Dogs may sometimes be seen wandering about when slaughtering is going on. When we can point out numerous cases of large hydatids of hard cartilaginous flukes and of tubercle spread thro' many of the viscera in the carcases of slaughtered animals ready for human consumption, it is needless to say that no good can result from allowing dogs or other animals to appropriate morsels of the same. Though every expedition is made in the slaughtering of animals after arrival, it is desirable that they should be well fed, and if possible, allowed to graze in the interval. At present they are not well enough fed. In making these remarks I desire to say that the Superintendent uses every means in his power to enforce cleanliness, ventilation, etc., but until new yards are constructed, satisfactory results will not follow.

A suggestion I may make is the establishment of a hulk or floating sheds in the river as an abattoir, where drainage and cleanliness could be perfectly maintained. Animals should be yarded or enclosed on shore prior to slaughtering, and all diseased viscera and condemned meat burnt.

Lastly, all cases of diseased cattle within the city boundary should be reported to the Municipal authorities, or to a Government Stock Office ; and inspection should thereupon take place by a competent veterinary surgeon.

OBSERVATIONS ON SIX RARE FISHES RECENTLY CAPTURED IN TASMANIAN WATERS.

By Robt. M. Johnston, F.L.S., Etc.

[*Read October* 13, 1884.]

During the last two months several new or rare species of fish have come under my observation, which I have thought desirable to bring specially under the notice of this Society. Mr. Morton has been praiseworthily arousing the interest of local observers in various parts of the island, and it is to him I am chiefly indebted for three of the interesting forms examined and hereafter referred to. The Fishes on the Western, Northern, and North-Eastern parts of the Island are as yet imperfectly known. The recent discovery of the Snipe, or Trumpet Fish (*Centriscus scolopax*), at Port Sorell, by Miss Lodder, and the capture of the Moki (*Latris ciliaris*), so common in New Zealand, at George's Bay, by Mr. W. L. Boyes, lead me to hope that many new forms from these imperfectly investigated regions will soon be added to our list of Tasmanian Fishes. The following are the Fishes particularly referred to :—

Family Percidæ—Genus *Oligorus.*

Seven branchiostegals ; dorsal with eleven spines ; anal

with three; operculum with one point; scales small. Australasia.

Oligorus gigas. Owen.

Hapuka. Hutton's Fishes of New Zealand, p. 1; Gunth. Cat. I., 251.

B. 7; D. $\frac{11}{12}$; A. $\frac{3}{8}$.

Length equals three times that of the head; height of body rather less than the length of the head, which is three and one-third times that of the snout; spinous part of the dorsal lower than the soft part but two and a-half times its length; ventrals under the pectorals, which are short; præoperculum obtusely serrated; scales cycloid. Color, dark greyish above lighter below.

A very large representative of this species was recently captured near the mouth of the Derwent. Unfortunately I had no opportunity for examining the fish personally, but on several occasions I have learned from fishermen of the capture of the "Hapuka" in our waters, and from enquiries made of several intelligent observers I am satisfied that the reference to *O. gigas* is correct Any doubts existing, however, will be soon removed. This fish is closely allied to the fresh-water "Murray cod" (*Oligorus Macquariensis*), and therefore is of more than usual interest seeing the great difference in habit of the two fishes. Dr. Hector states (p. 102, Fishes of New Zealand) that the "Hapuka" fishing in New Zealand "is excellent sport, the average weight of the fish being about 45lb., but occasionally large specimens reaching to 130lb. weight are caught. The head and shoulder cut of this fish is most dainty food, but the flesh of remainder is rather coarse and stringy."

Family Pristipomatidæ—Genus *Erythrichthys.*

Rather elongate; mouth protractile; two dorsals with several isolated spines between; caudal forked; no teeth in the jaws nor on the palate (*præoperculum entire?*); scales rather small, ctenoid.

Molucca sea, Sunda sea, Australasian seas, Pacific.

Erythrichthys nitidus. Rich.

B. 7; D. $\frac{13}{10}$; A. $\frac{3}{10}$; P. 21; L. lat. 96; L. tr. $\frac{8}{20}$.

Body of a handsome elongate shape. Length rather more than three and a-quarter times that of the head, which is about equal to the height of the body. Whole of the head, base of the pectorals, lower half of anal and soft dorsal and outside of the ventrals covered with ctenoid scales. Caudal with small scales almost to the tip; small scales also intermixed with the normal-sized body scales; angle of præopercular rounded. In the specimen examined, however, the

P.O. is not quite entire, as its margin as well as that of the sub-operculum is very minutely dentate. Color of body uniformly steel-blue above with silvery sides, having, in one aspect, a decidedly pinkish shade. The finer subordinate shades of color on the sides, however, are more or less iridescent, and vary with the position of the observer. The fins are all tinged with pink towards roots and extremities; the pinkish pectoral fin is particularly noticeable. Mr. Charpentier has succeeded very fairly in catching the characteristic colors of this handsome little fish, which, in other respects, is most faithfully described and figured by Dr. Richardson. (Voyage of the Erebus and Terror, p. 47.) My attention was first drawn to this specimen by Mr. Morton, who obtained it in one of the fish-stalls. It was captured with flounders in shallow water near Sorell in the estuary of the Derwent on 18th August This is the first representative of the species seen by me during a residence of 14 years in Tasmania. I have reason to believe, however, that it is seen by fishermen occasionally in the neighborhood of Swansea.

Family Cirrhitidæ.

Latris ciliaris. Forst.

Locally known as "Moki," in New Zealand. Gunth. II., 86.

B. 6; D. $\frac{17}{39}$; A. $\frac{3}{32}$; P. $\frac{9}{6\text{-}8}$; L. lat. 84.

Length four times that of the head, or three times the height of the body; six to eight simple pectoral rays; no vomerine teeth; above plumbous; below silvery white with small brown dots; fins blackish.

Port Jackson and Tasmania, not common; New Zealand, abundant.

Mr. Morton obtained a fine specimen of the above species from Mr. W. L. Boyes, who captured it in George's Bay. In my catalogue I stated that it was doubtful whether this species really existed in Tasmanian waters, because the Common Bastard Trumpeter (*L. Forsteri*) had been often wrongfully referred to *L. ciliaris.* This matter is now fortunately set at rest.

Family Centriscidæ.

Centriscus scolopax, L.

The *Snipe, Bugler*, or *Trumpet Fish.*

B. 4; D. $\frac{5}{12}$; A. 20; P. 16; V. 5; C. 6 x 4 x 5 x 7.

Gunth. Cat. III., p. 518; Johnston's Cat., p. 123.

The height of the body is contained once and three-fourths to twice and one-third in the distance of the operculum from the base of the caudal.

The second dorsal spine is very strong, *and serrated posteriorly,* its length being contained once and two-thirds to twice and two-thirds in the distance of the opercle from the caudal.

Atlantic, South Coast of England, Mediterranean, Tasmania.

I was fortunate in obtaining a fine specimen of this fish from Miss Lodder, who informs me that she has captured two or three specimens near the Leven. The specimen sent to me was captured at Port Sorell. It corresponds in every particular with Gunther's description. All my doubts about its existence in Tasmania are now set at rest. It is very probable, however, that the two closely allied species *C. gracilis* and *C. humerosus* also exist in Tasmanian waters.

The following are the dimensions of the specimen sent by Miss Lodder :—

Total length	100	milimetres
Length of head	$41\frac{1}{2}$	„
„ „ snout...	$27\frac{1}{2}$	„
Greatest depth	25	„
Least „	5	„
Longest spine	35	„
Greatest dia. of eye	8	„

Family Labridæ.

Cossyphus unimaculatus. Gunth.

" Pig Fish" of Sydney Fishermen (Macleay).

Gunth. Cat. IV., p. 109 ; Macleay's Cat., p. No. 692.

D. $\frac{12}{11}$; A. $\frac{3}{12}$; L. lat. 36; L. tran. $\frac{6}{12}$.

Snout pointed, its length being more than one-third of the head ; head longer than high ; præoperculum minutely serrated ; pectoral fin obliquely rounded, more than half the length of the head ; the ventral longer, the first ray produced. The dorsal fin increases gradually in height from the first spine to the seventh soft ray ; the last spine is twice as long as the first and equal to the ventral spine. The anal spines are exceedingly strong, the third longest, nearly as long as the twelfth dorsal spine ; the longest ray is shorter than the base of the fin. Caudal fin emarginate with the lobes produced. Color uniformly bright vermilion ; extremities of fins with an orange tinge. There are no black spots at the base of the sixth and eighth dorsal spines, nor a small black speck on the fifth and ninth, as in the original description of the species ; but Mr. Morton informs me that these features are frequently absent in the Port Jackson specimens, and are therefore not reliable characteristics.

This specimen was obtained recently by Mr. Morton from one of the fish-stalls. Its capture in Tasmanian waters is of great interest. No doubt, like the Schnapper, it is a straggler, otherwise it would be captured more frequently on our trumpeter fishing grounds.

Labrichthys Mortonii, n.s.

D. $\frac{9}{11}$; A. $\frac{3}{10}$; L. lat. 23.

Head contained $3\frac{2}{3}$ times in total length. A posterior canine tooth; cheek with four rows of minute scales; præoperculum entire. The caudal fin is slightly forked. The muciferous channels of the scales of lateral line are bi- and tri-furcate anterior to peduncle; where the lateral line suddenly descends below posterior of soft dorsal these tubes are all disposed on the upper side and become simply furcate. Color yellowish purple with longitudinal streaks of lighter yellow between each row of scales below lateral line. Dorsal, anal, ventral, and pectoral fins of a lighter shade; the two former fins have the membrane interspaces marbled with yellow spots; there is a longitudinal streak of lighter purple along the base. Extremities of caudal fin of a brighter yellow. *There is a distinct black blotch on the body at root of the last two soft rays of dorsal.*

Total length, 9 inches; length of head, $2\frac{1}{2}$ inches; greatest depth, $2\frac{1}{4}$ inches.

Mouth of Derwent: Found occasionally at a depth of 40 to 50 fathoms.

THE RIVER DERWENT: NOTE UPON THE FLOOD OF 23RD SEPTEMBER, 1884.

By A. Mault.

[*Read October* 13, 1884.]

It may be useful to put upon record a few observations upon the late flood in the River Derwent.

I should premise that during the past two years I have had occasion, in connexion with the survey of the Derwent Valley Railway, to take various measurements across the river at several places above New Norfolk; and at these places I have noted the volume of water, and the rate of flow at different seasons. From these observations I inferred that the average flow of water in the Derwent would be equal to that of a river 360 feet wide and 4 feet deep running at the rate of two miles an hour, giving a daily quantity of $13\frac{1}{2}$ million cubic yards, or $10\frac{1}{3}$ million tons of water. The