

II.—THE FOOD OF THE MACKEREL.

a. IN EUROPEAN SEAS.

"Mackerel mint" is the popular name given to the chief food of the mackerel in European seas. During certain seasons of the year this consists of Launce and the fry of other fish, especially of the Herring and Sprat.

According to Boeck, the Danish naturalist, the food of the Mackerel during the *Summer* months consists of minute crustaceans, which frequently give a distinct colour to the sea.

The mackerel feed also in these seas on the swimming larvæ of tape worms.

They also devour large quantities of the embryos of a small spiral shell, (*Rissoa*) which in its adult state is found in great abundance upon sea weed. Similar food has been detected by Mr. Whiteaves in the Gulf of St. Lawrence (¹)

b. IN AMERICAN WATERS.

The Britt, or "eye-bait" of the Canadian and American fishermen was formerly stated by Dr. Storer to be the fry of the small herring (*Clupea minima*), it is now supposed to be the fry of the common sea herring. It appears to be, generally, the first food upon which the mackerel feed when approaching the Atlantic coasts in Spring from their Winter haunts confronting the coast line where they first show themselves. The fry of the sea herring, either from Spring spawning schools or Autumn spawning schools appears to be enormously abundant some distance seawards in May and June, but varying in size from an inch to four inches in length, according to the age of the fry, whether hatched in the Spring or in the preceding Fall.

James de Kay in the "Zoology of the State of New York," also describes the "Britt" as "*Clupea minima*." He states that the fish has a length of from one to four inches.

The length of the head is one-fourth the length of the body and the diameter of the eye is equal to one-sixth the length of the head, or one twenty-fourth part the length of the body. Perhaps from the largely developed eye, the "Britt" is styled by the American and NovaScotian fishermen the mackerel "eyebait." (²)

But the movements of the mackerel like those of the cod, and indeed of most species of fish, are determined at different seasons of the year by the geographical position of its food, and the first important kind of food which appears to lure the mackerel inshore after spawning in the Gulf of St. Lawrence, is the Launce or Sand Eel.

The relation of the Launce or Sand Eel (*Ammodytes Americanus*) to the mackerel, is very much greater than appears at the first blush, and resembles the relation of the herring to the cod, in general, and, in particular, the relation of the so-called Norwegian "Sull Cod" or Launce Cod, to this wide-spread and important bait-fish. The approach of the Launce to the coast in Spring is most probably the cause why the so-called Spring cod fishing

1. Report on a second deep sea dredging expedition to the Gulf of St. Lawrence—1872.

2. Rev. J. Ambrose—On St. Margaret's Bay fishing grounds—N. S. Institute of Natural Science, 1866-7.