

With the exception of the so-called black flounder, the whole of the observed New Zealand flatfish come from the sea into the shore shallows and estuaries, enclosed harbours, bays, or mouths of rivers to the brackish waters, for the purpose of depositing their spawn, or for change of food, &c., at more or less regular periods of the year, usually the spring and summer months. When fresh run from the sea or caught in the sea itself they are much finer and better flavoured fish. After a short existence in the brackish or fresh water the fish lose their condition and flavour, becoming lank and lean. The black flounders reverse the order of affairs, living up the fresh-water rivers, and coming down to the saltier waters in autumn and winter. Great numbers of lagoons in New Zealand of very inconsiderable areas as compared with Lake Ellesmere have the same causes operating. When left in a state of nature their filling-up and bursting-out to sea depends on the changes of the seasons, and the openings thus made chiming in with seasonable migratory movements of the flatfish (whether caused by sexual or food motives), give them an opportunity of running in, as adult fish, to counterbalance the loss of the small fish previously hatched in the periodically enclosed waters, which avail themselves of their opportunity to go out to sea, returning when mature in the ordinary course, thus keeping up the natural supply and preventing depletion. What has happened in smaller enclosed waters too long retained is happening on a larger scale at Lake Ellesmere. Gradually the large parent fish have been captured, and the catch has rapidly decreased. The mature size of the fish, from its altered condition of life, also decreases, prime operating causes being the almost fresh water it perforce has to inhabit, at a mean temperature of 10° greater than the sea, and deficient supply of food. The evidence of the fishermen notably proves that the yellow-belly flounder is a much longer and thinner fish in proportion to its width when taken in Lake Ellesmere than the sea- or estuary-caught fish of the same kind. Whilst it is universally acknowledged as having far less flavour, the so-called "three corner" flounders found in the lake are now so permanently dwarfed, according to the fishermen, as to be recognised as not now worth catching, whilst the sea-fish of the same kind assumes almost the largest dimensions of flatfish caught. Seasonable opening of the lake, when the run of mature fish is on, from the sea will prove beneficial without doubt to subsequent supply of fish of better quality and flavour.

Your Commissioners are of opinion that no flounders should be allowed to be taken either in Lake Ellesmere or elsewhere under 10in. in length, and that the size of the mesh of the nets used should not be less than 5in. Your Commissioners are of opinion that, if the interests of the public and of the fishing industry only were to be considered, *a still larger mesh and size of fish* should be fixed, but, having regard to the interests of the fishermen, and knowing the difficulty they would have to obtain a living from Lake Ellesmere if the limit was fixed at 11in. or 12in. as the minimum size at which flounders should be taken, they make the recommendation as above.

We are of opinion that the average earnings of the fishermen on the lake do not exceed £1 10s. per man per week. The evidence shows that the nets in use last about six months, though one fisherman says, with care, his nets last eighteen months. We recommend that, if the suggested alteration is made in the size of the mesh, twelve months' notice should be given to the fishermen. We see no reason why the same size of mesh should not be fixed for the whole of the South Island, or at least for the whole of Canterbury, and strongly recommend that such size be adopted for all flounder-nets.

We are of opinion that all nets, of whatever sized mesh, should be hung on the square, and not on the diagonal. If hung on the diagonal, and weighted, the mesh is pulled together, and practically becomes a net that will take anything. We found all the nets at the lake hung on the diagonal.

Your Commissioners find that the fisheries are carried on and fish sold practically without any supervision, and they are of opinion that as long as this continues much destruction of undersized and immature fish will occur, particularly where drag- or seine-nets are used, and emptied on the land; but even with these kinds of nets the hanging of the mesh in the way proposed will prevent a great deal of the destruction of undersized fish.

The fishermen have expressed their willingness to pay a reasonable license-fee to defray the expense of an inspector, and your Commissioners are of opinion that such an appointment would be very advisable, and conducive to the welfare of the fisheries industry.

The fishermen on Lake Ellesmere are desirous of using herring-nets of 2½in. mesh; but your Commissioners cannot recommend this unless under very close supervision, and with the proviso that such nets must be hung with meshes on the square, and so as to allow a free open space of at least 2ft. between the lower margin or lead-line of the net and the bottom of the lake.

In the interests of the consumer and the fishermen, though but indirectly bearing on the subject of the inquiry, your Commissioners are of opinion that any assistance or advice that might be given towards the establishment of proper fish-markets in the larger towns of the colony would be beneficial to the State.

We have, &c.,

W. H. SPACKMAN.

F. E. CLARKE.

The Hon. the Minister in charge of the Marine Department, Wellington.

MINUTES OF EVIDENCE.

CHRISTCHURCH, 6TH MARCH, 1893.

Mr. E. G. Wright, M.H.R. : My attention was called to the matter by seeing a large number of immature flounders being brought into the market, and the difficulty of obtaining a supply of fish worth cooking. I remember only a few years ago—say, ten years back—the flounders were