

the most important factor in herd reduction but other significant factors from time to time include effects of forest fires on winter range, predation, accidents, and poor calf survival. Studies were continued on mink, muskrat and beaver in the Mackenzie District, and of polar bear in Keewatin and Franklin Districts. Big game mammals in the National Parks were also the object of continued study, special attention being given to mountain sheep and elk in the mountain parks of Alberta, where large populations of those species facilitate investigations. In Wood Buffalo Park, investigations into the problems of disease and low reproductive rates among bison were continued in the hope that some control of each might be achieved. A small herd of wood bison was captured, certified as disease-free and transferred to Elk Island National Park for propagation and eventual release in areas of the species' original range. Studies of the relationship between forests and wildlife were initiated in New Brunswick in co-operation with the federal Department of Forestry and Rural Development.

Damage to cereal crops by wild ducks and sandhill cranes continued to receive intensive study and much time was devoted to other species greatly reduced in number or in danger of extinction, such as the trumpeter swan and whooping crane. Investigations of migratory waterfowl were expanded. Kill surveys previously conducted in Prince Edward Island, New Brunswick, Quebec and Ontario were replaced by a single country-wide survey based on sales records of the Canada Migratory Game Bird Hunting Permit, which was used for the first time in 1966. A crop-damage survey in the Prairie Provinces is being conducted annually. Arctic bird-banding programs were continued, as were pilot programs of wetlands leasing. The loss of wetlands to drainage and filling for agricultural and other purposes poses a serious threat to the waterfowl resource. A major program of preserving wetlands by leasing and acquisition will begin in 1967.

The Service opened a new Prairie Waterfowl Research Centre on the campus of the University of Saskatchewan in Saskatoon in 1966. Also, a national registry of pesticide residues in wildlife has been established. Research in limnology is oriented toward the maintenance of adequate stocks of fish. Subjects of research include productivity of National Park waters, the biology of fish and associated fauna. Adequate stocks of game fish are provided and maintained through modern methods of management where they can be applied without detriment to the aesthetic values of the areas concerned.

The Service's research staff totals 59. Specialists covering mammalogy, limnology, migratory bird populations, migratory bird habitat, ARDA, pesticides, pathology and biometrics are stationed at the head office in Ottawa. Offices are located at Fort Smith and Inuvik, N.W.T., Whitehorse, Y.T., Vancouver, B.C., Edmonton, Alta., Saskatoon, Sask., Winnipeg, Man., Ottawa and Aurora, Ont., Quebec, Que., Sackville, N.B., and St. John's, Nfld. Headquarters for the Western Region is in Edmonton and for the Eastern Region in Ottawa. A number of university graduates and undergraduates are engaged annually to assist in summer field work. Sixteen officers are engaged in an inventory of wildlife land capability under the ARDA program; the Canada Land Inventory will cover 1,000,000 sq. miles of Canada, primarily in the southern portions, and will be completed in the next four years. A program to offer scholarships of \$1,200 to graduate students in wildlife and allied fields was in its third year in 1966, when ten scholarships were awarded.

**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 outlined in the 1963-64 Year Book at pp. 46-52. The conservation of wild fur-bearing animals in the different provinces is discussed in the Fisheries and Furs Chapter, Part II, and information on provincial conservation of fisheries resources is given in Part I of the same Chapter, together with data relating to the work of the Fisheries Research Board of Canada and to international fisheries conservation (see Index).