

Auckland, 20th August, 1886.

I have made inquiries of the different fishermen and fish-dealers. The roe of the mullet is prepared in Auckland as a speciality, in season (December, January, and February), and exposed for sale separately. The part is taken out whole, salted, dried, smoked, and is soon fit for use. Specimens of mullet with roe are already making their appearance, but this is quite an exceptional case. So also the fact of fish being got with roe as late as the beginning of March should not be taken as a general rule; the condition of the fish and peculiarities of the fishing-ground having something to do with the exact time of spawning. It is agreed that the fish are in the best condition in the winter time. I saw some smoked mullet to-day which were in splendid order, having been selected for show in the Co-operative Company's establishment. Fishermen present assured me that samples quite as good would be seen in the ensuing two months; also, that the fish are much easier obtainable during the breeding season; that they come into shoal water in December to spawn, and that by the beginning of March the fish have completely recovered their condition. So poor do they become, that when the roe is taken out very little of value is left for food. Several persons who take a great interest in the industry suggest that the close season begin in November, in order to allow a month before the actual spawning time, and that the month of February be included therein. The mullet seeks shelter, and of course fishermen are guided thereby. I know that the mullet has a habit of leaping when startled, so that the fish sometimes fall into the boat. They are generally captured with nets. Some persons say that the mullet will take bait; but if so, it must be exceptional. As a matter of fact, enterprising persons have endeavoured to show what may be done with a trawl.

R. DUIGAN.

Kaipara, 2nd September, 1886.

The spawn first commences to appear at the end of November, December and January being the months during which the spawning takes place; but, as you remark, the fish remain in a poor and flabby condition during February, so that from the 1st December to end of January should, in our opinion, be nominated as a close season. We may mention that we ourselves have always made it a rule to close our factory during these months.

EWING AND CO.

Wellington, 4th October, 1886.

It is evident from these papers that the date of the breeding-time of the mullet is influenced to a greater extent than has been supposed by the locality, and variations in the character of the seasons in different years. Perhaps in Kaipara, being a large inlet of the sea, the fish never actually go out to sea, but merely return to the deeper channels after spawning. When it is stated that the fish spawn from the 1st December to the end of February it is obvious that there must be spent or unclean fish during the whole of this time, as during the time of spawning, and for a long time after the act, fish are quite unfit for food. As the mullet fisheries, except those north of Auckland, are quite insignificant, it will do no great harm to adopt for the close season the months that seem to suit the Kaipara—that is, from the 1st December to the 1st March. At the same time, I think the collection of exact information should be continued, and it would be very advantageous if, instead of general impressions and recollections, exact observations could be made as to the conditions of the fish on precise dates, and, if possible, if specimens of the viscera, especially the stomach, pyloric appendages, and the roes and milts, could be preserved. All that is necessary is to supply a jar of spirit, into which the viscera should be dropped after being washed and drained, each with a label of tea-chest lead fastened on, on which a date is written with a pointed stick. Exact notes, and jars thus filled during a season, from the Kaipara, Whangarei, Bay of Islands, and the Waikato at Mercer, would almost settle the question. I attach for your information extracts from the fisheries reports of New South Wales and the United States of America on the habits of the fish, which in their waters is almost identical with our kanae.

JAMES HECTOR.

Wellington, 7th October, 1886.

On Tuesday last there was a consignment of kanae (mullet) received in Wellington, and I was told by the fishmonger that they had been caught in Nelson. It was the ordinary Auckland mullet, and I examined several and found them to be out of condition, and not in a fit state for food, and certainly not for canning. There was no appearance of either roe or milt in those I examined, but along the sides there was a layer of soft, oily, fat substance, occupying the position of the swimming bladder in other fishes, &c.

JAMES HECTOR.

[Extract from Report of New South Wales Fisheries Commission in 1880.]

The sea-mullet is a large fish, attaining, when full grown, a length of 2ft. and a weight of 8 lb. It is unsurpassed in richness and delicacy of flavour by any fish in the world, the salmon not excepted, and it offers itself for our use in countless numbers at the very season when it is in the best possible condition. The history of this fish is now pretty well known, though there are many very conflicting statements given. To begin with the spawning season, in the later end of summer—that is, at periods varying from the middle of March till the middle of May—the sea-mullet is seen to enter all the harbours and inlets of the coast in successive shoals, some of the most astonishing vastness. It is then full of roe, and in splendid condition. When not interfered with by the fisherman (for it is a fish easily turned from its course), or diverted by storms or floods, these shoals penetrate to all parts of these inlets, and run up the rivers even into fresh water in search of suitable places for the deposition of their spawn. When a suitable spot is reached the deposition of the spawn commences, and the process is carried on in much the same way as that of the salmon and other fish of similar habits. Sometimes, however, from bad weather, or the persecution of fishermen, the shoals are prevented from seeking suitable spawning-grounds, and the fish being no longer able to retain the spawn, shed it loose upon the water, where it becomes entirely lost. When the ova are perfectly fertilised and left undisturbed, the young fish make their appearance on the approach of warm weather in spring, when they may be seen in large shoals close to the land and in shallow water. From that period until they become adult, which is probably at the age of two years, they seem to keep entirely to the rivers, lakes, and mud-flats, where they thrive and grow with amazing rapidity. When in this half-grown condition they are very inferior in flavour to what they become afterwards, having an oily and muddy taste. As they are without teeth they are incapable of eating either animal or vegetable substances in the ordinary sense of the term, but they are possessed, Dr. Günther informs us, of a pharyngeal apparatus which sifts the organic from the inorganic particles in mud which they swallow, and on which they live. When the period at length arrives for the mature fish to go to the sea preparatory to spawning, the instinct which actuates them seems to be irresistible. There can be little doubt that the fish after spawning find their way back to their old haunts, but they have very seldom been seen so returning. The spent fish are for a time unfit for food, but they improve in condition very rapidly. The only instrument of capture used for the mullet is the seine-net.

Wellington, 2nd December, 1886.

Great excitement prevails among the fishermen of Auckland relative to this impending Proclamation. Possibly you may have seen the telegraphic correspondence between myself and the Premier, acting in your absence. The fishermen allege, supported by expert knowledge and experience, that the Proclamation is wholly unnecessary; that the mullet are not scarce; that the fish is cheaper now than it was many years ago, showing no scarcity; that the information given and requests made by Ewing and Co. (at whose instance chiefly the close season is made) are interested and selfish, and put forward mainly to enable their stock of canned fish to be disposed of; and that if the Proclamation is persisted in it will be the means of throwing out of employment numbers of fishermen, possibly one hundred, on many of whom a family is dependent. As this matter affects Auckland seriously, and as I have had several interviews with fishermen, whom I promised to aid if possible, I beg to urge you to refrain from enforcing the Proclamation, and in the meantime (for the purpose of further action) to obtain the report of Dr. Hector on the necessity of any step such as is contemplated. I signed the authority for the Proclamation, but I am quite sure now that the department has been misled. The oldest residents in Auckland assure me that spent mullet are never caught, because they are not, of course, saleable, and, moreover, as a rule, go out to sea and deep water for the purpose of recruiting, &c.

JOS. A. TOLB.