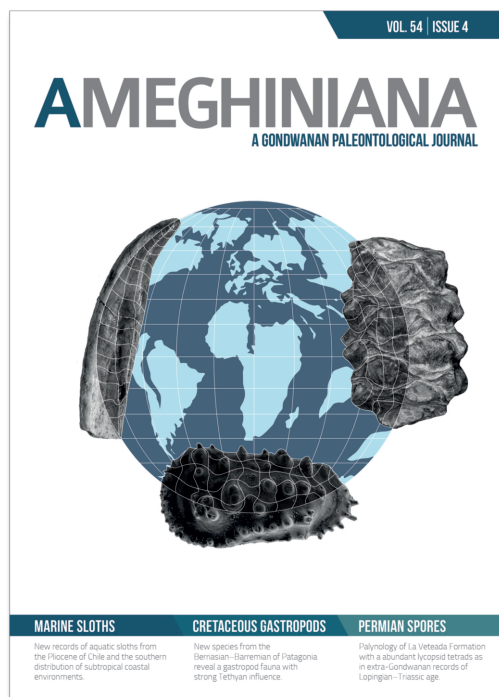




# AMEGHINIANA

A GONDWANAN PALEONTOLOGICAL JOURNAL



## TEORÍAS DE LA EVOLUCIÓN, NOTAS DESDE EL SUR

*Leonardo Salgado and Andrea Arcucci.* Editorial de la Universidad Nacional de Río Negro, 263 pp, 2016. ISBN 978-987-3667-37-4

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**To cite this article:** Guillermo M. López (2017). TEORÍAS DE LA EVOLUCIÓN, NOTAS DESDE EL SUR. *Leonardo Salgado and Andrea Arcucci.* Editorial de la Universidad Nacional de Río Negro, 263 pp, 2016. ISBN 978-987-3667-37-4. *Ameghiniana* 54: 480–481.

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In an essay published in *American Biology Teacher* in 1973, the Russian geneticist Theodosius Dobzhansky wrote what is perhaps one of his most famous phrases, "*nothing in biology makes sense except in the light of evolution*". More than four decades later the paths of modern biology continue to be lit by that light.

In this context, the recent publication of the book titled "*Teorías de la evolución, notas desde el Sur*" which helps to better understand the development of scientific knowledge regarding current evolutionary theory, and to develop or strengthen an epistemological standpoint, is a great joy. This book is also a joy because it was written by Leonardo Salgado and Andrea Arcucci, two Argentinian paleontologists of recognized professional honesty, and international prestige.

The authors present the book as a series of personal essays on evolutionary ideas and the people who produced them, intended for readers with some prior knowledge, rather than as a textbook. This does not mean that terms are not defined, hypotheses are not presented or different ideas are not discussed; on the contrary, the authors navigate skillfully in the turbulent sea of conflicts and debates that have emerged in the history of evolutionary theory.

The book has 8 chapters that follow a historical order; for the most part, they comprise different essays grouped consistently. However, essays are independent of one another and may be read without strict continuity.

Usually, when speaking or writing about evolutionary theories, Charles Darwin is the inevitable center of gravity, and the first chapters of this book orbit around the figure and ideas of the great English naturalist. Chapter I consists of a series of introductory sections about Darwin, some problems that challenged the theory of natural selection and the emergence of Neo-Darwinism. Chapters II and III discuss the substratum or historic context in which Darwin's theory emerged. These include the revolutionary proposals of Cuvier, Lyell, Lamarck, Von Baer, a famous earl and some

clerics, among others, at the beginning of the 19th century, as well as the confrontation between Catastrophism and Progressivism, and the fixist stance in all its variants.

"The Champion's Chapter" is the captivating title of Chapter IV dedicated to the figure, scientific activity and ideas of Charles Darwin. The passage through Argentina aboard the *Beagle* and his geological, biological and paleontological interpretations are rigorously treated. In a chapter on Darwin it is impossible not to highlight the reactions produced by his evolutionary ideas and the religious controversy that surrounded them.

With Chapter V, focused on Darwinism and his circumstances, and Chapter VI, on Darwinism's public recognition, the authors construct a framework that contains the criticisms and problems that arose after the publication of the "*Origin of Species*". These chapters highlight the contributions made to Natural Selection by other sciences, the emergence of Neodarwinism, and very attractive biographical data of scientists and naturalists of that time. Chapter VII, "Toward a New Evolutionary Biology", differs in style and structure from the rest of the book. The topics are presented in a more structured way, the titles are more reminiscent of a textbook, and on many occasions, writing departs from the style of the previous chapters. This is neither good nor bad, only different. This chapter is also very relevant, solid and useful because it addresses core themes of current biology. Contributions provided by classic and developmental genetics and some disciplines of embryology, ecology and paleontology are widely developed, with an illustrative and rewarding presentation. At the end of this chapter the authors invite the readers to reflect on some hypotheses and ideas of Garstang, Patten, Owen and Geoffroy. By way of closure, Chapter 8 returns to the language and style of the opening chapters, with very enjoyable sections.

Moving forward in the text, the reader finds a large amount of bibliographic references (both classical and less

known ones), very useful for a deeper exploration of the diverse themes.

Writing a book on theories of evolution is a risky and difficult project, because the complex relationship between concepts, history, ideological positions and sociocultural issues can lead to a labyrinth difficult to exit. Leonardo Salgado and Andrea Arcucci, certainly aware of this, did not hesitate to take this exciting challenge, and their knowledge and ability have resulted in an excellent and highly recommended book.

The publication of the book "*Teorías de la evolución, notas desde el Sur*" fills a gap in the Spanish-language literature on this subject.

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