

CNR-IUGS-IGCP Italian Report

Contents:

- Complete list of IGCP projects
- Summary report of Italian IUGS National Committee
- Summary report of Italian IGCP National Committee



World's leading bodies of social and natural sciences to merge in 2018, becoming "International Science Council"

On October 26th, 2017, delegates of the world's leading international science bodies agreed in a historic vote to merge and create a unified organization called the International Science Council whose vision will be to advance all sciences as a global public good.

The agreement took place at a landmark joint meeting in Taipei of the International Council for Science (ICSU) and the International Social Science Council (ISSC), with members voting overwhelmingly to form a new organization that provides a strong foundation for advancing science across the disciplinary spectrum and in all parts of the world, and promoting its vital role in shaping humanity's future on planet Earth. The CNR Commission for the participation of Italian scientists in the IUGS activities was represented by Prof. William Cavazza, currently Vice-President of IUGS.

The new International Science Council brings together the current members of ISSC and ICSU, including 40 international scientific unions and associations, and more than 140 national and regional organizations such as academies and research councils.

The organization will be launched at a founding General Assembly to be held in Paris, France in July 2018. Its mission will be to serve as the global voice of science, providing leadership in catalyzing, incubating and coordinating international action on issues of major public concern. To mark the occasion, the new Council will inaugurate a new interdisciplinary international science summit which will be a flagship event.



Preface

This newsletter serves three purposes: (i) it reports to the IGCP Headquarters at UNESCO what is the current status of the Italian involvement in the IGCP, (ii) it reports to CNR and the IUGS Executive Committee what is the current status of the Italian involvement in the IUGS activities, and (iii) provides the Italian geological community with information on ongoing IUGS projects and activities, in order to promote participation and dissemination of information. For these reasons, the newsletter has wide distribution within the Italian geological community.

This issue contains, among other items:

1. the Summary Report 2017 of the IGCP Italian National Committee;
2. the Summary Report 2017 of the IUGS Italian National Committee;
3. the complete list of IGCP projects, with links to the relevant webpages.

If you have suggestions for improving this newsletter do not hesitate to get in touch with Attilio Boriani (attilio.boriani@unimi.it).

IGCP Council Meeting

Within the framework of the International Geoscience and Geoparks Programme (IGGP), the 3rd Open Session of the International Geoscience Programme (IGCP) Council and the presentation of the new UNESCO Global Geoparks applicants will take place at UNESCO Paris **in Room IX** (Fontenoy Building) from **9.30 a.m. to 12.30 p.m. on Wednesday, 21 February 2018**. The Provisional Agenda is attached here with for your kind information.

The IGGP consists of the International Geoscience Programme (IGCP), which for over 45 years has brought geoscientists together from all regions of the world to study the Earth and geological processes under themes which have increasing societal relevance, and the UNESCO Global Geoparks, a new UNESCO label to designate sites of geological significance. IGCP is a joint programme of UNESCO and the International Union of Geological Sciences (IUGS). It supports scientific projects related to the Earth sciences across the world, selected by the IGCP Council and Scientific Board and involving one of the five themes that constitute the Programme:

- Earth Resources: Sustaining our Society;
- Global Change: Evidence from the geological record;
- Geohazards: Mitigating the risks;
- Hydrogeology: Geoscience of the water cycle; and,
- Geodynamic control of our environment.

The IGCP Council will assemble in closed session on 19 and 20 February 2018, to evaluate 13 new proposals and 23 ongoing projects. The Open Session that will be held on 21 February 2018 will be dedicated to presenting the major outcomes of the IGCP Council meeting, to share its vision for the future of IGCP. An information sheet on each IGCP theme will be available from 15 February 2018 on the UNESCO website at the following address:

<http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/international-geoscience-programme/>

In the event you are in a position to attend this meeting, we would appreciate if you would kindly

confirm your participation to Dr Özlem Adiyaman Lopes, (Tel.: +33 1 45 68 14 33; email: o.adiyaman@unesco.org) at your earliest convenience.

Provisional Agenda:

1. Welcome by the Director of the Ecological and Earth Sciences Division of UNESCO
2. Welcome by the President of the International Union of Geological Sciences (IUGS)
3. Welcome by the International Geoscience Programme (IGCP) Executive Secretary
4. Report on the Programme by the IGCP Executive Secretary
5. Overview of IGCP project assessments by the Chairperson and IGCP Council members
6. UNESCO Permanent Delegations: Feedbacks regarding Theme summaries and discussion
7. IGCP National Committees: Reports and discussion
8. UNESCO Global Geoparks aspirants 2018
9. Any other business

Summary Report 2017 of the IGCP Italian National Committee

1. *Name, address, telephone, fax, e-mail address of the Chairperson of the National Committee:* see back cover.

2. *Members of the Committee:* see back cover.

3. *Projects led by Italian scientists during 2017:*

Project 641 - Deformation and fissuring caused by exploitation of subsurface fluids (2015-2019)

Co-leader: Pietro Teatini, Dept. of Civil, Environmental and Architectural Engineering, University of Padova, Via Trieste, 63, 35121 Padova, ITALY

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4. *Projects with active Italian Working Groups:*

During 2017 Italian geoscientists were active in at least eight other IGCP projects.

5. *IGCP meetings held in Italy in 2017*

Joint Meeting IGCP Project No.610 "From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary" and INQUA IFG POCAS "Ponto-Caspian Stratigraphy and Geochronology" - Palermo, 1-9 October 2017

Summary Report 2017 of the IUGS Italian National Committee

1. **Country:** Italy

2. **Name of IUGS Adhering Organization or National Committee:**

Consiglio Nazionale delle Ricerche (CNR).

3. **Name and address of person preparing form:**

Prof. Attilio Boriani

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4. **Status of the IUGS National Committee:**

The IUGS Italian National Committee is an official committee of C.N.R. (Consiglio Nazionale delle Ricerche), a public agency whose duty is to carry out, promote, spread, transfer, and improve

research activities in the main sectors of knowledge growth and of its applications for the scientific, technological, economic and social development of the country. C.N.R. is also the organization representing Italy in all major international scientific organizations and unions.

5. Number of people on Committee or body for IUGS:

The members of the Committee are: Dr. Marco Amanti, Dr. Carlo Baroni, Prof. Attilio Boriani (Chair), Dr. Daniela Di Bucci, Prof. Carlo Doglioni, Prof. Massimo Frezzotti, Dr. Biagio Giaccio, Dr. Antonello Provenzale, Prof. Isabella Raffi, Dr. Fabio Trincardi, Dr. Gianluca Valensise (see back cover for details).

6. Number of meetings during the year:

One official meetings was held at the CNR Headquarters in Rome. Informal meetings of the members of the IUGS Italian National Committee were held at national meetings and other gatherings.

7. Major IUGS-related scientific activities which took place in Italy:

6th European Meeting on Forensic Archaeology (EMFA 2017) - August 18-19, 2017 – Rome. Organized by the American University of Rome at the NH Collection Vittorio Veneto in Villa Borghese. The meeting brought together practitioners, researchers and educators from around Europe and beyond who are engaged in the field of Forensic Archaeology, with emphasis on stratigraphic techniques. The purpose of the meeting was to discuss the current state, and further development requirements, of forensic archaeology; to present forensic case studies and R&D work (e.g. archaeology, anthropology, GIS, geophysics, human taphonomy, soil, etc.). Sponsored by the IUGS Commission on Forensic Geology.



Dedication of GSSP for base of Chattian Stage of Oligocene Series, Palaeogene System, at Monte Cagnero, the Marche region, Italy. A special day for the Paleogene Subcommittee, the Commission on Stratigraphy, and the International Union of Geological Sciences. Thanks to the chair of the Palaeogene Subcommittee, Professor Simonetta Monechi (fourth from left), and of leader of the boundary working group, Professor Rodolfo Coccioni (sixth from left) and their valuable collaborators.

Geoparks and the Italian Earth Sciences community – 30 May 2017 – Accademia dei Lincei (Rome). Organized by T. Bagnati, A. Boriani (Coordinator), V. Caironi, B. D'Argenio, E. Erba, A. Praturlon. The meeting underlined the great importance given to geoparks in Italy (10 out of the 127 UNESCO Global Geopark are located in Italian territory). Main topics discussed -among others- during the meeting were: (i) relationships between geoparks and the Italian geological community, (ii) the role of geoparks for education, (iii) geoparks and the media.

8. Main outreach activities, e.g. primary-secondary-tertiary education, community, media, etc.

The Commission itself did not directly produce outreach activities during 2017. Nonetheless, individual members of the Commission participated in the organization of the 2017 edition of the “Settimana del Pianeta Terra” (Week of Planet Earth; 15-22 October), a series of event promoting geological awareness for the general public. The last edition of the Week included more than 200 events with the participation of about 80,000 people.

9. Main publications (scientific, other):

The IUGS Italian National Committee publishes in electronic format a yearly report on the International Geoscience Programme (IGCP) which is distributed to the entire Italian Earth sciences community through the Geological Society of Italy. The report reaches over 2,000 geoscientists.

10. Major initiatives currently underway:

The Commission is committed to a new drive to stimulate the participation of Italian geoscientists in the International Geoscience Programme (IGCP) and IUGS activities at large.

11. Important activities of other geology-related academic organization(s):

The current governmental budget squeeze makes investments in new initiatives rather difficult.

12. Activities/achievements reported or to be reported in Episodes and/or in the IUGS website

None.

13. Leadership by Italian geoscientists of IUGS bodies, programmes, joint-initiatives, or other IUGS activities:

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14. Activities related to the next IGC

During 2018 the IUGS Italian National Committee will start contemplating activities related to the IGC New Dehli in 2020.

15. Website

http://www.cnr.it/sitocnr/IICNR/Attivita/Attivitainternazionali/Mobilita_file/OSIview.html?id=39

Active IGCP Projects

The Programme is supporting work on the following five themes:

1. Earth Resources: Sustaining our Society

Knowledge on natural resources - including minerals, hydrocarbons, geothermal energy, and water - and their management is the frontline of the struggle for more sustainable and equitable development. The environmentally responsible exploitation of these resources is a challenge for geoscience research. The progress of technological development is equally bound to this premise.

- [IGCP 636-Characterization and sustainable exploitation of geothermal resources](#)
- [IGCP 637-Heritage Stone Designation](#)
- [IGCP 638-Paleoproterozoic Birimian geology for sustainable development](#)

2. Global Change and the Evolution of Life: Evidence from the geological record

Changes in the Earth's climate and of life on Earth are preserved in the geologic record. Ice and dust records, terrestrial and ocean sediments, and sequences of fossil plant and animal assemblages all tell the story of our Planet which holds important lessons about present-day environmental challenges and the ways to mitigate and manage environmental damage.

- [IGCP 608-Asia-Pacific Cretaceous Ecosystems](#)
- [IGCP 609-Cretaceous Sea-Level Changes](#)
- [IGCP 610-From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary](#)
- [IGCP 624-OneGeology](#)
- [IGCP 630-Permian-Triassic Climatic and Environmental Extremes and biotic responses](#)
- [IGCP 632-Continental Crisis of the Jurassic](#)
- [IGCP 639-Sea level Changes from minutes to millenia](#)
- [IGCP 650-3rd Pamir High Elevation International Geophysical Expedition](#)
- [IGCP 652-Reading Geologic Time in Paleozoic Sedimentary Rocks](#)
- [IGCP 653-The Onset of the Great Ordovician Biodiversification Event](#)
- [IGCP 655-Toarcian Oceanic Anoxic Event Impact on Marine Carbon Cycle and Ecosystems](#)

3. Geohazards: Mitigating the risks

Geohazards include earthquakes, volcanic activity, landslides, tsunamis, floods, meteorite impacts and the health hazards of geologic materials, and can range from local events such as a rock slide or coastal erosion to events that threaten humankind such as a supervolcano or meteorite impact. Earth scientists undertake research to better understand these hazards and contribute to risk management policies related to social and technical issues associated with geohazards as well as disaster mitigation.

- [IGCP 640-S4LIDE \(Significance of Modern and Ancient Submarine Slope LandSLIDEs\)](#)
- [IGCP 641-Deformation and fissuring caused by exploitation of subsurface fluids](#)

- [IGCP 657-Information Platform on Earthquake Early Warning Systems](#)

4. Hydrogeology: Geoscience of the water cycle

Life on Earth depends on water, and its sustainable use is crucial for continued human activities. Earth's water cycle involves studying, understanding, and managing groundwater systems, hydrogeology, as well as sources, contamination and vulnerability of water systems.

- [IGCP 618-Paleoclimate information obtained from past-recharged groundwater](#)
- [IGCP 643-Water Resources in Wet Tropics of West-Central Africa](#)
- [IGCP 661-The Critical Zone in Karst Systems](#)

5. Geodynamics: Control our environment

Our habitable environment at the Earth's surface is linked and controlled by processes occurring deep within the Earth. Earth scientists use, inter alia, geophysical techniques to study deep Earth processes ranging from changes in the Earth's magnetic field to plate tectonics to understand better the Earth as a dynamic planet. Those processes are also relevant to natural resource exploration, distribution and management of groundwater resources and the study and mitigation of natural hazards such as earthquakes.

- [IGCP 589-Development of the Asian Tethyan Realm](#)
- [IGCP 592-Continental Construction in Central Asia](#)
- [IGCP 646-Dynamic Interaction in Tropical Africa](#)
- [IGCP 648-Supercontinent Cycles and Global Geodynamics](#)
- [IGCP 649-Diamonds and Recycled Mantle](#)

You are invited to visit the UNESCO webpage listing all active IGCP projects. All Italian colleagues interested in joining the projects or just wishing to receive additional information are invited to visit the relevant webpages and/or get in touch with the project leader(s).

**CNR-IUGS-IGCP
Italian Report**

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CNR-IUGS-IGCP Italian National Committee

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A Reminder:

If you participate in an IGCP Project or other IUGS-related activities do not forget to submit a short report by December 15th, 2018, to be included in the next issue of this publication. The report should be <1,500 words long and should include the following information:

- number, title and duration of project;
- leader(s) and affiliation(s);
- name and affiliation of Italian correspondent;
- description of Italian involvement in the project during the year 2018 (including research interests and results, participation and organization of meetings, etc.);
- publications authored by Italian participants during the year 2018.