



*Valbona National Park in the "Cursed Mountains"*

## **ProGEO Albania and ProGEO Kosovo, GeoTrip – 2009**

### **Bjeshket e Namuna ("Cursed Mountains")**

*Lavdie Moisiu, ProGEO-Albania and Sheribane Abazi, ProGEO-Kosovo*

Inspired by the ideas of the late Mr. Gerard G. Gonggrijp to organize geo-tours, ProGEO-Albania and ProGeo Kosovo this year organized a joint tour in the border areas of Albania and Kosovo – the eastern part of "Bjeshket e Nemuna". The tour was organized within framework of the final meeting of the Planet Year (IYPE), in Lisbon, Portugal (November 20-22, 2009).

This trip was difficult, but proved very interesting, full of geosites and rare mountainous landscapes. Bjeshket e Nemuna ("Cursed Mountains"), constitute a great mountainous region, full of glacial and karst phenomena, located in Albania, Monte Negro and Kosovo.

This tour had its clear relevance with the Final Declaration of 5-th International ProGEO Symposium on the Conservation of the Geological Heritage (1-st - 5-th October 2008, Rab, Croatia). The three last points of this declaration states:

- We accordingly stand for and support development of the Karst Framework-encompassing karst of the Dinaric Alps of Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Serbia. We endorse all local, national and wider development of geoparks, which must be based on sustainable development of the karst region;
- We are very much concerned about industrial development in the karst area. This endangers our world karst heritage, and therefore we urge national authorities to promote sustainable development instead of industrialization;
- We endorse cross-border cooperation between countries of karst regions with the aim of developing a joint karst framework in order to achieve best practice in karst conservation

and sustainable development. This is most important relative to collaboration with existing national parks and nature parks to protect parts of the Dinaric Alps karst, and to further action that will encompass karst regions of the world in accordance with requirements for integrity and management applicable to karst on the World Heritage List (IUCN World Heritage Caves and Karst, 2008).

Another important document which inspires us to undertake new initiatives in field of Geological Heritage Conservation is the Resolution of the last IUCN Congress in Barcelona (October 2008) where it was called for considering and protecting of geodiversity beside biodiversity. In the Barcelona Resolution it was emphasized "... that geodiversity is a crucial factor conditioning biology, culture and landscape in their multiple forms, and that geological aspect of high value must be preserved for future generations...".

ProGEO-Albania-Kosovo Geotrip 2009 was organized in form of a three days Project (9-10-11 October, 2009), and supported by Geological Survey of Albania. The number of Albanian participants was 20 and from Kosovo 10, geologists and geographers together.

Some selected geosites and landscapes from the tour represent the vast geodiversity we experienced:

### Komani tectonic - structural geosite.

On both slopes of the Komani hydropower station a lot of folds in limestone-marl rocks of Upper Jurassic, Cretaceous and Paleocene outcrops. Fine bedded and intensively folded carbonate rocks are of different colors, with predomination of pink color are seen.



*ProGEO-Albania and Kosovo groups in Rugova canyon, Kosovo*



*Komani geological-structural geosite, Albania*



*Large anticline and syncline structures in Cukali Mountain, Albania*

On the northern rocky slope we visited a karst cave full of human remains of saint character. Navigation by ferryboat through the Komani Lake up to the Fierza dam was a great experience. On both slopes of the Drini valley there were a lot of interesting geological phenomena and great views, especially huge folds on slopes of the Cukali Mountain.

In the carbonate rocks, rising in form of high rocky walls on the northern side of the lake it is many karst caves of different sizes, while on the southern side of the lake consist mainly by ophiolite rocks of Mirdita tectonic zone with interesting landscapes and erosion remains. On the western side of the Fierza Dam, near the end of the lake granite erosion pyramids occur.

### Valbona Valley

Valbona River and Valbona Valley are of the best natural landscapes in Albania. Almost at the end of the valley we visited the Vrella karst spring with its rounded shape. This karst spring gets waters from northeastern part of Bjeshket e Namuna from the contact of carbo-



*Valbona geopark, Albania*

nate rocks with volcanic rocks. Not far away the bridge over the Valbona River marks the start of the Valbona canyon. The canyon is too narrow to overview, but far down we can see the very clean, blue and transparent water of the river.

Getting up along the valley the Sulbica Mountains with its highest peak, Shkelzeni (2407m), and the Eastern Albanian Alps Block with its highest peak Maja e Hekurave (2560m) dominates the landscape. In places high forests of oak trees occur. On the left side of valley there is a cave, which is not only natural geosite but also an important historical place. This cave was temporary refuge of Bajram Curri, our national hero.

Climbing to Valbona Mountainous Amphitheater, on the right side there are outcrops of bauxite's, while on both sides there are seen nice forests, karst caves and a lot of erosion remains and towers in carbonate rocks. In the most upper part in the Albanian Alps with the Jezerca Peak (2693m) there is a lot of mountainous, alpine landscapes, included grasslands and forests.

Valbona National Park was proclaimed by Decision of the Council of Ministers in 1962. It is large area covered by alluvium deposit and rounded by high slopes covered by forests of oak and pine trees, but in high altitudes, all around, brightening white carbonate high

peaks controls the scenery. The activity of karst, erosion and glacial processes is clearly seen in the park.

### **Rugova Valley**

During the second day our geotour led by Kosovo participants continued to eastern part of Bjeshket e Namuna. The Bistrice of Peja River has formed deep and narrow canyon in carbonate rocks full of karst forms and karst caves. One of the important geosites, is the waterfall on the southern rocky wall. Here water is getting out from the rock just in the place of crossing of two tectonic faults.

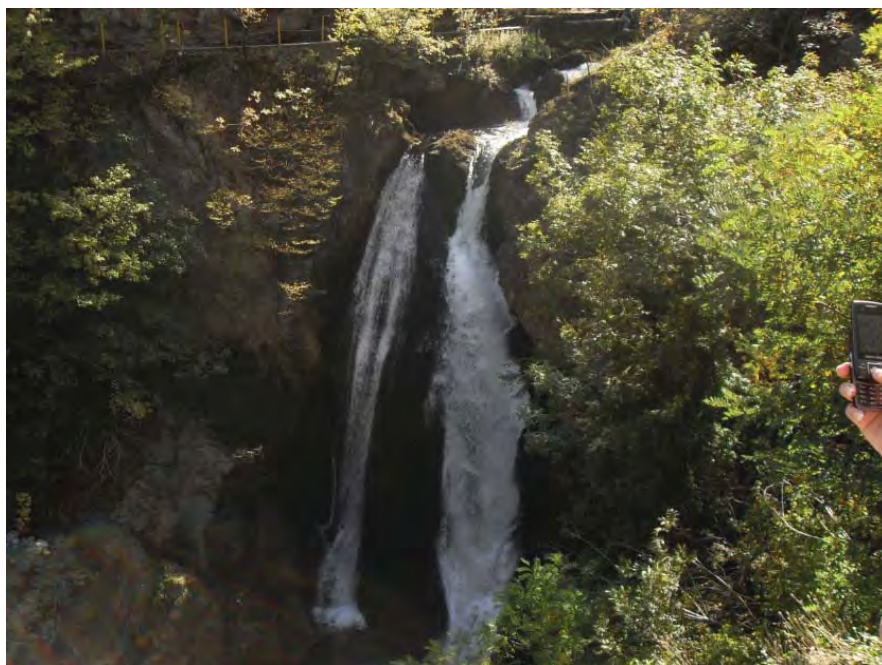
Other important geosite here is a great cave several kilometers long and the spring of Bistrice River, This springs is of the palaeozoic schists age. In middle part of valley high forests give the landscape a very nice view, similar to those we have seen in Vermoshi region of Albania and i Plava and Gucia region of Monte Negro.



Waterfall in Rugova Canyon, Kosovo

### Drini i Bardhe River

Further our geotour continued to the Drini i Bardhe River springs, Here some waterfalls with high discharge are found. These springs are getting out on the surface in contact of carbonate underground basin,



Drin Bardhe's spring

which belongs to Bjeshkete Namuna, with radilarite schist's of Paleozoic. Interesting were also the hot thermal springs, and baths named "Baja e Pejes". Sulfur smell was all around here. The Istog water springs in contact of limestone rocks with terrigenous formations were of very nice view. Here it is seen clearly the importance of good practice in using and manage of waters.

### Biodiversity

Vegetation in eastern part of Albanian Alps covers of about 60% of the surface. In some places it give a scenery of a green park of high economic, tourist and health values. In the Jezerca Mountains of the Bjeshkete e Namuna geopark predominate elements of Central European flora such as alpine pastures, beach, oak, linden, ash, willow, pine, walnut, Chestnut, etc.

The very nice alpine and subalpine pastures are located at high 1500-2400m, with species such as: *Lolium multiflorum*, *Agropyrum repens*, *Nardus stricta*, *Brhipodium sylvaticum*, *Poa media*, *Festuca pungens*, *Sesleria tenerrima*, *Trifolium alpestra*, *Trifolium pratense*, *Lathyrus aphacus* etc. There are known a lot of medical plants, amongst them we can note: *Juglans regia*, *Hypericum perforatum*, lime tree, *Rubus iidaeus* L., *Fragaria vesca*, *Gentiana lutea*, *Orchis spp.*, *Saturea montana*, etc. Some endemic and rare plants are also known such as: *Ranunculus hayekti*, *Albanian Ligustic (Ligisticum albanicum)*, *Dorfler Lapua (Petasites doerfler)*, *Dalmatine Kamaroshe (Geranium dalmaticum)*, *Kosanin Violet (Viola kosanini)*, which grows in rocky cracks, *Violet elegant (Viola elegantula)*, etc.

The most widespread wild animals there are: Lynx or "small tiger" (*Felis lynx*), Fox (*Vulpes vulpes*), Stone Marten (*Martes foina*), Zardaf (*Martes martes*), Chamois (*Rupicapra rupicapra*), Roebuck (*Capreolus capreolus*), Wolf (*Canis lupus*), Rabbit (*Lepus capensis*), Wild Cat (*Felis silvestris*), Squirrel (*Sciurus vulgaris*) etc. Amongst the birds we can note Alpine Cough (*Pyrhocorase spp.*), Sparrow (*Passer domesticus*), Wild Rooster (*Tetrao urogalis*), Rock partridge (*Alaectoris graeca*), Peregrine Falcon (*Falco tinunculus*), Wild Dove (*Columbia livia*), Falcon (*Accipiter nisus*). In the waters of the Valbona River the freshwater trout can represent the fauna.

### Conclusion

As a conclusion of this project-tour we can point out the high quality of these areas with respect to geodiversity as well as biodiversity. As previously recommended we think that all the Mountainous region of Alps, named "Bjeshket e Namuna" ("Prokljatje Gori" or "Cursed Mountains") within Albania, Montenegro and Kosovo, constitutes a specific natural unity and can be proposed as inter border natural geo-park with protection and investments by respective states.



## Geotrail in Greece, new project results

Irini Theodossiou-Drandaki, ren@igme.gr

The series "Geotrails in Greece" is a pilot publication of the Greek Institute of Geology and Mineral Exploration (IGME) with funding by the 3rd Community Support Framework for the project: "Designation of geosites-geoparks, contribution to sustainable development" and the sub-project: "Creating interpretative material for promotion, designation and community awareness

on geosites-geoparks". The trails were traced in 2008, within the scope of the sub-project "Planning of walking and motoring geotrails for potential geoparks".

Publication is dedicated to the year of Planet Earth.

During the planning of the series "Geotrails", several similar attempts were used as reference, such as the series Landscapes from stone, a joint publication by the Geological Survey of Northern Ireland and the Geological Survey of Ireland, ProGEO Croatia brochures for the Island of Rab, the bilingual publication "The geological heritage of Psiloritis", "the guide of Lesvos fossilized forest parks in Plaka and Sigri", and other relevant printed material.

Field research, texts, photographs: 1. G. Kossiaris, C. Michail, IGME-Eastern Macedonia and Thrace Regional Branch (R.B.) for Maroneia area cards, 2. N. Epitropou, IGME-Eastern Macedonia and Thrace R. B. for Thassos island cards, 3. P. Paschos, E. Nikolaou, D. Papanikos, IGME-Epirus and Ionian islands R.B. for Vikos-Aoos, Acheron, Ziros Lake cards, 4. Z. Janikian, IGME-DEG, for Lavreotiki cards, 5. G. Vougioukalakis, IGME-Department of Geothermy, for Nisyros island cards, 6. E. Athanassouli, S. Pavlidou, IGME-Crete R. B., for W. Crete and Gavdos island cards.

Project coordination, design, and editing: I. Theodossiou, IGME-Department of General Geology and Geological Mapping, ren@igme.gr

ISBN 978-960-98903-4-2 Maroneia area  
 ISBN 978-960-98903-3-5 S. Thassos island  
 ISBN 978-960-98903-5-9 Vikos-Aoos and surroundings  
 ISBN 978-960-98903-2-8 Lavrion and surroundings  
 ISBN 978-960-98903-1-1 Nisyros island  
 ISBN 978-960-98903-0-4 W. Crete and Gavdos island

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INSTITUTE OF GEOLOGY & MINERAL EXPLORATION - DEPARTMENT OF GENERAL GEOLOGY & GEOLOGICAL MAPPING - Spyros Louis 1, Olympic Village, Entrance C, 136 77 Acharnai, Attica - Tel.: +30 210 2413175 • FAX: +30 210 2413448 • www.igme.gr

The trails described in the cards (12 to 15 for each area) have been designed to unveil some key points in the geological history of the area, all intimately connected with its cultural history. The introductory cards briefly outline the natural (biotic) and geological (abiotic) heritage of the area, as well as its cultural heritage, while the rest of the cards describe the respective trails.

Each geotrail is traced in a different color and matches the informative signs to be found on the spot. Survey form of this publication and in spot signs is to be found at <http://www.igme.gr>.

The opinion of those who used the cards will be very helpful for their improvement.

## Χάρτης Ελλάδας με ένδειξη των περιοχών με εκτυπωμένες καρτέλλες γεωδιαδρομών Map of Greece with indication of areas with published geotrails cards



## 6th International Symposium on Conservation of Geological Heritage

### “GeoTop 2010”

May 29th 2010 – June 2nd 2010  
in Hagen (Westf.), Germany

Organisation: GeoPark Ruhrgebiet e.V. with support of The City of Hagen, Dept. of Environment, and HAGEN Touristik

The ProGEO's 6th International Symposium on Conservation of Geological Heritage is held simultaneously with the 14th Annual Meeting of the Geoheritage section of the German Society for Geosciences in the town of Hagen, Germany, in the period between May 29th and June 2nd 2010.

Under the theme “Geosites: Resources for the Public” aspects such as e.g., the interaction of mining and the protection of geosites, conservation of industrial and mining heritage and their geological background, and the impact of georesources on regional economic and cultural development will be discussed. “Palaeontology and Conservation of Geosites” is the second theme for the conference, focusing both on the protection of fossil sites and the presentation of palaeontological heritage to the public.

Besides these two main themes, contributions to the conference should reflect the whole range of Geoheritage topics both from a regional point of view as well as in an international context.

General information on the conference is found on:

[www.dgg.de](http://www.dgg.de)

[www.rvr-online.de/geopark/GeoTop\\_2010.php](http://www.rvr-online.de/geopark/GeoTop_2010.php)

The venue of the conference, the city of Hagen, is situated in the southern part of the Ruhr Area National Geopark, and home of the “Vorhalle Clay Pit”, well known as the location where the earliest winged insects worldwide were found. This outcrop of Namurian claystones is only one of three listed “German National Geosites” located in the GeoPark. Likewise the auxiliary stratotype for the Devonian/Carboniferous boundary “Hasselbachtal” is found within the city boundaries.



The identity of the “Ruhrgebiet” (“Ruhr Area”) metropolitan region was formed by the economic development of recent centuries, which was based mainly on the use of the natural resources of the area. Geology and natural resources are therefore critical factors for the identity of the Ruhr area.

Few landscapes in Europe demonstrate the connection between their natural resources and the economic and cultural development as clearly as the Ruhrgebiet in Germany. A geological sequence of Devonian, Carboniferous, and Permian age, partly covered by younger strata from the Cretaceous to the Holocene, contains numerous raw materials of economic value: Hard coal was the most important, but by far not the only valuable natural resource which gave rise to the economic development. Rich reserves of iron and other ores also played a significant role. There are also highly valuable reserves of limestone and dolomite, even today of great importance for the supply of the steel mills and iron works of the area. One of the biggest salt mines in Germany is located in the Ruhrgebiet. Sandstones quarried along the Ruhr Valley, sand and gravel found in the Rhine Lowlands and other raw materials, e.g. clay used for the production of bricks, played an important role in the development of housing areas and infrastructure.

The Ruhr Area National Geopark acts as a forum for all earth-science and geoheritage activities in the area. Its aim is to protect and develop the objects of geoheritage and to encourage activities of geotourism.

The Ruhr Area National Geopark presents a mixture of natural and man-made scenery, providing the opportunity to visit hundreds of geosites and museums, walk along geotrails, and to learn about scientific research institutes or the mining industry.

General information on the Ruhr Area National Geopark: [www.geopark-ruhrgebiet.de](http://www.geopark-ruhrgebiet.de)

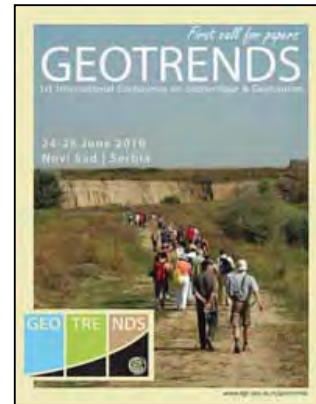
**Deadlines:**

Conference Registration: 31st March 2010  
Submission of abstracts: 28th February 2010

## GEOTRENDS

**24-26 June. Novi Sad, Serbia**

International conference GEOTRENDS is planned as a meeting which will consider all actual tendencies and trends of geoheritage, geotourism and geoconservation research in the world.



**Scopes of the conference:**

- Bring together geoscientists, academics, tourism practitioners and protected area managers with a view to strengthening and promoting the discipline of geotourism.
- Discuss the role of geotourism as an academic discipline providing the framework and training for the practical application of geotourism.
- Discuss the core content of geotourism namely: geoheritage sites attractions and development, the geopark concept, visitor management and geosite/landscape interpretation and management.
- To set the scene for the integration of geological attractions as an essential component of nature-based tourism - geotourism.
- Promote wider community awareness and protection of natural heritage and its implementation.

**Conference Topics:**

- Geotourism Defined
- Resources and Potential Geotourism Destinations
- Planning and Development Strategies of Geotourism Destinations
- Sustainability and Destination Management
- Case studies of good/bad practices in geotourism
- Geotourism and Geoheritage of Serbia
- Widening the Scope of Geotourism – Complementary Attractions
- Education and Interpretation
- Geoparks
- Geoconservation

For full information:

<http://www.dgt.uns.ac.rs/geotrends/>



## First Meeting of ProGEO Regional Working Group SW Europe (France, Italy, Portugal, and Spain)

**Caravaca de la Cruz (Spain),  
September 15-18, 2010**

This first meeting of ProGEO's Southwest Europe Regional Working Group, is organized in conjunction and within the International Conference on Geoevents, Geological Heritage, and the Role of the IGCP to be held in Caravaca de la Cruz, southeastern Spain, from Wednesday 15th to Saturday 18th of September 2010.

Many regional meetings of the different Working Groups of ProGEO have been organized at variable intervals under the sponsorship of a local host national group volunteering to patronize an event of this kind. The organization of a Southwest Regional Working Group encompassing France, Italy, Portugal and Spain has been delayed for too long. The Spanish members of ProGEO have decided to take the opportunity provided by the Municipal Council of Caravaca, which has graciously offered to sponsor the conference, in cooperation with the IGCP Spanish National Committee and the Commission on Geological Heritage of the Geological Society of Spain.

We therefore invite all members of ProGEO from France, Italy and Portugal to join us and present their experiences, activities and accomplishments in geoconservation at their respective countries, to participate in fieldtrips and social activities organized for the event,

and to further discuss topics of common interest in relation with geoheritage and geodiversity. Participation is open to colleagues from other countries.

This meeting is also open to anybody interested in geoconservation and geoheritage, whether members or not of the aforementioned organizations. It will be an excellent occasion to deal with, share and promote initiatives and projects having in common the geoheritage of southwestern Europe.

This first decade of the 21st Century has seen a fast advancement of concepts and ideas in geoconservation, numerous initiatives have been taken in this direction, and many colleagues are becoming interested on the subject and willing to contribute. In this sense, it is important to hold periodical meetings in order to share and learn, contribute and participate.

The celebration of the event in conjunction with the IGCP Spanish Committee is not trivial. So far, the results of IGCP Projects have allowed to recognize and set aside numerous localities worldwide, which show uniqueness in their fossil record, stratigraphic significance, geomorphological features, etc., and which frequently are of global relevance. These findings prompted conservation programs such as Geosites and Geoparks to the IGCP. The inventory, characterization and proper management of these localities will allow their preservation, thereby building mutually beneficial relationships between geoscientists, site owners and/or local and regional authorities.



#### National coordinators:

- France: [Patrick de Weber](#)  
Italy: [Gerardo Brancucci](#)  
Portugal: [José Brilha](#)  
Spain: [Enrique Díaz Martínez](#), [Francisco Guillén Mondéjar](#)

#### Important deadlines

Please, pre-register to receive the second circular  
2nd Circular: end of January 2010  
Abstract submission: late April 2010  
Registration: middle June 2010

#### Full information:

<http://www.ugr.es/~mlamolda/congresos/geoevents/progeo.html>

## Promoting geoconservation in South Eastern Europe - Geoparks

The Carpathian Balkan Geological Association, CBGA, invites all who are working on geoconservation and promotion of geological heritage to participate at the meeting and the Special Session 29 "Promoting geoconservation in South Eastern Europe - Geoparks" that will take place during the 19th Congress of the CBGA, **23–26 September 2010** in Thessaloniki, Greece.

Deadline for abstract submission is the 30 April 2010. After communication with the Editors of GEOHERITAGE journal, Springer, it has been arranged that selected articles will be invited to participate in a Special Issue after peer review.

The second circular has already been announced. Please have the above changes in point 1 in mind when reading the 2nd circular. Please visit the Congress site <http://www.cbga2010.org> and learn more about the 33 Special and 12 General sessions of the meeting.

#### Session S29 Promoting geoconservation in South-Eastern Europe – Geoparks

Conveners: Charalambos Fassoulas (GR), Nickolas Zouros (GR) & Dan Grigorescu (RO)

South-Eastern Europe is geologically a much diversified area where processes, rock types and minerals have interacted through time to create exceptional environments and life forms. Individual sites, landscapes and outcrops host the great diversity of this geological heritage. Many efforts have been undertaken by geoscientists to identify, map and assess the

value of this geodiversity and to raise the awareness of society for the need of its conservation and enhancement. Special projects have been implemented by international organizations and institutions on the recognition and promotion of geological heritage incorporating all existing scientific knowledge, whereas other initiatives have engaged local development as a crucial factor for geoconservation. Recently a new initiative aiming at the protection, promotion and rational management of geosites as well as the sustainable development of their hosting territories through the creation of Geoparks was established in Europe in close synergy with UNESCO. However, the level of geoconservation in many countries is still quite degraded compared to living environment, and funding of such activities is very limited. Geoscientists have thus to identify the best practices and tools for the promotion of geological heritage and conservation of geodiversity in a sustainable way, useful for local and scientific societies. Studies focused on the identification, assessment and promotion of geodiversity, geoparks creation and management as well as on the geo-education and sustainable use of geoheritage for the benefit of both scientific and local communities are welcomed under this session.

## GEO PARKS:

### Learning from the Past - Building a Sustainable Future - Celebrating 10 Years of Innovation under the auspices of UNESCO

**1-5 October 2010 Lesvos, Greece**

The 9th European Geoparks Conference will be held on the Greek island of Lesvos for the celebration of the 10th Anniversary of the foundation of the European Geoparks Network.

Lesvos, located in the North Eastern Aegean sea, hosts the Lesvos Petrified Forest Geopark which is a founding member of the EGN.

The 9th European Geoparks Conference will comprise general sessions and thematic oral sessions with invited speakers as well as selected oral presentations and poster sessions related to the main objectives.

The 9th European Geoparks Conference will take place at the Municipal Theatre of Mytilene, the capital city of Lesvos.

**Aims:**

- To exchange ideas on various issues related to geopark management, geo-promotion and geoconservation.
- To reflect on growth and achievements of the European Geoparks Network and to foster continuing innovations in the many geoparks across Europe as they work to address the interconnectedness of environmental and human needs.
- To develop new trends on geoconservation and sustainable management of geological heritage and abiotic nature

For full information:

<http://www.petrifiedforest.gr/Lesvos2010/index.htm>

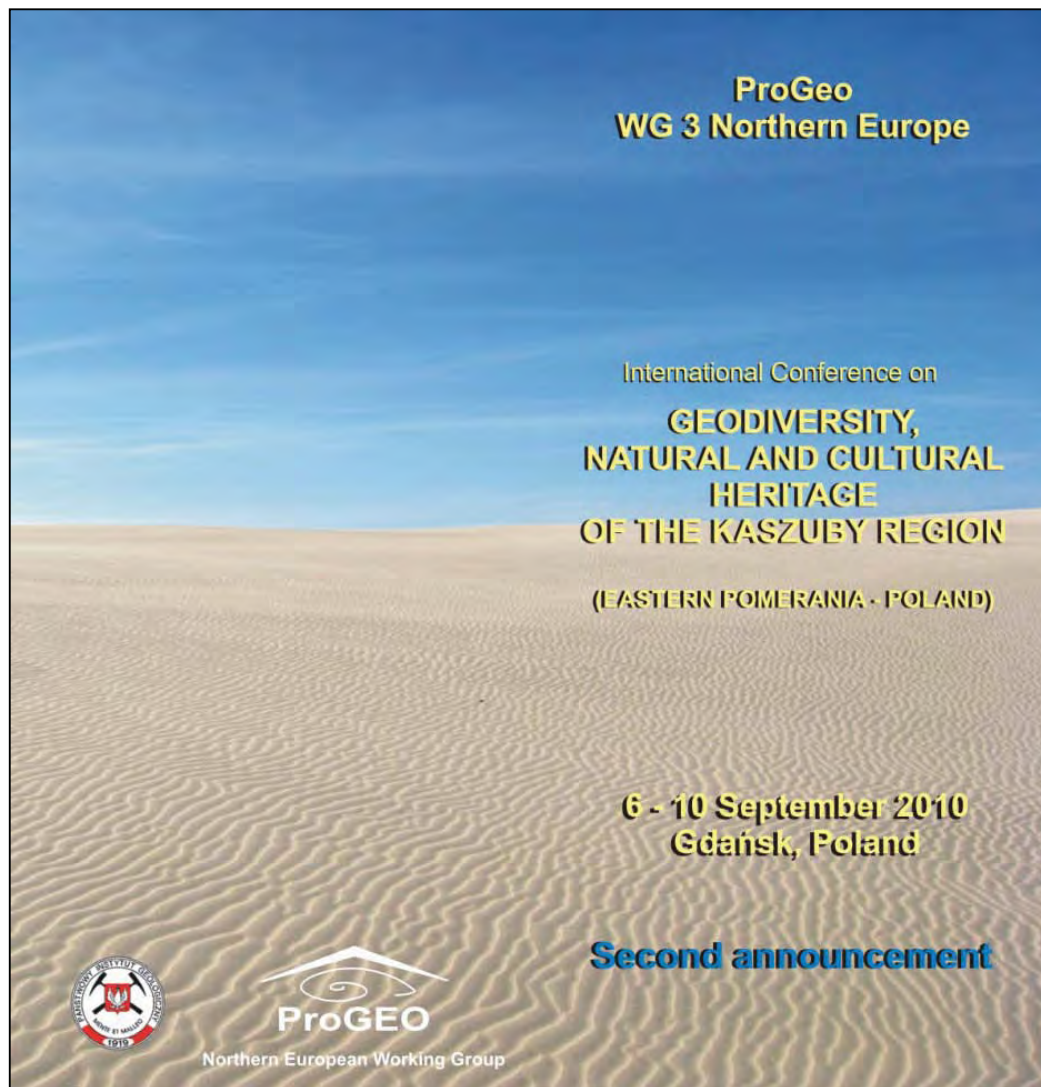
## ProGEO Working Group Northern Europe

6-10 Sept 2010 – Gdansk, Poland

### Geodiversity, Natural and Cultural Heritage of the Kaszuby region

Full information:

<http://www.pgi.gda.pl/>





**ProGeo  
WG 3 Northern Europe**

International Conference on  
**GEODIVERSITY,  
NATURAL AND CULTURAL  
HERITAGE  
OF THE KASZUBY REGION**  
(EASTERN POMERANIA - POLAND)

**6 - 10 September 2010  
Gdańsk, Poland**

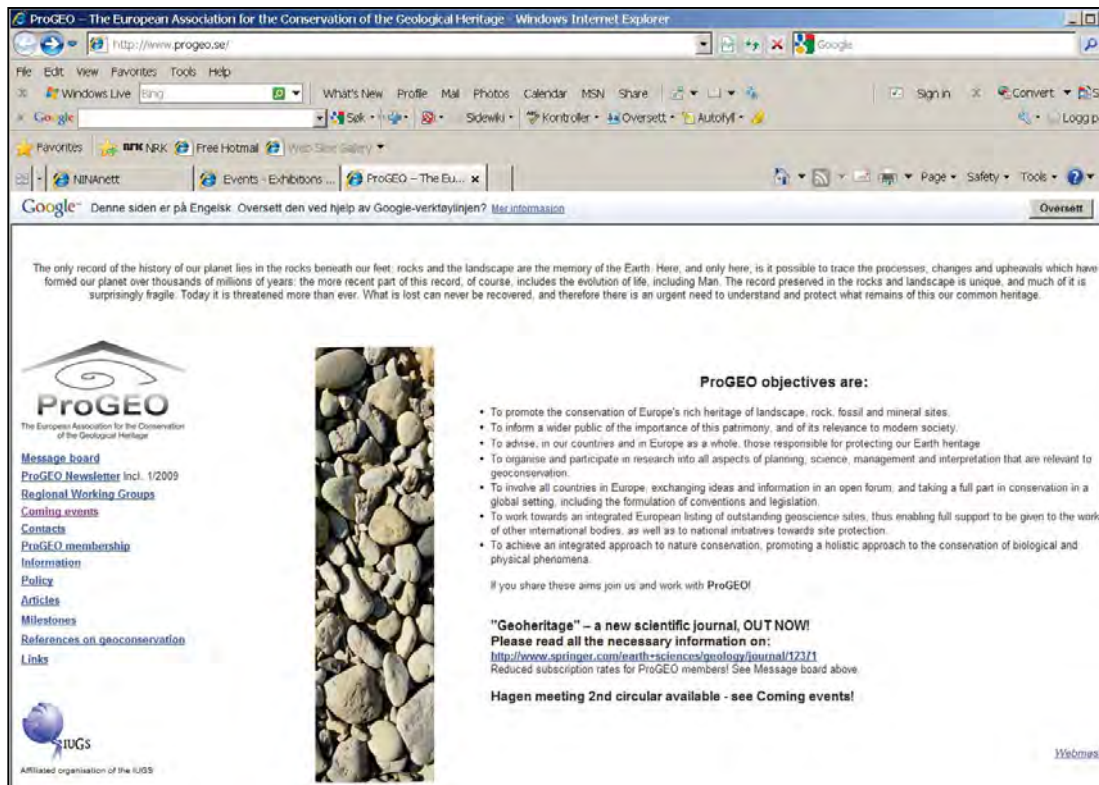
**Second announcement**



**ProGEO**  
Northern European Working Group

As can be seen it is a tight program in 2010. ProGEO will try to keep you updated on its website:

[www.progeo.se](http://www.progeo.se)



Deadline next issue of ProGEO NEWS: April 4<sup>th</sup> 2010

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