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BIOLOGY

America's Game Birds and Animals Coming Back



PRONGHORN ANTELOPE on the Wichita National Forest, Oklahoma. These beautiful animals, whose herds used to outnumber even the vast masses of bison, are struggling to keep their hooves on the up-grade from near-extirmination which they faced a decade ago

Hunting weather in the fall, with the beginning of open seasons in sight, always sets sportsmen to oiling up their guns and getting their gear together. Also, it always sets thoughtful ones to asking, how long are hunting days going to last? Is American game dwindling to the vanishing point?

Old-timers, who can recall the days when the buffalo herds of the West made the earth tremble under their avalanches of hooves, shake their heads sadly and declare that America is all towns and factories now, all plowed farms and fenced

ranches, and there is no place left for deer or elk or pronghorn. Even the smaller animals are vanishing, and all the birds worth hunting are going, too.

To a very large degree, they are quite right. The days of vast game herds that no man could count, of free and unlimited shooting, of "bags" that would fill a wagon, are gone forever. It was inevitable that they should go. When the city-building Caucasian came to this all but unpopulated continent, and increased and multiplied along its coasts and through its unimaginably rich in-

terior valleys, something had to give way. It is only the simplest of geographical logic that you can not have a Pittsburgh and a deer forest on the same spot, and that beef cattle and bison can not feed on the same range.

The tragedy of the depletion of the American game herds does not lie in their passing. It was the excesses that the pioneers often committed, the shocking and sickening waste of life—at least so it seems to us now—of which they were guilty in the cases of such animals as the bison and the pronghorn and the

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American Game Returning

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passenger pigeon. Nothing ill was thought of such slaughter at the time. Indeed, Buffalo Bill, one of the greatest of our boyhood heroes, got his name because he could kill buffalo so fast, to supply meat for the builders of one of the great transcontinental roads.

The most colossal tragedies, those of the bison and the pronghorn antelope, came last, brought to a frenzied climax by means of the repeating rifle, which had been invented for war and proved only too adaptable for hunting. The sudden reduction of the apparently endless herds to a few straggling pitiful hundreds shocked the people of the nineties into a realization that wild flesh and blood could not stand up forever against powder and lead.

A New Deal

Vehement reaction set in. Some of the things we did in those days were sentimental and ill-advised, but after the pendulum had come back a little way from its extreme swing, the direction of conservational action was on the whole beneficial for both the game and for the hunters thereof. Game laws, closed seasons, game refuges, permanently closed sanctuaries like the national parks, have all been of incalculable service in saving our wild species alive; but the most potent agency, after all is said, has been public opinion. A man who kills a wagon-load of animals or birds is not given a special heroname now; he gets a special name, all right, but the name is just plain Game Hog. To shoot your needs, not to shoot the limit, even the legal limit, is the newer standard of sportsmanship.

These restrictions on shooting, both law-imposed and self-imposed, are having their effects in the increasing numbers of game animals, and even in their return to ranges

formerly a b a n d o n e d. Testimony comes in from every side that most game species are very noticeably on the up-grade again. Their one-time ranges in the forest and on the plains have been reduced to mere fragments, but in what is left to them of their old homes the shy wild things are once more hopefully taking hold.

U. S. Forest Service Game Census

Probably the most complete and accurate large-scale game census ever taken is the one compiled by Will Barnes, of the U. S. Forest Service. Counts for his census were made by hundreds of rangers in our national forests, and cover a period of five years. While it includes only the animals in the national forests, it may be taken as a fair cross-section of the game conditions over the country generally, for the national forests are scattered over a wide domain in the East as well as in the West.

Mr. Barnes' figures for deer show a marked increase even in the few years covered by his study. At the beginning of his five-year period there were 452,555 of these animals in the national forests, and at its close there were 605,964. This represents an increase of approximately 30 per cent, a most astonishing and gratifying figure.

It is quite probable that the deer outside the national forests are increasing rapidly also, though complete figures of course are not obtainable. Farmers in some of the middle western states are complaining that the deer there are raiding their crops, and one observer in the abandoned-farm area of New England says that the forests are taking back the lands once won from them, and that the deer are coming in with the new growth.

Deer are the most widely distributed of all the larger game animals, but within their present restricted

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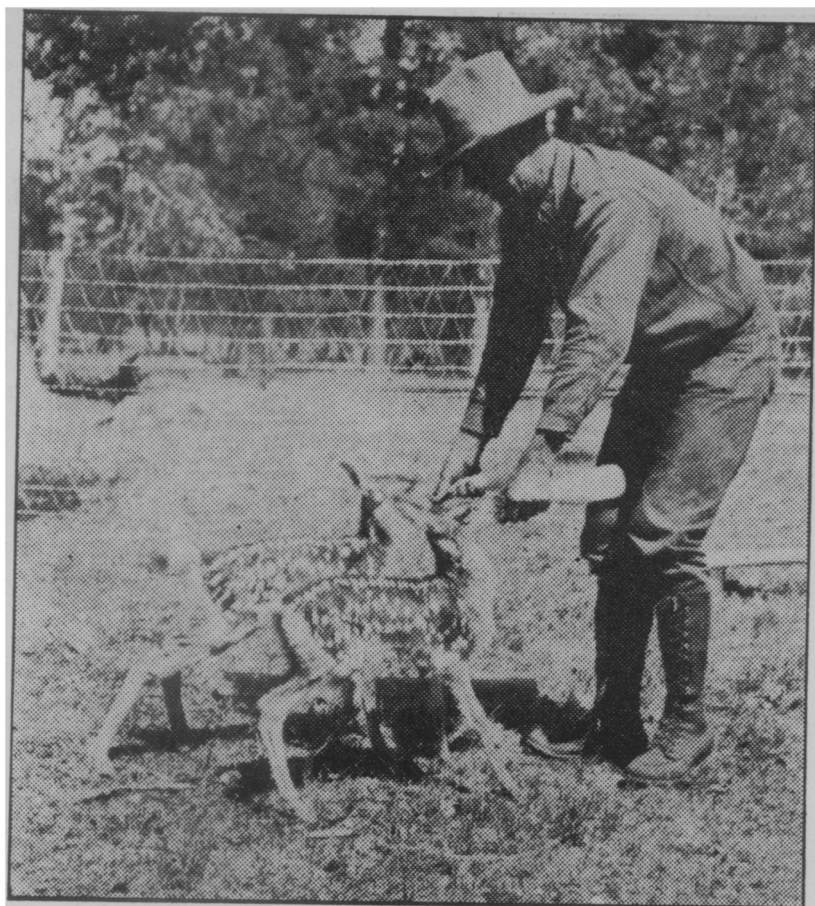
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MERE MAN CAN BE A GOOD NURSE if occasion requires. This Forest Ranger is bottle-feeding a pair of orphan twin fawns, in the Kaibab National Forest, near the Grand Canyon of Arizona

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ranges other species are also thriving. The American elk, or wapiti, have increased from 52,704 to 72,165 in the national forests, and to this figure must be added the northern Yellowstone National Park herd, estimated at between 17,000 and 20,000 head. The elk once ranged over the whole of America east of the Rockies, but now are found in large numbers only in the Yellowstone region.

The size of the Yellowstone Park bison herd has been limited only by the available range. There were only 25 or 30 of these animals in the little nucleus brought to the park a generation ago, but now there are 800 of them, and surplus animals have to be given away every year. This is the best known of the surviving bison herds, but not the largest. The province of Alberta, in Canada, has about ten times that many in a single buffalo park, and across the line, in Athabasca province, there are over 3,000 more. The American Bison Society, which reports these figures, states that the total known number of pure-blooded

bison now in the world, including scattered single specimens in zoos, is something over 16,000.

The Pronghorn Struggles to Survive

The bison's one-time companion on the western plains, the pronghorn antelope, almost suffered the fate of its ponderous compeer during the days of reckless slaughter. Now it is being tenderly cared for, and no hunting whatever is permitted anywhere. As a result, the pronghorn also is coming back. Mr. Barnes' figures show 2,394 at the beginning of his five-year period, and 7,094 at its close. To this must be added a few hundreds in the national parks and in private possession, notably the herd of about 300 in Yellowstone Park.

About moose much less is known. They are shy animals, and never were abundant even in pioneer days. But figures in Mr. Barnes' table show an increase from 3,649 to 6,061. Mountain goats multiplied from 10,000 to almost 18,000. Mountain sheep, on the other hand, just held their own at about 13,000.

Refuges Succor Water Fowl

Big game animals have not been

alone in their uneven contest with man. The migratory game birds are beginning to feel the pressure for winter quarters and food. In 1919 the U. S. Biological Survey first drew public attention to the alarming shrinkage of lakes and ponds as the result of the drainage programs in the West. Deprived of winter resting and feeding places thousands of migrating birds have died of starvation and of disease that spreads rapidly through the thousands concentrated in the patches of open water that are left. To a certain extent this situation has been appreciated and there is a growing demand for the conservation and maintenance of water areas.

One of the results of this reaction has been the establishment of the Upper Mississippi Refuge, a stretch of swamp and marsh some three hundred miles in extent between Rock Island, Illinois, and Wabasha, Minnesota. This territory will be a refuge and breeding ground for thousands of marsh birds of the Mississippi Valley as well as for fish and fur-bearing animals like otter and muskrat.

Western Birds in Danger

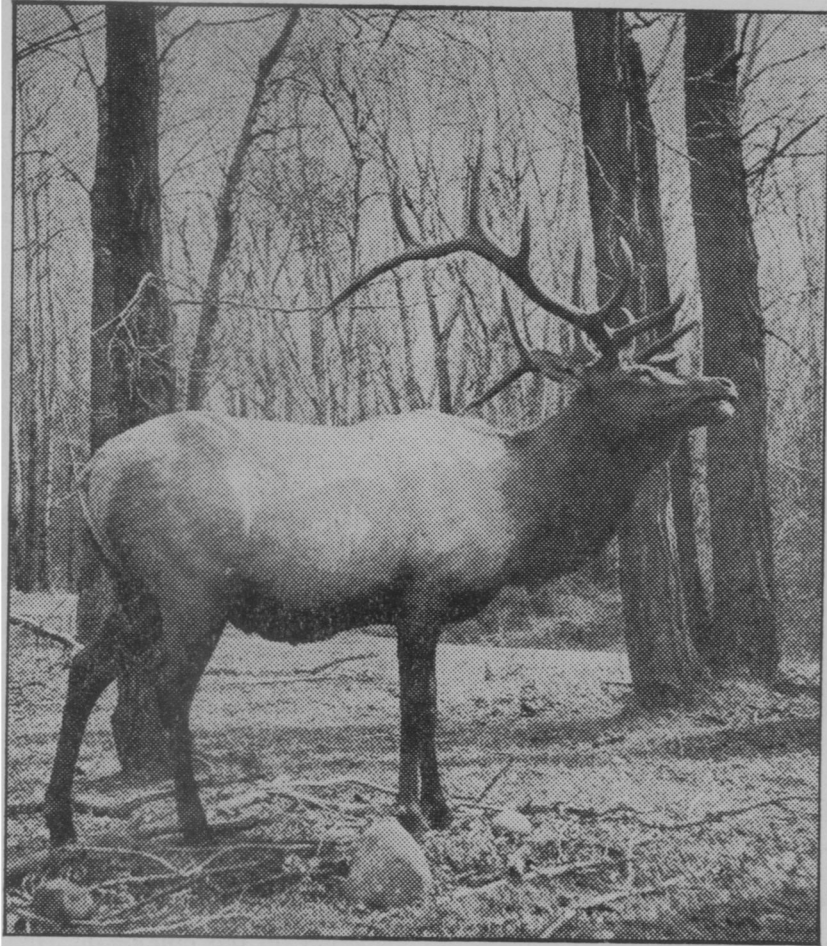
The ducks and geese of the West are the birds in greatest danger of depletion, in the opinion of Dr. Edward W. Nelson, chief of the U. S. Biological Survey. Drainage operations in combination with several years of scanty rainfall have dried up the lakes and ponds in the Rocky Mountain region so that there are few places where the migrating birds can break their long journey. The concentration of alkali in the evaporating water has resulted in a disease known as duck sickness, which has killed millions of ducks in the last few years of comparative drought. The danger to the perpetuation of wild fowl is so great, according to Dr. Nelson, that there is vital need for sportsmen and lovers of wild life to unite in a program of constructive work to insure the future of migrating game birds in these sections.

Conditions Favorable in East

In the eastern states the situation is much better. Reports made to the Biological Survey not only show that there is no scarcity of either ducks or Canada geese in states east of the Mississippi, but that in some sections, notably around the Potomac River and Chesapeake Bay, game birds are present in abundance.

The beautiful wood duck, which was threatened with extinction some

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AMERICAN ELK, OR WAPITI, bugling. This is the finest member of the deer family; it once ranged practically the whole of this country, but is now restricted to a small area around Yellowstone National Park

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years ago, is beginning to increase again, Biological Survey officials declare. The wild turkey is still fairly abundant in some states but is disappearing from its old haunts in others. Ruffed grouse, or partridge as it is more commonly called, have been dying in large numbers in New England and as far west as Michigan of some disease whose origin is at present unknown. Dr. A. A. Allen of Cornell University is investigating the malady with the hope that some means of checking its spread will be found.

Though bob-white have been gradually disappearing from the North in the last few years they are still common in the South. Quail have always been susceptible to cold and they have to a certain extent been replaced in the northeastern states by the ringnecked pheasant. Quail farming has been tried out, but the cost of the individual bird runs up from \$10 to \$17 apiece; so that stocking covers from such artificial sources is too costly to be practical.

Pheasants Praised and Condemned

Severe criticism and enthusiastic praise of the imported ringnecked pheasant are about equally divided. Farmers in New York and Iowa and other sections accuse the handsome birds of digging up corn. The pugnacious cocks are said to drive out other game and even to attack poultry. On the other hand farmers in Washington and Oregon, where they were introduced much earlier than they were in the East, value them highly and will not permit them to be hunted on their property.

What might fairly be called the rarest bird in the United States is the whooping crane, which cannot be shot even to add to scientific collections. The tallest and most striking of North American birds it attracted much attention from early ornithologists on account of its fantastic flight antics and grotesque dances. It is said that its call note or whoop could be heard on the prairies three miles away. At present there are thought to be only a few pairs in existence that breed in the swamps along the Louisiana coast.

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