

Wildlife in Parks: Policy, Philosophy, and Politics

The last century provided a platform for many great minds and visionaries who taught us what conservation and preservation mean. Those ideas evolved into the parks and forests that have been our legacy in this century. It is our duty to leave both the resources in place and the infrastructure to protect those resources, including, and perhaps most importantly, an informed and supportive public.

As we move into the next century, we face a much greater challenge than the one our predecessors met so successfully. They operated in a world where many of our lands were separated from the pressures of civilization by distance, in a nation with an abundance of resources. In the future, habitat will be in ever-diminishing supply, not only for the animals both great and small, but also for the soul of humankind—a soul that requires constant replenishment and occasional solitude.

Today is the time to establish a vision for the management of our national treasures in a comprehensive, programmatic, and objective manner. From my point of view, the one element of the natural world most in need of comprehensive protection is wildlife. Increasing conflict between the burgeoning human population and wildlife, resulting from rapidly increasing habitat alteration by humans is the greatest threat to free-ranging wildlife populations. One must ask: what will any great expanse of wilderness mean without the free-

roaming fauna that inhabit it today?

Therefore, it is the preservation of wildlife as a viable and meaningful element of our great lands and waters to which we should be turning our attention now. The U.S. National Park Service (USNPS) has always suffered great criticism regarding wildlife management. The criticism continues today from many of those imbued with a harvest ethic view of land management. Many critics will never comprehend or accept ideas such as natural regulation and preservation of resources. The philosophical basis and goals of traditional wildlife management philosophy make it a difficult fit at best, in many situations, in a national park setting.

My greatest fear regarding wildlife policy in our national parks has always been that inaction and inconsistency of policy implementation by the USNPS might lead to legislated wildlife policy. From a vantage point outside the agency, the National Park Service appears to accept alien species in some parks and purge them in others. It appears to be passive in

some situations and proactive in essentially the same situation elsewhere. People often ask: "Why are feral horses acceptable at Assateague Island, but not in the Ozarks?" "Why do we purge mountain goats at one park and protect them at another?" others will ask. Some of these questions have logical answers and some do not.

Fears of misguided, legislated wildlife policy have taken on more substance with the enactment of the 1996 Omnibus Parks Bill. In that bill, Congress directed the National Park Service to maintain a minimum number of feral horses in Ozark National Scenic Riverways. This may seem a small matter to some, but it is diagnostic of a larger potential problem that is looming before the US-NPS. There is a general perception that the agency does not have a viable and realistic wildlife management strategy. This perception is rampant among state wildlife managers and popular among academics involved in the discipline.

Whether this perception is factual or not is one issue, but neither the agency nor its defenders can deny that the perception exists in many circles, which is in itself a real problem. The perception of a problem can often be as damaging as any real and documentable problem. If this perception of failure persists and spreads to the general public and their political representatives, it could present problems that would alter the manner in which we view not just wildlife management, but all management in na-

tional parks.

The problems associated with the "natural regulation" philosophy and with the more proactive stances that the agency has taken at times are more related to inconsistency of policy application than they are to efficiency of one philosophy over another. In many of the same situations, traditional wildlife management philosophy has proven just as ineffective and inefficient as natural regulation. Those policies have also functioned just as well as natural regulation has in other situations.

One example of the complex nature of these issues is the present status of the white-tailed deer (*Odocoileus virginianus*) in the eastern United States, and its ramifications for state agencies and the US-NPS. This issue symbolizes both the need for comprehensive planning for wildlife management and the need for a programmatic approach to policy issues for all land management agencies.

A variety of forces and pressures have combined synergistically to compound the frequency of negative interactions between humans and deer in the urban and suburban environment. Negative deer-human interactions include such things as deer-caused automobile collisions, depredation upon crops, and depredation upon horticultural plantings. Many national parks and historic sites have documented a high population density of this species. As a result of both perceived resource degradation and public pressure resulting from

the impact of deer population densities on adjacent private lands, a great deal of white-tailed deer research has taken place in national parks.

In many of the parks studied, research has confirmed anecdotal observations about the population numbers and the apparent nutritional status of the herds in question. In some cases the research has been thorough enough to detail dietary preferences and impacts upon vegetation. In addition to the forest succession and exclosure data, for vegetation analysis, home range information has been critical for management of most reserves.

In the eastern United States, however, overpopulations of these ungulates appear to have become virtually immune to herd thinning by traditional state management techniques. Regardless of how many hunting permits one issues, if access to prime habitat is denied by private landowners, overall net reduction in the herd density will be difficult or impossible to achieve. Increased areas of urban and suburban interface with natural areas have forced limitations on hunting as a management tool in many areas.

Often, game managers lay the blame for lack of access at the feet of the USNPS; however, in most cases this theory simply does not stand up to close examination. Many USNPS sites in the eastern United States do have high population densities of white-tailed deer. Proponents of maximum sustained yield management techniques tend to blame park

areas for their lack of success in controlling herd size. The "refuge effect" theory claims that wildlife species in season flee into non-hunted areas in order to evade hunters. In many of these cases, however, the deer population density is equally or nearly as high outside of the park boundaries as it is within.

Although there may be validity to the "refuge effect" in some areas, it is a moot point in many others because of the high population density of the same species in the surrounding lands. There may be some situations in which the reduction of the herd inside the park will alleviate depredation pressure in the surrounding area. This is more likely to be the exception than the rule in the coming decades. Hunting access is often denied on private lands as well as in parks.

This has been the case in many States east of the Mississippi River in the past several decades. Often, national park units are cited as the source of the problem, and their status as refuges is blamed. Most of the USNPS sites heralded to refuges of wildlife from recreational hunters are simply too small to provide that "refuge" to any significant number of the population being examined. In point of fact, when studies are undertaken to determine if a refuge effect exists in a historical park, the answer is more likely to be a resounding "no."

What does often seem to happen in these situations is twofold. First, the area surrounding most of our

larger historical parks is zoned for development at a lower suburban density rate. Morristown National Historical Park in New Jersey, for example, is approximately 1,800 acres and does have an extraordinarily high deer-population density of about 65 per square kilometer. However, the surrounding residential area is mostly zoned for five-acre lots and there are thousands of additional acres of state, county, and city parks in the area. This creates a region that is essentially all prime deer habitat.

Most of these areas also share in the high population density of deer that has been demonstrated in the park. Essentially, the homeowners are often seeing the deer that live on their own property and in many of the contiguous habitat areas between the parks, arboretums, and other greenways in the area. They are often encouraged by game managers to perceive the deer as "park deer" regardless of the factual situation or the geographic distance to the park.

Secondly, the deer that are taken first in the hunting season are often the ones that actually reside in the fringes of the greenspace as their primary habitat. After hunting begins and those individuals are harvested, hunters turn their attention to other individuals that they believe are now hiding in the deeper wooded areas more recessed from the roads and human populations.

The problem with this assessment is that these individuals normally inhabit the deeper, more recessed areas and are not simply seeking refuge

from the hunting activity. The fact that they habitually avoid human contact is one of the reasons that these animals tend to live longer and grow larger and stronger. However, among traditional wildlife managers the "refuge effect" is accepted as a fact with little or no research to substantiate its existence in specific situations. This is one of the areas where traditional wildlife management tenets resemble art more than science and religion more than philosophy.

Clearly there are several issues related to the situation described above. What kind of problem would rightly drive an agency such as the USNPS to take a proactive management stance in such situations? In order to justify action on a resource-based rationale, the unit manager needs to have some idea of what the appropriate carrying capacity is for the lands and species involved. "Carrying capacity" is a term that has properly been characterized as a slippery shibboleth at best. The term can only have meaning in relation to specific goals for the land area or species in question.

In traditional wildlife management philosophy, the goals are clearly defined as harvest and recreation. For most wildlife managers, the goal is to produce as many recreational opportunities to harvest a deer and as many "healthy" deer to be harvested as possible. Within the parameters of these goals, carrying capacity is easily defined. The term "healthy" for the animal is also equated with one that is a good harvest.

It is the basic philosophical differ-

ences between conservation lands that are set aside for harvest, and preservation lands that are set aside for heritage purposes, that are not reflected in any wildlife management strategy in academia or in practice by game managers today. Many academics recognize that site-specific goals must be used to measure wildlife impact on resources and to develop action plans. They fail to understand the critical role that the agency mission has in developing wildlife strategy. They also often fail to understand that the USNPS is a holistic management agency and not a single-species manager.

First, little recognition is made of the fact that this species (white-tailed deer) was essentially extirpated from much of the eastern United States at the turn of the century. Deer, for example were reintroduced by state game managers and private hunting clubs and consistently managed to produce the largest herds possible. USNPS had nothing to do with that.

Secondly, it is time that the discipline of wildlife management recognized that national parks are not set aside for harvest, but for posterity. National park managers were never meant to be single-species managers nor were parks meant to be game lands any more than they were meant to be timber stands. All wildlife management philosophy and management techniques appear to be based upon two principles: 1) maximum sustained yield, and 2) increased recreational opportunities for hunters.

Neither of these is or ever will be a basis for managing wildlife in a national park. The USNPS will have to determine its wildlife management policies and strategies based strictly upon its own mandates and goals. The necessity for action will have to be determined on a case-by-case basis related to site-specific goals for the landscape. Policy, however, should not veer unless dictated to do so by legislation. It may become necessary for the agency to establish its own wildlife management strategies, including perhaps its own nomenclature, in order to be effective managers of wildlife on preservation lands.

What is an appropriate carrying capacity? Very often, carrying capacity is a number set upon economic factors as much as upon biological ones. In a national park setting, proactive management of any single species can only be justified within the context of balance within the ecosystem or cultural landscape that is being protected. One resource can only be judged out of balance if it is negatively impacting the other resources demonstrably. Furthermore, this is only significant if the disturbed resources are being protected for a discrete reason.

It is not enough to state that deer are eliminating the oak stands within an historical park if the park does not have some logical reason to protect oak stands and to protect them from evolving into a different type of forest. Within the context of a cultural landscape, it is not difficult to determine that a particular setting made of cer-

tain vegetative types is essential to the story of the park. If, however, the setting has no more to do with the story of the park than the anticipated forest type that will follow, then there is no reason to protect it from deer or any other natural event or disaster.

The same theory applies to natural areas. If there is a reason to protect a particular static type of vegetative cover, then it should be protected by all means. If the park was mostly chestnut when it was established and now oak is succeeding to a new forest cover, then perhaps the impact of wildlife is minimal. Traditional measures of impact, such as the number of stems per acre necessary to re-establish a forest after a clearcut, may not be appropriate in a national park situation where no clearcut is ever anticipated to take place.

Extensive studies may be made of deer impacts in a dynamic ecosystem, such as a barrier island like Fire Island National Seashore. The studies may indicate definite negative impacts from deer, but before wildlife management activities begin the entire ecosystem could be eliminated by a hurricane. This entirely possible scenario should give managers pause to consider the eventual fruits of their labors. I am proposing only that caution should be used in systematically identifying goals and actions.

The USNPS may employ hunting techniques to achieve its goals, however, the USNPS mandate is completely different from those of other agencies in relation to wildlife management. It is incumbent upon the

USNPS to separate the harvest ethic from its management goals and specifically from the development of wildlife management policy. Single-species management for its own sake has no place within a national park.

This is not to suggest that the USNPS needs to be passive in order to meet its mandate. It seems likely that the wildlife within our parks will require proactive management well into the next century. The nature of that action, and the precepts that drive that system to action, are what must be established carefully and meticulously.

Controversy is certain to ensue if and when USNPS areas assume an active wildlife management program on a Systemwide scale. Recent attempts to manage deer at Gettysburg National Military Park seem to be progressing well. The actions, however, are based upon many years of study, goal-setting, and a proactive use of the compliance laws by numerous people at the park, Regional and Washington offices. The possibility of an increasingly active USNPS wildlife management program at sites that have never been subjected to hunting pressure in the past will be significant, as the forces discussed earlier expand.

Regardless of the fact that superintendents have the acknowledged authority to manage the wildlife within federal reserves, the anticipated controversy and legal challenges will generate the necessity for Directorate-level policy interpretations and decisions in many cases. The success at

several sites in recent years with proactive management is encouraging. Many other parks, however, are still struggling with similar issues that may be beyond the resources of the individual parks to solve.

The potential for non-action in areas that clearly require action is obvious. It is equally possible that some parks may endeavor to act on this issue in a premature or ill-advised fashion. Every step we see in legislated policy moves the agency toward a lack of flexibility and a larger potential for policy based upon emotion. We have yet to see the full potential of a tragedy involving an automobile-wildlife collision in a park. The impact of bad policy and emotional legislation could be devastating on a Systemwide basis. An ecosystem is more likely to rebound from an overpopulation of a single species than the National Park System will from an overabundance of bad legislation and policy.

Although wildlife management actions could be undertaken across the System based on the history of this issue and previous success with case law, it would be much wiser to begin with a clarification of USNPS policy on a national level. It would also be wise for the Regional- and field-level personnel to function with full and clear guidance and under the auspices of the Washington office and a strong Directorate. It is difficult to develop the necessary resources at the field level to successfully manage nationally important and controversial issues such as wildlife management.

A careful analysis of this issue leads to the conclusion that the best approach to wildlife management in parks is for it to be handled on a programmatic basis. The behavioral variability between individual populations and ecosystems can be extensive. The number of problems presented by an overpopulation are limited, however, and very similar from one area to the next. The number of solutions available to the manager are also limited and similar in scope and depth.

A programmatic action plan and the appropriate level of environmental compliance could be developed to examine the alternatives for wildlife management available to the USNPS. The agency should use this opportunity to share its dilemma, its vision for the future, and potential alternatives with the public and to seek their best advice.

This is one area where a strong leadership role from the top down is necessary for any positive resolution to conflicts between wildlife and human populations. While the agency is now largely decentralized, some areas and disciplines should remain under the leadership of individuals with expertise in both the science and the policy aspects that are relevant. The amount of controversy wildlife management actions could generate can still overwhelm a single park superintendent, as it did to the U.S. Fish & Wildlife Service (USFWS) in the Mason Neck National Wildlife Refuge in Virginia earlier in the decade. Mason Neck is a unit of an agency

with a clear and undeniable legislative mandate to encourage hunting, which the USNPS does not have.

The final resolution will generally come from senior policy officials; therefore, those officials should make the decision on a programmatic level with full knowledge and understanding of the controversy, emotions, and ecological considerations involved. The USNPS leadership should share their plans with the public and be unembarrassed by the individuality of their mission. The need to actively manage wildlife will be the most pressing issue in the next century as parks are increasingly surrounded by development. The USNPS will have to recognize that the need to protect wildlife into perpetuity will require wisdom, planning and some level of active management. Natural regulation cannot be the only strategy in an environment without predators; neither can recreational hunting.

A proactive policy should be declared at the highest levels of the agency, if such a policy is to be followed. It should be accompanied by an honest and credible overview of the history of wildlife management policy in the agency. The agency also needs to determine whether the time is ripe to enunciate such a policy and to follow through with National Environmental Policy Act (NEPA) compliance for programmatic review.

Specific wildlife management implementation decisions should be made at the field level, but policy and leadership must come from the na-

tional level. Only the Directorate can determine when the moment is right for such action. But time is limited for action to begin. Outside forces have always attempted to seize control of wildlife management from the USNPS. They have failed to date; however, the status of wildlife in National Parks in 2099 and 2199 will result from the actions taken or not taken in the next several decades.

I suggest the following points as a basis for enunciating an evolving wildlife policy for parks:

- 1) All actions should be based upon resource protection.
- 2) Each unit should have goals that make the determination of resource damage simple to achieve.
- 3) Political pressure should not drive policy, and the perception of resource damage should be clearly separated from scientifically documented resource problems.
- 4) The Directorate needs to determine if the time is ripe and, if so, articulate a clear policy on these issues that can be implemented in the field.
- 5) A proactive wildlife management program such as the one which is slowly forming itself across the System, will require NEPA compliance. If handled at the national level, much like the USFWS's "Refuge 2000" document, it can alleviate most of the financial and political burden from the field units. This can be accomplished in a two-year pe-

riod and the cost expended can save individual parks from expending much greater resources over time.

- 6) Expertise at every level should be included in this process.

I do not wish to leave the impression that the present systems and paradigms have not served us well in the past. John Muir told us that "the battle for conservation will go on endlessly. It is part of the universal warfare between right and wrong." In this battle we are all fighting with ourselves as much as with others, since we are always both preservationists and consumers.

We must plan now for the obviously greater needs of the future. We must plan now for the tremendous cultural diversity that the United States is certain to experience as demographics change in this nation. We must remember that if the majority do not understand the need for wilderness and wildlife, then there will be no such aspects to the legacy we leave behind. We must never forget that the laws that we sanctify and the lands that we spend our lives protecting exist at the whim of a democratic majority.

We preserve and conserve lands and waters at the direction of the people of our nation. We must recognize that if we do not educate our constantly changing population about the need for historical sites and lands to be preserved, then they will not be preserved. Congress can deauthorize our sanctified public lands, and, in the end, Congress does exactly what the people want. If we allow the teachings of conservation and environmental philosophies to fall by the wayside, then the populace will cast off the special designations that protect our public lands.

Forests and parks can be deauthorized with a voice vote and a stroke of a pen. We must set aside our differences and work together toward the education of our population. We must develop serious national- and state-level planning for future land use needs. Developers and preservationists, hunters and animal rights groups must work together toward a common goal of ensuring some national heritage for the future generations. If we can do these things, we will be sure to leave a legacy for those who follow us as grand as the heritage our predecessors left for us to enjoy today.

