
COASTAL LETTERS



Newsletter of the coastal and marine geography specialty group of the association
of American geographers

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Membership Renewal Reminder

Don't forget to renew your membership in the Coastal and Marine Geography Specialty Group. Also, when you renew your membership with the AAG, update your E-mail address – and remind your colleagues! Dues have not changed from 2009-2010. Membership dues for the Specialty Group are \$1 for students and \$5 for regular members.

Editor's Comments

- 1) Welcome to all of you who have recently joined the Coastal and Marine Geography Specialty Group (CoMa).
- 2) Have you been getting CoMa E-mail? If not, please send an E-mail to Jeff Ueland to be added to our list. Also, if you would like to be removed from the mailing list please let me know as well. Additionally please forward this newsletter to anyone who you think might be interested.
- 3) If you have announcements or other items to be distributed via the e-mail list please forward them to the editor. Items can be sent at any time. Time sensitive items such as job opportunities can be distributed immediately, upon request. Other items will be included in the next issue of the newsletter.
- 4) Please note all the interesting papers being presented in this year's Norbert Psuty student paper competition. Plan to attend and support the research of these scholars.
- 5) Please send your nominations for the Russell Award. The information for this award can be found at the end of this newsletter.
- 6) This is also, my last newsletter as editor and as the secretary/treasurer for the group. I just want to say thanks for all the great submissions to the newsletter and for all the help provided by the membership over the last 5 years.

Jeff Ueland, Editor (jueland@bemidjistate.edu)

Musings from the Chair – Jennifer Rhan

Hello CoMa members,

We're getting real close to the AAG, and it looks like we have a good meeting coming up. We have eleven sponsored sessions, including the Student Merit Paper Competition on Saturday at 12:40 PM - 2:20 PM and some special invited speakers (John Brock and Dean Gesch of the USGS Coastal and Marine Geology Program and the USGS Geographic Analysis and Monitoring Program) at our highlighted session on Friday from 2:40 PM - 4:20 PM. Please take the time to support our specialty groups and these two important sessions. Also, believe it or not the CoMA business meeting is usually a fun experience. Especially if you are not a regular attender, please join us on Friday from 8 to 9 pm, we look forward to meeting new folks who are interested in CoMA topics. Lastly, I will be stepping down as chair and Tom Allan from East Carolina University will be taking over as of this meeting. I'm looking

forward to a great coastal meeting and hope the weather cooperates so that we can enjoy walking around DC. See ya'll soon - Jennifer

News and Views from Members

Jennifer Rhan, Samford University, led her second successful two week Jan term course to the Caribbean island of Saba with Samford University undergraduate students this past January. The students explored the underwater world and completed three SCUBA certifications in 14 dives while on the trip. They also surveyed beaches, did some underwater mapping, and worked on small coral reef research projects. To see a short video go to YouTube, its called Samford Students Study on Saba Island or link to <http://www.youtube.com/watch?v=i2JBNtHpeLc>. The class was also in the local newspaper twice during the stay. The Samford University administration really liked this type of “advertising” for the course and has encouraged other researchers to interact with local media and to create video shorts. Jennifer will be on Saba summer 2010 monitoring more beaches, mapping sea turtle sightings, and creating a GIS for the Saba Marine Park.

Beate M.W. Ratter (ratter@geowiss.uni-hamburg.de) and **Arnd Holdschlag** (holdschlag@geowiss.uni-hamburg.de), Institute of Geography, University of Hamburg, Germany, have started a research project titled “*Resilience of Coastal Social-Ecological Systems in the Caribbean – Ecosystem Dynamics, Natural Hazard Risks and Environmental Knowledge Systems*”. Coastal areas are particularly sensitive to external shocks and internal impacts of the social-ecological interplay. In the Caribbean, coastal ecosystems provide both direct and indirect uses values. Indirect environmental services of coral reefs, sea grass beds and coastal mangroves include the protection of coastlines against erosion and the preservation of animal habitats. The regenerative capacity of these inshore marine ecosystems is endangered by numerous threats, especially by human activities such as overfishing, coastal building developments and increased nutrient run off from the land. Furthermore, with the impact of external shocks like hurricanes many degraded reefs have undergone regime shifts, showing an erosion of the ecosystem’s resilience.

Ecological as well as the coupled social vulnerability of agents to such disturbances and disasters are influenced by buildup or by erosion of resilience. The concept of resilience focuses on the capacity of social-ecological systems to absorb shocks and still remain function as well as on the capacity of renewal and development when coping with change and crisis. The research project in The Bahamas emphasizes the socioeconomic dimension of system dynamics. Understanding agents’ behavior and interaction means



as well an analysis of the underlying environmental knowledge systems of different agent groups that shape natural resource utilization and hazard management. We invite interested researchers to an exchange of ideas and co-operation.



CoMa Guide to the Washington DC AAG Meeting

CoMa Sponsored or Co-sponsored Sessions

Thursday

2114 Coastal and Marine Climatology

8:00 AM - 9:40 AM in Park Tower 8210, Marriott Lobby Level

Organizer(s): Karsten A. Shein - National Climatic Data Center

Chair(s): Karsten A. Shein - National Climatic Data Center

Awareness and a better understanding of climate change impacts, adaptation and vulnerabilities on coastal and marine systems over has become an increasingly important topic among scientists, resource managers, and policy makers at many levels. From sea level rise to ocean acidification, severe weather and sea surface temperatures, Earth's climate has a significant interrelationship with coastal and near-shore societies, infrastructure, economies, and ecosystems. This year's AAG meeting in Washington DC will feature a session addressing the interface of climate and coastal/marine environments. Jointly sponsored by the Coastal and Marine specialty group and the Climate specialty group, the session will take place on Thursday, April 15th from 8:00 - 9:40 AM in the Marriott's Park Tower Room 8210 (Lobby Level).

2265 Hurricanes II: Historical Records/Vulnerability

10:00 AM - 11:40 AM in Director's, Omni Shoreham

Organizer(s): Harry Williams - University of North Texas, Kam-Biu Liu - Louisiana State University

Chair(s): Harry Williams - University of North Texas

2565 Hurricanes IV: Geomorphic and Ecologic Impacts/Paleotempestology

2:40 PM - 4:20 PM in Director's, Omni Shoreham

Organizer(s): Harry Williams - University of North Texas, Kam-Biu Liu - Louisiana State University

Chair(s): Lawrence Kiage - Georgia State University

2517 Remote Sensing and GIS for Coastal Research and Management

2:40 PM - 4:20 PM in Park Tower 8219, Marriott Lobby Level

Organizer(s): Xiaojun Yang - Florida State University, Luoheng Han - Univ of Alabama

Chair(s): Thomas Richard Allen - East Carolina University

2665 Hurricanes V: Paleotempestology

4:40 PM - 6:20 PM in Director's, Omni Shoreham

Organizer(s): Harry Williams - University of North Texas, Kam-Biu Liu - Louisiana State University

Chair(s): Michael Grossman - Department of Geography SIUE

Friday

3146 Aeolian Geomorphology I

8:00 AM - 9:40 AM in Lincoln Room 2, Marriott Exhibition Level

Organizer(s): Jean Taylor Ellis - University of South Carolina, Bailiang Li - Texas A&M University

Chair(s): Jean Taylor Ellis - University of South Carolina

3246 Aeolian Geomorphology II

10:00 AM - 11:40 AM in Lincoln Room 2, Marriott Exhibition Level

Organizer(s): Jean Taylor Ellis - University of South Carolina, Bailiang Li - Texas A&M University

Chair(s): Chris Houser - Texas A&M University

3514 Research activities at USGS related to coastal and marine geography

2:40 PM - 4:20 PM in Park Tower 8210, Marriott Lobby Level

Organizer(s): Jean Taylor Ellis - University of South Carolina

Chair(s): Jean Taylor Ellis - University of South Carolina

Saturday

4116 Coastal Geomorphology and Management I

8:00 AM - 9:40 AM in Park Tower 8216, Marriott Lobby Level

Organizer(s): Jean Taylor Ellis - University of South Carolina, Chris Houser - Texas A&M University

Chair(s): Bailiang Li - Texas A&M University

4216 Coastal Geomorphology and Management II

10:00 AM - 11:40 AM in Park Tower 8216, Marriott Lobby Level

Organizer(s): Jean Taylor Ellis - University of South Carolina, Chris Houser - Texas A&M University

Chair(s): Jean Taylor Ellis - University of South Carolina

CoMa's Highlighted Session

Research activities at USGS related to coastal and marine geography (Panel Session)

Friday, April 16, 2:40 pm - 4:20 pm

Room: Park Tower 8210, Marriott Lobby Level

Organizer and Chair: Jean Taylor Ellis, University of South Carolina

Panelist(s): Dean Gesch - U.S. Geological Survey

Business Meeting

3808 Coastal and Marine Specialty Group Business Meeting

Friday, 4/16/10, from 8:00 PM - 9:00 PM in Maryland Suite A, Marriott Lobby Level

Norb Psuty Student Paper Competition

4410 Topics in Coastal and Marine Geography- Student Paper Merit Competition

Saturday, 4/17/10, from 12:40 PM - 2:20 PM in Maryland Suite C, Marriott Lobby Level

Organizer(s): Jennifer L. Rahn - Samford University

Chair(s): Jennifer L. Rahn - Samford University

Abstract(s):

12:40 PM Author(s): *Marilyn C Montgomery - University of South Florida

Title: Spatial Analysis of Vulnerability to Coastal and Inland Flood Hazards in Tampa Bay, Florida

1:00 PM Author(s): *Rosana Grafals-Soto, Ph.D. Candidate - Rutgers University

Title: Local effects of remnant fences on landward vegetation diversity at developed foredunes

1:20 PM Author(s): *Sherestha Saini - New Jersey Institute of Technology, Nancy L Jackson - New Jersey Institute of Technology, Karl F Nordstrom - Rutgers University

Title: Swash zone sediment transport on an estuarine foreshore

1:40 PM Author(s): *Katherine H Korotky - Rutgers University

Karl F Nordstrom - Rutgers University, Nancy L Jackson - New Jersey Institute of Technology

Title: Effects of sand fences and beach raking on the coastal landscape, Avalon, NJ USA

2:00 PM Author(s): *Jillian Eldridge - Student

Title: The Thames Gateway: flood risk, vulnerability and insurance loss potential

Physical Geography Reception

Please join us at the Physical Geography Reception to be held on Thursday April 15 from 8-11pm in the Blue Room of the Omni Shoreham Hotel as part of the 2010 AAG conference. Complimentary beverages will be provided to the first 250 guests.

Publications

Barnhardt, W.A., Andrews, B.D., Ackerman, S.D., Baldwin, W.E., and Hein, C.J., 2009, High resolution geologic mapping of the inner continental shelf: Cape Ann to Salisbury Beach, Massachusetts: U.S. Geological Survey Open-File Report 2007-1373 [Available online at http://pubs.usgs.gov/of/2007/1373/](http://pubs.usgs.gov/of/2007/1373/).

Resources



U.S. Army Corps of Engineers National Coastal Mapping Program

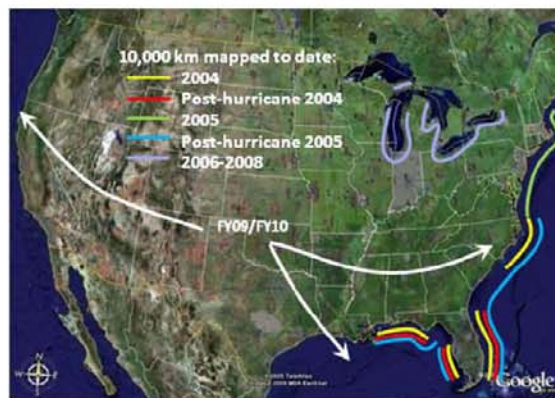
The U. S. Army Corps of Engineers (USACE) National Coastal Mapping Program (NCMP) is designed to provide high-resolution elevation and imagery data along U.S. shorelines on a recurring basis. USACE Headquarters funds the NCMP to support regional sediment management, construction, operations, and regulatory functions in the coastal zone.

The NCMP is executed by the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX), using its in-house survey capability called the Compact Hydrographic Airborne Rapid Total Survey (CHARTS) system. The CHARTS sensor suite includes an Optech SHOALS-1000T and an Itres CASI-1500. The SHOALS-1000T is itself an integrated sensor containing a 1,000 pulse-per-second (pps) bathymetric laser, a 9,000 pps topographic laser, and a digital RGB camera that records one frame every second. The CASI-1500 is a programmable pushbroom hyperspectral imager capable of collecting from 4 to 288 spectral bands over the spectral range from 375 to 1050 nm, at pixel sizes ranging from 20 cm to 5 m depending on system configuration.

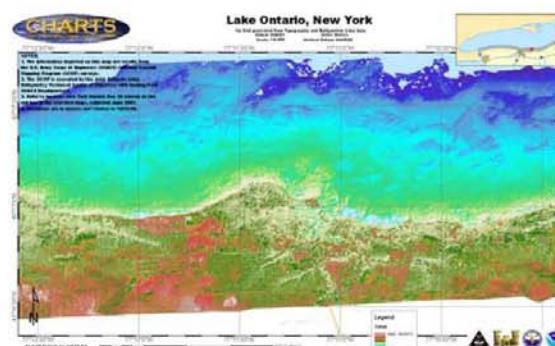
The survey specification for the NCMP requires data from all four instruments. Bathymetric data are collected from the shoreline to 1 km offshore at 5 m spacing. Topographic data are collected from the shoreline to 0.5 km onshore at 1 m spacing. The RGB digital imagery have a ground resolution of 20 cm per pixel and the CASI imagery have a ground resolution of 0.5 to 2 m per pixel depending on the operational survey requirement. GIS products derived from these data include seamless bathy/topo grids, bare earth bathy/topo grids, building footprints, a shoreline vector, seafloor reflectance images, basic landcover classifications, and RGB and hyperspectral image mosaics.

Since the NCMP was initiated in 2004, airborne lidar and imagery data have been collected for over 6,500 km of shorelines on the Gulf Coast, Atlantic Coast, and in the Great Lakes and connecting rivers and streams. JALBTCX has collected similar data over 3,500 km of Gulf and Atlantic Coast shorelines, in Mobile Bay, the Mississippi Sound, and in Lake Pontchartrain to support hurricane response efforts.

In the 2009/2010 survey season, the JALBTCX is collecting lidar elevation and imagery data along the Pacific, Atlantic, and Gulf of Mexico shorelines of the U.S., using both CHARTS and similar capability available through commercial contract. NCMP will return to the Great Lakes in 2011.



National Coastal Mapping Program data collection to date



National Coastal Mapping Program 1-m bathy/topo raster



National Coastal Mapping Program 20-cm RGB mosaic

For more information, please contact Jennifer Wozencraft, the JALBTCX Director and Manager of the NCMP at (228) 252-1101 or jennifer.m.wozencraft@usace.army.mil.

<http://www.jalbtcx.org>

DVD review - The Battle for the Arctic - 2009

Icarus Films sent me their DVD to review; it is titled The Battle for the Arctic, and is a 49 minute video of what is happening at this polar ice cap. The video is the perfect length for a typical 50 minute class and is covers a unique blend of human and physical geography issues. It describes the melting processes and rates and interviews native peoples who comment on their changing coast. It also covers a nice blend of politics, policy, the military, commerce, and environmental issues. This is an important coastal and marine region that will be receiving more and more attention in the near future. The Northwest Passage has been ice free for two summers now and the shipping route from Asia to Europe is shortened by 7000 km with this route open. This DVD is well produced and I highly recommend it for teaching purposes. – Jennifer Rahn

Call for Award Nominations: The R. J. Russell Award

Nominations for the R.J. Russell Award should be directed to the Vice-Chair (Jennifer Rahn, e-mail: jlrahn@gmail.com). Nominations for the award should be made at least 2 weeks prior to the annual AAG meeting. The individual selected will receive the award at the next years' annual meeting (e.g., the nominee selected in 2010 will receive the award in 2011). This specialty group award is presented in recognition of an individual's major contributions to the field of coastal or marine geography. These contributions may be in research, teaching, public service, and/or to the specialty group. Nominations are accepted from CoMa members, but nominees do not have to be members of either the specialty group or the AAG. Two nominations are required for consideration for the Award. At least one of the nominations must include a complete letter of nomination which will include a one paragraph letter describing the nominee's contributions to the field of coastal or marine geography and/or to the special interest group and a list of the nominee's relevant publications.

Further Award Information: http://aag_coma.homestead.com/files/russell_nom.html

Past R.J. Russell Awardees - see http://aag_coma.homestead.com/files/pastruss1.html

Background R.J. Russell - see http://aag_coma.homestead.com/files/russell.html