

# PERC REPORTS

THE MAGAZINE OF FREE MARKET ENVIRONMENTALISM

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**EDITOR** Jane S. Shaw  
**ART DIRECTOR** Mandy-Scott Bachelier

## STILL PUZZLED AFTER ALL THESE YEARS

**I**t has been a privilege for me to edit PERC Reports for more than twenty years, as my associates and I have attempted to show how property rights and markets protect our natural surroundings. But this will be my last issue of PERC Reports. I have accepted the position of executive vice president of the J.W. Pope Center for Higher Education in Raleigh, North Carolina. I will shift my professional attention to the state of the nation's colleges and universities, with emphasis on schools in North Carolina.

I look forward to this move, but it is painful to leave PERC, where I work with a tremendously talented, dedicated, and warm group of people. My husband, Richard Stroup, one of the founders of PERC, will also move to North Carolina, but we will both remain PERC senior fellows.

During my tenure here, I have often been puzzled by the antagonism—automatic and almost visceral—that many people have toward markets as a way to protect the environment. The failure of markets is simply assumed, and the success of governmental intervention proclaimed, regardless of the evidence. This issue of PERC Reports offers two examples.

**Tigers.** Captive breeding is a tool for preserving the tiger, now down to a few thousand wild animals throughout the world. Such breeding, along with a legal market for tiger parts (an integral part of traditional Chinese medicine, as insulin from animals used to be in the West), could curtail the illegal tiger poaching. But opposition is strong, reports Barun Mitra in the cover story. Most opponents are from countries, such as the United States, that don't face the dangers of wild tigers.

**Turtles.** Another example of blind opposition to markets is reflected in the story of the Cayman Turtle Farm in the West Indies. Created in 1968, the farm raised and sold green sea turtles, taking the pressure off endangered wild ones. But many environmentalists' hostility to commerce destroyed this innovative enterprise, as Andrew Morriss explains in this issue. Today, however, the farm has another chance.

Fortunately, this issue of PERC Reports has some upbeat stories, too. Brian Yablonski explains how a favorite sport of the wealthy—quail hunting—benefits the environment of the Red Hills country of northern Florida. And Robert Glennon, a University of Arizona law professor who spent the summer as a Julian Simon Fellow at PERC, explains why we must rely more on markets to avoid water crises.

I know that future issues of PERC Reports will continue to grapple with environmental challenges and share with readers examples of market successes in meeting them. In spite of the antagonism toward markets that bothers me so much, the success stories continue to roll in. I expect them to make good reading for years to come.

*Jane S. Shaw*  
Jane S. Shaw | EDITOR



MITRA



MORRISS



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2048 ANALYSIS DRIVE, SUITE A, BOZEMAN, MONTANA 59718-6829  
**PHONE:** 406.587.9591 OR [PERC@PERC.ORG](mailto:PERC@PERC.ORG)  
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PHOTO CREDIT: Cover: DLILLIC/ Corbis. Tiger Sitting among Bamboo Leaves.

# SAVING THE TIGER |

## CHINA AND INDIA MOVE IN RADICALLY DIFFERENT DIRECTIONS



NEW DELHI, INDIA—More than thirty years after the launch of “Project Tiger,” the most high-profile conservation program in the world, barely 5,000 to 6,000 tigers are left in the wild, over half of them estimated to be in India.<sup>1</sup> In

Sariska, a designated tiger reserve not far from Delhi, not a single tiger has been sighted in the past year. In February, the government confiscated a record haul of illegal leopard and tiger skins, and the Indian government recently acknowledged that illegal traders are smuggling wildlife and endangered species through Nepal and Tibet to China, and through Burma to East Asia. Even the Dalai Lama, the spiritual and temporal head of the Tibetan Buddhists, issued an appeal to his followers not to engage in illegal trade in wildlife (*The Hindu*, June 29, 2006). The Prime Minister of India, Manmohan Singh, has described the situation as a national crisis.<sup>2</sup> The tiger, after all, is India’s national animal.

Since the 1970s, India has enacted tough laws and mobilized huge resources to stop hunting and trading in tiger parts. But the policy of prohibition has not secured the future of tigers. “The conflict has led to emotional, seemingly intractable debates over the central question of tiger conservation in India: Can tigers and people live together?” writes Erika Check in the scientific journal *Nature* (2006).

China, too, faces a tiger crisis. During Chairman Mao Zedong’s rule, tigers were considered a great pest, and people were encouraged to kill them. Today, China has only 20 or 30

tigers left in the wild. Yet the demand for tiger parts, particularly the bones, is greatest in China. Tiger bones are used to treat severe arthritis in traditional Chinese medicine, a practice that can be compared to the use of animal-based insulin in the West in the recent past.

For many years, the dominant thinking among conservationists has been that the demand for tiger parts, whether for medicine, fashion, or hunting, is the major cause of decimation of the wild tiger population. Believing that humans and wild animals cannot coexist, conservationists have sought

to isolate wildlife in nature reserves, demanded prohibition on hunting and trade, and tried to prevent humans from degrading the reserves.

Reflecting this philosophy, the Convention on International Trade in Endangered Species (CITES) began restricting commerce in many animal and plant species in 1975. Project Tiger, which started in 1972, attempted to enforce a total prohibition on hunting and trade in tiger parts. In addition, it created a system of tiger reserves, beginning with nine sanctuaries, totaling 27 today.

Now, although this policy of prohibition has not worked, many loud voices call for even stricter prohibition and harsher enforcement. Some have urged the Indian government to enlist the army to protect the tigers. Supporters of such policies come from conventional conservationists in the so-called Free World, particularly in countries where tigers never roamed. The Worldwide Fund for Nature and various other wildlife and tiger conservation groups seek to capitalize on the pro-tiger sentiments in rich countries. Indeed, the tiger crisis is a source of funds and prestige for these organizations.

Countering this view has been a strong undercurrent of

*Since the 1970s, India has enacted tough laws and mobilized huge resources to stop hunting and trading in tiger parts. But the policy of prohibition has not secured the future of tigers.*



dissent. PERC, for example, has been at the forefront in arguing that with proper incentives, property rights, and markets, commerce could be the biggest contributor to conservation through sustainable use.<sup>3</sup>

### CHINA'S EMERGING POLICY

Ironically, although China is still a communist state, its officials are considering harnessing a limited form of commerce for the cause of tiger conservation. Chinese officials have started experimenting with radical policy options. One of these is captive breeding of tigers.

Over the past decade, special tiger breeding bases have been set up under public and private management. More than 4,000 tigers are in captivity in China today, and an effort is underway to build a genetic profile of every tiger in captivity so that the number of pure subspecies can be documented and increased. This will enable breeders to meet the international demand for pure-bred tiger cubs and young adults of particular subspecies such as the South China, Siberian, or Bengal tiger.

China has about twenty tiger breeding facilities today. Most of them are small farms, but even larger ones cannot support the cost of raising tigers through tourism alone. If tigers were bred for markets, the story would be different.

An adult tiger leaves behind about 12–15 kilograms of dry bones, which could sell for US\$500–\$1,000 per kilogram. Most other parts of the tiger, from its whiskers to its penis, are valuable, perhaps worth another \$20,000. Thus, a tiger could generate revenue of \$35–40,000 to the breeder. The cost of feeding tigers could be reduced substantially by providing low-cost wildlife as feed, rather than the commercial meat that is used now. Additional revenues could come from zoos and circuses buying pure-bred subspecies.

China has created a legal domestic market for some wildlife products like ivory and musk. A computerized documentation procedure tracks them through their manufacturing and marketing to separate legal and illegal products. China could test the effectiveness of the monitoring system using authorized tiger bones from existing stockpiles and assess the possible impact on wild tigers elsewhere.

*China has about twenty tiger breeding facilities today. Most of them are small farms, but even larger ones cannot support the cost of raising tigers through tourism alone.*

China is also experimenting with reintroduction techniques in South Africa under a public-private partnership. With the cooperation of Chinese authorities, Li Quan, director of Save China's Tigers, has exported a few tigers to a

large fenced-in wilderness area in Lohu (Tiger) Valley, South Africa. Her aim is gradually to train the tigers to hunt and rediscover their natural survival instincts. A couple of generations later, the tigers born in this reserve could be released into designated tiger reserves in China. This is a daring experiment considering that there has been only one recorded instance of a captive-bred tiger

being released in the wild in India in the late 1970s; the controversy that it generated—over whether the tiger marauded villages and whether it introduced non-native tiger genes into the native tiger population—has still not been settled.

### INDIA'S FAILED POLICY

The contrast between China and India could not be more glaring. Rather than causing a reassessment of policies, the tiger crisis has expanded India's bureaucracy. Egged on by environmentalists, officials are calling for greatly enhancing the policing of parks and for modern equipment to identify and pursue suspected poachers. There are news reports of enlisting even the Indian army to protect the tiger.

The result of this policy has been the loss of tigers, not their protection. According to a recent official report, an estimated 112 tigers were killed by poachers between 1999 and 2003 and the figure may be many times higher, according to environmentalists. During this period, over 411 cases were filed regarding the death of tigers and seizure of tiger-related products, but not one has led to a conviction. Furthermore, the economics of poaching are extremely attractive. A dead tiger fetches between \$60,000 and \$160,000 at the retail markets in Southeast Asia, and a poacher may secure the help of forest villagers in tracking down a tiger for as little as \$25 to \$50.

If we truly value the tiger, we need to explore the tiger's commercial potential. By harnessing the real economic value of tigers and other forest produce, we may make the tiger earn its keep, and avoid the specter of extinction of this magnificent species in the wild.

## TIGER FARMING

A tiger farm would dovetail very well with deer or crocodile farms, which already exist in different parts of the world. Indeed, crocodile farming is a multimillion-dollar industry, with an estimated 2 million crocodiles providing leather products each year. The countries that have facilitated commerce in crocodiles have abundant crocodiles. In contrast, India has refused to legalize crocodile farming for almost two decades, and crocodiles continue to live on the edge of extinction in Indian waters.

An integrated approach would facilitate the supply of low-cost meat to the carnivores, lowering the production costs. Such farming could transform the economies of many rural and poor communities, and the pressure on the natural environment of the forests would greatly diminish.

The tiger, which is at the top of the food chain in its ecosystem, would be at the top of the economic ladder because of its market value. Among the results we can expect from breeding tigers to reduce poaching in the wild:

- The pressure on wild tigers will go down, attracting more tourists to sanctuaries to see this majestic animal in its natural setting.
- The sale of farmed tigers will reduce the incentive for smugglers to kill wild tigers.
- Scientists and wildlife managers will improve their breeding, management, and rehabilitation methods for tiger reintroduction; forest dwellers, who have detailed knowledge of their natural surroundings, will facilitate wildlife management.
- Rural populations will change their incentives. Villagers who are often lured by smugglers into killing a wild tiger for a few dollars, will now defend their new environmental assets, because a live tiger will be more profitable to them than a dead one.
- In addition to attracting tourists through reduced pressure on wildlife, the farms can attract sportsmen through selective allocation of hunting licenses.
- As trade and marketing channels develop for both

consumptive and non-consumptive use of tigers, investment in better technologies and management practices will take place. National and international brands will appear. Tourism will increase.

A successful wildlife economy will help build awareness of the value of environmental resources. The price of the tiger in the black market will collapse, and legal trade will thrive. Investment will improve the productivity of wildlife farms, and assured supply and low prices will take the pressure off the wild tigers, allowing their numbers to revive.

Nothing would help the tiger and the other resources of our forests more than giving forest dwellers a stake in the resources in their vicinity and the opportunity to make a profit from them. A legal framework for tiger breeding would help resolve the conflict between the people and animals that has contributed to the tiger's drastic decline. Once people can profit from these resources, they will have the incentive to optimize the use of the resources. It is mostly forgotten that forest and wildlife, including tigers, are renewable.

Under such a framework, rather than being in conflict, humans and animals would both prosper. Commerce could be the most powerful ally of conservation.

### NOTES

1. Currently sponsored by the government of India, Project Tiger provides funding for 27 reserves covering about 1.14 percent of the land of India. The project, started in 1972 by the World Wildlife Fund, became a government program the following year.
2. "Our government will take all the required steps to protect the tiger and other endangered species. Man and animal have equal rights in living in harmony with nature," said the Prime Minister in a speech in New Delhi, April 8, 2005.
3. See, for example, 't Sas-Rolfes (1998) and Mitra (1995).

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- BARUN MITRA is the founder of the Liberty Institute, a research organization based in New Delhi, India ([www.libertyindia.org](http://www.libertyindia.org)). He recently served on an international team invited by the State Forestry Administration of the People's Republic of China to look at Chinese tiger conservation strategies. His previous article, "Poverty, Wealth, and Waste," appeared in the March 2000 issue of *PERC Reports*.

# THE QUEST FOR MORE WATER |

## WHY MARKETS ARE INEVITABLE

*S*ome readers might wonder why I, a liberal Democrat, spent this past summer as a fellow at a free-market think tank. The answer is that I believe that water marketing is essential if we are to prevent further damage to the environment from development. Where I probably depart from some of my PERC associates is that I believe government must play a critical role in overseeing markets to protect the environment and third parties.

We in the United States are heading toward a water scarcity crisis: We can't make new water; all the water there is, is. In July, the city of Las Vegas, New Mexico, froze new development due to a lack of water. The city expects literally to run out of water this month.

Such a dramatic action may become commonplace in future years. In a recent survey, 36 states reported that they expect to suffer water shortages in the next ten years, yet demand for new supplies is increasing dramatically, mostly due to the increase in population. We now number 300 million and will exceed 400 million by the middle of the century. Fights over water are no longer confined to the American West, as disputes involving the Great Lakes, the Delaware River, the Potomac River, the Roanoke River, and the Ipswich River suggest.

With such a disconnect between supply and demand, what are our options? The conventional answer is to build a dam, divert a river, or drill a well. Each of these options has significant environmental and financial consequences.

*In the face of water scarcity, what are our options? The conventional answer is to build a dam, divert a river, or drill a well. Each of these options has significant environmental and financial consequences.*

We have already dammed most rivers in the United States, some repeatedly. Few good dam sites remain. Even proposing a dam stimulates serious opposition and controversy. As for our rivers, we have decimated many of them, diverting so much water that they have literally run dry. I'm not merely talking about small creeks. Large rivers like the Colorado and Rio Grande no longer reach the ocean. Securing new supplies by diverting additional waters from rivers will come with a high environmental cost attached.

### OPTIONS DRYING UP

Recently, we have turned to groundwater as the panacea for water demands. But, as I show in my book *Water Follies* (2002), there is no free lunch. Think of an aquifer as a giant milkshake glass and think of each well as a straw in the glass. The law in most states permits a limitless number of straws in the same glass. That is a recipe for disaster, a classic illustration of the tragedy of the commons.

Groundwater pumping has severe environmental consequences. For example, the Ipswich River in Massachusetts has gone dry in five of the last eight years as a result of groundwater pumping. In Florida, a state that receives more than 50 inches of rain per year on average, scores of lakes have dried up due to groundwater pumping. In short, the conventional answers are not viable solutions.

Another option is to expand the supply of water. One technology that is getting considerable attention, especially in California, is desalination. But paraphrasing Winston Churchill, desalination is a technology that has great potential



*We have already dammed most rivers in the United States. The Chief Joseph Dam on the Columbia River, shown here, is the second largest producer of hydropower in the country.*

and always will. In certain localized areas, desalination may be a viable alternative. But for most situations it is incredibly expensive, involves the consumption of huge amounts of energy, and disposal of the intensely concentrated brine component creates a pollution problem.

Another option for expanding the supply is reuse of wastewater, municipal effluent. In Tucson, we have been using effluent to irrigate golf courses, parks, cemeteries, and other turf areas. In our future, the use of municipal effluent will increase, but it too has drawbacks. For one, it is a costly source of water, requiring a system of dual pipes. For another, scientists have recently discovered that even after wastewater has been treated, the water may contain endocrine disrupters, such as antibiotics. In short, reuse of municipal effluent offers an option for some circumstances, but it is not a silver bullet.

If we have limited ways to increase our water supply, what

are our options for reducing demand? On this front, we can do a better job of conserving water. State and local governments can play a critical role in developing water conservation programs. The cities of Tucson and Albuquerque have made great strides in reducing per capita water usage. Yet the population of both cities continues to climb, offsetting the conservation savings. Moreover, further conservation success may be difficult to achieve, as existing programs have already picked the low-hanging fruit, and higher fruit is harder to harvest.

States should avoid conservation standards that require elaborate monitoring because they may be neither cost-effective nor successful. An example of overly complicated regulations is a California program that mandates landscape audits performed by certified landscape design auditors who must meet “irrigation specialist certification standards.” The state requires landscape managers to pass state-established certifi-



cation tests, but the workers who actually set the meters are often undocumented workers from Mexico who lack the language skills and training to comply with the rules. Still, water conservation programs, both voluntary and state-mandated, can encourage or require water conservation.

At this point, the nation's water future looks rather gloomy. Our existing water supply faces threats, the demand for new supplies is increasing, and our options for increasing the supply or reducing demand appear rather limited. What can we do? What we have not seriously undertaken is to encourage the reallocation of water from existing to new users through market forces and price incentives.

Let's examine water pricing first. Even though water is a valuable resource, many Americans pay more each month for their cell phones and cable television than they do for water. Indeed, residents in some cities pay nothing for water. In Fresno, California, a controversy erupted in 2003 over whether meters should be installed in people's homes so that actual water use could be measured and paid for. Until now, city residents have been able to use as much water as they wish without any charge for it. Meters enable a city to insist that residents be responsible in their water use or pay financial consequences. The absence of meters has significance for water use. Fresno residents use about 300 gallons per capita per day but in neighboring Clovis, which has meters, water use is about 200 gallons per day. Sensible water pricing would encourage all water users to carefully examine how they use water, for what purposes, and in what quantity.

## RETIRING EXISTING WATER RIGHTS

Turning to market forces, new residential, commercial, and industrial development should pay its own way by being required to purchase and retire existing water rights in exchange for permission to build. Developers would retire a current water use as a condition for commencing a new use.

To those readers who are already committed to market-based solutions to environmental problems, what I am urging may seem elementary and an article of faith. To those more

suspicious of water marketing, I ask them to consider, what are the alternatives?

To both camps, I plead that the reallocation of water is imperative if we are to avoid the environmental degradation caused by damming rivers, diverting streams, and pumping wells. And if reallocation of water is to occur, it is surely better that the process be between willing sellers and buyers than through government rules and regulations. Allocations through the public sector would occur at the direction of elected politicians or at the discretion of bureaucrats. Allocation decisions made through the political process would typically result in the water going to the most powerful economic interests in the state.

That said, I am mindful of the problem of market failure. Markets have difficulty internalizing environmental values. Water may be an economic good but it's also a public resource. There will be a critical role for the government to ensure that water transfers do not harm the environment or third parties. In some situations, the government may decide to prohibit water transfers in order to protect valued and unique communities. For example, northern New Mexico's *acequias* are centuries-old subsistence-farming communities of Hispanic Roman Catholics. These communities conceive of water as a community resource. The state of New Mexico has a compelling reason to protect this rich culture's traditional water use, even though the use may have a low economic value.

In short, I support using price signals and water marketing as tools to encourage water conservation and water reallocation. For true believers and agnostics alike, these tools offer the best way to protect the environment.

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ROBERT GLENNON was a Julian Simon Fellow at PERC this summer. He is the Morris K. Udall Professor of Law and Public Policy and a member of the Water Resources Research Center at the University of Arizona. He is the author of *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters* (Island Press, 2002). For more on the ideas in this essay, see Glennon (2005).

# SURVIVAL OF THE SEA TURTLE |

## CAYMAN TURTLE FARM STARTS OVER

The first chapter of the Cayman Turtle Farm story did not end happily. But a new phase in this fabled effort to protect wild sea turtles has begun.

Wild sea turtles were declining rapidly when Cayman Turtle Farm Ltd. was created in the West Indies in 1968. The farm, located on Grand Cayman Island, hatched green sea turtles in captivity and raised them for meat. By selling these turtles, it reduced the incentive of poachers to take endangered wild turtles. The farm also released year-old hatchlings into the ocean and supported turtle research.

The farm quickly gained fame as an example of “enviro-capitalism”—entrepreneurial protection of the environment (Anderson and Leal 1997). “The net contribution to the survival of the green turtle has been enormous,” wrote R. J. Smith (1988).

Founded by the British businessman Antony Fisher (later Sir Antony), Irvin Naylor, a Pennsylvania businessman, and others, the Cayman Turtle Farm operated as a for-profit company until 1983. It never made the profits originally envisioned, however, largely because of regulatory restrictions fueled by environmentalists who distrusted farming. Eventually, the Caymanian government took it over.

Today, the farm has bounced back. With the opening of a new \$150 million facility to draw tourists from Cayman’s growing cruise ship business, the farm has created a domestic market for sea turtles that promises to fund conservation work in the future. Still owned by the government, the farm has again turned to the market as a tool to protect turtles.

### *TURTLES AND CAYMAN*

Columbus discovered the Cayman Islands in 1503 on his final voyage to the Americas and named the turtle-cov-

ered islands “Las Tortugas,” or the Turtles. (The name was later changed to Cayman, based on a Carib Indian word for crocodiles.) The first European visitors came to Cayman to hunt turtles for trans-Atlantic ships, whose crews kept the turtles alive on-board until they were needed for food. Once Cayman was permanently settled in the 1700s, locals quickly took up turtling for their own consumption as well as for sale to passing ships.

This history makes the turtles an important part of Caymanian culture. As my guide Darney Fellner told me during a recent tour, his forefathers have been turtle men as far back as he knows. While many Caribbean cuisines include turtle meat, it is an integral part of Caymanian cuisine, which recognizes seven distinct cuts of turtle meat and a variety of preparation methods.

As elsewhere in the world, sea turtles are overharvested. Unowned, they are subject to the tragedy of the commons. A variety of laws have been enacted to limit turtling, but poaching continues.

Sea turtles are particularly vulnerable because their eggs are laid on the beach. Once a year, some females come ashore to lay eggs in the sand, making between five and seven nests per season and laying between 100 and 180 eggs per nest. After burying the eggs in the sand, the mothers return to the sea—perhaps for years. When the young turtles hatch 60 days later, they dig their way to the surface, where they are easy prey for predators—avian, marine, and human—as they make their way to the water. Although natural hazards are severe, human intervention can worsen the odds. Lights from beachfront developments disorient young turtles, fishing and shrimping nets can drown them, and plastic debris that the turtles mistakenly eat can kill them. According to the Caribbean Conservation Corporation (2006), “only an estimated one in 1,000 to 10,000 will survive to adulthood.”



*The Cayman Turtle Farm hatched green sea turtles in captivity and raised them for meat. By selling these turtles, it reduced the incentive of poachers to take endangered wild turtles.*

## *A PRIVATE BEGINNING*

Mariculture Ltd., the original name of the farm, started with a stock of eggs collected from nests below the water line and on eroded beaches, eggs that had little chance of successful hatching or of turtle survival.<sup>1</sup> The founders hired former turtle poachers and set about learning how to raise the turtles in captivity. Using revenues from turtle product sales at home and abroad, the company funded research on sea turtles and released thousands of year-old turtles into the sea. By employing former poachers, the company both reduced the danger to turtles in the wild and allowed a number of Caymanian turtlers to continue working in the industry that had defined island life for hundreds of years.

In the mid-1970s, the United States listed the green sea turtle as endangered under the Endangered Species Act. This closed off U.S. markets and ended the farm's ability to ship through U.S. ports and airports. Then in 1979 the Conven-

tion on International Trade in Endangered Species (CITES) changed the interpretation of its exemption of "bred in captivity" animals. This excluded the first generation of turtles born in captivity (because they may have come from eggs laid by wild turtles). This happened just as the farm announced that its captive breeding program had successfully produced its first generation of turtles. As the then-CEO of Cayman Turtle Farm explained in 1980, the convention's language exempting animals "bred in captivity for commercial purposes" was repeatedly re-interpreted by opponents of the farm to stop the farm's sale of turtle products (Johnson 1980). This led additional countries to close their markets. With the loss of its international markets, the company's economic model collapsed.

## *A UNIQUE SETTING*

In 1983, the Caymanian government stepped in to save the farm. It purchased the company and has since operated it

as a government-owned corporation. For many years the farm primarily supplied meat to the local market. This limited the company's profits and reduced the funds available for funding research and release programs. Even so, the farm released over 28,000 turtles into the waters surrounding the Cayman Islands (Cayman Turtle Farm 2006).

Government ownership of resources is often problematic. Without a real owner responsible for profits or losses, there are few incentives for careful husbandry or innovative programs. But the Cayman Islands are known for a vibrant financial sector. Cayman is the fifth largest financial center in the world, home to more than 500 banks, thousands of corporations, insurance companies, and hedge funds. The financial sector makes an important contribution to the islands' high standard of living. Cayman is ranked eleventh worldwide in GDP per capita, an astounding achievement for a tiny nation with no natural resources.

Cayman's success in the financial sector helps explain how the turtle farm has prospered even though it is now publicly owned. Not only does the financial sector require a stable, well-run government, but the country itself is constantly engaged in an entrepreneurial struggle for financial business with both large countries and other offshore jurisdictions (Johnson 2001). The government's entrepreneurial efforts to boost the financial sector and its extensive experience with business undoubtedly contribute to the success in creating a publicly owned vehicle for the turtle farm that both protects the farm from politics and encourages the farm's efforts to expand its business model.

## TURTLES AND TOURISTS

Unable to ship turtle products to consumers outside the Cayman Islands, the farm reinvented its business model to focus on the tourist trade. More than 2 million tourists visit Cayman annually, including more than 1.5 million cruise ship passengers. Although the farm has long offered tours, its early offerings were rudimentary—primarily an opportunity to see concrete tanks of turtles, to hold a young turtle, and

visit a small gift shop that sold clothing with turtle designs and souvenirs. Since visitors could not take turtle products home, the shop could not sell actual turtle products to most shoppers. On my earliest visit, in 1998, I left disheartened at the shrunken state of a once vibrant business that had the potential to reinvigorate the sea turtle population.

But the new \$150 million facility makes the farm much more attractive to tourists. The farm today has more than 11,000 turtles and 400 breeders. This is down from the 16,000 turtles before Hurricane Michelle in 2001 (which washed many turtles out to sea, including 70 percent of the farm's breeders), but the farm is rebounding from those losses.

Visitors can now see turtles swimming in a much larger artificial lagoon, watch them lay eggs and see the eggs hatch on the lagoon's beach (during the appropriate seasons), visit an aviary of Caribbean birds, snorkel in both fresh water and

salt water pools with hundreds of varieties of fish, and view marine predators such as various sharks. The new facility also includes a cafeteria and a new, expanded gift shop, although the international bans on turtle products continue to restrict the shop's offerings. If successful, these new attractions will boost the farm's profits and allow it to expand its research and release programs. The farm already has a partnership with St. Matthew's University Veterinary School, running programs to raise awareness

about the problems of beach lights during hatching season and providing meat and other turtle products for the Caymanian market.

## LESSONS LEARNED

The ongoing story of the Cayman Turtle Farm has several important lessons for environmental protection efforts around the world. The early experience under private ownership demonstrated how creating a market for products from a species can enhance the species' chances for survival. The collapse of that market following the ESA and CITES listings showed how even well-intentioned government solutions can lead to less environmental protection rather than more.

The integral role of sea turtles in Caymanian culture also



Visitors can view sea turtles in all stages of development at the Cayman Turtle Farm on Grand Cayman Island.

offers another important part of the story. We regularly hear complaints that global markets reduce cultural diversity. But by providing turtle products for the local market and keeping Caymanians employed in the turtle industry, the farm is helping preserve a unique aspect of Caymanian culture.

Cayman Turtle Farm's recent revitalization gives hope that you can't keep a good market down. By creating a method for tourists to enjoy sea turtles on the island, the farm found a way around the roadblocks to commercialization created by international and American regulators.

Unfortunately, the new market is not a complete substitute for the old market. When turtle meat and other products could be marketed internationally, the farm was able to produce a wider range of turtle products for sale. Sea turtle shells, for example, can be made into many decorative items, but most of the shells from harvested turtles now have no market and are simply wasted. Turtle oil, from the fat, was once widely used in the cosmetics industry but can no longer be sold internationally.

Cayman Turtle Farm Ltd. deserves praise for its entrepreneurial efforts. However, its success cannot distract us from

the devastating impact of American and international regulators' unwillingness to accept a role for markets in preserving endangered species.

#### NOTE

1. For an in-depth discussion of the turtle farm's history, see Fosdick and Fosdick (1994).

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PERC Senior Fellow ANDREW MORRIS is the H. Ross & Helen Workman Professor of Law and Professor of Business at the University of Illinois College of Law, Champaign Urbana, Illinois. He regularly visits the Cayman Islands, where he makes a point of helping create a market for turtle products by eating turtle steak and soup.



# HUNTING FOR CONSERVATION

## “BARONS OF PRESERVATION” IN THE RED HILLS

To most of America, the gentleman's sport of quail hunting is now a caricature composed of a gun-toting vice president and his errant shot. Less well-known is the fact that wealthy landowners' pursuit of this small game bird has preserved large upland ecosystems and fostered the science of fire ecology. This is particularly evident in the Red Hills plantation country between Tallahassee, Florida, and Thomasville, Georgia.

Designated one of America's "Last Great Places" by the Nature Conservancy, the Red Hills' 300,000-plus acres are home to more than 60 different state and federally protected plants and animals, including the gopher tortoise, Bachman's sparrow, Sherman's fox squirrel, and the red-cockaded woodpecker (Tall Timbers Research Station 2003). The natural diversity includes forested savannahs of wiregrass on lands that rise and swell, longleaf pinelands, and stately lone live oaks with the green-gray tinsel of Spanish moss. Some areas average over 50 different plant species per square yard. The region is one of the last refuges of the old-growth longleaf pine forests that once spanned 90 million acres from Texas to Virginia.

The northern bobwhite quail—with its quick movement, explosive covey bursts, and unpredictable flight—represents the gold standard for upland bird hunters, and the Red Hills are a destination point for businessmen, politicians, and celebrities eager to test their reflexes against this spirited ad-

versary. Quail hunting, which attracted the resources of affluent landowners to land management and led to the use of prescribed fire, has made the Red Hills ecologically rich.

### *A RESORT FOR NORTHERN INDUSTRIALISTS*

Once the home of antebellum cotton farms, the Red Hills became a winter resort for well-heeled families from the Midwest and Northeast after the Civil War. Soon after spending winters there, industrial capitalists in the coal, oil, and banking businesses began buying up the played-out farms and piney woodlands for hunting preserves. They represented the A-list of American business and finance—top executives of John D. Rockefeller's Standard Oil, associates of Andrew Carnegie, and the family of nineteenth-century political boss and senator Mark Hanna.

These wealthy sportsmen were motivated by enlightened self-interest. Private retreats for hunting not only satisfied a recreational need but were a supreme setting for conducting business and networking.

By converting the large tracts to hunting, these "barons of preservation"<sup>1</sup> began the land's long healing process from past agricultural uses by both white settlers and American Indians (Tall Timbers Research Station 2003, 10).

Thanks to quail hunting, lands were no longer plowed or cut over as intensely as in the past. Weeds, grasses, and pines were allowed to grow, providing cover and forage for the landowners' star attraction and a safe haven for other wildlife and bird species.

*Wealthy landowners' pursuit of a small game bird has preserved large upland ecosystems and fostered the science of fire ecology. This is evident in the Red Hills plantation country between Tallahassee, Florida, and Thomasville, Georgia.*

## THE BIRTH OF FIRE ECOLOGY

At first, the hunting plantations flourished. Then, in the 1920s, to the alarm of the Red Hills landowners who thought they were doing everything right, the number of quail in the region began to decline. For food and protection, quail need a special balance of open pinelands, weedy fields, and scattered grass that produces seeds. One of the primary tools for maintaining this balance is fire. But government policies were aggressively discouraging landowners from burning their forests.

Spurred to action, Red Hills landowners raised \$46,000 of their own money to finance the studies of a young biologist from Wisconsin named Herbert Stoddard. Stoddard argued for controlled fires to clear the thickets of hardwoods and vines that shade out the grassy cover used by quail for food and protection from predators (Stoddard 1931). Quail populations in the area rebounded as plantations adopted Stoddard's controversial burn policies. And out of this privately led effort came the creation of Tall Timbers Research Station in Tallahassee, one of the nation's premier research organizations in support of fire ecology.

Since then, according to editor Vic Venters of *Shooting Sportsman*, the novel partnership between science and private enterprise has continued to bear remarkable fruit (Venters 2005). "Unlike many public areas," he writes, "plantations could, on the turn of a dime, modify land-management techniques on a large-scale basis to suit biologists' fast-evolving needs." Landowner support continues to pay for long-term field studies on fire ecology, and researchers have access to properties that are now home to an array of plant and animal life.

The Red Hills is proving to be an exception to sagging quail numbers in the Southeast. Since 1980, bobwhites outside the plantation community have been declining at a rate of 4 to 5 percent a year in the southeastern coastal plain ecosystem. But the coveys per hour and the number of quail found on the well-managed plantations of the Red Hills have been consistent, if not increasing.

## THE GOVERNMENT ALTERNATIVE

Private landownership continues to be the best way to protect the natural beauty of the Red Hills. In fact, it may be

the Red Hills' only chance for survival. Government would quite likely create disincentives to stewardship.

For example, there has been talk of listing the bobwhite quail as a protected species under state statute. However, without quail hunting, landowners would have little incentive to dedicate their own resources for management of the bird and its habitat. This would negatively affect other native wildlife, including the more than 60 protected species dependent on fire and thinning.

Still worse, the loss of hunting in the Red Hills would eliminate the hunting plantation's "reason for being." Without hunting, these lands today would likely be farms, commercial pine plantations, or suburbs of Florida's state capital. "There is a debt of gratitude owed to the plantation community," says Bill Palmer, chief quail biologist for the Tall Timbers Research Station. "If these lands were public in the condition they are today, the bill for management would be unfathomable."

Another government response includes conservation land purchases. But here again the private landowners are providing leadership. Already, Red Hills plantation owners have placed nearly 90,000 acres into private conservation easements. Competing with developers to purchase scenic upland parcels would break the bank for most governments.

Lastly, management of these lands is intensive and expensive—costing between \$90 and \$120 per acre each year on many plantations. The public sector would be unlikely to match the enormous resources or the focus on management practices. As Stephen DeMott, land manager for the 16,000-acre Pinckney Hill Plantation, notes, "Private land managers in the Red Hills have a goal. Public land managers would likely have many competing sources of decision-making. The public land manager is like a substitute teacher, trying not to mess up too bad."

In the end, the greatest threat to the Red Hills may prove to be the declining popularity of quail hunting and fragmentation of the land as holdings are divided among younger generations. Florida officials have already noted with alarm the decline of quail hunters from more than 80,000 in the early 1970s to fewer than 15,000 today (Corbett 2005).

## THE PRICE OF EXCLUSIVITY

It would be easy to criticize the plantations of the Red Hills for their exclusivity. Indeed, only a fortunate few have





*A covey of quail flushes during a hunt in the Red Hills country of Florida.*

the opportunity to hunt these special properties. But opportunities are expected to increase in the future as landowners utilize the bobwhite quail as a revenue-producing amenity that can offset some of the management costs.

DeMott estimates that 40 percent of the plantations are already providing some paid access. The price tag reflects the quality of the hunt provided: Plantations have been known to charge between \$12,000 and \$15,000 a day for four wingshooters. “Within the last 10 years, we have seen a more open market begin to develop for leasing lands to hunters,” says Tall Timbers’ Bill Palmer. “It is not unusual to see some of these plantations lease their properties for four to six weeks a year.” Other plantations, such as Pinckney Hill, offset management costs by leasing some of their lands to small farmers, who help provide a diversity of habitat for quail with weedy crops and fence rows. As Venters (2005) observes, “The private plantations have performed enormous public service . . . plantations here and elsewhere have helped preserve—at no cost to the public—ecosystems that are imperiled elsewhere in the rapidly developing region.”

Plantation country will likely remain a mysterious place

for those of us who will never set foot on these private properties. However, for the rare songbirds, protected species, old-growth longleaf forests, and native ground cover, this could be as good as it gets. Without continued interest in the sport, the Red Hills would not be what it is today and it would be something altogether different in the future.

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1. This term was coined by Anderson and Leal (1997).

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BRIAN YABLONSKI is an adjunct fellow with PERC and a member of the Florida Fish and Wildlife Conservation Commission.



# URBAN SPRAWL

Urban sprawl is a phenomenon that many people love to hate. Surprisingly, there is little systematic evidence on how much sprawl there is or what causes it. Recent research by Burchfield et al. (2006) goes far in illuminating both of these issues.

The authors base their definition of urban sprawl on the average proportion of land that is undeveloped within a kilometer of each building in a metropolitan area. More open space means more sprawl. Using high-altitude photographs spanning 1976 to 1992, the authors demonstrate that although commercial sprawl increased a bit over this period (primarily due to businesses joining consumers in the suburbs), there was *no* increase in the degree of residential sprawl—the proportion of undeveloped land around residences. (The study stops in 1992 because it takes a long time to convert high-altitude photographs into usable information on economic development.)

To be sure, population in America grew over this period. Thus 1.9 percent of the country's contiguous land area was developed or paved by 1992, up from 1.3 percent in 1976. But the added residential development did not yield any increase in urban sprawl: On balance, new residential development has been just as compact as existing development. New development on the urban fringe does tend to increase sprawl, something that is obvious to all of us who see it. But this development is accompanied by “backfilling,” i.e., building on vacant land closer to the core of the metropolitan area, which has an offsetting effect. This second effect (which many of us don't notice) has turned out to counterbalance the first force. Thus, as population has grown, cities have gotten larger, but they are not any less compact.

This national pattern is accompanied by widely differing sprawl patterns across metropolitan areas. Atlanta and Pittsburgh, for example, are about three times as sprawling as Miami, where only 20 percent of the land within the metro area is not either paved or occupied by buildings. Meanwhile, sprawl in Boston and Los Angeles increased between 1976 and 1992, but it decreased in Atlanta and Phoenix over this period. Thus, the authors go on to ask, what determines the amount of sprawl in a city? The answers are not always what you might expect.

Perhaps most surprisingly, the authors find that there is less new sprawl in cities that are growing rapidly. In such locales, inhabitants seem to realize that any space left open

today will be met with demands to build on it tomorrow. Hence, neither private developers nor public officials want to leave much open space behind as development proceeds outward. Steady growth (whatever its speed) also reduces sprawl. In contrast, when growth in a city is erratic over time, speculative demand keeps parcels of land vacant within developed areas. Owners recognize that

rapid future growth might yield a sharp jump in the developed value of such land.

Cities that developed large cores (and thus public transit systems) before the automobile tend to have less sprawl today. Nevertheless, the authors find that building new roads around the urban fringe does not increase sprawl. Instead, new development that comes in response to those roads mimics the existing density of the adjacent city. Climate, on the other hand, plays a key role in creating sprawl. Cities with warm winters and cool summers tend to sprawl, because all that nice weather increases the demand for open space.

*New roads and rapid population growth are not the cause of urban sprawl, and impact fees and mass transit subsidies will not stop it.*



*View of Phoenix, Arizona, from a plane window, April 2, 2002. Sprawl decreased in Phoenix between 1976 and 1992, according to an econometric study.*

When there is a sharp difference in the extent of zoning regulations between a city and its urban fringe the result is more sprawl. Nationwide, “leapfrogging” of development (defined as development more than a kilometer from existing development) is rare. But it does tend to occur where developers find that they can avoid strict zoning rules by building in outlying areas that have little or no regulation. One implication is that increases in impact fees on new development in a city may actually make urban sprawl worse, as development leaps outward to avoid the fees.

One of the major public policy developments of the period covered by this study was increased transfers of money from the federal and state governments to local governments. The authors find that cities that received more of such funding—often used to subsidize public transit or build sewers or other infrastructure—experienced the most sprawl. Essentially, intergovernmental transfers subsidize sprawling development on the urban fringe. Local taxpayers who otherwise would have to help pay for the infrastructure underlying such development no longer must do so when taxpayers elsewhere foot the bill. Hence, local voters are less inclined to object to

such development. The result is more sprawl.

Given the long lead times in preparing the data needed to study urban development, it will be some years before we know whether the compact development observed from 1976 to 1992 has continued. Nevertheless, this study’s robust findings on the causes of sprawl are likely to apply to more recent development, whatever its character. And the lessons for now and the future are clear: New roads and rapid population growth are not the cause of urban sprawl, and impact fees and mass transit subsidies will not stop it. Indeed, if the future looks anything like the past, perhaps urban sprawl is something we should simply stop worrying about.

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DANIEL K. BENJAMIN is a PERC senior fellow and Alumni Distinguished Professor at Clemson University. This column, “Tangents—Where Research and Policy Meet,” investigates policy implications of recent academic research. Benjamin can be reached at [wahoo@clemson.edu](mailto:wahoo@clemson.edu).



## WALKING ON RUBBER

If you have ever been out for a stroll in your flip-flops and stubbed a toe on a cracked sidewalk that resembles a mogul run, you will appreciate the dream that Richard Valeriano had one night. As senior public works inspector for the city of Santa Monica, he spent his days staring at sidewalks tilted at dangerous angles by growing tree roots. In his night-time dream, he saw rubber sidewalks undulating smoothly as if across ocean waves.

The dream became a reality with the help of various partnerships, and today more than 60 cities in North America are graced with pavers from Rubbersidewalks, Inc., in Gardena, California. The rubber pavers are manufactured in California and shipped to the building sites. They are then laid down over a bed of crushed granite and connected by an interlocking system of dowels. The pavers can be easily cut to fit at the site, and if any are damaged, the dowels are unlocked, and a new paver is inserted.

The rubber pavers can be draped over bumpy tree roots and still maintain a smooth, safe walking surface. The alternative in many cities is to cut down the trees with the offending roots, leaving carefully landscaped and shady streets barren of vegetation. The value of big old trees far exceeds that of the more expensive rubber pavers for most people who live on or walk those streets.

While there is no shortage of raw material as Americans discard 290 million tires a year, the pavers are still two to three times more expensive than concrete. On the other hand, city officials can appreciate the higher cost of the pavers when faced with losing mature trees, replacing buckled concrete, and dealing with expensive lawsuits related to falls on cracked concrete sidewalks.

The demand for this new material continues to grow, and Rubbersidewalks plans to open a second factory in Lockport, New York, this fall, thus reducing shipping costs to East Coast sites. It appears that a new era is dawning in the world of sidewalks. Americans can look forward to fewer stubbed toes,

skinned knees, and even broken bones as rubber pavers spread through our neighborhoods.

—*Christian Science Monitor*

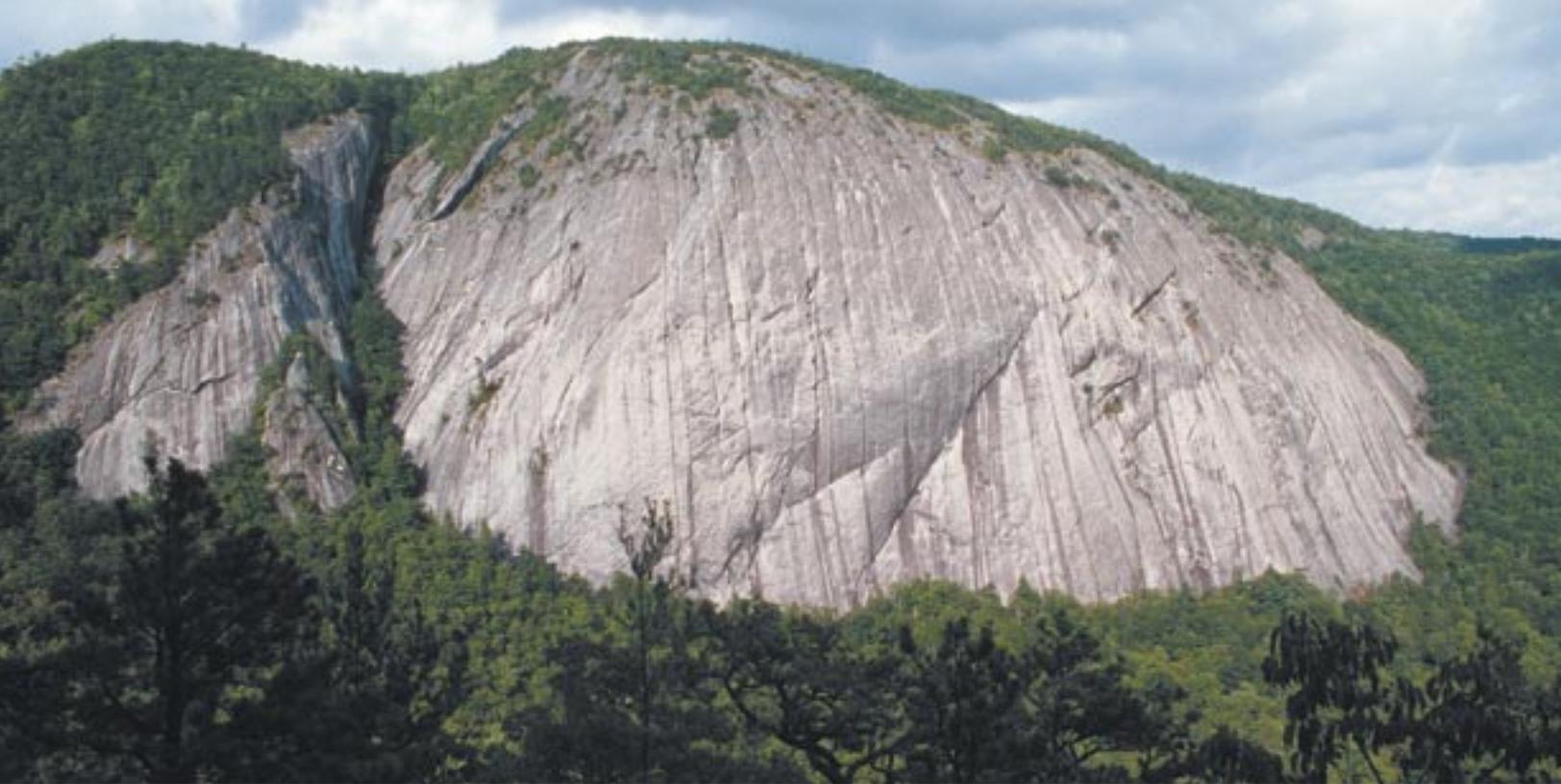
## CANDY WRAPPER FASHION

Tired of the same old Prada purses? So many people are. Fortunately a few high-end specialty boutiques and even Bloomingdale's have an entirely new line of shoulder bags, clutches, and coin purses that are delightfully colorful and eye-catching. Imported from Mexico, they have been woven from the discarded candy wrappers, potato chip bags, and cookie packages that once filled Mexican dumps and littered the roads.

The women who weave these fanciful accessories have had a huge and positive impact on their families. They contribute enough money to the family income that their husbands are able to remain at home to work the land, rather than take their chances on an illegal border crossing and a rough life in the United States in order to support their families.

The idea originated with the nonprofit Grupedsac (Group for the Promotion of Education and Sustainable Development). Since 1987, it has been helping Mexican Indians become self-sufficient and also preserve the environment. Eight years ago, a visitor to Grupedsac taught a group of women how to weave change purses from nonbiodegradable packaging. Inspired by her novel approach to the trash that was all too common in their neighborhoods, the women put their creativity to work and were soon making backpacks, bracelets, earrings, and placemats. One elegant black-and-white purse was made from hundreds of bar codes, and a stunning, shimmery, copper shoulder bag was the end product of weaving together chocolate wrappers turned inside out. They even expanded their line to create belts from metal beer-can tabs.

At first the woven items were sold to boutiques in Mexico, but when one young woman took her purse to Palm Beach, it caught the attention of a British textile manufacturer and his wife. They were attracted not only by the design, but the



*Laurel Knob in western North Carolina is the tallest crag east of the Mississippi.*

socially conscious origins of the product.

Known as Sweetie Purses, they are available at Bloomingdale's or online at [www.Sweetiepurse.com](http://www.Sweetiepurse.com).

—Associated Press

## PLAYING WITH THE BIG ROCKS

For many years, rock climbers in western North Carolina could gaze upon Laurel Knob from afar, but could not climb it. Laurel Knob is the largest crag in the eastern United States, rising 1,200 feet from its base. Standing just at the edge of the Nantahala National Forest, the rock itself is on private property and surrounded by more private land, making it virtually inaccessible to the public. However, the aging bolts and anchors buried in the giant rock prove that more than a few climbers have stood atop the legendary, but forbidden, Laurel Knob.

Rather than sneak across private property and onto the luring private rock, John Myers combined his love of climbing and interest in conservation easements to find a solution. He wanted to make it so all comers could take their chance on Laurel Knob—openly and legally. With that in mind, he joined with the Carolina Climbers Coalition (CCC) and went after the knob. Tracking down the owner in Charleston, the

group spent two years surveying and negotiating before Tom German agreed to sell the property for \$250,000, a bargain compared with other land prices in the area.

At that point, the CCC went into overdrive raising \$100,000 from people in 35 states, seven countries, and five continents in just seven months. It also secured loans for the remaining \$150,000. Once the deal was struck, CCC worked with the U.S. Forest Service to build a one-and-a-half-mile trail from a parking lot to the base of the knob. While climbers may flock to the area, other recreationists also enjoy the rock from below, including the hike to it, and the water that flows off the granite forming the headwaters of the Horse Pasture River. Meanwhile, the old anchors and bolts have been replaced and the CCC is busy with fund-raising activities to pay off the loan.

As more people are attracted to adventure sports such as rock climbing, kayaking, and mountain biking, private parks to accommodate them may become a fast-growing part of the recreation industry.

—Asheville Citizen-Times

LINDA E. PLATTS is PERC's editorial associate and Web site manager ([www.perc.org](http://www.perc.org)). "Greener Pastures" showcases market approaches to environmental protection and natural resource use. Send your suggestions and comments to her at [linda@perc.org](mailto:linda@perc.org).



## BACKLASH |

The name “Kelo” became a household word last summer when the U.S. Supreme Court ruled that the city of New London, Connecticut, had the right to use its eminent domain powers to take property without consent but with compensation from one private owner, Susette Kelo, and sell it to another private owner who would contribute more to the tax base of the city.

Though the ruling was a legal setback for property rights advocates (such as the Institute for Justice, which argued the *Kelo* case in the Supreme Court), it sparked a nationwide movement to rein in eminent domain powers. From Ohio to Oregon, courts and legislatures have been asked to reduce their power to regulate private property. In Montana and six other states, ballot initiatives this fall will determine whether state and local governments can take property through regulation without compensating the owners.

Such initiatives are a response from citizens who think that their politicians have gone too far. Susette Kelo is an ordinary citizen who no doubt understands that governments may need the power of eminent domain to build roads or schools, but using that power to transfer property from one private owner to another went beyond government’s appropriate scope.

PERC scholars Robert Fleck and Andrew Hanssen (who can be contacted at [perc@perc.org](mailto:perc@perc.org)), argue that there is nothing new in this backlash. Throughout the nineteenth century, courts were asked to roll back the use of eminent domain powers. When the courts failed to do so, as in *Kelo*, citizens took the initiative to rein in their political representatives. The same holds in the twenty-first century.

A July 24 article in the *High Country News*, a publication “for people who care about the West,” carried a headline, “The wrong vote this November could CRIPPLE YOUR GOVERNMENT.” Ray Ring, a *High Country News* editor and author of the article, argues that takings initiatives are a libertarian conspiracy to “derail all future efforts” to regulate such things as cyanide process gold mining, urban sprawl, and Wal-Mart-type box stores.

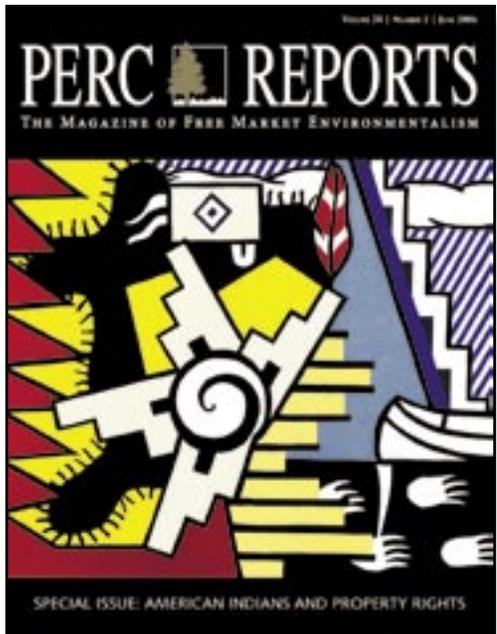
Ring is correct that the takings initiative movement is broader than restricting the government’s ability to use eminent domain, but his and others’ opposition misses an important point about these initiatives. Initiatives such as Montana’s I-154 don’t necessarily “derail” land-use regulations, but they do shift the cost from the landowners to the taxpayers. Regulations can still be adopted; but if they are judged to reduce property values, the cost will be borne by the public taxpayers who are demanding the regulation in the name of public goods—rather than by private landowners. (By the way, regulations for health and safety are not affected by this initiative.)

For example, open-space regulations limiting where and how many houses can be built arguably generate a public benefit. If taxpayers have to pay for such regulatory takings—rather than forcing a private owner to pay for them—they may prefer fewer of them. But this is just the law of demand telling us that raising the price of regulation will reduce the demand for it—“derail” it, in Ring’s terms.

The extent to which takings have gone too far is revealed in a statement by Montana Governor Brian Schweitzer regarding the state’s effort to require access to private waterways. He was quoted in the *New York Times* (July 26) as saying, “If you want to buy a big ranch and you want to have a river and you want privacy, don’t buy in Montana. The rivers belong to the people of Montana.” Given such statements, you don’t have to be a libertarian to vote for regulatory takings initiatives.

The governor’s statement was aimed at wealthy out-of-state landowners, but *Kelo* made ordinary people realize that the government’s power to regulate or take private property, with or without compensation, doesn’t affect only the wealthy. Takings initiatives give voters a chance to say how far regulations can go without compensating landowners when their property values are reduced by land-use regulations.

In addition to being PERC’s executive director, TERRY L. ANDERSON is a bow hunter. In his “On Target” column he confronts issues surrounding free market environmentalism. Contact him at [perc@perc.org](mailto:perc@perc.org).



## DIFFERENT CONSTRAINTS

The various articles in your special issue (“American Indians and Property Rights,” June 2006) together illustrate a series of fundamentally important points.

First, American Indians are just like anyone else, except that they face different structures of costs and rewards, to which they respond, like anyone else. Above all, they face different governmental constraints. Those differences in rewards, costs, and constraints are what make Indians unusual in this country. They are not different because they were somehow created with different values.

What we know about property rights applies just as much to Indians as to anybody else. The ability to own (and thus to profit from) property is a powerful incentive to maintain assets so as to maximize their value, on or off the reservation. Users of rental cars don’t wash them; only the owners do. That is true regardless of where the car is located. Ownership spurs stewardship.

Indians have lived through two distinct phases in their dealings with whites. During the first, more celebrated phase, they lost military battles over who would own large blocks of land. Since then, they have lost political battles over who would own what the American government did not take militarily.

Indians have been repeatedly unsuccessful in getting the government to recognize the sorts of property rights accorded other Americans. A century or so ago, the political battles concerned ownership of land on Indian reservations. Today, the battles concern Indians’ ability to profit from their land (including their right to use the land for gambling) and who will own the revenues generated by the assets (be they from timber or from slot machines).

The solutions to Indians’ ongoing problems should seem obvious to most non-Indians, but somehow they do not—yet. Articles such as those in June’s *PERC Reports* can only help to make clearer the true nature of the problems and their solutions.

*Fred S. McChesney*

*Class of 1967 James B. Haddad Professor of Law and Professor of Management and Strategy  
Northwestern University, Evanston, Illinois*

I have lived on or near reservations for over 50 years. My wife is proud of her Ojibway ancestry—her great-great-grandmother split before reservations were invented.

We frequently drive from our present home to visit our children in Alberta, crossing the Montana Blackfoot Reservation and associated Blood and Peigan Reserves in Canada. The people of this so-called Blackfoot Confederacy have long been known as a handsome, stately bunch, equal in every way to their European neighbors. But what a difference in economic opportunity, though the land they inhabit is some of the choicest rangeland on the continent!

Entering a western Indian reservation is like crossing

into Eastern Europe in Cold War days: unimproved farm yards, scattered junk, cluttered fence lines, and a pitiful standard of living compared with “outside” neighbors. Those independent neighbors (of any ethnicity) have prospered on similar land for generations.

The problem is precisely “frozen capital,” as described in the June *PERC Reports*. How can any Indian farmer, rancher, or entrepreneur borrow for improvement against assets fixed to unclear land and therefore unavailable as collateral? The special sovereignty accorded Indian tribes turns them into “sovereign” Third-World nations.

*Sherm Ewing*

*Great Falls, Montana*



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## FEATURES

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