Book Reviews

Essays on Extinction

Wildlife in Danger. JAMES FISHER, NOEL SIMON, JACK VINCENT, and members and correspondents of the Survival Service Commission of the International Union for Conservation of Nature and Natural Resources. Viking, New York, 1969. 368 pp., illus. $12.95. A Studio Book.

The smaller the remnant population of some organism, the more difficult it is to study. Still, bit by bit, over the past several decades, the biological evidence on dwindling species has been brought together in the files of the Survival Service Commission of the International Union for the Conservation of Nature and Natural Resources. A few years ago the information on birds and mammals threatened with extinction was published in two Red Data Books. For each such animal there is a page of condensed information on biology and status. As new information comes in a new page is printed to replace the old.

The organization of the Red Data Books is taxonomic, so that it is a simple matter, for example, to scan the parrots for threatened forms.

The present volume, too, is based on the files of the Survival Service Commission. Its authors include those of the Red Data Books, and like those books it consists of accounts of threatened organisms taxonomically arranged. These accounts, however, are really individual essays. Each stands alone, yet the threat of extinction constitutes a theme which links them all together. Each is clearly written, logically organized, and packed with interesting information. Abundant, well-executed illustrations enliven the text. To the large sections on mammals and birds are added shorter ones on the much less intensively studied reptiles, amphibians, fishes, and plants. The book is introduced with a preface, a foreword, and an introduction. The last (by Fisher) does that rare thing among introductions—it really introduces the subject of the volume, which is the natural history of biotic extinction.

Biotic extinction is, of course, nothing new. Fisher, from the fossil record, places the mean life of a bird species at about two million years, and of a mammal at not much over 600,000. After that a species evolves into other species or becomes extinct. The pace of evolution—and of extinction—is much more rapid for island populations. Island forms, therefore, are prominent among species both extinct and threatened with extinction. In the West Indies the life of a bird species before colonization by man was only 180,000 years. But—and here is Fisher's main point—this figure dropped to 30,000 with colonization by aboriginal man, and to 12,000 with colonization from Europe.

The various major causes of biotic extinction can be grouped into natural causes (that is, changing through adaptation or being unable to adapt or compete) and effects of man, including hunting, introduced predators, introduced competitors, introduced diseases, and habitat alteration. Focusing on the period since 1600, which marked the beginning both of a rather definite knowledge of bird and mammal species and of the age of colonization, Fisher estimates that about 70 to 80 percent of both extinctions and serious population declines can be attributed to man's activities.

However, the living forms, not the extinct ones, are the topic of this book.

The first account, devoted to the thylacine, or Tasmanian "wolf," includes information on the fossil record, recent and present distribution, appearance and biology, and probable causes of decline. These include competition from the dingo on the Australian mainland, resulting in extinction, and relentless control efforts by man in Tasmania. However, the small remnant there has for some time been rigidly protected, and in 1966 a reserve covering much of the thylacine habitat was established. If there is to be reproduction, it will be here, since, although often captured, this species has never bred in confinement.

In contrast is the story of the indris, the largest of the lemurs so characteristic of Madagascar. Its forest habitat has been divided and diminished by clearing and burning until only small tracts remain. The fate of these is in the hands of the new nation of Malagasy, where good land is scarce and the colonial practice of locking it up for the sake of a few animals is perhaps "no longer in tune with proper development of the country."

There is nothing static in these accounts. None of them has, as yet, an end. And it is to keeping them endless—to keep each man-species relationship stretching on in perpetuity—that these authors and their organization are devoted.

Proceeds from the sale of this book will be applied to the further work of IUCN, to gather, digest, and promulgate more information, to enlist the support of an ever wider public, and to carry the efforts toward species preservation into the halls of power where man makes, for man, the decisions of such enduring biotic effect.

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The History of a Civilization

The Olmec World. IGNACIO BERNAL. Translated from the Spanish edition (Mexico City, 1968) by Doris Heyden and Fernando Horcasitas. University of California Press, Berkeley, 1969. xviii + 274 pp., illus. $12.50.

Ignacio Bernal, director of Mexico's venerable National Institute of Anthropology and History, attempts to "transform archeology into history." In doing so he continues what has long been a fundamental task of Mexican archeology: the reconstruction of social history from the sherds, stelae, and structures of the pre-Columbian past. Just as anthropology and history are joined in the name of the National Institute, so they are linked in actual practice by Mexican archeologists. The most recent result of this approach is that we have had open up before our eyes a whole new world: the Olmec world. Thirty years ago, no one would have dreamed that it existed.