

Book Review

Ecocide: A Short History of the Mass Extinction of Species. By Franz J. Broswimmer. 2002. Pluto Press, London UK and Sterling VA. xii + 204 p. \$69.95, ISBN 0-7453-1935-1, hardcover; \$24.95, ISBN 0-7453-1934-3, paperback.

Ecocide, a neologism coined by Franz Broswimmer, is defined as an act of intentional destruction or degradation of the environment. It is the cumulative sum of ecocidal acts that has resulted in the present, catastrophic loss of species around the globe—what Richard Leakey and Roger Lewin have recently termed the Sixth Extinction, since the rate and magnitude of contemporary species losses are similar to the five previous catastrophic mass extinction events documented in the fossil record.

The first four chapters of *Ecocide: A Short History of the Mass Extinction of Species* comprise a sweeping environmental history of humans, beginning with our hominid ancestors. Broswimmer paints a grim picture of accelerating species loss and environmental degradation, beginning with the late Pleistocene extinctions of large animals caused by early modern human hunters, then expanding through the extensive alteration of the Earth's surface caused by the spread of agriculture, then further worsened by the overexploitation of species resulting from the rise of capitalism and global trade networks, and finally culminating in the profound changes to global biogeochemical cycles and climate, and in toxification of air, water and soil, caused by the industrial revolution and the globalization of modern warfare. *Ecocide* covers much of the same material first presented by George Perkins Marsh in the 19th century, and more recently by Jared Diamond and Alfred Crosby.

Franz Broswimmer's stated intention in reviewing the environmental history of humans is to show how human cultural evolution, including technological advances and increases in the complexity of human social organization and social interchange, has resulted in the ongoing mass extinction event. He argues, correctly I believe, that the only way out of our present environmental crisis is to understand our current social institutions, and implement a strategy to reorganize them into forms that make it possible to attain a sustainable environment.

His suggestion is to reorganize human society toward something called 'ecological democracy'. Ecological democracy, as presented by Broswimmer, is primarily focused on expanded democratic decision-making and global social justice. Reduced consumption is acknowledged as important for attaining environmental sustain-

ability, but is given less emphasis than the goals of global equity and social justice. His most useful proposal, in my opinion, is for conservation scientists and environmental advocates to become better sociologists, thus acquiring the tools to inquire how institutions and individuals create different conceptions of 'interests', and how these conceptions might be modified to include concern for future generations of humans and other species by modifying the social systems within which we live.

Ecocide had its origins as a doctoral dissertation, and retains the structure of one. The main text of the book is only 105 pages, but an additional 100 pages are devoted to a detailed glossary, 35 tables, several hundred footnotes, the bibliography, and the index. Much of this extra material is quite peripheral to the main argument of the book.

The writing is crisp and the jargon is kept to a minimum. Unfortunately, the book is replete with scientific errors; it really could have used some careful reviewing by an ecologist. For example, the author repeatedly refers to the *late Quaternary* when he means *late Pleistocene*; he uses *plankton* when he means *protozoa*, *Aridipecus* when he means *Ardipithecus*. He states that polar bears were extirpated from New England in the 19th century; that martin, fisher and wolverine were driven extinct by the commercial fur trade; that several species of whales no longer exist due to overexploitation by whalers; and, most surprisingly, that 'the lemur' became critically endangered due to massive aerial bombing and application of chemical defoliants during the Vietnam war!

Ecocide: A Short History of the Mass Extinction of Species is a jeremiad that also succeeds in making some reasonable suggestions on how we might alter present social structures in ways that reduce our impact on other species. Social scientists who are unfamiliar with the history of human-caused extinctions and environmental degradation may find this short book useful, as may environmental scientists who are unfamiliar with the sociocultural influences on human behavior that have resulted in mass species extinctions. The book provides a wealth of data and interesting anecdotes about past and present human activities that have resulted in species loss. However, given the number of factual errors that I detected, I would recommend checking the sources of the data and anecdotes for accuracy before repeating them.

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