

Keynote Address

VALUES, THREATS AND CHALLENGES TO NORTHERN WILD SHEEP, GOATS AND BIOLOGISTS

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I would like to take this opportunity to welcome all of you to Montana. I hope your stay here in Missoula will be enjoyable and will lead to a better understanding of northern wild sheep and goat management or research in your state, province, or country. I also want to take this opportunity to thank the members of my staff who have worked hard putting this fifth symposium of its kind together. Please take advantage of this meeting to make this as much a workshop as it is a symposium to help resolve key concerns common to all.

I would like to talk briefly about some new programs that we have been involved with in Montana related to our sheep and goat management. Afterward I will discuss some values, threats and challenges facing us now and in the future. We recently transplanted a sheep herd in the Tendoy Mountains in southwest Montana which makes our twenty-seventh sheep herd in the state. We have about 5,000 sheep in Montana with about 230 permits issued last year. We also still maintain seven unique districts as unlimited areas under a quota system. Our sheep committee is developing standardized guidelines for sheep transplants within the state which will also lay out priorities and eventually long range objectives. Recent wildlife transplant legislation now requires thorough public review and a written plan prior to any transplant action. For those attendees who have such guidelines in place in your home state or province we would like to share your ideas on this topic at this meeting.

We have about as many goats in Montana as sheep if not a few more. This includes 12 native herds and 21 introduced herds. We hunt 41 herd segments out of a total of 59 and harvest about 215 goats per year with 320 permits. We have developed a brochure which aids in field identification using both behavioral and physical characteristics. These are available if anyone is interested.

Perhaps the most newsworthy recent event related to sheep management in Montana was the legislation authorized by the 1985 session which allowed for the auctioning of one sheep license valid anywhere in the state to the highest bidder, similar to what a few other western states have done. In February of this year the Foundation for North American Wild Sheep conducted the auction at their annual meeting in Hawaii. The highest bidder was Arthur Dubs, an Oregon film producer who paid \$79,000, the highest price paid for a sheep license anywhere in the United States to date. The motivation apparently was related to the desire to put together the largest grand slam ever assembled, since Montana apparently harvests more 180 and 190 point plus, Boone and Crockett Rocky Mountain bighorn sheep than any other state annually. This auction about doubled the dollars to be spent on sheep in Montana since 90 percent of the dollars are earmarked for Montana sheep projects including transplants, habitat easements and acquisition and other efforts which will contribute to sheep conservation.

What causes people to want to pay this much for the chance for a big sheep? It is unlikely that anything close could be raised for a goat, moose or any other big game license in North America. Leopold stated that "the trophy...is a certificate. It attests that its owner has been somewhere and done something...that he has exercised skill, persistence or discrimination in the age-old feat of overcoming, outwitting or reducing-to-possession. These connotations which attach to the trophy usually far exceed its physical value." Ralston, a philosopher from Colorado, has suggested we appreciate wildlife and it has aesthetic value to us because it is "spontaneous motion wild and on the loose in the field, a wild autonomy. The experience of wildlife comes by surprise. We must catch it while we can, see it now or miss it forever. We admire the sense of struggle of the big trophy ram which represents knowledge and experience that the small ones don't have." We seem to selectively appreciate nature. The old weather beaten animal at the end of a long tough winter seldom graces the cover of our wildlife magazines and some consider it ugly, but as Ralston relates, "it is not ugly unless endurance is ugly."

Large rams have a high social status. A "macho" animal among its type. Men or women who shoot these sheep apparently also belong to a certain social class in that most would rather not shoot a sheep at all than shoot a "small one" and be excluded from the group. This apparently happened last year with the Nevada License Auction for a desert bighorn sheep that went for \$67,500 in that a sheep was not taken. The high price paid may be related to the continual struggle for self-worth or gaining something no one else can have.

We need to work more on defining values related to wildlife management decisions including our actions with wild sheep and goats. Economists have been described as those that "know the cost of everything but the value of nothing." Yet economic considerations cannot be ignored in defining the value of wildlife. The economists define "total value" as the amount of money it would take to pay someone to totally give up something they value. I would hazard to guess that someone would have had to pay Mr. Dubs a lot more than \$79,000 to get him to give up forever his opportunity to hunt wild sheep.

The interesting and yet baffling attribute of wildlife is the fact that many place high values, and their experience is enhanced, in just the chance or perception that the animal is present, even if it isn't. A perfect example for this is the whale-watchers at the Cabrillo Monument on Point Loma near San Diego, California. Thousands every year spend hours gazing off toward the horizon until almost blinded by the sun reflecting off the ocean, just for a possible glimpse of a spout emanating from a whale, satisfied in perhaps not even seeing the whale itself.

Should we spend more on a decision regarding sheep or goat management than what is at stake to be won or lost? Most economists would say no, but these intrinsic values make the biologist not so sure. Another way to develop decision criteria is to ask "would society be better off if an action, such as increasing a sheep herd, occurred?" The "Pareto-Criterion" in socio-economics states that society is better off if at least one person is better off and no one is worse off in regards to an action; or society is better off if the gainers can compensate the losers. (I wonder what the reaction would be if the losers were hunters in an anti-hunter case and the hunter sought compensation for their loss of opportunity).

The question of value differences between sheep and goats is curious to me and may relate to some of the factors I have already mentioned. Even with this symposium, out of about 40 papers, only 5 are on goats. Loomis and others recently reported that the net economic value of goat hunting in Idaho exceeded sheep hunting, but I doubt the same trend would hold up for Montana. Perhaps the low prices we charge for resident licenses (only recently changed from \$25 to \$50) contribute to its perceived worth. This trend of perceived values does not hold up for non-consumptive users, however, based on a recent study by Nelson in Wyoming indicating higher non-consumptive values for both sheep and goats than consumptive values. This factor makes sheep and goats somewhat unique among other big game species and has probably contributed to their preservation. Non-consumptive users speak out strongly against loss of these species or their habitat, so the hunter usually does not carry the total weight of conservation responsibility as much as he might for deer or elk.

Even though sheep and goats enjoy a somewhat broader constituency, the need to broaden that constituency is certain, and we as biologists must seek to accomplish this task. Leopold recognized this same need in his Sand County Almanac. "The same dilution and damage (that mass-use tends to give to trophies), is not so apparent in the yield of indirect trophies such as photographs. Broadly speaking, a piece of scenery snapped by a dozen tourist cameras daily is not physically impaired thereby, nor does any other resource suffer when the rate increases to a hundred."

I would like to turn my attention now away from values and direct it toward what I feel are real threats to wild sheep and goat management as we know it today. Jack Berryman, the executive vice-president of the International Association of Fish and Wildlife Agencies in a recent address to The Wildlife Society, stated that, based on his extensive career on the front lines of wildlife resource issues, he felt there are two ominous threats to wildlife management. They are, number one: loss of habitat and number two: the animal rights movement, and I couldn't agree more. (By the way during Berryman's talk and throughout the TWS Conference there were animal rights demonstrations on the steps of the Hotel Syracuse right outside the meeting). I also believe these threats are directly applicable to northern wild sheep and goats. Expounding on the virtues of habitat protection to this group would be somewhat of a wasted effort, because I'm sure all of you are fully aware of the importance of habitat and fully dedicated to its improvement and preservation. Therefore, I will focus my comments on the second threat; the Animal Rights Movement. I feel that we, in the Northern Rockies, have been somewhat isolated from this movement to the point of complacency. It has only been within the last few months in Montana that we have experienced such groups as Cleveland Amory and the Fund for Animals regarding our bison hunt north of Yellowstone National Park. The recent book written by Ron Baker entitled "The American Hunting Myth" exemplifies my point. The jacket reads "How hunter-dominated state and federal agencies are systematically destroying America's wildlife and natural lands and what you can do to help restructure these agencies and insure a responsible stewardship over America's wildlife." Baker is the vice president of a New York based Committee To Abolish Sport Hunting. It has 2,000 members and is growing. How many in this room ever heard of the news magazine called "Agenda"? It is the news magazine of the Animal Rights Network that each of us should follow. The philosophy behind Animal Liberation is simply that pleasure is good, therefore it should be maximized and pain is bad, therefore it should be minimized. Peter Singer promotes "the welfare of the individual animal over the welfare of the

population" which is directly opposite to our training and traditional beliefs. Anti-hunters have a humanistic and moralistic base and therefore ecological arguments in support of hunting, that we typically promote, won't convince them. It is like being on different channels of the same television set.

Sheep and goat hunting is perhaps trophy hunting at its finest in North America and elsewhere, and yet that is the very factor that relates to the problem.

In a recent national survey out of the five most important reasons why people were opposed to hunting, trophy hunting was number one and worrying about endangered wildlife was number two. In another survey, Jim Peek found that in ranking reasons people give for hunting, survey respondents found the reason "to obtain meat" the most acceptable and the reason "to obtain a trophy" the least acceptable out of six categories. A third survey entitled "Youth and Wildlife" conducted with fifth and sixth graders by the U.S. Fish and Wildlife Service and O.P.M. through the "Weekly Reader", is perhaps the most sobering. The survey portrayed a widespread prevalence of humanistic sentiment and concern over sport hunting by young people. Conclusions stated that "young people clearly distinguished between hunting for food and hunting for sport and whereas opinions about food hunting may become more positive as they mature, their negative attitudes about sport hunting are established before they reach their teens."

The trophy-recreationist has peculiarities that contribute in subtle ways to his undoing. To enjoy, he must possess, invade and appropriate. This makes it imperative that we seek to improve and promote a higher degree of ethics in trophy hunting perhaps even more than for other types of hunting. Again going to Leopold, "A peculiar virtue in wildlife ethics is that the hunter ordinarily has no gallery to applaud or disapprove of his conduct. Whatever his acts, they are dictated by his own conscience, rather than by a mob of on lookers. It is difficult to exaggerate the importance of this fact. Voluntary adherence to an ethical code elevates the self respect of the sportsman but it should not be forgotten that voluntary disregard of the code degenerates and depraves him." What have you done in your career (and I ask myself the same question) or what will you do this next year to promote the ethical restraints we collectively call sportsmanship?

I would like to now shift focus to management and research needs and challenges. "Game management is the art of making land produce sustained annual crops of wild game for recreational use" (Game Management - 1933). How often have we heard this definition but how often do we forget it? The statement that game management is an art, I feel, implies an inexactness and a sense of change and progression over time. For example the backwoods biologist in some areas is now almost extinct. We have become more people managers than species or habitat managers. All biologists are beginning to realize, as funds get tighter, isolation from the joys of budget management is no longer possible or expedient. There are more organized special interest groups now than ever before. We used to deal primarily with sportsmen groups alone. The public is demanding more specifically a certain quality of experience. Now instead of just resource allocation, we deal with license allocation by group. No group seems satisfied unless other groups are exactly equal (i.e. residents vs. nonresidents; outfitters vs. non-outfitters; landowners vs. non-landowners). The issue of more access to federal lands has

changed to a desire for less access and less roads and more access to private lands. Failing agriculture shifts survivors to using all the products of the land for profit, including wildlife.

Within this framework of the changing art of wildlife management, we have learned a few things from our mistakes, for example goats cannot be managed like deer and can easily be over harvested resulting in the necessity to close seasons. When the season closes, the interest and support from our constituency also wanes which may somewhat explain the lower than desired perceived value for goats today compared to sheep in Montana. The most important effort we could now make is a better survey of what we now know, using and applying what we have. We must effectively and carefully prioritize our future activities. We may know now more than we can apply in some areas. We can no longer afford to reach for the last decimal in every case but must resolve some of our management problems now before they are resolved for us by an entity other than our own agency. We need to be less afraid to establish experimental or showcase management actions or seasons, in a systematic way, using the now popular procedures of "adaptive management." An example that needs further testing may be Geist's theory that with our 3/4 curl restrictions are we maybe in fact focusing pressure on the very segment of the population we want to protect, thus over time, producing something contrary to our original goal? We have overlooked answering some of the most basic questions in management, at least in some areas, such as where can we put sheep and goats, where do we want sheep and goats and how many do we want? Is our goal to maximize large males in the harvest or to maximize general recreation? How do we reduce the harvest of nanny's and improve field identification? We know how to manage biologically for each option perhaps, but we aren't as good at making the decision of where along the continuum of options our objectives should be for a specific area, especially considering socio-economic and socio-political constraints.

I think we have done a fairly good job in the area of research, particularly with sheep. In preparing for this address I reviewed the research recommendations from the 1974 Boone and Crockett proceedings of the workshop on the Management Biology of North American Wild Sheep also held here in Missoula. I also briefly reviewed the Whitehouse Yukon Northern Wild Sheep and Goat Council proceedings available last night. Many of the papers at this conference 12 years later, reflect responsiveness to the challenges presented at the 1974 meeting particularly in the areas of habitat, nutrition, development impacts, parasites and disease and harvest impacts. We are also beginning to tackle issues like defining and understanding our sheep, and goat hunters and quantifying values. Other research areas that haven't enjoyed as much attention are behavior and genetics perhaps due to the difficulty in getting funds for these topics; and more applied research such as improving inventory techniques especially for sheep, and learning more about trapping and transplanting to enhance success. Needs expressed at the 1974 meeting for sheep trapping and transplanting (also applicable to goats) were:

1. The need for better literature research to document ancestral ranges.
2. The need for behavior studies to determine what sex, age, and family composition of captured animals are needed to provide optimum opportunity for success on releases.

3. The need to determine optimum numbers of animals to be released to assure establishment.
4. The need for better monitoring of releases to determine movements and permanent herd establishment.

Having discussed some threats and challenges to our profession, the question ultimately boils down to a personal and individual reflection. What is my responsibility as an individual biologist? Won't someone else at a higher level or in another agency take care of these concerns? Can't I be left alone with my animals?

Wildlife biology is more than just a job, it is a vocation. We must become actively involved in effecting and influencing the changes. Jack Ward Thomas expressed it well in his recent address at the North American Wildlife and Natural Resource Conference in Reno, Nevada. "The university degree is the beginning not the end, otherwise you become a functionary, not a professional. (We must continue to learn and be curious.) The last thing we wanted to be while in school was a negotiator or salesman, but that's what we are and must be." We do a lot of talking to each other but not enough to the public and to interest groups in language they can understand. Out of all of the universities offering a wildlife curriculum, someone recently commented that only 2 or 3 require public relations courses and less require popular journalism. This has added to the communications gap. The expansion of our constituency beyond hunters is essential to our long term survival and the protection of the resources we now enjoy. In 1980 4 billion dollars were spent on non-consumptive uses of wildlife. How much have we influenced this? We must develop skills to solve tomorrow's problems not just current ones. If 15 years is taken to resolve a problem, the problem will long since be dealt with without our input. We have become too used to, and attached to, our gadgets and the services available to us, like the homeowner unable to add up the checkbook without a calculator. The advances of telemetry and professional training available to us have enhanced our profession greatly, but we must not lose the skills of good old fashioned field observation. A field notebook, pencil and binoculars don't cost much and lack of funds should only change how we collect data and the type of data we collect, and not force us to the confines of the office. If dollars for travel or training aren't there, we should increase our reading and thereby become enriched.

Finally, I think we have an obligation concerning what we leave behind for our youth. The number of battles we fight can not be more important to us than the results we obtain and ultimately what we leave behind. But just leaving something behind isn't enough, either. We must prepare youth to deal with resource issues they will face in the future. The Weekly Reader "Youth and Wildlife" survey I previously discussed indicated that "children demonstrated limited knowledge about the physical and behavioral characteristics of wild animals." The survey also indicated that participation by youth in specific wildlife oriented activities such as animal observation in the wild, belonging to an animal club, and hunting, had a much more positive influence on their wildlife attitudes than other forms of non-participatory wildlife related encounters. It is one of our responsibilities to see that youth have opportunities to participate in wildlife activities through our voluntary efforts in such programs as Project Wild, 4-H, and Hunter Education.

Yes, times are definitely changing. This came home to me recently as I read my young son a bedtime story from his newly acquired book. "Once upon a time there was a Papa Bear, a Mama Bear and a Baby Bear from a Previous Marriage." Setting the course of the future so that the future won't have to repeat the same process is an admirable goal but one difficult to achieve. I hesitate to mention this, because I have as many concerns about some of the Forest Plans currently under review as a biologist and someone might hold me to it but.... Perhaps it would be a healthy exercise for us to prepare 50 year wildlife plans like the 50 year Forest Plans. How well would our wildlife plans hold up to intensive scrutiny? A Michigan DNR planner recently projected that by the year 2000 in the United States, we will have 3 million more hunters, primarily focused in the west and southwest, 20 million more non-consumptive users, a decrease in population growth and a decrease in the percent of people that hunt. How will we accommodate these changes? The economic growth we are now experiencing will likely cause a reduction in participation and concern for natural resources with a low point in 1995 before this trend begins to reverse, (according to the Michigan report). This means it will take until at least the end of the careers of most of the people in this room before a major trend shift is realized, if this prediction holds true. This was proposed based on what has happened historically. Periods of economic growth and exploitation are almost always followed and preceded by periods of environmental protection and concern. (For example the "Roaring Twenties" were followed by the birth of wildlife management and the influence of Aldo Leopold; the post war boom was followed by the environmental movement of the 1960s and the current and future baby boom and yuppie surge may result in a renewed environmental revolution peaking by the year 2035 if the cycle continues). The economic status of the country during adolescence tends to influence subsequent attitudes toward environmental concerns. Adult value systems are difficult to influence.

Another theory espoused by Berryman is that we have gone through four phases of conservation evolution from legislative to biological to economic to the present social phase. If this is true, what will be the next phase?

This kind of creative evaluation and projection into the future, even though its speculative, should be a part of our wildlife planning for the future. Our contribution to our profession today, must have the optimum possible influence on resource allocation tomorrow and beyond.

As a wise old philosopher once said, "We in our country are so rich that we can afford to keep wildlife, but not so rich that we can afford to lose them."