

REVIEW

Ecological Conditions in National Forests and in National Parks, by C. C. Adams. 1925. *The Scientific Monthly* 20:570-593.

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If one reads the first seven pages of Adams' paper without noting the date it might be assumed that it was written during the last decade. Much of the paper is based on the author's 1924 visit to national parks of the west and southwest at the time he was with the New York State College of Forestry at Syracuse. While the many specific adverse environmental conditions he notes at parks such as Grand Canyon, Yellowstone, Sequoia and coterminous Forest Service lands are of historical value, the most noteworthy contributions in the paper are the author's opinions regarding the purpose of national parks in society and the limited perceptions and skills of the recently formed National Park Service in carrying out its mandate.

Adams notes that national parks have already existed for over fifty years. Yet it is remarkable that it has not been recognized that the successful management of such areas requires establishment of a new profession far removed from that of the city park manager and professional forester. Adams notes that in a much shorter period forestry had become a profession in the United States. Contributing factors were the professional forestry experience gained from Europe and the establishment of the Yale Forestry School in 1900. In addition he notes "the Forest Service has always been in charge of a forester, but the parks have never been headed by a similar technical man. The park officials...are without a professional tradition behind them. Even as important as is the position of the park naturalist...these men are not definitely devoted to technical research, but in the main to elementary educational work with the park visitors."

The author suggests that contributing to the situation was the fact there were very few who called themselves ecologists at this time, and the application of ecology to public policy could not progress any faster than the science. Adams innocently demonstrates one of the effects of neglect to this science when he takes issue with any consideration of the reintroduction of fire to natural systems, despite the then ongoing work of Chapman (1912) and others regarding its possible valuable role in natural systems. Unfortunately, many of the other environmental issues raised by the author have not seen a similar evolution in practice and remain controversial and largely unstudied yet today.

He is very critical of the intensive efforts and emphasis on getting successively larger crowds into national parks in view of the concepts forwarded by some of the earlier architects of the national park concept such as Muir and Olmstead. The inability of land managers within the Park Service and Forest Service to comprehend the inherent incompatibility between natur-

al area preservation and practices such as grazing domestic animals and stocking of exotics demonstrated very early that there was need to fully understand and apply the basic principles of ecology to management. This inability probably remains today as the fundamental weakness in land management within the national parks. "It will perhaps require almost as much effort to protect the parks from their superficial unthinking and ignorant friends as from their commercializing enemies and the cheap politicians, who are looking out for their own personal advantage."

Another significant point brought out by this early author is that "the national Park idea is one of the few valuable American contributions to a policy of land use. It should be conceived in a broad comprehensive manner." Certainly the application of Park Service research to form the basis of the recent Coastal Barrier Resources Act is an example of such a contribution, and represents perhaps the most significant contribution to society such a bureau can make. Adams clearly saw this "higher use" role for the national parks, and recognized that "without question the educational and scientific and esthetic value of these parks is of supreme importance." He was quite critical of the even then "emphasis upon the minor and trivial recreational uses." Today, despite major contributions such as the classic work defining the ecological basis for managing barrier islands, the role of national parks in promoting, through research and principled resource management, scientifically-based land use policy remains both a minor budget item and a minor emphasis within the bureau.

As indicated earlier the author devotes much of his paper to a discussion of ecological conditions in national parks he visited in 1924. Despite a few conclusions made which have since been found to be scientifically incorrect most of his observations and criticisms are valid yet today. A particular concern of the scientific community then and today has been the deliberate introduction or passive acceptance of exotic species and gene pools into national park ecosystems. This issue was of such concern in 1925 that the Ecological Society of America passed a resolution condemning the Park Service for continuing this practice. H. M. Albright, then Superintendent of Yellowstone, was one official singled out for agreeing with the resolution, but due to an absence of professional counsel continued the practice anyhow.

The author's criticisms are rendered in a generally positive manner, and are well supported by text observations and photographs. Unfortunately, there are no literature citations. Nevertheless, the revelations are important considerations today especially in view of the statements made in the 1980-81 *State of the Parks* messages to Congress, the continued absence of a diversity of professional career ladders in the Park Service, and the increased awareness that the Park Service needs a fundamental realignment in carrying out its mission (Foresta, 1984). Adams' paper suggests the failure to recognize that successful management of the national parks would require a new profession with a "basal" knowledge of ecological principles was an error made

with organization of the National Park Service. The influence of such people in a Federal land managing bureau can be profound. For example, one only need review the record of Dr. Richard McArdle, Chief of the U.S. Forest Service from 1952-1962, in setting the stage for principled land classification and use (The Multiple Use-Sustained Yield Act), and in diversifying the professions of the bureau.

In conclusion, Adams' observations regarding environmental issues and his central thesis concerning weaknesses in the establishment of the National Park Service are very germane today as units of the National Park System face an increasingly formidable array of threats to their integrity. Most of these threats are subtle, and external in origin. Their mitigation will require fundamental shifts in the bureau's attitude and emphasis toward promoting scientifically-based land use management, and the importance of longterm ecological baseline data collection in providing varification for research.

Literature Cited

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