
News at a Glance

1. **The Deep-time Digital Earth (DDE) Program approved by IUGS EC as the 1st IUGS “Recognized Big Science Program”**
2. **IUGS RFG initiative: International Summer School**
3. **IUGS-SCJ-IRIDeS Geohazard Symposium in Sendai, Japan**
4. **News from the IUGS Task Group Global Geoscience Professionalism (TG GGP)**
5. **IUGS INHIGEO Anniversaries. Alexander von Humboldt: “Unkelstein” in the River Rhine, Basalt and the Pyramids – A Strange Connection 250 Years Ago**
6. **Inaugural IGCP668 meeting in Thailand**

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1. **The Deep-time Digital Earth (DDE) Program approved by IUGS EC as the 1st IUGS “Recognized Big Science Program”**

The Deep-time Digital Earth (DDE) Program is a new initiative proposed by several Adhering National Members and International Associations that are Affiliated Members of IUGS. The DDE Program has been approved by IUGS EC as the first IUGS “Recognized Big Science Program”.

The DDE aims to establish linked Earth Science big-data hubs that are interoperable with other databases including published data in the public domain and unpublished data in institutions and centres of expertise. Similar to OneGeology, which aims to provide a single map of world geology, DDE will aim to provide harmonized data in a convenient form to science, public and industry. But unlike other existing databases, DDE will provide the geologies and geographies of Deep-time, as well as data on the properties of those geologies,



and thus will provide insights into the distribution and value of earth's resources and materials, as well as hazards – while also providing a glimpse of the Earth's geological future.

A three-day Forum will be held in Beijing, China on February 26-28, including a one-day plenary session and two-day technical and working group discussions on implementation of DDE. The forum will be organized jointly with the IUGS 73rd EC Meeting (February 27 - March 2). The first Circular of the Forum is available at:

http://iugs.org/uploads/DDE_Forum_FirstCircular_final.pdf

2. IUGS RFG initiative: International Summer School

It has been a long-term ambition of the IUGS Resourcing Future Generations (RFG) initiative to reach out to younger geoscientists and social scientists. A key feature of the audience attending the RFG2018 meeting in Vancouver, BC this summer was its youthfulness, half of the delegates being within 10 years of their first degree. Many of them



ReSToRE - Researching Social Theories, Resources, and Environment Summer School

Venue: University College Dublin, Ireland
Dates: Monday July 1st – Friday July 5th, 2019
Attendance: 50 postgraduate (PhD, Master's) students

were keen to see a follow up event. With the Irish Centre for Research in Applied Geosciences IUGS, through RFG, is co-sponsoring and organising a Summer School to be held in Dublin, Ireland next July. The hope is to

attract 50 post graduate students working at the intersection of the social sciences and geosciences.

The Summer School aims to build on several themes that emerged strongly at the Vancouver meeting:

- The need to connect our understanding of the human system with our understanding of the earth system in order to address societal challenges;
- The need for much stronger interdisciplinary research between the social sciences and geosciences;
- The enthusiasm, especially among students and recent graduates, to create these interdisciplinary links;
- The need to develop a community of practice that will encourage and support researchers and practitioners in this somewhat unconventional subject area.

A flier announcing the Summer School and details of how to apply is at:

www.icrag-centre.org/restore

3. IUGS-SCJ-IRIDeS Geohazard Symposium in Sendai, Japan

The IUGS - Science Council of Japan (SCJ) - International Research Institute of Disaster Science (IRIDeS) geohazard symposium was held on 13 Nov., 2018 at Tohoku Univ. in Sendai, Japan. Approx. 30 people from IUGS, SCJ and IRIDeS attended the symposium and discussed geological investigation of tsunami, disaster mitigation research, activities of TGG and geohazards risk sciences.

Next day, following the symposium, the field excursion around the Sendai Plains was held. Dr. Kazuhisa Goto, Tohoku Univ., guided the field excursion. He introduced the exposed geological column in an archeological trench which shows three tsunami events around the Sendai Plains. The oldest event is the tsunami caused by the 869 Sanriku earthquake on 9 July 869. The latest event is the earthquake off the Pacific coast of Tohoku and tsunamis on 11 March 2011.

Between these two great earthquakes, the 1611 Sanriku earthquake occurred on December 2, 1611 and tsunamis attacked the Sendai district. After the shock, Date Masamune, a powerful feudal lord in the Tohoku region, planted pine trees along the coasts of Sendai district as breakwaters.

The excavated geological column includes pollen of the pine trees incorporated in the layer just above the 1611 tsunami deposits.

Read more at: <http://iugstgg.lab.irides.tohoku.ac.jp/archives/257>



Fig. 1 – Dr. Goto points the evidence of pollen of the pine trees residing in the layer just above the tsunamis deposits of 1611.

4. News from the IUGS Task Group Global Geoscience Professionalism (TG GGP)

The International Union of Geological Sciences (IUGS) Task Group on Global Geoscience Professionalism has considerably extended its membership base since its foundation in 2012. From initially 4 members, it has grown its membership to 16 associations in 2018. These include the:

- American Institute of Professional Geologists, AIPG
- Australian Institute of Geoscientists, AIG
- European Federation of Geologists, EFG
- Geoscientists Canada, CCPG
- Colegio de Geólogos de Bolivia
- The Geological Society of South Africa, GSSA
- Masyarakat Geologi Ekonomi Indonesia, MGEI
- Colegio de Geólogos de Chile
- National Association of State Boards of Geology, ASBOG
- Sociedad Colombiana de Geología
- South African Council for the Natural Scientific Profession, SACNASP
- Association of Greek Geologists
- Geological Society of London, GSL
- Hungarian Geological Society
- Official Spanish Association of Professional Geologists, ICOG
- Professional Association of German Geoscientists, BDG

The IUGS Task Group on Global Geoscience Professionalism is currently preparing its strategy for the next three years (2019 to 2021). With this aim it has held two online meetings, on 22 October and 10 December, overcoming, as usual, geographical distances and different time zones to collaborate on geoscience professionalism.

Participation in events:

4th October 2018

Ruth Allington (Chair of the IUGS Task Group on Global Geoscience Professionalism) was a keynote speaker at the 5th Slovenian Geological Congress (http://www.geo-zs.si/5SGK/index_en.html) with a presentation entitled “Breaching the boundaries between Science and Profession - An imperative for geoscience in the service of society”.

Organised by the Geological Survey of Slovenia (GeoZS) and the Slovenian Geological Society (SGD), the event which has been attended by more than 200 participants, apart from exchanging new research results, also focused on the importance of geoscience for the wider society and its development.

Ms Allington’s presentation was a shorter, updated, version of a plenary lecture at the 35th IGC in Cape Town (2016). She introduced and/or reminded an audience of geoscientists largely drawn from academia of the underpinning concepts of professionalism (competence, integrity, accountability and high ethical standards). She offered the following ‘3 pillars’ definition of professionalism for academia:

- Sound geoscience knowledge and application of theory
- Exceptional ethics
- Good judgement; delivering teaching, training and research only in the areas of geoscience in which they are both appropriately qualified and suitably experienced.

She went on to seek to persuade the audience that professionalism should underpin all their teaching, training and research activities rather than be seen as something only relevant and suitable for geoscientists working in applied/commercial fields, and to describe, through posing three fundamental questions, a virtuous circle that is driven by a shared notion of professionalism:

- Without understanding the skills and expertise needed by ‘industry’, how can educators prepare students for the workplace?

- Without understanding societal needs, how can researchers design research which is truly relevant to those needs?
- Without access to high quality graduates and excellent underpinning fundamental and applied research, how can geoscientists in ‘industry’ or public service deliver their expertise effectively?

9th December 2018

Dr. John W. Williams, one of the United States representatives on the Task Group on Global Geoscience Professionalism (TG-GGP) presented with his colleague Dr. Randy Kath a poster on their research: Need For Academic Professional Ethics Training To Prepare Candidates To Take The National Association Of State Boards Of Geology (ASBOG®) National Licensing Examinations at the annual meeting of the American Geophysical Union in Washington.

5. IUGS INHIGEO Anniversaries. Alexander von Humboldt: “Unkelstein” in the River Rhine, Basalt and the Pyramids – A Strange Connection 250 Years Ago



International Commission on the
History of Geological Sciences

Without a doubt von Humboldt (1769-1859) was, and still is, one of the most famous naturalists. His global activities, his expeditions to America (1799-1804) and Asia (1829) and his holistic view of nature are all deserving of recognition.

There is much to say about Humboldt’s life and his contributions to science. Let us consider his first work dedicated to geology. After his time as a student at the Universities of Frankfurt/Oder and Göttingen, he undertook an excursion lasting several weeks to the river Rhine. His observation of basalts between Andernach and Bonn resulted in

a short book with the title “Mineralogische Beobachtungen über einige Basalte am Rhein” (1790). He asked the stoneworkers about their experiences. From today’s perspective, this method of including statements of practical workers was much more innovative than Humboldt’s cautious interpretations that tended nevertheless to support the Neptunist theoretical explanation that was dominant in this time.

Read more at: http://iugs.org/uploads/Reports/Anniversaries_INHIGEO_January2019.pdf



Fig. 2 – Frans Hogenberg, the attack on Unkel (Neuwied), Germany, c. 1583. Wikisource. The “Unkelstein” was identified as basalt; the basalt rocks that were seen in the Rhine (on the right bank of the river) were considered dangerous for shipping.

6. Inaugural IGCP668 meeting in Thailand

An extremely successful inaugural meeting of IGCP668, “Equatorial Gondwana History and Early Palaeozoic Evolutionary Dynamics”, was held as two days of conference in Bangkok in late November 2018, with 5 days of fieldtrip on Ko Tarutao in southwestern Thailand. IGCP668 is concerned with magmatic events around equatorial Gondwana margin during the Cambro-Ordovician transition interval, their effects on evolutionary patterns, and in the societal relevance of this record for our present and future. 154 persons from 10 countries attended the inaugural conference (134 participants from developing countries, and over half of the total number of participants were women) with the fieldtrip attracting 30 participants from 9 countries. The trip looked at the wonderful record of interbedded volcanic and fossil-bearing sandstones on Ko Tarutao, and was hosted delightfully by the Department of Mineral Resources under the skilled team leadership of Dr Apsorn Sardud.

Read more at: <https://swern001.wixsite.com/igcp668>



Fig. 3 and 4 – “Searching Pair” and “Finding”: Sketches by Sekhar Mukherjee, Director, National Institute of Design, Vijayawada, India



Fig. 5 and 6 – Moments of the inaugural meeting of IGCP668 and the fieldtrip.



Fig. 7 – Women geoscientists at the conference.



Fig. 8 – The Thai Team.



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:

silvia.peppoloni@ingv.it	(E-Bulletin Editor-in-Chief)
giuseppe.dicapua@ingv.it	(Webmaster)
gurmeet28374@gmail.com	(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.
- Follow the IUGS on Social Media! We are on [Facebook](#), [Twitter](#), [LinkedIn](#) and [Google+](#).
- Check the IUGS website: <http://www.iugs.org/>

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