caranx ignobilis* BARNARD, Ann. S. Afric. Museum, XXI, 1925-'27, p. 545.
10. *Caranx ignobilis* FOWLER, Fishes of Oceania. Memoirs Bishop Mus. X, 1928, p. 148.
11. *Caranx ignobilis* WEBER and DE BEAUFORT, Fishes of the Indo-Australian Archipelago VI, 1931, p. 255.

SERIOLA CUVIER.

Seriola bonariensis C.V.

D.I (antrorse) + VII + I.30, A.II + I.20, P.22. V.I.5, L.1. \pm 160.

Elongate. Depth about 3, head 3.7 in length. Eye 1.5 in snout, about 4.5 in head. Maxillary reaching a little behind frontborder of pupil, its greatest height about equal to eye. 19 gillrakers on lower branch of gillarch. Villiform teeth in bands on jaws. Patches of teeth present on vomer, palatines and tongue. Pectorals about twice in length of head. Ventrals somewhat longer than pectorals, inserted below their base. Anal thrice in length, dorsal more than twice.

Longest dorsal rays about as long as snout and eye, longest anal rays about as long as snout and half eye. Caudal forked with broad pointed lobes. Cheeks and upper part of operculum scaly. Body wholly covered with scales, those on forepart of body smaller than those on hindpart. Lateral line arched in forepart of body. Silvery-whitish below, blueish-dark above. A broad dark band from first rays of spinous dorsal through eye, down to praeorbital. Dorsal and caudal somewhat blackish, with a darker border. Anal slightly blackish with a whitish border. Pectorals hyaline. Ventrals darkish, outer rays excepted. Operculum blackish, shining through.

One specimen with a total length of 23 cm from the midst of the Java-Sea, captured with a hook. October 1933. Hitherto not found in the Indo-Australian Archipelago.

Literature:

1. *Seriola bonariensis* CUVIER and VALENCIENNES Hist. Nat. Poiss. Vol. IX, 1833, p. 211.
2. *Seriola bonariensis* GÜNTHER Cat. Brit. Mus. II 1860, p. 464.
3. *Seriola bonariensis* BARNARD, A Monograph of the Marine Fishes of South Africa, 1925-1927, p. 557.

Fam. **SCOMBRIDAE.**

GRAMMATORCYNUS GILL.

Grammatorcynus bilineatus (RÜPP.).

D¹ XII, D² I.10 + 7; A.II.9 + VII; P.I.21; V.I.5.

Oblong. Height 3.8, head 4.0 in length. Snout pointed, 2.9 in head. Eye large, 3.6 in head. Maxillary rather pointed posteriorly, reaching to below pupil. Jaws provided with a few small, caninelike, teeth. Patches of villiform teeth present to tongue, vomer and palatines. Unpaired fins rather low. Third dorsal spine longest, about 2.7 in height. Second dorsal and anal falciform and equal in height. Longest ray 3.0 in depth of body. Caudal deeply incised, lobes equal, their hindborder rounded. Pectorals 1.8, ventrals 3.1 in head. Scales, small and regular, present on whole body, also present on nape, opercles and cheeks. Two lateral lines. The uppermost one has a normal course from upper angle of operculum to caudal peduncle. The lowermost one branches off vertically downwards from the upper one at some distance behind the operculum, which is about equal to snout. The lower lateral line curves backwards below the level of the pectoral fin and unites again with the upper lateral line below the last but one finlet. Three low keels on caudal peduncle. Blueish above, silvery below, with irregularly scattered black spots on abdomen. All fins more or less blackish.

Very rarely found in the fishmarket of Batavia. All specimens were captured by Japanese fishermen on reefs in the western part of the Java-Sea. This description is made after a specimen with a total length of about 50 cm. Prof. Dr. L. F. DE BEAUFORT was so kind as to give me the name of this species.

Literature:

1. *Thynnus bilineatus* RÜPPELL, N.W. Fische p. 39.
2. *Nesogrammus piersoni* EVERMANN and SEALE, Bull. of the Bureau of Fisheries XXVI, 1906, p. 61. It should be noted however that according to this description the eye should be much smaller, and indeed I do possess a specimen with a smaller eye. Furthermore the number of rays in the pectoral fin should be I.9 according to the description of JORDAN and SEALE. This is probably a misprint.
3. *Grammatorcynus bilineatus* KISHINOUE, Journal Coll. of Agriculture Imp. Univ. Tokyo. Vol. VIII, 1923, p. 413.

Fam. SERRANIDAE.

PLECTROPOMA CUVIER.

Plectropoma oligacanthus BLKR.

D.VIII.11; A.III.7; P.I.14; V.I.5; L.1.121.

Oblong. Height 3.3, head 2.8 in length. Eye 7.5 in head entirely above level of snout. Lower jaw prominent, maxillary reaching to below pupil. Teeth in jaws small, a few big canines excepted. Praeoperculum with 5, not easily visible, spines. Nape, operculum and cheeks covered with scales of the same size as those on the body. L.1. irregularly arched. Spinous dorsal rather low, third spine longest, about 5 in head. Soft dorsal distinctly emarginated, its longest ray (the third one) about twice in head. Anal emarginated, about as high as soft dorsal, somewhat more high than long, its origin below third or fourth ray of dorsal. Caudal distinctly emarginated. Pectorals 2.2 in head, with a rounded hindborder. Ventrals somewhat longer than pectorals. Colour brownish red. Longitudinal, vermiculated blueish streaks on head, breast and forepart of back. A few blueish vertical lines on sides beginning above pectorals. More tailwards these lines pass gradually into vertical series of blueish dots, which are found in scattered order also on back and abdomen.

On the abdomen these spots are blackish as is the case on soft dorsal, anal and caudal. Pectorals dark with a yellow hindborder and a yellowish base. Ventrals reddish, with a broad blackish border, spotted with blue.

One specimen with a total length of about 45 cm, Java Sea, September 1933. Found in the catch of Japanese reef fishermen.

Literature:

1. *Plectropoma oligacanthus* BLEEKER, Nat. Tijdschr. VII, 1845, p. 422.
2. *Plectropoma oligacanthus* GÜNTHER, Catalogue Brit. Mus. I, 1859, p. 157.
3. *Acanthistius oligacanthus* BLEEKER, Ned. Tijdschr. Dierk. II, 1865, p. 281.
4. *Paracanthistius oligacanthus* BLEEKER, Atlas. Ichth. VII, 1873 '76, p. 27.
5. *Plectropoma oligacanthus* WEBER and DE BEAUFORT, Fishes of the Indo-Australian Archipelago, 1931, p. 79.

Fam. PEMIPHERIDAE.

PEMPHERIS CUVIER.

Pempheris sasaki (JORDAN and HUBBS).

D.V.9; A.III.41; P.II.17; V.I.5; L.1.70 + 11.

Height 2.5, head 3.5 in length. Eye large, 2.5 in head. Snout blunt, rounded, about 3 in eye, 6 in head. Maxillary dilated behind, reaching to below pupil. Teeth small, conical, curved somewhat backwards, in several rows on jaws especially anteriorly. Inconspicuous teeth on vomer and palatines. Height of caudal peduncle 12.4 in length of head and body. Dorsal, somewhat behind ventrals, twice in head. Longest rays a little longer than eye and postorbital part of head. Pectorals inserted before ventrals, below lower border of eye. Its length about as long as head without snout. Ventrals somewhat longer than eye, surpassing anus, not reaching anal. Foremost rays of anal longest, about as long as ventrals. Its length about twice in length of snout and eye. Scales rather weak, cycloid. Seven rows on cheeks. Colour brownish with a yellowish hue when alive. Tip of dorsal blackish. Border of anal and of caudal blackish too. Paired fins hyaline. Lateral line whitish.

One specimen with a total length of 18 cm from Pelabuan Ratu, south-coast of Java, August 1933.

Literature:

1. *Liopempheris sasaki* JORDAN and HUBBS, Mem. Carnegie Museum Vol. 10, 1925, p. 228.
2. *Pempheris sasaki* FOWLER, Bull. No. 100 of the Smithsonian Institution p. 62.

Pempheris nyctereutes JORDAN and EVERMANN.

D.V.10; A.III.41; P.II.17; V.I.5; L.1. 79 + 15.

Height 2.5 in head, 3.3 in length. Eye large, 2.4 in head. Snout blunt, not rounded, 2.1 in eye, 5.1 in head. Lower jaw somewhat prominent. Maxillary dilated behind, reaching to behind middle of pupil. Teeth small in several rows on jaws, especially anteriorly. Conspicuous patches of teeth on vomer and palatines. Height of caudal peduncle 11.5 in length of head and body. Dorsal inserted somewhat behind ventrals, its height about 2 in head, its longest rays somewhat shorter than head without snout. Pectorals inserted before ventrals, below border of eye, its longest rays about as long as head without snout. Ventrals somewhat longer than eye, surpassing anus not reaching anal. Foremost rays of anal longest, about as long as ventrals. Length of anal twice in length of head and body. Scales rather weak, cycloid, rather deciduous. Colour dull brown, especially on breast. Inner side of operculum blackish, shining through. Dorsal blackish all over. Caudal blackish with a yellowish hue. Anal with a blackish base and a hyaline border. Paired fins hyaline. Lateral line whitish, bordered by black.

One specimen with a total length of 12.5 cm from Pelabuhan Ratu, south-coast of Java. August 1933.

Literature:

1. *Pempheris nyctereutes* JORDAN and EVERMANN, Proc. U.S. Nat. Mus. Vol. 25, 1903, p. 340.
 2. *Pempheris nyctereutes* JORDAN and RICHARDSON, Memoirs Carnegie Museum Vol. 4, 1909, p. 181.
 3. *Pempheris nyctereutes* FOWLER, Smithsonian Institution Bulletin no. 100, p. 62.
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