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The Oki Islands UNESCO Global Geopark is located off the coast of Shimane Prefecture in Japan, and is made up of 4 inhabited and over 180 uninhabited islands. The islands can be accessed by airplane or ferry, and a geopark facility is located in the ferry port on each island. These facilities are used to introduce the geopark and sightseeing spots. In Okinoshima Town, the largest in the geopark by both population and area, a geopark core facility combining all four islands newly opened in April 2021.

The facility is located right beside the ferry terminal, which is used by the majority of visitors to the islands. Inside are the offices of the town’s tourism association and the geopark staff. On the second floor of the facility is the Oki Islands Geopark Museum, where geopark staff guide visitors through exhibitions.

The exhibition room is divided into three zones. The first zone, “Geohistory,” guides visitors through the birth of the Oki islands and explains the formation of strangely shaped rock formations and scenery. In the second zone, “Unique Ecosystem,” dioramas and taxidermy specimens help to introduce the organisms that live on the islands and in the sea around them, as well as illustrating the connections between the history of the land and the ecosystem. Finally, the third zone, “Lifestyles and Traditions,” explores the unique history and culture of the Oki Islands, including exchange facilitated by obsidian 30 thousand years ago, the exile of emperors, Oki Traditional Sumo, and more.

Also featured inside the exhibition room is a video following the story of the land from the birth of the Earth to modern-day Oki Islands. Projection mapping over a 3D model of the islands showcases various projections such as scenery, a geological map, a vegetation map, and more. In the near future, we plan to add content in which visitors can use XR goggles to learn about the agriculture of the region.
In Idrija UNESCO Global Geopark, we have always strived to create a versatile geo-tourism offer. Despite the pandemic confronting all of us now, which has influenced travelling and tourism significantly, we have continued with our efforts and prepared some novelties for future visitors. Our work was focused on upgrading Idrija Geopark's Visitor Centre exhibition, creating integrated geo-products and outdoor activities. Last year, we also established an interesting connection between art and geology.

Idrija Geopark's Visitor Centre was opened in 2019, to introduce geological phenomenon to visitors and present the Idrija UNESCO Global Geopark, Slovenia

We made an additional tour with the application in the company of a dinosaur named Missy. The Idrija Geopark's collective trademark-Idrija Selected is another important area of our geo-tourism work. The trademark supports local providers in developing and marketing products that reflect tradition, innovation, excellence and quality. A very sustainably orientated trademark connects over 30 local providers and almost 100 products and has been well recognized in our region.

To take a further step in managing the trademark, we decided to develop integral Idrija Selected products composed of certified goods. We came up with the idea of an "Idrija basket" (a meal in a basket) composed of culinary delights with the Idrija Selected certificate. The Idrija basket will impress any visitor who is interested in local food originating from Idrija Geopark's pastures, fields and forests. We will also include the Idrija basket in our new e-bike tours - Idrija geobike, which we are developing in cooperation with local providers. Our geopark offers an array of cycling and hiking trails, and we are working on .gpx mapping the trails so anybody can head out into the countryside without fear of getting lost or missing the most interesting sites.

We hope that all our geo-tourism additions will make our Geopark's experience even more complete and convince visitors to visit us again. See you in Idrija.

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Alxa Desert UNESCO Global Geopark (ADUGGp) is the only global geopark in China and the world that systematically and completely displays the process of wind geological processes, and desert geological heritages as the main body, such as desert and gobi. The western side of the Helan Mountain is in the Geopark, and it is an important geographical boundary in Northwest China. The mountain extending more than 200km from north to south, 30km from east to west, and 2,000-3,000m above the sea level, is the watershed between the outflow and inflow areas of rivers in China, the boundary between monsoon climate and non-monsoon climate and the boundary between grassland and desert in China.

There is a complete stratigraphic sequence since Archean in the Helan Mountain, which records the earth evolution history of nearly 2.5 billion years. According to the research carried out by Ningxia Geological Survey, Helanshan Group is divided into two lithostratigraphic units: Binbule Formation and Zongbieli Formation.

1 The Oldest Rock in the Helan Mountain

The oldest stratum in the Helan Mountain is Helanshan Group. According to the dating study, Helanshan Group was formed 2.1-2.5 billion years ago. According to the research carried out by Ningxia Geological Survey, based on the characteristics of rock association, Helanshan Group is divided into two lithostratigraphic units: Binbule Formation and Zongbieli Formation. Gneiss and granulite with large garnet crystals are exposed in the upper part of Binbule formation near Wuhai-Yinchuan Expressway in Binbule of Alxa Zuoqi. The whole rock is gray to light gray, and the gneissic structure can be clearly observed - the discontinuous directional arrangement of flaky or columnar minerals, separated by feldspar and quartz. In particular, the giant garnet is maroon red, with large grains and complete crystal form, so it is easy to observe the shape of its grains. Such set of rocks is also the most unique among the ancient metamorphic rocks in the Helan Mountain. The garnet here usually has perfect crystal form, and the common one is rhombic dodecahedron, which can be observed easily. Single garnet or granular aggregate with good crystal form can be found in the rock fragments on the ground formed by weathering. Garnet can be used as raw materials for gem production, which has coarse grains, beautiful color, transparent and no cracks. Garnet, as a typical metamorphic mineral, generally exists in regional metamorphic rocks and contact metamorphic rocks, which has typical indicative significance for rock metamorphism. In research study, the gem values of garnet can be used to trigger students’ interests, and then to understand the composition of the earth’s interior and the destruction of rocks by weathering.

2 Rocks Look like Traditional Chinese Paintings

In the upper Cambrian and lower Ordovician strata of North China and South Northeast China, there are many layers of carbonate rocks with a large number of oblate gravels, which are called "bamboo leaf-shaped limestone" because of the shape of the side section of the gravels. In the rocks exposed at Taosigou, this kind of "bamboo leaf-shaped limestone" can be observed, which resembles a traditional Chinese painting. This stratum belongs to the Upper Cambrian Abqiehai Formation. The bamboo leaf-shaped limestone is gray, and the side section of gravel is light gray. Bamboo leaf-shaped limestone is a kind of carbonate rock, which is named from the description of its morphological characteristics. One of the most important structural components
of carbonate rocks is the intraclast. It is formed from the carbonate sediments which are deposited in the basin and have a weak degree of consolidation after being washed and broken by running water. The particles with a diameter of more than 2mm are called gravels. The size of gravels varies widely, and most of them are flat. Therefore, on the section of vertical bedding of rocks, gravels are often in the shape of bamboo leaf and are named bamboo leaf-shaped limestone. It has good aesthetic value, and can represent a certain paleoclimatic and paleogeographic environment. The study of its genesis can lead to a better understanding of the formation environment and climatic conditions of the bamboo leaf-shaped limestone, which also has important geological significance. At this research point, the rock of traditional Chinese painting "bamboo", enables students to understand the ancient ocean function and further understand that 500 million years ago, the Helan Mountain was ocean.

Abundant fossils can be found in strata in the northern part of Nangou in Alxa Zuoci. The stratum is Taiyuan Formation, and the lithology is mainly gray shale, sandy shale, gray white sandstone, with limestone and coal seam. In the limestone, there are fossils OF animals such as Fusulinida, brachiopods, corals and crinoids, while the shale contains abundant plant fossils. The Taiyuan Formation is a cross system lithostratigraphic unit (Carboniferous - Permian), formed in alternative sea and river facies. Those marine animals and plants were buried by sediments after they died. With the consolidation and diagenesis of sediments, biological remains are transformed into fossils by physical and chemical processes. The Taiyuan Formation, as a marine terrestrial interactive strata, gradually changed from marine to continental environment after the biological remains were buried in the sediments. In the process of forming fossils, the external hydrodynamic conditions are weak, and the forming fossils will not be exposed and damaged by flushing, so the formation of fossils can be relatively smooth. By studying the types and composition of fossils in rocks, the age and formation environment of rocks could be inferred, which is of great geological significance for the restoration of paleoecological environment. At this research study point, the students can have a better understanding of the vicissitudes of Helan Mountain, and also know life in ancient times, learn how to find fossils, collect fossils and preserve fossils.

The rock exposed near Chaangkendiao is a set of clastic rock deposits of fluvial-lacustrine facies, the chronostratigraphic unit is the Middle Triassic Ermaying Formation. It is mainly composed of thick lithic feldspar sandstone with trough cross-bedding and light gray sand balls. An amazing rock landscape is formed here by weathering, it looks like a roaring lion (the back cover), which has high ornamental value. Rock landscape is the most important geotourism resource along Helan Mountain. and also know life in ancient times, learn how to find fossils, collect fossils and preserve fossils.
UNESCO Global Geoparks are part of Agenda 2030 and deeply committed to the Sustainable Development Goals (SDGs) fostering the protection of the planet and its natural resources, to achieve a better future for all. The essence of Geoparks is, in agreement with SDG 12, “to develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products”. UNESCO Global Geoparks act as incubators for best practices and innovative solutions to empower local communities and stimulate investment to enhance agricultural practices, value food systems, support SME’s, increase employment opportunities and better job conditions. These territories work in close international, national, regional and local cooperation, promoting partnerships and networking. In 2015, Magma UNESCO Global Geopark, has the idea to start to work to defining common criteria for local food enterprises Magma established the GEOfood brand and now in use in 22 territories recognised as UGGp. GEOfood, which is exclusive for UGGp recognised areas, has developed specifically values and rules of conduct expressed in the Manifesto. https://www.geofood.no/geofoodmanifesto

- Sustainable agriculture has the potential to address water scarcity (SDG 6)
- Innovation opens new markets for smallholders (SDG 9)
- Achieving food security involves reducing waste (SDG 12)
- Agriculture is key in responding to climate change (SDG 13)

The GEOfood brand aims to create a network of partners within the UNESCO Global Geoparks under the common mission of influencing local, regional, national policies towards innovative food system and territorial planning which can strengthen urban-rural linkages.

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GEOfood brand and United Nation Sustainable Development Goals

Management and Geo-Conservation

GEOfood members, March 2021

Management and Geo-Conservation

Spring Sketch Activity was Successfully Held in Wangwushan

Wangwushan-Daimeishan UNESCO Global Geopark, China

From March 20th to 21st, the large-scale spring sketching activity co-hosted by the Forestry Bureau, the Wangwushan-Daimeishan Global Geopark Administration, and the 5D Art School was successfully held in Wangwu Mountain.

This event lasted for two days and organized hundreds of little painters to sketch on the spot through sightseeing and stepping in the geopark.

The little painters used innocent eyes and imaginative minds to depict the Wangwu Mountain in their hearts. Some outline the shape of the Wangwu Old Street, some depict the vigorous growth of plants, and some of the geopark museum.

Under the immature brushes, the unique geological landscape and natural scenery was depicted, and the Wangwushan-Daimeishan Global Geopark becomes vivid.

Management and Geo-Conservation
2021 is the 10th anniversary year of the 2011 Great East Japan Earthquake and the 5th anniversary year of the 2016 Kumamoto earthquakes in Japan. The 2016 Kumamoto earthquakes struck Kumamoto Prefecture, Kyushu Island, Japan on April 14 with magnitude 6.8 and on April 16 with magnitude 7.3, respectively. They killed 273 people and injured 2,809 others in total including Aso UGGp area.

Aso UGGp suffered severe damage because the epicenters of the earthquakes were close to Aso UGGp. Numerous traffic networks including Japan railway (JR) Hohi Line, Japan National Route 57 and Aso Ohashi Bridge collapsed (Picture 1, 2). They were key infrastructures connecting Kumamoto city and Aso area. As a result, the daily life of the residents and local industries including tourism suffered greatly.

After the earthquakes, information of reconstruction works has been exchanged among Aso UGGp, Japanese government, Kumamoto prefecture and municipalities in Aso area to conserve geoheritages in Aso UGGp. JR Hohi line and Japan National Route 57 were finally fully reopened in August 2020 and in October 2020 respectively (Picture 3).

New Aso Ohashi Bridge opened on March 7 this year. That is the replacement of Aso Ohashi bridge collapsed by the earthquakes, and is situated at 600 m downstream of the original bridge (Picture 4). New Aso Ohashi bridge is located at the entrance of Aso UGGp from Kumamoto city and its suburbs. All the key infrastructures collapsed by the 2016 Kumamoto earthquakes have been restored. It is expected that these restored infrastructures improve the convenience of people’s life and revival of geo-tourism.

Aso UGGp has promoted guide tours to study the 2016 Kumamoto earthquakes and restoration. Aso Volcano Museum, which is the base facility of Aso UGGp, has disseminated information of disaster prevention and restoration by exhibitions of the 2016 Kumamoto earthquakes.
Workshop on Geopark Communication for Partners of Non nuoc Cao Bang UGGp

Cao Bang UNESCO Global Geopark, Viet Nam

From March 10th to March 14th, 2021, the Management Board of Non nuoc Cao Bang UGGp conducted a training workshop for geopark partners and some tourist service providers in Non nuoc Cao Bang UGGp territory.

Being aware of the importance of the development of a Geopark’s partner network, since its establishment, the Management Board of Non nuoc Cao Bang UGGp has established a partner network of 22 members who are providing services regarding restaurants, hotels, tourist destinations, traditional craft villages, etc.

With the objective of gradually increasing the service quality in the geopark territory; broaden the Geopark’s partner network, the Management Board of Non nuoc Cao Bang UGGp organized a training workshop for certified and aspiring partners providing services including restaurants, hotels, homestay, tourist destinations, transport service companies, etc. in the geopark territory.

The workshop focused on the fundamental information of UNESCO Global Geopark, outstanding geological heritage, and sustainable tourism in Non nuoc Cao Bang UGGp territory.

Mr. Truong the Vinh – Vice Director of the Department of Culture, Sports and Tourism, Director of the Management Board of Non nuoc Cao Bang UGGp shared the basic information of the development process of Non nuoc Cao Bang UGGp.

In addition, with the objective to equip geopark partners with further information of the geopark and enable them to understand clearly about the geopark, thereby, becoming Geopark’s ambassadors to communicate the geopark to visitors, the Management Board of Non nuoc Cao Bang UGGp took Geopark’s partners to experience heritage sites of the North route: Experience History and Freedom, the West route: Experience Phja Oac – Mountain of Transformation and the East route: Experience traditional culture in a wonderland.

Participating in the workshop is also an opportunity for the geopark’s partners to experience, share and exchange their business strategies in association with sustainable tourism development in Non nuoc Cao Bang UGGp territory, as well as to develop an interconnected network of geopark’s partners in providing tourist services and products in Non nuoc Cao Bang UGGp territory.

Cao Bang UGGp
Shennongjia UGGp
Wins National Award for Poverty Alleviation

Shennongjia UNESCO Global Geopark, China

The National Commendation Conference was held on the morning of February 25 at the Great Hall of the People in Beijing to mark the country’s accomplishments in poverty alleviation. The conference commended the outstanding individuals and collectives in the national poverty alleviation campaign. The management body of Shennongjia UNESCO Global Geopark, the Administration of Shennongjia National Park, won the “National Outstanding Collective for Poverty Alleviation” award.

Firmly abiding by the concept that lucid waters and lush mountains are invaluable assets, the Administration has made great progress in community co-building, economic development, eco-compensation and other work in 25 villages of 5 townships under its jurisdiction, with a total investment of CNY 34,397,700. The per capita disposable income of the local residents has increased from CNY 10,684 in 2016 to CNY 18,304, with an average annual increase of 25.4%.

Shennongjia UGGp actively implements the "three mechanisms" of eco-compensation for forest land, commercial insurance for farmers' loss caused by natural disasters and animal damage, and subsidies for using electricity instead of firewood. The Administration has invested a total of CNY 3.72 million in commercial insurance premium for 5,962 local households, for possible loss in planting and breeding industries caused by wildlife damage and natural disasters.

Besides subsidies for pension insurance to eco-migrants, the Administration has also provided subsidies of CNY 3.87 million in total to 460 households relocated, saving a total of 78.48 million cubic meters of firewood and reducing the destruction of about 5.33km² of forest land. Poor households have been given priority to participate in resource conservation and management, a total of 2,670 local residents have been employed as part-time rangers, the community residents have gradually been transformed from forest consumers to ecology guardians, and a positive interaction between farmers’ income increase and resource conservation has been established.

The Administration established a “farmer + base + cooperative” model, to promote industrial transformation. A total of CNY 4.36 million has been paid as prizes to encourage and support farmers to develop plantation of local herbal medicine and rare plants, professional planting cooperatives and demonstration bases with a total area of 3.33km² have been established. Through land transfer, order production, acquisition with guaranteed prices, etc., more than 330,000 seedlings of more than 20 rare plant species have been cultivated, and Chinese herbal medicine bases with a total area of 1.73km² have been established, benefiting 576 households.

The Administration guides the public to participate in conservation by conducting concessions, setting up a conservation foundation, and recruiting volunteers. It has set up the “Talent-supporting Award” for community residents, awarded a total of CNY 195,000 to 55 local students entering college, and carried out extensive skill training for community residents. By installing solar-powered streetlights and energy-saving gasification stoves in villages and households, repairing 268 kilometers of country roads, and building nine bridges, the Administration shares with community residents the benefits of Geopark’s development.

Shennongjia UGGp will continue to make efforts for rural revitalization and ecological conservation, paving the road of environment-friendly poverty eradication and sustainable development with lucid waters and lush mountains and making contributions to the realization of the United Nations Sustainable Development Goals.

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Two New Site Designations at Itoigawa UNESCO Global Geopark

Itoigawa UNESCO Global Geopark, Japan

A recently discovered outcrop of kosmochlor, the first discovered in Itoigawa and only the third ever discovered in Japan, was designated an Itoigawa Municipal Natural Monument in December 2020. On 26 March 2021, the Outcrop of the Itoigawa-Shizuoka Tectonic Line at Fossa Magna Park was designated a National Natural Monument of Japan. These two new site designations will help strengthen the preservation and effective management of these valuable geological sites.

Reported in late 2020, the Yamanobō Kosmochlor Outcrop is only the third confirmed kosmochlor outcrop in Japan. While small pebbles containing kosmochlor had previously been found in the Himekawa River, the source of these pebbles had been a mystery. Kosmochlor is a bright green chromium-containing mineral first discovered in a meteorite. It is exceptionally rare and believed to form along subducting plate boundaries, much like Itoigawa Geopark’s famous jadeite.

Because of its relation to other important geological heritage, the Yamanobō Kosmochlor Outcrop is a valuable addition to the Itoigawa UNESCO Global Geopark. Protective barriers and security cameras have been installed and work continues to prepare the site.

The Itoigawa-Shizuoka Tectonic Line is a massive fault which splits the Japanese islands between east and west. It played an instrumental role in the formation of the Japanese island arc as well as the massive Japanese Alps that run along its western edge. It is also thought to form a boundary between the North American and Eurasian continental plates. For these reasons, this fault exposure is one of the most important geological sites in the Itoigawa UNESCO Global Geopark; its preservation and responsible management are a priority for the Itoigawa Geopark Council.

Following an application and inspection process with the Japanese Agency of Cultural Affairs, this outcrop was officially designated a National Natural Monument of Japan on 26 March 2021. This designation strengthens the legal framework for preservation efforts at the site, provides opportunities for greater cooperation with national agencies and increases the value of the site both academically and as a destination for geotourism.

The Itoigawa Geopark Council continues to cooperate with regional and national authorities in the preservation and responsible management of local resources and heritage in accordance with local traditions and laws.

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Geopark staff, with a variety of backgrounds, are among important human resources who are responsible for day-to-day geopark management and geoconservation. That’s why Shilin UGGp attaches great significance to training and learning. On January 19th 2021, Shilin organized a training programme, comprised of indoor lectures and outdoor field trips, for the Geopark employees.

In the morning we held the lectures with the contents of UNESCO Global Geoparks, promotion of visibility, the significant roles of geoconservation, the driving force of geopark in boosting regional sustainable development, the label of UNESCO Global Geoparks, the challenges facing the Shilin Global Geopark, etc. The lectures enabled all the participants to have a better understanding of the concept as well as the latest developments of UNESCO Global Geoparks. Some participants said that they thought Geoparks were only about geosites and some rocks before the lectures, which improved their capacity in management and earth heritage interpretation.

In the afternoon a field trip was held. All the participants, hiking along the Liziyuanqing, a subarea of the Shilin UGGp, appreciated the amazing karst landforms the Earth created millions of years ago at the Shilin Global Geopark. Mr. Tao Honglin, a regional expert, the former vice director of Shilin Global Geopark Administrative Bureau, was invited to give an interpretation about the evolution process, the unique features of Shilin UGGp, the arduous efforts made in applying for a global geopark two decades ago. By studying visit and vivid interpretation, participants knew more about geological knowledge of Shilin, scientific and aesthetic values of Shilin, various rock surface solution features, the important roles of ground water and subterranean water in the formation of karst landform, the unique vegetation in Shilin area, Stone Forest landform and other associated karst landforms in Shilin area such as doline, clint, karst cave, natural bridge, etc. Through the training courses, the participants acquired a fundamental understanding of the UNESCO Global Geoparks, related geological knowledge, improved the ability of management and geoscience interpretation, stimulated their love for Geopark, boosted their awareness of the need to protect nature. Participants, from different divisions of Shilin Global Geopark Administrative Bureau, expressed that the training was extremely practical and fruitful and fun. Participants also expressed that the experience was both enjoyable and inspiring for all of them.

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On March 8, 2021, Lushan UGGp female volunteers presented volunteer services to visitors on International Women’s Day. Lushan UGGp provides free admission for all the female visitors aged eighteen or over on International Women’s Day. During the official holiday for females, nearly 1000 female working staff of Lushan UGGp, including Geopark interpreters, tour guides, tourism bus ticket inspectors, give up their holidays and provide volunteer service to the visitors. Wearing a red volunteer waistcoat, female volunteers are a beautiful view of Lushan UGGp.

During International Women’s Day, Lushan UGGp female volunteers provide service in several volunteer teams: Volunteer Tourist Service Teams in south and north tourist service centers, transport ropeway, and Kuling Town, Volunteer Interpretation Teams in Former Lushan Conference Site Museum, Meilu Villa Museum, Lushan UGGp Museum, White Deer Cave Academy Museum, Volunteer Tourist Guidance Teams in Flower Path, Brocade Valley, Immortal’s Cave and Hanpo Pass Valley. Lushan female volunteers answer visitor’s consultation, distribute free Geopark brochure, give free geo-science, culture, history interpretation, maintain tourist’s safety, give visiting and sightseeing line advice, and other warm and thoughtful services. In the spirit of dedication, philanthropy, mutual assistance and progress, Lushan female volunteers make great contribution to the development of Lushan UGGp with their fantastic and selfless service to the visitors.

Huang Tao
Lushan UGGp, China

On February 9, 2021, the Geological Society of China announced “the Second Batch of Popularization and Research Bases (Camps) for Geosciences”, among which Longyan Geopark Conservation and Development Center was listed. Meanwhile, Longyan Geopark Popular Science Series: The Wonderful Journey in Longyan Geopark (primary school version), EXPLORING LONGYAN GEOARK (middle school version, Chinese and English, 2 volumes in total), which are written in a novel narrative way, stood out from the numerous competitions in the country and won the Second Science Popularization Product Award of Geological Society of China. Longyan Geopark’s efforts in popularizing science have been fully affirmed by the society. Popularization and promotion of Geoscience is one of the important tasks of the UNESCO Global Geopark, and is also a work that Longyan Geopark has attached great importance to since its establishment. After becoming a candidate for a Global Geopark, Longyan Geopark took multiple measures to carry out science popularization work.
Firstly, strengthening the construction of science popularization infrastructure. At present, 2 museums, 2 geological characteristic villages, 3 Geopark primary schools, 5 ge-heritage protection sites, and 10 science popularization corridors have been built. Secondly, cooperating with professional institutes to strengthen scientific research. We have signed cooperation agreements with 3 scientific research institutes and 4 universities respectively to jointly establish a scientific research base or teaching experiment base for Longyan Geopark. Thirdly, carrying out volunteer science popularization activities. Volunteers from all over the country were recruited to carry out science popularization training camps in Longyan Geopark, and more than 30 science popularization lectures were held. Fourthly, carrying out the “Five Entrance” activities for the popularization of geosciences: 1. Enter school. In 2020, we have carried out 4 activities of science popularization entering into campus, organized 2 geo-trail study activities, compiled and published popular science books such as The Wonderful Journey in Longyan Geopark and EXPLORING LONGYAN GEOPARK for primary and secondary school students; 2. Enter the community. We have repeatedly went deep into the communities within Longyan geopark to carry out science popularization publicity, and have distributed more than 5,000 copies of New Year pictures and various science popularization leaflets; 3. Enter the scenic spot. Combining international festivals and local customs such as Earth Day, Environment Day, Park Culture and Tourism Festival, Orchid Festival, etc., we have carried out many science popularization activities in relevant scenic spots; 4. Enter the enterprise. We have organized geoscience popularization training for the partners of Longyan Geopark, and distributed various publicity materials; 5. Enter the media. We have maintained long-term cooperation with mainstream media such as TV stations, newspapers and periodicals and developed special issues on geosciences and Longyan Geopark official website and WeChat public account, geosciences popularization information was released in time, and the self-made “Science Classroom” column was updated regularly.

It not only builds a good platform for Longyan Geopark to popularize geoscience knowledge to the public, especially young people, but also plays a positive publicity role in spreading the spirit of science and expanding social influence that Longyan Geopark Conservation and Development Center was named the “Popularization and Research Bases (Camps) for Geosciences”.

Lin Wensheng
Longyan Geopark, China
In order to publicize the importance of conservation of wildlife and guide more people to realize and protect the wildlife in Danxiashan UNESCO Global Geopark, the Danxiashan Administrative Committee held an education event on the theme of “facilitate green development, promote the harmonious coexistence of man and nature” on March 3rd World Wildlife Day. More than 50 people have participated in the event, including representatives from Danxiashan Forestry Police Station, Danxiashan Forestry Station, relevant companies, local villages and science popularization schools.

On Jinjiang riverside footpath, participants followed Chen Zaixiong, the Director of Danxiashan Botanical Garden, to learn about the distribution and conservation of national key protected wild animals and plants.

Chen Zaixiong introduced the growth habits, characteristics and protection value of dozens of national key protected wild plants including rhizoma bletillae, Danxia Firmiana and Danxia orchid, etc.

“The good ecological environment for wild plants to grow, but also provides a superior habitat for national key protected animals like Hoplobatrachus rugulosus, Lophura nycthemera, Mergus squamatus, etc.”, Chen Zaixiong said.

He also said that there are over 20 unique species in Danxiashan, all of which are rare and endangered. Most of them only have a small amount of distribution in Danxiashan and surrounding areas, like Danxia Firmiana, Danxia Orchid, and Danxia Viola verecunda, etc.

After participating in the activity, the employees from local companies were proud of the unique wildlife treasures in Danxiashan. They said that they would volunteer to popularize the knowledge of wildlife of Danxiashan for tourists.

Danxiashan UNESCO Global Geopark carried out a series of education activities during March, through education in the park, broadcasting videos, slogans, distributing publicity materials, strengthening monitoring, and enhancing inspections and law enforcement. Danxiashan UNESCO Global Geopark has been advocating the concept of ecological civilization of “respect for nature, conform to nature, and protect nature”. It will continuously improve the public’s awareness of protecting the wild animals and plants in the UNESCO Global Geopark and spare no effort to create a good atmosphere for the whole society to protect the natural ecology.

Li Guiqing & Xiao Wei
Danxiashan UGGp, China
As it always does, Shilin UGGp pays great attention to scientific popularization. In the first quarter of 2021, Shilin UGGp organized some activities to widely disseminate popular science to local school students and residents.

In January of 2021, Shilin UGGp organized scientific publicity activities in Shese village, located in the southeast of the Geopark. Lectures and popular science books on Shilin UGGp enabled local residents to know more about Shilin UGGp management and protection, the importance of non-renewable resources, sustainable development of local economies under the theme of UNESCO Global Geoparks, etc. These activities enhanced their awareness of earth and environmental protection, guided them how to use natural resources in an economic and intensive way, strengthened their consciousness on the precious natural resources including mountain, river, forest, field and grassland on which we human beings depend.

Shilin UGGp developed an education programme with the theme of “Shilin is My Hometown and I Love My Hometown” in close collaboration with Lufu Middle School of Shilin County on February 5th 2021. By means of interesting panels, Shilin Geopark photo show, Q&A game on geoscience, popular science books on Shilin Geopark, etc., popular science was greatly promoted among students. The activities made the students feel proud of their hometown —— Shilin, and at the same time advanced their knowledge of the Earth and the concept of UNESCO Global Geoparks.

On March 26th 2021, in order to achieve effective science popularization, Shilin UGGp invited 200 local middle school students to pay a study visit in Shilin Geopark. Students were impressed by the exceptional natural beauty and the unique karst landform of Shilin Geopark. Meanwhile, they learned lots of knowledge that they never got from the classroom, such as different rocks on the earth, coral fossils, the philosophy of UNESCO Global Geoparks.

Shilin UGGp has always been improving the scientific quality of the public and serving young people as its duties.

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Zigong UGGp Held Diversity Science Popularization Activities to Celebrate Chinese Spring Festival 2021

Zigong UNESCO Global Geopark, China

During Chinese Spring Festival 2021, Zigong UNESCO Global Geopark held diversity science popularization activities to celebrate this traditional festival.

1. **Science exhibition.** We held a special dinosaur science exhibition with the theme of “Evolutionary dinosaurs: the way to survive for millions of years”. The exhibition told people the knowledge that in order to adapt changes of environment, how dinosaurs constantly changed themselves in the aspects of growth, food, defense, reproduction and evolution, revealing the survival mystery of dinosaurs for millions of years. The drama told them the story of “A Wonderful Night in the Dinosaur Museum” and played in Zigong Dinosaur Museum for many days.

2. **Popular science drama for children.** We prepared a popular science drama for children visitors during this Spring Festival. The drama's name was “A Wonderful Night in the Dinosaur Museum” and played in Zigong Dinosaur Museum for many days.

3. **Salt Industry History Museum Classroom.** We held "Salt Industry History Museum Classroom". The classroom has three courses: clay sculpture, paper-cut and tie-dyed which helped children and their parent learning Chinese traditional technology and experiencing the glamour of the traditional culture.

4. **The dinosaur art corridor was built and was open to tourists.** During the Spring Festival of China 2021, in Zigong Dinosaur Museum, area of Zigong Global Geopark, the newly built dinosaur art corridor opened to tourists. On one side of the corridor are sculptures of the most famous dinosaurs all over the world, and the other side are the mascot sculptures of Zigong Dinosaur Museum. All of the sculptures look lively and lovely, walking through this dinosaur art corridor, it always makes visitors feel like they are placed in the Jurassic period. By watching sculptures and reading their introductions, visitors can learn a lot about dinosaurs.

5. **Science popularization activities online.** We held a live webcast activity of Zigong Dinosaur Museum, more than 2000 people visit the museum online. We also held "@Dinosaur fans, Jurassic challenge, will you come?" online knowledge competition, 385 people participated in the online activity, and 48 of them won the prize.

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At 2:30 p.m. on March 24, 2021, at the invitation of Huanggang Second Experimental Primary School, Dr. Xia Feiyong of Huanggang Dabieshan UGGp held a science popularization lecture with the theme of "The story of fossil" to all 420 students in grade 4 (10-11 years old) of Huanggang Second Experimental Primary School.

At the activity site, Dr. Xia introduced the evolution history of life on the earth, the formation of fossils and the value of fossils by means of showing the students with vivid fossil photos, interesting animations and videos. In the course of the lecture, he set award-winning questions on the spot. With the help of the teachers, the students raised their hands to actively participate in interaction. Huanggang Dabieshan UGGp provided students with practical and exquisite stationery as encouragement. At the end of the lecture, Dr. Xia extended a warm invitation to the students who were interested in fossils, hoping that after the restoration of the opening of the Huanggang Dabieshan Geopark Museum, they could walk into the museum and have a closer look at the magical fossils.

After the lecture, the students invited Dr. Xia to sign as a memento, and hoped that Dr. Xia would often come to the school to carry out popular science lectures. The school leaders expressed their gratitude and hoped to strengthen the exchange and cooperation with Huanggang Dabieshan UGGp. At the end of the activity, Huanggang Dabieshan UGGp donated 20 sets of popular science books to the school, expressing deep expectations for students' in-depth study of scientific knowledge. Students are welcome to visit Huanggang Dabieshan UGGp at any time to experience the beauty of nature and improve their scientific literacy through field investigation and study tour.

This activity not only popularized the knowledge of earth history, but also cultivated students' scientific thinking and stimulated their interest. In the next step, Huanggang Dabieshan UGGp will continue to carry out science popularization activities through different forms and carriers, so as to give full play to the function of science popularization education of the UGGp.
March 22 marks the 29th World Water Day. A four-day popular science education campaign was successively held in Aizhai Town Ethnic Primary School of Jishou Municipal, Heku Town Nine-year Education School of Fenghuang County, Luota Nine-year Education School of Longshan County, Hongshilin Town Central Primary School of Guzhang County and Furong Xiangxi UNESCO Global Geopark, China.

In the class, the staff used slides to demonstrate distribution, crises and protection measures of water resources, by means of Q&A, students have a deep impression about the World Water Day. To protect the water resource with practice, the staff organized students to clean up the fallen leaves and white garbage along the banks of Xiangxi Global Geopark after class.

The World Water Day was set by the 47th United Nations General Assembly in 1993, while China set the Water Week earlier in 1988 for the purpose of raising the public awareness on water saving and protection. The theme of the World Water Day in 2021 is “Valuing Water”. China’s commemorative theme is “Implement the New Development Concept and Promote the Intensive and Safe Utilization of Water Resources”.

With the support from the Geopark administration of Jishou, Guzhang, Fenghuang, Yongshun and Longshan counties, the campaign was sponsored by the Prefectural Natural Resources and Planning Bureau, and co-organized by the Prefectural Geopark Administration and the Prefectural Geopark Museum. During the period, the staff introduced the philosophy of global geopark and popularized knowledge about water resources by means of hanging posters, displaying and distributing brochures/leaflets, as well as giving lessons, which raise the students’ awareness on valuing water.

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Giving a lesson to students  Students read promotional materials of geopark  Q&A  Students clean up the fallen leaves and white garbage along the banks
On March 6th, 2021, Yuntaishan UNESCO Global Geopark (Yuntaishan UGGp) held the 3rd Flowers Festival with Han Chinese clothing in Yuntaishan, China. This activity aims to further enhance the rural development within the Yuntaishan UGGp, and promote the visibility, reputation and influence of culture and tourism of Jiaozuo City.

Han Chinese clothing, using “Huaxia–Han” as background and prevailing idea, features a unique national style through natural evolution. It becomes the significant external carrier of Chinese traditional culture after thousands of years’ development. At the opening ceremony, Hanfu fans wear various styles of Hanfu, the tied hair looks like silk ribbon, eyebrows look like ink painting, and the color of lips look like cherry. What a grand spectacle combined with the beautiful landscape in Yuntaishan!

The Flowers Festival, held by Yuntaishan UGGp, is the new Intellectual Property integrated culture with tourism using flowers as vehicles and Hanfu as a major theme. It has been already held two times and achieved an excellent reputation. The 3rd Flowers Festival cooperates with the Huawenbantu Team led by Fang Wenshan, who is a famous lyricist. Leading by aesthetics, the activity deeply integrates culture with tourism, and promotes the local culture represented by The Seven Sages of the Bamboo Grove in Wei and Jin Dynasty, including hundreds of activities such as twelve flora cruise, Hanfu courtesy show, rituals performance, Chinese ancient civilization courses, Hanfu show in Wei and Jin Dynasty, and so on.

The Flowers Festival attracted Hanfu fans and almost ten thousands visitors from all parts of China with grand scale, abundant activities and beautiful scenery, which improved the vigour of tourism in Yuntaishan UGGp during the epidemic period.
On February 13, Lushan UGGp participated in a special column, BEHIND THE NAMES, a cultural promotion show of China Central Television Chinese International Channel.

Themed in “Understand culture from the place names, and understand China from culture”, BEHIND THE NAMES is an elite column co-produced by China Central Broadcasting and Television and the Ministry of Civil Affairs of China. The audiences from all over the world could under the fascinating Chinese Lushan UNESCO Global Geopark, China

Lushan UGGp, China

Praised as a cultural sacred mountain, Lushan UGGp has an important position in Chinese Poetry History. Lushan is the origin place of Chinese Landscape Poetry and Pastoral Poetry. More than 4,000 literary giants left more than sixteen thousand popular poems and verses. Following the steps of poets, we will enjoy the cultural charm of Lushan Global Geopark. The first show of the special television programme of Lushan UGGp was on Feb. 13, 2021. (CCTV Channel 4, 19:00). Its second show was on Feb. 14, 2021. Mr. WANG Bing, the Deputy Director of Lushan UGGp personally made a promotion speech on the programme. BEHIND THE NAMES makes a good promotion for Lushan UGGp for the perfect integration of Culture and Geology.

Huang Tao
Lushan UGGp, China

On March 21, 2021, the Natural & Cultural Institute of China University of Geosciences and Xiangxi Prefectural People’s Government signed a strategic cooperation agreement, announcing the establishment of Xiangxi Branch, the Institute of Nature & Culture of China University of Geosciences. To realize the target of common development and benefit sharing, both sides expressed that they will insist on the way of win-win cooperation and take the initiative to align national regional development strategies by the means of holding the training course, making scientific research, as well as providing technical advice. Ma Junjie, secretary of the Party Committee of China University of Geosciences (Beijing); Liu Dameng, vice-headmaster of China University of Geosciences (Beijing); Long Xiao Hua, governor of Xiangxi Prefectural Government; Gao Wenhua, vice director of the Standing Committee of the Xiangxi People’s Congress and Li Ping, vice governor of Xiangxi Prefectural Government and director of Xiangxi Global Geopark Management Committee attended the ceremony.

For the Institute of Nature & Culture of China University of Geosciences, the purpose of constructing the Xiangxi Branch is to take advantage of local natural and cultural resources and strengthen cooperation with relevant departments. By the means of relying on nature and culture, using the technology, a new model for ecological civilization research will be explored effectively.

To celebrate the construction of Xiangxi Branch, the Institute of Nature & Culture of China University of Geosciences organized students and teachers to write prose with a theme of Xiangxi UNESCO Global Geopark, which depicted the long history and rich culture of Xiangxi, and eulogize the magnificence of the motherland’s lucid water and green mountains.

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The 2021 Danxia Rural Golden Flower Festival was held by the Danxiashan Administrative Committee in Chewan Village on February 28th, for the purpose of promoting the sustainable development of the villages in the geopark. Many interesting activities have been organized in the festival, including enjoying rape flower with professors, oil seed science popularization and drawing, taking photos with “golden flowers”, rural good things fair, rural traditional folk performance, award-winning science popularization Q&A, etc., attracting more than 500 visitors to participate.

**Enjoying rape flower with professors:** Professors from the Agricultural School of Shaoguan University introduced to the participants the main functions of new oil seed rape varieties and points for attention when planting, as well as helped villagers promote oil seed rape, dried rape and rapeseed oil, etc.

**Oil seed rape science popularization and drawing:** By following the Danxiashan science popularization savants, teenagers acquired the knowledge and use of oil seed rape as well as observed its characteristics. There are also art teachers who taught them to sketch oil seed rape.

**Taking photos with “golden flowers”:** Many senior photographers from Photographers Association of Renhua County taught the participants to shoot the flowers. They also took free pictures for them, leaving wonderful moments.

**Rural good things fair: In the fair, people exhibited and sold Danxiashan’s high-quality agricultural products and rural delicacies. The local community band had a traditional “Spring Ox Dance” to express the joy of spring ploughing. They sang the traditional song “Yuejiege” (A Song of Moon Sister) and offered colorful dances to welcome the spring. A variety of activities attracted a large number of citizens and tourists. The strawberry farm beside the oil seed rape field was also crowded with tourists. According to the estimation by the person in charge of Chewan Village, this event helped sell more than 50,000 RMB of grapefruit, sweet potatoes, strawberries and other agricultural products grown in the village.

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**Taking photos with “golden flowers”:** Many senior photographers from Photographers Association of Renhua County taught the participants to shoot the flowers. They also took free pictures for them, leaving wonderful moments.

**Rural good things fair:** The festival organized the people to plant new types of winter oil seed rape in winter fallow fields. This measure has increased the villagers’ income, preserved farmland ecology, and stimulated the tourism of surrounding villages through the projects of flower viewing and sightseeing, and helped sell the local agricultural products.

The Danxiashan Administrative Committee has actively taken the brand advantages of Danxiashan UNESCO Global Geopark to promote rural revitalization. Through the cooperation in scientific research with Bureau of Agriculture and Rural Affairs of Renhua County and the team of Dr. Li Haibo from Shaoguan University, the villages within the Geopark organized the people to plant new types of winter oil seed rape in winter fallow fields. This measure has increased the villagers’ income, preserved farmland ecology, and stimulated the tourism of surrounding villages through the projects of flower viewing and sightseeing, and helped sell the local agricultural products.

*Li Guiqing & Xiao Wei*  
Danxiashan UNESCO Global Geopark, China
Demonstrating the Brilliance of Zigong Geopark to the World by Virtue of Colorful Lanterns

Zigong UNESCO Global Geopark, China

Zigong UNESCO Global Geopark is gifted various resources, and boasts three cards, namely salt, dinosaur and lantern festival. Zigong Lantern Festival carries a long history and profound culture, features appealing design and good quality with friendly-environmental traits, and enjoys worldwide fame. "Zigong International Dinosaur Lantern Festival" increases the festive atmosphere around, attracts numerous tourists home and abroad, and also stimulates the local economy and employment. The 27th of Zigong International Dinosaur Lantern Festival becomes the favorite of the media this year for its innovative ideas, real magnificent scenes and immersive performance fashion.

On 2nd March night, a group of guests came from afar for it purposely and served a wonderful live streaming show to the world. To intensify awareness of Zigong Lantern Festival overseas, a media team of English Universal Center Culture Programming Department (EUCCPD) of China Media Group (CMG) arrived in Zigong on 1st March. During the following week, they visited the interests of Colorful Lanterns Museum of China, Zigong Salt Industry History Museum, Shenhaijing Well Salt Scenic Area and so on in Zigong UGGp to take interviews, photos and videos. Centering the lanterns and cultural tourism resources of Zigong, products of broadcasting, videos and graphics have been made and released through channels of China Global Television Network (CGTN), CHINA PLUS and CGTN CULTURE etc. Broadcast live was respectively on nights of March 2, 3 at Zigong Lantern Festival and on the morning of March 4, 5 in Zigong Dinosaur Museum and Xianshi Ancient Town.

In CMG, EUCCPD plays an essential role for international communication and for spreading and publicity. This propaganda promoted the brand of "Sichuan lanterns shining the world", as well as tour resources in Zigong geopark.

In Zigong, EUCCPD has released new technology of 5G plus 4K to serve people a Spring Festival atmosphere by enjoying beautiful lanterns at home. It has been released in different ways, more than 558 million people have watched the show. Moreover, the event has been reported by channels of CCTV NEWS, MORNING NEWS and so on. It is worth mentioning that because of the pandemic, the Zigong Lantern Festival failed to be opened to the public this Spring Festival. In order to satisfy people's desire for watching Zigong Lanterns, a new experience model of a "Cloud Watching" has been launched by utilizing new technology of 5G plus 4K, through an all-round and multi-dimensional display to Zigong Lanterns Festival online, serving people a Spring Festival atmosphere.

In addition, the publicity and events for the public have been best prepared in advance for this Spring Festival. 245,600 tourists have been in Zigong during the 7 days. And the daily amount of visitors for Zigong Lantern Festival reached 10,000 after it opened to the public on 1st March.

By virtue of the colorful lanterns, Zigong cultural tourism is gradually mobilized with breathtaking vitality and charm.

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New Year Photographic Exhibition of Dunhuang and Danxiashan UGGPs held in Danxiashan

Danxiashan UNESCO Global Geopark, China

From February 12 to 28, 2021, Dunhuang UNESCO Global Geopark, Gansu Province and Danxiashan UNESCO Global Geopark, Guangdong Province had jointly held a New Year Photographic Exhibition in Danxiashan, for the purpose of promoting the exchange and interaction between the two sister parks, attracting the public to realize the UNESCO Global Geoparks, and enriching the cultural activities for the people during the Spring Festival. The exhibition has shown the achievements of the protection and development of UNESCO Global Geoparks.

The exhibition represented the magnificent geological landscapes, unique ecosystems and colorful humanities of Danxia landscape and Yardang landform. A total of 100 works were presented in this exhibition, including photos of “Young People in Mogaoli Artisan Village” taken by Ms. Zhu Shaoqing, a science popularization volunteer of Danxiashan. Zhu Shaoqing has experienced the community’s life in Dunhuang UGGp and Danxiashan UGGp for a long time, and has built a bridge of cultural exchanges between the people of the two geoparks. Her efforts are conducive to promoting the people’s understanding of the colorful natural and human resources of the two UGGPs, and to boosting non-governmental exchanges between the two areas.

During the Spring Festival, about 100,000 citizens and tourists visited the exhibition, mainly from Guangdong Province and Macao. Many tourists said that they would visit Dunhuang UGGp if they had the opportunity. This event not only deepened the public’s understanding of the geopark network, popularized the Yardang landform and Danxia landscape, but also helped Dunhuang expand its tourist market in Guangdong Province. In the future, the Danxiashan Administrative Committee will continue to promote interactive exchanges between the two places.

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