

# AN OVERVIEW OF THE FIVE YEARS OF THE NATURTEJO GEOPARK (PORTUGAL) EDUCATIONAL PROGRAMMES AND THE NEXT CHALLENGES

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In 2006 Naturtejo Geopark became part of the European and Global Geoparks network under the auspices of the UNESCO. To achieve one of the most important missions of a geopark – promoting geo and environmental education – the educational programmes of the Naturtejo Geopark appeared in the school year of 2007/2008 and were addressed to students both from the school institutions of the geopark and from national and foreigner ones.

This educational Project was firstly drawn in three stages. The first one consisted on the creation and implementation of two educational programmes: “School goes to the Geopark” and “The Geopark goes to school” addressed mainly to students aged 12 to 15. The second stage included the elaboration of pedagogical resources and the augment of the number of field trips to increase the number of geosites included in the activities. The third stage would be to draw educational programmes and subsequent pedagogical resources addressed to pupils from the 1<sup>st</sup> grade to university students.

Five years after the implementation of the Project one can conclude that these 3 stages developed as predicted and the goals were achieved. However, the stage related to the elaboration of pedagogical resources is obviously in constant development. One then started with 2 educational programmes and the third one, called “Anim’ a rocha”, which consists of annual projects regarding geopark schools, was created in the school year of 2009/2010; the number of field trips and included geosites comprising the 6 municipalities of the Geopark Naturtejo increased and the addressees were now students aging 3 to 83 years old (from pre-schooling to senior universities).

A preliminary analysis of the statistic data collected all along five school years shows that 17, 892 students and teachers coming from Portugal and from other countries such as Spain, Germany, Brazil, the United States, England and Japan have participated in the programmes (Table 1). The number of participating institutions has been of 24-62, with the exceptional number of 162 during the school year of 2009/2010 due to “*DinoExpo*”. The number of participants had progressively increased between the school years of 2007/2008 and 2009/2010. The higher increase of 2009/2010 was due to “*DinoExpo*” which attracted many schools to the geopark. In 2010/2011 the number of participants continued to increase when compared to 2008/2009. The decrease in 2011/2012 is due to transportation costs and the economic difficulties endured by many families which are facing a time of severe austerity in Portugal and also due to the logistic reasons of the annual projects with geopark schools.

In 2010/2011 a new vision of school named *Geonatureschool* included the educational programmes as well as the new programmes to be created, the geofun addressed to families, companies, youth associations and others. The physical space of this school is the 4617 km<sup>2</sup> of the geopark territory. In February 2011 a microsite dedicated exclusively to the *Geonatureschool* was created – [www.geonaturescola.com](http://www.geonaturescola.com) - also accessible through the homepage of the Naturtejo Geopark. Whereas the educational programmes have continued to expand and develop the geofun programmes are still waiting to be implemented. Two more staff monitors will be needed to extend and adapt the concept of the educational programmes to new publics.

The programmes addressed to the school public face several difficulties such as the reduced number of staff monitors; the time needed to develop educational resources is also insufficient because of the time spent in field trips, in exhibitions or in schools promoting activities or dealing with their bookings and logistics; there's also a lack of adequate facilities and conditions to develop lab activities or in the nature linked for instance with rural activities.

Here are some strategies to implement in the following five years so that the Educational Programme of the Naturtejo Geopark evolves and consolidates as a complement of the geosciences formal teaching institutions and as a vehicle of implementation of a true and practical Education to Sustainability (environmental, social and economical): to increase the number of staff monitors of the educational programmes which will allow us to welcome a larger number of students and spend more time creating new educational tools; to acquire materials for the lab activities; to establish partnerships in order to own a physical headquarters infrastructure for the Geonatureschool, where the educational resources can be stored and lab activities along with practical workshops can be developed in contact with nature and therefore learning by doing and experimenting; where there can be conditions to implement summer fields to school groups and others; to improve the channels of promotion of the activities both in Portugal and abroad, namely in Spain; to improve and translate the microsite and the new promotional booklet to English.

The Educational Services of the Global Geoparks Network under the auspices of the UNESCO should, more than ever, focus their joint efforts in the task of contributing to Earth's sustainability through the promotion of education to sustainability in general, paying particular attention to the role that Geoeducation must have based in the holistic vision of the natural and cultural heritage and in the interdisciplinary perspective underlying its activities. Only this way an integrated and balanced vision of this Planet with 4600 million years of history will be promoted in a global scale, contributing to the changing of attitudes and educating for the sustainable use of the natural resources.

School Year	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
<b>Number of school institutions</b>	24	48	162	55	62
<b>Number of countries</b>	2 (Portugal and Spain)	2 (Portugal and Spain)	5 (Portugal, Spain, Germany, Brazil and U.S.A.)	3 (Portugal, Spain, U.S.A.)	5 (Portugal, Spain, England, Japan and U.S.A.)
<b>Number of students</b>	902	2517	6792	3420	2114
<b>Number of teachers</b>	81	295	644	787	462
<b>Total of participants</b>	938	2735	7436	4207	2576

Table 1. General statistic data of the Educational Programmes of the Naturtejo Geopark between the school years of 2007/2008 and 2011/2012.

#### References

- Catana M. M. (2008). *Valorizar e Divulgar o Património Geológico do Geopark Naturtejo. Estratégias para o Parque Icnológico de Penha Garcia*. Tese de Mestrado em Património Geológico e Geoconservação, Universidade do Minho. Vol. 1, 279 p. + Vol. 2, 159 p. + 1 DVD anexo.
- Catana M. M., Neto de Carvalho C. & Canilho S. (2011). A GEONATURRescola do Geopark Naturtejo: programas educativos em geociências e para a sustentabilidade. Livro de Resumos. Conferência GEOescolas: Novas práticas no Ensino das Geociências, Geopark Naturtejo - Idanha-a-Nova, 5 e 6 de Novembro de 2011, pp. 30-31.