Sustaining Life: How Human Health Depends on Biodiversity

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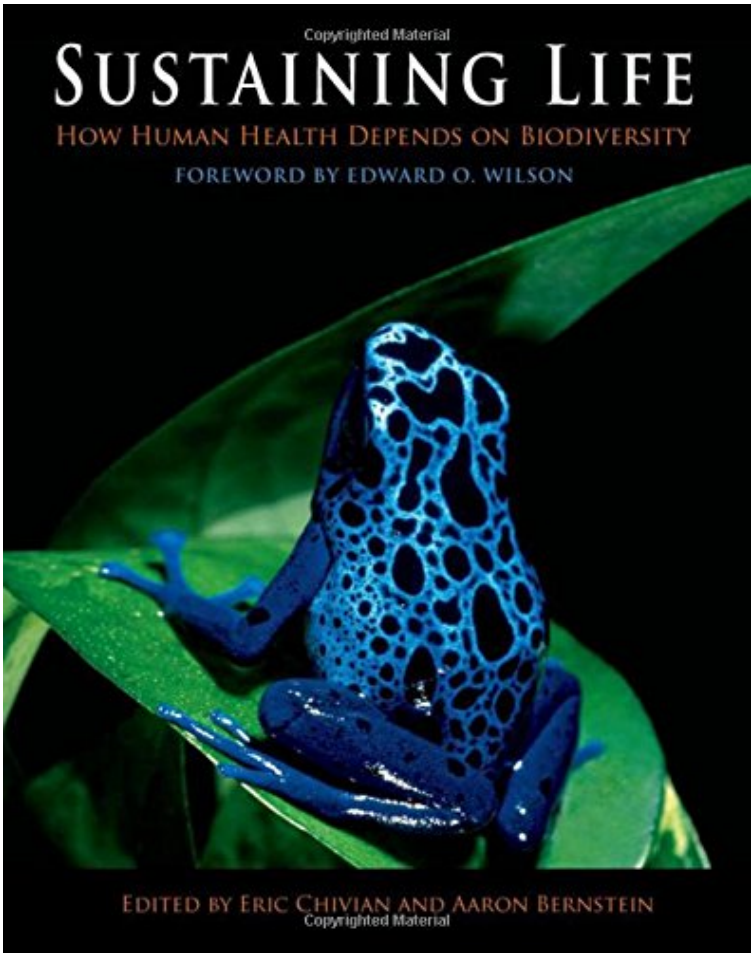

#424823 in Books 2008-06-02Original language:EnglishPDF # 1 8.50 x 1.50 x 11.10l, 4.69 #File Name: 0195175093568 pages | File size: 36.Mb

From Oxford University Press : Sustaining Life: How Human Health Depends on Biodiversity before purchasing it in order to gage whether or not it would be worth my time, and all praised Sustaining Life: How Human Health Depends on Biodiversity:

0 of 0 people found the following review helpful. Excellent amount of information about the relationship between flora and ...By FranExcellent amount of information about the relationship between flora and fauna of the earth and medicine. Very good as a reference book. You can see the authors on You Tube and their Harvard Website. The great thing is the authors continue to work in this field and you can see their progress on Biodiversity and Human Health online. One of the authors, Eric Chivian, got a Nobel Prize. No, this is not an easy book to read, as the authors claim that it was put into language for the lay person. The sentences are very long--although very beautiful and intelligent sentences. If you don't have any formal science background, like me, these sentences are a challenge to get through--if you're in a hurry. I bought the book and value it as a reference book. I like to check my knowledge: is this or that true?The index could stand to be filled out--there are gaps.0 of 0 people found the following review helpful. Already a

Classic! It will be referred to for decades to come...By Alan C. LoganIn 10 chapters, Sustaining Life brings together the writings of over a dozen highly respected scientists - each from various disciplines. An additional "who's who" list of contributing authors adds to the primary chapter content. For good measure, over 60 scientists and physicians are listed as chapter reviewers. This is critical for the final product, because just as surely as the book's primary message is made crystal clear - i.e. that loss of species biodiversity has a negative influence on human health and well-being - the diversity in background of the individuals involved in putting this book together provides broad perspective. These are experts in fields ranging from the genetics of microbes to primate behavior (and all sorts in between - experts in agriculture, nutrition, drug discovery, invasive species, infectious disease et al).Sustaining Life tackles some very difficult topics, including GMO foods (tempting as a means to efficiently feed the masses but as the authors state "there is still a great deal we do not know about some of the human health and, particularly, the environmental costs of current GM crop technologies"....going on to call the spread of select GM crops a global experiment that "does not seem wise").Arguably the most important chapter in the book is the last one "What individuals can do to help conserve biodiversity" by Jeffrey A. McNeely et al. Since this chapter begins with a good review section on "What are we doing to our planet?" a reader might want to read this chapter (Ch 10) first and then reflect upon it (i.e. what can we do) while proceeding through the book. Chapter 10 is beautifully written. Sustaining Life is now almost 5 years old, and it may be time for a second edition. Most of the topics covered in the text have expanded in their evidence base. As an example, studies have shown that the biodiversity in urban settings IS associated with mental health and overall well-being (e.g. Luck GW, et al. Relations between urban bird and plant communities and human well-being and connection to nature. Conserv Biol. 2011 Aug;25(4):816-26) - e.g. Fuller RA, et al. Psychological benefits of greenspace increase with biodiversity. Biol Lett. 2007 Aug 22;3(4):390-4.). Soil microbes have been shown to beneficially influence cognition and emotion in animal models (Matthews and Jenks 2010) and overall biodiversity of gut microbiota is linked with good health, indicating once again that we sit on a continuum of planetary biodiversity and health - from gut microbe to Giant Sequoia.As research continues to verify the subtitle of the book - How Human Health Depends on Biodiversity - Sustaining Life, expanded editions or not, will always remain the classic.1 of 1 people found the following review helpful. Highly Recommend!By Danielle CookI love this book. I got it for my personal knowledge and research, but it has come in handy for understanding either background information on several biodiversity issues or as supplemental research material that I've used in some of my class (college level) research papers. It is also a beautiful, full-color, high quality book at a very, very reasonable price. I was shocked when I got it. Other books like this would have cost way more. I'm very happy with my purchase and would recommend it to anyone with interest in this area.

The Earth's biodiversity-the rich variety of life on our planet-is disappearing at an alarming rate. And while many books have focused on the expected ecological consequences, or on the aesthetic, ethical, sociological, or economic dimensions of this loss, Sustaining Life is the first book to examine the full range of potential threats that diminishing biodiversity poses to human health. Edited and written by Harvard Medical School physicians Eric Chivian and Aaron Bernstein, along with more than 100 leading scientists who contributed to writing and reviewing the book, Sustaining Life presents a comprehensive--and sobering--view of how human medicines, biomedical research, the emergence and spread of infectious diseases, and the production of food, both on land and in the oceans, depend on biodiversity. The book's ten chapters cover everything from what biodiversity is and how human activity threatens it to how we as individuals can help conserve the world's richly varied biota. Seven groups of organisms, some of the most endangered on Earth, provide detailed case studies to illustrate the contributions they have already made to human medicine, and those they are expected to make if we do not drive them to extinction. Drawing on the latest research, but written in language a general reader can easily follow, Sustaining Life argues that we can no longer see ourselves as separate from the natural world, nor assume that we will not be harmed by its alteration. Our health, as the authors so vividly show, depends on the health of other species and on the vitality of natural ecosystems. With a foreword by E.O. Wilson and a prologue by Kofi Annan, and more than 200 poignant color illustrations, Sustaining Life contributes essential perspective to the debate over how humans affect biodiversity and a compelling demonstration of the human health costs. It is the winner of the Gerald L. Young Book Award in Human Ecology Best Sci-Tech Books of 2008 for Biology by Gregg Sapp of Library Journal

From Publishers WeeklyStarred . In 1992, the Center for Health and the Global Environment at Harvard Medical School agreed to coordinate a massive, international scientific effort under the direction of Nobel Peace Prize-winning scientist and author Chivian (Critical Condition: Human Health and the Environment) to catalog "what was known about how other species contribute to human health." The result of that extraordinary collaboration, involving more than 100 contributors, is this thorough volume, an invaluable resource for policy makers and a fascinating exploration for general readers of their hyper-connected biosphere. Species diversity, it turns out, acts as a kind of insurance policy for humans, by buffering stresses to the environment. The "mosaic of ecosystems" provide "services" (food, timber, air and water purification, waste decomposition, climate regulation) necessary for life that, due to their complexity and

scale, are almost impossible to substitute. Naturally, the system is robust but vulnerable: the vultures of southern Asia, for instance, are threatened with extinction because their natural diet-carrion-has been poisoned with medicine routinely prescribed for livestock and humans. Another "service" contributed by the ecosystem is the highly useful E. coli bacteria, used in biomedical research to develop new medications and provide insight into Alzheimer's and other diseases. This book represents a landmark addition to our understanding of our ecological heritage, and the importance of preserving it. 175 color illus. Copyright copy; Reed Business Information, a division of Reed Elsevier Inc. All rights reserved.From BooklistA collaborative survey of biodiversity issues written and/or reviewed for accuracy bynbsp;more thannbsp;100 scientists, this volume is motivated by its UN sponsorsrsquo; sense of the world populacersquo;s indifferencenbsp;to the consequences of environmental degradation. Conceiving that implicating human health with the health of other species may enlist its concern, the authors collectively warn that present extinction rates are abnormally high. Seven categories of endangered species stand in as portents of the dire effects to ecosystems when extinction occurs. One chapterrsquo;s discussion about the pharmaceutical value of species in the wild warns of irreparable impairment of medical discovery whenever a species expires. Such unaccounted benefits of biodiversity amount to this volumersquo;s major theme: the free ldquo;ecosystem services,rdquo; such as cleanliness and fecundity, furnished to watersheds and soils. Criticizing modern, industrial-scale marine fishing and agricultural practices, this volume holds forth organic farming as a viable alternative and offers readers an action list of things to do and organizations to join. Abundantly illustrated, this is a valuable, urgent resource suited to any general-interest library. --Gilbert Taylor "A landmark book that lays out the case for the conservation of biodiversity and the multiple benefits it provides - pharmacopeia, regulation of infectious diseases, and food production/security. Sustaining Life is a much needed resource and a call to appreciate and take action to conserve our biological diversity at this critical time."--Integrative and Comparative Biology"The book is perfect for undergraduate students in any biologic field, or as supplemental reading for a large number of graduate students in areas ranging from public health and medicine to ecology or biologic sciences. I also highly recommend it for physicians, scientists, policymakers, and the general public."--The New England Journal of Medicine"Well-written chapters on the threats to biodiversity and biodiversity's contributions to medical and biomedical research, with a sharp focus on seven threatened groups of organisms. Excellent color photographs, maps, and diagrams accompany a highly readable, low-jargon-laden text. Highly recommended."--Choice"Sustaining Life is the best work ever about what biodiversity means to human health." --Donald Kennedy, President Emeritus of Stanford University and Former Editor-in-Chief of Science"This remarkable volume Sustaining Life will be an important text for our introductory majors' course, Foundations of Biological Diversity, this fall at Harvard. There is nothing comparable that so well establishes our dependence on--and membership in--the consortia of species with which we share the planet, important to humans in every way." -- Brian Farrell, Professor of Biology and N. Michele Holbrook, Charles Bullard Professor of Forestry, Harvard University"Although written by physicians and scientists, the book is without jargon or esoteric terminology, and is highly accessible to the layperson. It is flush with beautiful photography, easily understood graphs, charts and illustrations, and three supplemental appendices. This exquisite text - surely destined to find its way into college curricula - is authoritative, with extensive references." -- Bookloons.comHighlighted in Conservation Magazine, Vol. 9 No. 4"An invaluable resource for policy makers and a fascinating exploration for general readers of their hyper-connected biosphere. This book represents a landmark addition to our understanding of our ecological heritage, and the importance of preserving it." -- Publishers Weekly"The book, the Silent Spring for frogs and fishes, is clear, readily understandable, and its message is compelling." -- Holcomb B. Noble, Pulitzer Prize winning science editor"It is a remarkable labor of love by its editors, Eric Chivian and Aaron Bernstein, and manages to merge three books in one: a textbook for scholars, a plea to policy makers, and a beautiful read for nonscientists. The production values and glossy photographs are superb. Heavily subsidised, it is ridiculously cheap, and should be on every undergraduate reading list and everyone else's gift list." -- The Lancet, Vol 372"Sustaining Life is the most complete and powerful argument I have seen for the importance of preserving biodiversity."--Al Gore, former Vice President, 2007 Nobel Peace Prize Laureate"It was an exhilarating moment when scientists broke the genome code and showed us the basic building blocks of the human being. Now scientists are showing us how biodiversity works and why it is crucial to saving our planet for our children's children and beyond. This important and compelling book is a blueprint for acting wisely and urgently."--Bill Moyers, former White House Press Secretary, Host of PBS's Bill Moyers Journal"There is probably no better way to convince anyone still uncertain about the urgent need to preserve biodiversity, which is rapidly diminishing as a result of human activities, than to document its importance to human health and medicine. The authors have done this with great thoroughness and from every possible angle, producing a volume that pairs authority with anecdote and scholarship with passion."--Harold Varmus, President, Memorial Sloan-Kettering Cancer Center, 1989 Nobel Prize Laureate, former Director of the National Institutes of Health"As a public health physician, I have been deeply involved for decades in helping political leaders, policy-makers, and the general public understand the relationship between human beings and the environment. Sustaining Life is the best and most comprehensive resource available demonstrating how human health depends on the health of the natural world."--Gro Brundtland, former Director-General of the World Health Organization, former Prime Minister of Norway"One of the main

reasons the world faces a global environmental crisis is the belief that we human beings are somehow separate from the natural world in which we live, and that we can therefore alter its physical, chemical, and biological systems without these alterations having any effect on humanity. Sustaining Life challenges this widely held misconception by demonstrating definitively, with the best and most current scientific information available, that human health depends, to a larger extent than we might imagine, on the health of other species and on the healthy functioning of natural ecosystems."--Kofi Annan, former Secretary-General of the United Nations, 2001 Nobel Peace Prize Laureate, from the Prologue"A powerhouse of information on a topic that concerns of us all. Highly recommended."--Irwin Weintraub, Library Journal s"Comprehensive and compelling...Well researched and with stunning graphicsthe volume could serve admirably as a college text or recommended reading for politicians, health and resource managers, and citizens at large." --Science