

Trade News



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COVER PHOTOGRAPH: Fishery officers examine dogfish freshly spilled on deck of British Columbia fishing vessel. See item on page 15 about methods to reduce numbers of dogfish, which prey upon valuable commercial species.

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MOST OF THE SCIENTIFIC WORK OF
THE FEDERAL DEPARTMENT OF FISHERIES
IS CARRIED OUT BY THE FISHERIES
RESEARCH BOARD OF CANADA. THE OPENING
OF A NEW WING AT ONE OF THE BOARD'S
BIOLOGICAL STATIONS, THAT AT ST. ANDREWS, N.B.,
RECENTLY COINCIDED WITH THE STATION'S

50th Anniversary

By G.J. GILLESPIE

LEADING figures in the commercial fisheries of the Maritime Provinces, scientists of the St. Andrews, N.B., Biological Station of the Fisheries Research Board of Canada, members of the Board and federal and provincial fishery agencies filled a two day programme to mark the 50th anniversary of the station on June 25 and 26 at Brandy Cove, just outside St. Andrews.

The anniversary programme coincided with the formal opening of a new wing of the biological laboratory by the Hon. J. Angus MacLean, federal Minister of Fisheries. Mr. MacLean took the opportunity to warn the assembly and the public generally that Canada must meet the competition for seafood posed by intensified fishing during the post-war period.

Before cutting the ribbon to open the new wing, Mr. MacLean said he was confident that "with our aggressive and intrepid fishermen, with our progressive fishing industry and with help from scientists we can meet world competition." But there must not be any apathy, he warned. Every effort would be needed to meet competition since the need for fish in other parts of the world was even greater than in Canada.

The opening of the wing and the Minister's address were among the highlights of the programme in which governmental fishery officials and leaders of the industry heard reviews on what science is doing to conserve the resources of the sea upon which so much of the Maritimes economy depends.

Mr. MacLean stressed the responsibilities of Canadian scientists and those of other countries participating in international fisheries conventions

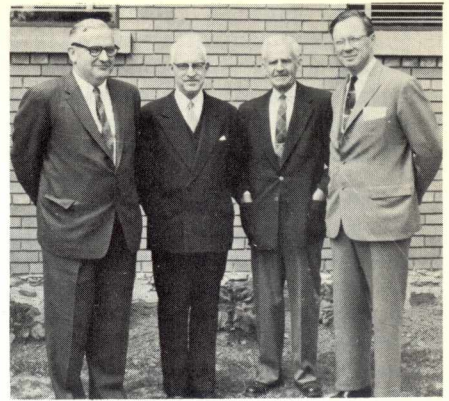
in evaluating and controlling the intensity of fishing operations in the north Atlantic. He said that it was not yet established how much additional pressure the fishery could stand. Proper evaluation and wise control of that growing pressure placed a heavy responsibility on biologists.

The Minister cited the development of disease-resistant wheat as an example of how biological research had brought wealth to the world. "Similarly," he added, "a new run of fish in an area where none existed before, or the maintenance or increase of existing stocks of fish, lobsters or disease-resistant oysters, adds not only to the income of the fisherman and processor, but insures the maintenance and increase of an important world food resource.

"The exact dollar and cents value is not always clear, but it would not take a very great increase in the resource to pay for a great amount of biological research."

INTERNATIONAL CO-OPERATION

Mr. MacLean praised the work of international organizations which contribute to fish conservation, citing specifically the International Commission for the Northwest Atlantic Fisheries. He stressed the growing need for protein food to meet the world's requirements, saying that this demand was reflected by the increased intensity of fishing in the Atlantic waters bounding Canada's east coast. "This trend is easily explainable as the world's population continues to increase. The need for this precious commodity, the animal protein produced by the sea, will of necessity become greater and greater. And with the greater need will come greater intensity of fishing."



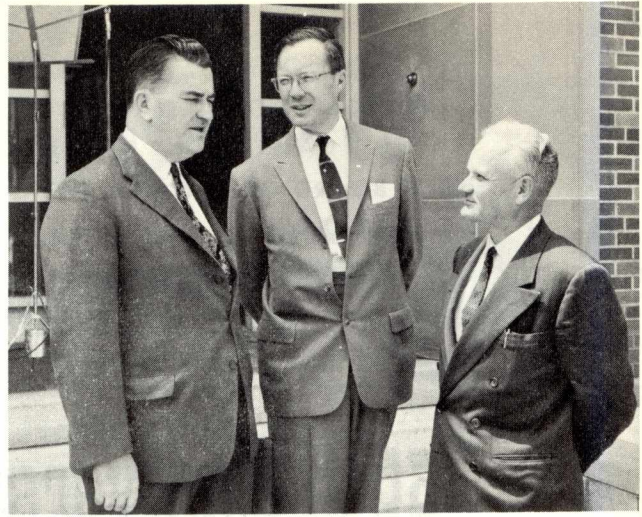
Present and former Directors of the Biological Station at St. Andrews, N. B. They are, l. to r., Dr. A.W.H. Needler, Dr. A.H. Leim, Dr. A.G. Huntsman and the present Director, Dr. J.L. Hart.

Mr. MacLean referred to the recent calamity in Northumberland Strait in which 35 fishermen lost their lives in a sudden gale. He was confident that authorities at all levels "will make sure that the dependents of those men who lost their lives will not feel the sharpness of the extreme edge of want."

The St. Andrews station is one of the Fisheries Research Board's two main biological research stations in the Maritimes. The other is situated at St. John's, Newfoundland. It had its beginnings in 1908. During the half-century since then the station has grown from a summer operation into one of the most important fishery research laboratories on the continent. The Board has a technological station in Halifax and a sub-station on oyster research in Ellerslie, P.E.I. There are also biological stations at Nanaimo, B. C., and London, Ontario, technological stations at Vancouver, B. C., and Grande Riviere, Quebec, and an Arctic Unit at Montreal, Que.

Dr. J.L. Kask, chairman of the Research Board, Ottawa, and Dr. J.L. Hart, Director of the St. Andrews station, were prominently identified with the anniversary programme, and gave short talks to the assembled well wishers. Associated with them were several members of the Board's Eastern Advisory Committee. Committee members present included: Dr. F.R. Hayes, Dalhousie University, Halifax; W.L. Williamson, St. Andrews; Arthur H. Monroe, St. John's, Nfld.; C.J. Morrow, Lunenburg, N.S., Dr. P.E. Gagnon, University of Laval, Quebec City, and Dr. T. W. M. Cameron, Macdonald College, Ste. Anne de Bellevue, Quebec.

A wide field of research problems ranging from oceanographic investigations to the latest methods in shipping live lobsters was covered in the series of talks given during the two days. Those present heard how knowledge of the hydro-biological



Hon. J. Angus MacLean, Minister of Fisheries, left; Dr. J.L. Hart, director, St. Andrews Biological Station, and Dr. J.L. Kask, chairman, Fisheries Research Board of Canada.

content of sea water was an essential requirement to the proper understanding of the fisheries; how improved shipping methods can reduce transportation costs in the live lobster trade; how Canada is lagging behind in fishing efficiency and why federal and provincial authorities and the fishing industry should intensify study of the fishing gear problem; how the oyster industry could be improved if it followed principles used in agriculture, and how the protection of undersized lobsters leads to bigger profits to the fishermen.

Scientists discussing those problems were: Drs. W.R. Martin and Yves Jean, groundfish experts; Drs. D.G. Wilder and D.W. McLeese, leaders in the field of crustacean research, and Dr. J.C. Medcof and R.E. Drinnan, shellfish scientists. Oceanographers describing that field of science were Drs. R.W. Trites and N.J. Campbell.

The warning that Canada was falling behind in efficient fishing techniques was given by Dr. Martin. While the adoption of various known fishing methods had been useful, the nation's commercial fisheries were reaching the point of diminishing returns in the modernization programme, he said.

"New studies in economics, vessel design, gear technology, and fish behaviour should be carried out by federal and provincial fisheries agencies," Dr. Martin declared. "This research, with follow-up demonstrations and applications of results, will require the full co-operation of the fishing industry."

Dealing specifically with the cod fishery in the North Atlantic, he noted with alarm that the



The new wing at the St. Andrews Station, with one of the older buildings in right foreground.

Canadian offshore fishery was in a critical state. The nation's former large dory schooner fleet had been reduced from hundreds to only eight vessels while large otter trawlers had been lost faster than they had been replaced. "In order to increase or even maintain the Canadian groundfish catch, fishing efficiency must be continually increased."

Dr. Martin noted that North Atlantic codfish landings were annually about seven billion pounds. The fishing intensity on the grounds sprawling from Greenland to the coastal waters of New England had greatly increased, so that there are now more than a dozen nations fishing the grounds.

During the 1930's Canada took most of the cod catch, Dr. Martin reminded his listeners. During the last war fishing fell off and the abundance and



R.D. Caldwell Stewart, Q.C., M.P., left, Hon. J. Angus MacLean, Dr. J. L. Hart and Hon. Norman Buchanan, Minister of Lands and Mines for New Brunswick.

sizes of cod increased. By the end of the war Canada was taking large catches of steak cod. Since the end of the war catches of individual vessels had decreased but the overall catch had increased. Canada's share, however, had decreased to about one-third of the greatly increased total catch.

Dr. Martin referred to the fisheries management programme being undertaken by the International Commission for the Northwest Atlantic Fisheries. This 12-nation body has established regulations to avoid waste of small, unmarketable cod and haddock by the use of larger-sized mesh in otter trawls. However, Dr. Martin warned, a programme of international management did not guarantee that Canada would continue to take a full share of the total catch. As a result of growing international competition with decreasing abundance of larger fish, it was increasingly difficult for Canadian fishermen to maintain profitable fishing operations.

The efficiency of the large mesh regulations was described to the meeting by Dr. Yves Jean, an associate of Dr. Martin. He told of sea investigations aboard Canadian draggers where observers sampled fish caught in nets of both small and large mesh. By comparing the samples, the proportion of cod discarded at sea was calculated.

Those observations, Dr. Jean said, indicated that large mesh nets had reduced the wastage of young cod at sea by about one-half.

The importance of shellfish to the economy of many shore communities in the Maritimes was underlined by Dr. Medcof, who is the Board's senior shellfish research scientist in the Maritimes, and Mr. Drinnan. The latter is in charge of the board's sub-station at Ellerslie. Eight species of shellfish exploited by Maritime fishermen bring the producers about \$2,000,000 annually.

Mr. Drinnan said the aim of oyster research was to develop an industry along lines followed in agricultural practice, with high staple production and close application of scientific principles. He told of the programme undertaken by the Department of Fisheries and the Research Board to rehabilitate the oyster fishery in New Brunswick and Nova Scotia. Within the last decade oyster populations of both provinces were in danger of being wiped out by epidemics. To counter that calamity, the Department of Fisheries transplanted 10,000 barrels of disease-resistant P.E.I. oysters to the affected beds in the two mainland provinces. The transplant project, which had been going on for three years, was completed this summer.

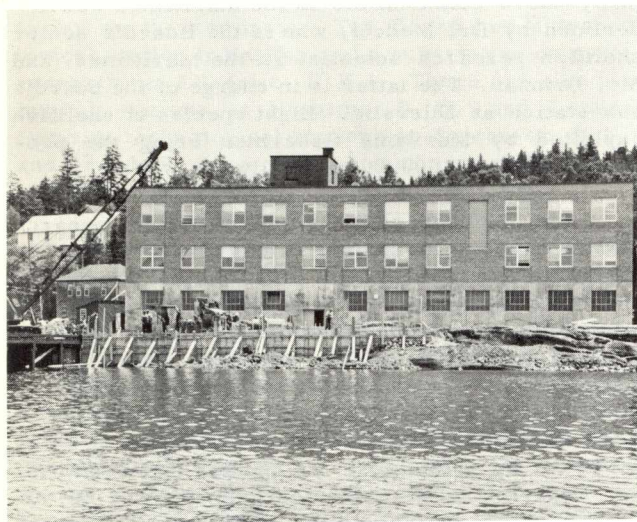
FERTILIZATION

Dealing with the future of the oyster industry, Mr. Drinnan speculated on the use of fertilizer on oyster grounds. While fertilization was a relatively untouched field in marine research, experiments in other countries had shown a marked increase in fish growth after the application of commercial fertilizers, Mr. Drinnan said. "We do not know enough about the dynamics of chemical nutrients and plankton growth in the sea to do more than hypothesize that fertilization in the open ocean is unlikely to affect commercial fisheries to any marked degree," he explained. "However", he added, "this does not apply to the oyster fishery where, possibly with modifications in present practice, there is a real possibility of controlling competitive organisms and ensuring that a major part of the benefit is reaped by the oyster. The possible increase in oyster growth can only be guessed at, but a conservative doubling of growth would benefit the fishery enormously."

Application of agricultural principles to oyster farming was foreseen as a necessity by Mr. Drinnan. Development of selected strains of animals and plants had been the outstanding contribu-

tion to agricultural practice, he said, and he noted that "oyster biologists of at least two fisheries laboratories, one in the United States and one in Britain, are pursuing investigations in this field." However, before such strains could be developed it would be necessary to have conditions where oysters could develop their full potential.

Production of seed for new stocks is one of the problems of the industry, Mr. Drinnan said. "We are endeavouring to alleviate the seed oyster shortage as much as possible by efficient collection and use of natural settlement. We are studying the



The new building nearing completion, as seen from the water. Older buildings of the station can be seen in the background.

prediction of new collectors and the best conditions in which to grow settled oysters to the size when they are spread on oyster beds, and we must find a way to produce every year whatever amount of young oysters is needed and at a cost that is economical to the industry." Concluding, he said: "If we are to go ahead on anything other than a hit-and-miss basis, we must initiate detailed studies on the anatomy, growth, reproduction and behaviour of the oyster which may seem to the layman to have little relation to the needs of the oyster farmer."

Dr. Wilder, author of scientific papers and books on the Canadian lobster fishery, briefly reviewed the history of that industry in the Maritimes. He reported that more than 45,000 lobsters had been punch-marked in the Maritimes during the past 10 years to determine their natural growth rate. More than 5,000 of those lobsters had been recaptured. Results of the experiment disclosed that lobsters near the present legal size limits survived well and, as a general rule, moulted once a year to grow about 50 per cent in weight.

Size distribution studies and high tag returns showed that most of the heavy mortality toll on lob-

sters was due to the intensive fishery. Those returns, together with the fact that large lobsters usually were worth more per pound, provided strong support for minimum size limits, Dr. Wilder said.

Dr. McLeese discussed the care and storage of lobsters and described experiments made in that connection. He made particular reference to the development of lightweight, leakproof methods of packing lobsters for air shipment. Aside from aircraft shipment, lightweight methods of packing might be worthwhile as a way to reduce shipping costs by other forms of transport. Such methods were now used for transportation involving relatively short periods.

Drs. Trites and Campbell discussed the contribution of the Atlantic oceanographic group to the studies of the International Geophysical Year. This project, known as "Project Deep Water Circulation," called for an intensive study of the deep waters of the Atlantic Ocean from the Antarctic to the Arctic. The area covered by the Atlantic group scientists extended from Bermuda to Baffin Bay.

The results of these investigations together with IGY data contributed by other countries, will permit the mapping of the whole North Atlantic region in terms of its hydrobiological content, which is an essential requirement for a better understanding of the fisheries.

Guests at the two-day function not only heard what the station's fishery scientists were doing, but saw at first hand the results of some of that work.



Oceanographer Dr. R.W. Trites points out detail on the model of the Passamaquoddy area showing sites of the proposed power development. At the left is David Walker, one of Canada's outstanding novelists.

The visual part of the programme was in the form of displays in the newly opened wing. Various

projects being undertaken at the station were shown by working models, graphs, charts and film slides as well as exhibits of both live and mounted species of fish.

Displays exhibiting species of live fish -- lobsters, salmon, trout, cod, herring, etc., -- drew much comment, as did also the display presented by the oceanographic division of the station. The latter was a model of the Passamaquoddy area showing sites of the proposed tidal power development.

A working model of a herring weir containing live herring was another attraction. It clearly showed the principles of weir construction and gave visitors a complete picture of the operation.

Tanks containing groundfish and salmon were also centres of attention. Species of salmon ranged from tiny salmon parr to lusty 10 and 15-pounders. The display of lively, medium-sized cod was part of a project being conducted to determine the most efficient ways of tagging the fish.

Probably one of the most exciting exhibits was the live lobster display. In addition to lobsters of normal size and colouring, there were some unusual specimens. There were live albino lobsters, which have much the same colouring as a normally-coloured lobster after boiling. Live lobster coloured a deep -- almost indigo -- blue also aroused interest.

Smaller tanks containing water of different temperatures showed how lobsters react to warm or cold conditions. Little movement by lobsters in the cold water afforded some evidence as to why lobster catches are usually down in the winter months. On the other hand, lobsters in the warmer water were much livelier.

Hon. Dugald Mackinnon, Fisheries Minister for Prince Edward Island, and his deputy, Eugene M. Gorman, represented the island province, while Nova Scotia's representative was Brian Meagher, Director of Fisheries for the Nova Scotia Government. New Brunswick's official representatives were Hon. Norman Buchanan, Minister of Lands and Forests, and Leonce Chenard, Director of Fisheries of that province.

In addition to Fisheries Minister MacLean, four federal members of parliament were present. They were: Felton Legere, Yarmouth; Cyril Kennedy, Truro; Thomas M. Bell, Saint John, and R.D. Caldwell Stewart, St. Stephen.

INDUSTRY, GOVERNMENT

About 50 representatives of the Maritime fishing industry were on hand. Among those present were: Douglas Pyke, Homer Zwicker and Wallace Smith, all of Lunenburg; Vincent Snow, Digby; Karl Karlsen, R. F. Johnson and P. Whitman, all of Halifax; Lewis Rodney, Yarmouth; Milton Rogers, Caraque; J. B. Estey and Ward Stewart, Moncton.

Besides Mr. MacLean and his executive assistant, John Smethurst, and Dr. Kask, others present from Ottawa were: Dr. A. L. Pritchard and Dr. W. Sprules, Department of Fisheries, and Gordon O'Brien, Manager, Fisheries Council of Canada. Among those who spoke were Dr. A. W. H. Needle, Director, Biological Station, Nanaimo, B. C.; Dr. F. W. van Klaveren, Director, Technological Station, Grande Riviere, Que.; Dr. Henri Fougere, Director, Technological Station, Halifax, and Dr. W. Templeman, Director, Biological Station, St. John's, Nfld. Also attending were Lorán E. Baker, Maritimes Area Director, federal Department of Fisheries, and Dr. Reid R. Logie, regional supervisor, fish culture, Halifax. ✓

Fibreglass Gillnetter in Use in B.C.

A new Vancouver-built addition to the British Columbia fishing fleet underwent trial runs recently, drawing the attention of fishermen from all parts of the Pacific coast. It is called the "Tiara" and is the first salmon gillnetter in British Columbia constructed from fibreglass. The 34-foot vessel was built in the North Vancouver yard of B. C. Glass Hulls Ltd. for Bob Findlay, who has been fishing the Pacific coast for 20 years.

FIRST COMMERCIAL HULL

In recent years, there has been a tremendous upswing in the use of fibreglass for the production of small pleasure craft but until now no-one in the Vancouver area had successfully completed a commercial fishing vessel hull built of this material. The "Tiara" has the fast pleasure-cruiser type of hull design with excellent sea-keeping qualities and soft riding characteristics. The 3/8" hull is rein-

forced with glassed-in mahogany stringers and bolted on plywood frames. Seven watertight bulkheads will provide enough buoyancy to keep it floating if the hull is holed. The cabin, deck and all inside work were done by the owner to his own plans. The galley table is an unusual feature of his design, for it drops to form a single berth, providing sleeping accommodation for three. With a beam of 10'6" the "Tiara" is roomy and comfortable. It has a draft of 3'9" and a displacement of 12,000 pounds. Power is provided by a 165 hp diesel. She cruises at 14 knots and at this speed fuel consumption is five gallons per hour.

The performance of the "Tiara" on the fishing grounds this season will be watched closely by fishermen and boatbuilders alike, and if she proves satisfactory, hulls constructed of fibreglass may find an excellent future in the B. C. fishing fleet.

Methods of Assessing Fishing Craft Depreciation

By JOHN PROSKIE

ALTHOUGH the fishing enterprise -- whether that of a master and crew, of a partnership or of a one-man operation -- is a business, like any other, strict accounting of costs and earnings has been rare among fishermen. In Canada, until 1949, almost the only records of most fishermen's operations were those kept by private fish merchants. These were limited to particular localities and the data obtainable from them, although useful in specific areas, could not be applied widely.

The development of economic studies in the fisheries of Canada during the past 10 years or so has resulted in the introduction and/or use of certain concepts, definitions and conventions.

One of the expense items of considerable importance in any fishing enterprise is depreciation, although it is a non-cash expenditure in any particular year. In our studies the "straight-line" method of computing depreciation is used. It has been found that this method is the simplest and most satisfactory where boats of various types and sizes are involved. It consists simply of dividing the total anticipated depreciation (wear, tear and obsolescence) by the number of years the asset is expected to last.

A rate of 7 1/2 per cent is allowed under Part XVII of the Income Tax Act, on the assumption that the productive life of the boat is about 14 years. The total initial capital cost of the boat, plus any additional capital expenditures, is used for the calculation of depreciation. The value of the fishing gear is excluded from this calculation -- all costs of replacement, repair and maintenance of this item are included under operating expenditures. In the case of boats built with federal and/or provincial assistance, the amount of the grant is subtracted from the initial capital cost for purposes of calculating depreciation (Income Tax Act, 1956, Chapter 148 of R. S. C. 1952, page 181, section 144, subsection 4. Government of Canada, Ottawa). Otherwise, the owner would receive in effect a second grant over the life of the boat.

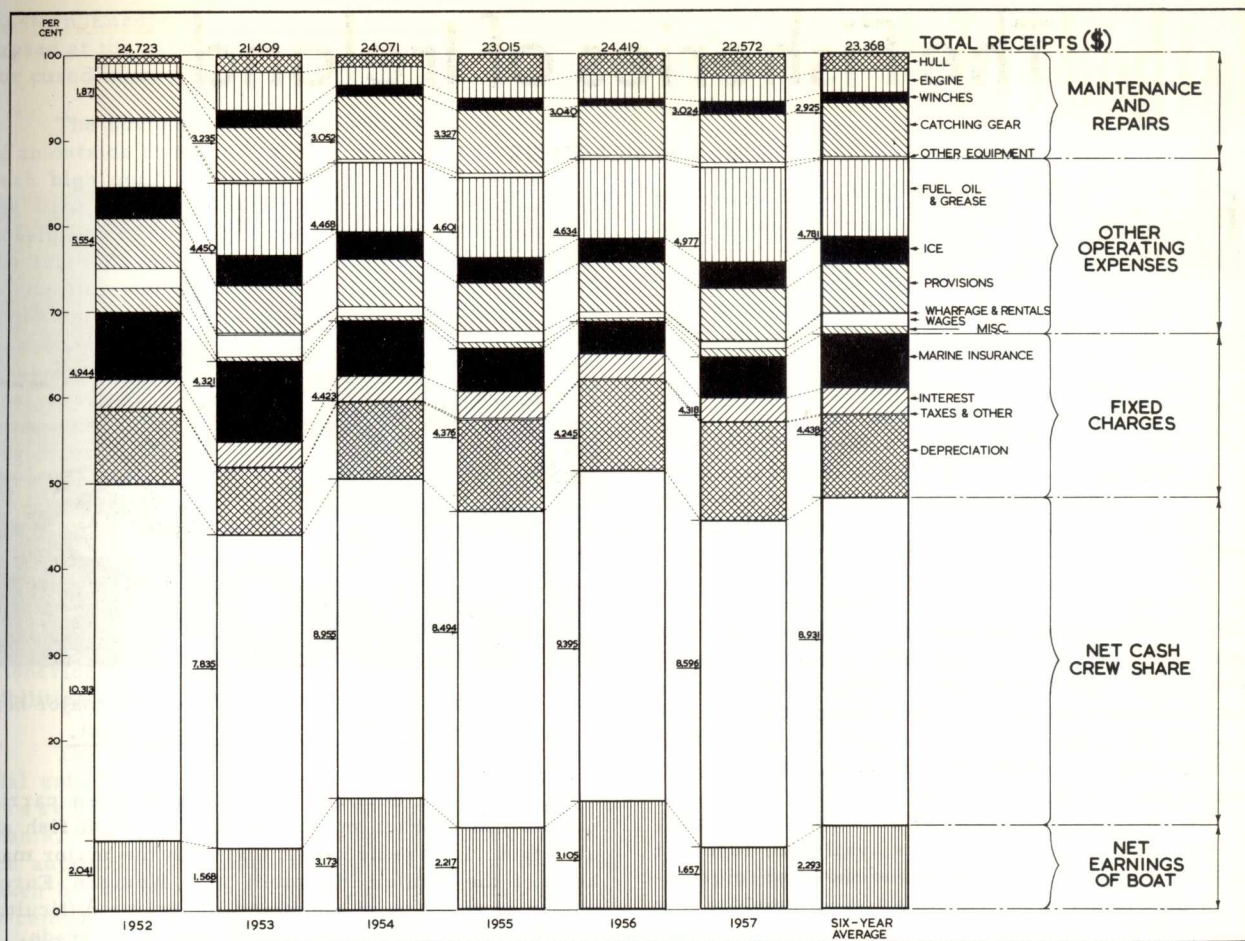
When a boat goes into production for the first time late in the fishing season, depreciation charges are based on the number of months the boat was actually in operation for the balance of the year.

This report is an excerpt from a paper prepared by Mr. Proskie for the Technical Meeting on Costs and Earnings of Fishing Enterprises, sponsored by the FAO in London, England, in September, 1958. Mr. Proskie is a member of the staff of the Economics Service of the Department of Fisheries of Canada, Ottawa. The title of his paper is "Costs and Earnings of Fishing Enterprises in Canada, Concepts, Definitions and Conventions."

In addition to the straight-line method of depreciation, Part XI of the Income Tax Act also permits use of the "reducing balance" method. Under this section, the hull and component parts of the boat may be depreciated at varying rates to an overall maximum of 15 per cent (see page 16 of "Farmer's and Fisherman's Guide," issued by the Department of National Revenue, Taxation Division, Ottawa). Again, under the Canadian Vessel Construction Assistance Act (Chapter 11 of the Statutes of Canada 1949, Chapter 43, 1952, and Bill 72, 1957, Ottawa. Bill 72 amended the Canadian Vessel Construction Act by providing freedom from recapture of depreciation under the Income Tax Act when the vessel is sold, provided the proceeds of the sale are used for a satisfactory replacement of another vessel within a period of seven years), any amount may be written off in any particular year from zero per cent to a maximum of 33 1/3 per cent. In other words, under this Act the capital cost of a boat could be written off in three years if the profits would justify the high rate of depreciation.

A fisherman may choose any of the above methods for calculating depreciation. In addition he can use a five-year average of receipts and expenditures for income tax assessment, if that is to his advantage. There are, however, certain advantages and disadvantages in the choice of the several methods available. The residual method and that provided by the Vessel Assistance Act provide for year to year flexibility in depreciation rates. With the straight-line method, a capital gain or loss can result when the asset is sold; if a gain is made it is not taxable. Under the residual method, however, when the asset is sold at a price in excess of the undepreciated capital cost the excess becomes an income for that year and is taxable. For example, if a fisherman using the residual method sold his boat for \$30,000, and the undepreciated capital cost was \$20,000, he would be taxable on \$10,000. It should also be pointed out that, once a fisherman claims depreciation under the residual method, he cannot revert to the straight-line method so long as he possesses the same asset.

There is often uncertainty as to the proper rate of depreciation for fishing assets, and the be-



Distribution of Average Gross Receipts 1952-57, Prince Edward Island Dragger, 50-60 foot class. The above chart shows the percentage of average receipts per dragger that are allocated to various expenditures, among them being depreciation, which can be compared to other expenditures.

It is a general belief that a high rate is a good thing. This is not necessarily true, however. For example, in a particular year a fisherman may obtain a gross profit of \$10,000 (termed "net cash boat share". See Primary Industry Studies, No. 1, Vol. 6, Part 2, page 28, table 18, Department of Fisheries of Canada, Ottawa, 1957), before depreciation. If his enterprises were incorporated, in the absence of a charge for depreciation, he would be liable for \$2,000 in income tax. On the one hand he could apply a rate of 33 1/3 per cent on undepreciated capital cost of \$30,000 and save \$2,000 in income tax. On the other, if the same fisherman made a gross profit of \$1,500 before depreciation, it would be unwise to apply the maximum rate of depreciation available. All he needs to apply in the latter case is a rate of five per cent or \$1,500 in depreciation to wipe out the gross profit.

Although certain components wear out faster than others a depreciation rate of 7 1/2 per cent closely approximates in fact the average yearly wear and tear of boat and equipment over a period

of about 14 years, and its adequacy is demonstrated in the published reports (Primary Industry Studies, No. 1, Vol. 6, Part 1, page 62, Department of Fisheries, Ottawa) of the Canadian investigation. Since depreciation is a cost of production, like any other, it should be kept as low as possible. The availability of higher rates of depreciation have different purposes, such as to encourage investment by providing a means of reducing the size of the income tax payable. These different approaches under certain circumstances may be difficult to reconcile.

BASIC PRINCIPLE

It may be noted, however, that the use of very low or very high rates of depreciation violates the basic principle that cost accounts should show the true facts in respect of expenditures and returns for the enterprise and the net worth of the asset. In addition, it makes comparison impossible between accounts of enterprises using a very high rate of depreciation and those using a very low rate or none at all. ✓

The Fisheries of Ireland

By I.S. McARTHUR

MENTION of the fisheries of Ireland generally brings to mind "Cockles and Mussels" and perhaps Atlantic salmon. Beyond these romantic references few Canadians -- and all too few Irishmen -- are familiar with the actual and potential fisheries of the Republic. As in Canada the Irish fishery is a combination of sea and inland fishery resources. Although the potential resources of the sea fishery are much greater than the inland waters the current value of the highly prized Atlantic salmon at approximately \$1,500,000 is greater than that of any other species and represents about 30 per cent of the total landed value of all fish and shellfish.

The most striking feature of the sea fisheries of Ireland is the wide variety of species available in coastal and near waters and particularly in respect of shellfish. Total shellfish landings have a value of close to \$1,000,000 and in order of the value of the catch include lobsters (similar to Eastern Canadian lobsters), crawfish, periwinkles, Norway lobsters (better known as Dublin Bay prawns or Scampi), mussels, oysters, scallops and crabs. Such biological knowledge as is available, together with data on the historic catch of these species indicates that in all cases exploitation is considerably less than 50 per cent of potential and in many cases, including lobsters, the current catch is estimated to be no more than 30 per cent of capacity.

The major items of sea fish taken in nearby waters of the Irish Sea and on the continental shelf off West and South Ireland include, again in order of value, herring, plaice, whiting, haddock, cod, ray and skate, mackerel, black sole, brill, turbot, hake, conger eels and ling. Statistics of the catch in these waters compiled by the International Permanent Council for the Exploration of the Sea indicate that in 1956 Irish fishermen took only eight per cent of the catch of these species taken by all fishermen operating in the area. It is thus clear that both the shell fishery and the "wet" fishery of Ireland is capable of very substantial expansion from a resource point of view.

Mr. McArthur, a senior official of the Department of Fisheries of Canada, Ottawa, recently spent two months in Ireland to make a survey of that country's commercial fisheries and to suggest lines along which they might be further developed. Arrangements for the loan of his services were made, on the request of the Government of Ireland, through the Food and Agriculture Organization of the United Nations.



Fish Pier at Dunsmore East, Ireland's major herring fishing port on the south coast.

While no detailed studies have been carried out on the market opportunities for Irish fish and shellfish, it is quite clear that with the major markets of the United Kingdom and Western Europe within easy reach of the Island, no major difficulties stand in the way of an expanding export trade. At the present time all Irish fish is landed the day it is caught and no port on the Island is more than six hours from Dublin, the main port of export. Landings of most species at present are only slightly in excess of home requirements and the great bulk of the fish is disposed of at the Dublin auction market with much lesser amounts disposed of at a small market in Cork and directly at points of landing.

Turning from the fish itself to the fishermen and their equipment, it is surprising to find that only some 1,400 fishermen are reported as fully engaged in the industry along with some 4,500 partially engaged.

The full-time fishermen are for the most part engaged on the 125 vessels of the 50 to 60 foot class built in recent years by the Sea Fisheries Board and made available to fishermen under hire-purchase arrangements. The part-time fishermen are for the most part engaged in small-scale shellfish operations in inshore waters. Although historic statistics are frequently none too reliable, the present activity in the fishery is very much less than at the time of World War I when some 20,000 fishermen were reported. An exceptionally high figure of 113,000 men and boys is recorded in the mid-nineteenth century. One of the major points of decline of the fishery was in 1928-29 when the German and

Eastern European markets for cured herring collapsed at the same time as the United States market for cured mackerel declined drastically.

The obvious question which arises in the mind of an outside observer is why potential resources of such high quality should be so under-exploited in the light of what would appear to be good market possibilities while bearing in mind the concern of the Irish Government over lack of employment opportunities and continued emigration, particularly from the coastal and rural areas. The answer lies in a wide variety of factors which the Fisheries Branch of the Department of Lands is currently endeavouring to overcome and thus reverse the historic trend. In 1931 a state-sponsored co-operative organization of fishermen -- The Sea Fisheries Association -- was established to encourage development of the fisheries, and particularly to build and supply more effective fishing craft for the offshore fisheries. The Association ran into the world depression of the thirties and then World War II intervened so little progress was possible. In 1952 the form of organization was changed and the Sea Fisheries Board was set up to assume the responsibilities of the Association.

The Sea Fisheries Board is a public commercial enterprise which engages in the provision of vessels and gear under hire-purchase arrangements, the operation of four boat building yards, the auctioning and wholesaling of most of the fish taken by vessels under hire-purchase (all prior to December 1958), and the provision of ice and other facilities at several fishing ports. The Board, like the Fisheries Branch, is responsible to the Minister of Lands and has as its objective the development of the sea fisheries along commercial lines in co-operation with the Fisheries Branch of the Department. Over the past seven years considerable progress has been made, and in the last two years particularly, foreign capital has commenced to show interest in the establishment of fish processing plants. One of the inhibiting factors in development has been the lack of local large scale, well financed fish processing and exporting firms. This fact may in part at least be related to the activities of the Sea Fisheries Board in the merchandising field.

MAJOR EXPANSION INDICATED

The fisheries generally represent a rather small item in the overall economy of Ireland and perhaps never will represent a major factor, but the excellent quality of the resource and its access to markets points to a major expansion of activity over the next few years with every indication of a successful outcome.

Current government policy includes a broad range of assistance and encouragement to all branches of the industry. Grants and loans are available to fishermen for catching equipment at reasonable interest rates and favourable repayment

terms; exploratory and experimental fishing is being undertaken; training programmes for fishermen are planned; a substantial programme of harbour development -- particularly in centralized ports -- is under study; loans and grants to private enterprise for plant construction are available and where necessary the government is prepared to provide such facilities through the Sea Fisheries Board. Announcement of this ambitious programme of development has met with a good deal of enthusiasm from many quarters both within and outside the fishing industry. Probably no factor has been more important in the relatively slow development of the fisheries than the lack of enthusiastic leadership and managerial ability which now appears to be emerging. ✓

Great Slave Statistics

A simple book-keeping procedure designed to provide more complete and accurate information on commercial fish landings will come into being on Great Slave Lake in the Northwest Territories early this summer. Known as the sales slip system, it is similar to others now in use by the federal Department of Fisheries in the Pacific and Maritimes Areas.

Dr. M. M. COADY

Monsignor Moses Michael Coady of St. Francis Xavier University, Antigonish, N. S., whose work for the co-operative movement and adult education in the Maritime Provinces was acclaimed in this country and abroad, died on July 28 at the age of 77.

Dr. Coady, a native of Cape Breton, has been described as the architect and administrator of the St. Francis Xavier Extension Movement and, with Father J.J. Tompkins, of the same university, he overcame great difficulties to organize co-operatives among fishermen and miners in the Maritimes.

Internationally renowned as an educationist, Dr. Coady was the recipient of many honours during his life. For seven years after his nominal retirement he continued to give leadership to the causes in which he believed so strongly.

In expressing condolences to Dr. Coady's relatives and colleagues, Deputy Minister of Fisheries G.R. Clark wrote: "Dr. Coady was an outstanding man and the results of his work I am sure will live forever. Unfortunately in this world today there are too few men like Father Coady and it is a loss to all of us when they are taken."



Canadian Fishery Products Featured in Fall Promotion

Above and below are shown reproductions of window posters which are two items of promotional material being used by the fish trade throughout Canada for "Fish 'N' Seafood Week," which is being sponsored by the Fisheries Council of Canada October 19-25. An extensive advertising campaign has been arranged to acquaint fishery products retailers, as well as hotel and restaurant operators, with the time and purpose of the special week, and the Council has made available at cost "point of sale" material in French and English, each retail "kit" containing 22 pieces of printed matter, in colour, for display purposes in stores and markets. Similar kits for restaurants contain 35 pieces.

The federal Department of Fisheries is cooperating in several ways in the promotion of "Fish

'N' Seafood Week," the sole purpose of which is to increase the consumption of fishery products by Canadians. Facts about the nutritive value of fishery products, buying tips, and a variety of illustrated recipes, are being provided to newspapers and magazines, and the Department has prepared special material for radio and television stations across the country. The latter includes photographs to show TV viewers the results of tested recipes, and listeners and viewers will be invited to write to the Department of Fisheries, Ottawa, for the free fish cookery booklet which has been prepared for the occasion. In addition, departmental home economists in Halifax, Montreal, Ottawa, Toronto, Winnipeg, Edmonton and Vancouver will be available to television stations during "Fish 'N' Seafood Week" for fish cookery demonstrations. ✓



Canadian Fisheries in June

THROUGH June the pattern of Canada's summer fisheries developed along lines already established in May. In British Columbia the salmon fishery prospered while other landings declined; in the Maritimes fishermen fared at least as well as in June last year but in Newfoundland the season continued to be about six weeks late; while freshwater fishing all across Canada was still hampered by tardiness of the spring break up, especially on the smaller lakes.

On the Pacific coast chilly temperatures and rough seas caused a considerable drop in landings through the first half of June and, although good weather brought sharp improvement during the rest of the month, catches of the dragger and seine fleets continued to fall behind those of last summer. The herring fishery, after two years of record summer catches, produced only half as much fish as in June last year. Halibuting was good but with prices below last year's levels.

SALMON CATCHES

Salmon fishermen prospered, however. The June catch exceeded five million pounds and had a landed value of nearly one and a half million dollars. Its major component was spring salmon caught by troll fishermen for the fresh market. Late in May the price of troll-caught large red springs landed at Vancouver or Victoria rose from 48 cents per pound to 54 cents. Early in June it rose to 60 cents. With the warm weather and rising water temperatures of late June catches declined. The men then changed gear for the coho and blueback seasons but not before the month's spring salmon fishery had earned them \$957,000. The coho and blueback seasons opened June 15. Initial catches had been small but results improved rapidly toward the end of the month.

The gillnet fleet at the Fraser mouth had contributed significantly to the catch of springs. Its landings doubled in the second week of June, as freshets subsided, and then increased further as more boats joined the operation. Landed price of gillnetted large red springs was steady at 36 cents per pound at Steveston.

By the end of June sockeye were beginning to appear in the northern area and fleets were gearing for this fishery and moving north.

In the Maritime Provinces groundfish landings from the offshore banks declined somewhat, as they usually do in June when many of the longliners change over to swordfishing. Swordfish proved to be plentiful and were in good demand. The landed price per pound was higher than last year.



Vancouver Island salmon fisherman on the dock at Nanaimo, B.C.

Draggers still groundfishing on the banks had fairly productive trips. Especially in Nova Scotia, processing plants supplemented offshore receipts with inshore fish either delivered direct by the fishing boats or collected by plant trucks. Truck deliveries were reported to be arriving in good condition. They included considerable quantities of trap-caught haddock and pollock.

Groundfishing in the Gulf of St. Lawrence, which had started well in May, improved through June with cod and flounders constituting the bulk of the catch. The draggers often returned to port with holds full and decks loaded too. Gulf plants were busy, sometimes on overtime schedules. A group of Cape Breton longliners experimenting in danish seining took advantage of the good flounder fishing in the Gulf and earned an average of \$700 per boat per short trip.

Several local lobster seasons closed during June but fishing in upper Fundy, Cape Breton and the Gulf of St. Lawrence was active throughout the month. Most lobstermen reported a profitable fishery.

In New Brunswick salmon fishing was good and herring landings on the Fundy shore were fairly steady. Mackerel, usually plentiful in June in the Maritimes, were scarce in all three provinces.

In Newfoundland even in June thousands of icebergs were still a threat on the foggy east coast but fishing weather was fair on the south coast and good on the west, where the lobster fishery was at its peak.

(Continued on page 15)

Canadian Fisheries News

International Whaling Commission

Two changes in whaling seasons and a proposed innovation in the enforcement of the Convention terms were agreed upon by the member nations attending the eleventh annual meeting of the International Whaling Commission in London, England, from June 22nd to July 1st. Commission Chairman R.G.R. Wall of the United Kingdom presided. G.R. Clark, Deputy Minister of the federal Department of Fisheries of Canada, is Vice-Chairman.

The Commission is charged with the responsibility, within the framework of the Convention, for safeguarding the whale stocks of the world. It has the power to protect particular species, to declare open and closed seasons and areas, prescribe minimum size limits for each species caught, to determine the time, methods and intensity of whaling (including the maximum catch of whales to be taken in any one season.)

During its proceedings this year, the Commission made several decisions based on these responsibilities. For instance, it was decided to extend the 1959-60 Antarctic season for fin and sei whales. The season now will be from December 28 to April 7. In the past, the season had opened on January 7. The other change in seasons concerned the humpback whales of the Antarctic. This season was changed from the first four days of February to the four days commencing January 20.

At the present time enforcement of the terms of the Convention with respect to factory ships in Antarctic waters is determined by the rulings of inspectors aboard ship who are officials of that vessel's country. Proposals were made to the Commission that these ships should each carry an observer from some other country. The Commission agreed in principle with this, deciding that the detailed working out of a plan be left to Japan, U.S.S.R., and the United Kingdom, who would in turn consult with the Netherlands and Norway in order that a method of enforcement be submitted for consideration by the Commission as soon as possible.

With regard to the maximum catch limit of whales for the Antarctic season 1959-60, the Commission decided that there should be no change and thus the figure will again be 15,000 blue whale units. (A blue whale unit is one blue whale or two and a half humpback whales or six sei whales.)

The Commission was of the opinion that its protection policy for blue whales should be continued. The number of the species in the North At-

lantic had been considered too low for exploitation and hence had received complete protection since 1954. As it was felt that there had been no appreciable increase in numbers, it was recommended that this protection be continued for another five years ending February 26, 1965. A former closed area for baleen whales in the southern hemisphere south of latitude 40 degrees south, and between meridians 70 degrees west and 160 degrees west, which had been open for whaling for the last four years, was again declared open for another three years.

The matter of the humane killing of whales was also discussed. The Commission agreed that a sub-committee be set up to look into the advantages and disadvantages of the present methods of killing whales with a view to recommending a research and development programme for the improvement of existing methods and the possibility of developing new ones.

The Governments represented at the meeting were: Australia, Canada, Denmark, France, Iceland, Japan, Mexico, the Netherlands, New Zealand, Norway, Union of South Africa, Sweden, U.S.S.R., the United Kingdom, and the U.S.A. In addition there were observers from the Food and Agriculture Organization of the United Nations, the International Council for the Exploration of the Sea, and from Argentina and Portugal.

The Commission was informed on June 30 that Norway and the Netherlands had decided to withdraw from the Convention. However, the two countries agreed to respect all the Commission's regulations except its catch limit, and in the case of the Netherlands, the duration of the whaling season.

Storm Disaster

Thirty-five fishermen from New Brunswick's Northumberland district were lost at sea in a sudden and violent storm on the night of June 19. Besides the tragic loss of life it is estimated that damage to boats and fishing gear will run to hundreds of thousands of dollars.

When the storm struck, the R. C. A. F. Search and Rescue Unit was immediately called into action. Boats and planes from the R. C. A. F., the R. C. M. P. and the federal Department of Fisheries were used in the search.

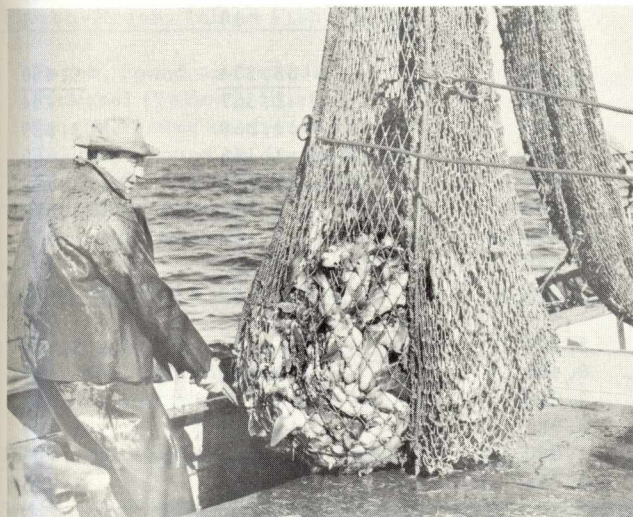
The fishing fleet was out in full force, lured by the heaviest salmon run in ten years. Because

the storm struck with so little notice and with such violence, the fishermen were forced to ride it out as best they could. Most of the boats which were destroyed or seriously damaged ranged in length from 32 feet to 48 feet and were valued at from \$2,000 to \$2,500 each. Salmon nets cost at least \$1,500 each.

Dogfish Control

The federal Government is again providing financial impetus this year to efforts to control the stocks of predacious dogfish in British Columbia waters. A sum of \$250,000 has been earmarked to cover special payments to fishermen at the rate of 10 cents per pound for dogfish livers delivered to liver oil plants and collecting stations. The programme will continue to the limit of the funds available to March 31, 1960.

This year's dogfish programme is a follow-up to that launched by the federal government on January 12 this year which terminated on March 31. The



Final lift of dogfish about to be released by crew of dragger "Nadina".

initial effort was largely experimental to determine the most effective methods of dealing with the dogfish problem.

The government hopes by its financial assistance to induce fishermen to wage a concerted attack on the dogfish populations which have increased steadily in Pacific Coast waters during the past 10 years. This increase developed as a result of the decline in commercial fishing for the species since the price of liver oil dropped sharply after the wartime demand disappeared when synthetic Vitamin A entered the market.

Dogfish cause great damage to fishing gear, it is stated, and in some areas have become

so numerous that commercial fishing has been severely curtailed. They also interfere seriously with tide-water sport fishing which has developed into a valuable tourist resource. Being members of the shark family, dogfish reproduce relatively slowly; thus a concerted fishing programme can significantly control their numbers.

CANADIAN FISHERIES IN JUNE ...

(Continued from page 13)

Caplin, followed by large schools of feeding cod, struck on the Atlantic coast at mid-month and by the end of June many cod fishermen in that area had doubled their entire 1958 production. Others were less fortunate, however, and the Island's total cod landings for the month were twelve million pounds less than last year. Fresh fish plants in the Burin Peninsula area were adequately supplied by their own offshore draggers but flounders constituted the bulk of these receipts. The plants did not buy all the inshore cod offered. Consequently it was split and salted by the fishermen. Production of heavy salted fish has been surprisingly high this season, twenty-three per cent more to the end of June than in 1958. Production of light salted fish has continued to decline. Frozen fish production was normal on the south coast in June but declined by about two million pounds on the Atlantic side, leaving the year's total to date below 1958 by more than four million pounds.

Incomplete reports from the Labrador indicate excellent results there in both cod and salmon fisheries.

On the Island, salmon results were best in the Port aux Basques area, good along the south coast, declining to average in the Avalon Peninsula and poor elsewhere, largely because ice hampered net operations.

A disappointing lobster season closed in southern areas June 30 and was abandoned about the same time by many discouraged fishermen in other areas. Cold water temperatures were blamed for a decline of 35 to 40 per cent from last year in the season's catch to the end of June. ✓

CORRECTION

The report on the ninth annual meeting of the International Commission for the Northwest Atlantic Fisheries, carried in the July, 1959, issue of "Trade News," contained an unfortunate error. In the caption of the photo of three of the Commissioners on page 6, retiring chairman Klaus Sunnana was incorrectly identified as a Portuguese Commissioner. As indicated in the body of the report, on page 2, Mr. Sunnana is from Bergen, Norway, and of course is a Norwegian Commissioner.

Fishery Figures For June

SEAFISH: LANDED WEIGHT AND LANDED VALUE

	May - June 1958		May - June 1959	
	'000 lbs	\$'000	'000 lbs	\$'000
<u>CANADA - TOTAL</u>	<u>368,193</u>	<u>21,197</u>	<u>340,059</u>	<u>22,457</u>
<u>ATLANTIC COAST - Total</u>	<u>326,493</u>	<u>15,822</u>	<u>304,725</u>	<u>17,027</u>
Cod	142,801	3,317	125,532	3,327
Haddock	12,082	460	18,510	747
Pollock, Hake & Cusk	19,078	324	15,833	318
Rosefish	12,502	291	8,580	195
Halibut	1,516	335	1,801	393
Plaice & Other Flatfish	24,439	749	23,801	766
Herring & Sardines	49,159	514	58,465	743
Mackerel	6,737	285	2,638	138
Swordfish	85	31	119	49
Salmon	1,487	632	1,678	648
Smelts	13	1	19	1
Alewives	7,993	115	10,398	159
Other Fish	20,975	267	8,557	164
Lobsters	25,461	8,128	25,889	8,842
Clams & Quahaugs	1,304	65	1,741	87
Scallops	837	307	1,145	449
Other Shellfish	24	1	19	1
<u>PACIFIC COAST - Total</u>	<u>41,700</u>	<u>5,375</u>	<u>35,334</u>	<u>5,430</u>
Pacific Cods	2,730	145	2,367	154
Halibut	14,753	2,969	15,269	2,829
Soles & Other Flatfish	2,088	107	1,116	60
Herring	12,876	231	6,772	132
Salmon	6,123	1,695	6,780	2,038
Other Fish	639	18	727	26
Shellfish	2,491	210	2,303	191
<u>BY PROVINCES</u>				
British Columbia	41,700	5,375	35,334	5,430
Nova Scotia	101,270	6,458	101,218	7,647
New Brunswick	40,577	1,928	46,937	2,072
Prince Edward Island	12,939	2,028	14,166	2,299
Quebec	43,959	1,690	41,982	1,793
Newfoundland	127,748	3,718	100,422	3,216

MID-MONTH WHOLESALE PRICES, June 1959

	Montreal	Toronto
	\$	\$
Cod fillets, Atl. fresh, unwrapped lb	.324	.367
Cod fillets, Atl. frozen, cello 5's lb	.284	.317
Cod fillets, smoked lb	.357	.398
Haddock fillets, fresh, unwrapped lb	.430	.487
Herring Kippered, Atl. lb	.256	.297
Mackerel, frozen, round lb	.260	.267
Lobsters, canned, fancy case 48- $\frac{1}{2}$ s	40.95	42.54
Sardines, canned case 100- $\frac{1}{4}$ s	9.04	8.93
Halibut, frozen, dressed lb	.387	.388
Silverbright, frozen, dressed lb	.423	.370
Coho, frozen, dressed lb	.598	.573
Sockeye, canned, gr. A. case 48- $\frac{1}{2}$ s	22.17	21.94
Pink, canned, gr. A case 48- $\frac{1}{2}$ s	12.77	12.88
Whitefish, fresh lb	.358	.285
Lake Trout, frozen lb	.421	.405

PRICES PER CWT. PAID TO FISHERMEN (Week ending June 20th)

	1958	1959
	\$	\$
<u>Halifax</u>		
Cod Steak	3.75	3.75-4.00
Market Cod	3.25	3.50-3.75
Haddock	5.00	4.00-4.25
Plaice	3.25	3.50
<u>Yarmouth</u>		
Haddock	5.00	6.00
<u>Black's Harbour</u>		
Sardines	2.00	2.00
<u>St. John's, Nfld.</u>		
Cod	2.00	2.25
Haddock	3.00	2.25rd
Rosefish	2.00	2.00
<u>Vancouver</u>		
Ling Cod	8.00-12.00	9.00-13.00
Gray Cod	3.50- 5.00	6.00
Soles	6.00- 9.00	5.00- 9.00
Salmon(rdspg.)	32.00-50.00	32.00-58.00

Fishery Figures For June

STOCKS AS AT END OF JUNE

CANADIAN EXPORT VALUE OF FISHERY PRODUCTS, MAY

(Value in Thousands of Dollars)

	1958	1959			
	'000 lbs	'000 lbs	1958	1959	
<u>TOTAL - Frozen Fish, Canada</u>	51,930	63,520	<u>Total Exports</u>	11,506	11,522
<u>Frozen-Fresh, Sea Fish - Total</u>	36,047	42,962	<u>By Markets:</u>		
Cod, Atlantic, fillets & blocks	6,696	8,237	United States	9,065	8,484
Haddock, fillets & blocks	2,212	6,941	Caribbean Area	1,728	1,542
Rosefish, fillets & blocks	1,503	1,078	Europe	457	1,213
Flatfish(excl. Halibut), fillets & blocks	2,155	1,470	Other Countries	256	283
Halibut, Pacific, dressed & steaks	10,747	12,069	<u>By Forms:</u>		
Other Groundfish, dressed & steaks	1,788	1,743	<u>Fresh and Frozen</u>	7,956	7,508
Other Groundfish, fillets & blocks	3,050	2,332	<u>Whole or Dressed</u>	1,950	1,776
Salmon, Pacific, dressed & steaks	2,104	3,984	Salmon, Pacific	321	304
Herring, Atlantic & Pacific	1,260	342	Halibut, Pacific	396	429
All Other Sea Fish, all forms	3,000	3,455	Cod, Haddock, Pollock, etc.	41	21
Shellfish	1,532	1,311	Swordfish	Ø	3
<u>Frozen-Fresh, Inland Fish - Total</u>	3,840	4,525	Other Seafish	307	180
Perch, round or dressed	9	346	Whitefish	308	339
Pickerel (Yellow), fillets	150	68	Pickerel	197	144
Sauger, round or dressed	13	16	Other freshwater fish, n.o.p.	308	356
Tullibee, round or dressed	286	175	<u>Fillets</u>	2,742	2,346
Whitefish, round or dressed	979	1,148	Cod, Atlantic	939	581
Whitefish, fillets	401	371	Haddock	422	869
Other, all forms	2,002	2,401	Rosefish, Hake, Pollock, etc.	78	79
<u>Frozen-Smoked Fish - Total</u>	1,748	1,722	Flatfish	532	312
Cod, Atlantic	801	906	Pickerel	247	26
Sea Herring, kippers	352	385	Other	524	479
Other, all forms	595	431	<u>Shellfish</u>	3,264	3,386
<u>Frozen for Bait and Animal Feed</u>	10,295	14,311	Lobster (Alive & Meat)	3,082	3,226
<u>Salted and Pickled Fish, Atl. Coast</u>			Other	182	160
<u>Wet-salted - Total</u>	12,703	8,204	<u>Cured</u>	1,777	1,359
Cod	7,328	4,230	<u>Smoked</u>	136	109
Other	5,375	3,974	Herring	99	67
<u>Dried - Total</u>	12,374	1,957	Other	37	42
Cod	11,625	1,663	<u>Salted, Wet & Dried</u>	1,486	1,143
Other	749	294	Cod	1,277	837
<u>Boneless - Total</u>	95	146	Other	209	306
Cod	88	102	<u>Pickled</u>	155	107
Other	7	44	Herring	91	28
<u>Pickled - Total (barrels)</u>	22,148	15,463	Mackerel	21	37
Herring	7,971	1,074	Other	43	42
Mackerel	4,838	296	<u>Canned</u>	1,188	1,304
Alewives	9,296	14,069	Salmon, Pacific	704	763
Turbot	43	24	Sardines	248	413
Bloaters (18 lb. boxes)	299,419	183,188	Lobster	203	78
Boneless Herring (10 lb. boxes)	9,509	1,222	Other	33	50
			<u>Miscellaneous</u>	585	1,351
			Meal	196	1,093
			Oil	66	36
			Other	323	222

Fisheries News From Abroad

Iceland

EXPORTS OF PRINCIPAL FISHERY PRODUCTS

January - March, 1959

Quantities in Thousands of Pounds

Value in Thousands of Kroner

DESTINATION	TOTAL EXPORTS		MAINLY COD						HERRING		FISH MEAL	OILS		OTHER PROD.
	Quan.	Value	Fresh	Frozen	Dry Salted	Wet Salted	Stock-fish	Other Types	Frozen	Salted	th. lb.	Cod	Other	(1)
	th. lb.	th. kr.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.	th. lb.
U. S. A.	15,334	45,244	-	14,486	-	152	-	-	-	-	121	513	-	62
<u>Other Western Hemisphere</u>														
Brazil	697	2,200	-	-	697	-	-	-	-	-	-	-	-	-
Cuba	1,202	3,623	-	-	1,197	-	-	-	-	-	-	5	-	-
Panama	71	217	-	-	71	-	-	-	-	-	-	-	-	-
Venezuela	61	208	-	-	61	-	-	-	-	-	-	-	-	-
<u>Europe</u>														
Austria	2	28	-	-	-	-	-	-	-	-	-	-	-	2
Belgium	2	6	-	-	-	-	-	-	-	-	-	2	-	-
Cyprus	88	114	-	-	-	-	-	-	-	-	88	-	-	-
Czechoslovakia	6,101	16,550	-	4,750	-	-	-	-	223	-	443	622	-	63
Denmark	2,019	3,027	-	-	-	-	187	-	-	2	1,698	130	-	2
France	4,504	6,610	-	494	-	-	-	-	-	-	4,008	-	-	2
Finland	379	1,125	-	22	-	-	-	-	-	44	-	298	-	15
Germany East	7,592	16,786	-	4,614	-	-	-	-	1,148	613	1,217	-	-	-
Germany West	8,847	7,901	4,530	-	∅	-	33	11	-	2	2,567	-	560	1,144
Greece	362	574	-	-	-	-	-	-	-	-	-	9	-	353
Italy	373	1,954	-	2	-	-	353	-	-	-	-	18	-	-
Netherlands	2,026	3,618	-	639	-	-	-	-	-	-	117	-	-	1,270
Poland	8,467	11,870	-	-	-	-	-	-	1,413	4,409	2,205	440	-	-
Sweden	6,712	8,158	-	174	-	57	-	-	-	715	3,948	-	-	1,818
United Kingdom	8,395	16,398	4,475	216	-	375	1,457	-	-	-	1,127	-	-	745
U. S. S. R.	26,964	52,900	-	14,839	-	-	-	-	-	12,125	-	-	-	-
Spain	421	809	-	-	-	-	-	-	-	-	-	218	203	-
<u>Other Countries</u>														
Australia	2	10	-	-	-	-	2	-	-	-	-	-	-	-
Egypt	66	133	-	-	-	-	-	-	-	-	-	66	-	-
Israel	661	792	-	-	-	-	-	-	-	-	661	-	-	-
Nigeria	3,843	16,484	-	-	-	-	3,843	-	-	-	-	-	-	-
Norway	3,840	5,030	-	-	-	-	-	-	-	-	-	3,840	-	-
Kenya	9	20	-	-	-	-	-	-	-	-	-	9	-	-
Hong Kong	9	18	-	-	-	-	-	-	-	-	-	9	-	-
Total Jan.-Mar. '59	109,049	222,407	9,005	40,236	2,026	584	5,875	11	2,784	17,910	18,200	2,339	4,603	5,476
Total Jan.-Mar. '58	102,462	183,229	13,457	28,546	4,430	5,213	1,283	346	3,175	6,816	21,962	3,001	4,904	9,329

∅ Represents quantities less than 500 lbs.

(1) Includes all whale products which totalled in Jan.-March 1959, 2,350 thousands of pounds and 4,644 thousands of pounds in 1958.

Current Reading

"Sexual Maturity and Spawning of Albacore in the Pacific Ocean," by Tamio Otsu and Richard N. Uchida, (United States Fish and Wildlife Service, Fishery Bulletin 148, U.S. Government Printing Office, Washington 25, D.C. \$0.20).

The albacore is a commercially important tuna, valued highly for its excellent canning qualities. In the Pacific the major fisheries for this species are conducted by the Japanese in an area extending from the coast of Japan to the vicinity of the International Date Line, and by the Americans along the west coast of the United States. They are sometimes found off the coast of British Columbia and Canadians have from time to time, including this year, taken part in the fishery. Tag recoveries during recent years have shown that albacore undertake extensive migrations across the Pacific, thus suggesting that the major fisheries may be dependent on a single population.

Albacore are also widely distributed throughout the tropical Pacific, but in this region they are generally taken incidental to the catch of other species of tuna. It is not known whether albacore of the tropics belong to the same population as those of temperate latitudes or whether they form part of another population.

This study shows that albacore taken north of Hawaii show no signs of incipient or past spawning. It appears that the albacore in the region of the Hawaiian Islands and in the central equatorial Pacific represent a segment of a population which, after attaining a certain size in the temperate waters of the North Pacific, moves south into tropical and subtropical waters to reproduce.

"Character of the Migration of Pink Salmon to Fraser River Spawning Grounds in 1957," by F.J. Ward, (International Pacific Salmon Fisheries Commission, New Westminster, B.C.).

A protocol amending the Sockeye Salmon Fisheries Convention to provide for the conservation of the pink salmon fisheries of the Fraser River system in British Columbia was ratified by the Governments of Canada and the United States on July 3, 1957. According to the terms of the protocol the responsibilities of the International Pacific Salmon Fisheries Commission were extended to include the management of these pink salmon fisheries.

Since ratifications were exchanged just prior to the appearance of the run in commercial fishing areas, it was possible to initiate a number of investigational programmes. Detailed catch statis-

tics were collected from the various fishing areas of Convention waters. Tagging was carried out to determine the times of passage of individual runs through the commercial fishing areas located in the lower Fraser River. The total escapement and the escapements of individual races were enumerated. Information on the migration rate of fish in the Fraser River was collected. Times of arrival, spawning and dying were determined for fish on individual spawning grounds.

This report on the first phase of the programme relates the characteristics of the migration of pink salmon to the Fraser to the requirements of scientific management of the fishery, in order that methods of investigation can be appraised and the results, as aids in management, can be evaluated.

"Atlantic Provinces Checklist, Volume 2, January-December 1958," (Atlantic Provinces Library Association, in co-operation with Atlantic Provinces Economic Council. Copies may be ordered from the Atlantic Provinces Economic Council, 205 South Park St., Halifax, N.S. \$1.00).

This checklist, now making its second appearance, is an attempt to collect information about all available printed and filmed material appearing during the calendar year of 1958 and pertaining to the provinces of New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island.

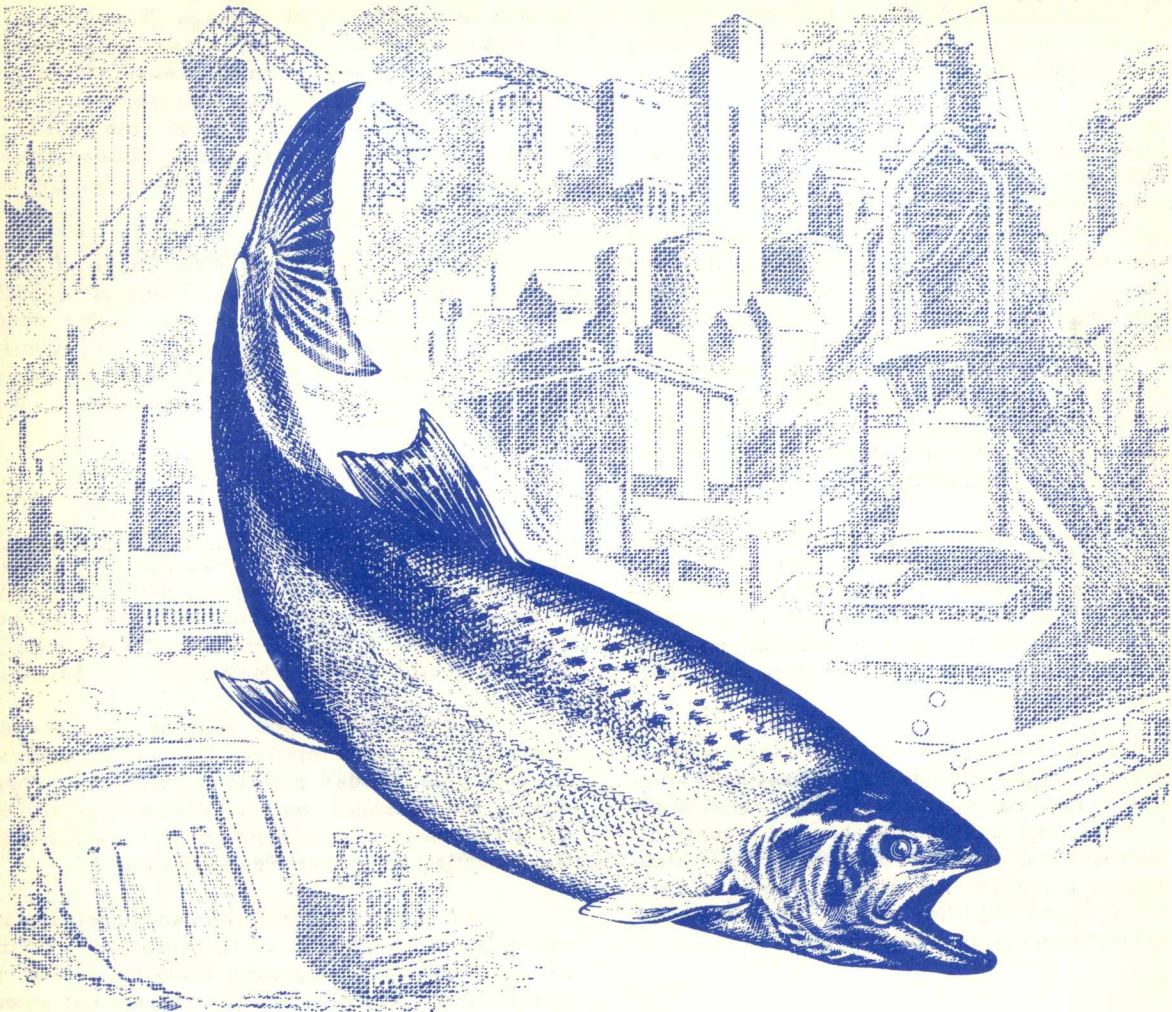
This publication reflects an increasing interest in the development of the Atlantic Provinces, as manifested in magazine articles, books, pamphlets, government documents and documentary films. It is designed to meet the needs of businessmen, government officials, professional workers, teachers, university students, research workers, librarians and others.

"Annual Report of the Department of Education for the Year Ending March 31st, 1958," (Government of Newfoundland, St. John's).

This report contains an account of 4-H Club development in Newfoundland. Programmes under the 4-H movement were broadened in the various communities to include increased participation in many activities by young people, and were given active co-operation and increased participation by federal and provincial representatives of the fisheries and agricultural departments, as well as those of mines and resources, co-operatives, and health.

H. R. Clark
Deputy Minister.

If undelivered return to:
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For nearly 100 years, Pacific Salmon have been a major factor in the economy of British Columbia. Today they are the backbone of a great industry . . . one which over the years has brought hundreds of millions of dollars into the Province.

Today, too, in British Columbia, great plans are afoot for extensive industrialization and development. These plans will mean much new wealth and new employment, will bring this great Province closer to a full realization of its splendid destiny in our national life.

Yet without foresight and goodwill in industrial planning the priceless heritage of the salmon fisheries will be destroyed. Wise planning can aid in conserving the salmon, and is no hindrance to industrial development. Freedom to expand one is completely compatible with freedom to conserve the other. They are *partners in prosperity*.

The Department of Fisheries of the Government of Canada, at sea and on land in British Columbia, is playing its full part, with the co-operation of industry and those engaged in fishing, to conserve and protect the priceless heritage of the Pacific Salmon, that this great natural resource may be preserved as a full partner in the growth of British Columbia.