

newsletter

Union Géographique Internationale

International Geographical Union

No. 78 - January 2018

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 by the Commission on Coastal Systems for 2018. The Commission emails its two Newsletters a year out to almost 500 coastal scientists and geographers in 65 countries around the world, as well as posting them on its website. In 2017, CCS sponsored several meetings, including a 'Coastal Transitions' meeting in Connecticut, two sessions at the European Geosciences Union General Assembly in Vienna, and the Littoral 2017 conference in Liverpool. These meetings, together with an increasing number of other conferences and workshops with a coastal emphasis, brought researchers and managers together and promoted a healthy exchange of ideas. On a sadder note, two luminaries who helped set the direction for sea-level studies passed away in 2017, Professor Art Bloom and Professor Paolo Pirazzoli. Their legacy lives on in many ways, but particularly in the effort to collate an atlas of sea-level curves for the past few millennia; a short feature in this newsletter reviews these efforts and ongoing endeavours, particularly through IGCP, to continue to refine our understanding of the geographical variation in the way sea level has behaved in the past in order to better prepare for the ramifications of its future trajectory. 2018 is already shaping up to be an exciting year for the coastal community. The Commission will again be sponsoring two sessions at EGU; the first, focused on Coastal zone geomorphologic interactions: natural versus human-induced driving factors will represent the tenth year that CCS has convened a session on this topic and we encourage wide participation to make this an appropriate celebration of this milestone; the second, focused on Coastal morphodynamics: nearshore, beach and dunes, extends the theme so successfully supported last year and from which we envisage publication of a special journal

issue. Later in the year, CCS is sponsoring a session focused on coasts in the southern hemisphere at the ECSA 57 meeting in Perth, the CoastGIS conference in Iceland, and a meeting focused on Coastal Hazards in Africa to be held in Tetouan. Summaries of several of these past meetings and details of forthcoming meetings are contained in this newsletter, in addition to much more. Also in August next year, the International Geographical Union will be holding its Regional Conference in Quebec City. An exciting 4-day post-conference excursion exploring the coastal geomorphology and maritime culture of the St Lawrence Estuary is planned, and CCS encourages the submission of abstracts on coastal topics at this IGU conference. Read about these activities and much more in this Newsletter. We hope you enjoy the diversity of topics covered. I would like to thank those who have contributed to this newsletter, particularly David Green for his various contributions, and especially Margarita Stancheva for her fine efforts in compiling and editing, ably assisted by Norb Psuty. The success and continuation of the Commission depends upon your participation. We hope you browse through the newsletter, and that you share it with colleagues. We would like to encourage new members to sign up to receive the newsletter; we'd be keen to hear fresh ideas as to how we can further promote coastal studies around the world; and if you are particularly motivated to contribute we also welcome nominations to join the steering committee. I hope that your 2018 is an enjoyable one, and I look forward to hearing about the many activities of CCS members and other coastal researchers.

COLIN WOODROFFE

PHOTO OF THE ISSUE



UCEMM (UAV/UAS Centre for Environmental Monitoring and Mapping within Aberdeen Institute for Coastal Science and Management, www.abdn.ac.uk/research/ucemm) provided a UAV platform and camera sensor (DJI Inspire 1) to fly aerial footage of an EGCP and Aberdeenshire Council Beach Clean, at Cairnbulg near Fraserburgh, in Scotland, UK.

Submitted by CCS SC Member: David R. Green - Chair of EGCP Ltd - and Director of the Aberdeen Institute of Coastal Science and Management (AICSM) (www.abdn.ac.uk/aicsm), d.r.green@abdn.ac.uk.

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

**APRIL 08-13, 2018, VIENNA, AUSTRIA, EUROPEAN
GEOSCIENCES UNION (EGU)**



Two special geomorphology sessions are sponsored by the Commission on Coastal Systems:

GM11.3 Coastal Morphodynamics: Nearshore, Beach and Dunes

The session will be organized for the second time at the EGU2018 General Assembly, Vienna, Austria. This session welcomes contributions from coastal scientists interested in the measurement and modelling of marine (nearshore waves, currents and sediment transport) and terrestrial (e.g. aeolian) processes and responses within the three sub-units over various scales. The session will highlight the latest 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 organized by Emilia Guisado-Pintado (Spain), Derek Jackson (UK) and Irene Delgado-Fernandez (UK). For more details please visit the session website:

<http://meetingorganizer.copernicus.org/EGU2018/session/27448> or contact **Emilia Guisado-Pintado:** eguisado@us.es.

GM11.4 Coastal Zone Geomorphologic Interactions: Natural versus Human-Induced Driving Factors

The session gives priority to the subjects of coastal geomorphology: evolution of coastal landforms, 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 organized by Margarita Stancheva (Bulgaria), Andreas Baas (UK), Giorgio Anfuso (Spain), Hannes Tonnison (Estonia) and Guillaume Brunier (France) in association with the IGU Coastal Commission.

This year, if successful, the EGU Session: “Coastal Zone Geomorphologic Interactions: natural versus human-induced driving factors” will celebrate 10 Years of continuous organization and convening in Vienna, and we are cordially looking forward to your active participation again!

For more details please visit the session website:

<http://meetingorganizer.copernicus.org/EGU2018/session/27446>.

Please contact **Margarita Stancheva** for further information and details: stancheva@io-bas.bg; ccms.stancheva@gmail.com.

The deadline for abstract submissions to both EGU2018 sessions is 10 January 2018

SEPTEMBER 3-6, 2018. ECSA 57: CHANGING ESTUARIES, COASTS AND SHELF SYSTEMS - DIVERSE THREATS AND OPPORTUNITIES, PERTH, AUSTRALIA



The structure and functioning of our estuaries and seas are shifting due to diverse drivers from local to global scales. The resulting threats to these systems are often all too apparent, yet such changes can also present new opportunities. The challenge is to harness these opportunities through new ways of thinking, scientific developments, innovative technology and more effective integration of science and management. Contributions are welcomed for the next ESCA major symposium within the following broad topics, covering the diversity of threats and opportunities facing estuarine, coastal and marine ecosystems and the people they support.

Conference Topics:

1. Environment
2. Biodiversity
3. People and management
4. Integration

For the full list of topics and special sessions [visit the website](http://www.estuarinecoastalconference.com/).

(<http://www.estuarinecoastalconference.com/>)

CCS is sponsoring a session on *Similarities, stressors and sustainability of southern hemisphere estuaries on wave-dominated coasts*, proposed by Kerrylee Rogers, Debora Freitas, Marinez Scherer, Janine

Adams, Andy Green and Colin Woodroffe. This session will have a southern hemisphere focus. Submit your abstract using the [online submission system](#).

Abstract submission deadline: 9 March 2018

SEPTEMBER 27-29, 2018. COASTGIS 2018 “SPATIAL PLANNING AND CLIMATE CHANGE”, ÍSAFJÖRÐUR, ICELAND



The 13th CoastGIS Symposium and Exhibition will take place on 27-29 September 2018 in the township of Ísafjörður in the Westfjords of Iceland:



CoastGIS is a biennial series of symposia that brings together practitioners and researchers in the field of marine and coastal Geographic Information Systems (GIS), remote sensing and computer cartography. It is an established major international coastal and marine event attracting delegates from around the globe. The conference theme "*Spatial Planning and Climate Change*" refers to the challenges faced worldwide in light of climate change, particularly in the Arctic. Also emphasis will be on cooperation in spatial planning between countries.

Pre-conference exhibitions are scheduled as well as an adventurous post-conference excursion back to Reykjavík. The conference will take place at The University Centre of The Westfjords, located in downtown Ísafjörður. In the weeks to come more and detailed information will be added to the conference web site so we urge you to follow it closely: https://www.uw.is/conferences/coastgis_2018/.

Submitted by CCS SC Member: David R. Green - University of Aberdeen, Scotland, UK

OCTOBER 04 - 05, 2018. COASTAL HAZARDS IN AFRICA, TETOUAN, MOROCCO



This meeting aims to bring together scientists and managers interested in African coastal areas in order to draw up an assessment of the state of coastal zones, identify the main risks to which they are exposed, discuss the measures taken to confront these risks, and propose measures to be taken to better manage them.

Main Topics:

- ***Erosion and coastal flooding hazards in Africa***
 - Coastal systems 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...).

For more information visit the meeting website: <http://coastalhazardsafrica.uae.ma/site/>

Deadline for abstract submissions: February 16, 2018.

Answers to the accepted abstracts will be before April 11, 2018. Please direct any inquiries to one of the conference organizers:

- Abdelmounim El M'rini, PhD; Department of Earth Sciences - Abdelmalek Essaâdi University – Morocco, aelmrini@gmail.com;
- Driss Nachite, PhD; Department of Earth Sciences - Abdelmalek Essaâdi University – Morocco, nachited@yahoo.fr;
- Mohamed Maanan, PhD; Université de Nantes, Institut de Géographie et d'Aménagement, UMR 6554 LETG, Nantes, France, mohamed.maanan@univ-nantes.fr;
- Edward Anthony, PhD; CEREGE – Aix-Marseille University – France; anthony@cerege.fr.

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

REPORTS ON MEETINGS

SEPTEMBER 05 - 07, 2017. LITTORAL 2017, LIVERPOOL, UK



The Littoral conference series commenced in Leiden in 1987, stemming from the Coastal & Marine Union (EUCC) network's mission of 'bringing together the scientific community, coastal practitioners and policy makers'. In its 30th year, Littoral 2017, with its theme, '*Change, Naturalness and People*', was held at Liverpool Hope University, the fourth time that it has been hosted in the United Kingdom. Organised by Paul Rooney, and colleagues from the Department of Geography and Environmental Science, the event brought together academics and coastal managers from Australia, Belgium, Canada, Germany, Lithuania, Malta, the Netherlands, Portugal, Spain, Turkey, and the USA, as well as from several universities and agencies in the UK.

The 'Sand Dune and Shingle Network' is based at Liverpool Hope University, and sand dunes were a particular focus of the conference, with sessions focused on invasive alien species in coastal dunes, threats and solutions in dunes and dune slacks, and mobile dunes and dune dynamics.

A range of other topics was covered in open sessions during the two days of presentations. Paul also ensured that visitors to Liverpool had the opportunity to experience the city's rich cultural and sporting heritage, with a tour of the Beatles venues close to the university's Hope Park campus, a traditional meal

of ‘Scouse’ at Liverpool Football Club’s stadium at Anfield, and an evening tour of the city. Dr Ramunas Povilanskas, Director of the Baltic EUCC Office, based in Lithuania, who has attended all Littoral conferences since 1993, declared that Littoral 2017 in Liverpool was among the best ones and was a source of inspiration for further networking within EUCC.

Part of the conference programme included a fieldtrip to explore the Formby dune system with the National Trust on the famous Sefton Coast (left), or the chance to witness the final stages of construction of the £1.89 billion Mersey Gateway project, a major cable-stayed bridge spanning the macrotidal Mersey river estuary and an insight into environmental mitigation efforts on the adjacent saltmarsh (right).



Submitted by CCS Chair: Colin Woodroffe

DECEMBER 01, 2017. The Arctic Research Centre CER-ARCTIC Inauguration and The 2017 Stefansson Memorial Lecture, UNIVERSITAT AUTONOMA DE BARCELONA, SPAIN



The main objectives of the ARCTIC Research Centre at the UAB are:

- Undertake socially responsible research with and for Arctic local communities.
- Provide a linchpin and creative meeting place for transdisciplinary research and open communication.
- Study issues of rights and social justice regarding the use of maritime resources and spaces.

- Form a bridge for comparative studies of common issues in both Arctic and non-Arctic regions.
- Promote greater understanding of issues of sustainability and sound governance system as frameworks for human development and welfare in the region.

Submitted by CCS SC Member: Dr. Françoise Breton, Director of the CER-ARCTIC, UAB.

DECEMBER 05, 2017. EGCP WORKSHOP ON MARINE LITTER, SCOTLAND, UK.

On 5th December 2017, EGCP Ltd. (<http://www.egcp.org.uk/>) (East Grampian Coastal Partnership) hosted the East Grampian Beach Litter Meeting at Aberdeen Harbour's Marine Operations Centre (MOC) (**Figure 1**).



Figure 1: Aberdeen: harbour control tower and beach ([cc-by-sa/2.0](http://www.geograph.org.uk/p/3831947) - © [Chris Downer](http://www.geograph.org.uk/p/3831947) - <http://www.geograph.org.uk/reuse.php?id=3831947>)

Beginning with a Welcome from David R. Green (Chair EGCP) and Natalie Ghazi (Vattenfall) to set the context for marine and beach litter at the global, national, and local scale, Ian Hay (EGCP Ltd. Project Manager) outlined the East Grampian Beach Litter Project and Survey. Catherine Gemmell (Scotland Conservation Officer) of the Marine Conservation Society (MCS) went on to cover aspects of their work on the Great British Beachwatch. John Watson (Centrica) presented some personal experiences from campaigns to clear litter from Greyhope Beach in Aberdeen and Morecambe Bay, and the morning session was concluded by Morag Campbell from Marine Scotland about the role and work of the Scottish Government concerning marine litter. Following a brief lunch and tour of the control room at the MOC facility, Ian Hay premiered his EGCP beach video, and Catherine Gemmell quickly outlined the Moray Firth C.R.A.P. (Coastal Rubbish And Pollution) project on behalf of Vicky Junik from the Moray Firth Partnership (MFP).

A general discussion followed covering a wide range of topics on beach litter ranging from volunteer beach cleans, to the problems of micro-plastics, fishing litter, and the ever popular disposable

BBQs. With the VisitScotland (<https://www.visitscotland.com/>) coordinated 2020 Scotland Year of the Coast and Waters (<http://www.eventscotland.org/news/2017/3/scotland-s-future-themed-years-unveiled-programme-extended-until/>) on the horizon delegates were asked to consider how we can prepare for what Ian Hay described as 'The Party' in 2020.

The Chair closed the proceedings on behalf of EGCP Ltd. and thanked all the speakers (above) and delegates (Aberdeen City Council; James Hutton Institute (JHI); Peterhead Port Authority; and Aberdeenshire Council), Aberdeen Harbour for the wonderful venue with a fantastic view (and by the time the meeting ended a beautiful sunset) over Aberdeen City and Aberdeen Beach (**Figures 2 and 3**), and last but not least Vattenfall (<https://corporate.vattenfall.co.uk/about-vattenfall/>) for sponsoring the event.



Figure 2: Delegates at the East Grampian Beach Litter Workshop
(courtesy of Catherine Gemmell: MCS Scotland Conservation Officer)



Figure 3: Ships passing the meeting room in the MOC
(courtesy of Ian Hay: EGCP Ltd. Project Manager)

For Further Details about EGCP Ltd., and their work, please contact Ian Hay - EGCP Ltd. Project Manager: ian.hay@egcp.org.uk / <http://www.egcp.org.uk/>

Submitted by CCS SC Member: David Green - Chair of EGCP Ltd - and Director of the Aberdeen Institute of Coastal Science and Management (AICSM).

MEETINGS WITH COASTAL INTEREST

APRIL 08-13, 2018. VIENNA, AUSTRIA, EUROPEAN GEOSCIENCES UNION (EGU)



NH5.3/GM11.9/SSP3.16. Geological records of extreme wave events (co-organized)

Convener: Ed Garrett, Co-Conveners: Dominik Brill, Simon Matthias May, Jessica Pilarczyk, Max Engel

Tsunamis and storm surges pose significant hazards to coastal communities around the world. Geological investigations, including both field studies and modelling approaches, significantly enhance our understanding of these events. Past extreme wave events may be reconstructed based on sedimentary and geomorphological evidence from low and high energy environments, from low and high latitude regions and from coastal and offshore areas. The development of novel approaches to identifying, characterising

and dating evidence for these events supplements a range of established methods. Nevertheless, the differentiation between evidence for tsunamis and storms still remains a significant question for the community. Numerical and experimental modelling studies complement and enhance field observations and are crucial to improving deterministic and probabilistic approaches to hazard assessment. This session welcomes contributions on all aspects of paleo-tsunami and paleo-storm surge research, including studies that use established methods or recent interdisciplinary advances to reconstruct records of past events, or forecast the probability of future events.

This session is a contribution to IGCP Project 639: Sea-Level Change from Minutes to Millennia <http://sealevelchange.org/>.

For more details please visit the session link:
<http://meetingorganizer.copernicus.org/EGU2018/session/26704>
or contact Ed Garrett, edmund.garrett@durham.ac.uk

The deadline for abstract submissions is 10 January 2018.

MAY 07 - 11, 2018. GEOHAB 2018, MARINE GEOLOGICAL & BIOLOGICAL HABITAT MAPPING, SANTA BARBARA, CALIFORNIA



GEOHAB (Marine Geological and Biological Habitat Mapping) is an international association of marine scientists studying biophysical (i.e. geologic and oceanographic) indicators of benthic habitats and ecosystems as proxies for biological communities and species diversity. The GeoHab 2018 annual conference will be held in Santa Barbara, California at the Fess Parker Resort from Monday May 7 to Friday May 11 2018. The annual conference brings geologists, biologists, acousticians, statisticians, spatial analysts and environmental managers from around the world and provides a truly multidisciplinary forum for the exchange of knowledge and ideas that underpin sustainable ocean management and mapping.

Conference themes are:

Shelf and deep-sea habitats: This session is going to include deep-water methods, technological advances and discussion of specific shelf and deep-sea habitats as well as how their distribution and specific characteristics may play an important role at broader scale. Talks may include habitat mapping in shelf and deep-sea habitats for conservation and management purposes.

Coastal and shallow water habitats: This session will have a particular focus on linking methodologies from terrestrial remote sensing (including the emergence of aerial drones) to shallow water environments. Talks may include habitat mapping in coastal and shallow water habitats for conservation and management purposes.

Mapping, planning and impact assessment for ocean energy: This session will focus on the use of seafloor mapping technologies and case studies associated with marine renewable and conventional energy.

Marine Minerals: A new GeoHab frontier. This session will focus on habitat issues related to marine minerals development including aggregates and deep sea minerals (e.g. seafloor massive sulfides, polymetallic nodules).

Deep water coral habitats: For presentations about coral habitat discovery, significance, and management.

Seeps and Hydrates: Talks about mapping and understanding seeps, gas hydrates and the chemosynthetic ecosystems fueled by release of methane at the seafloor.

Interactions between oceanographic processes and habitats. This session will focus on geologic-habitat and biotic-habitat change and presence-absence as a function of bathymetric position, currents, waves and water chemistry.

IMPORTANT DATES

January 1, 2018: Submission of Abstracts OPENS

March 1, 2018: Submission of Abstracts CLOSES.

March 15, 2018: Authors notified of abstract acceptance and oral/poster decision

For further details visit the conference website: <https://www.geohab2018.org/>

**MAY 13-18, 2018. 15TH INTERNATIONAL COASTAL SYMPOSIUM (ICS),
HAEUNDAE BEACH, BUSAN, REPUBLIC OF KOREA**



The **15th International Coastal Symposium (ICS)** will be held on 13-18 May 2018 in Haeundae Beach, Busan, Republic of Korea. The Coastal Education & Research Foundation (CERF) and the Journal of Coastal Research (JCR) cordially invite all coastal researchers to attend and show their support. The theme is “**Safe Coasts Beyond Climate Change and Coastal Development**”.

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 further information, please visit the official ICS2018 homepage at:

<http://ics2018.org/>

MAY 28 – JUNE 01, 2018. 50TH INTERNATIONAL LIEGE COLLOQUIUM ON OCEAN DYNAMICS, LIEGE, BELGIUM

LONG-TERM STUDIES IN OCEANOGRAPHY – A CELEBRATION OF 50 YEARS OF SCIENCE AT THE LIEGE COLLOQUIUM

This will be the 50th edition of the International Liege Colloquium of Ocean Dynamics, a perfect reason to celebrate and review the advances made in studying the oceans during the last several decades. In particular, this edition will be dedicated to long-term studies in oceanography.

Abstracts are welcomed in the study of the ocean using long-term datasets, based on in situ data, remote sensing data, model simulations and reanalyses. Works that evidence the importance of maintaining in time the in situ and remote sensing datasets, and review studies that provide a perspective of the advancement of science during the last decades using these long-term datasets are also welcome:

- ***Ocean dynamics & climate change.*** Studies addressing the impact of climate change on ocean dynamics, and the influence of the ocean on climate.
- ***Oceanic climate records (datasets, methods and comparisons).*** Generic studies about model-based and observation-based datasets (reanalyses, reconstructions), their validation and intercomparisons, and studies about specific methods for multidecadal reanalyses and reconstructions (assimilation, bias corrections and drift corrections). Reprocessing and intercalibration of multi-mission datasets.
- ***Coastal and regional processes.*** Studies focusing on long-term variability and local trends of specific regions, including downscaling of large scale climatic processes.
- ***Trends in polar regions.*** Abstracts on the trends of ocean and sea ice dynamics of polar regions, influence of climate on their variability and the impact of these regions on the global climate system.
- ***Biogeochemical processes.*** Studies about oceanic long-term ecosystem changes induced by climate variability.
- ***Long-term trends in oceanography (open session).*** An open session for all studies on the multidecadal study of the ocean. Abstracts that do not fit in other session can be submitted here.

Abstract Submission deadline: On the 19th January 2018.

More details can be found on the meeting website:

<http://labos.ulg.ac.be/gher/home/colloquium/colloquium-2018/>

MAY 31 – JUNE 01, 2018. EUROPEAN MARITIME DAY (EMD), BURGAS, BULGARIA



The next stop for European Maritime Day cruise is on **31st of May and 1st of June 2018** in sunny Burgas at the Black Sea. The EMD Conference includes plenary and thematic sessions (with the participation of high level and key-experts) as well as workshops that are self-organized by interested stakeholders.

For further details and more information visit the EMD Burgas 2018 website: <https://ec.europa.eu/maritimeaffairs/maritimeday/en/burgas-2018>.

JUNE 11-15, 2018. 2ND BALTIC EARTH CONFERENCE, HELSINGOR, DENMARK



Baltic Earth

Earth System Science for the Baltic Sea Region

Baltic Earth strives to achieve an improved Earth System understanding of the Baltic Sea region as the basis for science-based management in the face of climatic, environmental and human impact in the region. Baltic Earth brings together a broad international research community around core scientific issues identified as fundamental to informing societal efforts to achieve sustainability in the region. Baltic Earth targets the atmosphere, land and marine environment of the Baltic Sea, its drainage basin and nearby areas with relevance for the Baltic Sea region.

Conference topics:

Baltic Earth focuses on specific interdisciplinary research challenges formulated by the Baltic Earth Science Steering Group. Additional topics are treated by dedicated Working Groups. Conference topics are based on these challenges:

- **Salinity dynamics;**

- **Land-Sea-Atmosphere biogeochemical feedbacks;**
- **Natural hazards and high impact events;**
- **Sea level dynamics, coastal morphology and erosion;**
- **Regional variability of water and energy exchanges;**
- **Multiple drivers of regional Earth system changes;**
- **Regional climate system modelling** - Recent progress in the understanding of regional climate variability with special focus on coupled effects between sea, atmosphere, land and anthroposphere.
- **Other regional seas** - We welcome contributions related to any of the above outlined topics, from similar sea and coastal regions around the world, e.g. the North Sea, the Mediterranean, the Black Sea, or the Bo Hai and Huang Hai areas, and others.

Contributions related to any of these scientific fields are welcome. In addition, invited and contributed papers will be presented along with parallel poster sessions. The conference is also intended as discussion forum for scientists, managers and other stakeholders. Conference language is English. There will be a dedicated side event for students and young scientists.

More infos will be available later on the conference website: <http://www.baltic.earth/helsingor2018/>

JULY 15-19, 2018. COASTAL ZONE CANADA 2018 CONFERENCE, ST JOHN'S, NEWFOUNDLAND, CANADA



The Coastal Zone Canada Associations' biennial conference series is returning to St John's, Newfoundland and Labrador in 2018! CZC'18 will be held on the campus of Memorial University from July 15th to 19th, 2018. The venue is only a few minutes from the historical St. John's waterfront, one of the oldest ports in North America.

The theme for the 2018 Coastal Zone Canada Conference is
"Seeking Practical Solutions to Real Issues; Communities Adapting to a Changing World".

Throughout the conference, three sub-themes will be explored, including:

- Change and Challenge – Realizing Opportunity
- Engagement and Collaboration – Examples from the Field
- Tools and Technologies – Practical Applications

Details on the call for abstracts and special sessions will be available soon. Please visit closely the conference website for the following information: <http://www.coastalzonecanada.org/>.

AUGUST 06-10, 2018. INTERNATIONAL GEOGRAPHICAL UNION REGIONAL CONFERENCE, QUEBEC, CANADA



The Canadian Association of Geographers and the University Laval, North America's oldest French-language university, **organized the 2018 International Geographical Union Regional Conference** to be held in Canada from August 6 to 10, 2018.

The conference theme, Appreciating Difference, or *Apprécier la différence*, is a Quebec expression that invites participants to consider the world as a blank canvas that we must first decide how to depict before putting down images and words. Surely, the choice of those images and words is a matter of appreciation. To appreciate is not only a question of what we find significant and of value, it is also an awareness of differences and the ability to recognize them as meaningful to a more inclusive interpretation of the diverse world in which we live. Conference topics, as well as IGU commissions and CAG study groups, will reflect on this thought-provoking theme.

The conference programme and abstracts will be made available via the Internet and will be downloadable for all participants. As well, the programme and abstracts will be made accessible via a mobile device application. The final conference programme, with abstracts, will be made available electronically as the IGU 2018 Conference Proceedings with an ISBN number supplied by Les Presses de l'Université Laval.

Please note that it will be offering a post-conference 4-day excursion exploring the coastal geomorphology and maritime culture of the St. Lawrence Estuary, led by Matthew Hatvany (e-mail: Matthew.Hatvany@ggr.ulaval.ca).

For more details on the conference, accommodation, fieldtrips, etc. follow the conference website: <http://igu2018.ulaval.ca/>.

Registration - Early Bird is from 1 December 2017 to 31 January 2018.

The submission of abstracts deadline is 15 March 2018.

OCTOBER 22-26, 2018. LITTORAL 2018. LEEUWARDEN, NETHERLANDS



Next Littoral 2018 will be a three-day international conference and excursions exploring the deltas and the littoral in and around the **Cultural Capital of Europe 2018, Leeuwarden in the Netherlands**. The conference will join all disciplines to explore current and future issues of relevance to the coast and will be of interest to a wide spectrum of scientists, including those from the physical sciences, climate change scientists and ecologists, social scientists, engineers, policy makers and advisers and practitioners.

The programme is yet to be determined. Up to the 28th of February 2018 proposals can be submitted for a session or workshop.

The following main themes have been selected:

- GREEN COASTS: Natural and resilient coasts
- CLEAN SEAS: Protection of the marine environment
- BLUE GROWTH: Sustainable development in the coastal & marine environment

Together with these main themes, several sub-themes will be determined based on the approved abstracts. Your own ideas for a sub-theme are welcome as well. Submit your proposal for a presentation or discussion session.

Call for Abstracts: deadline for submission - 28th February 2018.

Visit www.vhluniversity.com/littoral2018 for more details on the conference and registration.

For more information, please email: Littoral2018@hvhl.nl

Facebook: <https://www.facebook.com/Littoral2018>

APRIL 21-25, 2019. SOLAS OPEN SCIENCE CONFERENCE 2019. SAPPORO, HOKKAIDO, JAPAN



The 2019 edition of the Surface Ocean Lower Atmosphere Study (SOLAS) will take place from the 21-25 April in Sapporo, Hokkaido, Japan. Registration and abstract submission for the event will open in April 2018. More information on the event will become available in the coming months. Conference website: <http://www.solas-int.org/news/items/solas-open-science-conference-2019.html>.

HIGHLIGHTS & FEATURES

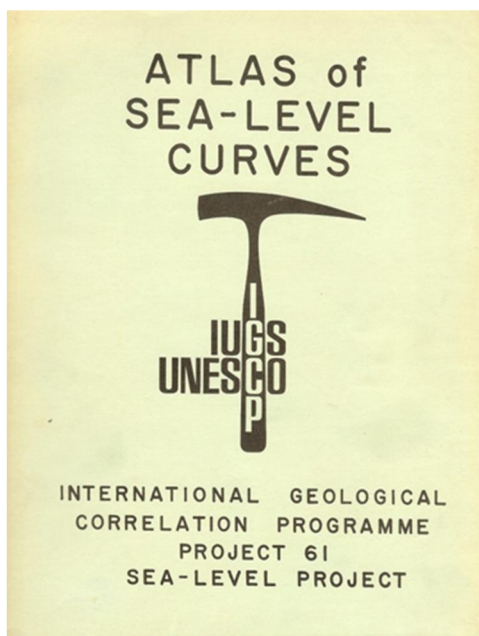


The **IGU Commission on Coastal Systems (CCS)** has a website that can be found at: <http://www.igu-ccs.org/>. Contact information for CCS Officers and Steering Committee members can be found on the website along with past and present newsletters.

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

AN ATLAS OF SEA-LEVEL CURVES

Understanding how sea level has changed in the past is fundamental to forecasting how it will change in future. In 2017, the coastal community lost two scientists who made an enormous contribution to mapping out those variations in past sea level, Professor Art Bloom and Professor Paolo Pirazzoli. Both led projects within IGCP (projects 61 and 200, respectively) focused on recognising regional variation in sea-level change, and those projects each produced ‘an atlas’. The quest for greater insight into how sea level has altered in the past, the compilation and collation of data, and the regional synthesis of those datasets continues, and remains an active research area within the current IGCP sea level project 639. Some of the highlights of past achievements are considered below, together with a summary of ongoing research directions.



Art Bloom

Arthur Leroy Bloom was born in Wisconsin in 1928, undertook a Bachelors in Ohio, a Masters at University of Otago in New Zealand (on a Fulbright award), and, after 5 years as an officer in the US Navy, a PhD at Yale. He was appointed at Cornell University as a geomorphologist in 1960. Art wrote “*The Surface of the Earth*” (1969) and “*Geomorphology: A Systematic Analysis of Late Cenozoic Landforms*” (1991), but for the sea-level community he made a particular contribution to the compilation of sea-level reconstructions. Having taken an interest in the Pacific when stationed there as a naval officer, he subsequently visited Australia and Japan on sabbatical leave, and undertook fieldwork in Papua New Guinea and Micronesia. Art Bloom passed away on 31 May this year.

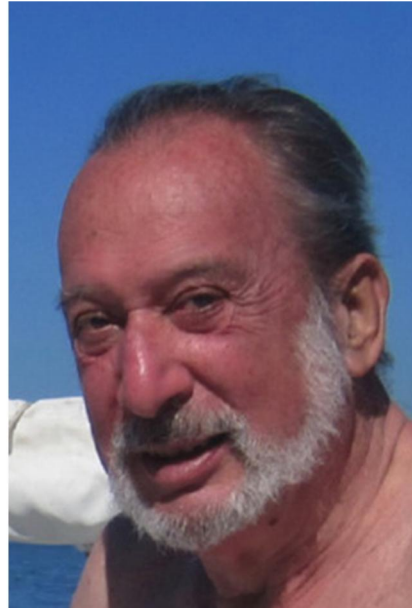
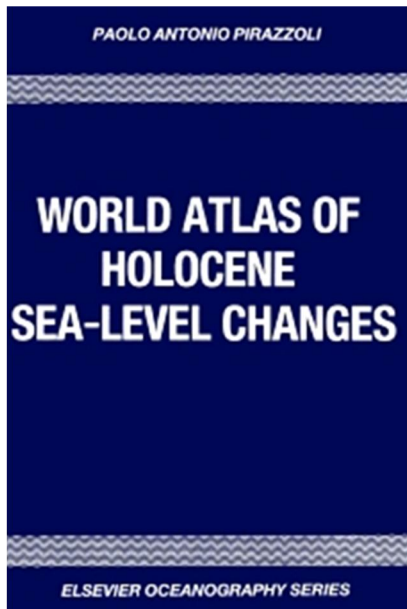
The first Atlas

Art led IGCP Project 61 “*Sea-level change during the last deglacial hemicycle*” from 1974 to 1982. UNESCO and the International Union of Geological Sciences (IUGS) had supported this project with the aim of reconciling by 1982 the differences between curves that had been published in the 1960s which the various authors had claimed were ‘the eustatic’ curve for the postglacial. By 1976, it had become apparent that no one curve could be determined; Art Bloom had come to a realisation that differences in elevation of contemporaneous shorelines might be a consequence of hydro-isostatic effects. In a field meeting of IGCP 61 in December 1976 in Dakar, Bloom presented the first results obtained by Clark, Peltier and others using a new global isostatic model of sea-level response to changing ice and water loads on the earth. The relative sea-level story was evidently different in different places, and a major outcome of the project was publication of the “*Atlas of Sea-level Curves*” in 1977. After a second printing in January 1979, the monograph was available for purchase from Art, ‘while supplies last’. With a two-page introduction, and three maps setting the context (a global map and one of the eastern US and another of western Europe), the compilation was then a reproduction, as published, of all 170 diagrams showing a sea-level curve published since 1955 and known to Bloom.

A subsequent project, IGCP 200, led by Paolo Pirazzoli, commenced with the idea of updating the initial atlas. By 1985, more than 250 additional curves had been published and the Shorelines Commission, under Douglas R. Grant, put out a call in *Litoralia* for contributions to this Supplement. The IGCP group were now focused on determining sea-level histories as precisely as possible at various sites around the world, considering the variations to be influenced by a complex of local, regional and global factors. Only in this way was it considered that such a compilation could serve to forecast near-future sea-level changes.

Paolo Pirazzoli

Paolo Antonio Pirazzoli, was born in Venice (Italy) in 1939 and became a naturalised French citizen in 1978. Paolo graduated in civil engineering from Palermo (Sicily), and was an engineer in France until 1968. In 1976, he obtained his PhD in geography from Paris University with a thesis entitled “*Les variations du niveau marin depuis 2000 ans*”. Inspired by the vulnerability of his home town, Venice, his research focused on identification and dating of former shorelines (Holocene and Pleistocene) all over the world. He led IGCP Project 200 “*Sea-level correlation and applications*” (1983-1987) which involved over 600 participants from 67 countries. Paolo was a partner in several European Commission research projects focused on sea level and storminess. In the late 1990s he contributed to a working group assessing the vulnerability of Venice and considering precautions against flooding in the lagoon. His field experience included geomorphological surveys in several countries of the Mediterranean region, across the Pacific region (Japan, Taiwan, French Polynesia), Africa (Senegal, Mauritania, Kenya) and the Indian Ocean (Seychelles, Indonesia, Iran, French “*Iles Eparses*”). Paolo Pirazzoli sadly also passed away in 2017.



The second Atlas

An outcome of IGCP Project 200 was the ‘*World Atlas of Holocene Sea-level Curves*’, published in 1991 by Elsevier in its Oceanography Series (volume 58) as a contribution to the subsequent IGCP Project 274 “*Coastal evolution during the Quaternary*”. The book focused on records of sea-level changes during the past 10,000 years; their rates, and our ability to estimate these changes accurately, reflecting an emphasis that Paolo stressed when reconstructing former shorelines. More than 800 local relative sea-level curves were described deduced from field data from all parts of the world, and these were compared with over 100 curves predicted by geophysical models. A recommendation was that ‘sea-level index points be collected, together with their standard error margins and other relevant information, in appropriate data bases’, enabling updating through time and extension over broader geographical areas.

Successive IGCP Projects

Sea-level changes have been a prominent feature of successive IGCP projects, building on the legacy set by Bloom and Pirazzoli. The successive coastal and sea-level projects sponsored by IGCP are listed below with the principal project leader.

- Project 61 “*Sea-level change during the last deglacial hemicycle*”.
Art Bloom, 1974-1982
- Project 200 “*Sea-level correlation and application*”.
Paolo Pirazzoli, 1983-1987
- Project 274 “*Coastal Evolution in the Late Quaternary*”.
Orson van de Plassche, 1988-1993
- Project 367 “*Late Quaternary coastal records of rapid change*”.
David Scott, 1994—1998
- Project 437 “*Coastal environmental change during sea-level highstands*”.
Colin Murray-Wallace, 1999-2003
- Project 495 “*Quaternary land-ocean interactions*”.
Antony Long, 2005-2009
- Project 588 “*Preparing for coastal change*”.
Adam Switzer, 2010-2014”

The latest in this sequence is IGCP Project 639 “*Coupling instrumental, historical, archaeological, and geological records of sea-level change over minutes to millennia*”, details of which can be found at <http://www.sealevelchange.org>. Led by Simon Engelhart, the project is focused on coastal hazards from minutes to decades (storms, tsunami, coastal earthquakes), from years to centuries (deltas and land subsidence), and centuries to millennia (ice budgets, sea level, and geological evolution). Its aims include:

- To gain a greater insight into coastal hazards by integrating different methodologies that consider varying timescales;
- To bring together specialist scientists from related disciplines;
- To transfer knowledge of basic science methodologies developed over multiple IGCP projects;
- To develop a coastal hazards toolkit that incorporates the basic science knowledge produced by the project; and
- To encourage researchers from developing countries, particularly in Africa, South America, and the Middle East.



Following a successful meeting in Oman (above), a workshop and field meeting of IGCP639 (in conjunction with INQUA projects CMP1601P and CMP1701P) was held in St Lucia in South Africa, in September 2017, with a field excursion to Mission Rocks (below). The South Africa meeting was dedicated to Professors Bloom and Pirazzoli. The third annual meeting will be held in southern Italy in September 2018.



In addition to IGCP 639, a project called *HOLSEA: Geographic variability of Holocene relative sea level* has been inaugurated under the auspices of INQUA, Coastal and Marine Processes (Project 1601P). Following its first meeting in Mt. Hood, Oregon in September 2016, the HOLOCENE SEA-level variability (HOLSEA) working group is developing the first standardized global synthesis of Holocene relative sea-level data to: (1) estimate the magnitudes and rates of global mean sea-level change during the Holocene; and (2) identify trends in spatial variability and decipher the processes responsible for geographic differences in relative sea-level change. The database will include sea-level index points, and limiting data from a range of different indicators from the Last Glacial Maximum to the present, following a standard protocol, including uncertainties. The project leaders are Nicole Khan, Erica Ashe, Ben Horton, and Robert Kopp, and the project is closely tied with the PALSEA and IGCP639 communities. The first major output of this project will be a special issue in *Quaternary Science Reviews* entitled “Inception of a Global Atlas of Sea Levels since the Last Glacial Maximum” to be published in 2018, edited by Nicole Khan, Simon Engelhart, Benjamin Horton, and Alessio Rovere.

Submitted by: Colin Woodroffe (CCS Chair), Simon Engelhart and Nicole Khan



A short article on monitoring, mapping and modelling saltmarsh was published by UCEMM at the University of Aberdeen in the August 2017 issue of GIS Professional magazine: *Monitoring, Mapping and Modelling Saltmarsh | The UAV Way* by: David R. Green, Dmitri Mauquoy, Jason J. Hagon, Stewart Angus, Jim Hansom, Alistair Rennie, Cameron L. Gourlay, and Jamie Bowie. Pages: 22-25. The article demonstrates the practical potential of using UAV-based remote sensing platforms and sensors to monitor, map and model coastal and estuarine saltmarsh.

<https://www.gis-professional.com/magazine/august-2017>

David R. Green (UCEMM and AICSM) hosted a small stand at the Commercial UAV Show in the Excel Centre in London 15th-16th November 2017:



Submitted by CCS SC member: David Green



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.



The **Sand Dune and Shingle Network** (<http://coast.hope.ac.uk/>) is based within the Geography and Environmental Sciences Department at Liverpool Hope University and has the major aim to conserve sand dunes and shingle as dynamic landscapes. The Network currently includes, amongst others, many of the following groups: site managers, national policy makers, students and researchers, biodiversity officers, ecologists, geomorphologists and hydrologists and most recently coastal engineers, golf course managers, tourism interests, forestry interests, military sites, landscape historians etc. It has over 290 full members. The Network operates by sharing information across different sectors and disciplines. The common interest is the natural resource and a desire to find sustainable solutions to conservation issues.

The founder and Director of the Sand Dune and Shingle Network is Prof. Paul Rooney, an environmental geographer and Senior Lecturer at Liverpool Hope University. Paul is regarded as an international expert in coastal sand dune conservation and management, and is research active and widely published in this area. He is one of the recently joined members to the CCS Steering Committee.

The Newsletter of Sand Dune and Shingle Network is available for reading at: <http://coast.hope.ac.uk/publications/>. The publications are open accessed and free for distribution. The Newsletter highlights results of networking, projects and publications, as well as opportunities for conferences, study tours, workshops and cooperation. It is distributed to about 540 contacts in the UK and worldwide.

The **Sand Dune and Shingle Network** also operates as part of a developing European network and works closely with the Coastal and Marine Union (EUCC). To find more on this please visit: http://www.eucc.net/en/european_dune_network/index.htm.



The Program for the Study of Developed Shorelines (PSDS) at Western Carolina University - USA takes a worldwide view of modern coastal processes and geologic hazards, examines the scientific basis for managing developed shorelines in a time of rising sea level and advocates for the development and implementation of responsible strategies, plans, policies and actions that promote the long-term sustainability of the nation's coastal ecosystems.

One of the fundamental goals of PSDS is to serve as a primary technical and policy resource for a variety of beach management issues and to provide information, data and advice to federal, state and local government agencies; the media, concerned citizens; the scientific community; nonprofit organizations and other concerned stakeholders. **The Director of PSDS is Robert Young, Professor of Coastal Geology at Western Carolina University.**

For more information visit the website of PSDS: <https://psds.wcu.edu/>.

Coastal Care (<http://coastalcare.org/>) is a non-profit **Santa Aguilera Foundation** dedicated to defending the beaches and shorelines of our shared planet. The mission of **Coastal Care** includes:

- Produce a comprehensive curriculum for children to learn about the importance of coastlines, and empower them to act to protect this crucial environment;
- Raise awareness of the many unsustainable practices that are harming the world's beaches and coasts;
- Educate children about the science of natural beaches and empower them to act to protect their coastal environment;

- Advocate for sensible, science-based policies and regulations that will protect and preserve coastlines and beaches around the world; and
- Mobilize individuals to recognize and address global issues of coastal management.

There is a section “**Beach of the Month**” with published contributions of interesting stories about beaches across the world. Visit the website of **Coastal Care** to learn and read more about this great initiative!



land-ocean interactions in the coastal zone

Future Earth Coasts (formerly known as LOICZ | Land-Ocean Interactions in the Coastal Zone) is a global research project of [Future Earth](#). It is a ‘community’ of organisations, scientists and practitioners from all disciplines of science, engineering, the humanities and law whose work addresses

Global Environmental Change, contributes to achieving the SDGs ([Sustainable Development Goals](#)) and social learning. FECoasts provides a platform for networking and delivering ‘added value’ to the outputs of our community to explore and understand the drivers and social-environmental impacts of global environmental change in coastal zones.

FECoasts aims to:

- Strengthen global partnerships between researchers, funders and users of research
- Enable integrated research on grand challenges and transformations to sustainability
- Communicate science to society and society to science

The FECoasts vision is to support transformation to a sustainable and resilient future for society and nature on the coast by facilitating innovative, integrated and impactful science. Future Earth Coasts is hosted by the Centre for Marine and Renewable Energy ([MaREI](#)), the work is guided by a [Scientific Steering Committee](#) and implemented by an [International Project Office](#).

For more information visit: <http://www.futureearthcoasts.org/>

Join the conversation at: <http://www.futureearthcoasts.org/contact-us/>

Social media: [Follow us](#) | [Like us](#) | [Link with us](#)



JOIN THE CONVERSATION

Become part of our community by joining our mailing list and find out more about how you can contribute to the delivery of the Future Earth Coasts project.

OCEAN & COASTAL MANAGEMENT

Editor in chief: Victor de Jonge

SPECIAL ISSUE: MANAGEMENT STRATEGIES FOR COASTAL EROSION PROBLEMS



Editors: Nelson Rangel-Buitrago¹, Allan Williams²⁻³, Enzo Pranzini⁴ and Giorgio Anfuso⁵

¹ *Departamento de Física, Facultad de Ciencias Básicas, Universidad del Atlántico, Km 7 Antigua vía Puerto Colombia, Barranquilla, Atlántico, Colombia.*

² *Faculty of Architecture, Computing and Engineering, University of Wales: Trinity Saint David (Swansea), SA1 6ED, Mount Pleasant, Swansea, Wales, United Kingdom.*

³ *CICA NOVA, Nova Universidade de Lisboa, Lisboa, Portugal*

⁴ *Dipartimento di Scienze della Terra, University of Florence, Italy*

⁵ *Departamento de Ciencias de la Tierra, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz, Polígono río San Pedro s/n, 11510 Puerto Real, Cádiz, España.*

Coastal zones are of strategic importance around the world. Almost half of populations living in cities with over 100,000 inhabitants are within 100 km from the coast, and many vital economic, social, environmental, and cultural activities take place there. Many coastal areas are facing chronic shoreline erosion problems requiring adequate management strategies. Any management plan must be the optimal alternative to address shoreline erosion issues at the different levels. This Special Issue introduces works related to the implementation of management strategies for coastal erosion to:

- Identify significant coastal erosion issues.
- Develop an understanding of the underlying coastal processes contributing to erosion problems.
- Establish and evaluate options for management.
- Facilitate community input on coastal erosion issues.
- Assist planning for the delivery of selected erosion protection and management options.

22 Articles from all relevant disciplines with the coastal erosion management topic have been accepted. The content of the issue includes:

Intro Paper: The Management of Coastal Erosion

POLICIES INVOLVED IN COASTAL EROSION MANAGEMENT

- Why coastal regulations fail.
- Coastal erosion and the United States flood insurance program

COASTAL EROSION MANAGEMENT PRACTICES

- Shore protection in Italy: from hard to soft engineering ...and back
- Hard protection structures as a principal coastal erosion management strategy along the Caribbean coast of Colombia. A chronicle of pitfalls
- Coastal erosion and protection in Kuwait – problems and management strategies.
- Management strategies for coastal erosion problems in West Africa: analysis, issues and restraints drawn from the cases of Benin and Senegal.
- Erosion in Buenos Aires province: coastal-defence policy revisited.
- Characteristics and considerations for natural and human managed dunes in New Jersey, USA.

METHODOLOGICAL APPROACHES IN COASTAL EROSION MANAGEMENT

- Analysis of shoreline changes and cliff retreat to support marine spatial planning in Shabla Municipality, northeast Bulgaria.
- Coastal erosion in central Chile: a new hazard?
- Predicting coastal erosion in St. Kitts: collaborating for nature and culture
- Creation of a regional approach to monitoring and management, north-eastern region, U.S.A.
- Beach erosion and loss of protection ecosystem services in Cancun, Mexico.
- Geo-indicators applied to the assessment of Santa Catarina (Brazil) sandy beaches susceptibility to erosion
- Application of the coastal hazard wheel to assess erosion on the Maltese coast.

NEW ALTERNATIVES FOR COASTAL EROSION MANAGEMENT

- Implementing an efficient beach erosion monitoring system for creating evidence –based coastal management in Croatia.
- Climate adaptation of eroding coasts using regional and long-term sand nourishment schemes: a case study for Holland (the Netherlands) and Aveiro (Portugal).
- Modelling coastal erosion: a case study of Yarada beach near Visakhapatnam, east coast of India
- A quantitative assessment of human interventions and climate change on the west African sediment budget
- Ecosystems as a tool for coastal erosion management.

Closing Paper: An Integrated Approach to Coastal Erosion Management

The following information is taken from the informative Coastal Update Newsletter compiled by the Atlantic Coastal Zone Information Steering Committee (ACZISC) Secretariat. The full version is available at: <http://coinatlantic.ca/>.

OCEANS DAY AT COP 23

The International Institute for Sustainable Development has published an Oceans Day at COP 23 Bulletin. Oceans Action Day, part of the Marrakech Partnership for Global Climate Action, took place on 11 November 2017, in Bonn, Germany, on the sidelines of the 23rd session of the Conference of the Parties (COP 23) to the UN Framework Convention on Climate Change (UNFCCC). Participants at Oceans Action Day heard presentations from over 70 speakers, including Heads of State, ministers, and representatives from governments, agencies, civil society, academia and the private sector. Please see more details: <http://enb.iisd.org/climate/cop23/oceans-action-day/>.

NEW OPEN ACCESS RESEARCH REPOSITORY



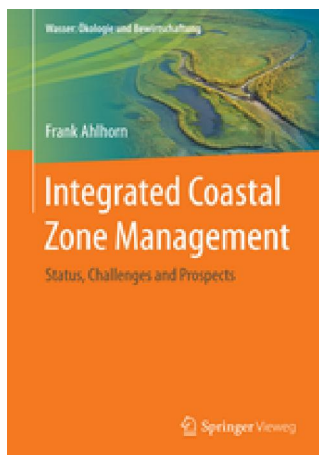
MarXiv is a new open access ocean and climate-change science repository that has been launched by Open Communications for the Ocean. MarXiv (rhymes with

“archive”) is designed to provide free access to research that would otherwise only be accessible with a university journal subscription. While “pay-walled” academic journal articles cannot be legally shared for free publicly, nearly all publishers allow authors to share their manuscripts in non-for-profit subject-matter repositories like MarXiv. Documentation about MarXiv, instructions on how to share your research, and upcoming training webinars can be found on the repository website: <https://www.marxiv.org/>.

BOOKS ON COASTAL TOPICS

Integrated Coastal Zone Management- Status, Challenges and Prospects,

Author: Ahlhorn, Frank

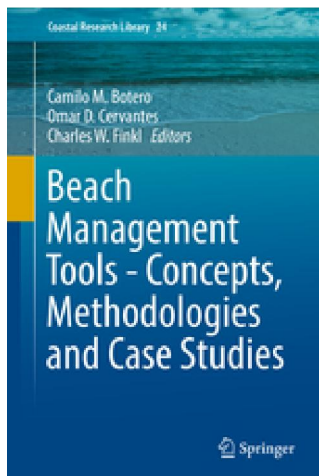


This book provides an overview of the coordination of various requirements for coastal-zone use, offering examples and best practice. Although it focuses on European coastal zones, it also considers global and historical developments. Questions at the end of each chapter enable readers to test their understanding. Springer, 2018

<http://www.springer.com/us/book/9783658170509>

Beach Management Tools - Concepts, Methodologies and Case Studies

Editors: Botero, Camilo M., Cervantes, Omar D., Finkl, Charles W.

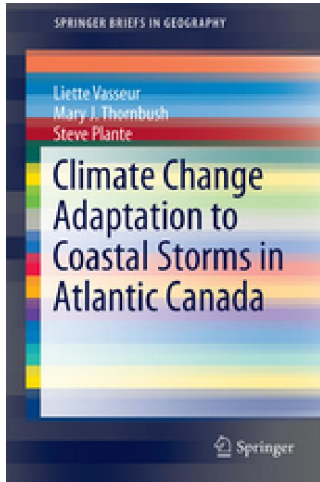


This book provides an overview of beach management tools, including carrying capacity, beach nourishment, environmental and tourism awards (like Blue Flag or others), bathing water quality, zoning, beach typologies, quality index, user's perception, interdisciplinary beach monitoring, coastal legislation, shore protection, social and economic indicators, ecosystem services, and coastal governance (applied in beach case studies). Beaches are one of the most intensely used coastal ecosystems and are responsible for more than half of all global tourism revenues, and as such the book introduces a wide range of state-of-the-art tools that can be used to deal with a variety of beach challenges. Each chapter features specific types of tools that can be applied to advantage in beach management practices. With

examples of local and regional case studies from around the globe, this book is a valuable resource for anyone involved in beach management.

Springer, 2018. <http://www.springer.com/gp/book/9783319583037>.

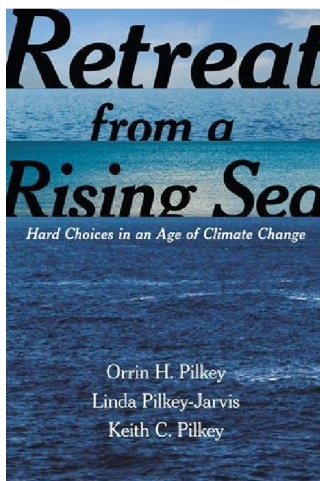
Adaptation to Coastal Storms in Atlantic Canada, Authors: Vasseur, Liette, Thornbush, Mary J., Plante, Steve



This brief is based on an analysis that was performed on the 2010 winter storms that caused considerable damage to coastal communities in Atlantic Canada. The hazards that occurred were associated with storm surge, high waves, coastal erosion, and flooding. The analysis covered a large multisite longitudinal project, where a participatory action research (PAR) approach was used to understand how people in 10 coastal communities perceive and experience extreme weather events and to enhance their capacity to adapt and improve their resilience. This brief exposes the outcome of two series of interviews and activities that were conducted during the project, as well as the lessons learned, and general elements that should be considered when researchers collaborate with communities to define adaptation and resilience strategies. It makes an important contribution to the application of PAR as an integrated (social-ecological) approach to resilience

and how such an approach can be adapted also to other communities. Springer, 2018. <http://www.springer.com/us/book/9783319634913>.

Retreat from a Rising Sea - Hard Choices in an Age of Climate Change, Authors: Orrin H. Pilkey, Linda Pilkey-Jarvis, and Keith C. Pilkey



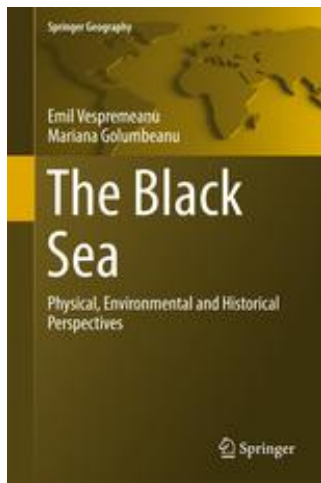
Melting ice sheets and warming oceans are causing the seas to rise. By the end of this century, hundreds of millions of people living at low elevations along coasts will be forced to retreat to higher and safer ground. Because of sea-level rise, major storms will inundate areas farther inland and will lay waste to critical infrastructure, such as water-treatment and energy facilities, creating vast, irreversible pollution by decimating landfills and toxic-waste sites. This big-picture, policy-oriented book explains in gripping terms what rising oceans will do to coastal cities and the drastic actions that must be taken now to remove vulnerable populations.

The authors detail specific threats faced by Miami, New Orleans, New York, and Amsterdam. Aware of the overwhelming social, political, and economic challenges that would accompany effective action, they consider the burden to the taxpayer and the logistics of moving landmarks and infrastructure, including toxic-waste sites. They also show readers the alternative: thousands of environmental refugees, with no legitimate means to regain what they

have lost. The authors conclude with effective approaches for addressing climate-change denialism and powerful arguments for reforming U.S. federal coastal management policies. Columbia University Press, November, 2017, <https://cup.columbia.edu/book/retreat-from-a-rising-sea/9780231168441>.

Use the promo code "RISING" to buy the book from the link above and get a 30% discount off the price of the paperback edition.

The Black Sea, Authors: Vespremeanu, Emil, Golumbeanu, Mariana



This book underpins the geography of the Black Sea, covering topics such as morphology, morphography, geology, and history of the Black Sea. It also discusses environmental aspects affecting the population in the Black Sea's coastal settlements and looks to the future of the Black Sea region. This book covers a gap in research in the field of world regional geography of the Black Sea by providing a comprehensive methodology and terminology to readers, students and teachers in the field.

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

Chair/Président

Prof. Colin Woodroffe
School of Earth and Environmental Sciences
University of Wollongong
Wollongong, NSW 2522
AUSTRALIA
colin@uow.edu.au

Past Chair/Ancien Président

Prof. Edward J. Anthony
Université de Provence
CEREGE, UMR CNRS 6635
Europôle Méditerranéen de l'Arbois
13545 Aix en Provence Cedex 4
FRANCE
anthony@cerege.fr

Secretary/Secrétaire, Editor of Newsletter

Dr. Margarita Stancheva
Department of Marine Geology and Archaeology
Institute of Oceanology
Bulgarian Academy of Sciences
P.O. box 152, Varna 9000
BULGARIA
stancheva@io-bas.bg

Past Secretary/ Secrétaire, Co-Editor of Newsletter

Prof. Norbert P. Psuty
74 Magruder Road
Institute of Marine and Coastal Sciences
Rutgers University
Highlands NJ 07732
U.S.A.
psuty@marine.rutgers.edu

Prof. Françoise Breton

ETC/TE Deputy-Manager
European Topic Centre Terrestrial Environment
Universitat Autònoma de Barcelona
Edifici C - Torre C5, 4a planta
E-08193 Bellaterra (Barcelona)
SPAIN
Francoise.Breton@uab.cat

Dr. Raoul Laïbi

Department of Earth Sciences
Université d'Abomey-Calavi
Abomey-Calavi
BENIN
raoulaibi@yahoo.fr

Prof. Paolo Ciavola

Dipartimento di Scienze della Terra
Università di Ferrara
Via Saragat 1
44100 Ferrara
ITALY
cvp@unife.it

Prof. Dra. Marinez Scherer

Universidade Federal de Santa Catarina
Centro de Filosofia e Ciências Humanas
Departamento de Geociências
Campus Universitário - Trindade
Florianópolis, SC - 88040-970
BRASIL
marinezscherer@gmail.com

Dr. Abdelmounim El M'rini

Department of Earth Sciences
Abdelmalek Essaâdi University
P.O. Box 2121
Tetouan, Tetouan
MOROCCO
aelmrini@gmail.com

Dr. Toru Tamura

Senior Researcher
Geological Survey of Japan, AIST
Central 7, 1-1-1 Higashi,
Tsukuba, Ibaraki 305-8567,
JAPAN
toru.tamura@aist.go.jp

Prof. Paul Rooney

Director, Sand Dune and Shingle Network
Department of Geography and Environmental
Science
Liverpool Hope University
Liverpool L169JD
UNITED KINGDOM
rooney@hope.ac.uk

Dr. David R. Green

Centre for Marine and Coastal Zone Management
Department of Geography and Environment
College of Physical Sciences
University of Aberdeen,
AB24 3UF, Scotland
UNITED KINGDOM
d.r.green@abdn.ac.uk

Prof. Douglas J. Sherman

Department of Geography
University of Alabama
Tuscaloosa, Alabama 35487
U.S.A.
douglas.j.sherman@ua.edu

Dr. Jeffrey Ollerhead

Dean of Science
Mt. Allison University
65 York Street
Sackville, New Brunswick
CANADA E4L 1E4
jollerhead@mta.ca

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.

Mike Meadows, Professor at the Department of Environmental & Geographical Science, University of Cape Town, South Africa, Vice-President of the International Geographical Union, is our liaison with the executive committee of the IGU: michael.meadows@uct.ac.za.

THE STEERING COMMITTEE MEMBERS: WHO WE ARE

Colin Woodroffe



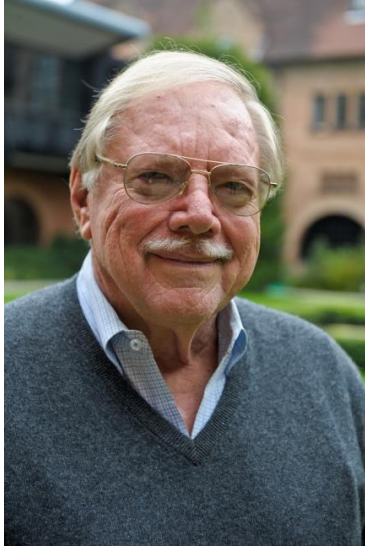
Colin is Professor in the School of Earth and Environmental Sciences at the University of Wollongong. He has a PhD and ScD from the University of Cambridge. Colin has studied the stratigraphy and development of coasts in Australia and New Zealand, as well as on islands in the West Indies, and Indian 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.

Edward Anthony



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 focus 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 theses, and teaches at both undergraduate and post-graduate levels.

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.

Margarita Stancheva



Margarita is senior researcher at the Institute of Oceanology, Bulgarian Academy of Sciences, interested on sand beaches/dunes, coastal erosion, shoreline changes, and most recently on MSP. She holds a PhD in Oceanology with thesis: “Beach dynamics and modifications under impact of maritime hydraulic constructions”. She is convener of Geomorphology Session at the EGU General Assembly: “Coastal zone geomorphologic interactions: natural versus human-induced driving factors”. She is Research Fellow to the Programme for the Study of Developed Shorelines (PSDS), WCU – USA. Margarita is author of a chapter for Bulgaria in a book on *Coastal Erosion and Protection in Europe - A Comprehensive Overview* and co-author in coastal atlas on *Sensitivity Mapping and Analysis of the Bulgarian Black Sea Coastal Zone* and a book on *Burgas Case Study: Land-Sea Interactions*.

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.

Françoise Breton



Professor at Geography Department of the Universitat Autònoma de Barcelona (UAB) since 1994, currently Professor Emeritus, she is specialised in social research for study and management of coastal and marine resources. In 2001 she wins the concourse for managing the European Topic Centre on Land use and coastal zone of the European Environment Agency (2001-2010). Since 2002, she is a member of the EU Expert Group on ICZM and of the joint EU Expert Group on ICZM and Marine Spatial Planning (2013, on-going). Between 2010 and 2014, she was the research coordinator of the EU FP7 project PEGASO, on ICZM and governance in the Mediterranean and the Black Sea. In 2012-2017, coordinated by IRD/PATEO (France), she worked with local Wolof, Peuhl, and Diola communities on ecosystem services and food security in the West-African coast, especially in the Senegal and Casamance deltas and mangroves. In 2017 she was invited as research associate in the ARCPATH project and become Associate professor of the Stefansson Arctic Institute of Akureyri. Her active research in the Arctic gave birth to a new Research Center at the UAB, the CER-ARCTIC, Inaugurated the 1st December 2017 at UAB, together with the Stefansson Arctic Institute (Iceland) and the Institute of Arctic Studies, Dartmouth College, USA.

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*).

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.

Abdelmounim El M'rini



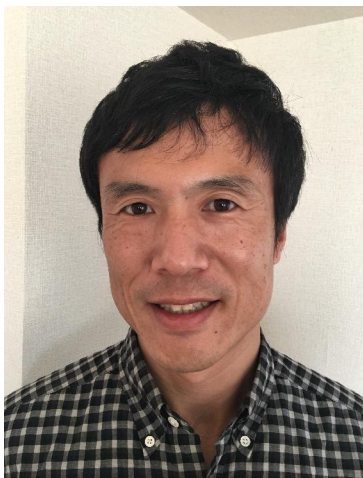
Abdelmounim is Professor at the Department of Earth Sciences at Abdelmalek Essaâdi University of Tetouan (Morocco). He has a PhD from Abdelmalek Essaâdi University and from Nantes University (France). His research activities focus on the characterization of coastal systems and the impacts of human activities 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.

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).

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

If you wish to be a member:

Please complete and return the form located on this page of the Newsletter, preferably by email.

To maintain your membership:

Share your information and experiences. Provide information on your professional activity and the items you think will be of interest to your fellow members.

Please provide the following:

... new CCS member

... current CCS member

Name	.....	Department	.....
Institution	.....	Street or P.O. Box	.....
City	.....	State/Province	.....
Zip code	.....	Country	.....
Fax	.....	Phone	.....
		E-mail	.....

I am interested in receiving the Newsletter of the Commission.

My specialization in the field of coastal systems is:

1.
2.
3.
4.
5.

We personally request that you take a moment to distribute this newsletter to those who you believe will be interested in its contents. The newsletter will be distributed twice yearly, primarily by email. Please take a moment to forward this copy of the newsletter to those on your coastal emailing list and encourage them to join by forwarding their email address to us.

Thank you for your cooperation. Margarita and Norb

Communication with the co-editors

E-mail: stancheva@io-bas.bg

E-mail: psuty@marine.rutgers.edu

Fax: +359 52 370 483

Phone: +359 52 370 486