

*Supply—Marine and Fisheries*

Mr. CARDIN: The increase is made up of the following items:

(a) For the operation of the biological stations at St. Andrews, New Brunswick, and Nanaimo, British Columbia, necessitating additional scientific help for the former and a boat for the use of the latter station to be used on the west coast of Vancouver island, \$5,275.

Mr. McRAE: Is that amount for the boat?

Mr. CARDIN: It includes the scientific help required.

Mr. McRAE: All I can say is that any boat you can get for \$5,000 will not go very far in the seas you get on the west coast of Vancouver island. It would not be much better than a rowboat.

Mr. CARDIN: It is a very small boat that is being purchased on the recommendation of the board. The other details are as follows:

(b) A new permanent building is required at Halifax. Due to the expansion of the work of instruction to fishermen and fishery officers, the present building in which are housed the laboratories, offices and class rooms, is far too small, so much so that all who applied for instruction this year could not be accommodated, \$50,000.

At Halifax a boat is required to be specially fitted to demonstrate the best methods of handling and keeping fresh fish in good condition, \$15,000.

The demonstration building requires a second storey to provide space for canning equipment and demonstration work, \$9,500.

Eastern Passage marine laboratory, which was built to provide a necessary part of the training of students taking the university course of Fisheries Bachelor of Science, \$10,000.

A new building is required at Prince Rupert to house the refrigeration plant for experimental and demonstration work, in view of the advance now taking place in rapid freezing, \$16,000.

Refrigeration machinery for the above, \$16,000.

For additional scientific staff and the general operation of the above station, \$11,460.

(c) To provide for a systematic investigation of the oyster fishery and to build a small laboratory for the work, \$7,000.

Fish hatchery for experimental and demonstration work, \$4,000.

Surveying lakes, especially of the prairie provinces (additional), \$3,500.

Incidental expenses, \$1,050.—Total, \$148,785.

Mr. McRAE: I notice that there is a large appropriation of \$40,000 odd in connection with buildings and equipment and additional station staff at Prince Rupert. Who is in charge of that Prince Rupert station?

Mr. CARDIN: Doctor Finn.

Mr. McRAE: Does he live at Prince Rupert?

Mr. CARDIN: Yes.

[Mr. McRae.]

Mr. BRADY: This is a very interesting and a very important subject. A part of the vote is for purely scientific work of an experimental nature and the other part is for practical work. I do not know how many members are really qualified to express in ordinary terms what a great number of these words mean, for instance, protozoa, diatoms and copepods. What progress have we made in the study of this organic life which belongs to what is known as the plankton group? This group comprises a very remarkable family of roaming organic life found drifting in the waters, and includes the flora and the fauna of this particular group. A German expedition in 1894 made a thorough survey of this minute organic life in the Atlantic ocean, and I would ask the minister what data is available for us as to what is being done in that particular group?

Mr. CARDIN: I am sure that my hon. friend does not expect from me a detailed explanation of the work of the biological stations. I have no hesitation in confessing that I am far from being familiar with these scientific matters. Reports are published by the biological board in which all their activities are discussed. I might mention that one of the great problems in relation to the halibut on the Pacific coast was to prevent discolouration or yellowing, on account of which condition the price of the fish would be reduced by five or six cents a pound. The biological board have been studying that problem, and I believe that they have discovered a cure for the trouble. That discovery will be of great benefit to all interested in fisheries. In fact the head of one of the important British Columbia fishing companies stated that this one discovery and remedy would justify all the expenditure by the biological board.

Mr. BRADY: I am pleased to hear the minister's statement. One of our finest food fish is the famous white spring salmon. I have seen these fish caught in the Dixon entrance as heavy as sixty and seventy pounds. Unfortunately owing to the prejudice against its lack of colour white spring salmon does not fetch more than two or three cents a pound, as against twelve or fourteen cents a pound for our red spring salmon. Would it not be worth while to undertake research work with a view to devising some innocuous method whereby this very valuable food fish could be put on the market as best red spring salmon?

I observe that the department is studying the habits of the wood-boring worm known