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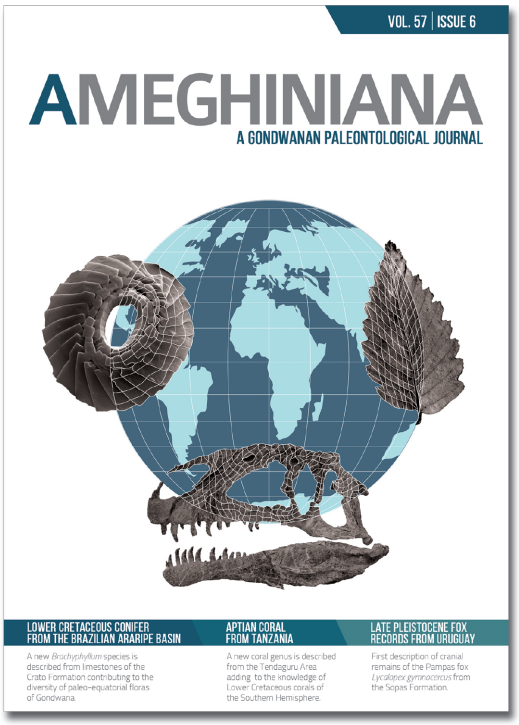

ADVANCES IN SOUTH AMERICAN MICROPALEONTOLOGY. SELECTED PAPERS OF THE 11TH ARGENTINE PALEONTOLOGICAL CONGRESS

Cusminsky, G. C., Bernasconi, E., and Concheyro, G. A. Springer Nature Switzerland Ag, ISBN 978-3-030-02119-1 (Ebook), 229 Pp.

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PLEASE SCROLL DOWN FOR ARTICLE

LOWER CRETACEOUS CONIFER FROM THE BRAZILIAN ARARIPE BASIN

A new *Brachyphyllum* species is described from limestones of the Crato Formation contributing to the diversity of paleo-equatorial floras of Gondwana.

APTIAN CORAL FROM TANZANIA

A new coral genus is described from the Tendaguru Area adding to the knowledge of Lower Cretaceous corals of the Southern Hemisphere.

LATE PLEISTOCENE FOX RECORDS FROM URUGUAY

First description of cranial remains of the Pampas fox *Lycalopex gymnocercus* from the Sopas Formation.

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ADVANCES IN SOUTH AMERICAN MICROPALEONTOLOGY. SELECTED PAPERS OF THE 11TH ARGENTINE PALEONTOLOGICAL CONGRESS. *Cusminsky, G. C., Bernasconi, E., and Concheyro, G. A.* Springer Nature Switzerland Ag, ISBN 978-3-030-02119-1 (Ebook), 229 Pp.

Since the description of the first foraminifer by Hooke in 1667, the importance of microfossil analyses has been increasingly recognized, becoming one of the most studied topics in Paleontology. Particularly in the last decades, Micropaleontology has evolved from focusing almost exclusively on geological problems to address a broad suite of paleobiological issues, breaking the boundaries between geology and biology and expanding the reaches of this discipline towards evolutive and neontological topics. In South America, this is a well-developed discipline, and numerous research studies focusing on different microfossil groups have been produced since its incorporation in universities and geological services in the beginnings of the XX century. This book is a collection of individual papers dealing with the application of a variety of microfossils, presented in the *IV Simposio de Micropaleontología de America del Sur y Antártida* in the forum of the *XI Congreso de la Asociación Paleontológica Argentina* in 2016. This compilation includes a number of interesting contributions, some of them preliminary, focused on providing an update on the recent advances in South American Micropaleontology.

The book consists of 9 chapters arranged in stratigraphic order, each one holding the structure of a research paper and including their respective mandatory sections, accompanied by tables, charts and illustrations of good quality. In a brief preface, the editors introduce to the structure of the book and describe the contents of the nine chapters. The focus is clearly the microfossil record of Argentina, although it also includes three chapters about the Middle Magdalena Valley Basin in Colombia and one from the Panama Bight in the Equatorial Pacific. Also, most chapters deal with calcareous microfossils (particularly ostracods and foraminifera), with only one chapter on echinoids and one on diatoms.

Chapter 1 describes new findings of regular echinoid elements and microfossils from the base of the Pilmatué Member, Agrio Formation (Neuquén, Argentina), assigned to the "diadematáceans". The material is associated to quiet marine sediments, with productive horizons containing rare to very abundant assemblages of benthic foraminifera, few ostracods, and resistant calcareous nannofossils.

Chapter 2 consists of a micropaleontological study of the Lower Cretaceous Rosablanca Formation (Middle Magdalena Valley Basin, Colombia) and provides the first evidence of Early Cretaceous ostracods in Colombia. On the basis of the ecological preferences of the ostracod and foraminiferal assemblages, authors infer a transitional to marginal marine setting, probably related to the early stages of the Cretaceous marine ingression in northern South America.

Chapter 3 is a biostratigraphic study based on calcareous nannofossils from the Chuira-2 ST-1 well, through the Umir and La Luna formations in the Middle Magdalena Valley Basin (Colombia). Based on biostratigraphic analyses, authors defined six local calcareous nannofossil interval biozones spanning the Early Turonian to Late Santonian.

Chapter 4 also presents a biozonation of the Chuira-2ST well, Middle Magdalena Valley Basin (Colombia), and is focused on the deposits of the Umir and Luna Formations. The study is based on planktonic foraminifera, palynomorphs, and calcareous nannofossils. Fossiliferous levels with foraminifera are discussed and correlated with palynomorphs and calcareous nannofossils and paleoenvironmental inferences are provided.

Chapter 5 focuses on the analysis of the Neogene associations of ostracods and foraminifera from the Playa del Zorro Alloformation, in El Cajón Valley (Catamarca, Argentina). Microfossils and associated gastropods are used to infer paleoenvironmental conditions, particularly to assess fluctuations in salinity, alkalinity and precipitations.

Chapter 6 consists of a paleoenvironmental study of Late Cenozoic diatom assemblages from Cueva del Tigre in the Quequén Salado River (Buenos Aires Province, Argentina). Diatom analyses performed on a sedimentary succession

consisting of coarse sandstone and clayed siltstones are described and used to infer brackish environments dominated by saline diatom taxa.

Chapter 7 describes a new micropaleontological record (Foraminifera and Ostracoda) from the Late Glacial and Holocene in Salinas del Bebedero (San Luis, Argentina). Microfossils are used to infer the presence of lacustrine environments, characterized by the dominance of ostracods, and athalassic saline lakes, evidenced by the presence of euryhaline foraminifera.

Chapter 8 presents the results of an analysis of calcareous microfossils (Ostracoda and Foraminifera) from a Holocene site in the Salado Basin (Buenos Aires Province, Argentina). The microfauna recovered includes common species of estuarine environments with wide salinity tolerance and are associated to the transgressive maximum occurred in the Salado River basin, suggesting that this site represents the most internal locality assignable to the MIS 1 marine transgression.

Chapter 9 compiles the published reports of the foraminiferal assemblages in the Panama Bight and adds new information from samples located in the continental margin of the Eastern Equatorial Pacific. The chapter explores the occurrences and richness of the species along this region and provides an updated taxonomic list and illustrations of the main taxa.

In summary, this book contains a wealth of data and some interesting analyses. As a compilation of articles presented in a meeting, this book does not intend to provide a comprehensive review nor equally cover all the research lines or microfossil groups in South America, but it provides a basis to introduce the reader to a selection of research issues, giving the opportunity for future research cooperation. It includes articles of interest to the micropaleontological community, particularly those interested in calcareous microfossils.

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