

## Hunting as a Tool for Wildlife Management

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**W**hen properly practiced, hunting can be an important component of good land and wildlife management. It has the potential to be useful in two ways: first, in helping to maintain the integrity of natural conditions, and second, by helping to build and strengthen public support for land preservation.

Hunting is one of the most ancient of human activities. Throughout human history it has affected the quality of life of individuals and the broader cultural realms of art and literature. Hunting and its traditions have great cultural value for human societies, and should be maintained for the benefit of future generations. Unfortunately, the number of people who hunt is declining, and there is a danger that some day it will disappear entirely.

Equally unfortunate is the diminishing voice of nongovernmental citizen activists who have traditionally demanded adequate budgets for parks and refuges. To some extent these phenomena are related: hunters have traditionally been strong advocates for increased funding for parks and wildlife. They were a major force behind the founding of the modern environmental movement in the United States, and President Theodore Roosevelt and other activist hunters of his era were strong allies of land preservation. However, in recent years other voices have become more prevalent in the arena of environmental preservation and land

management.

But hunters and the public lands need each other. As government budgets grow tighter and tighter, public lands managers and their supporters have found themselves in a fierce competition for funding. They need the strong voices of hunters to join them once again. We believe that it would be beneficial for both hunting and environmentalism if hunters were once again recognized as environmentalists.

One of the goals of the Aldo Leopold Society, with which we are associated, is for hunters to come to see themselves not only as a part of nature, carrying on ethical and ancient practices involving hunter-gatherer traditions, but equally as environmentalists. To this end we support the permanent preservation of landscape and species diversity, understanding that the majority of the species in a natural community are unrelated to hunting. We would like to distance ourselves from those groups such as the National Rifle Association who detract from the tradition of hunting in their advocacy of a "shooting is the issue" attitude, and to

establish a middle ground between the extreme positions that currently hold sway.

It is not our intent to suggest that hunting necessarily be allowed in all parks or preserved landscapes; in fact, it would be far better to achieve a balance with predator-prey relationships in place. It should be noted, however, that humanity has historically served as a predator, strongly impacting animal populations. To deny our role as a predator is to elevate ourselves above the natural world in which we live. Humans' attempts to declare themselves independent of nature are at the root of many of the environmental and social problems we see today.

### **Hunting as a Tool to Maintain the Integrity of Natural Areas**

Imbalances often occur when people manage landscapes. Invasive, non-native plants are an example, and the removal or management of them is common practice. Likewise, imbalances in bird and mammal species have the potential to affect the integrity of a preserve. The understanding of that potential has only emerged in this century, and continues to be better understood as time passes.

One of the early observations of this phenomenon is described by Aldo Leopold in an article entitled "Wisconsin's Deer Problem" (*Wisconsin Conservation Bulletin*, August 1943). In this article Leopold discussed the George Reserve study by the University of Michigan. The George

Reserve was a 1,200-acre enclosed parcel without deer. In 1928 it was stocked with four does and two bucks, and by 1933 vegetation damage was clearly occurring. A census of the deer population showed that their numbers had increased to 160 in five years. The deer were immediately hunted down to a population of 50 and maintained at that level thereafter. Overgrazing and plant damage disappeared. This is a clear example of the usefulness of hunting as a management tool.

The Leopold Preserve, site of the shack in Leopold's book *A Sand County Almanac*, is itself an example of a managed preserve. About one-third of the white-tailed deer there are harvested each year in an attempt to maintain a balance with the vegetation of the preserve. Neighbors and other citizens who voice support for the preserve's excellence in the community do the hunting.

In *A Sand County Almanac*, Leopold described watching the "green fire" fade from a dying wolf's eyes. This incident marked the turning point in Leopold's transition from one who saw predators only as negative factors in game management—animals to be killed in order to increase game numbers—to someone who understood the importance of their role in maintaining balance. An example of the reason for this change in attitude was the debacle that took place on the Kaibab Plateau just north of the Grand Canyon after the turn of the century. In an effort to increase deer numbers for the enjoy-

ment of the deer-hunting public, predators, including mountain lions, were poisoned, trapped, and hunted to extirpation.

The deer population initially skyrocketed from its long-stabilized level of approximately 4,000 individuals in 1910 to about 100,000 animals in 1924. The range showed signs of drastic overgrazing, and despite warnings of impending disaster, nothing was done. Then, after two catastrophic famines, diseases and starvation reduced the herd by 60% in two winters. By 1939 it had dropped to a tenth of its peak size. The real disaster was that the range had lost much of the carrying capacity it had enjoyed prior to the population explosion. The pre-1910 numbers were no longer sustainable, and it was estimated that the population declined 25% from that level, to 3,000 animals.

### **Recent Examples of the Use of Hunting to Preserve Habitat**

There are also numerous recent examples of the use of hunting as a positive tool in land management. In the 1960s, The Nature Conservancy (TNC) purchased the majority of Santa Cruz Island, one of the Channel Islands off of Southern California. The island has a long history of occupation and exploitation of natural resources, beginning with the stocking of feral pigs by Spanish sailors. When TNC took over, there were some 40,000 feral sheep on its part of the island. The organization decided to eliminate this non-native grazer,

which it considered one of the major detriments to the island's ecology.

Volunteer hunters were enlisted, and with a massive output of human capital it took less than one year to clear the TNC-occupied portion of the island of sheep. This case was an appropriate melding of needs and desires. TNC had a specifically determined biological goal, the elimination of a feral ungulate. It chose to utilize people, who considered it a privilege to be allowed to donate their time to undertake an immense physical task. The volunteer hunters were able to carry out the program successfully, in a socially beneficial manner. Another valuable level of cooperation came from the California Department of Fish and Game, which suspended its prohibition on wanton waste, allowing TNC to utilize its manpower to eliminate the feral animals rather than waste its time extracting massive amounts of biologically rich material from the system.

In a number of other instances, the U.S. National Park Service has also struggled—effectively, it would appear—to use hunting as a management tool. In a geographically and biologically related situation, the USNPS bought Santa Rosa Island, another of the Channel Islands. It decided to begin its exotic animal removal by eliminating feral pigs, an exotic species whose feeding habits have a negative impact on other vertebrates as well as on vegetation. This was done with contract hunters—sport hunters “deputized” by the USNPS for the project. Minimally

skilled employees removed the majority of the pigs. Helicopters were then brought in to further reduce the population. As the last few pigs were extremely wary and difficult to catch, trained hunting dogs were brought in for the final phase. The skill of these dogs and their handlers, developed through sport hunting, is of supreme importance in a pig eradication program. The USNPS was able to enlist these skills to help solve a difficult management problem.

The California Academy of Sciences' Pepperwood Preserve provides yet another example. Situated in Sonoma County, it is on the rural-urban interface, with all the problems and possibilities that entails. Border issues dominate management strategies. Pepperwood has 19 contiguous neighbors, and many more who consider themselves close enough to have an interest in its land-use practices. Part of the preserve is bordered by large ranches, part by five- to ten-acre ranchettes.

As on Santa Rosa Island, feral pigs are one of Pepperwood's land management challenges. Management of the pigs in Pepperwood's case was impeded by three things. First, the preserve has 25 miles of border, and pig-proofing it is beyond the financial ability of the Academy into the foreseeable future. Second, although many of the preserve's neighbors agree with the Academy's assessment of the pigs as harmful to the native habitat, a vocal minority consider them an essential element of the ecosystem and do not want them re-

moved or their numbers reduced. Third, the state of California's hunting laws are designed to ensure a sustained yield of pigs, rather than favor the control and elimination of pigs to protect native elements in the biotic community.

The Academy of Sciences has attempted to find its way through the maze of these disparate elements by using well-informed sport hunters as volunteers in an ongoing feral pig population reduction program. These hunters are selected and signed on as volunteers. Although it knows that it cannot eliminate pigs under the present circumstances, it is able to lessen the damage they cause by reducing their numbers. The Academy has tried two approaches. The first was to use volunteer sport hunters with dogs to catch pigs. However, because this occasionally resulted in the unintentional entering of neighbors' properties, hunting with dogs has been phased out. The Academy does continue to remove pigs using volunteer sport hunters with rifles. This is an inefficient method, as hunters average 13 hours to catch a pig, but the Academy can't afford to pay professional hunters to implement this program. The bottom line is that the use of volunteer sport hunters makes the program fiscally possible.

### **The Political and Social Implications of Public Support for Wildland Preservation**

Land managers today face a multitude of social and political, as well as ecological, problems. We are learn-

ing to effectively manage wildlife and maintain the integrity of wildlands; now we must learn to manage the public support that can provide long-term funding for that management. We must learn how to relate natural systems to social systems.

The problems described above regarding management of the Pepperwood Preserve, or The Nature Conservancy's attempts to clear an island of feral sheep, are not atypical of the political and sociological aspects of managing preserved landscapes in a rapidly urbanizing America. It should be noted that TNC has continued to come under criticism from anti-hunting elements, in the form of both pickets and negative articles and letters, because of that sheep removal. These elements characterize TNC's efforts as improper management activities by an environmental group.

Another critical problem for land managers is funding. Given the current budget priorities of both private and governmental institutions, it seems clear that funding for wildland management, including national and other park management, will continue to decline. And as governments across the United States continue to feel the pinch of fiscal cutbacks, there is increasing concern that preserves, often owned by nonprofit agencies such as land trusts, will be denied tax exemption. Without tax exemption, the majority of wildlife preserves and other small land trust-held properties would not be sustainable over the long term.

Perhaps the biggest problem cur-

rently faced by the managers of wildlands, however, is the "Wise Use" movement, funded by contributions from the exploiters of public land, which would "privatize" public parks. The angry response by hunters who use the public lands has so far been instrumental in defeating these attempts.

All these problems need to be prepared for and dealt with professionally by those engaged in land preservation. A part of that effort will involve guiding public opinion to be an advocate for preservation.

Politics—the interplay of interest groups in the formation of policy—is an integral part of modern land-use management. In order to be effective, land managers need to understand that issues of resource allocation involve conflict and have important political implications. Unfortunately, the United States traditionally does not train resource managers in sociology or political science, preferring to focus on "pure" science. There is no evidence that this policy is changing; if it does not, we may be condemning our resource managers to irrelevance.

As was demonstrated by the threats made by the 1995 Congress and local governments, the political implications of resource management can be effectively dealt with by a non-governmental constituency. What is needed is a permanent base of support in the community for the values of wildland preservation, voices who say: Yes, that is a justifiable use of tax exemptions, or Yes, parks and pre-

serves need to be funded. Hunters once were one of the most active constituencies seeking support for wildlife, parks, and environmental funding within the government budget process. They need to be heard as environmentalists again. For the moment, however, they are perceived largely as supporters of the NRA, and little else.

Hunters have served as a strong base of support within the community. As their numbers have declined, however, so has their activism. The careful use of hunting as a management tool on preserves would encourage hunters of a thoughtful, professional caliber to become directly involved in wildlife management is-

sues. Through this involvement they would become allies.

Hunting can be done responsibly and sensitively, although its critics do not understand that it can increase hunters' awareness of the natural world and develop their ethics regarding humanity's role in that world. It can help to teach people about the ethical responsibilities of land stewardship as described by Aldo Leopold, the man often called the father of wildlife management.

To us, bringing hunters back as allies of land preservation and increasing their numbers will be an important component of land preservation efforts.



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