

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 coordinates 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 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. 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 1973, 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. Much attention has been given to species greatly reduced in number or in danger of extinction. By 1973, 17 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 17 chicks will be released into the wild but only after a sufficiently large supply of breeding birds has been developed. In 1973, 14 nesting pairs laid 27 eggs, but only two chicks reached the wintering grounds. The total population by December 1973 was 48, a net loss of three from December 1972.

Research continues on the effects of toxic chemicals on wildlife at a number of sites across the country. A new project has been started in Alberta to study the ways 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 their fish-eating birds will be published within a year.

Studies continued into the health status of game and fur-bearing animals and rodents in northern Canada and into parasitism in these mammals as well as birds. Measures to control anthrax among bison in Wood Buffalo National Park and in the Northwest Territories were again successful; no outbreaks occurred in 1973.

The interpretation program, which began in 1970 with the Wye Marsh Wildlife Centre at Midland, Ont., expanded in 1973 with the opening of Cap Tourmente and Percé Wildlife Centres, both situated in Quebec. The former focuses on the migrant Greater Snow Goose population; the latter interprets the natural and human history of the Atlantic gulf coast, with special attention to Percé and the nearby sea-bird colonies of Bonaventure Island. Construction began in 1973 on the Creston Valley Wildlife Centre in British Columbia, scheduled to open in 1974.

The CWS has been participating in the Canada Land Inventory which is a federal-provincial program to gather information on how land in the settled parts of Canada is being used, and how best it could be used for agriculture, forestry, recreation and wildlife.

Research in limnology includes inventory and productivity of lakes and rivers in the national parks and the biology of fish and associated flora and fauna. The CWS provides advice to Parks Canada with the view to maintaining stocks of fish through modern methods of management, where they can be applied without detriment to the values of the areas concerned.