

THE RIBBON FISH.

(A REGALECUS IN QUEENSLAND WATERS).

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(PAST PRESIDENT.)

[*Read before the Royal Society of Queensland, January 8th, 1892.*]

No apology for recording the appearance on our coast of one of these curious and interesting fishes, with its message from the deep-sea realm, is likely to be needed by the professed ichthyologist or by those who take an unmethodical though very real interest in fish, more especially as it is the first instance of the kind of which we have information. So unexpected an occurrence on the shores of Queensland tends to show that there may be more species of Ribbon fish in existence than we at present know of.

In fish lore the Ribbon fishes form a family known as the *Trachypteridæ*, having in common a peculiar form, immensely long drawn out, narrow and thin, and, what is of still greater interest, an organization fitted to endure the pressure exerted upon their bodies at great depths below the surface. Some writers distinguish from the rest of these fishes, under the name of Oar-fish, a group, *Regalecus*, having the elongation of the body carried to an excessive degree and accompanied by a short compressed head, a large eye, a small feebly armed mouth, a dorsal fin continued from head to tail and raised at its fore end into a high crest, and by a pair of long filamentary ventral fins ending in small discs. It does not, however, seem necessary to multiply popular names in this case, as the term ribbon fish applies

equally well to all, but if it should be held advisable to adopt it, then our new acquaintance may be termed an Oar-fish.

To an accidental glance at a dead fish lying upon the beach, or rather to an intelligent appreciation of the value of the accident, we are indebted for the present discovery. The circumstances attending it are these: Mr. F. R. Chester-Master, Usher of the Rod in the Legislative Council, happening to be travelling by coach along the coast, observed an object on the sands near the Tweed River which excited his curiosity. Alighting to examine it he found it to be a fish of extraordinary length, narrowness, and flatness, coated with brilliant silver paint, and bearing on its head "feelers" of great length, and judging that such a fish would in all probability be at least rare and of scientific value, determined to convey it to the Museum, notwithstanding that it was sadly mutilated. The greater part of its back had been torn away; Mr. Master therefore detached the less injured portions, about 18 inches of the fore end and 24 inches of the hind (after determining the whole length to be by actual measurement 8 feet 9 inches and the greatest depth 11 inches), and relinquishing the rest took such excellent care to preserve his prize that he was able to bring it in three days later in a perfectly fresh condition.

On consulting the literature of the Ribbon fish (a task deprived of most of its terrors by the classical labour of Professor Parker, published in the "Transactions of the New Zealand Institute"), it was found extremely probable that our Queensland fish was foreign to all the species hitherto made known. It is more nearly allied to *Regalecus banksii*, a British fish, described by Professor McCoy as an inhabitant of Victorian waters, but from this it is entirely distinct.

If it be a compliment to the discoverer of the fish to connect his name with the genus to which it belongs it is a compliment well earned, and, as he good naturedly accepted it, I venture to suggest that the species be known as *R. masterii*.

DIAGNOSIS.

The first seven dorsal rays very elongate, not detached at the base from the rest; longitudinal ridges of body obsolete; lateral line interrupted, naked; no teeth.

DESCRIPTION.

B, 6; D, (?); A, 0; C, 0; P, 11.; V, i.

The length of the head is more than one-eleventh of the total length, the height of the body more than one-ninth, its breadth about one-sixth of its height. The height of the head is one-fourth less than its length. The second and third dorsal rays (which alone are perfect) are two and a half times as long as the head. The head is obtuse in front, the snout truncated, the mouth deep and nearly vertical, entirely without teeth, and moderately protractile. The long diameter of the eye is one-fifth of the length of the head, its centre is in the upper half of the head over the anterior two-fifths of its length. The trunk is not traversed by any longitudinal ridge other than the tumid mass of muscle over the vertebral column. The lateral line commences over the eye, passes obliquely downwards behind the head and disappears at a distance from the head about equal to its length; it is free from scales. The skin is covered on the abdomen and over the interspinous bones of the back by flat soft warts which are smaller between the interspinous bones, on the middle of the sides by small round bony tubercles, but there is no definite line of demarcation between the two forms of dermal outgrowth. On the caudal region the bony tubercles are not confined to the centre, but, in irregular lines and bands, occupy the whole of the side; near and upon its lower edge they acquire more distinctness and asperity, and towards the root of the tail form a line of rather sharp points. The pectoral has eleven rays and is about as long as the vertical diameter of the mouth. The ventrals are broken off near their roots. The elongate dorsal filaments were connected by membrane nearly to their tips, as is attested by its remnants. The dorsal is rather high, about two-fifths of the height of the body. The ground colour is uniform silvery, relieved on the anterior region by irregular transverse bars and blotches of black.

Though there is hardly sufficient evidence, either in fact or inference, to show that the Ribbon fishes inhabit the profoundest depths of the ocean, we may reasonably conclude that their habitats are far below the levels of coastal soundings and in this sense they are entitled to be considered deep-sea fish.

Their structure, as we see it, delicate and incoherent to such a degree that, as befell in Mr. Master's experience, they hardly bear to be lifted from the ground in their entirety, is adapted to waters not only of great density, but almost perfectly free from agitation—conditions existing only at great depths. Here they exist under the all round pressure of the superincumbent mass of ocean and by that pressure their tissues are rendered as firm, their framework as rigid as is needed for all the purposes of life. So long as they remain in the depth of water suited to them, their health and safety are conserved, but if from any cause, pursuit of prey, upward current or what not, they rise to a somewhat higher stratum, pressure relaxes, the condensable constituents of the body expand and it tends to disintegrate, suffering and debility ensue; then efforts to escape death, sometimes mis-spent, may carry the creature to still higher levels, till at length it floats on the surface unable to return—a wave shattered wreck. In this helpless state it has been often met with on the high seas, and may be occasionally, as in the present instance, drifted ashore.

Among the many phenomena which meet the eye of the sailor, and have at various times been supposed to account for the often reported appearance of the "Sea Serpent," the Ribbon fish seems to hold its place more tenaciously than it does its own structure under adverse circumstances. Its long flexible body, undulating with the waves, is still considered by many to be the origin of the tales told of mysterious and appalling monsters. We may confess that this is by no means the least plausible of the explanations given by ingenious sceptics, but the admission serves only to throw further discredit on the less plausible. It is, in truth, hard to conceive how a feeble ribbon of fish at the mercy of the seas, and unable at its best to raise itself above the surface, a fish of which the largest authentic specimen is but 20 feet long, could have been converted by the most vivid fancy, much less by the common sense of men under no stress of terror, into a snake-like creature of extraordinary size and activity, rising from the ocean before their eyes, then sinking into its depths. The sailors certainly seem to score one by the improbability, since an unwise explanation is worse than none.

As to the truth of the existence of "sea serpents" those only can positively assert it who have had occasion to believe

the evidence of their own eyes. The strangeness of the fact, the possibility of delusion amounting in some cases to great probability, the absence of specimens living or dead or of bones dredged from the sea bottom—these are the chief objections urged by the spirit of unbelief, and together they are weighty. But on the other hand the frequency of encounters, occasionally at close quarters, the plain circumstantiality of the accounts logged while fresh in the memory by men actuated by no hope of gain, ambitious purpose, or eagerness to found a doctrine, and supported by the testimony of whole crews, are considerations not to be overlooked as unscientific. It is neither sensible nor prudent to set aside sober testimony in favour of ill-furnished doubt because the witnesses were uncritical observers, and could not by effecting a capture secure the means of obtaining the verdict of science. The utmost liberty we should allow ourselves at present is to doubt with modesty and reserve. To frankly accept the evidence we have as good enough as well as plentiful enough to warrant our belief in the “Sea Serpent” would, perhaps, be more consistent with justice; at any rate that evidence is hardly bad enough to convict us of over-weening credulity if we opine that the non-existence of “sea serpents” is “not proven.”



De Vis, Charles Walter. 1892. "The Ribbon Fish. (A Regalecus in Queensland Waters.)." *The Proceedings of the Royal Society of Queensland* 8(4), 109–113.
<https://doi.org/10.5962/p.351175>.

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