

# CoastGIS 2018 in Ísafjörður • Conference Program

## Thursday 27.09.2018

From	Program	Location: Edinborg Cultural House
8:30	Registration opens	
9:30	Welcoming address by the host	
9:40	Eydís Líndal Finnbogadóttir - National Land Survey Iceland: <i>Arctic Spatial Data Index</i>	
10:15	Tom Barry - Executive Secretary Conservation of Arctic Flora and Fauna (CAFF): <i>The use of spatial data to inform Arctic policy and management</i>	
10:35	Coffee Break	
10:55	Björn Erlingsson - Research Affiliate University Center of the Westfjords: <i>Variations in coastal conditions on different time scales - from 100 minutes to 100 years in GISystems</i>	
11:20	Gunnar Páll Eydal - Verkís: <i>Spatial planning challenges in low-lying areas in the Westfjords</i>	
11:45	Dr. Brack Hale – Franklin University: <i>Mapping differences in foreign and domestic tourism in coastal areas of the Westfjords</i>	
12:00	Lunch Break (lunch incl. in conference fee) – at Edinborg Cultural House	

Parallel Sessions Location: University Centre of the Westfjords

### 13:30 – 15:00

Session 1 - Room A	Session 2 - Room B
<i>Climate change impacts and adaptation of coastal environments; Chair: Dr. Brack Hale</i>	<i>Coastal vulnerability assessment – strategies for mitigation and adaptation; Chair: Tom Barry</i>
<b>Guillaume Marie, Université du Québec à Rimouski:</b> Adaptation to coastal hazards in the context of climate change: the example of a research-action program developing useful tools for coastal municipalities in Quebec (Canada)	<b>David Hart, University of Wisconsin, Sea Grant Institute:</b> Geospatial Technologies to Understand and Communicate Coastal Hazards
<b>Abby Sullivan, Philadelphia Water Department:</b> Risk Mapping for Water Resource Management – Actionable Science and Tools for Climate Change Adaptation and Resiliency at the Philadelphia Water Department	<b>David Didier, University of Québec:</b> An innovative GIS tool for decision-making on coastal erosion and flood risk along the St. Lawrence Estuary, Eastern Canada
<b>John Kiousopoulos, University of West Attica:</b> Monitoring human impact along the coastal environment; Re-calculation of ‘Anthropogenic Intensity’ based on climate change influence	<b>Christophe Viavattene, Middlesex University:</b> How to improve the regional risk assessment of coastal events? Lessons learned from the risc-kit project
<b>Linus Hammar - Swedish Agency for Marine and Water Management, Gustav Kågesten - Geological Survey of Sweden:</b> Cumulative Impact Assessment and Climate Change in Swedish Marine Spatial Planning	<b>Pedro Miguel Fragoso Narra, RISCO and Civil Engineering Department, University of Aveiro:</b> CERA2.0: An improved GIS-based application for coastal erosion risk assessment

## Coffee Break

15:10 – 16:40

Session 3 - Room A	Session 4 - Room B
<i>Mapping, Monitoring, Modelling Coastal Environments; Chair: Ron Furness</i>	<i>Mapping, Monitoring, Modelling Coastal Environment; Chair: Rosaline Canessa</i>
<b>Beatrice Proudfoot - Presented by Rodolphe Devillers, Memorial University of Newfoundland:</b> Integrating Benthic Habitat Mapping, Landscape Ecology and Marine Protected Area Design	<b>Andrew Sherin, COIN Atlantic Secretariat:</b> Reprise on the COINAtlantic Data Accessibility Self-Assessment Tool: Adding FAIRness
<b>Martina Mühl, Coastal Research and Management, Kiel:</b> A GIS application for compensation planning within environmental impact assessment in marine habitats at Kiel Bay, Germany	<b>Jarbas Bonetti, Federal University of Santa Catarina:</b> Can vulnerability models be validated? A comparison between models based on spatial analysis and in situ beach erosion assessment after storm surge events
<b>Tanya C. Haddad, Oregon Coastal Management Program:</b> Advancing Oregon Estuarine Habitat Mapping with the Coastal and Marine Ecological Classification Standard	<b>Cassie Bongiovanni, Center for Coastal and Ocean Mapping, University of New Hampshire:</b> A method for quantifying the vertical uncertainty of less-than full coverage hydrographic survey areas
<b>Rodolphe Devillers, Memorial University Newfoundland:</b> GIS tools for mitigating the impacts of ocean noise on marine mammals in coastal waters	<b>Avianto Nugroho, University of Kiel:</b> Co use of fisheries and offshore wind farms - the distribution of the brown crab (cancer pagurus) in the vicinity of wind farms in the German EEZ of the North Sea in relation to sustainable fisheries resources

## Coffee Break

17:00 – 18:00

Session 5 - Room A	Session 6 - Room B	Session 7 Room C
<i>MaREI Centre for Marine and Renewable Energy, Environmental Research Institute, University College Cork*, Ireland; Chair: Darius Bartlett</i>	<i>GIS technology, remote sensing and spatial analysis in coastal zone management; Chair: Andrew Sherin</i>	<i>Decision support for marine spatial planning and coastal management; Chair: Karl Benediktson</i>
<b>Tiny Remmers, Kathrin Kopke:</b> The Potential of ASCAT 12.5 km Coastal Observations for Offshore Wind Farm Site Selection in Irish Waters	<b>Armand LaRocque, Faculty of Forestry and Environmental Management, University of New Brunswick:</b> Wetland Mapping in New Brunswick (Canada) with Landsat-8 OLI, Alos-1 PALSAR L-band, Sentinel-1 C-band, and Lidar Data	<b>Ásta Kristín Óladóttir, Alta ehf:</b> Contextual Data for Marine Spatial Planning in Farðabyggð
<b>Sarah Kandrot:</b> Shorelines: The Coastal Atlas of Ireland	<b>Hernán Abad Ortega, Novia University of Applied Sciences:</b> Nutrient capturing wetland	<b>Paloma Lucena-Moya, Novia University of Applied Sciences:</b> Improving GIS-learning for higher education programs on coastal management
<b>Roberta Paranunzio:</b> Assessing climate change impacts and vulnerability of coastal zones: the case study of the Greater Dublin Region in the framework of Urb-ADAPT project	<b>Robert Branton, COIN Atlantic:</b> Usability of Publicly Accessible Data on Commercially Harvested Brown Alga in the northern Atlantic Ocean	<b>Majid Eskafi, University Center of the Westfjords:</b> High resolution 3-D hydrodynamic behaviors, as inputs for Marine Spatial Planning (MSP) of fjords in Icelandic coastal water

***Natural protection of the coast: mapping coastal protection service provided by nearshore marine habitats***

Ana Maria Ferreira Bio

Interdisciplinary Centre of Marine and Environmental Research (CIIMAR/CIMAR), University of Porto, Portugal

anabio@ciimar.up.pt

Sandra Ramos<sup>1,2</sup>, Jacinto Cunha<sup>1</sup>, Ana Bio<sup>1</sup>, Eva Amorim<sup>1</sup>, Michael Elliott<sup>2</sup><sup>1</sup> Interdisciplinary Centre of Marine and Environmental Research (CIIMAR/CIMAR), University of Porto, Portugal<sup>2</sup> Institute of Estuarine and Coastal Studies, University of Hull, United Kingdom***First steps towards a long-term monitoring of storm impact on the coastal morphology of the Reykjanes Peninsula***Ronan Autret<sup>1</sup>, Pierre Stéphan<sup>1</sup>, David Didier<sup>2</sup> (presenting), Serge Suanes<sup>1</sup>, Bernard Fichaut<sup>1</sup>, Sigurdur Sigurdarson<sup>3</sup>, Björn Erlingsson<sup>4</sup>, Jérôme Ammann<sup>5</sup>, Peter Weiss<sup>4</sup>, Samuel Etienne<sup>6</sup><sup>1</sup> Université de Bretagne Occidentale, CNRS, UMR LETG 6554, Institut Universitaire Européen de la Mer, Plouzané, France<sup>2</sup> Chaire de Recherche en Géoscience Côtière, Québec-Océan, Centre d'études nordiques, Université du Québec à Rimouski, Rimouski, Canada<sup>3</sup> Icelandic Road and Coastal Authority, Reykjavik, Iceland<sup>4</sup> University Centre of the Westfjords, Ísafjörður, Iceland<sup>5</sup> CNRS, Université de Bretagne Occidentale, UMR LGO 6538, Institut Universitaire Européen de la Mer, Plouzané, France<sup>6</sup> Ecole Pratique des Hautes Etudes, PSL Research University, CNRS, UMR LETG 6554, Dinard, France***Co-location of wind farms and fisheries in the German EEZ of the North Sea***

Avianto Nugroho, Student, Kiel University, Germany

stu206039@mail.uni-kiel.de

***Spatial analysis in GIS applied to the mapping of infralittoral and circalittoral zones from sedimentary and micropaleontological indicators***Carla van der Haagen C Bonetti<sup>1</sup><sup>1</sup> Coastal Oceanographic Laboratory, Federal University of Santa Catarina, Brazil

carla.bonetti@ufsc.br

Sara Gil<sup>2</sup>, Danae Copoono Erdosi M. Teixeira<sup>1</sup>, Carolina Schmanech Mussi<sup>3</sup>, Mario Luiz Martins Pereira<sup>4</sup>, Jarbas Bonetti<sup>1</sup> (Presenting)<sup>2</sup> Universidad de la Republica, Montevideo, Uruguay<sup>3</sup> Universidade do Vale do Itajaí (Univali), Brazil<sup>4</sup> Instituto Chico Mendes de Conservação da Biodiversidade, Ministério do Meio Ambiente (ICMBio), Brazil***Refining expert knowledge to spatial data for cross-border maritime spatial planning – experience from the Baltic Sea***

Dr. Harri Tolvanen

Adjunct Professor – University of Turku, Finland1

harri.tolvanen@utu.fi

Tapio Suominen1, Hanna Uusitalo1, Meeli Roose1, Tua Nylén1

***A water balance GIS tool in support of climate adaption***Pablo Crespo del Granado<sup>1</sup>; Kathy Belpaeme<sup>2</sup> (presenting)<sup>1</sup> Antea group, pablo.crespodelgranado@anteagroup.com<sup>2</sup> Province of West-Flanders, kathy.belpaeme@west-vlaanderen.be

## ***Stakeholder's Value Identification for Adaptive Port Planning, Case Study of Port of Isafjordur in Iceland***

Majid Eskafi, Faculty of Civil and Environmental Engineering, University of Iceland  
mae47@hi.is

Majid Eskafi<sup>4</sup>, Reza Fazeli<sup>1</sup>, Ali Dastgheib<sup>2</sup>, Poonam Taneja<sup>3</sup>, Guðmundur Freyr Úlfarsson<sup>4</sup>

<sup>1</sup> Faculty of Environment and Natural Resources, University of Iceland

<sup>2</sup> Water Science & Engineering Department, IHE Delft Institute for Water Education

<sup>3</sup> Faculty of Civil Engineering and Geosciences, Delft University of Technology

<sup>4</sup> Faculty of Civil and Environmental Engineering, University of Iceland

---

## ***Challenges for a universal vulnerability assessment in a climate change hazard context: a state-of-the-art review***

Oxana Sytnik Ph.D,  
Post-Doctoral Researcher - <sup>1</sup>Coastal Oceanographic Laboratory, Federal University of Santa Catarina (UFSC), Brazil  
ox.sytnik@gmail.com

Dr. Jarbas Bonetti<sup>1</sup>

---

## ***Applications of Geoinformatics for Marine Renewable Energy***

Ross O'Connell, Student - University of Copenhagen / University Centre of the Westfjords  
oconnell.ross@yahoo.ie

---

## ***State of the environment as a determinant of life quality: a local scale approach***

Ruslan Gunko, PhD Student - Novia University of Applied Sciences, Finland  
ruslan.gunko@novia.fi

---

## ***Using High Resolution Satellite Imagery to detect long term changes in Canopy Forming Kelp (Nereocystis leutkeana) in the Salish Sea***

Sarah Schroeder, Maycira Costa, Masters Student - University of Victoria, Canada  
sbs@uvic.ca

---

## ***Participatory monitoring of the Peale's dolphin (Lagenorhynchus australis) in Patagonian and Fuegian fjords of southern Chile: efforts towards environmental education, citizen science and conservation***

Simon Demers, Liliana Perez, Student - Université de Montréal, Canada  
simon.demers.3@umontreal.ca, l.perez@umontreal.ca

## Friday 28.09.2018

From Program Location: Edinborg Cultural House

- 9:00 Short welcome and announcements
- 9:10 Dr. James Hansom – Dynamic Coast: *GIS underpinning for coastal collaboration and enhanced resilience*
- 9:45 Dr. David R. Green - University of Aberdeen and Chairman of the International CoastGIS Organizing Committee: *Low-Coast Monitoring, Mapping and Modelling of the Coast using UAVs*
- 10:10 Dr. Timothy Webster, Nova Scotia Community College: *Advances in Topo-Bathymetric Lidar surveys to support Spatial Planning and Climate Change*
- 10:30 Coffee Break
- 10:50 Charla M. Burnett, Dr. Will McClintock - Marine Science Institute, University of California Santa Barbara: *SeaSketch's Ideal Process Planning Model: Ensuring Equitable Decision-making in Marine Spatial Planning*
- 11:15 Dr. Rosaline R. Canessa - Department of Geography, University of Victoria: *Spatial management tools for vessel traffic in the Canadian Arctic in light of climate change*
- 11:40 Dr. Louis Celliers - Climate Service Center Germany (GERICS): *Systems thinking and geomatics*
- 12:00 Lunch Break (lunch incl. in conference fee) – at Hotel Ísafjörður

Parallel Sessions

Location: University Centre of the Westfjords

**13:30 – 14:30**

Session 8 - Room A	Session 9 - Room B	Session 10 – Room C
<i>GIS technology, remote sensing and spatial analysis in coastal zone management; Chair: Rodolphe Devillers</i>	<i>GIS technology, remote sensing and spatial analysis in coastal zone management; Chair: David Green</i>	<i>Aspects of Coastal Planning in Iceland; Chair: Karl Benediktsson</i>
<b>Ana M. F. Bio, CIIMAR - University of Porto:</b> Combining low-cost sonar and high-precision GNSS for river and estuarine bathymetry.	<b>Brigitte Leblon, Faculty of Forestry and Environmental Management, University of New Brunswick:</b> Mapping eelgrass beds in New Brunswick (Canada) using WorldView 2 optical images.	<b>Lucian Renitsa, University Center of the Westfjords:</b> Digital 3D mapping and reconstruction of coastal heritage sites in the Westfjords region of Iceland from aerial (UAV) and ground photos.
<b>Marc-André Faucher, Fisheries and Oceans Canada, Canadian Hydrographic Service:</b> Improving Empirical Approaches of Satellite Derived Bathymetry	<b>Andrus Meiner, European Environment Agency:</b> Copernicus land monitoring service for coastal zones.	<b>Sheridan Thompson, Memorial University of Newfoundland:</b> Adaptation to a Rapidly Changing Coast: Southeast Iceland.
<b>Emilie Novaczek, Marine Geomatics Research Lab, Memorial University of Newfoundland:</b> Regional seafloor mapping & species distribution modelling based on crowd-sourced bathymetry	<b>Andrew Sherin, COIN Atlantic Secretariat:</b> Maintaining currency and reliability for information services relevant to coastal zone management.	<b>Kristinn Nikulás Edvardsson, University of Iceland:</b> Agent-based social simulation of small-scale fisheries

### Coffee Break

15:00 – 17:00

#### ICAN Mini Workshop - “Coastal Web Atlas Contributions to SDG goals”

ICAN Participants @ CoastGIS2018

- Andrus Meiner, European Environment Agency
- Andy Sherin, COINAtlantic Secretariat, Canada
- Anja Kreiner, National Information and Research Centre, Namibia
- Carlos Torres, Universidad Autonoma de Baja California, Mexico
- David Hart, University of Wisconsin Sea Grant, USA
- Francisco Arias, INVEMAR, Columbia
- Kathy Belpaeme, Provincie West-Vlaanderen, Belgium
- Kathrin Kopke, University College Cork, Ireland
- Tanya Haddad, Oregon Coastal Management Program, USA

Observing & contributing: Kate Sullivan, California State University Los Angeles, USA

17:00 Closing Plenary Discussion / Address

17:15 Conference Ends

18:30 Pick up for Conference Dinner outside Hotel Ísafjörður.

Please let us know if you need to be picked up somewhere else in town.

Please inform us about possible allergies in advance.