

CONTRIBUTION
TO THE
ICHTHYOLOGY OF AUSTRALIA.

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No. III.—SUPPLEMENT TO THE FISHES OF
VICTORIA.

Since my last year's paper, very few new sorts have been obtained. The fish market has been very poorly provided, and the fishmongers seem to have decided only to purchase from the fishermen about a dozen of the edible sorts, as nearly none of the curious forms which used to appear from time to time have been observed during the last year. On the whole, the market has been even more scantily provided than on the previous years.

Before giving a full description of the sorts new to the Victorian Fauna that I have observed, I will submit a few notes taken on sorts already mentioned :

GERRES MELBOURNENSIS.

In the male we find the præorbital forms on each side, a small spine in front.

LATRIS HECATEIA.

(*Hobart Town Trumpeter.*)

The 12th of July I saw a specimen weighing twenty-five pounds.

MUSTELUS ANTARCTICUS.

(Smooth Head.)

In living specimens the fish is of a silvery-grey, rather darker on the back, with a light coloured longitudinal streak on each side. On these latter parts there are numerous minute, white, round spots, placed at some distance one from the other. Fins rather yellow, with their end of a dark reddish brown; muzzle yellow; eyes of a light blue; lower parts of the body white.

THERAPON NIGER.

From the Murray. When living, it has a golden tinge all over the body; the caudal is of a dark colour; dorsal flesh colour, with the upper part of the soft portion obscure; the anal similar; pectorals almost red, ventrals rosy.

PROTOTROCTES MARCENA.

Prototroctes Marcena, *Gunther, Catal. v., p. 382.*

After two years' researches, I have at last obtained several specimens of this sort, which used to be very common in the Yarra, and is known as the *Yarra Herring*. I owe my first specimens to the kindness of Dr. Bleasdale.

This fish is very silvery, with the upper parts of a light olive green; dorsal and caudal of the same colour, bordered with a black tinge, the other fins white; the eye is of a bright yellow; the adipose of the colour of the back; snout brown. It has a strong smell of cucumber.

My specimens were caught in the beginning of April.

Length of the longest specimen a little under eight inches, but I believe they are not full grown. It is said to be a very good edible fish.

CHÆTESSUS EREBI.

I find that it was by mistake that I stated that this fish inhabited the sea; it is confined to the rivers of the interior, such as the Murray, the Darling, &c.

STIGMATOPHORA NIGRA.

The very numerous specimens I have seen show some variations in the length of the snout. In one, a large specimen four inches and three-quarters long, the snout is of the normal length, but it has on each of the body rings numerous round black spots, very small on the back, but larger on the sides; the lateral ones number three or four on each side of each ring. The lower part of the body has a golden tinge.

OLIGORUS MACQUARIENSIS.

(*Murray Cod.*)

A specimen obtained on the 2nd of July is entirely covered with round obscure spots, which extend to the soft dorsal and anal; on these fins they are placed in a regular manner.

UPENEUS VLAMINGII.

Upeneus Vlamingii, *Cuv. & Val., Hist. Nat. des Poissons*, viii., p. 452, pl. 71.

Upenoides Vlamingii, *Gunth., Cat.*, vol. i., p. 400.

I saw in the Melbourne Market, on the 8th of November last, two specimens of this sort, which was described at first as inhabiting the Indian sea, and has since been quoted by Richardson (*Ann. Mag. Nat. Hist.*, 1862, p. 211) as having been found at Queen Charlotte's Sound. The upper part is of a greyish green; the sides are of a yellowish white with pink tinges, and the lower parts of a deep saffron yellow. It is covered with numerous rounded spots of a beautiful blue, each surrounded by a dark circle; these spots become purple and pink on the belly. The head is of a golden grey, with lines of a fine blue; the eye has an internal yellow circle, and the remaining is blue, with transverse yellow and crimson spots; dorsal fins grey, marbled with yellow; caudal olive, spotted with blue, and having its lower edge red; pectorals pink; anal of a saffron yellow, with its anterior part bordered with red; ventrals yellow, with a longitudinal blue spot on the middle, and their anterior edges red.

NEOSEBASTES.

I had in my last year's publication considered it as granted that the fish known in the Melbourne market as the *Gurnet* was the *Centropogon Australis* of White, but since then I have come to the conclusion that this last is unknown to me, and that the *Gurnet* is the *Neosebastes Scorpænoïdes*, described by M. Guichenot in the xiiiith vol. of the "Mémoires de la Société Impériale des Sciences Naturelles de Cherbourg." I owe to our celebrated botanist, Baron Von Mueller, the paper concerning this fish.

NEOSEBASTES PERCOIDES.

Sebastes Percoides, Rich., *Erebus and Terror, Fishes*, p. 23, pl. 15, fig. 1.

I have obtained several specimens of this sort, found in the Victorian sea, but all are in a dry state.

It is evident, even on the stuffed specimens, that the general colour has been red, with four broad transverse brown bands, which do not extend to the lower part of the body. There are also traces of a similar band near the extremity of the caudal.

The numbers of the rays are as follow:—D. 11 $\frac{1}{12}$. A. $\frac{3}{5}$. C. 14. V. $\frac{1}{5}$. P. 19.

The largest of my normal specimens is under one foot long, but I have another specimen which is over thirteen inches, and which presents a singular conformation of the second dorsal, its spine being continued in a simple soft ray. The numbers would thus be 1st D. 10; 2nd, 11—but this is most probably accidental.

SEBASTES ALPORTI.

Very much like *Percoides*, and having also D. $11\frac{1}{12}$ — A. $3\frac{3}{5}$ P. 9, branched, and 9 simple rays. The general form is longer, the height being four times in the total length; the head is less than three times in the same; the lower jaw is considerably longer than the upper one; the spines of the præoperculum are very strong and very sharp; the operculum terminates in a long pointed flap—its spines are strong, the

lowest is arched, with its point upwards ; the vertex spines are very small, almost deficient ; the diameter of the orbit contained four times in the length of the head ; the scales of the body are smaller than in *Percoides* ; the dorsal is considerably lower, the third spine being contained over three times in the length of the head ; the soft portion of the fin is more equal, the last rays being two-thirds the length of the first ones.

The general colour, on the dried specimens, seems to have been of a dirty orange-yellow, marbled with brown, the body having broad transverse bands of the last colour ; the dorsal is almost black, the soft portion being bordered with white ; the caudal of the last colour, with a very broad transverse dark band occupying about one-half of its length ; the anal is reddish, marbled with brown ; the ventrals of a bright orange ; the pectorals of the same colour, with a transverse brown band.

A very small specimen from Hobson's Bay, and a fine one, fifteen inches long, from Tasmania.

I have dedicated this sort to Mr. Moreton Alport, of Hobart Town, who has done so much for the cause of acclimatisation.

MELANICHTHYS SIMPLEX.

I have obtained another specimen, similar to the one I described last year. I find its proportions similar to those of *Tricuspidata*, and it only differs from it by its teeth, which are square at the end. The specimen is evidently young, and is only eight inches long.

MELANICHTHYS BLACKII.

Body oval, with its height contained three times in the total length of the fish ; head four and a-half times in the same dimension ; diameter of the eye four times in the length of the head ; teeth with three points ; præoperculum scaly ; operculum naked, except on its upper external portion ; it has a rather strong point ; scales of the body rather small, numbering fifty-three or fifty four on the longitudinal line, and about thirty-two on the transverse one ; dorsal having fifteen

spines, the first ones being the shortest, and the others going increasing backwards—the soft part is longer than the other, and formed of twelve rays; caudal large, entire, not emarginated behind, but rather rounded at its extremity; anal with three spines, the first being the shortest and the third the longest—the soft part is high, similar to the one of the dorsal, and formed of twelve rays; the spine of the ventrals is strong and straight; the pectorals have eighteen rays.

The colour, on the dried specimen, seems to have been of a uniform light brown, with the lower parts of the body more yellow.

The specimen is four inches and a half.

I have dedicated this sort to Dr. T. Black, who for so many years has been the President of the Acclimatisation Society of Victoria, as a just tribute to his devotion to science, and the many services he has rendered to it in this part of the world.

The Australian group of fishes to which this one belongs seems to form a small natural family, that I would propose to call the *Melanichthidae* and which would be principally characterised by its trifid teeth. It would be composed of *Melanichthys* (*Girella*, Gunth.), *Melambasis* (*Neotephræops*, Cast.), and *Tephræops*. The *Girella Zonata* of Dr. Gunther (Catal., vol. i., p. 429), seems to me to be the striped variety of *Melan. Tricuspis* that I mentioned in the "Proceedings" of last year.

LACEPEDIA.

Præoperculum strongly serrated, operculum entire, but with a strong point; teeth of the upper jaw numerous, fine, cardiform, on several series, and forming in front two bunches of larger ones directed backwards. In front of these teeth, there are, at the anterior part of each jaw, two canine teeth; on the palatines, a transverse band of strong teeth; at the lower jaw the teeth are also cardiform and on several series, but some much larger ones are placed at the back part; in front are also two strong canines, one on each side; the fins, in great part covered with scales; dorsal unie with eleven spines,

anal with three, ventrals with one spine and five rays, pectorals large, with the rays strong and thick, some simple; all the head and body covered with rather large ciliated scales, having their ventral part longitudinally elevated. Lateral line continuous to the base of the caudal.

The disposition of the teeth, and the armature of the præoperculum and operculum would place this genus with the *Percidæ*, but its fins almost entirely scaly and its strong pectoral rays would lead me to place it with *Cirrhitidæ*; unfortunately, the only specimen I have seen is stuffed, and has its pectorals imperfect, but it appears that, if any of their rays are simple, this could only be the case with the two lower ones. The head and body entirely covered with thick scales, having each a longitudinal ridge, gives it a general rough and unequal appearance.

LACEPEDIA CATAPHRACTA.

The general form oval, the upper profile rather high and convex; cleft of the mouth oblique, the lower jaw being longer than the upper one; all the pieces of the head covered with elevated scales. Præoperculum with its margin formed of numerous points, which become stronger on the rounded part; operculum with two points. Body entirely covered with moderately large scales; these have a rather triangular form, principally on the upper part of the body, and are ciliated on their edge; their surface is elevated, but the base is depressed; the lateral line is formed of rather larger ones and they are more smooth, it runs from above the upper opercular point to the base of the caudal in following the profile of the back; it is formed of about fifty-six scales up to the caudal's base; the transverse line has twenty-eight; the dorsal is not high, formed of eleven spines, the first is the shortest (the second is broken in the specimen), and the others about equal; the branched part is rather longer than the other, and being of equal length forms a perfect continuation with it; it is formed of twenty-two rays; the caudal is bilobed of sixteen long rays with four or five shorter ones, on each side. The anal has three spines, the first being the shortest and the third the longest;

the soft part is formed of ten rays. All these fins are covered with scales on the greatest part of their length. Ventrals inserted below the pectorals; their spine is long, rather slender, and bearing at its internal side notches having the form of scales; there are five rays.

The pectorals are large, formed of very thick rays, which have an articulated appearance; they number thirteen, and their membranes are covered with scales.

The height of the body is contained twice and one-third in the length to the base of the caudal; the head three and a quarter times in the same, and the eye a little over four times in the length of the head.

The only specimen I have seen is imperfect; it is seven inches long; the colour in the dried state is uniform and of a light yellowish brown. I had dedicated this genus to the great Indian ichthyologist, Dr. Bleeker, of whom I have, during my travels in India, received so many marks of kindness, but I find that Dr. Gunther had already given his name to a genus of fishes, and I thus find myself obliged to substitute to it the name of Lacepede, one of the founders of Ichthyology.

APHRITES URVILLII.

Aphrites Urvillii, *Cuv. Val.*, vol. viii., p. 484.

This sort has been described by the authors as inhabiting the fresh waters of Tasmania; but I have received several dried specimens from Bass's Straits, and so I consider it a sea-sort.

Cuvier's description agrees entirely with my fish, except the first dorsal, which is described as having six spines, and is in my specimens composed of seven in one and of eight in the other; in both, the first is much shorter than the others.

The genus is characterised by its cylindrical form, its double dorsal, the first portion of which is much shorter than the other; its long anal; its mouth is situated in a rather oblique way, the lower jaw being longer than the upper one; its jugular ventrals; its villiform teeth at both of the jaws, on the vomer and the palatines. It has no canines; its operculums are entire.

Cuvier places it in his *Percoidæ*, and Dr. Gunther in the *Trachinidæ*; it comes close to the genus I described under the name of *Pseudaphritis*. It is possible, that on account of the difference in the number of the rays of the first dorsal, these fish may differ from the true *aphritis*, but my two specimens presenting a variation on this point, I thought it better to unite them with Cuvier's fish.

BOVICHTHYS.

I have obtained since my last publication a dried specimen of this curious fish, which belongs to the family of *Trachinidæ*.

BOVICHTHYS VARIEGATUS.

Bovichthys Variegatus, *Rich., Ereb. & Terror, Fishes*, p. 56, pl. 34, fig. 1.

The specimen described by Richardson came from Sydney, and mine was found in Hobson's Bay; it is only five inches long. This genus is characterised by its two dorsals, the first having eight spines; its body without scales; its jugular ventrals; its pectorals having their five lower rays simple; its upper jaw rather longer than the lower; its operculum terminated by a very long spine. The second dorsal is high and has twenty rays, the anal fourteen; the caudal is rounded with fourteen rays; the pectorals are very large, with fourteen rays. The fins are diaphanous, variegated with brown.

CYTHUS.

Since my last year's publication, I have had opportunity of obtaining two specimens of the Australian sort, one of which was in a fresh state.

CYTHUS AUSTRALIS.

Capros Australis, *Rich., Ereb. & Terror, Fishes*, p. 137, pl. 59, fig. 5.

Cythus Australis, *Gunther Catal.* vol ii., p. 396.

Of a fine silvery colour, with a greenish tinge on the back; parts of the mouth flesh-colour; eye silvery; dorsal, caudal and

anal of a reddish pink ; the end of the caudal and of the prolonged rays of the dorsal black ; ventrals also of that colour.

When the mouth is fully extended, the distance from the anterior end of the jaws to the front margin of the eye, is equal to the one from this same margin to the base of the dorsal.

The first dorsal has eight rays, or rather one spine and seven rays ; the second, thirty rays ; the anal has two spines and thirty rays ; the ventrals one spine and six rays ; the pectorals eleven rays.

The height of the body is contained once and eight-tenths in the total length of the fish ; the head is twice and one-third in the same, the eye is contained three times in the head.

This sort seems to attain considerable dimensions, as I have a dried specimen, which with its mouth extended has sixteen inches in length, and its breadth is over six.

TRACHURUS TRACHURUS.

Scomber Trachurus, *Lin. Syst. Nat.*, vol. i., p. 494.

This genus has been formed on the *horse-mackerel*, and it is only very lately that I have been able to observe it on the the Melbourne market. Specimens of this fish are found almost all over the world, and are so very similar one to the other as to make it probable that they all belong to one sort. They present, it is true, some variations in the number of the shields which form their lateral line, and also in the form of this line itself. The numerous specimens I observed at the Cape of Good Hope seemed to differ enough from those of Europe to justify their specific separation from them (*Trach. Capensis*, Cast.); but sorts founded on such slight characters are always very doubtful, and will only be well established when numerous specimens from all parts have been carefully compared.

The two specimens I have seen at Melbourne have their height contained four times and two-thirds in the length, up

to the central end of the caudal ; the head is three times and eight-tenths in the same ; the eye four times and a quarter in the length of the head ; the lateral line has eighty shields, and bends rather more suddenly than in the figure given by Cuvier and Valenciennes ; the upper profile of the body is of a regular oval form. The body and head are silvery, with their upper part of a dark green, rather iridescent.

Very rare at Melbourne. My specimens were found in the month of May.

GOBIUS CAUDATUS.

This sort belongs to Dr. Gunther's division, characterised by having "the anterior dorsal with six spines ; scales large or moderate ; no crest on the head, which is longer than high ; all the spines flexible ; caudal fin elongate ;" height of body five times in the length without the caudal ; head four times in the same ; eye three times and a half in the length of the head ; the lower jaw longer than the upper one ; teeth small, some rather longer than the others ; head smooth ; scales of the body large. First dorsal with six rays, the first of which is much shorter than the others, the fifth being the longest, and produced in a short filament ; second dorsal about as high as the first in front, but becoming longer behind ; the last ray rather produced ; it is formed of eleven rays. The caudal very large, pointed ; formed of fifteen principal rays, and of several smaller ones on each side ; its central rays are produced in filaments ; the total length of this fin is equal to half the length of the fish without it. Anal having the same form as the second dorsal, of eleven rays, the last rather produced ; ventrals united to nearly one-half of their length ; pectorals long, pointed, of fifteen rays, the central ones filamentary.

On the dried specimen the colour is of a light brown, with marks of obscure spots ; the head shows a dark oblique band running from the eyes to the operculum ; the fins are diaphanous ; the first dorsal has an obscure longitudinal band on the middle of its height ; the second has its external and posterior portions obscure ; the caudal shows obscure transverse bands, and its prolonged rays are almost black ; the exterior part of

the anal is of the last colour, as are also the ventrals ; the pectorals are obscure.

The total length of the specimen is about six inches and a half.

CRISTICEPS AMÆNUS.

This sort is very nearly allied to *Cr. Multifenestratus*, and has the same numerous transparent spots on the dorsal and anal, of which the general colour forms a sort of trellis work, so remarkable in that sort ; but the body is shorter, its height being here contained four and two-thirds times in the total length, when in *Multifenestratus* it is over five times and a half. The operculum, which is smooth in the last-mentioned sort, is strongly striated in *Amænus*. The general colour is also different, the dried specimen showing still the beautiful orange-red which adorned it in the fresh state.

The length of the specimen is eight inches.

NOTA.—The length of *Fenestratus* is erroneously stated in my description of it ("Proceedings, 1872," p. 131). The present measurement is the correct one.

CRISTICEPS HOWITTHI.

I have seen several specimens of this sort, but in a dried state. The height of the body is contained a little more than five times in the total length ; the head is four and one-third times in the same, and the eye four times and two-thirds in the length of the head ; the lower jaw is longer than the other, no scales. The first dorsal is placed over the centre of the orbit ; it is formed of three rays, the first of which is strongly prolonged ; the second dorsal is high, particularly at its posterior part ; it is formed of thirty-five rays. The caudal is lanceolate and is very long, and is contained four times and two-thirds in the total length ; the anal of the same form as the second dorsal, of twenty-seven rays ; the ventrals of two rays, one bifide ; the pectorals long, having more than two-thirds the length of the head, of eleven rays, the centre ones being much larger than the side ones.

The general colour, on the dried specimens, is of a reddish brown; the front part of the head is yellow; a broad black band runs rather obliquely downwards, below the orbit. The body is marmorated with dark brown, and in some specimens there are traces of transverse bands of that colour; there are also some ocellated light spots; the dorsal and anal are yellow, and have five broad transverse obscure bands; the caudal is yellow at its base, and brown in its second half, and the pectorals, on the contrary, are yellow with their base brown.

All my specimens are about four and a half inches long; they have been found at Western Port.

CALLIONYMUS.

Two sorts of this genus are, to my knowledge, found in the Victorian seas; one appears to be a different and undescribed sex of one of Richardson's sorts, and the other a new species.

CALLIONYMUS CALAUROPOMUS.

Callionymus Calauropomus, *Rich., Erebus and Terror, Fishes*, p. 10, pl. 7.

My dried specimen agrees with Richardson's description and figure, but the central rays of the caudal are prolonged in form of long filamentary appendages, which are longer than the fin itself. I believe this to be the male, and that Richardson's figure represents the female of the same species. It was found in Hobson's Bay. Length of specimen, without the caudal appendages, eleven inches.

CALLIONYMUS OCELLIFER.

1st D. 4; 2nd, 7. A. 5. C. 8. P. 18. V. $1\frac{1}{5}$.

The anterior part of the head covered with small white tubercles; the muzzle compressed before the eyes; the first dorsal very high, the first three rays equal, the fourth a little shorter; the second dorsal very large, very high, the rays becoming longer towards the posterior part, the last the longest of all; the caudal very long, rounded at its end; anal large, the first four rays equal, the last considerably pro-

longated ; the ventrals large, extending to the end of the pectorals ; the head, from the muzzle to the end of the opercle, is contained four and a quarter times in the total length ; the caudal three and one-fifth in the same length. The head is a little broader than the body, the breadth of the latter is contained six and a half times in the total length. The general colour (in the liquor) is of a greyish purple. On the head, traces of darker spots. The first dorsal has an ocellated white spot and several irregular ones ; these spots are bordered off with black lines, and they are covered with small brown lines ; the second dorsal has two series of transversal white spots extending on their membranous part, one towards the middle, and the other near the superior margin ; they are also bordered with black and covered with narrow concentric brown lines ; between them there are other small rounded similar spots, and towards the base of the fin are seen some very indistinct lines ; the caudal is covered with little white irregular but longitudinal lines, and also with small black spots ; the anal is dark towards its margin and covered with narrow oblique white lines ; the ventrals have a yellow tinge and become darker towards their extremity ; the pectorals are of a lighter brown, and have some very faint brown spots on their superior part ; on the orbits of the eyes, and on the sides of the body appear numerous transverse lines ; the lower part of the body is of a whitish colour ; the operculum terminates by a sort of long, flat, arched spine, bifurcated at its extremity. Cape Schanck—total length, four inches.

I have also seen several specimens from Hobson's Bay ; this species seems to be nearly allied to *Cat. ocellatus*, Pallas (*Spic.*, vol. viii., pl. 51, and *Encyclop. Method*, p. 43, pl. 27, fig. 95.)

NOTA.—I have a specimen of *Callyonimus* from Hobson's Bay, in which the fins, and particularly the first dorsal, are lower, and the ocellated spots of the latter are less marked ; it is only about three inches long. I think it is the female of this sort, and in that case none of the caudal rays would be produced in either sex.

RUPPELIA.

This new genus, dedicated to the celebrated traveller and naturalist, Ruppel, is characterised in the *Nandidæ*, by its ventrals formed of one spine and only three rays, and also by its soft dorsal, and anal considerably prolonged; opening of the mouth oblique and superior; teeth numerous, villiform on several series, the external one formed of larger, conical ones disposed near one another; the vomer and palatines with transverse series of teeth; tongue and interior of the lower jaw very unequal and covered with very strong papillæ, almost amounting to teeth; a short fleshy filament on each side of the upper jaw, near its centre and on the lip; eye large; body oblong, covered with moderate or even rather large scales; lateral line curved, running along the back till the end of the dorsal, and another straight along the middle of the body; this latter does not attain the base of the pectorals, but is well marked to the centre of the base of the caudal; dorsal with the spinous part longer than the branched one, formed of twelve spines; the soft portion of the dorsal considerably prolonged; caudal, rather long, rounded, anal with three spines, the soft portion prolonged like the one of the dorsal; ventrals long, with one spine and three branched rays.

RUPPELIA PROLONGATA.

Height, two and three-quarters in length of body without the caudal fin; head, three and a-quarter in the same; diameter of the eye, four and a-half in the length of the head.

The lower jaw longer than the upper one; head without scales, its upper part unequal and having a longitudinal groove between the eyes, all its parts devoid of spines; but the operculum has a prolonged rounded angle near the base of the pectorals; forty-four or forty-five transverse lines of scales; these very feebly ciliated on the edge; dorsal fin with twelve spines, the first of which is only one-half as long as the second; all the following increase gradually in length as they go backwards, and the twelfth is about twice as long as the second, the soft or branched rays number ten, and go gradually increasing in length, the two first not being much longer than

the last spine, but the sixth and seventh are much longer than the height of the body, and would not be contained more than twice and one-third in the length of the fish (without the caudal); the three last are much shorter, and the tenth is not longer than the fifth spine; caudal not complete in my specimen, but seems rounded, it has twenty rays and a couple of short basilar ones on each side; anal with three spines, the first the shortest, and the third the longest, they are rather slender and arched; the soft portion is very large and high, of ten branched rays, which go on lengthening up to the sixth and seventh, which are the longest, and then they become shorter again; as on the dorsal the prolonged rays are very long, and extend further than the end of the caudal; ventrals inserted a little in front of the pectorals, having one long slender spine, and three elongated branched rays, the fins as long as the head; pectorals rather large, of eighteen rays.

I have a single specimen, which is stuffed. The fishermen call this sort the *devil fish*, and say that when living it was of a brownish red. It appears to be very scarce; its total length is thirteen inches. This genus is named in honour of the celebrated zoologist, Ruppell, whose works on the animals of the Red Sea are so well known.

NOTA.—In my paper on the edible fishes of Victoria, in the Exhibition Essays, 1873, I stated by a *lapsus calami* that this fish was my *Bleckeria Catafracta* (Lacepedia). This mistake is easily seen by the few descriptive words which are contained in that paper.

LABRICHTHYS PSITTACULA.

Labr. Psittacula, *Richard.*, *Proc. Zool. Soc.*, 1840, p. 26.

Tautoga Psittacula, *Richard.*, *Ereb. and Terror, Fishes*, p. 129.

Labrichthys Psittacula, *Gunther. Catal.* vol. iv., p. 114, pl. 59, fig. 7.

This is the only sort of this genus that I have yet been able to put under one of the described species.

The only specimen I have obtained is in a dried state, but shows that it has been of a general red colour, with broad

brown transverse band on the body behind the end of the pectorals, and not extending to the belly.

NOTA.—I have obtained in the market, and during the month of October, several specimens of *Lebrichthys Richardsoni* and *Vestita*. The upper profile of the head is much more convex in the first than in the second, the scales of the cheeks are smooth on the living specimens.

LABRICHTHYS CUVIERI.

This sort enters in Dr. Gunther's division, having only two series of scales on the cheeks, and having no posterior canine teeth ; it could only be united with *Parila* of Richardson, but the disposition of colours is totally different. There is a well-formed, internal, second series of teeth at the superior jaw, which shows how impossible it is to maintain the genus *Labrichthys*, and this is also the case with several other divisions of the Labridæ. The superior profile of the head is not very convex ; the teeth are strong, two canines in front at each jaw ; none at the posterior angle ; the head is rugous ; the cheeks have a narrow band formed of two series of scales ; the lateral line runs over twenty-seven scales ; it is formed of a succession of strong ridges, each of which ends in an *arbuscule* of considerable size and ramifications.

The dorsal and anal fins have no scales on their base ; the caudal when shut is emarginated.

The colours are pretty well preserved on the dry specimen ; the head and body are greenish, with two broad red transverse bands, the second covering nearly the posterior half of the body. The pectorals are of a brilliant orange yellow ; the spinous portion of the dorsal is of the same colour, and the second is dark and almost black ; the caudal olive.

This sort is principally characterised by the absence of the posterior canines, which sometimes are not visible in young specimens of other sorts ; but the large size of this, twenty-two inches long, precludes the idea that they might appear at a further date.

It was sent to me from Hobart Town, but a skull found on the shore at Phillip Island shows that it also inhabits Bass's Straits.

Mr. Gulliver, who sent me the Tasmanian specimen, says, that when living the colour was most beautiful, that the body was of a magnificent purple, with the broad transverse bands of a brilliant crimson, and that the head presented all the colours of the iris.

MONACANTHUS RUDIS.

Monacanthus Rudis, *Rich., Ereb. and Terror*, p. 65, pl. 40, fig. 7.

————— *Gunth. Cat.* vol. viii., p. 244.

The Australian species of *Monacanthus* seem to be very numerous ; I have obtained the following since my last year's publication, but all the specimens being preserved and dried, I cannot say anything about their natural colours. I have also seen a second specimen of *Prasinus*, and numerous ones of *Forsteri* ; the largest is six inches long, and has a faint narrow blue stripe, which extends from the anterior margin of the eye towards the mouth.

This sort is placed by Dr. Gunther in a division characterised by "anal fin with less than forty rays ; dorsal spine with only two series of barbs ; ventral spine present, anchylosed to the pelvic bone."

The form is oblong and rather elongate ; the entire surface is covered with very small, irregular, spiniferous scales ; the colour is of a yellowish brown, marked with minute brown spots ; on the tail are two series of straight points directed backwards, which are probably only to be seen on the male. This sort is found on the southern coast of Tasmania, and also in Bass's Straits.

On my specimen the teeth are very small, but this is probably due to age ; it was ten and a half inches long.

Dr. Gunther mentions, among his uncertain species, a *Monacanthus Freycineti* of Hollard, characterised by having caudal spines, disposed on two series, and having their points directed backwards. This would agree well with my specimen, but I cannot unfortunately have here access to Mr. Hollard's Work (*Ann. Sc. Nat.*) In all cases, this fish is so very similar to *Rudis*, that I should consider it as belonging to this species.

NOTA.—Dr. Gunther (*Catal.* vol. viii., p. 246) says, that in *Mon. Hippocrepis*, some specimens, either young or females, have the caudal spine directed backwards, these spines being directed forwards in other specimens. This seems very doubtful, but if it is confirmed, it would probably be the case with many other sorts.

The fish I here describe could perhaps, in that case, belong to *Hippocrepis*, but it seems to differ considerably from it, not only in colour, but by its rounded caudal and its dorsal spine, which has a posterior line of barbs, and three or four anterior lines on each side of small spinous tubercles.

MONACANTHUS BAUDINI.

Dorsal spine with four series of barbs, the front series much smaller and closer than the hinder one; body covered with indistinct scales having a lozenge form, and bearing each three or four spinlets; the muzzle is very long, and its upper profile is straight. The distance from the anterior part of the mouth to the orbit being only contained four times in the total length. The teeth are very large; the upper ones conical, and the lower ones strongly and obliquely emarginated and forming a strong external point. The ventral spine is very small, and seems to be anchylosed in the pelvic bone; its spinlets are very short. The dorsal spine is situated over the posterior half of the orbit; it is slender and almost straight; it is contained six times in the total length; its entire surface is irregular—the ray is very short—the dorsal fin is high, and formed of thirty-five rays. The caudal is rounded, of eight rays; the anal has the form of the dorsal, and has thirty-one rays; the pectorals are formed of thirteen; there are no spines on the tail in the two specimens I have seen; one was obtained on the coast of Victoria and the other at Hobart Town; the first is rather larger than the other, and has ten and a half inches in length. I have named this sort in honor of Captain Baudin, whose expedition has done so much for the geography and zoology of Australia. This fish seems to have considerable resemblance with *M. Trachylepis* of Dr. Gunther.

MONACANTHUS LESUEURII.

Belongs, in Dr. Gunther's classification, to the same section as *Peronii*, characterised by its four-edged dorsal spine ; these edges being equidistant and armed with barbs.

The body is oblong, with the upper profile of the head very concave ; body covered with very minute and smooth scales ; those of the head and of some parts of the body are more granulous. The snout is thick, with its upper profile very convex ; its length to the anterior edge of the orbit is contained four times in the total length of the fish. The teeth are of moderate size, almost square, with the two upper front ones larger, and shaped obliquely into a point ; the ventral spine is of moderate size, rounded, and surrounded by a crown of very short spines ; it does not appear movable. The dorsal spine is thick, straight, and inserted over the centre of the orbit, which is placed obliquely ; the barbs are strong, and the spine is nearly as long as the snout ; the dorsal is rather low, and formed of thirty-four rays ; the caudal is rather long ; the anal has the same form as the soft dorsal, and is formed of thirty-three rays, and the pectorals have fifteen.

The general colour, on the dried specimen, is a dark brown ; the fins have evidently been of a lighter colour, and probably pink.

The total length is four inches. The specimen came from Western Port.

Dedicated to Lesueur, the faithful companion of Péron, during their exploration of Australia in Captain Baudin's expedition.

MONACANTHUS TROSSULUS.

Alutarius Trossulus, *Rich., Ereb. & Terror, Fishes*, p. 68, pl. 40.

My specimen is not much over an inch and a half long, and the one figured by Richardson is very little larger. This sort can be distinguished by the broad form of its body ; its absence of a ventral spine ; its dorsal spine rather short and arched, covered with short granular spines. There is no ray to the first dorsal, which has only the front spine.

The colour of the dried specimen is brown, with vestiges of darker spots ; the fins are light green, and the caudal has transverse dark dots.

Western Port.

PEGASUS.

I have obtained a dried specimen belonging to :

PEGASUS LANCIFER.

Pegasus Lancifer, *Kaup. Trosch. Arch.* vol. i., p. 116—*Loph.* p. 4, pl. 1. fig. 2.

Parapegusus Lancifer, *Dum. Ich.*, vol. ii., p. 494.

It corresponds well to the figure, but the ventrals have evidently three rays ; it is three inches long, and was found in Hobson's Bay.

RAYA ROSTRATA.

I have described in the last year's *Proceedings* a sort very common here, under the name of *Oxyrhynchus*, thinking at the time that it was similar to the European sort ; but further researches lead me to believe that it is distinct.

The differences consist in the absence, in the Australian species, of spines over the eyes, and in the greater length of the snout, which is twice and a half as long as the entire space which separates the eyes.

It also differs from the New Zealand sort (*nasuta*), by the absence of spines over the eyes, and also by the teeth, which have no points. Mr. Hutton (*New Zealand Fishes*) says, that in that sort the belly is smooth ; whereas in the Australian fish it is, on the contrary, covered with strong granulations. It attains very large dimensions, and often weighs over sixty pounds. The female is larger than the male ; the anterior point is more obtuse, and she is of a uniform colour, without the white spots. The teeth are very different in the two sexes, as is the case with many other sorts of this family.

RAYA LEMPRIERI.

Since last year I have seen many specimens of this sort, and I believe that it is the *Raya Nasuta* of Solander. The spines

are subject to very great variations. Those on the sides of the pectorals, that I had only seen on young specimens, belong to the male sex, and are placed in two or three series. The orbit spines are equal in both sexes, but in one female they form also a transverse line behind the orbits; the line of strong spines which extend on the median line of the back does not sometimes extend to the anterior part of the body; the disc is generally covered with very small spines, placed far apart one from the other, but in some specimens it is almost entirely smooth, and the lower parts are always so; the tail is more or less covered with large spines, which form from one to four longitudinal series on the centre, without taking in account the small slender arched ones, which are very numerous.

MYLIOBATIS NIEUHOFII.

In my last year's paper, I stated that two sorts of *Mylobatis* were found in the Melbourne sea, but I now believe that they must be all united under the present name.

The documents I have at my disposal are:

1. Two small specimens, with cross blue bands, similar to the one I described. (*Proceedings*, p. 226.)
2. The mouth of a large specimen.
3. A large specimen, forty-two inches long. This has no traces of transverse bands, and the tail is proportionately rather shorter and thicker than in the small specimens; its caudal spine is four and a-half inches long.

I believe that the young Australian specimens of *M. Aquila* mentioned by Dr. Gunther, belong to this sort, which attains enormous dimensions, and sometimes, it is said, weighs up to two thousand pounds.



Castelnau, Francis. 1873. "Contribution to the ichthyology of Australia. No. III.—Supplement to the fishes of Victoria." *Proceedings of the Zoological and Acclimatisation Society of Victoria, and report of the annual meeting of the society* 2, 37–58.

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