

it would not keep the boats off the young fish grounds and the fish would merely be thrown overboard dead. He is of the opinion, however, that with proper precautions by the fishermen, a considerable proportion of the fish caught by the inshore fishermen could be returned to the sea alive. There is, moreover, a recent development in the fishing industry which furnishes a powerful argument in favour of a size limit; this is the utilisation of undersized fish and wasted parts of fish for the manufacture of meal and other bye-products. While it is all to the good to turn the inedible portions of marketable fish into such products, the fact that a market for fish of any size is increasing can only be viewed with great apprehension and every effort should be made to check the expansion before it reaches unmanageable proportions.

Space will not permit one to deal with the many other points that Dr. GYLSON brings forward; it must suffice when it is said that no one who is investigating the problems of the North Sea should fail to make a careful study of this most interesting report; for the first time the coastal fishery has been examined with sufficient continuity to obviate the erroneous ideas that are obtained from spasmodic sampling, where such factors as weather, shoaling, and migrations can give but a very distorted impression.

D. E. T.-P.

H. M. KYLE. Die Seefischerei von Grossbritannien und Irland. Handbuch der Seefischerei Nordeuropas. Herausgegeben von H. LÜBBERT und E. EHRENBaum. Band VI. Heft 1—3. Mit 1 Titelbild, 77 Abbildungen im Text und auf Tafel I—V. S. 1—169. Stuttgart 1929.

An account of the sea fisheries of northern Europe in ten volumes is being published at Stuttgart, with Mr. H. LÜBBERT and Professor EHRENBaum as Editors. The sixth volume is devoted to the sea fisheries of Great Britain and Ireland by Dr. KYLE. The first three (of four) parts of this volume have just been issued under the title given above.

These three parts are concerned respectively with:—

- 1) An historical account of the development of British Fisheries (57 pp.).
- 2) Administration and regulation of the Fisheries (19 pp.).
- 3) Methods of Fishing and Fishing Vessels (90 pp.).

It may be said at once that this work is clear, compact, up-to-date and so far as is possible in the limited space allowed, a complete account of British sea fisheries — past and present.

No branch of the fisheries — however insignificant — is omitted and the more important sections of the fisheries are described with a wealth of detail and with abundant illustrations.

Dr. KYLE deals first with the historical account under four separate headings. From the commencement to the sixteenth century, from 1600 to 1800, from 1800 to 1900 and finally from 1900 to 1925.

The main aspects of this important and interesting branch of the sea fisheries are adequately dealt with.

Dr. KYLE traces the development of the British sea fisheries from

its earliest commencement. The prehistoric fisheries, which ultimately developed into a settled herring fishery at Yarmouth, are first described.

A detailed account of the early herring fishery follows. Dr. KYLE, in the section devoted to the fisheries prior to 1600, quotes interesting documentary material, the result of careful research into a by-path of history.

The growth of the herring fisheries in the seventeenth and eighteenth centuries is fully described, the period of the Royal Fishery Societies of the Stuarts and the later Bounty Systems both being adequately treated. The section dealing with the early whale fisheries is not so full, although these whaling cruises were a training for deep-sea fishermen.

Even of recent years the longest trawling voyages originated in the east coast ports such as Hull which have long had a tradition of distant fishing voyages.

The last portion of the historical section deals with the modern development of the great drift-net and trawl fisheries. The reports of the various Committees and Commissions appointed to inquire into the alleged destructiveness of trawling are summarised. The vexed question of the closure of the Moray Firth is dealt with historically. Dr. KYLE is very severe on artificial hatching of sea fish.

Part two deals with administration. Here again Dr. KYLE gives an adequate account. In the section dealing with the administration of the English fisheries, Dr. KYLE enters the field of criticism. He points out certain lacunæ in the reports of the Central Department (p. 66) and certain anomalies in the division of administrative duties between the Central Department and the local authorities, the Local Sea Fisheries Committees (p. 68). It must not be forgotten that the Central Department probably has a good reply to these criticisms.

This section contains the best and most concise account of administration of the British sea fisheries that has hitherto been published. Practically nothing of any importance has been omitted. There is also an interesting account of the activities of the Worshipful Company of Fishmongers of London, a Company which still has an active interest in the trade from which it originated.

In the third section, dealing with Fishing Vessels, and methods of fishing, Dr. KYLE is on less contentious ground. His account is concise and adequate and anyone reading the section cannot fail to have a clear conception of the present condition of the British sea fisheries, which are still the most important in northern Europe. There are four sections dealing respectively with the trawl fisheries, the drift-net fisheries, other deep-sea fisheries including line-fishing and whaling; and finally the coastal fisheries, the Cinderella of the sea fisheries, at any rate in England and Wales.

This section of the work is particularly well-illustrated, no important branch of the fisheries being without illustrative diagrams, which makes the practical side readily intelligible to a layman.

There are, in particular, full descriptions, with illustrative diagrams of the modern steam trawler, with its nets and gear. For over fifty years trawling has been the most important branch of the English sea fisheries,

but in Scotland the drift-net fishery for herring gives the greatest quantity of fish.

Taking England and Scotland together we find that the percentage yield of the fisheries is as follows:— Trawl, 50; Drift-net, 42; Long-lines, 5; and other methods, 3 per cent.

The drift-net is also described in detail and with ample illustrations.

One of the most interesting sections of the book is that which deals with modern whaling so far as it is carried on from the British Isles. It will surprise many people to learn that in British waters as many as 730 whales have been killed in a single year and that the whaling steamers have averaged 70 whales each in a season. At the present time there are only two whaling companies operating in British waters, one from the Hebrides and one from the Shetlands.

Finally the publication of this work reflects the greatest credit on all concerned.

It is certainly strange that one has to turn to a work in a foreign language and published abroad for the best and most up-to-date account of the British sea fisheries. Apparently the publication of works of this sort is not lightly to be undertaken in Great Britain. J. T. J.

H. M. KYLE. *Die Fischerei von Grossbritannien und Irland. Handbuch der Seefischerei Nordeuropas. Herausgegeben von H. LÜBBERT und E. EHRENBAUM. Band VI. Heft 4. Fischereidistrikte und Fischereihafen S. 171—334. Mit 110 Abbildungen im Text und 21 Tafeln. Stuttgart 1929.*

This is the fourth and last part of Dr. KYLE's book on the sea fisheries of Great Britain and Ireland, the complete work forming the sixth volume of LÜBBERT and EHRENBAUM's *Handbuch of the sea fisheries of northern Europe*. This part gives a detailed description, with many illustrations and plates, of the various fishery districts and harbours of England, Scotland and Ireland.

Dr. KYLE starts with Scotland, to which one chapter, divided into twenty-one sections, is devoted.

A full description of each of the Scottish sea fisheries districts is given with a short description of the fisheries of each area, statistical tables, plans of the more important fishery harbours and many illustrations, some of which are really excellent, and quite the best of their kind we have seen anywhere. No one can read this section and fail to have an accurate idea of the present state of the Scottish sea fisheries. The description of the growth of the Shetland herring fishery is of considerable interest because it was off the Shetlands that the bounty system vessels were required to operate, a fishery from which the great British sea fisheries have originated. The changes that are taking place in the Scottish sea fisheries are carefully noted. In some instances these changes are of a striking nature, for instance, in the ports of the Moray Firth the large sailing boats have diminished from nearly 1800 at the commencement of this century to 8 in 1926. In Aberdeen the weight of trawl caught fish landed in 1889 was 137,193 cwts value £98,652; in 1926 it was 2,142,306 cwts value £1,743,121.