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# DESCRIPTIONS OF SOME NEW GUINEA FISHES.

By

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(Figure 1.)

THE Australian Museum recently received from Flight-Lieutenant Stuart Campbell, R.A.F., of Port Moresby, Papua, a fine series of freshwater fishes collected by him from the upper Fly River, Papua, about thirty miles above d'Albertis Junction. When identifying this collection from such a little known region, I examined a few other species from remote parts of New Guinea, and now put these on record in view of the interest which is nowadays being taken in the fauna of that country. The freshwater fishes of the Fly River are allied to those of other rivers along the southern coastline of New Guinea and also to the fluviatile species of the Aru Islands, Port Essington, and the Northern Territory generally, and the rivers of the Gulf of Carpentaria. The northern New Guinea freshwater fauna is quite distinct from the southern. In this paper, fishes from both areas are discussed, also an interesting eel from the interior.

## Family PLOTOSIDAE.

Genus *Neosilurus* Steindachner, 1867.

*Neosilurus brevidorsalis* (Günther).

*Copidoglanis brevidorsalis* Günther, Ann. Mag. Nat. Hist. (3), xx, 1867, p. 66. Cape York, Queensland, and Nicol Bay, W.A. *Id.*, Weber and Beaufort, Fish Indo-Austr. Archip., ii, 1913, p. 241.

Several specimens of a catfish were secured. The largest of the present series has only one ventral fin (the left); if the other had been lost through injury, there is now no trace of it and no scar.

Head about 5 in length without tail. Eye about one-sixth head. Nasal barbel longer than head. Anterior nostril above upper lip and pointing forward. Thirteen slender gill-rakers on lower half of first branchial arch. There is a membrane over their bases. No dendritic preanal organ. No axillary pore. Whole of first dorsal fin invested with skin. Dorsal spine ossified, not serrated, and its fin evidently degenerate.

Seven specimens, 108-230 mm. in total length. Austr. Mus. Regd. Nos. IA.7224 to 7227.

Upper Fly River (Stuart Campbell).

## *Lambertichthys*, gen. nov.

*Lambertia* Perugia, Ann. Mus. Civ. Genova (2), xiv, 1895, p. 550. Haplotype, *L. atra* Perugia from Inawi, New Guinea.

The generic name of this Papuan catfish is preoccupied by *Lambertia* Robineau-Desvoidy, Hist. Dipt., ii, 1863, p. 30, a genus of flies, and *Lambertia* Souverbie, Journal de Conch., xvii, 1869, p. 420, a molluscan name which has been omitted from the Nomenclator Animalium. I accordingly rename the fish *Lambertichthys*, with *L. atra* as genotype, that species being generically distinct from true *Copidoglanis* Günther.

Family TACHYSURIDAE.

Genus *Cinetodus* Ogilby, 1898.

*Cinetodus froggatti* (Ramsay and Ogilby).

*Arius froggatti* Ramsay and Ogilby, Proc. Linn. Soc. N.S. Wales (2), i, May 25, 1886, p. 14. Strickland River.

I have figured elsewhere<sup>1</sup> the unique holotype of this catfish.

The Australian Museum houses the types and other specimens described from the Strickland River by Ramsay and Ogilby, also many of Macleay's Goldie River collection, and I have utilized some of these in identifying Mr. Campbell's collection.

Family ANGUILLIDAE.

Genus *Anguilla* Shaw, 1803.

*Anguilla interioris*, sp. nov.

(Fig. 1.)

A skin of a very interesting long-finned freshwater eel from inland New Guinea has been in the Museum for some years, but this seems an appropriate place to give some descriptive notes about the specimen. Measurements have been taken as accurately as possible, since the eel was skinned posterior to the pectoral fins.

Head (115 mm.) 8.3 in total length. Depth of head, 55 mm. Upper jaw, 55 mm. Gill opening, 16 mm. Eye, 10 mm. Interorbital, 28 mm. Snout, 30 mm. Pectoral fin, 42 mm. Depth of body (75 mm.), nearly 13 in the total length (960 mm.). Snout to dorsal origin, 270 mm. Snout to anal origin, 410 mm. Level of dorsal to anal origin, 140 mm. The (*a-d*) percentage is 14.58.

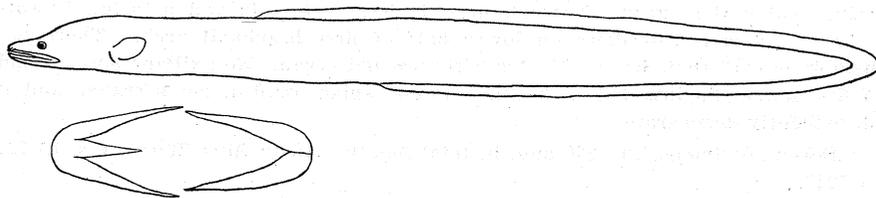


Fig. 1.—*Anguilla interioris* Whitley. Holotype, 960 mm. long, from central New Guinea. Austr. Mus. Regd. No. IA. 6075.

G. P. Whitley, *del.*

<sup>1</sup> Whitley.—Rec. Austr. Mus., xix, 4, 1935, p. 216, fig. 1.

General habit of *Anguilla*, with the acutely sloping head broad. Interorbital sunken, its concavity extending back to the bulbous vertex of the head. Eyes small. Anterior nostrils in tubes overhanging lip; posterior pyriform, just before eye. Lips fleshy, reaching well behind eye. Teeth fine, rather sparse, situated on broad bands on jaws and vomer, the vomerine patch tapering posteriorly, its greatest breadth occurring where it joins the maxillary series, from which it is not markedly distinguished anteriorly. The maxillary and mandibular series of teeth are *not* divided by a groove into an outer and inner band.

The whole fish was covered with a thick layer of adherent mucus. Skin pitted by scale pockets, in which lie scales with reticulating ridges on their surfaces. Dorsal fin much longer than anal. Fins invested with thick skin so that rays cannot be counted, but there appear to be 18 pectoral rays. The vertebrae have been removed.

Colour in alcohol, fairly uniform dark brown. A narrow whitish edging around tip of caudal. There are apparently no spots, though the presence of mucus makes colour difficult to see.

Described and figured from the holotype of the species, a specimen 960 mm. or over 38 inches long. Austr. Mus. Regd. No. IA.6075.

*Loc.*—Gumanj, a tributary of the Wahgi River, Mount Hagen district, upper Purari River, Central Mandated Territory of New Guinea. Altitude, 5,700 feet. From available maps, this river system does not appear to communicate directly with the sea.

Presented by Mr. J. Taylor, who stated that it was a common species.

On comparing this eel with those described in the late Johannes Schmidt's well-known papers, it is at once seen to differ markedly in its (*a-d*) percentage and dentition from such species as *A. reinhardtii*, *australis*, *obscura*, *bicolor*, *pacifica*, *spengeli*, and others from the Indo-Pacific region.

*Anguilla marmorata* Quoy and Gaimard, from Waigiu, has the dorsal fin not far behind gill opening and is figured with large teeth.

The extensive mouth separates the New Guinea specimen from *malgumora* and *celebesensis*, but it agrees with the latter species better than with the others. It is, however, further distinguished by its head proportions, as listed above.

#### Family HEMIRAMPHIDAE.

#### Genus *Zenarchopterus* Gill, 1863.

#### *Zenarchopterus novaeguineae* (Weber).

*Hemiramphus (Zenarchopterus) novae-guineae* Weber, Nova Guinea, ix, 4, 1913, p. 553. Lorentz River.

*Zenarchopterus novaeguineae* Mohr, Zool. Jahrb., lii, 1926, p. 247, fig. 12, and "Übersichtstabelle".

D.14. A.ii/10.

Length of triangular part of upper jaw

11 mm.	10	7
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Width of triangular part of upper jaw

9 mm.	8.5	6
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Three specimens up to about 245 mm. overall. Austr. Mus. Regd. Nos. IA.7262-7264.

Upper Fly River (Stuart Campbell).

## Family ATHERINIDAE.

Genus *Craterocephalus* McCulloch, 1912.*Craterocephalus annator*, sp. nov.

Br.7; D.vii/i, 8; A.i, 10; P.13; C.15. Four interdorsal and 15 predorsal scales. Sc.36. L.tr.8.

Head (20) 3.6, depth (15) 4.9 in standard length (73.5). Eye (6) 3.3, interorbital (7) 3, snout (5) 4, depth of caudal peduncle (6.5) 3, pectoral (12) 1.6 in head.

Head wedge-shaped, without spines. Mouth small, not reaching eye. Jaws extensible, with extremely fine teeth. Mandible with a small rounded ascending ramus. Premaxillary processes short, less than eye-diameter. One row of scales on cheek. Interorbital scaly. About seven stumpy gill-rakers on lower limb of first branchial arch.

General form, robust, elongate. Anus situated a little before the adpressed tips of the ventrals, followed by seven scales before the anal fin is reached.

Caudal peduncle shorter than depth of body. Height of first dorsal fin equal to interdorsal space. Spinous dorsal arising in advance of level of anus. Anal fin originating before level of soft dorsal origin. Ventral origin nearer that of pectoral than origin of anal. Caudal forked.

A few white cysts on membranes of right pectoral fin. A smaller specimen has 37 vertebrae.

Colour in formalin, very pale yellowish, the fins white. A broad silvery and dusky band along middle of sides from snout to root of tail. Scales of upper half of fish with dusky margins formed by dark grey chromatophores, some of which, along the back, form minute blue ocelli, visible only under a microscope. Eye bluish.

Described from the holotype of the new species, the largest of seven specimens, 50-73.5 mm. in standard length. Austr. Mus. Regd. No. IA.7228, holotype and paratypes.

*Loc.*—Fly River, Papua: about thirty miles above d'Albertis Junction. Freshwater. Flight-Lieutenant Stuart Campbell.

The more slender form, snout shorter than eye, shorter pectorals, and smaller size distinguish this novelty from *Atherinichthys nouhuysi* Weber, 1910, from the Lorentz River and its tributaries. The coloration and proportions separate it from all its Australian allies. *Craterocephalus randi* Nichols and Raven, 1934, from Kubuna, north-west of Port Moresby, is still slenderer, has at least one row of spots below the lateral band, whilst the anal fin has only seven (or at most nine) rays. Nichols and Raven counted 18 or 19 predorsal scales, though a paratype had 16.

## Family MELANOTAENIIDAE.

Genus *Melanotaenia* Gill, 1862.*Melanotaenia nigrans* (Richardson).

*Atherina nigrans* Richardson, Ann. Mag. Nat. Hist., xi, March 1, 1843, p. 180. King's River, near Port Essington, Northern Territory.

*Melanotaenia nigrans* Regan, Trans. Zool. Soc. Lond., xx, 6, March, 1914, p. 279 (references and synonyms).

Eight specimens, 43–61 mm. in standard length. Austr. Mus. Regd. Nos. IA.7246–7249.

Upper Fly River (Stuart Campbell).

Genus *Rhombosoma* Regan, 1914.

*Rhombosoma goldiei* (Macleay).

*Aristeus goldiei* Macleay, Proc. Linn. Soc. N.S. Wales, viii, 1883, p. 269. Goldie River. Types in Austr. Mus. seen.

*Rhombatractus goldiei* Weber and Beaufort, Fish. Indo-Austr. Archip., iv, 1922, p. 304 (references and synonyms).

*Rhombatractus archboldi* Nichols and Raven, Amer. Mus. Novit., 755, Nov. 17, 1934, p. 1, figs. 1–2. Wuroi, Oriomo River.

A series of seven specimens up to nearly 130 mm. in standard length. There is usually a diffuse blackish blotch on the sides near the tip of each pectoral fin besides the usual lateral band. Austr. Mus. Regd. Nos. IA.7241–7245.

Upper Fly River (Stuart Campbell).

*Rhombatractus archboldi* appears to be a synonym of *goldiei*, Nichols and Raven having compared their specimens with *northern* New Guinea material apparently wrongly identified as *goldiei*, which is this southern species.

Genus *Amneris* Whitley, 1935.

*Amneris rubrostriata* (Ramsay and Ogilby).

*Nematocentris rubrostriatus* Ramsay and Ogilby, Proc. Linn. Soc. N.S. Wales (2), i, May 25, 1886, p. 14. Strickland River, Papua. Type in Austr. Mus. seen.

*Amneris rubrostriata* Whitley, Rec. Austr. Mus., xix, 4, Sept. 19, 1935, p. 226, fig. 5 (refs.).

A fine series of 27 specimens up to 113 mm. from snout to hypural joint. Austr. Mus. Regd. Nos. IA.7229–7240.

Upper Fly River (Stuart Campbell).

Genus *Centratherina* Regan, 1914.

*Centratherina bulolo*, sp. nov.

D.iv/1, 8. A.i, 22. P.ii, 13. Sc.37. L.tr.13. Predorsal scales about 17. Head (15 mm.) 4, depth (19) 3.1 in standard length (60). Pectoral fin (11) 1.3, eye (5) 3, snout (3.6) 4.1, interorbital (6) 2.5, upper jaw (5.5) 2.7 in head. Predorsal length (30) 50% of standard length.

Head acutely wedge-shaped, eyes swollen. Three rows of scales on cheeks. Jaws barely reaching level of front of eye. The upper jaw slightly overhangs the lower, and both are provided with numerous strong peg-like teeth *outside* the mouth, extending over lips and along maxillaries. Smaller normal teeth lie in bands inside the mouth, which is horseshoe-shaped and not markedly notched laterally. Vomer edentulous. Snout shorter than eye, interorbital space, or post-orbital part of head.

Body compressed, slender, covered with large cycloid scales, some of which have their margins very slightly crenulated. Predorsal profile evenly sloping, not

markedly excavate. Ventral profile convex. Caudal peduncle much longer than deep.

Fins of the usual Melanotaeniidae disposition; the anal originating only slightly in advance of vertical of first dorsal spine. The dorsal spines are all fairly strong, but the first is most thick and pungent, yet not so long as those following it. Anal spine slightly less than eye-diameter in length.

Colour, in alcohol, ruddy yellowish, sparsely sprinkled with black chromatophores dorsally. A silvery lateral band posteriorly. Fins with stippled dusky margins; upper and lower caudal rays infuscated.

Described from the holotype, a specimen 60 mm. in standard length, or 2½ inches overall. Austr. Mus. Regd. No. IA.6357.

*Loc.*—Bulolo Valley, Mandated Territory of Papua; freshwater.

Presented by Mr. F. B. S. Hislop in 1934.

Differs from *C. crassispinosa* (Weber, 1913), type of the genus, in having the anal fin originating further back, in having the snout shorter in relation to eye, fewer scale-rows and predorsal scales, and longer posterior dorsal spines. Weber's types came from Tawarin River, and he also had specimens from Sermowai River and Kaiserin Augusta (now the Sepik) River.

In no other genus of Melanotaeniidae are the external teeth so well developed as in *Centratherina*, and these, as Weber noted regarding an allied genus, are doubtless used for scraping for food. He wrote:<sup>2</sup>

"Instead of being prehensile, the jaws make scraping movements. I experienced this when bathing in Lake Sentani, in northern New Guinea. *Chilatherina sentaniensis* occurred there in large numbers along the shore, and, when standing bare-legged in the clear water, I could feel and see how the fishes scraped at the skin of my legs."

#### Family TERAPONTIDAE.

Genus *Terapon* Cuvier, 1816.

*Terapon trimaculatus* Macleay.

*Terapon trimaculatus* Macleay, Proc. Linn. Soc. N.S. Wales, viii, 2, July 17, 1883, p. 259. Goldie River, Papua. *Id.* McCulloch and Ogilby, Mem. Qld. Mus., v, 1916, pp. 102 and 120, pl. xiii, fig. 1.

D.xiii/12(13); A.iii/8(9). L.lat.50 to hypural joint. L.tr.7/1/14. Head (17 mm.) 2.7, depth (17.5) 2.7 in standard length (47).

General characters as described by McCulloch and Ogilby. Preoperculum very strongly serrated. Lower opercular spine well developed, but not reaching opercular lobe.

Suprascapular small, dentate. Fourth to six dorsal spines longest, longer than the rays. Second anal spine longest and strongest. Caudal emarginate.

Colour silvery, grey towards back and on edges of scales. Unpaired fins slightly infuscated. Eye blue. No bands, spots or blotches on body or fins.

One specimen, standard length 47 mm. Austr. Mus. Regd. No. IA.7222.

Upper Fly River (Stuart Campbell).

<sup>2</sup> Weber.—Bijdragen Dierkunde Nat. Artis Mag. Amst., xxii, 1922, p. 262.

## Family APOGONIDAE.

Genus *Glossamia* Gill, 1863.*Glossamia aprion* (Richardson).

*Apogon aprion* Richardson, Ann. Mag. Nat. Hist., ix, March 1, 1842, p. 16. King's River, Port Essington, Northern Territory of Australia.

*Glossamia aprion* McCulloch, Rec. Austr. Mus., xi, 1917, p. 169, text-fig. 1.

D.vi/i, 10; A.ii, 9; P.14. L.lat.41. L.tr.4/1/13 or 14.

Head (36 mm.) 2.3, depth of body (31) 2.7 in standard length (86), eye (9) 4, interorbital (6.5) 5.5, snout (7) 5.1, second dorsal spine (16) 2.2, depth of caudal peduncle (13) 2.7 in head.

Head acutely pointed, profile not so excavate as in McCulloch's figured specimen. Maxillary broad, reaching to below posterior half of the large eye. Bands of fine teeth on jaws, vomer, palatines and posterior part of tongue. No canines. Opercular spine obsolescent. A few weak serrations at preopercular angle. Suprascapular crenulated. Form deep, compressed, body covered with ctenoid scales. Lateral line complete. Caudal bilobed. General characters as in McCulloch's description.

Colour dull olivaceous with greyish or smoky margins to fins, dusky top of head, and infuscated fins. A few very indistinct dusky stripes behind eye and along maxilla and chin. Belly silvery. Eye blue.

Described from the smaller of two specimens, 86–104 mm. in standard length. Austr. Mus. Regd. Nos. IA.7220–7221.

Loc.—Upper Fly River (Stuart Campbell).

## Family CHANDIDAE.

Genus *Austrochanda* Whitley, 1935.*Austrochanda macleayi* (Castelnau).

*Pseudoambassis macleayi* Castelnau, Proc. Linn. Soc. N.S. Wales, iii, Sept., 1878, p. 43. Norman River, Gulf of Carpentaria.

*Austrochanda macleayi* Whitley, Rec. S. Austr. Mus., v, 3, Sept., 1935, p. 357, figs. 6–7 (references and synonyms).

D.vii/i, 9 (10); A.iii, 9 (10); P.i, 13; V.i, 5; C.15. Eleven predorsal scales. L.lat.6.1.1/15 on right side and 6.5/13 on left side. L.tr.3/1/10½.

Head (23 mm.) 2.8, depth (27) 2.3 in standard length (64). Eye, 8mm.; interorbital, 5; snout, 4.2; second dorsal spine, 18; and depth of caudal peduncle, 9.5 mm.

Profile of head excavated. Supraorbital with only one spine posteriorly. Suborbital with a few strong serrations. Preorbital markedly serrate. Preopercular margin and lower limb serrated. Interoperculum serrated. Operculum entire. Two rows of cheek scales. Lower jaw the longer. Bands of minute teeth in jaws. Maxillary not dilated at its extremity. Body compressed, not very deep.

Three anal spines, the third longest. Dorsal and anal fins each with nine rays, the last divided to its base to give the appearance of a tenth. Recumbent dorsal spine not exposed.

Lateral line interrupted, but tubes, where present, well developed.

Colour pale yellowish, the scales margined with dark grey chromatophores which are densest along dorsal surface, although they also form a stippled median band, one scale-row broad. Fins similarly stippled, although the dorsal membrane is not as dark as in some Chandidae.

Described from the largest of six specimens, 44–64 mm. in standard length. Austr. Mus. Regd. No. IA.7223.

Upper Fly River; freshwater (Stuart Campbell).

Genus *Acanthoperca* Castelnau, 1878.

*Acanthoperca gulliveri* Castelnau.

*Acanthoperca gulliveri* Castelnau, Proc. Linn. Soc. N.S. Wales, iii, Sept., 1878, p. 44. Norman River, Queensland. Type in Macleay Museum, University of Sydney. *Id.* Whitley, Rec. S. Austr. Mus., v, 1935, p. 360.

*Ambassis gigas* Ramsay and Ogilby, Proc. Linn. Soc. N.S. Wales (2), i, 1886, p. 9. Strickland River, New Guinea.

This striking Chandid affords another illustration of the uniformity of the Leichhardtian fluviatile fauna, since it occurs in the Norman River and Flinders River, Queensland, as well as in the Strickland River, Papua, and doubtless elsewhere.

Further study of the types of Castelnau's tropical Australian species will be necessary for more exact understanding of the Papuan freshwater fauna.

Family ELEOTRIDAE.

Genus *Ophiocara* Gill, 1863.

*Ophiocara aporos* (Bleeker) subsp. *rigonis*, nov.

*Eleotris aporos* Bleeker, Nat. Tijdschr. Ned. Ind., vi, 1854, p. 59. Sindangole and Ternate, East Indies.

Mr. Melbourne Ward secured from his friend, Mr. A. C. English, a series of freshwater fishes for the Australian Museum from a creek near Rigo, Papua; 25 January, 1933. This consists of nineteen specimens, in various stages of growth, of a single species, which I regard as *Ophiocara aporos*. The largest Rigo specimen agrees excellently with Günther's<sup>3</sup> figure in the "Fische der Südsee", pl. 112, fig. B (only) of "*Eleotris macrocephalus*" (error for *macrolepidotus*), from Oualan, but this is not the same as the original *Sciaena macrolepidota* of Bloch<sup>4</sup> from the East Indies.

Günther's fish is associated with *Ophiocara aporos* (Bleeker) in Fowler's "Fishes of Oceania".<sup>5</sup>

The Rigo specimens agree with Bleeker's description very well, except that the coloration is rather different, the eye goes nearly three times in the inter-orbital space, and Bleeker's statement, "linea rostro-frontali concava", does not fit either my specimens or Günther's figure.

The Rigo fishes have D.vi/9; A.i, 8–10. Thirteen to fourteen predorsal scales and 28–30 transverse rows of scales between shoulder and hypural joint. In all

<sup>3</sup> Günther.—Journ. Mus. Godeff., ii, 9 (Fische Südsee, iv), Feb., 1875, p. 186, pl. cxii, fig. B.

<sup>4</sup> Bloch.—Nat. ausl. Fische, vi, 1792, p. 40, pl. ccxcviii.

<sup>5</sup> Fowler.—Mem. Bish. Mus., x, 1928, p. 391.

of them the preopercular margins are hidden by scales, and supraciliary scales are present, whilst the mouth barely reaches the eye.

I have compared them with cotypes of *Eleotris planiceps* = *aporocephalus* Macleay, from Lillesmere Lagoon, Queensland, and find the Queensland form is larger; has D.v-vi/8-9; A.i, 9; 17 predorsal scales; \*Sc.28-29, and mouth reaching to below anterior part of eye.

Evidently there are geographical subspecies of *Ophiocara aporos*, and the Rigo type, being distinguished by the low number of predorsal scales, coloration (as in Günther's fig. B), and minor details as noted above, may be named *rigois*. The holotype is a specimen about eight inches long, numbered IA.5785 in the Australian Museum.

Loc.—Freshwater creek near Rigo, Papua; 25th January, 1933 (A. C. English, per M. Ward).

#### Genus *Oxyeleotris* Bleeker, 1874.

##### *Oxyeleotris fimbriatus* (Weber).

*Eleotris fimbriatus* Weber, Nova Guinea, v, 2, 1908, p. 254. Etna Bay, S.W. New Guinea. *Id.* Weber, *ibid.*, ix, 1913, p. 594, pl. xiii, fig. 1.

*Eleotris (Oxyeleotris) aruensis* Weber, Abhandl. Senckenb. Nat. Gesell., xxxiv, 2, 1911, p. 33, pl. i, fig. 5. Young form from Aru Islands.

*Eleotris (Oxyeleotris) mertoni* Weber, Abhandl. Senckenb. Nat. Gesell., xxxiv, 2, 1911, p. 33, pl. ii, fig. 2. Aru Islands.

*Oxyeleotris fimbriatus* Koumans, Temminckia, i, 1936, p. 267, and Zool. Mededeel., xix, 1936, p. 132 (synonymy and variation).

A series of 22 specimens (IA.7250, 7254 and 7258) from the Fly River is identified as this species, following Koumans. The smallest specimen (IA.7258) is only two inches overall, and has the following characters: D.vi/12; A.i, 9. Sc.35 between shoulder and hypural joint. Tr.14. About 20 predorsal scales.

A small dark grey to brownish gudgeon with head rounded, not flattened. Interorbital with small scales. Cheeks naked. Opercles scaly. No supraciliary scales. A row of small papillae along nuchal canal, others on occiput and crossing cheeks transversely and longitudinally as in gobies. Mouth small, just reaching to below eye. Bands of acute teeth in jaws. No canines.

Preopercular edge hidden, without spine. Body robust, tapering. Scales ciliated. Dorsals approximate, adpressed spines reaching origin of soft fin, which has a long base. Anal shorter, its lobe pointed.

Caudal pointed. Ventral fins separate, each with a spine and five rays. Pectorals pointed.

Dark grey to brownish above, white on belly. Thorax with four or five indistinct oblique bars, and traces of others along tail. Two obscure dark bars from eye to opercle. A black blotch at the shoulder and a dark spot above root of caudal.

This specimen agrees with *Eleotris (Oxyeleotris) aruensis* Weber, but differs in having much larger scales, more pointed tail, and darker and more diffuse coloration. However, Koumans has shown that the number of scales alters with growth, and regards *aruensis* as the young of *Eleotris fimbriatus* Weber.

Austr. Mus. Regd. No. IA.7254 is a series of twenty rather larger specimens in which the chevron-shaped bands of "*aruensis*" are generally still visible, but already the scales number about 55 to 58 in transverse series, whilst the mouth reaches the eye.

The largest specimen (Austr. Mus. Regd. No. IA.7250) is very like Weber's figure of *fimbriatus*, but has spotted fins.

*Loc.*—Upper Fly River (Stuart Campbell).

***Oxyeleotris herwerdenii* (Weber).**

*Eleotris herwerdenii* Weber, Notes Leyden Mus., xxxii, Dec. 30, 1910, p. 238.

Lorentz River. *Id.* Weber, Nova Guinea, ix, 1913, p. 594, pl. xiii, fig. 2, and pl. xiv, fig. 2.

One specimen (Austr. Mus. Regd. No. IA.7253), 126 mm. in standard length, from the Upper Fly River, is like Weber's pl. xiii, fig. 2.

**Genus *Bostrichthys* Duméril, 1806.**

***Bostrichthys strigogenys* (Nichols).**

*Bostrychus strigogenys* Nichols, Amer. Mus. Novit. 922, May 4, 1937, p. 1, fig. 1.

Upper Fly River, Papua. Types in Amer. Mus. Nat. Hist.

D.vi/12; A.i, 8. V.i/5.

Head broad, flattened. Sides of head scaly, crossed by a few rows of papillae. Mouth reaching past eye; mandible protruding. Bands of fine teeth in jaws. No canines. No preopercular spine. Interorbital flat, with very small scales. No supraciliary scales. Gill openings separated by isthmus. Branchiostegal membrane extensive.

Body depressed anteriorly and compressed posteriorly, covered with very small cycloid scales in more than 90 transverse series.

First dorsal fin low, well separated from second. Caudal rounded or somewhat wedge-shaped.

Brown to greyish, with cream edges to fins, thick cream oblique bars on cheeks, and belly mostly light coloured. Some cream spots on root of tail of one specimen.

*Loc.*—Upper Fly River: about thirty miles above d'Albertis Junction. Collected by Flight-Lieutenant Stuart Campbell.

Two examples, Austr. Mus. Regd. Nos. IA.7251–7252.

**Genus *Mogurnda* Gill 1863.**

***Mogurnda mogurnda* (Richardson).**

*Eleotris mogurnda* Richardson, Zool. Voy. Erebus and Terror, Fish., 1844, p. 4, pl. ii, figs. 1–2. Port Essington, Northern Territory.

Twenty-three specimens from the Upper Fly River, similar to the Aru Islands form figured in colour by Weber in 1911.

Austr. Mus. Regd. Nos. IA.7255–7257 (Stuart Campbell coll.).

## Family GOBIIDAE.

Genus *Glossogobius* Gill, 1859.*Glossogobius concavifrons* (Ramsay and Ogilby).

*Gobius concavifrons* Ramsay and Ogilby, Proc. Linn. Soc. N.S. Wales (2), i, 1887, p. 12. Strickland River.

Eight specimens (Austr. Mus. Regd. Nos. IA.7259-7261) identified by comparison with the holotype in the Australian Museum.

Loc.—Upper Fly River (Stuart Campbell).

*Postscript added August 8th, 1938.*

The manuscript of the foregoing paper was completed in June, 1937, before the author left Australia for a trip round the world. Owing to unforeseen delay in publication, some of the nomenclature may require modification. The new *Anguilla* is conspecific with some specimens in the Carlsberg Laboratory, Copenhagen, which had been given a MSS. name by Vilh. Ege, apparently not yet published. Dr. Nichols' paper on *Bostrichthys strigogenys* arrived in time to avoid a synonym being made, but *Ophiocara aporos rigonis* is very close to Koumans' new variety *guntheri* (Zool. Med., xx, 1937, p. 19) from Pelew. *Oxyeleotris herwerdenii* has been recorded from northern Australia by Koumans (*loc. cit.*, p. 25). Dr. Koumans recently visited Australia and examined many of the Eleotridae and Gobiidae mentioned above.

In 1937 the Australian Museum received further New Guinea collections. Flight-Lieut. Stuart Campbell sent species of *Arius*, *Lambertichthys*, *Oxyeleotris*, *Toxotes*, *Acanthoperca*, and *Datnioides* from the upper Sepik River, also a fine Long Tom (*Stenocaulus perornatus*, sp. nov.) with D.ii, 15; A.ii, 18, head 2.4 and depth 8.4 in standard length (495 mm.), no gill-rakers, caudal peduncle elliptical in cross-section, origin of dorsal over second anal ray. Colour yellowish, conspicuously spotted with brown; the large spots on head sometimes coalesce. Holotype, No. IA.7287.

Dr. Carl Gunther forwarded, from the Bulolo goldfields, *Glossogobius circumspectus* (Macleay, 1883), *Rhombosoma affinis* (Weber, 1908; syn. *R. sepikensis* Herre, 1935), and a Gudgeon (*Mogurnda aurifodinae*, sp. nov.) distinguished by having a few dark spots on top of head, D.viii/15, A.14, sc. circa 40; the head is 3.3 and the depth 5 in the standard length, which is 90 mm. in the holotype (No. IA.7322).

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