

Preserving Endangered Species: Why Should We Care?

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When construction of the Tellico dam was temporarily halted because the project posed a threat to the endangered Tennessee snail darter, environmentalists were triumphant, economists relieved (the dam was an economic disaster in its own right). The general public seemed cheered by the triumph of such an improbable underdog, but uncertain that a lowly three-inch minnow was really worth the trouble of saving.

Surveys taken by Stephen Kellert of Yale University reflect this ambivalence in public attitudes toward species preservation. In a questionnaire modeled on the Tellico dam controversy, pitting an obscure fish species against various development projects, the fish species won out handily over recreational projects, tied with projects to divert water for industrial development, but was soundly defeated by projects to produce hydroelectric, agricultural, or drinking water improvements. As codified in the law of the land, the will of the people is expressed more strongly in favor of species preservation. The Endangered Species Act mandates stringent standards for protecting any plant or animal species that has been listed as threatened or endangered. However, the list of protected species is a short one, so the effect of the Act is considerably weakened.

How much *should* we care about endangered species? Why, indeed, should we care at all? A first answer is that extinction is forever. It is irrevocable, the flung stone that cannot be called back. Still, we do irrevocable things all the time, sometimes half a dozen before breakfast. But our knowledge of the considerable

benefits the human species has reaped from other species, together with our ignorance of what benefits we might someday glean from species currently threatened, make extinction particularly alarming. What if the *Penicillium* mold had gone extinct a century ago? Who knows what cure for cancer we would have discovered even a decade hence in some unknown species that went extinct yesterday? Thomas Lovejoy, Executive Vice President of the World Wildlife Fund, concludes, "Assuming that the biota contains ten million species, they then represent ten million successful sets of solutions to a series of biological problems, any one of which could be immensely valuable to us in a number of ways."

"If we literally do not know what consequences the extinction of this or that species may bring, then we should take seriously the possibility that extinction may be beneficial as well as the possibility that it may be deleterious."

But this argument cannot bear a great deal of weight. It sounds too much like the reasoning of our old Aunt Tillie, who saves every bit of string or bottle cap on the off chance that it may someday come in useful. Clutter mounts up exponentially, and someday never comes. After all, philosopher Elliott Sober observes, "there are so many species. How many geese that lay golden eggs are there apt to be in that number?" For Sober, an argument from ignorance is no argument at all: "If we literally do not know what consequences the extinction of this or that species may bring, then we should take seriously the possibility that extinction may be beneficial as well as the possibility that it may be deleterious. . . . Ignorance on a scale like this cannot provide the basis for any rational action."

If we can't appeal to the possible future usefulness of species, what reasons do we have for preserving them? Put bluntly, what's it to us whether they live or die? But perhaps there are benefits to preserving species that Aunt Tillie overlooked. Do species have a value in their own right, independent of what value we place on them? Or can we, even within a human framework, find a non-commercial, non-scientific value to justify their preservation?

As Goes the Furbish Lousewort . . .

Let us concede that only relatively few species are likely to prove of direct commercial or scientific use. Does this mean that the rest are therefore useless—expendable in the face of competing resource needs? That conclusion would surely be a hasty one, given the sheer magnitude of the number of extinctions currently threatened. Extinctions that might not be worrisome

viewed one by one take on a new seriousness when multiplied many thousandfold.

Lovejoy reports that hundreds of thousands to over a million extinctions are projected to take place by the end of the century. The estimates vary widely (nobody even knows how many species there are, let alone how many are endangered), but "what is important," on Lovejoy's view, "is that every effort to estimate extinction rates has produced a *large* number."

Of course, almost every species that has ever lived has gone extinct, so extinction itself is natural, normal, routine. Even extinctions caused by human practices such as hunting and habitat fragmentation cannot be called unnatural: man is part of nature, too, as much as any other predator. But man is a predator of matchless efficiency, and while all creatures in one way or another transform their environments, man is currently transforming his on an unprecedented scale. The current rate of extinctions is extraordinary and exceeds the rate at which new species are evolving. This means that the planet is in the throes of a process of biotic impoverishment.

How alarming is this? What will we lose in losing biological diversity? Lovejoy points out that "natural aggregations of species (ecosystems) are more than a large collection of genetic material; they also are involved in ecological processes, often of immediate public service value." These include watershed protection and moderation of climatic, hydrological, and nutrient cycles. With diminished diversity comes loss of clean and reliable water supplies and of soil fertility. Biological impoverishment weakens nature's regenerative power to resist human exploitation.

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Lovejoy recognizes that "in any immediate sense it is hard to see how the loss of a single species will affect the day to day life of the average citizen who will probably not even know of the loss or that the species ever existed. Yet, when an ecosystem has been altered to the point that a public service benefit such as watershed protection is affected, it is not only quite obvious, but also, biological diversity will have by then suffered a significant reduction."

Lovejoy argues, in fact, that biological impoverishment may be directly responsible for human impoverishment. It is no accident, he suggests, that "those nations which are unsuccessful in maintaining their basic diversity of plant and animal life are also the ones least successful in protecting decent standards of living for their people." He blames heedless environ-



Drawing by W.B. Park, © 1984
The New Yorker Magazine, Inc.

*"I certainly am worried about the whales. It's just that I'm
not worried about them right this minute."*

mental policies in part for the fact that Haiti, the poorest nation in the Western Hemisphere, is in far more dire economic straits than its neighbor, the Dominican Republic, which has undertaken active initiatives to protect wildlife habitat.

Bryan Norton, a philosopher currently with Resources for the Future, takes Lovejoy's argument to show that the preservationist doesn't need to document a specific present or anticipated commercial use for an individual species in order to justify saving it. Since "natural diversity, in and of itself, has utilitarian value," each and every species, as a unit of diversity, has *prima facie* utilitarian value as well. Rather than isolating a particular species and examining it for direct commercial or scientific potential, Norton views each species as a unit of diversity and looks at the total value we derive from living in a diverse world.

Granted, each species is only one very tiny unit of the world's overall diversity, so perhaps Norton's argument leads in the end to our realizing that no one species matters very much. Speculations that the loss of any one species could trigger a chain reaction leading to some kind of environmental catastrophe are usually dismissed as fanciful. But if Lovejoy's and Norton's arguments do not support a heroic effort to preserve every individual threatened species, they provide a strong reason to preserve biological diversity generally, to protect the integrity of the natural world.

The objection can be raised, however, that the reasons given so far for preservation are the wrong kind

of reasons. We are doing what we can for other species because of what other species can do for us. We are taking a broader view of the benefits they provide, and a longer-term view, but still a view from the same vantage point, of human needs and interests. Species here are still *commodities*.

Intrinsic Value

Many environmentalists argue that species should be preserved, not for our sakes, but for their own. They claim that species have intrinsic, not merely instrumental, value. They are valuable, not merely in virtue of what else they are good *for*, but because they are good in *themselves*.

While these claims have considerable rhetorical force—compared, say, to discussions of the role of species in tertiary waste treatment—they raise more questions than they answer. *Why* do we think species have intrinsic value? In what is it grounded? What is it about species that makes them valuable?

One way to address these questions is to look at a case where the answers are clearer. We can disagree about whether species as such have intrinsic value, but nobody doubts that individual human beings are intrinsically valuable, if anything is. So what is it about human beings that grounds their value? Are species valuable in the same way?

If human beings are intrinsically valuable because we can *think*, then no helpful parallel between humans and

other creatures can be drawn. Rationality seems an attribute exclusively human. But if we count morally because we can *feel*, because we can experience pleasure and pain, then a case can be made that other sentient creatures count, too. This is the rationale behind the animal liberation movement. Plants do not suffer, however, nor do lower life forms, and so the argument cannot be generalized to include them in its sweep.

A thornier problem is that no argument modeled on the intrinsic value of individual human beings can justify attributions of intrinsic value to whole groups—that is, to species, whether human or otherwise. Sober explains, “What is special about environmentalism is that it values the preservation of species, communities, or ecosystems, rather than the individual organisms of which they are composed. ‘Animal liberationists’ have urged that we should take the suffering of sentient animals into account in ethical deliberation. . . . But trees, mountains, and salt marshes do not suffer. They do not experience pleasure and pain, because, evidently, they do not have experiences at all. The same is true of species.”

A more promising approach may be to say that ethical status derives not from having feelings or experiences, but from having needs or interests. A plant needs water, sunlight, and air, even if it doesn’t consciously suffer from their deprivation. Likewise, we can say that a species needs to have its habitat protected, even if there is no conscious entity that entertains such a want. Do “needs” of this sort have to be taken into account morally?

The problem, Sober points out, is that on this view

Photo by Luther C. Goldman, U.S. Fish and Wildlife Service



Bald eagle

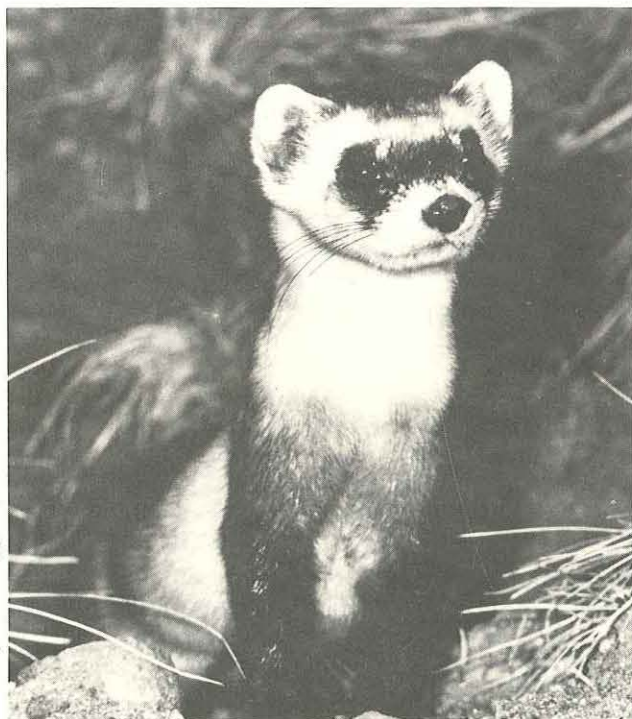
of needs and interests there is almost nothing that *doesn't* have moral standing. “If one does not require of an object that it have a mind for it to have wants or needs, what *is* required for the possession of these ethically relevant properties? Suppose one says that an object needs something if it will cease to exist if it does not get it. Then species . . . have needs, but only in the sense that automobiles, garbage dumps, and buildings do too. If everything has needs, the advice to take needs into account in ethical deliberation is empty.” It is no help to the environmentalist if species turn out to be intrinsically valuable only in some sense in which just about *everything* is. We want a specific reason to value and preserve species, to hold their claims as counting for more than the claims—if any—of factories and junkyards.

It is more difficult than it might seem, then, to come up with a reason for granting intrinsic value to species that does not either piggy-back illicitly on assignments of value to individuals or hand out attributions of value too indiscriminately. It looks as if the value of species is not intrinsic, but somehow dependent on the role species play in human lives and awareness.

Transformative Value

If the value species have depends on the value they have *for us*, does this make them into commodities for human use, like so many widgets? There are at least two reasons why we might be reluctant to draw this conclusion. There is, first of all, something that makes us want to put species of living organisms in a class

Photo by Dean Biggins, U.S. Fish and Wildlife Service



Black-footed ferret

apart from other resources, even resources that serve basic human needs. We debate whether species have intrinsic value, but no one argues for the intrinsic value of, say, tractors or ball bearings. Second, if the value of other species rests only on their ability to fulfill human desires, this seems to give them no secure claim *against* human desires. But it is the voracious desires fueled by human civilization that endanger species in the first place.

If the value of other species rests only on their ability to fulfill human desires, this seems to give them no secure claim against human desires. But it is the voracious desires fueled by human civilization that endanger species in the first place.

Sober responds to the first of these worries by drawing an analogy between objects in nature and works of art. The two have important similarities. "For both natural objects and works of art," he maintains, "our values extend beyond the concerns we have for experiencing pleasure. . . . When we experience works of art, often what we value is not just the kind of experiences we have, but, in addition, the connections we usually have with certain real objects." We value the existence of Michaelangelo's Pieta, beyond any value we derive from just seeing what it looks like. We value the process by which it was created, its history, its authenticity. The same is true, he suggests, of objects in nature.

Yet we are willing to concede that artistic masterpieces are not valuable in themselves, completely apart from any human consciousness of them: "What is valuable [in a work of art] is the relation of a valuer to a valued object. . . . when valuers disappear, so does the possibility of aesthetic value." That art objects—and natural objects—are not intrinsically valuable does not mean that their value is not of a very special kind.

Norton characterizes this deeper element of value in nature and art by saying that both not only fulfill human desires but also transform them. Whereas commodities satisfy human preferences as given, experiences of works of art and study of the natural world lead us to question our values, to criticize and reform them, to alter them altogether. Where environmentalists have gone wrong, he feels, is in accepting a dilemma between either giving free rein to human wants and desires, in their present materialistic form (endangering vast tracts of wild habitat in the process), or else insisting that other creatures, other species, and the ecosystems they inhabit must have some value independent of human wants and desires altogether. But the dilemma is a false one, because "it unnecessarily contracts the range of human values to those founded on demands for given preferences. . . . This is to ig-

nore the role of other species and varied ecosystems in forming and transforming our values."

According to Norton, wild species and undisturbed ecosystems provide occasions for experiences that allow us to rethink our place in the natural order. We learn from other species about the forms and limits of survival on a fragile planet; we learn about sharing the destinies of our fellows in the biotic community. "Appeals to the transformative value of wild species and undisturbed ecosystems thereby provide the means to criticize and limit human demands that threaten to destroy those species and ecosystems while at the same time introducing an important value that humans should place on them."

Conclusion

Where does this leave the snail darter and the furbish lousewort, the whole host of lowly species that we may never encounter in our lifetime and wouldn't recognize if we did? How do these enlighten and uplift us? What transformative value do they possess? The answer, in the end, may be: not very much. They doubtless have some role in maintaining the natural order that we do not understand; and the handful of scientists who do know and study them may take aesthetic pleasure in doing so. Is this enough to save them? At what cost?

To examine species one by one is always to miss the value—commercial, scientific, aesthetic, transformative—in their interaction, in the whole interlocking system of nature in which human beings play only one small part.

Norton's conclusion is that this may be the wrong question to ask. To examine species one by one is always to miss the value—commercial, scientific, aesthetic, transformative—in their interaction, in the whole interlocking system of nature in which human beings play only one small part. The lesson of the environmental movement is that nature is not best understood and protected piecemeal. To focus on each individual scrap of creation may distract us from the magnificence—and vulnerability—of the whole. It is nature itself, in all its diversity, that uplifts and sustains us. This is what we are bound to preserve.

The views of Stephen Kellert, Thomas Lovejoy, and Elliott Sober are quoted from their essays in *The Preservation of Species*, edited by Bryan G. Norton (Princeton University Press, 1985). Bryan G. Norton's views are quoted from his chapter in *The Preservation of Species* and from his forthcoming book, *The Spice of Life: Why Preserve Natural Variety?* Both books are products of a multi-year project on endangered species, led by Bryan Norton at the Center for Philosophy and Public Policy and funded by a grant from the National Science Foundation and the National Endowment for the Humanities. To order *The Preservation of Species*, see page 15.