1. Record Nr. UNINA9910821504403321

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Titolo	Why Size Matters : From Bacteria to Blue Whales / / John Tyler Bonner
Pubbl/distr/stampa	Princeton, NJ : , : Princeton University Press, , [2011] ©2006
ISBN	1-283-35435-7 9786613354358 1-4008-3755-3
Edizione	[Course Book]
Descrizione fisica	1 online resource (176 p.)
Disciplina	578.41
Soggetti	Body size Growth Body Weights and Measures Growth and Development Body Constitution Anthropometry Physiological Phenomena Investigative Techniques Physical Examination Physiological Processes Diagnostic Techniques and Procedures Therapeutics Diagnosis Body Size Zoology Health & Biological Sciences Animal Anatomy & Embryology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Frontmatter -- CONTENTS -- PREFACE / Harbour, Margaree -- Chapter 1. INTRODUCTION -- Chapter 2. THE HUMAN VIEW OF SIZE -- Chapter 3. THE PHYSICS OF SIZE -- Chapter 4. THE EVOLUTION OF SIZE --

Chapter 5. SIZE AND THE DIVISION OF LABOR -- Chapter 6. SIZE AND TIME -- Chapter 7. ENVOI -- NOTES -- INDEX

Sommario/riassunto

John Tyler Bonner, one of our most distinguished and creative biologists, here offers a completely new perspective on the role of size in biology. In his hallmark friendly style, he explores the universal impact of being the right size. By examining stories ranging from Alice in Wonderland to Gulliver's Travels, he shows that humans have always been fascinated by things big and small. Why then does size always reside on the fringes of science and never on the center stage? Why do biologists and others ponder size only when studying something else--running speed, life span, or metabolism? Why Size Matters, a pioneering book of big ideas in a compact size, gives size its due by presenting a profound yet lucid overview of what we know about its role in the living world. Bonner argues that size really does matter--that it is the supreme and universal determinant of what any organism can be and do. For example, because tiny creatures are subject primarily to forces of cohesion and larger beasts to gravity, a fly can easily walk up a wall, something we humans cannot even begin to imagine doing. Bonner introduces us to size through the giants and dwarfs of human, animal, and plant history and then explores questions including the physics of size as it affects biology, the evolution of size over geological time, and the role of size in the function and longevity of living things. As this elegantly written book shows, size affects life in its every aspect. It is a universal frame from which nothing escapes.