

# FISHES OF NEW GUINEA

by

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In the following pages are given the ichthyological results of a short visit to New Guinea in October 1937.

A few fishes were obtained from the mouth of the Oetakwa river (Japero), from the lower course of the Oetoe mboewe, from the lower and middle course of the Digoel, from the mouth of the Merauke river near Merauke. all from the South Coast of New Guinea and from the mouth of the Mamberamo on the North coast. The collection is rather small, partly because there are no fisheries in these regions and partly because our own time being limited. As a matter of fact I should not have been able to collect specimens were it not for the friendly help of the officials. Nevertheless I succeeded in obtaining 53 species of fish.

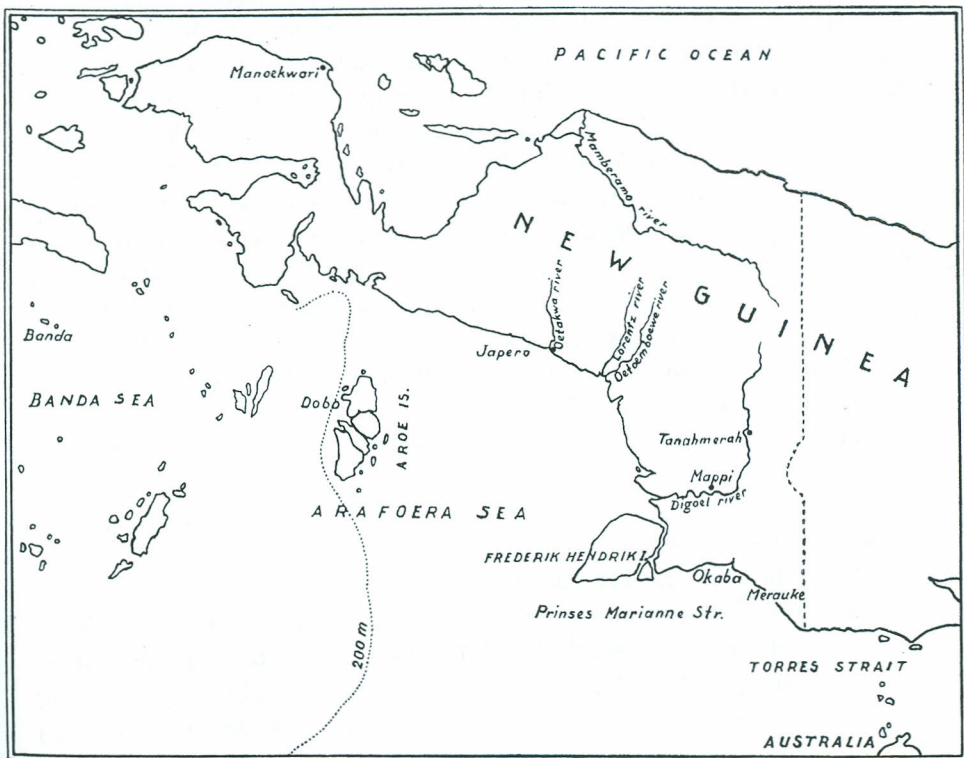


Fig. 1. New Guinea and environment.

## Fam. CHANIDAE.

1. **Chanos chanos** (FORSK.) Mouth of the Mamberamo.

## Fam. STOLEPHORIDAE.

2. **Setipinna taty** (C.V.).

D.1.12; A.1.48; P.1.12; V.7; L.1.44; L.tr.12.

Oblong. Strongly compressed, dorsal and ventral profile evenly convex. Height about 3, head 6 in length <sup>1)</sup>. Eye subcutaneous,  $3\frac{3}{4}$  in head. Maxillary broad, obliquely truncated behind, extending a little beyond mandibular joint. Origin of dorsal about half the length of the head nearer to snout than to caudal just above origin of anal. Ventrals about midway between origin of anal and suboperculum, their origin about twice their length before origin of anal. Upper pectoral ray produced beyond origin of anal. 27 abdominal scutes, 6 - 7 of them postventral, the postventral and the postpectoral ones the most prominent.

Mouth of Mamberamo. The most eastern locality from where this species was known thus far was Borneo.

3. **Thryssa scratchleyi** (RAMSAY and OGILBY).

D.1.12; A.1.40; V.7; L.1.47; L.tr. 10.

Elongate. Compressed, dorsal and ventral profile nearly equal. Height 4, head 4.5 in length. Eye 3.8 in head. Snout blunt and prominent, 0.8 in eye. Maxillary obliquely truncated, extending beyond mandibular joint. Origin of dorsal nearer to snout than to caudal, far behind origin of ventrals, its height about twice in its length, which is nearly equal to length of head. Anal 3 in length, its origin behind dorsal. Ventrals 1.5 the diameter of the eye. Their origin somewhat behind the middle of the distance between anal and mandibular joint. Pectorals somewhat shorter than length of head, surpassing origin of ventrals. 30 - 31 abdominal scutes, the 12 postventral ones the most prominent.

My specimens are quite in accordance with the description given by WEBER and DE BEAUFORT, only the number of scales in the lateral line is somewhat higher, being 47 instead of 43. The number of abdominal scutes is somewhat higher too, being 30 - 31 instead of 25 - 26.

A few specimens from the lower course of the Digoel river. Not recorded before from this river.

4. **Thryssa setirostris** (BROUSS.).

D.1.13; A.37; P.13; V.6; L.1.42; L.tr.10-11.

Elongate, compressed, dorsal and ventral profile equal. Frontorostral profile convex. Height about 4, head 5 in length. Eye 3.7 in head. Snout bluntly rounded about three fourth of eye. Maxillary strongly dilated at mandibular joint, produced in a long filament surpassing ventrals. Origin of dorsal about midway

<sup>1)</sup> With length is always meant the length of head and body, tail excluded.



between end of snout and caudal, far behind origin of ventrals, its height about as long as head without snout. Anal 3.3 in length, its origin below last dorsal ray. Origin of ventrals nearer to anal than to suboperculum. Pectorals about as long as head, ventrals as long as postorbital part. 25 abdominal scutes, 10 which are postventral.

One specimen from Merauke. Thus far not known from New Guinea.

5. ***Thryssa mystax*** (BL. SCHN.).

D.1.13; A.1.38; P.12; V.7; L.1.43; L.tr.12.

Oblong and compressed, Dorsal profile nearly straight, ventral profile more more convex. Height 3.7, head 4.6 in length. Eye 4 in head, somewhat longer than snout. Maxillary dilated above mandibulatory joint, tapering behind and reaching pectorals. Origin of dorsal about midway between snout and caudal, far behind ventrals. Origin of anal below last dorsal ray. Ventrals about as long as  $1\frac{1}{2}$  eye. Pectorals about as long as head surpassing origin of ventrals. 27 abdominal scutes, 9 of them are posventral.

Mouth of Oetakwa river, Merauke. Hitherto not known from New Guinea. My specimens are differing from individuals from Sumatra only in small details as for instance the number of postventral spines.

6. ***Thryssa kammalensis*** (BLKR.).

D.1.13; A.1.33; P.12; V.7; L.1.35; L.tr.10.

Oblong, compressed, ventral profile somewhat more convex than dorsal. Height 3.6, head also 3.6 in length. Eye 3.5 in head, somewhat longer than snout, which is very prominent. Maxillary dilated above mandibulatory joint, tapering behind, almost extending to gillopening. Upper surface of head with a low median keel. Origin of dorsal behind ventrals, nearer to snout than to caudal. Height of dorsal less than twice its length, about as long as head without snout. Origin of anal behind end of dorsal, about three times in length of head and body. Ventrals about midway between anal and suboperculum, as long as half length of head without snout. Pectorals longer than postorbital part of head. 22 Abdominal spines, 8 of which are postventral.

4 Specimens, 48 - 62 mm from the Oetoeboewe, South New Guinea. Hitherto not known from New Guinea.

7. ***Clupeoides multispinus*** nov. spec.

B.6; D.13; A.19; P.12; V.8; L.1.42; L.tr.16.

Oblong and compressed. Dorsal profile almost straight, ventral profile somewhat convex. Height somewhat more than 5 in length, head 4.5. Eye about 3 in head, longer than snout. Postfrontal striae indistinct. Origin of dorsal midway between end of snout and origin of caudal, situated behind origin of ventrals. Length of dorsal about as long as snout and eye, its height about as long as head without snout. Origin of anal behind end of dorsal, its length about as long as head without snout. Longest ventral ray as long as base of anal and

as long as longest pectoral ray. Maxillary reaching to below pupil. 21 abdominal scutes, 10 of which are postventral. Silvery. Paired fins yellowish. Upper caudal lobe more powdered with black than lower.

One specimen. Total length 47 mm. Lower course of the Digoel river.

Fam. PLOTOSIDAE.

8. *Cnidoglanis nudiceps* GTHR.

Elongate. Tail tapering, head depressed. Height 10 - 11 in total length, head about 8. Length of head about equal to its distance from the insertion of the ventrals. Eye 9 - 10 in head, 4 in snout and about 5 - 6 in postorbital part of head. Upperlip prominent, with papillae. Lower lip not so prominent, papillae much smaller. Anterior nostril in upperlip looking forward. Posterior one much larger, just behind nasal barbel. Nasal barbels reach to gillopenings. Maxillary barbels as long as postorbital part of head. Two pairs of mental barbels, the outer ones the longest. Lateral fold at corner of mouth not produced in a barbel. Conical teeth in upper jaw in two small patches near symphysis, a single row in lower jaw. Two rows of molarlike teeth on vomer. First dorsal and pectorals with a small spine, ventrals without. All fins covered by skin especially to the first half of the second dorsal, where it is impossible to count the rays. Caudal, anal and dorsal united. Dorsal and anal become gradually higher posteriorly. Branchial membranes united with isthmus. A postanal dendritic organ present. Axillary pores behind the pectorals. Lateral line rather conspicuous.

5 Specimens (the largest 33 cm) from Merauke. All my specimens have a much smaller eye than the type specimen according to the description.

Fam. ARIIDAE.

9. *Arius latirostris* MACLEAY.

D.I.7; A.I.15; P.I.10; V.I.5.

Elongate. Height about 5, head 3.4 in length. Head broad and depressed in front, only a little longer than broad. Headshields slightly rugose and granular, somewhat horseshoeshaped basal bone of the dorsal spine. Humeral process granular, short, triangular. Dorsal profile sloping down in a straight line to the very broad rounded snout, its gape somewhat less than twice in head. Eye with a free orbital margin, 9 in head, situated behind corner of mouth. Maxillary barbel somewhat more than twice in head. Mandibulary ones as long as distance from gillopening to posterior nasal cavity. Mental barbels more than twice in head. Height of dorsal about as long as postorbital part of head, its spine rugose in front, dentated behind. Base of adipose fin nearly equal to that of dorsal, about 4 times in its distance from the dorsal, situated above anal fin. Hindborder of anal concave, its length twice in head. Ventrals touching the anal, about as long as pectorals. Pectoral spine as long as postorbital part of head, rough in front, smooth behind. Caudal deeply forked, lobes pointed. Villiform



teeth in upper jaw in a broad band, which is almost rounded. The two mandibular bands are curved. Those on the palate in a broad curved band consisting of two median square patches, separated by a narrow interspace laterally contiguous with the lateral patches. Dark brown above, whitish below. Adipose fin and caudal darkish. Pectorals with a dark spot on inner half of upper surface. Other fins yellowish.

One specimen from Merauke, total length 33 cm. My specimen differs in some minor points (length of pectoral spine and of gape of mouth, length of head) from the description of WEBER and DE BEAUFORT, but they all may be due to agedifferences.

#### 10. *Arius stirlingi* OGILBY.

D.I.7; A.23; P.I.10; V.6.

Elongate. Greatest height 4.3, head 3.7 in length. Dorsal profile sloping down in a straight line to the rounded flattened prominent snout, which goes 3 in head. Band of teeth in upper jaw remains visible when mouth is closed. Mouth slightly rounded about equal to postorbital part of head. Lips somewhat thickened at corner of mouth. Headshields posteriorly striped scarcely granulated. Occipital process feebly keeled, about twice as long as broad in its middle, its border slightly concave and converging, its hindborder emarginated, touching the narrow basal bone of the dorsal spine. Median fontanel shallow and rather broad, bordered by two parallel ridges, which converge posteriorly in the median low crest on the occipital process. Humeral process short, sharply pointed. Eye 9 in head, with the orbital margin incompletely free, about 4 in interorbital space, situated behind corner of mouth. Maxillary barbels not quite reaching ventrals, rather stiff. Mandibular barbels reach to middle of pectorals. Mental ones much shorter. Dorsal spine flat, feebly serrated posteriorly, longer than head without snout. Base of adipose fin much shorter than that of dorsal, more than thrice in its distance from that fin. Anal somewhat emarginated, its length about as long as head without snout. Caudal deeply forked. Pectoral spine serrated, shorter than dorsal one, axillary pore minute. Villiform teeth in an arcuate rather broad band in upper jaw, in lower jaw a divided somewhat narrow band. Teeth on palate in four patches, the innermost smaller, separated by a narrow interspace. Colour of formol specimen dark brownish above, lighter below. Maxillary barbels dark as is the case with the upper side of the mandibular and mental ones.

One specimen with a total length of 31 cm. Lower course of Digoel river.

#### 11. *Arius sagoroides* nov. spec.

D.I.7; A.17; P.I.11; V.6.

Elongate. Body rounded, head depressed. Height 6.5. Head 3.8 in length, much broader than high, its greatest width about as long as the distance from posterior nostral to gillopening. Crown of head granulated. Occipital process rounded,

touching the broad almost papilionaceous basal bone of the dorsal. The granules of the head more or less in radiating series. Eye 8 in head, about twice in snout. Eyelids well developed. Median fontanel rather broad between the eyes, reaching anteriorly to between the nostrils, posteriorly it is only a slit. On the occipital process a low crest. Villiform teeth in an arcuated band in upper jaw, in a

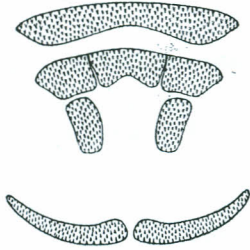


Fig. 2 Teeth-pattern of *Arius sagoroides* nov. spec.

narrow band consisting of two halves on lower. Upper jaw somewhat the longer, but its teeth are not visible when mouth is closed. Teeth on palate in three groups, the posterior one the longest. The teeth pattern is similar to the pattern in *Arius thalassinus*. Maxillary barbels hardly reaching pectorals, somewhat flattened. Mandibular barbels much shorter. Mental barbels about one third of the mandibular ones. Lips not particularly thick. Dorsal spine coarsely granulated in front, smooth behind, about 1.7 in head, as long as interorbital space.

Longest ray not much longer. Adipose fin small, shorter than dorsal, 4.5 in the distance between this fin and the dorsal. Caudal forked, lobes pointed. Anal fin low, its base about as long as ventrals. Pectoral spine as long as postorbital part of head and half eye, granulated in front, serrated behind. No axillary pore. Dark bluish above, lighter below.

One specimen with a total length of 32 cm from Merauke (described). Two specimens with a total length of 24 and 30 cm from the mouth of the Oetakwa river. In habitus very much alike to *Arius sagor*.

## 12. *Arius leptaspis* (BLKR.).

D.I.7; A.20; P.I.9; V.6.

Elongate, height somewhat more than 4, head 3 in length, much broader than high. Headshields corrugate, occipital process longer than broad at its base, triangular, touching the narrow crescentic basal bone of the dorsal spine. Dorsal profile sloping down with a slight concavity on the occiput to the broad rounded flattened snout. Eye in the anterior half of the head far behind corner of mouth, with a free orbital margin, 7.5 in head, about 2.5 in snout and 4.5 in the interorbital space. Humeral bone triangular. Maxillary barbels extending to middle of pectorals. Mandibular barbels not so long and mental ones much shorter. Height of dorsal equal to head without snout. The dorsal spine somewhat shorter than postorbital part, anteriorly serrated. Base of adipose fin somewhat shorter than base of dorsal, about 3 times in its distance from dorsal, situated above middle of dorsal. Anal somewhat concave, its longest ray about half as long as head. Ventrals almost reaching anal, about as long as height of anal. Pectorals as long as head without snout, its strong flattened spine shorter, strongly serrated behind. Caudal deeply forked, lobes pointed. Villiform teeth in jaws in an arcuate band. On the palate 4 ovate patches forming an arcuated band with a narrow interspace in the middle. Outer patches longer than the inner ones. Colouration; bluish above, lighter below.



Two specimens with a total length of 37 and 35 cm from the mouth of the Mamberamo. The biggest one is described above. Furthermore I possess a smaller (17 cm) from the lower course of the Digoel in South New Guinea.

### **Septobranchus** nov. gen.

This new genus is in all essentials quite alike to *Arius* except for the gill openings which are widely separated. The gill membranes are connected with the isthmus.

#### **13. *Septobranchus johannae* nov. spec.**

D.I.7; A.17; P.I.11; V.6.

Height somewhat more than 4 in length, head somewhat more than 3. Height of head measured at the most posterior part of the gill-opening almost as long as head, without half snout. Headshields granular. Occipital process short, about half as long as broad at its base, closely touching the horseshoe-shaped bone in front of the dorsal. Humeral process large and granular, about twice in head. Eye small, 7.5 in head. Lips not particularly thick, provided with small papillae. Mouth small, almost terminal. Cleft of mouth about as long as snout and eye. Maxillary barbels reaching to gill-opening. Mandibular barbels as long as head without snout, mental ones as long as snout and eye. Villiform teeth in jaws, those on the upper in a short rather broad band, those on the lower in two separate patches, conspicuously separated from each other, together forming a somewhat crescentic band, tapering laterally. On the palatines two large patches, more or less triangular with a rounded base and the tops converging anteriorly. Pectoral spine strong, granulated in front, feebly serrated behind, only a little shorter than head. Height of longest dorsal ray about as long as head. Length of dorsal about twice in head. Adipose fin as long as anal, low, with almost the same height along the entire length, its height somewhat shorter than snout. Length of adipose fin 1.2 in distance between that fin and the dorsal. It is continued posteriorly and anteriorly as a low but conspicuous fold of the skin. Longest anal ray as long as postorbital part of head. Caudal deeply forked, its lobes pointed. Pectoral spine strong, somewhat shorter than head, granulated in front, serrated behind, largest ray only a little longer. Ventrals not reaching anal, about as long as longest anal ray. Not shielded part of head and the anterior part of the body with a vermiculate pattern of venulae. Colour of form-specimen pale brownish, whitish below. Axillary pore present.

One specimen from Merauke, South New Guinea, about 30 cm.

Fam. BELONIDAE.

#### **14. *Tylosuros strongylurus* (v. HASS.).**

Several specimens from Merauke.

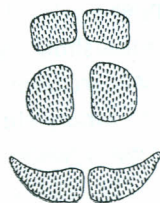


Fig. 3. Teeth-pattern of *Septobranchus johannae* nov. spec.

## Fam. POLYNEMIDAE.

**15. *Eleutheronema tetradactylum* (SHAW.).**

D<sup>1</sup> VIII; D<sup>2</sup> I.15; A.II 15; P.17+4 liberi; V.I.5; L.I.76; L.tr.10-1-13.

Elongate. Height 4.5, head 3.5 in length. Eyes about 5 in head, covered by a gelatinous membrane. Snout 1.3 in eye, prominent. Mouth, large, reaching far behind eye. Maxillaries scaly, 1.9 in head. Head covered with scales to tip of snout. Anterior and posterior nostrils close together, about halfway between tip of snout and eye. Praeoperculum finely serrated, its lower angle produced and rounded. Upper lip absent, lower lip only developed near angle of mouth. Upper and lower jaw with a broad villiform band of small teeth extending to outer side of jaws. Similar teeth on head of vomer and on palatines and pterygoids. Origin of first dorsal between those of pectorals and ventrals. Origin of second dorsal somewhat in front of origin of anal. Second dorsal, caudal and anal almost entirely scaly. Second dorsal and anal concave. Caudal forked. Pectorals more or less falciform, somewhat more than postorbital part of head. Upper pectoral filament much shorter than pectoral, the three others gradually diminishing in length. Ventrals as long as distance from eye to hindborder of praeperculum. Colouration when alive greenish above, silvery below, a dark spot shining through the operculum. Dorsals and caudal dusky. Other fins more or less hyaline.

One specimen with a total length of 32 cm and one of 13 cm from Merauke.

**16. *Polynemus indicus* SHAW.**

D<sup>1</sup>.VIII; D<sup>2</sup>.I.13; A.III.11; P.2.12 + 5 liberi; V.I.5; L.I.75; L.tr. 7-1-13.

Elongate. Height 4.8 in length, head 3.4. Eyes about 6 in head reckoned from tip of snout to end of the large opercular flap, about once in snout. Head covered with scales to end of snout. Anterior and posterior nostrils close together, about midway between end of snout and eye. Praeoperculum serrated along its hindborder, the lower angle produced and rounded. Upper lip absent, lower lip well developed but not continuous at symphysis. Small teeth in narrow bands in jaws, not extending on the outer side. Bands of teeth on palatines, constricted in the middle and narrower posteriorly. A triangular patch of similar teeth on vomer. First dorsal spine very small, second one the strongest but much shorter than third, which is as long as postorbital part of head. Origin of second dorsal in advance of that of anal. Second anal spine as long as snout and eye together. Second dorsal and anal concave. Dorsals, anal and caudal scaly. Caudal deeply forked with long pointed lobes. Pectorals somewhat falciform as long as head without half snout. Second and third pectoral filaments the longest, reaching to anal. Distance between origin of anal and origin of ventrals equal to length of head. Colouration when alive greenish above, silvery below. A dark spot shining through the operculum.

Four specimens, 15 - 20 cm from Merauke.



**17. *Polynemus indicus* BROWN.**

Specimens from the Oetoemboewe, the Oetakwa and the South Coast of New Guinea and specimens from the Mamberamo river from the North Coast of New Guinea.

Fam. MUGILIDAE.

**18. *Mugil troscheli* BLKR.** Specimens from the middle course of the Digoel.

**19. *Mugil dussumieri* C.V.** Specimens from the Oetakwa and the Oetoemboewe on the South Coast, from the Mamberamo on the North Coast of New Guinea.

**20. *Mugil ceramensis* BLKR.**

D<sup>1</sup>.IV; D<sup>2</sup>.I.8; A.III.9; L.l.  $\pm$  32; L.tr. 11.

Dorso-ventral profile evenly descending, slightly convex. Head pointed and nearly straight, 4.1 in length, somewhat larger than height of body. Eye 4 in head, about twice in postorbital part, gelatinous eyelid forming a narrow ring around the eye. Interorbital space flat, more than twice in head. Snout acute when seen from the side. Praeorbital scaly, denticulate at its lower and rounded posterior border. Maxillary visible. Upper lip rather thick, forming frontmargin of snout, ciliated. Symphysial knob minute, single. Origin of first dorsal separated from end of snout by about 19 scales, somewhat nearer to first rays of caudal than to end of snout, opposite to 11th lateral scale. Dorsal spines strong, about as long as postorbital part of head, their height equal to height of second dorsal and anal. Both are nearly straight and totally scaly. Origin of second dorsal opposite to 21th scale, almost totally behind the anal. Caudal slightly bilobe. Pectorals conspicuously shorter than head, reaching to 8th or 9th lateral scale. Axillary scale present as well as in axil of ventrals. Least height of caudal peduncle shorter than postorbital part of head.

5 specimens from 11 - 19 cm from Merauke.

**21. *Squalomugil nasutus* (DE VIS.).**

D<sup>1</sup>.IV; D<sup>2</sup>.II.7; A.III.8; P.I.11; V.I.5; L.l.  $\pm$  30; L.tr. 3 $\frac{1}{2}$ -1-3 $\frac{1}{2}$ .

Elongate. Dorsal profile of head straight, bend townwards to snout abruptly before eyes. Snout projecting, sharklike, mouth inferior. Tip of snout scaleless. Height of body 5.2 in length, head 3.8. Eyes 5 in head, gelatinous eyelid small. Eyes about once in snout, situated above corner of mouth. Upper lip rather broad. Maxillary not visible. Symphysial knob present, corresponding with a concavity at inferior side of jaw. Spines of first dorsal rather small, first one stron-

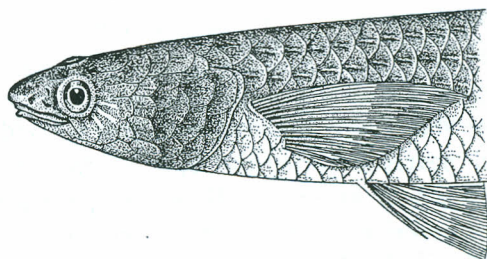


Fig. 4. *Squalomugil nasutus* (DE VIS).

gest, twice in head without snout. Origin of first dorsal nearer to caudal than to tip of snout, opposite to 11th lateral scale. Second dorsal small, somewhat concave, as high as first dorsal. Its origin opposite to posterior end of anal and opposite to 20th lateral scale. Pectorals rather large, almost as long as entire head. Tip of pectorals reaching backwards almost as far as tip of ventrals which go 1.7 in head. Spine of ventrals rather strong. Colouration of formol-specimens grayish above, lighter below. Fins hyaline, second dorsal and caudal somewhat blackish.

Several specimens from Merauke. 10—17 cm. The specific name I owe to the kindness of Prof. Dr L. F. DE BEAUFORT, Amsterdam.

Fam. ATHERINIDAE.

22. *Melanotaenia dumasi* (M. WEB.).

D<sup>1</sup>.I.5; D<sup>2</sup>.I.12; A.I.21; P.I.11; V.I.5; L.l.34; L.tr.13.

Dorsal profile ascending in a somewhat concave line from snout to first dorsal. Ventral profile about evenly convex. Height 2.6, head 3.8 in length. Eye 3.7 in head, about equal to snout, considerably less than interorbital space. Mouth opening with a gentle downwards curve, the upper jaw fits into a situation of the lower. Mouth opening reaching to about half length of snout. An outer row of rather strong curved teeth in jaws, smaller ones inside. Teeth on palatines, vomer and tongue. Subocular part of cheek with two rows of scales. Large scales on operculum, the upper ones smaller. First dorsal separated by about 16 scales from occiput. Spine of first and second dorsal much larger than post-orbital part of head. Anal spine about as long as eye. Length of base of anal equal to the distance between origin of first dorsal and end of second dorsal. Origin of first dorsal about above that of anal. Pectorals slightly curved, longer than head without snout. Caudal peduncle higher than long. Scales crenulated at hindborder.

Several specimens about 12 cm long from Tanah Merah, Digoel river, October 1937.

Fam. SOLEIDAE.

23. *Cynoglossus bilineatus* (LAC.).

D.104; A.93; V.sin.4; L.l.97; L.tr.8-1-15-1-24.

Elongate. Height 3.5, head 4.6 in length. Eyes 10 in head, the upper situated almost above the lower. On coloured side one nostril is tubular, situated just above upper lip before lower eye. Other nostril not tubular, situated between the eyes. On blind side the anterior nostril is tubular, the posterior forms a similar rim. They are situated above the curvature of the lower lip. Corner of mouth nearer to branchial opening than to snout, situated somewhat before hindmargin of lower eye. Hook of upper jaw more than one diameter of eye before posterior margin of lower eye. Dorsal beginning near end of snout. Fin-rays simple, without any scales. Scales ctenoid on coloured side, cycloid on



blind side. Scales of head and abdomen smaller than the rest as in also the case with those near base of dorsal above first lateral line. Papillae on blind side of head. Two lateral lines on coloured side. Two lateral lines also on blind side. Colour brownish. An illdefined black blotch on operculum.

Two specimens with a total length of about 30 cm from Merauke.

24. *Cynoglossus heterolepis* M. WEB. Two specimens from the Oetoemboewe near the Lorentz river 135 and 175 mm.

25. *Brachirus (Synaptura) villosus* (M. WEB.). Several specimens from Tanah Merah (Middle course of Digoel river). 7—8 cm (Det. NORMAN).

26. *Aseraggodes klunzingeri* (M. WEB.). Several specimens up to 7 cm from Mappi, lower course of Digoel river (Det. NORMAN).

Fam. CENTROPOMIDAE.

27. *Lates calcarifer* (BL.). Several specimens from Tanah Merah, middle course of Digoel river in fresh water and from Merauke in sea.

28. *Ambassis interrupta* (BLKR.). Several specimens from Merauke and from the Oetoemboewe river, South New Guinea. Different stages from 2 cm—5.5 cm.

29. *Ambassis miops* (GTHR.).

D.VIII.9; A.III.9.; P.II.22; V.I.5.; L.1.29; L.tr.3—1—8.

Dorsal profile ascending in an almost straight line to first dorsal, with a slight concavity above the eyes. Height 2.5, head 2.9 in length. Eye 2 in head, longer than snout. Mouth oblique. Maxillary reaching to below frontborder of eye, its posterior end obliquely truncate, the hindborder slightly emarginated. Teeth in a single row in jaws, near symphysis in two or three rows. Teeth on vomer, palatines and tongue. Praeorbital with a few distant spines. Praeoperculum with spines on its lower border and on the lower part of its posterior border. Spines on praeopercular ridge. Lower angle of praeoperculum with denticulations. Two rows of scales on cheeks. Dorsal separated by 14 scales from occiput. First dorsal spine small. second one strongest, about equal to head. Eighth spine shorter than third anal spine, which is as long as postorbital part of head and half eye. Free border of dorsal and anal somewhat concave. Pectorals longer than head without snout. Lateral line complete.

One specimen, total length 58 mm, from the Oetoemboewe, South New Guinea.

Fam. THERAPONIDAE.

30. *Pelates römeri* M. WEB. One specimen, about 38 cm from Tanah Merah, Digoel river.

Fam. SILLAGINIDAE.

31. *Sillago simaha* (FORSK.). One specimen, 22 cm from Japero (South New Guinea) and one specimen from Merauke 11 cm.

**32. *Sillago ciliata* CUVIER.**

D.XI.I.17; A.II.15; L.l.61; L.tr.5—1—12.

Height 5.5, head 3.7 in length. Eye 6 in head, more than twice in snout. Interorbital space about twice in snout. Rostrrodorsal profile slightly convex. Scales on head and cheeks ctenoid. Mouth small, terminal, far before eye. Hindborder of opercular bones entirely smooth. Operculum with one distinct spine. Teeth villiform, in bands on jaw, in a semicircular band on vomer. First dorsal higher than second. Longest rays of first dorsal about equal to head without snout. Length of rays of second dorsal decreasing posteriorly, length of longest ray equal to postorbital part of head. Height of anal equal to height of second dorsal. Caudal slightly emarginated, with rounded lobes. Ventrals and pectorals about equal, almost as long as head without snout. Colour of formol specimens almost faded, back darker, belly lighter. First dorsal powdered with black.

One specimen 235 mm. Japero, South New Guinea.

**33. *Sillago nierstraszi* nov. spec.**D.XI.I.17; A.II.17; P.14; V.I.5; L.l.5; L.tr.4 $\frac{1}{2}$ —1—13.

Height 5.2, head 4 in length. Rostrrodorsal profile slightly convex. Scales on head ctenoid. Eye 6 in head, more than twice in snout. Interorbital space about 1.5 in snout, which goes 2.2 in head. Mouth small, terminal, far before eye. Lower jaw included. Hindborder of praeoperculum with fine crenulations. A small but strong spine on operculum. Two series of scales on cheeks, four on operculum. Villiform teeth in jaws and on vomer and palatines. Dorsals approximate. Longest rays of first dorsal somewhat longer than head without snout. Second dorsal gradually decreasing in height posteriorly, longest rays about as long as postorbital part of head. Anal decreasing in height posteriorly, its longest rays shorter than postorbital part of head. Unpaired fins with interradial scales. Caudal somewhat emarginated. Pectorals and ventrals about equally long, about as long as head without snout. Colour of formol specimen completely faded.

One specimen with a total length of 25 cm from Merauke, South New Guinea.

According to the number of scales in the linea lateralis this species is related to *Sillago macrolepis*. It differs however by the number of scales in the linea verticalis, by the smaller eye, the smaller number of rays in the anal fin and by the ctenoid scales on the head.

Named after the late Professor in Zoölogy of the University of Utrecht (Holland), Dr H. F. NIERSTRASZ.

## Fam. TOXOTIDAE.

**34. *Toxotes chatareus* (BUCHANAN-HAMILTON).** One specimen, 14 cm, from the Oetoemboewe, South New Guinea.



## Fam. SPARIDAE.

35. *Sparus berda* FORSK. One specimen from the mouth of the Mamberamo river (North New Guinea), 27 cm.

## Fam. LUTJANIDAE.

36. *Lutjanus argentimaculatus* (FORSK.). One specimen from the mouth of the Mamberamo river (North New Guinea).

## Fam. LOBOTIDAE.

37. *Lobotes surinamensis* (BLOCH). Three specimens from the mouth of the Mamberamo river (North New Guinea), 17—31 cm.

## Fam. SCIAENIDAE.

38. *Pseudosciaena soldado* (LAC.).

D.X.I.30; A.II.7; L.I.52; L.tr.10—1—18.

Oblong, compressed. Dorsal profile convex. Ventral profile more or less straight to anal. Height 3.5, head 3.6 in length. Eye 5 in head, more than once in snout, above horizontal through commencement of gape of mouth. Snout not prominent, with 5 pores and on the free border on each side a shallow emargination. Mouth terminal with equal jaws. Maxillary reaching to hindborder of pupil. Maxillary concealed when mouth is closed, its hindborder equal to diameter of eye. Praeoperculum widely denticulate. Operculum with two broad weak spines. Posttemporale finely and distantly ciliated. Anterior nostril rounded, about as large as the valvulate posterior one. Teeth in upper jaws in an inner narrow villiform series with an outer row of distant enlarged conical ones, on mandibles an inner row of conical teeth and a very narrow outer row of villiform ones. No canines. Scales on head cycloid, rather large, several rows on opercles. Small scales on top of head. Scales on body ciliate. Lateral line arched to about middle of soft dorsal, sensory tubes branched. Spinous dorsal incised, third and fourth spine largest, less than half height of body. Soft dorsal rounded posteriorly, about as high as snout and eye. Anal obtusely rounded, opposite to tenth soft dorsal ray. Second anal spine strong and robust, as long as snout and eye, soft rays much longer. Caudal wedged-shaped. Pectorals and ventrals about equally long, about as long as postorbital part of head.

One specimen, 24 cm, from Japero, South New Guinea.

39. *Johnius belengeri* (C. V.). One specimen, 35 cm, from Tanah Merah (Digoel river), one specimen, 11 cm, from Mappi (Digoel river), and three specimens from Merauke (19—22 cm) in sea.

40. *Johnius pacificus* nov. spec.

D.IX.I.30; A.II.8; P.I.18; V.I.5; L.l.  $\pm$  50; L.v.  $4\frac{1}{2}$ —1— $4\frac{1}{2}$ .

Oblong, compressed. Dorsal profile rounded with a concavity above the

eye, ventral profile more or less straight. Height 3.2, head also 3.2 in length. Eye 6 in head, less than twice in snout. Snout blunt and broad. Maxillary almost hidden when mouth is closed, its posterior end truncated with rounded borders, as broad as eye. Villiform teeth in jaws, no teeth on palate and tongue. Praeoperculum with a few broad denticulations on hindborder which is almost vertical, its angle rounded. Almost entire head covered with scales. Snout naked. All scales on head and body ciliated. 5 pores on snout which has a quadrilobate lobe. 5 pores on chin. Nostrils before eyes, the posterior one the longest. Lateral line arched, becoming straight above middle of anal. Second dorsal spine longest, as long as postorbital part of head. Second dorsal much lower, rounded posteriorly. Second anal spine strong, as long as eye without snout. Pectorals as long as head without snout. Ventrals only a little shorter, their first ray prolonged. Caudal wedged-shaped. Faint darkish oblique streaks on back.

One specimen, 14 cm, from the mouth of the Mamberamo river (North New Guinea).

Fam. TRICHIURIDAE.

41. *Trichiurus muticus* (GRAY). One specimen, 75 cm, from Merauke.

Fam. GOBIIDAE.

42. *Stigmatogobius hoeveni* (BLKR.). Seven specimens 35—40 cm from Japero.

43. *Stigmatogobius javanicus* (BLKR.). Two specimens 25 and 26 mm from Japero, South New Guinea.

44. *Glossogobius giurus* (H.B.). Two specimens, 100 and 109 mm from Mappi, lower course of Digoel river.

Fam. ELEOTRIDAE.

45. *Butis gymnopomus* (BLKR.). One specimen, 30 mm, from Japero, South New Guinea.

46. *Prionobutis microps* (M. WEBER.). One specimen, 130 mm, from Mappi, South New Guinea.

47. *Oxyeleotris lineolatus* (STRIND). Two specimens 345 and 400 mm from the mouth of the Mamberamo river, North New Guinea.

48. *Oxyeleotris fimbriatus* (M. WEBER.). One specimen, 335 mm, from the mouth of the Mamberamo river, North New Guinea.

49. *Ophiocara aporos* (BLKR.). One specimen, 180 mm, from the mouth of the Mamberamo river, North New Guinea.

N.B. All Gobiids and Eleotrids have been examined by Dr E. P. KOU-MANS from the Leiden Museum.



## Fam. DIODONTIDAE.

50. *Chilomycteris hardenbergi* DE BEAUFORT. A single specimen from Merauke, South New Guinea, described by Prof. Dr L. F. DE BEAUFORT in *Treubia*, Vol. 17, 1939, p. 33.

## Fam. CARCHARIIDAE.

51. *Aprionodon brevipinna* (MÜLLER and HENLE). One specimen, 55 cm, from Merauke, South New Guinea.

## Fam. RHINOBATIDAE.

52. *Rhinobatus granulatus* CUV. Two specimens, 38 and 52 cm, from Merauke, South New Guinea.

## Fam. DASYBATIDAE.

53. *Dasybatus sephen* (FORSK.). One specimen, 116 cm (tail included), from Merauke, South New Guinea.

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