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...and more!

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GEOPARK NATURTEJO - GEOPARQUE MUNDIAL DA UNESCO - E-Magazine



MONTHLY ACTIVITIES



27 July - The region's Ordovician fossils in new research. A new study is being developed in the Middle and Upper Ordovician formations of Naturtejo UNESCO Global Geopark coordinated by the palaeontologist Sofia Pereira, from the University of Coimbra. This study focuses on the geographical area of Serra do Muradal, in Oleiros, the syncline of Ródão, in Vila Velha de Ródão, and the syncline of Penha Garcia, in Idanha-a-Nova. The work in progress, which includes other Portuguese and Spanish researchers, aims to detail the knowledge about the life forms that existed in this long geological period, which extends between 465 and 445 million years ago, complementing the paleobiological wealth that is already known for the Lower Ordovician in the territory of Naturtejo Geopark. As the previous studies are already very old and lacking in information, this new project will certainly bring great scientific novelties about the faunas found in the shale facies and recognized geosites. Sofia Pereira visited with Carlos Neto de Carvalho the Ordovician formations of Castelo Branco and Monforte da Beira which, however, proved to be fruitless. The same cannot be said of Vale Feitoso, in Penha Garcia, which revealed new fossils of great scientific interest.



August - New scientific studies reveal in detail what Penha Garcia region would have looked like 470 million years ago.

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Penha Garcia is a geomonument recognized by UNESCO within Naturtejo Geopark and known by many for its unusual natural beauty. Near the springs of the Ponsul River, in the municipality of Idanha-a-Nova, an imposing mountain rip opens exposing, one after another, thousands of layers of rocks of a very ancient origin, almost 500 million years old, full of marks of ancestral marine life. Now, a new study coordinated by the geologist Carlos Neto de Carvalho, scientific director of Naturtejo Geopark, and published in the prestigious International Journal of Earth Sciences, reveals in surprising detail all the evidence that has made possible to reconstitute the environmental conditions that existed here in such a backward period of time.

"The layers of sedimentary rocks existing in Penha Garcia were formed during the opening of an ocean, in a period that was particularly important for the diversification of animal life on our planet" says Carlos Neto de Carvalho. The dynamics of the Earth over such a long period of time led to the formation of a large estuary near the region that is now northeast Africa and the Arabian Peninsula. After 470 million years, these sands and clays deposited on the banks of an ocean, which ended up closing by the movement of tectonic plates, constitute today the quartzite and schist rocks so well exposed in the tight valley of the Ponsul River. But these rocks preserve the original structure of the sediments, as well as the marks of the intense biological activity that lived and fed on and in the seabed, allowing reconstituting habitats, landscapes of sandy islands and episodes of major storms.

The study now published, which was supported by the Municipality of Idanha-a-Nova, counted on the renowned geologist Aram Bayet-Goll of the Zanjan Institute for Advanced Studies in Iran. This collaboration has been going on for six years and has allowed the exchange of knowledge and field work between Portugal and Iran, with the publication of several scientific articles of great impact. The work of Carlos Neto de Carvalho with the Iranian specialist has allowed, in the last three years and from the detailed reading of the preserved sedimentary structures, the type of rocks present and the fossil associations that characterize, layer by layer, the stratigraphic record of the Ponsul valley, to make a detailed reconstitution of the existing landscapes in the region of Penha Garcia 470 million years ago. This project also allowed the unveiling of the ecological parameters that conditioned the type and mode of occupation of the marine habitats that existed in Penha Garcia, giving rise to the fantastic record of Cruziana fossils, as evidence of feeding of giant trilobites, which make Penha Garcia so important from a paleontological point of view.

The importance of Penha Garcia's geological record was also recognized in the article published in the International Journal of Earth Sciences, for being so complete and rich in information, that it can serve as a model of comparison for other contemporary sites in this region of the Iberian Peninsula, but also in other regions of Portugal, Spain and also France. The project now completed crosses with another in Penha Garcia, coordinated by Martim Chichorro, researcher of the Nova University Lisbon, which aims to characterize the regions from which the sands that constitute the quartzite rocks of the Ponsul valley came from, based on the study of a mineral - the zircon - that occurs in them. These scientific research projects are fundamental for the solid characterization and valorisation of sites with the geological importance of Penha Garcia, giving them international relevance and the attention of scientists from all over the world. In Naturtejo Geopark - UNESCO Global Geopark, there are 176 sites identified by its geological importance, with regional, national and international recognition. Besides Penha Garcia Syncline, with its paleontological sites, and the Inselberg of Monsanto in Idanha-a-Nova, the Muradal Mountain in Oleiros and the Portas de Ródão Natural Monument, which also includes the Roman gold mine of Conhal do Arneiro and the paleontological site of Foz do Enxarrique, in the municipalities of Vila Velha de Ródão and Nisa, must be highlighted for their international geological importance

August - Promotional videos Discover... featuring the best geological landscapes in the Geopark.

Four promotional videos Discover... have been released since the Landscape Festival – European Geoparks Week in June. These videos produced by the photographer Jesus Salazar Cabrera present the best geological landscapes and geomonuments of Naturtejo Geopark, through short journeys made by drone and the lens of this Venezuelan photographer. The promotional videos were presented on Naturtejo Geopark's social networks, having already obtained thousands of views on Facebook. These videos are aimed at an international audience, although they can be enjoyed by anyone interested. The videos have also been shared with the local municipalities. The promotional video for the presentation of the Geopark is a candidate for the Global Geoparks Film Festival awards, to be presented in South Korea next year and in exhibition on the event's website since July.



August 14th and 29th - Geology in Summer by the Geomonument Portas de Almourão. Sobral Fernando (Proença-a-Nova) was the stage for two more Living Science actions in the summer. This year, given the pandemic situation, registrations had to be more limited and 30 participants filled the two editions of the "Secrets of Almourão Valley" activity, unfortunately several registrations stayed on the waiting list. The walk along the Ocreza Valley included the geosites Sobral Fernando-Carregais road section, Sobral Fernando's Viewpoint, Portas de Almourão and Conheira of Foz do Cobre/Sobral Fernando-S'la Velha Roman gold mine and was guided by the monitor Marta Palhim, from the Living Science Forest Centre.



August 20th - Science from the community reveals new mysteries. Field work is being carried out along the Magueija Stream, north of the county of Castelo Branco. Domingos Lourenço, inhabitant of the small village of Monte da Goula, is helping to identify old mining operations of possible Roman origin. He recognised the commonly known "conheiras" tailing piles on the river terraces of this stream, between Monte da Goula where he has properties and Pé da Serra, a small village at the foot of the haughty Picoto do Muradal. This curious in "old things" identified old mining explorations and traces of prospecting from the wolfram period, as well as mineral vein structures of great extension that mark features of the landscape in this open valley, developed along the long Sobreira Formosa Fault. From more recent periods still related to gold, Domingos Lourenço has identified tools of ancient miners of Monte da Goula, including a "gold coucha" made of cork which was widely used to wash sediments of the stream searching for small gold nuggets. The archaeological prospecting work was coordinated by the Association of Studies of the High Tejo by the field work of Francisco Henriques, accompanied by Carlos Neto de Carvalho who also carried out preliminary prospecting downstream between the villages of Rapoula and Camões.



August 28th - Talk-show presents the Geopark at Estrela da Idanha Hotel. The Estrela de Idanha Hotel under new management gathered stakeholders from the Municipality of Idanha for an evening event. In a live broadcast produced by xRadio and Matosinhos TV, the programme "Portugal Destinations" focused on the advantages and opportunities of this municipality. Carlos Neto de Carvalho was invited to talk about Naturtejo Geopark and nature tourism in Idanha-a-Nova. Manuela Catana was another guest, addressing the biodiversity values of the Tejo International Biosphere Reserve. Mário Ramos represented the partner company Geocakes to talk about business opportunities in this region. Pedro Próspero, director of Termas de Monfortinho, spoke about the most recent scientific discoveries that prove the therapeutic properties of this geo-resource and import geosite of Naturtejo UNESCO Global Geopark. Finally, Armindo Jacinto closed the programme as mayor, speaking about the various social projects developed in Idanha-a-Nova to attract business and support the settlement of the population.

IMPACT OF GEOPARK IN MEDIA



TV & Radio

August 18th (Beira Baixa TV) – Naturtejo Geopark has just received the certificate of revalidation of its status as a UNESCO Global Geopark, after a very positive evaluation of its work

August 19th (RTP – Portugal em Directo) - Barrocal Park, in Castelo Branco, nominated for international prize

August 20th (Beira Baixa TV) – Penha Garcia is a geomonument recognized by UNESCO, within Naturtejo Geopark

August 21st (Cova da Beira Radio) - New scientific study reveals Penha Garcia in detail 470 million years ago

August 22nd (SIC) – Barrocal Park, in Castelo Branco, nominated for international prize

August 28th (Matosinhos TV) – Portugal Destinations – Idanha-a-Nova

August 28th (xRadio) - Portugal Destinations – Idanha-a-Nova

Newspapers & www

August 5th (Gazeta do Interior) – New studies on Beira Baixa and Naturtejo Geopark – Book shows the the evolution of the landscape in the UNESCO territory.

August 5th (Gazeta do Interior) – Choice of Vortex Magazine – Penha Garcia includes the list of seven destinations for a short trip

August 13th (Reconquista) – Project passed to the finals of the World Architecture News Awards –Barrocal Park among the eight best in the world

August 13th (Jornal do Fundão) – Barrocal Park nominated for the architecture award

August 14th (El Pais) – Found in Huelva the tracks of the last gigantic European elephants

August 14th (Jornal de Noticias) – Barrocal Park nominated for the architecture award

August 16th – (ABCandalucia) – Doñana makes a travel to its past

August 17th (BeiraNews) –Naturtejo Geopark just received the revalidation certificate as UNESCO Global Geopark, after very positive evaluation of the work developed

August 18th (Jornal do Fundão) – Naturtejo Geopark receives UNESCO revalidation and keeps the world status

August 18th (Jornal de Noticias) – Naturtejo received the revalidation certificate as UNESCO Global Geopark and has already 40 partners in the county of Idanha-a-Nova

August 18th (Diário Digital de Castelo Branco) –Naturtejo Geopark just received the revalidation certificate as UNESCO Global Geopark, after a very positive evaluation of the work developed

August 18th (www.rtp.pt) –Naturtejo Geopark receives UNESCO revalidation and keeps the world status

August 19th (Gazeta do Interior) – Idanha has already 40 Naturtejo Geopark partners in the municipality

August 19th (Gazeta do Interior) – World Architecture News Awards –Barrocal Park in the finals of international architecture award

IMPACT OF GEOPARK IN MEDIA



August 20th (Reconquista) – Geopark has 40 partners in the municipality of Idanha-a-Nova

August 20th (Diário Digital) – New scientific study reveals details of Penha Garcia há 470 million years ago

August 20th (Diário de Notícias) – Hinterland keeps memories of a no longer existing ocean

August 20th (Gazeta Rural) – New scientific research reveals details of Penha Garcia 470 million years ago

August 20th (www.rtp.pt) – Research reveals details of Penha Garcia geomonument 500 million years ago

August 20th (Jornal Público) – Penha Garcia Geomonument 500 million years old revealed in detail in new study

August 21st (NIT.PT) – Barrocal: did you know that one of the best parks in the country already opened?

August 22nd (<https://www.escapadarural.pt>) - 10 swimming pools in countryside houses with the best views

August 26th (Gazeta do Interior) – New scientific research reveals how Penha Garcia would look like 470 million years ago

August 27th (Reconquista) – New research on the Naturtejo Geopark territory – Scientists found the original ocean in Penha Garcia

August 28th (www.e-cultura.pt) – New scientific study reveals with details Penha Garcia 470 million years ago

SCIENTIFIC CONTRIBUTIONS FOR THE GEO PARK AND THE GEOSCIENCES



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- PEREYRA, C. & NETO DE CARVALHO, C. – Possible ghost-shrimp burrows from the mid-Holocene of northeastern Buenos Aires, Argentina: Implications for breeding and postlarval settlement behavior. Palaeogeography, Palaeoclimatology, Palaeoecology, 109964, doi.org/10.1016/j.palaeo.2020.109964.
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- ABIQUI, M., DADES, M., KOSTYUCHENKO, BENSSAOU, M., MARTÍNEZ-FRIAS, J., M'BARKI, L., EZAIDI, S., AICHI, A., DI CENCIO, A., GARZARELLA, A. & NETO DE CARVALHO, C. -. Covid-19 and education in Morocco as a potential model of concern for North Africa: a short commentary. International Journal of Ethics Education (2020). <https://doi.org/10.1007/s40889-020-00100-4>
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- MOREIRA DA SILVA, P., PAIS, N. RODRIGUEZ, G. & RODRIGUES, J. - Novas dimensões do Património Natural e Cultural – sistema imersivo (iminelearn). In Raposo, F., Regina, F., Carvalhinho, M. (coord.) Reflexões sobre Património, Educação e Cultura. I Encontro de Património, Educação e Cultura (EPEC#1), RVJ, Editores, 249-261
- MOREIRA DA SILVA, P., OLIVEIRA, A., DIAS, R., NETO DE CARVALHO, C. & RODRIGUES, J. 2020. GeoMonforte – Aplicação Multimédia sobre Monforte da Beira na Idade do Ferro (Castelo Branco, Portugal). In Raposo, F., Regina, F., Carvalhinho, M. (coord.) Reflexões sobre Património, Educação e Cultura. I Encontro de Património, Educação e Cultura (EPEC#1), RVJ, Editores, 273-280

PROMOTION FOR THE GENERAL PUBLIC



- Promotional videos Discover... Geopark presentation, geomonuments of Monsanto, Penha Garcia and Portas de Ródão (English)
- Brochure: Artistic Heritage Circuits of the Order of Christ between Zêzere and Tejo - XV and XVI centuries, IPCB Editions, 35 p. (Portuguese)
- 5 Leaflets Circuits of the Artistic Heritage of the Order of Christ between Zêzere and Tejo - XV and XVI centuries: Circuit between Mountains, Circuit of Raiana, Circuit of Tejo, Circuit of Castles, and Circuit Portas do Sol. Castelo Branco: Polytechnic Institute of Castelo Branco (Portuguese)
- 2 promotional videos Ordo Christi Route. Castelo Branco: Polytechnic Institute of Castelo Branco (Portuguese)
- 6 promotional videos: Circuits of the Artistic Heritage of the Order of Christ between Zêzere and Tejo - XV and XVI centuries: Circuit between Mountains, Circuit of Raiana, Circuit of Tejo, Circuit of Castles, and Circuit Portas do Sol. Castelo Branco: Polytechnic Institute of Castelo Branco (Portuguese)
- Guide for Fluvial Beaches, Blanche (in Portuguese).

CICLO DE WEBINARS

Geoparks UNESCO em Portugal

- 🗨️ **Geopark Naturtejo** - Os desafios dos Geoparques portugueses no mercado interno alargado (Portugal e Espanha), em contexto de pandemia.
9 julho às 10h30 (9h30 nos Açores)
- 🗨️ **Arouca Geopark** - Património Geológico e Geoturismo.
15 julho às 15h (14h nos Açores)
- 🗨️ **Geopark Terras de Cavaleiros** - Geoparques e Desenvolvimento Sustentável.
27 julho às 15h (14h nos Açores)
- 🗨️ **Estrela Geopark** - A Comunicação nos Geoparques.
9 setembro às 17h (16h nos Açores)
- 🗨️ **Geoparque Açores** - A marca UNESCO e a atividade turística.
24 setembro às 17h (16h nos Açores)

organização

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GEOPARQUE DO CORE

ESTRELA GEOPARK

naturtejo

GEOPARK TERRAS DE CAVALEIROS

Geopark Açores

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PROMOTION FOR THE GENERAL PUBLIC



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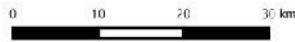
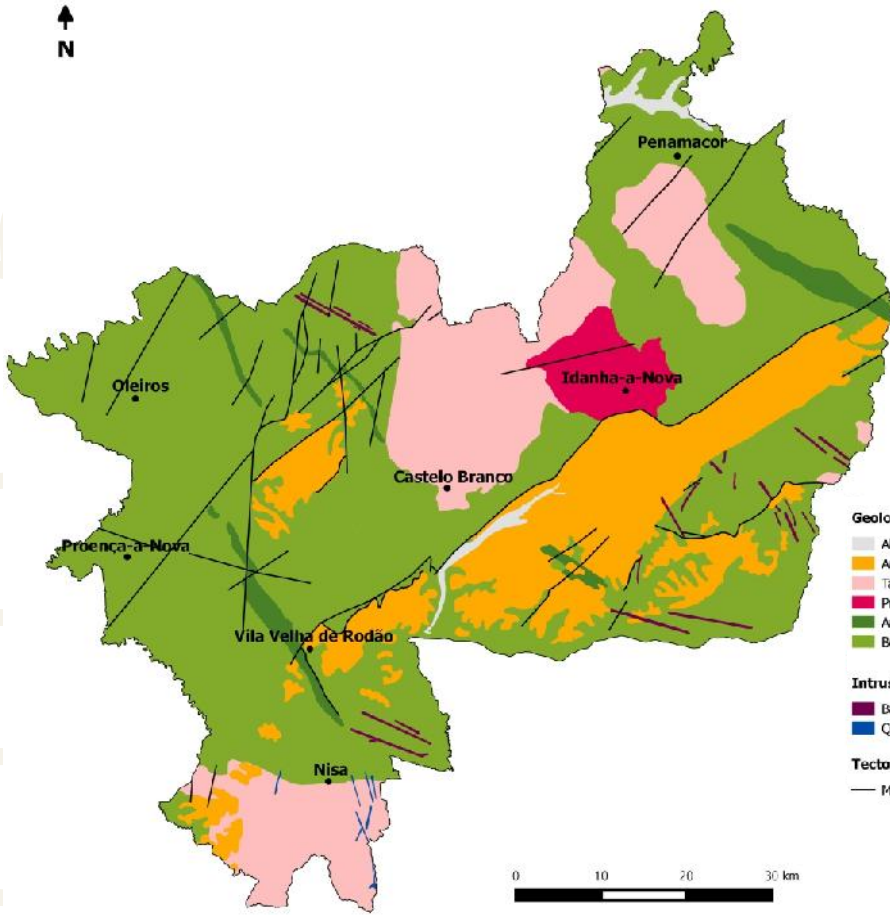
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www.slideshare.net/geoparknaturtejomesetameridional



Geoparks: Geology with human face





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