

trout (lake, speckled, brown and rainbow), maskinonge, bass, whitefish and yellow pickerel. Four of the finest trout-rearing stations on the Continent are located in this province—at Dorion near Port Arthur, Sault Ste. Marie, Hills Lake near Englehart, and Chatsworth.

Fisheries Research.—Research in Ontario is carried on in the Great Lakes and in inland waters. At the South Bay Mouth Station on Manitoulin Island in Lake Huron, Wheatley on Lake Erie, and Glenora on the Bay of Quinte on Lake Ontario, fishery biological stations are operated for the investigation and study of the commercial and sports fisheries on the respective lakes. In Algonquin Park detailed studies concerning lake trout and smallmouth bass are in progress and management techniques are being tested against the background of a creel census which has been continuous since 1936. Studies of speckled trout have been re-instituted after a five-year break in continuity.

A selective breeding experiment concerning the hybrid between lake trout and speckled trout is progressing favourably. The deep-swimming character of the lake trout and the character of maturity at early age of the speckled trout are those being selected for combination in the hybrid.

Co-operation by Ontario in the field of gear development is being extended through the Federal-Provincial Committee for Ontario Fisheries and in the field of sea lamprey control through the Great Lakes Fishery Commission.

Manitoba.—The freshwater fishery resources of Manitoba have assumed an increasingly important position in the economy of the province. Although the commercial fishing industry experiences periods of fluctuation, nevertheless it is constantly expanding. Production in 1960 of 31,049,100 lb. valued at \$6,507,348 provided full-time or part-time employment for 5,330 fishermen. In addition, at least 6,000 persons were engaged in subsidiary industries such as fish-processing, transportation, boat-building and other related industries.

The lakes and streams of the province produce 15 varieties of commercial fish, the most important being whitefish, pickerel, sauger and northern pike. Some 2,145 commercial fishing boats are in operation, varying in size from lake freighters to small skiffs powered by outboard motors. The value of these boats together with nets and other equipment is estimated at \$2,910,900 and investment in processing plants and cold storage facilities at approximately \$3,000,000, which makes a total capital investment of at least \$6,000,000 in plant and equipment.

The Department of Mines and Natural Resources of Manitoba, in supervising commercial operations and enforcing fishery regulations, operates a fleet of modern diesel patrol boats during the open-water seasons and uses bombardiers, snowmobiles and light trucks in winter. All patrol units are equipped with two-way radio communication instruments.

Two spawn-gathering camps and four fish hatcheries are in operation in the province. Two of the latter are pickerel hatcheries; one is engaged in the culture of whitefish eggs, and the other operates on a year-round basis producing several varieties of trout. The fish-culture program employs the latest scientific processes and large plantings of sport and commercial varieties have been made. Data gathered through the years indicate that such culture operations are essential to the maintenance of well-stocked lakes and streams. Five species of sport fish are cultured at the Whiteshell Trout Hatchery—speckled, brown, rainbow and lake trout, and a new hybrid variety called "splake". This splendid species of sport fish, developed by crossing speckled and lake trout, has created great interest among anglers.

A long-range scientific and biological program recently begun is designed to provide valuable factual information on such topics as lake limits and most favourable fishing seasons. Constant progress is also being made in the handling and processing of fish. Both the government and the industry are aware of the current market demands for high-quality packaged products processed in modern plants under sanitary conditions and three