

EULACHON
AN HISTORICAL OVERVIEW

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November 1995

PREFACE

I have worked with fishery records for over fifteen years, and have never had such a frustrating research experience as I had on this project. Records on the eulachon fishery are very spotty and extremely hard to locate. Key records listed as being held in D.F.O. morgues in New Westminster, Kitimat, and Prince Rupert have "disappeared". In addition, I was unable to access the eulachon files at the Museum of Anthropology.

These reasons aside, the D.F.O.'s pre-1980 records on eulachon were never very extensive because after the early 1900's this was not a major commercial fishery (except for the Fraser, where a small commercial fishery exists to the present day) and was overlooked except as an aside in officers' reports.

If further research is considered, it should concentrate on specific eulachon areas such as the Nass, Knight Inlet/Kingcome and Bella Coola, and it should include research into the D.F.O. records held at the local district offices for these areas (Nass, Alert Bay and Bella Coola), none of which were dealt with in this report.

SOURCES RESEARCHED

The major source researched was the records of the Department of Fisheries and Oceans and its predecessor the Department of Marine and Fisheries, which became responsible for British Columbia's saltwater fishes in 1871. The department's annual reports, published in the Canada Sessional papers, were reviewed first as were the pre-1915 Department of Marine and Fisheries records. The most useful documents were those held in the Department's various offices, specifically at the Prince Rupert and New Westminster offices. The Mission and Steveston offices were also reviewed. Unfortunately time and money constraints prevented me from investigating the two fishery offices at Alert Bay and Bella Coola, which might have some information on eulachon. Records transferred from the Department to the Record Centre and the National Archives in Burnaby were also reviewed.

For the historic study of the eulachon resource, by far the most useful records held by the Department are the annual narrative report of the districts and sub-districts and the weekly reports of fishery officers. To my surprise, specific files on eulachon are virtually non-existent. For example, while in Ottawa for another project, I spot-checked the fishery records in the National Archives and was able to locate only one file. I also spot-checked sources not directly related to the fishery such as the United Church Archives and the Oblate Archives with little success.

I believe that there is so little documentation in the historic record because after the 1920's (the period for which generated most of the written records) it was never a major modern commercial fishery. In addition, after the 1920's the Department's personnel were more interested in herring spawn counts and supervising other fisheries; eulachon is often referred to as an aside or as something of personal interest to a specific officer.

INTRODUCTION

A smelt-like fish ranging from northwest Alaska to northern California, the eulachon grows to about 12 inches in length and spends two or three years in the sea before returning in the spring months to spawn in the freshwater rivers of the mainland coast.¹ The B.C. rivers in which eulachon are found are the Nass, Skeena, Kitimat, Bella Coola, Kingcome, Klinaklini and Fraser.² Of these, the fisheries of the Nass and Klinaklini are the most renowned.

Although Wayne Suttles states:

We do not have and probably shall never have any figures on the quantities of food actually collected and consumed per capita, on the ratio of meat, fish and vegetable food in the diet, on the number of manhours spent in the food quest, and on the percent of the population supported in leisure or other non-subsistence activities . . .³

there is little doubt that eulachon was a major native fishery prior to contact. Donald Mitchell and Leland Donald rate eulachon as second only to salmon in freshwater based resources of the Chilkat and Fort Rupert Kwakiutl, first (above salmon) for the Metlakatla Tsimshian, and fourth for the Saanich (Salish).⁴

¹G. C. Carl, Some Common Marine Fishes of British Columbia (Victoria: B.C. Provincial Museum, 1963), handbook no. 23, pp. 33,34.

² Doug Hay, "The Mysterious Eulachon," The Westcoast Fisherman (Vancouver), March 1995, p. 47.

³Wayne Suttles, "Coping With Abundance; Subsistence on the Northwest Coast," Coast Salish Essays (Seattle: University of Washington Press, 1987), p. 51.

⁴Donald Mitchell and Donald Leland, "Archaeology and the Study of Northwest Coast Economies," Research in Economic Anthropology, supplement #3 (JAI Press, Inc. 1988), p.

The archaeological evidence appears to support the later historical evidence presented in this report that the eulachon runs on rivers other than the Fraser were considered far more important by the native people than those of the Fraser. This may account for the natives allowing "commercialization" of the Fraser eulachon stocks while opposing such action in all other eulachon areas apart from the Nass in the late 19th and early 20th centuries.

Traditional Native Eulachon Fishery

In the mid-19th century natives processed eulachon either by smoking (without the use of salt), drying and rendering the oil. Smoking was done as follows:

The next labour is that of the squaws, who have to do the curing, drying, and oil-making. Seated in a circle, they are busy stringing the fish. They do not gut or in any way clean them, but simply pass long smooth sticks through their eyes, skewering on each stick as many as it will hold, and then lashing a smaller piece transversely across the ends, to prevent the fish from slipping off the skewer. This done, next follows the drying, which is generally achieved in the thick smoke at the top of the sheds, the sticks of fish being there hung up side by side. They soon dry, and acquire a flavour of wood-smoke, which helps also to preserve them. No salt is used by Indians in any of their systems of curing fish. When dry, the candle-fish are carefully packed in large frails made from cedar-bark or rushes, much like those one buys for a penny at Billingsgate; then they are stowed away on high stages made of poles, like a rough scaffolding.⁵

As soon as the Indians have stored away the full supply of food for the winter, all the fish subsequently taken are converted into oil. If we stroll

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⁵John Keast Lord, The Naturalist in Vancouver Island and British Columbia, vol. I (London: Richard Bentley, 1866), pp. 92-93.

down to the lodges near the beach, we shall see for ourselves how they manage it. The fish reserved for oil-making have been piled in heaps until partially decomposed; five or six fires are blazing away, and in each fire are a number of large round pebbles, to be made very hot. By each fire are four large square boxes, made from the trunk of the pine-tree. A squaw carefully piles in each box a layer of fish about three-deep, and covers them with cold water. She then puts five or six of the hot stones upon the layers of fish, and when the steam has cleared away, carefully lays small pieces of wood over the stones; then more fish, more water, more stones, more layers of wood, and so on, until the box is filled. The oil-maker now takes all the liquid from this box, and uses it over again instead of water in filling another box, and skims the oil off as it floats on the surface. A vast quantity of oil is thus obtained; often as much as seven hundredweight will be made by one small tribe. The refuse fish are not yet done with, more oil being extractable from them. Built against the pine-tree is a small stage, made of poles, very like a monster gridiron. The refuse of the boxes, having been sewn up in porous mats, is placed on the stage, to be rolled and pressed by the arms and chests of Indian women; and the oil thus squeezed out is collected in a box placed underneath.⁶

This description of the "traditional" process generally serves also for the way this oil is produced today, except that the oil is now rendered in metal boilers and most of the product is stored in "modern" containers such as five gallon tins and glass bottles rather than in kelp bladders and grease boxes.

The "traditional" fishing techniques used for eulachon were the herring rake and bag nets:

To catch them, the Indians use a monster comb or rake, a piece of pinewood from six to eight feet long, made round for about two feet of its length, at the place of the hand-grip; the rest is flat, thick at the back, but thinning to a sharp edge, into which are driven teeth about four inches long, and an inch

⁶ibid., pp. 94-95.

apart. These teeth are usually made of bone, but, when the Indian fishers can get sharp-pointed iron nails, they prefer them. One Indian sits in the stern of each canoe to paddle it along, keeping close to a shoal of fish; another, having the rounded part of the rake firmly fixed in both hands, stands with his face to the bow of the canoe, the teeth pointing sternwards. He then sweeps it through the glittering mass of fish, using all his force, and brings it to the surface teeth upwards, usually with a fish impaled, sometimes with three or four upon one tooth. The rake being brought into the canoe, a sharp rap on the back of it knocks the fish off, and then another sweep yields a similar catch.⁷

It appears that the herring rake was the principal method of capture on the Fraser, but on the Nass eulachon were taken chiefly by bag nets.

The fish are chiefly taken by nets (in the Nass) but myriads get washed ashore and are caught by the old women and children and dept as their perquisite. In Fraser River they are principally captured by means of a flattened cedar pole, the edges of which for a couple of feet or so near the end being set with sharp teeth or nails, which act like so many spear-points.⁸

In 1863 the Nass bag net was described as follows:

As soon as the fish make their appearance at the sand-bars fishing operations begin in earnest. In former years a sort of large landing net, called by the natives Banak, was used, but of late these have been discarded for purse-nets. About an hour after the tide has begun to ebb two strong poles are driven into the sand at the bottom of the river about 12 feet apart; to these the net is attached, the mouth being dept open by inserting two small sticks across it. It is then depressed in the water until the under rim rests on the sand; the fish are drawn into the aperture by the force of the current. The nets are generally six or eight fathoms long. A long crooked stick is used for raising the narrow end of the net. If it contains fish it is hauled into the canoe and, by loosening

⁷ibid., pp. 90-91.

⁸Robert Brown, "Observations on the Medical and Economic Value of the Oulachon, A Fish Belonging to the Family Salmonidae Found on the North-west Coast of America," Pharmaceutical Journal, June 1868, p. 4.

a string, its contents are easily shaken out. Sometimes the net for its whole length becomes blocked with fish. The greatest care and skill are then necessary to prevent its being carried away by the current. Another difficulty, and the cause of much damage to the nets, is the loose ice. The fish first come about the time the ice begins to break up. Of course, there are exceptions to this rule. Some years the ice remains solid until after the fish are caught, in which case holes have to be cut in the ice to put down the nets; other years, again, the ice has all disappeared before the fish arrive. When the tide begins to flow, the nets are all taken in and all the fish caught are thrown in heaps on the ground close to the wigwams.⁹

The Indians prefer to fish on the ice, as it is so much easier, and because they can use their dogs and sleighs to advantage. Each party or household proceeds to saw openings in the ice, which is usually from two to four feet in thickness. Two openings are necessary from each net, one about twenty feet in length by about one foot in breadth, through which the net is let down. This opening has a pole driven down at either end on which the mouth of the net is hung by rings made from withes of red cedar. These rings are pushed down by another pole with a crook on the end until the net rests on the bottom, when the mouth is kept open by a fixture for this purpose. As the net is long and purse-shaped, narrowing from the mouth, another opening is made in the ice at right angles from the first, about four feet by eight. Through this the narrow end of the net is hauled up with a stick shaped for this purpose, and as the smaller end of the purse of the net is open, but tied when let down, when drawn up the end is untied, and the fish thrown out on the ice or into the boat or canoe as the conditions may be. Should the ice have broken up and cleared out before the fishing opens, then all the work is done in their boats and canoes. Sometimes the fishermen are much troubled with drift ice, which comes down the river in great sheets, often carrying off their fishing gear before they can ship it in their boats. Much of the fishing is done at night, as they must put down their nets with every falling tide.¹⁰

⁹James Swan. The Eulachon or Candle-Fish of the Northwest Coast, Proceedings of United States National Museum, vol. III (Washington: Government Printing Office, 1881), p. 260.

¹⁰W. H. Collison, In the Wake of the War Canoe (Toronto: The Musson Book Company, 1916), pp. 68-69.

Whether nets were used for oulachon prior to contact on the Nass is questionable. One of Marius Barbeau's informants claimed that the herring rake was used before they had nets. "The nets they got not very long ago, a hundred years or so."¹¹ This proposition is also supported by Stephen McNeary's report which states "EG said that in the very early times oolichen fishing was done with the herring rake . . . The dip net was invented later."¹² Also in 1887, the Rev. A. E. Green noted that on the Nass "The Indians formerly used a pole with nails driven in to form a rake . . . But they now fish with a long funnel net . . ."¹³

The "traditional" Kwakiutl eulachon fisheries of Knight and Kingcome Inlets primarily used weirs to capture the fish, using dipnets and a conical bag net to remove the catch. Both of these traditional fishing gears have been replaced by the seine net.¹⁴ According to T. F. McIlwraith the Bella Coola Indians also used the conical bag net.¹⁵

¹¹Marius Barbeau, manuscript, Charles B. Barton of Kincolith, Northwest Coast files, Canadian Museum of Civilization, B-F-104-33.

¹²Stephen McNeary, manuscript, "The Traditional Economic and Social Life of the Niska of British Columbia", 1974, Canadian Museum of Civilization, B:129 F1 (VII-C-25M).

¹³A. E. Green, letter dated Greenville, Nass River, March 30th, 1887, The Missionary Outlook, 1887.

¹⁴Peter McNair, "Descriptive Notes on the Kwakiutl Manufacture of Eulachon Oil," Syesis, vol. 4, 1971, p. 170.

¹⁵T. F. McIlwraith, The Bella Coola Indians (Toronto: University of Toronto Press, 1992), vol. II, p. 535.

Traditionally eulachon were used both fresh and dried as a useful winter food staple. In the 1860's it was observed concerning the consumption of fresh eulachon: "Vast quantities are used in the fresh state for food, and the sudden arrival of the fish, occurring generally just at the time when the Indians' winter stores are nearly finished and they are rather pressed for food. . ."¹⁶ Another notation of the importance of fresh eulachon was made in 1885: "We have over four thousand Indians here [Nass] fishing the eulachon! The run of fish so far is nearly a failure, only a few being caught, many of the poor people getting none. The interior people are scarce of food and will suffer much."¹⁷ Eulachon, however were chiefly valued for their grease: "The oil is of even greater value than the fish itself."¹⁸

¹⁶Brown, op. cit., p. 5.

¹⁷A. E. Green, letter dated Nass River, April 3rd, 1885, The Missionary Outlook, June/July 1885, p. 106.

¹⁸Brown, op. cit., p. 6.

OVERVIEW

Introduction

Natives have utilized eulachon for thousands of years prior to contact. As I am an historian this synopsis of the fishery will deal strictly with the post-contact period, specifically the records created by the Department of Fisheries and Oceans and its predecessor, the Department of Marine and Fisheries which became responsible for British Columbia's coastal fisheries in 1871.

Pre-1871

There is little concrete evidence on the extent of the utilization of eulachon before 1871 and the creation of the Department of Marine and Fisheries. The earliest post-contact records are those of ships' logs and the documentation from Hudson Bay Company posts. These early records generally do not give indications of the volume of the catch or the trade of eulachon products. For example, the Port Simpson journal makes the following observations about the eulachon fishery:

"large canoe from Nass with oil on trading excursion up Skinna"¹⁹

"Nass bring down boxes of oil"²⁰

¹⁹Fort Simpson [Nass] Post Journal, Hudsons Bay Archives, Winnipeg, microfilm 1M141 B201/a/3, April 18, 1836.

²⁰ibid., June 23, 1837.

"sm fish to be sent to Ft Mclaughlin"²¹

"Indians employed fishing for the fort and providing oil for food and traffic"²²

Early ships' logs leave little doubt as to the importance of the eulachon fishery:

all the Tribes in this vicinity repair thither for the purpose of procuring large quantities of a small fish, not unlike herrings, which serves them for food during the summer . . . an oil they call sow tau is extracted from these small fish and is an article of trade much in demand among the neighbouring tribes²³

In 1810 it was observed that at Nass Roads in one day in the middle of March, 300 canoes arrived and another 300 in one day at the beginning of April to trade for eulachon oil.²⁴

Eventually shipmasters and the Hudson Bay Company began trading eulachon as did the natives because eulachon was in demand "not only as a luxury for the great, but also as a necessary of life to all classes."²⁵ The importance of eulachon oil to the native people in the mid-19th century is best summed up by the following quote from an old Tsimpseon:

²¹ibid., April 5, 1838.

²²ibid, March 31, 1838.

²³James R. Gibson, Otter Skins, Boston Ships and China Goods: The Maritime Fur Trade of the Northwest Coast, 1785-1841 (Montreal: McGill Queens University Press, 1992), p. 231.

²⁴ibid., p. 232.

²⁵ibid., p. 232.

"I can buy beef and bread cheaper, but my heart never feels good until I have got this grease. There are just two sweet things in food--rum and eulachon oil."²⁶ It seems that not all people were so appreciative of this culinary treat. An Oblate father from Fort Rupert in the 1860's remarked:

All that the savages eat I can eat: from their "guemau" to their halibut which is as hard to eat as dry wood. There is only one thing that I cannot approach: it is the oil of the small fish. As that is concerned my stomach is not yet perfectly indianized...²⁷

To end the feast, they gave a big meal of dry halibut with fish oil. We were invited. We made as much honour as we could to the Halibut which is not very tasty; it does not have more flavour than a sun dry cabbage leave. As concerning the famous oil of which they are so fond, we took great care not to touch it. Its odour makes your heart jump. The indian saying "good as the oil of the small fish" rings badly to the ear of a white man, but "de gustibus non disputandum". Our Brother wanted to taste it: he dip a piece of halibut in the oil pot and brings it to his mouth, but he immediately threw it away, and for the rest of the day, he had the impression that his heart kept going up and down from his breast to his mouth . . .²⁸

The ships' logs and the Hudsons Bay records are useful for timing the various eulachon runs and for identifying which natives used the various runs. For instance, the Nishgas fished the upper reaches of the Nass and permitted the Tsimsheans to retain their own fishing

²⁶Brown, op. cit., p. 6.

²⁷Oblate (O.M.I.) Archives, Ottawa, letter from Fort Rupert, 29 July 1866, OMI Missions, 1867, p. 232.

²⁸Oblate (O.M.I.) Archives, Ottawa, letter from LeJacq, Fort Rupert, October 19, 1865, OMI Missions, 1867, p. 55.

camps on the lower waters of the river. Certain groups, such as the Haidas, did not have access to eulachons prior to contact and used back cod oil in its place.

[1878] The pollack is found on the western coast. It is generally caught in deep water with hook and line, and owing to its fatness is much prized. The Haidas of Gold Harbour or Port Kuper make it an annual business of catching these fish in the latter part of the summer. They extract the oil from them by boiling in large wooden boxes with hot stones, and then skimming it from the surface. The oil is carefully stored away, and used as a condiment to dried fish or berries, instead of the eulachon grease, which by this tribe of Haidas is not much in request.²⁹

[1883] The fish which they formerly prized for their oil, and took great quantities of for that purpose, they are the skil or black cod. In former years, when the Haidas were at variance with the tribes of the mainland, they depended on the skil fishing for their supply of grease for food, for, although whales are plenty about Queen Charlotte Islands, and in all the inlets, the Haidas never attack them like the Makahs of Cape Flattery, or the tribes of the west coast of Vancouver Island. Of late years, however, the Haidas have obtained their principal supply of grease from Fort Simpson, or at Nass River, and consequently the skil fishing has been almost abandoned³⁰

The pre-1871 historic record also shows that certain native groups (and perhaps all) jealously guarded their eulachon fishery.

In 1853 a certain Capt. Edward Brothie fitted out a vessel to go in search of the eulachon and landed at a point in Knight's inlet where the Indians were catching them in great abundance. Arriving there, however, the Indians refused to sell, give or allow him to catch any, but said he could have as many

²⁹George M. Dawson, "Report on the Queen Charlotte Islands" in Report of Progress for 1878-1879. Geological Survey of Canada, Montreal, p. 110B.

³⁰James Swan, "A Lecture on the Queen Charlotte Islands," delivered before the B.C. Legislature, Victoria, 1884.

of the Kwakewlth (black cod) as he wished . . .³¹

In 1887 the Nass fishery guardian, commenting on the eulachon fishery, noted: "I am aware that there are difficulties in the way, as the Indians are jealous of any interference with what they consider their exclusive rights."³²

³¹Canada, Sessional Papers, 1887, no. 16, pp. 263-264.

³²Canada, Sessional Papers, 1888, no. 6, p. 254.

Post-1871

The first observation on eulachon in the Department of Marine and Fisheries records appears in 1874:

Hoolakuns ascend the streams in April in dense shoals. Their approach is indicated by the presence of sea gulls swooping down to devour them, and causing the banks of the river to echo with their screeching. This species are about the size of a small herring and are so fat as to baffle ordinary methods of cooking to prepare them for the table. Oil is pressed from them by the Indians on the coast, and disposed of to tribes in the interior. It possesses a medicinal value, and cannot fail to be useful where any hydrocarbonaceous food, such as cod liver oil, is prescribed. When dried, the hoolakan is often used by the natives as a torch, and when lighted it emits a brilliant light. The Indians catch this species of fish by impaling them on rows of nails at the end of a stick, about four feet long, and so thickly do they swarm, that every time this rude implement is waved in the water, two or three of them adhere to it.³³

In 1877 the first modern commercial eulachon fishery began on the Nass. A Mr. Robertson employed the natives to catch the fish and processed them into oil using a certain steaming apparatus. The product was sold to the natives of the neighbouring coast at the rate of one dollar per gallon. It also appears that the first statistics regarding eulachon oil production date from 1877, when 10,000 gallons were produced.³⁴ This figure would apply only to the "modern commercial eulachon fishery" and would not include the oil produced in the native food fishery.

³³Canada, Sessional Papers, 1875, no. 5, p. 165.

³⁴Canada, S.P., 1878, no. 1, p. 287.

In 1878 it was reported that the eulachon reached the entrance of the Nass about the end of March and that the limit of their spawning ground was some twenty miles above the mouth of the river. It was also reported that "the eulachon, though frequenting some other rivers along the coast, including the Fraser River, is nowhere found so fine a quality as in the Nass."³⁵

In 1879 the first estimate of native consumption of eulachon and other oils, exclusive of European supply, was estimated at 200,000 gallons, based on ten gallons per native.³⁶ In 1881 it was observed for the Knights Inlet eulachon that

The tribes from a wide distance around resort thither annually in great numbers to prosecute the eulachon fishery, in early spring. We found them still congregated there and estimated the number of those whom we met on visiting the village at about two thousand . . . The eulachon fishery at this point, like the corresponding fishery on the Nass, is of extreme importance to the natives of the adjacent coast . . . during spring and early summer many thousands of the natives derive their chief, if not sole support. Enormous quantities of oil, too, are extracted from it, which is greedily sought for as a luxurious article of diet both far and wide . . .³⁷

In the same year it was also noted that on the Nass

The Chimsyons (or Tsimipyans) numbering, in all, probably 5,000 persons resort annually, in the early spring, to the tidal portion of the river for the

³⁵Canada, S.P., 1879, no. 3, p. 294.

³⁶Canada, S.P., 1880, no. 9, p. 300.

³⁷Canada, S.P., 1882, no. 5, p. 205.

purpose of catching the eulachon . . . ³⁸

In 1885, eulachon production was broken down into areas other than the whole coast. The major production area for oil and smoked product was Port Essington (the Nass); for fresh eulachon most of the production was in the lower Fraser and Burrard Inlet.

Concern over the Nass eulachon fishery first became evident in 1887:

Few persons, I think have any concept of the quantities of these fish which are destroyed in yearly increasing numbers for the sake of their oil which is highly esteemed by the Indians as an article of diet. I am aware that there are difficulties in the way as the Indians are jealous of any interference with what they consider their exclusive rights; still I found them amenable to reason when dealt with in a proper manner and by using judicious measures, the enormous waste that is now going on under the present method of extracting oil might be rendered less and its value greatly increased. In justice to the loyal Indians of the Naase and Skeena Rivers, American Indians from Alaska should be prohibited from participating in the eulachon fishing at the Naas, as they are in the habit of doing in yearly increasing numbers. The more intelligent of our Indians on our northern coast complain, and with reason that while they are expected to comply with the laws of the country, as regards fish and game: "Boston" Indians who are not subject to our laws, are allowed to share their most valued privileges . . . ³⁹

By 1888 the eulachon fishery on the Nass was becoming increasingly important to the Indians, as the oil was increasing in commercial value. White traders who were present during the fishing season bought all the Indians would sell. As for the statistics, it was

³⁸Canada, S.P., 1882, no. 5, p. 208.

³⁹Canada, S.P., 1888, no. 6, p. 254.

"impossible to get anything near a correct estimate from either traders or indians, as they seem averse to giving much information on the subject."⁴⁰ The value of this commodity to the Indians was, however, indicated by the fact that several hundred families engaged in the business every year, and that fifteen boxes of oil, each holding at least ten gallons, were retained for each family before any was sold. All this indicates that the arrival of the white traders greatly increased the market and the value of eulachon oil.

The fact that by 1888 the largest percentage of fresh eulachon for the modern commercial market was coming from the Fraser area (19,000 pounds compared to 1,200 pounds from the Nass)⁴¹ is probably due to the fact that there was a greater market demand due to the greater settler population around the Fraser.

In 1889 there were more complaints about principally American Indians wasting eulachon on the Nass. By 1899 610,000 lbs. of fresh eulachon was being sold on the modern commercial market.⁴² The Fraser accounted for 350,000 lbs., the Nass and Skeena 135,000 lbs. and the Cape Scott to Comox area contributed 125,000 lbs. The largest producer of the smoked product was the Nass. The greater part of the salted product was the Nass and

⁴⁰Canada, S.P., 1889, no. 8, p. 250.

⁴¹Canada, S.P., 1889, no. 8, p. 253.

⁴²Canada, S.P., 1901, no. 22, p. 164.

Skeena. According to the Marine and Fisheries records, 1903 appears to be the peak year for the commercial use of eulachon. In that year 1,024,320 pounds of fresh eulachon was landed, 45,200 lbs of product was smoked, 4,070 barrels were salted, and 223,550 gallons of all fish oil was produced.⁴³

In 1904 it was noted that the Indians were still the main consumers of eulachon and no attempt had been made to find a market abroad. All figures for eulachon represented local consumption. That same year it was stated that in former years the eulachon production on the Nass and Skeena "must have been much under estimated."⁴⁴ Also for 1904 there are more figures to describe the major producing areas for the commercial eulachon. The Nass produced 530,000 pounds of fresh and 30,000 pounds of smoked eulachon compared to 284,320 pounds of fresh and 10,000 pounds of smoked eulachon for the Fraser. It is evident that by the early 1900's the Nass had become the major production area for the modern commercial eulachon fishery.

By 1908 the Nass's production of fresh eulachon had risen to 400,000 pounds, but commercial oil production had dropped to 700 gallons.⁴⁵ The Fraser's commercial fresh eulachon had decreased to a mere 15,000 pounds, probably due to decreased stocks as the

⁴³Canada, S.P., 1905, no. 22, p. 223.

⁴⁴Canada, S.P., 1905, no. 22, p. 217.

⁴⁵Canada, S.P., 1909, no. 22, pp. 222, 227.

market demand would still have existed. Most of the Nass's fresh eulachon production was shipped south.

In 1910-11 the Fraser's fresh eulachon production rose to 937 cwts, and the Nass's was 14,020 cwts.⁴⁶

Around 1900 the commercial fishery for eulachon stood in fifth place among the B.C. fisheries, a position it still held in 1912. After that date, however, the commercial catch dropped rapidly; by the 1940's it was of minor importance to the commercial fishery. The "traditional" native demand for eulachon grease had also diminished due to the natives' involvement in the modern cash economy since the 1870's.

By the 1950's it was observed about the native barter trade:

Our information does not indicate that barter trade is quantitatively of great significance to any Indian people in British Columbia today.⁴⁷

For the coastal people, however,

the items involve in barter trade, although small in quantity, by and large represent traditionally tasty elements in the diet to which the younger people seem less responsive than their elders.

⁴⁶Canada, S.P., 1912, no. 22, pp. 312, 315.

⁴⁷H. B. Hawthorne et al, The Indians of British Columbia: A Study of Contemporary Social Adjustment (Toronto: University of Toronto Press, 1958), p. 219.

Eulachons and eulachon grease are listed along with herring eggs as examples of such traditionally tasty elements of the barter trade.

Thus it appears that eulachon, while no longer a staple, has held its value by being maintained in the form of a luxury item of native barter for the Kitimaat, Bella Coola, Kwakiutl people, and those of the Nass. One reason given for the decline in the eulachon trade is that the people find the work involved in fishing and rendering eulachon too difficult. They have refused to trade eulachons to the canneries for this reason.

In response to the increased demand for the eulachon resource created by the fur farm industry in the early 1940's the native people requested that the Minister of Fisheries not "grant a license to any white man or company to take eulachons from anywhere on the coast of British Columbia, from any of its streams except from the Fraser River."⁴⁸ This request appears to confirm that Fraser stocks were not as highly valued by the natives as those from other sources. It may be that they did not have as much fat content, as this seems to be the quality most valued by the natives:

The coast Indians have for time immemorial used eulachon oil in the same

⁴⁸Canada, Department of Fisheries. Andrew Paull, letter from The Native Brotherhood of B.C., January 24, 1944, to the Minister of Fisheries, p. 1. National Archives, Burnaby, RG23, vol. 2228, file #10-5-31, part 1, April 1923-March 31, 1944, Regulations, General--Indians.

way as white people use butter, lard, olive oil and cod liver oil. They used this for medicine for many cases during the flu after the last war when the Indians who were able to have this oil did not die, while those without died.⁴⁹

The federal Supervisor of Fisheries for the Kwakiutl, Kingcome River and Knight Inlet eulachon fishery answered this request by reporting that

I do not think the eulachon runs in District No: 3 areas could long withstand the taking of any large tonnages annually for commercial purposes. The fish is very valuable to the Indian population for food, and it seems reasonable that the undiminished supply should be preserved mainly for this purpose. At the same time I do not think those amongst the white population should be precluded the privilege of securing supplies of eulachon for home consumption.⁵⁰

Prior to 1944 it was observed that the eulachons in the Kingcome River and in the two rivers at the head of Knight Inlet had been fished extensively only by Indians for food. The only exception had been small quantities taken by white fishermen who had provided them to local people within the Alert Bay area for food. The demand by white people has never been great.⁵¹

The Supervisor of Fisheries in District No. 2 (Nass, Kitimat, Kildala River, Whonnock) was

⁴⁹ibid.

⁵⁰Canada, Department of Fisheries. Letter to Deputy Minister of Fisheries from Chief Supervisor of Fisheries, J.A. Motherwell, Feb. 15, 1944, p. 3. National Archives, Burnaby, as above.

⁵¹ibid., p. 2.

quite sure:

that if this [Nass] run ever becomes commercialized it would practically wipe this fishery out. As far as the Nass is concerned the writer would recommend that the Eulachon fishery be reserved for food purposes for the Indians. As for the other Eulachon runs in any of the northern streams mentioned above is not heavy and cannot be commercialized and it is recommended that the streams be reserved for the Indians as far as Eulachon fishing is concerned. As for the Whonnock River at the head of Rivers Inlet the run is light. There is never any large quantity taken, possibly between 150 and 200 cwts during the season.⁵²

The Supervisor of Fisheries for northern B.C. summarized the potential effects of commercialization of the run in his district thus:

The writer knowing that the Eulachon runs are not heavy in District No. 2 would not recommend commercial fishing for them as undoubtedly they would be practically wiped out and the Indians would suffer as Eulachon grease and dried fish are one of their staples.⁵³

In response to the Kwakiutl people's concern over commercialization of the eulachon fishery of Knight and Kingcome Inlets, the federal Department of Fisheries ruled in 1947: "With the view the preserving ancient and traditional food supply of the Indians the Department has ruled that in future there shall be no commercial eulachon fishery above the Fishing Boundaries in either Knight or Kingcome Inlets."⁵⁴

⁵²ibid., p. 1.

⁵³ibid., p. 2.

⁵⁴Canada, Department of Fisheries, Annual Report Narrative--Alert Bay, 1947, p. 3. National Archives, Burnaby, RG23, Box 416145, file 5871-BC1-5, vol. 1.

Fraser River Eulachon

The natives on the lower Fraser River (below Hope) used eulachon "traditionally." They ate them fresh and they preserved them with a drying technique, with the aid of smoke. There is, however, little evidence that they extracted oil as the northern, central coast or Kwakiutl did. It is claimed that the Stolo "did not extract or use eulachon oil."⁵⁵ The Fraser River eulachon was the backbone of the modern commercial fresh fish market based on a gillnet fishery. From the 1870's the product was sold fresh to the major population centers such as Vancouver, New Westminster and Victoria.

Commencing in 1877, the marketed value of the eulachon fishery was given for the whole province. The maximum annual value for eulachon was reached in 1903, at which time it reach \$96,436 and ranked fifth among the commercial fisheries of British Columbia. In 1912 it was still in fifth place, though with a value of \$78,950. After that date, the recorded catch and value dropped off, though this trend must be viewed carefully. In 1918 the fisheries inspector for District No. 3 (Kwakiutl area) noted: "While with regard to the lower price named for oolachons I might observe that a large proportion of the oolachons caught in District No. 3 are taken and consumed by Indians so that the market price of the catch is

⁵⁵Wilson Duff, "The Upper Stolo Indians," Anthropology in British Columbia, memoir No. 1. British Columbia Provincial Museum, 1952, p. 71.

consequently much lower than it would be if the whole catch were placed on the market."⁵⁶

In addition, in the 1917 Fisheries annual report it was observed concerning oulachons:

"Oulachons are not in commercial use, they are only caught by Indians and used by them for making oil which they use for food purposes."⁵⁷

In 1924, 13,355 cwts of eulachon were landed for a total value of \$30,892 for the whole province. By 1935, 407 cwts of eulachon were landed for a total value of \$1,109. Of this 407 cwts, 341 came from the Fraser, 20 from the Nass, and 46 from the Alert Bay area. In 1939, the Fraser produced \$1,732 worth of eulachon and the Alert Bay area \$60. By 1940, the province's marketed value of eulachons rose to \$3,887, a direct result of the new market for fur farm feed.

In the early 1940's the mink feed market caused the demand for Fraser eulachon to skyrocket. In 1941, "the fur farms in the lower mainland area purchased all oulachons available and stored the fish in cold storage plants for use during the whole year."⁵⁸ In

⁵⁶Canada, Department of Fisheries, Annual Report for District NO. 3. Nanaimo, May 8, 1918, p. 2. National Archives, Burnaby, RG23, 2269, file no. 20-1 to 20-5, April 1918-1923, annual reports folder 4.

⁵⁷ibid., p. 1.

⁵⁸Canada, Department of Fisheries, letter from J. Motherwell to Deputy Minister of Fisheries, August 2, 1941. National Archives, Burnaby, RG23, vol. 1826, file 769-11-29, part I:

1941 a confidential investigation into the Fraser River eulachon fishery stated that "a large proportion of the commercial catch is used as food for fur bearing animals."⁵⁹ A previous report in 1939 had observed, however, that "no reasons can be advanced for the downward trend in the annual eulachon catch on the basis of the present investigation. . . in the face of the facts presented here, it would seem inadvisable to open up new markets which would call for a substantial increase in the present intensity of fishery."⁶⁰

Unlike the northern, central and Alert Bay fisheries records, virtually no statistics were located on the native consumption of eulachon on the Fraser. Natives were, however, very much involved in the modern commercial eulachon fishery on the Fraser. For example, the Waska plant's workforce at Fort Langley had a 70% native workforce in the plant and also hired native fishermen.⁶¹ Although the eulachon fishery cannot be considered a major commercial Fraser fishery when compared to salmon or sturgeon, it was, however, the first cash income a gillnet fisherman could obtain before the salmon season.⁶²

⁵⁹Canada, Department of Fisheries, Report on Eulachon Investigation, by J. McHugh, 1941, p. 9. National Archives, Burnaby, RG23, vol. 1826, file 769-11-29, part J.

⁶⁰Canada, Department of Fisheries Report on Eulachon Investigation, 1939, p. 9, National Archives, Burnaby, RG23, vol. 1826, file 769-11-29, part I.

⁶¹Interview with Harry Waska of Fort Langley, B.C., 1995.

⁶²ibid, and interview with Homer Stevens of Lasqueti Island.

FRASER RIVER EULACHON CATCH⁶³

<u>Year</u>	<u>Average Pounds</u>
1941-1945	179,000
1946-1950	261,000
1951-1955	447,000
1956-1960	254,000
1961-1965	329,000
1966-1970	148,000
1971-1975	107,000
1976-1980	68,000
1971	76,100
1972	117,200
1973	117,000
1974	166,000
1975	61,000
1976	81,000
1977	71,000
1978	85,120
1979	49,280
1980	53,760

⁶³Logbook Catch and Effort Data Related to the Fraser River Eulachon Fishery, prepared for M. Joyce, D.F.O., Fraser River Division, New Westminster by J. O. Thomas and Associates Ltd.. March 1995, pp. 1, 2.

CONCLUSION

Although this overview does not provide the hoped for concrete statistics on eulachon production due to the scarcity of records generated by the Department of Fisheries and Oceans and its predecessor the Department of Marine and Fisheries. It does prove that historically native consumption of eulachon, specifically oil, is far higher than is evident in the departments statistical records, specifically the commercial landed records.

Regarding the commercial catch, it is evident that this fishery was important until the second decade of the 20th century, and then declined rapidly until the early 1940's when consumption by fur farms brought increased demand. By the 1950's eulachon had become a luxury item rather than a staple in the native diet.

OTHER MARINE LIFE HARVESTED BY NATIVES DURING EULACHON RUNS

During the eulachon run natives also harvested mammals such as seals, porpoises, sea lions, and steelhead and spring salmon which fed on eulachon. As late as 1958, the Nass natives shot 150 sea lions for food purposes during the eulachon season. The Port Simpson natives took approximately 40 in the same fishery. It appears from the record that sea lions were butchered for their heart, liver and tongue as well as the meat; these were used at the Indian spring banquets. The liver of a large male sea lion weighs approximately 45 pounds. In the early 1920's daily reports of the Fraser river fishery patrol boats observed that during the eulachon run red and white springs and steelhead were being taken along with eulachon. The same observations were made in the 1940's. On the Fraser it is also evident that sturgeon were taken during the eulachon run.

OBSERVATIONS ON REGULARITY OF RUNS

As early as 1877 it was noted about the eulachon: "Formerly resorting in enormous school to the estuary of the Columbia River, it disappeared suddenly about the year 1837, and continued to absent itself for many years, until recently when it suddenly reappeared in schools as numerous as of yore." The eulachon records for areas other than the Fraser provide evidence only of the relative volume of the runs (e.g. failure of the run or a larger than normal run). Even from this meager historical evidence, it is obvious that the eulachon run was unpredictable.

- 1885 "Mr. F. Morrison, fishery guardian at Port Essington, on the coast, in his report states the eulachon fishery was to all intents a failure."
- 1888 "These fish appear to be decreasing in the Fraser, whether from overfishing or other cause, I am unable to say; but I think the large amount of traffic on the river by stern wheel steamers has had a tendency to keep them away."
- 1890 "The returns of these fish show a decline in fresh, salted and smoked due to comparative failure in the fishery on the Fraser River, and a light run on the Nass."

- 1894 partial failure of the eulachon fishery
- 1903 "The returns of the salted and smoked quantities of this fish indicate an increasing demand, the supply of which, however is liable to be affected by the fluctuations in the annual runs."
- 1934 "The Indians [Knight Inlet] are able to get all the fish they require as there is an abundance of eulachon."
- 1939 a rough analysis of the catch statistics shows that the total eulachon catch in the Fraser River has tended to decline over a period of years
- 1944 "The eulachon run to the Nass River increases in volume, in fact some years the run is poor as was the case last year . . ."
- 1956 eulachon are still plentiful on the Ecstall River (Skeena River)
- 1958 "The run of eulachons into the Nass River this year is one of the earliest and largest since 1904

In 1949, the run on the Fraser started the week of April 9; by April 23 they were unable to pass a point above the Katzie Indian reserve near Port Hammond due to a fast runoff. By the week of May 7 the run was about over and considered a very short run. It was also noted that whereas in 1949 the run did not reach Mission in their upstream migration, in 1948 they reached points over 20 miles above Mission.

In 1950 it was observed that the Matsqui Indians made their first catches of eulachon on May 10. In 1953 eulachon reached Mission bridge on May 7, the usual date of arrival. In the Chilliwack/Hope area in 1954 quantities of eulachon were taken by dip net as far east as Hope. In 1955 the run did not go above Minto's Landing and it appeared that the main run spawned mainly on the north shore of the river. On the week ending April 30, 1955, eulachon fishing at Katzie and Hammond drift was very good, averaging 1,000 pounds for a net and ranging up to one ton. In the week ending May 5, 1956, a few eulachon were dipped at Mission bridge, but the main body of fish was below Silverside. The main body of eulachon started to pass Mission bridge on May 6 and 7. It appeared that the run for 1956 was a week later than the previous year and fish were not as plentiful. In 1958 large numbers of eulachons were observed spawning one and a half miles east of Albion.

In 1957 very few eulachon were taken east of Whonnock, but in 1956 a very heavy run occurred and large quantities of these fish were available at Nicomen Island in May of that

year. In 1959 eulachon were present in the Fraser River in small numbers as far upstream as Mission on May 27, 28, and 29. In 1958 the Fraser River run reached as far upstream as one and a half miles east of Albion, but in 1959 it was noted that since 1956 there had been a lack of these fish east of Mission bridge and it was recommended that the commercial eulachon fishery be closed along Nicomen Island, a major spawning area, until the runs could be built up to their former volume.

The post-1956 lack of eulachon east of the Mission bridge was, according to the local fishery officer, "a good indication of the weakness of the run. . . and he recommended that the fishery be closed for a second year in 1960, a view supported by the fishermen, who were concerned about the over-efficiency of the deep nets being used (e.g. 400 mesh). In 1961, for the Mission area, again no eulachons escaped to their traditional spawning grounds. In 1962 a light run migrated past Mission bridge.

In 1963 the run reached Mission by April 29; they were observed as far upstream as Nicomen Island by mid-April, an unusual event as the main run normally does not reach Mission until the end of April. It was also noted that 1963 saw the first escapement of any consequence east of Mission bridge since 1956. In 1964 eulachon reached the bridge by April 29 and were plentiful east of the bridge by May 3.

In 1965 lower water levels allowed continued escapement to the traditional eulachon spawning grounds along Nicomen Island. According to the historical record, high water in the Fraser results in the runs not being able to reach the upper spawning grounds. On May 1 it was reported "no eulachons are in the up river area. The unusually high water is probably holding them back."

By April 22, 1966, eulachons reached Nicomen Island and local Indians obtained light catches. A small run moved upriver between April 22 and 26. The first week of May 1967 saw the eulachon run above Mission bridge. The week ending May 6 saw about 3,000 pounds taken above Mission bridge.

April 23, 1972, there were reports of early eulachon arrival, with the main migration above Mission bridge not due for two weeks. On May 14 they were above Mission bridge. April 23 of 1973 carried reports that eulachon had been observed above Mission bridge and appeared to be earlier than usual, with the peak of the fishery the week of May 13. In 1974 the eulachon migration was late. The stocks seemed to be holding below Whonnock. The week ending May 12 produced reports that the fish were appearing six days late at Mission bridge. The week ending May 11, 1975 saw plentiful stocks below Mission bridge. In 1976 the eulachon dip net fishery peaked late in the week ending May 9, and there were still fish in the river. This year saw the largest migration in the memory of the local people. It was estimated that 30,000 pounds were taken on the north side of the river, Mission to Hope,

and double that amount on the south side the week ending May 23. There were still present as far east as Hope early in the week ending May 30. In 1977 eulachon appeared several days late above Mission bridge the week ending May 8. In 1978 it was reported that the eulachon fishery above Mission bridge was becoming a short, frantic, and crowded endeavour. The 1976 catch of 30,000 was the heaviest recorded. Before that date the average appeared between 7,000 and 10,000 pounds.

From the historic records, it appears that the eulachon runs on the Fraser river since 1950 usually reached Mission bridge in the first week of May, although it could arrive as early as April 22 or as late as May 29. On two occasions (1955 and 1976) it reached Hope, but between 1956 and 1961 it did not get east of Mission bridge. The fact that the run was not observed each of the bridge does not necessarily mean that the run was poor that year. The historic record provides evidence that in years of high water on the Fraser during the eulachon run, the fish were not able to reach the upper spawning grounds above the Mission bridge, which would have made it unreliable as a food source for the native people who lived above mission both historically and prehistorically.

EULACHON

NASS AND SKEENA

DIRECT AND INDIRECT ACCESS TO THE NASS EULACHON RESOURCE

From the historic record it appears that only two native groups had direct access and the right to fish and process the fish. These were the Nishga, occupying the upper reaches of the river, were able to hold it against all intruders while permitting some Tsimshians, whom they recognized as their fellow tribesmen (same language group) to retain their own fishing camps on the lower water of the river. As late as the 1970's it was observed that the Port Simpson natives fished in the vicinity of Red Bluff and the Nass River natives fished in the vicinity of Fishery Bay. The Alaskan tribes, the Haidas and other Tsimshians all fought unsuccessfully to obtain control of the fishery and had to settle for bartering with the Tsimshians and Nishgas for fish grease.

As the Gitksan-Carrier region lacked a concentrated or localized spring resource such as eulachon the Gitksan shifted to the Nass to fish every spring. Except for a few individuals, the Carrier did not fish; their principal access to fish grease was through trade via the "grease trails". In 1881 it was reported that "The people from Fort Simpson, Metlahkatlah, Skeena River, Tongass and interior tribes come here [Nass] to prepare food, remaining from two to three months."

In 1914 the Nishga tribe petitioned to be allowed the exclusive right of taking eulachons on the Nass River, but the Inspector of Fisheries stated that he didn't believe this had been the

traditional situation as the Simpsonsean Indians had also been in the habit of coming to the Nass to fish.

Nass Eulachon: Non-Commercial Purposes (Unless Noted)

1929	90,000 cwts
1931	9,000 cwts
1942	46 cwts commercial
1943	60 cwts commercial
1944	123 cwts commercial; 8,000 cwts for food purposes for 370 Indian families
1945	93 cwts eulachon landed at Prince Rupert; brought in from Nass by Indians
1947 -1950	(This commercial fishery is handled exclusively by natives who catch the eulachon on the Nass; although there are also runs on the Skeena and Exstall they are not fished commercially or for food purposes)
1947	186 cwts
1948	132 cwts
1949	267 cwts
1950	278 cwts
1953	4,500,000 lbs
1954	3,500,000 lbs
1956	1,150,000 lbs
1957	525,000 lbs

Catch in Tons

1958	260 (200 taken by Nass Indians and 60 by Port Simpson Indians)
1959	250
1960	300 ("natives reported this as the largest run in many years")
1961	350 ("Last year [1961] Port Simpson and Kitkatla village Indians commenced using small trawls [for eulachon] in the Nass estuary operated from the gillnet-type of fishing vessel, and were very successful. At the time representatives of the Nishga tribes made complaints that the trawl operation adversely affected trap fishing.")
1962	450 ("It is requested by Mr. McKay on behalf of the people of Greenville that the Fisheries Department restrict [eulachon] fishing to aboriginal methods [not trawl]")
1963	300
1964	no figure other than indication that the catch was light
1965	20 (catch low due to quantity of ice moving downstream which hampered fishing activities)
1966	26
1967	35
1968	415 (eight gallons of oil per ton of green eulachons; better than average run plus favourable fishing conditions)

1969	260
1970	250 tons
1971	200 tons (150 Nass natives, 50 Port Simpson; bad ice conditions)
1972	300 tons
1973	200 tons
1978	300 tons rendered plus 50 to 100 tons for smoked, sun-dried, fresh, and frozen, home-use or traded and sold to the interior natives on the Skeena; about 30 people involved in this fishery; only 28 sea lions and 6 seals have been reported, all shot near Fishery Bay within a two week period

CENTRAL COAST EULACHON FISHERY

The major eulachon producing areas for the central coast are the Bella Coola river and the Rivers Inlet area. As I was unable to visit the Bella Coola district office I found little information or statistics for these areas. If these statistics have survived they will be in the annual narrative reports for the area or in the weekly officers' reports. The two annual narrative reports I located for the Bella Coola area in 1954 and 1956 list eulachon food fish production as 110 cwts and 1240 cwts respectively, leading one to believe that there was either a large variation in run size or utilization or a clerical mistake. Between 1965 and 1973 the average production of Indian Food Fish eulachon was 200 cwts, making the 1240 cwts figure for 1956 look unlikely.

The best descriptions of the fishery are given by T. F. McIlwraith in The Bella Coola Indian and G. T. Edwards in Eulachon Time in Bella Coola, but they give little in the way of concrete production figures. They do give an idea of who was involve in the inter-tribal trade patterns. Bella Bella people traded eulachon, especially the grease, with the Bella Coola as did the Ulkatcha and Anahim, who did not have direct access to the eulachon resource.

KWAKUITL/KNIGHT INLET EULACHON FISHERY

The Knight Inlet eulachon fishery was the second most important traditional native eulachon fishery on the coast. In 1881 it was observed that:

Knight's Inlet (Tsawattee) . . . like the Nass among the Tsimpshoeans, to which it is only second in importance, is the great place of resort for all the Kaw-kewlth tribes. The delicious eulachon so highly prized by the natives as an element of food, visit this place in unlimited numbers, and every year, without fail, afford these Indians a carnival of delight . . . At present, beyond the site of three or four large villages, little use is made of it, as the eulachon and the oil taken from it for barter procure for them all they desire with little labour.⁶⁴

In 1865 the Oblate Father Lejacq went to Tsawate (Knight's Inlet), a place where all the Kwakwaul nation met to fish small fish with which they made oil.⁶⁵ The importance of the Knight's Inlet eulachon was noted in 1881:

The eulachon fishery at this point, like the corresponding fishery on the Nass, is of extreme importance to the natives of the adjacent coast . . . during spring and early summer many thousands of the natives derive their chief, if not sole support. . . Enormous quantities of oil, too, are extracted from it, which is greedily sought for as a luxurious article of diet both far and wide . . . is bartered for furs even with the native races of the remote interior who prize it for their feasts.⁶⁶

Thus the historic record leaves no doubt as to the traditional importance of Knight's Inlet as a supplier of eulachon to the native people and to a lesser extent the Kingcome and

⁶⁴Canada, Sessional Papers, 1882, no. 6, p. 141.

⁶⁵Oblate (OMI) Mission, St. Michel chez les Kakwals, June 1865, Oblate Archives, Ottawa, HPK 5102. B86c 18a.

⁶⁶Canada, Sessional Papers, 1882, no. 5, p. 205.

Bute Inlet runs. These stocks, unlike those of the Fraser and Nass, were never of interest to non-natives, but were fished extensively by Indians for food. In 1944 it was noted that:

The fish is very valuable to the Indian population for food, and it seems reasonable that the undiminished supply should be preserved mainly for this purpose. All the same, I do not think those amongst the white population should be precluded the privilege of securing supplies of eulachons for home consumption.⁶⁷

⁶⁷Canada, Department of Fisheries, letter to Chief Supervisor of Fisheries from J. F. Tait, Nanaimo, Jan. 29, 1944, p. 2, RG23, vol. 2228, file no. 10-5-31, part 1, April 1923-March 31, 1944, regulations, general, Indians.

EULACHON STATISTICS: ALERT BAY SUB-DISTRICT

<u>Year</u>	<u>Commercial</u>	<u>Native</u>	<u>Area</u>
1947	75 tons	60 tons	Knight/Kingcome
1950		2,000 cwts	Kingcome
1951		400 cwts	Knight/Kingcome
1952		550 cwts	Knight
1962		140,000	Knight
1965		100 tons	Knight
		10 gal. oil per ton	
		15 tons	Kingcome
1968		50-100 tons	Knight/Kingcome

I did not research the records in the Alert Bay or Campbell River offices; if records exist, these should be the best sources for information about the Knight Inlet/Kingcome eulachon fishery statistics.

It appears that the Kwakiutl traded eulachon with the tribes of the west coast of Vancouver Island and the interior who had no direct access to the resource. According to Philip Drucker, the Nootkan tribes traded for eulachon oil with the Nimkish people.⁶⁸

⁶⁸Philip Drucker, The Northern and Central Nootkan Tribes, 1951, pp. 375-376.

MAJOR SECONDARY SOURCES

Tab

- 1 Gibson, James. Otter Skins, Boston Ships and China Goods: The Maritime Fur trade of the Northwest Coast, 1785-1841. Kingston: McGill-Queens University Press, 1992.
- 2 MacFie, Matthew. Vancouver Island and British Columbia. Their History, Resources and Prospects. London: Longman, Green, Longman, 1865. Pages 163-165.
- 3 Lord, John. The Naturalist in Vancouver Island and British Columbia. Volume I. London: Richard Bentley, 1866. Pages 87-96.
- 4 Brown, Robert. "Observations on the Medicinal and Economic Value of the Oulachon, A Fish Belonging to the Family Salmonidae, Found on the North-West Coast of America." Pharmaceutical Journal, June, 1868.
- 5 Swan, James. "The Eulachon or Candlefish of the Northwest Coast." Proceedings of the U.S. National Museum. Volume III, 1880. Washington: Government Printing Office, 1881. Pages 257-264.
- 6 McDonell Dawson, Aeneas. The Northwest Territories and British Columbia. Ottawa: C. W. Mitchell, 1881. Pages 98-101.
- 7 Canada. Sessional Papers, 1882. "Annual Report of the Department of Indian Affairs," 1881. Page 141.
- 8 Swan, James. "Report on Black Cod of the North Pacific Ocean." Bulletin of the U.S. Fish Commission, volume V, number 15. Washington: Government Printing Office, 1885. Pages 225-234.
- 9 Prince, E. "The Food of the Sturgeon." Canada, Sessional Papers, 1899. Department of Marine and Fisheries, 1898. Pages lvi-lx.
- 10 Canada. Sessional Papers, 1905. "Annual Report of the B.C. Fisheries Inspector, 1904". Page 216.

Tab

- 11 Canada. Sessional Papers, 1906. "Annual Report of the B.C. Fisheries Inspector, 1905". Page 204.
- 12 Canada. Sessional Papers, 1907. "The Pacific Fishing Industries of Canada," Special Appended Report No. II of the Department of Marine and Fisheries, 1906. Pages lxvi-lxvii.
- 13 Boaz, Franz. The Kwakiutl of Vancouver Island. Memoir of the American Museum of Natural History, volume V. Leiden: E. J. Brill, 1909.
- 14 Curtis, Edward. The North American Indian. Volume 10. New York: Johnson Reprint Corporation, 1915. Pages 22-24.
- 15 Barbeau, Marius. Manuscript, January 15. "Specimens Collected at Port Simpson." Canadian Museum of Civilization. B-F-175.23.
- 16 Collison, W. H. In the Wake of the War Canoe. Toronto: The Museum Book Company, 1916. Pages 65-74, 267-275.
- 17 Smith, Harlan. The Uses of Mammals and Fish by the Bella Coola Indians of British Columbia. Manuscript. Canadian Museum of Civilization. Page 52.
- 18 Barbeau, Marius. "Port Simpson, 1929-30." Manuscript. Canadian Museum of Civilization. B. F. 236.1.
- 19 Bland, Hilda. "The Oolachon or Candle Fish." British Columbia Magazine. Pages 703-704.
- 20 McHugh, J. L. "The Eulachon Fisheries." Research Board of Canada. Progress Reports of Pacific Biological Station, No. 40. Prince Rupert: Bibb Printing Company, June 1939. Pages 17-22.
- 21 McHugh, J. L. "Eulachon Catch Statistics." Fisheries Research Board of Canada. Progress Reports of Pacific Biological Station, No. 49. September 1941. Pages 18-19.

Tab

- 22 Collison, W. H. "The Oolachon Fishery." British Columbia Historical Quarterly. Volume V, no. 1, January 1941. Pages 25-31.
- 23 Barbeau, Marius. Undated manuscript. Canadian Museum of Civilization. BF-104.33.
- 24 Hart, Lawson and McHugh, J. L. "The Smelts of British Columbia." Fisheries Research Board of Canada. Bulletin #LXIV. Ottawa, 1944. Pages 10-14.
- 25 Drucker, Philip. The Northern and Central Nootkan Tribes. Smithsonian Institute, Bureau of American Ethnology, Bulletin 144. Washington: Government Printing Office, 1961. Pages 375-376.
- 26 Duff, Wilson. "The Upper Stolo Indians." Anthropology in British Columbia, memoir no. 1. Victoria: British Columbia Provincial Museum, 1952. Pages 70-71.
- 27 Barbeau, Marius. Manuscript, Northwest Coast files, 1952. Canadian Museum of Civilization. B.F. 453.3.
- 28 Ricker, W. E. et al. "The Fraser River Eulachon Fishery, 1941-1953." Fisheries Research Board of Canada. Manuscript reports of the Biological Stations, no. 583, 1954. Pages 1-18.
- 29 Suttles, Wayne. "Katzie Ethnographic Notes." Anthropology in British Columbia, memoir no. 2. Victoria: British Columbia Provincial Museum, 1955. Page 23.
- 30 Jenness, D. "The Saanich Indians of Vancouver Island." Canadian Museum of Civilization, 1103-1 A-B.
- 31 Barnett, Homer. The Coast Salish of British Columbia. Eugene: University of Oregon Press, 1955.
- 32 McIlwraith, T. F. The Bella Coola Indians. Volume II. Toronto: University of Toronto Press, 1992. Pages 535-538, 758-759.
- 33 Edwards, Grant. "Oolachen Time in Bella Coola." The Beaver, Autumn, 1978. Pages 32-37.

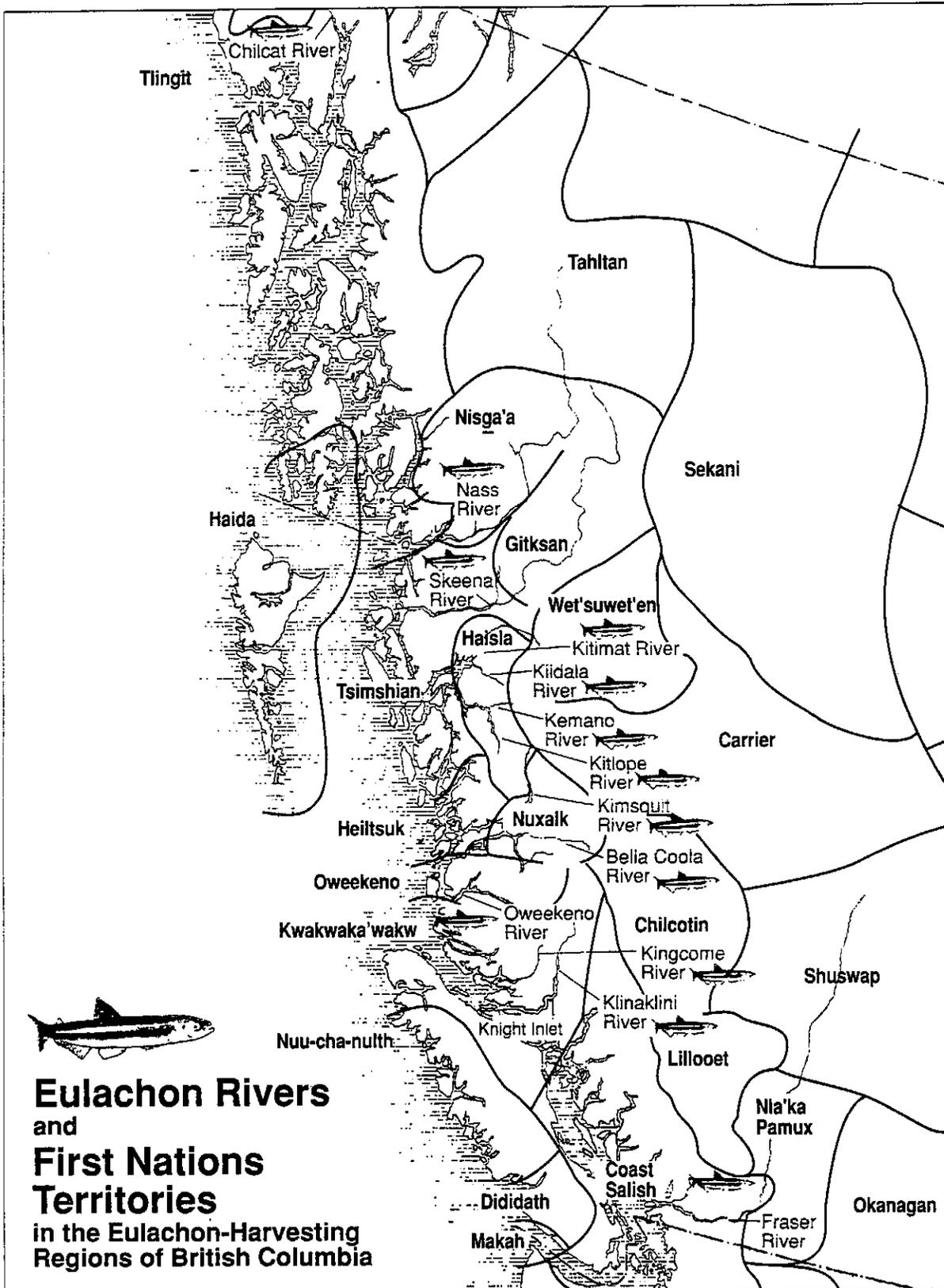
Tab

- 34 Kopas, Leslie. "Oil of Oolichan." Beautiful British Columbia, Winter 1980. Pages 35-38.
- 35 Kuhnlein, Harriet et al. "Ooligan Grease: A Nutritious Fat Used by Native People of Coastal British Columbia." Journal of Ethnobiology, December 1982. Pages 154-161.
- 36 Port Simpson People and School District No. 52, Prince Rupert. "Port Simpson Foods: A Curriculum Development Project." 1983. Pages 51-61.
- 37 "Upper Sto:Lo. Fraser Valley Fishing." Coqualeetza Education Training Centre, 1979. Pages 9-10, 28.
- 38 Harrington, Lyn. "On the Trail of the Candlefish." The Beaver, March 1953. Pages 41-44,
- 39 Harrington, Robert. "Eulachon and the Grease Trails of British Columbia." Canadian Geographic Journal, January 1967. Pages 28-31.
- 40 Fay, J. Archaeological Investigations at GOTN19, Ridley Island: A Shell Midden in the Prince Rupert Area, British Columbia. Ottawa: National Museum of Man. Pages 86-91.
- 41 McNeary, Stephen. The Traditional Economic and Social Life of the Niska of British Columbia. Ottawa: National Museum of Man, 1974. B129 F1. Pages 56-60.
- 42 Clemens, W. A. and Wilby, G.V. Fishes of the Pacific Coast of Canada. Ottawa: Fisheries Research Board of Canada, 1961. Pages 122-124.
- 43 Inglis, Richard and MacDonald, George. Skeena River Prehistory. Ottawa: National Museum of Man, Mercury Series, Archaeological Survey of Canada, Paper No. 87, 1979. Pages 225-231.
- 44 Stewart, Hilary. Indian Fishing: Early Methods on the Northwest Coast. Vancouver: J. J. Douglas Ltd., 1977. Pages 95-97.

Tab

- 45 Mitchell, Donald and Donald Leland. "Archaeology and the Study of Northwest Coast Economies." Research in Economic Anthropology. Supplement 3, 1988. Pages 293-351.
- 46 Mitchell, Donald. "Changing fortunes: Kwakiutl-Salish Frontiers of the Central Northwest Coast." Symposium III.B. 1989.
- 47 Cybulski, Jerome. "A Greenville Burial Ground; Human Remains and Mortuary Elements in British Columbia Prehistory." Canadian Museum of Civilization: Archaeological Survey of Canada, Mercury Series, Paper No. 146. 1992.
- 48 McNair, P. L. "Descriptive Notes on the Kwakiutl Manufacture of Eulachon Oil." Syesis, 1971, vol. 4. Pages 169-177.
- 49 Hawthorn, H. B. et al. The Indians of British Columbia: A Study of Contemporary Social Adjustment. Toronto: University of Toronto Press, 1958. Pages 210-212, 219.
- 50 Drake, Allene and Wilson, Lyle. "Eulachon: A Fish to Cure Humanity." Vancouver: University of British Columbia, Museum of Anthropology Museum Note No. 32.
- 51 Hay, Doug. "The Mysterious Eulachon." The Westcoast Fisherman, Vancouver, March 1995. Pages 47-48.

GRAPHICS



**Eulachon Rivers
and
First Nations
Territories
in the Eulachon-Harvesting
Regions of British Columbia**

Photo #1

Eulachon Fishery, Kingcome Inlet, 1915

National Archives #C136957

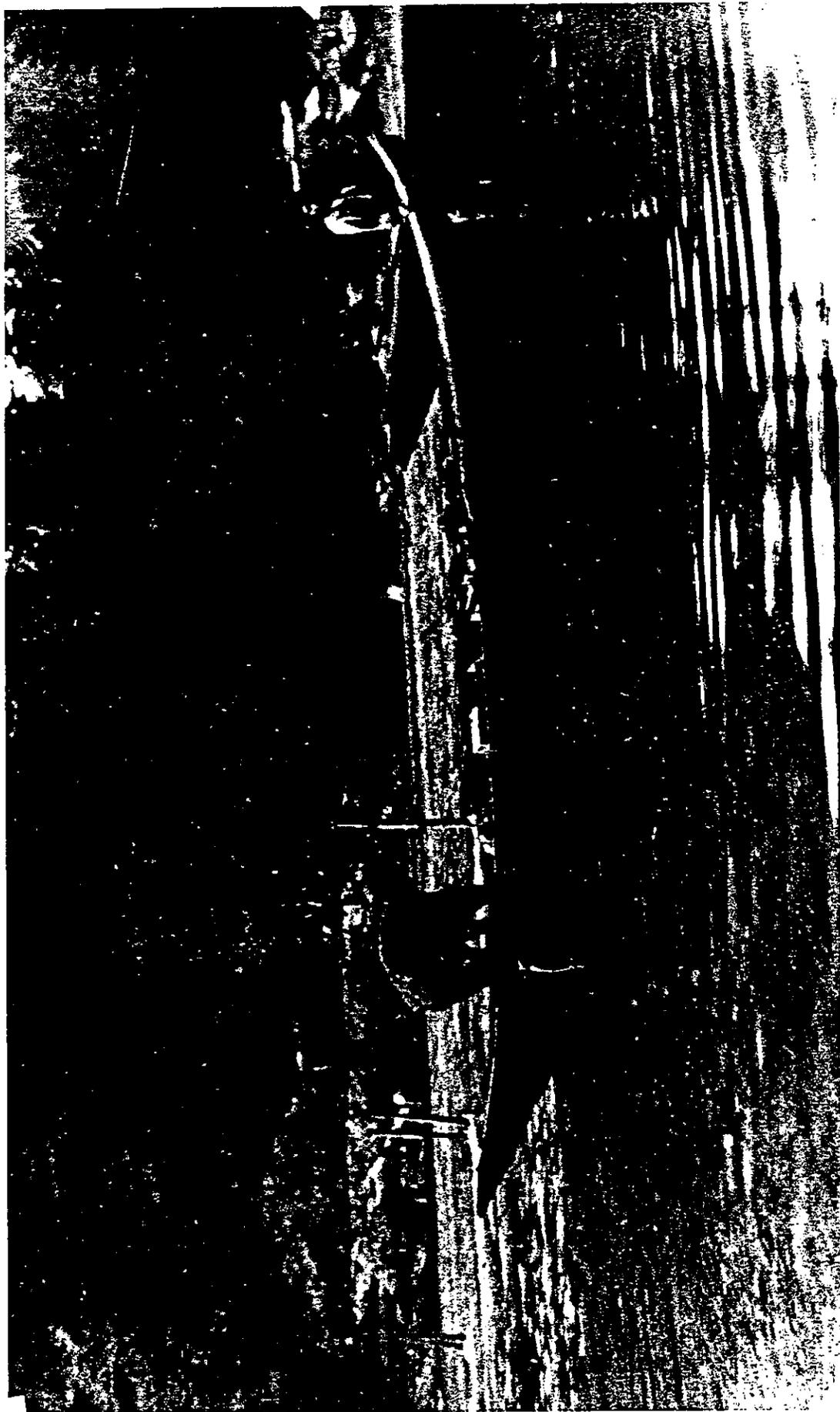


Photo #2

Sun Rotting Eulachon Before Rendering, Kincome Inlet, 1915

National Archives #C136955

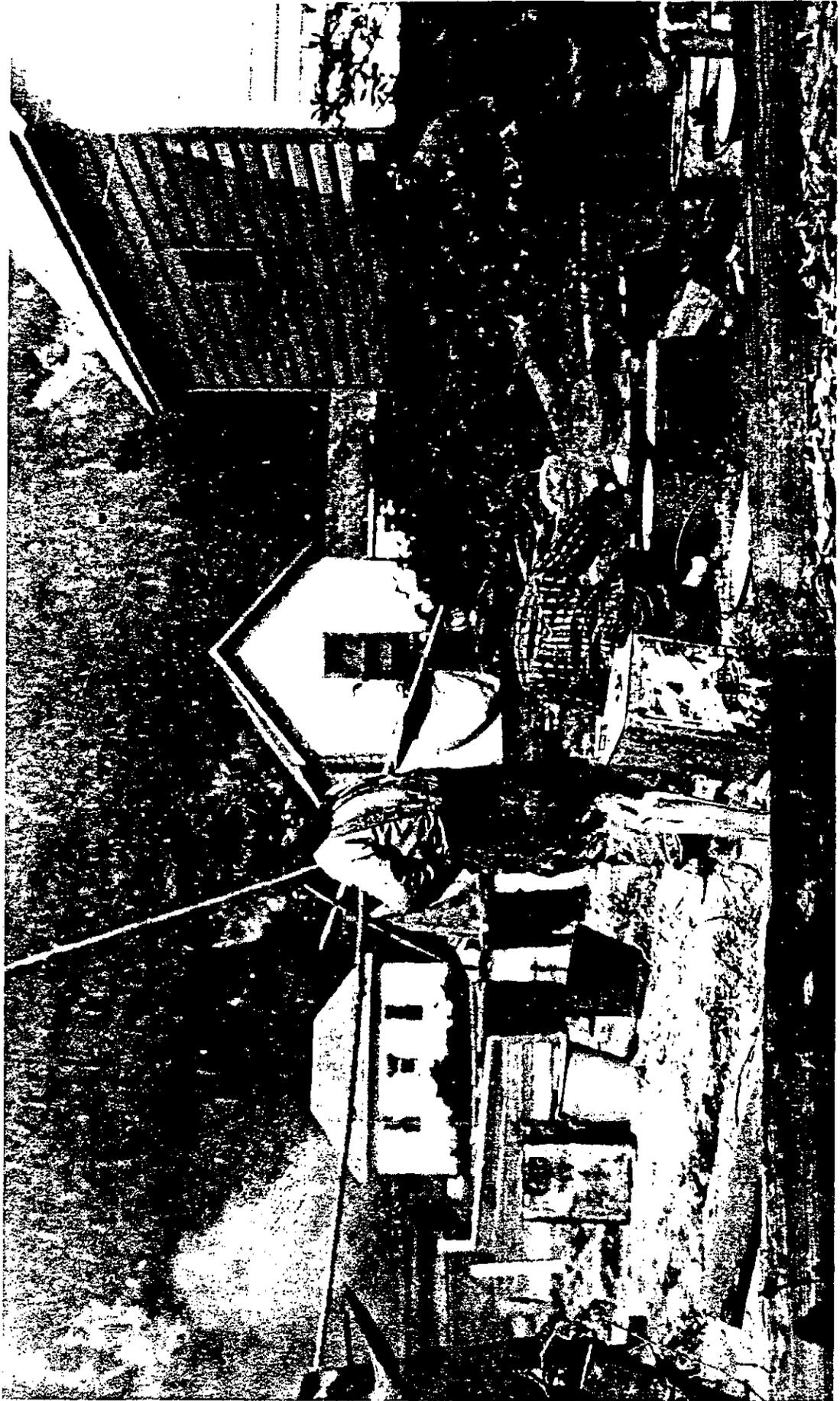


Photo #3

Indian Women Rendering Eulachon Oil, Kingcome Inlet, 1915

National Archives #C136954

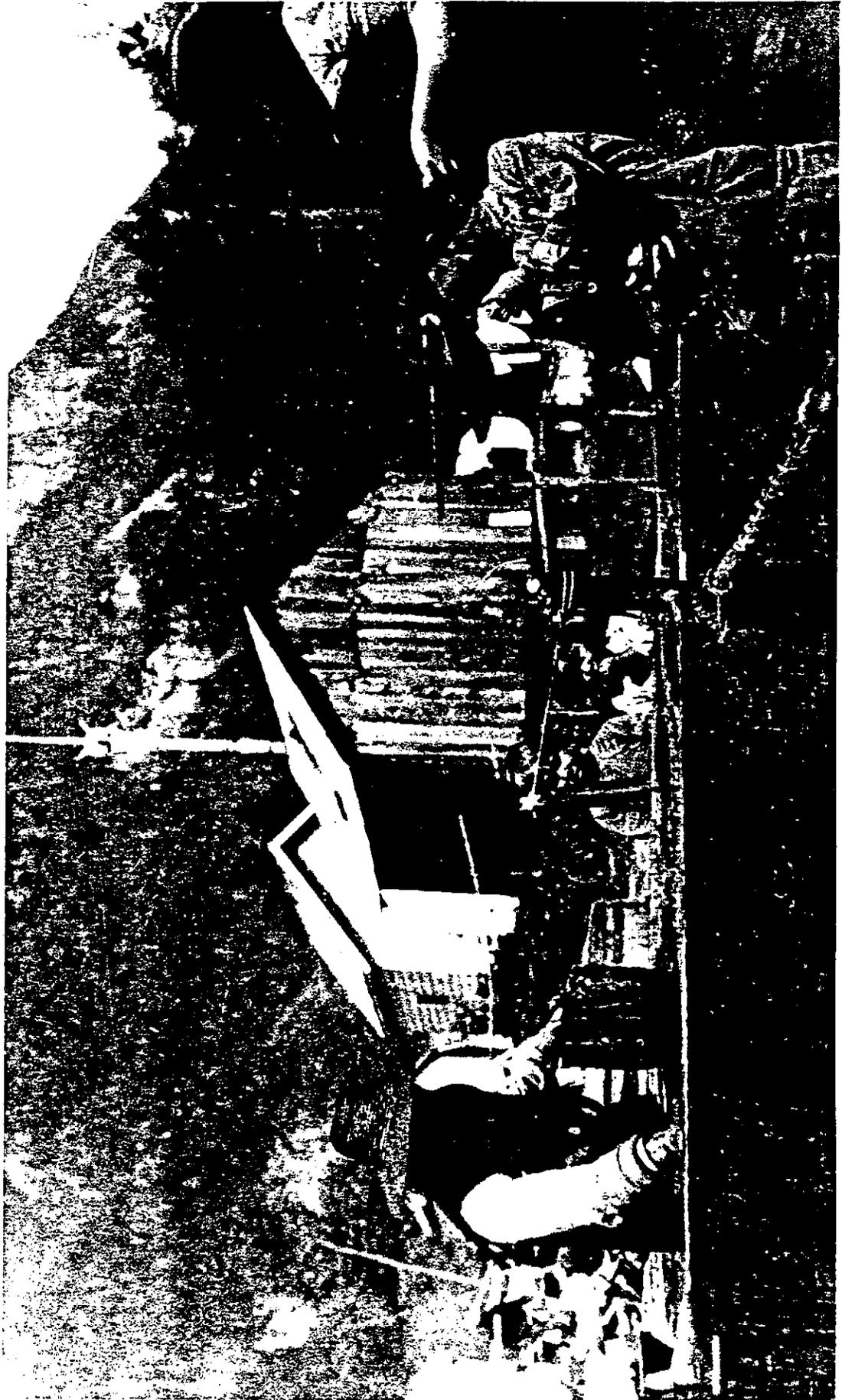


Photo #4

Natives Pole a Dugout "Spoon" Canoe Laden with Eulachon

Heading Into the Beach at Bella Coola, 1935

Leslie Kopas Collection, 24E



Photo #5

An Eulachon "Stinkbox" of Split Cottontree on North Side of
Bella Coola River. The Planking Shielded the Rotting Eulachon

From the Sun, 1935

Leslie Kopas Collection, 24G

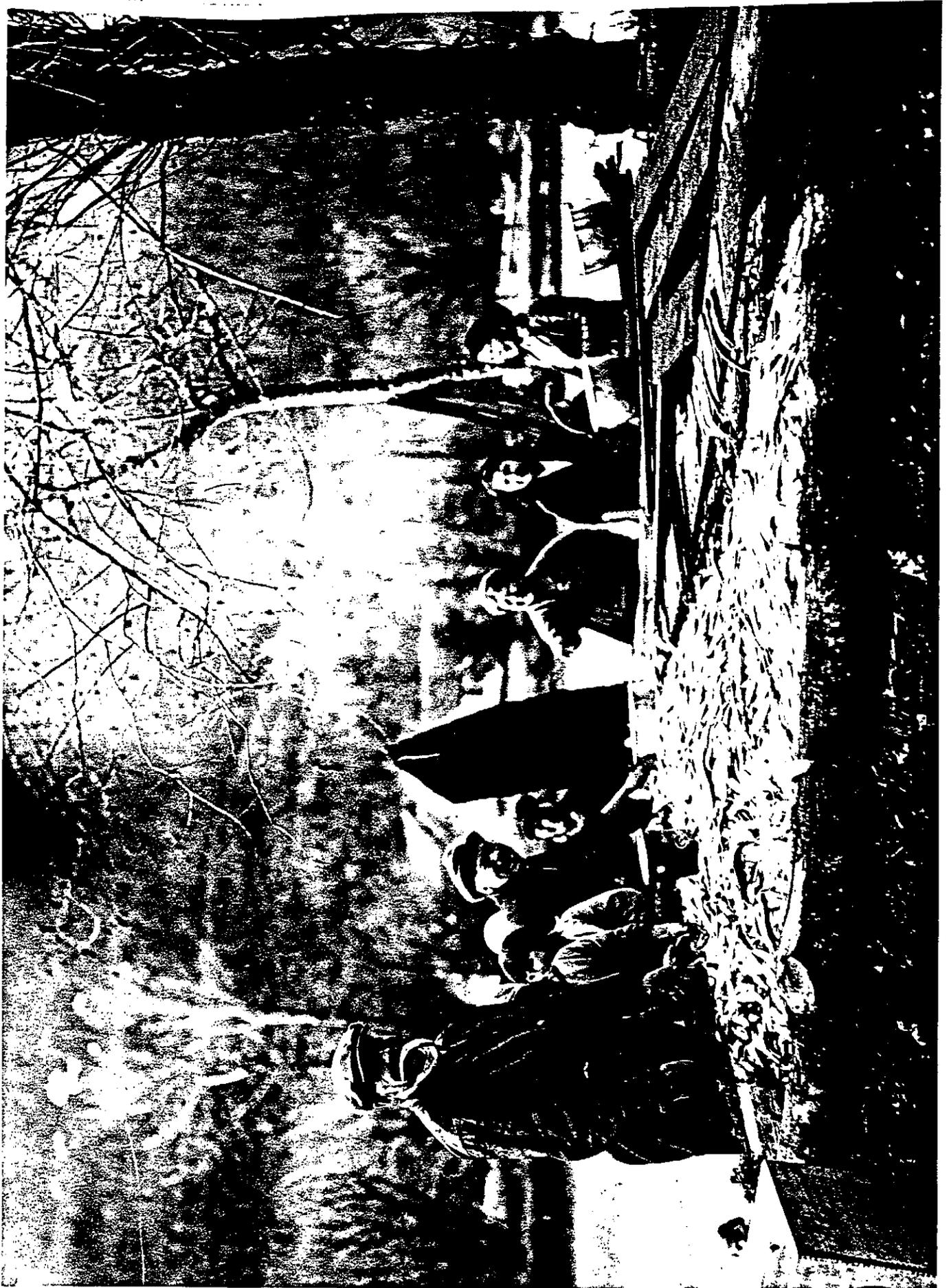


Photo #6

Bella Coola Native Fishermen Pulling in Conical Net

Behind the Fishermen are the Posts Supporting Another Conical Net, 1935

Leslie Kopas Collection, 24B

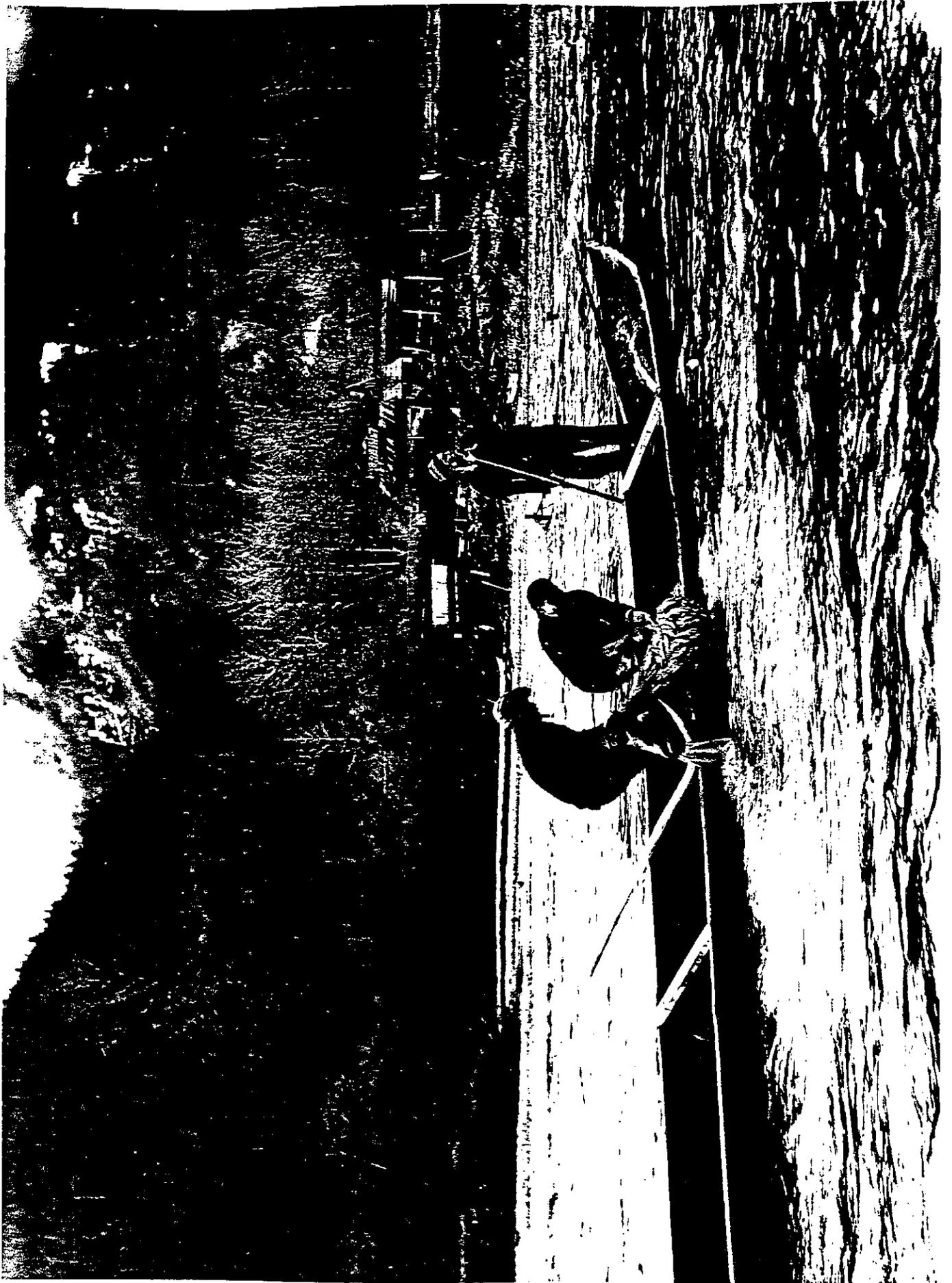


Photo #7

Eulachon Drying in the Sun in Preparation for Smoking

Knight's Inlet, 1968

British Columbia Provincial Museum, Ethnology Division Collection
#7707-33 and 7707-35

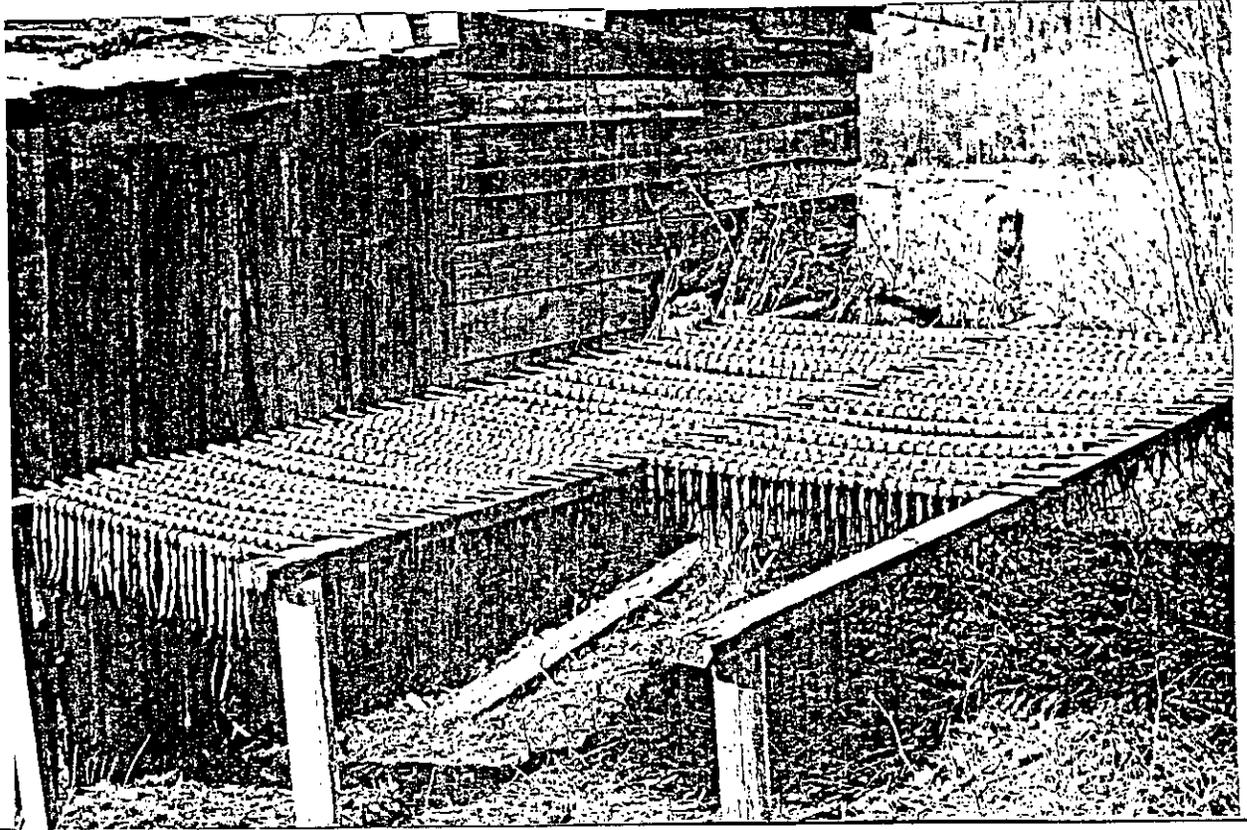


Photo #8

Seine Netting Eulachon, Tsawadi, 1968

British Columbia Provincial Museum, Ethnology Division Collection
#7710-37



Photo #9

Natives Processing Eulachon at Waska Brotherrs Plant, Fort Langley, 1960's

British Columbia Ministry of Agriculture
Fish and Food Aquaculture and Commercial Fisheries Branch, Victoria
#82



Photo #10

Setting Eulachon Gillnet Out of Herring Punt, Steveston, 1980's

Duncan Stacey Collection



Photo #11

Eulachon Gillnetter Returning to Steveston With Catch, 1980's

Duncan Stacey Collection

