

ProGEO Symposium

7th - 10th June 2021

by: **ProGEO**

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The COVID-19 pandemic has challenged our model of face-to-face meetings. To adapt to the current situation initiated a year ago, the Organising Committee and the European Association for the Conservation of the Geological Heritage (ProGEO) have decided to transform the X International ProGEO Symposium (Spain, 2020) into a fully online and totally free event. The online symposium will take place between 7-10 June 2021. Online sessions will allow for live interaction, and will be available through the X ProGEO 2021 Youtube channel.

The symposium is still organized by the Instituto Geológico y Minero de España (IGME, the Geological Survey of Spain), and the online format will provide the opportunity to discuss the threats to the world's geological heritage and the challenges to geoconservation, while we protect the safety, health and well-being of all participants.

Important dates

1st March	<ul style="list-style-type: none"> ■ Opening of on-line registration ■ Opening of abstract submission
18th April	<ul style="list-style-type: none"> ■ Deadline for abstract submission ■ Registration deadline for presenters
9th May	<ul style="list-style-type: none"> ■ Communication to presenters if abstract is accepted
23th May	<ul style="list-style-type: none"> ■ Deadline for pre-recorded video submission
30th May	<ul style="list-style-type: none"> ■ Registration deadline for listeners ■ Final programme
SYMPOSIUM	
7th - 10th June	<ul style="list-style-type: none"> ■ Symposium online event

Scientific Programme

The purpose of the symposium is to discuss about new challenges and opportunities involved in geoconservation and its gradual globalization. The scientific programme will include:

- three days of oral presentations and poster sessions,
- a invited speaker for the plenary session,
- specific sessions, group meetings and workshops,
- an intensive short course on BASIC CONCEPTS IN GEOCONSERVATION & GEOHERITAGE INVENTORIES.

Session themes

Themes for plenary sessions include:

1. Inventories and research
2. Management and conservation
3. Education and public outreach
4. Geotourism, UG Geoparks and local development
5. Geoconservation in protected areas
6. Moveable geoheritage
7. Geoheritage and cultural heritage

Oral presentations and eposter sessions

One-presentation rule - Due to the limited time for oral sessions, each person will be allowed to only one presentation, even if co-author in different abstracts.

Oral and poster presentation will be pre-recorded, and will later include a live Q&A session. The scientific committee will decide which abstracts of those received will be presented in normal (10 minutes) or short (3 minutes) format.

The time slot allocated for the abstracts presentation will be:

- 15 minutes for oral presentation (10 mins talk and 5 mins for discussion)
- 5 minutes for short/eposter presentation (3 mins talk and 2 mins for discussion)

Meetings & workshops webinars

- Meeting of the International Commission on Geoheritage of IUGS (International Union of Geological Sciences)

This meeting has the purpose of building bridges with ProGEO and informing about the new launching of the Global Geosites project led by this Commission.

- 2nd Workshop on Key Geoheritage Areas of the IUCN WCPA Geoheritage Specialist Group (GSG)

The workshop is open to contributions on KGAs and Global Geosites. A meeting of the GSG Steering Committee will also take place.

- 4th Meeting of ProGEO's SW Europe Regional Working Group

This meeting attempts to coordinate efforts from France, Italy, Portugal and Spain, set strategies and plan actions for the future.

- 9th meeting of ProGEO's Southeast Europe Regional Working Group

This meeting attempts to coordinate planned activities and set strategies and action plans for the future.

- 1st Workshop of the EuroGeoSurveys Geoheritage Expert Group

First meeting to coordinate efforts from European geological surveys (EuroGeosurveys), share experiences and plan strategies. Open to anyone interested.

- Meeting of the Geoheritage Commission of the Association of Iberoamerican Geological and Mining Surveys (ASGMI)

Meeting to update latest results and advances in geoconservation in Ibero-American countries.

- The General Assembly of ProGEO will take place on the 10th June 2021.

PLENARY CONFERENCE - ASIER HILARIO

GEOLOGICAL HERITAGE AND UNESCO GLOBAL GEOPARKS. MEMORY OF THE EARTH, FUTURE FOR THE PEOPLE



Asier Hilario is a Ph.D. geologist in charge of the scientific management of the Basque Coast UNESCO Global Geopark. Recently he has been appointed as the president of the IUGS International Commission on Geoheritage and member of the scientific board of the International Geosciences program (IGCP). He is an active member of the GGN (Global Geoparks Network), belongs to the advisory Committee of the EGN (European Geoparks Network) and is one of the few senior evaluators of the UNESCO Global Geoparks program. He has been the coordinator of the Spanish geoparks forum (2016 - 2020). At present he is coordinating the new IUGS Global Geosite program as well as the Geoheritage Working Group for the IUGS desk-top assessment of the geological international significance for new aspiring geoparks.

He has got a wide experience on geoheritage inventories, assessment, geoconservation and specially communication of Earth Sciences and geoparks. He has done more than 100 talks worldwide and has written several books, scientific papers and articles for the broad public.

Dr. Hilario will present a broad reflection about geoconservation based on his personal view and international experience. He will talk about the great opportunity of the renewed IUGS Global Geosites programme, and will explain the importance of UNESCO Global Geoparks as key actors for the visibility of geoconservation worldwide. The importance of an emotional communication, a real social engagement and a good capacity for empathy will also be critically analyzed as key topics for the future of geoconservation.

INTENSIVE SHORT COURSE: BASIC CONCEPTS IN GEOCONSERVATION & GEOHERITAGE INVENTORIES - Course Chairperson: ENRIQUE DIAZ



Date: Two sessions on alternate days

Dr. Enrique Díaz Martínez is a Ph.D. in Geology from the University of Idaho (USA, 1994) and MSc in Management of Protected Areas from University of Madrid (Spain, 2006). Researcher with the Spanish National Research Council (1998 to 2003) and with the Geological Survey of Spain (IGME) since 2004, working on geoconservation projects including inventories, legislation, management and public outreach.

Positions related with geoconservation: member of the Spanish Commission on Geological Heritage (CPG) since 1994, vice-president 2006-2009, and president 2009-2017; Spanish representative to ProGEO (European Assoc. for the Conservation of Geological Heritage) in 2006-2017, vice-president 2010-2018, and executive secretary since 2018; founding member and deputy chair of the Geoheritage Specialist Group of the IUCN World Commission on Protected Areas (WCPA) since 2013; and expert scientist member of IUCN's WCPA since 2014.

More information on the site: <http://www.igme.es/patrimonio/Xprogeo2021>

Webinar - press note

Geodiversity and Geoconservation: a new theme for PANORAMA solutions

by: **Enrique Díaz Martínez, Manu Monge, Juana Vegas, José Brilha**

[e.diaz@igme.es, manu-monge@euskadi.eus, j.vegas@igme.es, jbrilha@dct.uninho.pt]

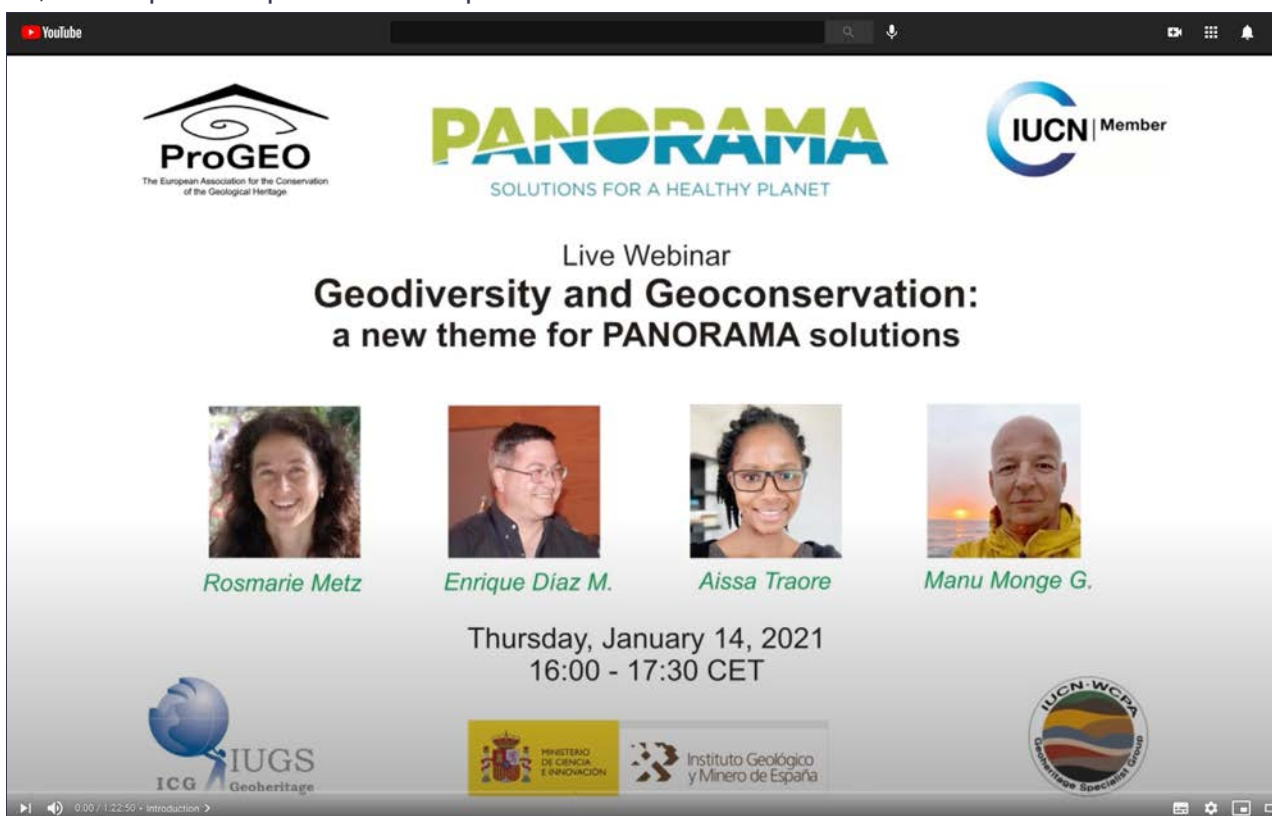
The European Association for the Conservation of Geological Heritage (ProGEO), a member of the International Union for Conservation of Nature (IUCN), together with the PANORAMA consortium, organized on Thursday, January 14, 2021, from 4:00 to 5:30 pm CET, a live webinar on "Geodiversity and geoconservation: a new theme of PANORAMA solutions". The seminar was in English, and the development consisted of an introduction to the concepts and initiatives of geoconservation, explaining how proper management of geological heritage and geodiversity contributes to the conservation of natural heritage and natural diversity. The PANORAMA initiative and its web platform were also discussed, showing how it allows conservation professionals to share and reflect on their experiences, increase recognition of good practices, and discover how similar challenges have been addressed in other parts of the world. Participants had the opportunity to learn about the benefits of contributing to PANORAMA with examples of nature-based solutions, and received guidance on how to contribute to this initiative with their own examples of conservation and enhancement of geological heritage and geodiversity.

The webinar platform was provided by the Geological Survey of Spain (IGME), a public research body that works to improve and promote the knowledge and management of geological heritage in Spain and worldwide.

When the registration closed that same day in the morning, there were a total of 175 people registered. The predominant group was from universities and research centers, then geoparks, protected natural areas, and tourism agencies, apart from some individuals who did not indicate an organization or company. Regarding the countries of origin, it was surprising to see the diversity of countries and continents represented:

- America: Canada, Mexico, Venezuela, Colombia, Ecuador, Brazil, Bolivia, Chile and Argentina;
- Africa: Morocco, Tunisia, Mali, Congo, Democratic Republic of the Congo (former Zaire), and Mozambique;
- Asia: India, Indonesia, Iran, Philippine Islands, Lebanon, Myanmar, Thailand, Taiwan, East Timor and Vietnam;
- Europe: most of the participants were from Spain and Croatia, and there were also from Bosnia-Herzegovina, Denmark, France, Germany, Greece, Ireland, Norway, Poland, Portugal, Romania, Russia, Switzerland and the United Kingdom.

With the link sent to all registered people, the event itself was accessed by a total of 118 persons. Some of them asked questions in written, and the speakers responded once their presentations had finished.



The screenshot shows a YouTube video player interface. At the top, there are logos for ProGEO (The European Association for the Conservation of the Geological Heritage), PANORAMA (SOLUTIONS FOR A HEALTHY PLANET), and IUCN Member. The main title of the video is "Live Webinar Geodiversity and Geoconservation: a new theme for PANORAMA solutions". Below the title, there are four speaker portraits with their names: Rosmarie Metz, Enrique Díaz M., Aissa Traore, and Manu Monge G. The date and time of the webinar are listed as "Thursday, January 14, 2021 16:00 - 17:30 CET". At the bottom, there are logos for ICG IUGS Geoheritage, the Spanish Ministry of Science and Innovation (MINISTERIO DE CIENCIA E INNOVACION) and Instituto Geológico y Minero de España, and the IUCN-WCPA Geodiversity Specialist Group. The video player controls at the bottom show a progress bar at 0:00 / 1:22:50 and a play button.

After being edited for broadcast, the video is now available on the IGME YouTube channel, and can be accessed with the following link: <https://www.youtube.com/watch?v=0iL5RpptAYM>

A Unique Landscape

The South Harz and Kyffhäuser Gypsum Karst

by: **Friedhart Knolle, Bärbel Vogel**

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Abstract

The South Harz gypsum karst area in the German states Lower Saxony, Thuringia and Saxony-Anhalt, its karst phenomena, biotopes and landscapes, international importance and threats for this unique area caused by gypsum quarrying are described. This landscape should be considered to get a World Heritage status.

Where?

The landscape of the South Harz is dominated by gypsum karst forming one of the largest continuous gypsum karst areas in Europe (Kempe 1996). It occupies a narrow belt extending through the States of Lower Saxony, Thuringia and Saxony-Anhalt (Federal Republic of Germany) from Osterode am Harz in the West to Sangerhausen in the East (Fig. 1). This gypsum belt has developed a remarkable density of a large variety of karst phenomena throughout the Pleistocene and Holocene. Karstification occurs mostly in the gypsified anhydrite layers of the Upper Permian, i.e. the anhydrite members A1, A2, A3 of the Werra, Staßfurt and Leine Zechstein salinar series, respectively. This outstanding area is worth of preservation, and several parts are protected, however, its importance is not well known internationally.

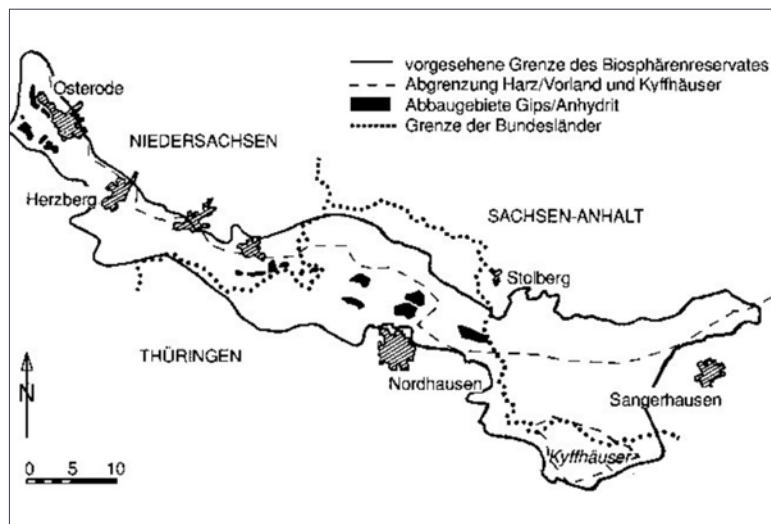


Figure 1 - Overview of the South Harz Gypsum Karst area

What?

The most pronounced features of the South Harz landscape are more than 20,000 sinkholes in addition to countless uvalas, ponors and karstic springs (e.g. Kempe et al. 1975), periodic lakes (Fig. 2, 3), more than fifty larger caves (Kempe 1972, 1978, 1980) and other karst phenomena (Kempe & Emeis 1981) plus many archeological sites, all confined in the small spaces of the individual gypsum outcrops. The product of these natural conditions combined with the mostly extensive management is a vast mosaic of closely interconnected but diverse habitats, including dry meadows, beech forests, gypsum escarpments, stony terrain, spring bogs, and water-filled fens. The South Harz gypsum karst area is also an important habitat for many bat species and the European Wildcat (*Felis sylvestris*).

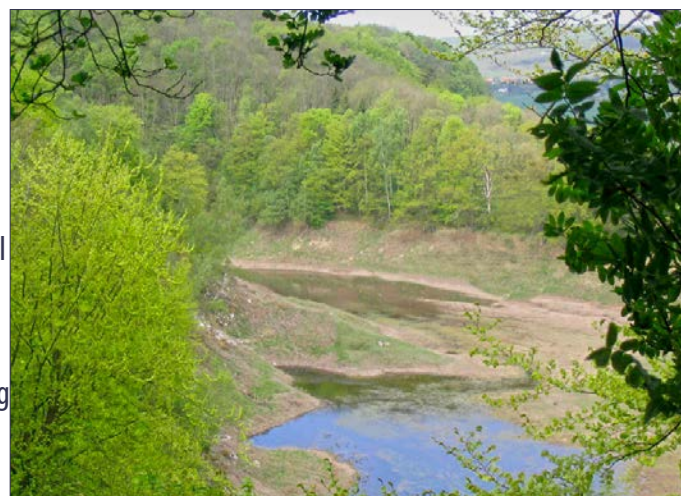


Figure 2 - Bauerngraben, an episodic sinkhole pond near Roßla, Saxony-Anhalt.

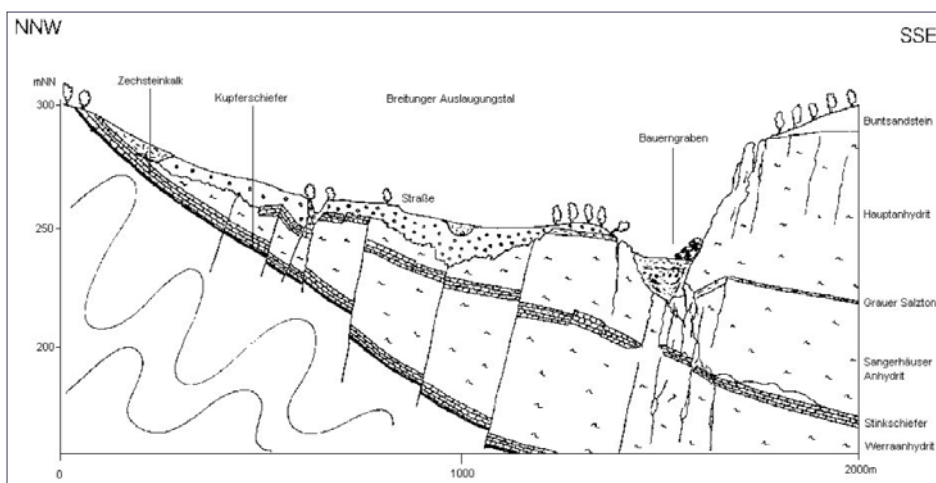


Figure 3 - Geological situation of the Zechstein karst of the Bauerngraben area near Roßla, Saxony-Anhalt

Landscape History

The fens in the South Harz gypsum karst sinkholes are excellent archives for the reconstruction of vegetation, land use and emission rates over millennia. The reason is the usually very good preservation of pollen, the high portion of low density organic material with very low background concentrations of heavy metals, and the near-neutral pH-values in most of these mires preventing migration of heavy metals. Immissions of dust and harmful elements can easily be correlated with changes in vegetation. Karst sinkhole fens of the South Harz gypsum karst were investigated by geochemistry, via pollen analysis and dated by ¹⁴C and palynology by Hettwer et al. (2002).

Studies of the Lake Jues sinkhole in Herzberg provided a well-dated, continuous and highly sensitive environmental and climatic reconstruction of the Holocene for the mid-latitudes in Central Europe and can serve as an important link between the better investigated neighbouring regions. Climate shifts, mainly in phase with those recorded from other European regions, are inferred from changing limnological conditions and terrestrial vegetation. Significant changes occurred at 11,600 a BP (Preboreal warming), between 10,600 and 10,100 a BP (Boreal cooling), and between 8,400 and 4,550 a BP (warm and dry interval of the Atlantic). Since 4,550 a BP the climate became gradually cooler, wetter and more oceanic. This trend was interrupted by warmer and dryer phases between 3,440 and 2,850 a BP and, likely, between 2,500 and 2,250 a BP (after Voigt et al. 2008).

Threats and Chances

Unfortunately, parts of this landscape have already been destroyed: In many places gypsum is quarried predominantly by globally operating business groups. Every year, millions of tons are processed for construction materials such as gypsum wallboards, plaster, etc., and karst phenomena are irrevocably lost together with their characteristic flora and fauna. Valuable natural heritage and long-term development prospects for the region are sacrificed for short-term jobs and profits. But this must not happen any more, since natural gypsum can be substituted by synthetic gypsum (e.g. REA gypsum from flue gas desulphurisation FGD) in all fields of application (Öko-Institut 1997). FGD gypsum is a waste product of smoke desulfurization. Only a very small percentage is used for the building industry, as they use mostly mined natural gypsum up to now. Meanwhile gypsum of smoke desulfurization is stored.

Gypsum karst areas, which are now unnecessarily destroyed, developed over hundred thousands of years and represent geosites and biotopes with a significant ecological importance for biodiversity, groundwater systems and the defining landscape elements in Europe. Compensatory measures such as restoration can never substitute primary ecotopes that evolved in geological and not

in biological ages. An enfolding restoration would take centuries and the geomorphological structure of this unique habitat is irreversibly lost. Because of the current - due to the climate change aggravated - tempo of species extinction, ecological niches like the gypsum karst became indispensable. For this reason, sustainable production in the case of utilisation of FGD gypsum instead of natural gypsum is an economical advantage, resource efficiently and above all a guarantee for the protection of biodiversity and landscape ecology in Europe (Röhl 2003, Vogel & Grebe 2008).

The South Harz gypsum karst is part of the UNESCO Global Geopark Harz • Braunschweiger Land • Ostfalen (www.geopark-harz.de) and was declared a German National Geosite in 2006 (www.geoakademie.de).

So far, Saxony-Anhalt has been the only German state consistently protecting its share of the gypsum karst belt as a Biosphere Reserve (www.bioreskarstsuedharz.de). There is no other Biosphere Reserve in a gypsum karst area world-wide.



Figure 4 - Gypsum quarry near Osterode am Harz, Lower Saxony

The environmental NGOs in Lower Saxony and Thuringia vigorously object to the issuing of new extraction permits. In order to ensure the long-term protection of the gypsum karst landscape they demand the establishment of a cross-boundary UNESCO Biosphere Reserve, designated "Karstlandschaft Südharz", and the nomination of more gypsum karst areas as Natura 2000 sites also in Lower Saxony and Thuringia. The environmental NGOs have lodged a complaint with the EU, because important gypsum areas comprising habitat types and species worth of protection have not been nominated for protection in the interest of the continued gypsum mining.

World Heritage Status?

Considering Guidelines 4 and 9 from IUCN (1997) and Recommendation 4 from IUCN (2008), that States Parties whose territories include karst terrains situated on evaporite rocks should consider the potential of their sites for natural World Heritage recognition, this consideration should be started for the above described gypsum karst landscape.

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The workshop will be held online and will be free for all to attend. The event is hosted by the Oxford University Museum of Natural History, and funded by Research England's Strategic Priorities Fund allocation to the University of Oxford.



IUCN/WCPA Geoheritage Newsletter

by: **ProGEO**

[progeo@progeo.ngo]

The February (2021) IUCN WCPA Geoheritage newsletter highlights important contributions on which several ProGEO members were involved. Some of those contributions are listed below:

- Publication of the IUCN WCPA Best Practice 'Guidelines for Geoconservation in Protected and Conserved Areas';
- Adoption of IUCN Resolutions WCC-2020-Res-074 and WCC-2020-Res-088
- Geodiversity and Geoconservation: a New Theme of PANORAMA Solutions



**GEOHERITAGE
Newsletter**

IUCN WCPA
WORLD COMMISSION
ON PROTECTED AREAS

No. 5, February 2021

Kosciuszko National Park contains mainland Australia's highest mountain, part of the Great Dividing Range, with fine examples of cirques, moraines, glacial lakes, periglacial features and limestone caves – a remarkable geodiversity that provides a platform for the area's outstanding natural and cultural history. Graeme Worboys was a powerful advocate for the Park's conservation and co-authored with Deirdre Slattery, *Kosciuszko: a Great National Park*. (Photo: © Roger Crofts).

Welcome to Newsletter No. 5 of the IUCN WCPA Geoheritage Specialist Group. Despite the coronavirus pandemic, 2020 has seen positive outcomes for geoconservation in protected areas, but also great sadness in the loss of Graeme Worboys. As Roger Crofts notes below, Graeme was a tremendous supporter of geoconservation, providing wise advice during the establishment of the GSG and through his contributions to its activities. But he also made much wider contributions to nature conservation and protected area management (see: www.iucn.org/sites/dev/files/content/documents/mountain_update_dec_2020.pdf). I met Graeme a number of times at GSG meetings and during his visit to Scotland in 2015 and corresponded with him on geoconservation issues. I was struck by his professionalism, dedication and unstinting efforts to progress conservation, and particularly by his unflinching courtesy, personal kindnesses, encouragement and sound advice based on his vast experience of protected area management. He will be greatly missed.

It was particularly pleasing to see the publication in November of the WCPA Best Practice *Guidelines for Geoconservation in Protected and Conserved Areas*, the culmination of several years' work by GSG members. Another highlight of 2020 was the adoption of two further IUCN Resolutions, which should help to progress effective measures to protect and manage geoheritage. One of these, WCC 2020 Resolution 074, supports the development of detailed preparatory work for a future IUCN initiative on Key Geoheritage Areas, complementary to the Key Biodiversity Areas Programme, in order to protect geoheritage sites of global conservation significance. This will be a key future work area for the GSG.

John Gordon

Would you like to help Pro GEO and become our new ProGEO Administrative Assistant?

As the duties of ProGEO officers are increasing and with the planned expansion of ProGEO into an international association, an update of our administrative capabilities is needed. ProGEO is seeking, therefore, an Administrative Assistant.

For the first year this will be a trial project with a workload estimated at up to 300 hours per year, averaging up to 6 hours a week. The role will be self-employed role, without overheads and any other liabilities being covered by ProGEO. Any contractor will, therefore, need to make their own tax declarations, arrange liability insurance, etc, as necessary.

The initial contract value will be 3000 euros annually, although some aspects of the post and payment could be discussed further, depending on the qualifications and experience of the contractor

The duties will include assisting Executive committee officers in administrative tasks such as communications with members, producing ProGEO NEWS and website duties and formalities linked to Executive committee meetings, council meetings and general assemblies. A more detailed listing of envisaged duties can be provided on request.

If you are interested in applying for this post or want more information, please send your application or contact ProGEO at progeo@progeo.ngo before 30 May 2021.



Deadline next issue of ProGEO NEWS

June 1st, 2021

Please send contributions to ProGEO NEWS. Members are interested in things that happen all over the world, your experiences, activities, science, geosites, geoconservation and geotourism efforts!

june

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ProGEO NEWS are available in the ProGEO site (under publications) www.progeo.ngo

ProGEO NEWS issued 4 times a year with information about ProGEO and its activities.

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Please send your contributions (unformatted word file 500 – 2000 words). Photographs, maps and figures should be sent as separated files (preferentially not included in the word file).

If longer texts are needed, please contact the editor.

ProGEO: European Association for the Conservation of the Geological Heritage.

President: Lars Erikstad • Executive Secretary: Enrique Díaz Martínez • Treasurer: Sven Lundqvist.

Membership subscription: € 50 (including GEOHERITAGE journal), 25/yr.(without GEOHERITAGE journal). Institutional subscription: €185/yr.

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