



In this issue:

Executive Training "Geotourism by Geoparks" with Tourism of Portugal
Geological studies at Naturtejo Geopark presented at International Meeting in Badajoz
Participation in the "Participatory Forum - Environmental Education for Geoconservation
and Geological Heritage in the Community of Portuguese Speaking Countries
...and more!

CRUZIANA

NATURTEJO UNESCO GLOBAL GEOPARK - E-MAGAZINE



MONTHLY ACTIVITIES

100% RESPONSIBLE

© Joel Carvalho



January - Programs 100% Responsible by Geoparks. The first 100% Responsible by Geoparks programs in Naturtejo Geopark are now available !

Ensuring the protection of the Geological Heritage of a Geopark implies fostering sustainable tourism and geotourism development strategies and companies are increasingly committed to the sustainability of the territories.

These programmes, implemented by Tourism of Portugal, aim to stimulate the adoption of tourism practices of environmental, economic and social sustainability and are part of the national strategy Plan Turismo + Sustentável 20-23. The partner companies of the Geoparks undertake to adopt various sustainability requirements, some specific to these UNESCO territories and to raise their customers' awareness of these concerns.

At this moment, the partner companies of the Naturtejo Geopark, Porta Raiana (Idanha-a-Nova) and Beir'Aja (Penamacor), already joined with 6 Programs 100% Responsible by Geoparks in the territory.

In www.naturtejo.com a section dedicated to these programs is now available, with information for companies and visitors.

January 5th - "Participatory Forum - Environmental Education for Geoconservation and Geological Heritage in the Community of Portuguese Speaking Countries.

The training action for teachers "Participatory Forum - Environmental Education for Geoconservation and Geological Heritage in the CPLP" was organized by the LPN Training Center (Nature Protection League) and was attended by a large number of teachers and education/environmental technicians and researchers. Manuela Catana presented the educational strategy of Naturtejo Geopark and the teacher André Azeiteiro from the Schools Group José Silvestre Ribeiro (Idanha-a-Nova) presented the ESTEAM Project (ERASMUS+), a project in which his school was a partner of Naturtejo Geopark. The training action was boosted by the trainers of the Portuguese UNESCO Global Geoparks (Naturtejo, Arouca, Açores, Terras de Cavaleiros and Estrela) and also, with the international participation, through the Araripe Geopark (South of Ceará) from Brazil, which was the first UNESCO Global Geopark to be constituted in South America. The training action had as guests teachers who shared their projects and activities in geopark territories, showing how schools in synergy with geoparks can contribute to Nature Conservation, namely in its contribution to the conservation and enhancement of the Geological Heritage in the Community of Portuguese Speaking Countries.

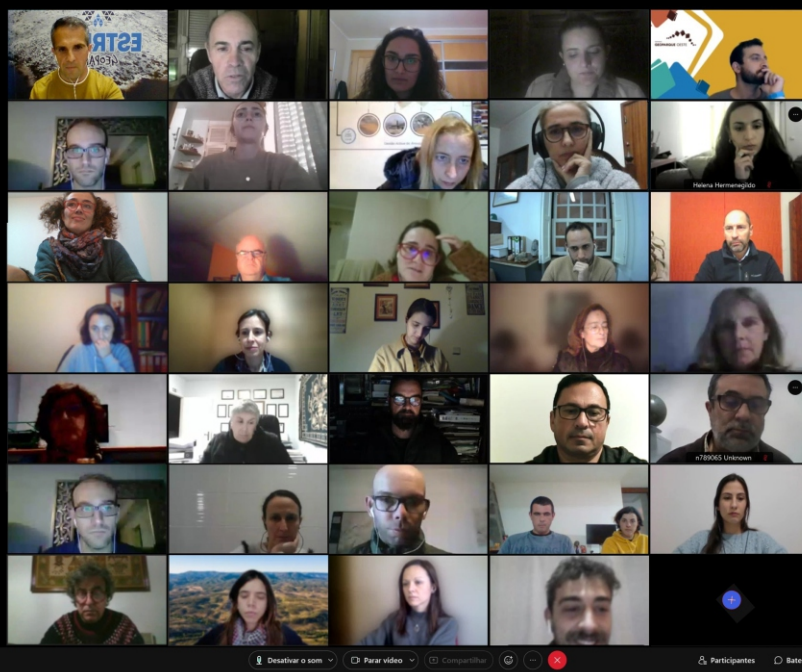
January 6th - Webinar "Communication in Geoparks". The Portuguese UNESCO Global Geoparks and Tourism of Portugal kicked off 2022 with a webinar dedicated to the theme "Communication in Geoparks", under the 6th Anniversary of the UNESCO International Geosciences and Geoparks Programme (an event initially scheduled for November 17th). The webinar included a round table that joined the scientific illustrator, Luís Taklim, the director of the Department of Communication and Digital Marketing of Tourism of Portugal, Filipa Cardoso, the travel photographer, José Luís Santos and the geologist of Naturtejo Geopark, Joana Rodrigues, with moderation of the journalist Gonçalo Pereira, director of National Geographic Portugal magazine. The group discussed different perspectives of institutional communication, science communication and destination communication, in these territories classified by UNESCO.

The event also included the delivery of awards of the I Photography Contest of the Portuguese Geoparks and presentation of the winning photographs by João Oliveira (1st prize), Pedro de Oliveira Simões Esteves (2nd prize) and Pedro Silva (3rd prize).



January 20th - Geopark at the Market promoting Geoproducts. Another edition of the Bio-Region of Idanha-a-Nova Market was organized by the Municipality of Idanha-a-Nova, with the collaboration of Naturtejo Geopark. This market, which will have a fortnightly periodicity, promotes the sale of local products, enhancing the short circuits and circular economy.

Naturtejo Geopark's space is dedicated to the promotion of Geoproducts and GEOfood, aiming to make known Geopark partners as well as to sensitize for more sustainable agro-food production ways. The Minister for Territorial Cohesion, Ana Abrunhosa, visiting the market, praised the recognition that the GEOfood brand has acquired and the networking that the Portuguese Geoparks have been developing at national level. Our partners Geocakes and Azeite Egitânia attended this edition.



January 24th to February 18th - Executive Training "Geotourism by Geoparks" with Tourism of Portugal.

The 2nd Edition of Executive Training Geotourism by Geoparks has just started, aimed at professionals in the tourism sector and promoted by Tourism of Portugal, Porto Hotel and Tourism School and the Portuguese UNESCO Global Geoparks.

After the great success of the 1st edition in 2021, this new edition has been updated and improved, counting with 37 hours of free online training through the Digital Academy of Tourism of Portugal. One of the main goals of this training is to provide participants, professionals from tourism companies and entities that promote these UNESCO classified territories, with knowledge and skills for the development of new differentiating tourism products.

The course includes contents related to Geodiversity, Geotourism, Natural and Cultural Heritage of Geoparks, Sustainable and Responsible Tourism, Safety and Risk Management, Product Structuring, Marketing and Communication and also New Post-Pandemic Trends. The trainers are members of the UNESCO Geoparks teams and of the Tourism Schools of Portugal network.

At the end of the training, participants will be entitled to the Training Certificate, awarded by Tourism of Portugal, I.P., as the National Tourist Authority for Tourism.

The current edition has a limited participation of 45 trainees, including 4 professionals from Geopark partner companies, from Penha Garcia, Idanha-a-Nova and Alpalhão and 2 technicians from Castelo Branco and Penamacor municipalities.

The first module 'UNESCO Geoparks Network in Portugal', lectured by Joana Rodrigues, from Naturtejo Geopark, focused on the Geopark concept, the UNESCO International Geosciences and Geoparks Programme, the Regional and Global Geoparks Networks, an introduction to UNESCO Global Geoparks and Aspiring Geoparks in Portugal and their network projects, and also a brief framing to the Iberian context.

The second module was dedicated to Natural and Cultural Heritage of Geoparks. Carlos Neto de Carvalho presented a comprehensive overview of the extraordinary heritage of Naturtejo Geopark.



January 24th and 25th - Winter sampling of springs in Ródão Syncline. On International Education Day we continued with the work of spring water collecting samples for Elisa Moura's master's thesis on the water availability of the quartzite aquifer of Ródão (supervised by Professor Rosário Carvalho of the Faculty of Sciences of Lisboa) and to anticipate alternative water supply scenarios for populations, starting with traditional means and available resources. The waters of the Tejo River and 11 more springs and fountains were sampled again in the winter period, after being sampled in the summer. This master thesis will allow the hydrochemical characterization of the waters, as well as to define the discharge circuits and the volume of water present in what is one of the main types of aquifers of the territory of Naturtejo UNESCO Global Geopark.

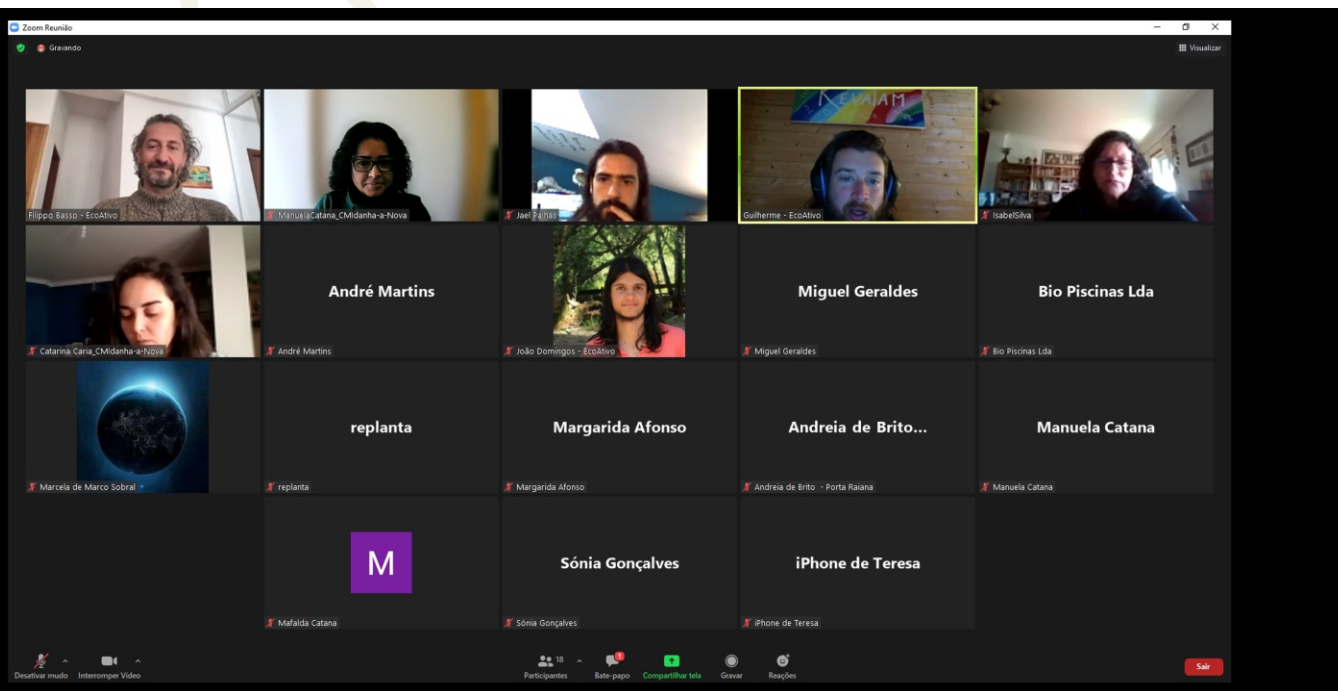
January 25th - Meeting with UNESCO National Commission. An online meeting was held between the UNESCO National Commission and representatives of the five UNESCO Global Geoparks, in order to make a status report of the network work. The group discussed issues related with the International Geosciences and Geoparks Program and with the organization of the Portuguese Geoparks Forum. Naturtejo Geopark was represented by Joana Rodrigues.



January 26th and 27th - Geological studies at Naturtejo Geopark presented at International Meeting in Badajoz. The University of Extremadura, in Badajoz, Spain, organized an international meeting to honour Teodoro Palácios. This geologist is the scientific coordinator of the Villuercas-Ibores-Jara Geopark, partner of Naturtejo UNESCO Global Geopark. For this reason, Naturtejo Geopark was represented in four research projects that cover in great part, the scientific areas of interest and contributions that Teodoro Palácios has given to the knowledge of the geology of the Iberian Peninsula.

The master student of the Faculty of Sciences of Lisboa, Lourenço Crispim, developing his research with the support of Naturtejo Geopark, presented the important results of the geochronological studies obtained in zircons of some of the oldest rocks dated so far in the Iberian Peninsula. Ícaro Dias da Silva, from the same faculty, presented the cartographic and palaeontological study that is being done in the Ordovician and Silurian rocks of Penha Garcia-Cañaverel syncline, together with Naturtejo Geopark, researchers from the University of Coimbra and from the Geological Institute of Spain. It was also presented a study of characterization of the ichnofossils present in glaciogenic formations of the late Ordovician of the same syncline by Carlos Neto de Carvalho, as well as an ongoing work in carboniferous formations of the south of Portugal, involving researchers from the University of Évora, independents and from Naturtejo Geopark.

January 27th - Presentation of 'Sustainable Centre' Project. The first presentation meeting of the 'Sustainable Centre' project was held between Tourism of Center Portugal, Biosphere and the agents of the territory. This project aims to qualify the destination Center of Portugal making it sustainable and to define goals and objectives of economic, social and environmental sustainability, as well as to reduce the seasonality of the demand through the impetus of tourism products. Carla Jacinto represented Naturtejo Geopark.



January 29th - Online Forum "Aquatic Plants in the Municipality of Idanha-a-Nova: Present and Future. The Municipality of Idanha-a-Nova and the Eco-Ativo Association promoted an online Forum, under the LudVISION Project, co-funded by the Environmental Fund. The main focus of the LudVISION project is the species *Ludwigia peploides*, detected for the first time in Portugal in 2016 and for the first time in the municipality of Idanha-a-Nova in July 2020, in the reservoir of the Toulica Dam, Aravil River Basin, tributary of the Tejo River. The Forum was an action to raise awareness among the population about aquatic plants, with a focus on invasive species that are compromising the aquatic ecosystems of the municipality. The aims of this event were: to value the aquatic flora of the municipality; to preserve the natural heritage; to raise awareness about preventing the introduction of species into small ponds and lakes. A diverse panel of speakers shared their experiences. Among the speakers were Catarina Caria (from the project team) with the presentation "The Contest: Mapping Aquatic Plants in the Municipality of Idanha-a-Nova" and Manuela Catana, as general coordinator of the project presented "The LudVISION Project".

IMPACT OF GEOPARK IN MEDIA



TV & Radio

5 de Janeiro (Rádio Cova da Beira) – Geoparques Mundiais da UNESCO promovem webinar

Newspapers & www

January 3th (Beira.pt) – Webinar “Communication in Geoparks”

January 24th (forumcovilha) – Geotourism By Geoparques promotes "development of new differentiating tourism products”

January 24th (Jornal de Oleiros) – Executive Training 'Geotourism by Geoparks’

January 24th (MaisBeiras) - 2nd edition of the course 'Geotourism by Geoparks’

January 24th (Gazeta Rural) – Executive Training 'Geotourism by Geoparks’

January 24th (BeiraNews) – Executive Training 'Geotourism by Geoparks’

January 24th (Reconquista) – Tourism - Geoparks with online training for professionals

January 24th (Diário Digital Castelo Branco) – Idanha-a-Nova launched Bio-Region Market

January 24th (Notícias Central) – Executive Training 'Geotourism by Geoparks’

January 25th (Agroportal) - Idanha-a-Nova launched Bio-Region Market in february

January 25th (Público) - Idanha-a-Nova opens organic farming market to support local farmers

January 25th (Observador) - Professionals receive training in Geotourism for Geoparks

January 25th (Noticias de Coimbra) – Professionals receive training in Geotourism for Geoparks

January 27th (Reconquista) – Geotourism with online training

January 27th (Revista Descla) - Idanha-a-Nova launched the innovative Bio-Region Market

January 31st (Gazeta Rural) – Idanha-a-Nova launched the innovative Bio-Region Market

SCIENTIFIC CONTRIBUTIONS FOR THE GEOPARK AND THE GEOSCIENCES



- BAUCON, A., LO RUSSO, G., NETO DE CARVALHO, C. & FELLETTI, F. – Chondrites-Cladichnus ichnocoenosis from the deep-sea deposits of Pierfrancesco (Cretaceous, Italy): oxygen- or nutrient-limited? *Rivista Italiana di Paleontologia e Stratigrafia*, 128(1), 1-21.

- CRISPIM, L., CHICHORRO, M., SANTOS, T.B., LINNEMANN, U., HOFMANN, M. & NETO DE CARVALHO, C. - U-Pb zircon geochronology of metasedimentary and igneous rocks from Penha Garcia-Salvaterra do Extremo sector, Central Iberian Zone. In: Jensen, S. (Ed.), *Abstract Book of the International Meeting "Ossa Morena and beyond: a tribute to Teodoro Palacios"*, Univ. de Extremadura, Badajoz, January 26th-27th, 9-10.

- MACHADO, G., MOREIRA, N., NETO DE CARVALHO, C., MADRINHA, J., ESTEVES, C.J.P., KALVODA, J., THEIAS, A., JORGE, J., RAMOS, M., SILVA, B., SOUSA, D., CARALINDA, I. & CACHÃO, M. - The Mississippian Toca da Moura-Cabrela Basin (SW Ossa-Morena Zone, Portugal): sedimentation and palaeoenvironments. In: Jensen, S. (Ed.), *Abstract Book of the International Meeting "Ossa Morena and beyond: a tribute to Teodoro Palacios"*, Univ. de Extremadura, Badajoz, January 26th-27th, 25-26.

- NETO DE CARVALHO, C., MUÑIZ, F., BAUCON, A., BAYET-GOLL, A., PEREIRA, S., DIAS DA SILVA, Í., COLMENAR, J., PIRES, M. & YOUNG, T. - Ichnology in the onset of the Hirnantian glaciation: the Rio Ceira Group of the Penha Garcia Syncline (Portugal). In: Jensen, S. (Ed.), *Abstract Book of the International Meeting "Ossa Morena and beyond: a tribute to Teodoro Palacios"*, Univ. de Extremadura, Badajoz, January 26th-27th, 31-32.

- PEREIRA, S., DIAS DA SILVA, Í., COLMENAR, J., PIRES, M., YOUNG, T. & NETO DE CARVALHO, C. - The Penha Garcia Syncline in the Naturtejo Geopark (Portugal): mapping the intricate Ordovician palaeogeography in the Variscan fold chain. In: Jensen, S. (Ed.), *Abstract Book of the International Meeting "Ossa Morena and beyond: a tribute to Teodoro Palacios"*, Univ. de Extremadura, Badajoz, January 26th-27th, 33-34.

PROMOTION FOR THE GENERAL PUBLIC

- Podcast "Aqui Entre Nós" ("Here Amongst Us") by Tourism Center of Portugal. Episode 51 - Special 'Route through the Geoparks of Central Portugal' - Naturtejo Geopark
- Video 'How is it like to live here?' UNESCO Geoparks - Portugal. Testimonies of who lives in UNESCO Global Geoparks in Portugal | Naturtejo Geopark



PROMOÇÃO PARA O PÚBLICO EM GERAL



IDANHA-A-NOVA
TERRITÓRIO UNESCO



Visit Naturtejo Geopark in:



www.geoparknaturtejo.com



www.facebook.com/geoparknaturtejo.mesetameridional



www.instagram.com/geopark_naturtejo/



www.youtube.com/geoparknaturtejo



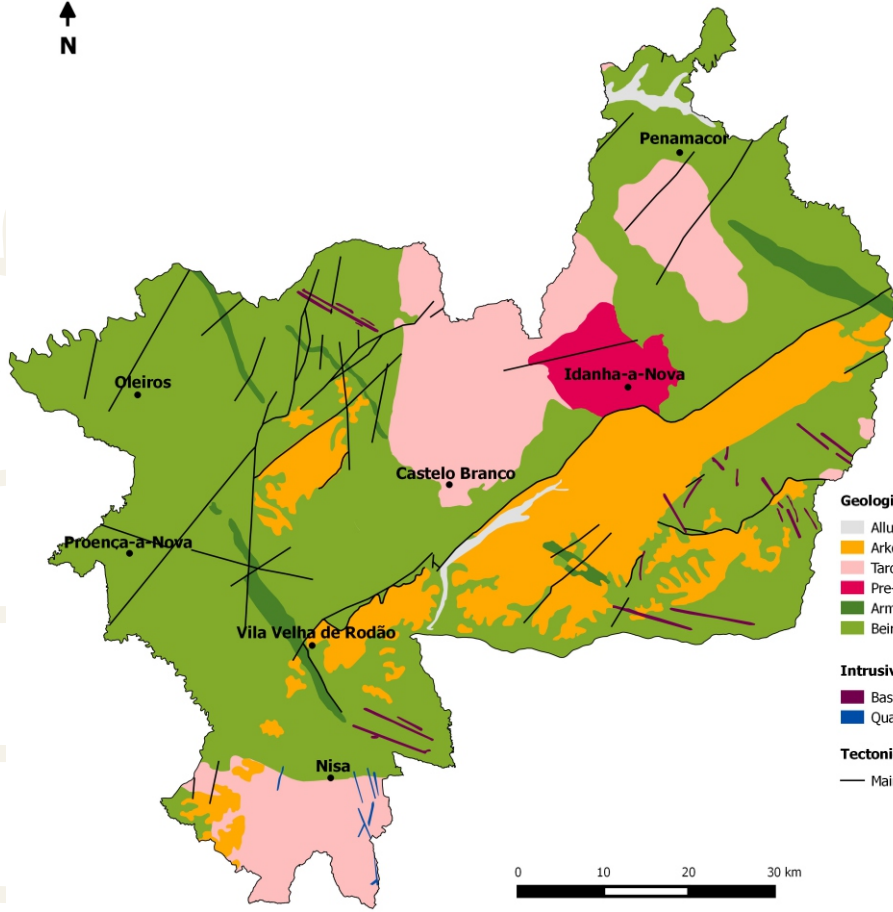
issuu.com/geoparknaturtejo



https://twitter.com/Geo_Naturtejo



<https://www.linkedin.com/company/geoparknaturtejo/>



Geological Formations (Ma-Million years)

- Alluvium and fluvial terraces - Plistocene-Holocene (1Ma-present)
- Arkoses, breccias and conglomerates - Eocene-Pliocene (50-2.6Ma)
- Tardi-Variscan orogenic granites (315-300Ma)
- Pre-Variscan granodiorites (480-472Ma)
- Armorican Quartzite and schists - Ordovician-Lower Silurian (488-435Ma)
- Beiras Group (schists and greywackes) - Neoproterozoic (610-542Ma)

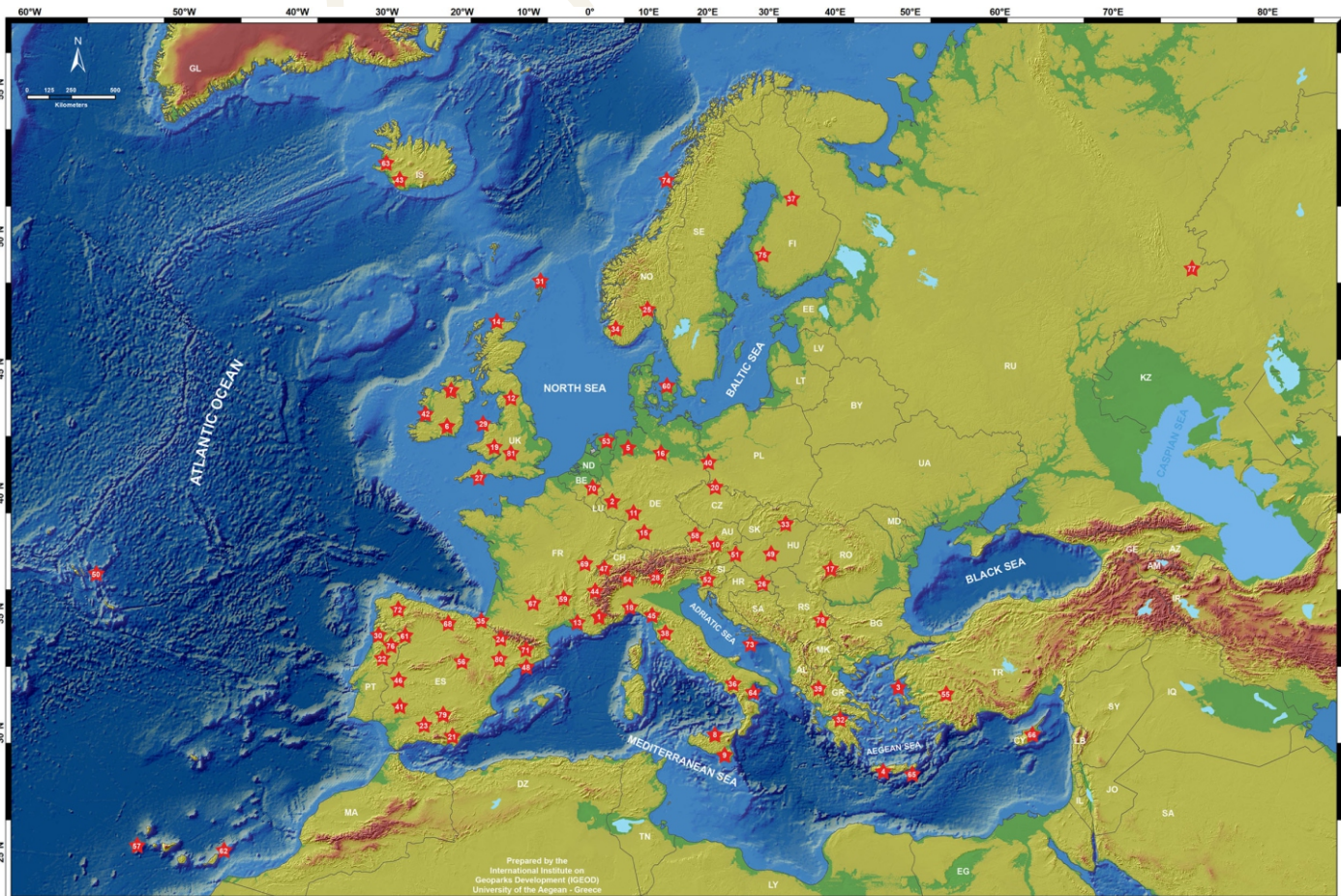
Intrusive rocks

- Basic rocks, aplites and pegmatites
- Quartz

Tectonic

- Main faults

Geoparks: Geology with human face





Edition - Naturtejo Geopark, 2022
Coordination - Carlos Neto de Carvalho
Texts - Carlos Neto de Carvalho,
Joana Rodrigues, Manuela Catana
Photos - Carlos Neto de Carvalho,
Joana Rodrigues, Manuela Catana
Clipping - Carla Jacinto e Alice Marcelo
Design - Layer [Design and Print Studio]
Translation - Carla Jacinto
Editing - Joana Rodrigues



CRUZIANA

GEOPARK NATURTEJO DA MESETA MERIDIONAL EUROPEAN AND GLOBAL GEOPARK MONTHLY REPORT

www.geoparknaturtejo.com

NATURTEJO UNESCO GLOBAL GEOPARK - E-MAGAZINE