

INTRODUCTION.

THIS investigation of the muttonfish was begun in order to obtain some definite information in regard to its life-history and abundance, relative to the possibility of placing the fish on the market for the purpose of augmenting the food supply during the war. Before the study was completed the situation in respect to the war was changed. However, in view of Canada's future increase in population and the probable diminution in quantity of sea food supplies from present sources, it is of importance to consider possible future sources whether for immediate or future use. This is important in connection with the increase in cost of living, for the cost of sea foods should remain comparatively low at least for a very long time, because of the lower cost of production. The muttonfish, for example, occur along the Atlantic coast in considerable numbers and are taken by fishermen on the set lines (trawls) along with haddock, cod, etc., and in lobster traps, but are thrown back into the water since there is at present no market for them. Professor Prince, Dominion Commissioner of Fisheries, in speaking in 1915 before the Commission of Conservation in Canada on "Unutilized Fisheries Resources," said concerning this fish; "In regard to this utilization of these lesser-known fish or fish not valued, I may say that the staff at the biological station at St. Andrews, N.B., have for the last two or three seasons been trying on the mess table all kinds of fish and you would be astonished at the result in the case of some fish that people threw away and did not regard as edible at all. There is one fish called the rock-eel or mother-of-eels, a green eel-like animal. It is viviparous, that is, produces its young alive, and is altogether a peculiar fish. A large one may weigh a couple of pounds. We found that the rock-eel (*Zoarces*) had white flesh of splendid flavour and our staff declared it one of the best fish they had had on the table. That is a fish that could be utilized; there are great quantities along the shores and it is a product the food value of which has not been realized at all."

DESCRIPTION

The body of the muttonfish is compressed and tapers posteriorly to a point around which is a very narrow pointed tail fin. The head is slightly depressed and relatively large and heavy in the older specimens. The sexes are indistinguishable externally except in the older specimens where the head appears to be somewhat larger and heavier in the male. The mouth is large and the strong jaws bear strong blunt, conic teeth. The dorsal fin is very long.