Commission on Coastal Systems Commission sur les Systèmes Côtiers

Union Géographique Internationale International Geographical Union No. 82 - January 2020 Margarita Stancheva, Editor Norbert P. Psuty, Co-Editor

Objectives: The Commission on Coastal Systems encourages the study of coastal systems throughout the world. The Commission sponsors and supports activities leading to the exchange of information regarding coastal systems among our members and throughout the IGU at large. The focus of attention is on interactive systems, both human and physical, and the areas of inquiry include issues such as sea-level rise, land-use changes, estuarine resources, coastal tourism and shoreline development, coastal recreation, and coastal zone management. The Commission will make concerted efforts to emphasize issues of Global Change. Copies of our Newsletter and announcements are on our website: http://www.igu-ccs.org/.

MESSAGE FROM THE CHAIR

Welcome to the first Newsletter of 2020. I hope that this year is a significant one for coastal researchers. It is the start of a decade in which we can anticipate that coastal environments will be increasingly impacted, both by anthropogenic stresses and by the subtle effects of climate change. The recently released IPCC Special Report on the Ocean and Cryosphere in a Changing Climate provides a summary of the emerging science; it contains a slightly increased projection of likely rates of sea-level rise. Events, such as the severe flooding of Venice in November last year, reinforce the limitations of society's preparedness for adaptation in the face of such change.

The Commission on Coastal Systems (CCS) aims to foster interaction between coastal researchers. I hope that you will find information in this Newsletter that motivates you to become more involved and to share your experiences and knowledge. Conferences are an important opportunity to network, and 2020 promises many exciting meetings with a focus on our coastlines. CCS is proud to sponsor several dedicated coastal symposia, including CoastGIS in September in Finland, Coastal Hazards in Africa in October in Durban, and Coastal Transitions in November in Connecticut (USA). Coastal sessions are being convened by CCS at the EGU (European Geosciences Union) in Vienna in April and the IGC (International Geographical Congress) in Istanbul in August. I express my appreciation to the organisers and conveners of these sessions and I encourage you to submit abstracts and participate in these meetings. See the details of these meetings in the following pages.

Several special issues of key journals will appear in 2020, arising from previous CCS co-ordinated meetings or initiatives. These include a focus on Coastal Morphodynamics in Earth Surface Processes and Landforms; Estuaries and Coasts of the Southern Hemisphere in Estuarine Coastal and Shelf Science; and Coastal Hazards in Africa in the Journal of African Earth Sciences. I thank the editors of these special issues, those authors who have contributed, and the many other individuals who reviewed, or participated in, the science.

I am grateful to Margarita Stancheva as Editor of the Newsletter, and Secretary of CCS, for drawing together another very interesting newsletter. Amongst the new coastal publications, I particularly welcome two large contributions. The second edition of the Encyclopedia of Coastal Science is a two-volume set, edited by Charles W. Finkl and Christopher Makowski of the Coastal Education and Research Foundation (CERF). It provides a particularly useful educational resource to support teaching in coastal science. I'd also like to draw attention to a two-volume book entitled Australian Coastal Systems, by Andy Short. This describes a hierarchical classification of the entire Australian coast into coastal sediment compartments and provides a fine example of how coastal systems can be systematically described to assist in their better longer-term management. Please help us grow as a coastal research community. We welcome feedback that can extend our knowledge of the world's coasts and serve to make our use of them more sustainable. I wish you all a successful 2020.

COLIN WOODROFFE

PHOTO OF THE ISSUE



The Joggins Fossil Cliffs, a UNESCO World Heritage Site in Nova Scotia, Canada: https://jogginsfossilcliffs.net

"Preserved *in situ* at Joggins, Coal Age trees stand where they grew, the footprints of creatures are frozen where they once walked, the dens of amphibians are preserved with remnants of their last meal, and the earliest reptiles remain entombed within once hollow trees. Nowhere is this record of plant, invertebrate and vertebrate life within now fossilized forests rendered more evocatively. The fossil record includes species first defined at Joggins, some of which are found nowhere else on Earth. It was here that Sir Charles Lyell, with Sir William Dawson, founder of modern geology, discovered tetrapods — amphibians and reptiles — entombed in the upright fossil trees. Later work by Dawson would reveal the first true reptile, *Hylonomus lyelli*, ancestor of all dinosaurs that would rule the Earth 100 million years later."

Submitted by CCS Steering Committee Member: Jeffrey Ollerhead, Mount Allison University in Sackville, NB, Canada

MEETINGS / SESSIONS SPONSORED OR CO-SPONSORED BY THE COMMISSION ON COASTAL SYSTEMS



MAY 3-8, 2020. VIENNA, AUSTRIA. EUROPEAN GEOSCIENCES UNION (EGU)

General Assembly 2020 GM 6.3 Session: Coastal morphodynamics: nearshore, beach and dunes

Co-sponsored by the Commission on Coastal Systems of the IGU

The session will be organised for the fourth time at the EGU2020 General Assembly. It will examine coastal morphodynamics from the nearshore through to inland dune systems which are fundamental in understanding short- to long-term coastal behaviour. The session focuses on dunes that provide the physical barrier to flooding during high energy storms, whereas beaches and nearshore areas help dissipate storm impact through a series of dynamic interactions involving sediment transfers and at times rapid morphological changes. Investigation of complex interactions between these three interconnected systems has become essential for understanding coastal behaviour. This session welcomes contributions from coastal scientists interested in the measurement and modelling of the nearshore 25-0 m zone (waves, currents and sediment transport) and terrestrial coastal processes (on beaches and dunes) and responses within the three sub-units at various scales. The session will highlight the latest research developments in this part of the planet's geomorphic system and facilitate knowledge exchange between the submerged and sub-aerial coastal zones.

This session is being organised by Derek Jackson (UK), Irene Delgado-Fernandez (UK) and Emilia Guisado-Pintado (Spain)

The session link is: https://meetingorganizer.copernicus.org/EGU2020/session/37488

GM 6.4 Session: Coastal Zone Geomorphological Interactions: Natural versus Human-Induced Driving Factors

Co-sponsored by the Commission on Coastal Systems of the IGU

This session will be organised for the twelfth time at the EGU2020 General Assembly. The session gives priority to the subjects of coastal geomorphology: evolution of coastal landforms, coastal morphodynamics, coastline alterations and various associated processes in the coastal zone, e.g. waves and sediment drift, which shape coastal features and cause morphological changes. Contributions to this session will focus on the mechanisms responsible for coastal erosion and shoreline behaviour (advance or retreat) and will address the many natural and human factors involved. The topics may include work on predictions of shoreline change and discussions on the effects of human activities and their continuing contribution to coastal changes. The session will also cover submissions on coastal vulnerability to the combined effects of natural and human-related hazards, any type of coastal and environmental sensitivity classifications, and risk assessments. Studies related to Marine Spatial Planning (MSP), including Integrated Coastal Management (ICM) are also welcome. For any MSP and ICM, it is essential to consider the dynamics across the land-sea interface, i.e. the Land-Sea Interactions (LSI) that involve both natural processes and the impact of human activities.

This session is being organised by Hannes Tonnison (Estonia), Margarita Stancheva (Bulgaria), Andreas Baas (UK), Giorgio Anfuso (Spain) and Guillaume Brunier (France).

The session link is: https://meetingorganizer.copernicus.org/EGU2020/session/37494

The deadline for the receipt of abstracts to two EGU2020 sessions is 15 JANUARY 2020, 13:00 CET!

AUGUST 17-21, 2020. 34th INTERNATIONAL GEOGRAPHICAL CONGRESS (IGC) "GEOGRAPHY: BRIDGING THE CONTINENTS", ISTANBUL, TURKEY



At IGC, CCS will convene a session entitled **"Sustaining coastal and marine environments in the Anthropocene"**. The burgeoning populations of the continents are placing increasing pressures on the coastline and the marine areas that surround them. The seaside is generally an area of beauty and bounty. People value these environments for

their abundant resources, as well as for cultural and recreational sustenance. However, as the global population expands, the connections and conflicts between people and nature are nowhere more apparent than in Coastal Systems. The **Commission on Coastal Systems** encourages the study of coastal areas throughout the world and welcomes papers on sustaining coastal and marine environments in the Anthropocene. The focus of this session is on interactive systems, both human and physical. Coastal and adjacent marine zones are threatened by natural and anthropogenic activities in the catchments. The low-lying plains associated with deltas and estuaries support ever increasing populations engaged in agriculture, fishing, aquaculture and industrial activities. Rapid urbanization is being experienced with many of the world's megacities on deltas associated with big rivers; deltaic cities are home to more than 150 million people and seem likely to exceed 200 million in the next two decades. These human activities are directly impacting coastal and marine ecosystem services through pollution and degradation. The pressures are exacerbated by climate change which is particularly evident in these areas through observed trends of sea-level rise. There is pressing need for adaptation along much of the world's coastlines.

This coastal session will provide a chance for a wide range of physical and social scientists, students, administrators, stakeholders and decision makers to share their insights and invaluable experiences on the state of the coast, and to move towards much wiser use and management of coastal and marine resources so humans can protect and sustain these critical, yet vulnerable habitats for generations to come.

This session is being organized by Colin Woodroffe (Australia) and Margarita Stancheva (Bulgaria)

IMPORTANT DATES

Deadline for abstract papers and posters submission: 13 January 2020

Notification of acceptance: 24 February 2020 Early bird registration deadline: 09 March 2020 Authors' registration deadline: 06 April 2020

Stay tuned via the congress website for more information on abstract submission, deadlines, registration and other details: https://www.igc2020.org/en/default.asp

For more details, please contact Colin Woodroffe: colin@uow.edu.au

SEPTEMBER 17-19, 2020, COASTGIS 2020: "SUSTAINABLE COASTAL PLANNING IN A CHANGING WORLD" RASEBORG (EKENAS), FINLAND



Photo credits: Otto Långvik. Ekenäs Harbour

COASTGIS 2020: 17.-19. September 2020 in Ekenäs (Finland), hosted by the Novia University of Applied Sciences - will be the 14th consecutive international symposium for an exchange of knowledge, ideas and experience by researchers and practitioners on how spatial data and information technologies aid marine and coastal zone managers and stakeholders in better understanding and managing coastal space and resources. As in previous years a wide range of topics will be covered including technological advances and analyses, as well as applications and policies for solving coastal challenges.

Field trips to the spectacular Finnish archipelago and the historical town Fiskars will be organised.

More details will be added to the conference web page: https://www.novia.fi/coastgis2020/

Welcome to Ekenäs, Finland

The 14th CoastGIS Symposium will take place on **17-19 September 2020** in **Ekenäs on the west coast of Finland.** CoastGIS is a biennial series of symposia that brings together practitioners and researchers in the field of marine and coastal Geographic Information Systems, remote sensing and computer cartography. It is an established major international coastal and marine event attracting delegates from around the globe. The conference theme "**Sustainable Coastal Planning in a Changing World**" refers to the challenges faced worldwide in light of sustainable development and emphasis will be on cooperation in spatial planning between countries. The conference will take place at **Novia University of Applied Sciences**, located in downtown Ekenäs.

In the weeks to come more and detailed information will be added to the conference web site: https://www.novia.fi/coastgis2020/. In case you like to contact organisers please send an email to coastgis2020@novia.fi

What is CoastGIS?

The **CoastGIS International Symposium** is usually held once every two years under the joint scientific sponsorship of the Commission on Coastal Systems of the International Geographical Union (IGU/CCS) and the Commission on Marine Cartography of the International Cartographic Association (ICA/CMC).

The first International Symposium on GIS and Computer Cartography for Coastal Zone Management, CoastGIS, took place at University College Cork in Ireland in 1995. The second CoastGIS meeting took place in Aberdeen, Scotland, two years later and, since then, CoastGIS symposia have been held in Brest, France in 1999; Halifax, Nova Scotia in 2001; Genoa, Italy in 2003; Aberdeen again in 2005; Sydney and Wollongong, Australia, in 2006; Santander, Spain in 2007; Santa Catarina, Brazil, in 2009; Oostende, Belgium, in 2011; Victoria, on Canada's West Coast in 2013, Cape Town, South Africa in 2015 and Ísafjörður, Iceland in 2018. Over the years the CoastGIS events continue to provide a showcase for new developments in information management and technology as well as a learning experience for all involved in coastal zone management, science and research.

The International CoastGIS Committee (David R. Green - University of Aberdeen - Chair) will oversee the 2020 Symposium which will be planned by a local organising team in Finland.

IMPORTANT DATES:

- Abstract submission will be open from 15 January- 30 April 2020
- Early bird registration will be open from 15 January 30 April 2020

The organisers are seeking individuals and organisations to provide abstracts, organise sessions and submit posters that will contribute to a dialogue on the role of Geographic Information Systems in coastal zone management at CoastGIS 2020 in Ekenäs, Finland.

Contributions related to the following themes, but not restricted to them are invited for submission:

- Coastal surveys and mapping
 - Satellite applications
 - Seabed mapping
 - Ecological surveys

• Data Analyses / Analytical approaches

- Statistical modelling
- Data bases and meta data
- Marine spatial planning
- Decision support for marine spatial planning and management
- Conservation prioritization
- o Remote sensing and spatial analysis in coastal zone management

• Policy

- International perspectives/applications
- o Governmental perspectives/applications
- o Consumer/citizen perspectives/applications
- o GIS applications for fisheries and coastal resources management
- Sustainability
- Climate change
 - o Impacts and adaptation of coastal settlements
 - o Coastal vulnerability assessment strategies for mitigation and adaptation
- Data on demographic and social changes in coastal settlements

Papers for oral presentations, posters, and suggestions for panel sessions are invited. Please submit your contribution via the **online submission form until April 30th, 2020 via the conference website:** https://www.novia.fi/coastgis2020/

For further information please contact coastgis2020@novia.fi

OCTOBER 2020. COASTAL HAZARDS IN AFRICA, 2020, DURBAN, SOUTH AFRICA



The two-day symposium is scheduled for the last week of October 2020. All abstracts will be considered for oral presentations, however, the Organising Committee reserve the right to convert selected abstracts to poster presentations. A Coastal Hazards in Africa Special Issue will follow the symposium where delegates will be invited to contribute complete manuscripts for consideration. The purpose of this meeting is to bring together scientists and managers interested in African coastal zones in order to develop our understanding of these risks and hazards while considering the current state

of coastal zones around Africa. Additionally, this meeting provides a platform to discuss and propose measures to address and manage these risks.

Main Topics:

Erosion and coastal flooding hazards in Africa

- Coastal system dynamics (continental and marine influences);
- Shoreline mobility (indicators, processes, coastal cliffs landslides, anthropogenic effects, Holocene, ...);
- Coastal flooding (sea levels, extreme events, sedimentary and historical archives, processes, ...);
- Climate change and risks of coastal erosion and flooding in Africa.

Pollution and oil spill risks

- Land occupation and use in African coastal areas;

- Water quality (marine and continental) and pollution in coastal areas;
- Maritime traffic and oil spill risks in African coastal areas;
- Anthropogenic loads and natural disasters in Africa: ecological sensitivity of coastal areas.

Coastal hazards management in Africa

- Socioeconomic consequences;
- Coastal facilities vs coastal risks;

- Management (stakeholders, territories, public policies, decisions, regulations, networks): Examples from African countries;

- GIS: Coastal systems planning and management tools;

- Integrated Coastal Zone Management and Maritime Spatial Planning: Examples of projects implemented in Africa (interdisciplinary, systemic approaches ...).

- Coastal and marine Early Warning and Decision Support Systems

The Call for Abstract submissions to Coastal Hazards in Africa, 2020 is open from 01 December 2019 to 29 February 2020.

Successful submissions will be notified via email during 01 to 07 April 2020.

Abstracts must be submitted to: chiadurban2020@gmail.com

Find more information at the symposium website: https://chia2020.wixsite.com/chia

Submitted by CCS Steering Committee Member: Dr. Abdelmounim El M'rini, Morocco

NOVEMBER 4-8, 2020, COASTAL TRANSITIONS II: THE BLUE ECONOMY, NEW HAVEN, CONNECTICUT, USA





Coastal Transitions is sponsored by the IGU Commission on the Dynamics of Economic Spaces and the IGU Commission on Coastal Systems. *Coastal Transitions* is jointly organized by Liverpool John Moores University, Southern Connecticut State University and MIC University of Limerick.

Description/Rationale:

The Blue Economy concept and agenda has been endorsed by a wide range of actors, from development institutions to conservation organizations and across a wide range of public and private actors (business and conservation alike). Despite this, there has not been a concerted effort at interrogating the multi-scalar complexities of Blue Economy development initiatives in academic discourse. This conference aims to do just that, and in doing so provide a basis for the analysis of proposed Blue Economy initiatives. It is the goal of this conference to act as a catalyst to bridge and mobilize emerging knowledge(s) on coastal/marine governance, technology development, and policy practices for transitioning to a Blue Economy. A focus will be on assuring that there is direct dialogue and engagement between the scientific research community, government officials, NGO representatives and the business community through transdisciplinary interactive problem-based workshops. Government officials and members of the local and regional NGO and business communities will be invited directly by the conference

organizers. The proposed conference will build upon the successful Coastal Transitions Conference in New Haven, Connecticut in March 2017, which led to the publication of an edited volume Towards Coastal Resilience and Sustainability in the Coastal Zone (Heidkamp & Morrissey, 2018) and also served as the catalyst for the productive Regional Studies Association Research Network on Sustainability Transitions in the Coastal Zone (RSA, 2019).

Venue:

The conference will be hosted by Southern Connecticut State University at the Canal Dock Boathouse in historic New Haven, CT. The venue is walking distance to a number of lodging opportunities, an exceptional variety of restaurants, museums, theaters as well as the Yale University campus. Southern's main campus is a short shuttle ride away and New Haven is easily accessible from Boston and New York by train and car and the area is served by Tweed New Haven Airport (HVN) and Bradley International Airport (BDL).

Sub-themes:

The conference welcomes theoretical, methodological as well as empirical or case study contributions especially related (but not limited to) the following sub-themes:

- Conceptualizing of the Blue Economy in economic geography
- The interconnection between climate change impacts and the Blue Economy
- Smart shipping, ports, transportation, and global connectivity
- Employment, job creation, and poverty eradication
- The role of ocean/maritime clusters in fostering a sustainable Blue Economy
- Innovation in the Blue Economy
- Cities, tourism, resilient coasts, and infrastructure
- Sustainable energy, mineral resources and innovative industries
- Managing and sustaining marine life, conservation and sustainable economic activities
- Securing food supplies and promoting good health and sustainable fisheries
- Climate action, agriculture and fisheries, waste management, and pollution-free oceans
- Maritime security, safety and regulatory enforcement
- Participatory governance and community driven Blue Economies
- Synergies between the scientific research community and coastal stakeholders
- Blue Economy and climate adaptation, resilience, disruption
- Just transitions and the Blue Economy
- Blue growth industries
- Marine spatial planning and the Blue Economy
- Critical engagement with Blue Economy
- Towards a Blue New Deal

• Learning from the challenges encountered when trying to implement sustainable development on land, to avoid repeating the same mistakes when implementing blue economy agendas in the coastal zone

Conference Outcomes:

Papers presented at *Coastal Transitions* will be invited for peer review and subsequent publication in an edited volume and/or an edited issue in a journal focused on issues related to the Blue Economy. The IGU Commission on the Dynamics of Economic Spaces has a strong record of publishing from its conferences. The Commission has a relationship with Routledge Publishers, who publish The Dynamics of Economic Space series (book on 12th page).

Key Dates:

March 1st, 2020: Abstracts Due (200 words; plus 3-5 keywords)

Please submit abstracts to: heidkampc1@southernct.edu & john.morrissey@mic.ul.ie & C.V.GermondDuret@ljmu.ac.uk

For additional information visit the conference website: http://www.coastaltransitions.org/ Please direct any inquiries to one of the conference organizers: C. Patrick Heidkamp, Ph.D.; Southern Connecticut State University; heidkampc1@southernct.edu Celine Germond-Duret, Ph.D.; Liverpool John Moores University; c.v.germondduret@ljmu.ac.uk John Morrissey, Ph.D.; Mary Immaculate College, University of Limerick; john.morrissey@mic.ul.ie

REPORTS ON MEETINGS

NOVEMBER 19-21, 2019. MARITIME SPATIAL PLANING FORUM: GLOBAL MEETS REGIONAL, RIGA, LATVIA





Maritime Spatial Planning Forum, organized together by VASAB, UNESCO's Intergovernmental Oceanographic Commission, European Commission's Directorate-General for Maritime Affairs and Fisheries, Pan Baltic Scope collaboration and University of Latvia, served as a joint event of the 4th International MSP Forum, 3rd Baltic MSP Forum as well as the closing conference of Pan Baltic Scope collaboration. *Photo credit:* <u>http://www.mspglobal2030.org/msp-forum/riga/</u>.

The Maritime Spatial Planning Forum was a great platform where global MSP met regional MSP. The forum brought together 300 participants from 44 countries all across the world and included 12

interactive workshops, plenaries and key-notes with more than 70 speakers, as well as Young Planners` Plenary. The forum gave an opportunity to look at different MSP practices and solutions in a broader scale as the global aspect was an added value throughout the whole event thus creating a fruitful environment for learning and exchanging experience that goes beyond a day-to-day business.



Photos credit: <u>http://www.mspglobal2030.org/msp-forum/riga/</u> (joint photo) and CCMS

Two CCS Steering Committee members Marinez Sherer (Federal University of Santa Catarina, Brazil) and Margarita Stancheva (CCMS, Bulgaria) took active participation at this great forum: at the Plenary session "MSP at Transboundary Scale", workshops on Ecosystem-Based Approach in Practice, Engaging Local Actors: Turning MSP Bottom-up, Assessing Cumulative Impacts in MSP, MSP as a Contribution to the UN Ocean Science Decade for Sustainable Development, Integrating Land, Sea and Society into MSP: Economic and Social Impacts and Land-Sea Interactions and other sessions with discussions and talks for sharing practices and experience.

The Maritime Spatial Planning forum was an excellent opportunity to exchange the MSP practices and knowledge at regional and global scale. Explore what happened during the MSPforum by reviewing the speaker presentations, photos and videos on MSPglobal website: http://www.mspglobal2030.org/msp-forum/riga/

Submitted by CCS Secretary: Margarita Stancheva

MEETINGS WITH COASTAL INTEREST

APRIL 20-23, 2020. INTERNATIONAL COASTAL SYMPOSIUM 2020, SEVILLE, SPAIN



The next **International Coastal Symposium (ICS2020)** will be held from Monday 20th April to Thursday 23rd of 2020 at Hotel Alfonso XIII in the city of Seville, Spain. This is the first time the International Coastal Symposium (ICS) will be held in Spain.

The symposium will be hosted by the Coastal Environments Research Group, Universidad Pablo de Olavide de Sevilla, under the auspices of the Coastal Education and Research Foundation (CERF) and the Journal of Coastal Research (JCR).

The ICS brings together delegates from all over the world to collaborate and discuss the most current coastal research studies and projects. The proceedings of the conference, published as peer-reviewed papers in the Journal of Coastal Research, represent an invaluable resource for coastal scientists, engineers and managers.

For more information on the deadlines, registration and programme, visit the event website: https://www.ics2020.org/.

JUNE 21 – 25, 2020. ECOSUMMIT 2020 BUILDING A SUSTAINABLE AND DESIRABLE FUTURE: ADAPTING TO A CHANGING LAND AND SEA-SCAPE, GOLD COAST, QUEENSLAND, AUSTRALIA



The 6th International EcoSummit Congress - EcoSummit 2020 – **Building a sustainable and desirable future:** Adapting to a changing land and sea-scape, will take place at The Gold Coast Convention Centre, Gold Coast, Australia, from $21^{st} - 25^{th}$ June 2020.

This conference series was founded in 1996 in Copenhagen, as a forum for scientists, practioners and policymakers working across disciplines to solve the integrated environmental, social, and economic problems facing the world today. Since 1996, EcoSummits have occurred around the world (Canada, China, USA and Europe), with EcoSummit 2016 hosting 1400 participants from 87 countries in Montpellier, France.

EcoSummit 2020 will have a focus on coastal and marine ecosystems including adjacent terrestrial ecosystems and all habitats that are integrated within those ecosystems, including river networks, wetlands and catchments. Further focus will be placed on fragile systems that are more likely to suffer the consequences of climate change and anthropogenic pressure such as islands, coastal communities and arid landscapes. The conference topics will include all aspects of environmental modelling, engineering, science, and policy to be covered under the focus of climate adaptation and the need for developing socio-economic and environmental resilience and sustainable prosperity around the world.

Deadline for general session and poster abstract submissions is 17 January 2020!

For further details and information on the conference topics, how to submit an abstract and deadlines follow the conference website: http://www.ecosummitcongress.com/

SEPTEMBER 7-11, 2020. ECSA 58 - EMECS 13, ESTUARIES AND COASTAL SEAS IN THE ANTHROPOCENE, STRUCTURE, FUNCTIONS, SERVICES AND MANAGEMENT. HULL, UK

ECSA 58 & EMECS 13 Estuaries and coastal seas in the Anthropocene Structure, functions, services and management Hull, I

The ECSA's next major symposium, **ECSA 58 - EMECS 13: Estuaries and coastal seas in the Anthropocene** – **Structure, functions, services and management**, will take place from the 7-11 September 2020 in Hull, UK.

ECSA 58 & EMECS 13 brings together a global multi-disciplinary community of researchers, educators and practitioners to address issues of outstanding importance in the science (both natural and social) and management of estuaries and coastal seas in this rapidly changing world. Contributions are invited within the following broad topics, covering the diversity of threats and opportunities facing estuarine, coastal and marine ecosystems and the people they support:

•Physical, chemical and ecological structure and functioning

•Hydrodynamics and hydrology, including modelling

•Adequacy of modelling and prediction of change

- •Endogenic Managed Pressures and Exogenic Unmanaged Pressures
- •Interference with connectivity across and between systems
- •Repercussions of the loss of resources (space, energy, water, etc.)
- •Loss and gain of habitats and ecosystems
- •Recovery, restoration and creation of habitats and populations
- •Recovering and increasing resilience to future changes
- •Urbanisation and industrialisation of estuaries and semi-enclosed seas
- •Ecosystem Services and Societal Goods & Benefits
- •Blue Growth and Green Growth maximising benefits and minimising impacts
- •Governance and adaptive management from the local to the global
- •Holistic approach to successful and sustainable management
- •Coping with moving baselines
- •Science-Policy communication

A number of special sessions are also envisaged, such as: Anthropogenic pressure, Climate adaptation and mitigation, Coastal conservation, Coastal marine habitats, Ecosystem creation and restoration, Rivers, catchments and wetlands, Sustainability and resilience, and other.

Supporting Publications are foreseen in:



The abstract submission deadline is 27 March 2020!

Stay tuned for further information following the conference website: http://www.estuarinecoastalconference.com/

OCTOBER 20-22, 2020. OUR COASTAL FUTURES – FEC OPEN SCIENCE CONFERENCE, GOLD COAST, AUSTRALIA

Transitioning towards a respectful custodianship of our oceans and coasts



The next **Future Earth Coasts Open Science Conference "Our Coastal Futures"** will take place 20-22 October 2020 (with provisions for workshops until October 24) at Southern Cross University, Gold Coast/Australia.

The conference will include interdisciplinary themes and invites contributions from sciences, arts and humanities, policy and governance and has a strong emphasis on the contribution of Indigenous Knowledge. **Our Coastal Futures** will be a transdisciplinary, multi-format **International conference** to share and generate knowledge and enable effective action. It is organized together by Future Earth Coasts and Future Earth Australia and is an official supporting action towards the UN Decade of Ocean Science for Sustainable Development.

The 2020 Our Coastal Futures conference celebrates four main themes exploring our understanding of the oceans, the communities they support and their diverse ecosystems:

- Ontologies What we Know
- Sciences Understanding from Diverse Knowledge Systems
- Economies Prosperity and Livelihoods
- *Reciprocity* Mutually Beneficial Interactions

Our Coastal Futures invites submissions for traditional sessions alongside a variety of creative formats including:

- virtual engagements
- panels
- workshops
- artistic expressions
- youth events
- yarning circles
- community-led interventions
- journal special issues
- Open call for contributions

Key dates:

24 February 2020: Call for abstracts (presentations and posters) opens **27 April 2020**: Call for abstracts closes

For more information contact: enquiries@coastalfuturesconference.com You can also find more information on the conference website: coastalfuturesconference.com.

HIGHLIGHTS & FEATURES

The International Geographical Union (IGU) promotes the study of geographical problems; initiates and coordinates geographical research requiring international cooperation; promotes scientific discussion and



publication; provides for the participation of geographers in the work of relevant international organizations; facilitates the collection and diffusion of geographical data and documentation in and among its member countries; promotes International Geographical Congresses, Regional Conferences and specialized symposia related to the objectives of the IGU; and participates in any other appropriate form of

international cooperation that advances the study and application of geography. The first International Geographical Congress was held in Antwerp in 1871. Subsequent meetings led to the establishment of the permanent organization in 1922. The IGU's working languages are English and French. See the IGU webpage - <u>https://igu-online.org/.</u>

The **Commission on Coastal Systems** (**CCS**) is one of the Commissions within IGU. The CCS has a website that can be found at: http://www.igu-ccs.org/. Contact information for CCS Officers and Steering Committee members can be found on the website along with past and present newsletters.

If you are interested in becoming a member of the CCS, an on-line membership form is available.



The official **Newsletter of the Coastal Education and Research Foundation**, *JUST CERFing*, is available for viewing at: http://cerf-jcr.org, under the JCR CONTENT heading. The Newsletter has information about the current issue of the Journal of Coastal Research, series of short articles, as well as information on the Special Issues of the journal and recently published books. It is an extremely well-produced review of the materials conveyed by the Foundation.



This information is from the Future Earth Coast Blog Moving on: Recent developments at Future Earth Coasts



A lot has happened in 2019: Future Earth Coasts announced a new hosting arrangement for its **International Project Office (IPO)** following 4 successful years of being hosted by the MaREI Centre for Marine and Renewable Energy, Environmental Research Institute, University College Cork.

Distributed IPO: Since January 2019 the IPO operates in a distributed structure, with the central IPO being hosted at the Leibniz Centre

for Tropical Marine Research (ZMT), Germany, and additional branches located in the USA, Australia and China. There are also Regional Engagement Partners (REP) located in the United States (Louisiana); Latin and South America (Rio de Janeiro, Brazil), Caribbean (Trinidad & Tobago), Canada (Newfoundland, covering the Arctic region), Europe (Algarve, Portugal), East Asia (Yantai, China), and South East Asia (Taiwan).

With the handover from MaREI to ZMT, the Scientific Steering Committee was formally renamed and restructured into an Executive Committee, constituted of two Co-chairs, a Vice-Chair, and representatives of every IPO branch. In the future, the Executive Committee will be expanded to include a representative of the REPs as well as the new Advisory Board and FEC Academy.

To broaden FEC community even further formally they launched the **Future Earth Coasts Academy** in September with around 30 initial members, all of them alumni of FEC/LOICZ who served as members or chairs of the Scientific Steering Committee or worked for the IPO before. The FEC Academy is comprised of distinguished scientists and stakeholders, who will serve as FEC ambassadors and be responsible for FEC research development and outputs. Membership of the FEC Academy will be expanded over the coming years and is by invitation only.

If you are a young researcher, practitioner or other coastal stakeholder and are interested in joining FEC, you can apply to become a **FEC Fellow**. Find out more about the benefits on the FEC website: https://www.futureearthcoasts.org/fellows/

Another way to join the FEC Community is by affiliating yourself, your project or activity to FEC: they partner with individuals, programs, projects and organizations to contribute to FEC vision and research priorities and goals for engagement and capacity building. To find out more about this, head over to: https://www.futureearthcoasts.org/affiliated-activities/

Future Earth Coasts' head office is hosted by the Leibniz Centre for Tropical Marine Research (ZMT) in Bremen, Germany.



In research and education, the Leibniz Centre for Tropical Marine Research (ZMT) in Bremen is dedicated to the better understanding of tropical coastal ecosystems such as mangroves, sea grasses, coral reefs, estuaries and upwelling systems. As an interdisciplinary Leibniz institute the ZMT conducts research on the structure and functioning of tropical coastal ecosystems and their reaction to natural changes and human interactions. It aims to provide a scientific basis for the protection and sustainable use of these ecosystems. The ZMT works in close cooperation with partners in the tropics, where it supports capacity building and the development of infrastructures in the area of sustainable coastal zone management. The ZMT is a

member of the Leibniz Association.

Follow the FEC website for more information and further updates: https://www.futureearthcoasts.org/_

NEW EFFORTS TO COMPILE SEA-LEVEL DATABASES



The **PALSEA** (PALeo constraints on SEA level rise) working group is funded by PAGES (Past Global Changes project) and INQUA (International Union of Quaternary Sciences) to bring together observational scientists and ice-sheet,

climate, and sea-level modelers in order to better define observational constraints on past sea-level change and improve our understanding of ice-sheet responses to rapid climate change. A long-lasting effort by PALSEA has been the standardization of sea-level proxies and the compilation of sea-level databases (Düsterhus et al., 2016). These efforts are the focus of two projects closely related to PALSEA, which are working in parallel to create Holocene and Last Interglacial sea level data repositories.



The **HOLSEA** (https://www.holsea.org/) is an INQUA-sponsored project with the goal of determining the rates, mechanisms and geographic variability of sea level over the past ~20,000 years. As part

of a larger goal to develop a unified, spatially-comprehensive post-Last Glacial Maximum (LGM) global RSL database, in a special issue published in Quaternary Science Reviews (Khan et al., 2019), the inception of a standardized global synthesis of regional RSL data is presented. The special issue provides RSL data from ten geographical regions, including new databases from Atlantic Europe, the Russian Arctic, and Israel, and revised/expanded databases from the British Isles, the Netherlands, the western Mediterranean, the Adriatic, Atlantic Canada, Peninsular Malaysia, Southeast Asia, and the Indian Ocean. In total, the database derived from this special issue includes 5634 (5290 validated) index (n = 3202) and limiting points (n = 2088) that span from ~20,000 years ago to present.



The **WARMCOASTS** (https://warmcoasts.eu/) is a European Research Council Starting Grant project that aims at filling the current research gaps related to sea level and extreme waves in the Last Interglacial. As part of this project, an effort to compile standardized data on Last Interglacial data is ongoing under the name of World

Atlas of Last Interglacial Shorelines (WALIS). Currently, WARMCOASTS is organizing a Special Issue in Earth System Science Data, a journal dedicated to the publication of original research data.

As these two projects evolve, the Principal Investigators Nicole Khan (HOLSEA, nskhan@hku.hk) and Alessio Rovere (WARMCOASTS, arovere@marum.de) are inviting interested scientists to contact them for information on how to contribute to these databases.

Related references:

- Düsterhus, A., Rovere, A., Carlson, A.E., Horton, B.P., Klemann, V., Tarasov, L., Barlow, N.L.M., Bradwell, T., Clark, J., Dutton, A., Gehrels, W.R., Hibbert, F.D., Hijma, M.P., Khan, N., Kopp, R.E., Sivan, D., Törnqvist, T.E., 2016. Palaeo-sea-level and palaeo-ice-sheet databases: problems, strategies, and perspectives. Clim. Past 12, 911–921. https://doi.org/10.5194/cp-12-911-2016

- Khan, N.S., Horton, B.P., Engelhart, S., Rovere, A., Vacchi, M., Ashe, E.L., Törnqvist, T.E., Dutton, A., Hijma, M.P., Shennan, I., 2019. Inception of a global atlas of sea levels since the Last Glacial Maximum. Quat. Sci. Rev. 220, 359–371.<u>https://doi.org/10.1016/j.quascirev.2019.07.016</u>

Submitted by: Nicole Khan (HOLSEA) and Allesio Rovere (WARMCOASTS)

INTERNATIONAL BACHELOR PROGRAM "SUSTAINABLE COASTAL MANAGEMENT" (Novia University, Finland)





Bachelor of Natural Resources, Sustainable Coastal Management,

240 ECTS (120+120)*

CAMPUS RAASEPORI

Studies

Almost half of the global population lives in coastal areas where conflicting interests in use of natural resources exist. This degree programme prepares students for how to handle these challenges with integrative means, in practice and in theory.

The programme, that is one of the few Bachelor programmes in Europe focusing on Coastal issues, is aimed for students who already have completed at least two years of university level studies (equivalent to 120 ECTS) in Natural Resources or the Environment, Business and Economics, Technology or Biology. These earlier studies will be accredited and included in the students degree. This programme is suitable for students who would like to change the profile of their studies or supplement their existing university degree with a Bachelor Degree in Natural Resources. The studies are completed as full-time studies and the students curriculum will be individually designed to incorporate their competence needs.

Career prospects

The market for future professionals is growing with increasing career opportunities for coastal planners, consultants, project leaders, GIS-planners, sustainability or environmental coordinators in private sector, environmental officers or environmental inspectors in public sectors, both in Finland and internationally.





BOOKS & REPORTS ON COASTAL AND MARINE TOPICS

TOWARDS COASTAL RESILIENCE AND SUSTAINABILITY 1st Edition



Edited by C. Patrick Heidkamp, John Morrissey, Routledge 360 pages

Coastal zones represent a frontline in the battle for sustainability, as coastal communities face unprecedented economic challenges. Coastal ecosystems are subject to overuse, loss of resilience and increased vulnerability. This book aims to interrogate the multi- scalar complexities in creating a more sustainable coastal zone. Sustainability transitions are geographical processes, which happen in situated, particular places. However, much contemporary discussion of transition is either aspatial or based on implicit assumptions about spatial homogeneity. This book addresses these limitations through an examination of sociotechnological transitions with an explicitly spatial focus in the context of the coastal zone.

The book begins by focusing on theoretical understandings of transition processes specific to the coastal zone and includes detailed empirical case studies. The

second half of the book appraises governance initiatives in coastal zones and their efficacy. The authors conclude with an implicit theme of social and environmental justice in coastal sustainability transitions.

Research will be of interest to practitioners, academics and decision- makers active in the sphere of coastal sustainability. The multi- disciplinary nature encourages accessibility for individuals working in the fields of Economic Geography, Regional Development, Public Policy and Planning, Environmental Studies, Social Geography and Sociology.

AUSTRALIAN COASTAL SYSTEMS BEACHES, BARRIERS AND SEDIMENT COMPARTMENTS Author: Andrew Short



This book describes the entire coast and beaches and barrier systems of Australia. It covers the coastal processes and systems that form and impact Australia's 30.000 km coast, 12.000 beaches and 2750 barrier systems. These processes include geology, geomorphology, climate, waves, tides, currents, sediment supply, as well as coastal ecosystems. The coast is divided into tropical northern and southern temperate provinces, within which are seven divisions, 23 regions and 354 coastal sediment compartments each of which is described in detail in the 34 chapters. Within these systems are the full range of wave through tide-dominated beaches and barriers ranging from cheniers to massive transgressive dune systems together with a range of onshore and longshore sand transport systems. This is an up to date reference for the entire coast, its present condition and likely responses to the impacts of climate change. Springer, 2020: https://www.springer.com/gp/book/9783030142933

REPORT OF THE FIRST GLOBAL PLANNING MEETING ON THE UN DECADE



Summary Report of the First Global Planning Meeting: UN Decade of Ocean Science for Sustainable Development

The Intergovernmental Oceanographic Commission (IOC) of UNESCO released the Summary Report of the First Global Planning Meeting for the UN Decade of Ocean Science for Sustainable Development.

The **UN Decade of Ocean Science for Sustainable Development** provides a once-in-a-lifetime opportunity to focus international efforts at the science-policy interface to reverse the cycle of decline in ocean health and to improve conditions for sustainable development of the ocean. The Decade will generate the scientific knowledge, underpinning infrastructures and partnerships needed to inform policies in support of all sustainable development goals of the 2030 Agenda.

Ocean leaders came together for the first Global Planning Meeting for the UN Decade of Ocean Science for Sustainable Development, in Copenhagen, Denmark, from 13-15 May 2019. Over the three days of meetings, working groups identified scientific knowledge gaps and research priorities for the 6 societal goals of the Decade. More information about the First Global Planning Meeting is available at: https://en.unesco.org/1st-global-planning-meeting.

The outputs of the First Global Planning Meeting for the Decade will inform the preparation phase of the Decade and the development of the implementation and resource mobilization plan. The paper also summarizes the priority issues for programme development expressed by the participants, knowledge gaps in how to address the societal goals, and recommended activities for the way forward.

Follow the full report of the meeting: https://www.oceandecade.org/resource/58/Summary-Report-of-the-First-Global-Planning-Meeting-UN-Decade-of-Ocean-Science-for-Sustainable-Development-Copenhagen-13-15-May-2019



IPCC SPECIAL REPORT ON THE OCEAN AND CRYOSPHERE IN A CHANGING CLIMATE

The IPCC approved and accepted **Special Report on the Ocean and Cryosphere in a Changing Climate** at its 51^{st} Session held on 20 - 23 September 2019. The Report highlights the urgency of prioritizing timely, ambitious and coordinated action to address unprecedented and enduring changes in the ocean and cryosphere. The report reveals the benefits of ambitious and effective adaptation for sustainable development and, conversely, the escalating costs and risks of delayed action.

More than 100 authors from 36 countries assessed the latest scientific literature related to the ocean and cryosphere in a changing climate for the report, referencing about 7,000 scientific publications.

Melting ice, rising seas

Glaciers and ice sheets in polar and mountain regions are losing mass, contributing to an increasing rate of sea level rise, together with expansion of the warmer ocean. While sea level has risen globally by around 15 cm during the 20^{th} century, it is currently rising more than twice as fast – 3.6 mm per year – and accelerating, the report showed. Sea level will continue to rise for centuries. It could reach around 30-60 cm by 2100 even if greenhouse gas emissions are sharply reduced and global warming is limited to well below 2°C, but around 60-110 cm if greenhouse gas emissions continue to increase strongly.

More frequent extreme sea level events

Sea level rise will increase the frequency of extreme sea level events, which occur for example during high tides and intense storms. Indications are that with any degree of additional warming, events that occurred once per century in the past will occur every year by mid-century in many regions, increasing risks for many low-lying coastal cities and small islands. Without major investments in adaptation, they would be exposed to escalating flood risks, the report shows. Some island nations are likely to become uninhabitable due to climate-related ocean and cryosphere change, the report said, but habitability thresholds remain extremely difficult to assess.

Changing ocean ecosystems

Warming and changes in ocean chemistry are already disrupting species throughout the ocean food web, with impacts on marine ecosystems and people that depend on them, the report said.

Knowledge for urgent action

The report finds that strongly reducing greenhouse gas emissions, protecting and restoring ecosystems, and carefully managing the use of natural resources would make it possible to preserve the ocean and cryosphere as a source of opportunities that support adaptation to future changes, limit risks to livelihoods and offer multiple additional societal benefits. Coastal cities, especially megacities with over 10 million inhabitants, are at serious risk from climate-related ocean changes. Over half of today's global population lives in cities and megacities, many of which are located in Low-Lying Islands and Coasts (LLIC), including New York City, Tokyo, Jakarta, Mumbai, Shanghai, Lagos and Cairo. Without substantial adaptation interventions, and based on the compounding effects of future growth in population and assets, sea level rise and continued subsidence, future flood losses in coastal cities are projected to rise. In addition to important impacts on coastal megacities and large port cities, small and mid-sized cities are also considered highly vulnerable because of fast growth rates and low political, human and financial capacities for risk reduction compared to larger cities.

At a more local scale, and regardless of the size of the city, coastal property values and development will be affected by sea level changes, storms and other weather and climate-related hazards. Real estate values, and the cost and availability of insurance, will be impacted by actual and perceived flood risks. Properties are also at risk of losing value due to coastal landscape degradation.

Follow the IPCC website for full report: https://www.ipcc.ch/srocc/download-report/

NEW EDITION OF "ENCYCLOPEDIA OF COASTAL SCIENCE"

Editors: Charles W. Finkl and Chris Makowski



This thoroughly revised and expanded edition of the much acclaimed Encyclopedia of Coastal Science edited by M. Schwarz (Springer 2005), presents an interdisciplinary approach that includes biology, ecology, engineering, geology, geomorphology, oceanography, remote sensing, technological advances, and anthropogenic impacts on coasts. Within its covers the Encyclopedia of Coastal Science, 2nd ed. brings together and coordinates many aspects of coastal and related sciences that are widely dispersed in the scientific literature.

The broadly interdisciplinary subject matter of this volume features contributions by over 280 well-known international specialists in their respective fields and provides an abundance of figures in full-color with line drawings and photographs, and other illustrations such as satellite images. Not only does this volume offer a large number of new and revised entries, it also

includes an illustrated glossary of coastal geomorphology, extensive bibliographic citations, and cross-references. It provides a comprehensive reference work for students, scientific and technical professionals as well as administrators, managers, and informed lay readers.

Springer, 2019: https://www.springer.com/gp/book/9783319938059

The organization of the IGU Commission on Coastal Systems and the current member list of the Steering Committee of the CCS is as follows:

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Secretary/Secrétaire, Editor of Newsletter

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The IGU Commission on Coastal Systems (CCS) website is at: http://www.igu-ccs.org/.

Contact information for CCS Officers and Steering Committee members can be found on the website along with past and present newsletters. If you are interested in becoming a member of the CCS, an on-line membership form is available at the end of the Newsletter.

R.B. Singh, Professor at the Department of Geography, Delhi School of Economics, University of Delhi, General Secretary of the International Geographical Union (IGU), is our liaison with the executive committee of the IGU: rbsgeo@hotmail.com.

THE STEERING COMMETTEE MEMBERS: WHO WE ARE

Colin Woodroffe (CCS Chair since 2015)



Colin is Professor in the School of Earth and Environmental Sciences at the University of Wollongong. He has a PhD and ScD from the University of Cambridge. Colin has studied the stratigraphy and development of coasts in Australia and New Zealand, as well as on islands in the West Indies, and Indian and Pacific Oceans. He has written a comprehensive book on *Coasts, form, process and evolution*, co-authored a book on *The Coast of Australia*, and is also co-author of a book *Quaternary Sea-Level Changes: a global perspective*. Colin was a lead author on the coastal chapter in the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment report. He teaches coastal geomorphology and the application of geospatial techniques to coastal environments.

Margarita Stancheva (CCS Secretary, Editor of Newsletter)



Margarita is Co-founder and Director of the Center for Coastal and Marine Studies (CCMS) in Bulgaria. She has special interests in coastal geomorphology, coastal processes, sand beaches/dunes, coastal erosion/cliff retreat, shoreline changes, MSP and sustainable coastal development. She has a PhD in Oceanology with thesis: "Beach dynamics and modifications under impact of port and coast-protection structures". Since 2009 she has been convener of Geomorphology Session at the EGU General Assembly: "Coastal zone geomorphologic interactions: natural versus human-induced driving factors". Research Fellow to the Programme for the Study of Developed Shorelines (PSDS), WCU – USA. Author of a chapter for Bulgaria in a book on *Coastal Erosion and Protection in Europe - A Comprehensive Overview*, co-author in coastal atlas on *Sensitivity Mapping and Analysis of the Bulgarian Black Sea Coastal Zone* and primary author of a *book* on *Burgas Case Study: Land-Sea Interactions*.

Edward Anthony (Past Chair)



Edward Anthony is currently professor of coastal geomorphology at Aix-Marseille University and Editor-in-Chief of Marine Geology. Author of nearly 130 published papers, E.A. has carried out research over the last 30 years on the Amazon-influenced coasts of South America, the coasts of West Africa, the Mediterranean, the English Channel and North Sea coasts, and recently the Mekong and Irrawaddy River deltas. His scientific interests focuses on the inter-related connections between the human and natural dimensions of coasts, and how human activities and developments impact on coastal geomorphology, sediment dynamics, ecology and management, especially in the face of global

change, sea-level rise and sediment supply perturbations on river systems. A particular area of focus is river deltas, largely based on experimental field (measurements and observations) and laboratory work, and employs innovative techniques in remote sensing and modelling based on statistical and cartographic data. This activity is supported by various on-going grants and projects and involves collaboration with French universities, the IRD, Japanese, American, Indian, Vietnamese and Moroccan colleagues specialised in coastal studies. EA has supervised nearly 30 PhD thesis, and teaches at both undergraduate and post-graduate levels.

Françoise Breton



Emeritus Professor at the Universitat Autònoma de Barcelona, she is involved in research on coastal and sea socio-environmental systems and resource management. Anthropologist, geographer and environmental science expert, work focused on integrated management, co-management of ecosystems and habitats, and governance. Formed in Paris X University, later at the Boston University (1978-1980), and at the UAB, she created and directed the Centre for Sea study in Sitges, Barcelona Diputación (1981-90), working on fisheries, fishermen knowledge, and fishery anthropology in collaboration with A.

Geistdorffer and the Museum of Natural History of Paris. Head of the UAB Interfase Research Group since 1990. After different collaborations with international institutions in Europe, she coordinated the EU FP7 project PEGASO, on ICZM and governance in the Mediterranean and the Black Sea (2010-2014), She developed with IRD responsible research with local communities on ecosystem services and food security in the West-African coast. Since 2015, she focussed research on marine mammals in the Arctic and their interactions with people, collaborating with the Norwegian College of Fishery Sciences, University of the Arctic - Tromso, and the Svalbard University, Norway. The Research Center on the ARCTIC was Inaugurated the 1st December 2017 at the Universitat Autònoma de Barcelona, together with the 2017 Stefansson Memorial Lecture, by the Stefansson Arctic Institute (Iceland), where she is Associate Professor, and the Institute of Arctic Studies, Dartmouth College, USA. In February 2016, she awarded the Narcís Monturiol medal of the Catalan govern in recognition to her high research and innovation trajectory.

David Green



David is Director of the Aberdeen Institute for Coastal Science and Management (AICSM); Director of the M.Sc. Degree Programme in Geographical Information Systems (GIS): and Director of the UAV Centre for Environmental Monitoring and Mapping (UCEMM) at the Department of Geography and Environment, University of Aberdeen, Scotland, United Kingdom. His interests lie with Remote Sensing, UAVs, GIS and Mobile GIS, Digital Mapping and Hydrography, Coastal Management, and Marine Spatial Planning (MSP).

Paolo Ciavola



Paolo is an Associate Professor of Coastal Dynamics and Geomorphology in the Department of Physics and Earth Sciences of the University of Ferrara, where he teaches Physical Geography and Geomorphology, Coastal Risk, GIS and Remote Sensing. His current main research interests include coastal processes, the impact of climate change on coastal morphology, the role of extreme storm events in generating coastal risk, river delta and estuarine dynamics, sedimentation in coastal lagoons. He is on the Editorial Board of the Journal of Coastal Research, Continental Shelf Research and the Journal of Integrated Coastal Zone Management of Portuguese Speaking Countries. He was an expert reviewer of the IPCC WGII AR5 report- Europe Chapter and is currently a Science Officer of the European Geoscience Union for the Natural Hazard sub-group. Recently he has published for Wiley two books dealing with coastal storms (*Management of the Effects of Coastal Storms: Policy, Scientific and Historical Perspectives; Coastal Storms: Processes and Impacts*).

Abdelmounim El M'rini



Abdelmounim is Professor at the Department of Earth Sciences at Abdelmalek Essaâdi University of Tetouan (Morocco). He has a PhD from Abdelmalek Essaâdi University and from Nantes University (France). His research activities focus on the characterization of coastal systems and the impacts of human activities on their processes at the short, medium and long terms. He has participated at many projects that focus on coastal areas with technical approaches (coastal morphodynamics, coastline kinematics, impact of coastal facilities, coastal flooding hazards, sedimentological, geochemical and isotopic studies), as well as coastal planning and management (in this context, in Integrated Coastal Zone Management projects). This works are done mainly in collaboration with Moroccan, French, Spanish and Italian colleagues. He teaches coastal geomorphology, interactions on coastal systems, Integrated Coastal Zone Managements and the application of remote sensing to coastal environments.

Jeffrey Ollerhead



Jeff Ollerhead is a member of the Geography and Environment Department at Mount Allison University in Sackville, NB, Canada. He is a coastal geomorphologist who studies beaches and salt marshes. In recent years, he has been particularly involved in designing and monitoring salt marsh restorations in the upper Bay of Fundy. He was Dean of Science and Graduate Studies for 10 years and is now Provost and VP, Academic and Research, at Mount Allison.

Norbert Psuty



Norb is Professor Emeritus at Rutgers University and is currently Director of the Sandy Hook Cooperative Research Programs. He is a coastal geomorphologist whose research encompasses the dynamics of the coastal zone, incorporating process-response studies of beaches, coastal dune processes and morphology, sediment budget studies, barrier island dynamics, estuarine sedimentation, and sea-level rise. His research has been conducted primarily in various portions of coastal New Jersey and New York and it has both a basic science component as well as an applied side. He has been and continues to be consultant to the U.S. National Park Service and the U.S. Fish and Wildlife Service on shoreline dynamics and change in coastal parks and refuges.

Paul Rooney



Paul is the Deputy Head for the Department of Geography and Environmental Science at Liverpool Hope University, United Kingdom. Following studying at university, Paul became a Coastal Ranger on the Sefton Coast, the largest area of open dunes in England. In 1995 he was appointed as the Project Officer for an EU funded LIFE-Nature project to implement species and habitat restoration and to develop a conservation strategy for the Special Area of Conservation (SAC) for that dune coast. Paul joined the Liverpool Hope University in 1999 and established the UK Sand Dune and Shingle Network in 2006. The aim of the network is to help to conserve sand dunes and shingle as dynamic landscapes by linking science and management. Paul's research interests are mainly in coastal dune ecology, change and management. He is a Chartered Environmentalist, a full member of the Chartered Institute of Ecology and

Environmental Management, a Chartered Geographer through the Royal Geographical Society (with IBG), and a Fellow of the Higher Education Academy (now part of Advance HE).

Marinez Scherer



Marinez has a degree in Biological Sciences (Federal University of Santa Catarina / Brazil) and a PhD in Marine Science at University of Cadiz / Spain. She has been teaching Integrated Coastal Management at Federal University of Santa Catarina, and is the Research Leader of the Integrated Coastal Management Group and Laboratory. Marinez is also visiting professor at the University of Cadiz. She is the executive secretary of the Brazilian Sea Forum and the Technical Director of the Brazilian Agency for Coastal Management. She is also one of the Brazilian Coordinators of the Ibero American Network on Coastal Management (IBERMAR). Her main research interests are on integrated coastal and marine management, ecosystem based management, coastal and marine protected areas, and networks.

Toru Tamura



Toru is senior researcher at the Geological Survey of Japan, National Institute of Advanced Industrial Science. He has a PhD in Geology at Kyoto University, and is also a visiting associate professor at Graduate School of Frontier Sciences, University of Tokyo. His primary research interest is multi-temporal scale evolution of the coastal landform in sandy beach and muddy deltaic systems. He has studied many coastal systems mainly in Asia and Australia using a combination of sediment cores, radiocarbon dating, optically-stimulated luminescence dating, remote sensing and ground-penetrating radar, for better understanding of the present and predicting future coast. He also manages an OSL dating laboratory at the Geological Survey to enhance the dating of Pleistocene and Holocene coastal landforms and stratigraphy.

BECOME A CORRESPONDING MEMBER OF THE IGU COMMISSION ON COASTAL SYSTEMS

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Thank you for your cooperation. Margarita and Norb

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