4th Palaeontological Virtual Congress

Book of Abstracts

May 8–22nd, 2023

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4th Palaeontological Virtual Congress

Book of Abstracts

Palaeontology in the virtual era

From an original idea of Vicente D. Crespo

Published by Evangelos Vlachos, Vicente D. Crespo, María Ríos Ibañez, Fernando Antonio M. Arnal, Arturo Gamonal, Penélope Cruzado-Caballero, Javier González-Dionis, Rosalía Guerrero-Arenas, and Alba Sánchez-García.

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ISBN 978-84-09-51470-0

Date of Publication May 17, 2023

How to cite this book: Vlachos, E. Crespo V. D. , Ríos Ibañez M., Arnal F. A. M., Gamonal A., Cruzado-Caballero, P., González-Dionis, J., Guerrero-Arenas R., and Sánchez-García, A. (eds) (2023) Book of Abstracts of the 4th Palaeontological Virtual Congress, 378 pp.

Preface

Following the three previous and successful editions of the Palaeontological Virtual Congress (**PVC**), organized in December 2018, May 2020, and in 2021 during the COVID19 pandemic, the 4th Palaeontological Virtual Congress continues to demonstrate the necesity for virtual meetings in palaeontology.

PVC shows a steady growth compared to previous years, in both participants and contributions. In the 4th PVC, more than **400 scientists** from **72 different countries** gathered virtually to watch more than **365 contributions**, an absolute record in terms of different countries (56 last time) and number of contributions.

Following the sharp increase in the number of contributions, the 4th PVC hosts an even greater diversity of topics. Besides the traditional Sessions of the Paleozoic, Mesozoic, Cenozoic and General Palaeontology, the 4th PVC also hosts 8 Keynote presentations,12 Thematic Sessions, and 3 Virtual Field Trips.

The mission of this Palaeontological Virtual Congress was communited by 7 Ambassadors and Ambassadresses who helped attracting interest and spread our news. Thanks to them, we have been able to enjoy thre greatest national diversity reaching nearly half of the countries on Earth!

We continued to add virtual activities, including a Photography and Palaeoart contest. You can find the wonderful prized photographs and artwork herein.

Also, selected papers coming from this year's communication will feature on a Special Volume of the high-quality peer-reviewed journal Geobios, that publishes bimonthly in English original peer-reviewed articles of international interest in any area of palaeontology, palaeobiology, palaeoecology, palaeobiogeography, biostratigraphy, stratigraphy and biogeochemistry.

We would like to thank all our colleagues for organising and coordinating the different workshops. We also want to thank all the authors for submitting their contributions and the numerous reviewers that have made this volume and congress possible. We would also like to give special thanks to all Palaeontological and Geological Societies, Editorials, Museums, and Universities that have supported this initiative.

4th PVC

A NEW DINOSAUR TRACKSITE IN THE "EARLY PALEOZOIC" MAURITI FORMATION, ARARIPE BASIN, BRAZIL

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Keywords
Footprints, Dinosaur, Mauriti Formation, Araripe Basin

Footprints in the Araripe Basin (an interior basin of NE Brazil) are previously known in the Mauriti Formation only from the Milagres ichnosite (Milagres County, Ceará State) on coarse to fine-grained sandstones. Since this formation is considered and mapped as Silurian-Devonian — despite the fact that no macro- or microfossils established its age — the presence of such footprints shows a temporal inconsistency. The dinosaur footprints found in a new ichnosite (Mauriti County, Ceará State) indicate a Mesozoic age for the Mauriti Formation, and due to the proximity of the nearby Rio do Peixe basins and to the similarity of their dinosaur tracks, a particularly Early Cretaceous age is herein suggested. This new ichnosite presents at least five isolated footprints of theropod and of indeterminate trackmakers. The two theropod footprints are tridactyl, mesaxonic with claw impressions. The rear borders of these footprints are angular. The other imprints are rounded depressions with no clear digit impressions, surrounded by displacement rims. The partial sandstone filling of the footprints is similar to the surrounding matrix. They range from 30-48 cm in length and 25-48 cm in width. The paleoenvironmental interpretation of the strata on where they are found is fluvial braided. The trackmakers could be the large theropods related to those ones already known in the Araripe Basin's Cretaceous formations. The importance of this new tracksite confirms the need to revise the age of the Mauriti Formation and the interested paleogeography, establishing a new stratigraphic framework to the lower successions of the Araripe Basin.