presentation of the conference by J. H. Wills was a brief consideration of the effects of methoxychlor on smaller animals as guides in the design of a study with humans.

The final chapter is a transcript of the general discussion that concluded the conference. This is an invaluable portion of the book, as the experts' opinion on the effects of chlorinated hydrocarbons on birds are argued in depth (some 20 pages of text).

Generally the book is valuable because it is a record of what must have been a stimulating conference. I have questioned the feasibility of printing the proceedings of symposiums and conferences, but since this conference was small and by invitation, the book serves a purpose. The book will have limited usefulness because of the narrow coverage of the field of pesticides (i.e., only organomercurials). The cost may also be prohibitive for such a specific treatment. However, the book is the type that should be in all biology libraries, as it is an excellent primer for graduate and undergraduate seminars. Since the discussions are printed, the experts' arguments should be excellent for classroom use. With the current emphasis on environment, pollution, and conservation in high school and college curricula, the book definitely has a place. A little more effort on the literature by listing more of the important papers on the different topics rather than a literature-cited section would have doubled the value of the book. The editors and the publisher are to be congratulated for their role in the production of the book.

DONALD L. DAHLSTEN
Dept. of Entomology & Parasitology
Division of Biological Control
University of California
Berkeley

HENRY WALTER BATES, NATURALIST OF THE AMAZONS,

This book is an excellent resumé of Bates' 11 years of collecting and exploring on the Amazon River from 1848 to 1859. Enough biographical information is given to enable the reader to appreciate the man and his place in the history of the formative years of evolutionary thought although the bulk of the book consists of a description of the conditions, physical and cultural, of the Amazon valley as seen through Bates' eyes. Letters from Bates to his family, his agent, and his friends Alfred Russell Wallace and Charles Darwin are used to fill out the picture given by numerous excerpts from his epic book, "The Naturalist on the River Amazon." Woodcock's book stresses the human adventure side of Bates' travels, and as an entomologist I would have liked a bit more information on the natural history. Any entomologist who has neglected his education so far as not to have read Bates' classic should be stimulated to do so by reading Woodcock's well-written volume.

G. B. FAIRCHILD
Gorgas Memorial Laboratory
Panama, R.P.


The author's assessment of the water-pollution problem is illustrated by his introductory remarks about the situation in the United States. "Large portions of Lake Erie comprise an open sewer. Lake Michigan is rapidly becoming so polluted that any hope of reviving a commercial fishery seems gone. Great Salt Lake... is foul beyond description." In a more general vein he states, "It is safe to say that any body of water which is readily accessible in the United States is most certainly polluted."

To explore the problem he has reviewed selected references dealing with the biological aspects of water pollution. The materials are organized into 16 chapters dealing with the definition of pollution, the properties of water, general toxicological considerations, ecological considerations, pollution from metals, oils, pesticides, pulp-mill wastes, sanitary sewage, industrial wastes, radio-nuclides, and siltation as well as discussions of unique situations, indicator organisms, methods of study, and unsolved problems. More than 600 references are cited, with numerous figures and tables reproduced for illustration or reference.

The literature dealing with water pollution is increasing at a rapid rate and is scattered throughout the journals of numerous disciplines. For this reason such a review is of great value to the beginning student or investigator as an introduction to the literature. At the same time, the normal time lags in the publication process make such a review less useful than it would be in a less dynamic field. About 87% of the references cited were published in 1964 or before. Thus, there is concern expressed about problems that have now been solved, such as the need for biodegradable detergents or the pollution of Lake Washington with domestic sewage, but there is no mention of some of the problems of contemporary interest such as the pesticide contamination of the coho salmon in Lake Michigan or the impact of agricultural pollution from fertilizers or animal feedlots. Also, significant current pollution-control measures such as the establishment of water quality standards by all 50 States under the Water Quality Act of 1965 are not included.

The book suffers from a lack of emphasis on interpretation and explanation. The problem of acid mine pollution would be more understandable and the potential solutions more apparent if a paragraph had been devoted to a discussion of the processes that cause acid waters to be formed in mines. In like fashion, the problems of pesticides in the aquatic environment would be more understandable to the biologist if there were explanatory material on the relative solubilities of chlorinated hydrocarbons in water and lipids and on the metabolic conversions of many pesticides from one form to another. Tables are reproduced from several sources in which toxicities are expressed in several different units including TLM, median tolerance limits, LC50, incipient toxicity levels, threshold toxic values, and EC50. In some cases the units are defined in the table, in others they are somewhere in the text, and in others the only way to find their definition is to go back to the original reference. A summary of the meaning of these units in the introductory chapters would aid the reader.

The book should be useful as an introduction to some of the biological problems associated with water pollution, though the reader will still have to rely heavily on the original literature for a complete understanding of the problem.

ROGER W. BACHMANN
Department of Zoology and Entomology
Iowa State University
Ames, Iowa 50010