

CNR-IUGS-IGCP Italian Report

2019

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- Summary report of the IGCP Italian National Committee
- Summary report of the IUGS Italian National Committee
- Ongoing and new IGCP Projects



"Participants in the Deep-Time Digital Earth (DDE) Kick-Off Forum held in Beijing, March 2019. The events brought together 254 delegates from 24 countries and regions. The meeting delegates were from a number of international organizations, including ISC, UNESCO, IGU, INQUA, IUGG, ISPRS as well as IUGS scientific bodies and affiliated organizations, geological surveys, research institutions and universities. The main goal of DDE is to develop new protocols, platforms and programs needed to secure compatible and interoperable databases, so that the vast amounts of existing (and new) geoscience data can be linked for the benefit of global society."



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 2019 of the IGCP Italian National Committee;
2. the Summary Report 2019 of the IUGS Italian National Committee;
3. the complete list of IGCP projects, with links to the relevant webpages;
4. Deep-Time Digital Earth (DDE).

If you have suggestions for improving this newsletter do not hesitate to get in touch with Rodolfo Carosi (rodolfo.carosi@unito.it).

IGCP

The IGCP promotes collaborative projects with a special emphasis on the benefit to society, capacity-building, and the advancement and sharing of knowledge between scientists with an emphasis on North-South and South-South cooperation. IGCP operates by providing seed funding grants donated by UNESCO, IUGS and extra-budgetary sources. IGCP projects primarily deal with geosciences on global issues within its five themes:

- **Earth Resources**
- **Global Change**
- **Geohazards**
- **Hydrogeology**
- **Geodynamic**

Each project has an average lifespan of five years and its progress is assessed annually through a rigorous peer review process conducted by the IGCP Council following the evaluation reports from members of the Scientific Board during the first half of February.

Summary Report 2019 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 2014:*

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 2019 Italian geoscientists were active in at least eight other IGCP projects.

5. IGCP meetings held in Italy in 2019

Project 640 - S4LIDE (Significance of Modern and Ancient Submarine Slope LandSLIDEs) meeting held during the 34th IAS Meeting of Sedimentology: 10-13 September 2019, Rome (Italy). A S4SLIDE Special Session has been organized in the 34th IAS Meeting of Sedimentology: Subaqueous Mass Movements and Their Consequences: from Scientific Knowledge to Geohazard Assessment Session Chairs: Daniele Casalbore, Lorena Moscardelli, Mike Clare, David Casas and Francesco Latino Chiocci.

Summary Report 2019 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:

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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:

Twelve. The members of the Committee are: Dr. Marco Amanti, Prof. Carlo Baroni, Dr. Daniela Di Bucci, Prof. Rodolfo Carosi, Dr. Giacomo Corti, Prof. Carlo Doglioni, Prof. Massimo Frezzotti, Dr. Biagio Giaccio, Prof. Simonetta Monechi, Prof. Isabella Raffi, Dr. Guido Ventura, Dr. Antonello Provenzale (see back cover for details).

6. Number of meetings during the year:

An official meeting of the IUGS-CNR was held on November 7, 2019 at CNR-Rome. Other informal meetings of the members of the IUGS Italian National Committee were held at national meetings (e.g. Italian Geological Society) and other gatherings.

7. Major IUGS-related scientific activities (e.g., congresses, symposia, workshops, courses) which took place in Italy:

None

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

The Commission itself did not directly produce outreach activities during 2019.

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 Italian Geological Society. The report reaches nearly 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 policy and budget squeeze makes investments in new initiatives extremely 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 2019, the IUGS Italian National Committee will actively promote the participation of Italian geoscientists in the IGC Delhi. TecTask promoted 6 symposia within the theme 27 "ROCK DEFORMATION AND RHEOLOGY" with more than 170 accepted abstracts and is actively involved in theme 11 "THE HIMALAYA – ANATOMY OF AN EVOLVING MOUNTAIN CHAIN" with more than 180 abstracts accepted.

An Italian delegation of 7 members will attend the Delhi IGC.

15. Website

[IUGS National Committee of Italy](#)

Active IGCP Projects

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).

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IGCP Projects active in 2019 by themes:

Earth Resources: Sustaining our Society

- [IGCP 636Y-Characterization and sustainable exploitation of geothermal resources](#) (extended in 2019)
- [IGCP 637-Heritage Stone Designation](#)
- [IGCP 638-Paleoproterozoic Birimian geology for sustainable development](#)
- [IGCP 665-Sustainable use of black soil critical zone](#)
- [IGCP 675-Sandstone - Type Uranium Deposits](#) (new in 2019)
- [IGCP 682-Mine Tailing revalorization](#) (new in 2019)
- [IGCP 685-Geology for Sustainable Development](#) (new in 2019)

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

- [IGCP 630-Permian-Triassic Climatic and Environmental Extremes and biotic responses](#) (Extended in 2019)
- [IGCP 632-Continental Crisis of the Jurassic](#) (Extended in 2019)
- [IGCP 639-Sea Level Changes from minutes to millenia](#)
- [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](#)
- [IGCP 668-Equatorial Gondwanan history and Early Palaeozoic Evolutionary Dynamics](#)
- [IGCP 673-The End of A Supereon - Winners and Losers at the Precambrian-Phanerozoic Transition](#) (new in 2019)
- [IGCP 679-Cretaceous Earth Dynamics and Climate in Asia](#) (new in 2019)
- [IGCP 681-History of Toxic Phytoplankton in Patagonia](#) (new in 2019)

Geohazards: Mitigating the risks

- [IGCP 640-S4LIDE \(Significance of Modern and Ancient Submarine Slope LandSLIDEs\)](#)
- [IGCP 641-Deformation and fissuring caused by exploitation of subsurface fluids](#) (Extended in 2019)

- [IGCP 659-Seismic risk assessment in Africa](#)
- [IGCP 672-Himalayan glaciers: assessing risks to local communities from debris cover and lake changes using new satellite data](#)
- [IGCP 692-Geoheritage for Geohazard Resilience](#) (new in 2019)

Hydrogeology: Geoscience of the water cycle

- [IGCP 643-Water Resources in Wet Tropics of West-Central Africa](#)
- [IGCP 661-The Critical Zone in Karst Systems](#)
- [IGCP 663-Impact, Mechanism, Monitoring of Land Subsidence in Coastal cities](#)
- [IGCP 684-The Water-Energy-Food and Groundwater Sustainability Nexus \(WEF-GW Nexus\)](#) (new in 2019)
- [IGCP 689-Study the Ali-Sabieh aquifer recharge \(Rep. of Djibouti\)](#) (new in 2019)

Geodynamic: Control our environment

- [IGCP 648-Supercontinent Cycles and Global Geodynamics](#)
- [IGCP 649-Diamonds and Recycled Mantle](#)
- [IGCP 662-Orogenic architecture and crustal growth from accretion to collision](#)
- [IGCP 667-World Map of the Orogens](#)

Deep-Time Digital Earth (DDE)

The Deep-time Digital Earth (DDE) is the first IUGS-recognized big science programme, officially launched during the 73rd IUGS Executive Council Meeting held in Beijing (February 2019) and the DDE Accord was signed collectively by the DDE Founding Members.

The primary goal of the DDE programme is to harmonise 'deep-time' digital geological data. Deep-time data are data relating to the changing processes that the Earth has experienced through the millions of years of geological time. They include data on the evolution of life and climate, tectonic plate movement and the evolution of the planet's geography. Through DDE, data will be made available in easily used 'hubs' providing insights into the distribution and value of Earth resources and materials, as well as Earth hazards. Data brought together in new ways may provide novel glimpses into the Earth's geological past and its future.

Link to the special issue Special Issue: [Abstracts of Deep Time Digital Earth \(DDE\) Forum, 26–28 Feb 2019, Beijing, China \(Acta Geologica Sinica, Volume 93, Issue S3\)](#)

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CNR-IUGS-IGCP Italian National Committee

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A Reminder:

If you participate in an IGCP Project do not forget to submit a short report by December 15th, 2020, to be included in the next issue of the IGCP Italian Report. 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 2020 (including research interests and results, participation and organization of meetings, etc.);
- publications authored by Italian participants during the year 2020.