Frederick Krueger defends both a broad and a narrow thesis. The broad thesis I take to be uncontroversial. It is simply the principle that the earth is the Lord’s, that human beings are its stewards, and as such, are responsible for the well-being of the earth, including general biodiversity, the welfare of animals and other forms of life. Such is a clear implication of both Scripture and the Christian tradition, one that human beings often fail to recognize. Since I agree with this, I will not discuss it further.

More narrowly, however, Mr. Krueger argues that God commands the preservation of “each species,” and in particular, the federally mandated preservation of officially designated “endangered species,” including the preservation of habitats. Specifically, he contends that Christians must oppose so-called land “takings” proposals that, in an attempt to conform to the Fifth Amendment, would require the state to compensate private landowners when their land use is restricted because of endangered species laws. He argues that since the land is ultimately the Lord’s—a truth recognized by early American colonists—private landowners should not receive compensation from public coffers for doing their Christian duty. In fact, he concludes: “‘Takings’ represents the privatizing and usurping action by individuals of what is the heritage of humanity and the commonwealth of the nation.” So Mr. Krueger moves from a general biblical principle to a defense of a particular policy, which he takes to be entailed by that principle. Unfortunately, the transition from the principle to the policy is a yawning non sequitur.

Species and Kinds
Consider first the claim that we are commanded to preserve endangered
species. Mr. Krueger takes the story of Noah as the biblical locus classicus for this theme. Noah, we recall, was commanded to preserve "two of every kind" of animal on the Ark (Gen. 6:19). Relevant it may be, but the direct application of this passage to the present situation is questionable. For instance, it is not at all obvious that God's command to Noah should be made into a generalized duty for all human beings. After all, a divinely inflicted worldwide flood is a fairly uncommon event. But let us assume that it can be extrapolated in this way. Nevertheless, neither this nor any biblical passage justifies the category of species as the relevant group human beings are responsible to preserve.

Noah is commanded to preserve a reproducing pair of each originally created kind (Gen. 1:20–24); but the biblical term kind is almost certainly not a synonym for species. Since the biblical authors did not have access to the Linnaean classification scheme, we can assume that kind refers to animal groups that are easy to distinguish visually. Kind probably stands for some larger grouping closer to the genus or family, of which canines and felines would be examples. The modern definition of species, on the other hand, is quite narrow, usually connoting a geographically specific population that regularly interbreeds. A broader but more precise definition is a group of animals that is capable of interbreeding, whether they actually do so or not.

Defining a species abstractly is one thing, identifying and delineating one in nature is quite another. Consider, for example, the famous finches of the Galapagos Islands, which, according to legend, inspired Charles Darwin with his theory of descent with modification (a legend that happens to be false). Officially, there are thirteen separate species of finches on the Galapagos. To a casual observer, these finches appear almost identical. In fact, they vary slightly in beak size and geographical niche, although the amount of variation fluctuates depending on such things as climate. Since they have minor variations and usually do not breed for geographical reasons, these thirteen groups are considered different species. Many of them, however, can interbreed when given the opportunity, raising the possibility that there are actually far fewer than thirteen species. There is also evidence that the "hybrids" are more robust than their parents. Since most biologists assume these thirteen species are descended from some original species of finch from the mainland, this suggests the thirteen species are really just separated groups of finches with isolated morphological peculiarities. The gene pool of the original finches may have possessed all the genetic and morphological potentiality now dispersed unevenly across the Galapagos.

Given these complexities, it would be stretching the meaning of the Noah passage to claim that it mandates that we preserve the thirteen isolated, narrowly adapted groups of finches—conventionally called species—any more than that we must preserve every individual finch. We refer to them as individual species because of their geographical isolation and very slight morphological differences, but there is nothing sacred about the designation. So the connection between the biblical story of Noah and the contemporary Endangered Species Act is tenuous to say the least.

Some difficulties apply to the enforcement of the Endangered Species Act itself. No one really knows whether a single animal population is the only such population. We have no idea how many species there are. And we rarely know the necessary and sufficient conditions for past extinction events, let alone how to prevent future ones. Since the usual definition of species includes geographical isolation and some apparently unique feature, it is possible, on a large enough swath of land, just to define some animal population as an endangered species. The potential for arbitrary enforcement, to say nothing of abuse and corruption, is virtually unlimited.

In any event, is it really the case that we are flouting our Christian duty by allowing any biological species to perish? This would make it a sin to kill off the final store of the smallpox and HIV viruses, which seems a little odd. Moreover, species extinction is as much a part of the biological landscape of our planet as is biodiversity. Some species become overly specialized to a certain climatic and geographical environment; making it impossible for them to prosper in new conditions. In many cases, preserving them would be either impossible or so costly as to contradict other goods we value. Other animals, such as certain pigeons, sea gulls, rats, squirrels, and deer prosper in widely changing conditions, and, in particular, in environments altered by humans.

In addition, Mr. Krueger incorrectly equates a commitment to biodiversity with a commitment to preserve each and every species. In fact, some degree of species distribution is fungible, in the sense that one species can be replaced by a functional equivalent within an ecosystem. Moreover, the importance of different species varies within a given ecosystem. Finally, the sheer number of animal species is beyond our ability to monitor or control. There are about 140 families in the order Coleoptera (Beetles), reticulated into as many as 12 million Beetle species. So, not surprisingly, animal species go extinct quite apart from human activity and oversight. Such considerations make it unlikely that absolute species preservation is a universal human obligation. Whatever our obligations are as stewards of the earth, they are much more subtle than this.
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Sin and the State

Human stewardship over nature is not the only biblical theme relevant to the protection of endangered species. There is also the question of the legitimate power and responsibility of the state vis-à-vis individuals, mediating institutions, families, and communities. Even if the human community and individual landowners are duty bound to preserve species, Mr. Krueger has given no argument for surrendering this duty to the United States federal government. Why trust the most powerful political entity on the planet with the responsibility to enforce and administer a policy, which is so intrinsically local and particular? Why assume that a Fish and Wildlife bureaucrat in the District of Columbia will be more knowledgeable and concerned about the welfare of animals in, say, Oregon, than will the citizens of Oregon? The Endangered Species Act was enacted in an era that was much more optimistic about the capacity of centralized governmental authority to solve diverse local problems. But the days when ecologists believed they could deduce global extinction rates from a simple species-area curve are over. Ecology advocates can no longer simply assume the superiority of a centralized governmental solution to extinction problems. In any event, why overlook the role of private organizations, non-profits, corporations, local and state governments, religious and community groups, families and individuals, to say nothing of tax and market incentives?

Perhaps this centralizing impulse issues from a deeper problem. In particular, Mr. Krueger seems to confuse civil society with the state itself, even identifying the actions of the state with the common good. So he argues that the state can (effectively) confiscate property from its private owners without remuneration, since the land is “the heritage of humanity.” Assuming the land is the heritage of humanity, it still does not follow that the state has the right to confiscate it. On the contrary, a central feature of the Western political tradition, and its commitment to limited government, is the distinction between the state and civil society. The state does not automatically act for the common good, and the individual does not automatically act against it. The wisest political and economic policies are those in which both individuals and states are enabled to act in the common interest even while pursuing self-interest. On Mr. Krueger’s proposal, however, the interests of the public, the state, and the individual are cast in fundamental conflict. The official (read: elite) common interest is for the federal government to confiscate private property to protect endangered species, no matter what the real public may think. And the individual landowners’ interest, apparently, is to destroy habitats in the pursuit of self-interest. Is this a productive way to frame a solution?

Mr. Krueger’s preference for centralized state coercion over persuasion, consensus, and volunteerism—all in the name of an ill-defined common good—gives his policy recommendations the flavor of statism if not coercive utopianism. He is willing to invest the federal government, by presumed divine imprimatur, with the power to compel even unbelievers to act in strict accordance with their divinely endowed duty as stewards of creation. His appeal to pre-constitutional American colonialism reinforces this impulse.

The problem with statist and utopian policies is, of course, their tendency to exempt the state from the effects of sin and self-interest. The ubiquity of human sin means that the potential for evil is greatest when power is concentrated, especially in the state. The American founders appreciated this biblical truth, and gave the world one of its greatest political legacies—limited government and the separation of powers. The universality of sin should be a constant check on our desire to endow the state with more and more expansive powers, especially the power to forcibly confiscate privately owned land, which is the primary counterbalance to state power.

Mr. Krueger’s proposal exhibits this same selective application of the effects of sin. He implies that the United States federal government, in general, can be trusted to do the Lord’s work with respect to endangered species, while miserly and rapacious landowners cannot be trusted to act virtuously (all things being equal) with their own property. Common experience suggests otherwise. Private ownership of land generally encourages the owner’s care and preservation. Public ownership, by contrast, tends to foster indifference. Anyone who doubts this is encouraged to take a train ride through Western Russia, or a tour of the public restrooms in New York City.

Perverse Incentives

So Mr. Krueger has not made the biblical, theological, biological, and jurisprudential case that it is the legitimate jurisdiction of the federal government to protect endangered species on private lands, and, in particular, to refuse compensation to private landowners affected by this policy. But even if he had, his policy suggestion would still be ill-advised, because he has ignored the law of unintended consequences, the consequence here being the perverse incentive it creates for landowners.

Imagine, for instance, a tree farmer in the Pacific Northwest, who discovers a small population of snails prospering in a damp, low-lying ravine on his farm. From a quick search of the Internet (http://endangered.fws.gov/wildlife.html) he discovers that this small snail is in fact protected by federal legislation. Upon further investigation, the farmer learns that, if he reports his...
Markets & Morality

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discovery to the federal authorities, they will confiscate a large portion of his land, and forbid him from using it to grow and harvest trees. Moreover, they will not compensate him for his losses. Now, assuming the farmer is not sufficiently persuaded of the clear biblical mandate not to disturb any species named by the Endangered Species Act, what do you suppose will happen to those snails?

To ask the question is to answer it. The federal Endangered Species Act, supplemented by a refusal to compensate affected landowners, would almost certainly result in the secret destruction, not the protection, of designated endangered species that are discovered on private property. Such a policy makes the mistake of pitting the interests of landowners against the interests of endangered species, and requiring the individual landowners to bear the burden of a government dictum enforced for a putative public good. Rather than instilling eco-friendly virtues in the citizenry, this is more likely to engender cynicism and resentment regarding the entire enterprise of species preservation.

If confiscating private property is in some instance a public benefit, then it should be an evenly distributed public cost as well. If Mr. Krueger really wants to protect endangered species on private land, why does he not advocate that landowners be rewarded handsomely for discovering them? With sufficient economic incentive, we could expect every such species, and probably some so far overlooked, to be discovered and promptly reported to the relevant governing authorities. Of course, this policy might not have the effect of punishing avaricious landowners, but it would save a lot more “endangered species.”

Notes

1. The standard biological taxonomy (from smallest to largest taxa) is species, genus, family, order, class, phylum, and kingdom.
3. Notice that both of these definitions are still inadequate since they fail to include organisms that reproduce asexually.
5. On almost any standard, the effects of the Endangered Species Act have been dismal. See Noah’s Choice, 239–47.
6. Ibid., 129.
7. Ibid., 8.
8. See discussion in ibid., 53–78. The species-area curve enamored ecologists in the last generation with the possibility of calculating extinction rates everywhere with knowledge of a few tractable variables such as loss of acreage and number of species per acre, using the formula \( S = cA \). Ecologists now know the situation is much more complicated.
9. My friend Bob Wiley has reminded me that among veterans of the disputes created by the Endangered Species Act, this effect is sometimes dubbed the policy “Shoot, shovel, and shut up.” Of course, in the case of snails, it might be called “Salt, shovel, and shut up.” The issue here is not that people left to their own devices will wantonly kill the flora and fauna found on their land. The issue is that the policy Mr. Krueger defends will encourage this type of activity when endangered species are involved.
10. This is no mere abstract possibility. See the description of the citizen reaction to a ban on mosquito spraying in Wilton, New York, to save the Karner Blue butterfly, in Noah’s Choice, 95–7. In this and similar cases, the policy encouraged landowners to make their land inhospitable to the species in question. This prevented the possibility that the migratory animal might use their land as a temporary resting place or a permanent habitat.
11. This is to say nothing of the fact that if the state’s actions are borne by private individuals rather than the state itself, the policy is much more likely to be used for political retribution and retaliation.
12. Other non-coercive solutions include the private conservation and purchase of habitats undertaken by The Nature Conservancy and the market-oriented conservationism advocated by Peter Huber in Hard Green (New York: Basic Books, 1999).
13. Of course, such a policy would be fiscally unrealistic. Nevertheless, it is much more consistent with an absolute obligation to preserve endangered species than is Mr. Krueger’s proposal. Its financial implausibility reminds us that all public policies should weigh costs and benefits, which should ultimately be judged as part of a legitimate political process. For some realistic policy suggestions for balancing the needs of individuals and society with the need to protect endangered species, see Noah’s Choice, 212–38.
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