NOTES ON THE TASMANIAN "BUTTER FISH" (*CHILODACTYLUS MULHALLI*), MACLEAY.

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From among the specimens of fish that I have had the pleasure of contributing to the Tasmanian Museum within the last few months, and which have hitherto been unrepresented in that institution, I would direct brief attention on this occasion to the form known to the local fishermen by the name of the "Butter Fish." This species is evidently identical with the type taken near Port Jackson, and first described by Macleay in the Proceedings of the Linnæan Society of New South Wales, p. 366, 1882, under the title of *Chilodactylus Mulhallii*. The probable identity of that species with the Tasmanian Butter Fish has been already recognised by Mr. R. M. Johnston in the appendix to his Catalogue of Tasmanian Fishes, published in the same year. The only point in which these respective forms perceptibly differ from one another is afforded by the number of spinous rays developed in the anal fin. In the Tasmanian variety three such rays were present in each of the several examples that have been examined by Mr. Johnston and myself, while in the Sydney type only two such rays are stated to exist. The third spinous ray is, however, so closely bound up with the succeeding soft rays that it has very probably been overlooked by Macleay.

The information that is yet wanting to render the description of the Butter Fish complete relates to its natural colours. In Mr. Johnston's catalogue, already quoted, it is described as of a "uniform brownish-black," while in Macleay's diagnosis the distinguishing colours of the body are worded as bluish-grey above and whitish in the ventral region. Both of these descriptions were taken from dead specimens, and neither of them accurately represent the colours of the living fish. In two examples that were brought to the Fisheries establishment at Battery Point in February last, and kept alive there for some time, the body in each instance while agreeing with Macleay's description with respect to its ground tint of bluish-grey, was diversified by as many as seven broad transverse bands or bars of irregular shape, and a blackish hue which, originating from the summit of the dorsal region,

were produced just as far as or a little below the lateral line, while a few dark grey or blackish blotches were present on the head. The ground colour of the fins generally was greyish-blue, variously shaded, the free edges of the ventral and anal fins being a pure sky blue; the anterior or spinous portion of the dorsal fin was variegated with black, the caudal fin was darkest towards its superior and inferior edges and had a narrow posterior margin of pure white. Soon after removal from the water the fish lost all its characteristic markings and faded to a uniform leaden grey.

A drawing, illustrating the natural colours of one of the specimens was made from life, and these I have reproduced upon the plaster cast subsequently made from the same fish, and which I also now present to the museum. This cast, in which the precise shape and natural attitude of the living fish has been accurately modelled, will, I trust, prove an acceptable addition to the preserved skin of the original exhibited beside it, but in which, as in all similarly preserved specimens, it has not been found possible to retain either the natural colours or the exact contour of the living fish.

In communicating this note upon the Butter Fish, *Chilodactylus Mulhallii*, I may take the opportunity of recording my opinion that the fish figured and described by Macleay in the proceedings of the Linnæan Society of New South Wales (p. 440, pl. xxii) 1884, under the title of *Psilocranium Coxii*, must be regarded as identical with this species. With the form given in the illustration quoted, and in all more important details of its diagnosis it essentially agrees. The only feature upon which, so far as I can perceive, its claims to separate generic and specific titles have been founded, is the somewhat smoother surface of the head as compared with the ordinary members of the genus *Chilodactylus*. This characteristic is, however, equally distinctive of *Chilodactylns Mulhallii*, as may be verified by its comparison with, say, the more familiar type locally known as the Carp, *Chilodactylus Allporti*, and of which I also exhibit a coloured plaster cast. The more cylindrical contour of the body, which is quoted by Macleay as substantiating its claim to separate generic distinction, can, I think, scarcely be invested with so important a significance, more especially, as admitted by Macleay in his original description of this type, his diagnosis was formulated from a skin from which the fish's body had been already separated and thrown away. I may add that Mr. Morton, who is personally familiar with the typical examples of *Chilodactylus Mulhallii* and *Psilocranium Coxii* preserved in the Sydney Museum, has experienced equal difficulty with myself in detecting any essential points of distinction between these respective types.