

## **Commentary: Wildlife, the public trust, and the modern-day “Tragedy of the Commons”**

JAMES A. BAILEY\*

*581 Antelope Ridge Rd., Belgrade, MT 59714, USA*

*\*Correspondent: jabailey34@aol.com*

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In recent years, literature on the North American Model of Wildlife Conservation has included much about wildlife as a public trust resource (Organ et al. 2012). Unfortunately, there has been little connection to the already large and still growing literature surrounding Garret Hardin’s classic paper, *The Tragedy of the Commons* (Hardin 1968). Since public trust resources are the commons of Hardin, the connection is obvious. Readers are referred elsewhere (Wikipedia Contributors 2015a) for a summary of the abundant “commons” literature.

Wildlife and their necessities of public land and water are but a few of very many public trust resources. However, recent and current trends in North American wildlife law and policy have changed the nature of the commons tragedy, at least for wildlife resources. A broad awareness of this change may avert the worst of this modern tragedy of the commons.

Based on writings of an early 19th century economist, Hardin’s conclusion was that resources owned and used in common by all the people, such as a public pasture, will suffer overuse through scramble competition initiated and stimulated by the most unsharing persons. In scramble competition, unrestricted individuals initially benefit by taking more than their fair share, stimulating others to likewise compete (Wikipedia Contributors 2015b). Eventually, the public resource is degraded and all users suffer Hardin’s tragedy of the commons.

Hardin’s thesis is often invoked to promote private ownership, on the assumption that only self-interest can maintain productivity and value of resources. Private ownership of resources results in situations in which interference competition (Wikipedia Contributors 2015b) replaces scramble competition with the result that individuals or groups of individuals control resources to the exclusion of others. For a solution, Hardin concluded that voluntary egalitarian sharing of resources works best, or only, when the population of users is small. Therefore, he recognized—albeit with some disdain—the value of government control in allocating resources among the people. Indeed, in North America, governments are “instituted among men” in large part for this purpose.

North American wildlife conservation has been a history of controlling scramble

competition for wildlife and limiting interference competition by retaining some resources in the public domain. Recognizing the different values of public and of private ownership, we have partitioned land, water and wildlife into public and private hands. Private resources are managed mostly with interference competition, sometimes in combination with publicly imposed limits to control external negative impacts such as pollution. In contrast, public resources are managed to control scramble competition and to enhance public benefits. We have established and developed laws, policies, and agencies for allocating, regulating, managing, and enhancing our knowledge of wildlife resources.

The ratio of public to private ownership varies greatly among resources and locations. Also, boundaries between public and private components are not always clear, thereby complicating law, policy, and management. Land boundaries should be clear; yet, self-proclaimed “ownership” of grazing allotments on federal lands is an exception. Water ownerships have become an unsettled maze of law and practice. Wildlife are mostly a public resource, with a few exceptions including falconry. Then there is the paradox of public wildlife occupying privately owned habitat.

Recognizing wildlife as a public trust resource, we have established numerous interacting trustees to oversee management and conservation. Trustees include legislators, commissioners, judges, and agency personnel including wildlife managers—at local, state, and national levels. Some consider agency personnel only as “trust managers”—agents of high-ranking trustees (Organ et al. 2012). I disagree for several reasons: (1) legislators, commissions, and judges relegate some, though varying amounts, of decision space to agencies; (2) agency personnel are usually the primary source of science and experience to ensure good decisions; and (3) agencies should be the preeminent source of reliable public information, whereas public awareness and vigilance are necessary to assure that trust resources are managed to benefit the public trust owners.

The dual obligations of agency personnel are difficult, but also are crucial to the success of public trust doctrine. The role of agency personnel should not be trivialized by formally recognizing responsibilities only to higher-ranking trustees while disregarding obligations directly to the public. Moreover, agency personnel are no less at risk of control by private interests than are any other trustees.

Trustees have managed scramble competition for public wildlife resources fairly well. However, trustee management is being widely subverted for purposes of private gain through interference competition. The modern tragedy of the commons occurs as private interests control trustees to capture and control public resources (Wood 2014). Privatization often occurs with public subsidies and without private burdens of property taxes or maintenance costs. The tragedy is ubiquitous in degrading public values of public resources. It is dealt with in disconnected conflicts in the public arena, but the results are insidiously cumulative. More recognition and response to this broad assault upon a basic North American conviction are needed.

This assault upon the commons takes many forms (Table 1). Much control of the public trustees by private interests has involved the administrative and legislative branches of government. Abundance and success of this strategy is illustrated by the number of natural resource cases reaching the judicial branch. As a result, we should expect increasing attempts to influence the judicial branch of government.

The modern tragedy of the commons seeks to undermine a long and proud history of North American wildlife conservation. The predominant threat to public trust resources is

no longer scramble competition. It is the growing threat of interference competition through control of the trustees. Curtailing the tragedy requires greater awareness of its broad reach and changing nature. Young, aspiring, and often idealistic wildlife biologists and managers need be aware of the milieu they are entering. They will have dual, and sometimes conflicting, obligations to superior trustees and to the public beneficiaries. For those involved with local and temporal conservation battles it is useful, but intimidating, to view the larger historical picture. Ultimately, a well-informed public must take action at the ballot box.

TABLE 1.—Examples of assaults upon public trust resources. Some have been coded in law or regulations. All of these favor private interests at the expense of present and future generations of the public who are owners and beneficiaries of wildlife resources.

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Contrived special or exclusive access to the resource.
Use of the resource, especially public land, for an undervalued fee, and with other subsidies.
Coerced use of public funds to restructure the resource for limited, private benefits.
Special permits to degrade or pollute the resource.
Non-reciprocal claims for wildlife impacts while livestock impacts remain acceptable.
Undermining the trustee's ability to manage the resource and regulate users—using budget controls, or transfer of authority to a more “friendly” agency.
Coercion of public agencies, and private companies, to control or eliminate employees who may expose special interests.
Suppression of information and science that is contrary to private interests.
Propaganda to convince the public that their interests are served by activities favorable to private interests.
Electioneering, including funding of private-interest candidates.
Support for public education and research favoring private interests.
The assumption that private property rights exceed public property rights.

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While the presence of altruistic genes (Hamilton 1963) is uncertain (but, see Thompson et al. 2010), selfish genes are surely in us (Dawkins 1976). Competition is innate within our species. Aware and discerning minds are needed to overcome the excesses of selfish genes. Recognition of the modern tragedy of the commons is necessary, for the ultimate commons is the whole earth, with a potential ultimate tragedy.

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