Arctic Biological Station 1965.
Sketch of the Arctic Biological Station, Fisheries Research Board of Canada, at Ste. Anne de Bellevue, Quebec.

Line shading indicates areas investigated by the scientists of the Arctic Biological Station.
SELECTION of the Montreal area as the location for the Arctic Biological Station was influenced by several factors. For many years it has been a centre of arctic research through the activities of such institutions as McGill University, the Arctic Institute of North America and the University of Montreal, with all of whom the Fisheries Research Board maintains a close professional and friendly liaison. It also provides excellent transportation and communication facilities with the northland.

The shortness of the arctic summer season during which most field studies are carried out, coupled with climatic and ice vagaries—sometimes agreeable, at other times adverse—results in intensive research work being crammed into three months. Armed with a great variety of scientific, fishing and ancillary equipment, the scientists spread out to isolated posts. Travel comes in many forms: the M.V. Calanus operates in the eastern Arctic and the M.V. Salvelinus threads western water routes...charter vessels are sometimes used, such as on Great Bear Lake...aircraft whisk parties swiftly to distant bases...dogteams, motorized toboggans, canoes, rowboats and inflatable rubber boats are fitted to other travel and research requirements.

The accumulation of specimens, observations and notes from the investigations, analyzed and studied at the Arctic Biological Station when the north is locked in winter, provides for a busy year-round program of operations whose goal is the solving of secrets and problems of the north’s fisheries resources.
EXPANDING RESEARCH PROGRAM

FISH and marine mammals are a major source of livelihood for the residents of Canada’s northland... without these resources, habitation could not have been possible in the land of the midnight sun. Whereas in most other parts of Canada the fisheries are prized for their commercial or recreational values, in the north they represent a basic staple for the people and their widespread mode of travel, the dogteam.

Times change in the north, as elsewhere, and improved transportation and communication facilities may well lessen the dependence of the inhabitants on the fisheries. But new values emerge as old ones decline... there is the growing desire of the city dweller in the south, faced with a shrinking hinterland, to explore arctic horizons and pit his angling skill against fighting northern species. There is also a growing awareness of the commercial value of a number of the north’s fish and marine mammals. The fisheries resource consequently represents revenue, as well as a traditional source of food, for the residents north of 60.

But whatever the allure of the Arctic’s fish and marine mammals, it is imperative that Canada have comprehensive information on this resource. The task of investigating and compiling such knowledge is entrusted to the Arctic Biological Station of the Fisheries Research Board of Canada. It is a wide-ranging responsibility, designed to delineate the various species of fish and marine mammals, their populations, locations, environment, movements, feeding habits and productive capacities so that authoritative guidelines may be set up for their sensible utilization.
RESEARCH by the Arctic Biological Station and by other institutions in Canada's northern freshwater and marine areas has resulted in the identification of more than one hundred species of fish. At present only a small proportion of these are utilized by the residents but others may assume importance in the course of time.

Most desired of the freshwater species are: whitefish, lake trout and lake herring; to a lesser extent, inconnu, pike, grayling and burbot. Marine species utilized include several varieties of cod, flounder and sole.

Arctic char, the best known fish of the north, frequents both the sea and rivers and lakes. Together with being a longstanding staple, it has also become an export item and sport fishing attraction.

Arctic waters are characterized by their low productivity, the result of a short "growing" season. Fish in northern lakes and seas grow more slowly and mature later than do those in more southerly climes. Widespread biological studies of fish in both barren ground and marine water masses are aimed at accumulating the knowledge on which a program of both expansion and protection of the fish populations may be devised.

FISH STUDIES
NO CREATURES are more symbolic of their environment than are the marine mammals of Canada's arctic and sub-arctic wastes. Moreover, none have been more indispensable to human existence in any similar region of such limited resources.

They are an oddly assorted group, numbering in their midst the ponderous walrus, an assortment of seals, various whales, and the fabled, long-toothed narwhal. Between them they represent food, clothing and shelter for a large section of the northern populace. Their combined range takes in not only the northern region, but, in the case of several seal and whale species, a large section of Canada's Atlantic waters as well.

Scientists of the Marine Mammals division of the Arctic Biological Station thus have an enormous amount of territory to cover in their quest for knowledge of the subjects that come within their purview. They deal with an over-all resource that, in addition to its immediate, life-sustaining values, is subject to expanding commercial fishing operations for seals and whales in widely scattered localities. As demand for the products from the north's marine mammals increases, so does the need for knowledge as a basis for sound conservation measures to ensure maximum sustained productivity.
MARINE life in northern waters, as elsewhere, is varied, its study fascinating. Among its most complex facets are the plankton, the wanderers of the aquatic world, sometimes colorfully called the "grass of the sea". Studies of these tiny organisms — floating plants, algae, copepods, fish and crustacean larvae, jellyfish, etc. — are one of the responsibilities of the Biological Oceanography division of the Arctic Biological Station. Another is research on benthos or bottom-dwelling creatures, such as starfish, shellfish, crustaceans, worms and other creatures inhabiting the seafloor.

Investigations into the distributions of such creatures, their life histories and relationships to their physical environment, to one another and to the fishes and mammals which feed directly or indirectly upon them, are a key function of the Station in its over-all studies of the north's fisheries resources.