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## News at a Glance

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### 1. IUGS President at the “Eurasian Marginal Seas – Past and Future” Expert Meeting

IUGS President Prof. Qiuming Cheng was invited to deliver a keynote speech at the Research Initiative “Eurasian Marginal Seas – Past and Future” (EMS) Expert Meeting held in Guangzhou, China on 28th November 2019, introducing the new IUGS-recognized Big Science Program Deep-time Digital Earth (DDE). The EMS Expert Meeting was jointly chaired by Prof. Yan Guangsheng, Chief Geoscientist of China Geological Survey and Vice President of the International Association for Mathematical Geosciences (IAMG) and Prof. Jan Harff from the University of Szczecin.

In his keynote speech, Prof. Cheng introduced the background, missions and progress of the DDE Big Science Program. With the mission of “Harmonizing Global Deep-Time Digital Earth Data, Sharing Global Geoscience Knowledge”, the IUGS-supported DDE aims to develop a platform of connected geoscience informatics efforts that links the Earth’s spheres (hydrosphere, geosphere, atmosphere, biosphere) in geological history and provides a “digital

earth” with multidisciplinary and multidimensional earth science data as well as facilities for data discovery for investigating the complete evolution of earth from past to present, and towards the future. Prof. Cheng noted that the DDE big science program well supported the strategic challenge domains that International Science Council (ISC) has recently identified, including the 2030 Agenda for Sustainable Development and the Digital Revolution. Prof. Cheng welcomed the EMS project jointly supported by IAMG and DDE, and encouraged the international associations to develop similar joint research initiatives with DDE in their prioritized science directions especially in the ISC strategic challenge domains.



Fig. 1 – Participants attending the “Eurasian Marginal Seas – Past and Future” (EMS) Expert Meeting

The main objectives of EMS research initiative are to develop mathematical models and information techniques for processing big data to solve Marginal Seas issues closely related to the sustainable development of regions hosting 70% of the world human populations. To mitigate the threats of the Eurasian marginal seas, cross-bordering sustainable management is becoming a unifying task for the Eurasian community and beyond. Management strategies need to consider the geo-environmental change in the past and future to separate natural and anthropogenic driving forces. Advanced numerical models of complex geo-systems parameterized by multidisciplinary data of the EMS project will help to generate time-space environmental scenarios on the global, regional and local level. Despite the fact that the initiative is focused on Eurasia, marginal seas of other areas shall be included in the future.



Fig. 2 – A moment of discussion during the “Eurasian Marginal Seas – Past and Future” (EMS) Expert Meeting



## 2. IUGS President's Interactions with the Canadian Geoscience Community

IUGS President Prof. Cheng Qiuming has been actively interacting with the Canadian geoscience community. He had a meeting with Dr. Daniel Lebel, Director General of the Geological Survey of Canada (GSC) in November 2019 and made extensive and in-depth discussions about Canada's support for and participation in the IUGS activities including IUGS-recognized big science program Deep-time Digital Earth (DDE). Prof. Cheng elaborated on the scientific missions, organizational structures and memberships of DDE and invited GSC to become one of the founding members of DDE. Dr. Lebel offered Canada's continued support to forge ahead on IUGS programs and initiatives, especially the new Deep – time Digital Earth that Prof. Cheng champions. Prof. Cheng also invited Dr. Lebel to serve on the DDE Governing Council to provide leadership to encourage more geological surveys worldwide to join DDE.

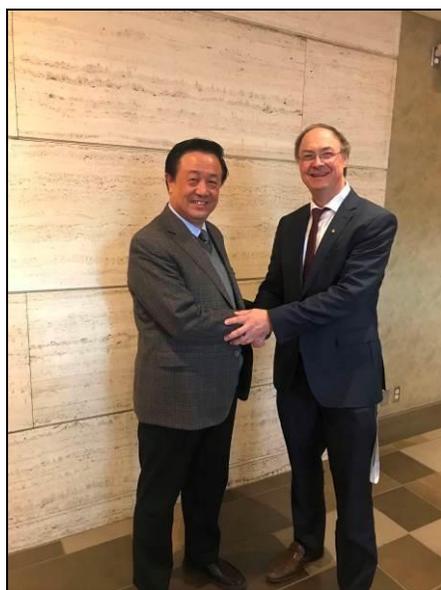


Fig. 3 – Prof Cheng (on the left) and Dr Lebel (on the right)

Prof. Cheng congratulated Dr. Peter T. Bobrowsky, former IUGS Secretary General for being awarded the IUGS James M. Harrison Award and expressed his heartfelt thanks to Dr. Bobrowsky for his scientific contributions and excellent service to IUGS.

### 3. IUGS has a new website

The IUGS website has been renewed. The new pages were created by the IUGS webmaster, Giuseppe Di Capua, through an online platform and were published on 12 December 2019. The old menu was re-arranged and new menu items were added in order to show activities and initiatives of the IUGS more clearly.

You are all invited to visit the new IUGS website, which can be reached at the usual address: <https://www.iugs.org>

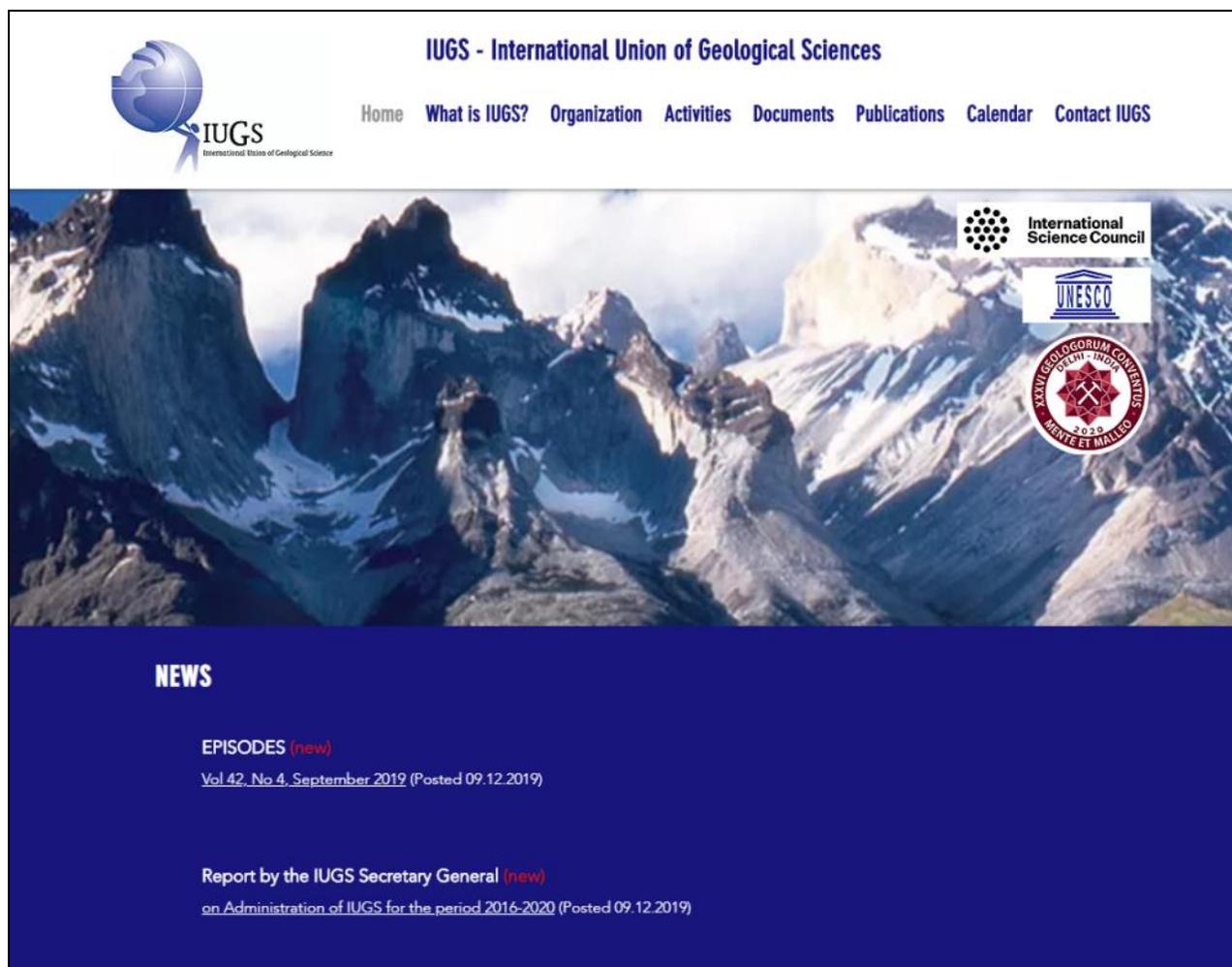


Fig. 4 – New homepage of the IUGS website



#### 4. News from the IUGS Publications Committee (EPISODES)

The December issue of Episodes has been published. Currently, this issue carries six articles and four reports consisting of one from an IGCP Project, another from IUGS Commissions and one from an IUGS Task Group, as well as the report of an Ad-hoc review of another IUGS Commission.

For more information:

<http://www.episodes.org/>

Fig. 5 – Homepage of the Episodes website

## 5. IUGS Task Group on Geohazards (TGG) visiting the Azores Islands, Portugal

Yasukuni Okubo, Chair of TGG, and Antonio Correia, vice-chair of TGG, visited the Research Institute for Volcanology and Risk Assessment (IVAR) in Oct. 29 - 31, 2019. A meeting on cooperation between IVAR and TGG and a field excursion in S. Miguel Island were held.

The location of the Azores Islands in the North Atlantic, in an area dominated by the triple junction between the North American, Eurasian and African lithospheric plates, makes this region a natural laboratory of excellence for research in the Earth Sciences domain. This setting confers to the region high exposure to several natural hazards related with geological and meteorological factors.

The IVAR, located in the Azores, has been working on a multidisciplinary approach for volcanic eruptions, earthquakes, vapor explosions, toxic gases emission, landslides, floods and tsunamis, that frequently occur coupled in space and in time, at different scales, as result of complex geological mechanisms. Based on the achievements, the IVAR has developed the advanced geohazards observation and warning technologies.

TGG plans to establish a new project with IVAR to disseminate the IVAR achievements by holding seminars in the countries which suffered from landslides and other geohazards.

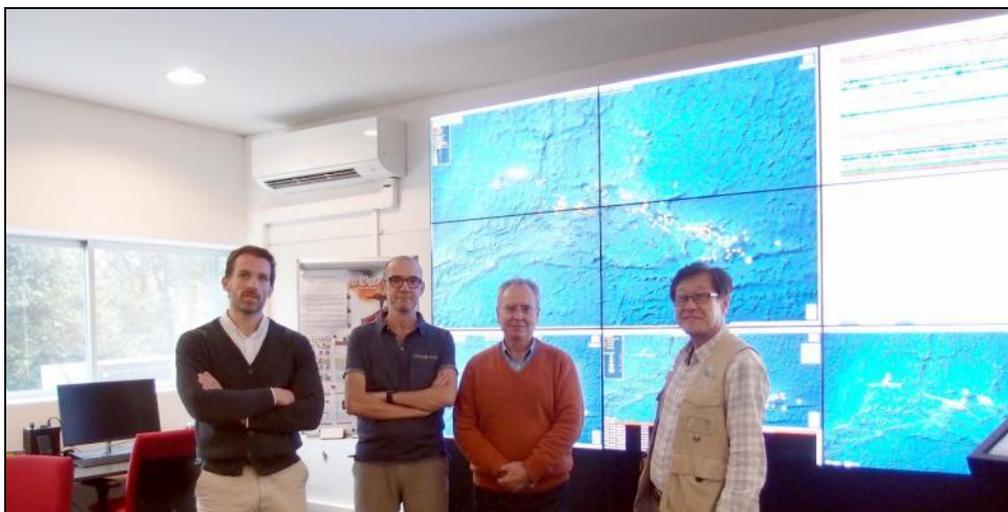


Fig. 6 - Rui Marques (IVAR) (Left end), Jose Pacheco (IVAR) (Second from the left), Antonio Correia (Third from the left), Yasukuni Okubo (Right end)



## 6. News from the IUGS Initiative on Forensic Geology (IFG)

### *Forensic Geology in Japan*

IUGS-IFG Officer for Japan (Dr Ritsuko Sugita) supported and participated in the, '29th Symposium on Geo-Environments and Geo-Technics', organised by The Japanese Society of Geo-Pollution Science, Medical Geology and Urban Geology, in Tokyo, Japan. IUGS-IFG also supported a course on forensic geology, to graduate students, at the Graduate School of Science and Technology, Kumamoto University, in Japan. It is the first accredited course on forensic geology in Japan.

### *Forensic Geology in Poland*

IUGS-IFG agreed to visit Poland in February 2020 to deliver a series of lectures and training for a new course at the Department of Geology, University of Warsaw. This will include the provision of advice on searches for war graves associated with the Second World War.

### *American Academy of Forensic Science (AAFS) Project in Colombia*

AAFS approved a two years long project in Colombia regarding mass graves, which will run from 2020-2022, at the Universidad Antonio of Nariño. This will be supported by the IUGS-IFG Officer for Latin America (Prof Carlos Molina Gallego), based on Bogota, Colombia.

### *The Sherlock Holmes Society of London*

IUGS-IFG Chair (Dr Laurance Donnelly) was invited by the Sherlock Holmes Society of London to give the 2019 Richard Lancelyn Green Lecture, at the National Liberal Club, in Whitehall, London. The presentation was entitled, 'The Applications of Geology to Police and Law Enforcement'.

### *Forensic Geology, Search and Mountain Rescue*

IUGS-IFG Chair (Dr Laurance Donnelly) gave a guest presentation to Rossendale and Pendle Mountain Rescue, in Burnley, Lancashire, UK on, 'Forensic Geology: Searches Related to Missing Persons, Homicide Graves, Counter Terrorism and Serious and Organised Crime'. This included ideas for collaboration and future training in search and rescue.

## 7. IUGS INHIGEO Anniversaries. The Geological Survey in Vienna (k.k. Geologische Reichsanstalt): Imperial Geology 170 years ago



International Commission on the  
History of Geological Sciences

If we were to decide who benefited from the fact that geology had been established as a new academic discipline in 19<sup>th</sup> century, the Reichsanstalt in the Austrian capital would be the main candidate of such a success story. The Imperial Geological Survey in Vienna, founded in 1849, had its origins in the Mining Museum (Montanistisches Museum) and was the first of its kind as state founded institution on

the European continent after a similar initiative had been established in England in 1835 (Oldroyd 1996). The main task of the Reichsanstalt was explicitly defined as the geological investigation of all territories under the Habsburg crown through stratigraphy, the language of geology. Covering this enormous and geologically extremely diverse space of about 600 square miles within 18 years was a great achievement. Read more [here](#).



Fig. 7 - The staff of the Geological Survey (“k.k. Geologische Reichsanstalt”) in Vienna, by permission of the Geological Survey (Geologische Bundesanstalt, Bibliothek und Archiv)



## 8. News from the IUGS Commission on Global Geochemical Baselines

On the 15<sup>th</sup> and 16<sup>th</sup> of November 2019, the IUGS-CGGB has undergone an Ad-hoc review by a four member committee, comprising two IUGS Executive Committee members, Roland Oberhänsli (Chair) and Kristine Asch (Secretary), and two external reviewers, Mateja Gosar (Geological Survey of Slovenia) and Stephanos P. Kiliass (University of Athens, Hellas). The members of the IUGS-CGGB Steering Committee (David B. Smith, Patrice de Caritat, Xueqiu Wang, Ariadne Argyraki and Alecos Demetriades) prepared a fairly detailed PowerPoint presentation report from 2012 (year of last Ad-hoc review) to 2019. The report was divided into two sections (a) 2012-2016 Task Group period, and (b) 2016-2019 Commission period, with emphasis on the activities of the latter.

The two-day meeting was held in Athens (Hellas) and in the premises of the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE; <http://mio-ecsde.org/>). The IUGS-CGGB Steering Committee was represented by Alecos Demetriades (Treasurer), Ariadne Argyraki (Public Relations and Finance Officer), and Christina Stouraiti (2020-2024 Treasurer). The Ad-hoc Review Committee was satisfied with the activities performed by the IUGS-CGGB, and made recommendations for the work to be performed during 2020-2024. Professor Michael Scoullios (ECSDE Chairman) and Mr. Dionisios Gkoutis (Deputy General Director of Hellenic Survey of Geology and Mineral Exploration) were guests in the evening dinner, and Mrs. Olga Papathanasopoulou (ECSDE Secretary) guest in the lunch.



Fig. 8 - Evening after a hard day's work: from left to right Ariadne Argyraki and Alecos Demetriades (IUGS-CGGB Steering Committee members), and Roland Oberhänsli, Mateja Gosar, Kristine Asch and Stephanos P. Kiliyas (IUGS Ad-hoc Review Committee members). Photograph: Dionisios Gkoutis, Deputy General Director of Hellenic Survey of Geology and Mineral Exploration



Fig. 9 - Lunch after a fruitful morning meeting. Left row: Mateja Gosar, Stephanos P. Kiliyas and Roland Oberhänsli. Right row: Alecos Demetriades, Kristine Asch, Christina Stouraiti and Ariadne Argyraki. Photograph: Restaurant waiter

The main activity of IUGS-CGGB during November 2019 was the compilation of two IUGS Standard Geochemical Methods manuals:

1. Manual of Standard Methods for Establishing the Global Geochemical Reference Network, and
2. Global Black Soil Project Manual of Standard Geochemical Methods.

The work on the first manual is continuing, whereas the second manual was completed, and submitted to external reviewers for comments.

Further, a member of the IUGS-CGGB Steering Committee participated in two events. The first was the 3<sup>rd</sup> Workshop of the Global Black Soil Critical Zone Geo-ecological Survey (BASGES), which was held in Chengdu, P.R. China, on the 20<sup>th</sup> and 21<sup>st</sup> of November 2019.

Alecos Demetriades (Chair of Sampling Committee) presented the final version of the IUGS Global Black Soil Project Manual of Standard Geochemical Methods. The requirements for starting the global field sampling campaign were also presented, and subsequently discussed. The most important requirement is the preparation of two Black Soil project reference samples, and a solid blank reference sample for the mandatory external quality control. Shenyang Geological Survey (project coordinator) finally agreed to prepare the two Black Soil project reference samples, and the preparation of the solid blank reference sample is still being discussed.



Fig. 10 - Group photograph of 3<sup>rd</sup> BASGES Workshop, Chengdu, P.R. China. Photo: Professional photographer



Fig. 11 - Alecos Demetriades presenting the final version of the IUGS BASGES Project Manual. Photograph: Liu Xuemin, Lecturer, Chengdu University of Technology, College of Earth Sciences

The second event was a two-day workshop on the 22<sup>nd</sup> and 23<sup>rd</sup> of November 2019 in Chang'an University, School of Earth Science and Resources, Xi'an, P.R. China, where Alecos Demetriades (Chair of CGGB Sampling Committee) given eight lectures, starting from basic Applied geochemistry, Sampling, Sample preparation, Laboratory analysis, Quality control, Statistical-geostatistical data processing, Global- to local-scale geochemical surveys, Phased mineral exploration, and Preparing manuscripts in English for publication in International Journals. The workshop was attended by 22 students from China (17), Egypt (1),

Namibia (1), Pakistan (2) and Rwanda (1). At the end of the workshop a USB-memory card with the lectures and other workshop material was given to the attendees.



Fig. 12 - Dr. Jiao Jian-gang (Dean of School of Earth Science and Resources, Chang'an University, Xi'an, P.R. China) introducing Alecos Demetriades.  
Photograph: Meng Ganggang, student



Fig. 13 - Dr. Xin Lin (lecturer, School of Earth Science and Resources, Chang'an University, Xi'an, P.R. China) explaining in Chinese the compositional data analysis part of the data processing lecture. Photograph: Alecos Demetriades

Follow the IUGS Commission on Global Geochemical Baselines at:

<http://www.globalgeochemicalbaselines.eu/>  
<https://www.facebook.com/CGGBIUGS/>  
[https://twitter.com/cggb\\_iugs](https://twitter.com/cggb_iugs)

## 9. Special acknowledgments

A special thanks to Brian Marker, who has been the careful supervisor of the E-Bulletin for long time. His highly qualified review activity, his constant availability and assistance have been a valuable support.

Starting next January, Jennifer McKinley will be entrusted with the task of reviewing the English language of the E-Bulletin.



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## EDITORS' NOTES:

### CONTRIBUTING TO THE IUGS E-BULLETIN, WEBSITE AND SOCIAL MEDIA

IUGS wishes to better co-ordinate publication of information on **news, events and achievements** arising from IUGS activities (**not science reports or papers**). All IUGS Commissions, Task Groups, Initiatives and IGCP projects are requested to provide a steady flow of material. Contributions from Adhering Bodies will also be welcomed.

To aid co-ordination and standardization, IUGS has introduced a preferred format and a monthly timetable.

#### Format of submitted material:

Contributors should provide:

**For the E-Bulletin:** 2 or 3 sentences with between 1 and 3 illustrations (photographs, diagrams etc.) with captions as separate .jpg, .gif or .png files with a resolution of 150 dpi; optimally accompanied, by:

**For the website:** a concise text of about 0.5 to 1 A4 page (up to about 600-700 words), if possible providing a web-link (e.g. to an IUGS activity website).

The short text in the E-Bulletin will be hyperlinked to any longer text which will be placed on the IUGS website. Items that are not in reasonably good English will be returned for improvement. Others will be edited for use of English if necessary. If proposed contributions are too long, they will be returned for shortening. All images must, if necessary, be copyright-cleared before submission.

**Each contribution to the IUGS E-Bulletin, website and/or social media should be marked as to which target medium or media it should be published in. Each contribution should be sent, at the same time, to the following addresses:**

<a href="mailto:silvia.peppoloni@ingv.it">silvia.peppoloni@ingv.it</a>	(E-Bulletin Editor-in-Chief)
<a href="mailto:giuseppe.dicapua@ingv.it">giuseppe.dicapua@ingv.it</a>	(Webmaster)
<a href="mailto:gurmeet28374@gmail.com">gurmeet28374@gmail.com</a>	(Social Media Manager)



## Timetable:

The idealized timetable for the E-Bulletin is:

1. IUGS sends a reminder to leaders of activities in the last week of each month;
2. Contributions should be provided by the 16<sup>th</sup> day of that month (**items arriving after that date cannot be included in the next monthly issue**);
3. IUGS will evaluate all submitted items in terms of urgency and will allocate these to the next monthly issue or a later issue and will also check that these comply with IUGS policy for publications and ethics;
4. The IUGS Team will aim to compile that month's E-Bulletin by the 25<sup>th</sup> day of the month and send it to the IUGS Secretariat;
5. The IUGS Secretariat will dispatch the E-Bulletin to the IUGS Community on, or before, the last day of each month;
6. Long versions of material will be posted on the IUGS Website in coordination with the publication of the relevant E-Bulletin.

This timetable will be varied, as necessary, to allow for public holidays that affect the E-Bulletin Team and IUGS Secretariat such as Christmas and Chinese New Year.

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## NOTES

- If you require notices, information on publications, etc. to be considered for inclusion in forthcoming IUGS e-bulletins, please mail to: [silvia.peppoloni@ingv.it](mailto:silvia.peppoloni@ingv.it).
- Please check the IUGS [Calendar of Events](#) for upcoming scientific meetings this coming month. If you require information on international conferences, meetings, etc. to be considered for inclusion in this Calendar please mail to: [giuseppe.dicapua@ingv.it](mailto:giuseppe.dicapua@ingv.it)
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*Edited by:*

*Dr. Silvia Peppoloni (IUGS, INGV), and Dr. Brian Marker (IUGS)*

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