Union Géographique Internationale International Geographical Union No. 73 - July 2015 Norbert P. Psuty, 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

These are exciting times for coastal science, and I am very pleased to introduce the mid-2015 CCS Newsletter. I encourage you to read about the many initiatives under way, including a range of conferences and workshops that are planned. The Commission on Coastal Systems exists to promote interaction between coastal researchers. The Newsletter provides a forum to disseminate information and encourage international collaborative efforts that will lead to enhanced understanding of the natural and human components of coastal systems. Our continued success will, as always, depend upon the active participation of you, as a member of our commission.

CCS members will be interested in the transition of LOICZ (land ocean interactions in the coastal zone), a core project of IBGP, into a component of Future Earth, and can read about this in a brief summary by Martin Le Tissier, Executive Officer of Future Earth Coasts. There are several common goals that are shared between this new project and CCS, and I am pleased that Zhongyuan Chen and Yongqiang Zong have proposed a coastal session, jointly sponsored by CCS and LOICZ, at the International Geographical Congress in Beijing next year. I extend my congratulations and thanks to Margarita Stancheva for the success of the coastal sessions she has organised at EGU, and for reporting on these in this Newsletter. It is encouraging to know that several other CCS members are organising or planning other activities.

As incoming Chair, I would be pleased to hear suggestions on how the commission could be more effective. If you have material that you would like to share, send a brief email to Norb Psuty to have an event reported or publicized in the Newsletter (Norb has continued to do an

excellent task in preparing and distributing the Newsletter). You are also very welcome to contact members of the steering committee with suggestions about how the commission can extend its network and the contribution it makes to coastal science.

COLIN WOODROFFE

A message to the Membership

The following statement has been produced by Martin Le Tissier, Executive Officer of the newly-established scientific forum on Future Earth Coasts. It establishes an avenue for future cooperation of the Commission on Coastal Systems and its worldwide membership to participate in the next round of international scientific exchange

Future Earth Coasts Martin Le Tissier, Executive Officer

The beginning of 2015 saw completion of the transition of the Land Ocean Interactions in the Coastal Zone project to the Future Earth family or 'federation' of projects and other initiatives related to Global Environmental Change as Future Earth Coasts. With a renewed focus to work to support sustainability and adaptation to global change in the coastal zone, Future Earth Coasts is perfectly placed to contribute to a global platform for international scientific collaboration to address the risks faced by for societies in order to transition to global sustainability. First sponsored by IGBP in 1993, LOICZ has since then produced a suite of deliverables for resource managers centered on developing management options based on integrated models of coastal system change. Integration of human dimensions of coastal change and management were strengthened in 2004 when LOICZ became jointly sponsored between IGBP and IHDP. Ten years later 2014 represented another significant milestone in the development of LOICZ as it began its transition to the Future Earth program. This was coupled with a re-organization and relocation of the LOICZ institutional structures from the Centre for Coastal Research at Helmholtz-Zentrum Geesthacht (HZG) in Geesthacht, Germany to the Irish Maritime and Energy Resource Cluster in Ringaskiddy, Cork, Ireland, and the appointment of Dr Martin Le Tissier as the new Future Earth Coasts Executive Officer.

We are beginning a process to develop a more inclusive, regionally grounded, transdisciplinary and globally networked formulation of new coastal sustainability science aligned with Future Earth concepts of transformative actionable and global sustainability science. A new science plan will focus on three inter-related key themes:

- 1. Dynamic coasts To improve understanding of the state of the coast How nature shapes civilization,
- 2. Human development and the coast To improve understanding of the consequences for human wellbeing in relation to human exploitation of ecosystem products and services How humans harness and shape nature, and
- 3. Pathways to global coastal sustainability To identify technologies, governance pathways and processes for transformation in decision-taking and how civil society can be empowered to prioritize actions towards sustainability.

International collaboration and interdisciplinary excellence are at the heart of the way that Future Earth Coasts will implement its remit. Through a devolved and globally distributed Node structure we are seeking to both engage regional communities from all disciplines that study environmental change and ensure our science and outputs are relevant. Through these efforts we aspire to remain faithful to the legacy of LOICZ functioning as a facilitator of collaborative research and action on the world's coasts and to play a significant role in leading and shaping global coastal science.

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

AUGUST 17-22, 2015. IGU REGIONAL CONFERENCE, MOSCOW, RUSSIA.

The program of the 2015 IGU Regional Conference is focused on diversity and interdisciplinary dialogue. It will include the following meeting formats:

- sessions organized by IGU commissions
- sessions on relevant interdisciplinary themes proposed by groups of scholars
- thematic sessions devoted to IGU projects and to the role of geography in international programs such as Future Earth
- plenary sessions and lectures by leading geographers as well as specialists from other earth sciences and the humanities
- lectures by practitioners from a wide variety of fields Geographical education and the integration of young scholars within the international geographical community are the main priorities for the IGU Regional Conference in Moscow. The conference program will include two special events:
- 1. A day for young scholars with a competition for best presentation and other awards
- 2. A day for special sessions on "Academic Geography for Secondary Schools" and "Teaching Geography at the University."

The conference will also host the International Geographical Olympiad

Further information is available at: www.igu2015.ru

APRIL 17-22, 2016. EGU GENERAL ASSEMBLY. VIENNA, AUSTRIA. A Special Session on Coastal Themes is being planned.

Details to be forthcoming in early fall.

Florianopolis, Brazil

Please contact Margarita Stancheva for further information. stancheva@io-bas.bg

MAY 3-7, 2016. 2nd Iberoamerican Congress on Integrated Coastal Zone Management: Governance for ecosystem services in coasts and oceans (2nd ICZM Iberoamerica).

The 2nd ICZM Iberoamerica will be a platform for dissemination, discussion, knowledge exchange, training and capacity building, contributing to the achievement of global and regional commitments

related to the integrated and sustainable management of coastal and marine areas, their ecosystem services and human well-being.

The event is organized and led by the Iberoamerican Network for Integrated Coastal Management (Red IBERMAR), composed of 15 countries. IBERMAR is an organizer along with CEI-MAR - Campus of International Excellence for Sea Studies; Federal University of Santa Catarina; Federal University of Rio Grande do Sul; Federal University of Rio Grande; and the University of Cadiz- Spain. The 2nd ICZM Iberoamerica is also supported by government institutions such as the Brazilian Ministry of Environment and the Secretary of Planning of the State of Santa Catarina, as well as non-governmental organizations such as the Forum do Mar-Brazil.

Main themes of the 2nd ICZM Iberoamerica include:

- Use and human dependence on ecosystem services at coastal and marine areas
- Planning and Management for the sustainable use of oceans and coasts;
- Governance for ecosystem services in oceans and coasts:
- Iberoamerican initiatives / Successful Cases

The Coastal Commission is sponsoring a session on 'Current Approaches for the Analysis of Coastal Vulnerability in Iberoamerica' at the Congress.

Webpage: http://gial2016.paginas.ufsc.br

Abstracts are due by November 15, 2015. Official languages of the Congress are Portuguese and Spanish. Abstracts will also be accepted in English.

AUGUST 21-25, 2016, $33^{\rm rd}$ INTERNATIONAL GEOGRAPHICAL CONGRESS, BEIJING, P. R. CHINA

The 33rd International Geographical Congress will be held in Beijing on August 21-25, 2016, hosted by the Geographical Society of China. The theme of the 2016 Congress is Shaping Our Harmonious Worlds, which highlights today's common pursuit for harmony between humankind and nature, between environment and society, and for harmonious approaches to the world's hazards and conflicts. a rich variety of field excursions will be organized so as to provide participants a chance to appreciate some of the unique natural features and cultural traditions of the host country.

We are very pleased that **Zhongyuan Chen** and **Yongqiang Zong** have proposed a session on Harmonizing Pacific Coastal Oceans: Sustainability For a Future Earth, jointly supported by CCS and IGBP/LOICZ, and they encourage coastal scientists to consider submitting papers for this theme when abstracts open in August 2015.

For further information on the program, see the website: http://www.igc2016.org/dct/page/1 August, 2016: People's Republic of China, International Geographical Congress, Beijing More details at www.igu-online.org

SEPTEMBER 4-7, 2017. LITTORAL 2017. LIVERPOOL, UK

The conference theme is 'The anthropocene and the littoral - change, naturalness and people'. The anthropocene is claimed by some to be a new geologic epoch, one in which people are now the greatest force shaping the Earth. The theme of Littoral 2017 will explore how humans and human

processes influence the littoral, and how these influences may now be viewed as being natural, as much any other natural processes. The theme will gather all disciplines to explore current issues of relevance to the coast. It 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. It is a theme that is of broad geographical interest.

More details to follow on this event, but please contact **Paul Rooney** on dunes@hope.ac.uk for more information.

REPORTS ON MEETINGS

REPORT ON EGU2015 GEOMORPHOLOGY SESSION MEETING

EUROPEAN GEOSCIENCES UNION GENERAL ASSEMBLY (EGU2015) VIENNA, AUSTRIA 12 - 17 APRIL 2015

REPORT ON: GM8.1 SESSION: "COASTAL ZONE GEOMORPHOLOGIC INTERACTIONS: NATURAL VERSUS HUMAN-INDUCED DRIVING FACTORS"



The meeting of Geomorphology Session GM8.1 on: "Coastal Zone Geomorphologic Interactions: natural versus human-induced driving factors" was successfully conducted for the seventh time at the EGU 2015 General Assembly, 12-17 April 2015 in Vienna, Austria. Contributions to this session were focused on the mechanisms responsible for coastal erosion and shoreline behaviour (advance or retreat), addressing also the many natural and anthropogenic factors involved. The session topics included predictions of shoreline change and discussion of the effects of human activities and their continuing contribution to coastal changes. The session also covered presentations on coastal vulnerability to the combined effects of natural and human-related hazards, coastal and environmental sensitivity classifications, and risk assessments.

This EGU2015 GM8.1 Session was held with 28 abstract submissions, and was divided into two oral sessions of twelve 15 minute talks each and a poster session with 16 poster presentations. The session has been sponsored by the Commission on Coastal Systems (CCS) of the International Geographical Union (IGU) for the fifth year in succession. The oral and poster sessions were both conducted on Wednesday, of April oral programs of the 15 2015. The (http://meetingorganizer.copernicus.org/EGU2015/orals/17216) were chaired by Margarita Stancheva and included twelve presentations focusing on various coastal zone topics. The oral session was a great success, with active discussions on presented studies and increased interest in coastal issues. The oral presentations spanned different coastal regions around the world and involved a variety of investigations, including: human structures impact along the Mediterranean coast of Andalusia (SW Spain); two studies on coastal cliff retreat – one on unusual storm synchronization of the wave energy spectra dominates episodic soft-cliff erosion coastal, and another one, focused on observations of historical cliff retreat rates exceed long-term estimates derived from cosmogenic ¹⁰Be; modelling long-term morphological changes with Xbeach (a case study of Kizilirmak River mouth, Turkey); two presentations on the evolution and morphodynamics of Danube delta: shoreface morphodynamics along the Danube delta coast, and evolution of the Sf. Gheorghe (Danube) asymmetric deltaic lobe associated with cyclic development of a river-mouth bar and present adaptations to human-induced sediment depletion; a study focused on establishing a national coastal change model for Scotland: coastal human actions on natural morphdynamics around RIA of FOZ (NW Spain) and risk analysis; recent morphodynamic evolution of coastline of Mekong river Delta in regard with an increased vulnerability; coastal erosion risk assessment using natural and human factors in different scales (a case from Greece), and a study exploring shoreline dynamics and various associated processes in the Batang coastal area, Indonesia.

The poster program of GM8.1 Session also included a broad selection of different coastal zone studies (http://meetingorganizer.copernicus.org/EGU2015/posters/17216). The posters reported many important and innovative research developments, such as spatial effect on grain size parameters and variations along pure gravel beaches (a case study from the Gulf of Antalya, Turkey); medium-term shoreline evolution of the Mediterranean coast of Andalusia (SW Spain); short- to long-term evolution of the shoreline and the subaerial sand beach driven by extreme forcing: Wan-Tzu-Liao, Taïwan; a study presenting novel approach for automated shoreline extraction from remote sensing images using low level programming; impact of land reclamation on the coastal areas in Istanbul; projecting future wave climates and corresponding shoreline changes along the differently exposed coastal sections of the Baltic Sea; rapid shoreline erosion induced by human impacts in a tropical muddy coast context, an example from western French Guiana; camera monitoring of coastal dune erosion in a macrotidal environment; establishing an integrated protecting plan for beach erosion and developing coastal inventory in Greece; research on ground deformations along Ionian coastline of the northern Calabria (Southern Italy) detected by InSAR data, and other modelling and field techniques conducting studies at different scales in the coastal zone.

With this success the EGU Session on coastal zone geomorphic interactions together with the support of CCS has taken on an important role in fostering the exchange of knowledge on coastal geomorphology and experience among researchers to explore the variety of natural and human factors that modify the coasts.

The next EGU General Assembly 2016 will be on 17 - 22 April 2016 in Vienna, Austria, and we are cordially looking forward to your active participation again.

Submitted by Dr. Margarita Stancheva, Bulgaria



12th International Symposium on GIS and Computer Mapping for Coastal Management Cape Town, South Africa, 22nd - 24th April 2015

The first International Symposium on GIS and Computer Cartography for Coastal Zone Management, CoastGIS, took place at University College Cork in Ireland in 1995, under the joint sponsorship of the IGU Commission on Coastal Systems and the International Cartographic Association's Commission on Marine Mapping. Although initially planned as a one-off event, a 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; Florianopolis, Brazil, in 2009; Oostende, Belgium, in 2011; and Victoria, on Canada's West Coast in 2013.

Twenty years on from the first meeting, Cape Town in South Africa became the venue for the 12th CoastGIS Symposium – the first time that CoastGIS has visited the African continent. Held at the waterfront premises of Cape Town University's Graduate School of Business between the 22nd to the 24th April. Organised by the Coastal Science division of the South African Council for Scientific and Industrial Research (CSIR) in partnership with the University of Stellenbosch and the Western Indian Ocean Marine Science Association (WIOMSA), the theme of this year's meeting was "Rich Data, Poor Data: Geospatial Creativity and Innovation for Managing Changing Coastal Systems", and a primary objective was to maximise opportunities for capacity building and know-how transfer between "northern" and "southern" nations. Approximately one third of the 70 delegates who attended CoastGIS 2015 were from South African institutions, with the remainder coming from Australia, Belgium, Brazil, Canada, Colombia, Denmark, France, Germany, Ghana, Ireland, Mauritius, Netherlands, Philippines, United Kingdom and the United States.

The CoastGIS meeting was preceded by the 7th meeting of the International Coastal Atlas Network (ICAN), and by a three-day training course in Marine Spatial Planning organised under the sponsorship of the International Ocean Data Exchange (IODE) project of UNESCO's International Oceanographic Commission. Two shorter workshops, on Marine Global Spatial Data Infrastructures and on LiDAR technologies respectively, were also held prior to the start of the CoastGIS symposium itself. Having these separate but related international marine-related events take place under the same roof meant that many participants and key speakers were able to attend more than one of these, maximising opportunities for networking and for cross-fertilisation of ideas and know-how.

More than fifty excellent papers were offered for oral presentation at the CoastGIS symposium, arranged by the local organising committee into two parallel streams. Whereas the majority of papers at the earliest CoastGIS meetings were concerned with applications and case studies, over the past two decades the focus has expanded to also encompass a wide range of policy matters and institutional issues. At CoastGIS 2015, the themes covered in the talks included coastal governance and marine spatial

planning; marine spatial data infrastructures; methods and technologies for data capture including the use of sensors, drones and both airborne and terrestrial laser scanning; marine and coastal ontologies and the design of spatial data bases; climate change and associated risks; traditional ecological knowledge and participatory GIS for community-based coastal management; and the construction and use of dynamic models to advance understanding of coastal processes.

Each of the three days of conference presentations began with plenary talks: at the opening session on the first day, a joint review presentation on "20 Years of CoastGIS" was given by **Ron Furness, Darius Bartlett** and **Roger Longhorn**. On subsequent days, keynotes were given by **Andrus Meiner** (European Environment Agency, Copenhagen), who spoke on the theme of "A new generation of European spatial data for coastal zones – challenges and opportunities"; **Clint Padgett** (US Army Corps of Engineers) "Geospatial technology in coastal management in the US"; and Prof **Shankar Aswani** (Rhodes University, South Africa) "Participatory GIS/Remote Sensing for integrating Human Ecology in Coastal management."

A most enjoyable field excursion took delegates north from Cape Town and along the shores of Table Bay, in glorious early South African autumn sunshine. En route, participants were able to observe a variety of recent residential and tourism-related developments, and discuss the interactions and impacts that these have had on the coastal dune fields and the workings of onshore and offshore processes. The official conference dinner took place at the Atlantic Imbizo, a modern building overlooking Cape Town's historical harbour and waterfront, now transformed into a major cultural and social hub for the city.

The International CoastGIS Standing Committee, which oversees continuity between successive symposia, wish to record their deep appreciation to the chair of the local organising committee, Dr Louis Celliers of CSIR, and to his colleagues on the local organising committee, Prof Adriaan van Neikerk, (University of Stellenbosch), Dr Melanie Luck-Vogel (CSIR) and Ms Tarryn Newman (CSIR). for their excellent hospitality, faultless planning of the Symposium, and for putting together a great scientific programme. We also thank CSIR in Durban and Stellenbosch, the City of Cape Town, AAM and ESRI South Africa for helping defray the costs of the event, WIOMSA for covering the travel costs to CoastGIS for a number of students from African institutions, and eePublishers for assistance with publicity. An electronic book of Proceedings from the meeting is planned, and will be put online as soon as it is available.

Initial planning for CoastGIS 2017 has already started. While a few offers of location and host institution have been received, the CoastGIS Standing Committee would be delighted to hear from other groups who might be interested in hosting a CoastGIS meeting in the future.

University College Cork, Ireland.

Darius Bartlett

MEETINGS WITH COASTAL INTEREST

JULY 6-10, 2015. VII INTERNATIONAL SANDY BEACH SYMPOSIUM: Linking Science and Decision-Making for Beach Sustainability. ILHABVELA, BRAZIL

The VII ISBS will comprise different activities (see schedule below) that enable capacity building and information sharing. Eight plenary sessions have been planned to cover up-to-date topics related to beach conservation and management, which will be presented by leading researchers. The results of original studies will be shared in 32 oral presentations and two poster sessions. Two workshops have been planned to analyze the information shown in the plenary, oral, and poster sessions and to guide future actions.

These activities will benefit from the contribution of session chairs and co-chairs, as well as of four invited rapporteurs and two workshop moderators. There will be a pre-symposium field trip, designed to work as an initial kick-off for the activities, showing the diversity of sandy beaches in the Northern Coast of São Paulo State, from exposed and wave dominated beaches to sheltered tidal flats where different human activities take place. Visit the website for further information: isbs2015.io.usp.br

SEPTEMBER 5-13, 2015. 17th ANNUAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOSCIENCES. FREIBERG (SAXONY), GERMANY

The International Association for Mathematical Geosciences (IAMG) is a global professional, non-profit association for geoscientists, geoengineers, mathematicians, statisticians and computer scientists with more than 600 members in more than 40 countries. The mission of the IAMG is to promote, worldwide, the advancement of mathematics, statistics and informatics in the Geosciences. IAMG distributes a newsletter twice a year, holds annual conferences and publishes three international journals — Mathematical Geosciences, Computers & Geosciences and Natural Resources Research. More information can be found in http://www.iamg.org/information-about-iamg.html

In this conference, there is one session focused on coastal sciences "Quantitative Models in Marine and Coastal Geosciences". For more information, please visit the website: http://www.iamg2015.de/

SEPTEMBER 16-18, 2015. DUNES AND ESTUARIES 2015: RESTORATION OF TIDAL AND ESTUARY AREAS, BELGIUM. BRUGES, BELGIUM

This conference is being organised in the context of ZTAR, a European co-funded LIFE-project in the Zwin-area on the Belgian coast. This is an abbreviation for 'Zwin Tidal Area Restoration' and is a cross-border LIFE nature project. This European project aims at restoring the Zwin plain and is being implemented by the Nature and Forest Agency of the Flemish Government, in collaboration with the Dutch Province of Zeeland. The project officially started on 1 January 2011 and will be finalized by 31 December 2015. This conference will be held on 16-18 September 2015 in Bruges, Belgium.

See the link for more information: http://www.natuurenbos.be/nl-BE/over-ons/projecten/Ztar/Conference%20Dunes%20and%20Estuaries%202015

SEPTEMBER 17-21, 2015. INTERNATIONAL WORKSHOP ON 'MARGINAL SEAS AND THEIR COASTAL AREAS – TRANSIT AND BUFFER ZONES IN CONTINENT-OCEAN INTERACTION, YANTAI, CHINA

The comparison of coastal and river mouth environments of different marginal seas will lead to a deeper understanding of the processes within the land-ocean transition zones. The general target of the workshop is to foster the exchange of ideas, theoretical concepts numerical models but also concepts in socioeconomic response to changes in natural and anthropogenic impacts.

Thomas

1 Modeling of hydro- and sediment-dynamics of marginal seas

1 Sea level change and coastal dynamics – measurement and modeling approaches

l Morphodynamical and biogeochemical modeling of coastal zones

1 Dynamics and fate of river mouth systems

1 Environmental status of marginal seas – natural processes vs. anthropogenic impacts

For more information of this workshop, please go to http://mstca2015.csp.escience.cn/dct/page/1

OCTOBER 6-10, 2015. TWELFTH INTERNATIONAL CONFERENCE OF THE MEDITERRANEAN COASTAL ENVIRONMENT. VARNA, BULGARIA

The twelfth bi-annual MEDCOAST conference in Varna marks the 25th year since the birth of the MEDCOAST ideal. Many devoted colleagues and friends have eagerly provided their valuable time and energy for years towards protection and better management of coastal and marine areas in general and those of the Mediterranean and the Black Sea in particular. Since the first conference in 1993 (Antalya, Turkey), the MEDCOAST conference series on the Mediterranean Coastal Environment has moved around the Mediterranean and the Black Sea.

For abstract submittal and registration information, please visit http://www.medcoast.net/

OCTOBER 7-9, 2015. DUTCH DUNE CONGRESS. AMSTERDAM, THE NETHERLANDS

WN, Natuurmonumenten and Waternet are organizing the international congress about rejuvenation of dynamic dunes and restoration of the dune habitats. The congress will be organized within the framework of Dutch Dune Revival (LIFE 09 NAT/NL/418) and Amsterdam Dunes, Source for Nature (LIFE 11 NAT/NL/776). The congress will take place near Amsterdam (Capital of the Netherlands) from October 7-9, 2015. Part of the congress will be visits to 'Noordwest natuurkern', finalistproject of the EU-award 2014 and beautiful grey dunes in autumn sunshine.

Program

Wednesday October 7:

- Overview dynamic dune management
- Workshops Dutch coastal management, daring Dutch approach, aftercare management
- Fieldtrips dynamic dune National Park Zuid-Kennemerland

Thursday October 8:

- Overviews of the restoration of Grey Dunes
- Workshops invasive alien species management, mosaic management
- Fieldtrips Amsterdam Dunes or National Park Zuid-Kennemerland

Friday October 9:

- Introduction Dutch Dune Revival
- Fieldtrip Voornes Duin

For more information and registration: www.pwn.nl/dynamicdunes.

OCTOBER 13-16, 2015, GEOSUB, UNDERWATER GEOLOGY CONGRESS, TRIESTE, ITALY

"GEOSUB- Underwater geology" is the third meeting about the most recent challenges in

submarine and submerged geology. The meeting aims at bringing together all the experts involved in the underwater researches and explorations. The meeting in October at Trieste involves local fieldtrips and includes sessions on: Paleogeographic reconstructions and coastal monitoring using remote survey solutions (AUV/UAV); Maritime archaeology and sea level changes; Relative sea-level changes in the coastal and underwater area based on geomorphological, sedimentological and biological markers; Submarine and coastal morphodynamics: new legends and thematic mapping; Challenges in diving and cave diving: exploration and research; Underwater habitat mapping; and ancient and modern tidal channels: morphology and evolution.

Abstracts should be emailed to **sfurlani@units.it** by 5 July 2015

NOVEMBER 10-13, 2015. INTERNATIONAL CONGRESS ON COASTAL AND MARINE TOURISM. KAILUA-KONA, HAWAI'I

CONGRESS THEME

The International Congress on Coastal and Marine Tourism (CMT) returns to Hawai'i 25 years after its inaugural meeting in 1990. We invite researchers, educators, government and industry practitioners, students, and representatives of other organizations to submit research papers and/or posters for the Anniversary CMT 2015 under the general theme of "Learning from the Past, Looking to the Future."

PROGRAM AND TECHNICAL VISITS

In addition to regular sessions, a special session will be held on the topic of *Climate Change and Hazard Resilience in Coastal Tourism*. Participants may also suggest additional special session topics to the CMT 2015 scientific committee.

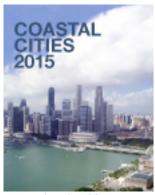
The program will allow ample time for professional networking, and participants may choose from a variety of exciting technical visits and sightseeing tours, including, but not limited to:

- touring Kealakekua Bay by boat to see the site where Captain Cook;
- participating in the world-famous Manta ray night dive;
- watching humpback whales return to Hawaiian waters to breed and give birth to new calves;
- sacred te of naunau National Historical Park;
- watching humpback whales return to Hawaiian waters to breed and give birth to new calves;
- Honaunau Historical Park;
- Hawai'I Volcanoes National Park
- touring coffee plantations to sample Kona coffee on-site.

Deadline for abstracts: June 15, 2015

 $For \ registration \ and \ program \ information, \ visit:$

http://socialsciences.hawaii.edu/conference/cmt2015



Coastal Cities 2015

International Conference on Coastal Cities and their Sustainable Future

7 - 9 July, 2015

New Forest, UK

Download Pdf

View the **conference website** for more information.

Coastal Cities 2015 is organised by the Wessex Institute, UK and the University of Las Palmas de Gran Canaria, Spain. It is sponsored by WIT Transactions on the Built Environment and the International Journal of Sustainable Development and Planning.

MARCH 6-11, 2016. 14^{th} INTERNATIONAL COASTAL SYMPOSIUM (ICS) 2016. SYDNEY, AUSTRALIZ

The 14th International Coastal Symposium (ICS) will be hosted by the <u>Geocoastal Research Group</u>, School of Geosciences at the University of Sydney, under the auspices of the <u>Coastal Education and Research Foundation (CERF) and the *Journal of Coastal Research* (JCR).</u>

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 special issue of papers in the *Journal of Coastal Research*, represent an invaluable resource for coastal scientists, engineers and managers.

- The meeting will consist of a number of sessions on coastal science comprising geomorphology, geology, ecology, biology, coastal engineering and coastal management including planning and policy.
- Keynote speakers will include international leaders in coastal science and engineering with special attention to highlighting Australian expertise.
- Fieldtrips will be organised to showcase local knowledge and study cases, including trips to the Great Barrier Reef and to the coast of NSW.

The call for abstracts has closed

Visit the website: http://ics2016.org/

OCTOBER 23-26, 2016. LITTORAL 2016. BIARRITZ, FRANCE

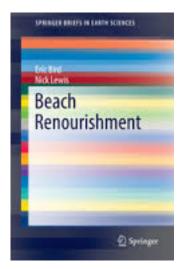
The conference theme is expected to be "The changing littoral: Anticipation and adaptation to climate change" - "Littoral en devenir. Anticiper et s'adapter au changement climatique". The proposed themes are 'State of the art knowledge on sea-level rising', 'Coastal environment conservation', 'Integrated coastal zone management', 'Sustainable development in coastal zone', 'Coastal engineering' and 'Fishing and aquaculture'. It is anticipated that there will be a workshop on coastal dunes. The official language

Grist and Grains

The IGU Commission on Coastal Systems (CCS) has a web site that can be found at: http://www.igu-ccs.org/ Contact information for CCS Officers and Steering Committee members can be found on the web site along with past and present newsletters. If you are interested in becoming a member of the CCS, an on-line membership form is available.

In Memoriam.

H. Jesse Walker passed away on May 30, 2015. Jess was a personal friend to many of us on the Commission of Coastal Systems through the years. Jess was among the group at Louisiana State University that created a very strong coastal research thrust, including the internationally recognized Coastal Studies Institute. He was an early leader of the IGU Coastal Commission and he established the Coastal Newsletter that continues to this day. More recently, Jess was very active with the International Association of Geomorphologists, an organization he helped to establish. Throughout his long and productive career, Jess was involved at the international level with contacts in many parts of the world. The international outlook was a characteristic that he passed on to many who had the good fortune to be among his cohorts (including me as a graduate student at LSU). He was a special member of our coastal group.



Eric Bird informs us of the publication of his new book. E. C. F. Bird and Nick Lewis, 2015. **Beach Renourishment**. Springer. Available as an eBook for \$39.99, or softcover for \$54.99.

Some of the first documented renourishment projects were undertaken in the early 1900's on the east coast of the United States. Several countries have since renourished beaches, particularly during the past few decades. Most projects have been in the United States, the United Kingdom, some European countries and Australia. These are reviewed and experience from various beach renourishment projects used for discussion

Alain Miossec informed us that a series of volumes covering coastal and marine issues has recently been published. The series is untitled: **Mer et Ocean**, Sous la direction de Andree Monaco de Patrick Prouzet

Vol 1. Complexité du système océanique

Ouvrage papier: 73 euros (ISBN: 978-1-78405-000-9) E-book: 19,90 euros (Format PDF lisible sur tout support) 292 pages - 2014

Vol 2. Vulnérabilité du système océanique

Ouvrage papier: **98 EUR** E-book 19.90 eurosISBN 392 pages - Janvier 2014

Vol 3. Risques côtiers et adaptations des sociétés

Ouvrage papier: **89 EUR** E-book 19.90 euros 392 pages - Juilet 2014

Vol 4. Valorisation et économie des ressources marines

Ouvrage papier: **98 EUR** E-book 19.90 euros 392 pages - Juilet 2014

Vol 5. Diversité et fonctions de systèmes écologiques marins

Ouvrage papier: **98 EUR** E-book 19.90 euros 392 pages - Mars 2015

Vol 6. Gouvernance des mers et des océans

Ouvrage papier: **73 EUR** E-book 19.90 euros 392 pages - Mai 2015

Jeff Benoit informs us that Restore America's Estuaries has released its latest report "Impact Assessment: Federal Coastal Habitat Investments Support People, Fish, and Wildlife" highlighting the positive impacts that coastal habitat restoration efforts provide for job creation, tourism, fishery production, recreation, community protection, and human health.

"Coastal communities rely on healthy coastal habitat because it creates tourism opportunities, supports clean air and water, protects communities from extreme weather, and supports commercial and recreational fisheries," said Jeff Benoit, President and CEO of Restore America's Estuaries. "The real-world project examples demonstrate how federal investments in coastal habitat restoration deliver a broad range of public benefits."

The report documents how federal investments are having a big impact for people, fish, and wildlife by bringing abstract budget line items to life through a series of nine real-world case studies across the coast. The geographically dispersed case studies present project summaries, partners, benefits, and results for on-the-ground projects.

Read more at: http://www.estuaries.org/Impact Assessment

World Scientific announces the publication of International Compendium of Coastal Engineering, edited by Shinji Sato and Masahiko Isobe. It is available as hardcover, US\$150, or ebook, US\$113. The aim of this book is to provide a comprehensive overview of Coastal Engineering from basic theory to engineering practice. The authors of this book are worldwide authorities in the field. Each chapter deals

with an important topic in the field of coastal engineering. The topics are of recent deep concern all over the world motivated by the 2004 Indian Ocean Tsunami, 2005 Hurricane Katrina, 2011 Tohoku Earthquake Tsunami and other natural disasters. For more information on the book, visit the publisher's website: http://www.worldscientific.com

Paul Rooney and John Houston (UK) report that the Sand Dune and Shingle Network Newsletter is available at http://coast.hope.ac.uk/. The Newsletter has announcements, requests for participation and information, as well as short articles on topics related to coastal dunes.

The following items are taken from the EPA Climate Ready Estuaries Update prepared by Michael Craghan. The full version is available at: http://www.epa.gov/cre/

Coastal Climate Change Resources

Catching up with the backlog---

- + Pam DiBona shared a NAACP publication "Equity in Building Resilience in Adaptation Planning" (http://www.naacp.org/blog/entry/equity-in-resilience-building-for-climate-adaptation-planning), which the NAACP says is, "a sample list of indicators/measures of vulnerability and resilience in terms of infrastructure, community/population characteristics, systems, policies, programs/services, protocols, and governance/decision making. The indicators span the impacts of climate change including shifts in agricultural yields, sea level rise, and extreme weather."
- + Mel Cote sent in news about a Evaluating the Coastal Landscape Response to Sea-Level Rise study (https://necsc.umass.edu/news/evaluating-coastal-landscape-response-sea-level-rise) from the DOI Northeast Climate Science Center.
- + Climate Ready Water Utilities has an updated Adaptation Strategies Guide (http://water.epa.gov/infrastructure/watersecurity/upload/epa817k15001.pdf). New features of the 2015 edition include:
- Information based on updated models data from the U.S. Global Change Research Program (USGCRP) 2014 Report
- Sustainability briefs addressing green infrastructure, energy management, and water demand management
- Updated water utility climate adaptation case studies

The following information is taken from the informative Newsletter compiled by Alexi Westcott, the ACZISC Secretariat. The full version is available at: www.COINAtlantic.ca

SEAFLOOR MAPPING REPORTS

The Massachusetts Office of Coastal Zone Management and the US Geological Survey published **two new seafloor mapping reports**. "Geological Sampling Data and Benthic Biota Classification - Buzzards Bay and Vineyard Sound", Massachusetts contains sample and photography data, including a classification of benthic biota observed in seafloor photographs and based on the Coastal and Marine Ecological Classification Standard - http://dx.doi.org/10.3133/ofr20141221. "Shallow Geology, Sea-Floor Texture, and Physiographic Zones of Buzzards Bay, Massachusetts" contains geologic, sediment texture, and physiographic zone maps that characterize the seafloor of Buzzards Bay, Massachusetts -

http://dx.doi.org/10.3133/ofr20141220.

SEA GRANT RESILIENCE TOOLKIT

Sea Grant has launched the National Sea Grant Resilience Toolkit, a compilation of more than 100 tools and resources that have been developed to help local communities become more resilient to a range of natural hazards, water quality challenges, severe weather, and the effects of climate change. Categories of tools include: Homeowners Handbooks; Coastal Community Resilience Index; Vulnerability, Consequences, and Adaptation Planning Scenarios; and 'The weTable' - http://seagrant.noaa.gov/WhatWeDo/ResilienceToolkit.aspx.

WORLD OCEAN ASSESSMENT

The United Nations has released the first draft World Ocean Assessment (WOA) - http://www.worldoceanassessment.org/?page_id=11. The WOA includes more than fifty subjects grouped within four main themes: Marine environment and understanding the ocean's role in the global integrated Earth system; Food security and food safety; Marine biological diversity; Human activities that influence the ocean or are influenced by the ocean. The first WOA report will include a technical summary showing interdisciplinary linkages between human impacts, ecosystem services, species, and habitats. The WOA report does not appraise marine policy and governance. The WOA is available for review until 6 February 2015. To participate in the review process, visit https://review.globalchange.gov.

ATLANTIC CANADA CLIMATE CHANGE

The Canadian Climate Forum has released an issue paper titled "Forecasting a Sea of Change: Lessons from Atlantic Canada" on weather and climate impacts in the Atlantic coastal zone. By 2100, sea levels in Atlantic Canada are expected to be between 20 cm and one metre higher than today's levels - http://www.climateforum.ca/wp-content/uploads/2014/10/CCF-Issues-SeaOfChange 3.pdf.

RHODE ISLAND STORMTOOLS

STORMTOOLS was launched **online in draft form** December 2014 to provide web-based access to a suite of coastal planning tools that allow the user to select a coastal area of interest to access, use and apply high resolution model information. At the simplest level the system can be used **to access model predictions** (hindcasts and forecasts) for a study area and problem of interest for coastal planners. At a more sophisticated level the system can be used by professionals **to perform studies in support of the coastal planning and regulatory communities**. The impact of variations in coastal topography (beach erosion and nourishment, dredging, etc.) and implementation of potential shoreline protection strategies can be evaluated for varying return period events, with or without sea level rise - http://www.beachsamp.org/research/stormtools.

COASTAL CHARACTERIZATION INFORMATION SERVICE FOR NEWFOUNDLAND

"Developing a Coastal Characterization Information Service for the Island of Newfoundland" project has developed an internet-based information service (web mapping service - WMS) that complies with best practices for information accessibility and is based upon the coastal characterization data and coastal vulnerability indices compiled from research conducted by Dr. Norm Catto of Memorial University between 1992 and 2013 and reported by Dr. Catto in the report "Coastal Erosion in Newfoundland" available at http://atlanticadaptation.ca. The information service was developed from the original manuscript maps and consists of a set of standard web mapping services displayed in a customized version of the COINAtlantic Search Utility. The project was led by the ACZISC Secretariat and partners in this project included Dr. Norm Catto from Memorial University and the Government of

Newfoundland and Labrador. The project was funded by Natural Resources Canada and the Government of Newfoundland and Labrador -

http://coinatlantic.ca/index.php/coinatlantic/coastal-characterization-wms-for-nl. To view the WMS layers using the COINAtlantic Search Utility follow this link:

http://www.marinebiodiversity.ca/coin/csu/?mapset=nl. The layers can also be viewed on the Government of Newfoundland and Labrador's Geoscience Atlas at http://geoatlas.gov.nl.ca.

HANDBOOK TO PREPARE FOR COASTAL HAZARDS

The Woods Hole Sea Grant has released an updated version of the "Massachusetts Homeowner's Handbook to Prepare for Coastal Hazards". The Second Edition features information on the hazards of coastal living in a changing climate and provides tools and resources useful in helping communities mitigate coastal impacts. The handbook was developed through a collaboration of the Massachusetts office of Coastal Zone Management, Massachusetts Emergency Management Agency, Federal Emergency Management Agency, Massachusetts Department of Conservation and Recreation, Barnstable County, Woods Hole Sea Grant, and MIT Sea Grant - http://web.whoi.edu/seagrant/updated-homeowners-handbook-to-prepare-for-coastal-hazards-now-available.

CLIMATE CHANGE INDICATORS IN THE UNITED STATES

A The US Environmental Protection Agency has released the 2014 Edition of the report "Climate Change Indicators in the United States". The report presents thirty indicators to help understand observed long-term trends related to the causes and effects of climate change, and describes the significance of these trends and their possible consequences for people, the environment, and society. Most indicators focus on the United States, but some include global trends - http://www.epa.gov/climatechange/indicators.html.

CLIMATE CHANGE 2014 SYNTHESIS REPORT

The Intergovernmental Panel on Climate Change "Climate change 2014 Synthesis Report" distils and integrates the findings of the three working group contributions to the IPCC Fifth Assessment Report, as well as the two Special Reports produced during this cycle - http://ipcc.ch.

RISK-BASED ADAPTATION PLANS

The United States' Environmental Protection Agency's Climate Ready Estuaries program has released "Being Prepared for Climate Change: A Workbook for Developing Risk-Based Adaptation Plans." The workbook provides guidance for conducting risk-based climate change vulnerability assessments and developing adaptation action plans for organizations that manage places, watersheds or coastal environments - http://www2.epa.gov/cre/risk-based-adaptation.

ENCROACHING TIDES

The Union of Concerned Scientists (UCS) has released "Encroaching Tides: How Sea Level Rise and Tidal Flooding Threaten U.S. East and Gulf Coast Communities over the Next 30 Years." Using a mid-range scenario for future sea level rise, the report finds that by 2030, more than half of the 52 communities analyzed on the East and Gulf Coasts can expect to average more than two dozen tidal floods per year. The rise in the frequency of tidal flooding represents an extremely steep increase for many of these communities - http://www.ucsusa.org/global_warming/impacts/effects-of-tidal-flooding-and-sea-level-rise-east-coast-gulf-of-mexico#.VJlwNsA4.

VALUE OF MANGROVES

The United Nations Environment Programme (UNEP) released two reports highlighting the **value of mangroves**, including as **carbon stores**. The reports also note that mangroves, which are disappearing faster than terrestrial forests, are not yet fully benefiting from carbon financing.

- The first report "Guiding Principles for Delivering Coastal Wetland Carbon Projects" suggests that the limited development of methodologies for carbon accounting in mangroves and the lack of inclusion of mangroves in some definitions of forests may be inhibiting their inclusion in Reducing Emissions from Deforestations and forest Degradation (REDD+).
- The second report "Carbon Pools and Multiple Benefits of Mangroves in Central Africa Assessment for REDD+" estimates that the carbon benefits from mangroves in Central Africa could be as high as US \$66 billion not including benefits from fisheries, coastal protection and other ecosystem services.
- In support of the recommendations contained in the above reports, UNEP released an assessment of satellite-based monitoring for mangroves "Monitoring the Restoration of Mangrove Ecosystems from Space" which concludes that satellite remote sensing can detect mangrove restoration efforts and therefore can be included as a useful tool in planning and monitoring mangrove management projects -

http://www.unep.org/newscentre/Default.aspx?DocumentID=2814&ArticleID=11103&l=en.

SHOREFRONT NO-BUILD AREAS

NOAA's Office of Ocean and Coastal Resource Management has released the report "Protecting the Public Interest through the National Coastal Zone Management Program: How Coastal States and Territories Use No-Build Areas along Ocean and Great Lake Shorefronts". The purpose of the report is to help better understand and communicate how state and territorial coastal management programs manage ocean and Great Lake shorefront development. It looks specifically at where states and territories employ shorefront no-build areas - http://coastalmanagement.noaa.gov/issues/hazards_activities.html.

- The Rutgers School of Environmental and Biological Sciences has **developed a tool** called "**OceanAdapt**" that delivers up-to-date information on changes in the distribution of marine species in each United States marine region over the last 40 years using data collected annually by NOAA Fisheries and others http://oceanadapt.rutgers.edu.
- The **International Institute for Sustainable Development** has published a summary of the United Nations Framework Convention on Climate Change (UNFCCC) Geneva Climate Change Conference held 8-13 February 2015 in Geneva, Switzerland http://www.iisd.ca/vol12/enb12626e.html.
- The proceedings and videos from the **2014 ESRI Ocean GIS Forum** held in 5-7 November 2014 in Redlands, California are now available http://www.esri.com/events/oceans.
- The U.S. Geological Survey in partnership with the Massachusetts Office of Coastal Zone Management has created a **Coastal and Marine Geology Video and Photo Portal** that allows users to view video and photography of the seafloor off of coastal California and Massachusetts, and aerial imagery of the coastline along segments of the Gulf of Mexico and mid-Atlantic coasts. http://www.usgs.gov/newsroom/article.asp?ID=4156#.VT-oSSFVhBf.

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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 online membership form is available.

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The membership dues consist of your involvement in the activities in the Commission and/or your contributions to the Newsletter. The absence of participation will cause your membership to lapse.

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

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I 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 me.

Thank you for your cooperation. NORB PSUTY

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