Conservation Biology

Conservation in Context

Special Note: After some 20 years of providing columns for *Conservation Biology*, this is the last regularly scheduled contribution from David Orr, who has asked to retire from this position to devote time to other pursuits. The Board of Governors and Executive Committee of SCB wish to express their profound thanks and gratitude to Professor Orr for his extraordinary and unparalleled service for nearly the entire life of this journal to date. His columns were consistently stimulating, often edgy, and his many insights and observations always challenging to our readers. His writings have been unique in bringing science, politics, economics, and social and ethical issues under a robust and uncompromising vision of what it means to do conservation in our time. His understanding of conservation and devotion to this journal are without equal. The Society recognizes and thanks him for his numerous and diverse contributions; his presence is irreplaceable, and he will be sorely missed in these pages.

Luigi Boitani
SCB President, on behalf of the Board of Governors and Executive Committee

Retrospect and Prospect: the Unbearable Lightness of Conservation

> Is there enough time? Yes, but not a minute more.
>
> Donella Meadows

In the summer of 1988, I received a phone call from David Ehrenfeld, the founding editor of a startup and presumably upstart journal called *Conservation Biology*. He called to ask if I would write a quarterly column for the journal on education. At the time I lived in the Arkansas Ozarks, gainfully employed as the codirector of a 1500-acre environmental education center. Our Governor was a bright, ambitious, and articulate rising star named Bill Clinton in an otherwise mostly undistinguished political herd. George Herbert Walker Bush and Dan Quayle would beat Michael Dukakis and Willie Horton for the U.S. presidency that year in a campaign of well-orchestrated distraction masterminded by Lee Atwater.

There were 1600 newspapers back then with a total circulation of 62,328,000 in a population of 244 million. The tsunami of the Internet was a faint white line on the distant horizon, but most of us did not see it. Richard Rhodes' book *The Making of the Atomic Bomb* would win the Pulitzer Prize for general nonfiction. The Human Genome Project was launched in 1988. Rush Limbaugh was heating up and Osama bin Laden was mulling it over and both were becoming equally certain. Maggie Thatcher was in full stride in the United Kingdom and Mikhail Gorbachev was presiding over the agonies of Perestroika and Glasnost while withdrawing Soviet troops from Afghanistan. Cracks in the Iron Curtain were deepening.

My youngest son, now an Episcopal priest, was part of an exchange program in Soviet Georgia that year. I purchased my first laptop computer in 1988. A terrorist bomb brought down Pan Am flight 103 over Lockerbie, Scotland, killing all 259 passengers and crew and 11 people on the ground. World population had just crossed the 5 billion mark. Carbon dioxide levels had reached ~355 ppm and were climbing at ~1 ppm per year. And James Hansen was up on Capitol Hill that summer explaining why the country was baking in the worst heat and drought since the dustbowl years, but most of his listeners remained comfortably comatose on the subject and would happily snooze on for 2 more decades. The word *sustainability* had just entered common use the year before with publication of the Brundtland Commission Report, *Our Common Future*.

All of that feels like so much ancient history. We were on the brink of historic changes including the collapse of the Soviet Union, the end of apartheid in South Africa, the economic boom of the 1990s—much of it fluff and inflated bookkeeping—and then came the time of global terrorism, the U.S. overreaction and the rapid demise of its imperial pretensions, and now the global economic collapse. We and this journal have lived through a transitional era, but it is unclear what we are transitioning to.

The year 1988 was 21 years and 63 columns ago, and this is my last. I have worked with the three editors of this journal and still count them as friends. With Gary Meffe's encouragement, the column eventually became "Conservation in Context," with a wider focus that included accompanying commentary from a variety of notables. The field

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is flourishing, due mostly to the dedication of the editors and editorial board of this journal and the commitment of the Board of Governors of the Society for Conservation Biology. Scholarship in conservation biology has taken deep root in the scientific community and is now a respected part of the Earth sciences. Conservation scholarship, much of it published in these pages, now has a hearing in the public and in policy circles that was not plausible in 1988. The national media, including *The New York Times*, regularly covers important articles in this journal. I do not presume to judge whether the journal has lived up to the challenge laid down by Michael Soulé and others at its founding, but it has certainly become a well-established and a respected journal with an "impact factor" that has risen from the low 2's to 4.7 last year.

But success as a scientific and academic venture is difficult to translate into real change, and the vital signs of Earth still trend downward. Few of us imagined the scale, depth, and duration of the problems we addressed so confidently in the decades past; I surely did not. Like many, I believed that tighter logic, more data, better science, and frontal assault by facts published, spoken, or broadcast with enough uumph would carry the day. They have not, at least not yet. And the human "footprint" on the planet continues to expand relentlessly. Conservation biologists have documented in considerable detail the loss of species while climate scientists are discovering almost daily how deep a hole we have dug for ourselves. Looking to the far side of what E. O. Wilson calls the "bottleneck," no moderately sane gambler would bet that *Homo sapiens* will pull out of its free fall or emerge intact through the century ahead.

In retrospect, I believe that all of us working for a habitable planet should have focused more clearly on politics and on the question of how good ideas move across the chasm from being right to being effective in the conduct of our public and international business. I think we should have been more skeptical about the market mania that swept like wildfire over our better judgment in those years. Instead, many came to believe that markets would solve all environmental problems if we just got the prices right. But it is clearer now that markets, at their extreme, eviscerate the desire to get prices right in the first place. And once dismantled in favor of the market, public institutions serving the common interest, including conservation, are hard if not impossible to rebuild.

Furthermore, I think we should have learned to be more adept, personable, and creative in talking to the public and the guys down at the truck stop and the women working two jobs to make ends meet. I think we might have gone to fewer scientific conferences in exotic places and to more Rotary meetings and tedious city council sessions. We should have talked less often to ourselves in a scientific jargon and more often to the public and in the common tongue. And we should have mastered the art of persuasion on radio and television the way some others have. We in the "environmental movement" are sometimes accused of being effete, overly intellectual snobs more concerned about nature than people, and there is some truth to that. Nonetheless, the founders, editors, contributors, and board of *Conservation Biology* can be justly proud of what they have collectively accomplished, as well as daunted by the challenges ahead.

I offer four concluding observations. First, we know enough right now to make far better decisions than we typically do about wildlife, ecosystems, and landscapes. That is to say, we do not lack for science or data—as important as they are—to make better decisions about our "management of nature" or any number of other things. What ails us, rather, is fundamentally political and is the result of the yawning chasm between the world of science (and intellect generally) and that of public affairs. The rickety bridge connecting these two worlds is a jerry-rigged, patchwork thing at best. The willingness to repair and strengthen the structure is impaired by the abysmal state of public knowledge of science, too much money in our politics, too much media distraction, and by the huge waste in energy, resources, imagination, money, and spirit that has gone into building and maintaining the American empire. It is not just the $1 trillion required to pay for the U.S. Department of Defense and its various wars, but also the waste of a great deal of our creativity, heart, and soul. Militarization and violence in the United States and elsewhere have been and remain the largest obstacles to conservation and the goal of sustainability. Our branch of the sustainability movement, accordingly, is a small part of a much larger effort to build a world that is secure for everyone—by design.

Second, the worldwide conversation about sustainability and the human future is larger than just the issues of biodiversity, pollution, climate change, land use, and resource scarcity. It also includes issues of technology and its directions. Twenty years and more ago there was still a fairly robust debate about our technologies, but no longer. Writers like Jacques Ellul, Lewis Mumford, David Ehrenfeld, Eugene Schwartz, and Neil Postman challenged the directions and purposes of technology. But the pace of change was to be too rapid to permit much reflection and we have become too enamored by the digitalization and miniaturization of our various prosthetic devices. Looking ahead, technological change continues to accelerate, possibly approaching what Ray Kurzweil calls the "singularity," at which point humans lose control. Where all this is going is anyone's guess, but some worry that our machines may soon outsmart humans (Markoff 2009). We presently lack the wherewithal and institutions to control what can be

likened to an addiction to our devices that could progressively undermine our privacy, politics, and security, and eventually our tenure on Earth. And that, too, is fundamentally a political problem.

Third, we are rapidly becoming an indoor species with fewer people spending time outdoors and with fewer experiential connections with nonhuman nature. Instead we are busy twittering, texting, ipoding, and blogging each other. We are seldom beyond one screen or another, whether television or computer. CNN is everywhere in airports, public spaces, and hotel elevators. Silence is seldom heard, and time to ponder, reflect, or meditate is an endangered experience. As often as not our children are strangers to the places in which they are growing up. It is not farfetched, as Bill McKibben once feared, that the time will soon come when the young will no longer be capable of understanding Thoreau's *Walden*. This is why Richard Louv's campaign to "leave no child indoors" is an important step in rethinking our directions and designing places that invite people outdoors again. The slow food movement, community agriculture, urban farms, and the transition-town movement are important allies in the effort to reconnect people and place again.

Finally, 21 years ago it would have been difficult to plausibly imagine the scope, scale, and rising intensity of the global movement to build a decent, fair, and sustainable world. The resilience of the human spirit in difficult times is *the* news of our age. It is evident in the pages of this journal and in the rising tide of science dedicated to issues of human and ecological health. But it is also manifested in the rising chorus of voices of people worldwide working on natural-systems agriculture, green building, biomimicry, community forestry, urban renewal, green business, renewable energy, wilderness and land preservation, and peace. Paul Hawken calls this "blessed unrest" and likens it to a planetary immune system. Perhaps. But something is clearly stirring worldwide and it is our privilege to be a small part of what our descendents may someday recognize as humankind's finest hour when conservation of biological diversity, land, people, and prospects became irreversible and irrevocable.

Literature Cited

Markoff, J. 2009. Scientists worry machines may outsmart man. *The New York Times*. Available from www.nytimes.com/2009/07/26/science/26robot.html (accessed September 2009).

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