

By Lynn Margulis **Kingdoms And Domains An Illustrated Guide To The Phyla Of Life O 2009 02 10 Hardcover**

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Biological Innovations that Built the World - Roberto Ligrone 2020-08-15

The book is a detailed account of major biological events that contributed to create the present world and our species, with emphasis on cause-effect interrelationships and environmental impact. Its main goal is to guide the reader toward an understanding of the continuity of life across diversity, and of its large-scale interactions with the planet.

Combining scientific soundness with a constant effort for clarity, the book begins with a cloud of dust in a corner of the Galaxy and, covering an immense lapse of time, terminates with an organism that ponders about the texture of the Universe. Comprehensive, updated references added to each chapter will help the reader wishing to expand any of the topics. A glossary explains less common technical terms.

Entangled Life - Merlin Sheldrake 2021-04-13
NEW YORK TIMES BESTSELLER • A “brilliant [and] entrancing” (The Guardian) journey into the hidden lives of fungi—the great connectors of the living world—and their astonishing and intimate roles in human life, with the power to heal our bodies, expand our minds, and help us address our most urgent environmental problems. “Grand and dizzying in how thoroughly it recalibrates our understanding of the natural world.”—Ed Yong, author of *I Contain Multitudes* ONE OF THE BEST BOOKS OF THE YEAR—Time, BBC Science Focus, The

Daily Mail, Geographical, The Times, The Telegraph, New Statesman, London Evening Standard, Science Friday When we think of fungi, we likely think of mushrooms. But mushrooms are only fruiting bodies, analogous to apples on a tree. Most fungi live out of sight, yet make up a massively diverse kingdom of organisms that supports and sustains nearly all living systems. Fungi provide a key to understanding the planet on which we live, and the ways we think, feel, and behave. In *Entangled Life*, the brilliant young biologist Merlin Sheldrake shows us the world from a fungal point of view, providing an exhilarating change of perspective. Sheldrake’s vivid exploration takes us from yeast to psychedelics, to the fungi that range for miles underground and are the largest organisms on the planet, to those that link plants together in complex networks known as the “Wood Wide Web,” to those that infiltrate and manipulate insect bodies with devastating precision. Fungi throw our concepts of individuality and even intelligence into question. They are metabolic masters, earth makers, and key players in most of life’s processes. They can change our minds, heal our bodies, and even help us remediate environmental disaster. By examining fungi on their own terms, Sheldrake reveals how these extraordinary organisms—and our relationships with them—are changing our understanding of how life works. Winner of the Wainwright Prize,

the Royal Society Science Book Prize, and the Guild of Food Writers Award • Shortlisted for the British Book Award • Longlisted for the Rathbones Folio Prize

Five Kingdoms - Lynn Margulis 1996
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Slanted Truths - Lynn Margulis 2013-11-27
"Lynn Margulis is one of the most successful synthetic thinkers in modern biology. This collection of her work, enhanced by essays co-authored with Dorion Sagan, is a welcome introduction to the full breadth of her many contributions." EDWARD O. WILSON, AUTHOR OF THE DIVERSITY OF LIFE "An important contribution to the history of the 20th century. Read it and you will taste the flavor of real science." JAMES LOVELOCK, AUTHOR OF GAIA: A NEW LOOK AT LIFE ON EARTH "Truly inspirational and of fundamental importance. This thoughtful series of essays on some of the largest questions concerning the nature of life on earth deserves careful study." PETER RAVEN, MISSOURI BOTANICAL GARDEN

Ecology and Classification of North American Freshwater Invertebrates - James H. Thorp 2010

The third edition of Ecology and Classification of North American Freshwater Invertebrates continues the tradition of in-depth coverage of the biology, ecology, phylogeny, and identification of freshwater invertebrates from the USA and Canada. This text serves as an authoritative single source for a broad coverage of the anatomy, physiology, ecology, and phylogeny of all major groups of invertebrates in inland waters of North America, north of Mexico.

Morphogenesis Deconstructed - Len Pismen
2020-01-02

This book is about morphogenesis as the genesis of forms. It is not restricted to plants growing from seed or animals developing from an embryo (although these do supply the most abundant examples) but also addresses kindred processes, from inorganic to social to biomorphic technology. It is about our morphogenetic universe: unplanned, unfair and frustratingly complicated but benevolent in allowing us to emerge, survive, and inquire into its laws.

Five Kingdoms - Lynn Margulis 1996

Lynn Margulis - Dorion Sagan 2012

Tireless, controversial, and hugely inspirational to those who knew her or encountered her work, Lynn Margulis was a scientist whose intellectual energy and interests knew no bounds. Best known for her work on the origins of eukaryotic cells, the Gaia hypothesis, and symbiogenesis as a driving force in evolution, her work has forever changed the way we understand life on Earth. When Margulis passed away in 2011, she left behind a groundbreaking scientific legacy that spanned decades. In this collection, Dorion Sagan, Margulis's son and longtime collaborator, gathers together the voices of friends and colleagues to remark on her life and legacy, in essays that cover her early collaboration with James Lovelock, her fearless face-off with Richard Dawkins during the so-called "Battle of Balliol" at Oxford, the intrepid application of her scientific mind to the insistence that 9/11 was a false-flag operation, her affinity for Emily Dickinson, and more. Margulis was elected to the National Academy of Sciences in 1983, received the prestigious National Medal of Science in 1999, and her papers are permanently archived at the Library of Congress. Less than a month before her untimely death, Margulis was named one of the twenty most influential scientists alive - one of only two women on this list, which include such scientists as Stephen Hawking, James Watson, and Jane Goodall.

How Things Are: Science Tool Kit For The Mind - John Brockman 1910

Five Kingdoms - Lynn Margulis 2002-01-01
Provides an expert overview of all of the 92 phyla living today, with examples from select genera. Includes over 500 illustrations, photographs and several QuickTime videos. Most of the 500 specific drawings and pictures have hyperlinked explanatory text clips! An interactive habitat key allows the user to discover where these organisms live and an illustrated glossary defines more than 700 scientific terms.

Acquiring Genomes - Lynn Margulis 2008-08-01
How do new species evolve? Although Darwin identified inherited variation as the creative force in evolution, he never formally speculated where it comes from. His successors thought that new species arise from the gradual

accumulation of random mutations of DNA. But despite its acceptance in every major textbook, there is no documented instance of it. Lynn Margulis and Dorion Sagan take a radically new approach to this question. They show that speciation events are not, in fact, rare or hard to observe. Genomes are acquired by infection, by feeding, and by other ecological associations, and then inherited. *Acquiring Genomes* is the first work to integrate and analyze the overwhelming mass of evidence for the role of bacterial and other symbioses in the creation of plant and animal diversity. It provides the most powerful explanation of speciation yet given.

Kin - John L. Ingraham 2017-05-08

By unlocking the evolutionary information contained in cells, biologists have been able to construct the Tree of Life and show that its three main stems are dominated by microbes. Plants and animals constitute a small upper branch in one stem. Soon we may know how life began over 3.5 billion years ago. John Ingraham tells this story of discovery.

Symbiogenesis - Boris Mikhaylovich Kozo-Polyansky 2010-06-15

Evolution.

Tempo and Mode in Evolution - for the National Academy of Sciences 1995-02-09

Since George Gaylord Simpson published *Tempo and Mode in Evolution* in 1944, discoveries in paleontology and genetics have abounded. This volume brings together the findings and insights of today's leading experts in the study of evolution, including Ayala, W. Ford Doolittle, and Stephen Jay Gould. The volume examines early cellular evolution, explores changes in the tempo of evolution between the Precambrian and Phanerozoic periods, and reconstructs the Cambrian evolutionary burst. Long-neglected despite Darwin's interest in it, species extinction is discussed in detail. Although the absence of data kept Simpson from exploring human evolution in his book, the current volume covers morphological and genetic changes in human populations, contradicting the popular claim that all modern humans descend from a single woman. This book discusses the role of molecular clocks, the results of evolution in 12 populations of *Escherichia coli* propagated for 10,000 generations, a physical map of *Drosophila* chromosomes, and evidence for

"hitchhiking" by mutations.

Parasite Rex - Carl Zimmer 2001-11-09

A look inside the often hidden world of parasites turns the clock back to the beginning of life on Earth to answer key questions about these highly evolved and resilient life forms.

The Illustrated Five Kingdoms - Lynn Margulis 1994

This text provides a rich understanding and appreciation of the world's biodiversity by presenting examples of each of the some 100 major groups (phyla) illustrated in their natural habitats. Includes: - Introduction - Monera - Protoctista - Fungi - Animalia - Plantae - Appendix classification - Glossary.

Staying with the Trouble - Donna J. Haraway 2016-08-19

In the midst of spiraling ecological devastation, multispecies feminist theorist Donna J. Haraway offers provocative new ways to reconfigure our relations to the earth and all its inhabitants. She eschews referring to our current epoch as the Anthropocene, preferring to conceptualize it as what she calls the Chthulucene, as it more aptly and fully describes our epoch as one in which the human and nonhuman are inextricably linked in tentacular practices. The Chthulucene, Haraway explains, requires sym-poiesis, or making-with, rather than auto-poiesis, or self-making. Learning to stay with the trouble of living and dying together on a damaged earth will prove more conducive to the kind of thinking that would provide the means to building more livable futures. Theoretically and methodologically driven by the signifier SF—string figures, science fact, science fiction, speculative feminism, speculative fabulation, so far—*Staying with the Trouble* further cements Haraway's reputation as one of the most daring and original thinkers of our time.

The Tangled Tree - David Quammen 2019-08-06

In this New York Times bestseller and longlist nominee for the National Book Award, "our greatest living chronicler of the natural world" (The New York Times), David Quammen explains how recent discoveries in molecular biology affect our understanding of evolution and life's history. In the mid-1970s, scientists began using DNA sequences to reexamine the history of all life. Perhaps the most startling discovery to

come out of this new field—the study of life’s diversity and relatedness at the molecular level—is horizontal gene transfer (HGT), or the movement of genes across species lines. It turns out that HGT has been widespread and important; we now know that roughly eight percent of the human genome arrived sideways by viral infection—a type of HGT. In *The Tangled Tree*, “the grandest tale in biology....David Quammen presents the science—and the scientists involved—with patience, candor, and flair” (Nature). We learn about the major players, such as Carl Woese, the most important little-known biologist of the twentieth century; Lynn Margulis, the notorious maverick whose wild ideas about “mosaic” creatures proved to be true; and Tsutomu Wantanabe, who discovered that the scourge of antibiotic-resistant bacteria is a direct result of horizontal gene transfer, bringing the deep study of genome histories to bear on a global crisis in public health. “David Quammen proves to be an immensely well-informed guide to a complex story” (The Wall Street Journal). In *The Tangled Tree*, he explains how molecular studies of evolution have brought startling recognitions about the tangled tree of life—including where we humans fit upon it. Thanks to new technologies, we now have the ability to alter even our genetic composition—through sideways insertions, as nature has long been doing. “The Tangled Tree is a source of wonder....Quammen has written a deep and daring intellectual adventure” (The Boston Globe).

Chimeras and Consciousness - Lynn Margulis 2011

Scientists elucidate the astounding collective sensory capacity of Earth and its evolution through time.

Five Kingdoms - Lynn Margulis 1982

What Darwin Got Wrong - Jerry Fodor
2011-02-24

Jerry Fodor and Massimo Piatelli-Palmarini, a distinguished philosopher and scientist working in tandem, reveal major flaws at the heart of Darwinian evolutionary theory. They do not deny Darwin's status as an outstanding scientist but question the inferences he drew from his observations. Combining the results of cutting-edge work in experimental biology with crystal-

clear philosophical argument they mount a devastating critique of the central tenets of Darwin's account of the origin of species. The logic underlying natural selection is the survival of the fittest under changing environmental pressure. This logic, they argue, is mistaken. They back up the claim with evidence of what actually happens in nature. This is a rare achievement - the short book that is likely to make a great deal of difference to a very large subject. What Darwin Got Wrong will be controversial. The authors' arguments will reverberate through the scientific world. At the very least they will transform the debate about evolution.

Prokaryotology - Sorin Sonea 2000

Prokaryotes are profoundly original, highly efficient microorganisms that have played a decisive role in the evolution of life on Earth. Although disjunct, taken together their cells form one global superorganism or biological system. One of the results of their non-Darwinian evolution has been the development of enormous diversity and bio-energetic variety. Prokaryotic cells possess standardized mechanisms for easy gene exchanges (lateral gene transfer) and they can behave like receiving and broadcasting stations for genetic material. Ultimately, the result is a global communication system based on the prokaryotic hereditary patrimony, by analogy, a two-billion-year-old world wide web for their benefit. Eukaryotes have evolved from the association of at least three complementary prokaryotic cells, and their subsequent development has been enriched and accelerated by symbioses with other prokaryotes. One of these symbioses was responsible for the origin of vascular plants which transformed vast sections of the continental surface of the Earth from deserts to areas with luxuriant, life-supporting vegetation. All forms of life on our planet are directly or indirectly sustained and enriched by the positive contribution of prokaryotes. Sorin Sonea and Léo G. Mathieu have been professors at the Department of Microbiology and Immunology (Faculty of Medicine) at the Université de Montréal. They have long been advocates of the ideas presented in this book.

Symbiotic Planet - Lynn Margulis 1998-10-08
Named "best biology book of the year" by

Library Journal, "Symbiotic Planet" describes how symbiosis is the key to understanding the origins of cells, the evolution of sex, the emergence of life on land, and even the physiology of our planet.

One Plus One Equals One - John Archibald
2014-06-26

We are in the midst of a revolution. It is a scientific revolution built upon the tools of molecular biology, with which we probe and prod the living world in ways unimaginable a few decades ago. Need to track a bacterium at the root of a hospital outbreak? No problem: the offending germ's complete genetic profile can be obtained in 24 hours. We insert human DNA into *E. coli* bacteria to produce our insulin. It is natural to look at biotechnology in the 21st century with a mix of wonder and fear. But biotechnology is not as 'unnatural' as one might think. All living organisms use the same molecular processes to replicate their genetic material and the same basic code to 'read' their genes. The similarities can be seen in their DNA. Here, John Archibald shows how evolution has been 'plugging-and-playing' with the subcellular components of life from the very beginning and continues to do so today. For evidence, we need look no further than the inner workings of our own cells. Molecular biology has allowed us to gaze back more than three billion years, revealing the microbial mergers and acquisitions that underpin the development of complex life. *One Plus One Equals One* tells the story of how we have come to this realization and its implications.

The Songs of Trees - David George Haskell
2017

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Kingdoms & Domains - Lynn Margulis 2009

"This extraordinary, all inclusive catalogue of the world's living organisms describes the diversity of the major groups, or phyla, of nature's most inclusive taxa. Developed after consultation with specialists, this modern classification scheme is consistent both with the fossil record and with recent molecular, morphological and metabolic data. Generously illustrated, now in full color, *Kingdoms and Domains* is remarkably easy to read. It accesses the full range of life forms that still inhabit our planet and logically and explicitly classifies them according to their

evolutionary relationships. Definitive characteristics of each phylum are professionally described in ways that, unlike most scientific literature, profoundly respect the needs of educators, students and nature lovers. This work is meant to be of interest to all evolutionists as well as to conservationists, ecologists, genomicists, geographers, microbiologists, museum curators, oceanographers, paleontologists and especially nature lovers whether artists, gardeners or environmental activists."--Jacket.

The Third Domain - Tim Friend 2007-08-12

The Third Domain is the untold story of how the discovery of a new form of life—first ridiculed, then ignored for the past thirty years by mainstream scientists—is revolutionizing science, industry, and even our search for extraterrestrial life. Classification is a serious issue for science: if you don't know what you're looking at, how can you interpret what you see? Starting with Carolus Linnaeus in the 17th century, scientists have long struggled to order and categorize the many forms of life on Earth. But by the early 20th century the tree of life seemed to have stabilized, with two main domains of life at its roots: single-celled and multi-celled organisms. All creatures fit into one of these two groups. Or so we thought. But in 1977, a lone scientist named Carl Woese determined that archaea—biochemically and genetically unique organisms that live and thrive in some of the most inhospitable environments on Earth—were a distinct form of life, unlike anything seen on Earth before. This shocking discovery was entirely incompatible with the long-standing classification of life as we know it. But as it turned out, archaea were not life as we know it, and the tree of life had to be uprooted once again. Now, archaea are being hailed as one of the most important scientific revelations of the 20th century. The Third Domain tells the story of their strange potential and investigates their incredible history to provide a riveting account of an astonishing discovery.

Microcosmos - Lynn Margulis 1997-05-29

BACK IN PRINT WITH A REVISED PREFACE

Microcosmos brings together the remarkable discoveries of microbiology of the past two decades and the pioneering research of Dr. Margulis to create a vivid new picture of the

world that is crucial to our understanding of the future of the planet. Addressed to general readers, the book provides a beautifully written view of evolution as a process based on interdependency and their interconnectedness of all life on the planet.

How Life Began - Alexandre Meinesz
2010-02-15

The origin of life is a hotly debated topic. The Christian Bible states that God created the heavens and the Earth, all in about seven days roughly six thousand years ago. This episode in Genesis departs markedly from scientific theories developed over the last two centuries which hold that life appeared on Earth about 3.5 billion years ago in the form of bacteria, followed by unicellular organisms half a millennia later. It is this version of genesis that Alexandre Meinesz explores in this engaging tale of life's origins and evolution. *How Life Began* elucidates three origins, or geneses, of life—bacteria, nucleated cells, and multicellular organisms—and shows how evolution has sculpted life to its current biodiversity through four main events—mutation, recombination, natural selection, and geologic cataclysm. As an ecologist who specializes in algae, the first organisms to colonize Earth, Meinesz brings a refreshingly novel voice to the history of biodiversity and emphasizes here the role of unions in organizing life. For example, the ingestion of some bacteria by other bacteria led to mitochondria that characterize animal and plant cells, and the chloroplasts of plant cells. As Meinesz charmingly recounts, life's grandeur is a result of an evolutionary tendency toward sociality and solidarity. He suggests that it is our cohesion and collaboration that allows us to solve the environmental problems arising in the decades and centuries to come. Rooted in the science of evolution but enlivened with many illustrations from other disciplines and the arts, *How Life Began* intertwines the rise of bacteria and multicellular life with Vermeer's portrait of Antoni van Leeuwenhoek, the story of Genesis and Noah, Meinesz's son's early experiences with Legos, and his own encounters with other scientists. All of this brings a very human and humanistic tone to Meinesz's charismatic narrative of the three origins of life.

What is Life? - Lynn Margulis 1995

Transcending the various formal concepts of life, this captivating book offers a unique overview of life's history, essences, and future. "A masterpiece of scientific writing. You will cherish "What Is Life?" because it is so rich in poetry and science in the service of profound philosophical questions".--Mitchell Thomashow, "Orion". 9 photos. 11 line illustrations.

The Vital Question - Nick Lane 2015

Why is life the way it is? Bacteria evolved into complex life just once in four billion years of life on earth—and all complex life shares many strange properties, from sex to ageing and death. If life evolved on other planets, would it be the same or completely different? In *The Vital Question*, Nick Lane radically reframes evolutionary history, putting forward a cogent solution to conundrums that have troubled scientists for decades. The answer, he argues, lies in energy: how all life on Earth lives off a voltage with the strength of a bolt of lightning. In unravelling these scientific enigmas, making sense of life's quirks, Lane's explanation provides a solution to life's vital questions: why are we as we are, and why are we here at all? This is ground-breaking science in an accessible form, in the tradition of Charles Darwin's *The Origin of Species*, Richard Dawkins' *The Selfish Gene*, and Jared Diamond's *Guns, Germs and Steel*.

Kingdoms and Domains - Lynn Margulis
2009-03-19

Now published by Academic Press and revised from the author's previous *Five Kingdoms* 3rd edition, this extraordinary, all inclusive catalogue of the world's living organisms describes the diversity of the major groups, or phyla, of nature's most inclusive taxa. Developed after consultation with specialists, this modern classification scheme is consistent both with the fossil record and with recent molecular, morphological and metabolic data. Generously illustrated, now in full color, *Kingdoms and Domains* is remarkably easy to read. It accesses the full range of life forms that still inhabit our planet and logically and explicitly classifies them according to their evolutionary relationships. Definitive characteristics of each phylum are professionally described in ways that, unlike most scientific literature, profoundly respect the needs of educators, students and nature lovers.

This work is meant to be of interest to all evolutionists as well as to conservationists, ecologists, genomicists, geographers, microbiologists, museum curators, oceanographers, paleontologists and especially nature lovers whether artists, gardeners or environmental activists. Kingdoms and Domains is a unique and indispensable reference for anyone intrigued by a planetary phenomenon: the spectacular diversity of life, both microscopic and macroscopic, as we know it only on Earth today. • New Foreword by Edward O. Wilson • The latest concepts of molecular systematics, symbiogenesis, and the evolutionary importance of microbes • Newly expanded chapter openings that define each kingdom and place its members in context in geological time and ecological space • Definitions of terms in the glossary and throughout the book • Ecostrips, illustrations that place organisms in their most likely environments such as deep sea vents, tropical forests, deserts or hot sulfur springs • A new table that compares features of the most inclusive taxa • Application of a logical, authoritative, inclusive and coherent overall classification scheme based on evolutionary principles

Five Kingdoms - Lynn Margulis 1996

Five Kingdoms - Lynn Margulis 1997-12-15

An all-inclusive catalogue of the world's living diversity, "Five Kingdoms defines and describes the major divisions of nature's five great kingdoms--bacteria, protoctists, animals, fungi, and plants--using a modern classification scheme that is consistent with both the fossil record and molecular data. Generously illustrated and easy to follow, it not only allows students to sample the full range of life forms inhabiting our planet but to familiarize themselves with the taxonomic theories by which all organisms' origins and distinctive characteristics are traced and classified. This completely revised and updated third edition includes an introduction by Stephen Jay Gould. * New ideas on molecular systematics, symbiogenesis, and the place of microbes in the evolution of life * Newly expanded chapter openings that define each kingdom and place its members in context in time and space * Definitions of terms in the

glossary and, now, also appropriately placed throughout the book * A new table comparing the main features of each kingdom, showing the logic of the overall classification scheme * A list of prehistoric dioramas in science museums and in U.S. national parks and monuments guiding readers to trips to the past * A list of websites directing students to additional information
Symbiotic Planet - Lynn Margulis 2008-08-05
Although Charles Darwin's theory of evolution laid the foundations of modern biology, it did not tell the whole story. Most remarkably, *The Origin of Species* said very little about, of all things, the origins of species. Darwin and his modern successors have shown very convincingly how inherited variations are naturally selected, but they leave unanswered how variant organisms come to be in the first place. In *Symbiotic Planet*, renowned scientist Lynn Margulis shows that symbiosis, which simply means members of different species living in physical contact with each other, is crucial to the origins of evolutionary novelty. Ranging from bacteria, the smallest kinds of life, to the largest -- the living Earth itself -- Margulis explains the symbiotic origins of many of evolution's most important innovations. The very cells we're made of started as symbiotic unions of different kinds of bacteria. Sex -- and its inevitable corollary, death -- arose when failed attempts at cannibalism resulted in seasonally repeated mergers of some of our tiniest ancestors. Dry land became forested only after symbioses of algae and fungi evolved into plants. Since all living things are bathed by the same waters and atmosphere, all the inhabitants of Earth belong to a symbiotic union. Gaia, the finely tuned largest ecosystem of the Earth's surface, is just symbiosis as seen from space. Along the way, Margulis describes her initiation into the world of science and the early steps in the present revolution in evolutionary biology; the importance of species classification for how we think about the living world; and the way "academic apartheid" can block scientific advancement. Written with enthusiasm and authority, this is a book that could change the way you view our living Earth.

Spotted Owl, *Strix Occidentalis* - Mark Zarn 1974

Five Kingdoms - Lynn Margulis 1998

An all-inclusive catalogue of the world's living diversity, *Five Kingdoms* defines and describes the major divisions, or phyla, of nature's five great kingdoms - bacteria, protists, animals, fungi, and plants - using a modern classification scheme that is consistent with both the fossil record and molecular data. Generously illustrated and remarkably easy to follow, it not only allows readers to sample the full range of life forms inhabiting our planet but to familiarize themselves with the taxonomic theories by which all organisms' origins and distinctive characteristics are traced and classified.

Rare Earth - Peter D. Ward 2007-05-08

What determines whether complex life will arise on a planet, or even any life at all? Questions such as these are investigated in this groundbreaking book. In doing so, the authors synthesize information from astronomy, biology, and paleontology, and apply it to what we know about the rise of life on Earth and to what could

possibly happen elsewhere in the universe.

Everyone who has been thrilled by the recent discoveries of extrasolar planets and the indications of life on Mars and the Jovian moon Europa will be fascinated by *Rare Earth*, and its implications for those who look to the heavens for companionship.

Third Culture - John Brockman 1996-05-07

This eye-opening look at the intellectual culture of today--in which science, not literature or philosophy, takes center stage in the debate over human nature and the nature of the universe--is certain to spark fervent intellectual debate.

What Is Life? - Lynn Margulis 2000-08-31

Transcending the various formal concepts of life, this captivating book offers a unique overview of life's history, essences, and future. "A masterpiece of scientific writing. You will cherish "What Is Life?" because it is so rich in poetry and science in the service of profound philosophical questions".--Mitchell Thomashow, "Orion". 9 photos. 11 line illustrations.