

## Beasts of the Earth: Animals, Humans, and Disease

**E. Fuller Torrey  
and Robert H. Yolken**

**Rutgers University Press, New Brunswick, NJ, USA, 2005  
ISBN: 0-81-353571-9  
Pages: 191, Price US\$23.95**

In their new book *Beasts of the Earth: Animals, Humans, and Disease*, Torrey and Yolken provide us with a thoroughly researched and well-written account of the animal origins of many human diseases. With interesting insight into this very timely topic, the authors describe the impact of animals and their diseases on the rise and subsequent decline of ancient civilizations. The book traces the history of humans' relationship with animals as humans evolved from hunters to villagers, traders, and, more recently, pet owners and international consumers, an evolutionary process that has given microbes unlimited passports to new populations and geographic areas. As testament to the adaptability of these pathogens, the book describes the increasing challenges to global health presented by zoonotic infections recently emerging from parts of Asia and Africa.

Fortunately, Torrey and Yolken also have plenty of advice for how the scientific community can address these challenges. The authors strongly emphasize the need for closer coordination and communication between the medical and veterinary sectors at national and international levels. Stressing that it is illogical for the animal and human health worlds to conduct zoonotic disease research separately, they state that interdisciplinary zoonotic disease research centers should be the model research platforms for the future.

Those who have read the 2003 Institute of Medicine Report *Microbial Threats to Health: Emergence Detection and Response* (Institute of Medicine, 2003) may find many of the themes in this book familiar. However, as the authors chillingly state, "We live with these pathogens in a negotiated peace, but what happens when biological circumstances change?" Torrey and Yolken do an excellent job of reminding us of the interconnectedness between human and animal hosts and their pathogens and environments.

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## Viral Haemorrhagic Fevers, Perspectives in Medical Virology, Volume 11

**Colin R. Howard**

**Elsevier, Amsterdam,  
the Netherlands; 2005  
ISBN: 0-444-50660-8  
Pages: 205, Price US\$130**

*Viral Haemorrhagic Fevers* is a compact and highly readable monograph written by Collin Howard, an authoritative and veteran virologist with hands-on practical experience in this field. This volume is highly satisfying on a variety of levels. Self-contained chapters deal with each of the 4

taxonomic viral families (*Flaviviridae*, *Arenaviridae*, *Bunyaviridae*, and *Filoviridae*), which make up the category of viral hemorrhagic fever agents. The properties of each virus family are presented in terms of molecular virology and replication strategy, followed by the epidemiology, clinical presentation, and treatment options. Cross-referencing to other chapters is kept to a minimum, enhancing the readability of the text. The information is reasonably current, with the exception of the current Marburg outbreak in Angola. For each virus, the author offers his candid assessment of the available treatment options. My only quibble is that I do not share his pessimism that effective vaccines will not be developed and distributed in the near future.

The author made a conscious decision to avoid encyclopedic referencing to enhance readability. On occasion, this results in bold statements that the specialist might wish had been referenced. One example is the discussion of Whitewater Arroyo virus and its probable (but contentious) role in 3 fatal cases of hemorrhagic fever from 1999 to 2000. Another is a statement that infection of endothelial cells is a critical event in the pathogenesis of Ebola virus, which, to my knowledge, has never been adequately documented.

The text is enhanced by electron micrographs of representative agents, photographs of rodent reservoirs in their native habitat, maps of geographic distributions, and schematic representations of genome organization and replication strategies. The legend to Figure 2 in the Filovirus chapter compares Marburg and Ebola viruses, but only 1 image (which I recognize to be Marburg) is displayed.

The author states that this book was directed "primarily at healthcare workers, clinicians, and microbiologists wishing to gain a rapid overview of these widely varying agents." This

book should appeal to that audience, and also to a wider audience of persons interested in the public health ramifications of these serious viral diseases in their geographic niches as well as their potential to cause disease in industrialized nations, either when imported by returning travelers or deliberately released in an act of terrorism. These aspects of viral hemorrhagic fever agents are discussed in both the introductory and concluding

chapters of the book. A nice touch was the inclusion of a short annotated bibliography of books for the lay audience dealing with the history of these agents, plus a second list of specialized textbooks of more interest to the practicing virologist. Other appendices list useful Web sites and a capsule explanation of how biocontainment facilities are designed to deal with these fearsome pathogens. There is something for everyone in this

book; I will keep my copy handy, next to my desk.

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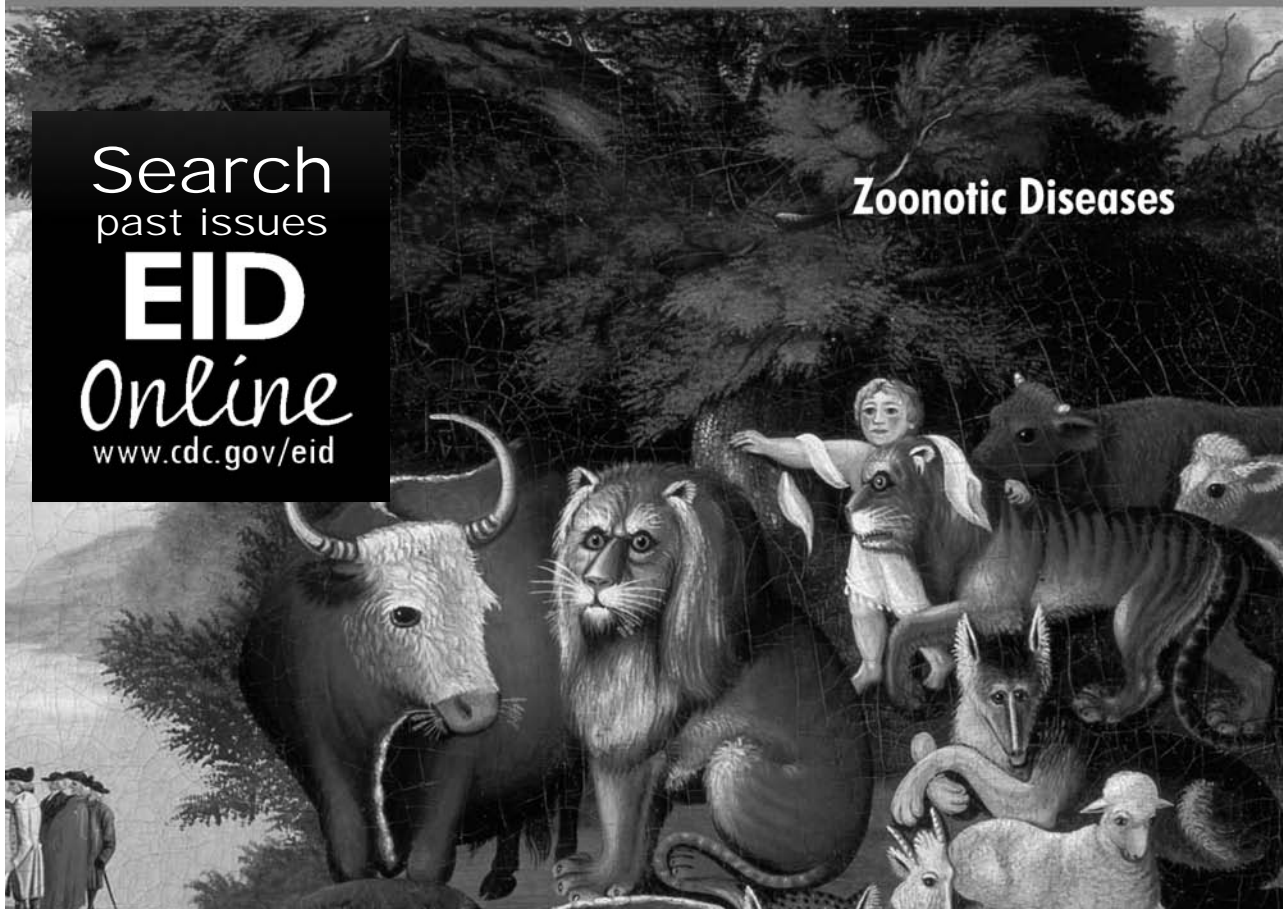
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**Zoonotic Diseases**



Humans found it hard to explain how animals could navigate in such conditions. We now know that this is because of the high number of rod cells in their eyes. The pigment in these cells is very sensitive to low light and is produced at a steady rate at night, allowing these animals to see. Other attributes could also earn innocent animals a bad reputation, such as the toad. Its sexual activity during mating season may have been frowned upon during the very religious Middle-Ages, Resl suggests: "I haven't found anything positive about toads." In their new book *Beasts of the Earth: Animals, Humans, and Disease*, Torrey and Yolken provide us with a thoroughly researched and well-written account of the animal origins of many human diseases. With interesting insight into this very timely topic, the authors describe the impact of animals and their diseases on the rise and subsequent decline of ancient civilizations. The book traces the history of humans' relationship with animals as humans evolved from hunters to villagers, traders, and, more recently, pet owners and international.

Humans have lived in close proximity to other animals for thousands of years. Recent scientific studies have even shown that the presence of animals has a positive effect on our physical and mental health. People with pets typically have lower blood pressure, show fewer symptoms of depression, and tend to get more exercise. Beginning with the domestication of farm animals nearly 10,000 years ago, *Beasts of the Earth* traces the ways that human-animal contact has evolved over time. Today, shared living quarters, overlapping ecosystems, and experimental surgical practices where organs or tissues are transplanted from non-humans into humans continue to open new avenues for the transmission of infectious agents. *Beasts of the Earth: Animals, Humans, and Disease* has been added to your Cart. Add to Cart. Buy Now. "This book is a wonderful combination of very readable scientific and historical underpinnings of past and present epidemics of the spread of diseases from animals to people. This is combined with charming literary glimpses of how these disasters were portrayed at the time." -- Sidney M. Wolfe, M.D., director, Public Citizen's Health Research Group, Washington, D.C. "A super book . . . this important book provides a novel perspective on the current and future status of human disease. Highly recommended." -- Joanne P. Webster, Ph.D., reader in parasite epidemiology, Imp In their new book *Beasts of the Earth: Animals, Humans, and Disease*, Torrey and Yolken provide us with a thoroughly researched and well-written account of the animal origins of many human diseases. With interesting insight into this very timely topic, the authors describe the impact of animals and their diseases on the rise and subsequent decline of ancient civilizations. The book traces the history of humans' relationship with animals as humans evolved from hunters to villagers, traders, and, more recently, pet owners and international.