

fishing for *skil*, to make it a business, is, as stated by Mr. McKenzie in Mr. Anderson's report: "Depth of water, difficulty of anchoring canoes, strong currents, and necessity of calm weather," all of which can be overcome by white men, with the modern means and appliances for fishing, as at present adopted in the north Atlantic deep sea fisheries.

At Massett I was informed by Mr. McKenzie that I could probably obtain some of the *skil*, at Skidegate, and on my arrival there, I arranged with Mr. Andrew McGregor of the Skidegate Oil Company, who sent a few Indians to the west coast to catch some. They returned in three or four days, bringing about 125 *skil*, which, under my direction and personal supervision, I had split like cod, and salted in a large vat with plenty of salt. My first intention was to pack them in barrels, like pickled salmon, as I thought from their being so exceedingly fat, that they would become rusty, like mackerel or salmon, when exposed to the air after having been pickled.

Capt. Henry Miller of the steamer *Skidegate*, an experienced fisherman, belonging to Newburyport, Massachusetts, and several others in the employ of the Skidegate Company who were also accustomed to the mackerel fishing of the East, fully coincided in my views; but I could get no barrels, nor was there a cooper at Skidegate, and I had to think of some plan to get the fish to Victoria, where I intended to pack them to send to Washington. I knew the method adopted in Massachusetts for preparing halibut for smoking, and I determined to adopt that plan as the only method I could think of, although I felt in doubt about the fish reaching Victoria in good condition, as it was an untried experiment so far as the *skil* are concerned. I had the fish first rinsed in the pickle they had made in the vat where they were salted, then piled, skin side up, in a long pile, and on top of them were laid spruce plank and heavy stones to press out all the pickle; they were allowed to remain four days under this pressure which made them firm, and easy to handle. I then packed them in boxes, with dry salt, putting twenty fish in each box. On my arrival in Victoria, I had the fish examined by officers of the Hudson Bay Company and other competent judges who advised me to send them to Washington without repacking them, which I did, and they were received by the United States Fish Commission in the very best condition. Prof. Baird at once sent a box to the Fish Bureau of Boston, who tested them in various ways, and gave their unanimous opinion as to their superior excellence. Some of the fish were freshened and smoked, and in that condition are pronounced a great delicacy.

So great is the interest felt in the eastern cities, that Prof. Baird writes me he has urgent letters from Boston enquiring whether the black cod can be obtained in quantity, and stating that a ready market awaits them if they can be delivered in the eastern cities at a reasonable price.

The question having been satisfactorily solved about the black cod keeping in dry salt as I packed them, is of great value to poor settlers on the north-west coast, where the spruce abounds from the Columbia river to Alaska. All that will be required to cure the fish and get them ready for market, are salt and nails; the boxes being made of rough splints or shakes of spruce.

The black cod will undoubtedly pay best, if first properly smoked and sent by rail to the eastern

market, although to cure and send them as I did, will command ready sales at paying rates.

Best Method of Capture.

This brings me to the consideration of the questions of the distribution of the black cod and the best method of taking them.

The *Anoplopoma fimbria*, or black cod, of the whites; the *T'homak*, of the Nisqually Indians; the *Acht*, of the Clallam; the *Beshow*, of the Makah; the *Beshowee*, of the Nootka and Kuyyoquot; the *Skil*, of the Haida; the *Kwakweth*, of Knight Inlet, etc., are found from Monterey to the Arctic ocean, but south of Cape Flattery, at the entrance of Fuca Strait, they do not attain a large size and are not of much repute as a food fish. They are sometimes sold in the San Francisco market as "Spanish mackerel," but are not much sought after. In the deep waters of Fuca Strait and Puget Sound, and in all the harbors and inlets of British Columbia and Alaska, wherever a depth of fifty fathoms or more of water are found, the black cod abound. They are occasionally taken in Alaska, in the Prince of Wales archipelago, and other localities, and by the Makahs of Cape Flattery, and by the Indians on the west coast of Vancouver Island when fishing for halibut in deep water, but those Indians do not fish for them as articles of commerce or for a regular article of food as they do for the halibut—they use them as articles of luxury, and whenever sold to the whites they command the highest price; the usual price at Neah Bay, Cape Flattery for a black cod or "beshow," as it is called by those Indians, is one dollar. The Haida is the only tribe I know of who take these fish in any quantity, and as their method is peculiar, I will describe it fully.

Their fishing lines are made of the stems of the giant kelp of the coast (*Neurocystis*, Hooker), which, commencing at the root of a size about one-fourth of an inch in diameter, gradually increase till they terminate in a pyriform hollow bulb on the surface of the water, from which extends a tuft of lanceolate leaves. The Indians cut these stems close to the bottom with a simple instrument formed of a V shaped branch, across the smaller portion of which a knife blade is secured, this is lowered over a kelp plant in twenty or thirty fathoms of water, and the stem easily cut off by a sudden pull of the line attached to the cutter.

These stems are then soaked in fresh water to extract the salt, then stretched and dried in the smoke which toughens them, and makes them exceedingly strong. The pieces are then knotted together till they form a line one hundred fathoms or more in length, and are then neatly coiled up for use.

The hooks differ from any fish hook I have seen. They are made of the knots of hemlock limbs cut out from old decayed logs. These are split in pieces of suitable size, and whittled to the required shape and bent, by being steamed, into the form which, in the *skil* hook, resembles the longitudinal section of a goose egg. The lower portion of these hooks are curved inward to form a barb, and when not in use the two ends of the hook are fastened together by a piece of twine, which is also used to tie on the bait. When the hook is to be used, the two parts of the hook are separated by means of a stick or peg, which the fish knocks out when he takes the bait, and the two ends of the hook close together and hold him fast.