Record Nr. UNINA9910337955603321 Autore Ligrone Roberto **Titolo** Biological Innovations that Built the World: A Four-billion-year Journey through Life and Earth History / / by Roberto Ligrone Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-16057-2 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (498 pages) 574.09 Disciplina 570.9 **Evolutionary biology** Soggetti Microbiology Geobiology Environmental sciences **Evolutionary Biology** Biogeosciences **Environmental Science and Engineering** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. Introduction -- Chapter 2. The Origins -- Chapter 3. The Birth of Life -- Chapter 4. Moving to the Light: The Evolution of Photosynthesis -- Chapter 5. The Great Oxygenation. - Chapter 6. Eukaryotes -- Chapter 7. Sexual Reproduction -- Chapter 8. Multicellularity -- Chapter 9. The Chloroplast and Photosynthetic Eukaryotes -- Chapter 10. The Animals -- Chapter 11. Land Plants --Chapter 12. The Emergence of Humanity -- Chapter 13. Synopsis --Chapter 14. Glossary -- Chapter 15. Analytic Index. Sommario/riassunto 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.