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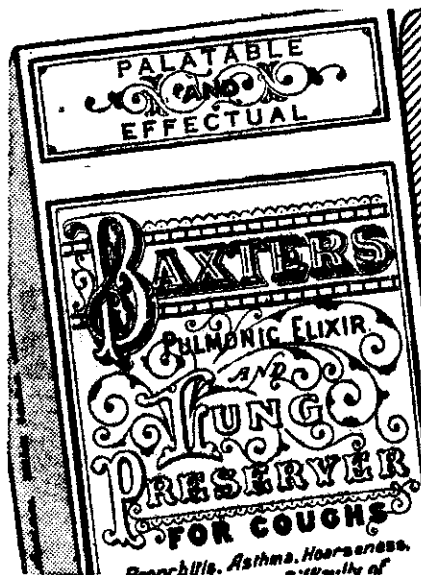


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WHY FISH IS SCARCE AND COSTLY

The Main Reason Is Because Most Of Them Swim Somewhere Else

RECENTLY Robert Gibbings, the man who spends hours on the bed of the ocean watching and actually sketching fish, told us something about the appearance, colours, and habits of his exotic tropical subjects. He spoke of fish which have memories and of fish able to change colour as quickly as a girl can blush.

But many people are less aesthetically interested in fish than Mr. Gibbings. So, the other day, we went to the more practical and less glamorous end of the scale, and asked A. E. Hefford, Chief Inspector of Fisheries and Director of Fisheries Research in New Zealand, about the cod, snapper, flounder, and other food fish which end up on the cold slab of a fishmonger's window instead of in an artist's woodcuts.

What we principally wanted to know was whether, with the war over, fish research in New Zealand would be intensified. Radio talks and health articles have mentioned fish as one of the vital foods and so we asked a lot of questions about supplies, prices, conservation and artificial fertilisation of coastal waters.

For nearly two hours we chatted, and then reached only the stage of throwing out a line, for the fishing business is so complicated and important that it takes up 24 long pages and many columns in the 1944-45 annual report of the Marine Department.

One of our questions was: Why is fish so scarce?

Mr. Hefford, replying in general terms, said that 98 per cent. of the world's fish was caught in the Northern Hemisphere and the other two per cent. in the Southern Hemisphere, which seemed to be answer enough.

But, we asked, why the steady rise in prices?

Fish costs more simply because it is now harder to catch.

This does not mean that educated fish, like those described by Mr. Gibbings, have spread propaganda and "wised up" their homelier colleagues.

Fishing Costs Soar

Fish landings have been diminished through difficulties during the war in supplies of gear, engines, spare parts and so on, explaining, in a way, the substantial rise in the cash value of fish between 1934 and 1944. If there is one comprehensive explanation that will almost entirely account for the general rise in prices it is this: that the costs of production (expense of fishing operations) have steadily increased in the last ten years, quite apart from any special war-time factors.

Commercial fishing, says Mr. Hefford, must inevitably diminish the fish population on the grounds that are worked, and our New Zealand fishing grounds are of limited extent. Continued exploitation of stocks has led to their deterioration. The actual process of taking fish in large quantities out of the sea, like that of drawing large sums out

of a banking account, leaves so much less for future use, and also so much less to produce more—in the case of money by way of interest, and in fish by natural propagation. That fishery exploitation by man is the biggest factor in causing a reduction of fish population is quite manifestly the case with our own fish, at any rate when modern methods of catching are used.

Fish Census Wanted

There is a need, says Mr. Hefford, for much more information about fishes themselves, not merely as a species but as populations. This can only be obtained by biological investigations to throw light on such questions as their abundance and its changes and the causes of such changes, their migrations and spawning habits, and how these are related to times and places, their rate of growth and age at first maturity.

In the last eight years a fisheries branch to the department in Wellington has come into being, with a staff to deal with systematically collected fishery returns as a basis for records. In 1939 the department acquired a newly-built and specially-designed oil-engined vessel of 65ft. length which would have enabled our fisheries patrol to operate on more equal terms with the Danish-seiners.

This vessel, appropriately named "Ikateri" (the Protector of Fishes in Maori mythology), would have enabled direct trials to be made of various methods of fishing and given valuable scientific data on some important problems. It was taken over for naval duties, but will probably be returned soon for fisheries work.

Oil for UNRRA

When we turned to fish food values Mr. Hefford mentioned fish-liver oil, and said that a large proportion of the oil produced in New Zealand comes from shark livers rich in vitamin A. Nutritional authorities say our ordinary New Zealand diet is deficient in vitamin D, but there need be no deficiency in vitamin A.

Shark liver and other oils very rich in vitamin A are available for export. All the rest of the world is under-supplied, while to the populations of those countries which are the concern of UNRRA, their restoration to anything like normal health is absolutely dependent on their receiving increased amounts of this vitamin.

"But I'm wandering from the subject. Any more questions?" Mr. Hefford asked.

We asked if it was proposed to follow up experiments in other countries in artificial fertilisation of coastal waters in New Zealand.

A few years ago a fish-farming experiment in the British Isles led to the conclusion that the application of fertilisers, combined with hatching operations, might become a practical means of improving the yield of inshore fisheries, Mr. Hefford explained. The investigators concluded that there would be a future

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