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INNOVATION, INCENTIVES, and POSTERITY:  
WILDLIFE and the ENTREPRENEUR

By John Baden, Tom Blood and Shannon Taylor

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WILDLIFE and the ENTREPRENEUR

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In the past few years, entrepreneurs have received increasing attention. In the 60s and 70s, entrepreneurship was the longest four-letter word in the English language for many people. In the 80s, however, the term may be used in polite company with some assurance that a portion of the audience will have passing acquaintance with the concept. Although it is usually associated with silicon chips, microcomputers, and other components of the high-tech frontier, such limited understanding is deficient and often misleading. Entrepreneurship often involves new institutions and organisational forms. By no means is it restricted to the development of new material objects.

Entrepreneurship involves the process of improving economic coordination in the production of anything from mule deer to Mazdas. By restructuring existing institutions, human capital, and physical inputs, more highly-valued outputs are produced. The entrepreneur is able to capture a portion of the residual in an environment where property rights are securely defined and defended, and where exchanges take place on the basis of willing consent—that is, in the marketplace.

### The Entrepreneurial Chef

One of the fundamental tenets propounded by many economists concerning entrepreneurship may be overstated or possibly wrong. To assert that "there is no such thing as a free lunch" suggests a misunderstanding of the entrepreneurial process. It is our view that free lunches exist and that entrepreneurs are the chefs who provide them.

Simply because all activities have opportunity costs, it does not follow that there are no actions that create additional wealth and well-being. In the extreme, what would happen if the opportunity costs were negative? In other

words, what if the activity foregone has a net negative value? Obviously, a cost foregone is a form of or addition to profit. Consider the following example.

Sawmills convert logs into boards, cants, and plywood. Until recently, that was all they produced of significant positive value, aside from a few commodities such as tanning bark. In the conversion process, sawmills also produced considerable waste, consisting primarily of end pieces, broken or defective boards, and sawdust. Nearly all early Western milltowns had rusting, smoky teepee burners installed to dispose of this "waste."

The disposal of these wastes had a number of costs, including capital required for the burner facility and transporting the waste fiber to the burner. Other expenses included maintenance and operation costs. In addition, there were environmental costs produced by this incineration process— mostly air pollution damages.<sup>1</sup>

Obviously, everyone would have been much better off if, instead of polluting the air, the sawmills had converted the wastes to a product with a positive value. Thanks to the entrepreneurial process, this is exactly what happened.

We now recognise that particle or chip board is a highly useful product that is a close substitute for plywood. Its many uses include backing for carpets and the base for formica counters. With proper treatment, it can even be used for exterior siding. Thus, through entrepreneurial vision, wastes were converted into products with high positive values. From the perspective of general efficiency, the opportunity costs of making particle board are negative. This is indeed a free lunch prepared by an entrepreneur. Our compliments to the chef.

How can the entrepreneurial process relate to wildlife and habitat?

On most private lands in the United States, wildlife has been a casual by-product of conventional commercial activities. In the Western states, big game is a fugitive resource, ranging across state and federal grazing allotments and private farms and ranches. Both state and federal lands tend to be at higher elevations, while the valley floors and gentle slopes tend to be privately owned. In general, deer and elk summer at higher elevations and winter on private lands at lower elevations. Further, since nutritional needs are extremely high during late gestation and early lactation, spring grasses on lower slopes are especially important for wildlife. Thus, in many regions, private land is critical for wild game survival.

Jack Deibel, who runs a 25,000-acre ranch in eastern Montana, estimates that deer on his land caused between \$8,000-10,000 in crop damage last season. Another Montana rancher stated, "If the State Fish & Game Department paid us for the forage consumed by wildlife on our lands, they'd owe us \$6,500 every year. Public lands, especially in the snow-covered high country? provide very little winter forage for wildlife. As a result, the game roam to lower elevations—usually on our private lands."

To add to the landowner's dilemma and frustration, the damage caused by wildlife is often compounded by hunters carelessly leaving gates open, driving across wet fields, and leaving litter as evidence of their expeditions. The net result is a chain reaction: ranchers incur dual costs which only encourage them to reduce wildlife habitat and deny hunting access to sportsmen.

If the situation is to improve, lawmakers, resource managers, and the public must ask why this habitat is shrinking and deal with the problem itself, rather than simply accept such decline as inevitable. For example, one Montana Fish, Wildlife & Parks biologist observes that, "As habitat

decreases in quantity or declines in quality, we must allow game populations to shrink accordingly." This is a realistic conclusion, but taken from a defeatist perspective. When landowners cannot capture the benefits from their improving wildlife habitat, economic theory and common sense predict private land will be put to use where returns are highest, whether it be agriculture, housing, shopping malls, or wildlife habitat.

In South Africa, for example, large tracts of land are being restored back into bush, because the cultivation and harvest of wild game provide more food, jobs, and income than raising grain and livestock previously had.<sup>2</sup> The same is occurring in West Texas about which economist Kerry Livengood writes, "The net returns from increasing the number of harvestable deer equals or exceeds the annual net returns from livestock operations in many areas of the state. Due to the potential profit associated with deer, landowners should have sufficient incentive to manage deer by providing desirable habitat and forb-grass mixtures."<sup>3</sup> Thus, wildlife pays its own way and thrives in its restored habitat.

Under such a backdrop, could an entrepreneur turn such a situation into a free lunch for ranchers from which both stockmen and sportsmen might benefit?

Although infrequent cases exist in the United States in which entrepreneurs have used wildlife to produce economic gains for both sportsmen and stockmen. Benefits can take many forms: outfitters can lease hunting rights from ranchers, taxes can be reduced for ranchers providing quality habitat and trespassing rights, or landowners can simply sell hunting rights on their properties. Obviously, we are only exploring the possibilities, but the following cases will illustrate the validity of such alternatives.

New institutions involving wildlife and habitat occupy an important place

on the world's entrepreneurial frontier. Amenity demands for wildlife tend to increase disproportionately with income. Thus, there is potential for entrepreneurs to take advantage of the demand for high quality hunting experiences. This situation has already given rise to the development of ranches, farms, and commercial forests managed for the joint production of commodities and wildlife ranging from spring-creek trout to elk and deer.

While this is encouraging news, such situations will occur only in isolated cases in the U.S. as long as ranchers shoulder the costs while rarely gaining any significant benefits for providing game habitat.

### The Entrepreneurial Cowboy

One such case has developed in north central Montana on two adjacent ranches. One ranch is 6,500 acres in size and consists mostly of cultivated grain with some pasture and grasslands. The topography of the land provides prime resting and holding areas for a herd of approximately 350-400 mule deer.

The other ranch is 10,000 deeded acres consisting of both cultivated and pasture land and foothills on the upper margins where the productive farmlands rise into higher country. These foothills also provide excellent holding habitat for a nonmigratory herd of between 300-350 mule deer on their land.

The landowners had different views of the deer on their land. The owner of the smaller ranch allowed no hunting access because of difficulties with hunters in the past. However, he fed the deer bailed alfalfa during the winter. In contrast, the owner of the larger ranch allowed limited hunting on his land, but fenced wildlife away from his haystacks.

An outfitter living in the area recognized an opportunity to use the deer herds for economic gain for himself and the landowners. He approached the ranchers with the proposal that the three parties manage the deer herds to provide quality hunting for those willing to pay trespassing privileges. Both

landowners considered the proposal, and agreed to give it a chance. During the planning process, the outfitter agreed to allow hunters to shoot only certain deer, such as spike-horned bucks, three-point bucks, and does—only on predetermined occasions would hunters be allowed to bag a trophy buck. The landowners, on the other hand, agreed to deny access to all hunters not booked with the outfitter.

The compensation program agreed upon was relatively simple. The outfitter was paid by the hunters for each day in the field. The price included transportation, meals, lodging, horses and guiding, and trespass privileges, In turn, the outfitter paid the landowners on a per day basis for his trespassing privileges. The outfitter also agreed to be available when help was needed for such jobs as branding, haying, rounding-up, etc

Through the culling of older and crippled animals, the hunting program was designed to increase the proportion of four-point bucks, average antler sizes, and the average buck/doe ratio.

Data gathered over the following five-year period indicate that these targets were realized:

Annual Harvest Data

<u>Year</u>	<u>Hunters</u>	<u># of Deer Taken</u>	<u>Mean Antler Spread</u>	<u>% of 4 Points or Better</u>	<u>Mean # of Bucks Sighted in Single Day</u>
1979	7	5	13"	60%	4
1980	2	2	13"	0%	4
1981	18	14	20"	56%	6.6
1982	15	12	21"	64%	11
1983	24	21	21"	70%	14

Through this innovative program, wildlife was successfully converted into a commodity with a positive value. Not only was the outfitter able to sustain

an income for providing the role of entrepreneurial middleman (\$1,000 for a five-day hunt), but the landowners were compensated more than \$400 for each trophy buck taken on their land.

Landowners realized other than monetary benefits as well. They now know who is on their property at all times, how long they will be there, and what game will be taken. It is the outfitter's responsibility to be sure gates are left open or closed as directed, and to eliminate livestock fatalities. Obviously, the outfitter has a stake in minimizing the impact of the hunting expeditions on the ranch operations since he is faced with the long-run consequences of his actions. Also, landowners have an automatic answer to anyone wanting to hunt on their property; the land is leased, contact the outfitter.

Of greatest importance is the observation that landowners began managing the deer herds just as they managed assets such as domestic stock. Where landowners had previously ignored or neglected the deer, the outfitter and landowners began meeting regularly to discuss deer herd management plans and optimal hunting procedures. The deer are no longer perceived as pests, rather, as a valuable resource worthy of the landowner's consideration in his overall stock/land management plan.

#### An Innovative Agency

Individuals against these types of market solutions usually base their opposition on the equity issue. That is, middle-income sportsmen could easily be priced out of the market if trespassing fees climb to hundreds of dollars per day. They should realize that small landowners usually cannot capture such benefits because they are unable to charge enough for trespass rights to support a fee hunting system. As a result, average income sportsmen

suffer because they find it increasingly difficult to obtain access to private land, while small landowners are unable to realize any reward for providing wildlife habitat.

This problem has been tackled in Michigan by the Department of Natural Resources (DNR). Now in its sixth year of operation in southern Michigan, the Public Access Stamp Program (PASP) is most notable for the way a state agency brings together individual hunters and small private landowners.

The program affects only the 41 southern-most Michigan counties, paying rural landowners on a per acre basis for allowing public hunting on their lands. The DNR appraises the land according to an established fee system. To be eligible, landowners must post signs on their land which are provided by the DNR and issue tags to participating PASP hunters. Leases are renegotiated every third year, although landowners are free to terminate their participation at any time.

Hunters wishing to be eligible for the program must buy a \$1 access stamp when purchasing their regular hunting tag from sporting goods dealers. Stamp sale revenues are paid to the DNR, which acts as hunting broker and information clearinghouse between sportsmen and landowners. Although these dealers are supposed to sell a PASP stamp with every hunting tag, many have been unwilling to do so because hunters who don't (or at least say they don't) use PASP lands seek out dealers who are willing to sell tags without charging for the stamp. Dealers who enforce the stamp regulation have lost hunting tag commissions to dealers who do not. At the same time, dealers have not had any market incentive to sell stamps until recently. As a result, stamp sales have slipped from 448,000 in 1977 to 315,000 in 1980, even though the number of PASP hunters more than tripled from 23,000 to 73,000. Hunters discovered that they could get away with purchasing a tag only, and now hunt illegally on private lands.

One problem with this arrangement is that the DNR establishes the prices of stamps and acre fees on a general equitable basis rather than their market value. As a result, P&SP operates in the red. While the DNR should not be making great profits from the program, P&SP should at least be able to support itself on the revenue from stamp sales. Most important, the program should encourage private landowners to manage for joint production of crops, domestic livestock, and wildlife, but the income they receive through P&SP has not enabled them to do this on a widespread scale.

The DNR, however, is working toward a solution. Dealers are now allowed to keep 10 cents for each stamp sold as incentive to enforce the law. The DNR is also dropping a substantial number of marginal acres from the program in attempt to bring expenditures down to level with revenues. The DNR also hopes to raise the annual amount paid per acre in the near future.

Despite these problems, P&SP has received popular support from many small landowners and sportsmen, and the program has succeeded in opening many private acres for hunting that previously were closed. Meanwhile, many landowners have received enough income through the program sufficient to cover their property taxes. As a result, prime habitat has been maintained and wildlife continues to do well on these lands.

### Entrepreneurial Loggers

In the 1800s, timber companies were known for their "rape and run" methods, paying little if any attention to managing for wildlife and habitat. With the development of the West and the subsequent establishment of property rights, however, timber companies and other natural resource firms have gradually been forced to live with the long-run consequences of their actions. Consider the effect this has had on two corporations: International Paper

and St. Regis.

International Paper (IP) is a giant in the paper industry, with approximately \$5 billion in annual sales and seven million acres in land holdings. Despite the competitiveness of this industry, IP has initiated and developed an extensive lease-hunting program, under which it will actually suspend logging and other resource extraction activities in order to protect game habitat. Why? Simply because managing for the production of wildlife has become profitable for the corporation.

IP began leasing land out for hunting in 1957 as a public relations gesture. At the time, few deer roamed the area, and small game populations were also relatively low. Today, the situation is quite different. Thriving populations of deer and other game and non-game species roam the 1.65 million acres that IP leases out for hunting. Average lease fees run from 62 cents per acre for individual hunters, to 83 cents per acre for hunting clubs. IP's income statement reveals that hunting leases have developed into one of the corporation's best products in terms of return on investment.

As a result, IP has committed more acreage for the production of game and non-game species than has any state agency in the United States. However, obtaining information about IP's wildlife program has become extremely difficult since an upper-management turnover in 1982. Subsequent policy includes a ban on releasing any information about the lease program or the wildlife development program. IP is apparently attempting to protect its future returns as the lease-hunting program evolves from a semi-profit, positive public relations phase to a program oriented toward efficiency, and protection of their research.

According to confidential company sources, the lease program is predictably becoming more sophisticated. IP constantly upgrades its

computer simulations and refines cost-benefit analysis to optimize hunting habitat, conditions and yields. Since the program's inception, improved management has led to a doubling and even tripling of game populations on some leased tracts.

As the leased lands become increasingly productive, hunters have begun to criticize the condition of adjacent public land because of low game population densities, poor habitat management, trash dumping, and abuse by off-road vehicles.

St. Regis Corporation experienced difficulties similar to the above with lands the company left open for free public use. These lands have also come under severe criticism from those who use them. They complain of overhunting, poaching, vehicle abuse, trash dumping, and in some cases, even arson. As a result, St. Regis may eventually include these lands in their own lease program as well.

St. Regis initiated its wildlife program in 1956 and, like IP, has successfully improved wildlife populations and habitat while maintaining timber production growth. To increase wildlife populations and improve habitat, the company's wildlife department began to make improvements by altering the shape and distribution of clearcuts, leaving crucial stands of hardwood trees for habitat and establishing brush and timber zones between clearcuts and highways. The company makes some compromises during periods of intense timber demand, just as it suspends certain logging operations for the sake of wildlife. It is not that the St. Regis managers have a preference for wildlife; rather, they are weighing marginal costs and benefits.

St. Regis has also set aside its 23,000-acre Brushy Creek tract, which lies in the heart of the company's leased Pineywoods region in Texas, for timber production, customer and guest hunting, and experimental game management. Forest management on Brushy Creek involves state-of-the-art

technology and has become the testing ground for the company's newest developments in timber and wildlife production, including 30-year pulpwood rotation, innovative clearcutting, site preparation and planning, protection of streamside management zones, and careful prescription burning. Security measurements, including occasional helicopter patrols, have been initiated to eliminate illegal hunting. A study comparing deer on the Brushy Creek tract to those on adjacent public lands revealed that Brushy Creek bucks had larger antlers, and that the Brushy Creek tract supported a higher deer population than the open-access public lands did.

Both St. Regis and International Paper have effectively incorporated the wildlife system into their timber management programs for the joint production of timber and wildlife, generating profits, a quality environment, and positive public relations. Some success is contagious; in time, perhaps all corporate programs can boast such a record. Elk, deer, and antelope have evolved and adapted to environment for hundreds of thousands of years. As population pressures increase and agriculture becomes more intensive, so must our wildlife institutions evolve if quality habitat is to be maintained.

Perhaps policymakers in the Western states should examine the applicability of these cases and consider how they may be administered in the Rocky Mountain region. In each instance, an entrepreneur identified an opportunity for economic gain, and moved to restructure the existing operation. In the process, wildlife and habitat were managed to the benefit of sportsmen, stockmen and their balance sheets. Game populations, too, thrive as these entrepreneurs do good while doing well.

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The Political Economy Research Center is an unusual organization. Our research orientation and level of commitment provide PERC associates with an important opportunity to analyze and make recommendations on economic and natural resource issues in both the governmental and private sectors. Approximately 50 percent of our efforts have been devoted to natural resource economics and policy, while the balance of our work deals with taxation, regulation, entrepreneurship, economic history, and a sprinkling of other topics. To the best of our knowledge, we are the only research organization with this orientation.

Since its founding in 1980, the Center has maintained a principled commitment to the development of a society of free and responsible individuals in their relations with one another and their environment. On the basis of considerable study and research, we expect these values to be fostered by social and political organizations relying on private property rights, the rule of willing consent, and the market process. Although we are sensitive to the problems of market failure, we recognize that there is an analogous set of problems with governmental management.

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