

and Ottawa. A limnologist was located at Edmonton and Jasper and a range specialist and two pathologists at Edmonton and Ottawa, respectively. A number of university graduates and undergraduates are engaged annually to assist in summer field work. Ottawa headquarters has an administrative staff of about 30 in addition to supervisory research officers and about 25 part-time migratory bird wardens and sanctuary caretakers are employed.

**Provincial Government Wildlife Conservation Measures.**—As stated previously, each province has jurisdiction over its own wildlife resources. The measures adopted by the respective provincial governments to conserve these resources are discussed briefly in the following paragraphs.\*

*Newfoundland.*—The geographical separation of the province into a mainland and an island area provides two distinct wildlife regions. The Labrador, or mainland, region differs little in avian, faunal and fish species from any other region of Eastern Canada but the Island has only about one half of the number of mammals found on the neighbouring mainland and also fewer species of birds and fish.

Only 14 mammal species are native to the Island—caribou, black bear, beaver, otter, muskrat, red fox, lynx, ermine, pine marten, meadow mouse, Arctic hare, little brown bat, long-eared bat and wolf (now extinct). The development of these native mammals is of considerable interest to taxonomists; ten species have endemic races on the Island and are regarded as subspecies of the mainland species. Seven mammal species have been introduced to the Island—moose, snowshoe hare, house mouse, Norway rat, mink, cinereous shrew and chipmunk—the last three in recent years. The moose and snowshoe hare are of considerable importance to the economy of the Island as sources of meat. However, the harvest of fur bearers is not large. Trapping of beaver, muskrat and mink is conducted on a small scale but usually as a part-time occupation since the returns are not sufficient to provide a livelihood.

The only upland game bird of importance is the ptarmigan, but the ruffed grouse has been successfully introduced in recent years. Of the waterfowl species, Canada geese, black ducks, green winged teal, eider, scoter and old squaw ducks are most important. Murres, generally regarded as a non-game species, are also taken in large numbers and are of considerable importance as a meat source.

Newfoundland, like other provinces, seeks to make wise use of its wildlife resources and, during the past 12 years, has carried out an extensive research program involving moose, caribou, snowshoe hare, beaver, muskrat, lynx and ptarmigan. Certain phases of the caribou research, including inventory, have been conducted on a co-operative basis with the Canadian Wildlife Service and the Tourism, Game and Fish Department of the Province of Quebec.

The utilization of wildlife as a food source is probably greater in Newfoundland than elsewhere in Canada, but dependence on the source has decreased considerably. Appreciation of the aesthetic values of wildlife is increasing rapidly, and preservation of these values for all time is provided by recent proposals to set up wilderness areas and bird sanctuaries where vital habitat conditions are necessary to the continued propagation of a species.

*Nova Scotia.*—Hunting in Nova Scotia has gone through several stages since the days when it was a necessity of life to the time when ease of access and mechanization began seriously to affect wildlife numbers. The first provincial game laws which were passed in 1794 made it unlawful to kill partridge and blue-winged ducks in certain periods of the year and from these beginnings has developed the existing framework of legislation for game preservation which is administered by the Department of Lands and Forests and is enforced by officers of that Department and the Royal Canadian Mounted Police.

\* Additional information on provincial conservation of fisheries resources is given in the Fisheries Chapter, together with data relating to the work of the Fisheries Research Board of Canada and to international fisheries conservation (see Index).