

REPORT OF THE COMMISSION ON COASTAL SYSTEMS: 2022

A. Membership

The Officers and Steering Committee of the Commission on Coastal Systems are:

Chair/ Président

Prof. Colin Woodroffe

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Secretary/Secrétaire, Editor of Newsletter

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Vice-Chair

Dr. David R. Green

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Steering Committee members

Dr. Abdelmounim El M'rini

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Prof. Irene Delgado-Fernandez [appointed in 2021]

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Prof. Niki Evelpidou [appointed in 2021]

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Dr. Toru Tamura

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Honorary members

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Prof. Norbert P. Psuty (co-editor Newsletter)

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b. Number of Commission members **in total (543)** and **by country** at 31 December 2022.

ALBANIA	1	GABON	2	PERU	1
ALGERIA	2	GEORGIA	2	PHILLIPINES	2
ARGENTINA	5	GERMANY	21	POLAND	4
AUSTRALIA	12	GREECE	6	PORTUGAL	16
AZERBAIJAN	1	HONG KONG	2	ROMANIA	10
BANGLADESH	2	INDIA	9	RUSSIA	7
BELGIUM	27	ICELAND	1	SENEGAL	1
BENIN	1	INDONESIA	1	SINGAPORE	1
BRAZIL	21	IRAN	1	SOUTH AFRICA	7
BULGARIA	4	IRELAND	10	SPAIN	20
CANADA	18	ISRAEL	3	SURINAM	1
CHILE	2	ITALY	16	SWEDEN	3
CHINA	11	JAPAN	5	SWITZERLAND	2
COLOMBIA	2	KOREA	2	TAIWAN	5
COTE D'IVOIRE	3	LATVIA	1	THE NETHERLANDS	14
CUBA	1	MALAYSIA	1	TOGO	1
DENMARK	2	MEXICO	1	TUNISIA	1
ECUADOR	1	MORROCO	3	TURKEY	7
EGYPT	1	NEW ZEALAND	10	UKRAINE	2
ESTONIA	5	MOZAMBIQUE	1	UNITED KINGDOM	31
FINLAND	4	NAMIBIA	1	U S A	94
FRANCE	83	NIGERIA	4	URUGUAY	1
FRENCH POLYNESIA	1	NORWAY	3	VIETNAM	1

B. Meetings

The following meetings were organised, or sponsored, by the Commission on Coastal Systems in 2022 with summary information. Plans for 2023/4 are also outlined.

MAY 23-27, 2022. VIENNA, AUSTRIA. EUROPEAN GEOSCIENCES UNION

Two sessions have been supported by the CCS at the EGU2022.

GM6.7 on “Coastal Zone Geomorphological Interactions: Natural versus Human-Induced Driving Factors” was successfully conducted for the fourteenth time; the conference format was fully hybrid and ran smoothly. with the invaluable help of the in-room technical assistant. Contributions included: environmental recovery from heavy metal contamination in estuaries; controlled flood basins; coastal erosion in Sicily and Greenland, modelling of coral reef development; beach bedforms; and marina planning in the context of shifting sediment, as well as remote sensing techniques for beach surveys and automated toolkits for monitoring coastal change. The session was, chaired by Dr. Andreas Baas (UK). A detailed list of presentations can be viewed online at www.egu22.eu.

GM6.9 on ‘Coastal Morphodynamics: nearshore, beach, and dunes’ was held for the fifth time. Speakers presented on various themes focusing on the measurement and modelling of coastal processes and geomorphological responses across the three sub-units of sandy coastlines (nearshore, beach and dunes) over a range of spatial and temporal scales. The latest developments were highlighted in relation to our understanding of coastal geomorphic systems, thinking across interdisciplinary boundaries and geomorphological issues of coastal evolution. The session was convened by Irene Delgado (University of Cadiz, Spain), Derek Jackson (Ulster University, UK), and Emilia Guisado-Pintado (University of Seville, Spain).

JULY 18-22, 2022. UGI-IGU PARIS, THE CENTENNIAL CONGRESS, PARIS

Three sessions were convened on behalf of the Commission on Coastal Systems.

Coasts’ Futures: The Challenge of Coastal Resilience in the Face of Global Change, convened by Ywenn De La Torre and Virginie Duvat. This session examined approaches to building coastal resilience to climate and global changes. It focused on adaptation by reducing coastal hazards through Nature-based solutions, looking at wave run-up and vegetation on Caribbean beaches, and introduction of new plant species on Chilean foredunes. The impacts of coastal urbanization were considered with sustainable adaptation strategies on tourist beaches in Sicily, and in Saint-Pierre et Miquelon archipelago where relocation of an entire village was discussed.

Coastal Resources and Unsustainability: addressing underlying issues to strengthen resource governance, convened by Ritika Prasad and Bratati De. The session included a consideration of morphological, total vegetation, water index, and shoreline changes over the past two decades in Kachchh Biosphere Reserve, Gujarat, India, and Integrated Coastal Vulnerability Mapping of southern Gujarat using socioeconomic variables.

Coastal Tourism, Heritage and Nature Conservation in the Anthropocene, convened by Vincent Andreu-Boussut and Céline Chadenas. This session explored theoretical implications, issues and new challenges in nature conservation (especially in protected coastal areas), and issues facing heritage conservation and tourism.

CONFERENCE SESSIONS PROPOSED IN 2023 and 2024

APRIL 23-28, 2023. VIENNA, AUSTRIA. EUROPEAN GEOSCIENCES UNION

CCS will convene three sessions at EGU2023

Coastal Morphodynamics: nearshore, beach and dunes, convened by Irene Delgado-Fernandez, Emilia Guisado-Pintado and Derek Jackson.

Towards Reducing Vulnerability and Managing Coastal Hazards, convened by Ritika Prasad and Bhanwar Vishvendra Raj Singh.

AUGUST 24-30, 2024. DUBLIN INTERNATIONAL GEOGRAPHICAL: CONGRESS

The Commission on Coastal Systems will convene one or more sessions at IGC2024

C. Networking and Communications

The CCS upgraded its new website - <http://igu-coast.org/> in 2021, and maintained its Twitter account. It sustained networking and communication through its Newsletter, published twice a year, as well as through special sessions at meetings.

D. Publications

a. Newsletters, special journal issues, and books published or anticipated during 20221

Two Newsletters have been published in 2022; numbers 86 and 87 in January and July respectively. The next Newsletter will appear in January 2023.

The following special issues are in production;

A special issue on **Coastal Hazards in Africa** is in preparation for the *Journal of African Earth Sciences*. Guest editor - Abdelmounim El M'rini, Driss Nachite and Mohamed Maanan.

<https://www.sciencedirect.com/journal/journal-of-african-earth-sciences/vol/163/suppl/C#article-18>

A second special issue on **Coastal Hazards in Africa**: processes, vulnerability and management, arising from the second conference, is in preparation for the journal *Estuarine, Coastal and Shelf Science*, Guest editor – Errol Wiles.

<https://www.sciencedirect.com/journal/estuarine-coastal-and-shelf-science/collection/10DJ7WTJBKK?page-size=100&page=1>

A special issue on **Sustaining coastal and marine environments in the Anthropocene is in preparation** for the *Journal of Coastal Conservation, Planning and Management*, arising from the CCS session at the IGC. Guest editors – Colin Woodroffe and Margarita Stancheva.

A special issue on **Sustainable Coastal Planning in a Changing World**, is planned, collating papers from CoastGIS 2021, in the *Journal of Coastal Conservation, Planning and Management*. Guest editor - David R Green

A special issue on **Applications of Structure-from-Motion Photogrammetry in Coastal and Marine Studies** for the journal *Geosciences*. Guest editors – Rafael Carvalho, Javier Leon and Luis Conti

A special issue on **Coastal Systems: Monitoring, Protection and Adaptation Approaches** for the *Journal of Marine Science and Engineering*. Guest editors – Niki Evelpidou, Anna Karkani and Miltiadis Polidorou

E. Archival Contributions

Copies of Newsletters are archived with IGU and available on our CCS website.

F. IGU Funds

Funds from IGU have been used to upgrade the Commission's new website.

Colin Woodroffe, Chair and **Margarita Stancheva**, Secretary