

10^m

International
ProGEO
Symposium

Abstract Book

BUILDING CONNECTIONS FOR GLOBAL GEOCONSERVATION

Editors: G. Lozano, J. Luengo, A. Cabrera
and J. Vegas



Building connections for global geoconservation. X International ProGEO Symposium
Ministerio de Ciencia e Innovación
Instituto Geológico y Minero de España
2021
Lengua/s: Inglés
NIPO: 836-21-003-8
ISBN: 978-84-9138-112-9
Gratuita / Unitaria / En línea / pdf

© INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA

Ríos Rosas, 23. 28003 MADRID (SPAIN)

ISBN: 978-84-9138-112-9

10th International ProGEO Online Symposium. June, 2021. Abstracts Book.

Editors: Gonzalo Lozano, Javier Luengo, Ana Cabrera and Juana Vegas

Symposium Logo design: María José Torres

Cover Photo: Granitic Tor. Geosite: Ortigosa del Monte's nubbin (Segovia, Spain). Author: Gonzalo Lozano.

Cover Design: Javier Luengo and Gonzalo Lozano

Layout and typesetting: Ana Cabrera

The "Save a Rock" program at COP25: citizen science to raise awareness about the impact of climate change on geoconservation

Juana Vegas¹, Ana Cabrera¹, Gonzalo Lozano¹, Alicia González¹, Andrés Díez-Herrero¹, Luis Carcavilla¹, Enrique Díaz-Martínez¹, Javier Luengo¹, Ángel Salazar¹ & Ángel García-Cortés¹

¹Instituto Geológico y Minero de España (IGME), Ríos Rosas 23, 28003 Madrid, Spain. e-mail: j.vegas@igme.es

Keywords: Climate Summit COP25, climate change, geoconservation, Save a Rock, Spain.

The Spanish programme *Save a Rock*

Within the Spanish legislative and knowledge framework of the national Act 42/2007 and Act 33/2015 for the Natural Heritage and Biodiversity, *Save a Rock* (in Spanish, *Apadrina una Roca*) is a volunteer programme whose main objective is the conservation of the Spanish geoheritage and which has been extended to the Spanish Inventory of Sites of Geological Interest (IELIG, in Spanish, in: García-Cortés et al., 2019). The *Save a Rock* volunteer program provides a link between the public administration and society, of vital importance today, given the increasing participation of citizens in problems that affect society and the environment (Vegas et al., 2018; Cabrera et al., 2019). Since December 2017, it is possible to adopt the geosites included in the IELIG and the programme is in operation through a simple online registration system at <http://www.igme.es/patrimonio/ApadrinaUnaRoca.htm>. Adoption is totally free and we only ask that volunteers take care of geoheritage and watch over it. In these four years and five months of operation (until May 2021) citizen response has proven to be positive, with a total of 2620 volunteers who are already watching over 1459 geosites out of 4042 IELIG geosites. *Save a Rock* helps to improve the geographic coverage of surveillance over the geosites, allowing volunteers to monitor their conservation status, which is difficult to achieve otherwise, either from public administrations or private initiative. The programme contributes to the environmental education of citizens and their knowledge about geology. It connects citizens with nature, promotes awareness about the value of our natural heritage, and the need to conserve geoheritage as a responsibility that involves everyone and not just public administrations.

***Save a Rock* at COP25 Chile-Madrid in 2019**

The 2019 United Nations Climate Change Conference, also known as COP25, is the 25th climate change conference. It was held in Madrid, Spain, from 2 to 13 December 2019 under the presidency of the Chilean government. The conference included the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the 15th meeting of the parties for the Kyoto Protocol (CMP15), and the second meeting of the parties for the Paris Agreement (CMA2). The Spanish government divided the COP25 into two zones. The *blue zone* hosted sessions for negotiation between the parties of the COP. The *green zone* was dedicated to civil society initiatives aiming to promote social participation.

The Spanish Ministry of Science and Innovation appealed to public research organizations on November 15 to present proposals for activities and presentations of initiatives in the green zone. In three days, the IGME geoheritage research team prepared an action entitled "Save a Rock with the Climate Summit" consisting in the creation of a documentary film based on the videos submitted by the volunteers of this programme. In one minute they had to explain the real impacts that will occur as a result of climate change in the conservation of the geosites that each of them watches over. With more than 300 proposals received from other public organizations, the Spanish Environmental Ministry selected this action and its documentary film to be presented on December 3rd at the *green zone* of COP25. This is the first time that a citizen science programme contributing to the conservation of geoheritage has been present at a Climate Summit. This has highlighted the vulnerability of geosites to climate change as one of the main problems that is already affecting geoheritage.

On November 20, the petition was sent to all our volunteers through social networks (Facebook and Twitter) and email lists so that they would send us a short video or clip. In just one minute, and with

their own mobile device, they had to record themselves explaining how climate change may affect the conservation of their geosite. November 27 was the deadline for reception and a total of 26 clips were received. The video clips were in Spanish, English, Catalan and Galician languages. The volunteers who participated are a representative sample of scientists, secondary school teachers and students, representatives of associations, several Spanish UNESCO Global Geoparks, and individuals including school age children.

Only 4 days before the event, a 30-minute documentary film was prepared with the videos that were received in the programme's mailbox. They were classified according to the main impacts of climate change to which they are subjected. To connect each of these chapters, short clips from drone images provided mainly by the Aerial Service (IGME) were used. The geosites in Spain that are most threatened are those located in the coastal areas which may disappear due to rising sea levels in the next 50 years. The rise in temperatures also cause the melting of Alpine glaciers in the Pyrenees, the drying of lakes, wetlands, waterfalls and regional desertification. Changes in wave dynamics will accelerate the erosion of coastal geosites. The greater recurrence of extreme storms originates heavy floods, which accelerate erosive processes and landslides. The documentary ends with a message of hope and encourages all people to get going and adapt to climate change. It is on the IGME YouTube channel at the following link https://www.youtube.com/watch?v=dN81B_0vb1U. On December 3rd, 2019 in the IFEMA Green Zone Forum Hall, the program was presented and the documentary video was projected. A new pass was made on December 13th. The most positive fact about presenting the *Save a Rock* program at COP25 was the reinforcement obtained in one of the main pillars of the programme, public awareness, the great visibility that geoheritage gained, and the influence of climate change for geoconservation in the media in the two weeks following its presentation. Amongst them, national newspapers (El País) and digital editions of local media, television reports, radio interviews and social networks. As a result, during the following two weeks the number of sponsorships rose with 111 new godparents and 145 newly sponsored geosites.

Since COP25 we have been immersed in a global pandemic that has changed our way of life. However, the *Save a Rock* programme has continued to grow with an increase of more than 1200 volunteers and in the number of alerts we receive notifying us of the main incidents and impacts on geosites. During the last year we have reinforced the outreach of the programme, with competitions among volunteers, monthly newsletters, social media and improvements to the website. Also during this time we have received more than a dozen alerts from volunteers that we have sent to the competent regional and national environmental administrations, which have contributed to saving their sponsored geosites.

References

- Cabrera A, Vegas J, Prieto Á, Díez-Herrero A, García-Cortés Á, Díaz- Martínez E, Salazar Á, Carcavilla L (2019) 'Apadrina una Roca'. Participación ciudadana para la geoconservación en España. Cuadernos del Museo Geominero, 30: 251-256. Instituto Geológico y Minero de España. ISBN 978-84-9138-082-5.
- García-Cortés Á, Vegas J, Carcavilla L, Díaz-Martínez E (2019) Conceptual base and methodology of the Spanish Inventory of Sites of Geological Interest (IELIG). Instituto Geológico y Minero de España. 205 p.
- Vegas J, Cabrera A, Prieto A, García-Cortés A, Díez-Herrero A (2018) Apadrina una Roca. Un programa de voluntariado para la conservación del patrimonio geológico en España. Enseñanza de las Ciencias de la Tierra, 26.1: 122-124.