

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 Province of Manitoba possesses a very extensive and valuable freshwater fishing industry. Its fishing waters extend from the international boundary to the far northern reaches of the province and include approximately 39,000 sq. miles of lake and stream. In 1962 the commercial industry produced 30,661,500 lb. of fish valued at \$5,663,000 and provided full- or part-time employment for 5,018 fishermen and for at least 6,000 persons engaged in fish processing, transportation, boat-building and other related industries.

Some 1,600 commercial fishing boats are in operation throughout the province, varying in size from diesel lake freighters to small skiffs powered by outboard motors. The value of these boats together with nets and other equipment is estimated to be \$3,285,000. The largest single item is gillnets; 113,472, having an estimated value of \$1,826,000, were in use. New types of gear are continually being tested to determine their efficiency and cost under Manitoba's fishing conditions.

The freshwater fisheries of the province are administered by the Fisheries Branch of the Department of Mines and Natural Resources. Fishery regulations are enforced by the use of a fleet of modern patrol boats during the open-water season and a fleet of bombardiers and light trucks during the winter season, and remote operations are supervised by the use of departmental aircraft. All patrol units are equipped with two-way communication systems. In the management of the fisheries resources, fish culture plays an important role. Four main hatcheries are in operation, three of them to provide stock for commercial fishing waters. In addition, two seasonal spawn camps are operated to provide lake trout, whitefish and pickerel eggs which are subsequently reared and planted. Biological research and investigations include pollution studies, analysis of fishing success, spawning habits, sampling of catch to determine year, class, abundance and fish growth, tagging to chart migratory patterns and fish mortality, and the collecting of other data necessary for sound management of the fishery resources. To ensure quality fish products, the Fisheries Branch, in co-operation with the Department of Health, maintains a continuing program of inspection and plant improvement to meet the sanitation standards set out under the Public Health Act.

Sport Fisheries.—Angling is becoming increasingly popular in Manitoba both in summer and winter; in the 1961-62 season more than 100,000 licences were issued, 13,731 of them to non-residents. The Department has a program under which certain lakes are selected each year for fish eradication after which they are re-stocked with rainbow and speckled trout. In 1962 two new species were introduced to the province—Kokanee, a landlocked sockeye salmon, and the maskinonge, a prized species of sport fish. This program has diversified fishing in southern Manitoba where these species did not formerly occur. One of the province's four hatcheries is operated expressly for the production of sport fish.

Saskatchewan.—Almost 32,000 sq. miles of fresh water, about one eighth of Saskatchewan's surface area, provide the basis for the province's fishing industry. The administration of the fisheries, which includes the planning of policies and the development of programs to insure their proper management and utilization, is the responsibility of the Fisheries Branch of the Department of Natural Resources, with head office at Prince Albert. The Branch has three main divisions—Fish Management (Commercial and Sport Fisheries Sections), Fish Research and Fish Culture.

During the year ended Mar. 31, 1962, Saskatchewan became the highest Canadian producer of whitefish and lake trout; 7,596,806 lb. of whitefish were harvested and 2,161,846