Fish and Cows: Commons in Common?

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Intro

In this paper we examine the parallels between U.S. fisheries and rangeland institutions and management. Today I present some of the highlights of our examination. Let me begin by noting what motivated this paper—a more than casual annoyance with the lack of intellectual exercise evidenced by frequent invocations (in the fisheries policy arena) of the following question: Why don't we manage fisheries like we do other public resources? Behind the question lies about forty years of concern with the structure of property rights in fisheries. Interestingly, at least to followers of events in domestic rangelands management, rangelands have been held up as basis of comparison against which fisheries management appears as a kind of tragic oxymoron. This is of special interest to rangelands aficionados because to those aware of general dissatisfaction with rangelands management (witness the "no moo in '92 movement") and specific agitation prompted by the structure of property rights in rangelands (as in the so-called takings cases, or the economic arguments for total privatization), surely the natural reaction to any implicit suggestion that rangelands management presents a positive role model is: "are you nuts?"

While sympathetic to this response, we have in this paper instead opted for a more measured, analytic response. We present an inquiry into the two management arenas that diverges from the obsessive focus on economic efficiency characteristic of previous comparisons. Our focus is on the equity aspects of policies and institutional structures designed to allocate and manage the use of these resources.

Our analysis begins with a general characterization of the two resource management systems. Then, we steer our attention to property rights. We address three main issues: 1) the history of rangeland and fisheries resources as "common" property, 2) the nature of the transition away from common property, and 3) what this look at property rights and associated institutional structures tells us about the linkage between contemporary policy debates in each of the respective arenas.

Overview of two resource management systems:

We began by comparing particular characteristics of fisheries and rangeland management as systems. On rangelands, for example, the harvested product is domestic livestock that consume plants. In traditional rangeland management thinking the assumption is that by managing the livestock, one can manage the habitat including the forage. In fisheries, the harvested product is wild fish that consume plants and/or other fish. Fisheries management assumes that by managing the numbers harvested, one can manage the fish population of interest. Looking at historic policy objectives as another example, we see for fisheries that food production and industrial development were dominant goals, whereas for rangelands management supporting settlement and the yeoman farmer were foremost.

We continue this type of comparison for a number of characteristics but the most significant difference we observe is also the most fundamental: In fisheries, it is the presence of water that spawned the industry and its attendent institutions and policies; in rangelands, it is a lack of water that has shaped the development of the industry.

These kinds of observations seem to us to be more fruitful than some contemporary comparisons being bandied about (a point we'll return to later), but as I noted, we cave in and jump on the property rights bandwagon.

On Property and Management:

Commonly, fisheries or rangelands are described as in poor condition due to management as a commons--either at present or during some past pre-enlightened period. In both fisheries and rangelands management, a causal connection is frequently drawn between the present or former "common" property status of the resource involved and the presently poor condition of that resource.[1] The majority of BLM rangelands are considered to be in less than optimal condition today. The most common explanation is that past uncontrolled "common" grazing resulted in keen competition for grasses and subsequent degredation of the forage base. The following are representative comments regarding rangelands:

> Until the Taylor Act, the lands that became public grazing districts were commons, open to all users and takers. (Coggins, 1982:3)
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> Everybody used the open unenclosed country, which produced nutritious grasses, as a public common...(U.S. Supreme Court, *Buford v. Houtz*, 133 U.S. 320 (1890) at 328)
>
> [In the 1880s, ranchers suffered because] [t]heir fences were removed, and common property conditions emerged. Predictable overgrazing followed...(Libecap, 1981)
>
> Flocks passed each other on the trails, one rushing in to secure what the other had just abandoned as worthless, feed was deliberately wasted to

[1] We present some representative citations below. For the moment, we suspend discussion of the distinction between common property and other forms of property and thus of the merit of assigning fisheries and rangelands to this category. We also suspend discussion of the state of the art of biological science vis-a-vis resource condition in each arena.

> prevent its utilization by others, the ranges were occupied before the snow had left them. Transient sheepmen roamed the country robbing the resident stockmen of forage that was justly theirs. (Alfred Potter, 1st chief of the Forest Service, as cited by Rowley, 1985)

Assertions of the common property character of fisheries resources (and the resultant resource degradation) are no less frequent, nor emphatic:

> Traditionally, fishery resources have been "common property" since ownership is held in common by all Americans. This allows a "race for the fish", resulting in overcapitalization and wasted economic benefits, a situation known as the "tragedy of the commons". (NMFS, 1991a:8)

Given all this attention to "common" property, we consider Patricia Marchak's (1989) question, "what happens when common property becomes uncommon?" to be the critical question from a perspective of distributional equity. It seems appropriate, however, to begin not with Marchak's question directly but with a logical precursor. That is, how did these resources come to be "common" in the first place?

On Becoming Common:

First, note that the above quotations display the now classic confusion of open access with common property (where common property is understood as a communally possessed right to exclude others from a resource). This confusion was present from the start of economic analyses of allegedly common property resources (c.f., Gordon, 1954) and was prominently displayed (and roundly criticized) in Hardin's (1968) tragedy of the commons thesis.[2] What we are interested in, then, is the history of open access.

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[2] Here we offer a sidebar aimed at those legions that continue to debunk Hardin's thesis on the basis of this distinction between open access and common property: Once we have made the distinction, what then? Many commentators seem to walk away confident of a victory while

In both arenas, open access is to some degree a result of geo-physical conditions. The resources were simply there in unimaginable quantities seemingly unclaimed at the time of settlement. But *institutionally,* the original source and sanction of open access is different in the two arenas. Institutionalized open access in fisheries is an artifact of judicial articulation of the public trust doctrine. Institutionalized open access to rangelands was an artifact of nineteeth-century legislative land policies specifically designed to dispose of the public domain.[3]

These two paths are not the same. The public trust doctrine is an American interpretation of a Roman legal tradition filtered through English common law. First articulated by an American court in 1821, this doctrine held that (among other rights inherent in navigable waters) the right of fishing was "common to all the citizens"[4] and that an absolute grant of this right of fishing into private hands was prohibited. Distributional equity was at the heart of early American development of the public trust doctrine. The court regarded a private divestiture of the common right as "a grievance which never could be long borne by a free people."[5]

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their adversaries, conceding what appears to them as simply a semantic point, make the necessary adjustments—substituting "open access" for "common property" —and push on for privatization. Thus the last quotation presented above was simply changed to read thus in its final form:

> Traditionally, any American who wanted to fish could do so. This "open access" situation led to a "race for the fish", resulting in overcapitalization and wasted economic benefits. (NMFS, 1991b:9)

[3] Note that we discuss extra-legal "closing" of these lands below. We also note that the creation of Forest Reserves under the Forest Reserve Act of 1891 represents an initial step away from open access to the unclaimed public domain. [Add note to clarify distinction between public domain and public lands (c.f. Dana and Fairfax, 1980:8).]

[4] *Arnold v. Mundy* 6N.J.L. 1 (Sup Ct 1821) at 368. The case involved an attempt to claim private rights to an oyster bed.

[5] *Id.* at 370

In contrast to the public trust doctrine, the public domain arose from the combination of state land cessions to the federal government upon statehood and federal land acquisition by international treaties and purchases. The Homestead Act, the legislative effort to encourage the settlement and privatization of the public domain, limited land claims to acreages far too small to support an extensive industry such as rangeland livestock production. This resulted in millions of acres of arid lands that were "retained in public possession precisely because nobody could think of anything useful to do with [them]" except for grazeing by livestock on what has often been interpreted as an "open access" basis. Open access ostensibly prevailed from the frontier period up to the passage of the Taylor Grazing Act in 1934 (Dana and Fairfax, 1980:159).

Similar to judicial concern for distributional equity in fisheries, nineteeth century adjudication over fencing of the public domain revealed the judicial interest in protecting open access by preventing fencing of the domain.[6] But open access did not mean equal access to either fisheries or rangelands resources. Open access provided the conditions for appropriation (without outright purchase) by the more physically and financially powerful (c.f., Langdon, 1989; Scott, 1967; Dana and Fairfax, 1980:87).[7]

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[6] *Buford v. Houtz* 133 U.S. 320 (1890).

[7] It is important to keep in mind that in the cases of both fisheries and rangelands, open access was opportunistically imposed over indigenous systems of communal rights to water and rangeland resources. The influence of these indigenous systems (Native American or in the case of some rangeland areas, Hispanic) on the institutions that developed after Anglo settlement is a fascinating subject that we will not explore here.

In the case of rangelands, the inequities in resource allocation induced by might-makes-right manipulation of open access were augmented by the application of an Eastern model for settlement, via the Homestead Act, to a water-short Western geography. This oversight allowed individuals to claim and gain control of the limited water sources on rangelands despite apparent open access. Control of the water by early or well-connected settlers effectively prevented the use of forage by others for miles around, and discouraged further homesteading. But discouraging unwanted migrant sheep bands was a more difficult goal to achieve. So long as any pretense of open access existed, these nomadic operations could use the public domain during the wetter periods in winter or spring and then move on when water became restricted. The evolution to formally controlled access to public domain rangelands not only institutionalized existing inequities and forms of control but also in large part erradicated the irritating problem of the sheep bands.

On Becoming Uncommon

There are two routes by which exclusive claims are exercised on open access resources, one formal, one informal. The informal transition, or exclusion of others by extra-legal means, usually occurs first and may receive subsequent sanction in the formal transition. This is the process wherein the "law of the camp" becomes the established law of the land. One issue that often surfaces is that of **whose** camp law or set of local customary practices is adopted for formal refinement and codification. For example, historically there have been persistent attempts to base local claims to fisheries resources on a combination of claimed individual and communal property rights. But this "camp law" was never legally sanctioned. Exclusive individual claims ran

afoul of the public trust doctrine, while exclusive communal claims ran afoul of constitutional safeguards of individual rights.[8]

In the rangelands arena, hispanic pastoralism in California was similar to that described in John Wesley Powell's findings and recommendations to Congress:

> It will not pay to fence the pasturage fields, hence in many cases the lands must be occupied by herds roaming in common; for poor men cooperative paturage is necessary, or communal regulations for the occupance of the ground and for the division of the increase in the herds. Such communal regulation have already been devised many parts of the country...But each division or pasturage farm of the district should be owned by an individual; that is, these lands could be settled and improved by the "colony" plan better that by any other...Under these circumstances it is believed that it is best to permit the people to divide their lands for themselves—not in a way by which each man may take what he pleases for himself, but by providing methods by which these settlers may organize and mutually protect each other from the rapacity of individuals. (Powell,1879:23, 28, 38)

Powell also recommended that a pastoral homestead should be a minimum of 2,560 acres, enough to support a family on the basis of extensive livestock grazing.[9] But neither Powell's recommendations nor actual hispanic pastoralist practice, or "laws of the camp," were given sanction.

Public Domain rangelands were first formally moved away from open access with passage of the Forest Reserve Act of 1891. The first rules for the administration of these reserves called for the exclusion of sheepherding but these rules were not accompanied by an enforcement budget (Dana and

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[8] Specifically, the commerce clause and the privileges and immunities clause.

[9] Note too that Powell recommended removal of resident Indian populations in order to stop their practice of burning western forests.

Fairfax, 1980:64). By 1905 control over the reserves had passed to the Forest Service (then the Bureau of Forestry) which issued a handbook containing directions to forest officers for management of forest resources, including grazing. The handbook listed three classes of grazing permits, ranked in order of preference:

> Class A: owners of adjacent ranch property who traditionally used the public forest range
> Class B: owners of non-adjacent ranch property who traditionally used the public forest range
> Class C: transient herders

The A and B permits usually took all of the alloted range (Rowley, 1985), thus eliminating the migratory bands of sheep from most publically administered grazing lands.

This permit qualification scheme was mirrored nearly thirty years later in 1934 when the Taylor Grazing Act transformed the remaining public domain into grazing districts accessible only to permitted stock operators. Permits would go first to those with base property and a history of prior use, second to those with base property but no history of prior use, and lastly, to those who traditionally used the public range but had no (or little) base property. These criteria had substantial distributional implications. A comparatively small number of large ranchers who owned properties and ran stock during the early years of the Depression (the years which qualified as prior use) dominated the permit allocation process (Cowart and Fairfax, 1988:389). Those most disadvantaged by the "closing of the public domain" included more recent and prospective homesteaders and sheep operators, precisely those

groups that the cattle operators had sought to exclude by extra-legal means during the open access period (c.f. Peffer, 1951:214-231).

Besides the outright distributional consequences, two structural features of the Taylor Grazing Act are important to our analysis. First, the Act represented a significant devolution of authority. Informal, Anglo "law of the camp" grazing associations were institutionalized as "Grazing Advisory Boards" and given considerable power over grazing management. Furthermore, the ranks of the federal Grazing Service were quickly filled with resident stockmen as a 1936 Ammendment required officials in the service to have been a resident of the public land state in which they were employed for at least a year.

The second problematic structural feature of public lands grazing is that the controlled access has always been a subsidized access. The Act's expressed purpose, as well as that of Forest Service grazing policy in the early 20th century, was to conserve the public range *and* to stabilize the livestock industry. Fees were initially set low, used more for accounting than as a source of revenue. Powerful livestock industry lobbies have kept fees below even the most generously low estimates of fair market value. The initial distributional inequities have been reinforced by the windfall that this represents to those first given or who have inherited grazing "permits" on public lands. Permits are seldom revoked or transferred without the consent of the current permittee. They are treated in real estate and banking transactions as *de facto* property—part of the ranch property—becoming, over time, part of the capital value of the ranch and always offering the owner a low cost source of livestock feed (Cowart and Fairfax, 1988:389 fn 64).

In practice, nearly 60 years of concern over these structural features has resulted in a diversion of attention away from pragmatic management issues. The devolution of authority has resulted in constant complaints about foxes guarding hen houses. Debates over low permit fees have been similarly tiresome, and the debate over whether the permits themselves are compensible rights or mere privileges continues on despite what appears to be a definitive Supreme Court ruling.[10]

Some Comments on Current Trends

So where are we now in comparative terms? First, consider some obvious parallels. The Taylor Grazing Act has a fisheries analog in The Magnuson Fishery Conservation and Management Act of 1976.[11] The Magnuson Act had clear conservation objectives yet represented an admitted embrace of industrial promotion. The Magnuson Act contained its own devolution mechanism, establishing the Regional Council system which authorized direct industry participation in the formulation of management plans. The Magnuson Act also established conditions under which open access could be transformed to a system of restricted access rights. The old inequities in rangelands management are present in fisheries. Significantly, current plans for privatization clearly favor property (boat) owners, disadvantage labor generally and promise to bestow a windfall subsidy on initial recipients of restricted permits. The old grouses are present too, or soon will be. Foxes are

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[10] *United States v. Fuller*, 409 U.S. 488 (1973).

[11] An analogy between the Magnuson Act and FLPMA would be even more appropriate.

guarding hen houses, the debate over privileges versus rights is just getting started, and the fuss over access fees is around the corner.

In both arenas we have almost supreme faith in the power of structural changes to effect good management. Consider some current thinking: In rangelands, sack the TGA (c.f., Coggins, 1982); in fisheries, sack the regional councils (AFS as cited by Wise, 1991). In both arenas we find the belief that what are fundamentally allocation problems will be ameliorated by a strengthened appeal to science and a weakened appeal to democratic institutions.

This pursuit of structural panaceas leads to an unfortunate mocking of our own efforts. This is especially true in fisheries where it seems almost everyone likes to cite the folly of typical fisheries management measures by applying them to logging regulation (e.g., hand axes must have a blade less than 4 inches but more than 3 inches with the handle to exceed 18 inches). But consider the reverse—rangelands management as fisheries management: all fish must be branded and tagged to allow identification at some distance. Fish must be herded around or managed through fencing to prevent over-use at any one particular spot. These comparisons seem unproductive if yet amusing.

In the case of both resource management systems, the scientific methods used to develop management strategies and evaluate their effectiveness are shakey at best. In the case of fisheries, overfishing is an amorphous concept but the basis of all management plans. Rangeland scientists and managers cannot seem to come to consensus on the methods for evaluating rangeland

condition and trend and thus for identifying overgrazing. Traditional successional models, the ecological underpinnings of rangeland management, have been called into question by almost every research project addressing them.

Ironically, it is as if each resource management system, having failed to allocate resources equitably or sustainably, looks to the other as a model for future management and policy direction. The call is out to privatize fish, and in another bizarre echo of rangeland and cattle history, the shift to feedlot style production aquaculture is on. Meanwhile back at the ranch, visionary range researchers write of the need to establish a new "buffalo commons" by amalgamating the private and public rangelands of the great plains into one large grazing area roamed over by large schools of bison and contemplate the return to a diet featuring wild meat.

References

Bevan, D. E. 1965. Methods of Fishery Regulation. In: *The Fisheries: Problems in resource management*, ed, J. A. Crutchfield. Seattle: University of Washington Press.

Coggins, G. C., and M. Lindeberg-Johnson. 1982. The Law of Public Rangeland Management II: The commons and the Taylor Act. *Environmental Law* 13 (1): 1-101.

Cowart, R. H., and S. K. Fairfax. 1988. Public Lands Federalism: Judicial theory and administrative reality. *Ecology Law Quarterly* 15: 375-.

Dana, S. T., and S. K. Fairfax. 1980. Forest and Range Policy: Its development in the United States. New York: McGraw-Hill.

Gordon, H. S. 1954. The Economic Theory of the Common Property Resource: The fishery. *Journal of Political Economy* 62 (2): 124-142.

Hardin, G. 1968. The Tragedy of the Commons. *Science* 162: 1243-1248.

Langdon, S. 1989. From Communal Property to Common Property to Limited Entry: Historical ironies in the management of southeast Alaska salmon. In: *A Sea of Small Boats*, ed., J. Cordell, pp.304-332. Cambridge, MA: Cultural Survival, Inc.

Libecap, G. D. 1981. Locking Up the Range: Federal land controls and grazing. San Francisco: Pacific Institute for Public Policy Research.

Marchak, M. P. 1989. What Happens When Common Property Becomes Uncommon? *BC Studies* 80: 3-23.

NMFS. 1 1991. *Strategic Plan for the Conservation and Wise Use of America's Living Marine Resources, January 24, 1991*, National Marine Fisheries Service,

Peffer, E. L. 1951. The Closing of the Public Domain. Stanford: Stanford University Press.

Powell, J. W. 1983. Report on the Lands of the Arid Region of the United States: With a more detailed account of the lands of Utah. Boston: The Harvard Common Press.

Rowley. 1985.

Scott, V. W. 1967. The Range Cattle Industry: Its effect on western land law. *Montana Law Review* 28: 155-183.

Wise, J. P. 1991. *Federal Conservation & Management of Marine Fisheries in the United States,*. Washington, D.C.: Center for Marine Conservation.