

from a laboratory in Sainte-Anne-de-Bellevue, Que.; freshwater work is carried out from the Freshwater Institute in Winnipeg, Man.; and work on the Pacific Coast is directed from research laboratories in West Vancouver and Nanaimo, BC. Research vessels used for biological studies vary from small in-shore and lake craft to specially built seagoing ships.

The aquatic environment program studies the marine and freshwater environment in which aquatic organisms live, in order to increase knowledge in primary and secondary productivity and the occurrence of ocean and freshwater life of importance to man. Considerable importance is placed on increased research efforts associated with pollution prediction, abatement and elimination, including the effects of freshwater and marine eutrophication. Investigations are also conducted into the distribution and physical and chemical characteristics of major ocean currents and the physical and biological structures of large ocean areas, including the ocean bottom, where concentrations of fish and other aquatic life occur. Ocean climate and ocean weather as they affect the distribution of fish and other living organisms, as well as the vertical and horizontal distribution of nutrient matter and the cycle of energy and life in the seas, are regularly observed and correlated. These studies, as well as special studies of interest to the Armed Forces, the Ministry of Transport and the international fishery commissions, are carried out by groups operating from Dartmouth, NS; Winnipeg, Man.; Burlington, Ont.; West Vancouver and Victoria, BC; and with the co-operation of the Department of Energy, Mines and Resources.

Investigations aimed at improving methods of fisheries resource utilization including preserving, processing, storing and distributing fish products, as well as of utilizing all parts of the fish are carried out. These include developments in refrigeration, the use of antibiotics as fish preservatives, development of new products for the utilization of abundant species not now used for food, and improvements in canning, smoking and salting of fish. Fundamental research on the structure and composition of fish proteins, marine oils, hormones from aquatic organisms, and other products from the sea is under way. These studies are carried out in research laboratories at Halifax, NS, and St. John's, Nfld. on the Atlantic Coast; at Vancouver, BC, on the Pacific Coast; and for inland products and processing at Winnipeg, Man.

Co-ordination and integration of the various research programs is carried out by a research and development programming group in Ottawa, who are also responsible for the administration of a grant program to encourage university research in the fields of marine and aquatic science. A unit for the editing and production of scientific publications is also centred in Ottawa.

The Fisheries Research Board of Canada is an independent advisory body reporting directly to the Minister of State for Fisheries. Its task is to analyze the research and development programs of the Fisheries and Marine Service and to make recommendations as to changes or amended priorities as deemed necessary. The Board consists of a permanent chairman and up to 18 members appointed by the Minister for five-year terms.

### **9.2.7 Department of Indian Affairs and Northern Development**

The Department of Indian Affairs and Northern Development has two distinct but quite different responsibilities toward research. In one the scientific effort supports departmental policies, plans and administrative activities; while the other is to foster, through scientific investigation and technology, knowledge of the Canadian North and of the means of dealing with conditions relative to its future development.

#### **9.2.7.1 Indian and Eskimo Affairs**

The Research Division, Policy Planning and Research Branch, engages in two main types of research: social research and historical research. As well, it provides funds to Indian associations and organizations engaged in carrying out treaty and historical research as part of the claims development process. Finally, the Division operates a Research Reference Service which acts as a central repository for material on Indian people to facilitate research carried out by others.

One group within the Research Division is responsible for carrying out social research as required in the policy development process. In addition, this group handles special projects at the request of other branches. During the past year work has centred on an analysis of legislation pertaining to Indian people and with the question of off-reserve Indian people and