

## OBSTACLES TO COOPERATION BETWEEN RANGE AND WILDLIFE MANAGERS

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When I consider what range management and wildlife management people are supposed to do, it is hard for me to imagine them not working together. But they operate independently most of the time, even on the same piece of ground. Obviously they and the resource could benefit from cooperative efforts. I have spent 18 of the last 30 years working at the interface between range and wildlife management and have observed some of the obstacles to cooperation. Many are obvious but are ignored. Others are not so obvious, and many practitioners seem to be unaware of them. Maybe we can overcome some of these problems if we treat them as a psychiatrist treats a phobia -- by bringing them to the surface and discussing them.

I have grouped the obstacles to cooperation into four categories: (1) the public agencies we work for or deal with, (2) the education we are given and how we use it, (3) the lack of knowledge about our resources, (4) and people. I would like to briefly discuss each of these categories. As I discuss them it will become obvious that they are all basically people problems.

#### GOVERNMENT

Everyone blames the government for their problems, and government agencies should share the blame for problems that deal with range and wildlife. Government agencies are large, clumsy, and slow to respond. They make general rules and set broad policies. But problems involving livestock and wildlife often need immediate and very specific responses. Delays can produce a solution too late and one not focused on the specific cause. Government agencies are bound by rigid, long-term planning and budgeting. The long-term commitments prevent us from taking advantage of unanticipated opportunities for coordinated efforts to solve range and wildlife management problems. After we squeeze these opportunities into our work plans and budgets, we find that what was an opportunity has become a problem and must be treated as such.

The plants and animals we deal with are unaware of budgets, the planning process, and travel restrictions. They respond to temperature, rainfall, snow depth and day length, but not to government schedules. Undaunted, government grinds on, divided

into eight-hour days, five-day weeks, and fiscal years. It doesn't matter whether those days, weeks, or years are wet or dry, cold or hot. The government system is not driven by the same things that drive plants and animals. Somehow we need to get more flexibility into our system so that we can be responsive to real-world situations as they arise.

#### EDUCATION

Education and the way we use it are often obstacles to reaching range and wildlife goals. Many principles and theories are taught as though they were physical "laws." We regurgitate these "laws" at exam time, again and again, until we cease to question or even examine them closely. The problem is not that they are wrong, just that they are not always right. We need to remember not to apply those principles and theories beyond the scope of the situation in which they were developed. Acknowledgment of this problem can be found in the new wildlife text by James Bailey (1984:4). He quotes Kingman Brester: "Just when you think you've got it, good teachers will sometimes seem to take almost sadistic pleasure in proving to you that you are wrong. Education, not indoctrination is their task." I think this illustrates a good solution to the problem of the over-trained and under-educated student.

Wildlife students are usually well trained in zoology but have little plant ecology, plant morphology, or soils training. Yet many become biologists who spend the major portion of their career working on habitat problems. This usually means working with plants. Wildlife students seldom take a range management class but are told repeatedly about the evils of overgrazing. It seems that most wildlife students are unaware of the word, grazing, without the prefix "over."

Range students are well trained in plant and animal sciences. However, their animal science is oriented toward agricultural production. Few range students take any wildlife management courses--at least not enough to develop a real wildlife ethic.

Students in both fields should be encouraged to "cross over" and gain some knowledge and appreciation of the other disciplines. Their careers will not be

carried out in a vacuum void of outside influences. They will have to deal with other resources. Almost all western wildlife or its habitat is affected, either negatively or positively, by range livestock. Every range management decision is a wildlife decision and wildlife should be considered in that process.

#### LACK OF KNOWLEDGE

The lack of knowledge about the animals we work with, their needs, and their interactions with their habitats are further obstacles to reaching range and wildlife goals through cooperation. In this area, range managers are much better off than wildlife managers. We have a long history of sound research in rangeland management and range animals. We know what the nutritional and habitat needs of range livestock are and how to meet them. We can control or supplement their range when it falls short of their identified needs. Wildlife research, on the other hand, is very difficult. We seldom have our animals in hand, and research conducted with restrained wild animals may not be applicable to free-ranging animals. Wildlife are difficult to move or provide supplements for, even if we understood exactly what their needs are, which of course, we often don't.

In a review of the George Reserve work, Caughley (1980:1339) commented, "Most large mammal studies coalesce into an amorphous mass of nothing much." He also said "White-tailed deer are the most studied and least understood of animals." I believe he would find that mule deer are in a similar state. The literature is cluttered with research results that have little application to any real-world problems that wildlifers face. Even with good, sound wildlife research, the range of applications is very narrow. It is dangerous to extrapolate very far in location or time. The conditions vary greatly in ways we find difficult to measure or understand.

We frequently do not know how much confidence we can put in the "laws" we learned in school. Romesburg (1981:293) pointed out that "Research hypotheses are proposed, and either made into 'law' through verbal repetition, or lose favor and are forgotten." I might add that some of the verbal repetition frequently finds its way into print and becomes part of the permanent "law" library, being used over and over again without the user realizing its questionable origin. During the last two decades most methods used to study rangelands have been challenged. Few

improved methods emerged from this work, but the strengths and weaknesses of these methods are now known. However, wildlife specialists are using these to evaluate habitat, generally without knowing the weaknesses of the techniques. More recently many wildlife study methods have come under close scrutiny. The implications of this are frightening. For example, the methods we have been using to count birds (Verner 1985), deer (Bowden et al. 1984), and small mammals (Wilson and Anderson 1985) appear to be badly flawed. If we can't count these species, chances are we can't count very many wildlife species adequately. And if we can't count animals, how can we speak to their reproduction rates, population dynamics, habitat preferences, or anything else concerning their biology? The implications of this research are likely to be a major blow to some of the wildlife "laws" we have accepted for so long.

Simulation modeling is a tool that has become very popular in both the range management and wildlife management fields. In wildlife we seldom have the tools to test the results of our modeling efforts. Modeling is often used to make up for our ignorance. We simply lack the needed information about the past or present to have any confidence in our predictions of the future--so we turn to modeling. Using a computer to mathematically manipulate our meager data bases may improve our predictions very little. Sometimes "black box" functions are put into the models that are no better than guesses, and they are used by people who don't understand the internal workings of the model. They innocently grind through the process, believing every number it prints out. The density-dependent functions are a good example. We put these in because it seems that there should be a population response to density, it is one of the "laws" we learned. The magnitude of the function, if any, may be just a guess, and we would be hard pressed even to prove that the function was negative or positive.

Fads have been a problem in range and wildlife. This is sometimes the result of funding, but more often it is just because we cannot identify a problem as easily as we can borrow a solution. Range people have gone through phases when everyone tried to fix their grazing problems with the same solution. Intensity of grazing, burning, fertilization, seeding, season of use, and fancy rotations have all been fads in the last 30 or 40 years. Wildlife people have gone through the same kind of thing. We have tried to increase wildlife

by killing predators, treating winter range, protecting predators, reducing livestock grazing, and now we are protecting riparian habitats and saving oaks. We need to identify the problem before we apply the cure and not just follow everyone else.

#### PEOPLE

Range and wildlife people consider their careers as "high callings" and themselves as persons of high virtue for answering that calling. Of course I agree with that, but we need to keep things in perspective. Sometime in our life, usually in college or early in our careers, most of us became advocates for "our resource." The problem is that many of us have become such strong advocates that we consciously or unconsciously have become adversaries of other resources. This causes backlash when we are forced to work with people responsible for the other resources.

We frequently develop tunnel vision when looking at a piece of ground. Two people looking at the same piece of ground perceive it quite differently. The range person may see it as livestock range and the wildlifer may see it as wildlife habitat. Often we even get more specific and see it as summer range for sheep or fawning ground for deer. The fact is that it is both, and it may also be a pine plantation, a site for a new trail and an important watershed. The quicker we understand that and the better we understand those other uses, the easier it will be to work with other resource specialists.

#### SUMMARY

At the beginning of this talk, I said that I could divide the obstacles into four categories, but that they were really all people problems. I blamed the government, but who is the government? I put some of the blame for our problems on the educators and they are people, but a large part of that comes back to us and how we use our education. If we have become over trained and under educated, and give a "knee-jerk" response to whatever we see, it is our fault. We need to remember that education should be used as a basis for future thinking, not as a substitute for it.

I mentioned the lack of knowledge--our lack of knowledge. We who manage the resources need more knowledge and a lot of what we need is not available. But if some of what we need is available, and we don't use it, whose fault is that? We need to quit responding with equal vigor to nonproblems as we do to real problems. We also need to quit treating problems before we really know what they are.

I will end this discussion with two more quotes. The first is another from Bailey's book. He quotes G. A. Bartholomew: "Biology is a continuum, but we biologists, because of our limitations, divide ourselves into categories, and we pretend that these categories exist in the living system that we study" (Bailey 1984:54). I think that explains some of our problems. Range and wildlife managers need to learn to think of themselves as natural resources managers with limited understanding, not as range or wildlife managers with total understanding. The next time you go to the field to look at a problem remember this last quote from the philosopher Don Neal: "Try to understand what you see, not to see what you understand."

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