

## Book Reviews

Rita Hoots

Department Editor

### EPIDEMIOLOGY

**Epidemic! The World of Infectious Disease.** Edited by Rob DeSalle, American Museum of Natural History, 1999. The New Press (New York, NY). 246 pp. Paperback \$19.95.

 This book—the first in a planned series of at least four volumes by the American Museum of Natural History and based on their exhibits—is an outstanding collection of interrelated short essays, case studies, and profiles of scientists. The intended audience is the general reader. Helping to make the material accessible—to ages from the higher elementary school student to the interested adult reader—is clear and succinct prose, an abundance of informative and interesting illustrations, and an extensive glossary. The editor/contributors seem to assume little scientific background on the part of the reader but do not condescend in their complete and thorough presentations.

Epidemics are not presented by the book in the conventional approach describing geographic and historical outbreaks of disease. Instead, the focus is on the intricate relationships between disease-causing agents, the environment, and the ramifications of man's actions. Dr. DeSalle has organized the contributions of numerous internationally renowned researchers

into an extremely coherent text describing the sometimes overt and sometimes subtle manifestations of these factors.

The book is divided into six sections. At the beginning of each, the editor poses several succinct questions, addressed by the authors and serving to focus the reader's attention. For example, in the first chapter, "Evolution, Ecology, and Culture," DeSalle poses three questions: (1) "Given the number, the diversity, and the nature of microbes that cause disease, why are we still here" to Joshua Lederberg (Nobel laureate); (2) "Where do new diseases come from?" to Andrew Spielman (Professor of Tropical Public Health, Harvard School of Public Health); and, (3) "How does biodiversity affect disease" to Francesca T. Grifo (Director of the Center for Biodiversity and Conservation at the American Museum of Natural History). The case study in the chapter is on the multi-ranging effects of the introduction of cattle into the Serengeti Plain of Tanzania in the 1880s by both the British and Italians, and the domino-like destruction of indigenous fauna and flora, increased numbers of resistant disease-causing vectors and agents (e.g. rinderpest virus, tsetse fly, and *Trypanosoma rhodescens*), and the devastating affect on the Masai and Sukuma people.

The profiles describe individuals involved in research. Included are brief (1- to 2-page) descriptions and interviews include Mary Wilson (Harvard School of Public Health), Mathilde Krim (Co-founder and Chairman of the Board of American Foundation for AIDS Research), Anthony Fauci's (Director of the National Institute of Allergy and Infectious Disease), and Doctors Without Borders.

The one drawback to this book is the green color used for illustrations and tables. This is obviously a result of containing the price of the book and an easy trade-off for such a well designed, informative, and complete book. Placing disease in the context of the environment and human activity is both extremely important and well done. This book should be used with

one presenting widespread diseases in the more conventional approach.

**Killer Germs: Microbes and Diseases That Threaten Humanity.** By Barry E. Zimmerman & David J. Zimmerman. 1996. Contemporary Books, Inc. (2 Prudential Plaza, Chicago, IL 60601). 244 pp. Paperback \$14.95.

 According to the "About the Authors" section of this book, Barry and David Zimmerman are identical twins with 29 and 30 years, respectively, of teaching in New York City public schools. Their intimate knowledge of how to make microbiology interesting to middle (seventh and eighth grades) and high school students is evident and commendable.

This book is divided into 10 chapters: The origin of disease (e.g. spontaneous generation and the origin of life), Germs and Disease (e.g. Pasteur and Jenner), Magic Bullets (the development of modern pharmacology), The White Death (tuberculosis), New Kids on the Block (e.g. Lyme disease, and necrotizing myositis), viruses—including Emerging Viruses, Common Viruses that kill (e.g. hepatitis C), Parasites (e.g. Leishmaniasis), and AIDS.

The writing is clear, succinct, and should be interesting to the high school student. However, although there are no illustrations the authors present the content in a very readable format for the interested student—e.g. research for a science project or even a high school teacher preparing lessons (as with this reviewer). For example, the authors relate sufficient specific information to make the material real and useful to the general reader (e.g. a table of 28 famous people who suffered from or died from tuberculosis, e.g. Anton Chekov, Paul Gaughin and Nelson Mandela). There is enough new and accessory material to add something new to the plethora of microbiology books.

Used together, **Killer Germs** and **Epidemics!** supply a wealth of information that should be of great benefit to any library or biology resource area.

Gregory D. Fisher  
New Milford High School  
New Milford, CT 06776

**Rita Hoots**, Book Reviews Editor, is a Professor at Woodland Community College and teaches classes in the biological sciences, human anatomy, and chemistry. Her various degrees in the sciences, counseling, and education come from the City University of New York, University of Wisconsin-Madison, California State University-Sacramento, and the University of California-Berkeley. Before entering the education field, Hoots was for many years a researcher in cell ultrastructure and immunology. Her predominant passion in education is directed to the popularization and illumination of science for the public. Her address is: **Science Dept., Woodland Community College, 41605 Gibson Rd., Woodland, CA 95776; e-mail: rahoos@ix.netcom.com.**