



News at a Glance

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1. **Hutchison Young Scientists Foundation: support for young scientists to attend the 36th International Geological Congress, Delhi, India, 2-8 March 2020**

Through the vision and inspiration of William W. Hutchison, IUGS Secretary General (1976-1980) and IUGS President (1984-1987), the Hutchison Young Scientists Foundation was established by the International Union of Geological Scientists to promote the professional growth of deserving, meritorious young scientists from around the world by supporting their participation in important IUGS-sponsored conferences, particularly the International Geological Congress. With funds from the Hutchison Foundation, the IUGS intends to support the participation of as many as 15 young scientists at the 36th IGC. This is a call for applications. Deadline: 15 October 2019.



Qualifications and requirements for applications are available on the IUGS website under Hutchison Young Scientist Foundation.

Deadline for submission of abstracts to 36th IGC: 15 October 2019. More details at:

http://iugs.org/uploads/Calls/Hutchinson_Announcement_Call_for_Applications_IUGS.pdf

2. Call for IGCP project proposals. Deadline 15 October 2019

UNESCO is the only United Nations organization with a mandate to support research and capacity in geology and geophysics, and IGCP, the [International Geoscience Programme](#), is its flagship. The IGCP mission includes promoting sustainable use of natural resources, advancing new initiatives related to geo-diversity and geo-heritage and geohazards risk mitigation. IGCP facilitate international scientific cooperation in the geosciences. The programme emphasizes women and young and early career scientists who are especially encouraged to submit project proposals.

IGCP 2019 Special Topics defined by the Council:

1. Mining geosciences and sustainability.
2. Efficient and sustainable extractive industry technologies and stimulation methods.
3. Geology for the sustainable and safe scale-up of renewable energy production.
4. Big data, Cloud Computing and Artificial Intelligence in Geosciences.
5. Geohazards near metropolitan areas.
6. Global warming CO₂ emission mitigation using new methods (such Carbon Storage and Sequestration).
7. Sustainable small volcanic islands: water, energy, resource management.
8. Geoheritage for sustainable development.

The website for the International Geoscience Programme provides information on [30 active projects](#) currently supported by UNESCO and IUGS.



3. IUGS President appointed as member of the International Science Council's Committee for Science Planning

IUGS President Prof. Cheng Qiuming was appointed by Prof. Daya Reddy, President of the International Science Council (ISC), as Member of ISC's Committee for Science Planning. The terms of service will be three years starting on 1st July 2019.

Under the leadership of Chair, Sir Peter Gluckman (ISC President-Elect) and Vice-Chair, Professor Geoffrey Boulton (Governing Board Member), the ISC's Committee for Science Planning will undertake strategic scientific planning and reviews and address major thematic issues concerned with science-for-policy and policy-for-science. Nobel Laureate Sir Paul Nurse serves as special advisor to the Committee. As stated by Chair Professor Peter Gluckman, "In many ways this Committee is a most important component of the ISC as our think tank for the scientific programme that is the foundation for the ISC's activities and as a source of advice to the Governing Board. "

ISC is the highest international council to which GeoUnions including IUGS are affiliated. IUGS is an active member of ISC and has a long-term collaboration. The ISC has just announced its action plan for 2019-2021 and identified four Strategic Challenge Domains - the 2030 Agenda for Sustainable Development; The Digital Revolution; Science in Policy and Public Discourse, and The Evolution of Science and Science Systems, providing steering guidance for scientific planning for international science communities.

A recent initiative of IUGS, the Deep-time Digital Earth (DDE) big science programme, is closely related to and reflects the frontiers of the ISC Strategic Challenge Domains. DDE is developed with the mission of integrating earth big data and sharing Earth Science knowledge. The long-term mission is to promote Earth Science transformation to contribute to basic science and knowledge and solutions to UN2030 SDGS. Under the guidance of the ISC action plan 2019-2021, IUGS will continue its efforts to motivate and activate the IUGS members to initiate and engage in the science activities and programmes under the four ISC Strategic Challenge Domains.

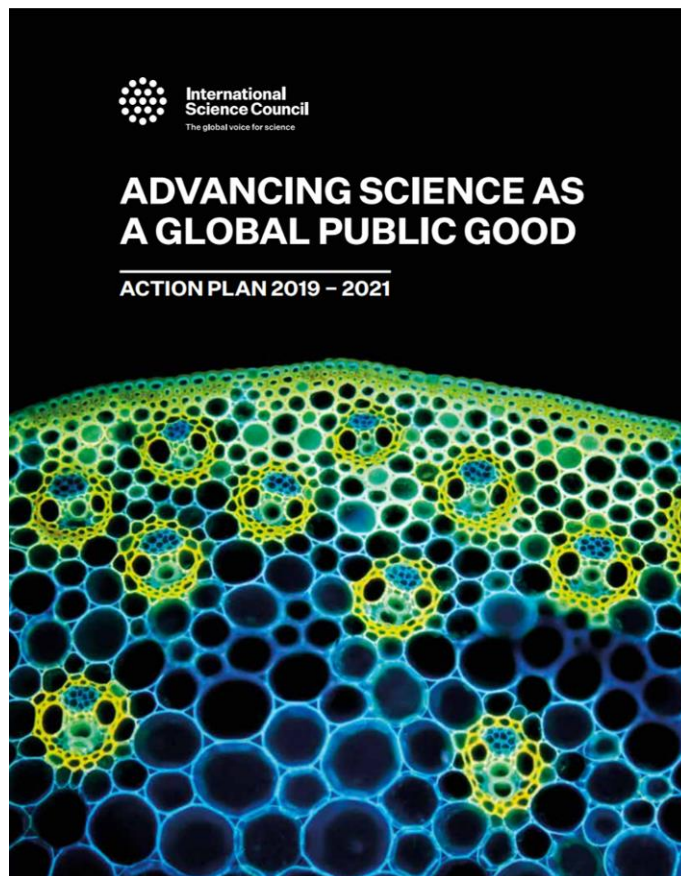


Fig. 1 - International Science Council (ISC) Action Plan 2019-2021

4. TGG Session at AOGS2019 in Singapore

The Asia Oceania Geosciences Society (AOGS 2019) met in Singapore during 28 July – 2 Aug 2019. The IUGS Task Group on Geohazards (TGG) organized the session entitled “Global and Societal Impacts of Geohazards” at AOGS. Three presentations and one poster were presented.

The presentation files presented at the TGG session are accessible from the TGG homepage: <http://iugstgg.lab.irides.tohoku.ac.jp/archives/283>



5. IUGS President delivers a keynote speech on the Deep-time Digital Earth (DDE) big science program at the 20th IAMG Annual Conference

IUGS President Prof. Qiuming Cheng was invited to deliver a keynote speech at the Opening Session of the 20th Annual Conference of the International Association for Mathematical Geosciences (IAMG) held in State College, Pennsylvania, USA on August 10-16, 2019, introducing the new IUGS-recognized big science program - Deep-time Digital Earth (DDE) and encouraging IUGS association members to support and participate in this new programme.

In his keynote speech entitled “Deep-time Digital Earth (DDE) Big Science Program: Opportunity for Mathematical and Data Geoscientists”, Prof. Cheng noted that big data and data discovery have assisted all other fields of science in following the trend of the digital revolution, and supporting the IUGS DDE aims to develop a platform of connected geoscience informatics efforts that link Earth’s spheres (hydrosphere, geosphere, atmosphere, biosphere) in geological history and provide 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. Qiuming Cheng highlighted DDE opens great opportunities for scientists from the whole world to conduct transdisciplinary research and international collaboration. DDE offers benefits for international associations to join the initiative by integrating their disciplinary knowledge system into the DDE multidisciplinary knowledge system facilitating machine learning, artificial intelligent and data discovery; construction of a knowledge engine for automation of discovery flow from representation, analysis, modeling and visualization of large and growing data resources in DDE; exploring fundamental integrative questions in co-evolution of earth life, environment and materials by interrogating data in greater than three dimensions; engaging in a dynamic and transdisciplinary international community of traditional earth sciences and modern geomathematical, geoinformatical and data sciences; and achieving a profound international impact on promoting the transformation of the GEO-scientific research paradigm.



Prof. Qiuming Cheng and the IAMG Bureau explored the feasibility of a new research initiative “Eurasian Marginal Seas - Past and Future (EMS)” as a task force jointly participated and supported by IAMG and DDE. The main objectives of EMS research initiative are to develop mathematical models and information techniques to processing big data to solve Marginal Seas issues closely related to the sustainable development of regions hosting 70% of the world human populations. The project will be introduced at the 36th IGC, Symposium “Advances in Global Geological Data sharing and Processing”. Prof. Qiuming Cheng welcomes and encourages international associations to develop similar joint research initiatives with DDE in their prioritized science directions especially in the strategic challenge domains that International Science Council (ISC) has recently identified (The 2030 Agenda for Sustainable Development, The Digital Revolution, Science in Policy and Public Discourse, and The Evolution of Science and Science Systems).



Fig. 2 - President Prof. Cheng Qiuming delivering the keynote speech



6. News from the IUGS Publications Committee

The IUGS Publications Committee Executive (Chair, Prof. Dolores Pereira; Editor, Prof. Jin-Yong Lee; Secretary General of IUGS, Prof. Stanley C. Finney) has published a note in the September issue of Episodes, from which they want to promote the journal and get high quality papers.

For more information:

<http://www.episodes.org/journal/view.html?volume=42&number=3&spage=185&vmd=Full>

Note from PC Executive



by Lola Pereira^{1,*}, Jin-Yong Lee², and Stanley C. Finney³

Episodes: a journal with a scientific and social impact

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In 1997, IUGS began publication of a quarterly journal with the intention to cover the results of the research in the Earth Sciences and to distribute the information widely to a community that today is more than 150 countries. The scope of Episodes is wide. Only Special Issues are thematic. The journal has increased in quality and the impact over the years. Since the beginning of publication, Episodes has had an Impact Factor (IF=0.59) and entered the third quartile in the area of “Geosciences, Interdisciplinary” and the second quartile in the area of Geosciences, Multidisciplinary” in 2001.

Episodes has been included in the first quartile in the years 2006, 2009, and 2015, and citations have increased over the years as well

(Fig. 1). Today Episodes is included in the most important indexes: Clarivate, Scopus, Google Scholar, Georef, etc.

More or less every four years, coinciding with the publication of the Special Issues dedicated to the International Geological Congresses (IGC), Episodes suffers a decrease in its impact factor. We have concluded that these thematic, geographically restricted issues are less cited than regular issues, or even the Special Issues that Episodes published intercalated with the regular ones. In fact, some of those Special Issues had an extraordinary impact in the scientific community, raising Episodes significantly higher in the Quartile system (Fig. 2).

Besides its scientific impact, Episodes is recognized for its social

Fig. 3 - Note from the IUGS PC Executive published in the September issue of Episodes



7. IUGS Heritage Stones Subcommittee: new achievement

The Heritage Stones Subcommittee has published a new Special Issue on Natural Stones and Architectural Heritage in the journal Sustainability. This special issue contains scientific articles on the stones and the heritage built on stone of many different places around the world: Montenegro, Portugal, Italy, Spain, Serbia, Korea, French West Indies, and Greece.

The journal is Open Access and all the articles can be downloaded at:
https://www.mdpi.com/journal/sustainability/special_issues/nsah



Fig. 4 - San Xurxo church, Moeche, Galicia, Spain. Serpentine is used in the vernacular architecture of this Spanish area



8. Notes from the IUGS-ICS Paleogene Subcommittee

- The proposal of the Global Stratotype Section and Point (GSSP) for the base of the Priabonian Stage (Paleocene Series) was approved by a super-majority of the ISPS voting members (89%). The GSSP is identified by the base of a prominent crystal tuff layer, the Tiziano bed, at meter 63.57 of the Alano section (Italy). The proposal will be forwarded to ICS in September for voting.
- The Massignano section in Ancona, Italy, where the GSSP for the base of the Rupelian (Eocene-Oligocene boundary) was formally defined, has deteriorated over the years. Cleaning and restoration works have been carried out by Alessandro Montanari and colleagues, who have removed dangerous blocks and vegetation covering the outcrop. Works included HiFi and photographic documentation and restoration of the 23 markers of the stratigraphic meters, specifically made in galvanized iron and laser engraved, and replacement of the golden spike. The Conero Regional Park will be contacted recommending yearly maintenance of the outcrop and building of a new fence.



Fig. 5 - Photograph of the Massignano outcrop before and after the restoration works, by A. Montanari



- One year ago... Eustoquio Molina, former Chair of ISPS for 8 years, suddenly passed away on September 30th 2018. During his long-term collaboration with the ISPS, he contributed to the definition of the GSSPs for the bases of the Danian, Selandian, Thanetian, Ypresian, and Lutetian Stages. Over his career, in addition to many studies focused on biostratigraphy, he was involved in producing a series of papers dealing with extinctions and the reconstruction of critical events across the Paleogene. His highly prolific career was recognized by the Darwin Museum in Moscow (2001) and by the Zaragoza Royal Academy of Sciences (2017). He is deeply missed by his colleagues, friends, and by the whole Paleogene community.



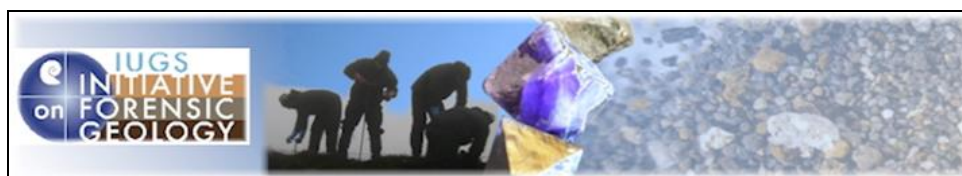
Fig. 6 - Photograph of Eustoquio Molina during the official ceremony to place the golden spike at the base of the Selandian in the Zumaia section (Basque Country, Spain)



9. News from the IUGS Initiative on Forensic Geology

A Guide to Forensic Geology

IFG has submitted to the Geological Society of London (GSL), the draft for 'A Guide to Forensic Geology', which will now commence with publication. This has taken over 10 years to write and the search section has evolved over the past 25 years.



Forensic Soil Science and Geology

"Forensic Soil Science and Geology" is a Geological Society of London Special Publication, which provides information and support to help police and law enforcement with criminal investigations. These include collection and analysis of earth-materials and other items from crime scenes, and searches associated with homicide graves, counter-terrorism and organised crime. This volume includes new field and laboratory methods and operational casework from around the world. This is also expected to be published in 2020, it is almost completed and some of the papers are available online at the following link:

<https://sp.lyellcollection.org/online-first/492>

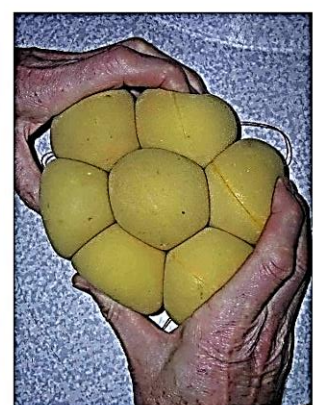
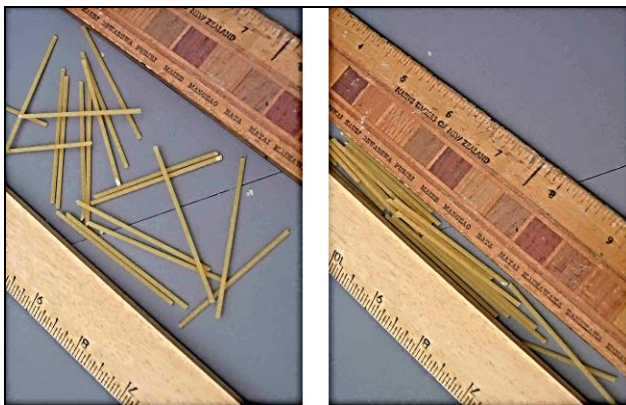
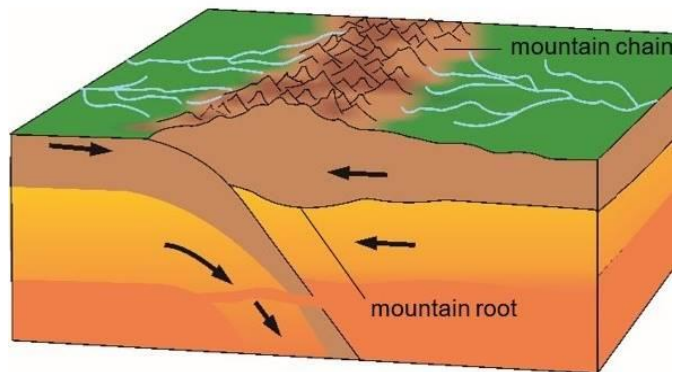
Police & Law Enforcement Operational Support

Members of IUGS-IFG continue to provide forensic geology advice and consultancy to police and law enforcement worldwide. This includes crime scene examination, the collection and analysis of soils and other geological or geological derived materials and searches for burials or concealed items.



10. IUGS-COGE: an invitation to contribute activity suggestions and consolidation questions to the Companion Volume of the “Exploring geoscience” textbook

A companion volume to the “Exploring geoscience” textbook, approved by IUGS, is being prepared. The companion includes interactive teaching activities and questions to consolidate understanding, keyed into the textbook section headings. Anybody is welcome to contribute activity suggestions (if already available online) and question suggestions for inclusion. All contributions will be subject to editing and the authors and sources will be fully acknowledged. Please contribute now to chris@earthlearningidea.com



Figgs. 7, 8, 9, 10 - Some pictures from the ‘Metamorphic processes’ activity section of the ‘Exploring Geoscience’ companion



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:

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(E-Bulletin Editor-in-Chief)
(Webmaster)
(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 16th 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 25th 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.

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.
- 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
- To be added to or removed from the IUGS e-bulletin distribution list, please mail to: iugs.beijing@gmail.com or secretariat@iugs.org.
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- Check the IUGS website: <http://www.iugs.org/>

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