COASTAL LETTERS

NEWSLETTER OF THE COASTAL AND MARINE GEOGRAPHY SPECIALTY GROUP OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS

Vol. 16, No. 1 Website: http://aag_coma.homestead.com February 2004

Table of Contents

Specialty Group Officers

Diane Horn, Chair
School of Geography
Birkbeck College, University of London
Malet Street
London WC1E 7HX
England (UK)
Phone: 020 7631-6480
E-mail: d.horn@bbk.ac.uk

Patrick Hesp, Vice-Chair
Department of Geography and Anthropology
Louisiana State University
Baton Rouge, LA 70803
Phone: (225) 578-6244
E-mail: pahesp@lsu.edu

Steve Namikas, Secretary-Treasurer
Department of Geography and Anthropology
Louisiana State University
Baton Rouge, LA 70803
Phone: (225) 578-6142
E-mail: snamik1@lsu.edu

Jennifer L. Rahn, Board of Directors
Department of Geology
Baylor University
P.O. Box 97354
Waco, TX 79798-7354
Phone: (254) 710-2361
E-mail: Jennifer_Rahn@baylor.edu

Doug Sherman, Board of Directors
Department of Geography
MS 3147
Texas A&M University
College Station, TX 77843-0100
Phone: (979) 845-7188
E-mail: sherman@tamu.edu

Dawn Wright, Board of Directors
Department of Geosciences
Oregon State University
Corvallis, OR 97331-5506
Phone: (541) 737-1229
E-mail: dawn@dusk.geo.orst.edu

Membership Renewal Reminder

Don't forget to renew your membership in the Coastal and Marine Geography Specialty Group. When you renew your membership with the AAG, please update your E-mail address as well to ensure inclusion on our mailing list – and remind your colleagues! Membership dues for the Specialty Group remain at $1 for students and $5 for regular and associate members.

Nomination for the Board of Directors

Jennifer Rahn's term on the Board of Directors will end this year, and we thank her for her service. We will need to elect a new officer at the specialty group business meeting in Philadelphia (currently scheduled for Tuesday, 3/16/04, 7:00-8:00 pm). The duties of the Board members include judging the Student Merit Awards and serving on committees under the direction of the Vice-Chair. Members of the board shall also evaluate nominees and vote on the recipient for the R.J. Russell Award. The position is for a two-year term, as determined according to the timing of AAG annual meetings. Would you, or someone you know, like to get involved? If so, please pass along nominations to Diane Horn or raise them at the meeting.

The R. J. Russell Award Nominations

Nominations for the R.J. Russell Award should be directed to the Vice-Chair – Patrick Hesp (pahesp@lsu.edu). *Nominations for the current year should be made at least 2 weeks prior to the annual AAG meeting.* 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. Previous awardees include H. Jess Walker (1991), Fillmore Earney (1992), Norb Psuty (1993), Karl Nordstrom (1996), Doug Sherman (1997), Bernard Bauer (1999), Robin Davidson-Arnott (2000), Patrick Hesp (2001), and Andrew Short (2003). The R. J. Russell Award is named in honor of Richard Joel Russell (1895-1971). He was Dean of the Graduate School at Louisiana State University for 12 years, an organizer of the Coastal Studies Institute (1954), president of both the Association of American Geographers (1948) and Geological Society of America (1957), and named to the National Academy of Sciences (1959).

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 one paragraph describing the nominees contributions to the field of coastal or marine geography and/or to the special interest group and a list of the nominees relevant activities and publications.

Musings from the Chair – Diane Horn

Dear CoMa members,

In my first column I asked people to send in abstracts for the Philadelphia AAG, particularly from people who may not have participated in CoMa-sponsored session before, and in this newsletter you can see the results of the enthusiastic response. There are 15 CoMa sponsored sessions at this year's meeting, which are listed below as well as on our web site. Many of these sessions were organised by other people – particular thanks go to Dawn Wright for organising 4 sessions on GIS in the Marine and Coastal Environment and Kam-biu Liu for organising 3 sessions on Hurricanes. All but two of the CoMa sessions are co-sponsored with other specialty groups: Applied Geography; Transportation Geography; Hazards; Recreation, Tourism and Sport; Remote Sensing; Climate, Biogeography; Human Dimensions of Global Change; GIS; and Economic Geography (although they aren't listed on the AAG web site because only three specialty groups could be listed as sponsors for each session). As you can tell, we have a much larger number of applied and human topics this year, and a wide range of geographical areas.

Unfortunately, we are victims of our own success to a certain extent, as there is some overlap between sessions that can't be avoided. A particular problem relates to sessions on coastal topics which didn't come through CoMa and were organised by the AAG. On Thursday at 1:00 there is a session co-sponsored by CoMa and the Human Dimensions of Global Change Specialty Group on Coastal Futures: Trends and Needs. At the same time there is a non-sponsored session on Coastal Environments and Management. I've tried to get one of these rescheduled, but it hasn't been possible – sorry. There are also some conflicts between co-sponsored sessions on Wednesday, but I guess it's better to have too many sessions than too few.

Luckily there are no coastal sessions on Friday, since that's the coastal field trip on the Beaches and Marshes of New Jersey. After saying that the very successful Gulf Coast field trip last year was the last one he was going to organise, Norb Psuty relented and he and Jeff Pace are going to show us around the New Jersey coast. Even though I grew up in the Philadelphia area and went to the Jersey shore whenever I could, I haven't seen this coast through the eyes of a geomorphologist, so I'm really looking forward to the field trip. It's not too late to register, so if your travel plans aren't set in stone, please think about coming along.

I wrote my first contribution to the Chair's column when I was on sabbatical and had a bit more time – which is probably just as well, considering how many sessions we ended up with. Now I'm paying for my sabbatical by doing a double teaching load and Steve has had to wait for me to write this column. (The University of London's idea of a sabbatical is that you can go away for a term if you do the whole year's teaching in the other term.) I'm not sure that's the most effective way to increase our research productivity, since now I don't have any time at all for research. It's become a marginal activity, squeezed into 'free' time late at night or on the weekends. I guess it's that way for most of us these days. I don't want to be one of those academics to whom teaching is a nuisance that gets in the way of their research, but I genuinely feel that I'm a better teacher because of my research (and my teaching often gives me research ideas). This is an important issue in the UK at the moment, as the Government has proposed changes that would lead to some universities being designated research universities and others concentrating on teaching. It's not easy, but I suspect that most of us want to keep doing both.

We're going to have an interesting – and busy – time in Philadelphia. Don't forget about the specialty group business meeting at 7 pm on Tuesday. In keeping with previous meetings, there will be refreshments to ease the process along. I look forward to seeing you there!

Diane Horn

News and Views from Members

Please send any announcements, updates, reports from the field, job listings, or anything else that might be of interest to the Editor (snamik1@lsu.edu). No need to wait, I'll file things for the August 2004 issue.

NSF Award… Mark Lange and Bernie Bauer, of the University of Southern California and Okanogan University College respectively, have received a $12,000 Doctoral Dissertation Research Improvement grant from the National Science Foundation to support research looking at the flow of suspended sediments through channel divergences. Field data will be collected in a tidally influenced river bifurcation on the Sacramento-San Joaquin Delta located in central California and will be complemented by the use of a two-dimensional hydrodynamic model.

Program Developments at UNC-Wilmington… The Geography Program at UNC-Wilmington, housed in the Department of Earth Sciences, has been very active in the instruction and research of coastal and marine geography. The number of majors within the program has grown to 50 students who can choose between Applied, Human, and Physical Geography options within the B.A. degree. In addition, a Geographic Information Science certificate program was recently implemented and in the near future a minor in oceanography will be administered by the Geology Program. Faculty specialties within the program include coastal development, coastal plain geomorphology, coastal settlement patterns, coastal climatology, and coastal/marine GIS. Recent faculty highlights include Dr. Mike Benedetti receiving a Pilot Project award from the UNCW center for Marine Science Research to investigate the mineralogical signature of sediments entering the Cape Fear River estuary. Dr. Doug Gamble continues his research of island precipitation in the Caribbean, including annual field courses and research on San Salvador Island. His newest project has been working with the NOAA Coastal Services Center to guide development of coastal climatology products for the southeastern United States. Dr. Joanne Halls has several currently funded projects: 1) analysis of back barrier marsh change and fragmentation in southeastern North

Carolina; 2) atlas of Gulf of Mexico fishing communities; 3) Fisheries and Habitat Assessment of the Oculina Banks Habitat Area of Particular Concern: A Multi-Media Approach Using GIS and the World Wide Web; 4) Watershed Nonpoint Source Pollution Modeling Using Remote Sensing and GIS, and 5) development of spatial analysis tools for analyzing the distribution of dolphin in southeastern North Carolina. In addition, she recently received NSF funding to implement GIS as a teaching tool in local Middle schools. A stipend to fund a graduate student to participate in the GK12 program is available. A Research Assistantship is available for a graduate student to study Marine GIS applications. People interested in the pursuit of a geology or marine science graduate degree and the development of GIS in watershed analysis should contact Dr. Halls. More information regarding the Geography Program can be found at www.uncw.edu/earsci. An Internet GIS web site for the Lower Cape Fear River Program can be found at www.uncw.edu/riverrun.

New Coastal Lab at LSU… Drs. Steve Namikas and Patrick Hesp have opened a new geomorphology laboratory in the Dept. of Geography and Anthropology at Louisiana State University. A substantial grant from the Louisiana State Board of Regents has enabled a significant upgrading of existing facilities, and the purchase a range of new equipment for field and laboratory studies including a research vessel, ATV, sonic anemometers, electromagnetic and acoustic doppler current meters, water and sediment sampling devices, sediment analysis equipment, GPS and survey gear and a range of dedicated computing and support hardware and software. The new laboratory will provide a research and teaching base from which to conduct coastal, fluvial, hydrological, landscape evolution and Quaternary studies. "We have several current and new graduate students who will directly benefit from this laboratory, and the equipment and field support vehicles that the grant has provided" said Dr Hesp. "In addition, we are now able to fully support collaborative studies with other laboratories in Geography and Geology and elsewhere. This will also place us in a more competitive position for future funding of our coastal and geomorphological research".

In Memoriam – Dr. S. Brian McCann

Dr. Brian McCann passed away on Friday, January 30; he was 68. Brian received a B.Sc. in geography from the University of Wales in 1956, a B.Sc. in geology from the same university in 1957, and a Ph.D. in geomorphology from Cambridge in 1961. Following seven years as Lecturer in Geography at the University College of Wales, Brian came to McMaster University in 1967. He retired in 1997, after 30 years of service to geography in Canada.

Brian's Ph.D. thesis, "The Raised Beaches of Western Scotland", and five major papers from it are still obligatory reading for scholars studying raised beaches. It was clearly Brian's knowledge and love of coastlines that was the primary motivation for his research program. No other Canadian geographer can claim to have worked extensively on all three coastal environments of Canada, as well as the Great Lakes. In the late 1960s, Brian and his students began pioneering work on Arctic beaches. Although he later returned to work on Ellesmere Island and at Frobisher Bay, in the 1970s Brian turned his focus to the sandspits, barrier islands and dunes of the Maritimes. His enthusiasm for the east coast led to a two-year leave of absence from McMaster (1976-1978) spent in the position of Research Scientist at the Atlantic Geoscience Centre in Halifax. In the mid-1980s, Brian was attracted by the coasts of BC and worked with a graduate student on a fiord delta at Bella Coola. Although principally recognized as a coastal geomorphologist, Brian's knowledge permitted him to also make contributions in Arctic fluvial, glacial and periglacial geomorphology, and in the study of talus slopes. Overall he wrote 11 chapters in books and published approximately 60 refereed papers. During his career, Brian supervised the work of seven Ph.D. students and 19 M.Sc. students. Eight of the students whom he supervised are now faculty members in Canadian universities, and two are teaching in universities in the UK and Australia.

Brian undertook a wide range of professional and scholarly activities. From 1981 to 1990 he was an associate editor of the Canadian Journal of Earth Sciences, for 25 years he was a member of the Editorial Board of Applied Geography, and for six years he wrote the annual review of coastal geomorphology for Progress in Physical Geography. For five years, he was a member of the Advisory Committee on Arctic Land Use Research of the Department of Indian and Northern Affairs and, in its first four formative years, he was a member of the Committee for the Professional Registration of Geoscientists in Ontario, upholding the interests of geographers. Brian made major contributions to the organization of several major conferences, including the very successful Third International Conference of Geomorphology, held at McMaster in 1993. Brian was also active in administration at

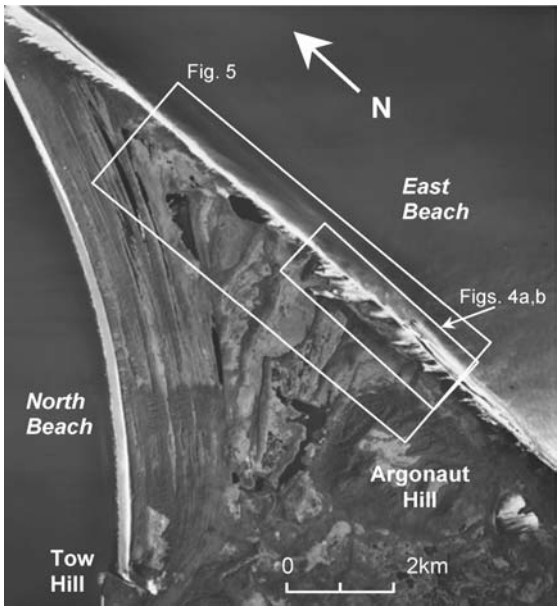
McMaster. From 1985 to 1991, he was Chair of Geography, a task he undertook with considerable commitment. Because of the excellence of his leadership, he was pressed into service again as Acting Chair in 1994-1995. Colleagues, and also those who were students during his tenure as Chair, speak very highly of his concern for them as individuals. He was always willing to take time to assist students in achieving the best in their studies, and to provide wise counsel when they were making career decisions. A dedicated teacher, who made valuable contributions from first-year undergraduate to the graduate level, Brian was particularly effective in the field. He was always prepared to run small field trips for his classes, even the large first-year classes, and he often gave up part of his weekends to do this. For his academic contributions, Brian was presented with the "Service to Geography in Ontario" award by the Ontario Division of the CAG in 1996. The following year, he was a worthy recipient of the CAG Award for "Service to the Profession of Geography."

Following his retirement in 1997, Brian pursued life to the full. He traveled extensively, particularly so that he could partake in two of his sporting interests, skiing and kayaking. In addition, he embarked on a wide range of artistic endeavors. He took up pottery, working with a group in Brantford and writing reviews for pottery magazines. He also enjoyed the theatre and ballet, cooking, and he was a voracious reader of both novels and poetry. Keeping in contact with his extended family of nieces and nephews also formed a very important part of his life. Brian learned that he had prostate cancer several years ago, but he did not want this information to go beyond his family and close friends. He died peacefully in Hamilton after being hospitalized earlier in January. In Hamilton, he is survived by his wife, Louise [Paul] (B.A. Hons. Geography, McMaster, 1974) and his children Callum and Bronwen.

Phil Howarth
University of Waterloo

Coastal Geomorphology of the Queen Charlotte Islands, Canada

Researchers from the University of Victoria and the Geological Survey of Canada have begun a study of the modern dynamics and late Holocene coastal geomorphology of one of Canada's 'most sensitive' coastlines - NE Graham Island, Queen Charlotte Islands. This area has undergone major sea-level changes (-150 to +16 m) over the Holocene and is experiencing ongoing rise +1.5 mm/yr. Relict shorelines and recent progradational ridges tell of landscape responses to these changes, and optical dating is underway to reconstruct the Holocene sea-level curve.



The region is subject to 'extreme' conditions including a macrotidal range (HHWMT = 7+m), strong tidal currents and energetic wave conditions. Annual significant wave height is 1.8 m, with higher values (H_s> 3.5 m) near the shore during winter months. Tempest winds produce extensive aeolian activity despite 1398mm/yr precipitation and dense vegetation and forest cover. Winds average 8.5 m/s with < 1% calm and exceed aeolian transport threshold 67% of the time. Maximum gusts of 160 km/hr have been recorded and sustained winds >100 km/hr (storm force) occur in most months. For these reasons, the Geological Survey of Canada identifies this sedimentary coast as one of Canada's most sensitive to ongoing and future sea-level rise.

Over 100 km of sandy beach are maintained by strong littoral transport by tidal currents and storm waves. Northward longshore transport on East Beach heads westward around Rose Spit to North Beach, particularly during SE storms. Migrating shore-attached bars feed beach-dune systems while their leading edge is a locus for beach erosion. Onshore aeolian transport is among the highest documented for coastal regions and maintains actively accreting foredunes and driftwood jams that stabilize the backshore against wave attack.

Currently, shoreline retreat of 1-3 m/yr and tens of meters in extreme seasons (e.g., El Niño 1997-98, December 2003) occurs on the intermediate, multiple-barred beaches of East Beach (exposed to dominant SE swell

and winds). Meanwhile, the dissipative shores of North Beach prograde at 0.3-0.6 m/yr. In terms of responses to storm erosion and sea-level rise, landward erosion of East Beach and deposition in the nearshore (per the Bruun 1962 model) does not seem to be occurring. Rather, high onshore sand transfer, accretion and foredune migration (i.e., accretion and retreat not 'erosion' and retreat) per 'Robin's Rule' (Davidson-Arnott 2003) is more reflective of geomorphic response. It is believed that this process provides somewhat of a buffer against wave attack. This preliminary geomorphic research sets the stage for a larger, ongoing interdisciplinary study on sea-level rise impacts that threaten communities, ecological reserves, cultural sites and critical infrastructure in the region. For more information and publications see: www.geog.uvic.ca/walker or email ijwalker@uvic.ca

Ian J. Walker
University of Victoria

Global Environment Facility Promotes Integrated Coastal Management in East Asia and the Pacific Islands

The Global Environment Facility (GEF) was established in connection with the Rio de Janeiro Earth Summit to fund projects helping developing countries to work on global environmental issues, such as biodiversity conservation, climate change mitigation and adaptation, land degradation, international waters, and persistent organic pollutants (POPs). Coastal management as it pertains to protecting globally significant habitats and their biodiversity, and preventing pollution from land- and ship-based sources, features centrally on the GEF agenda. For instance, it is the single largest funding source for the Global Programme of Action on Land-Based Sources of Pollution. I highlight some of the larger regional coastal management projects in Asia and the Pacific implemented by the United Nations Development Programme (UNDP).

The project "Partnerships in Environmental Management for the Seas of East Asia" (PEMSEA) is aimed at creating partnerships at local, national and regional levels amongst the public and private sectors, communities and academic organizations for management of the coastal and marine environment. The project brings together twelve countries surrounding the East Asian Seas, and utilizes demonstration sites to develop methods for environmental protection and for creating partnerships, including innovative ways of involving the private sector for access to finance, technology and management efficiency. The project also addresses environmental degradation in hotspots that have been identified as major sources of pollution to the East Asian seas, including the Bohai Sea of China, Manila Bay in the Philippines, and the Gulf of Thailand.

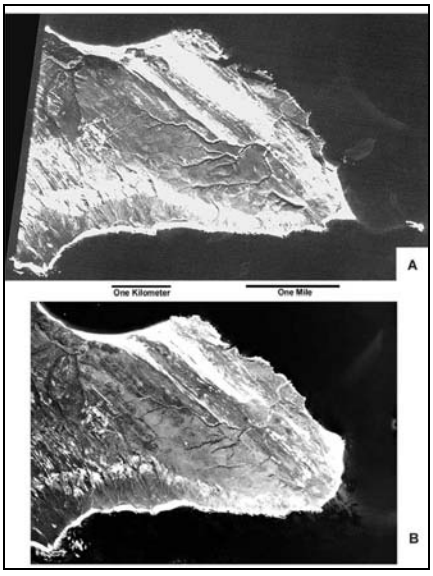
The UNDP/GEF International Waters Programme for the Pacific small island states works with 14 countries on Integrated Coastal and Watershed Management. The concept is to undertake a series of pilot projects with national and regional support, coordination and sharing of results and lessons for a strategic approach for small island countries to tackle common issues, such as coastal and watershed protection management, protection of freshwater resources, waste management, and marine protected areas. The design emphasizes exploring effective solutions to some of the root causes of prevailing issues and places major focus on learning, demonstrating and sharing lessons. An independent midterm evaluation of the project carried out in 2003 identified challenges in translating the lessons from the community-based pilots to national level legal, institutional, economic, financial, planning and policy mechanisms. It also recommended that the Pacific island countries should use the project to systematically improve collaborative approaches to the management and conservation of their coastal waters and watersheds. Many of these challenges relate to the limited institutional capacity within and difficult communications between the countries. Capacity development is, therefore, a major focus.

For more information, please visit:
www.gefweb.org (Global Environment Facility)
www.undp.org/gef (UNDP/GEF)
www.pemsea.org (PEMSEA)
www.sprep.org.ws/topic/iwp.htm (South Pacific International Waters Programme)

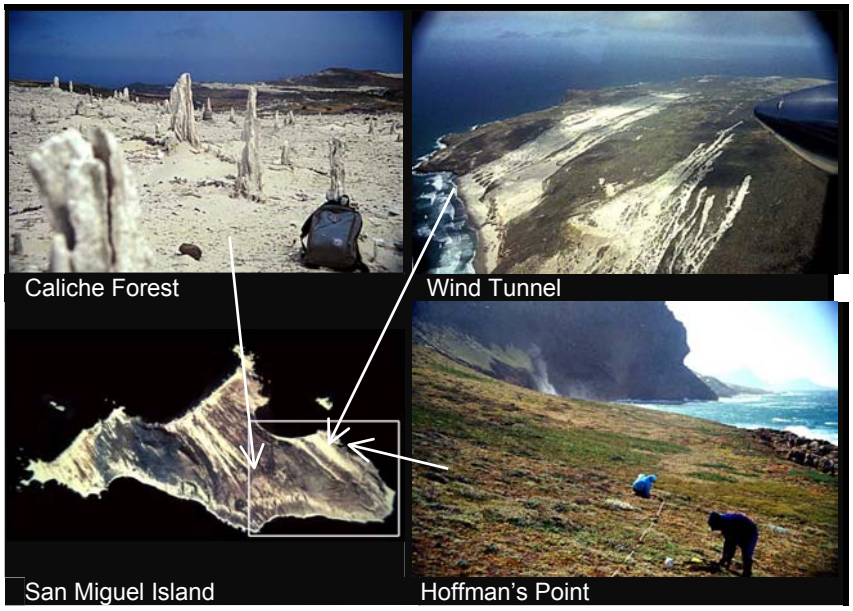
Dr. Juha I. Uitto
UNDP/GEF, New York
juha.uitto@undp.org

Detection and Measurement of Landform and Vegetation Change on San Miguel Island, Channel Islands National Park, California

Dynamic biophysical processes have generated substantial historical and geologic-scale changes in the landforms and vegetation found on San Miguel Island. In addition, historical human activity has profoundly affected landforms and vegetation on the island, effects that the National Park Service is attempting to modify through current resource management efforts. This study uses aerial photography and digital image processing techniques to 1) determine a longer-term temporal context for landscape change on San Miguel Island, and 2) to examine short-term changes occurring within the longer-term context. The study results include the description of two anomalous aeolian landform features (Caliche Forest and Wind Tunnel) and the discovery of a progressive colonization of sandy areas of the island by vegetation that has been in process for the last seventy years. The study concludes with a brief discussion of the potential mechanisms for the observed changes as well as implications for resource management efforts.



Georeferenced black and white aerial photographs: A. 1977. B. 1994.



David J. Rutherford
Texas State University – San Marcos
dr1002@txstate.edu

Impacts of Sea-Level Rise In Southeastern New Brunswick, Canada

A study on climate change in Southeastern New Brunswick is being carried out by researchers from Environment Canada, Natural Resources Canada, Fisheries and Oceans Canada, Parks Canada, the New Brunswick Government, the Centre of Geographic Sciences, Université de Moncton, Mount Allison University, Dalhousie University and University of New Brunswick. The objective of this project is to quantify impacts of sea-level rise, storm surges and coastal erosion on the Gulf of St. Lawrence coastal zone of Southeastern New Brunswick, in support of sustainable management, community resilience and the development of adaptation strategies.

In Atlantic Canada most communities are within the coastal zone, and there is a need to understand how climate change will impact new economic development. Ecosystems of the Canadian Atlantic coast have been shown to be highly sensitive to sea-level rise under the scenario of climate change (overview published by the Geological Survey of Canada, 1998, Bulletin 505). Sections of the New Brunswick Gulf coast are of particular concern. In this region sea level is already rising, with demonstrable impacts, and accelerated sea-level rise under greenhouse warming is expected to exacerbate these impacts with concomitant changes in adaptation requirements. Threats in this area come primarily from impacts of coastal flooding and erosion, and damage due to forced sea ice movement caused by storm surge in winter. Parts of this study area are highly exposed to wave action during storms in the ice-free season, as demonstrated by shoreline and infrastructure damages experienced on October 29th, 2000.

The study area is located on the Gulf and Northumberland Straight Shore of New Brunswick, from Kouchibouguac National Park (KNP) to Little Shemogue Bay. It comprises an area of highest scientific interest and significant priority for governments and coastal stakeholders. The evolving coastline of KNP is an important area of study from the standpoint of understanding potential changes to infrastructure and ecosystems in a nationally designated park. South of the KNP, from Cap Lumière to the Bouctouche spit, the coast faces increasing pressures from coastal development and ecosystem sustainability is at risk. Further to the south, the shores in Cocagne Bay and Shediac Bay are also becoming increasingly built up and are vulnerable to coastal impacts because of low coastal slope and erodible substrate. Nearby Parlee Beach is an important provincial asset and tourist resort and the Shediac Bay area is prone to coastal flooding. Longer-term economic effects need to be considered in planning and regulations. Finally, Shemogue Harbour and Little Shemogue Bay offer areas of little coastal development with undeveloped salt marshes where ecosystem baseline studies can be conducted.

This project has direct implications for the socio-economic impacts of climate change in NB coastal areas and communities and will lead to the development of potential adaptation strategies. It is particularly timely given the renewed status of the Coastal Areas Protection Policy for New Brunswick. The results are relevant to the coastal communities, several economic sectors, individual landowners, fisheries interests and harbour authorities, ecologists, and managers and planners at all levels of government and in the private sector. The impacts in this region are numerous and can include: higher and more frequent flooding of wetlands and adjacent shores, expanded flooding during severe storms and high tides, increased near-shore wave energy, upward and land-ward migration of beach profiles, accelerated coastal retreat, including dune and cliff erosion, breaching of coastal barriers, and destabilization of coastal inlets, saline intrusion into coastal freshwater aquifers, damage to coastal infrastructure, impacts on coastal ecosystems, and broad impacts on the coastal economy.

Despite the lack of recent tidal records in this area, the team has already done much work to fill the gap. During the storms of January 21, 2000 (declared a disaster by the federal government) and October 29th, 2000, the team and others went to the affected areas and gathered invaluable data on flooding, water levels, ice damage, infrastructure damage and coastal erosion. These are unique data and irreplaceable for a study of this kind. From these previous steps, the research team will go further by integrating data from various disciplines. Research activities are undertaken regarding sea-level rise, coastal erosion and storm utilizing LIDAR, DEMs and other integrated maps. In addition to the creation of these scenario maps to climate change impacts, information from the ecosystems and the socio-economic activities will be integrated in order to determine the vulnerable areas of the study region. Once this integration completed, planners, decision makers and the communities will be invited to react and discuss possible adaptation strategies in order to reduce these impacts and better sustain their livelihoods. This project should be completed in March 2006 with the publication of a report and the integration of the data into planning systems of these communities. For additional information, please contact Dr. Liette Vasseur, K.-C. Irving Chair of Sustainable Development, Université de Moncton, Moncton, New Brunswick, (vasseurl@umoncton.ca).

Serge Jolicoeur
Universite de Moncton

New Books

Physical Geography: A Self-Teaching Guide

Michael Craghan

My book, "Physical Geography: A Self-Teaching Guide", has just been published by John Wiley & Sons. It is a reference for people who need a clutter-free refresher or a quick, understandable exposure to the basics of physical geography. I affectionately refer to it as the "Cliffs Notes" for physical geography. This book is a basic introduction and explanation of the most important ideas. Because of its purposes, topics are discussed at a basic level, but there is an emphasis on explanation and linkages. I have tried to select subjects that are prevalent or that are responsible for large proportions of system operations. The book focuses on the aspects of physical geography that people are likely to encounter in their lives: the topics that pass the "why should I care" test——not the arcane elements or trivia. The chapter organization will be familiar to anyone who uses traditional textbooks. There are three goals for "Physical Geography: A Self-Teaching Guide": I wanted an affordable ($18.95!), realistic, understandable explanation of physical geography.

Coastal Hazard Management: Lessons and Future Directions from New Jersey

Norbert P. Psuty and Douglas D. Ofiara

As with most shorelines around the world, New Jersey beaches are slowly, but inexorably, being eroded, threatening coastal structures and development. In some years more sand is deposited than removed, but all of the state's monitoring devices show that sea level is gradually rising and pushing the New Jersey shoreline inland. The shore is a valuable resource, and its natural, cultural, and economic attractions draw a multitude of permanent and temporary residents, extending housing and commercial development onto areas that were once wetlands. Not surprisingly, development at the water's edge has been accompanied by an increasing exposure to the natural hazards of the coastal zone ¾ erosion, flooding, and wind damage.

In this book, Norbert Psuty and Douglas Ofiara incorporate perspectives from the areas of coastal sciences, economics, public policy, and land-use planning in creating a systematic plan for coastal management and protection. It has been more than two decades since New Jersey developed the nation's first state shore stabilization plan, and this volume provides a timely evaluation of its achievements and future challenges. This self-contained book provides key relevant theories, models, and examples so the reader will not need to refer to any other literature to gain an understanding of the issues and policies surrounding shore stabilization. It is the authoritative handbook for practitioners and policy makers in many fields, including coastal science and management and engineering, as well as public policy and economics.

(A 20% discount is available for orders using the form at the end of this newsletter)

The Coastal Zone: Papers in Honor of H. Jesse Walker

Geoscience and Man #38 (*D. Davis and M. Richardson, eds.*)

This volume in Geoscience Publications' *Geoscience and Man* Series includes papers on coastal research around the world. In its coverage of coastal research from theory to applied, from modeling in the lab to measuring in the field, from the varied lessons of managing the human impact on the coast, and from distant Hawaii, to California, to the adjacent Gulf of Mexico, and to Great Britain, the volume replicates the wide-ranging interest and persistent adventure of its honoree —— H. Jesse Walker, a 50-year veteran of coastal research. Walker, who holds the title of Boyd Professor Emeritus of Geography in the LSU Department of Geography and Anthropology, was awarded the Association of American Geographers' first Distinguished Career Award in Geomorphology in 1990. His writings over the last 20 years include nearly 80 publications related to geomorphology and 30 publications that address a variety of human-interest issues. Contributors to this volume include Denys Brunsden, Warren Grabau, Steven Namikas, Antony Orme, Klaus Meyer-Arendt, Norbert Psuty, Harry Roberts, Ronald DeLaune, William Ritchie, and Donald Davis, among others. The Coastal Zone will be available in March 2004. To order, please visit the Geoscience Publications website at www.ga.lsu.edu/gphome.html, or call 225-578-6245.

Upcoming Conferences

100th Annual Meeting of the Association of American Geographers. March 14-19 2004, Philadelphia, PA.
More info: http://www.aag.org

ICS 2004. *The 8th International Coastal Symposium***.** March 14-19 2004, Santa Catarina, Brazil.
More Info: http://www.cttmar.univali.br/~ics2004

Coastal Environment 2004. *5th International Conference on Environmental Problems in Coastal Regions*. April 26-28 2004. Alicante, Spain.
More info: enquiries@wessex.ac.uk

19th International Conference of the Coastal Society. May 23-26 2004, Newport, RI.
More Info: http://www.thecoastalsociety.org/conference.html

Coastal Zone Canada 2004. June 27-30 2004. St. John's Newfoundland.
More Info: http://www.czca-azcc.org/index2.htm

Restore America's Estuaries. *2nd National Conference on Coastal and Estuarine Habitat Restoration.* September 12-15 2004. Seattle Washington.
More Info: http://www.wstuaries.org/objects/2004RAECFP.pdf

Littoral 2004. *7th International Conference: Delivering Sustainable Coasts***.** September 19-22 2004, Aberdeen Scotland.
More Info: http://www.littoral2004.org

ICCE 2004. *29th International Conference on Coastal Engineering*. September 19-24 2004, Lisbon Portugal.
More Info: http://www.ICCE2004.org

FYI: *Announcements of coastal-related conferences and links to abstracts and proceedings from several recent major conferences can be found at:* http://www.coastalmanagement.com/interact/conferences.html

AAG Fieldtrip – Beaches and Marshes of New Jersey

CoMa is once again sponsoring a field trip in association with the AAG Annual Meeting. Norb Psuty and Jeff Pace of Rutgers University will lead a one-day excursion to a variety of environments along the coast of New Jersey. Registration can be completed on the AAG website (www.AAG.org). Be sure to register early, space is limited and the trip is sure to fill quickly.

Come and visit the Coastal Zone of New Jersey. Witness the contrasts as we drive through the Pinelands National Preserve (1/7 of the state is in a limited development zone (too late?!).

Sandy Hook, NJ, looking south towards the Highlands. Photo by N.P. Psuty.

Trek to the wetlands in the Jacques Cousteau National Estuarine Research Reserve, a pristine system that encompasses the Pinelands drainage basin, the Mullica-Great Bay estuary, and an NSF-sponsored, fully-instrumented offshore site in 15 m of water. See the barrier islands that compose a viable economic engine and a multitude of Corps of Engineers beach projects. Visit a location of 6 m cliffs adjacent to a sandy beach that was the summer home to seven U.S. presidents (see below). See Sandy Hook from a unique overlook in The Highlands, said to be the highest elevation adjacent to the ocean along the entire East Coast of the US. And, take a tour of Sandy Hook, part of the US National Park Service, where erosion, beach fill, surfers, history, homeland security, etc. come together to vie for this public land in the heart of an urban setting. Be prepared to move quickly as we cram as much as we can into the daylight hours on this day.

Details:

Friday March 19:	7:30am - 6:30pm
Organizer/Leader:	Norb Psuty, Jeff Pace, Rutgers University
Trip Capacity:	40 persons
Cost:	$100.00 (includes transportation, lunch and handouts)

COMA Sponsored Sessions at AAG'2003

Listed below are the sessions sponsored or co-sponsored by the Coastal and Marine Specialty Group this year. Unfortunately the majority of the sessions have been scheduled for Wednesday, Mar. 17, so we have multiple sessions in most time slots on that day. Abstracts for the papers are available on the AAG website: http://convention.allacademic.com/aag2004/

Monday, 3/15/2004

2515. Student Paper Merit Award Competition *(3:00 p.m. - 4:40 p.m.)*

(Sponsored by Coastal and Marine Specialty Group)

Organizer(s): Diane P. Horn - Birkbeck College, University of London
Chair(s): Diane P. Horn - Birkbeck College, University of London

Participant(s):

Pedro J. Hernandez, Jr. - West Chester University of PA (Presenter)
Abstract Title: Traditional Surveying and LIDAR Data: Accuracy in Calculating Barrier Island Volumetric Change.

Emily M. Larkin - Oregon State University (Presenter)
Abstract Title: Availability of Marine Data and Research in American Samoa for Coral Reef Management and Conservation

Arielle Levine - University Of California - Berkeley (Presenter)
Abstract Title: A comparative analysis of community-based marine protected area programs in Zanzibar, Tanzania

Molly McGraw - Louisiana State University (Presenter)
Abstract Title: The Influence of river stage and rainfall on suspended sediment transport within the Barataria Basin

Martyn Smith - University of Connecticut (Presenter)
Abstract Title: A comparison of quantitative methods used to analyze and predict coastal change of the Connecticut shoreline using GIS.

Tuesday, 3/16/2004

3203. Recreation, Tourism, and Sport on the Coast *(10:00 a.m. - 11:40 a.m.)*

(Sponsored by Recreation, Tourism and Sport Specialty Group, Coastal and Marine Specialty Group)

Organizer(s): Deborah L. Che - Western Michigan University, Diane P. Horn - Birkbeck College
Chair(s): Deborah L. Che - Western Michigan University, Diane P. Horn - Birkbeck College

Participant(s):
Kobi Cohen-Hattab - Bar-Ilan University (Presenter)
Abstract Title: The Decline of Israel's Mediterranean Resorts:Lifecycle Changes Versus National Tourism Master Planning
Lisle S. Mitchell - University Of South Carolina (Presenter)
Abstract Title: Seventy-Five Years of Recreation, Tourism and Sport Geography
Anne-Marie d'Hauteserre - University Of Waikato (Presenter)
Abstract Title: Stealth on stilts: ecotourism escapes to the Tuamotu atolls of French Polynesia.
Christian Patrick Heidkamp - University of Connecticut (Presenter)
Abstract Title: Baja California's La Escalera Nautica Project; Regional Development and the Environment
Klaus J. Meyer-Arendt - University of West FLorida (Discussant)

3705. Coastal & Marine Specialty Group Business Meeting *(7:00pm - 8:00pm)*

Wednesday, 3/17/2004

4106. GIS in Marine and Coastal Environments I *(8:00 a.m. - 9:40 a.m.)*

(Sponsored by Coastal and Marine Specialty Group, GIS Specialty Group)

Organizer(s): Tiffany C. Vance - Oregon State University/NOAA, Dawn J. Wright - Oregon State University
Chair(s): Dawn J. Wright - Oregon State University

Participant(s):
Dawn J. Wright - Oregon State University (Introduction)
Dawn J. Wright - Oregon State University (Presenter)
Abstract Title: A new object-oriented data model for oceans, coasts, seas, and lakes
Michael Blongewicz - DHI Institute for Water and Environment (Presenter)
Abstract Title: Integration of Numerical Model Results and ArcGIS
Gardiner Jim - (Presenter)
Abstract Title: Spatial and temporal analysis of the surface signature of oceanographic features
Robin Cleverly - UK Hydrographic Office (Presenter)
Abstract Title: Definition of Maritime Space: Charting the Baseline – or not?
Dawn J. Wright - Oregon State University (Discussant)

4108. Applied Coastal and Marine Research Issues I *(8:00 am - 9:40 am)*

(Sponsored by Coastal and Marine Specialty Group, Applied Geography Specialty Group, Transportation Geography Specialty Group)

Organizer(s): Diane P. Horn - Birkbeck College, University of London Barry Wellar - University of Ottawa
Chair(s): Barry Wellar - University of Ottawa

Participant(s):
Jeff Baldwin - Willamette University (Presenter)
Abstract Title: Tourist beaches as eco-social landscapes: exploiting non-human wealth and eroding futures.
Lawrence R. Handley - US Geological Survey (Presenter)
Abstract Title: Status and Trends of Seagrass of the Northern Gulf of Mexico
Theo E. Notteboom - ITMMA - University of Antwerp (Presenter)
Abstract Title: A spatial perspective on the interaction between liner services and landside operations
Robert Sirk - Austin Peay State University (Presenter)
Abstract Title: Asking Paradise to Do Too Much: Development and Environmental Strain of South Florida's Lake Worth Lagoon
Juha I. Uitto - United Nations Development Programme/Global Environment Facility (Presenter)
Abstract Title: Emerging Local Governance for Coastal Management in China

4147. Hurricanes I: Climatology and Meteorology *(8:00 a.m. - 9:40 a.m.)*

(Sponsored by Climate Specialty Group, Biogeography Specialty Group, Coastal and Marine Specialty Group)

Organizer(s): Kam-Biu Liu - Louisiana State University
Chair(s): Kam-Biu Liu - Louisiana State University

Participant(s):
Robert A. Muller - Louisiana State (Presenter)
Abstract Title: A 100-Year Geographical and Temporal Index of Tropical Storm and Hurricane Strikes Along the Atlantic Ocean Coastline of the United States from Maine to Texas
James B. Elsner - FLORIDA STATE UNIVERSITY (Presenter)
Abstract Title: Decline in Florida Hurricanes Linked to Surface Warming
Thomas Jagger - Florida State University (Presenter)
Abstract Title: Extreme Hurricane Winds in the United States
Jay S. Hobgood - Ohio State University (Presenter)
Abstract Title: Tropical Cyclone Frequency Over the Atlantic and Eastern North Pacific
Kevin Law - Ohio State University (Presenter)
Abstract Title: Predicting Major Tropical Cyclones Through Early Detection of Rapid Intensification
****

4206. GIS in Marine and Coastal Environments II *(10:00 a.m. - 11:40 a.m.)*

(Sponsored by Coastal and Marine Specialty Group, GIS Specialty Group)

Organizer(s): Tiffany C. Vance - Oregon State University/NOAA, Dawn J. Wright - Oregon State University
Chair(s): Tiffany C. Vance - Oregon State University/NOAA

Participant(s):
Tiffany C. Vance - Oregon State University/NOAA (Introduction)
Tiffany C. Vance - Oregon State University/NOAA (Presenter)
Abstract Title: Dissemination of oceanographic data for the Pacific via the WWW and visualizations
Robert Aguirre - NOAA (Presenter)
Abstract Title: A Prototype 3D Thinking-Adventure Game About Ocean Exploration
Kelly Boyd - Neptune Sciences Inc. (Presenter)
Abstract Title: An Internet Map Server for Viewing Coastal Ocean Observations

Jeanne C. Allen - Planning Systems, Inc. (Presenter)
Abstract Title: Harmful Algal Blooms Observing System
Tiffany C. Vance - Oregon State University/NOAA (Discussant)

4208. Applied Coastal and Marine Research Issues II: Managing the Coastline
(10:00 a.m. - 11:40 a.m.)
(Sponsored by Coastal and Marine Specialty Group, Applied Geography Specialty Group, Hazards Specialty Group)

Organizer(s): Diane P. Horn - Birkbeck College, University of London
Chair(s): Diane P. Horn - Birkbeck College, University of London

Participant(s):
Richard C. Daniels - Washington State Department of Transportation (Presenter)
Abstract Title: Shoreline Management by Emergency, the Case of Ocean Shores, Washington, USA
Douglas W. Gamble - University Of North Carolina - Wilmington (Presenter)
Abstract Title: End-user Requirements for Coastal Climatologies of the Southeastern United States.
Paul A. Gares - East Carolina University (Presenter)
Abstract Title: Assessing Hurricane Vulnerability in Four North Carolina Counties
Stephen Leatherman - Florida International University (Presenter)
Abstract Title: Shoreline Change Mapping and Management along the U.S. East Coast
Jennifer L. Rahn - Baylor University (Presenter)
Abstract Title: Time-series beach profile and land cover analysis on low-to-moderate energy coasts in Northwest Florida

4247. Hurricanes II: Paleotempestology *(10:00 a.m. - 11:40 a.m.)*
(Sponsored by Climate Specialty Group, Biogeography Specialty GroupCoastal and Marine Specialty Group)

Organizer(s): Kam-Biu Liu - Louisiana State University
Chair(s): James B. Elsner - FLORIDA STATE UNIVERSITY

Participant(s):
Dana L. Miller - University Of Tennessee (Presenter)
Abstract Title: Tree-ring Oxygen Isotopes Reveal Tropical Cyclone Activity and Large-scale Climate Oscillations
Kam-Biu Liu - Louisiana State University (Presenter)
Abstract Title: A New 3700-year Record of Catastrophic Hurricane Strikes from the Gulf Coast of Alabama
Michelle Goman - Cornell University (Presenter)
Abstract Title: Sedimentary evidence of intense hurricane strikes and coastal geomorphic change from Oaxaca, Mexico
Terry McCloskey - Louisiana State University (Presenter)
Abstract Title: A 5,000-Year Record of Hurricane Strikes on the Central Coast of Belize
Jason Knowles - (Presenter)
Abstract Title: Reconstructing past hurricane activities for Central America and the Caribbean from coastal lake sediment stratigraphies

4261. Developing Remote Sensing and GIS Applications for Coastal Research
(10:00 a.m. - 11:40 a.m.)
(Sponsored by Remote Sensing Specialty Group, Coastal and Marine Specialty Group)

Organizer(s): John Althausen - Salem State College, Thomas Allen - Old Dominion University
Chair(s): John Althausen - Salem State College, Thomas Allen - Old Dominion University

Participant(s):
Thomas Allen - Old Dominion University (Presenter)
Abstract Title: Remote Sensing of Coastal Habitats for Mosquito Surveillance and Control

John Althausen - Salem State College (Presenter)
Abstract Title: Comparison of Landsat-7 ETM+ high gain and low gain settings for coastal research in arid climates.
L. Jean Palmer-Moloney - SUNY Oneonta (Presenter)
Abstract Title: Linking In-Situ & Remote Sensing to Determine Critical Parameters of the Estuarine Wetlands
Michael S. Kearney - University of Maryland (Presenter)
Abstract Title: Using Spectral Indices in Spectral Mixture Modeling of Marsh Condition with Landsat Data
Keqi Zhang - (Presenter)
Abstract Title: Three-Dimensional Visualization and Animation of Storm Surge Flooding
****

4308. Remote Sensing & GIS For Estuarine Ecosystem Analysis *(11:40 am-1:00 pm)*
(Sponsored by Remote Sensing Specialty Group, GIS Specialty GroupCoastal and Marine Specialty Group)

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

Participant(s):
Fugui Wang - (Presenter)
Abstract Title: Assessing Water Quality of Reelfoot Lake, TN by Analyzing Hyperspectral Reflectance and Satellite Images
Zhi Liu - Florida State University (Presenter)
Abstract Title: Use of Remote Sensing and Landsacpe Metrics to Analyze Estuarine Landscape Changing Dynamics
Xiaojun Yang - Florida State University (Presenter)
Abstract Title: Predicting Estuarine Water Quality with Landscape and Socio-Economic Metrics
****

4406. GIS in Marine and Coastal Environments III *(1:00 p.m. - 2:40 p.m.)*
(Sponsored by Coastal and Marine Specialty Group, GIS Specialty Group)

Organizer(s): Dawn J. Wright - Oregon State University
Chair(s): Dawn J. Wright - Oregon State University

Participant(s):
Dawn J. Wright - Oregon State University (Introduction)
Ron W Rinehart - Oregon State University (Presenter)
Abstract Title: Benthic Habitat Classification and 3-D Visualizations, Derived from Multibeam Data, for Vatia Bay, American Samoa
Joanne Halls - UNC Wilmington (Presenter)
Abstract Title: Topographic Analysis of the Oculina Habitat Area of Particular Concern
Alicia Torregrosa - Kapellas - SF Bay Regional Water Quality Control Board (Presenter)
Abstract Title: Seventh-order topographic-bathymetric watershed delineation

Mark A Harrower - Univeristy Of Wisconsin, Madison (Presenter)
Abstract Title: Coastal Erosion on the Great Lakes: Using Remote Sensing and Geovisualization for Public Education.
Dawn J. Wright - Oregon State University (Discussant)

4447. Hurricanes III: Historical Records and Societal Response *(1:00 p.m. - 2:40 p.m.)*

(Sponsored by Climate Specialty Group, Biogeography Specialty Group, Coastal and Marine Specialty Group)

Organizer(s): Kam-Biu Liu - Louisiana State University
Chair(s): Kam-Biu Liu - Louisiana State University

Participant(s):
Douglas Mayes - Department of Geography, University of South Carolina (Presenter)
Abstract Title: Reconstruction and Mapping of the August 25, 1885 Hurricane in Charleston South Carolina from Historical Sources
Takehiko Mikami - (Presenter)
Abstract Title: Climatic reconstruction in Japan since 1700 based on the combination of historical and instrumental data
E. Baker - Florida State (Presenter)
Abstract Title: Public Beliefs about the Accuracy of Hurricane Forecasts
Emily A Fogarty - Florida State University (Presenter)
Abstract Title: Using GIS to determine patterns in land falling typhoons in Southern China
****

4506. GIS in Marine and Coastal Environments IV *(3:00 p.m. - 4:40 p.m.)*

(Sponsored by Coastal and Marine Specialty Group, GIS Specialty Group)

Organizer(s): Tiffany C. Vance - Oregon State University/NOAA, Dawn J. Wright - Oregon State University
Chair(s): Tiffany C. Vance - Oregon State University/NOAA
Participant(s):
Tiffany C. Vance - Oregon State University/NOAA (Introduction)
Suzanne Shull - Padilla Bay Research Reserve (Presenter)
Abstract Title: Mapping of Intertidal Vegetation in Padilla Bay, Washington in 2000: Gains and Losses over a Decade
Jason Stradtner - NOAA National Coastal Data Development Center / Neptune Sciences, Inc. (Presenter)
Abstract Title: Assessing Coastal Vulnerabilities Through The Coastal Risk Atlas
Robert Deakin - Halcrow Group Ltd (Presenter)
Abstract Title: National Geodata: Enabling generic approaches to shoreline management, a UK perspective
Suzanne Woolhouse - Dept for Planning & Infrastructure (Presenter)
Abstract Title: Need for integration in planning and management of coastal areas of high conservation and recreation value
Dawn J. Wright - Oregon State University (Discussant)

4545. Coastal Geomorphology *(3:00 p.m. - 4:40 p.m.)*

(Sponsored by Coastal and Marine Specialty Group)

Organizer(s): Diane P. Horn - Birkbeck College, University of London
Chair(s): Steven Namikas - Louisiana State University

Participant(s):
Diane P. Horn - Birkbeck College, University of London (Presenter)
Abstract Title: Spring-neap tidal watertable fluctuations on sandy beaches
M. Eugénia S. De Albergaria Moreira - University Of Lisbon (Presenter)
Abstract Title: Sea-level-rise Stress on the Coast of the Fernando de Noronha Archipelago (Brazil)
Steven Namikas - Louisiana State University (Presenter)
Abstract Title: Short-term Variability in Aeolian Transport
Julian D. Orford - Queen's Univeristy, Belfast (Presenter)
Abstract Title: Swash-aligned gravel-barriers and their resistance to breakdown: a problematic coastal unit for effective management
Norbert P. Psuty - Rutgers University (Presenter)
Abstract Title: Coastal LiDAR Imagery to the Rescue
****

Thursday, 3/18/2004

5414. Coastal Futures - Trends and Needs: Panel Session *(1:00 p.m. - 2:40 p.m.)*

(Sponsored by Human Dimensions of Global Change Specialty Group, Coastal and Marine Specialty Group)

Organizer(s): Susanne C. Moser - National Center for Atmospheric Research, Diane P. Horn - Birkbeck College, University of London
Chair(s): Susanne C. Moser - National Center for Atmospheric Research

Participant(s):
Klaus J. Meyer-Arendt - University of West FLorida (Panelist)
James K. Mitchell - Rutgers University (Panelist)
Stephen Leatherman - Florida International University (Panelist)
Julian D. Orford - Queen's Univeristy, Belfast (Panelist)
Susanne C. Moser - National Center for Atmospheric Research (Panelist)
George Oertel - Old Dominion University (Panelist)