

newsletter

Union Géographique Internationale
International Geographical Union
No. 72 - January 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 outgoing Chair

After six years of service as chair of the CCS, it is my pleasure to announce that Professor Colin Woodroffe, vice-chair, has accepted my request to take on the position of chair, starting in January 2015, following the established tradition of succession. My term and a half as chair of the CCS has been an exciting one. I have acquired, thanks to the CCS, a sense of closeness to matters of coastal interest that I would not have nurtured without this involvement in the CCS. This also gives me the opportunity to express my heartfelt gratitude to Professor Norb Psuty for his tireless efforts in favour of the CCS and for the newsletters he so diligently composed. Norb has literally been the kingpin responsible for the continuity and the vigour of our commission. Thank you so much Norb! My thoughts also go out to Colin, not only for accepting the challenge of stepping in as chair, notwithstanding the flight distances he knows he will have to withstand for attending meetings of CCS interest (when one lives and works 'down under!'), but also for his close commitment to all the activities of the CCS over the years. Many thanks to you Colin, for taking up the challenge! I also wish to thank members of the steering committee, both old and new, and all members of our commission, for your involvement in the CCS over the last six years

The year 2014 has been, like the previous years, an active one for the CCS, which continues to fulfill its missions in terms of the promotion of coastal matters within the scope of the IGU. The CCS sponsored a special issue of the *Journal of Coastal Conservation (Human-altered coastal systems: processes, monitoring, and management. 2014, Volume 18)* that I enjoin all members to read. The CCS was fully engaged in the IGU Regional Meeting in Krakow, Poland (August, 2014), and several other members contributed by promoting the CCS in other meetings such as

the EGU in Vienna and the ICS in South Africa. I wish you all success in your endeavours in 2015 and continued strong engagement in the CCS, and good luck to Colin and Norb!

EDWARD ANTHONY

Message from the incoming Chair

I am honoured to take on the role of Chair of the Commission on Coastal Systems. It has been a pleasure to work with Edward over the past few years and I am very grateful for the enthusiasm and guidance he has provided and the energy he has brought to the study of coasts. We are all greatly indebted to Norb for his magnificent efforts in producing the Newsletter, and I am delighted that he is prepared to continue this task. I encourage you all to read, and disseminate, this Newsletter.

I look forward to working with the steering committee and welcome ideas and input from all members. Please let me know how you would like to see CCS move forward.

These are exciting times for coastal studies. There has never been such interest and concern about how our coasts are changing. I wish you all every success in your research in 2015, and look forward to hearing about the outcomes.

COLIN WOODROFFE

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

APRIL 12 –17, 2015. EUROPEAN GEOSCIENCES UNION GENERAL ASSEMBLY (EGU 2014) VIENNA, AUSTRIA

GM8.1 COASTAL ZONE GEOMORPHOLOGIC INTERACTIONS: NATURAL VERSUS HUMAN-INDUCED DRIVING FACTORS, information on which please find below.

Session link: <http://meetingorganizer.copernicus.org/EGU2015/session/17216>

Coasts worldwide face a great variety of environmental impacts as well as increased anthropogenic pressures of coastal zone urbanization and rapid population growth. Over the last decade coastal erosion has emerged as a widespread problem that causes shoreline retreat and irreversible land losses. The attempts of managers and other stake holders to cope with erosion using different types of hard engineering methods may often aggravate this problem, damaging natural landscape and coastal ecosystems in unexpected and unpredicted ways. Other negative impacts of human activities on littoral environments are chronic and punctual pollution of beach and coastal sediments with associated health risks for human beings. Chronic pollution is often observed in coastal areas close to factories, industries and human settlements - because of waste water discharges, punctual contamination is often linked to beach oiling.

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 transport, 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 anthropogenic 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. Studies related to the most crucial coastal zone issues with emphasis on ICZM aspects are also welcome: impacts of global climate changes, associated with severe storms, sea level rise and flooding, low-lying coastal territories, progress of coastal erosion and degradation of sandy beaches. 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.

The session is sponsored by the Commission on Coastal Systems (CCS) of the International Geographical Union (<http://www.igu-ccs.org>).

CONVENORS: Dr. Margarita Stancheva (Institute of Oceanology - Bulgarian Academy of Sciences) (stancheva@io-bas.bg)

Dr. Andreas Baas (Department of Geography - King's College London) (andreas.baas@kcl.ac.uk)

Dr. Giorgio Anfuso (Faculty of Marine Science - University of Cádiz) (giorgio.anfuso@uca.es)

Dr. Hannes Tonisson (Tallinn University, Institute of Ecology) (hannest@gmail.com)

IMPORTANT DEADLINE DATES:

The abstracts submission deadline - **07 JANUARY 2015**

Detailed information on how to submit an abstract can be found at:

http://www.egu2015.eu/abstract_management/how_to_submit_an_abstract.html

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

Deadline for submitting abstracts for papers and posters: **31 January 2015.**

Further information is available as: www.igu2015.ru

Forthcoming IGU Conferences

August, 2016: People’s Republic of China, International Geographical Congress, Beijing

More details at www.igu-online.org

REPORTS ON MEETINGS

IGU Conference, August 2012, Cologne, Germany Sessions organized by the Commission on Coastal Systems

Selected presentations from this Conference were compiled to create a thematic issue of the **Journal of Coastal Conservation, Volume 18, Number 5, October 2014**. The issue includes:

- Preface - Human-altered coastal systems: processes, monitoring, and management, E.J. Anthony, N.P. Psuty
- Confronting coastal morphodynamics with counter-erosion engineering: the emblematic case of Wissant Bay, Dover Strait, M. Sedrati, E.J. Anthony
- Coastal dune development and sand drifting management along an artificial shoreline: the case of Dunkirk harbour, northern France, A. Tresca, M.-H. Ruz, P. Grégoire
- Development of new dunes in the Dutch Delta: nature compensation and ‘building with nature’, F. van der Meulen, B. van der Valk, L. Baars, E. Schoor, H. van Woerden
- Sediment budget as a driver for sediment management at Plumb Beach, New York, USA: vectors of change and impacts, N.P. Psuty, A. Spahn, T.M. Silveira, W. Schmelz
- The impact of storm Xynthia in 2010 on coastal flood prevention policy in France, C. Chadenas, A. Creach, D. Mercier
- Storms impact on morphodynamics of human controlled coastal features in western France: the prevailing role of local management practices, J. Musereau, H. Regnaud
- Shoreline rotation and response to nourishment of a gravel embayed beach using a low-cost video monitoring technique: San Michele-Sassi Neri, Central Italy, M.D. Harley, U. Andriolo, C. Armaroli, P. Ciavola
- A GIS-based coastal monitoring and surveillance observatory on tropical islands exposed to climate change and extreme events: the example of Mayotte Island, Indian Ocean, M. Jeanson, F. Dolique, E.J. Anthony
- Importance of decadal scale variability in shoreline response: examples from soft rock cliffs, East Anglian coast, UK, S.M. Brooks, T. Spencer

EUROPEAN GEOSCIENCES UNION GENERAL ASSEMBLY (EGU2014) VIENNA, AUSTRIA 27 APRIL – 02 MAY 2014

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 sixth time at the EGU 2014 General Assembly, 27 April - 02 May 2014 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.

**EUROPEAN GEOSCIENCES UNION GENERAL ASSEMBLY 2014
VIENNA, AUSTRIA, 27 APRIL - 02 MAY 2014**



**GM8.1 SESSION
Coastal Zone Geomorphologic Interactions: Natural versus
Human-Induced Driving Factors**

**Sponsored by the Commission on Coastal System (CCS) of the
International Geographical Union (IGU)**



The CCS encourages the study of coastal systems throughout the world. It provides sponsorship and support for activities leading to the exchange of information regarding coastal systems among members and throughout the IGU.

The CCS newsletter is edited by Prof. Norb Psuty, Institute of Marine and Coastal Sciences, Rutgers University (psuty@marine.rutgers.edu). For copies of Newsletter and announcements, see <http://www.igu-ccs.org/>.

**Home
of
Geography**

Photo Source: IO-BAS and PSDS-UWC

This EGU2014 GM8.1 Session was held with 35 abstract submissions, and was divided into two oral sessions of twelve 15 minute talks each and a poster session with 23 poster presentations. The session has been sponsored by the Commission on Coastal Systems (CCS) of the International Geographical Union (IGU) for the fourth year in succession. The oral and poster sessions were both conducted on Tuesday, 29 of April 2014. The oral programs of the session (<http://meetingorganizer.copernicus.org/EGU2014/orals/14250>) were chaired by Margarita Stancheva and Hannes Tonnison 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: anthropogenic impacts on coastal processes at Guadiaro River Mouth (Cádiz, Spain); coastal evolution in a carbonate sandy environments and relation to beach ridge formation in the Anegada, British Virgin Islands; using coastal lagoon systems as indicators for Holocene sea-level development in a periglacial soft-sediment setting, (a case from Denmark); field experiments to trace sediments as a tool to understand coastal processes (case studies from Estonia and Portugal); study on impacts of an “extreme” storm on a low-lying embayed sandy beach (Pals Bay, NW Mediterranean); effect of human interventions on sand volume of deltas and tidal prism; preconditions and risk assessment of coastal erosion in the Eastern Gulf of Finland; how we can adapt to sea level rise and storms and which are the missed opportunities (case studies from USA and Bulgaria); evolution of foredune barriers at Admiral Bay, Western Australia and implications for Holocene relative sea levels and extreme wave events; study of fully coupled wave resolving hydro-morphodynamical model to predict beachface evolution within a storm.

The poster program of GM8.1 Session also included a broad selection of different coastal zone studies (<http://meetingorganizer.copernicus.org/EGU2014/posters/14250>). The posters reported many

interesting and innovative research developments, including role of geologic inheritance on storm impacts along the south Texas Coast, USA; influence of environmental factors on the geomorphologic support in maritime Danube Delta; coastal dynamics in western Sicily, coastal vulnerability assessment with the use of environmental and socio-economic indicators (case study from the Island of Crete); environmental change on tidal flat induced by anthropogenic effect around west coast of Korean Peninsula; mesoscale impacts of sea wall defences on coastal morphology; analysis of the morphostructural evolution of the coastal cliffs of Bessin, Basse-Normandie, France; study on seabed morphology along the rocky shore of the Barlavento Coast, southern Portuguese continental shelf; and other modeling 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 and to face the present challenge to preserve the still remaining geodiversity of our natural shorelines.

The next **EGU General Assembly 2015 will be on 12 – 17 April 2015 in Vienna, Austria.**

MEETINGS WITH COASTAL INTEREST

MARCH 20-APRIL 2, 2015, COASTAL GEOTOOLS 2015, NORTH CHARLESTON, SOUTH CAROLINA, US

The Coastal GeoTools conference, established in 1999, is held every two years and focuses on geospatial data, tools, technology, and information for coastal resource management professionals. Coastal GeoTools 2015 will be the eighth in the conference series. Coastal professionals from many different sectors find the networking opportunities of the conference unique and important for furthering the goals of their organizations. Anyone interested in the development and application of geospatial technology for management of coastal resources will benefit from this conference.

In addition to the sessions, there will be half-day Special Interest Meetings on:

- Innovative Approaches in Coastal and Ocean Data Portals
- Exploring the Application of Digital Coast Tools for Enhancing Floodplain Management and Community Rating System Participation
- Linking Land Cover to Water Quality Using OpenNSPECT
- Participatory Mapping: Engaging Communities in Resource Planning and Management
- Mapping the Coast: Elevation, Inundation, and Frequency
- Building an OpenNSPECT Database for your Watershed

For further information, contact: www.coastalgeotools.org

APRIL 22-24, 2015, CoastGIS 2015, WESTERN CAPE, SOUTH AFRICA 12th International Symposium for GIS and Computer Cartography for Coastal Zone Management

Conference Themes

The Symposium theme “Rich Data, Poor Data: Geospatial Creativity and Innovation for Managing Changing Coastal Systems” refers to the increasing demand on decision-makers and managers to be aware of changes in the coastal and marine environment. Not only must there be a much greater emphasis on the measuring of change, but also increasing and creative options for data poor and rich environments alike, to act on the observed changes, which may have either positive or negative societal impacts. In other words, how can CoastGIS2015 contribute to the understanding of coastal change, and how can the powerful tools we use, as a scientific and management community, help us make better decisions? Can we demonstrate how the excellence, passion and creativity in the various disciplines encompassed by CoastGIS be used to improve the use of science for decision-making relating to coastal management?

19-20 April 2015: International Coastal Atlas Network ICAN 7: for more information on the ICAN 6 event to www.icoastalatlas.net.

Deadline for Abstract submission, **December 24, 2014.**

Further information is available as: <http://www.coastgis2015.co.za>

APRIL 21-25, 2015, COASTAL AND MARINE SPECIALTY GROUP, ASSOCIATION OF AMERICAN GEOGRAPHERS, CHICAGO, ILLINOIS, US

The Coastal and Marine Specialty Group is sponsoring sessions on a variety of topics that cover

- Hurricanes
- Coastal Hazard Management: Applications of GIS to Decision-making
- Viewing the Great Lakes Through the Geospatial Periscope: Data and Tools to Help Bring Great Lakes Coastal Issues into Focus
- Recreational Behavior in Coastal and Marine Environments
- Examining the Social Coast
- Coastal Geomorphology
- Eolian Processes and Landforms

Further information on the meeting is available at:

http://www.aag.org/cs/annualmeeting/about_the_meeting

MAY 3-7, 2015. JOINT ASSEMBLY OF THE AGU, CGU, GAC, AND MAC, MONTREAL, CANADA

Special Session on Implications of Climate Change for Mid to High-Latitude Coastal Systems.

Snow, ice and winter storms are important factors affecting geomorphic change in mid to high-latitude coastal systems. For example, ice can erode a shoreline. Freeze/thaw processes can weather rock platforms. Conversely, snow/ice can protect beach sediments from erosion. Changes in storm frequency and/or intensity and/or timing may alter the rate and/or nature of geomorphic evolution in mid and high-latitude coastal systems found throughout Canada and the US, including the Great Lakes. As our climate changes, the roles of snow, ice, winter storms and other controls on coastal geomorphic evolution will change too. For example, less coastal ice may result in more wave energy propagating to shore. Controls

like rainfall and vegetation may change. The purpose of this session is to explore the implications of changes in controlling variables on the evolution of mid to high-latitude coastal systems. Papers can focus on systems (e.g., barrier islands) or system components (e.g., dunes).

This session is being organized by Jeff Ollerhead and Ian Walker.

Abstracts are due January 15, 2015

More information is at:

<https://agu.confex.com/agu/ja2015/webprogrampreliminary/Session6363.html>

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.

Science for MPA Management, Issue 3, October 2014, Mediterranean coastal industries within sustainable marine development is available for downloading.

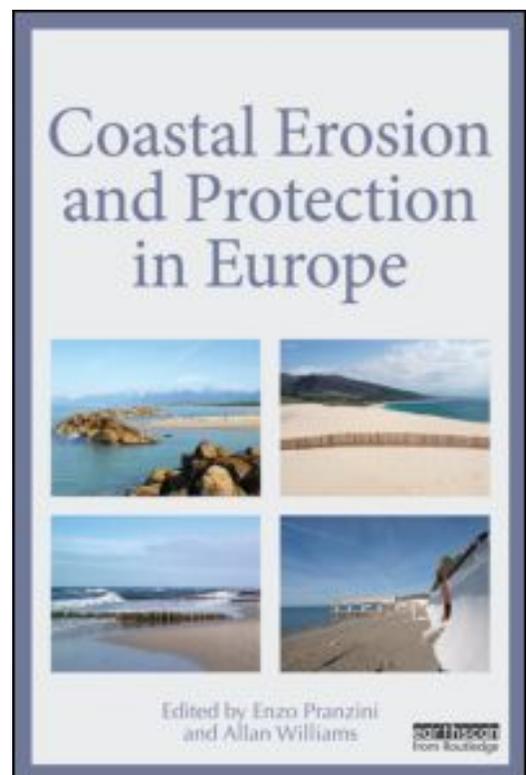
This third edition of "**Science for MPA management**" gives an overview of where we stand in terms of industrial pollution impacts, policies adopted to combat them at a Mediterranean scale and what it means for MPA managers.

Sustainable industrial strategies at trans national, national and local scales need to become a reality quickly. Numerous projects are ongoing to support this shift. [MedTrends](#) led by WWF France, is one of them and is looking at evaluating the marine impact of the projected economic growth in the Mediterranean over the next few years and how blue growth strategies and marine spatial planning can limit adverse effects on the sea. **Download Science for MPA Management, Issue 3.**

<http://www.medpan.org/documents/10180/0/Science+for+MPA+management+-+Issue+3/f6e346c2-ad26-4e0d-be87-67fb84c8b4fb>

Coastal Erosion and Protection in Europe, 2013. Edited by Enzo Pranzini and Allan Williams, February 2013 , 978-1-84971-339-9 | Hardback (Routledge).

Europe has a long history of managing coastal erosion through a variety of protection strategies, from the defences of the Venice lagoons to coastal land reclamation in the Netherlands. This book provides a comprehensive review of the entire coastline of Europe and a comparative analysis of erosion problems and solutions in each country. Each chapter discusses the natural and anthropogenic factors in the erosion process and in defence projects design and maintenance, including coastal morphology and wave climate, land use changes and use of coastal areas, the evolution of coastal protection, climate change and political and administrative assessments.



Particular attention is paid to demographic and economic factors influencing coastal erosion in each country and to technical and administrative criteria influencing defence projects design. Lavishly illustrated in full colour throughout, the book represents a definitive reference work on its subject.

To CCS members – this means you.

This book retails at \$199.00 -- but is available as a special offer to CCS members with a **20% discount**, for \$159. To order a copy go to www.routledge.com Save 20% on Coastal Erosion and Protection in Europe by using discount code DC365 at www.routledge.com/u/978-1-84971-339-9.

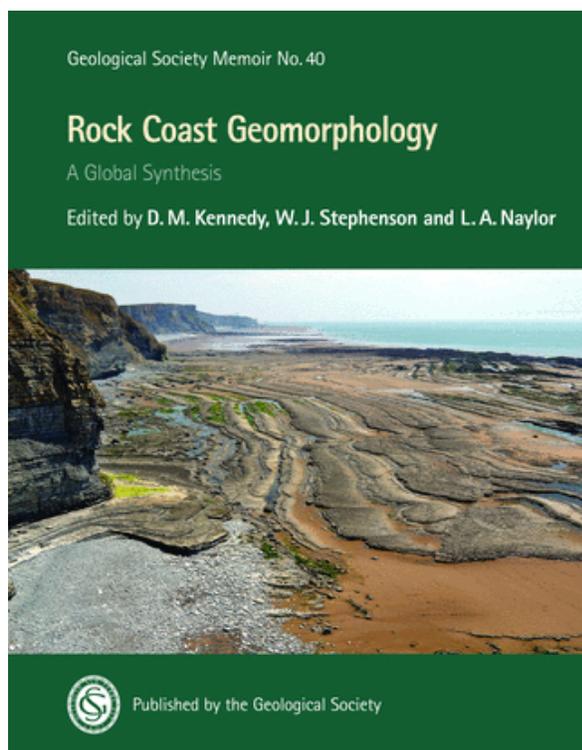
Rock Coast Geomorphology,

D. Kennedy, W. Stephenson, and L. Naylor, editors.

Rocky landforms dominate large portions of the world's coast. Cliffs and shore platforms form spectacular landscapes, yet when compared to other landforms they are relatively unstudied with many contemporary controversies dating back to the mid-nineteenth century. The past decade has seen a reinvigoration of research driven by advances in technology that now enable precise measurements of erosion to the micron scale and quantification of wave energy onto and through cliff edifices to be made, as well as being able to directly date rock surfaces. In order to integrate this diverse range of research this volume's regional approach first integrates the latest data with longstanding theory and then analyses this research through the boundary conditions that exist in each area. The volume brings together the research leaders in the field; includes chapters on nearly all the major rock coasts of the world and identifies future research needs.

Kennedy, D. M., Stephenson, W. J. & Naylor, L. A. (eds) 2014. Rock Coast Geomorphology: A Global Synthesis. Geological Society, London, Memoirs, 40. ISBN 978-1-86239-684-5

Full Details at: <http://mem.lyellcollection.org/content/current>



Paul Rooney, Tom Marshall, 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/>

EPA's Watershed Academy has archived the "Climate Resilience: What to Expect, How to Prepare, and What You Can Learn from Others" webinar. You can view it anytime at: <http://water.epa.gov/learn/training/wacademy/archives.cfm#w20141029>

Sea Level Rise Viewers

1. Climate Central: <http://sealevel.climatecentral.org/> "Map pages show threats from sea level rise and storm surge to all 3000+ coastal towns, cities, counties and states in the Lower 48."
2. NOAA Coastal Services Center: <http://coast.noaa.gov/slr/> "Select a geography and use the slider bar to simulate various sea level rise scenarios (from one to six feet above the average highest tides) and the corresponding areas that would be impacted by flooding." (Available for all states and P.R., except Alaska and La.)

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

MARINE SPATIAL PLANNING AND THE HISTORIC ENVIRONMENT

A report prepared for English Heritage titled “**Marine Spatial Planning and the Historic Environment**” by Fjordr Marine and Historic Environment Consulting reviews the character of the marine historic environment in the light of the **conceptual framework of sustainable development** and considers the different emphases that animate marine spatial planning. The report also looks in detail at the place of the **historic environment in ecosystem-based management**, ecological services and socio-economic assessment - <http://www.english-heritage.org.uk/publications/marine-spatial-planning-historic-environment>.

MARINE PROTECTED AREAS IN THE UNITED STATES

The US National Oceanic and Atmospheric Administration National **Marine Protected Areas Center** has released a report titled “**Marine Protected Areas of the United States: Conserving Our Oceans, One Place at a Time**”. The report provides a details of the **coverage, level of protection, protected resources, and ecological representativeness** of MPAs in US waters. It also features brief case studies in MPA management from around the country - <http://oceanservice.noaa.gov/news/dec13/mpa-report.html>.

CLIMATE SMART CONSERVATION

A new guide “**Climate-Smart Conservation: Putting Adaptation Principles into Practice**” addresses how climate change affects the nation’s wildlife and habitats as well as how to **prepare for and adapt to these unprecedented changes**. It provides a toolbox to help managers plan and implement natural resource conservation efforts. This peer-reviewed publication was developed by an expert workgroup convened by the US National Wildlife Federation - http://www.nwf.org/pdf/Climate-Smart-Conservation/NWF-Climate-Smart-Conservation_5-08-14.pdf.

OCEANS AND CLIMATE CHANGE

A virtual Special Issue of the **Ocean & Coastal Management Journal** on “**Oceans and Climate Change**”. The issue focuses on the **adaptation and mitigation of climate change impacts**, with a special focus on **oceans and coastal communities and small island developing**

States - <http://www.journals.elsevier.com/ocean-and-coastal-management/virtual-special-issues/virtual-special-issue-on-oceans-and-climate-change>.

REDUCING COASTAL RISKS The report “**Reducing Coastal Risks on the East and Gulf Coasts**” reviews the **coastal risk-reduction strategies** and levels of protection that have been used along the **United States East and Gulf Coasts** to reduce the impacts of coastal flooding associated with **storm surges**. This report **evaluates their effectiveness** in terms of economic return, protection of life safety, and minimization of environmental effects - http://www.nap.edu/catalog.php?record_id=18811.

- The **US Geological Survey** has created an online tool, the “**USGS Coastal Change Hazards Portal**” that allows users to interactively “see” past, present and future coastal hazards. The portal compiles a diverse array of science to provide a comprehensive picture needed to **visualize and understand how coasts behave** under various conditions - http://www.usgs.gov/blogs/features/usgs_top_story/science-brings-clarity-to-shifting-shores.

COASTAL PROPERTY GUIDE

The “**The Rhode Island Coastal Property Guide: What Coastal Property Owners, Renters, Builders and Buyers Should Know About Rhode Island’s Shoreline**” is produced by the Rhode Island Coastal Resources Management Council, Rhode Island’s coastal management agency, and the University of Rhode Island Coastal Resources Center /Rhode Island Sea Grant. The guide contains information about the **natural and regulatory circumstances that affect property in the coastal zone**. The information is provided in 10 sections and covers a range of areas from **setbacks to septic systems**. The guide is part of the Rhode Island Shoreline Change Special Area Management Plan - <http://www.beachsamp.org/coastalpropertyguide>.

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**” distills 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 US **National Science Foundation’s Center for Ocean Sciences Education Excellence**, COSEE Island Earth, has launched an expanded seaHarmony website. SeaHarmony is an online collaboration tool that matches ocean science researchers, educators, managers, and traditional practitioners based on compatibility of interests and collaboration preferences - <http://www.seaharmony.org>.

- The article “**Living with the Shoreline**” by Sadie Beaton and Emily LeGrand explores ‘**Living Shorelines**’ practices that address coastal erosion without severing the natural processes and connections between land and sea. The article is part the Atlantic Canadian Fisheries Blog called “**Small Scales**” produced by the Ecology Action Centre - <http://smallscales.ca/2014/06/09/shoreline>.

- A Special Issue of the Journal **Marine Geodesy** (Volume 37, Issue 2) titled “**Coastal and Marine Geographic Information Systems**” related to the proceedings of the **CoastGIS 2013** Conference is now available - <http://www.tandfonline.com/toc/umgd20/U4x-GvldWSo#.U6xBdLHyTr0>.

- The US Environmental Protection Agency has released a **Flood Resilience Checklist** which includes overall strategies to improve flood resilience as well as specific strategies to conserve land and discourage development in river corridors; to protect people, businesses, and facilities in vulnerable settlements; to direct development to safer areas; and to implement and coordinate stormwater management practices throughout the whole watershed www.epa.gov/smartgrowth/pdf/Flood-Resilience-Checklist.pdf.

- **CleanSea** is a European research project that aims to provide instruments and tools to keep European seas clean, healthy and productive. The June 2014 Clean Sea Newsletter is now available - [http://us7.campaign-archive1.com/?u=c6005c19cfb13177be6488ac7&id=ad70f3b86d&e=\[UNIQID\]](http://us7.campaign-archive1.com/?u=c6005c19cfb13177be6488ac7&id=ad70f3b86d&e=[UNIQID]).

- A story map of the **International Coastal Atlas** provides a history of the organization to date, and a [web map of ICAN members](#). **David Hart of the Wisconsin Coastal Atlas** (ICAN member) and the University of Wisconsin Sea Grant Institute developed and presented the ICAN “story map” during the 2014 ESRI Ocean GIS Forum - <http://bit.ly/10ryYWH>.

- NOAA's Center for Operational Oceanographic Products and Services launched the “**Inundation Analysis Tool**”, a web-based application that employs data collected at NOAA tide gauge stations to provide statistical summaries of the historical frequency and duration of observed high waters - <http://oceanservice.noaa.gov/news/weeklynews/may12/inundation.html>.

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

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The IGU Commission on Coastal Systems (CCS) web site 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.

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: mmeadows@mweb.co.za

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