

established at Wainwright, Alta. in 1907. These were among the early attempts at wildlife conservation in Canada.

For a long time, certain species were protected from man and predator. Now, because of better understanding of how nature works, it has been recognized that many factors cause fluctuations in wildlife numbers, and hunting seasons and bag limits are based to a greater extent on environment. Given a fully stocked environment, the annual increase need only replace the losses. Surplus production can therefore be taken by predatory animals or, in the case of game species, by man, without endangering the species.

As a natural resource, wildlife within each province comes under the jurisdiction of the provincial government. However, the federal government does have responsibility for wildlife on federal land and for research and management of migratory birds.

10.4.1 The Canadian Wildlife Service

The Canadian Wildlife Service (CWS) began as an agency to administer the Migratory Birds Convention Act passed in 1917. It was expanded in 1947 to meet the need for scientific research in wildlife management and is now a part of the Environmental Management Service of the Department of the Environment.

The CWS conducts scientific research into wildlife problems in the Northwest Territories, the Yukon Territory and the national parks. It advises agencies concerned with wildlife management and co-operates in carrying out recommendations, advises on and co-ordinates administration of the Game Export Act in the provinces, and co-operates with agencies in Canada and abroad in dealing with national and international problems related to wildlife resources. The Convention on International Trade in Endangered Species of Wild Fauna and Flora was signed by Canada in July 1974. The CWS was designated the Scientific Authority and the Management Authority for the Convention in Canada. The Canada Wildlife Act, passed by Parliament in 1973, provides the federal government and the CWS with a legislative basis for undertaking joint federal-provincial wildlife management programs. Under the Act, the CWS has initiated a rare and endangered species program. Continuing studies on the wood bison, whooping crane and peregrine falcon are to be augmented with new projects on other species. As administrator of the Migratory Birds Convention Act the CWS, in consultation with provincial wildlife agencies, is responsible for recommending the annual revisions of the Migratory Birds Regulations which govern open seasons, bag limits and hunting practices. Enforcement of the Act and Regulations is carried out by the Royal Canadian Mounted Police with CWS and provincial co-operation.

The loss of wetlands to drainage and filling for agricultural and other purposes poses a serious threat to waterfowl. To counteract this the CWS, in co-operation with provincial agencies, began a major program in 1967 to preserve wetlands by purchase or long-term lease. By 1974, 42,000 acres had been bought for \$8 million. The CWS also has charge of 80 bird sanctuaries covering 44,400 sq miles.

The CWS conducts two annual surveys of waterfowl hunters, selected from the 450,000 holders of the Canada migratory game bird hunting permits, to obtain estimates of the species and age of the major waterfowl species taken by hunters. Other continuing projects related to migratory game birds include annual surveys of crop damage in the Prairie provinces and of waterfowl populations and habitat conditions in western Canada, a program to reduce hazards caused by birds flying near airports, and a search for a substitute for lead shot which each year causes lead poisoning and subsequent death of a large number of waterfowl. Bird-banding provides valuable information on the migration and the biology of birds, and is especially useful in waterfowl management. The CWS headquarters in Ottawa keeps sets of continental banding records and controls the activities of banders operating in Canada.

Special attention is being given to species greatly reduced in number or in danger of extinction. By 1974, 21 young had been raised from whooping crane eggs taken from the breeding grounds and incubated at the Patuxent Wildlife Research Center in Maryland. Eventually, the progeny from these 21 chicks will be released into the wild but only after a sufficiently large supply of breeding birds has been developed. In 1974, 16 nesting pairs laid 29 eggs, but only two chicks reached the wintering grounds. The total population by December 1974 was 49, a net increase of one from December 1973.