and the musk-ox is in a precarious state on the mainland of Canada. A few indigenous Canadian feathered species, such as the Labrador duck and the passenger pigeon, have become extinct, and the whooping crane and trumpeter swan have been reduced to very low numbers. Some of the ducks have also come within the danger line during the drought period of the past few years.

It has been shown in the past that when any wild species becomes reduced in numbers beyond a certain safety point, it is always questionable whether it can be restored to a position of safety, and the revival involves large expense over a long period of years. When a species becomes totally extinct, a historic monument which has existed longer than the memory of man upon the earth and which may have values beyond our present comprehension, has been irreparably and wantonly destroyed.

Many reclamation projects, draining of ponds, lakes, and marsh lands, undertaken ostensibly to obtain more land for agriculture, have been proved unwise, for in many cases the natural crop of fish, waterfowl, muskrat, and other furs was of more value than the agricultural products produced on the drained bottom lands. A still greater loss has been sustained by the general lowering of water tables in parts of the country. The recent long period of drought in the western parts of Canada has brought these questions to the front, and the problem of restoring the breeding grounds of our vanishing wild fowl has become identical with the greater human problem of restoration of inland water levels and retention of good agricultural land in cultivation. It should be axiomatic that the invaluable resources provided by the faunas of fin, feathers, and fur should be husbanded and thus the goose that lays the golden eggs should not be killed.

Many faunal species have a value in the balance of nature which is often forgotten and when they are exterminated the balance is upset to the detriment of other values; thus the beaver is considered by many wild life experts to have far more value to the country as an unpaid and self-supporting water-power engineer than even as a fur producer, for the reason that beaver dams in the mountain streams help to impound excess flood water, conserve moisture, and aid in preventing floods and harmful erosion at lower levels. The devastation wrought by insect pests has been pointed out on page 50, but not all insects, by any means, are injurious and wholesale methods of insect control may have serious effects on the balance of nature. This fact is stressed by Dr. Edith M. Patch,[20] who has been in charge of entomological work at the Maine Agricultural Experiment Station for many years.* Many naturalists and writers have complained that the general spraying of fruit trees has seriously reduced the number of certain species of birds in orchard districts; that drainage and other methods of mosquito control have eliminated many forms of useful swamp life; that wholesale poisoning of predatory mammals has eliminated the valuable fur bearers at the same time in certain districts; and that the use of strychnine, thallium, and other poisons in rodent control has unnecessarily sacrificed large numbers of fur bearers and useful birds. In all wild life control, an essential fact to be borne in mind is that faunas and floras have

* Dr. Patch thinks that too much emphasis has been directed to the fact that certain insects are injurious to man, his crops, and domestic animals, and too little to the fact that man is dependent on the insects for the pollination of plants which produce fruit, seeds, flowers, and commodities which are useful to him. The wholesale killing of insect life resulting from control campaigns, in which large areas are dusted or sprayed with toxic materials by means of aeroplanes and other mechanical equipment, has already exterminated such a large proportion of the beneficial native insect life that pollination of the blossoms of fruit trees and therefore the fruit crops themselves have suffered. In certain localities some plants have already become rare because their insect pollinators have been eliminated from the native fauna.