THE CURIOUS EGG OF THE HAGFISH (*MYXINE*).

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In classifying fishes, scientific authorities have always placed lowest on the list the hagfishes and lampreys. Indeed, the well-known writer on fishes, William Swainson, in his excellent book, the "Classification of Fishes," London, 1838, goes so far as to claim, regarding the hagfish (*Myxine*), that "all authors agree in placing it near the worms." These fish are, of course, far removed from the worms; but with the exception of the Lancelet (*Branchiostoma* or *Amphioxus*), they are the lowest and most rudimentary of vertebrate animals. The late Dr. Theodore Gill and others concluded that they ought to be separated from the true fishes, and placed in a separate class, owing to their many rudimentary structural features. Thus, they have no paired fins, no scales, no segmented backbone, (the jelly-like notochord persists), no complete skull, no spleen, no pancreas, a very simple brain and nervous system, a peculiar series of gill-pockets instead of typical filamentous gills, and their whole form and structure are in contrast with the true fishes, and higher vertebrates generally. It is still a debated question whether or not, in this peculiar group, the features referred to are original and primitive or degraded and degenerate. In all, the mouth is round and adapted for sucking, not biting. The lamprey attacks fishes, adhering to the outside with its mouth, which it uses like a vacuum sucker, and removes flesh and blood with its rasp-like horny teeth. The hagfish bores its way into fishes, living or dead, and eats out the interior, leaving little more than the skin and bones of its victim. Fishermen find cod and haddock hanging to their hooks which have been destroyed in this way. Moreover, the hagfish has a remarkable device for protecting itself from enemies. The skin is provided with slime glands and pores, which enable it, at will, to pour out a great quantity of tenacious ropy slime, in which it envelops itself. I have seen a specimen, the size of a medium-size eel, fill a bucket with this gummy grey substance, exuded from the slime pores. There are not many species of hagfishes, and they are very local in their occurrence. Thus, *Myxine glutinosa* is well known to abound off St. Abb's Head on the Scottish coast, but is rather rare in other areas. Our Canadian hagfish so closely resembles the British form that both were included in the same species, though our western form is now known as *Myxine limosa*.