

The CWS also carries out research in the national parks. Studies in limnology, ornithology, mammalogy and general ecosystem relationships are in progress. Long-term studies on wolf and grizzly bear ecology have just begun and a biophysical inventory of the mountain parks is continuing in Jasper and Banff. A bison-livestock interaction study is proceeding in and around Wood Buffalo National Park. Shorter duration projects are defined each year and undertaken for Parks Canada according to its priorities.

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. The International Agreement on the Conservation of Polar Bears came into effect on May 26, 1976. Canada was the first of the five signatories to ratify this agreement. 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 cooperation.

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 cooperation with provincial agencies began a major program in 1967 to preserve wetlands by purchase or long-term lease. Since then, 46,000 acres (19 000 ha) have been bought for \$9 million. The CWS also has charge of 80 bird sanctuaries covering 44,400 sq miles (115 000 km²).

The CWS conducts two annual surveys of waterfowl hunters, selected from the 471,500 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 a national goose harvest survey, 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. The program in which 21 young were raised from whooping crane eggs taken from the breeding grounds and incubated at the Patuxent Wildlife Research Center in Maryland is continuing. Eventually, the progeny from these chicks will be released into the wild but only after a sufficiently large supply of breeding birds has been developed. In 1976, 13 chicks were produced and by July the total population was estimated to be some 80 birds.

Research continues on the effects of toxic chemicals on wildlife at various sites across the country. In Alberta, a study continues on the way in which herbicides alter the habitat on which wildlife depends. The results of field work on the relation between chemical contamination of the lower Great Lakes and the breeding success of fish-eating birds were published. Research began on the effects of differing habitat quality and chemical contamination on the reproductive success of common loons in eastern and northeastern Ontario.

Studies continued into the health of game and fur-bearing animals and rodents in northern Canada and into parasitism in these mammals as well as in