

this part of the subject I wish to say that, so far as I am aware, no person has ever seen newly and naturally shed mullet-spawn in any of the creeks or on the banks or flats in the rivers, though it has been diligently searched for. Again, it is a very rare thing for a newly-spent mullet to be caught; personally, I cannot remember ever having seen one, and fishermen who have fished in Kaipara for over twelve years informs me that the number of such fish caught by them during these years is under one dozen. In support of his statement that fish are now getting scarce, Masefield Brothers, writes, "Last year Masefield Brothers took 2,000 dozen less than in 1894." This is one of those half-truths which Tennyson has so well characterised, and which are so misleading. In 1894 more mullet were taken and canned in Kaipara than in any previous year, and, though it may be true that Masefield Brothers canned 2,000 dozen less in 1895 than in 1894, that proves no scarcity of fish, for taking all the canneries together the number of mullet caught and canned in 1895 is not far from double the quantity canned even in 1894.—I am, &c.,

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NEW ZEALAND FISHERIES, AND THE DESIRABILITY OF INTRODUCING A NEW SPECIES OF SEA FISH, BY G. M. THOMSON, F.L.S.

[Read before the Otago Institute, 8th October, 1895.]

In the official record of the New Zealand and South Seas Exhibition a short sketch of the fisheries of the colony was given by the present writer. It was necessarily imperfect, for, as was pointed out, "there are no statistics as to the number of persons dependent upon the fisheries; the number of men actually engaged in fishing, curing, &c.; nor as to the number, quality, tonnage, &c., of the boats employed." In the six years which have elapsed since the above was written very little additional information has been collected or is available, but considerable developments have taken place in various localities, as, for example, at Napier, where one or two little steam-trawlers are employed where a few years ago nothing much bigger than a punt was utilised. Practically no additions have been made to our knowledge regarding the fishes themselves and their life-histories, and of the biological and physical conditions of the surrounding seas as far as these refer to the fishing industry. But it is true, as I wrote before, that, "among all the sources of natural wealth which this colony possesses, her fisheries must always occupy a prominent place. Great as is her mineral, pastoral, and agricultural wealth, she only shares these in an almost equal degree with her great sister-colonies of Australia; but in her fisheries she holds a unique position. Her coast-line of some 5,300 miles in length, indented by numerous bays, fiords, and estuaries—very many of them sheltered in nearly all weathers—renders it possible to carry on the fishing industry the whole year round with but little interruption." Such an adjustment of trade relations with Australia as would enable New Zealand fish to be entered free of duty at all ports would do very much to further our fisheries. Meanwhile I wish to draw the attention of members of the Institute to the subject, with the view of stirring up more interest in the subject generally, and, if possible, of getting steps taken to enrich our sea fisheries by the introduction of the finest edible fishes of other countries. I propose to divide the subject roughly into three parts, as follows: (1) Present state of the fisheries; (2) Laws at present in force regulating the fisheries; (3) Possibility or advisability of introducing new and desirable species of fish.

(1.) As already pointed out, the information on the present state of our fisheries is very meagre. By the census returns for 1891 the number of persons specified as fishermen in the colony is 565, and if we include persons engaged in fish-canning, oyster-dredging, &c., the total number occupied in the fishing industry is only 667. In "The Sea-fisheries Act, 1894," one clause reads, "Every sea-fishing boat shall be licensed, and for that purpose every such boat which is not of tonnage sufficient to require entry on the register under any Act relating to the registry of British ships shall be entered in a register for sea-fishing boats by the Collector at the port of the place to which such boat belongs, or at the port nearest to such place." This, no doubt, has special reference to oyster-fishing, and all boats engaged in this industry are, I presume, registered. But the Act does not draw any such limitation; consequently, on my applying to the Marine Department for information, I was surprised to learn that the "number, weight, and kind of boats employed" (*i.e.*, in the fisheries generally) "and the value of the catch, cannot be ascertained." The department has, however, kindly supplied me with the accompanying return, which is of interest:—

RETURN showing the Quantity and Value of Fish imported into and exported from New Zealand during the Years 1884, 1889, and 1894.

Year.	Fish canned.		Fish cured.		Fish frozen.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
<i>Imported.</i>						
1884..	Cwt. 13,493	£ 42,473	Cwt. 4,533	£ 8,613	Cwt. ..	£ ..
1889..	6,434	17,435	2,220	3,857
1894..	8,776	23,178	2,615	4,091

<i>Exported.</i>						
1884..	203	523	139	222	155	150
1889..	1,315	4,072	7,778	5,774	1,384	1,247
1894..	1,133	3,264	741	672	4,640	3,683

Exported for Bonus (included in above figures).

(The Fisheries Encouragement Act, granting a bonus, was passed in 1884.)

Canned, $\frac{1}{2}$ d.—	Tons	cwt.	qr.	lb.	£	s.	d.
1889	45	9	2	16	..	424 10 0
1894	25	19	3	12	..	242 12 0
Cured, $\frac{1}{2}$ d.—							
1889	230	4	3	0	..	537 4 5
1894	4	6	3	4	..	10 2 6
Cured, $\frac{1}{2}$ d.—							
1889	128	2	0	8	..	149 9 1
1894	16	3	1	21	..	18 17 4

Total—1889, 404 tons, valued at £1,111 3s. 6d.

1894, 47 tons, valued at £271 11s. 10d.

Last year the colony imported canned and cured fish to the value of £27,269, an increase of £5,977 on the figures for 1889. The value of fish exported was only £7,619, a decrease of £3,474 in the five-yearly period. The diminution in the value of canned and cured fish during that period is remarkable, and not very encouraging.

(2.) The laws amending the sea-fisheries of New Zealand are embodied in "The Sea-fisheries Act, 1894," which repeals all previous Acts. The provisions of this Act have no doubt been carefully thought out by the framers, but it contains at least one clause which is in my humble opinion either premature or unworkable. Thus, clause 14 states that "All nets containing fish shall be emptied in the water; and every person who drags or draws on the dry land any such net is liable for every such offence to a penalty not exceeding twenty pounds." It is surely a mistake to pass laws which cannot be enforced. This is certainly one of them, for in many parts up and down the coast it is quite a common thing for people resident near the sea-shore to drag in the surf, and in this way often make a good haul. If this is illegal by the Act, then the Act should be amended; but whether it is or not, it cannot be enforced, and is therefore absurd. No doubt the main object of the Act is to provide a basis on which further legislation can build up such additions as are required from time to time.