SCIENCE AND FISHERIES: Canadian fisheries scientists pursued a comprehensive range of investigations into the nature, volume and utilization of the resources of the heavily-fished northwest Atlantic during the past year, it was indicated in reports presented at the annual meeting of the Fisheries Research Board of Canada by directors of biological and technological stations in the Maritimes, Quebec and Newfoundland.

While all of the work carried out at the stations was of direct value to Canada's Atlantic fishermen, a great deal also has significance on an international scale. Data gleaned by Canadian scientists and those of other nations fishing these Atlantic waters guide the International Commission for the Northwest Atlantic Fisheries in its work as guardian of these resources.

Following a long list of similar finds in the past was the discovery of two new red-fishing areas on the banks east of Newfoundland in the course of exploratory deep-water dragging for this species. One area north of Flemish Cap yielded catches in sufficient abundance to indicate good commercial fishing possibilities in the 200-250 fathom depth range.

Investigations to find good fishing grounds for herring, which are subject to frequent fluctuations, indicated that they can be taken in June with drift-nets in the offshore areas of Hermitage Bay and Bay d'Espoir on the south coast of Newfoundland. The presence of a summer spawning stock on George's Bank was also confirmed.

CONSERVATION PAYS OFF

Continuing research on lobsters which are the basis of the east coast's most valuable inshore fishery showed that conservation measures adopted in the past are paying off in higher returns from the fishery. As the result of an extensive educational programme, the regulations introduced on the basis of scientific findings are now generally supported and there are even movements in the fishing ranks for larger size limits.

There was also encouraging news for oyster fishermen of Nova Scotia and New Brunswick who have experienced heavy losses during the past two years resulting from a decline in oyster stocks due to natural conditions. Indications are that depleted grounds can be rehabilitated more quickly and satisfactorily with breeding stocks immune to the destructive conditions, and an extensive programme of re-seeding is planned to commence this year.

In the failing clam fishery, the introduction of mechanical harvesters was found to have generally beneficial results while reducing the destruction of undersized clams. In addition, careful studies are being made with regard to introducing the European oyster to Maritime waters which, if successful, would partly fill the need left by the reduction in the clam population.

Another major project pursued on many different fronts during the year was the investigation and development of Atlantic salmon stocks. Long range programmes are being carried out in the Maritimes, Newfoundland and Quebec designed to restore and maintain this species at the highest productive capacity.

A rapid expansion was reported in the mechanization of the salt codfish industry in Newfoundland where a pronounced upsurge has occurred, and is continuing, in the installation of artificial drying plants.

New products for the salt fish trade, based on an adaptation of the standard curing practice, have been prepared with shredded fish. Shaped in the form of slabs and dried artificially, these products were of good appearance, flavor and consistency.

Research into the development of fishery by-products indicated that cod viscera could be used in the production of good quality animal feed. Sufficient information has been obtained to calculate an estimate of industrial production costs.

A vast amount of research was also conducted into the handling and treatment of fish aboard ship and in plants directed towards the maintenance and production of catches at highest quality levels.

Lending a helping hand to another part of the world, technologists carried out drying experiments with fish sent from Cambodia for the purpose of designing an artificial dryer for that country. Good results were obtained and further experiments of this nature are planned.

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BRUCELLOSIS ERADICATION: Rt. Hon. James G. Gardiner, Minister of Agriculture, has announced that a programme of area testing and eradication of Brucellosis disease of cattle will be entered into by his Department.

Brucellosis, or Bang's Disease, is a bacterial infection causing abortions and breeding difficulties in cattle. Losses from it are estimated to cost Canadian cattlemen nine million dollars annually. Brucellosis infection in cattle is responsible for undulant fever in humans, both being caused by the same organism.

Procecure will follow the pattern which has been applied successfully in the virtual eradication of tuberculosis from Canadian cattle. An area will be accepted under the programme on the recommendation of a provincial department of agriculture. All susceptible cattle in the area will be tested and infected animals will be disposed of, with compensation paid to the owners.

A joint federal-provincial policy of calf vaccination against brucellosis has been in effect since 1950. This, along with several provincial control programmes, is considered to have reduced the incidence of the disease.