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Nota di contenuto	Chapter 1. Why this book? -- Chapter 2. Darwin's Long Shadow -- Chapter 3. Where Can We Find Approaches to Understanding Evolutionary Processes? -- Chapter 4. Perplexing Cats and Demons: Pointers to the Quantum-Physical Foundations of Life -- Chapter 5. General Characteristics and Properties of Organic Life -- Chapter 6. Information Processes -- Chapter 7. Biological Energy Transformation -- Chapter 8. Imbalances: Sources of All Change -- Chapter 9. Biological Evolutionary Lineages in Marine Habitats of the Phanerozoic -- Chapter 10. Biological Evolutionary Lineages in Terrestrial Habitats in the Phanerozoic -- Chapter 11. Epilogue.
Sommario/riassunto	This book focuses primarily on evolutionary processes (rather than evolutionary history). Topics covered are abiotic framework conditions, morphology and physiology of living organisms, fossil and molecular evidence of evolutionary developments. The basic processes of biological evolution are already established in unicellular organisms. Evolutionary options for multicellular organisms arise in a simplified way from the usable energetic transformation potentials and the dynamics of abiotic and biotic interactions. Evolutionary processes of multicellular organisms are therefore predominantly determined by the

conditions of the surrounding systems. This is most clearly shown by comparisons of the evolutionary development of vertebrates under marine and terrestrial conditions. For reasons of efficiency alone, no single species can have the equipment to capture and sustainably shape the surrounding systems in the long term. Depending on the available energetic transformation potentials, a single species is very well able to change the surrounding systems - but without being able to capture the resulting long-term consequences. This gives rise to fundamentally new questions for the design and limits of social action that makes sense in the long term. This book is a translation of an updated and revised version of the original German work: Relativität der Evolution, ISBN 978-3-662-63936-8. Translated by Robert D. Martin. The Author Dr. Markus Knoflacher studied Zoology and Botany at the University of Vienna in Austria and acquired a doctoral degree in philosophy. His professional career in extra-university institutions was focussed on interdisciplinary research tackled from the perspective of systems theory. After retirement he conducts research as an independent scientist.