History of Range Management Education

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Editor's Note: There are three articles in this issue that cover some of the same ground. Some repetition was necessary, but it wasn't overdone.

Please accept the articles by Morris, Sharp and Harris as a package. They did not compare notes; each handled his respective angle very nicely.

It is appropriate, at this time, to review various historical aspects of the profession. This paper will be limited to the main lesson of history and to the beginnings of education at the university or professional level. This does not deny the importance of rancher, youth, or public education.

We are interested in a history of the profession for an appreciation of its "roots" and a measure of the "Coming of Age" of the Society for Range Management. Retrospection can be helpful in evaluation of what has been done and in giving direction for the years ahead.

There appears to be a lack of a sense of history or an appreciation of where the beginnings of the profession of range management occurred. This is evident in the remarks by Thad Box in his presidential address of February 1978 (JRM, 31:84-86, 1978). Joe Pechanec's comment (JRM, 31:318) contains a reply to Box's remarks. This lack appears again in an article by Thane Johnson (Rangelands 1:193-195, 1979) as well as in the excellent paper by Jerry Holechek in Rangelands 3:16-18, 1981. Earlier, A.W. Sampson (JRM 7:207-212, 1954) had written along the same lines. Range management, the profession and the Society, are consequences of natural history and social history of this country. There is no single point in time for the beginnings of range management as a profession or as an academic discipline.

Early Bases

The profession had roots deep in the past. They are philosophical, social, political, scientific, and institutional. As educators, we are responsible for bringing meaning and understanding of what is relevant to the field to our teaching. We are interpreters as well as conveyors of knowledge. A sense of history is no less important than the special knowledge of our science and art.

Our history's earliest recorded beginnings are found in the Book of Isaiah (40:6) and the law of usucruct in Roman Civil Law. The social philosophers of the 17th-19th centuries—Hobbes 1640, Locke 1690, Beccaria 1766, Malthus 1789, Betham 1789, and Mill 1859—continued their recordings to the period of the conservation writers—Marsh 1864, Thoreau 1842, Muir 1894, Powell 1879, and Grinnel 1845. The action of the government, represented by the writings of Schurz 1877 and Roosevelt and Pinchot in 1905, grew and culminated in the Conservation Movement and the creation of the first National Parks and Forests. No less important was the passage of the Taylor Grazing Act of 1934.

Scientists including Bessey and Clements at Nebraska, Thornber in Arizona, Nelson at Wyoming, and people like J.R. Smith, Bentley, Colville, Griffiths, Reynolds, Shantz, and others were involved in studying land resources. J.T. Jardine was a pioneer in developing the art of range management. A.W. Sampson provided a beginning in the science of range management as a scientist as well as an educator. Barnes and others gave range administration its guidelines for public lands. Not least was the support of ranchers at the turn of the century for control of public range by government. (Report of the Public Land Commission, Senate Doc. 189, 58th U.S. Congress, 1905).

Historically, the National Forests in the West were the setting of the beginnings of a rational basis for the protection and use of rangelands. Multiple use including grazing was recognized as policy in 1905 in a letter by Secretary of Agriculture Wilson to Forester Pinchot. The concept of greatest good to the greatest number in the long run represents early American social and political thought as well as the social philosophy of the 17th-19th centuries of western Europe.

The public lands out of which the National Forests were created were not uniformly forested. Watershed values were equally as important as those of timber. Boundaries of National Forests were created out of a variety of land forms and vegetation. Cattlemen and sheepmen were making use of forage wherever they could find it. Large areas of National Forest were suitable only for use of their forage, and the need for watershed protection was little appreciated even though the forest reserves had watershed protection as a major purpose. Uncontrolled burning of timbered areas to make more grass or simply careless use of fires resulted in damage or loss of resources. Foresters, of necessity, became range managers. In fact, it became their principal activity in many locations.

Will Barnes, a former rancher in New Mexico and an early Chief of Grazing in the Forest Service, established regulations providing guidelines for use. Rule of thumb management gradually developed into the practical everyday management used today.

Recruitment of personnel for grazing management came initially from foresters with Western backgrounds, but educated at Eastern schools. Some came from the new forestry schools in the West (Montana 1913). Many others, as well as forestry graduates from the University of Nebraska, were ranchers, cowboys, and local people. The theory and practice of range management was in the making on the land. As with many professions in the past, it arose out of need—in

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this instance, the need for the everyday administration of public land.

Montana Beginnings

One beginning in range management education was taking place at the University of Montana in Missoula, Montana about 1909. The official bulletin of the university listed a short course in forestry with a list of topics including grazing. The staff was composed largely of Forest Service division specialists in the regional office located in Missoula. The first man of record to teach this course was C.H. Adams. In 1910 in addition to Adams, J.T. Jardine is listed as grazing expert and State Veterinarian M.J. Knowles. Students were recently added personnel in the Forest Service. A ranger school replaced the sponsored and staffed short course and included potential foresters interested in qualifying for the Forest Ranger position. The ranger school was terminated in the mid-1920's as academically trained men became available through the professional Civil Service examinations of the 1920's.

The first listing of a credit-bearing course in “grazing” appeared in the 1913-1914 school catalog published in 1914. The name of the instructor is not known nor could it be determined if this course was taught. The 1915-1916 catalog published in 1916 had six courses listed in grazing management with three course descriptions. T.C. Spaulding was professor and he was to continue in that position for 30 or more years. Fleming, Adams, and Butler were also listed, possibly as visiting lecturers. Fleming and Adams were from the Forest Service regional office and Butler from the State Veterinarian's office. It is of interest to point out that Spaulding was a University of Montana graduate in biology with a Masters degree in forestry from Michigan. He came from the position as Forest Supervisor of the present Lewis and Clark Forest, which at that time was primarily a grazing and fire protection forest.

Course Content

Course content for many years dealt with the practical aspects of administration and fire protection. Taxonomy and plant physiology and the beginning of ecology provided the scientific background. During the late 1920's and later, a strong ecological basis for management was stressed.

An important relationship existed between the schools and the federal agencies. Summer jobs help to keep students in school. Summer work, especially in range surveys, provided the early internship. This was especially true for students who could work part-time in compilation of survey data while in school.

What one may call academic history has changed greatly. Departments of botany frequently housed the staff and curriculum such as was the case at Colorado State, North Dakota State, Brigham Young University, and the University of Arizona. Where forestry schools were located near regional offices of the U.S. Forest Service as at University of Montana, University of California, Utah State University, and University of Idaho, range management found a home. Departments of Animal Husbandry at the University of Nevada, New Mexico State, Oregon State, Washington State, South Dakota State, and later at Montana State were the centers. Students were primarily attracted to the governing department. At the University of Montana, the students who showed an early interest in botany or were interested in making use of a farm or ranch background, moved into the range program. This was especially the case when the program in soil conservation developed in the 1930's at the federal level. Students were strongly job-oriented and sensitive to the job market. In recent years there has been a strong tendency of ranch-oriented students to take advantage of a range program and return to the ranch. Texas A&M University, Texas Tech University, Montana State, Wyoming University, and others have strong ranch-oriented programs.

Curricula have undergone evolution from the early days when an attempt was made to bring together a suitable combination of principles and practices in management, taxonomy, ecology and animal husbandry in a stronger science and economic-oriented program. The expansion of research and the development of newer areas of knowledge such as in statistics, computer processing, aerial photo surveying, have encouraged change.

Education has brought more understanding of the biology and economics of land use as well as tools for the analysis of problems. Good management on public and private rangelands requires commitment. The advance of technology in all its aspects does not assure that it will lead to either undesirable or desirable ends.

Finally, some acknowledgement needs to be made and credit given to the many range managers, largely self-educated, who became very effective managers. There is so much that one can bring to the task for which a formal education can only supply but a part.