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TRADE NEWS

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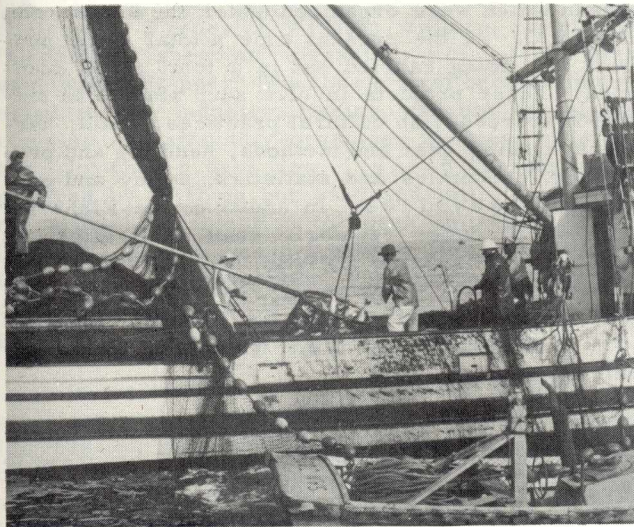
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COVER PHOTOGRAPH: British Columbia purse seiner taking in the catch. The brailer is up with a load of pink salmon.

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Skeena Salmon Run



Salmon purse seiner completing a set. The skiff alongside, in the upper photograph, holds the net in position. The lower photograph shows the operation of the brailer.

GOOD RUNS of pink salmon to the Naas, Skeena and Bella Bella areas of northern British Columbia transformed the 1955 British Columbia salmon fisheries from a poor one to one of average volume.

Converging low sockeye cycles in some areas, plus the fact that 1955 is the year of return for sockeye which were passing through the Skeena River system at the time of the Babine slide in 1951, made it fairly certain that the catch of this variety would be relatively small. In this connection predictions were fulfilled, but at Rivers Inlet, where previous cycle spawning records had warranted hopes of a good catch, only light fishing was experienced and the runs which passed through fishing areas into the Fraser River were only of average strength compared with brood cycles. At the end of July the situation was far from encouraging.

As August began fishing tempo stepped up and in the next few weeks large catches of pinks had been caught and processed. In the four week's fishing a total of 37,500,000 pounds of pinks had been caught to increase fishermen's earnings by \$3,300,000, and canning establishments throughout the province were working at full pressure to cope with the heavy supplies. By mid-September the canned pink salmon pack totalled 811,000 cases, one of the largest packs of this species on record.

The total catch of pinks for the season up to August 27 in northern areas of District No. 2, 3,624,300 fish, was more than double the number caught in the previous cycle year, 1953. But farther south in the Johnstone Strait area of District No. 3 a large fleet of seiners and gill-netters caught a little better than 1,800,000 pinks, only half that of the number taken in this area in 1953. It was the final stages of the pink salmon fishery that turned the scale.

In the closing days of August a fleet of between 90 and 100 Canadian salmon purse-seiners and 250 gill-netters concentrated at the entrance of the Strait of Juan de Fuca to intercept the big run of pinks which was expected to pass through these waters in the migration to the Fraser River and streams flowing into Puget Sound.

The bulk of the Canadian fleet was based on San Juan harbour where, at night, the lights of the numerous fishing boats made the remote inlet look like a small city. At ports in Puget Sound on the United States side a large American fishing fleet of purse-seiners and gill-netters was equally in readiness.

Net fishermen and trollermen made good catches of blueback and coho salmon during the 1955 season and the resultant pack of 162,000 cases of canned blueback and coho put up by mid-September was highest since the record year 1949. ✓

Tenth Anniversary of F.A.O.



ON SATURDAY, OCTOBER 15, a plaque was placed in the Chateau Frontenac Hotel in Quebec City by the Historic Sites and Monuments Board of Canada commemorating the birth of the Food and Agriculture Organization of the United Nations on October 16, 1945. The occasion was taken by the North American Regional Office of F.A.O. to bring together at Quebec a representative group of United States and Canadian government officials and leaders of citizen's groups to review the purposes, performance and future of F.A.O. The discussions, led by six panels -- nutrition, fisheries, forestry, agriculture, economics and F.A.O. in 1965 -- were followed by a banquet tendered by the Government of Canada at which the Rt. Hon. James G. Gardiner, Minister of Agriculture, was host and which was addressed by Dr. P. V. Cardin, Director General of F.A.O. and others. The meeting also heard messages recorded by the Hon. L.B. Pearson, Secretary of State for External Affairs, who was Chairman of the first conference of F.A.O.; Lord Boyd-Orr, First Director General of F.A.O. and Sir Roger Makins, British Ambassador to the United States.

Before dealing specifically with F.A.O.'s work in the field of fisheries, it may be appropriate to recall the overall aims and purpose of F.A.O. as set forth in the preamble to its constitution: "The nations accepting this constitution ... being determined to promote the common welfare by furthering separate and collective action on their part for the purposes of raising levels of nutrition and standards of living of the peoples under their respective jurisdiction, securing improvements in the efficiency of the production and distribution of all food and agriculture products, bettering the conditions of rural populations, and thus contributing to an expanding world economy, hereby establish the Food and Agriculture Organization of the United Nations ... through which its members will report to one another on the measures taken and the progress achieved."

F.A.O., as the first specialized agency of the United Nations, had perhaps a unique opportunity to achieve its aims because of the timing of its birth, three months after the birth of the Atomic Age, and because of the lack of controversy surrounding its objectives. F.A.O. was to be a scientific rather than a political agency.

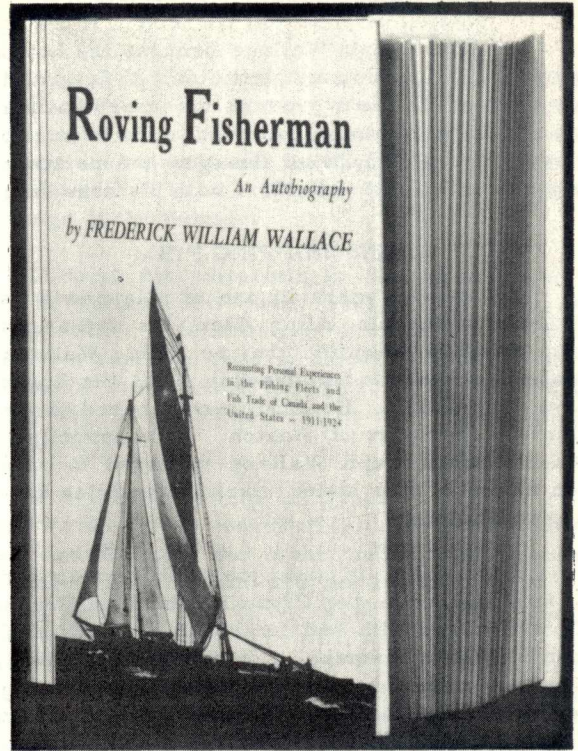
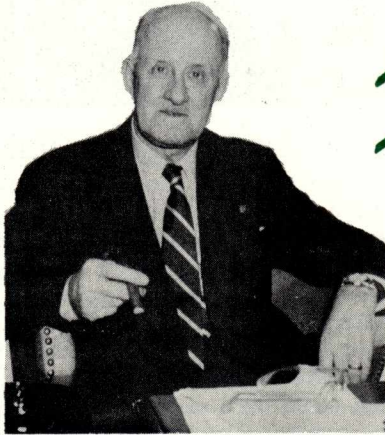
The budget of F.A.O. over the years, at from five to six million dollars, has been comparatively small when the scope of its operations are considered. Originally 42 countries signed the con-

stitution; now its membership has risen to 71. F.A.O. was charged with certain responsibilities, such as the collection and improvement of world statistics and scientific data on all phases of food and forestry production, distribution and consumption, but its main field of activity lay in helping individual or groups of countries to help themselves. Other technical aid programmes have emerged over the years and F.A.O.'s regular programme has been enlarged through the availability of special Expanded Technical Aid Programme funds allocated to it through the United Nations Economic and Social Council. In recent years these funds have approximately doubled the total monies available to F.A.O. While the greatest share of F.A.O.'s activity has been devoted to the field of agriculture as such, much progress has been accomplished in the fields of nutrition, forestry and fisheries.

DIVISIONAL ORGANIZATION

The Fisheries Division, headed since its inception by Dr. D.B. Finn, former Deputy Minister of Fisheries for Canada, operates on an annual budget of somewhat less than \$500,000, but has sponsored an impressive list of developments and projects over the past ten years. The Division is organized into various sections including Biology, Technology, Economics and Statistics and Regional activities which includes liaison with the member governments of the Indo-Pacific Fisheries Council and the General Fisheries Council for the Mediterranean which were organized under the sponsorship of F.A.O. At the present time a total of 50 projects are being carried out in a total of 30 countries. These projects involve such studies as marine resources, fish cultural practices, boats, harbours, fishing gear and methods, handling and processing, economics and statistics, policy and governmental services. In addition, the Fisheries Division produces regularly such publications as the F.A.O. Fisheries Bulletin, World Fishery Abstracts and the Yearbook of Fisheries Statistics. Special publications such as Dr. Jan-Olof Traung's book on Fishing Boats of the World have been very well received.

While the general conclusion of the Quebec discussions was one of satisfaction with progress to date, not all the work of F.A.O. or of its Fisheries Division has met with full approval by member nations. Some of these shortcomings were brought out at the Quebec decennial discussions. These points will be discussed further and acted upon at the biannual conference meeting in Rome on November 4 to 27. ✓



'Skipper' Wallace Tells His Tale

THERE ARE probably few men better known or respected by Canada's commercial fishing industry than Frederick William Wallace, founder of "Canadian Fisherman" magazine. Forty-four years ago, when "Skipper" Wallace first became interested in the industry, fishing was not the highly complex and smoothly organized business it is today. In those days few fishing vessels were powered by anything but wind and sail. There was no national organization to speak on behalf of the industry. There was not even a separate federal Department of Fisheries. The intervening forty-odd years have seen all this change and Wallace played no small part in the metamorphosis.

In his latest book, "Roving Fisherman" -- an autobiography -- "Skipper" Wallace sums up his impressions of those eventful years. His story is of particular value in that it dwells in detail upon a period vanished forever from the commercial fishing scene. The lofty hard-driven schooners of the Grand Banks and elsewhere, and the steam fishing boats, have been more or less superseded by motor-driven craft equipped with every modern electronic device. It was a colourful and heroic age

and few pens have handled the subject in quite as picturesque a manner as Wallace does in this book.

The author's connection with the fisheries, though he little knew it at the time, stemmed from a day at the turn of the century when he stood, young and wide-eyed, on the old "T" wharf in Boston and was made breathless by the handsome tall-sparred schooners lying in the port. The sight aroused in him an intense longing to make a trip to the Banks in one of those fine vessels. Over five years were to pass, however, before he realized this ambition.

SEA HIS HERITAGE

Eldest son of Captain William Wallace, a well-known shipmaster with the famous old Allan Line, Frederick William Wallace was born in Glasgow, Scotland, December 11, 1886. From his parents, he must have inherited a fondness for the sea and ships for both of them were born within sight and sound of the sea. There may have been some fishermen among their ancestors, but of that there is no record.

In private and public schools in Glasgow, young Wallace found his education interrupted by periods of indifferent health and his actual attendance at school was comparatively brief.

In 1895, Capt. Wallace brought the boy out to Montreal in his ship and left him with friends there for part of the summer in the hope that the trip would benefit him. It did, but on return to the gloomy damp climate of Glasgow the periodic illnesses continued to interfere with his schooling.

JOINS SHIPPING FIRM

After two years in one of Glasgow's famed secondary schools, Allan Glen, his father wanted him to study architecture, as young Wallace revealed an aptitude for drawing. But the boy would have none of it. He still remembered those tall ships in the port of Boston. A compromise was reached when Capt. Wallace managed to have his son accepted as a junior clerk in the Allan Line office in Glasgow.

His duties in this job took him aboard the ships and down the Clyde in them to Greenock. Though his health had improved, he still suffered from periodic sickness. Considering his disability, it is somewhat surprising to learn that the youngster persisted in his desire to follow a seafaring career. Finally, on his 16th birthday, he asked his father to have him apprenticed aboard a deep-water sailing ship. "I'd sooner see you in your grave", his father declared. "No, no, boy, forget it. In one of those ships, you'd be dead before you were a month out."

With his adventurous spirit thwarted in respect to a seafaring career, young Wallace decided that life in Glasgow was humdrum. He made up his mind to go to Canada. This met the approval of his father, who had long had the notion of removing his family out there.

Fred Wallace was a few months over 17 years of age when he landed for the second time in Montreal. Within a year or two he started to contribute short articles, fiction and pen-and-ink sketches to Canadian newspapers and magazines. These all had a nautical slant and were favourably received.

In 1910, he did part-time work on the staff of the Montreal magazine "Canadian Century", mainly in the marine field, and also did fiction and illustrating for that publication. While working on this journal, he was given an assignment to write an article on Canada's commercial fisheries.

In the course of gathering the information he called upon Alfred H. Brittain, Head of the Maritime Fish Corporation Ltd., Montreal, who with H.G. Connor of the same firm, was very helpful. The fishing industry appealed to Wallace as a fascinating field and he was a frequent caller at the Maritime's office, with the result that friendships



Old-time schooner heading for the Banks

developed between members of the staff at that period which have continued, among those who survive, to this day.

Wallace's dream of sailing in one of the fishing schooners was realized through Mr. Brittain who invited him to accompany him to Digby, Nova Scotia, and write up a sailing race between two fishing schooners for a trophy which he had presented. In August, 1911, the contest between the schooners "Dorothy M. Smart" and "Albert J. Lutz" was held in the Annapolis Basin.

A later trip to the Banks in the "Dorothy Smart" provided Wallace with a colourful background for tales of the Banks fishermen and he made good use of it. In the following March he went out to the Banks again in the same vessel, and in December made a trip out of Portland, Me., in the schooner "Effie M. Morrissey". These three excursions provided material for his first novel, "Blue Water", which was immediately accepted and published in 1913 and was made into a motion picture in 1922.

While attending the Toronto Exhibition in August, 1913, in charge of an exhibit staged by the Maritime Fish Corporation, Wallace was induced by J.J. Harpell, head of the Industrial & Educational Publishing Co. Ltd., to join him and edit a new monthly publication to be devoted to the commercial fisheries and fish trade of Canada. He accepted and the first issue of the "Canadian Fisherman" appeared in January, 1914, and has been published continuously ever since.

Following the publication of the "Canadian Fisherman" it was not long before the publisher and editor realized that Canada's fishing industry would make but slow progress unless it was welded into some form of national organization. Both men em-

barked on a campaign among leading figures in the industry and found support for the idea. In 1915 the Canadian Fisheries Association was formed with Fred Wallace as secretary. In this office he continued until 1922. In 1934-36, he was elected president, and he served as executive vice-president from 1936 to 1944. In 1945, the association was reconstituted as the Fisheries Council of Canada with Wallace as Hon. President.

MASTER OF Q-SHIP

During the first World War, raids by German submarines along the American coast in the fall of 1916 prompted Wallace to suggest the employment of disguised armed fishing schooners to combat them. His plans and suggestions were submitted to the British Naval authorities and in the spring of 1917 six Canadian fishing schooners were secured secretly and fitted out in Halifax. Wallace was appointed Master of one of them -- an old friend of his -- the "Albert J. Lutz", and told to join her in Halifax. As Skipper of this Q-ship, which was in Imperial, not Canadian, service, Wallace carried on until September, 1917, at which time he was recalled to take charge of the Fish Section of the Canada Food Board, Ottawa.

In Food Control work he served until March, 1919, and organized increased production of fish in Canada for home and overseas consumption in order to release greater supplies of beef and pork for the allied forces. Through the Board's efforts, consumption and production of fish in Canada reached a higher point than ever before and the Food Controller publicly gave Wallace the credit.

In January, 1922, Fred Wallace accepted an offer to become editor of the "Fishing Gazette", New York. On the "Gazette" he worked until June, 1928. During the same period he became executive vice-president of the U. S. Fisheries Association and was chairman of its publicity committee for several years. In 1926, he was appointed by Secretary Hoover, afterwards President of the United States, to the Advisory Board, U. S. Bureau of Fisheries.

While in New York, Wallace compiled three histories of Maritime Provinces and Quebec shipping -- "Wooden Ships and Iron Men", "In the Wake of the Windships", and "Record of Canadian Shipping". These books have been acclaimed as having preserved the history of a great era of Canadian shipbuilding and seafaring accomplishment in danger of being utterly forgotten.

Returning to Canada in June, 1928, Wallace resumed the editorship of "Canadian Fisherman" and active interest in the work of the Canadian Fisheries Association.

In addition to the books mentioned previously, Wallace has published several others, including

novels and volumes of short stories. In recording Canada's fish industry he wrote "The Story of Canada's Fish Industry (1942)" and "Thirty Years Progress in Canada's Fish Industry (1945)".

Both these monographs were published in his "Canadian Fisheries Manual", which publication was distributed to libraries, colleges, schools and organizations throughout the Dominion, and which was of incalculable value in promoting a wider knowledge of the industry.

Through his editorials in "Canadian Fisherman" he agitated for many reforms in fisheries administration -- outstanding of which was a campaign for a separate federal Department of Fisheries under a responsible Minister. This was initiated by the Government first in 1930, and permanently in 1935.

In his observations of fisheries and the fish trade, Wallace has travelled all over the United States and Canada, the West Indies, and several times to Great Britain and the fishing ports of France, Germany, Holland, and Belgium. "That period seems to have passed very quickly," he says, "and I have no regrets. I hope I have contributed something to promoting the welfare of the fishermen and all interested in our fisheries resources."

Men of Skipper Wallace's type never actually retire, and he is not likely to do so from association with an industry with which he has been actively connected for over forty years. He now serves "Canadian Fisherman" as Consulting Editor and leaves to a younger associate the tasks of editing copy and meeting the printer's deadlines. ✓

Deputy Minister Honoured

George R. Clark, Deputy Minister of Fisheries of Canada, has been made a Fellow of The Canadian Geographical Society. The aim of the Society is to make Canada better known to Canadians and to the rest of the world. One of its major activities is the publication of a monthly magazine, the Canadian Geographical Journal, from its headquarters in Ottawa.

Newfoundland Sturgeon

Unusual in Newfoundland waters were two sturgeon which were taken at widely separated parts of the province incidental to the codfishery during July. One of the fish, caught on the northwest coast, measured 32 inches in length. The other, measuring 43 inches, was taken in a codtrap at Wild Cove, Twillingate, on the east coast.

FRASER RIVER FISH WHEEL

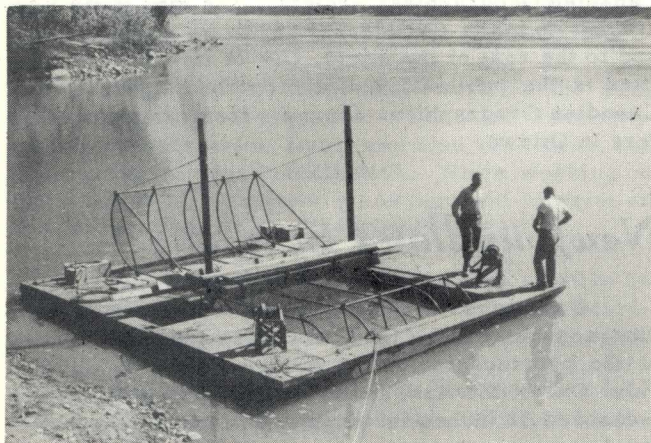
Improved Version Of Indian Device Aids Salmon Taggers

BIOLOGISTS and engineers of the Department of Fisheries, Pacific area, teamed to develop a marked improvement in fish tagging technique in a recent programme of salmon tagging on the Fraser River, B.C. The development is in the form of a fish wheel, used to catch fish, in place of the former method of using dip nets.

The wheel was adapted by Fisheries Engineer L. Edgeworth from a design submitted by the Alaska Department of Fisheries. The idea for its use came to Fisheries Biologist R. McLaren and Engineer K. Lucas during a survey trip to the Yukon, where the Fisheries men noted a crude form of fish wheel in use by native Indians in that territory.

Basically the wheel consists of two basket type nets made by stretching $3\frac{1}{2}$ inches seine mesh on a framework consisting of a series of five J-shaped steel pipes, braced horizontally along the length and diagonally at each end. Each "basket" is ten feet deep and ten feet in length. The nets are fastened to a central steel shaft which turns on bearings mounted on four pontoons, each 22 feet long. The rig is secured to the river bank by steel cables attached to winches, which provide some measure of manouverability.

At angles of 90 degrees to the baskets two additional steel tubular frames carry paddles which



Fish wheel in operation for tagging purposes on Fraser River near Hope, British Columbia.

assist the basket nets in providing motivation. The wheel is turned by the action of the swift river current against either baskets or paddles. In operation, the basket on the downstream side scoops fish which are swimming upstream against the current and retains them within the net. As the basket rises above water level the fish drop into a sloping trough attached to the lower part of the basket. This deposits them gently into a screen-covered "live fish" box attached to the side of the pontoon.

The "live" box will hold 40 average size salmon and will keep them safely for a considerable period of time without damage or harm.

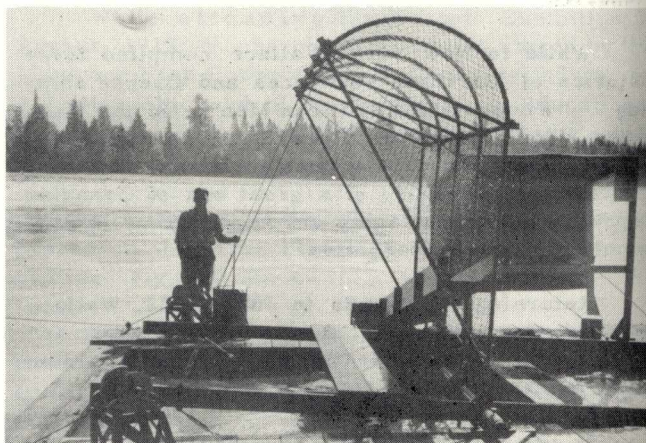
CAPTURED FISH NUMBERED

During tagging operations fish are removed from the "live" box, tagged with numbered Petersen-type plastic tags and then returned to the river, upstream from the wheel.

Advantages of the new gear were apparent from the first day of its installation, September 1. Not only does the wheel allow a more constant fishing effort than hand dip-netting, but the ten-foot sweep of the basket samples a larger volume of water. Fewer people are required and there is less danger of damaging fish.

During construction some doubt was expressed as to the probable efficiency of the wheel. These doubts were dispelled only ten minutes after the pontoon had been secured in position on the north bank of the Fraser River a few miles above Hope, B.C., when the first salmon was scooped up and deposited, full of fight, into the "live" box.

Since the wheel has been installed fishery biologists have recorded a total catch of 397 pink coho, 18 spring, six sockeye and one chum salmon and two steelhead trout. All pink salmon were tagged in connection with population studies of this species' migration to upstream spawning areas. Records of other species are being kept primarily for studies on periods and duration of migration. ✓



Canadian Fisheries News

Great Lakes Agreement

The fourth bilateral fisheries agreement between Canada and the United States was brought into force on October 11 at Ottawa when an exchange of instruments of ratification for the Great Lakes Fisheries Convention took place in the office of Acting Fisheries Minister Robert H. Winters.

The new convention provides for joint action in Great Lakes fishery research as well as in a programme for the control of the predator lamprey in these waters. The three other conventions deal with Pacific halibut, salmon and fur seals.

Signed copies of the convention were exchanged between Mr. Winters for Canada and by the U.S. Ambassador to Canada R. Douglas Stuart. The ceremony took place in the office of Mr. Winters in the presence of officials of the Department of External Affairs and George R. Clark, Deputy Minister of Fisheries.

The Convention, which will have an initial duration of 10 years, provides for the establishment of a six-man Great Lakes Fishery Commission



A 10-year treaty between Canada and the United States for joint action in Great Lakes fishery research and a programme for predator lamprey control came into force on October 11. George R. Clark, Deputy Minister of Fisheries, looks on as copies of the convention were exchanged by the two countries. Left to right are U. S. Ambassador to Canada R. Douglas Stuart, Mr. Clark and Acting Fisheries Minister Robert H. Winters.

made up of three appointees from each country. A non-regulatory body, the Commission may only recommend, on the basis of research findings,

measures to make possible the maximum sustained productivity of the Great Lakes fisheries.

Concern by both Canada and the United States over the decline of some of the fisheries of the Great Lakes, and the serious damage being caused by the lamprey, brought about the recognition of the necessity for joint and co-ordinated efforts to determine the need for the type of measures which may make possible the optimum productivity of the fisheries of these waters.

The area embraced by the convention includes Lake Ontario (including the St. Lawrence River from Lake Ontario to the 45th parallel of latitude), Lake Erie, Lake Huron (including Lake St. Clair), Lake Michigan, Lake Superior and their connecting waters. The area also includes the tributaries of these waters to the extent necessary to investigate any stock of fish of common concern, the taking or habitat of which is confined predominantly to the area to eradicate or minimize the sea lamprey populations.

Lunenburg Exhibition

The Nova Scotia Fisheries Exhibition and Fishermen's Reunion, held in September at Lunenburg, N.S., was this year one of the most successful on record. The total attendance almost approached that of the record established during the special celebrations marking the bicentennial year of the town in 1953.

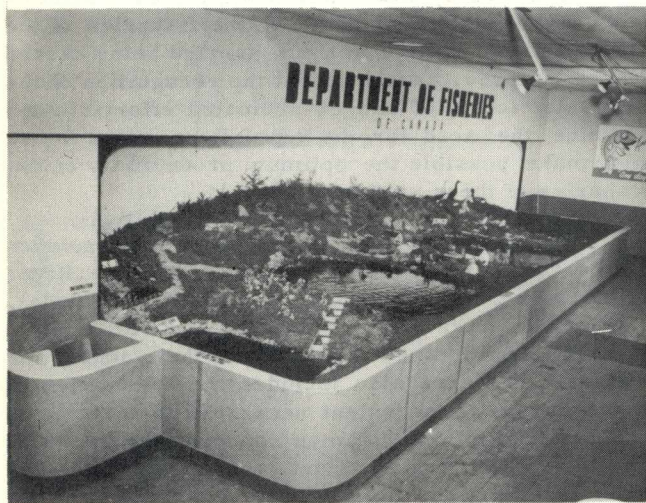
The theme of the exhibition, of course, revolved around the fisheries. Two buildings housed attractive displays of fish and fish products as well as the industrial side of this great natural resource. One of the major attractions was the water sports day during which fishermen engaged in competitions born of their trade, and highlighted by a contest for the dory rowing championship.

The International dory racing championship was again won by the Canadian team to continue an unbeaten record.

The federal Department of Fisheries plays a main role in the exhibition each year with a large part of the displays in the Fisheries Building arranged by the Department. This year the Department had five attractions, three of which drew special attention from the thousands of persons in attendance.

These were the display of live game fish in a natural habitat, the fish cookery school, and the

demonstration of the cutting of boneless cod. The other displays, both static, included one graphically portraying the history of the fishing industry on the Atlantic coast leading to the establishment of the International Commission for the Northwest Atlantic Fisheries, and the other a series of enlarged photographs of selected Department of Fisheries adver-



One of the displays at the Nova Scotia Fisheries Exhibition and Fishermen's Reunion at Lunenburg, N.S. Picture shows the live fish exhibit of Atlantic salmon fingerlings, brown trout, speckled trout and their coarse fish enemies in four rocked pools set in a typical Nova Scotia landscape.

tisements appearing nationally and explaining the important role of fisheries in the economy of the country and pointing to the part played by primary producers, the processors, the transport world, retailers and homemakers in fish handling and utilization.

Easily the greatest single attraction of the exhibition -- with the exception of the international dory race -- was the live fish exhibit. This consisted of four rocked pools containing Atlantic salmon fingerlings, brown trout, speckled trout and their enemies from amongst the coarse fish. Spreading back from the four interlocked pools was a typical Nova Scotia landscape.

Even the fish co-operated to put on an interesting display for visitors. Between the first and second pools a model fish ladder was used by the Atlantic salmon fingerlings in an attempt to work their way "upstream".

The pools themselves consisted of two 8' x 10' tanks and two tanks half that size, rocked inside to give a natural habitat for the fish. From the second or main pool the water flowed out one side down a model fish ladder and out the other side to the third tank past a model mill on the way. From this third tank it flowed to the fourth tank through another

"river" at the end of which a typical beaver dam was constructed. The work was supervised by Fisheries Officer James MacDuff, of Lunenburg, and drew great praise.

The fish cookery school in a specially constructed classroom was conducted by two home economists of the Department and drew capacity crowds for each demonstration. In a model kitchen Mrs. Jean Cvetanovic of Ottawa, and Miss Nancy Conger of Toronto, turned out fish dishes that drew considerable favourable comment. With special recipes -- later distributed to those attending -- prepared for the demonstrations, the school was undoubtedly the most successful ever held at the exhibition. Both home economists drew a great deal of praise from those attending for the facility with which they instructed in the proper technique of preparing fish.

At a special booth William Quinlan, Fisheries Officer with the Department in the Shelburne County region, demonstrated the cutting of boneless cod. Large crowds gathered about for each demonstration. During the exhibition he cut 300 pounds of green salt cod which was distributed to visitors with the compliments of the Department.

The rest of the building was given over to exhibits of commercial fish and fish products, a booth for the CBC Fishermen's Broadcast, and a Nova



Keen interest was taken in the fish cookery school conducted by two home economists of the federal Department of Fisheries at the Nova Scotia Fisheries Exhibition and Fishermen's Reunion at Lunenburg. Even the little girl, whose head is just visible above the table, is immensely interested in the work of Mrs. Jean Cvetanovic of Ottawa, on the left, and Miss Nancy Conger of Toronto.

Scotia Department of Trade and Industry theatre showing films about the province and its fisheries. The commercial fish display, which occupied the

entire centre portion of the building, was again in charge of Ainsley Fralick, senior inspector of the Department. The long hours spent in preparing this exhibit earned him great credit and much praise from visitors to the exhibition.

This year the exhibition was officially opened by Sir Archibald Nye, British High Commissioner to Canada.

"No one could be in Lunenburg for even a very short time without picking up a feeling of atmosphere, history and tradition," Sir Archibald told a capacity crowd in the Marine Building. "I have never seen anything so grand as the spirit of Lunenburg's people... I have visited in many countries in the world and have been at a large number of different exhibitions but I can truthfully say that this is in my experience unique..."

Continuing, he said "I venture to think that the greatness of a country lies not in its size, not in its trade, not its extent of population, nor in the wealth of its industry: I think that undoubtedly the greatness of a country lies in the character of its people. If that is true I think Lunenburg has every right to be proud of its record and its history."

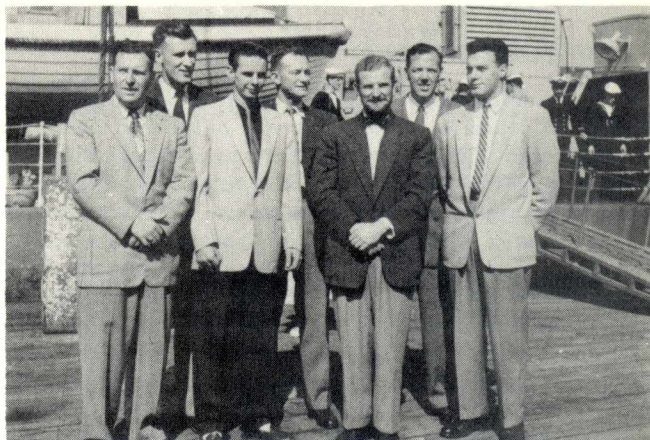
Sir Archibald was introduced by Hon. Robert H. Winters, Acting Minister of Fisheries, whose home is in Lunenburg.

George R. Clark, Deputy Minister of Fisheries, who flew from Ottawa especially for the occasion, told the assembly that "because of the nature and very name of the exhibition it has special appeal for me. Throughout Canada many exhibitions and fairs take place around this time of the year. But these are designed primarily for agriculture. The Nova Scotia Fisheries Exhibition is the only one of its kind in Canada and the federal Department of Fisheries has always felt it was a most important exhibition."

Oceanographic Survey

Canada's contribution to the largest oceanographic survey ever undertaken ended early September when seven young British Columbia research men stepped ashore at Esquimalt, B. C. from a Canadian frigate after a cruise of 38 days which took them over 7100 miles of Pacific ocean waters. The party consisted of personnel from the Pacific Oceanographic group of the Fisheries Research Board of Canada at Departure Bay, B.C. headed by A.J. Dodimead and included R.H. Herlinveaux, A. W. Groll, H. J. Hollister, M. McKenzie, C. Sauer and E. B. Bennett. HMCS "Ste. Therese", under the command of Lt. Cdr. W.F. Potter, was the one Canadian vessel used in an international cooperative undertaking which included survey ships from United States and Japan. Data gathered in the

overall survey will be pooled by the three countries with the general objective of accumulating more knowledge of Pacific ocean currents and discover-



Members of the Fisheries Research Board's Pacific Oceanographic Group on arrival at Departure Bay, B.C.: Left to right, back row, are R.H. Herlinveaux, A.W. Groll and A.J. Dodimead. Front row, left to right: H. J. Hollister, M. McKenzie, C. Cauer and E.B. Bennett.

ing and charting patterns of fertile areas of the Pacific which, in turn, will give a better understanding of fish populations. Working for the most part in fog, rain and heavy overcast, the research party recorded water temperatures and took specimens at 85 stations throughout the cruise, which covered an area north of the tropic of Cancer and westward to longitude 170 degrees. In all 1400 water samples were taken, at depths varying from surface to 650 fathoms down. A chemical laboratory set up on the "Ste. Therese" enabled the research men to carry out chemical analyses of the samples.

Chief Home Economist

Miss Margaret Myer of Chippawa, Ontario, has been appointed chief of the Home Economics Section, Inspection and Consumer Service of the federal Department of Fisheries at Ottawa replacing Miss Helen McKercher, who recently resigned. Miss Myer has been with the department since January, 1954, and has been serving as assistant chief of the section.

A former dietetic intern at the Toronto General Hospital and a dietitian with the Robert Simpson Company, Toronto, Miss Myer served in Canada and overseas with the RCAF as a messing officer during World War II.

Prior to her appointment to the Department of Fisheries she was employed in the Women's Institute Branch and Home Economics Section of the

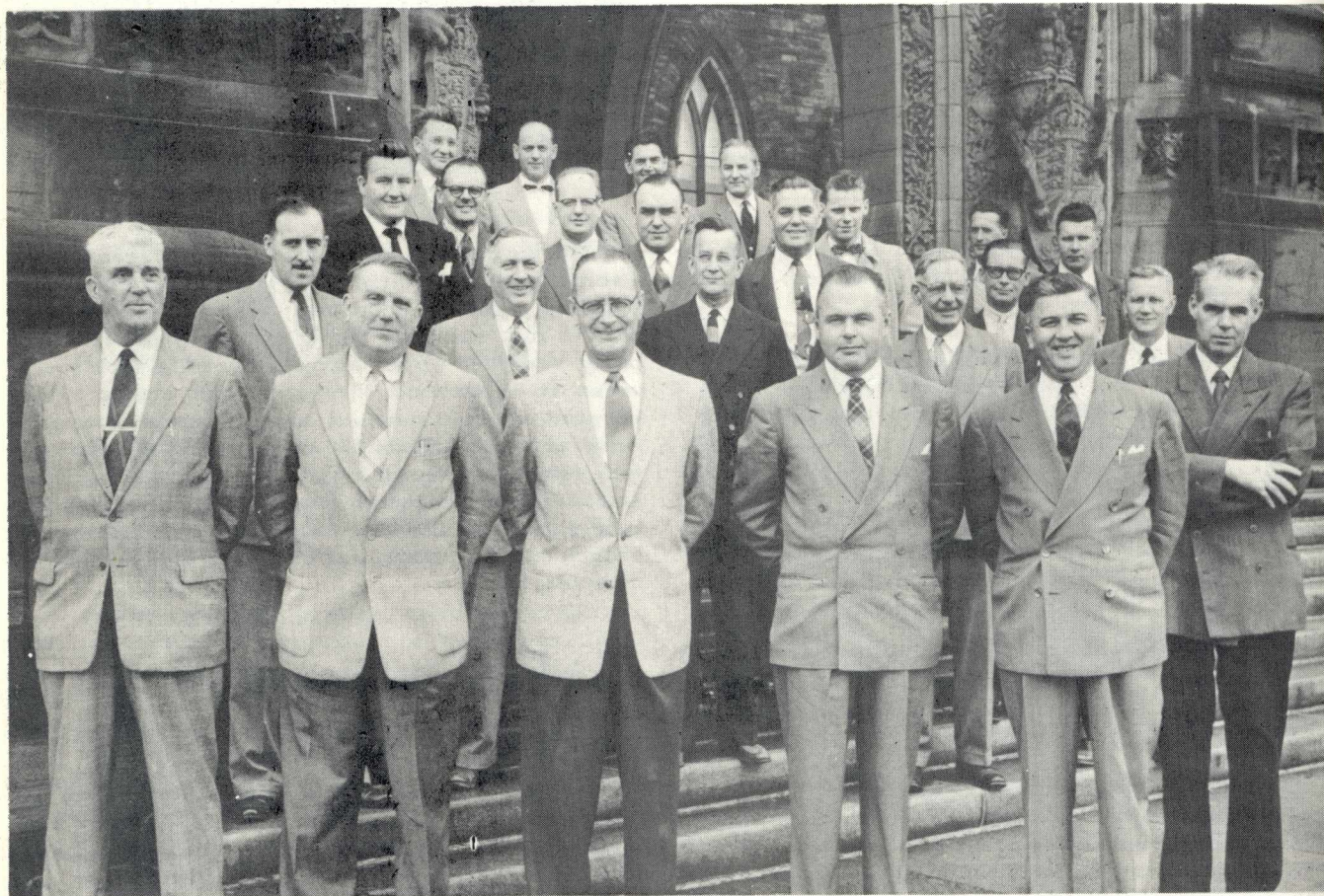
Ontario Department of Agriculture as home economist in foods and nutrition and later as a supervisor.

"National Fish Week"

Canada's first National Fish Week, October 3 to 8, was found to have been very helpful to the fishing industry. Newspaper and magazine publicity, as well as radio and television "plugs," had a considerable impact on the consumer. Similar affairs in the future, with greater time beforehand for preparation, are expected to be even more successful. This year's "National Fish Week" was sponsored by the Fisheries Council of Canada, and was supported



Seventh Annual Meeting -- Department of Fisheries



Shown above are officials of the federal Department of Fisheries following their seventh annual meeting in Ottawa, including the Deputy Minister and Assistant Deputy Minister, Directors of the Department's services, Chief Supervisors and their assistants from the various areas into which Canada is divided for administrative purposes -- Newfoundland, Maritimes, Central and Pacific. Deputy Minister George R. Clark (front row, centre), who was chairman of the meeting, said that the Department faced many important tasks which would tax the strength and abilities of its members, but he was confident that they would cope with them. Particular attention was given during the meeting to Canada's increasing responsibilities in connection with international agreements for the conservation of the fish stocks of the high seas and of the Great Lakes. Other matters discussed were inspection of fish and fish plants, fishery regulations, the Fishermen's Indemnity Plan, industrial development, public information, staff and other administrative matters.

by the federal Department of Fisheries, and individual associations within the industry.

On the first day of the week Prime Minister Louis S. St. Laurent was host to the premiers of the provinces, then meeting in Ottawa, at a special fish luncheon held in the Department's test kitchen in the West Block. The photograph on page 12 shows the Prime Minister being greeted at the entrance to the kitchen by Miss Margaret Myer, the Chief of the Department's Home Economics Section.

New York Fisheries Display

The largest display of Canadian fisheries products ever shown in New York will be on exhibit from November 10 to December 9 in the Canadian Showroom in Rockefeller Center. Thirty-six Canadian fish producers and packers have co-operated to provide a cross-section of the more than 70 varieties of Canadian fish and shellfish available to consumers in canned, smoked, fresh and frozen, pickled and dried forms. Among the principal kinds are salmon, lobster, cod, haddock, halibut, whitefish, lake trout, pike, pickerel, herring, sardines, clams, mackerel and oysters. Eight of Canada's ten provinces are represented in the show -- seven firms from Newfoundland, four each from Prince

Edward Island and New Brunswick, ten from Nova Scotia, two each from Quebec and Ontario, one from Saskatchewan and six from British Columbia. Every year 70 per cent of Canada's fisheries products are marketed in more than 80 foreign countries; last year these exports reached a value of about \$200 million.

"The Oyster-Man" a Hit

The National Film Board reports that the Department of Fisheries award winning documentary film, "The Oyster-Man," released in February, 1951, has been and still is a prime source of entertainment and information to Canadian groups and to those of other countries. As of the end of last March, the English-language version of the film had been screened to a total audience of 266,726 people through non-theatrical circuits and libraries. The total number of screenings was 4,071. The French-language version had been shown to 108,299 people. The distribution of the film is continuing -- in the first three months of this year alone, 254 screenings had been made to audiences of approximately 17,000 people. The film, which was skilfully made, shows some of the little-known facts about the culture of oysters, from birth to their ultimate end on the half-shell.

"Trade News" Cover Photograph Wins National Award



CONSIDERABLE credit has been reflected on "Trade News" by the recent award presented to Mark Ronayne, Information Officer of the Department's Newfoundland Area stationed in St. John's, Nfld.



Mr. Ronayne.

Mr. Ronayne won one of the awards in the photographic section of the Canadian Aviation Writing Awards competition for his picture of a helicopter on a wharf in a northern Newfoundland fishing vil-

lage. The old-style fish drying stages accentuated the modernity of the Department's helicopter and the ability of the craft to land in out of the way places. This particular photograph was used to illustrate the front cover of the November, 1954, issue of "Trade News" to which Mr. Ronayne is a regular contributor both in special articles and photographs concerning various phases of Newfoundland's fisheries and the Department's work in that province. The Canadian Aviation Writing Awards are made annually and are sponsored by the Air Industries and Transport Association of Canada.



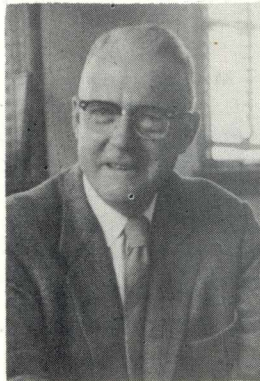
An effective display in the lobby of the Paramount Theatre, Halifax, featured the first commercial showing of the Department of Fisheries film dealing with lobster conservation, "Lobsters are a Community Affair." The premiere coincided with National Fish Week, posters for which were incorporated in the display, shown above.

B.C. Appointments

Thomas Taylor, a member of the British Columbia staff of the federal Department of Fisheries since 1918, has been appointed Assistant Chief Supervisor of Fisheries for the Pacific Area. Prior to this appointment, he was District Supervisor of District No. 1, which is the Fraser River and lower



Mr. Hutchison



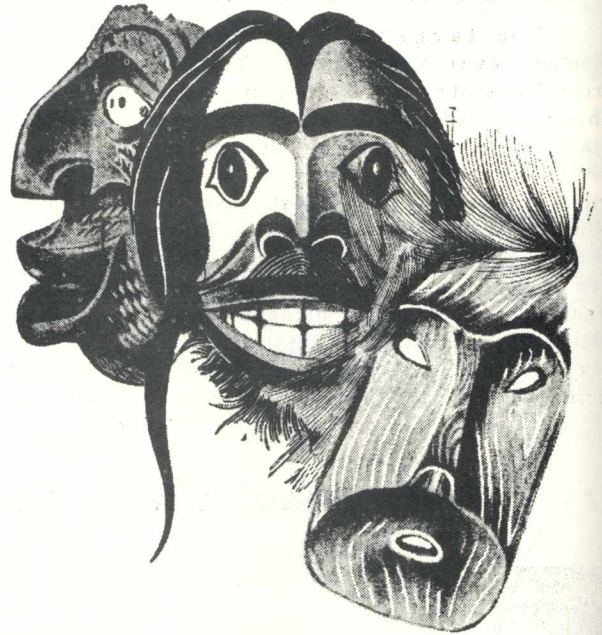
Mr. Taylor

mainland area of British Columbia. Another departmental appointment announced in Vancouver is that of John G. Hutchison as Chief Protection Officer for the Pacific Area. Mr. Hutchison was formerly Marine Officer on the staff of the Chief Supervisor of the Pacific Area, A.J. Whitmore.

THIRD EDITION

INDIANS OF CANADA

DIAMOND JENNESS



Published by the National Museum of Canada. Contains nearly 500 pages; seven full-coloured plates of tribal chiefs, each in his regalia; 130 black-and-white illustrations; and a map of Canada showing tribal and linguistic divisions. Every phase of Indian and Eskimo life is covered—political, social, cultural, and economic. A whole chapter has been given to the Eskimo people.

Attractively bound in the dark-red hard cover of the previous editions, this book now makes a rather dramatic re-entrance to Canadian book-lovers in an artistically designed dust cover, in which Indian masks of three of the broad tribal divisions of Canada—Eastern, Plains, and Western—have been used in stylized form.

PRICE

6⁰⁰

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OTTAWA CANADA

Fishery Figures For August

SEAFISH: LANDED WEIGHT AND LANDED VALUE

	Jan. - Aug. 1954		Jan. - Aug., 1955	
	'000 lbs	\$000	'000 lbs	\$000
Atlantic Coast				
Cod	507,426	12,430	440,011	10,842
Haddock	70,735	2,688	95,122	3,103
Pollock, Hake & Cusk	39,828	627	43,097	691
Rosefish	34,061	798	26,036	595
Halibut	3,857	862	3,510	736
Plaice & Other Flatfish	35,433	1,010	61,454	1,970
Herring	144,234	1,507	147,256	1,260
Sardines	27,691	584	8,113	189
Mackerel	17,735	569	17,457	606
Swordfish	3,296	841	4,026	929
Salmon	3,852	1,244	2,439	796
Smelts	2,330	260	4,220	451
Alewives	21,238	173	17,681	157
Other Fish	39,669	426	40,030	407
Lobsters	38,245	12,307	39,777	12,753
Clams & Quahaugs	9,831	417	7,940	336
Other Shellfish	8,491	484	9,576	639
Total Atlantic	1,007,652	37,227	967,745	36,460
Pacific Coast				
Pacific Cod	8,164	483	6,416	417
Halibut	24,997	3,950	18,781	2,443
Soles & Other Flatfish	4,170	198	5,604	261
Herring	148,366	1,909	118,171	1,506
Salmon	83,997	12,953	80,601	12,414
Other Fish	2,366	70	3,909	105
Shellfish	10,979	688	12,970	814
Total Pacific	283,039	20,251	246,452	17,960
Total Both Coasts	1,290,991	57,478	1,214,197	54,420
By Provinces				
British Columbia	283,039	20,251	246,452	17,960
Nova Scotia	267,426	16,110	302,765	16,681
New Brunswick	158,047	4,846	111,242	4,313
Prince Edward Island	23,224	2,194	26,084	2,555
Quebec	62,760	1,896	99,980	2,268
Newfoundland	496,495	12,181	427,674	10,643

PROCESSING OF ATLANTIC CATCH In Per Cent of Total Catch Jan. - Aug., 1955 (Newfoundland Not Included)

	Fr & Fz		Cured	Canned	Non-Food
	Filletts	Wh or Dr			
Cod	44	5	51	-	-
Haddock	90	7	3	-	-
Pollock, etc.	6	14	72	8	-
Rosefish	98	1	-	-	1
Halibut	3	97	-	-	-
Plaice	97	2	-	-	-
Herring	-	22	33	3	42
Sardines	-	3	-	97	-
Mackerel	3	33	46	2	16
	Shell	Meat			
Lobsters	50	28	-	22	-
Clams	15	43	-	42	-
Oysters	99	1	-	-	-

PRICES PER CWT. PAID TO FISHERMEN AUG. 15

	1954	1955
	Halifax	
Cod Steak	4.00	3.50
Market Cod	3.25	3.25
Haddock	5.00	4.00
Plaice	3.00-3.25	3.00
Yarmouth		
Haddock	5.25	4.00
Black's Harbour		
Sardines	2.00	2.50
St. John's, Nfld.		
Cod	2.25	2.00-2.25
Haddock	3.00	3.00
Rosefish	2.00	2.00
Vancouver		
Ling Cod	6.00-9.00	9.00
Gray Cod	4.00-5.00	5.00
Soles	5.00-8.00	8.00
Salmon, Redsprig	35.00-36.00	38.00

MID-MONTH WHOLESALE PRICES, AUGUST, 1955

		Montreal	Toronto	Winnipeg
Fresh Cod Fillets	lb	.253	.270	-
Fresh Haddock Fillets	lb	.343	.364	-
Kippered Herring	lb	.240	.254	.267
Frzn. Halibut, Dr.	lb	.340	.294	.293
Frzn. Salmon, Coho, Dr.	lb	.532	.494	.473
Fresh Whitefish	lb	-	.321	-
Lobster, Fancy	case	33.49	32.88	36.32
Sardines, Smoked	case	8.50	8.51	8.98
Sockeye, Salmon, A	case	18.65	19.34	18.84

STOCKS AS AT END OF AUGUST

	1954	1955
	('000 lbs)	('000 lbs)
Fresh Fish		
Dressed Halibut	13,115	10,772
Groundfish Fillets	14,585	20,393
Herring	4,555	1,266
Salmon	6,052	6,215
Other	8,789	7,080
Total Fresh Sea Fish	47,096	45,726
Whitefish, Dressed or Filleted	1,552	2,440
Tullibee, Round or Dressed	184	199
Pickerel, Dressed or Filleted	577	960
Other	1,826	2,838
Total Fresh Inland Fish	4,139	6,437
Total Fresh Fish	51,235	52,163
Smoked Fish		
Cod and Haddock Fillets	1,795	1,410
Other	839	1,083
Total Smoked Fish	2,634	2,493
Salt Fish (Excl. Newfoundland)		
Wet Salted Cod	10,013	15,978
Other Wet Salted	3,151	3,945
Dried Cod	2,124	2,465
Other Dried	442	397
Boneless	311	406
Pickled Alewives (Barrels)	16,430	23,471
Other Pickled (Barrels)	9,043	10,149
Bloaters (18 lb boxes)	194,486	242,953
Salt Fish (Newfoundland only)		
Shore	4,763	5,067
Nfld. Soft Cure	4,660	4,525
Labrador	857	541
Total Salt Fish (Newfoundland)	10,280	10,133

CANADIAN FISH EXPORTS

	Value In Thousands Of Dollars To End Of August	
	1954	1955
Fresh or Frozen	46,792	48,757
Whole or Dressed	19,133	16,788
Salmon	4,060	3,586
Whitefish	3,850	3,621
Halibut	3,829	2,685
Pickerel	1,955	1,862
Other Freshwater Fish	2,647	2,552
Swordfish	995	892
Cod, Haddock, Pollock	361	303
Other Seafish	1,436	1,287
Fillets	15,482	17,568
Cod	4,613	5,324
Haddock	3,025	4,442
Rosefish, Hake, etc.	1,898	1,399
Flatfish	2,713	2,855
Pickerel	1,638	1,993
Other	1,595	1,555
Shellfish	12,177	14,401
Lobster	11,149	13,284
Other	1,028	1,117
Cured	14,168	14,515
Salted, Wet or Dried	11,192	11,800
Cod	10,011	10,433
Other	1,181	1,367
Pickled	2,049	1,840
Herring	1,027	918
Mackerel	453	454
Other	569	468
Smoked	927	875
Herring	676	562
Other	251	313
Canned	15,684	9,436
Salmon	12,922	6,742
Sardines	970	1,068
Lobster	1,519	1,328
Other	273	298
Miscellaneous	6,003	7,445
Meal	3,329	4,101
Oil	894	1,347
Other	1,780	1,997
Total Value	82,647	80,153
Exports to United States	59,358	58,406
Exports to Caribbean Area	10,164	11,570
Exports to Europe	10,445	7,043
Exports to Other Markets	2,680	3,134
Total Value	82,647	80,153

CULINARY TRIBUTE TO THE OYSTER

There are a number of variations of the soup theme using oysters such as bisques, cream soups and chowders. The all-Canadian, all-Time favourite however, is oyster stew. Here is a delicious recipe for oyster stew which has been kitchen tested by the home economists of Canada's Department of Fisheries:

- 1 pint oyster and liquid
- 4 cups rich milk
- 4 tablespoons butter
- 1½ teaspoons salt
- 1/8 teaspoon pepper
- Finely chopped parsley

Examine oysters and oyster liquid carefully and remove any adhering bits of shell. Heat milk in the top part of a double boiler and add butter and seasonings. Simmer oysters in their liquid over low heat for about 3 minutes or until they plump up and the inside edges show signs of ruffling. Do not boil as boiling will toughen the oysters. When cooked, add the oysters and their liquid to the heated milk and serve in warmed soup bowls immediately. Garnish each serving with a sprinkling of finely chopped, fresh parsley. Makes 6 servings.

Fisheries News From Abroad

Fish Farming in the Belgian Congo

Malnutrition amongst the Africans in the Congo is attributed largely to a lack of balance between carbohydrates, proteins, and other essential components in the diet, rather than to insufficient quantities of food. They consume too much manioc meal and not enough meat and fish.

A small fish, tilapia, is the principle product of the fish farms in the Congo. Fish farming has a number of advantages when compared with, for example, the raising of swine for pork. To establish a fish farm it is necessary only to construct a small dam in a river, and in the resulting pond to place tilapia fry which may be procured from centres established for the purpose of administration. The fish grow rapidly. In certain areas, such as Gungu, fish farming has proved so successful that it has been necessary to reduce the numbers of ponds in order to achieve optimum production. There are some 30,000 ponds in the regions where fish farming has proved most successful.

Under optimum conditions, it is estimated that the fish breeding method produces annually a ton of tilapia per hectare (2.471 acres). For example, the 300 hectares of fish ponds in the Feshi area will produce approximately 300 tons of tilapia, and this is equivalent to 54 tons of protein. The

population of this area is some 70,000, including children, and the tilapia produced from the fish ponds makes possible an average diet of three grams per day for each person. While this addition of protein is significant it should be remembered that the daily deficiency of proteins in the African's diet is 27 grams.

The tilapia feed upon the manioc plant, a tuber comparable to the potato insofar as its protein content is concerned. The manioc grows in abundance under cultivation. Large quantities of manioc leaves must be gathered regularly and thrown into the fish ponds. It facilitates fish breeding, therefore, to cultivate the manioc in close proximity to the fish ponds. The Africans use the root of the manioc to produce meal, while the tilapia feed on the leaves of the plant. It is estimated that the manioc root contains only 1.3 per cent protein, but the leaves have a 15 per cent protein content.

In the Feshi area, where there are some 9,000 fish ponds, fish breeding operations are directed and controlled by the territorial and agricultural services. Scientific research on the subject of fish farming is conducted by the centre for nutritional research of the Fonds Reine Elizabeth d'Assistance Medicale aux Indigenes.

Formosan Fisheries

Formosan fisheries production in 1954 amounted to 152,500 metric tons, 17 per cent more than the 130,600 tons produced in 1953 and 82 per cent greater than the 1950 production of 84,000 tons according to a report in "Commercial Fisheries Review", (U. S.). The coastal fisheries supplied more than one-half the total production each year, and the next in importance was the production from fish culture in fresh- and salt-water ponds.

All Formosan coastal fisheries and fish-culture stations are in private hands. Two Government fishing enterprises operate in the deep-sea fisheries, the remainder are privately controlled. The number of private operators in the deep-sea fisheries is unknown but it is considered to be large.

The total Formosan fisheries catch increased sharply in May and June 1954 due to good weather during the normal peak season; also, large schools of bonito, anchovy, horse mackerel, and flying fish came near the coasts, especially near the Pescadores Islands. An increase in the number of in-

shore fishing vessels operating, and an increased catch from fish ponds due to dry weather in southern Taiwan also contributed to the good catch in May and June.

The deep-sea catch increased sharply in April 1954 due primarily to the greater number of trips and vessels in operation. The typhoon season in July and August decreased deep-sea fishing. After September the deep-sea catch increased again due to more vessels and more trips and a higher catch per vessel owing to good weather.

Coastal fishing included fishing on smaller motor trawlers usually at sea for an average of 24 hours and a maximum of 3 days, and nonpowered boats such as sampans and bamboo rafts which operate near the coast.

As of December 31, 1954, there were 2,448 fishing vessels with a total tonnage of 36,558 gross tons (72,654 hp.) as compared with 2,084 vessels with a total tonnage of 29,434 gross tons (56,722 hp.) as of December 31, 1953.

Norway

EXPORT OF PRINCIPAL FISHERY PRODUCTS

January - June, 1955

For comparative table see "Trade News," October, 1954

Quantities in Thousands of Pounds

Value in Thousands of Kroner

DESTINATION	TOTAL EXPORTS		MAINLY COD					HERRING			CANNED FISH	FISH MEAL	OILS	
	Value th. kr	Quan. th. lb	Fresh th. lb	Fro- zen th. lb	Dry Salted th. lb	Wet Salted th. lb	Stock- fish th. lb	Fresh th. lb	Fro- zen th. lb	Salted th. lb	th. lb	th. lb	Medic- inal th. lb	Other th. lb
Canada	3,963	1,731	-	-	-	-	-	-	-	203	1,367	-	161	-
U.S.A.	47,559	49,124	4	3,843	-	20	2	-	-	6,672	10,681	26,458	873	571
Other Western Hemisphere														
Argentina	861	397	-	-	397	-	-	-	-	-	-	-	-	-
Brazil	50,817	29,424	-	-	28,985	-	-	-	-	-	-	-	309	130
Columbia	88	89	-	-	-	-	-	-	-	-	-	-	60	29
Cuba	9,590	5,400	-	-	5,400	-	-	-	-	-	-	-	-	-
Mexico	861	561	-	-	223	-	-	-	-	-	-	-	51	287
Neth. West Indies	586	304	-	-	304	-	-	-	-	-	-	-	-	-
Panama Cnl. zone	35	37	-	-	37	-	-	-	-	-	-	-	-	-
Paraguay	28	22	-	-	-	-	-	-	-	-	-	-	22	-
Peru	48	42	-	-	-	-	-	-	-	-	-	-	42	-
Venezuela	1,758	882	-	-	882	-	-	-	-	-	-	-	-	-
Europe														
Austria	5,570	10,008	-	895	-	-	-	-	-	472	26	8,366	77	172
Belgium	7,776	14,141	986	-	-	4	101	2,007	1,850	-	659	8,483	-	51
Czechoslovakia	13,571	41,234	-	5,665	-	-	-	9,934	22,797	2,450	99	-	289	-
Denmark	3,119	5,783	57	-	-	-	-	-	-	895	-	4,723	55	53
Finland	1,275	3,382	-	-	-	-	-	-	992	2,300	-	-	90	-
France	13,522	25,980	3,843	148	-	-	-	1,938	2,351	2,408	192	14,666	-	434
Germany (E)	25,381	88,044	143	1,744	-	-	-	38,129	29,406	16,194	2,428	-	-	-
Germany (W)	36,415	117,082	80	1,962	-	-	29	70,355	10,577	1,420	212	30,976	73	1,398
Hungary	165	245	-	-	-	-	-	-	-	-	-	-	-	245
Ireland	604	359	-	-	-	-	-	-	-	-	359	-	-	-
Italy	9,152	7,654	845	933	40	-	1,325	-	-	-	137	3,898	68	408
Netherlands	19,856	37,158	408	1,321	-	11	137	4,529	2,035	-	-	28,065	445	207
Poland	2,721	9,909	-	-	-	-	-	-	7,001	2,908	-	-	-	-
Portugal	7,514	6,571	-	-	6,571	-	-	-	-	-	-	-	-	-
Romania	460	1,654	-	-	-	-	-	-	1,654	-	-	-	-	-
Spain	4,961	3,296	-	-	3,173	-	-	-	-	-	-	-	123	-
Sweden	20,330	25,090	3,371	2,648	-	-	-	-	-	8,339	170	10,335	66	161
Switzerland	5,084	7,845	-	1,140	-	-	-	-	-	-	-	6,683	22	-
United Kingdom	69,139	112,512	11,526	1,166	-	-	-	21,763	3,828	-	4,474	69,621	-	134
U.S.S.R.	36,495	117,537	-	-	-	-	-	-	6,637	110,900	-	-	-	-
Yugoslavia	98	88	-	-	-	-	-	-	-	-	-	-	88	-
Other Europe	4,105	7,608	17	179	79	-	18	564	3,351	1,244	366	1,323	218	249
Other Countries														
Australia	5,791	3,219	-	-	-	-	-	-	-	-	3,219	-	-	-
New Zealand	1,165	523	-	-	-	-	-	-	-	-	523	-	-	-
Fr. Equat. Africa	5,785	3,489	-	-	-	-	2,393	-	-	-	1,096	-	-	-
Br. W. Africa	24,824	13,451	-	-	-	-	13,144	-	-	-	307	-	-	-
Portuguese Africa	2,988	1,665	-	-	1,665	-	-	-	-	-	-	-	-	-
U. of S. Africa	5,284	2,747	-	-	-	-	-	-	-	-	2,747	-	-	-
Egypt	469	320	-	-	320	-	-	-	-	-	-	-	-	-
Israel	4,667	7,883	-	1,901	-	-	-	-	2,756	-	-	3,226	-	-
Turkey	256	214	-	-	-	-	-	-	-	-	-	-	214	-
Indonesia	319	318	-	-	-	-	-	-	-	-	-	-	318	-
Others	4,974	3,540	-	40	653	-	326	-	154	232	1,429	221	408	77
Total Jan. -June '55	460,029	768,562	21,280	23,585	48,728	35	17,475	149,219	95,389	156,637	30,491	217,045	4,072	4,606
Total Jan. -June '54	451,945	759,192	19,772	24,187	43,697	178	20,980	105,716	77,467	151,711	38,466	265,729	3,281	8,008

NOTE: Not included in this tabulation are 4,231 thousand pounds of Salted Cod Roe valued at 2,156 thousand Kroner for the first six months of 1954, and 5,213 thousand pounds of the same product valued at 3,281 thousand Kroner for the comparable period in 1955.

Current Reading

"Evaluation of Three Types of Fish Rearing Ponds," by Roger E. Burrows and Harry M. Chenoweth, (Research Report 39, Fish and Wildlife Service, United States Department of the Interior, Washington, D.C. \$0.15).

Artificial propagation subjects salmon and trout to abnormal conditions. Confinement of large numbers of fingerlings in relatively small volumes of water may create an environment definitely detrimental to optimum growth and development. The several types of fish rearing ponds now in use differ both in the manner of maintaining the fish and in efficiency of operation. This paper is concerned with the development of methods of evaluating fish ponds based on their hydraulic characteristics, upon which biological and physical conditions are dependent. The authors show that the hydraulic characteristics can be predicted by the use of models. For their test they selected three types of ponds: the Foster-Lucas, the circular, and the raceway.

"Indians of Canada," by Diamond Jenness (Bulletin 65, Anthropological Series No. 15, Natural Museum of Canada: Available from the Queen's Printer, Ottawa. \$6.00).

This is the third edition of Dr. Jenness' classic contribution to Canadiana, the first two having been published in 1932 and 1935. There is one new section, in the form of an appendix, which was prepared in collaboration with two eminent archaeologists. This discusses the probable age of the archaeological remains of Indian and Eskimo sites in various parts of Canada, as indicated by two recently developed systems of estimating the dates on which man's ancient settlements were occupied -- the three-ring method and radiocarbon dating. Otherwise the book is unchanged from the original edition. It is a magnificent production, worthy of the exhaustive text, the first half of which deals with every phase of Indian and Eskimo life -- the linguistic features of each region, economic conditions of the various divisions of the population, food resources, dress and adornment, dwelling places, social and political organizations and religion.

The second part of the book goes into detail about each of nearly forty tribes from the now extinct Beothuks of Newfoundland to the Haidas, Nahanis and Kutchins of the Pacific coast and the Mackenzie and Yukon River Basins and the Eskimos of the arctic. Every section of the volume makes fascinating reading. There are seven full-colour plates of tribal chiefs, 130 black and white illustrations, and a map of Canada showing the tribal and linguist-

tic divisions. The dust jacket of the new edition of "Indians of Canada" is of striking artistry, showing, in stylized form, the masks of the three broad tribal divisions -- Eastern, Plains and Western.

"The Chronological Order of Fraser River Sockeye Salmon During Migration, Spawning and Death," by S. R. Killik (Bulletin VII, International Pacific Salmon Fisheries Commission, New Westminster, B.C.).

It is the major task of the International Pacific Salmon Fisheries Commission to regulate the fishery in such a manner that the original sockeye reproduction potential again be realized and the maximum production from a minimum escapement be obtained. In the regulation of the sockeye salmon fishery of the Fraser it was important to know whether selected escapements of particular parts of a given run would maintain their chronological order during subsequent migration, spawning and death.

The consistency of the time taken for tagged sockeye to migrate and the similarity of the shape of the arrival curve of untagged sockeye at the time of escapement and at the time of arrival on the spawning grounds showed that in general the original order was retained during migration over distances as great as 600 miles or more. The order in which individual sockeye spawned was closely related to that of their arrival at the stream but there was significant variation in their life-span after spawning was completed.

"Longline Fishing for Deep Swimming Tunas in the Central Pacific, 1953," by Richard S. Shomura and Garth I. Murphy, (Special Scientific Report: Fisheries No. 157, Fish and Wildlife Service, United States Department of the Interior, Washington, D.C.).

The salient features of six fishing cruises made in the central Pacific Ocean are summarized in this report, one of a series, on the deep swimming tunas of that area. Yellowfin tuna were found most abundant in the region near the equator, which is enriched by upwelling. Bigeye tuna were most abundant in the region of the Countercurrent, and albacore most abundant south of the equator. The results suggest that the longitude of best catch shifted during the year, and that east-west movements recur from year to year. Shark damage to the longline tuna catch averaged 18.8 per cent.



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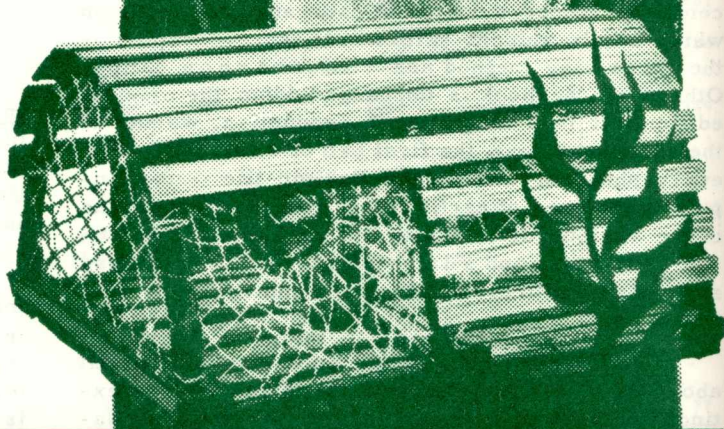
YOU'VE all heard the old saying "Live for today and let tomorrow take care of itself." But when your own—and your family's—welfare depends on tomorrow's catch being at *least* as good as today's . . . well, a thoughtful lobsterman makes *sure* it will be.

And the way to make sure is so easy. You probably know it already. Just check these points and see:

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If you do next year each short will be 15% longer and 50% heavier.

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**DEPARTMENT OF FISHERIES
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