13 new UGGps in 2018

01 Famenne-Ardenne, Belgium
02 Percé, Canada
03 Guangwushan-Nuosuihe, China
04 Huanggang Dabieshan, China
05 Beaujolais, France
06 Ciletuh-Palabuhanratu, Indonesia
07 Rinjani Lombok, Indonesia
08 Izu Peninsula, Japan
09 Mudeungsan Area, Republic of Korea
10 Conca de Tremp Montsec, Spain
11 Ngorongoro Lengai, Tanzania
12 Satun, Thailand
13 Cao Bang, Viet Nam

TIME TABLE 8th International CONFERENCE on UNESCO Global Geoparks

Date                  PROGRAMME
8.09.18                 FRIDAY
09.00 - 18.00           UNESCO Global Geoparks Council Meeting
9.09.18                 SATURDAY
09.00 - 17.00
17.00 - 20.00
10.09.18                SUNDAY
10.00 - 12.30
14.00 - 17.00
09.00 - 18.00
13.00 - 18.00
17.00 - 20.00
20.00 - 22.00
21.08-18                MONDAY
09.00 - 17.00
Opening Ceremony
Key notes
Thematic WG Workshops
Global Geoparks Network CC Meeting
Geofair - Geopark Exhibition
Intangible Heritage Exhibition
Geopark Videos
Global Geoparks Network GGN Advisory Committee Meeting (closed and unannounced)

12.09.18                TUESDAY
09.00 - 17.00
17.00 - 20.00
8th International CONFERENCE on UNESCO Global Geoparks 9.00-17.00
Opening Ceremony
Keynotes
Conference Sessions 5 PARALLEL
Thematic WG Workshops
Poster Session
Geopark Exhibition
Intangible Heritage Exhibition - Geopark Videos
Global Geoparks Network GGN General Assembly

13.09.18                WEDNESDAY
09.00 - 18.00
16.00 - 19.00
20.00 - 22.00
8th International CONFERENCE on UNESCO Global Geoparks 9.00-18.00
Field Trips in Adamello - Brenta
Global Geoparks Network GGN Executive Board Meeting
Conference Gala Dinner
New Geoparks Welcome
Awards of 21 New Geoparks 2017-2018
Welcome to the GGN Honorary Members

14.09.18                THURSDAY
09.00 - 17.00
16.00 - 18.00
8th International CONFERENCE on UNESCO Global Geoparks 9.00-17.00
Conference Sessions 5 PARALLEL
Poster Session
Best Practice Plenary
Thematic WG Workshops
Geopark Exhibition
Intangible Heritage Exhibition - Geopark Videos
Geopark Evaluators Workshop (Closed Meeting)
Conference Gala Dinner
Announcement of the host of the 9th International Conference on UNESCO Global Geoparks

15.09.18                FRIDAY
8th International CONFERENCE on UNESCO Global Geoparks 9.00-17.00
Post congress field trips in the Italian Geoparks

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# GGN Newsletter 2018 Issue 2

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13 Sites in Africa, Asia, Europe and North America Received UNESCO Global Geopark Label in 2018

Famenne-Ardenne, Belgium

Three components characterizing the Famenne-Ardenne Geopark are clearly visible in the landscape: Famenne, to the north, is a large depression with a schistose substratum. The Ardennes, to the South, form a vast plateau mainly composed of sandstone rocks. Between the two, the Calestienne presents a calcareous bedrock, rich in karst phenomena. The karst of this region is emblematic and its geological evolution, with disappearing and reappearing rivers, sinkholes and remarkable caves, has helped fashion the Geopark’s omnipresent human activity. Limestone water is, moreover, essential in the brewing of the famous and typical ‘Rochefort Trappist’ beer.

Percé, Canada

The Percé Geopark in Canada is at the heart of the large Appalachian Mountain chain along eastern North America. The mountain formation and the magmatic and tectonic events of the area link to the opening of the Atlantic Ocean during the Jurassic and the Cretaceous periods (ca. 150 Million years ago). Over the last twenty thousand years—the last Ice Age—the Quebec segment of this chain has been submitted to the erosive action of glacial elements that gave the landscape its current shape. The territory is home to many ecosystems that feature diverse fauna and flora. Percé’s main economic activities center on tourism, fishing and forestry.

Guangwushan-Nuoshuihe, China

The Guangwushan-Nuoshuihe Geopark is located in Bazhong City, Sichuan Province. Situated at the junction of the southern Central Orogenic Belt (the Qinling) and Yangtze Block, the area displays natural landscapes such as karst and tectonic landforms, waterfalls and ponds. It is an important place for the analysis of the geological evolution of peripheral basins, because of its location in the transition zone between southern and northern karst landforms. The celebrated 2,000-year-old Micang Ancient Road, connecting Shaanxi and Sichuan Province, winds through this landscape, where cultures of different dynasties and types have left their traces.

Huanggang Dabieshan, China

Huanggang Dabieshan Geopark is located in Hubei Province, in eastern China. It demonstrates the geological evolution of the region, notably the collision between the tectonic plates of North China and the Yangtze. The oldest continental nucleus of the mountain belt, which resulted from this collision, is a combination of a garnet-biotite-gneiss and greenstone belt (Muzidian Group). These rocks were formed under high pressure and high temperatures and are more than 2.8 billion years old. The biological diversity of the region makes it one of China’s Seven Major Gene Pools.

Beaujolais, France

The Beaujolais Geopark is located in a region of France known around the world for its twelve protected vineyard appellations. But Beaujolais country also features other remarkable geological and culture treasures. The Beaujolais’ complex geology, formed over 500 million years, underpins a diversity of landscapes, natural habitats and building stones used in local construction. The geological heritage and history of the Beaujolais has influenced the lives and culture of its inhabitants, in the past and continues to do so.
Ciletuh-Palabuhanratu, Indonesia

Ciletuh-Palabuhanratu Geopark in West Java, is named after the Ciletuh River and Palabuhanratu (Queen harbour), in reference to the legend about a South Ocean Queen who was said to be the guardian of the area. The oldest rocks in the Geopark were formed by the subduction process between the Eurasian and the Indian Ocean tectonic plates. Currently three village communities maintain their ancestral Kasepuhan traditions, notably in agriculture and paddy farming (called tatanen).

Rinjani Lombok, Indonesia

The nearly circular-shaped Lombok Island with its 76-kilometre ‘tail’ of a peninsula, is one of the Sunda Kecil Islands, located between Bali and Sumbawa. The geology of Lombok Island is dominated by Quaternary calc-alkaline volcanoes covering the Neogene clastic sedimentary rocks, the Oligo-Miocene volcanics and the Palaeogene-aged intrusive igneous rocks. The formation of the volcanic complex is due to the subduction of the Indian Ocean tectonic plate under the edge of the South East Asia tectonic plate. The Sasak population of Lombok is multi-ethnic and multicultural. The diversity of the Sasaks’ cultural heritage is reflected in buildings such as temples and old mosque.

Izu Peninsula, Japan

Izu Peninsular Geopark is located in the southeast of Honshu Island. It is a unique meeting place of two active volcanic arcs and various and ongoing phenomena linked to tectonic plate collision. The area’s uninterrupted volcanic history over the past 20 million years is unmatched anywhere. Geothermal activity has also endowed this area with some of Japan’s most famous hot springs. Izu has witnessed many natural disasters, such as volcanic eruptions, earthquakes and tsunamis, which have contributed to local beliefs as communities began to worship deities that were supposed to rule over natural forces and built over 90 shrines scattered across the Geopark.

Mudeungsan Area, Republic of Korea

Mudeungsan Area Geopark is centered around Mudeun mountain, which towers high above Gwangu city. The mountain has long occupied an important place in the spiritual world of the people of Jeollanam-do, the former Honam, who see mountaintops as altars for celestial worship. Its geoheritage ranges from large polygonal jointed tuff columns, recording at least three phases of Cretaceous volcanic activity, extensive periglacial-produced landforms, unusual microclimatic environments, dinosaur footprints and trackways, and a variety of other geological and geomorphological features.

Ngorongoro Lengai, Tanzania

One of the most important features of the Ngorongoro Lengai Geopark is the Ngorongoro Crater, home to great wildlife diversity, such as elephants, black rhinos, lion, gazelles, and other large mammals that co-exist with humans. The Oldoinyo Lengai ‘Mountain of God’ or ‘Holy Mountain’ in the Maasai language is the youngest and most active stratovolcano (2,962 m) of the Ngorongoro Volcanic Highland located at its northern end. This

Conca de Tremp Montsec, Spain

Conca de Tremp Montsec Geopark in north-eastern Spain, close to the borders of France and Andorra, is characterized by a set of East-West oriented mountain ranges and basins. This alignment corresponds to the various overthrust nappes making up the southern slope of the Central Pyrenees. The geological record covers the past 550 million years. The rich natural heritage of the southern slopes of the Pyrenees is internationally recognized as a natural laboratory for sedimentology, tectonics, external geodynamics, palaeontology, ores and soil science. The area includes a very broad representation of the evolution of life on Earth and includes sites from the Permian to the Palaeogene: fossils of vertebrates, invertebrates and plants.
volcano produces natrocarbonatite lava that contains almost no silicon, which is unique. The Olduvai Gorge, the most important paleoanthropological site in the world, has volcanic beds formed in the Pliocene Epoch with an unsurpassed record of past environments, including hominid fossils, as well as Middle and Late Stone Age artefacts and a wide range of fossilized fauna.

Satun, Thailand

Satun Geopark is known as a peaceful place of great natural beauty. Multiple cultures and groups, including Buddhists, Muslims, Christians, and smaller groups, such as the Semung or Maniq and Urak Lawoi (or Chao le in Thai language), live together in harmony in this area. It is well known as the land of Palaeozoic fossils due to their abundance, high diversity and remarkable succession of fossil including trilobites, brachiopods, stromatolites, conodonts, graptolites, tentaculites and nautiloids. The inhabitants’ main economic activities center on agriculture, fishery, tourism, and small local business.

Cao Bang, Viet Nam

The Cao Bang Geopark in a mountainous area in the northeast of the country. Geologically Cao Bang Geopark can be divided into two distinct parts by the so-called Cao Bang-Tien Yen deep-seated active fault. The eastern part of the area is composed of Palaeozoic limestones. The western part features sedimentary rocks, pillow basalts, ultra-mafic and granitic intrusions rich in minerals and hydrothermal alterations. The majority of its population belongs to one of nine different ethnic groups with distinct, rich cultural identities and traditions.

UNESCO Global Geoparks are territories that promote geodiversity through community-led initiatives to enhance regional sustainable development, notably through sustainable tourism. They help to monitor and promote awareness of climate change and natural disasters, and many help local communities to prepare disaster mitigation strategies.

The UNESCO label helps designated sites and their inhabitants to enhance the value of their geological and human heritage and boost awareness raising activities. It also serves to share experiences and best practices within the framework of the Global Geopark Network.
and other geopark managers from Japan and China delivered talks on UNESCO Global Geoparks and promoted UNESCO Global Geoparks as sustainable and green tourism destinations.

The annual ITE Hong Kong, now in its 32nd edition, is well known for attracting international exhibitors, the regional travel trade, and visitors with high spending power. It is supported by the China National Tourism Administration, the Hong Kong Tourism Board, and trade associations in the region.

The last edition attracted over 100,000 visitors in two trade days and two public days.

Mr. Edward Yau, Secretary for Commerce and Economic Development, said “Hong Kong is one of the world’s favourite tourist destinations. I am so happy to see Hong Kong UNESCO Global Geopark represented here. I understand this year the exhibition has a record 670 exhibitors from 55 countries, as well as 180 MICE trade participants. This is the result of the combined efforts of many people in the trade from cities and countries around the world.”

KS Tong, organiser of ITE Hong Kong, said “A warm welcome from ITE Hong Kong, the city’s travel fair, to UNESCO Global Geoparks, which are closely related to the travel themes of Adventure and Travel Photography, both of which are popular with our fair visitors, so their presence this year is timely.”

Professor Patrick Mckeever, Head of the UNESCO Global Geopark program said, “A UNESCO Global Geopark is a prestigious designation at the same level as a World Heritage Site or a Biosphere Reserve. This comparatively new brand promises visibility and a stamp of quality. I look forward to the successful participation of UNESCO Global Geoparks in ITE 2018 Hong Kong for the first time in Asia.”

Professor Nickolas Zouros, President of the Global Geoparks Network, said, “UNESCO Global Geoparks use geological heritage, in connection with other aspects of an area’s natural and cultural heritage, to enhance awareness and understanding of key issues facing society in the context of the dynamic planet that we all share and depend on. We are excited to promote our 140 members from 38 countries as sustainable tourist destinations at ITE 2018 Hong Kong.”

Professor Jin Xiaochi, Vice President of the Global Geoparks Network, said, “Since the establishment of the first batch of eight global geoparks from China in 2004, the country’s geoparks have undergone robust development. At present, there are 37 UNESCO Global Geoparks in China. The 2018 International Tourism Expo in Hong Kong is a very good publicity platform, allowing the worldwide promotion of the UNESCO Global Geopark brand, together with diverse geological heritage, beautiful landscapes, rich cultural heritage, and the delightful ecological environment of our geoparks. We are very pleased to see the active participation of Global Geoparks in this event and look forward to the success of this travel expo.”

Toru Yoneda, President of the Japanese Geoparks Network, said, “Geoparks and related activities are very popular in Japan and in some other countries in Asia. We look forward to promoting our geoparks and related activities as sustainable tourism destinations through ITE 2018 Hong Kong.”

For further information on ITE Hong Kong 2018, please visit: https://www.travelexpo.com.hk

Hong Kong UNESCO Global Geopark, China
Introducing a new GeoProduct: GeoRafting—Experiencing Geology

UNESCO Global Geopark Styrian Eisenwurzen, Austria

Within the funded Interreg Danube GeoTour project, the UNESCO Global Geopark Styrian Eisenwurzen in Austria has the chance to introduce and develop a new GeoProduct within its area. The subtitle shows the goal and the challenge which the 11 partners from 8 countries are facing: ‘Valorisation of geo-heritage for sustainable and innovative tourism development of Danube Geoparks’. The project is co-funded by European Union funds (ERDF, IPA). The main project result will be a joint Danube GeoTour designed to strengthen cooperation between the Geoparks regions and act as an innovative tourism product to accelerate visibility and tourist visits in the geoparks.

GeoRafting provides an experience about earth’s history in a rafting boat aka “Travel through time, do sports and explore the Salza valley”. This tour allows you to discover 200-million-year-old rocks, conglomerates and deposits from the Ice Age, beautiful gorges, as well as steep slopes with a unique biodiversity. In conclusion, visitors are able to take a tour to learn all about the Nature and Geopark and the formation of the Salza valley. The trained GeoRaft guides have a certain Austrian charm and are happy to tell the guests all about it.

The development of GeoRafting has started this year in April. The Geopark is working closely together with one rafting company at the moment. A workshop for GeoRaft guides took place already and is going to be repeated every spring to refresh their knowledge about the region and geology. Special training material is provided from the Geopark as well. An image flyer has been elaborated.

In May 2018 a shooting took place for a GeoRafting image video in cooperation with the Introducing a new GeoProduct: GeoRafting—Experiencing Geology

UNESCO Global Geopark Styrian Eisenwurzen, Austria

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In May 2018 a shooting took place for a GeoRafting image video in cooperation with the

Geopark staff members and the rafting company. The official start of marketing activities is in August this year. The Geopark is accompanying this GeoProduct the next years, is helping to improve the topic and responsible for the GeoRaft guides training and a certain marketing.

More information about the project and the Styrian Eisenwurzen is available within the following links:
www.interreg-danube.eu/danube-geotour
www.eisenwurzen.com
www.raftingcamp.at

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From 8th to 13th April, the Fourth Capacity Building Workshop for Geosciences Popularization themed on How to combine Science with Tourism Experiences was held in Hongkong UNESCO Global Geopark. In order to exchange experience and to learn from each other, more than 30 attendees from China and other Asian and European countries were invited to attend this workshop, including representatives from Huanggang Dabieshan UNESCO Global Geopark.

Ranked as one of the top 32 Popular Science Base in China, Huanggang Dabieshan UGGp was bestowed with the name of National Popular Science Base in 2017. At the Workshop, combining with its science activities, Huanggang Dabieshan UGGp mainly shared some effective practices, potential problems and future popularization science idea. After mutual exchanges and field mission in Hongkong UGGp, delegate from Huanggang Dabieshan UGGp is highly inspired as follows:

1. More workshops on different themes shall be held in the near future in order to fully communicate and exchange;
2. To vary popularization science mode can be more helpful and effective, which is especially applicable to students;
3. It is necessary to enlarge popularization science audience, which means to carry out activities not within the geopark only;
4. Science popularization products can be an effective stimulation to science popularization activities involved;
5. To make full use of Geopark museum is necessary, for example, to combine science popularization activities with scientific research experiment.

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The Princess of Kedah, Tunku Puteri Intan Safinaz binti Almarhum Tuanku Abdul Halim Mu’adzam Shah, has graciously consented to accept the invitation to be the Royal Patron of Langkawi UNESCO Global Geopark (LUGGp) since 2007.

The support has raised the stature of Langkawi UNESCO Global Geopark with an enviable royal status and her high commitment has brought a refreshing face to all important Geopark events that were staged.

Tunku Puteri Intan Safinaz, bestowed the royal title of Tunku Temenggong Kedah, has taken a keen interest in LUGGp affairs and pledged her precious time to grace Geopark events especially in the year 2017 when LUGGp celebrates its 10th anniversary.

As a great supporter, Tunku Puteri Intan Safinaz has motivated geopark staff in lada in its mission to promote and preserve LUGGp. Last year, the princess was on hand to grace the second Asia Pacific Geoparks Network regional training course and officiated its opening.

At the event where 60 geopark delegates and Langkawi stakeholders were present, the Princess shared her views. This gathering is a reflection of the growing interest in developing geoparks in the Asia Pacific Region as the new tool for regional sustainable development.

“I am extremely supportive of the efforts, activities and commitment shown by the managers and stakeholders to accelerate the geopark development in this region. This workshop is a good example of how geopark becomes a tool for best practices in managing natural and cultural heritage,” Tunku Puteri Intan Safinaz said.

In her speech, Tunku Puteri Intan lauded Langkawi UNESCO Global Geopark for taking the lead to share knowledge on geopark governance and management and show casing examples of activities that reflect how science is translated into action.

She said the sharing of knowledge has empowered local communities of Kilim and Kubang Badak mangroves area in managing their geoheritage initiatives that underlie how geopark helps the local community to reap economic benefits from geopark development, to uplift their quality of life and to strengthen the sense of belonging.

The various dramatic and subtle karst limestone landscapes, as well as the distinctive flora and diversity of archaeological features of the Burren are sources of inspiration for visiting and local artists alike. Indeed, the Burren and Cliffs of Moher UNESCO Global Geopark is fortunate in having an international art school, The Burren College of Art, Ballyvaughan (www.burrencollege.ie) located within the Geopark which uses the karst landscape and cultural history as a key promotional tool.

Inspired by the success of the Burren College of Art and their work within the Burren Ecotourism Network, we felt there was an opportunity to forge new relationships between the landscape, visitors and the visitor center in the Geopark by using local artists as interpretive intermediaries by painting on location at the visitor centers, rather than in their studios or in the more isolated parts of the Burren, away from the distractions of visitors. Two of the artists in location are shown here in Figs 1,2:

In June 2018, as part of ‘European Geoparks Week’, the Burren and Cliffs of Moher UNESCO Global Geopark launched a new initiative to encourage collaboration between local artists and visitor centers in the Geopark. The name ‘Burren’ means ‘Rocky place’ in the Irish language and so the initiative was called ‘Between a Rock and an Art place’. The aim is to highlight the important role artists have in interpreting geological landscape and culture and their ability to promote a sense of wonder and respect through their art.

Five artists participated. By bringing the artists directly to the visitor centers they had the opportunity of engaging directly with visitors and promoting their work to a new audience.

Both visitor centers and artists were enthusiastic in
Activities and Events

Tianzhushan Making Great Efforts to Combat Climate Change

To cope with climate change, the Tianzhushan Geopark has done lots of works in forestry daily management and protection, forestry project implementation, clean energy utilization (construction of photovoltaic power station) and science popularization. Tianzhushan not only controls forest fires in an active manner, but also enhances the productivity of forest stands. At the same time, Tianzhushan has helped to reduce carbon emissions in the use of energy and contributed to addressing climate change. It can be described as follows:

I. Daily Management and Protection

1. Fire prevention

In order to prevent the occurrence of forest fire effectively, more than 100 people from the Tianzhushan Forest Farm, the Comprehensive Law Enforcement Brigade, the Sanitation Center and the local community were hired to patrol the geopark around the clock and no forest fires happened in recent years. The geopark invested more than 2 million yuan (about 313,000 U.S. dollars) for fire protection equipment, which has greatly improved the fire prevention capacity of the geopark.

2. Prevention and control of forestry pests

In recent years, the geopark has invested more than 1 million yuan (about 156,500 U.S. dollars) in the prevention and control of forest pests and reduced the density of vermin such as Cenopalpus lineola, Acantholyda posticalis Matsumura, and Dendrolimus punctatus Walker. Outbreak of forestry pests is prevented, ecological balance is maintained and forest resource of the geopark is effectively protected.

II. Forestry Project

1. Biodiversity project

The project is a German aid loan project. The total investment is 18.3 million Euros, of which the Kreditanstalt fuer Wiederaufbau (KWF, German Bank for Reconstruction and Development) provides a project loan of 15 million Euros. The project mainly includes the diversity restoration project, such as the forestry and wetland ecosystem diversity in the geopark, and biodiversity monitoring project, etc.

1.557 million yuan (244,000 U.S. dollars) was invested in the projects of forest phase transformation (including the replanting and transforming of the masson pine forest, the selective cutting of the masson pine, the forest phase transformation of 100 hectares of cedarwood, and afforestation of 33 hectares of Magnolia officinalis) and construction of fire prevention forest belts (including the Schima superba and Camellia oleifera fire prevention forest belts). Through the implementation of the forest phase transformation projects, the stability of the forest stand has been further enhanced, and both the ecological and economic benefits of the forest stand have been increased significantly.

In the project, the ecological restoration project (slope restoration project) is an ecological restoration of the slope between Dalongwo and Chazhuang, which not only beautifies the environment, but also conserves water and soil.

In the project, 18.876 million yuan (2920,000 U.S. dollars) is invested in the museum exhibition in total. By displaying the animal and plant specimens and large-scale ecological scene, the ecological system of different areas of Tianzhushan can be displayed in front of the visitors directly. What’s more, the science education area in the museum helps the visitors to know about and care about nature.

2. Young and middle-aged forest tending and thinning project

In order to improve the stability and increase the productivity of the forest stand, in recent years, a total of 3 million yuan (469,500 U.S. dollars) has been invested in tending and thinning 20 km² forests.

3. Degrading forest restoration project
In order to improve the productivity of forest stand, the geopark has invested a total of 1 million yuan (156,500 U.S. dollars) to transform low-productivity degrading forests in recent years. After the transformation, the forestry productivity has been increased significantly.

In recent years, through the construction and implementation of a series of forestry projects, the forest resource in the geopark has been effectively protected, and the ability of the forest to resist natural disasters has been improved at the same time.

**III. Construction of Photovoltaic Power Station**

In order to effectively reduce carbon emission, actively respond to climate change, and improve air quality, recently, the geopark has promoted the construction of photovoltaic power stations, which produce clear energy. At present, with a grid connected electric quantity of 6,000 kW, 51 photovoltaic power stations have been built in the geopark.

**IV. Science Education**

At the 5th Asia-Pacific Geoparks Network Symposium held at Zhijindong Cave UNESCO Global Geopark in Guizhou Province, the representative from Tianzhushan UNESCO Global Geopark gave a presentation titled “To combat climate change, the UNESCO Global Geoparks should be active”. To make due contribution to climate change, the geopark held many exhibitions and science education lectures about climate change as well.

To sum up, through appropriate daily management and protection, forestry project, clean energy utilization and science popularization, Tianzhushan UNESCO Global Geopark has eliminated the occurrence of major fire accidents in the geopark, improved the productivity of the forest stand, and protected the forest resources in the geopark. At the same time, the utilization of clean energy has also reduced carbon emission and fought against climate change effectively.

Tianzhushan UNESCO Global Geopark, China
Aspiring Geopark

Geopark. In 2008, “Mengyin Peach” was certified as the agro-product of geographical indications by Ministry of Agriculture of China. In 2018, peach planting area reaches 850,000 mu (about 433 square kilometers) and yield is 2.35 billion kilograms. The output value is 3.34 billion Yuan, which becomes the pillar industry of rural economy in Mengyin County. There are several reasons that make the peach brand famous:

Unique geographic conditions: Daigu is mainly rolling lowlands of sand with rich trace elements. The favorable geographical condition is suitable for the growth of peach trees. Besides, Daigu is possessed with abundant sunshine and large temperature difference between day and night.

Rich variety: Daigu has more than 200 varieties of early, middle and late ripening peaches, in which 78 kinds of peach have been certified as organic or green food. Peaches produced in Daigu are sold to most parts of China and account for 60% of the market in Jiangsu Province, Zhejiang Province and Shanghai.

Long history of cultivation: Peach kernel unearthed from the Han tomb of Han Dynasty indicates that history of planting peach trees in Mengyin is as long as more than 2000 years.

On the conference, staff from Yimengshan Geopark set up booth and distributed Geopark leaflets to visitors. As peach planting is so connected with geology, they further popularized Geopark concept to the local peach planters. A research on the relationship of soil and peach is already conducted by students from China University of Geosciences. Through this activity, local residents’ awareness of Geopark has been enhanced and the Geopark has been greatly publicized. Relationship between Geopark and peach production will be more connected in future.

Yimengshan National Geopark, China

Discovered in the Sobrarbe-Pirineos UNESCO Global Geopark

a “Sea Cow” that Lived 42 Million Years Ago

Sobrarbe-Pirineos UNESCO Global Geopark, Spain

Researchers from the University of Zaragoza (Aragosaurus-IUCA group), the University of the Basque Country and the Nova University of Lisbon have defined a new species very primitive of sirenian (marine mammal) in the Sobrarbe-Pirineos UNESCO Global Geopark, Huesca.

The importance of the discovery is that it is the first quaternary siren of Eurasia and the oldest species in western Europe, in fact, it is 42 million years.

The results of this scientific work encourage the Sobrarbe-Pirineos UGG to continue in the line of supporting research through its Research Scholarship Program, which has not only partially financed this work, but also is financing the location of new deposits that will help to increase the paleontological knowledge of the Eocene in the Pyrenees and that will allow the valorization of these deposits in terms of geological heritage.

The sirenians are the only herbivorous marine mammals, hence they are also known as “marine cows”. They are currently represented by dugongs and manatees that inhabit rivers and coasts of tropical latitudes.

The new species of sea cow found in the Sobrarbe-Pirineos UNESCO Global Geopark has just been published in the prestigious scientific journal “Scientific Reports” by the authors Ester Díaz Berenguer, José Ignacio Canudo (University of...
Geo-Education and Science Popularization

Zaragoza), Ainara Badiola (UPV/EHU) and Miguel Moreno Azanza (Nova University of Lisbon). The chosen name is “Sobrarbesiren cardieli”, in honor of the region of Sobrarbe and of Jesús Cardiel Lalueza, member of the Scientific Committee of the Sobrarbe-Pirineos UGG and discoverer of the site where these fossils where found.

It is a key fossil to know the evolution of the sireniens, since it was a quadruped animal, with functional hind limbs and was not fully adapted to aquatic life. The investigations are being carried out in the context of the doctoral thesis of Ester Díaz Berenguer, who is currently studying the skeleton of this sirenio in depth, in order to know its appearance and find out if it was capable of supporting its weight or, for otherwise, their limbs could only have been used for swimming.

Sobrarbe-Pirineos UNESCO Global Geopark, Spain

Muroto UNESCO Global Geopark, Japan

Kids Geohazard Risk Management Outdoor Walking Class Started at Muroto Geopark

Muroto UNESCO Global Geopark is located only 120 km away from the Nankai through where huge earthquakes occur repeatedly. Geohazard risk management, therefore, is a significant concern for both the Geopark and locals.

It is important to start geohazard risk management education at a young age. At an after-school class of a local elementary school, we started providing outdoor classes about geohazard risk management. This class aims to help children consider how they should act to protect their lives in case of emergency. Because of its location, Muroto will be hit by big tsunami after the Nankai Earthquake. Everyone, including children, should prepare for it.

Our Geopark geographer is the main teacher of the class. During the first class, he taught students how to read a geohazard map (see photo1) that shows the potential for tsunami-caused flooding. After that, we went outside and walked the elementary school’s evacuation route.

The students walked slowly while carefully observing surrounding buildings. During evacuation drills at school, people must hurry to the evacuation place at once. This class gave students the opportunity to learn what along their route could be a hazard when evacuating.

On the way to the evacuation point, a child said “So, the hazard map says that where we are now is very safe if a tsunami occurs.” It is vital for us to know how
Collaborating with local radio station Langkawi FM (104.8fm), Langkawi UNESCO Global Geopark engages the local community through the Langkawi nature talk programme.

The invited guest speakers, often local personalities, who sit for one hour interview with the radio deejay, sharing their knowledge and expertise in their respective fields or professions.

Since the beginning, nature talk has featured interviews that directly promoted the UNESCO Global Geopark, its colourful local community and its cultures as well as geopark conservation and important events.

Among the guests is Dr Abdul Ghani Hussain, medical trained doctor but now focusing to natural and traditional Malay medicine. Dr Ghani is also known as Dr Herb shared with listeners his knowledge on herbs and their nutritional properties. He had shared that our local noodle ‘laksa’ has all the ingredients for a healthy balanced meal.

Another guest is Miss Ulrika Player, the founder of Trash Hero Langkawi, who talked about making Langkawi a clean and beautiful tourist destination and promoting volunteerism.

The radio also aired the views of members of awards winning kampong kilim cooperative group about how the geopark status has helped the local community improve their livelihood.

Mr Selvam Raman and Mr Ong Chiang Gaik, who are butterfly enthusiasts, have shared their pleasant experience with the insects. They told listeners about the uniqueness of Langkawi that has over 500 butterfly species.

The radio spoke to the players of Pulau Tuba’s Harapan Cultural Art Group, who regularly perform at various events in Langkawi. The uniqueness of this local music group rests in its instruments that are handed down for generations.

Muroto Geopark has provided three Geohazard Risk Management classes since July 2018. We will continue hosting classes at least once a month. We also plan to start similar walking-classes at a different elementary school within the Geopark.

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On August 2nd, after nearly a year of construction and over three years of careful planning and surveys, renovation work has finally completed at Fossa Magna Park in the Itoigawa UNESCO Global Geopark.

The Fossa Magna Park, first opened in 1990, is a small park which features a large exposed section of the Itoigawa-Shizuoka Tectonic Line (ISTL), the massive fault which is believed to be the boundary splitting Japan between the Eurasian plate to the west and the North American plate to the east. In 1991, the Fossa Magna Park was also among the several “outdoor museums” throughout Itoigawa City given the name “GeoPark.” This is significant as it may have been the first use of the word “Geopark” in the world, although it had a very different meaning to the way it is used now.

Difficulty in maintaining the stability of the previous exposure necessitates the construction of extensive stone retaining walls, which will drastically reduce the size of the exposure. In addition, an unsightly system of drainage pipes detracted from what should have been the centerpiece of the Itoigawa Geopark. Following the advice of Geopark Revalidation Missions, a comprehensive plan was put together to renovate the park.

A new addition to the Fossa Magna Park is a special exhibit for visitors with limited mobility. Using similar techniques as those seen in the Fossa Magna Museum, a thin layer of the fault was removed and transferred to a frame on the wheelchair-accessible road above the fault exposure. This new exhibit makes it possible for visitors with limited mobility to safely and easily inspect the Itoigawa-Shizuoka Tectonic Line. The new design for the Fossa Magna Park will hopefully improve visitor appreciation and understanding of one of the Itoigawa UNESCO Global Geopark’s most valuable geological heritage sites. We hope to work with local experts and community members to continue to improve the presentation of our geopark in the years to come.
Promotion and Development of Local Community (Panya Batik) in Satun UGGp

Satun UNESCO Global Geopark, Thailand

Panya Batik is a technology of painting colorful patterns on the fabric by a community in La-ngu district, Satun province, Southern Thailand. This community had 20 members when it was established in 2002. Previously, the batik products were distributed in OTOP exhibitions throughout Thailand, but the sale income was uncertain due to severe market competition, higher cost, incapability in meeting customers’ demands and health deterioration of community members. Consequently, most members of the Community left and only 7-8 members continued their activities. The members in the community are getting older and do not want to sell their products at exhibitions again. In 2016, the King RAMA9 passed away. Due to little demand to use colorful fabrics, the community could not earn money and even had the idea of stopping the fabric painting business once. Fortunately, since Panya Batik is located in the area of Satun Geopark, Mr. Narongrit Thungprue, Director of Satun Geopark, announced the policy of encouraging geopark to involve the community and apply to more geological expertise. This policy enlightened the community to use natural materials to dye fabrics and draw the fossil pictures on the fabrics in order to narrate the geological story through the stripes on the fabrics. This style of fabrics was a unique community product that was different from other batik groups. Furthermore, Satun Geopark also encouraged this community to be the learning area together with public relations through various channels. Tourists can learn how to make batik through short courses. The above-mentioned policy and activities brought about more popularity, income and a better livelihood to the community. For example, unemployed housewives and old people earned more income from working in this community and young people returned to their...
The Sanqingshan UNESCO Global Geopark Intangible Cultural Heritage Experience Activities were Launched

Sanqingshan UNESCO Global Geopark, China

In this summer vacation, Sanqingshan UNESCO Global Geopark launched a series of intangible cultural heritage experience activities. Lots of tourists and community residents were involved in the joyfulness of the activities.

A series of activities focused on intangible cultural heritages were held in Sanqingshan UNESCO Global Geopark. By participating in interactive performance, community residents experienced the intangible cultural heritages of Yushan Opera Troupe, Horse-lantern Drama, Hetangjiu Feast and traditional handicrafts. This is the first time that Sanqingshan organized experience activities in such scale and high praise were received.

By holding a series of experience activities, Sanqingshan provides visitors an opportunity to get close to its intangible culture heritages and fully presents the unique charm of its traditional culture and the cultural self-confidence of the people here. It is also hoped that these activities will join more young people in the work of cultural protection and enlighten people to live a better life with the joyfulness of traditional culture.

Introduction to some intangible cultural heritages in the Geopark:

Yushan Opera Troupe
The Yushan Opera Troupe was born in Huaiyu Township, Yushan County, which is at the foot of Sanqing Mountain, the sanctuary of Taoism. Huaiyu Township is also a major birthplace of Gan Opera (a major local opera in Jiangxi Province). Various opera troupes were formed due to numerous ritual activities performed by the locals, collectively referred to as “Yushan Operation Troupe”.

Lantern Festival
The Sanqingshan Lantern origins from the ancient Fujian Lantern Festival. It is a folklore event where local people celebrate the bumper harvest, greet the Chinese New Year, pray for good weather, and exorcise evil spirits. Lantern Festival
is held from the third day of the first lunar month to the Lantern Festival (15th day of the first lunar month). Since the Chinese word “lamp” and “person” are similar in pronunciation, saying adding a lamp also means adding a new member to the family. In that case, people believe that joining Lantern Festival can bring bless to family prosperity.

**Horse-lantern Drama**

The Horse-lantern Drama is also known as "Bamboo-horse Drama" or "Running Bamboo Horse Dance." The lanterns are framed with bamboo and covered with paper or gauze. The fake horse’s head is tied in front of the actor’s waist, and the horse’s butt is behind his waist. Lighted red candles are put in the empty horse heads and butts.

**Hetangjiu Feast**

The Hetangjiu Feast is also known as Xiatangjiu, a folk banquet in Xixiang, Yushan County. At the feast, dish should be followed by a bowl of soup, and this model is repeated to the end of the banquet.

Since 2013, the Bergstrasse-Odenwald UGGp runs an intercultural project related with the role of the peony, which represents cultural heritage and is a medical plant. In this context, some activities (peony garden, peony arts exhibition, peony festival, conference presentations) in cooperation with the city of Lorsch, the Lorsch Abbey WHS and Mt. Lushan UGGp, our long-lasting partner Geopark, have taken place.

Last year, Naturtejo UGGp (Portugal) has joined the project with regard to their ability to present one of the European-wide rare places of the wild peony. As introduction into the project, Naturtejo UGGp joined the Peony Festival in Bergstrasse-Odenwald UGGp and held a Geo-baking activity day at Messel Pit WHS (northern Geopark entrance).

This was followed this year by our participation in the peony festival in Touloes, the peony village at Naturtejo UGGp (booth, presentation). In continuation with the partners from Mt. Lushan, Geopark director Zhu DongE participated in the opening of the extension of our peony garden including the handing over of a sandstone peony sculpture for the new peony garden in Lushan UGGp. We are looking forward to the next steps of the project including 3 UGGps, 2 WHS and 2 local communities.
2018 Chinese Volcanic Geoparks Forum was successfully held at Leiqiong UNESCO Global Geopark

Leiqiong UNESCO Global Geopark, China

2018 Chinese Volcanic Geoparks Forum (CVGF) was successfully held on June 25 – 29, 2018. This Forum was organized by Leiqiong UNESCO Global Geopark, initiated by five UNESCO Global Geoparks in China, including Yandangshan, Leiqiong, Wudalianchi, Jingpohu and Ningde, and supported by CGN, GGN, APGN and their local organizations and volcano working groups. Main theme of this Forum is ‘Volcanic Heritage and Sustainable Development in UNESCO Global Geopark’. About 150 delegates, including 20 geoparks’ representatives, experts and scholars attended the Forum.

The Forum opened in Haikou on the morning of June 26. At the opening ceremony, Mr. Ju Lei, Deputy Mayor of Haikou Municipal Government pointed out that Leiqiong UNESCO Global Geopark is the origin of the study of China’s maar lake, the natural yearbook of global climate change, but the special natural heritage is non-renewable. It is a great opportunity to promote the development of Leiqiong UNESCO Global Geopark by holding this Forum. We should promote geoheritage conservation, infrastructure and daily management for the Geopark.

During the four-day forum, participants exchanged ideas and thoughts on geoheritage conservation, scientific research, science popularization, sustainable tourism development and public communication.

Participants got more insight of Leiqiong Global Geopark by visiting Mt. Ma’an Scenic Area, Leiqiong Rift Valley, Pineapple Garden, Leizhou Museum and Huguangyan Scenic Area. At the closing ceremony, some geoparks tied sister geoparks relationships. Closing ceremony also included Chinese Volcanic Geoparks Alliance (CVGA) advisor certificates presentation, Leiqiong Declaration and forum flag handover ceremony.

Ms. Zhou Zhihua, Deputy Director of Wildlife Conservation and Nature Reserve Management Department of National Forestry and Grassland Administration, praised the efforts that relevant organizations and institutes have made in geoheritage protection and geopark development, which are also beneficial to the ecological conservation. She pointed out that as human and nature are so closely related, we should continue our work in geoheritage protection and geopark management and make new contribution to building beautiful China by pursuing innovative, coordinated, green, open and shared development.

Prof. Setsuya Nakada, coordinator of GGN Working Group on Volcanic Areas believed that geoparks should not only take the responsibility to protect geoheritage, but also contribute to sustainable development.
to protect geoheritage but also promote the awareness of earthquake prevention and disaster reduction. He also insisted that it is very important to communicate in Global Geoparks Network. This forum has enhanced the visibility and value of the Leiqiong Global Geopark, which left him with a very good impression. He hoped that Chinese Geoparks in volcanic area will communicate more with geological institutions and geoparks in Europe and other regions and share more results through scientific research in the future.

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The GGN Newsletter will be published regularly on a quarterly basis. Submissions of January, February and March will be published as ISSUE 1 of the current year by the end of April, and so on. Submissions of October, November and December will be published as ISSUE 4 by the end of January of the following year.

The contents of the articles could involve the following themes: 1_GGN Networking and Common Activities, 2_Geo-Tourism, 3_Activities and Events, 4_Geo-Education and Science Popularization, 5_Promotion and Communication, 6_Human and Nature, 7_Culture and Custom, 8_Conferences, Courses and Workshops (which have happened), 9_Announcements (Future Conferences, Courses and Workshops), etc.

Article template and requirements:
THEME: you could choose one of the 9 themes above or you could define a theme.
TITLE: no more than 20 words.
GEOARK NAME: If the article is from a geopark.
MAIN BODY: 1_Times New Roman, 11 pt. 2_For the length of the texts, it is better between 300-500 words of each text. 3_The file needs to be saved under the Issue_THEME_geopark/affiliation. For example, 2018 ISSUE 1_Geo-Tourism_Yanqing UGGp, China.
INFORMATION OF THE AUTHOR: author’s name, affiliation/organization, COUNTRY, email.
THE PHOTOS: no more than 5 photos and related captions (captions could be added at the end of the article) and the logo of the geopark (if the article is from a geopark).

We will notify you within two weeks prior to publication whether we accept or reject the article. And we will make appropriate modifications without changing the original meaning of the article.

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