

Closing Comments: A Long-Time NWS&GC Member's Perspective on Wildlife Management

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Abstract: Throughout the history of the Northern Wild Sheep and Goat Council (NWSGC) the nature of what we've shared has ranged from what is happening, to what causes it, and what it should mean for wild sheep management. This progression of questions is illustrated by reference to bighorn pneumonia die-offs. In that area we moved from hypotheses relating forage competition with domestic livestock (including cattle), through the historic "lung worm-pneumonia" complex model, to our present understanding of domestic sheep and goats as reservoir/vectors of bacterial pneumonia as the most probable cause of bighorn pneumonia. Separation of domestic and wild sheep seems to be the present management direction. With respect to habitat protection and enhancement we've moved from strident advocacy of cattle exclusion to shifting grazing allotments from domestic sheep to cattle, accepted the idea of "foraging conditioning" and use of fire to enhance or restore wild sheep habitats subject to plant successions unfavorable to wild sheep. The progression from observational science to applied management is best typified by the working management hypotheses produced through these proceedings. There have also been significant technical advances from simple neckbands to radio collars. DNA work is presently "hot;" there's a present interest in genetics and evolving hunting strategies. Additionally, we've seen the creation of an unusually successful non-governmental organization (FNAWS) supporting sheep restoration and management followed by the "invention" and proliferation of "governor's permits," and greatly increased funding for wild sheep management programs. Bighorn populations (mostly due to transplants or reintroductions) have more than doubled, and harvests have increased dramatically as well. Thinhorn populations seem to have declined. The Council has published 23 volumes of research, management, and interpretive papers, and either sponsored or participated in four major collections of synoptic management papers and working management hypotheses for all species of North American Wild Sheep and Mountain Goats. We have also approved and presented a number of resolutions on current management topics. Nevertheless, implementing management programs indicated by our pursuit of "WHAT" and "WHY" questions is no less difficult than ever, and may be more so. Principles which, if applied, may lead to longer term success are presented.

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About 3,000 years ago, Solomon of Israel said, "As iron sharpens iron, so one man sharpens another." Throughout the history of the Northern Wild Sheep and Goat Council (NWSGC) symposia, we have

tried to sharpen one another collegially. It seems likely this will be my last attempt to sharpen you. Should this be the case, I hope you will allow me the senior's prerogative of sharing some perspectives on life as a

wild sheep manager in the hope that it will be of some use to you.

Methods

As a symposium, we have evolved in the way we approach sheep biology and management. I think this growth progression may be helpful to catalog. When I was first involved with the NWSC 37 years ago, we were exclusively asking the question, “WHAT?” This was appropriate at the time because the state of our documented knowledge allowed us to go no further. As time went by, those of us who survived in the wild sheep “business” began to ask the next logical question, “WHY?” Eventually, those of us who thought we might have a credible hypothesis relating to “WHY?” began trying to relate the answers to the “WHAT?” and “WHY?” questions in applied management. That is, we began to ask, “SO WHAT?”

Results

I offer two examples of this progression. The first example tracks the circuitous trails we have collectively followed to our present implementation of knowledge relating to bighorn pneumonia die-offs. I chronicled our progression from “WHAT?” to “WHY?” in some detail for the 2000 symposium in Rapid City (Heimer 2002). Our investigations first led us to a parasite-driven working hypothesis which could not be sustained experimentally. From that effort came our present understanding of bacterial pneumonia (the best answer yet to the “WHY?” question). Subsequently, we began to ask “SO WHAT?” “SO WHAT?” took us into the realm of management.

Given that our hypothesis relating to domestic sheep bacterial involvement in bighorn die-offs remains seemingly robust, the answers to “SO WHAT?” suggest management action through separation of

wild sheep from domestics. This action now optimistically appears likely to produce effective management actions, particularly on federal public lands.

The second example of this progression is best exemplified by the publication of synoptic working management hypotheses for all four subspecies of North American Wild Sheep published as the theme of the 2nd North American wild Sheep Conference (Heimer (a), Wishart, Toweill, Lee 2000). Four years later, this continuing effort produced a similar document for Mountain Goats during our seagoing symposium (Toweill et al. 2004).

As the working management hypothesis was defined at that time (Heimer 2000 b), these compilations represented the then-current synopses of answers to the “WHAT?”, “WHY?”, and “SO WHAT?” question progressions in wild mountain sheep and goat management. They were offered in anticipation that we could collectively make what we know and what we think about what we know relevant to management.

Discussion

In my bolder youth, I suggested taking this approach would heighten the prospects for successful management. However, at that time, I failed to appreciate the impact postmodern influences were having as they began to confound management success by defining “management” in ambiguous terms (Heimer 2004). These influences, as tacitly accepted by management agency leaderships to ‘give the public a greater voice in management,’ have obscured the meaning of “management.” Currently “what it means to manage” is sufficiently vague that successful management no longer seems to require the formerly recognized requisites of answers to “WHAT is happening?” and “WHY?” In

my advanced state as a curmudgeon, it now seems that we “manage” without any real consideration of the requisites formerly presumed to be the basis of modern wildlife management.

Being older, but perhaps not much more timid, I define “management” as “TWEAKING A SYSTEM TO PRODUCE A PRE-DEFINED HUMAN BENEFIT.” In business management, this pre-defined benefit is profit. In human relations management, it is a happy cooperative workplace (generally defined to produce a pre-defined result pointing to production of goods or services). In wildlife management State/Provincial Constitutions/Charters define the benefit management is to produce. In Alaska, for example, the Constitution and the Alaska Statutes define the human benefit as manipulation of environments and populations to produce the maximal sustainable amount of human food. It was presumed that ecosystems would be “managed,” i.e. manipulated to increase yields of this pre-defined benefit. Postmodernism seems to have attacked this basic presumption, and postmodern wildlife management has expanded the pre-defined benefit to include a wide spectrum of uses from viewing to existence value and even non-intervention in ecosystems as they exist at the moment.

At its inception, the illustration of ecological interrelatedness, the “web of life” was considered elastic. In postmodern terms, the web of life is now considered to have crystallized and become exquisitely fragile. When ecological interrelatedness was considered elastic tweaking a strand or two to increase production of human benefits was considered unlikely to cause the ecosystem to collapse. It would not look quite the same, but it would still be sustainable. The basic assumption of the need for continuous human manipulation was considered a given. Those laws have

not been changed, but the postmodern influences defined by Heimer (2004) have basically defined intervention as inherently evil because it is “unnatural,” and defined the web of life as delicately crystalline and fragile.

“So What?”

If we are to succeed in sheep conservation over the longer haul, I think it likely there are three principles of wildlife management which should serve us well. These are not what are taught as principles of wildlife management in colleges and universities. When we undertake to learn the art and craft of wildlife management, we are (or were) generally taught “Principles of Wildlife Management.” Unfortunately, these principles (e.g. carrying capacity theory) were not principles of wildlife management at all. They remain the classic principles of wildlife science, but have little to do with successful management. I suggest the principles listed below are basic to success in contemporary wildlife management.

First, know and respect your pre-defined benefit. Generally, the predefined benefits are specifically enumerated human benefits, and are codified as guiding principles in Charters or Constitutions. These principles are defined in the statutes which give active force to principles. I find it particularly relevant that these guidelines define “SO WHAT” on the implicit assumption that the “WHAT?” and “WHY?” questions will be answered as a matter of course. In my casual look at non-Alaskan states and provinces, I’ve yet to see basic mandates to ask and answer the “WHAT?” and “WHY?” questions prescribed in law. I consider this “pre and end game” definition an example of modern (now considered archaic) wildlife management which has led to the outstanding success of wildlife restoration in

the USA. The reluctance of management leaders to move from “WHAT?” and “WHY” to action seems, retrospectively, a natural consequence of postmodernism (Heimer 2004). I suggest it leads not only to “mission creep” but also to “mission slump.” Things go well as long as we limit the scope of inquiry to the traditional “WHAT?” and “WHY?” questions. Where problems arise is with attempting to produce the basic pre-defined benefit which we, as managers, exist to pursue. Opposition to predator management is probably the best example. Studying “if” and “at what rate” predation occurs are socially acceptable. Applying findings to sustaining or increasing pre-defined human benefits from the same prey base is not.

The other consequence resulting from a failure to grasp or agree upon the predefined benefit as the reason for management is controversy. After spending several years agonizing over the stridently difficult exchanges chronicled in the last two proceedings of this symposium resulting from the Ram Mountain ram hunting controversy, the most benign hypothesis I can conceive is that the combatants had a basic difference or misunderstanding of the pre-defined benefit. The older school (modernists) seemed to consider, perhaps by default based on their history/philosophy, that the specter of possibly affecting genetic diversity in an isolated population of bighorn sheep was less terrifying than those with a different view of ‘what management is really for.’ The newer school (which look like postmodernists in setting aside the statutory definition of benefits for a more current understanding) seemed, possibly by default based on their history/philosophy, to suggest that human alteration of genetic diversity constitutes the most basic management mistake possible. In short, the unpleasantness manifested a conflict between schools of thought. We “oldsters”

remained more focused on the traditional “prime directive,” and did not graciously yield the field to the progressives. Both sides seemed to overlook the basic assumptions driving their interpretations of the data we think of as “scientific.” I regret not being more introspective regarding the basic cause of the conflict than I was when I entered it, and more deeply regret the opportunity for offense I presented to my colleagues.

The second principle of wildlife management is related to science, but is more relevant to management *per se*. I suggest we will have greater success if we rely on modern science, not postmodern interpretations of data to inform the “rightness” of management actions. Because absolute certainty is unlikely to be defined in the plastic living systems in which we work, there will always be “nits to pick” about any generalized management hypothesis or unifying theory. Anti-management postmodern activists will always seize on these “nits” to advance their anti-management (i.e. their personal interpretation of ‘benefit’) agenda. “Science” used to be the default answer and basis for management when the goal was generally accepted. However, “science” (which is actually a method of problem solving) will be unable to bridge the schism which has developed over what management is actually to accomplish. Until the “prime directives” are altered to fit the common postmodern viewpoint, management actions will always be attacked as insufficiently grounded in science. Hence, I see no end to the present conflict. Still, good pre-thinking of “experiments,” rigorous data collection and analysis will always be easier to defend than sloppy work. Do good work that is carefully considered in the larger societal context, and your life may be minimally disturbed by the inherently inevitable conflict over benefits produced.

Finally, we all need to realize we are managing resources which constitute a public trust. Consequently, politics will probably have a greater impact than empirical science. Hence, I suggest the successful manager of the future will have to work more productively in the political realm than has been required in the past. This goes well beyond knowing the predetermined benefit we are mandated to produce and the laws and regulations which have grown up to assure the benefit is produced. Operating politically is extremely difficult for those of us still employed by management agencies, which are defined as politically 'apolitical' by fiat. That is, agency employees, except those at the highest politically appointed level, are enjoined from conventional 'political activities.' This seemingly occurs as a matter of status protection (which defines the ability to exercise of power) by the elected officials who appoint the management agency leadership. If these folks are to function properly in their dominance hierarchy, they can't very well tolerate a bunch of subordinates challenging their social decisions. We're not much different than sheep in this regard (Heimer 1996).

It may not be a bad idea for this political agency social hierarchy to suppress the impulses of the passionate and inexperienced. Politics is an art/craft which is separate from that of agency management. Consequently, the manager who really wants to make a difference may be required to follow a path in which the "SO WHAT?" question really isn't satisfactorily addressed in the public arena till one has "graduated" from agency employment. This, of course, requires a perhaps-unhealthy commitment to management which extends even into "retirement."

In Alaska, we (retired agency folks) recently succeeded in getting the legislature

to pass a law which should make citizen's initiatives/referenda a thing of the past. This we accomplished through political means using network connections established during our "agency careers." We could not have done it as "employees."

Alaska's publicly owned trust resources have always been constitutionally protected from allocation/appropriation by popular vote. This seems protective of minorities in rural Alaska, which could easily be "voted off the island" with respect to consumptive use of wildlife by the urban majority. Nevertheless, the postmodern popularity of "wildlife initiatives" had made these sorts of ballot propositions common. This, of course, lead to an unstable management environment because any management decision was subject to 'correction by referendum' (sold as 'initiative') by a sufficiently amoral cadre of activists (generally anti-managers) with the resources and expertise to "undo" almost any management action which they find personally repugnant. That is, the activists succeeded in making "SO WHAT?" a matter of personal definition rather than statutory response. With this correction (removing wildlife allocation from the initiative/referendum agenda) which could not possibly have been done by paid "public servants" because of the paradox of being politically designated as 'apolitical,' the management environment in Alaska should become more stable. This should be an advantage to traditional manipulation of living systems to yield higher (pre-defined) human benefits.

Thanks are due to the symposium for "sharpening" me over the decades.

Literature Cited

Heimer, W. E. 1996. Social combat: homology in mountain sheep dominance fighting and controversy in wildlife management. Bienn.

- Symp. North. Wild Sheep and Goat Counc. 10:109-112.
- _____. 2002. Bighorn pneumonia die-offs: an observer's short history and synthesis. *Bienn. Symp. North. Wild Sheep and Goat Counc.* 13:154-164.
- _____. 2000(a). A working hypothesis for thinhorn sheep management. pp 25-46 *in* Thomas, A. E. and H. L. Thomas (eds.). 2000. Transactions of the 2nd North American Wild Sheep Conference. April 6-9, 1999, Reno NV. 470pp.
- _____. 2000(b)b. Introduction to the 2nd North American wild sheep conference. pp 21-24 *in* Thomas, A. E. and H. L. Thomas (eds.). 2000. Transactions of the 2nd North American Wild Sheep Conference. April 6-9, 1999, Reno NV. 470pp.
- _____. 2004. Program chair's open remarks NWSGC Symposium 2004. *Bienn. Symp. North. Wild Sheep and Goat Counc.* 14:1-3.
- Lee, R. M. 2000. A working hypothesis for desert bighorn sheep management. *in* Thomas, A. E. and H. L. Thomas (eds.). 2000. Transactions of the 2nd North American Wild Sheep Conference. April 6-9, 1999, Reno NV. 470pp.
- Toweill, D. 2000. A working hypothesis for California bighorn sheep management. pp 55-66 *in* Thomas, A. E. and H. L. Thomas (eds.). 2000. Transactions of the 2nd North American Wild Sheep Conference. April 6-9, 1999, Reno NV. 470pp.
- _____, 2004 S. Gordon, E. Jenkins, T. Kreeger, D. McWhirter. 2004. A working hypothesis for management of mountain goats. *Bienn. Symp. North. Wild Sheep and Goat Counc.* 14: 5-45.
- Wishart, William D. 2000. A working hypothesis for Rocky Mountain bighorn sheep management. pp 47-54. *in* Thomas, A. E. and H. L. Thomas (eds.). 2000. Transactions of the 2nd North American Wild Sheep Conference. April 6-9, 1999, Reno NV. 470pp.