

THE REGULATION OF THE HALIBUT FISHERY OF THE PACIFIC.

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THE CONDITION OF THE BANKS.

It was made evident in a previous paper (B.C. Fishery Report for 1915) that intense fishing on the halibut banks of the coast of British Columbia and the United States has resulted in not only serious depletion, but has made its influence felt throughout the whole biological appearance of the species, and in doing so has rendered precarious the future of the banks, particularly the older or longer known. The numbers still found on them are so small, and the percentage of mature fish in this population has fallen so low, that it appears imminent that the halibut will drop to a minor position among the food-fishes of the Pacific. It may recede northward, as it did from the shores of Massachusetts and from the coast of England, until it exists only in the more remote and difficult to reach of the banks. It is very difficult to see wherein more proof than is at hand may be adduced to emphasize this tendency, save the final one of the catastrophe of commercial extinction itself.

The rate of decrease shown—over 70 per cent.—for each decade is surprisingly large. Yet it must be remembered that the constant shifting to new banks has stayed off a portion of the effects of impoverishment. This extension is, in its way, a measure of depletion. Just as a mine may be exhausted and its owners reduced to working over the discarded low-grade ore, so may the halibut fleet be compelled to rely on depleted banks. The progress from Cape Battery to Hecate Strait, and from there to Yakutat and beyond, has been at a constantly accelerated rate as the total catch has grown from year to year. When the end will be reached, perhaps in the Southern Bering Sea, perhaps on the Siberian coast, is, of course, difficult to forecast. In the meantime the expenses of long voyages are gradually growing, and the necessity for vessels of large steaming radius is becoming greater, so that it is a question whether the final reserves of halibut shall be exploited by vessels from our coasts. When expansion is at an end, as will inevitably be, the vessels must return to fishing on the older banks, which will then be depleted beyond their present condition unless measures are taken to allow them to recuperate. They cannot support the fishery now existent, it is very plain, or anything comparable with it.

There are many reasons why this depletion does not evince itself in the prosperity of the fishing business in direct proportion. The rising prices demanded of the consumer and the extension to new banks require no comment on their effects. More important than these, however, is the fact that the time and effort required by the boats to catch the fish is only a portion of that necessary to carry the fish from the ocean to the consumer, and a seemingly overwhelming increase in the fishing-time of the boats is but a moderate increase in the total. The length of the voyage, as has been shown, does not increase in the same proportion as the actual fishing-time, and the length of the voyage is but a part of the whole journey over ocean and land. In other words, the increased expense of obtaining the fish is distributed between that of transporting and selling, and is felt correspondingly less.

It is evident, therefore, that an automatic abatement of the fishery in direct proportion to the rate of depletion is far from what is to be expected, and those who rest content in the belief that it will not pay commercially to deplete the banks beyond the limit of recuperation are on unsafe grounds.

REMEDIAL MEASURES.

The reason for the existence of halibut-fishing on the older banks when they are apparently partly depleted is seen also in the great seasonal variation in the yield obtained. It is evident from almost all of the data presented that during the winter months the yield falls greatly, but rises to its maximum in summer, during June and July. It is during these best months that it is possible to do profitable fishing on these banks, and that fact keeps a certain number of vessels in the impoverished areas. Notwithstanding this, it is common knowledge that even during the best season it now pays to go to the Far North. It has also been proved that there is an alarming lack of mature fish on the older banks. It must be borne in mind, then, that the vital need of the southern banks, with the exception of those off the coast of Oregon, is protection during that portion of the year when they are yielding their largest proportion of small and