

Scientists study effects of pollutants In Arctic lakes

Without proper safeguards, exploitation of the rich resources of the high Arctic will do much to upset the delicate environment of Canada's newest frontier. Two areas of immediate concern are the degree to which man and machines should be permitted to pollute the Arctic Ocean and Arctic lakes and rivers, and the point at which harvesting from every type of ecosystem should be controlled to ensure the future of particular resources.

These two problems are uppermost in the mind of the Canadian Committee for the International Biological Program, (CCIBP) which is made up of senior university and government biologists appointed by the National Research Council of Canada. As a result of this concern, the Committee is sponsoring a year-round study of production and pollution in Char Lake, which is located on Cornwallis Island in the Northwest Territories, one mile east of the southern end of the airstrip at Resolute Bay. Funds for this project are being provided by NRC, and

the research is being conducted by scientists from the universities of McGill, Guelph, Waterloo, Toronto, one U.S. university and several federal government departments.

The Canadian Committee for the International Biological Program is sponsoring a number of research projects within the framework of the International Biological Program (IBP), a 60-nation program of fundamental research into the problems of biological productivity and human survival in a world undergoing rapid technological change. This world-wide program is concerned with broadening man's understanding of the so-called balance of nature and the means by which man can preserve or control this balance without accidentally destroying it.

Dr. Frank Rigler of the Department of Zoology of the University of Toronto — Project Director of the Char Lake study — says the study was first proposed by an international committee of IBP concerned with production in fresh water.

"The Canadian Committee of IBP agreed to undertake the study since Canada not only has more unglaciated Arctic and more Arctic lakes than any other country, but also the resources to undertake such research," he says.

Char Lake was chosen in 1967 as the ideal site for the study because it is easily accessible, is of optimum size and is biologically and physically simple. Work started on a small scale in 1968. The lake was surveyed and sounded, and studies of fish and aquatic insects were initiated. In April, 1969, laboratories and living quarters were built and in May an intensive sampling program began. This preliminary work will be followed by intensive studies of the whole ecosystem of the lake in 1970 and 1971.

"The objectives of the Char Lake Project are related to man's present environmental concerns," Dr. Rigler says. "How much can he harvest from every type of ecosystem? How badly can he maltreat any system without

Dr. Frank Rigler used small tent as his laboratory during initial studies at Char Lake.

Au début, le Dr Frank Rigler s'est servi de cette tente comme laboratoire.

