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NEW RECORDS OF RECURRENCES OF RARE FISHES FROM EASTERN AUSTRALIA.

No. 2.

By EDGAR R. WAITE, F.L.S., Zoologist.

(Plate vi.).

The principal species dealt with is *Histiopterus recurviros*tris, Richardson, which is regarded as the type of a new genus, *Prosoplismus.* This species, together with *Thyrsites atun*, Euphrasen, has not previously been recorded from New South Wales. *Cyttus australis*, Richardson, is readmitted as an inhabitant of our waters, a previous record having been overlooked. Additional specimens of *Callanthias platei*, Steindachner, are chronicled, while the identity of *Creedia clathrisquamis*, Ogilby, with *Hemerocates haswelli*, Ramsay, is made known.

THYRSITES ATUN, Euphrasen.

Scomber atun, Euphrasen, Vetensk. Acad. Nya. Handl., xii., 1791, p. 315.

Though this southern species is known to occur occasionally off our shores, no definite record appears to have been made. It is not included in the published catalogues of our fauna and I therefore chronicle the following occurrence. By the kind offices of Mr. R. Eastway it became known to me that on 11th August the Amateur Fishermen's Association obtained a Barracouta eight miles off Coogee. On my expressing the desire that the specimen might be obtained for the National Collection, the Association kindly presented it to the Trustees.

CALLANTHIAS PLATEI, Steindachner.

Callanthias platei, Steindachner, Zool. Jahrb., Supp., iv., 2, 1898, p. 284, pl. xv.

Of this species, first recorded for New South Wales in 1898, additional specimens have been obtained by Mr. J. A. Boyd, who forwarded them from Twofold Bay in September, 1901.

CYTTUS AUSTRALIS, Richardson.

Capros australis, Richardson, Trans. Zool. Soc., iii., 1849, p. 72; Vov. "Ereb. and Terr.", 1848, p. 137, pl. lix, figs. 1-5.

Considering the extreme rarity of this species in our waters, it is noteworthy that although the description was made from a drawing executed in Tasmania, the actual type was taken at Sydney. This fact has been overlooked by Australian authors and consequently the species has been omitted from the New South Wales lists. This may be accounted for by a misreading of Richardson's habitat, "Coasts of Tasmania and southern parts of Australia." Macleay renders it "Tasmania, South Coasts of Australia."

As far as I am aware the second known occurrence of this southern species in New South Wales is an example obtained on 5th August last. On that date Mr. R. East obtained a specimen at Bondi and forwarded it to the Trustees.

Richardson mentions that, owing to mutilation the representation of the dorsal, anal, and pectoral rays may not be quite exact. Of these the pectoral only is incorrectly shown. This fin is not rounded, its upper rays being the longer, the third is the longest, to which the second and fourth are almost equal, 2.5 in the length of the head.

The general colouration of the body is iridescent on a silvery ground. The lips are pink, the upper one is a very broad reflexed flap not mentioned nor illustrated by Richardson. The snout to the origin of the dorsal fin is also pink. The first dorsal and ventral fins are ruby-coloured, the soft dorsal, anal and caudal salmon-pink and the pectoral colourless, with a pink base. The eye is most brilliant, having a golden iris shot with green.

The type specimen measured only five inches in length. The Bondi example is larger, while representatives in the Museum collection from South Australia reach 290 mm. — nearly eleven and a half inches.

CREEDIA HASWELLI, Ramsay.

Hemerocætes haswelli, Ramsay, Proc. Linn. Soc. N. S. W., vi., 1881, p. 575.

Though this species appears under the genus Hemerocætes, it is due to its author to make the following transcription :—"I have placed this fish provisionally in the genus Hemerocætes, to which it comes nearest. It is not, however, identical with that genus."

I next refer to *Creedia clathrisquamis*, Ogilby.¹ This species was described in 1898, and made the type of a new genus; in the following year I more fully described the peculiar scales and illustrated the fish.² It but remains for me to point out that *Hemerocates haswelli* and *Creedia clathrisquamis* are identical. As was first noted by Ramsay, the genus *Hemero*-

¹ Ogilby-Proc. Linn, Soc. N. S. W., xxiii., 1898, p. 299.

² Waite-Aust. Mus, Mem., iv., 1899, p. 63, fig. 6.

cætes cannot contain the fish: and its correct designation should therefore be Creedia haswelli, Ramsay.

PROSOPLISMUS RECURVIROSTRIS, Richardson.

Histiopterus recurvirostris, Richardson, Voy. "Ereb. and Terr.", 1845, p. 34, pl. xxii, figs. 5 and 6.

(Plate vi.).

The genus Histiopterus has had a rather unfortunate history. It was first instituted by Temminck and Schlegel³ in 1844, two species being included, namely, H. typus and H. acutirostris. I have suggested that the latter may be the young of the former, though without further justification than a perusal of the respective descriptions.⁴

In 1845 Richardson added a Tasmanian species to the genus, though as I shall show, H. recurvirostris should not be included. The genus was entirely overlooked by Günther in his Catalogue of the British Museum Fishes, but in 1871 he described an Australian form, H. labiosus.⁵ Two further species have been made known, H. *elevatus*, Ramsay and Ogilby,⁶ and H. *farnelli*, Waite.⁷ The genus further suffered neglect at the hands of Agassiz and Marschall who omitted it from their respective "Nomenclatores." Scudder includes it in his work but erroneously ascribes it to Richardson.

In reviewing the history of *H. recurvirostris*, we find it first named from a head only, from Tasmania. It was more fully described and figured by Canestrini,⁸ whose paper has been overlooked by Australian authors; I am not aware of the locality whence Canestrini's specimens were obtained. In 1872 Castelnau,⁹ published a description from specimens taken in the Melbourne markets, where, he states, it is not rare, and reaches twenty inches in length.

On 24th June last, the Trustees received from the Amateur Fisherman's Association of New South Wales, a fresh specimen obtained in our waters; a new record for the fauna of the State. An examination of this specimen suggests the advisability of redescribing the species,

⁸ Temminck and Schlegel-Fauna Japon, Pisces, 1844, p. 86, pl. xlv.

⁴ Waite—Aust, Mus. Mem., iv., 1899, p. 115.
⁵ Günther—Proc. Zool. Soc., 1871, p. 658, pl. lix.
⁶ Ramsay and Ogilby—Proc. Linn. Soc. N.S.W., (2), iii., 1888, p. 1311.

 ⁷ Waite—loc. cit., p. 116, pl. xxvii.
 ⁸ Canestrini—Arch. per la Zool., 1869, p. 152, pl. ii,
 ⁹ Castelnau—Proc. Zool. Soc. Vict., i., 1872, p. 109.

while a comparison with Canestrini's figure shows this to be incorrect. I therefore supply an illustration and in justification draw attention to the most glaring defects of the previous figure; it is to be remarked that Canestrini's specimen was dry and possibly distorted, but even this could not account for the erroneous position accorded to the anal fin. It is shown as commencing beneath the penultimate dorsal spine, whereas its true origin is beneath the first ray; this defect is not so obvious as its point of termination, shown beneath the base of the 5-6 rays, or far in advance of the end of the dorsal; the anal really terminates almost evenly with Of course, if the figure is accurate, another species that fin. is indicated, but as I have also an example from Tasmania, the type locality, and two from Victoria, all of which exactly agree with the New South Wales specimen in this particular, I consider that I am warranted in condemning Canestrini's illustration.

Richardson had only a head, but in assigning this to Histiopterus he made a very shrewd conjecture as to its relationship. Canestrini does not refer to the type of the genus, Castelnau recognised generic difference, but, not possessing the Fauna Japonica, presumed H. recurvirostris to be congeneric with H. typus and proposed a new name Richardsonia (preoccupied), for his R. insignis (? H. labiosus, Günther).¹⁰

With the following characters I submit for H. recurvirostris the name:—

PROSOPLISMUS, gen. nov.

Body strongly compressed, the length greater than the depth. Two dorsal fins (connected), the first of nine or ten spines depressible in a groove, the second of one spine and about fourteen rays, anal fin with three spines and about eleven rays. Head partly armoured, partly scaled. Snout narrow and greatly produced; mouth small, terminal; teeth in the jaws in an outer conical series, and an inner setaceous one. Vomer, palatines, and tongue without teeth. Scales small, finely ctenoid.

Description—B. vi; D. x. i. 14; A. iii. 11; V. i. 5; P. 17; C. 17; L. lat. 95.

Length of head 3.1; height of body behind ventral fin 2.6; length of caudal, 6.5 in the total length. Diameter of eye 4.2; length of snout 1.8; and interorbital space 4.9 in the length of the head.

The upper profile of the snout is very concave, that of the head rounded. The interorbital space is slightly convex. From the base of the third dorsal spine to that of the second

¹⁰Castelnau-loc. cit., p. 112.

anal ray the profile is quite straight, thence declivous to the caudal peduncle. The ventral profile, from the jaws to the anal spines, is very slightly convex, thence rising to the caudal peduncle. The mouth is small, terminal and horizontal, with the jaws equal. The teeth, present only in the jaws, are moveable and consist of an outer conical series in a single row and an inner setiform patch; in the upper jaw these are continued in band-form towards the angle of the jaw. In the mandible the lateral band is very narrow; the maxilla extends halfway to the anterior margin of the eye; the width of its distal extremity is one-third the orbital diameter; the nostrils are placed nearer the eye than the end of the snout.

The dorsal fin arises above the middle of the opercle. The first spine is short, two-thirds the diameter of the eye, to which the second is nearly equal. The third is three times the same, while the fourth and longest is one-fifth longer than the head. The next spine is a little longer than the third, the following gradually decrease to the tenth which is 2.7 in the head. The eleventh spine is twice the length of the second and the first ray the longest, twice the length of the spine. The remainder regularly decrease to the last, forming a slightly sinuous margin. The membrane of all the spines arises behind the tip and in the five first is continued as a mere strip, the connection with each succeeding spine being at the base only.

The anal commences beneath the last dorsal spine, and terminates evenly with that fin. The first spine is slightly longer than the first dorsal; the second is nearly as long as the third, which slightly exceeds the tenth dorsal in length. The second anal ray is the longest, 1.52 in the length of the head, the rest regularly decrease, forming a truncate margin. The ventral spine is flat and broad, its length equal to the third dorsal. The first ray is more than a third longer or nearly equal to the length of the head; when depressed it reaches to the hind margin of the vent. The upper pectoral rays are long, the first two excepted, the fourth being 1.22 in the head : the margin is slightly rounded and the lower rays short. The caudal is emarginate, the upper lobe the longer. The least height of the pedicel is equal to its length or one-third the length of the head.

Scales.—On the head, a broad patch extending from behind the eye to the angle of the mouth, one above the opercle and another patch on the temporal region, remainder of head naked or armoured. The scales on the body are small, finely ctenid and irregularly disposed. Castelnau counted over 130 horizontally. I find 95 on the lateral line. This forms a sinuous arch, concurrent with the dorsal profile, and runs straight along the middle of the caudal pedicel. The sheaths of the soft dorsal and anal fins are clothed with very small scales.

Colours.—Silvery on the opercles, plumbeus-grey on the body. A brown mark from the snout to the eye, thence to the occiput. Three brown streaks on the body, one from the base of the first three dorsal spines towards, but failing to reach the anal; a second from below the fifth and sixth spines to between the posterior dorsal and anal rays and a third from the ninth spine at the base of the scaly sheath to the end of the fin. The fin membranes are grey, the upper lobe of the dorsal and anal, and the distal third of the ventral being clouded with smoke-grey.

Total length, 388 mm.

The Tasmanian example, previously referred to, is larger, 415 mm., and the two Victorian ones 490 and 285 mm. respectively. All these have but ten dorsal spines. In the Tasmanian specimen the odd spines (i. iii. v., etc.), are dextral, whereas in the Australian specimens they are sinistral. Castelnau describes the shape of the body as conical, with the base at the insertion of the head. Such a term by no means fits our specimens and if the ray-sheaths be included, the upper and lower profiles approach the parallel.

This writer gives eight as the number of dorsal spines, but afterwards mentions a ninth and next a spine prefacing the second dorsal, so that ten appears to be the correct number. His remarks as to the absence or non-connection of the membrane are incorrect. The irregular contour of the longer spines appears to be a constant condition, and is especially marked in one of the Victorian examples.

The principal characters of all the species may be tabulated as follows:—

HISTIOPTERUS. One dorsal fin; four to seven spines.

a. Three anal spines.

b. Four dorsal spines.

c. 1. Third longest,

cc. 2. Fourth longest,

bb. Six dorsal spines, sixth longest, aa. Two anal spines.

d. Dorsal spines low,

dd. Dorsal spines high,

typus. acutirostris. elevatus.

> labiosus. farnelli.

PROSOPLISMUS. Two dorsal fins; ten or eleven spines.

recurvirostris

[The following corrections were published in Volume 5 Issue 6 and are to be read with the appropriate paper dated 18 August, 1905.—Sub-Editor, August, 2009]

CORRECTIONS.

Page 58-for Prosoplismus recurvirostris, read Pentaceropsis recurvirostris: (see Ann. Mag. Nat. Hist. (7), xii., 1903, p. 288.)

- 170—further investigation, in conjunction with Mr. McCulloch, shows that examples recorded under the name *Glyphisodon antjerius*, and *G. brownriggii* are the young of *Parma polylepis*, specimens recorded from the mainland under these names are the young of *Parma squammipinnis*, *Parma microlepis*, the tenable name of the species, being the half-grown stage.
- " 171-for D. xiii. 9; read D. xiii. 19.
- " 190 No. 9-for figure none, read Kner, Reise Novara, Fische, 1867, pl. xiii., fig. 2.
- " 195 No. 33-for p. 148, read 481.
- " 206 No. 81 Figure-for 1869, read 1865.
- " 209 No. 94-delete in favour of No. 92, and see note p. 170 above.
- " 219 No. 147—read 147 TROPIDICHTHYS CAUDOFASCIATUS, Günther. Tetrodon caudofasciatus, Günther Cat. Fish. Brit. Mus., viii., 1870, p. 304, of which T. callisternus is a synonym.
- " 234-for Tropidostethus rhothophilus, read Iso rhothophilus.
- " 247-at third line from bottom for "elytra '24" read "elytra 2.4."
- 298-line 4 from bottom, for abtuse read obtuse.
- , 303—line 20 for m (0110) read m_i (0110).
- , 304—line 10 , y (102) , y (102).
- , 318-line 9, for "Inserte," read "Incertæ"

EXPLANATION OF PLATE XIV,

For fig. 10 read fig, 9.

SCAPHITES ERUCIFORMIS, Eth. fil.

Fig. 10. Back of limonite cast showing sutures and sculpture,— $\times 2$.

EXPLANATION OF PLATE XL,

First and second line from bottom, for $m \ 01\overline{10}$ read $m_{i} \ (01\overline{10})$. And add Fig. 5, Plan of Fig. 4,