

The types of fishing boats in use vary from small craft to 70-foot tugs, and the types of gear vary from gill-nets, pound-nets and trap-nets, seines, trawls and baited hooks to small hand-operated seines and dip-nets. Fishing methods and equipment have been modernized extensively during the past few years. Diesel-driven steelhull tugs with depth sounding devices, radar and ship-to-ship and ship-to-shore communications have been in use for some time. Knowledge of the fish and their movements is constantly being expanded from biological research findings. Modern icing facilities and transportation methods are in use as well as new types of fishing gear. Programs to develop more efficient and economical fishing and processing techniques have resulted in efficient bulk-handling techniques for smelt and a viable fish meal plant which produces a marketable product from fish-processing wastes and fish unsuitable for food. Trawling has proved very efficient in harvesting smelt on a year-round basis on Lake Erie.

Most Ontario fishermen are organized into various local associations and many of these associations are in turn represented by the Ontario Council of Commercial Fisheries which performs important services to the industry.

Ontario is one of the most attractive fishing areas on the continent, having an estimated freshwater area of approximately 68,490 sq miles. Excellent angling opportunities are available for such prized fish as brook, rainbow and lake trout, yellow pickerel (walleye), smallmouth and largemouth bass, northern pike and maskinonge. The recreational angling fraternity is no longer restricted to open water — fishing is now a year-round sport. In many stores and camps throughout the province, a wide selection of ice-angling equipment, including snowmobile rentals, is available to the fisherman and seasons have been extended in many parts of the province for certain species of fish to facilitate winter angling. Annual revenue from the sale of angling licences prior to 1971 was in the neighbourhood of \$6 million. As of the 1971 summer season, licences are no longer required of residents but an annual fee of \$8.50 is payable by non-residents for fishing privileges. The management of this valuable resource is administered by a field staff of well-trained conservation officers and biologists.

Ontario operates 16 fish hatcheries and rearing stations; the main species reared include brook, rainbow and lake trout, splake, smallmouth and largemouth bass and maskinonge. The basic aim of the hatcheries is the economic production of high-quality species to sustain and develop recreational fishing throughout the province. Studies are conducted on the improvement of transportation and planting techniques to improve survival and returns to the angler; such transportation includes the use of aircraft, helicopters and trucks. The marking of hatchery fish by removal of a single fin is providing valuable information on survival of fish stocks and angler success.

A significant research program contributes to the understanding of principles operating in the aquatic ecosystems. Programs are directed toward specific fisheries management problems in the Great Lakes and in the smaller inland waters.

Manitoba. Manitoba's interior location belies the importance of its fisheries resources which stems from an abundance of fresh water in about 40,000 sq miles of lakes and streams covering 16% of the area of the province.

In the year ended March 31, 1972, the commercial fishery produced 12.8 million lb. of fish, a 9% decrease from the 14.1 million lb. of the previous year. The value to the fishermen increased \$268,800 to \$2.4 million. Northern waters contributed 5.6 million lb. (43%), followed by Lake Winnipegosis with 3.1 million lb. (24%) and Lake Manitoba with 1.8 million lb. (13%). The production from Lake Winnipeg was 1.5 million lb. (11%), an increase of 1.1 million lb. as a result of the lake reopening after the closure for mercury pollution. Sixteen species or groups of species normally enter into the commercial catch but only a few species predominate. In 1971-72, whitefish contributed 4.6 million lb., pike 2 million lb. and walleye (pickerel) 2 million lb. A miscellany of species, primarily suckers and carp, contributed 4.205 lb. All of the commercial catch is marketed by the Freshwater Fish Marketing Corporation, a federal Crown agency, and is exported mainly to the United States. Gill-nets are the main fishing gear. About 966 fishermen were employed during the open-water fishing and 1,575 took part in winter fishing.

Fisheries administration is under the control of the Department of Mines, Resources and Environmental Management and is divided into research, program development and field operations sectors. Field operations are divided among four regional units. Conservation