

FISHES COLLECTED BY THE AUSTRALIAN MUSEUM EXPEDITION, 1952.

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(Figures 1-4.)

The fifty-four specimens of fishes brought back by the Australian Museum Expedition belong to eight families or ten species of shore-inhabiting kinds such as are found in tropical mangrove-swamps or else in freshwater rivers. There are no coral-reef or open marine forms because the main activities of the expedition were concerned with geology and terrestrial fauna. The Palmer or "Barramundi", *Lates calcarifer* (Bloch, 1790), was photographed at the Forrest River (Keast, Austr. Mus. Mag., xi, 1953, pp. 4, 9-10, fig.) but no specimen was preserved.

In the interior of Australia, drought conditions were encountered, so specimens could only be obtained from three localities: Wilson River and Forrest River in the Kimberley Division of Western Australia and at Port Keats in the Northern Territory. Previously the Australian Museum had no fishes from any of these places, so they are of zoogeographical interest. The range of several freshwater fishes (chanda perch, and gudgeon) and of two estuarine mudskippers can be extended into Western Australia for the first time as a result of this expedition's work. The freshwater fishes all belong to the Leichhardtian fluvifauna which embraces the rivers of southern New Guinea and Papua, north-western Queensland, the Northern Territory and north-western Australia, which seem to share the same species of fishes and other aquatic animals.

Some difficulty has been experienced in identifying the specimens because types of so many Australian species are in overseas museums. The enterprise of early French, Scandinavian and other naturalists in collecting specimens in remote Australian areas many years ago was most praiseworthy, but it remains for possibly easier and quicker global travel in the future to enable the critical modern taxonomist to compare all the specimens he would like to see, unless television can some day be utilized for that purpose. In this collection of only ten species, it is noteworthy that the typical specimens of seven, if they still exist, are probably in Paris, London, Oslo, Leyden and Berlin; the types of only two of the species are in Australia, and those of two others desirable for comparison are in Amsterdam and Vienna. Reliance has therefore been placed on descriptions in the scattered literature quoted under each species. Illustrations are supplied of all hitherto unfigured kinds. One species collected appears to be new, and the opportunity is taken to describe another not encountered by the expedition.

Family MUGILIDAE.

Genus **Ellochelon** Whitley, 1930.

Ellochelon Whitley, Austr. Zool. vi, 1930, 251. Orthotype, *Mugil vaigiensis* Quoy and Gaimard.

Ellochelon vaigiensis (Quoy and Gaimard).

Mugil vaigiensis Quoy and Gaimard, Voy. Uranie Physic., Zool., 1825, 337, Pl. lix, fig. 2. Waigiou, New Guinea.

Austr. Mus. Exped. material.—One immature specimen 149 mm. in standard length or nearly 7½ inches overall. Austr. Mus. Regd. No. IB. 2841.: Field No. 599.

Locality.—West Headland, Port Keats, Northern Territory, 23 June, 1952.

Family MELANOTAENIDAE.

Genus *Melanotaenia* Gill, 1863.*Melanotaenia nigrans* (Richardson).

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

Melanotaenia nigrans McCulloch, Austr. Mus. Mem., v, 1929, 112 (synonymy).

Austr. Mus. Exped. material.—Sixteen specimens, about 17 to 40 mm. in total length, mostly about 26 to 27 mm. (Austr. Mus. Regd. Nos. IB.2828 to 2830, Field No. 201, part) from the Wilson River, 106 miles south of Wyndham, Western Australia.

Family APOGONIDAE.

Genus *Apogon* Lacépède, 1802.Subgenus *Pristiapogon* Klunzinger, 1870.*Apogon (Pristiapogon) ruppelli* Gunther.

Apogon ruppelli Gunther, Cat. Fish. Brit. Mus. i, 1859, 236, "Victoria", i.e., Victoria River, Northern Territory (H.M.S. "Herald"); Klunzinger, Sitzb. Akad. Wiss. Wien., lxxx, 1, 1879, 344; Ogilby, Proc. Linn. Soc. N.S.Wales, xxiv, 1899, 165; Waite, Rec. Austr. Mus., iv, 1902, 181, Pl. xxvii; Alexander, Journ. Linn. Soc. London, Zool., xxxiv, 1922, 481; Paradise and Whitley, Mem. Qld. Mus., ix, 1927, 84 and 97; Serventy, The Emu, xxxviii, 1938, 288 *et seq.* and 359; Marshall, Mem. Qld. Mus., xii, 1941, p. 56; and of Australian lists.

D. vii/i; 10; A. ii, 9; L. Lat. 25 to hypural joint. Tr. 2/1/6. Three predorsal scales. Teeth in villiform bands. Preopercular limbs serrate. Dorsals separate.

Yellow to brownish. An oblique dark grey bar from eye to preopercular angle. 7 dark spots along l. lat. One each at end of dorsal and anal fins. A larger blackish spot before caudal root.

One specimen, 46 mm. in standard length and 2.35 in. in total length. Austr. Mus. Regd. No. IB 2842. Field No. 600, part.

Locality.—West Headland, Port Keats; 23 June, 1952.

Family CHANDIDAE.

Genus *Blandowskiella* Iredale & Whitley, 1932.

Blandowskiella Iredale and Whitley, Victorian Naturalist, xlix, August, 1932, p. 95. Orthotype, *Pseudoambassis castelnaui* Macleay.

Blandowskiella dalyensis (Rendahl).

(Figure 1.)

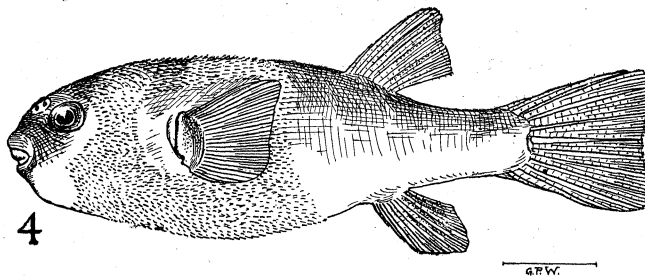
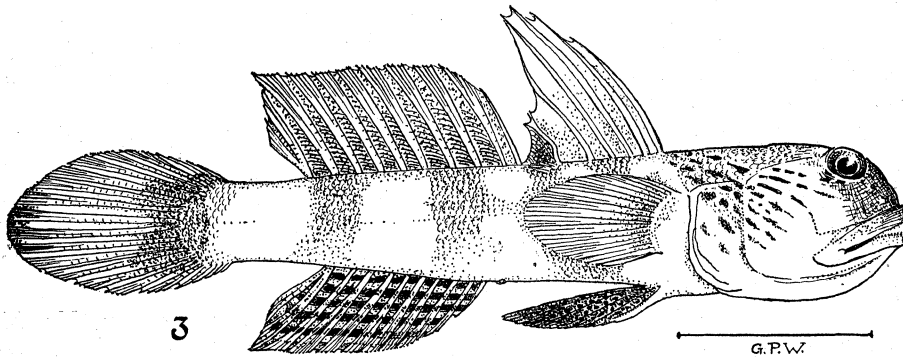
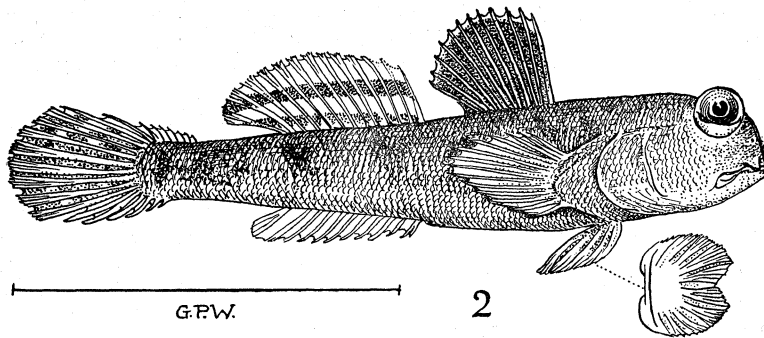
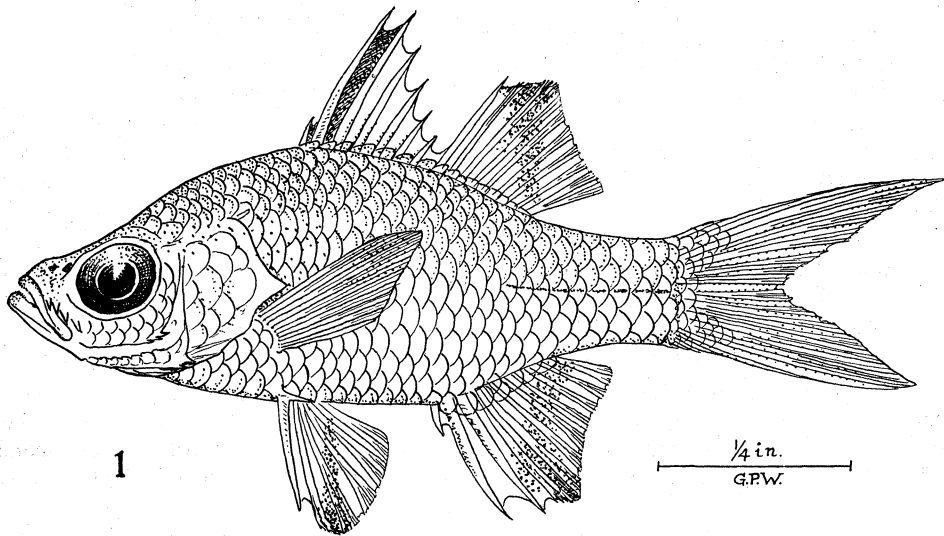
Ambassis dalyensis Rendahl, Medd. Zool. Mus. Kristiania, No. 5, Sept., 1922, p. 187. Daly River, Northern Territory. Type in Royal Zool. Mus. Oslo.

Sixteen small specimens, 15 to 30 mm. in total length, mostly between 15 and 20 mm. Austr. Mus. Regd. Nos. IB 2831 to 2833; Field No. 201, part.

Locality.—Wilson River, 106 miles south of Wyndham, Western Australia, 20 May, 1952. New record for Western Australia and not hitherto figured so a description and illustration of the largest specimen are here presented.

D. vii, i, 8 (9) A. iii, 8; P. c. 12; V. i, 5; C. 15 branched rays. L. lat. l. Sc. *circa* 25. Tr. and predorsal scales about 12.

Head (9 mm.) 2.4, height of body (8) 2.7 in standard length (22). Eye (3) 3 in head, 1.3 in postorbital part of head (4) and 1.4 length of interorbital space (2.2)



For explanation of figures see page 131.

which equals snout. Second and third dorsal spines longest (little more than 5 mm.) and equal, thus less than three-tenths of standard length. In the anal fin the third spine is the longest, 5 mm., and nearly as long as longest dorsal spines.

Profile concave over eyes. Maxillary rounded, reaching below eye. Fine teeth on jaws. Three to five preorbital serrae. Both limbs of preopercle serrated, 3 to 5 serrae on either side, thus fewer than in typical *dalyensis*, but probably this is due to immaturity and smaller size; the serrae are not even bilaterally symmetrical. Lower angle of gill-cover with 2 to 5 spines. Two rows of scales below eye.

Lateral line tubes developed anteriorly on only one scale on each side on the fifth row. The following scales have no tubes and their edges are convex, not bilobed. Nor are there tubes or lobes on the posterior scales on the middle of each side.

Recumbent dorsal spine concealed. General facies as figured.

Colour in alcohol pale yellowish-brown. Top of head and margins of scales sparsely punctulated. A thin, broken dark-bluish stripe along middle of each side posteriorly. Fins mostly transparent or punctulate, particularly towards tips of second dorsal, anal and ventrals. Membrane between second and third dorsal spines nearly black.

The specimen agrees well with Rendahl's account, differing only in the number of scales (incomplete in Rendahl's type), lengths of dorsal and anal spines, and fewer serrae on head, but these are doubtless due to growth-differences. The curious variation of the lateral line scales is covered by the disparities shown by Rendahl's paratypes.

Ambassis mulleri Klunzinger (Sitzungsb. K. Akad. Wiss Wien., lxxx, 1879, 346, Pl. i, fig. 3, from Port Darwin) has 9 anal rays, 25 scales along body, preorbital not serrated, and dorsal membrane hyaline.

Blandowskiella dalyensis may also be recorded from Queensland for the first time, as I have identified more than eighty specimens in The Australian Museum and in Mr. Melbourne Ward's Gallery from the following localities in the Northern Territory and Queensland:

(1) Baker's Jungle, Northern Territory. Received from J. D. Ogilby. Austr. Mus. Regd. No. I. 13633. Associated with *Melanotaenia nigrans*.

(2) Banker's Jungle Creek, Koolpinyah Station, about 30 miles inland from Darwin, N.T. Mr. Melbourne Ward. Nos. IA. 7722 to 7725. Associated with *Melanotaenia nigrans* and *Mogurnda mogurnda*.

(3) Caught close to Cape Stewart in north central Arnhem Land, N.T., by natives on the flooded coastal plains. Dr. D. Thomson. Nos. EB 2029 to 2034. Associated with *Denariusa bandata*, a related genus.

(4) Wenlock Downs Station, Batavia River, Queensland. Mr. Stanley Boyd per Mr. M. Ward. Nos. IB. 721 to 722. Associated with *Melanotaenia nigrans*, *Mogurnda mogurnda*, and *Neosilurus mortoni*.

(5) Hot Springs, North Queensland. Mr. L. Grant. Specimens in Mr. M. Ward's Gallery, Blue Mountains. Associated with *Melanotaenia nigrans*, *Craterocephalus stercus-muscarum*, and *Mogurnda mogurnda*.

Family ELEOTRIDAE.

Genus *Oxyeleotris* Bleeker, 1874.

Oxyeleotris herwerdeni (Weber).

Eleotris herwerdenii Weber, Notes Leyden Mus., xxxii, Dec. 1910, 238, Lorentz River, New Guinea. Figured in Nova Guinea, ix, 1913, 594, Pl. xiii, fig. 2 and xiv, fig. 2.

One specimen, rather shrivelled, is tentatively identified as this species. As *Eleotris herwerdenii* it was first noticed from Australia by Koumans (Zool. Meded., xx, 1937, 25) thus; "2 sp. Katherine riv. N. Australia. Prof. Handschin 1932." The Australian Museum's Expedition specimen is Regd. No. IB. 2834. Field No. 206.

Locality.—Wilson River, 106 miles south of Wyndham, Western Australia; 20 May 1952. New record for Western Australia.

Family PERIOPHTHALMIDAE.

Genus *Euchoristopus* Gill, 1863.

Euchoristopus kalolo (Lesson).

Periophthalmus kalolo Lesson, Voy. Coquille, Zool. ii, 1, 1831, 146. Waigiou, New Guinea.

Periophthalmus argentilineatus Cuvier and Valenciennes, Hist. Nat. Poiss., xii, 1837, 191. Waigiou; Harms, Zeit. Wiss. Zool., cxxxiii, 1929, 243, Pls. vi-vii and text-figs. 19 *et seq.*; Eggert, *ibid.*, pp. 400 and 404, Pls. viii-ix; McCulloch and Ogilby, Rec. Austr. Mus., xii, 10, 1919, 194 (Pl. xxxi, fig. 1, represents subspecies *regius*).

Periophthalmus koelreuteri Rendahl, Medd. Zool. Mus. Kristiania v, 1922, 165 and 191. Not *Gobius koelreuteri* Pallas, Spic. Zool. viii, 1770, 8, Pl. ii, figs. 1-3 from no locality (probably West Africa).

Euchoristopus kalolo & subsp. *regius* Whitley, Austr. Zool., vi, 1931, 325 and 326.

Periophthalmus vulgaris Eggert, Zool. Jahrb., lxxvii, 1935, 35, 43, 80 *et seq.*; Pls. vi-vii, figs. 23-30. Batavia, *ex* Schöttle, Zeit. Wiss. Zool., cxl, 1931, 73.

Austr. Mus. Exped. material.—Five specimens, up to 1.9 in. long from Port Keats mission, Northern Territory; 26 June 1952. Austr. Mus. Regd. Nos. IB. 2845, 2846, and 2848. Field Nos. 686, 687 (part) and 689 (part).

Genus *Periophthalmus* Bloch & Schneider, 1801.

Periophthalmus expeditionium, sp. nov.

(Figure 2.)

D. xii/13; A.12 (13); P. 14; V. i, 5; C. 8 + 9 + 8 = 25. More than 60 transverse and about 24 longitudinal scale-rows on body.

Head (21 mm.) 4.8, depth (9) 6 in total length (53). Head about as broad (7 mm.) as high. Eye (3) 3.7, longest (fourth) dorsal spine (7) 1.5, median dorsal rays (5) 2.2, median anal rays (3.5) 3.1 in head.

Head scaly except before middle of eye-level, around preoperculum, and on its ventral surfaces. Eyes large, contiguous, with distinct lower lids. Snout bluff, broad, rounded. Anterior nostril in pointed protuberance over mouth; posterior near eye. Upper lip expanded laterally into a fleshy fold below preorbital. A similar, shorter fold below side of lower lip. Mouth extending below posterior half of eye. A single row of spaced conic teeth in each jaw, some slightly enlarged; none on palate. Tongue rounded. Gill-opening small, before pectoral base, separated by a broader isthmus. Gillrakers small.

Body elongate, compressed; myomeres indistinct, covered with small cycloid scales. An arched genital papilla.

Dorsal fins separate, the first of twelve spines, rounded, slightly longer than high, not as high as body, unspotted and separate from soft dorsal, commencing over the pectoral rays. The spines increase in length until about the fourth or fifth.

Anal opposite second dorsal but smaller than that fin. Pectorals rounded, barely reaching level of vent. Ventrals before pectorals, completely united by median membrane and by anterior frenum to form a sucking disc. Caudal rounded with small, slender, upper reduced rays and thick, finger-like lower rays increasing in length posteriorly.

General colour in alcohol, brown with about eight indistinct crossbars on body. A dusky oblique stripe from upper corner of operculum to bases of pectoral rays. Belly with blue tinge. Apparently no white or silver spots anywhere. First dorsal dark brownish with a light yellow margin. Second dorsal white or yellowish with two broad bands of brown mostly restricted to the membranes. Anal yellowish. Pectorals plain with brownish membranes. Ventrals brown above with light yellow or white margin and pale yellow below. Caudal mostly yellowish but with pairs of brownish spots along the membranes adjacent to the principal rays. Teeth yellowish.

Differs from its congeners in fin and scale-counts, combined with having united ventral fins, and round, unspotted spinous dorsal fin.

Described and figured from the holotype, probably a male, about 2 in. or 53 mm. long from Karumba, Gulf of Carpentaria, Queensland; collected by Charles Hedley about fifty years ago. Austr. Mus. Regd. No. I. 6195. A paratype (I.6196) is very similar but has A.10 (11) and C.23.

The Australian Museum Expedition secured two examples, paratypes, only 22 to 27 mm. long (No. IB 2891; Field No. 214) from the Forrest River Mission, Western Australia; 24 May 1952. The smaller one has a minute spinous dorsal fin. Their colours are various tones of bluish-grey, almost black on soft dorsal membranes.

Range.—Gulf of Carpentaria, Queensland, and north-western Australia.

Genus *Boleophthalmus* Cuv. & Val., 1837.

Boleophthalmus caeruleomaculatus McCulloch & Waite.

Boleophthalmus caeruleomaculatus McCulloch and Waite, Rec. S.Aust. Mus., i, 1918, 79, Pl. viii, fig. 1. Adelaide River, Northern Territory.

This species, hitherto known only from the types in the museums of Adelaide and Sydney, is represented by eight specimens, 1.8 to 5.5 inches overall, from Port Keats and the Forrest River Mission and may now be recorded from Western Australia for the first time.

Austr.Mus. Regd. No.	Field No.	Length in inches overall.	Locality.
IB. 2836	375	5.5	Forrest River Mission, 29 May, 1952
2839	451	5.25	" " " 2 June, 1952
2840	452	5.5	" " " "
2844	627	1.85	Port Keats Mission, Northern Territory, 21-6-52
2847a	688	2.2	" " " " " 26-6-52
2847b	688	2.1	" " " " " "
2849	687(part)	2.35	" " " " " "
2850	689(part)	1.8	" " " " " "

This seems an opportune place to describe and figure another new tropical Australian goby from North Queensland, as follows:

Family GOBIIDAE.

Genus **Cryptocentroides** Popta, 1922.

Cryptocentroides Popta, Zool. Meded. Leiden, vii, 1922, 32. Haplotype. *C. dentatus* Popta from Raha, Indonesia. This species and *Gobius* (*Cryptocentrus*) *stigmatophorus* Beaufort (Zool. Anzeiger, xxxix, 1912, 136 from Waigiou, New Guinea) are nowadays regarded as synonyms of *Amblygobius insignis* Seale (Philip. Journ. Sci., v, 2, 191c, 116, Pl. ii, fig. 1, from the Philippines) and known as *Cryptocentroides insignis* (see Koumans, Zool. Meded. Leiden, xviii, 1935, 144).

Cryptocentroides bulbiceps, sp. nov.

(Figure 3.)

D. vi/i, 10; A.i, 9; P. 18. C.14. Sc. 71 to hyp. Tr. 29.

Head (29 mm.) 3.1, depth (19) 4.8, breadth of body (12) 7.6 in standard length (92). Eye (5 mm.) less than snout (6). Interorbital almost overlapped by the fatty orbital tissue (2 mm.).

No ocular tentacle. Tongue convexly rounded. Maxilla reaching below eye. Teeth in villiform bands on jaws and palate. A few front teeth in upper jaw very slightly enlarged. Nostrils small, posterior round, near eye; anterior valved, nearer upper lip.

Head-pores inconspicuous. No occipital crest. No barbels. No fleshy flaps on shoulder-girdle. Head naked except on nape. Cheeks and chin bulging. A few vertical rows of minute papillae arising above upper operculum, one row crossing nape to join its opposite fellow. Other rows in fold each side of chin. A transverse v-shaped fossa across nape behind eyes. Scales small, cycloid. About 20 myomeres between pectoral base and caudal.

Third and fourth dorsal spines elongate. The sixth bifid, perhaps deformed, with about six hair-like rays arising from right side of back nearby. Ventrals united as usual in gobies, nearly reaching vent. Tenth pectoral ray longest. No free pectoral rays. Caudal rounded, nearly as long as head, with fourteen branched rays, the lowermost short.

General colour pale olive, with six dark brown cross-bands, the first on head, second on nape, third divided on base of spinous dorsal to enclose a small patch of pale olive, becoming single on sides and fading out on belly beneath ventrals, the fourth and fifth below soft dorsal and a smoky sixth on caudal root. Head olive-yellow, with elongate bright blue spots, forming oblique dotted lines; pectorals olive, with numerous small round blue spots at its base and on the basal half of the fin; dorsals pale olive, with slightly darker markings on the proximal membranes of the soft dorsal; ventrals dark olive, covered with round bright blue spots; anal fin olive-brown, with about five longitudinal blue lines; caudal hyaline-olive becoming ochre-yellow above and bright bluish on the membranes. Pupil of eye black, with bright green reflections, surrounded by orange-yellow iris. The blue spots at pectoral base have faded away since preservation in formalin.

Described and figured from the holotype, a specimen 92 mm. in standard length or $4\frac{3}{4}$ in. overall, in the Dept. Harbours and Marine collection, Brisbane, No. 1782.

Locality.—Palm Islands, North Queensland. Coll. T. C. Marshall.

Differs from *C. insignis* (Seale) the only other species in Popta's genus, in coloration and proportions, as described above, in not having very enlarged outer teeth, and in having fewer dorsal and anal rays.

Family BLENNIIDAE.

Genus *Istiblennius* Whitley, 1943.*Istiblennius spaldingi* (Macleay).

Salarias spaldingi Macleay, Proc. Linn. Soc. New South Wales, ii, 1878, 358, Pl. ix, fig. 4. Port Darwin, Northern Territory; McCulloch and McNeill, Rec. Austr. Mus., xii, 1918, 12, Pl. iii, fig. 1; Whitley, Austr. Zool., xi, 1945, 42 and W. A. Fisher. Bull., ii, 1948, 27.

D. xii, 19; A. i, 20, P. left 13 right 13. V. i, 2. C. 10 et lat. brev. L. lat. about 11 tubes, ceasing below spinous dorsal.

Head (17 mm.) 4.1, depth (20) 3.5 in standard length (70).

Gill-membranes free from and united across isthmus. More than 100 slender, movable teeth in a single row across each jaw, independently movable, set loosely in gums. Lips entire. Posterior canine each side of dentary. No teeth on vomer. A median, longer than high, occipital crest. A simple nasal, supraorbital and nuchal tentacle on each side, the latter leaf-shaped.

Dorsals not notched. Last ray joined to half uppermost free caudal ray by membrane, last anal ray united to caudal peduncle by a low membrane. Anal spine without dendrites, first three rays elongate and pinnate. Median 6 caudal rays branched.

Colour in alcohol mainly yellowish-brown above and pale yellowish below. About ten very indistinct lateral cross-bars. Pectorals orange-tan, other fins yellowish-grey. No dark blotch on dorsal. No spots on head or body.

One specimen, 70 mm. in standard length or 3.3 inches overall (No. IB.2843, Field No. 600, part) from West Headland, Port Keats, 23rd June, 1952.

Family LAGOCEPHALIDAE.

Genus *Takifugu* Abe, 1949.

Takifugu Abe, Bull. Biogeogr. Soc. Japan, xiv, 1949, 90.

Haplotype, *Tetrodon oblongus* Bloch.

Abe treated *Takifugu* as a subgenus of *Sphoeroides* as a matter of convenience, but the form of the nostrils and presence of a lower lateral line separate this from *Sphoeroides Anon*, 1798 *sensu stricto*, and Fraser-Brunner (Ann. Mag. Nat. Hist., (11) x, 1943, 9) shows skeletal differences between the two, so that Abe's name evidently deserves generic status.

Takifugu oblongus (Bloch).

(Figure 4.)

Tetrodon oblongus Bloch, Nat. ausl. Fische, ii, 1786, 6, Pl. 146, fig. 1. Surate, Indonesia; Bleeker, Atlas Ichth., v, 1865, 62. Pl. 208, fig. 4. (q.v. for synonymy).

Torquigener oblongus Fraser-Brunner, Ann. Mag. Nat. Hist., (11), x, 1943, 11; J. L. B. Smith, Sea Fish. S. Afr., ed. 2, 1950, 418, no. 1197, Pl. 93.

Sphoeroides oblongus Abe, Bull. Biogeogr. Soc. Japan, xiv, 1949, 94 (and tabulated in his other papers on variation in puffer-fishes).

D. 3, 8; A. 3, 8; P. left 19, right 21. C. 7 or 8 branched rays.

Interorbital greater than snout. Eyes adnate to head (or with small free margin above in smaller specimen). Chin not prominent. Dorsal spines begin on interorbital near nostrils and extend back on head, back, sides and belly to cease abruptly in anterior half of fish. Chin and front of cheeks naked, also area around gill-opening and pectoral fin, and whole of posterior half of fish.

L. lat. inconspicuous in large specimen. In small example, the upper encircles eye, sends a branch around nostril anteriorly, another down cheek, a third over nape; the lower l. lat. runs along posterior part of side to join the upper on caudal peduncle. A short l. lat. below head.

Very slight fold of skin below body posteriorly. Facies as figured. Dorsal margin concave in large, convex in small specimen.

Left pectoral rays, 1 rudimentary + 1 simple + 16 branched + 1 simple = 19.

Right pectoral rays, 1 rudimentary + 1 simple + 18 branched + 1 simple = 21.

Caudal peduncle deeper than thick. Caudal excavate, large.

The Australian Museum expedition obtained three specimens of this widely-distributed species of toadfish, up to 6 $\frac{3}{4}$ in. long, at the Forrest River Mission, Western Australia, on 24 May and 2 June, 1952.

Registered No.	Field No.	Total length in inches.	Standard length in mm.	Interorbital in mm.
IB. 2835	211	6.75	144	30
2837	449	4.3	88	20.5
2838	450	4.9	99	21

None of them was banded as in typical *oblongus*, but the smallest was light-spotted. In IB. 2835, the general colour in spirits is greyish-brown above, silvery below; eyes, nostrils, and fins yellow; pectoral base smoky. The others are greyish-brown or muddy coloured, with a slight greenish tinge; snout dusky; a smoky bluish-grey blotch at pectoral axil; a few irregular light areas; fins like body in colour.

EXPLANATION OF FIGURES ON PAGE 125.

1. Chanda Perch, *Blandowskiella dalyensis* (Rendahl). Specimen from Wilson River, Western Australia.
 2. Mud-Skipper, *Penopthalmus expeditionum* Whitley. Holotype from Karumba, Queensland.
 3. Goby, *Cryptocentroides bulbiceps* Whitley. Holotype from Palm Islands, Queensland.
 4. Toado, *Takijugu oblongus* (Bloch). Specimen from Forrest River Mission, Western Australia.
- The line in each case (except figure 1) represents one inch in the same scale.