

## **REPORT OF THE COMMISSION ON COASTAL SYSTEMS: 2012-2016**

### **1. Membership**

A. The Officers and Steering Committee of the Commission on Coastal Systems have consisted of the following members during the reporting period:

Chairmanship of CCS was transferred from Prof. E Anthony to Prof. C. Woodroffe in early 2015

#### **Chair since 2015/ Président**

Prof. Colin Woodroffe  
School of Earth and Environmental Sciences,  
University of Wollongong,  
Wollongong, NSW 2522,  
AUSTRALIA  
[colin@uow.edu.au](mailto:colin@uow.edu.au)

#### **Immediate 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](mailto:anthony@cerege.fr)

#### **Past Chair/Ancien Président**

Prof. Douglas J. Sherman  
Department of Geography  
University of Alabama  
Tuscaloosa, AL 35487  
U.S.A.  
[douglas.j.sherman@ua.edu](mailto:douglas.j.sherman@ua.edu)

#### **Secretary/Secrétaire, 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](mailto:psuty@marine.rutgers.edu)

#### ***Steering committee members***

Prof. Françoise Breton  
European Topic Centre Terrestrial Environment  
Universitat Autònoma de Barcelona  
Edifici C - Torre C5, 4a planta

E-08193 Bellaterra (Barcelona)  
SPAIN  
[Francoise.Breton@uab.cat](mailto:Francoise.Breton@uab.cat)

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](mailto:d.r.green@abdn.ac.uk)

Prof. Paolo Ciavola,  
Dipartimento di Scienze della Terra,  
Università di Ferrara,  
Via Saragat 1,  
44100 Ferrara,  
ITALY  
[cvp@unife.it](mailto:cvp@unife.it)

Prof. Dr. Antonio Henrique da F. Klein  
Universidade Federal de Santa Catarina  
Centro de Filosofia e Ciências Humanas  
Departamento de Geociências  
Laboratório de Oceanografia Costeira  
Campus Universitário - Trindade  
Florianópolis, SC - 88040-900  
BRASIL  
[antonio.klein@ufsc.br](mailto:antonio.klein@ufsc.br)

Dr. Margarita Stancheva (co-editor Newsletter)  
Department of Marine Geology and Archaeology  
Institute of Oceanology,  
Bulgarian Academy of Sciences  
P.O. box 152, Varna 9000  
BULGARIA  
[stancheva@io-bas.bg](mailto:stancheva@io-bas.bg)

Dr. Raoul Laïbi  
Department of Earth Sciences  
Université d'Abomey-Calavi  
Abomey-Calavi  
BENIN  
[raoulaibi@yahoo.fr](mailto:raoulaibi@yahoo.fr)

Dr. Abdelmounim El M'rini  
Department of Earth Sciences  
Abdelmalek Essaâdi University  
P.O. Box 2121

Tetouan, Tetouan  
MOROCCO  
[aelmrini@gmail.com](mailto:aelmrini@gmail.com)

Prof. Dr. Andreas Vött  
Natural Hazard Research and Geoarchaeology,  
Institute for Geography  
Johannes Gutenberg-Universität Mainz  
Johann-Joachim-Becher-Weg 21  
D - 55099 Mainz  
GERMANY  
[voett@uni-mainz.de](mailto:voett@uni-mainz.de)

Dr. Derek Jackson  
Centre for Coastal and Marine Research  
School of Environmental Sciences  
University of Ulster  
Cromore Road, Coleraine  
Northern Ireland BT52 1SA  
UNITED KINGDOM  
[d.jackson@ulster.ac.uk](mailto:d.jackson@ulster.ac.uk)

Dr. Jeffrey Ollerhead  
Mt. Allison University  
65 York Street  
Sackville, New Brunswick  
CANADA E4L 1E4  
[jollerhead@mta.ca](mailto:jollerhead@mta.ca)

Prof. Troels Aagaard  
Institute of Geography and Geology  
University of Copenhagen  
DK-1350 Copenhagen K  
DENMARK  
[taa@geo.ku.dk](mailto:taa@geo.ku.dk)

Dr. Toru Tamura  
Geological Survey of Japan, AIST  
Central 7, 1-1-1 Higashi,  
Tsukuba, Ibaraki 305-8567,  
JAPAN  
[toru.tamura@aist.go.jp](mailto:toru.tamura@aist.go.jp)

Prof. Paul Rooney  
Department of Geography and Environmental Science  
Liverpool Hope University  
Liverpool L169JD  
United Kingdom  
[rooneyp@hope.ac.uk](mailto:rooneyp@hope.ac.uk)

B. Number of Commission members **in total and by country** as of 31 December 2015.

**530 names with verified email addresses - 69 countries**

ALBANIA	1
ALGERIA	1
ARGENTINA	6
AUSTRALIA	19
AZERBAIJAN	1
BANGLADESH	2
BELGIUM	24
BENIN	1
BRAZIL	19
BULGARIA	3
CANADA	16
CHILE	3
CHINA	7
COLOMBIA	1
COTE D'IVOIRE	3
CUBA	1
DENMARK	3
ECUADOR	1
EGYPT	2
ESTONIA	3
FINLAND	3
FRANCE	84
FRENCH POLYNESIA	1
GABON	1
GEORGIA	1
GERMANY	17
GREECE	3

HONG KONG	1
INDIA	10
INDONESIA	2
IRAN	1
IRELAND	7
ISRAEL	5
ITALY	15
IVORY COAST	1
JAPAN	8
KOREA	1
LATVIA	1
MALAYSIA	1`
MEXICO	1
MORROCO	2
NEW ZEALAND	10
MOZAMBIQUE	1
NIGERIA	3
NORWAY	2
PERU	1
PHILLIPINES	2
POLAND	5
PORTUGAL	18
ROMANIA	6
RUSSIA	5
SENEGAL	2
SINGAPORE	2
SOUTH AFRICA	7
SPAIN	19
SURINAM	1

SWEDEN	2
SWITZERLAND	1
TAIWAN	3
THE NETHERLANDS	18
TOGO	1
TUNISIA	1
TURKEY	3
UKRAINE	1
UNITED KINGDOM	33
U S A	97
URUGUAY	1
VIETNAM	1
YUGOSLAVIA	1

C. URL of the Commission website.

<http://www.igu-ccs.org/>

## 2. Meetings

A. The following meetings were organised by the Commission on Coastal Systems in the period 2012-2016 with summary information on their locations, dates, and numbers of participants.

### **1. AUGUST 26-30, 2013. IGC Meeting, ‘Down to Earth’ IGU CONFERENCE, COLOGNE, GERMANY**

Sessions convened by Edward Anthony and Norbert Psuty and organized by the CCS included:

1. Beaches and Dunes
2. Rocky Coasts
3. Coastal Erosion and Management
4. Coastal Monitoring
5. Sea-level Rise and Impacts

Total number of participants: 63

Total number of presentations: 48

### **2. AUGUST 4-9, 2013. IGU REGIONAL CONFERENCE, KYOTO, JAPAN**

Sessions convened by Masatomo Umitsu, Yongqiang Zong and Toru Tamura and organized by the CCS, entitled 'Coasts: learning from the past, planning for the future'.

Total number of participants: 36

Total number of presentations: 12

### **3. AUGUST 18-22, 2014. IGU REGIONAL MEETING, KRAKOW, POLAND**

Session organised by Françoise Breton:

Management of the coast and sea in the Mediterranean basin and the Black Sea: outcomes of the FP7 PEGASO project as challenges for the 21<sup>st</sup> century.

Several other meetings, not organised by the CCS, nevertheless acted as a forum for promoting the activities of the CCS. These include:

**The European Geosciences Union, General Assembly** meetings in Vienna, Austria, at which CCS has held and supported sessions on Coastal Zone Geomorphologic Interactions: Natural versus Human-Induced Driving Factors, organised by Margarita Stancheva, Andreas Baas, Giorgio Anfuso and Hannes Tonisson on 04 April 2011, 23 April 2012, 11 April 2013, 29 April 2014 and 15 April 2015. During 2011-2015 we conducted 8 oral sessions with 48 oral talks presented by scientists from 19 countries all over the world. Five poster sessions were conducted at the same days as oral sessions with participation of 86 posters presented by scientists from 24 countries.

**The International Coastal Symposium**, held in Plymouth, United Kingdom in 2013 and in Durban, South Africa in 2014, and to be held in Sydney, Australia in March 2016.

**CoastGIS**, held in Victoria, British Columbia, Canada in June 2013 and Cape Town, South Africa in April 2015.

8<sup>th</sup> IAG Conference held in Paris, France in August 2013.

B. A brief summary of the themes addressed, numbers of sessions and papers presented at these meetings.

The sessions at IGU, Cologne in 2013 addressed the imperatives of economic development and associated pressures brought to bear on coasts, recognising that the coast is increasingly destabilized by construction of facilities such as tourist infrastructure and harbours, in response to massive development. This resulted in an important publication edited by Edward Anthony and Norbert Psuty, entitled 'Human-altered coastal systems: processes, monitoring, and management', a special issue of *Journal of Coastal Conservation*, vol 8, issue 5, pages 481-593. It brings together experiences on human-altered coasts, through case studies, from several countries, which illustrate links between the physical and human dimensions of coasts that address the objectives and activities of CCS.

EGU General Assembly is the largest forum in Europe and each year (since 2002) it brings together more than 13,000 geoscientists from all over the world to one meeting

covering all disciplines of the Earth, planetary and space sciences. The session on coastal zone natural and human interactions gives priority to the broad 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 focus on the mechanisms responsible for coastal erosion and shoreline behaviour (advance or retreat) and address the many natural and anthropogenic factors involved. Session themes include as well as predictions of shoreline change and discussions on the effects of human activities and their continuing contribution to coastal changes. Themes related to the most crucial coastal zone issues with emphasis on ICZM and MSP aspects are also addressed: impacts of global climate changes, coastal vulnerability to the combined effects of natural and human-related hazards, any type of coastal and environmental sensitivity classifications, and risk assessments.

C. The meetings or other events you plan to hold in 2016 or later years, including locations, dates, and themes if known. Highlight in particular your plans for participation in the Beijing International Geographical Congress.

CCS will be convening the following activities in 2016, with future meetings to be planned:

**MARCH 29–APRIL 2, 2016. ASSOCIATION OF AMERICAN GEOGRAPHERS, SAN FRANCISCO, CALIFORNIA USA**

A special session of the Coastal and Marine Specialty Group will be held in tribute to H. Jesse Walker who established the first IGU Commission on Coastal Systems Newsletter.

**APRIL 17-22, 2016. EGU GENERAL ASSEMBLY. VIENNA, AUSTRIA.**

A Special Session on Coastal Themes is being planned, organised by Margarita Stancheva for CCS

**MAY 3-7, 2016. 2nd IBEROAMERICAN CONGRESS ON INTEGRATED COASTAL ZONE MANAGEMENT, FLORIANOPOLIS, BRAZIL**

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

**JUNE 1-5, 2016. ANNUAL IGU COMB CONFERENCE, ANTALYA, TURKEY**

The Commission on the Mediterranean Basin (COMB) will hold its annual conference and CCS is planning to organize a special session under the leadership of Françoise Breton to begin a collaboration between IGU-CCS and IGU-COMB.

**AUGUST 21-25, 2016, 33rd INTERNATIONAL GEOGRAPHICAL CONGRESS, BEIJING, P. R. CHINA**

CCS is convening a session on ‘Harmonizing Pacific Coastal Oceans: Sustainability for a Future Earth’, jointly supported by CCS and IGBP/LOICZ, and chaired by Weiguo Zhang.

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

CCS will be actively involved in this meeting with a focus on ‘The Anthropocene and the littoral - change, naturalness and people’, organised by Paul Rooney who is on the CCS steering committee.



### **3. Networking and communication**

The CCS has maintained networking and communication through its Newsletter, published twice a year, as well as through special sessions at meetings

A. The CCS has not undertaken collaborations with other IGU Commissions in the period 2012-2015, but is collaborating with COMB at their annual meeting in 2016.

B. The CCS has collaborated with IGCP588 in the co-convening of the session at the IGU Regional Meeting in Kyoto in 2013. It is collaborating with the Land-Ocean Interactions in the Coastal Zone (LOICZ) of the International Geosphere-Biosphere (IGBP) program, which is transitioning into Future Earth Coasts, in co-convening a session at the IGC in Beijing in 2016.

C. The CCS has not undertaken cooperative efforts with ISSC (International Social Science Council) or with ICSU (the International Council for Science) programs, except through the above collaborations.

### **4. Publications**

Newsletters, special journal issues, and books published or anticipated during the 2012-2016 period (provide complete citations for all publications).

Two Newsletters have been published each year; numbers 67-73 cover the period 2012-2015.

The following special issue has been published

Anthony, E.J. and Psuty, N.P. (2014) *editors*, 'Human-altered coastal systems: processes, monitoring, and management', special issue of *Journal of Coastal Conservation*, vol 8, pp 481-593.

### **5. Archival Contributions**

Copies of Newsletters 72 and 73 for 2015 are attached herewith

### **6. Continuation**

A. The Commission's name will remain unchanged.

B. A concise (100-200 words) statement of the mission of the Commission.

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 has a particular focus on issues of Global Change.

C. A list of the individuals who will comprise the steering committee from 2016-2020.

The CCS steering committee, listed above, represents the present composition, but there are plans to re-organise this in order to add additional younger members during the period 2016-2020.

D. A summary of the work plan for the Commission for the period 2016-2020.

The CCS intends to continue its active involvement in future national and international coastal meetings (see section 2C). It will advocate the strong relevance of geographical knowledge and perspective in the better management of the world's coastlines. It will bring together researchers focusing on coastal environments in order to facilitate sustainable practices in coastal settings, to enhance the resilience of our coasts and to foster a greater appreciation of the value of coastlines around the world. It will strengthen links between its members and other coast-focused groups such as the Coastal Education and Research Foundation, Future Earth Coasts, and working groups of IGCP. It will seek to disseminate a better understanding of coastal systems through networking and the fostering of good-quality publications.

Colin Woodroffe, Chair and Norbert Psuty, Secretary