

## Life of Earth – Portrait of A Beautiful, Middle-Aged, Stressed-Out World

By Stanley A. Rice. 2011 Prometheus Books, 59, John Glenn Drive, Amherst, New York 14228-2119. 255 pages.

The emergence of life on Earth is so magical and fascinating that there are almost no other events in the world can attract so many people's lasting passion. Although the final reasons on many mysteries of Earth life, such as the origin and evolution, so far still have not yet been completely revealed. After the Gaia hypothesis was formulated, heated debate over whether all organisms and their inorganic surroundings on Earth are closely integrated to form a single and self-regulating complex system, maintaining the conditions for life on the planet, and the extent to which non-intelligent life on Earth is able to adjust planetary conditions to promote its continued survival and prosperity, was launched and prolonged up to now. Hitherto, the published books about the various aspects of Earth's life, including its relationship with environment, are voluminous in the world. They are all with characteristics, different in points of view, narrative ways, content arrangement and so on. So, it would be very hard for an author to elucidate such a classical topic in a new and unique way, even based on abundant new material and deep ideas. It is impressive and commendable that the newly published book *Life of Earth – Portrait of a Beautiful, Middle-Aged, Stressed-Out World*, written by Stanley A. Rice, gave a fresh and new style of description on the Earth with plentiful material and deep insights.

The author did a masterful job of integrating knowledge from a variety of disciplines, showing the many connections of life on Earth. Eloquent in tone and panoramic in perspective, the book fosters a vivid appreciation of our planet, reflecting the author has an unrivalled knowledge of the history of the Earth and its implications for human society. The book described the Earth with the evolutionary development of an unknowable wealth of species as a profusely complex and beautiful planet, and regarded Earth is on about halfway through its approximately ten-billion-year existence. Humans are in the unique position of being able to look back and reconstruct the past, look around and discover its ferocious beauty, and look forward to predict its future.

Out of the run of the most other books on Earth's life history, which narrate the story of life on Earth in terms of chronological period one after another, this book discussed the rich and colourful diversity on Earth in terms of pivotal evolutionary developments, among which, the importance of symbiosis, sexual selection, altruism and photosynthesis were emphasized as crucial determinants of the Earth's biodiversity. The book believes that the time at which single cells began working together sparked the sudden appearance of complex animals. Much later, symbi-

otic relationships led to flowering plants that depended on animals for pollination and seed dispersal. With the advent of sexual selection there developed an astonishing world of complex behaviour and a dizzying array of life-forms. In humans, sexual selection exerted a great influence on the development of our large brains. Species learning to work together resulted in even greater variety and complexity. In early humans, altruism gave rise to ever-widening social circles and contributed to the spread of culture. Beyond dispute, photosynthesis of green plant plays an irreplaceable and important role of in maintaining the function of the whole ecosystem of Earth. Thus, the book regarded these events as crucial events in the life evolution and biodiversity maintenance on Earth.

The factors influencing on the evolution and the diversity of life on Earth are multifold, among which the most important one differs in various periods, to which no unanimous conclusion can be drawn. Ancient natural catastrophes caused wide-spread extinctions several times, yet life on Earth still tenaciously recovered and reached a new prosperity. When the human population rises in swift and violent manner compared to any other wild life populations on the Earth, humans gradually become a new increasingly powerful strength affecting or shaping the life evolution or biodiversity on Earth. Humans represent the most incredibly complex development and interweaving of not only sexual selection and altruism but also religion and reason – more than in any other species that has ever lived on the planet. The book focused on human evolution and the extraordinary effect human beings have had on the Earth. The author does not overlook the immense prehuman history of the planet, thereby emphasises the importance of the evolutionary process to understanding human development and action. This comprehensive book illuminated the subject and the important role of humans. We have every reason to believe that humans' role in the future life development or evolution on Earth will become more and more critical and strong. However, if humans cannot restrain or regulate their behaviours so as not to seriously disturb the balance of the Earth's ecosystem, life on Earth would fall into ecological crisis.

The book was written as prose, employing an entertaining and informal style, expressing and explaining the complex relationships of earth science, and the weirdness and wonder of the evolutionary history on our Earth. It is described in easily understood ways and engaging language, and with excitement and humour, as well as profound sentiments. It is the book that can lead readers to experience the life story of Earth in an exciting way never before imagined. The author's cov-

erage of diverse topics would appeal to all who wish to understand the multifold meaning of the evolution of the planet.

That main contents of the book included Introduction: A Pile of Rocks in the Middle of Kansas; Chapter 1 Meet Mother Earth; Chapter 2 Inevitable Evolution; Chapter 3 Innovation; Chapter 4 Symbiosis; Chapter 5 Sex; Chapter 6 Altruism; Chapter 7 Religion; Chapter 8 Science; Chapter 9 Faith in photosynthesis.

This book would become a good reference for the people who are engaged in anthropology, biology, hu-

man ecology, conservation ecology, population or ecosystem ecology and so on, or any other persons who are interested in the field of Earth life.

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***Erratum The Canadian Field-Naturalist 126(4)***

In response to the review of *Contributions to the History of Herpetology*. CFN 126(3): 344-345, the book's editor Kraig Adler pointed out (personal communication to FRC 12 May 2013): "Only one small correction. Mrs. Martof used a kitchen knife, not a gun. She told the police she slipped while cutting some pizza. But Bernie was stabbed up under his rib cage several times!"

***Erratum The Canadian Field-Naturalist***

It has come to our attention that sections of many of the book reviews by Li Dezhi and Qin Aili were copied from sources without attribution. The journal and the authors apologize for this oversight.