

Government officials, such as prevails in Scotland, and has worked so advantageously. We also require an importation of skilled curers from the North of Scotland, to impart to our people a knowledge of the art of curing the herring.

MIGRATIONS OF THE HERRING A MYTH.

The phenomena of our herring-fishery completely disprove the old theory about the annual migration of herring to and from the Arctic seas, and go to show that the herring is a local not a migratory fish. The theory of Pennant and the older naturalists was that in the inaccessible seas of the high northern latitudes, herring were found in overwhelming abundance, securing within the icy Arctic Circle a bounteous feeding ground, and, at the same time a quiet and safe retreat from their numerous enemies. These theorists further held that, at a certain season, inspired by commanding impulse, vast bodies of this fish gathered themselves together into one great army, and in numbers far exceeding the power of imagination to picture, departed for the waters of Europe and America, sending off detachments in various directions as they reached their place of destination. Till recently this theory was almost universally accepted; but an extended acquaintance with the habits of this fish has now completely exploded it. The ascertained facts regarding the natural history of the herring along these shores, are entirely irreconcilable with the supposition of an annual migration, and all combine to show that it is a native of the seas where it is taken. In point of fact the herring is taken on the coast of Newfoundland and Labrador all the year round, the fishery commencing at various times in the different localities. Besides the herrings of different localities are marked by different features. In appearance and flavor the Labrador herring is essentially different from that of Fortune Bay, and the same description of fish is invariably taken in each locality. The superiority of the Labrador herring is doubtless owing to the superior feeding it enjoys, for it is natural that the animals of one feeding locality should differ from those of another. Different races of herring exist in different places, having marked differences in size, shape and quality. From merely glancing at the fish, an expert fisher will tell in a moment their different localities. The St George's Bay herring differs widely from those taken in the Bay of Islands, and a Bonne Bay herring is never mistaken for a Fortune Bay herring. All these facts point to one conclusion—that the herring is a native of the water in which it is taken, and never migrates, unless, as other fish, from deep to shallower and warmer water, in order to deposit its spawn. It follows from this that by overfishing, the herring of any locality may be greatly reduced or even exterminated, as has happened here more than once. Nothing, however, is more certain than that the herring dealers know the different localities of the fish, as easily as a farmer distinguishes a Cheviot sheep from a Southdown. The same holds good in Scotland, where they can tell at a glance a Lochfyne herring from one taken in the Firth of Forth, and a Tweed salmon from one captured in the Spey.

SPAWNING OF THE HERRING.

Gilbert White says, "the two great motives which regulate the brute creation are love and hunger; the one incites them to perpetuate their kind the latter induces them to preserve individuals." In obedience to these laws, the herring congregate

on our coasts, for there only they find an abundant supply of food to mature with the necessary rapidity their milt and roe, as well as a sea-bottom fitted to receive their spawn. They must have a rocky bottom to spawn upon, with a vegetable growth of some kind to preserve the roe. The herring shoal keeps well together till the time of spawning and having spawned, it breaks up, and then the herring leads an individual life. The same shoal will always gather over the same spawning ground, and the fish keep their position till they fulfil the grand object of their life. Before spawning they swim deep and hug the ground; after spawning, they rise buoyantly to the top of the water. It is worth noting that when they thus come within reach of man the herring are in their worst condition, so far as food-yielding qualities are concerned, because at the spawning season their whole nutritive powers are exerted in reproducing their kind, and their flesh is consequently lean.

HERRING FAMILY.

The family of the herring is rather extensive—the most prominent members being the common herring, the sprat, the pilchard, the white bait and anchovy. The pilchard is the sardine of commerce; but its place is often usurped by the sprat, and thousands of tin boxes of that fish are annually made up and sold as sardines. In France this practice is extensively followed—75,000 barrels of sprats being annually taken on the coast of Brittany, of which large quantities are done up in oil as sardines. It is now generally admitted among the best naturalists that the sprat are the young of the herring. However this may be, not less than 13,000 boats on the coast of Brittany are engaged in the sardine trade, capturing sprats, young pilchards and young herring for curing as sardines. According to Mitchell the sum of £80,000 is annually expended on cod and mackerel roe for late in this fishery. From Newfoundland 964 barrels of cod roe were exported last year, the whole of which was forwarded to France for the sardines fisheries. In this country it is worth three dollars per barrel.

LABRADOR BLOATERS.

The herring of Newfoundland is nearly all pickled for exportation. Were there a ready means of communication established between Bay of Islands, Bonne Bay, Labrador, and the United States and Canada, one would fancy that a splendid trade might be established by curing the fine herring of these localities as "bloaters" and "reds." The "bloaters" are very slightly cured, and as slightly smoked, being prepared for immediate sale speedy consumption. The name "bloater" is derived from the herring beginning to swell or bloat during the process of curing. Small logs of oak are burned to produce the smoke, and the fish are all put on the "spits," which are run through the gills. Treated in this way, the Bay of Islands and Labrador herring would be a most delicious article. I think, however, I have given you enough about herring for one article, and may perhaps, return to the subject.

ADVENT OF THE MACKEREL.

Some forty years ago, old fishermen say the mackerel were so plentiful around our shores as the cod now are. But at once, however, they disappeared; but strange to say, they have made their appearance in considerable quantities, especially off the northern coasts, and, for the first time in