

CONSERVATION WITHOUT REGULATION:  
PROPERTY-BASED ENVIRONMENTAL PROTECTION

*University of Cincinnati, March 19, 2009*

**JONATHAN H. ADLER**\*: It's a pleasure to be here on this fine afternoon. What I want to do is briefly sketch why we should think about protecting the environment in a radically different way than we currently do.

The way we have gone about protecting the environment has not been particularly effective, and one reason for that is because it doesn't pay enough heed to certain traditions which have served our country quite well, particularly the institution of property rights. I'm going to start with the Endangered Species Act (ESA), because it is, I think, one of the most popular environmental laws, but I think one that has had the most startling results.

In the 35 years since the ESA was enacted, we have listed over 1,800 species as endangered or threatened. The goal of the Act, according to its own terms, is to recover species that are defined as endangered, to get them to the point that they no longer need to be on the list. Being on the list is kind of like being in the emergency room. It means the species is in trouble; it means it might not survive. We want it out of the emergency room. We want species populations to be healthy so they don't need this extraordinary protection.

Well, in 35 years 46 species have been taken off the list, and that was as of a week and a half ago—46 out of over 1,800. That's a pretty small number, but it's actually worse than that, because if you go to the Fish & Wildlife Service website and look at species delistings, and you look at the reasons for each one that has been taken off the list, you see that 26 of those 46 were taken off the list either because they went extinct—clearly not a success—or because there were data errors—we miscounted how many there were, we thought something was distinct taxonomically, we thought it was a distinct population segment, or something like that, but we listed it in good faith and we just made a mistake. We didn't know as much as we thought we knew about the species.

So, there are 20 species that have been taken off the list because they're actually doing better. But the story actually might be worse than that when you look at those 20. Species like the peregrine falcon and the brown pelican, for instance, are certainly doing better, as are quite a few other birds that were listed as endangered. Yet they are doing better because we banned DDT in 1972, the year before the ESA was enacted. So while they are doing better, it is hard to credit the ESA with their success.

We can identify several other species that used to be listed which are now doing better, such as species of kangaroo in

.....

\* Jonathan H. Adler is Professor of Law and Director of the Center for Business Law & Regulation at the Case Western Reserve University School of Law. A prolific writer, he was recently identified as the most cited academic in environmental law under age 40. A graduate of Yale College and George Mason University School of Law, he is the author or editor of three books on environmental policy. The Federalist Society conferred its Paul M. Bator Award on Prof. Adler in 2004.

Australia, but they're not here in the U.S. The ESA, in particular the regulatory provisions which I will focus on, can't really claim any credit for that. There are small species of deer that are doing better, too, but largely because of predator control. The species in this category came back because we finally started doing some very basic things in terms of habitat management, largely on federal land. But not one of the species that has been delisted was recovered by the primary regulatory provisions of the Act, the provisions that restrict private land use in order to preserve the habitat of endangered species. Not one recovery in 35 years can be attributed to that portion of the Act.

That's not just an isolated statistic. There is actually a causal relationship. The way we try to protect the species, the premises upon which the law rests, prevents our saving species on private land. That should be particularly concerning to us, because the majority of species that are listed rely upon private land for some or all of their habitat. If we don't save them on private land, we probably won't save them. So how the ESA works on private land is of essential importance.

Why doesn't it work on private land? The problem is the incentives it does and does not create for land owners, as Sam Hamilton noted in the 1990s. Hamilton was the official monitoring service administrator for the State of Texas. Texas has very little federal land and very little government land at all—almost all of Texas is private land, which is relatively unique for states west of the Mississippi. So unlike some other western states, there is really no way to save species other than on private land because there is no land other than the private land.

As Hamilton explained, if I were to find rare metal on my property, its value goes up. If a rare bird occupies the land, its value disappears. When you find something, like a valuable mineral, you can use it, you can sell it. It's worth a lot of money. Your land value goes up. In Texas, you could find oil. But if a black-capped Vireo or a golden-cheeked Warbler comes to your land, all sorts of restrictions follow, your ability to sell that land declines, your ability to use that land declines, and the value of that land does as well. So, we're penalizing landowners who have, deliberately or not, managed their land in a way to make it attractive to endangered species.

Larry McKinney, who was the Director of Resource Protection for the Texas Department of Parks and Wildlife, also said in the 1990s that while he didn't have any evidence to prove it, he thought these incentives were so great that at least for the species he was concerned about—the black-capped Vireo and golden-cheeked warbler, which are a big focus in Texas, two of its listed endangered species—that he thought more habitat had been lost because of these incentives than if they had never been listed at all.

Since these statements were made, we actually now have some empirical evidence. There was a period of time where all the accounts were anecdotal. Individuals would recount the particularly egregious case of a single land owner. There's a man in North Carolina named Ben Cone who has been much written

about. He managed his land very successfully for habitat for various types of wildlife. A lot of red-cockaded woodpeckers showed up. His ability to maintain different practices on his land was curtailed. He clear-cut most of the remaining portions of his land to prevent them from being regulated. And then it became an issue at a Senate hearing, and he was given a special permit that was not quite illegal but was pretty clearly thrown at him to make him shut up and go away.

We have other anecdotal accounts. In the *Federal Register* when the Fish & Wildlife Service would refuse to designate critical habitat, sometimes we'd have these oblique lines about how we don't do it because designating critical habitat might cause stress to that habitat. Everyone knew that meant that in the areas where people were afraid of these effects, people will basically go out and prevent the creation of (or actively destroy) species habitat.

But we now have empirical evidence. There are four empirical studies now. Two of them focus on the red-cockaded woodpecker. One has been published in the *Journal of Law and Economics*, the other one was published in *Economic Inquiry*; one by Leuck and Michael, the other by Daowei Zhang. Both, using different methodologies, found the same thing—that landowners systematically engage in preemptive habitat destruction to avoid being regulated due to the red-cockaded woodpecker. Red-cockaded woodpeckers are a cavity nesting species. They basically need older trees, in which they can build holes to nest in. Whether you're an industrial timber owner or a small owner with trees on your land, if you know the red-cockaded woodpecker is on your land, you know to cut now. It's suboptimal from an economic standpoint, but the trees are too young for woodpeckers. If you leave them standing, they may become infested—a terrible word to use when we're talking about creating habitat for endangered species, but that's how it's viewed by people that experience and suffer these consequences. Rather than risk the loss of the value of the standing timber, they engage in preemptive action; the two studies found this occurred systematically. The age at which timber is harvested correlated with the presence or proximity of the red-cockaded woodpeckers.

Another study in *Conservation Biology* about the Preble's Meadow jumping mouse found that for every landowner that learned of its endangerment and would take measures to protect it, there was another in its habitat who said he wouldn't do a thing to help. Those who wanted to help, presumably did so because of the knowledge that a species needed help. The ones who say they're unwilling or less likely to do something to help can only have one reason (unless they have some bizarre animus against the Preble's Meadow jumping mouse). It's because they're afraid of the regulations. The same study shows that a majority of landowners would no longer allow biologists on their land if it had been inhabited. So not only do we lose habitat, but we lose research as well because landowners are afraid biologists will find something. And when they find something, we bear economic costs.

Another study out of the University of Chicago led by John List also found the same thing: Deliberate habitat destruction in Arizona due to the presence of a species of

pygmy owl. So every empirical study which has looked at this problem found the same thing. These incentives are not just some economic theory. It isn't just anecdotal. We're seeing that over time we lose the most important thing for endangered species—habitat—because of the incentives created by the way we regulate.

Now, there are alternative ways of thinking about species conservation. Let's turn away from the United States for a moment to talk about how they protect species in places that don't have the resources we have here. From the mid-1970s through the mid-1990s, there was a kind of controlled experiment going on in sub-Saharan Africa over how to save elephants, with countries, very similar in many ways, adopting different types of policies. We had countries like Kenya, which for African countries with large elephant populations, was relatively wealthy during that period, getting a lot of support from countries like the United States to keep its significant wildlife populations alive. Kenya's strategy, like ours, was to do everything it could to prevent people from harming the remaining elephants. Other countries, bizarrely enough Zimbabwe—not known as a particularly property-friendly country even then—said we're going to take a different approach. We're going to see if people that actually live in the parts of the country where the elephants are don't have a positive incentive or reason for keeping the elephants there. They were faced with a choice of using their land for agriculture, for grazing, or leaving it to the elephants. On federal land, the elephants would have had no value.

Now we in this country see elephants as these majestic creatures—and they are fascinating, wonderful creatures. But if they're competing with you for land, for water, and they go on rampages that trample your crops, trample your family, you may not feel the same way about them.

And so, Zimbabwe said, we're going to create the opportunity for individuals and communities to own elephants. Large landowners were allowed to own the wildlife on their land; communities were given something called the "appropriate authority," where essentially they owned the elephants communally, and they could decide what would happen to those elephants. That would mean that they could sell hunts if they chose. Hunts for hide, for meat, for ivory—when ivory could still be sold on the open market. And it's interesting what happened. Zimbabwe did not have the relative wealth of Kenya, it did not have the foreign support of the Kenyans. It had nothing approaching Kenya's civil service, which wouldn't meet American standards but was comparatively more advanced.

What happened? Kenya's elephant population from 1985 to 1995 went from over 100,000 to 26,000 elephants. Prohibiting hunting, prohibiting use of elephants, removing people from elephant areas, trying to prevent the sort of problems that lead to habitat loss or devaluation, all of this was tried and still the elephant populations plummeted. Over this same period, Zimbabwe's elephant population rose from 45,000 to 65,000. Zimbabwe changed the institutional arrangements so that the people were given an incentive for there to be more elephants rather than less—unlike what we have done with the ESA here.

But there is a statistic that is more significant than numbers, because people like ivory, and they may have only wanted elephant skin boots or something. What about all the other species? Charismatic mega-fauna may be what attracts us, but those aren't the bulk of the species. Well, the most interesting thing that happened in Zimbabwe over that period is that the proportion of land suitable as elephant habitat almost doubled. All the other species that rely upon the same ecosystem as the elephants benefited tremendously, without all the resources necessary to create massive national parks and grand regulatory structures. The broader environmental benefits are ultimately what we're concerned about, not just a handful of pretty species, and the habitat increased dramatically.

Why? Well, because land was valuable now for something other than grazing cattle or growing crops. In fact, private ranches were removing their cattle, letting cropland go back to native vegetation, and ranchers began coming up with agreements to take down the fences between their lands to create effectively large national parks so that the species could roam. It was incredibly successful. And there were countries in the southern part of Africa that adopted similar policies and met similar results. Zimbabwe is particularly striking both because of how far they went and because of all the reasons we would think Zimbabwe would fail.

The lesson here is that institutions matter. When you look around the world at those environmental resources that are in the worst shape—tropical forests, open access fisheries, water in the southwestern United States and on certain continents, non-domesticated wildlife in the United States—these are the sort of species we're trying to protect with the ESA—we see resources in trouble. All of these are areas in which basic property-based institutions are nonexistent or poorly protected or poorly maintained or, in the case of the endangered species, severely destructive.

But if we can look at other resources, if we look at temperate forests in the United States, were there has been significant net forest growth over the last hundred years, look at fisheries managed through property rights like the individual transferable quotas (ITQs) in Iceland or New Zealand, or even in the handful of ITQs we have in North America even mineral resources, which are purely privately owned, or domesticated wildlife or exotic wildlife in the United States that can be owned, we see resources not dwindling but expanding.

There are more scimitar-horned Oryx in Texas, roaming private land, than there are in their native range in Africa. Not only are you not penalized for having them, they can also be reduced to ownership without actually having to put them in a cage. This is important because I think most of us don't think that putting animals in cages is really saving them. At least I don't feel that way. So we see a pattern. The institutions matter. Where we've found a way to extend property institutions through environmental resources, they did better. Now it doesn't mean it's always easy to do, but we do see some broad lessons that, when things are managed politically, they tend to do much worse than when they are managed through property institutions.

There are couple other things I just want to note in terms of institutions. We can think about incentives that are created for efficiency and innovation. One of the most significant environmental success stories of the 20th century in the United States has been our ability not having to dig up massive amounts of land or construct mines and smelters for copper to meet our communications needs. What did we replace it with? Well, practically the most abundant resource on the face of the earth: silica (sand).

Fiber optics aren't only incredibly beneficial economically, they're an unbelievable benefit environmentally, driven by the economic incentives created by proper institutions as realized through our market institutions. No one thought, ooh, I'm going to do this, and think of all the landscapes I'm going to save because we're not going to have to have copper mines and smelters anymore. Think of the air quality benefits. No one was thinking about that, yet it happened.

Lynn Scarlett, until recently an Interior Department official, used to do a lot of work on solid waste issues. She's a relatively small, thin woman, and used to do these lectures where she would take a soda can and rip it in half. And for most folks in this room, that's probably not impressive. I mean, I know you can rip a soda can. But the idea of a small, thin woman picking up a soda can from 20 years ago and ripping it in half like it was nothing was crazy; now it's nothing. The amount of metal that goes into a can has been reduced that dramatically. That's a tremendous environmental benefit. We're talking about aluminum—tremendous benefits from energy use, in terms of the use of materials, again, driven merely by the fact that incentives are working in a positive direction.

Now there are other things we can talk about as well, because, obviously, it's not just about resource management. It's also about pollution. And certainly efficiency gains can reduce pollution but may not cause firms not to pollute at all. In the United States, we still rely primarily on a command-and-control model of pollution control. So for example, when it comes to water quality, what we care about is a company getting a permit, an NPDES permit, for what it's going to emit. Our goal is zero discharge. What matters in terms of whether you can be sued, whether you can be liable, whether you can be fined, is not whether or not you're harming the river, not whether or not you're killing the fish, not whether or not you're poisoning somebody, but whether or not you're in violating the terms of your permit. Some of you may have read the case *Friends of the Earth v. Laidlaw Environmental Services*. The Supreme Court said quite clearly both for standing purposes and purposes of the Clean Water Act that you don't need to harm the environment to harm the person. In that case, it turns out that when measurements were made upstream and downstream of the facility in question, despite the almost daily permit violations, they couldn't find a difference in water quality. Yet a company that's complying with its permits and causing harm may have no risk of jeopardy at all, certainly not statutorily; except maybe under the common law where it still operates.

Now, in much of England water rights are still protected through a more property-based system. There's an organization called the Anglers Cooperative Association. It's sort of like a



British environmental group, although instead of suing under citizen suit provisions and statutes and lobbying legislators, what it did was go to court to represent property owners (fishing clubs primarily) whose rights had been destroyed or devalued by upstream polluters, by upstream dams, and the like. It has been incredibly successful. Their causes of action are based not on whether your permit is written properly, but on whether harm has actually occurred. And the determination of whether a company has acted reasonably is ultimately based on the plaintiffs who hold the property rights. Not only has it been successful controlling pollution, but also, and more importantly, it spurred a lot of creative effort to figure out how to avoid these problems. What is it that the upstream entity is doing that is causing the problem? Let's not focus on some standard that applies to every company. Let's focus on what *this* company is doing that's causing this problem so we can solve that, and the fishing club, the rights owner, and the company can come to a deal.

If you read *Boomer v. Atlantic Cement*, there's a line in the majority opinion where the majority expresses shock—it is aghast really—that if they recognized a property rule defending Boomer, Boomer might sell, or that Boomer and Atlantic Cement might reach their own deal. I've never understood that part of *Boomer*. That would seem to me to be fine. If Atlantic Cement and Boomer can reach an understanding where either Atlantic Cement is compensating Boomer so that Boomer feels whole or Atlantic Cement can figure out what it needs to do to change its operations to actually meet Boomer's concerns, well, why shouldn't they? And if there are going to be lots of Boomers in the neighborhood, well then maybe Atlantic Cement is in the wrong place.

The point is not that we should go back to common law environmental protections and rely solely on that, but rather that we can understand the underlying principles that are focused on protecting property rights from infringement. You can imagine what those rights would look like were they embodied in a regulatory system that, for instance, focused on whether somebody upwind harmed somebody downwind. The Clean Air Act has been around for 38 years, and it wasn't until about ten years ago that we first started actually worrying about upwind states harming downwind states. To me, that would seem the thing we would want to focus on first. We knew that some local jurisdictions had actually been quite effective in dealing with the air pollution problems they were most concerned about when they didn't have to worry about upwind jurisdictions. They adopted smoke control ordinances and sulfur dioxide concentrations in the ambient air were actually declining prior to the enactment of the Clean Air Act of 1970.

This doesn't mean that federal law isn't necessary, but rather that we need to make it easier for communities and individuals to protect themselves from upwind sources and spend less time telling them how to run their own affairs. If we were to focus on common law protection of property rights and pollution control, we would be focusing on actual harm. We would recognize the context-specific nature of many environmental concerns. We would be willing to award injunctive relief. But

we would also recognize that ultimately with a focus on property rights and concerns the ultimate decisions are made by those who bear the costs and reap the benefits of those decisions. This would be our goal, rather than a one-size-fits-all standard which is actually a one-size-fits-nobody standard for what is acceptable contamination.

Typically when we've had environmental problems, the argument has been that the problems derive from market failure. Markets do not account for all the externalities. Markets don't account for every potential external effect of every transaction. The traditional prescription, to have the government come in to "fix" the "externality," I reject for two reasons. First, it means the government has to do everything, because there is no transaction that doesn't have external effects. Some environmentalist organization is upset when there are quick timber sales that are conducted to remove timber after a fire. Somebody from the Objectivism Center is going to be upset that there's not another big building being built. They have very radically different preferences, neither of which is accounted for in all sorts of decisions..

But the issue isn't market failure; it's a failure to have markets. We haven't thought seriously and creatively enough about how to extend the market institutions we have, and the property institutions on which they are based. We haven't thought seriously enough about how to extend them, to build upon their successes, to reinforce them where they don't work as well as they should. Instead we've tried to supplant them with a regulatory framework which doesn't serve us all that well.

So, thinking about where we go from here, I'd say first we should be doing no harm. Second, we need to look at the laundry list of things that governments at all levels, but particularly the federal government, have done over the years. That would be a massive start. Why was the federal government subsidizing the destruction of wetlands, subsidizing the slaughter of bison, subsidizing the slaughter of all sorts of species that are now listed as endangered, effectively exempting certain types of federal entities from sorts of pollution standards that apply to the rest of us? We should be trying to expand market institutions—property rights and voluntary exchange, protected by the rule of law—and we should try and build on common law principles, recognizing that the underlying principles are really what we're trying to replicate in environmental protection.

Decentralization may be a way to get some of the experimentation necessary to see how some of these things work, because it's not as if every regulation works the first time it's tried. We have to learn by doing. We're going to have to do that with other alternatives and approaches as well. But in all cases, we need to recognize the importance of institutions and incentives, which is something we have tended to ignore with our current environmental laws.

One cautionary note: my claim is not that if we just expand property rights, all environmental problems will go away and we would have Nirvana. Anyone that tells you their desired approach makes all problems go away is not being straight with you. There's no going back. We're not going back to the Garden of Eden. We're not going back to some place, if it ever existed, where human activity and human civilization did not have a



against perpetuities: What is the point of the rule? Is it not to make some property alienable at some point? Strict liability: What is the point of that rule? Is it not to reduce transaction costs in the case of injuries? There is an obvious policy point to the common law. We can debate whether every rule is about efficiency or not; twenty-five years ago, there was a substantial debate about that. But my point is somewhat different. The common law in and of itself is a regulatory regime. It's one of the options we have available in society to decide how we want to order our society. We can rely on common law rules, but they are not the only regulatory regimes that we can consider, but it is one. The beauty, for me, of the common law rules, sometimes referred to as the common law baseline, is that they really are the backbone of markets. Property laws and rules themselves define this thing called "property." Tort law protects property from damage, and contract law enables the transaction and a change of property. That's often what we mean by "the market," but it is one regulatory regime, and, as Jonathan alluded to in the next to the last slide, there are such things as market failures.

The question for me is what regulatory mechanism works best to achieve whatever end you wish to achieve? There are only two ends, I think, for government if we distill it down. We want a government that has rules that promote more benefits than costs; let's call that efficiency. We also want a government that has rules for the purpose of fairness. Now you can go to any political philosophy library in the world, and you will not find the ultimate definition of "fairness." You may not find in an economics library an ultimate definition of "efficiency." Both concepts are contestable. I get that. But for our purposes, you can reduce the purposes of government to these two general concepts of efficiency and fairness or efficiency and equity.

I would suggest that 99 times out of 100, there will be mixed reasons. A rule that allows an individual to sell his property to whomever he wants under any set of circumstances may maximize liberty and be efficient in that regard. It also will allow him to engage in racial discrimination. It may be efficient, but it may not be fair. A rule that allows someone to do whatever he wants with their property and keep it unkempt or even harmful to neighbors may be fair in terms of allowing maximum liberty to an individual, but it's hardly efficient. So we're going to mix those purposes often enough, and I think you should be aware that.

I'll end with the following point. I know nothing about grazing, but let's say that we want to protect grazing lands. It would seem to me that we could take two common law rules that we could play with—I'll use, for those of you that are not familiar with Calabresi and Melmed nomenclature—we can protect property through a property rule which allows one to get an injunction, or if your property is injured you can protect it with a liability rule and get damages. Those are two common law protections—protect rules through injunctions or damages.

So let's take what we normally refer to as "government regulation" and come up with two government regulation regimes. How about licenses? This is what the Bureau of Land Management does. You get a license and there are conditions

on the license, and we can debate the conditions and mix and match those as well. But you can get a license, or you can use a standard. You can only graze so much, or for a certain period of time or up to a certain quality, often referred to as "command-and-control regulation." So we have four things we can do, two out of common law bucket, two out of the regulatory bucket. To me, it seems the issue is this: Which of those works best? Which of those works best to achieve the end we want? The question I think we have to engage is among these different regimes, common law and regulatory, we have a choice among property institutions or regulatory institutions. To me, that's the debate. I'm perfectly happy to go along with a system where property laws, as we commonly understand them under the common law, function. If they don't, however, government regulation is an alternative that has to be considered.

So, to conclude, beware of slogans like "property rights." Dig down, and find out what people mean by that. And secondly, recognize it's never an either/or choice. It's not about markets or government. These things are as mixed as could be, so it's always a question of how much effort or how intrusive the regulations are. It is not their presence or absence.

Thank you.

