

same season. No set-nets of more than $3\frac{3}{4}$ in. mesh should be legal, as roe-fish are mostly caught with $4\frac{1}{2}$ in. mesh gill-nets. Seine- or sweep-nets used in shallow bays and creeks should be prohibited. There should be a close season for mullet in all waters from the 1st December for three months, and during this season all canneries should be closed.

9th January (Russell).—*P. Barker*: Has been fishing mullet for eight years. Fish not so plentiful as formerly. The seasons are getting later, and irregular, as if the habits of the fish were interfered with. Caught fish all the year round, but the Waikari is a winter fishing-ground. This year saw no roe-fish before the 20th December. Male fish are rare this season. The seasons are so irregular from year to year that can see no advantage for a close season being fixed. Early in last season, after the 20th March, for six weeks the fishing was good. Was using $3\frac{3}{4}$ in. mesh nets. Previously we used $4\frac{1}{2}$ in. mesh: $3\frac{3}{4}$ in. mesh will not gill full-roed fish. Instead of a close season, would recommend that the size of net be fixed during the spawning season, and that sweep-nets should be prohibited. Three years ago roe-fish were abundant in the bay (harbour branches) in October. Last year none were seen till the end of November, and this year, when the fishing was closed on the 20th December, few or none were seen. At all seasons of the year schools of mullet run in the harbour at early morning, and leap out of the water, but they will not strike a net, except in a shallow bay or creek; and in the evening about sunset they clear out. This occurs whether it is flood or ebb-tide. The flood or ebb of the tide has no influence. During the night time they are never found. Thinks the mullet deposits its spawn outside the bay in salt water, but about the outlets of freshwater creeks. This year the close season has been very hard on the fishermen. It has been a late season, and fish were very scarce until just before the season closed on the 20th December. It is not so every year. Since the close time commenced the fish are very abundant, and appear to be in good condition, but no fishing is allowed. This closing of the fishing is not required; and it had no effect this year, as just before closing some very large takes were made—indeed, so many fish that the factories could not take them. They were all splendid clean fish without roes and in prime condition, and lots were thrown away, as there is no local market outside the factories. There are nine boats at work kane fishing in the bay: Paroa, two boats, four men; Russell, two boats, four men; Purerua, three boats, six men; Opua, two boats, four men.

W. Baker: Has had experience for five years in what is termed the outside fishing at Paroa. He is familiar with the enormous shoals of large mullet that are met with outside in the blue water along the coast at certain seasons, but chiefly from November to the end of January. When they enter the shallow bays they are caught with drag seine-nets. Caught 60 dozen on the 20th December outside Paroa Bay, and did not see a single roe-fish among them. The outside fish are all very large, and are very black on the back. The Maoris call the young fry of the mullet “karahihi.” They swarm in July outside. The half-grown fish are named “poto,” but they are not often caught.

Note.—Mr. Stephenson showed me specimens that were supposed to be young kane, but they proved to be small-fry of the aua, or sea mullet (*Agonostoma fosteri*).

10th January, 1896.—*Stanley Empson*, Purerua, Bay of Islands, manager of a mullet cannery: Has managed the factory since its establishment three years ago, so that his experience of the fishing is only since then. The first season, 1894, was the best he had, “our take being 2,342 dozen.” Since then the fish inside the bay have been a little scarcer, in 1895 the take being 2,326 dozen. Last year, after the opening of the season—March and April—the take was again fairly good—viz., 367 dozen—but from then up to September the weather was cold and rough, and only 400 dozen were taken in five months—June to September. From September up to the 20th December, at which date the fishing closed, there was a good supply, as the following figures will show: September, 257 dozen; October, 378 dozen; November, 401 dozen; December (to 20th), 869 dozen. This was the take of one only of the two boats we employ; but the other boat did not do much work this season. $3\frac{3}{4}$ in. mesh nets are used, and the fish taken weigh about 6 dozen to 112 lb. dead weight (22 oz. each), and the average length about $15\frac{1}{2}$ in. The fish are always struck by the net behind the gills. The roe season is supposed to be in December, but this varies greatly in different years. In 1894 the fish began to get out of condition with full roe towards the end of November, but in 1895 they were still in prime condition and without roes on the 20th December, when the fishing closed. Have observed that the roe takes six weeks to develop after starting to change colour from purple to orange, and enlarge, and that after the fourth week the fish are of no use for canning, as they fall off in condition. The mullet is supposed to spawn on the mud-flats, but no one has proved this yet. Great masses of floating spawn have been observed up the Ti and other arms of the bay, but this has not been proved to be mullet-spawn. The nets used here are made of grey salmon-twine, 36 mesh deep, $3\frac{3}{4}$ in. mesh, which shrinks to $3\frac{1}{2}$ in. The offal from the factories all goes into the sea, and attracts kahawai and a few dog-fish. Only three sharks have been caught here. They were 9 ft. in length, and three kits of mullet-heads were taken out of one of them. Does not believe that a close season is at all required. If the fish are spawning and out of condition the factories will not buy from the fishermen, nor will any one else, and they will not be caught. A close time would require to be varied from season to season, and to be made different for inside and outside fishing, and for every different bay along the coast.

Note.—The fish were leaping in abundance close to the factory, and a special haul was made for examination with a $3\frac{1}{2}$ in. mesh used as a cast-net, the fish being caught by the gills, as in the ordinary set-net. About thirty fish were taken, about a third of which were males. They were all clean fish, and in prime condition. There was no marked difference in size between the sexes, and none showed any marked development of the reproductive organs. They varied in length from $14\frac{1}{2}$ in. to $15\frac{1}{2}$ in., and in weight from $20\frac{1}{2}$ oz. to 23 oz. The average depth of body was $3\frac{1}{4}$ in., or one-fourth the total length. The lateral line had forty-six scales, and the transverse line fifteen. The pectoral fin had 16 rays; the ventral, $\frac{1}{4}$; the anal, $\frac{3}{8}$; the second dorsal, $\frac{1}{8}$; and the caudal, $\frac{1}{2}$. The smallest, a male (weight $20\frac{1}{2}$ oz.), was cleaned and trimmed as for canning, and then yielded $12\frac{1}{2}$ oz. of prime quality.