

# Wildlife in the USA: Who Conserves it and Why

*Eley P. Denson*

**Eighteen million hunters are the backbone of the wildlife conservation movement in the USA. Wildlife is for use, for sport and for food, and they demand that it be conserved. As a result many species which, sixty years ago, were on the verge of extinction are once again numerous in the wild. One state alone estimates its deer population at 2½ million. Under harvesting is often the problem now, and a new attitude to predators is emerging. The author is a member of the Office of Endangered Species/International Activities in the US Bureau of Sport Fisheries and Wildlife.**

The abundance of wildlife in the United States today, although it does not equal that of 150 years ago, when bison roamed the western plains in millions, is remarkable. Sixty years ago in some regions, particularly in the eastern states, many species had been extirpated or seemed on the verge of extinction. Pronghorn antelope, bison, mule deer, white-tailed deer, elk and wild turkey were gone or survived only in small numbers. Today there are deer within a few miles of major cities in every state. Texas estimates its deer population at over 2½ million; twelve other states estimate populations of 300,000 or more. Elk\* are again common in the west, although they have never regained their former abundance in the east. Bison, once reduced to a few hundred, now number about 25,000 in numerous herds on public and private lands. Black bears are in at least 30 of the 50 states and wild turkeys in 40. Pronghorn antelope, sought primarily as a trophy rather than for meat, sustain an annual harvest of about 55,000 after being almost wiped out at the turn of the century. The beaver has followed the same trend.

The stage for restoration was set partly by accident. Large tracts of mature woodland and grassland were broken up and reverted to earlier successional stages which could support more wildlife. In recent years the active partnership of state fish and game agencies and the federal Bureau of Sport Fisheries and Wildlife has been responsible for further gains. The resident wildlife is managed by the state agencies, who cooperate with the (federal) Bureau in managing migratory game birds. Working together, they have studied and protected wildlife, acquired and rehabilitated habitat, and reintroduced birds and mammals to areas from which they had long been absent.

Farmers play little part in the restoration of game. In the United States wildlife is "owned" collectively by the people of the individual states rather than by individuals or the federal government, and people have a traditional right to hunt. Only breeders or owners of shooting preserves licensed by the states and using semi-domesticated stock can sell game. Some landowners sell the right to trespass on their land for

\* Closely related to European red deer.

hunting, but most get no financial gain from wildlife. Possibly as a result, few are willing to modify their land-use practices for the benefit of wildlife, which frequently survives as an accidental by-product of the primary use of the land.

### **The Sport Hunters**

Wildlife conservation is taken seriously. There are probably more sport hunters—an estimated 18 million in 1965—than in the rest of the world together. These hunters spend over \$1 billion annually and harvest about 2¼ million big game animals from populations which may well exceed in total numbers (though not in number of species) the remaining wildlife of Africa. Meat obtained from game mammals amounts to roughly half a billion pounds (225,000 MT) yearly, and the number of game birds taken is many millions. But despite these impressive figures, the philosophy and roles of the various agencies which are concerned with wildlife are poorly understood, even in the United States.

Several private organisations are devoted to preserving natural resources through public education. Citizen support is essential for a sound national conservation programme, and the larger groups are consulted when hunting regulations are being drafted. On a local level, associations of hunters or fishermen are primarily social clubs, but some actively try to improve habitat for wildlife. Clubs in more densely populated areas sometimes lease land to provide shooting for their members, but most Americans are able to find places to hunt at little or no cost.

### **Total Exploitation**

Through the 19th century, game, like other natural resources, was a commodity to be exploited, with little thought of conservation or husbandry, and there was no effective protection. As a result many species were nearly eliminated in the search for profit from meat and hides. This era of exploitation was followed by attempts at total protection, propagandised so successfully that full use of wildlife resources is still not possible. Small refuges were established for many species; predator control and hunting restrictions were regarded as the way to achieve game abundance; complete enumeration of all wildlife was thought to be essential to management. But little consideration was given to habitat.

The federal government's first moves in wildlife conservation were to establish a few island sanctuaries for colonial nesting birds, control large carnivores which were preying on livestock or carrying rabies, and reduce rodent populations believed to be damaging rangelands. In 1916, following a treaty with Great Britain, the government assumed responsibility for conserving migratory birds. Although the treaty covered a number of families, in practice waterfowl received the most attention. Today, three federal departments—Interior, Agriculture, and Defense—have some responsibilities for wildlife conservation.

The Bureau of Sport Fisheries and Wildlife, in the Department of the Interior, is the federal government's principal wildlife conservation agency, managing the refuge system of 28 million acres. It improves

habitat for waterfowl and other wildlife; conducts research on waterfowl, on methods of reducing conflict between man and wildlife, on chemicals, on species in danger of extinction, and on other subjects; establishes an annual framework of regulations for hunting migratory birds; enforces federal wildlife regulations; and carries out a programme to reduce populations that do damage. In 1968, nearly 1700 Bureau employees held college degrees in fish or wildlife management or closely related subjects. (At least 42 US colleges and universities offer training in wildlife management.)

So-called water development projects have an immense effect on habitat that is rarely beneficial to wildlife. Dams divert water which previously filled marshes; meandering channels are straightened and the woody shore vegetation eliminated; reservoirs block the migration routes of big game and flood winter feeding areas; and plants which might compete for the use of water are stripped from the land—all in the name of progress! In such cases the Bureau advises on ways to reduce the impact, and also how to take advantage of opportunities afforded by federally sponsored or licensed projects.

The Bureau administers a cooperative programme in which federal taxes on firearms and ammunition manufacturers are matched with state funds for wildlife restoration projects carried out by state agencies. There is no federal hunting licence, but waterfowl hunters are required to buy an annual stamp the proceeds of which are used to preserve wetlands. Hunting is permitted on some national wildlife refuges when it does not conflict with the primary purpose of the refuge. In fishery management the Bureau has parallel responsibilities.

### **Where Wildlife is Secondary**

The Bureau of Land Management and the National Park Service (in the Department of the Interior), and the Forest Service (in the Department of Agriculture), manage extensive federal lands, mostly in the western states, on which much of the big game is found. But conserving wildlife is only one of their many responsibilities. Most of the lands administered by the National Park Service were set aside to preserve unique scenic or historic sites, and, while the parks are sanctuaries where wildlife can sometimes be viewed at close range, no attempt is made to improve conditions for wildlife.

Hunting is ordinarily permitted in national forests, and in areas managed by the Bureau of Land Management, and also on many of the larger military reservations, where the Bureau of Sport Fisheries and Wildlife assists the Defense Department with wildlife management. All hunting on federal land must be in accordance with state law. Landowners who want to improve their land's capability to maintain wildlife can get financial and technical help from two agencies in the Department of Agriculture. But both are oriented towards increasing farm income, many of their technicians are unfamiliar with wildlife needs, and both tend to recommend programmes which result, incidentally, in eliminating wildlife habitat rather than improving it. A landowner can also get technical help from state employees, free of charge, and some states share with him the cost of improvement.

**Game Managers & Wardens**

The bulk of the field work associated with wildlife conservation is done by state agencies, normally called "conservation" or "fish and game" departments. A typical game department staff includes specialised research personnel and "area" or "game managers" who are university trained in wildlife conservation, plus law enforcement officers (game wardens), who may not be college trained. These agencies issue research reports and have active public information programmes. Most state fish and game agencies, which derive their revenues from hunters' licence fees, have concentrated on improving conditions for game. This benefits other wildlife, but official concern for species which are not of sporting or economic interest is relatively new. Each state sets its own hunting regulations, and these are reviewed annually to reflect the current status of habitat and wildlife populations. Unfortunately, biological arguments are not always understood by the public, and political considerations sometimes supplant reasoned judgment.

Many states have bought land in order to raise game, provide public hunting, or feed big game in winter when heavy snow drives herds down to lower altitudes. Sometimes permits are distributed by lot in order to keep down the number of hunters who use a public shooting area. Typically, a state will require a general licence for small game hunting, plus supplemental licences for big game. No state limits the sale of small game permits, but many restrict the big game licences. A few states require new hunters to take instruction in the use of firearms.

The need to keep big game populations in balance with their habitat is basic to United States conservation, and hunting regulations are intended to safeguard breeding stock while removing the annual surplus. For management purposes, the trend of a population (increase or decrease) and the condition of the habitat are more important than the precise number of animals present at any one time, and many states now concentrate on this, abandoning impractical attempts to enumerate populations. Conditions may vary greatly within a state, and it may need different regulations for different areas to achieve a balance between populations and habitat. Traditionally hunting begins in the fall when populations are near their peak and the young are no longer dependent; there is a close season for most game birds and mammals in their breeding season. Restocking is considered uneconomic and is only done to reintroduce species to former ranges or establish new game populations.

**Predator Problems**

Predator control is generally popular with the public, and in some circumstances may benefit game, for example by protecting an introduced species. But, except with free-ranging dogs in south-eastern states, it is rarely beneficial, for big game is often underharvested, and overpopulation is usually more of a problem than controlling the harvest. With game birds predator control can increase nesting success, but it has to be so intensive and aimed at so many species over such large areas, that it is biologically and economically unsound. Bounties are paid by some

states, but many studies have proved them ineffective; they are gradually disappearing.

Quite fortuitously the development of North America vastly improved conditions for white-tailed deer and some upland game birds. The dense woodlands which once covered more than half the country were logged off and replaced by farms. Fires followed the logging; older farms were worn out or abandoned; and browse plants replaced the nearly sterile pine woods. Other changes were unfortunately detrimental. Hillsides were stripped of their vegetation and soil. Rivers and estuaries were blocked or polluted without thought of fish, wildlife, or even humans who depended upon them, and half the original wetlands were destroyed before their value was recognised. Despite the efforts of conservationists the destruction continues.

Habitat improvement is the best way to increase game; but a disproportionate share of the conservation effort and funds still has to be devoted to preserving existing resources or correcting past abuses rather than to increasing the supply. Developers who want to destroy essential areas of wildlife habitat for luxury housing, irrigated farms, or even garbage dumps, often try to give the impression they are improving conditions for wildlife by agreeing to leave a few remnant areas untouched. Even if the argument were true, most such agreements have lasted only until a new development scheme was devised.

So long as the human population continues to increase, habitat for wildlife will continue to shrink, and conservation agencies will be forced to concentrate on holding losses to a minimum rather than improving the environment. Fortunately, the American people and press are becoming concerned with the consequences of unlimited technology and population growth. They are realising that an environment which cannot support wildlife cannot for long support people.

### **African Conservation Convention**

The thirty-eight member states of the OAU (Organisation of African Unity) which signed the new African Convention for Conservation of Nature and Natural Resources, described in the last issue of *ORYX*, were: Algeria, Botswana, Burundi, Cameroun, Central African Republic, Chad, Congo-Brazzaville, Congo-Kinshasa, Dahomey, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Libya, Madagascar, Mali, Morocco, Mauritania, Mauritius, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Swaziland, Togo, Tunisia, Uganda, United Arab Republic, United Republic of Tanzania, Upper Volta, and Zambia. The two member states that have not signed are the Ivory Coast and Malawi.

### **What of the Serengeti?**

There has been no official pronouncement, as *ORYX* goes to press, of the Tanzanian government's intentions in the Ngorongoro Conservation Area following the Minister of Agriculture's statement last summer that the whole Area except the two craters, would be given over to agriculture. Such a step, by interrupting the migration routes of the wildebeest and other animals in the Serengeti National Park, could seriously affect the wildlife spectacle in the park which is Tanzania's chief tourist attraction. It is to be hoped that this argument will prove the decisive one.



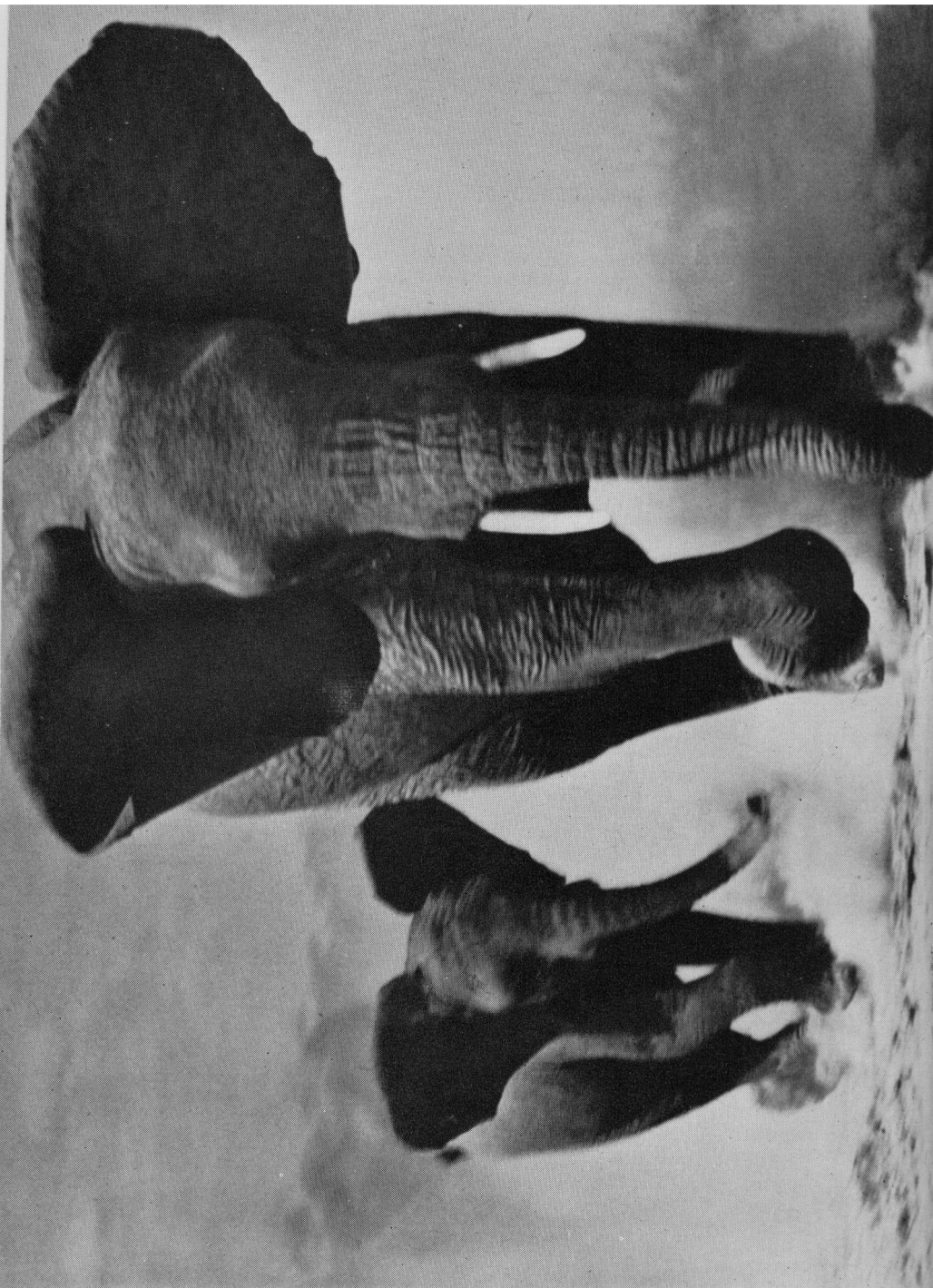
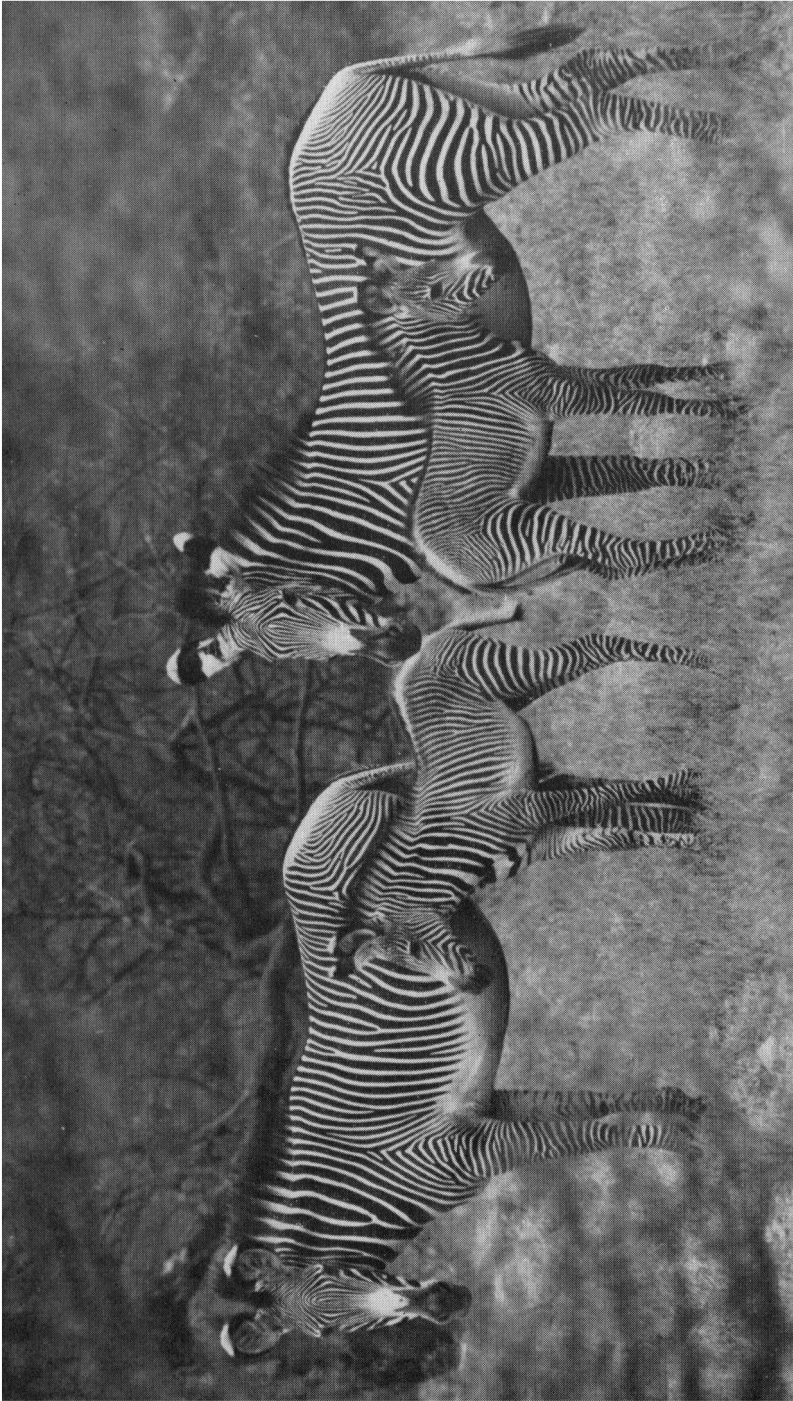


Plate 8 above  
**THE LESSON**—that attack is the best method of defence.  
Plate 9 below  
**GREVY'S ZEBRAS.** Larger than the common (Burchell's) zebra, and with narrower stripes, the young animals have a mane extending from the head to the tail.





# Going to South Africa

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**Plate 10**

**BADGER GATE IN USE**, by *Eric Ashby*. Because badgers will smash their way through any fence that obstructs their accustomed path, the Forestry Commission (which is very sympathetic to badgers) erects gates like the one shown, in which a suspended block of wood can be pushed either way. Fixing the gate calls for nice adjustment; the block must be heavy enough not to allow a rabbit to use it but not so heavy that a badger will not do so. Eric Ashby achieved this remarkable photograph at dusk one evening after over ninety separate visits to badger gates. It is reproduced in a selection from the BBC natural history series, *Look*, edited by Jeffery Boswall and published by the BBC at 30s.



Plate 11  
**THE LAST NAKURU HARTEBEE**, photographed by  
*Michael Woodford*