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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
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In reply refer to:
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Memorandum

To: Washington Office and All Field Offices
From: Chief of Interpretation
Subject: Mr. Sumner's Talk, "Wildlife Management in the National Parks"

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We believe that the excellent presentation made by Mr. Lowell Sumner before the 1954 annual meeting of the Western Association of State Game and Fish Commissioners at Las Vegas, Nevada, May 3 - 5, will be of Service-wide interest. In preparation for a question period scheduled to follow the formal talk, Mr. Sumner prepared probable questions and practical answers which are included as a supplement to the body of the talk.

Another copy being route

The assistance of Regional Office and Field personnel who contributed to the preparation of Mr. Sumner's manuscript in its final form is greatly appreciated.

Chief of Interpretation

Attachment

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WILDLIFE MANAGEMENT IN THE NATIONAL PARKS

A Statement Delivered at the 1954 Meeting
of the Western Association of State Game
and Fish Commissioners at Las Vegas, Nevada.

By Lowell Sumner, Biologist.

Mr. Conrad L. Wirth, our Director, very much regrets that a heavy schedule of commitments, made before he learned of this meeting, has prevented him from accepting your personal invitation to join this discussion.

The National Park Service feels privileged to receive a place on this panel, all the more since the amount of land and wildlife that we administer is so small compared to that for which others here are responsible. The responsibilities of the states, as outlined by Mr. Biggs, are applicable on nearly two billion acres of the United States; the acreage under National Park Service administration is less than one per cent of this. The Fish and Wildlife Service, Mr. Ernest Swift has shown, must protect and regulate the taking of migratory birds on this same two billion acres, and is responsible for all wildlife on nine million acres of federal refuges. The national forests--nation's hunting grounds described by Mr. Lloyd Swift--comprise 160 million acres in the United States, compared to which the 15 million acres 1/ of national

1/ Acreages in Alaska and Hawaii are not included because these regions are outside the scope of the discussions. Their inclusion would not significantly alter the ratios as given.

parks and monuments that we administer are less than 10 per cent. Well, if you didn't invite us here because we are so small, it must have been because we are so popular! We did have 25 million visitors to the parks and monuments last year, and a total of 46 million visitors to all types of areas under our administration. Every year since the war the number of visitors has increased, and for the coming season a further increase of $8\frac{1}{2}\%$ over last year has been forecast.

I will outline wildlife management in the National Park System under three headings: (1) What we do; (2) Why we do it; (3) How we can help the states.

(1) WHAT We Do

Game management outside the parks seeks to produce maximum crops of a certain few kinds of wildlife for harvest by public shooting. Other animals that live on the game species often are weeded out. Habitats are manipulated freely to meet the requirements of particular game species: some types of forest and ground cover may be thinned out; other kinds may be planted.

Park wildlife management methods are for a different purpose. All native animals and plants are preserved for public observation and enjoyment. They are treated equally, provided only that they do not endanger human life, property, or the existence of other native species. Forests are not cut to produce more elk or deer; porcupines are not killed to produce a harvest of trees.

Our primary "crop" is the unfolding story of the land itself and its inhabitants--the climax plant associations, rare species that are endangered elsewhere, and all other components--how they interact when undisturbed. Ecologists benefit specially from this type of management, and so do all members of the public who use and place special value on the remaining fragments of wilderness. The National Park System includes the principal remaining areas and the only federal areas 2/ where continuance of such a management program is supported by law.

2/ USFS wilderness areas are subject to hunting, trapping, mining, and commercial grazing.

You may ask why fishing seems a partial exception to this wildlife policy. Fishing was a custom in these areas and, unlike hunting, was specifically provided for by law. This traditional distinction between fish and other wildlife is shown in the names of most of the agencies assembled here today.

National park wildlife management necessarily seeks to reduce or eliminate man-caused disturbances, insofar as possible, so nature can restore essentially the original climax ecological conditions. In general we have had three main types of wildlife and ecological problems:

The first type need not take much of our time here because its solution requires a minimum of wildlife management and more emphasis on human management, through education, and the application

of relatively simple and well understood precautions. Feeding bears and deer along roadsides and at garbage collection places belongs to this type of problem; so does erosion and weed replacement in meadow and forest watersheds caused by grazing too many pack and saddle animals in one place.

In the second type of problem, native plants and animals have been threatened with severe competition from introduced species, as at Channel Islands and Death Valley. Channel Islands National Monument contains unique races of small birds, mammals, and vegetation that are absent from the mainland. Domestic rabbits apparently were liberated on Santa Barbara Island during the military occupation connected with World War II. In 1953, there was a rabbit irruption on that island comparable in devastation to those of Australia. The California Department of Fish and Game has cooperated with us in making observations there.

In the mountains of Death Valley National Monument, non-native wild burros have multiplied almost as destructively as the Santa Barbara Island rabbits. The Nelson bighorn range has been denuded in some areas all the way to the crests of 8000-foot mountains, and the sheep have been driven away from the best waterholes. Here, too, the California Department of Fish and Game has cooperated with us in counting burros and bighorns. There is considerable promise in a management program of blocking various waterholes in confined, rocky locations so that only the bighorns can get to them. In general, the problem of non-natives has been

solved reasonably well when manpower and funds have been adequate.

In the third type of problem, native plants have been damaged by herbivore populations due to a scarcity of their natural enemies and other factors. This situation has been the hardest to cope with, and I will come back to it later. If all our wildlife problems were solved, I might unfortunately from my personal standpoint not be with you today. However, it is true that many park areas have no serious wildlife troubles.

(2) WHY We Do It

Why does the law make the National Park System a sanctuary for all native plants and wildlife? Evidently because a majority of the people want it that way.

Is this law and this land use fair and democratic? Twenty-five million people have 15 million acres for this use--or a little over half an acre per person--on $3\frac{1}{2}\%$ of the 412 million acres of public domain. This is rather intensive use of park lands. By contrast, the nation's 15 million licensed hunters have approximately 340 million acres of the public domain for their type of recreation, or 28 acres per person. In addition, much hunting is done on private lands. Those acres in the National Park System, where management is supported by entrance fees and funds derived from all the people instead of by hunting license fees, are the only acres where nonhunters have an unchallenged right to have all kinds of wildlife remain undisturbed, for close-range enjoyment and photography, rather than for its sporting value. Since more than

twice as many people visit the parks as buy hunting licenses, this seems a legitimate use of a small part of the public domain.

Over and beyond public sentiment, the undisturbed park areas have scientific value as research laboratories. Wildlife administrators know that the science of ecology is the foundation for the whole program of producing a shootable surplus. Workers in this field need "control" areas where there is no game management, to check the results of experiments in the managed areas. The parks are the major areas, and the only federal ones, where continued functioning as scientific controls is supported by law. At present, approximately 73 ecological studies are under way or programmed in 28 park areas by 13 scientific institutions or agencies and by our own Service.

Your time would be needlessly wasted if we discussed the "balance of nature" idea at any length. As working biologists you continually deal with the seasonally shifting balances between enormous wildlife reproduction rates on one hand and the severe limiting factors of food, shelter, disease, and predation on the other. As Durward Allen (1954, p. 251) so clearly shows, there never was a static balance ~~even~~ before the Pilgrims came. But there is everywhere, in wilderness or in farming country, a fluctuating balance like a teetering beam scales, and it is doubtful that any animal community could exist for long in anything but a relative balance.

Since the basic laws of ecology can't be changed, differences in wildlife management programs between park and nonpark lands boil down to differences in what particular kind of relative balance is desired. Outside the parks you shift the ecological weights around to produce the maximum shootable surplus on a sustained yield basis. Inside, we disturb the weights only when necessary to eliminate or reduce some conspicuous human interference which usually occurred before the park was established.

Our objective is to make available for study the natural workings of the scales themselves when they are not being manipulated. This knowledge can then be used for better game management. In general we have been successful; the value of the program is shown by the number of scientific studies under way and through increasing mention in the recent literature on wildlife management.

Coming now to the third topic:

(3) HOW Can We Help the States (and how can they help us)?

In most of the parks and larger national monuments we help the states by providing the summer breeding grounds for a crop of game animals that is harvested during their seasonal migrations outside the park areas. Closer coordination of this public hunting with the migration seasons would help us in controlling game numbers where there is range damage.

In about 5 3/ of the 107 4/ parks and monuments where

3/ Rocky Mountain, Glacier, Yellowstone, Grand Teton, Olympic

4/ Excluding Alaska and Hawaii

such range damage occurs, it appears that we could help each other by working for greater flexibility of regular and special hunting seasons adjacent to these areas so as to better coordinate the harvesting with the migration period. It also appears that many more areas of the System could help the states through an increase in the kind of ecological research programs now being carried on there.

A meeting such as this one, because it is more a forum than a technical work session, would not be the easiest place to actually arrange the details of local cooperative solutions for our mutual problems. However, there is room for further progress at the local level on actual management measures, and with this will surely come better understanding of the other fellow's problems. This should make it easier for all of us to explain to the non-shooting public why it is consistent for wildlife which is protected in the parks to be harvested when it leaves them.

SUPPLEMENT: QUESTIONS AND ANSWERS

GENERAL

QUESTION: Since the national parks are well-known breeding grounds of predatory animals that the states must spend taxpayers' money to control, why shouldn't you be required to build a fence around the parks to keep your predators inside?

ANSWER: As practical field men we know that there are necessarily far more game animals than predators. The parks are well-known breeding grounds for the game animals that are harvested each year. This large benefit has to be considered, too. A fence would prevent that harvest and also the necessary seasonal rotation of the game between its summer and winter ranges.

QUESTION: How does it make economic sense for the states to spend money to control predators when the parks go right on raising more of them?

ANSWER: Few park areas are large enough to produce or maintain a predatory animal population that even begins to approach the original level, and in these few areas movement beyond the park has been found to be quite small. Control agencies have repeatedly stated that their objective is not extermination but control, and their routine control operations outside have kept park predator populations inside constantly drained to low levels.

QUESTION: How can the Park Service justify its coddling of predators?

ANSWER: Professional management people have repeatedly condemned the emotional attitude which holds that a predator is just a public

enemy that must everywhere be destroyed. They emphasize that in wilderness areas a predator can be an important management tool and has a rightful place in the biological community. Game management authorities frequently deplore the use of the taxpayers' money for indiscriminate predator control in wilderness areas, or any areas, where there is no livestock problem and the harvest of game animals by shooters has been insufficient to properly control the numbers of game. This situation is especially prevalent in certain regions adjacent to the parks, as in California, for example, where records indicate that it costs the state \$1000 for each lion killed by its lion hunters. The recent action by ranchers at Toponas, Colorado, in protecting coyotes and other predators on 200,000 acres shows that the public attitude on the predator question by no means favors indiscriminate control.

QUESTION: When will the Park Service face realistically the fact that man has destroyed "the balance of nature"?

ANSWER: First, let's make sure we understand each other: One of your own top authorities, in the most comprehensive analysis of game management recently produced, says that the idea of wildlife population balances, or almost any idea, can be intentionally defined in such a way as to make it appear ridiculous. But he says this is just setting up a man of straw for the fun of knocking it over.

Game management people work every day to achieve certain population balances. Therefore, you surely would not claim that no balance of any kind is possible.

What your question really asks, apparently is whether it is worthwhile to continue the special type of wildlife management required in the parks if 100% success is impossible.

The answer is that nobody can hope to be 100% successful. But we have already had a large measure of success. And the good results do not indicate that the only solution now is to abandon the program and watch the special contribution of the parks to scientific work go down the drain. You also have unsolved problems, such as deer irruptions on more acres than there are in the entire Park System, but no one would suggest that you give up your efforts to solve this problem. It just doesn't seem to be the American way to give up so easily on the important things.

QUESTION: Why does the Park Service oppose the extension to other parks of controlled public hunting as a modern game management tool for reducing destructive surpluses of game animals? Why should the good results at Grand Teton be denied to other parks?

ANSWER: There are three main reasons:

(1) It is contrary to existing law, except at Grand Teton, where hunting is still very experimental and has not yet demonstrated its need as a permanent practice. The average number of animals taken there by hunting has been only 100 per year for the last three years. The wisdom of the legal restriction elsewhere is indicated by the other two reasons.

(2) Controlled public hunting, as we all know, has in many cases not yet proved effective in preventing or eliminating

game surpluses. A major reason for this, as indicated by the public education efforts of many game departments, has been difficulty in getting your technical findings and recommendations carried out. Getting hunters to recognize the biological necessity of a doe season, or the need for closer control of waterfowl bag limits, are examples which could be multiplied. So far the hunting public has not begun to make full use of the potential harvest on available shooting areas. The situation is further complicated by the unwillingness of the average hunter to travel more than a mile from his car and harvest the surplus in the more distant areas where need often is greatest. Until you can get the full understanding and support of your constituents in putting your own house in order, your position in seeking to scientifically manage a different household belonging to a larger segment of the public will not be easy to justify.

(3) Public sentiment against hunting in the parks is heightened by apprehension over the possible results. There is always a small percentage of irresponsible shooters whose behavior endangers lives, penalizes all real sportsmen, and has caused private landowners to close millions of acres to further hunting. In asking the public to open this last one per cent of federal sanctuaries to shooting, with the resulting hazards to people and to nongame species which can never be wholly eradicated, sportsmen would have a stronger position if they could show further progress in persuading private landowners to reopen their properties to hunting.

Suspicion as to the scientific motivation for urging hunting in the parks is generated whenever such pressure appears to ignore the importance of the parks as un hunted, ecological "control" areas in connection with game management studies.

QUESTION: What if the sportsmen decide to override such Park Service arguments and introduce legislation to permit hunting in all the parks?

ANSWER: It is sometimes hard to understand why some shooters look so longingly at the park game when they are not beginning to make full use of surplus game outside. However, the answer to your question boils down to this: In a democracy any pressure group may say, "We don't want more facts because we're going to do it anyway." But sportsmen have a code; when given the facts they have a strong tradition to play fair.

One of the facts they should have about any such proposal is that they, who number 12,000,000 and enjoy the use of 28 acres per shooter on 82% of the public domain would be infringing on the rights of those 25,000,000 park visitors who for their type of use have only half an acre per person on 3½% of the public domain. On reflection, the sportsmen would surely realize that they would be crucifying someone else's program that has a different objective. It is our way of life to respect and honor the other fellow's aspirations and needs even when they may not be ours.

The diversity of public values and endeavors is part of America's greatness, and this includes freedom to seek many types of values.

But disregarding sportsmanship, self-interest also indicates the wisdom of respecting the park management program. Game biologists have indicated the importance to the sportsmen of having permanent "control" areas for checking on game management experiments.

As a practical matter, everyone should know that a bitter battle on a park issue such as this, which would split conservationists into two camps, is bad for all conservation. For all of us there is an almost limitless opportunity to work on wildlife problems whose solution will bring benefits to millions without sowing seeds of distrust. By comparison, what can you hope to gain, for a few thousand hunters and for a very short time at most, to compensate for arousing the general public and attacking the National Park Service which is one of your allies in wildlife conservation?

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