## The Ending of Frontier Innocence

Big Game in Alaska. A History of Wildlife and People. Morgan Sherwood. Yale University Press, New Haven, Conn., 1981. xiv, 200 pp. + plates. \$27.50. Yale Western Americana Series, 33.

Who Owns the Wildlife? The Political Economy of Conservation in Nineteenth-Century America. James A. Tober. Greenwood, Westport, Conn., 1981. xx, 330 pp. \$27.50. Contributions in Economics and Economic History, no. 37.

These two books deal with different aspects of recent conservation history. Sherwood's study describes the factors that ended Alaska's "frontier innocence" in the 1940's. These included a growing concern for the conservation of Alaskan big game from the early 1900's on, the role of an expanded military establishment in the territory during and following World War II, and efforts to establish territorial authority over the wildlife resources of the region. Much of Sherwood's short account centers on the efforts of General Simon Bolivar Buckner of the U.S. Army to secure a resident big game hunting license from the Alaska Game Commission in 1941. The general argued that he was entitled to one because he had lived in Alaska for more than the one-year period required to establish residency. Sherwood points out that Buckner's effort coincided with a dramatic increase in the number of military personnel in Alaska (from perhaps 500 to well over 23,000), which had come to equal the number of adult males previously resident there (exclusive of Indians and Eskimos) and was roughly twice the number of hunters then licensed in the territory. Clearly the territorial authorities were concerned lest the big game resources of Alaska be drastically reduced by this influx of well-armed soldiers. The potential pressure on conservation and law enforcement people was very great. One problem faced by both sides in this controversy centered on the exact number of game animals in Alaska and the effect that projected levels of hunting might have on them.

Bears figured prominently in the ongoing debate between sportsmen and stateside conservationists on the one hand and Alaskans on the other. In general, Alaskans hunted year round whatever game was available. Game laws were largely set by the U.S. Biological Survey. This agency had dropped its earlier orientation toward scientific studies of mammals and their distribution, instituted under the Survey's first chief, C. Hart Merriam, and was now concerned with

game management and the control of predators in the "lower forty-eight." The Survey was chronically understaffed and underfinanced. The territorial governor hired game wardens, who provided such enforcement as their limited numbers permitted. Alaskans considered bears fair game because they considered them a menace to livestock and people. and they resented outside sportsmen who allegedly slaughtered game the Alaskans depended on for food. These questions were complicated by others: the creation of a territorial legislature in 1912 and its growing demand for jurisdiction, the request by Indians for special hunting privileges because of their longstanding dependence upon deer for food, and the problem of determining just which species deserved protection.

Sixty years ago, as the author points out, mammalogy as a science had not achieved maturity. Most mammalogists were largely self-taught, formal training being nonexistent until shortly before World War I. The American Society of Mammalogists did not come into being until 1919. Game hunters and naturalists still supplied much of what was known about the subject in remote areas such as Alaska. Mammalogists differed as to what constituted a mammalian species, some "lumping" species notwithstanding some of the fine points of physical distinction. Others, such as Merriam, were "splitters" who insisted on the importance of these differences. Though puzzled (as were many others) by sometimes conflicting evidence, Merriam published in 1918 an account of the North American grizzlies and big brown bears, identifying 86 distinct forms in western North America. Modern mammalogists, aware that brown bears range widely and mate randomly, now recognize but one species and one or two varieties. Grizzlies are now regarded as a variety of brown bear. Disagreements about species definitions left some forms unprotected, and research languished for a time after Merriam's retirement from the Survey. As late as 1918, E. W. Nelson, then chief of the Survey, could not tell a congressional committee the number of moose, caribou, and mountain sheep in Alaska. Sherwood makes the vital point here that "scientific game management was a new profession with imperfect investigative techniques. If mammalogy was immature in the 1920's, game management was fetal." Nelson could claim with justice that his agency had too few representatives in Alaska, considering its size, and that game law enforcement was considered more important than scientific research. This did



"Big game hunter Dall De Weese with record Kenai moose horn." [From Big Game in Alaska; courtesy of Simon and Seaforth's Saloon and Grill, Anchorage]

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not help Nelson, however, whose agency suffered both in the eyes of congressional lawmakers and Alaskans restive with federal game restrictions. It was easy for the latter to claim that their hunting game species for food did no great harm and that federal authorities and sportsmen were the source of most difficulties. Alaskans felt they had a right to shoot wild animals. This was rooted in the "frontier psyche."

Federal funding for conservation was also made difficult because, as late as the 1930's, wild animals were thought to be economically insignificant in the West. The National Conservation Committee, reporting in 1909, had declared most game species 'largely exterminated.' Then too, the Biological Survey was fatally compromised in the eyes of many scientists and conservationists because of its trapping, poisoning, and shooting of predators.

Though after a protracted legal wrangle General Buckner ultimately received the permit he sought, he was killed in action in the Pacific in 1943 and got little good out of the privilege. The end of the war in 1945 and an unusually severe winter in 1945-1946 resulted in very high losses of wildlife. Since that time, despite continuing friction between state authorities and outsiders, multiplying population, new transportation technologies, better roads, and more industry, a measure of balance has been achieved between conservationists and those of a more utilitarian stamp. Sherwood's book is well written, is based on a thorough understanding of the literature, and sheds light on a number of important peripheral issues.

In his book Tober explores state regulations relating to wildlife in the last half of the 19th century, but necessarily takes up the rights and interests of other groups—private landowners, sportsmen, and market hunters—and the effects of these groups on the growing scarcity of wildlife. The growth and later decline of state authority are tied in with the role of the federal government, and these topics in turn lead to a discussion of changing doctrines governing the ownership of wildlife.

The religious, social, and economic preconceptions of the colonists colored their outlook on wildlife. By the early 19th century, some viewed the existence of large wild animals as a principal factor in the ability of red and white people to live in an uncivilized state some distance from civilization. To one author of a study of Massachusetts mammals in 1840, this was a good reason for game animals to be killed. "The sooner [they]

are extinct, the better, for they serve to support a few individuals just on the border of the savage state, whose labors in the family of man are more injurious than beneficial." Domestic animals, this author contended, were "not subject to that drawback, the deterioration of morals." Others were convinced that America's raw materials were limitless, one writing in 1852 that "it is preposterous to suppose that the supplies of coal can be exhausted or even become scarce. The idea is almost blasphemous."

Continual change in the landscape due to the growth of population led to alterations in the numbers and distribution of wildlife. Hunting for "meat and skins" was a factor in American life from the beginning of the colonial period. Not until the 19th century did large-scale "market hunting" develop.

Colonial and later state governments sought to protect desirable species and encouraged the destruction of predators and pest species. Sportsmen, "generally urban, eastern and wealthy," shared these qualities with few other hunters. Though relatively few in number, these men led the effort to conserve game, in part to serve their own interests and in part "in response to what they perceived to be the general interest." Market hunting reached its peak toward the end of the 19th century and was opposed not only on the grounds of the need to conserve wildlife but also on the basis of ethnic and class considerations. The key to diminished stocks of game, however, lay in land use changes that went hand in hand with population growth and development. The combination of hunting and habitat destruction led to the extinction or near disappearance of many species, most notably the passenger pigeon and the buffalo.

Sportsmen attempted to place some distance between themselves and all other hunters, who, it was argued, were more likely to disregard private property rights, in the interest of gaining better access to game species. Though only five states protected the landowner from hunters who trespassed without permission by 1871, virtually all had no-trespassing laws in force by 1900. Since the distribution of the larger game species did not coincide with private property lines, the only solution to the game management problem lay in the imposition of state and federal game laws. Private hunting preserves were tried for a time but were generally objected to on grounds of exclusivity and denial of rights to ordinary citizens. Game laws affecting everyone were seen as the most democratic means of ensuring equal access to all classes, though they were resisted in some quarters. Gradually, a myriad of often conflicting state and local game laws were made more uniform as better scientific information concerning animal species and their habits and distribution became available. Much of this research was carried on by the U.S. Fish Commission (after 1871) and the Biological Survey (after 1885). Tober notes that the concept of state ownership of wildlife has been steadily narrowed in the 20th century in favor of a wider federal role. Gradually, a small political elite brought about public acceptance of intelligent game management, aided by state and federal conservation efforts and clear evidence of the decline in numbers of many species. Sportsmen initially fueled this effort and were later joined by humane societies, the American Ornithologists' Union, and the several Audubon societies. States began assuming responsibility for enforcement of game laws in the modern sense in 1878, but state control was long regarded as an abuse of authority.

Tober has written an important and thoughtful book that complements earlier studies of other aspects of the subject. His coverage of a critical era in the conceptualization of state wildlife laws is a valuable contribution to the literature. Both of these volumes deserve wide attention from students of conservation history.

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## The Physician Darwin

The Letters of Erasmus Darwin. DESMOND KING-HELE, Ed. Cambridge University Press, New York, 1981. xxxii, 364 pp., illus., + plates. \$95.

He diagnosed the Duke of Devonshire as suffering from an inflamed liver. But that is not what the Duke had been so worried about when he turned to Dr. Erasmus Darwin (1731-1802). In an effort to cool the inebriate's red glow. Devonshire had applied a compound of lead acetate to his face, and now his facial muscles were partially paralyzed. Darwin offered several suggestions, reflecting both the state of medical science and the mores of the period. He advised taking the waters of Bath and a twicedaily tincture of guaiacum. These would encourage gout, and so repel the ill humor from its site to a less discommoding