

BRYAN G. NORTON, ed. *The Preservation of Species*. Princeton, NJ: Princeton University Press 1986. Pp. xi + 305. US\$29.50. ISBN 0-691-08389-4.

Interest in biological conservation remains strong, evidenced by a United States Congressional Study conducted by the Office of Technology Assessment, by the World Conservation Strategy Conference held in Ottawa, by conferences sponsored by the Smithsonian Institution, the New York Zoological Society, and the religious pilgrimage to Assisi. The anthology by a group at the Center for Philosophy and Public Policy at the University of Maryland is timely and significant.

Preservation of Species is easily the best of the philosophical and policy-oriented efforts to justify conservation. In Part I a conservation biologist (Thomas E. Lovejoy), a paleontological biologist (Geerat J. Vermeij), and a social scientist (Stephen R. Kellert) describe the problem. What species are vanishing and why? Do people care? Part II asks what policy should prescribe. An economist (Alan Randall) asks whether species can be valued economically. Four philosophers (Bryan G. Norton, J. Baird Callicott, Elliot Sober, and Donald H. Regan) ask about values carried by species. In Part III an ecologist (Lawrence E. Slobodkin), an environmental lawyer (Terry L. Leitzell), and a wildlife manager (Robert L. Carlton) turn to management strategies.

The result is a stimulating colloquy that no one seriously interested in endangered species can afford to ignore, strikingly illustrating how so-called 'applied philosophy' also requires exploring theoretical issues. Ethics applied outside traditional boundaries must often be conceptually radical. This is a ground-breaking work. Its strengths are its innovative nature, the diverse group of participants, their many seminal insights, and the leadership of Bryan Norton who, in his sectional introductions and epilogue, pulls together a group that would otherwise easily fragment.

Three areas of incompleteness are worth notice: one scientific, one moral, one philosophical.

(1) Scientifically, there is no discussion of what a species is. Do species even exist? Every good taxonomist has made and unmade several of them. Darwin concluded that species is a term 'arbitrarily given for the sake of convenience' (*Origin of Species*, Penguin Books, 1968, p. 108). These authors seem to regard species as sets or classes, yet as having historical reality worth preserving. But if species is a mapping device embedded in the theories of classifiers, then preserving species is like preserving contour lines.

Betula uber, Virginia's round-leaf birch, with high fences recently built around all known specimens, was long considered a only a subspecies or mutation, until M.L. Fernald pronounced it a species. Ornithologists recently reassessed the Mexican duck, *Anas diazi*, and lumped it with the mallard, *A. platyrhynchos*, as subspecies *diazi*. U.S. Fish and Wildlife authorities took it off the endangered species list partly as a result.

Despite such judgment calls, most biologists have felt that species (differing from genera, families, orders, classes) have objective historical reality, and

that preserving them is more like preserving mountains and canyons than like preserving contour lines or convenient sets. To warrant preservation, species need to be discrete entities in time and space. But one will get little help on this issue here.

(2) Morally, these panelists regard the forces bringing extinction as humane forces that overshoot their mark. Extinction is a spillover when well-intended 'development interests ... charge forward to improve the economy and to raise standards of living' (243), an unforeseen tragedy of the commons.

This is not the whole truth. These are forces of exploitation not only in the economist's positive sense, but in the philosopher's negative sense. Forces of evil grafted on to power in high places will, and do, exploit persons as readily as species. These authors do not tangle with issues of justice in international markets, with profiteering, with elements in capitalism that escalate desires and consumption, that capture poor people economically and suck a wealth of resources out of them. Resource economists are seldom philosophical enough about good and evil in social structures. The philosophers here could listen to tough-minded theologians of liberation, who know that reason alone is insufficient to dislodge well-protected vested self-interest.

Species are often being destroyed because powerful elites refuse needed social reforms, sacrificed in a smokescreen of rhetoric about development that leaves underclasses as poor as ever. Beside a hard-hitting article like Val and Richard Routley's 'World Rainforest Destruction — The Social Factors' (*The Ecologist* 12 [1982], 4-22), these analysts do not fully face what it means to speak the truth to power.

(3) Philosophically, 'all the authors ... shy away from value wholly independent of human sources' (78). That claim is too 'difficult to interpret and defend' (275). Yet they grope and stumble to preserve species for lofty reasons and simultaneously to preserve subjectivity in value theory. 'The existence of value depends somehow on the existence of fairly sophisticated consciousness.' 'The cheetah's speed is good, but it is not good in itself. It needs to be known by a (human) subject who can know it and take pleasure in it in a sophisticated way. The cheetah does not value his speed in the required way' (Regan, 196, 215-16).

The closest approach to intrinsic value is what Callicott revealingly calls a 'truncated sense' that 'retains only half its traditional meaning' (143). 'The *source* of all value is human consciousness, but it by no means follows that the *locus* of all value is consciousness itself. ... An intrinsically valuable thing on this reading is valuable *for* its own sake, *for* itself, but it is not valuable *in* itself' (142-3). 'Value is, as it were, projected onto natural objects or events by the subjective feelings of observers. If all consciousness were annihilated at a stroke, ... only impassive phenomena would remain' (156).

Norton insists that the question means nothing for policy. 'It seems more important to understand the ways in which nonhuman species contribute to human values than to decide whether any particular value is best labeled as "intrinsic" (272). 'It is therefore immaterial whether the value of ecosystems

is regarded as intrinsic or as instrumental. This is one point at which an interesting philosophical debate does not affect managerial choices' (279).

That is perhaps an expedient approach on the floor of a legislature or in a bureaucrat's office; but is it logically and psychologically true? If no value exists except as hooked into human consciousness, anthropocentrism will sooner or later seep into our rationale, our affection, and our policy. The truth will out: species have no value except via human consciousness.

If one must skirt the language of intrinsic value, what humans desire to protect is best summed up by reverence for life. But these biologists and philosophers, daunted by science and contemporary value theory, never quite have the courage to say this. Explicitly shied from here, reverence for life underlies most of the widespread citizen support for the Endangered Species Act and tacitly underpins even these experts' concern for species.

Indeed, it is with species that anthropogenic value seems most strained. A species is the preservation of biological identity across millions of years (not a conveniently chosen class), and to invoke human consciousness as the source of this value may first seem rational but later invites *hubris*. In this sense the first inadequacy noted is related to the third; having insufficiently examined what a species is, these experts value species insufficiently. The 'preservation of species,' to play with the title, has been going on since Precambrian times, via extinction and respeciation; what a species does is preserve itself, through instantiation in individuals, as long as a fit environment persists. Until humans can preserve species in alliance with this nonanthropic preservation of species, their values will run shallow of what they seek to preserve.

These criticisms aside, this is one of those too few books that make philosophy vital in public life.

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