



INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

<http://www.iugs.org>

<https://www.facebook.com/iugspage>

<https://www.linkedin.com/groups/International-Union-Geological-Sciences-IUGS-4906283>

IUGS E-BULLETIN No. 130 MAY 2017

Download pdf at: <http://iugs.org/uploads/IUGS%20Bulletin%20116.pdf>

Contents

1. IGCP Projects Approved for 2017
 2. RFG Vancouver Meeting 2018
 3. Chattian GSSP- Gold spike hammered
 4. CGI News
 5. IUGS Publications Report
-

1. IGCP Projects Approved for 2017

INTERNATIONAL GEOSCIENCE PROGRAMME (IGCP) – PROJECTS CONTINUING OR NEWLY APPROVED IN FEBRUARY 2017

The International Geoscience Programme is jointly funded by IUGS and UNESCO. It addresses 5 major themes in the Earth Sciences:

1. Earth resources; sustaining our society
2. Global change and the evolution of life: evidence from the geological record
3. Geohazards: mitigating the risks
4. Hydrogeology: science of the water cycle
5. Geodynamics: control our environment

EARTH RESOURCES: SUSTAINING OUR SOCIETY

IGCP-636Y Characterization and sustainable exploitation of geothermal resources

IGCP637 Heritage stone designation

IGCP638 Paleoproterozoic Birimian geology for sustainable development

GLOBAL CHANGE AND THE EVOLUTION OF LIFE: EVIDENCE FROM THE GEOLOGICAL RECORD

IGCP608 Asia-Pacific Cretaceous ecosystems

IGCP609 Cretaceous sea level changes

IGCP610 From the Caspian to the Mediterranean: environmental change and human response during the Quaternary

IGCP630 Permian-Triassic climatic and environmental extremes and biotic responses

IGCP632 Continental crisis in the Jurassic

IGCP639 Sea level changes from minutes to millennia

IGCP652 Reading geological time in Paleozoic sedimentary rocks [New]

IGCP653 The onset of the great Ordovician biodiversification event

IGCP655 Toarcian oceanic anoxic event impact on marine carbon cycle and ecosystems [New]

GEOHAZARDS: MITIGATING THE RISKS

IGCP640 S4LIDE – Significance of modern and ancient submarine landslides
LandSLIDES

IGCP641 Deformation and fissuring caused by exploitation of subsurface fluids

IGCP657 Information platform on earthquake early warning systems [New]

HYDROGEOLOGY: SCIENCE OF THE WATER CYCLE

IGCP618 Paleoclimate information obtained from past-recharged groundwater [on extended term]

IGCP643 Water resources in wet tropics of West-Central Africa

IGCP661 The critical zone in karst systems [New]

GEODYNAMICS: CONTROL OUR ENVIRONMENT

IGCP589 Development of the Asian Tethyan realm [on extended term]

IGCP592 Continental construction in central Asia [on extended term]

IGCP628 The Gondwana map project

IGCP646 Dynamic interaction in tropical Africa

IGCP648 Supercontinent cycles and global geodynamics

IGCP649 Diamonds and recycled mantle

2. RFG Sessions Vancouver 2018. There are 2 ways to share it:

1. Html file to be used in your system:

<https://www.dropbox.com/s/0vodxk63zjnze2i/RFG2018-Resources.html?dl=0>

2. Link the newsletter in your own newsletter:

<http://eepurl.com/cB1W9L>

RFG Calls to submit proposals, sessions and field trips: <http://us5.campaign-archive1.com/?u=b285e549286d86af513895ece&id=62c38902a3&e=b307885f29>

RESOURCING FUTURE GENERATIONS 2018 IS AN IUGS ACTIVITY

Resourcing Future Generations is an imperative for the future of planet earth. In early 2013 the IUGS launched a new initiative called Resourcing Future Generations, a contribution by the geological community to how the supply of metals and minerals needed by both developing and developed countries is to be secured over coming decades.

Delivering the UN Agenda 2030 with its 17 Sustainable Development Goals and building the new electricity generating and transmission technologies needed to address climate change will alter the mix of materials and greatly add to demand until such time as recycling and substitution are more established. Shortages of some critical materials are foreseeable though the timing is uncertain.

To engage not only the IUGS family but also the wider geoscientific community an Open Call inviting applications for small research grants to support work relevant to the RFG theme was issued in June 2016. Eleven applications were received of which six were funded. The average award was a little over \$3k.

- Qiuming Cheng & others (China University Beijing & York University, Canada)
“Quantitative assessment and prediction of deeply buried mineral resources in covered regions”
- Kedia Chi & others (University of Buea, Cameroon)
“Capacity building for stakeholders in artisanal gold mines, Eastern Cameroon”
- Judith Kinnaird & others (University of Witwatersrand, South Africa)
“Germanium for Society – now and in the future”
- Gavin Mudd/Simon Jowitt (Monash University, Melbourne, Australia)
“Validating New Methods for Global Resource Estimates of Critical Metals”
- Andrea Rielli (Monash University, Melbourne, Australia)
“Metasomatic alteration of the sub-arc mantle: implication for arc metalogeny and the redox state of the Earth”
- Isobel Yeo (National Oceanographic Centre, Southampton, UK)
“Acoustic properties of ferromanganese crusts and substrates as a tool for e-tech exploration”

A Second Call, announced in the autumn of 2016, attracted 21 applications from a wider range of disciplines and geographies. Six bids as detailed below were funded. Again the average award was about \$3k.

- Nicholas Arndt (Grenoble Alpes, France)
“Public perception of the minerals industry”
- Maria Amelia Enriquez (Para, Brazil)
“Mining royalties – challenges and opportunities to achieve Sustainable”
- Damien Giurco (Institute for Sustainable Futures, University of Technology, Sydney)
“Global Projection of lead-zinc supply from known resources”
- Raymond Kudzawu-D’Pherdd (Accra Mining Network, Ghana)
“AMN capacity building master class in sustainable and responsible small scale mining”
- Laura Sinclair (Cornell University, USA)
“Mineralogical examination of leached tails for the development of copper in situ leaching”
- Margreth Tadie (Stellenbosch University, South Africa)
“Impacts of cation-substitution on the geometallurgy of sulphid minerals”

A Third Open Call will be issued later this year and that some of the research funded under the Calls will be presented at the inter IGC meeting, RFG 2018 (Resources for Future Generations) to be held in Vancouver in June of next year (<http://rfg2018.org/>)

If you wish to get involved and to learn more about the RFG initiative visit the IUGS website at <http://iugs.org/index.php?page=resourcing-the-future-initiative> or contact Edmund Nickless at edmund@geolsoc.org.uk

3. The Chattian GSSP

Chattian GSSP: Golden Spike hammered

On 13 May 2017, the GSSP (Global Stratotype Section and Point) for the base of the Chattian Stage of the Paleocene Series (Paleogene System) was dedicated. The base of the Chattian Stage is defined at meter level 197 in the Monte Cagnero section, which belongs to the pelagic succession of the Umbria–Marche basin (Urbania, central Italy: 43°38'47.81"N – 12°28'03.83"E). This level with an astronomical age of 27.82 Ma coincides with the highest common occurrence of the planktonic foraminifer *Chiloguembelina cubensis* at the base of planktonic foraminiferal O5 Zone and falls in the upper part of calcareous nannofossil NP24 Zone, in the lower part of dinocyst Dbi Zone, and in the lower Chron C9n. Photos of the dedication ceremony and full description of the GSSP can be found at <http://www.paleogene.org> the website for the International Subcommission on Paleogene Stratigraphy (International Commission on Stratigraphy, IUGS).





4. CGI NEWS

OGC APPROVES CGI STANDARD FOR GEOLOGICAL SCIENCE DATA

On 16th March the Open Geospatial Consortium (OGC) Technical Committee officially approved GeoSciML as a data transfer standard. This recognition comes as a culmination of work done by the GeoSciML working group members over the past 14 years under the auspices of the IUGS Commission for the Management and Application of Geoscience Information (CGI).

GeoSciML is an XML-based data transfer standard for the exchange of digital geoscientific information for the representation of features found on geological maps and other geoscience data such as drilling, sampling, and analytical data.

The GeoSciML technical working group aims to promote the exchange and use of geoscience by providing a single, open source, globally agreed data structure used to deliver digital geological data over the internet.

For more information on GeoSciML standard contact the Chair Ollie Raymond (GA – Oliver.Raymond@ga.gov.au) or visit the website <http://www.geosciml.org/>

To join the CGI visit <http://www.cgi-iugs.org/>

5. PUBLICITY OF IUGS ACTIVITIES AND JOINT ACTIVITIES

IUGS is keen to promote better publicity of its activities and joint activities and to coordinate publicity in the:

- IUGS E-Bulleting (published monthly)
- IUGS website, and
- IUGS social media platforms.

You are encouraged to provide short publicity items on current activities and recent and forthcoming events (such as symposia, conferences and publications).

To reduce effort we aim that material should be easily customized for each of these outlets.

Items should normally consist of a maximum of about 600 words accompanied by one or two good photographs or other relevant images (this will be placed on the website). The author(s) should also provide:

- a summary of about two or three sentences. These will be published in the E-Bulletin with a link to the material on the website and, if appropriate, links to other relevant sites (e.g. the IUGS Commission websites); and
- a summary for publication on IUGS social media platforms not exceeding 100 words.

Each contribution should be sent simultaneously to the E-Bulletin editor Prof. Ben Mapani (lolelaani@gmail.com) and the webmaster Dr. P. Bobrowsky (peter.bobrowsky@canada.ca) and social media co-ordinator Dr. Amel Barich (amel.barish@gmail.com).

Edited by: Benjamin Mapani and Amel Barich

Ben.mapani@gmail.com

Amel.barich@gmail.com