

SRM Philosophy: Science or Advocacy?

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Schultz and Zamudio (1998) argued that many members of the Society for Range Management (SRM) have failed to renew their membership at least in part because the *Journal of Range Management (JRM)* and *Rangelands* do not provide information beneficial to SRM management-oriented professionals. They suggest that the *JRM* is too technical for agency professionals because most articles follow a reductionist approach and rarely synthesize existing information. On the other hand, they argue articles in *Rangelands* are too general and do not provide syntheses of scientific information. Schultz and Zamudio (1998) suggest that the decline in SRM membership is associated primarily with a decrease in land managers and agency personnel because of problems in information transfer. We suggest that SRM has not only failed to serve the interests of technical specialists, but scientists as well. We think that a decline in the stature of SRM within the scientific community has been accompanied by a concomitant decline of researchers within the society. This ultimately erodes SRM's scientific influence and SRM's ability to enhance the professionalism of its members, scientist, technical specialists and land manager.

Some university departments and government agencies have attempted to change how they are perceived by adopting new names (i.e. changing from Range Science or Range Management to Rangeland Ecology and Management; changing from Soil Conservation Service to Natural Resource Conservation Service). Reflecting this trend, the Texas Section of SRM has proposed to change the name of the SRM to Society for Rangeland Conservation and *JRM* to the *Journal of Rangeland Science*. The Texas Section proposed also that we change the Trail Boss logo to meet the diverse views associ-

ated with rangeland resources. These actions indicate that the SRM is currently struggling with its position within the communities of scientists and natural resource managers.

In a recent issue of the *Trail Boss News*, Lamar Smith (SRM president) suggested that we critically evaluate SRM's mission statement and objectives to determine the future direction of the SRM. In this paper, we evaluate current SRM activities within an organizational effectiveness framework that supports our view that the SRM should focus less on policy and commodity-driven issues and more on maintaining a strong scientific approach that facilitates the understanding and conservation of rangeland resources. Furthermore, we contend that such a change is not at all a new direction for SRM, but, instead, a return to the foundational values that made SRM a historically strong and influential organization in rangeland science and management.

Loss of Scientific Credibility, Image, and Influence

Issues involving our technical specialists and ranchers are fundamentally important to the future of our society, but an even more fundamental consideration is the decline in SRM's scientific reputation within the broader scientific community. We think several recognizable trends indicate the scientific stature once held by SRM is declining. First, the esteem SRM once held as the locus of cutting-edge science on large herbivore grazing on rangelands has waned. For example, two important papers recently published in *Science* (Collins et al. 1998) and *Bioscience* (Frank et al. 1998) were focused on grazing ecology of rangelands. Of the 83 cumulative literature citations in these papers, none were SRM publications. Secondly, we have noticed a trend of SRM members publishing what we consider important

rangeland-based research papers, including comprehensive syntheses described by Schultz and Zamudio (1998), in journals other than those published by SRM (i.e. Milchunas and Lauenroth 1993). The cause of these trends is likely complex, but we think papers published by SRM are considered by many within the general scientific community to be value-laden, non-scientific, and purely agricultural. Possibly because of a loss of overall scientific credibility and relevancy, scientists from the ecological and natural resources disciplines, as well as some SRM members, consider the *JRM* to be 'gray' (i.e. secondary) literature.

The following anecdotal example supports this view and suggests that many individuals within the scientific community do not closely follow the research stream published in the *JRM*. In 1996 and 1997, Sam Fuhlendorf published 4 rangeland-based papers as lead author in 4 different international journals (Fuhlendorf and Smeins 1996, Fuhlendorf et al. 1996, Fuhlendorf and Smeins 1997, Fuhlendorf et al. 1997). For each of these papers, except the one published in *JRM*, scientists from all over the world have requested 70 to 150 reprints. The paper published in the *JRM* resulted in <10 reprint requests, most of which were scientists within the SRM. This 10-fold difference in interest could be another indication that many scientists across the world are either unaware of SRM science or negatively view the relevancy and credibility of our science.

We suggest that SRM assess the trend of its scientific base relative to its involvement in promotion of special interests. Organizations associated with ecology and management of natural resources can be classified along a continuum from science-based organizations to advocacy-based organizations (Figure 1). Such a dichotomy is inherently circular because science

based organizations are advocates of science. However, we define advocacy-based organizations as those with views that are largely based on emotions and values other than the extension of science. Science-based organizations are generally perceived as unbiased and approach science as a process of acquiring information. Alternatively, advocacy-based organizations have an agenda that is value- or commodity-driven and their activities are largely politically oriented. Science and advocacy are both appropriate activities, but context dependent. Science-based organizations are typically proactive in that they identify and attempt to understand important issues, while advocacy-based organizations are often reactive and can influence short-term decisions. For example, the importance of biodiversity was originally described by science-based organizations. Since then, many advocacy-based groups (i.e. environmental groups, agricultural groups) have announced their opinions on the political and ecological significance of biodiversity.

We suggest that the SRM is intermediate on the continuum presented in Figure 1. On the one hand, the *JRM* publishes original science that demonstrates SRM's ability to be focused on science, which pushes SRM to the left on the continuum. Forces pushing SRM to the right include formulating politically oriented position statements, responding publicly to political issues, and publishing pro-livestock grazing opinions without a counter-point. The increased visibility of these activities over the past several decades and our close affiliation with several agricultural-based organizations, which have marginal interest in rangeland conservation, further contributes to the perception of SRM as an agricultural-based advocacy organization.

Participants in rangeland management decisions are no longer limited to the livestock industry, so many decisions associated with science and policy on rangelands are focused outside of the realm of agriculture. Because SRM is perceived as an agricultural-based advocacy organization, many key discussions of the science and management of rangelands ignore contributions from the SRM. We are

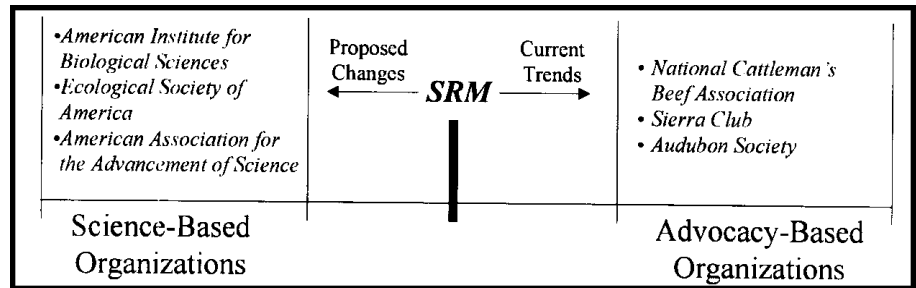


Fig. 1. Continuum of advocacy-based to science-based organizations illustrating the intermediate position of SRM. Depending upon its actions, SRM is susceptible to fluctuations in either direction.

not suggesting that the SRM be a purely science-based organization or that SRM withdraw from its roots in livestock grazing. Rather we are suggesting that SRM reverse its current shift away from science toward advocacy. One way to evaluate our position along this advocacy- to science-based continuum is by answering the following question: *Are our views predictable on important issues, such as grazing on public rangelands and biodiversity?* If our position statements and viewpoints are consistently predictable to other organizations, then the perceptions that SRM is an advocacy-based organization are correct and our influence within the scientific community will continue to decline. If the examples presented above indeed reflect SRM's scientific standing and trends toward livestock advocacy are correct, then the SRM can not be a leader in establishing the direction of science on rangelands. Instead, we will be left to make position statements on policies that were developed without our input.

A Framework for the Future of the SRM

A useful framework to evaluate our vision and objectives as a society is Covey's (1989) "Time Management Matrix", which he developed as an approach to evaluate the effectiveness of an individual's activities. The matrix classifies activities into four categories or quadrants based upon their importance and urgency: 1) important and urgent, 2) important but not urgent, 3) urgent but not important, and 4) not important and not urgent. Quadrant 1 activities are crisis-related issues that include pressing problems, and deadline-driven projects, and production-oriented activities. Quadrant 2 activi-

ties are those associated with preparation, prevention, values clarification, planning, empowerment, and result in enhancing the long-term production capability of an organization. Quadrant 3 involves activities driven by external factors that make an organization appear active but contribute little to its overall objectives. Activities in Quadrant 4 are largely trivial and relatively unimportant to the mission of an organization.

All organizations must focus on urgent activities that may or may not be important (Quadrants 1 and 3). However, an organization that focuses a disproportionate amount of time on these activities is largely reactive to external issues and is rarely capable of determining future directions. By focusing most resources toward urgent factors, an organization appears to be productive in the short-term but sacrifices future production potential. An effective organization will focus the majority of its resources on important activities that are not urgent but promote future productivity (Quadrant 2). These organizations will be proactive and responsible for identifying issues that will be important in the future. Handling urgent issues is necessary to maintain production and meet deadlines, but an effective organization will focus most of its resources on long-term production capabilities that are not deadline driven.

In Figure 2, we have applied Covey's framework to activities within the SRM. Notice that Quadrant 2 contains most of the activities that are directly associated with the SRM mission statement and objectives. These activities are similar to those originally focused on by the SRM and largely responsible for our historical success.

However, recently much of our efforts have been focused on Quadrants 1, 3 and 4. We suggest that in order for SRM to be effective in its mission, we should focus our resources on the following activities: 1) promoting good science on rangelands (including considerations for our reputation, image and credibility within the scientific community), 2) linking science to technical specialists within state and federal agencies, and 3) equipping our members (scientists, technical specialists, and students) as professional rangeland scientists and technicians (Figure 3). These activities insure the contribution of SRM to science, management, and policy on rangelands.

Specific Suggestions for Improving the Future of SRM

In view of Covey's framework, it is counterproductive in the long term for the parent society to expend scarce resources directly on landowners. This does not belittle the important work of individuals within our membership who focus much of their professional efforts on land managers. Moreover, we are not suggesting that ranchers and land managers should not be included in the flow of scientific information. We are simply stating that, according to the mission statement and objectives of the SRM, this critical phase should

not be the focus of the parent SRM. We suggest that ranchers should be encouraged to participate in SRM, especially at the section level, as land stewards attempting to understand the implications of their management, and assist scientist and technical specialists to recognize critical issues. However, directing resources toward providing individual land owners with information and toward attracting ranchers and land managers to involvement in the parent society is counterproductive and wasteful of resources. The flow of information from science through the technical agencies (Fig. 3b) is essential for conservation of rangeland resources. Extending technology to ranchers and land managers is the mission of action agencies (i.e. Extension Service, NRCS etc.) and should be the primary goal of individuals working in these agencies but should not be a goal of the SRM.

To fulfill the mission of SRM and to achieve SRM goals, we suggest the following activities that fall into quadrant 2 of Covey's (1989) model. First, we suggest that to promote science we should focus on improving the scientific image and credibility of *JRM*. For example, *JRM* should be focused on rangeland resources and remove any appearance of grazing advocacy. This may include a strict statement to reviewers suggesting that articles be

free of non-scientific value statements. This does not preclude grazing management papers traditionally published in SRM literature. For example, the evaluation of short duration grazing that occurred throughout the 70's and 80's in the *JRM* was science-based and resulted in an extremely productive dialogue for range science. We also suggest that *JRM* screen articles that are obviously agronomic and that are clearly not connected to rangelands. Although opinions are diverse within our membership of what constitutes rangeland, many papers published on introduced forages in the previous decade are clearly agronomic. In line with this, SRM should reconsider its affiliation with the American Forage and Grassland Council.

As suggested by Schultz and Zamudio (1998), we should seek out the highest caliber scientists to write synthesis articles on current and emerging rangeland science issues whether or not they hold SRM membership. But, in contrast to Schultz and Zamudio (1998), we suggest this activity as a means to improve the scientific image and credibility of the SRM within the scientific community. Synthesis papers directed toward a scientific audience should be published in *JRM*. Manuscripts for the *JRM* should be evaluated entirely on their scientific merit and relevance to rangelands.

SRM should also focus on information transfer to technical specialists (Fig. 3b). As pointed out by Schultz and Zamudio (1998), SRM is not adequately equipping the technical specialist for extending the state-of-the-art in rangeland science. We suggest that SRM support an agency requirement that technical specialists must maintain currency in the discipline, and that SRM, through *Rangelands* be a primary vehicle to supply current information. Articles within *Rangelands* should include an overview of the scientific information providing the link between the science and management of rangeland resources. These articles should focus on applicable technical information with minimal statistics and description of methods (the October 1998 issue contains several excellent examples). Non-technical papers should be reserved for popular magazines.

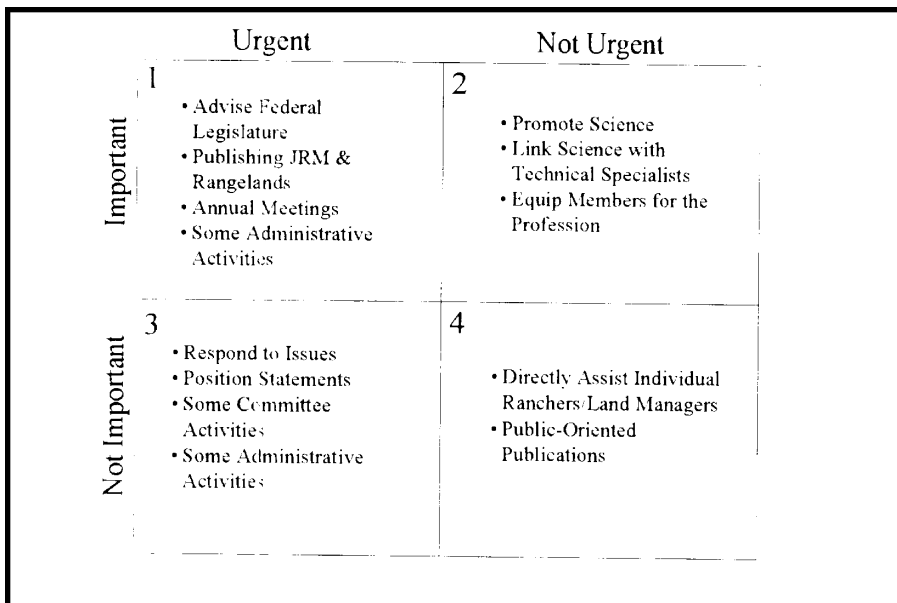


Fig. 2. Time management matrix demonstrating the importance and urgency of activities within the SRM. Effective organizations focus on quadrant 2 (adapted from Covey 1989).

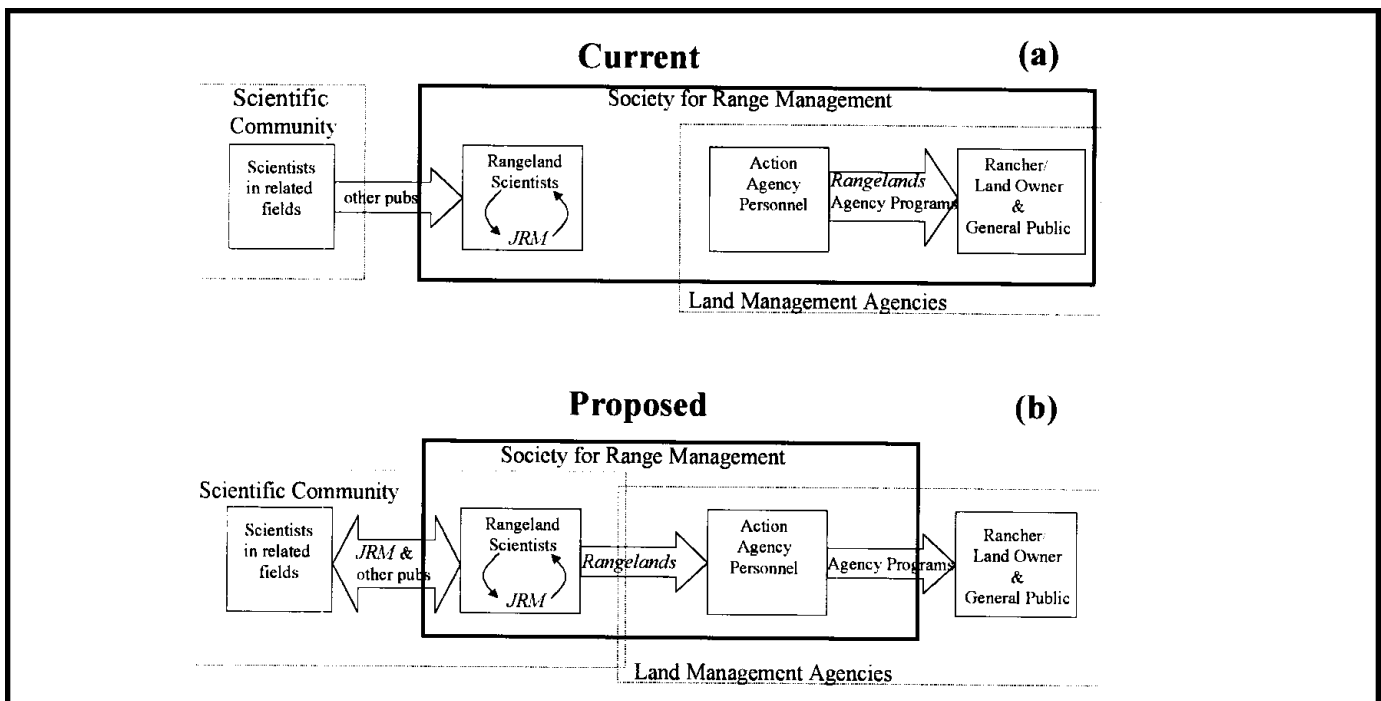


Fig. 3. Current (a) and Proposed (b) relationships among groups involved with SRM. Arrows represent information flows. (a) SRM is currently ineffective at facilitating information transfer between any of the four groups, although recent approaches have attempted to increase flows between agencies and the ranchers/land owners (Rangelands). (b) Our proposed framework would facilitate information flows in all directions. The Journal of Range Management (JRM) would focus on building scientific image and credibility and serve as the information base of rangeland science within the SRM and the scientific community at large. Rangelands would be the primary vehicle for information transfer between scientists and agency personnel. Several state and federal land management agencies would continue their responsibility for transferring information to local ranchers and land managers.

What's in a Name?

We are aware that the suggestions made in this paper are not the ultimate solution to all of the challenges facing SRM. However, effective change in the SRM will be the cumulative product of adherence to a set of core values. There can be no "quick-fix". Our name and logo are secondary issues and proposals to change them are an attempt to change the society from the outside-in. The framework we have proposed would change the society from the inside-out. Changing the name or logo, without first changing our priorities, is relatively meaningless, and will only serve to divide our society. If we truly reduce our advocacy and increase our focus on rangeland science, then any name and logo changes will follow if they are needed.

The SRM was historically at the forefront of rangeland research, management, and policy decisions and it is our view that this is largely due to a sound base of science. By returning to our roots and focusing our efforts on presenting proactive, non-value-laden sci-

ence in *JRM* and transferring syntheses to action agencies in *Rangelands*, we can directly contribute to the general scientific community while continuing to contribute to land management and government policy decisions.

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