The Coastal Society

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Towards an Interdisciplinary Coastal Management Agenda: Human Dimensions Offers Coastal Managers Valuable Tools

by Christopher Hawkins and David K. Loomis

Authors' Note: At the last TCS conference (St Pete Beach, FL, May 2006), we participated in the Human Dimensions session. This article is a follow-up to those presentations. It is intended to clarify the meaning and importance of including human dimensions research within an interdisciplinary coastal management framework.

There are two standard mantras that coastal resource managers often adhere to when it comes to society: (1) *We don't manage fish (beaches, water, reefs, etc.), we manage the activities of people that use, live near or enjoy them*, and (2) *if we only educate people, they will change their behavior.* Unfortunately, these mantras tend to ring hollow with many, as our current management and research paradigms often do not adequately understand the myriad social considerations inherent in coastal management issues. The result is that management agencies and programs have very little scientific information about people or their behavior and find themselves wondering: Why, after thirty years of integrated coastal management and hundreds of thousands of dollars (or more) of education and outreach materials, campaigns, and activities, have we still not "fixed" the U.S.' many coastal issues – despite the fact that the biophysical solutions seem glaringly obvious?

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Nuggets from the Annual Ocean and Coastal Program Managers' Meeting February 25-28, 2008 Washington, DC

By Judy Tucker, Executive Director, TCS
Contributing authors: Marian Dicas, Ruth Kelty, Carleigh Trappe, Susan White

Wake up Your Congressman
Jonathan Levenshus, Congressional Staff for Congresswoman Lois Capps (D-CA) encourages the coastal community to educate congress people representing coastal districts on the complexity of current issues like the effects of climate change. Coastal managers need to get their representatives into their districts to see first hand what and where the impacts will occur, turning the available science into images with impact.

Improved Coastal Management.2
After more than a year of "visioning" discussions with stakeholders around the U.S., federal agencies, non-profit groups, and industry, the National Oceanic and Atmospheric Administration (NOAA), Coastal States Organization (CSO) and the National Estuarine Research Reserve Association (NERRA) are pulling together legislative proposals for a reauthorized Coastal Zone Management Act (CZMA). The proposals will include three concepts:

1. Improved planning and measurement at the state and national levels
   - NOAA will work to get "good ideas" and national priorities into legislation (CZM Act). But it is local governments that will develop the plans for their

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INSIDE

You can't see Canada across Lake Erie, but you know it's there. It's the same with spring. You have to have faith, especially in Cleveland. ~Paul Fleischman

Dear TCS Members,

As I write, there are daffodils making their grand appearance in Washington with the cherry blossoms to follow soon! And, as it is an even-numbered year, it means that our TCS conference is not far away. For those of you still in the midst of winter, here's a friendly reminder that you'll have your feet in the warm sand of California with your TCS family very soon!

Just like seeing the signs of spring, it has been rewarding to see TCS 21 taking shape. Thanks to a wonderful planning committee, led by Co-Chairs Kate Killerlain Morrison and Jim Fawcett, our outstanding Program Chair Lisa Schiavinato and dedicated committee members, the conference promises engaging concurrent sessions focused on management issues relevant to urban areas, the scientific research necessary to back our state and federal management decisions and their relationships to the cultural, socio-economic and political elements of today's complex society.

Our plenaries are especially vigorous this year. We open the conference with Geraldine Knatz, Director of the Port of Los Angeles as our Opening Keynote Speaker, followed by a panel of experts on urban coastal and port issues. Discussion will include green efforts by ports as well as the challenges faced in urban coastal environments. Our Closing Keynote Speaker is Angela Park, Founder and Director of Diversity Matters: Changing the Culture of Change, a professional development organization. She will share her vision on leadership development, especially in the field of coastal management as it changes and faces unique challenges. Our respondents will offer their perspectives on leadership at different stages in their careers and how the coastal management field can address the growing gap between experienced and emerging leaders.

While our keynotes and plenary respondents are particularly hearty this year, and we selected from more than 140 abstracts submitted for our concurrent sessions, the committee has taken particular care to ensure that the conference retains the intimacy and collegial atmosphere upon which participants rely. It is in the very nature of TCS conferences that colleagues and friends can join together to learn, discuss, laugh, and share--indeed, it is something on which TCS prides itself.

On a personal note, it is this type of professional engagement that I have experienced with many leaders in the field whom I consider both colleagues and friends. The coastal and ocean communities lost two such leaders this winter, Marc Hershman of the University of Washington and Ralph Rayburn of Texas Sea Grant. Both individuals had an enormous impact on coastal and ocean management, with Marc also having great effect on TCS through his many years of service. Perhaps they will best be remembered for their mentoring, quiet, consistent leadership and friendship. It is a pleasure to work with a Society that values that as much as our professional contributions. The best way to honor their memories is to continue our "good fight" for our natural and marine resources and remember friendship along the way.

I hope all of you enjoy spring (in whatever stage it is in!) and share a few laughs along the way. See you in June!

Sincerely,
Kristen M. Fletcher
TCS President

March in the northern hemisphere is the official arrival of Spring. It also presages the beginning time for many migrations, not least of which the Northern pacific gray whale. Numbering 19,000-23,0000, many of these whales and their calves will begin heading from the calving lagoons of Baja California to feeding grounds in the Bering and Chukchi Seas. March is also about the time the Shy Albatross begin their mighty traverse from three tiny islands off Tasmania to Africa. If they don't succumb to the threat of longline fishing, they will have covered 6000 miles in their travels. Bluefish and Spanish mackerel have also begun making their way north up the east coast of the United States, traveling from Florida to New York. Over time they will migrate into each inlet and river mouth. Timing their movement not just to water temperature, but to the migration of their prey, the schools of mullet and menhaden, the bluefish and mackerel follow.

Meanwhile, preparations for TCS21 have long been afoot, but the pace of the efforts is quickening. A mere 3 months from now until we meet in Redondo Beach! Turn to page 14 to read more about the conference, with tracks that will delve into international practices and concepts, how to integrate social equity into coastal management, the impacts of climate change and much, much more.

No doubt you've already noticed the very first article on the front page. The authors present a strong argument for the importance of including human dimensions research within an interdisciplinary coastal management framework. If you weren't in town for the Ocean and Coastal Program Managers' Meeting in late February, you can get a real sense of what was discussed by reading the report on page 1, compiled by the Executive Director of TCS. There's a great opportunity to get an inside understanding of how a young coastal professional perceives an internship opportunity, found on page 8. We also have a very moving, memorial tribute to Marc Hershman, former TCS president and a bright light in the field of coastal management on page 10.

And don't forget to check out our regular features as well, including notes on news of interest, and a long list of many other 2008 conferences.

- Ellen Gordon
TCS Editor

TCS Membership Benefits Enhanced!

*TCS has partnered with the Coastal Management Journal to deliver an online subscription at a reduced rate for regular members.

*A members' only website will provide additional access to web material relevant to TCS members, including enhanced networking among our members.

*We've established an easier process to join or renew your membership in TCS.

It's been more than a decade since our last increase in dues! Regular membership is now $60, while student membership is $20. This year we'll be transitioning all our members to the same annual renewal date.

Of course all your current benefits will continue, including the Bulletin, weekly email announcements, and TCS members' registration fee at our biennial conferences.

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Human Dimensions

What is it?
The term *human dimensions* refers to both the cadre of relevant social sciences that pertain to resource management and the social aspects of particular management issues. These sciences include, but are not limited to, social psychology, psychology, anthropology, geography, economics, sociology and political science. Like their counterparts in biophysical research, most human dimensions researchers investigate topics in a systematic, scientific manner, which includes the minimization of biases; the formulation of research questions, propositions, and hypotheses; the use of an appropriate research lens, theory, or model; proper literature reviews and statistical analyses; and rigorous, peer reviewed methods. And, just as in the natural sciences, the social sciences are concerned with the issues of generalizability, validity, representativeness, and reliability. As such, human dimensions research should be conducted by or include social science professionals.

Why is it Important?
The management of natural resources, which includes coral reefs, coastal habitats, and the open ocean, is derived from our social values. These values are manifested through political, social, and economic systems. For example, resource management and protection laws are a reflection of society's desire to accomplish certain goals, such as protection of critical species (in the case of the Endangered Species Act). Lawmakers have enacted these statutes, the courts have upheld them, and public funding has been provided for their implementation. Therefore, resource management can be viewed as operationalizing these social values and desires.

Resource managers and scientists operate within a system that has placed disproportional emphasis on understanding the biophysical components of the ecosystem (e.g., percent coral cover, water quality, fish populations and behavior, spawning events, genetics, and the effects of climate change on ecosystems). At the same time, comparatively little management emphasis (i.e., funding) has been given to the social components of the ecosystem (e.g., conflict, crowding, the perceived fairness of resource allocation, specialization, determining the best suite of management alternatives from a social perspective, or understanding the norms of stakeholders). This orientation as a whole represents a disconnect between what society wants and needs from coastal environments and what coastal resource managers want those same environments to look like.

This system has resulted in a situation where "trained incapacities," a term used to describe the fact that staff do not know what they are not taught, inhibit otherwise well-meaning resource managers from stewarding our coasts, reefs, and oceans in a holistic manner. Simply put (and in general), well-meaning coastal management agencies do not have a staff that is diverse enough to manage resources as comprehensively as enabling legislation requires.

Theory and Methods
Research designs, methods, and theories are cornerstones of scientific research. A scientific theory can be defined as a statement or group of statements (i.e., conceptually related propositions) about how some part of the world works. All sciences are underpinned to some extent by theory. However, with regard to resource management, the natural sciences often operate at a descriptive level (e.g., where are the fish along the coast? how many crabs are in the bay? what are nutrient levels on the reef?). In contrast, resource management-related social science research is almost exclusively conducted in a way that theorizes about both group and individual behaviors. This is because descriptive data about where people are and what they are doing is of little value to managers unless those behaviors can be linked to hypotheses about engaging in behavior, changing behavior, and communicating with the public. Thus, while the term "theory" often sounds like little more than academic jargon, in practice it is much applied. As the renowned social scientist Kurt Lewin said, "There is nothing so practical as a good theory."

Human dimensions research theories and constructs include norms, attitudes, satisfaction, preferences, specialization, conflict, procedural and distributive justice, values, crowding, and carrying capacity (among many others). A proper human dimensions paper or report will include an adequate discussion of the theory or construct being utilized. For example, a write-up about stakeholder attitudes should discuss what an attitude is, how an attitude is measured, what the linkages are between attitudes and behavior, and why attitudes are important to understand.

Human dimensions research, whether qualitative, quantitative, or a mix of the two, is not about storytelling or postulating unsubstantiated opinions. It is about answering management questions in a scientific way by employing appropriate sampling schemes, controlling and manipulating variables, and statistically analyzing results.

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In general, quantifying how a project benefits from including human dimensions research in coastal management decision-making is not straightforward. Controlled experiments are rarely possible in public policy research and comparing one decision-making process and outcome to another invariably raises questions about situational differences. However, it is our opinion that the substantial bodies of literature on public participation in natural resource management, stakeholder-management conflict, and democratic theory (as it is applied to public policy) make a compelling case for better representing the interests, knowledge, and preferences of society in coastal resource management. Indeed, much of the social unhappiness with resource management in the past several decades can be traced to individuals and groups demanding more say in resource decision-making. We also feel that the practice of democracy and the use of taxpayer money make it the right thing to do. The following example provides support for these beliefs.

The Tortugas Ecological Reserve

The Tortugas Ecological Reserve is the Nation's largest no-take area. It is located approximately 70 miles west of Key West, FL. The reserve was initially scheduled to be created with the implementation of the 1996 Florida Keys National Marine Sanctuary Final Management Plan, but was scrapped due to stakeholder skepticism with the concept of marine reserves and the process of designating them in the Florida Keys. Many felt alienated from the process of creating the Sanctuary, or felt that the National Oceanic and Atmospheric Administration (NOAA) had determined a priori what it was going to do and where. NOAA subsequently redesigned the reserve's public participation process, spending several years working out a compromise alternative. As one local fisherman said to me at the time, "No fishermen are happy with marine reserves, but this process was seen as more fair." Interestingly, in redesigning the process for the Tortugas Ecological Reserve, NOAA used many of the tenets of a concept called "procedural justice" (likely without knowing about the concept itself). Procedural justice, a framework for ensuring a fairer and more equitable resource allocation process, will be the focus of one of our talks at the upcoming TCS conference.

Time for a Change

Some agencies, such as the U.S. Forest Service, have a decades-long history of including human dimensions research and capacities. However, this is not yet the case in the marine and coastal management field. Human dimensions does not dilute resource management goals, minimize the importance of the biophysical dimensions, or create management by majority. What it does is help resource managers understand the needs and desires of the public with regard to natural resources and determine society's willingness to accept various resource management alternatives. Between the extremes of **fully restricting access and activities** on coral reefs, seashores, or Marine Protected Areas and **having no restrictions at all**, are a wide range of possible management alternatives. Determining which suite of alternatives will have the best chance of achieving management goals can only be accomplished by employing both the natural and social sciences (Figure 1).

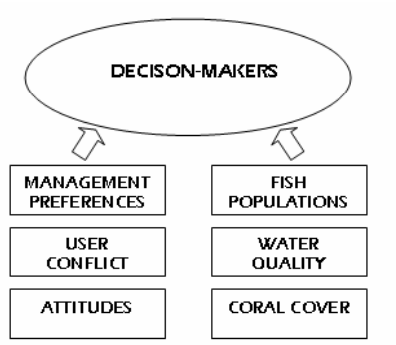

Figure 1. Integrating social with ecological science in the management process. Note: This is a simple model; there are often interactions amongst the social and biophysical components.

It is time for our state and federal coastal management agencies to recognize that truly "charting a new course" involves fundamentally rethinking our approach to coastal resource management. By this we mean that social scientists must be more adequately represented in agencies such as NOAA, that human dimensions research be prioritized at the site level, and that management and monitoring plans operationalize the biophysical and human dimensions found in enabling legislation in a more balanced way via science, research, and monitoring plans.

Dr. David Loomis is the Director of the Human Dimensions of Marine and Coastal Ecosystems Program at the University of Massachusetts Amherst. His research interests include user norms, management preferences, recreation specialization levels, resource allocation processes, and understanding and predicting behavior.

Christopher Hawkins is a Ph.D. student in the Human Dimensions of Marine and Coastal Ecosystems Program. His previous work includes coral reef management for the government of American Samoa. He has also worked for the U.S. Fish and Wildlife Service and several non-profit coastal and terrestrial education organizations.

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locality. NOAA and the state CZM offices will take the role of offering guidance for good decision-making to local officials through knowledge, science and capacity-building assistance.

- The Office of Management and Budget (OMB) is encouraging NOAA to use goal-oriented planning with measurable outcomes instead of program-based planning. Rather than count the numbers of programs as a measure of success, NOAA grant recipients will have to include priorities, goals and measurements of success in their plans, such as the number of partners involved in a program, or the number of acres restored.
- Ways to measure what has not been lost (habitat, species) must be developed.
- Initially, state programs will continue to measure what they currently measure in order to continue receiving federal grants, but they can begin to include measurements which demonstrate the increased effectiveness of their resource management.

2. Improved role for NOAA in the national coastal program

- The days of federal regulation are behind us. The future is partnership with the people who live at the coasts so that they get help protecting their resources.
- State programs want help tapping into NOAA expertise and resources for technical assistance, capacity building and goal setting.
- Government agencies and departments must be brought together to work on issues, e.g., National Marine Fisheries Service to work with the Department of Energy and the National Parks with Marine Sanctuaries.

3. Improved regional approaches to management and research

- NOAA can identify in state management plans where the common elements are which need support. They then can support a regional effort (e.g., sediment management or water pollution) by being the facilitator; helping to establish priorities, developing grants to accomplish the plan, and providing resources like science and capacity-building.
- Plans for the collection of regional research (e.g., the effects of the California current on the states of California, Oregon, Washington and Alaska) can be coordinated by NOAA to help funds stretch further. Plans for the collection of regional data must include ways for individual localities to interpret the data for local decision-making.

Contributing author: Carleigh Trappe, Coastal Management Specialist, NOAA/NOS/OCRM.

Add the Ocean to Management Plans

Area-Based Management (ABM) can be used to manage diverse ocean uses with the benefits of rationalized use (the most efficient), reduced user conflict (such as safety or competition), forced integration of management, and decreased enforcement costs.

To be effective, ABM needs to integrate across all biomes (not just the prettiest or the most heavily used), across all uses (commercial, recreational, for biodiversity, conservation), and include all issues affecting water quality.

The challenges of piecemeal legislation and conflicting regulations for fisheries, including geographically-based species management and gear, can be managed by stepping back and forming regional ocean councils such as in the northeast (Connecticut, Rhode Island, Vermont, New Hampshire and Maine).

Scientific information that uses consistent methodologies and scales, is compatible with other studies, and is repeatable for monitoring progress and transferring to other regions, is required to successfully implement ABM. To existing biophysical data on the marine environment previously mapped, the California Ocean Uses Atlas Project added regional human use patterns. The state of Florida used data mining to produce human use patterns which helped decision-makers see the issues they had heard about. The country of Belgium assigned relative values to each area to meet an objective in their five-year ocean zoning plan. This data has enabled an understanding of the underlying attitudes toward uses, improved decision-making, conflict avoidance, the identification of priority areas for conservation and management, long-term monitoring and adaptive management.

Currently the eco-regions in the ocean economic enterprise zone are not incorporated into coastal management planning. Leadership needs to acknowledge uncertainty due to a lack of properly assembled data and move forward with ABM before competing interests move into this zone.

Joint Fact Finding Helps Scientists Understand When and How to Involve Stakeholders

Successful realization of the nation's ocean management agenda depends on the ability to transition research and

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information out of the laboratory and field and into the hands of coastal managers as well as other critical stakeholders. While many agree that linking researchers and stakeholders is important, there is disagreement about how and when to involve stakeholders in the research endeavor. NOAA's National Centers for Coastal Ocean Science (NCCOS) and Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) presented and modeled "joint fact-finding" as a best practice for linking research to decision-making.

Joint fact-finding is a science-based consensus building process in which "stakeholders with differing viewpoints and interests work together to develop data and information, analyze facts and forecasts, develop common assumptions and informed opinion and, finally, use the information they have developed to reach decisions together" (Ehrmann and Stinson, http://web.mit.edu/dusp/epp/music/pdf/JFF-how%20to-CHAPT09.pdf). Distributing the decision-making responsibility across a group of stakeholders with diverse interests, not a single elected or appointed decisionmaker, increases the likelihood that the decision will be accepted, enacted, and enforced.

Facilitators lead a demonstration in which stakeholders interested in shoreline erosion and hardening jointly determined the issues of concern that require technical analysis; the questions that the experts ought to ask (and who those experts should be); the best process for gathering information and answering questions; and the best way of proceeding once a scientific analysis is completed. As a result of the demonstration, scientists and coastal program managers had a better understanding of how to bring the right people to the table at the right time to ensure that science is used to inform societal decisions.
For more information, contact Kalle.Matso@unh.edu (NOAA CICEET) or Ruth.Kelty@noaa.gov (NOAA NCCOS).

Fostering Community Resiliency
The word "resilience" is often defined as the capacity of human and natural systems to adapt to and recover from change. Coastal communities are frequently challenged to be resilient in response to negative impacts associated with coastal storms and flood events. Examples of practical actions coastal communities may take to decrease vulnerability to flood events in particular were included in discussion and case study examples of Gulf Coast communities that have received training related to Coastal No Adverse Impact (CNAI) floodplain management strategies as well as information about financial incentives, such as the Federal Emergency Management Agency's (FEMA) Community Rating System (CRS), that supports floodplain management regulations.

CNAI floodplain management is a "do no harm" policy that encourages land owners to think critically about the long-term consequences of development decisions and refrain from engaging in activities that will have negative consequences to the community. Any development action with a negative impact to the natural environment or neighboring development should be adequately identified, mitigated for, and addressed in a community comprehensive plan according to the CNAI principle. This strategy also encourages communities to strive for standards that exceed minimum floodplain management requirements. Incentives for implementing CNAI strategies include decreased vulnerability to flood events as well as reductions in costs associated with flood insurance through FEMA's CRS. The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program requirements by providing discounts on insurance premiums to communities that meet the goals of the program.

Of course, the highest standard of floodplain management is to avoid development in the floodplain altogether. Dr. Sam Brody from Texas A&M University discussed the implications of research in Texas and Florida where he examined the relationship between wetland development and coastal flooding. His findings demonstrated that costs associated with flood damage increase as the number of permits for wetland development rise. Among the most compelling attributes of this study is that it attaches an economic value to wetlands. Valuing the economic benefits of wetlands is an important step toward encouraging policy-makers to support conservation initiatives and furthering community resilience initiatives.
For more information contact: Marian Dicas, Coastal Training Program Coordinator, Grand Bay NERR at Marian.Dicas@dmr.ms.gov.

Developing Future Leaders in Coastal Management
The Coastal Zone Management Act is likely to be reauthorized with local, state and national input from a variety of stakeholders. With a growing suite of challenges and opportunities in coastal management over the next 30 years, parallel discussions have focused on preparing an appropriately diverse workforce for the next gen-

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The Coastal Society/National Oceanic and Atmospheric Administration Internship (TCS-NOAA)

By Christine Patrick

From July 2007 through January 2008, I was privileged to work as the TCS-NOAA intern in the National Marine Fisheries Service Office of Habitat Conservation, Habitat Protection Division (HPD) for Division Chief Tom Bigford. Usually, when I talk to people outside this field about marine and coastal environmental work, I tell them that every interest, from statistics to communications, can have a place in the field. In my time in HPD, I had a chance to make this maxim a reality, working on several projects, each of which required different skills.

The first of these was an evaluation project for a part of the Essential Fish Habitat program. HPD staff provides conservation recommendations on any federal projects that may adversely affect essential fish habitat. While federal agencies are required to request this advice, they are not legally mandated to follow it, so it is hard to know how effective the conservation recommendations really are in reducing the impact on essential fish habitat. I worked to create an experimental design for the evaluation that would provide representative results, and in the meantime learned a lot about essential fish habitat federal regulations. I also learned about the unique lateral relationship between the headquarters Habitat Protection Division in Silver Spring, MD and the offices in the six regions--and the resulting challenges when such a diverse group needs to come to consensus.

My second project involved working with the newly-forming Atlantic Coastal Fish Habitat Partnership (ACFHP), a group of state, federal, and non-governmental organizations that focus on conserving and restoring fish habitat along the eastern seaboard. ACFHP is one of the many cooperative partnerships that the multi-agency National Fish Habitat Action Plan (NFHAP)—established specifically to support voluntary regional partnerships--is intended to stimulate. The goal of all the partnerships is to identify shared fish habitat priorities and then pool resources to achieve better results than uncoordinated individual efforts might obtain. One of ACFHP's early tasks is to catalogue the available information about relevant species and habitats in order to determine their own priorities for restoration, conservation, and protection. The seemingly straightforward task requires a good deal of planning to organize and systematically consider the available information, which includes some documents of over a thousand pages. Working with ACFHP gave me a chance to consider the actual process of science-based decisionmaking, and the real burden of becoming well-informed.

I also worked on elements of the Habitat Protection Division's communications plan, including writing and editing accomplishments reports. Rediscovering my interest and abilities in these areas, I set up lunch meetings with people who do similar work on a full-time basis at NOAA. The chance to learn what their jobs are really like and to get their advice on how to steer my own career in that direction was extraordinarily valuable. I realized that, like finding out about the field of marine affairs, learning about writers and editors in the marine field has been a discovery borne of proximity and experience, rather than part of a planned education.

I've been lucky to have many caring and effective bosses in my career; Tom, and my immediate supervisor Kara, were no exceptions. Great bosses make you care about the mission of the team and about each other, and staff morale has always had a major effect on how much I enjoy my job. In the Habitat Protection Division, I also got to be part of a team working on the same project. It was refreshing to find so many hard-working people who, by their own examples, encouraged their co-workers to do their best. I was also excited to find people who, while maybe they wouldn't pack all the plastic bottles from a conference into their bag to take home and recycle (me) or save their Styrofoam for a year so they could recycle it during their annual trip to Florida (Tom), always remembered to bring their own mug to the coffee shop.

It is really a gift to meet kindred souls with similar interests, who entered the marine and coastal field for the same reasons, with similar professional or personal goals. For me, that is the most important benefit of being a member of The Coastal Society. Other Coastal Society members recognize in you, another person who cares about the profession and their contribution to it, and a willingness to help others. The relationships that form among TCS members are not so much about one person using another to get ahead, but about getting to know people that you are happy to help out whenever you can. I think this sentiment of generosity is the foundation for good mentorship.

Sadly, I have heard that the Habitat Protection Division may be unable to provide funds for a 2008 TCS-NOAA

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Internship

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intern. I really hope that is only a temporary situation, because there's so much to value in the position, for both the intern and employer. The employer can size up a potential future employee, and the intern gets to settle into a position, look around, and think critically about the kind of work he or she wants to do. Even if the intern moves on instead of staying in HPD after the internship, they can count on two guaranteed benefits. First, the chance to sign the hideous, pastel-colored wooden fish that all the HPD interns have signed; and second, a standing invitation to Dead Fish Society (DFS) happy hours, where previous ("dead") Habitat employees get to socialize with their old cubemates. Hope to see many more of you at future DFS-- and of course, TCS-- meetings!

Christine Patrick is now a Knauss Marine Policy Fellow in NOAA's Office of Ocean Exploration and Research.

Christopher Hawkins

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eration of coastal zone managers and leaders. NOAA's National Centers for Coastal Ocean Science, Hollings Marine Laboratory in collaboration with NOAA's Office of Ocean and Coastal Resource Management (OCRM) hosted a concurrent session entitled "Developing Future Leaders in Coastal Management—What will it take?" A lively brainstorming discussion with state coastal managers brought up additional issues and ideas to pursue over the course of the next few years, as a small working group moves toward clearly addressing what is needed and what steps/actions need to happen to support the development of the future generation of coastal managers at various agencies (e.g., state, federal, nongovernmental organizations). Notable points of discussion included the need for: additional mentoring and training opportunities, increasing diversity within the workforce (including non-traditional partners), succession planning to support transferring important institutional history, defining what coastal management involves and who it involves, and supporting the development of a "certification" that would teach "core competencies" specific to coastal zone management. One recommendation that the group voiced was their interest in having an on-line network/communication structure where these discussions could continue for the benefit of the broader coastal management community. The Coastal Society is currently considering ways to support this need.

This constructive input will directly support the upcoming workshop activities and panel discussions slated for this summer's TCS 21 Conference in Redondo Beach, California. The interactive workshop, in partnership with NOAA's Coastal Services Center and the U.S. Geological Survey, will focus on tackling the "frame of reference" for the future of coastal management. The workshop will be held during the afternoon of Sunday, June 29th and a corresponding panel discussion will occur on Monday, June 30th. This initial, focused TCS workshop is the first of an anticipated long-term series of discussions that will occur at upcoming conferences (e.g. Restore America's Estuaries later this year, Coastal Zone '09, and the Coastal and Estuarine Research Federation, also in 2009) and other appropriate venues, with each discussion building upon previous efforts until a clear picture of the context, drivers, stakeholders, training needs and players are identified. Please join us for this TCS 21 event and if you would like to become directly involved with these activities please contact Susan White, NOAA NCCOS at Susan.White@noaa.gov.

Marc Joseph Hershman
Professor of Marine Affairs
University of Washington

October 24, 1942 – February 17, 2008

By Robert F. Goodwin


Washington Sea Grant

On an uncharacteristically sunny February Sunday in Seattle, many of Marc Hershman's friends, colleagues, former and current students and local dignitaries gathered to honor and celebrate his remarkable life. The setting could not have been more apt. The Odyssey Maritime Museum on Seattle's Harborfront is the culmination of Marc's passion for educating the public about ports and marine industry and their roles in shaping the urban waterfront. He was its founder and a board member. Odyssey's Great Hall was packed. Tributes from Washington's Governor Christine Gregoire and fellow U.S. Ocean Policy Commissioner Bill Ruckleshaus were read. School of Marine Affairs Directors and faculty, past and present, students and friends told of the impact Marc had made on their lives. Running throughout were some recurrent themes: Marc's humanity; the warmth and kindness he showed to his students; his love for his family; his passion for music. These tributes to his human qualities almost eclipsed Marc's professional accomplishments familiar to some, if not most TCS members: his recent service on the U.S. Commission on Ocean Policy; his leadership in the field of coastal and ocean management; his groundbreaking development of an academic program in seaport and urban harbor management; his leadership at the School of Marine Affairs as Director from 1993-2003; the founder and Editor-in-Chief of *Coastal Management*; and his long history of service to TCS.

Marc was a TCS Charter Member. Joining the new organization in 1976, he remained active until the year before his death. He was elected President for the 1981-82 biennium. TCS twice honored him, first in 2002 with the "Outstanding Service Award," and again in 2004 with the "Distinguished Service Award." At our sister organization's biennial CZ Conferences, Marc received two more prestigious awards: the "Orville T. Magoon Service Award" at CZ95 and the "Julius A. Stratton Leadership Award" at CZ05.

Marc would have enjoyed TCS21, especially the "Waterfronts" track. Ports and working waterfronts fascinated him. As a researcher, he sought to understand how they shaped coastal cities, how they responded to changes in shipping and cargo-handling technologies, and, ultimately, how ports could be persuaded to become full partners in developing coastal management programs. As in other areas of Marc's research interests, he had unerring foresight about what would be the next critical question to address and who would likely fund it. During his investigation of the port's role in coastal management, he saw that as ports migrated from downtown waterfronts or languished, unable to adapt to change, opportunities arose for the redevelopment of lands that were left vacant or were under-used. This awareness led to another Sea Grant-funded project to document revitalization of some of Puget Sound's smaller ports and waterfronts and, by the way, launched my own career in that field.

In his book, Urban Ports and Harbor Management – Responding to Change along U.S. Waterfronts (Taylor and Francis, 1988) Marc brought scholars from geography, marine affairs, law, political science and business together with port managers to explore the rich array of influences affecting ports' physical, political, economic, cultural and environmental footprints. From long-shore labor relations to federal port policy, from marinas and fish-ports to container cranes, this book explores the scope of port operations and management's attempts to plan for change. Marc's take on the harbor was broad and inclusive, presaging his commitment to make it intelligible to the public through the exhibits and hands-on simulations enjoyed by Odyssey visitors today. In the book's foreword he wrote:

> "The harbor is far more than a transportation utility, or a community service like those that provide water, buses, or electricity. It is the place where settlement first occurred and where economic roots are found; where people's memories of welcomes and farewells are relived; where the symbols of the

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> city (skylines, towers, statues) evoke pride, loyalty, honor; where major events celebrate the city and its accomplishments; where trade forms linkages with other cultures; where scientific expeditions depart or return. A harbor is for and about people. It is a transport node, but also it is a maritime cultural resource."

Our careers at the University of Washington began at the same time, his in the Institute for Marine Studies as it was then known, mine in the Washington Sea Grant program. Marc had an enormous impact on my career and life, in large part because he understood and had a commitment to the idea of university outreach and extension service from his days leading Louisiana State University's Sea Grant Legal Program. We worked together to shape the Coastal Resources Program, a Sea Grant funded unit with its own research agenda, advisory and information services. For the next thirty years, our careers were intertwined. Though administratively my supervisor, he treated me as a colleague, involved me in his research activities and encouraged me to pursue my own goals when they diverged from his. He was a natural leader. He built teams of researchers and nurtured them through all the hazards of multidisciplinary team research endeavors: overcoming strong egos, negotiating workloads, balancing individual strengths and weaknesses, and never for an instant losing sight of why we were there and what we were to achieve. Marc was always encouraging and positive, even when there were strong disagreements on the team; his own sense of humor could cause one to laugh at oneself and get off a high horse and start to collaborate again.

It was perhaps the highpoint of my career, but not his--the U.S. Commission on Ocean Policy lay a few years ahead--when Marc, Jim Good, Pam Pogue, Virginia Lee, Tina Berndt-Cohen and I presented the conclusions of the National CZM Effectiveness Study at the Coastal Zone '95 conference in Boston.

Following an early breakfast, a day after a long transcontinental flight, Marc had each of us – most suffering from jet lag - present our findings: a muddled, uncoordinated, mismatched series of individual talks. Over the weekend at the University of Rhode Island he coached and rehearsed our team into giving a polished set of succinct presentations. Marc's overview of the whole project tied them all together in a thoroughly convincing fashion. Some time on the beach and a wonderful dinner at Pam Pogue's house, then back to Boston for the conference, where we presented a finely honed product to a packed, SRO audience.

The last five years of Marc's career were increasingly focused on innovative approaches to managing the coastal ocean. An Ocean Blueprint for the 21st Century, the report of the U.S. Ocean Policy Commission he helped shape, recommended "…creation of regional ocean councils to help coordinate federal, state, tribal, and local planning and action…" One result was the formation of a west coast-wide, three-state effort to cooperatively manage ocean resources. Marc led a class of his students on a year-long practicum, working with Washington State's Governor's Office and numerous executive agencies on ways to address this healthy ocean ecosystems initiative. Students prepared white papers on a variety of issues and presented them to senior government officials. As John Hansen, one of those students said at the memorial service, Marc kept his ocean group meeting appointments even when chemotherapy for his bladder cancer sapped his strength. It was typical of Marc that he would refuse to allow the disease that eventually took his life to stop him from leading his students through their own ocean management odysseys in the halls of government in Olympia.

Marc's former students have become leaders in the U.S. port and shipping industries, and the associations that represent them; they occupy senior billets in the U.S. Coast Guard; and they are found in leadership positions in local, state and federal coastal management agencies. Marc was taken from us before his distinguished career could conclude in a well-deserved retirement at his house on the shores of Decatur Island, but his enormous contributions to our field will live on for many decades through the lives and achievements of those he has taught and inspired.

The family has requested that gifts in Marc's name be made to the Marc J. Hershman Endowment for Marine Affairs. Gifts may be made online at sma.washington.edu or mailed to School of Marine Affairs, University of Washington, 3707 Brooklyn Ave NE, Seattle WA 98105.

House Subcommittee Holds Hearing On CZMA Bills
The House Natural Resources Subcommittee on Fisheries, Wildlife and Oceans held a hearing on H.R. 5451, Coastal Zone Reauthorization Act of 2008; H.R. 5452, Coastal State Renewable Energy Promotion Act of 2008; H.R. 5453, Coastal State Climate Change Planning Act of 2008; and H.R. 3223, Keep Our Waterfronts Working Act of 2007. H.R. 5451 reauthorizes the Coastal Zone Management Act (CZMA) and includes language to authorize appropriations until 2011 for various programs under the Act. H.R. 5452 would amend the CZMA to authorize grants to coastal states to support state efforts to initiate and complete surveys of both state and federal waters adjacent to a state's coastal zone, to identify potential areas suitable or unsuitable for the exploration, development, and production of renewable energy. H.R. 5453 would amend the CZMA to authorize assistance to coastal states to develop coastal climate change adaptation plans pursuant to approved management programs under section 306. H.R. 3223 would amend the CZMA to establish a Working Waterfront Grant Program in order to develop and implement plans to preserve and expand the nation's working waterfronts, which would provide coastal access to persons engaged in commercial fishing, recreational fishing, and other water dependent businesses. Excerpted from CSO Weekly. *http://resourcescommittee.house.gov/index.php?option=com_jcalpro&Itemid=27&extmode=view&extid=144*

Government Report Warns Of Sea Rise Threat to U.S. Coasts
According to a report released by the National Research Council's Transportation Research Board, tens of thousands of miles of highway and rail corridor will become vulnerable to erosion, chronic flooding and other stresses over the next century as a warming climate causes an increase in extreme weather conditions. The report predicts that some of the nation's busiest airports could see increased service interruptions and runway closures because of sea level rise and storm surges. Increases can be expected in heat waves, Arctic temperatures, hurricane activity, intense precipitation events, and rising sea levels. Those factors, coupled with expected population growth in coastal zones will create a greater demand on the transportation infrastructure. The report notes that addressing this growing problem calls for innovative and collaborative thinking and planning on the part of planners, engineers, and managers. Another study, led by the U.S. Environmental Protection Agency and joined by other agencies, expresses a similar warning on infrastructure and adds a concern for beaches, wetlands and freshwater supplies that are also threatened due to encroaching saltwater. Excerpted from CSO Weekly. *http://www.nationalacademies.org/morenews/20080311.html; http://climatescience.gov/Library/sap/sap4-1/public-review-draft/*

The 2007 U.S. Ocean Policy Report Card
The objective of the U.S. Ocean Policy Report Card is to inform U.S. policy makers and the public of the critical challenges facing the oceans, while identifying the many opportunities that are ripe for action. This report represents the third annual assessment of progress toward implementing the recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission, as well as the actions described in the Bush administration's U.S. Ocean Action Plan. The 2007 U.S. Ocean Policy Report Card concludes that while state and regional initiatives continue to move forward on ocean governance reform, the lack of significant progress at the federal level to commit adequate funding and affect meaningful ocean policy reform hinders national improvement. While the nation's overall grade inched up to a C from a C- average in 2006, the report card challenges U.S. leaders to implement and fund policies that will ensure the long-term health of the oceans, coasts, and Great Lakes. *www.jointoceancommission.org*

No Pristine Oceans Left, New Map Shows
According to a new study published in Science, every area of the oceans is feeling the effects of fishing, pollution, or human-caused global warming. A team of scientists created the first global map showing the various kinds of damage being inflicted upon marine ecosystems. By assigning scores to 17 human impacts and tallying them up for every ocean region to reveal the overall effect people are having on marine life, researchers found that more than 40 percent of the world's marine ecosystems are heavily affected. Excerpted from Sea Span Marine Newsletter. *http://news.nationalgeographic.com/news/2008/02/080214-oceans.html*

Federal Court Rules That Navy Sonar Training Is Not Exempt From Environmental Laws
The 9th U.S. Circuit Court of Appeals rejected the Navy's appeal of restrictions that banned high-powered sonar within 12 nautical miles of the coast and set other limits that could impact Navy training exercises off the coast of California. The appellate court noted that the Navy has acknowledged that high-powered sonar may cause hearing loss and other injuries to marine mammals. The court further noted that the Navy has estimated that its Southern

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California exercises would expose more than 500 beaked whales to harassment and would result in temporary hearing loss to thousands of marine mammals. The decision by the appellate court backed up the U.S. District Court's decision in January, which was later overturned by an emergency ruling by President Bush that exempted the Navy from the environmental laws for national security purposes. Excerpted from CSO Weekly.

Stan Butler; NOAA Photo Library

Japan Halts Humpback Whale Hunt

Japan's whaling fleet set sail in November 2007 with plans to catch more than 1,000 whales, including 50 humpbacks. Australia then announced that it would send a fisheries patrol ship to shadow Japan's whaling fleet near Antarctica and gather evidence for a possible international court challenge to halt the yearly hunt. Separately, Greenpeace and Sea Shepherd Conservation Society sent ships to try to stop the Japanese fleet. However, the Japanese mission to hunt humpback whales in the Antarctic was abandoned, although the fleet will still hunt about 1,000 other whales in the area. It was the first time Japan had targeted the humpbacks since a moratorium was introduced in the mid-1960s, when the species had been hunted almost to extinction. Source: EUCC Coastal News. *http://news.bbc.co.uk/2/hi/asia-pacific/7155255.stm*

Wind Could Power all UK Homes

Offshore wind farms could power all UK homes by 2020 as part of the fight against climate change, under plans unveiled by John Hutton, UK Business Secretary. Up to 7,000 turbines could be installed to boost wind produced energy 60-fold by 2020. However, he admitted it would change Britain's coastline, and mean higher electricity bills. Currently just 2% of Britain's power comes from renewable sources, and wind is the source for around 2.2 gigawatts. The government hopes that it could provide around 33 gigawatts by 2020, which would mean introducing some 7,000 turbines. Source: EUCC Coastal News. *http://news.bbc.co.uk/2/hi/uk_news/politics/7135930.stm*

The highly ambitious plan has already drawn wide skepticism, see for example www.planetark.com/dailynewsstory.cfm/newsid/45949/newsDate/12-Dec-2007/story.htm

Streams Provide Critical Nitrogen Buffer for Coastal Oceans

A study by 31 aquatic biologists involving 72 stream sites in the United States and Puerto Rico has found that a critical buffer for excess nitrogen runoff from agricultural and urban areas turns out to be small streams and rivers. The findings were published March 12 in the journal Nature. “We found that nitrate was filtered from stream water by tiny organisms such as algae, fungi and bacteria,” says Patrick Mulholland, lead author of the study. “Further, our model showed that the entire stream network is important in removing pollution from stream water.” The results showed that much of the nitrogen was removed by bacteria, in a process called denitrification that releases harmless nitrogen gas to the atmosphere. “Our study shows that nitrogen loading compromises the ability of streams to retain or transform nitrate, a major pollutant that has been associated with lake and stream eutrophication, groundwater pollution, and coastal dead zones,” says Nancy Grimm, an ecologist at Arizona State University who has been involved with the project since the 1980s. Presently it’s believed that small streams and rivers remove three-quarters of the excess nitrogen contamination before it reaches the oceans by acting as “sinks.” However, the researchers’ findings published in Nature suggest that as land use changes, and shifts to increasing nitrogen loads occur, this buffering capacity could be overwhelmed. Nitrogen pollution could generate algal blooms, oxygen depletion (dead zones) and death to coral, fish and shellfish in coastal zones. *www.eurekalert.org*

The Coastal Society's 21st International Conference

Coastal Footprints: Minimizing Human Impacts, Maximizing Stewardship

Crowne Plaza Redondo Beach, Los Angeles, California
Sunday, June 29 - Wednesday, July 2, 2008
http://thecoastalsociety.org/conference/tcs21/

TWO PLENARIES

Green Ports: Addressing Environmental Impacts of Working Waterfronts: This opening plenary will inform conference participants about how port activities impact the coastal environment and what solutions are envisioned by professionals and stakeholders to minimize negative impacts and to enhance positives ones. The keynote speaker and panelists will address the role of businesses that depend on port services, the involvement of agencies and planning authorities, and the role of advocacy group working to improve environmental quality around ports. Dr. Geraldine Knatz, Executive Director of the Port of Los Angeles will be the Keynote Speaker, and panelists include Vivien Li, Executive Director, The Boston Harbor Association; Steven Goldbeck, San Francisco Bay Conservation & Development Commission; Barbara Maynard, Coalition for Clean and Safe Ports; and Heather Mantz, Director of Environmental Affairs, Virginia Port Authority.

Developing Inspired Leaders: Secrets to Success from Renowned Coastal Professionals: This closing plenary will focus on the importance of ensuring that coastal professionals develop strong leadership skills. The speakers will discuss what future coastal management issues and managers might look like and will challenge participants to think creatively about the role of individuals and organizations in developing leaders. The session will end with roundtable discussions for the audience to identify how The Coastal Society can help provide leadership training and facilitate exchange of knowledge within the coastal community. The Keynote Speaker will be Angela Park, Founder and Director of Diversity Matters: Changing the Culture of Change, and panelists will include Amber Mace, Executive Director, California Ocean Science Trust; Meg Caldwell, Interim Director, Center for Ocean Solutions and Director of Environmental and Natural Resources Law and Policy at Stanford Law School; and Michael Orbach, Professor of Marine Affairs and Policy at Duke University.

SEVEN CONFERENCE TRACKS

Effective Integration of Coastal Science, Policy and Management
How can we better connect the dots to use the best science to create the best policies for superior decision-making? How can we educate discipline-oriented scientists about the diverse factors that policy makers must consider? Presentations will offer analyses, examples, and case studies.

International Coastal Management Concepts and Practices
Critical global issues such as climate change, loss of biodiversity, invasive species, coral reef preservation and port security are receiving unprecedented attention. What original scientific research methods and novel approaches to management and governance are transferable among nations?

Integrating Social Equity into Coastal Management
How can coastal policies better advance the fair treatment and meaningful involvement of all people with respect to the

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development, implementation, and enforcement of coastal laws and policies? What examples of social justice in coastal areas offer solutions for the widening divide?

Coastal Energy Siting, Production and Consumption
Coasts are uniquely affected by energy demand through the siting of production facilities and transportation corridors in coastal and ocean waters, associated onshore infrastructure and energy consumption. How should local, state and national governments focus their efforts to balance demands?

Coastal Land and Watershed Use
Development often drives the need for a comprehensive strategy to address a variety of social issues. How will coastal communities plan for the changes?

Climate Change Impacts
What are the best legal and regulatory options for handling climate change impacts, and how do economics and environmental interests influence these options? How can the public's rising awareness help accomplish better coastal management?

Working Waterfronts and Waterways
Working waterfronts and waterways are essential for the global economy, but with these valuable industries come the potential for serious environmental impacts. How are coastal managers addressing and minimizing these impacts?

TCS 21 NEEDS YOUR HELP!

Moderate! The professional polish a moderator provides in conducting the session greatly reinforces the content and message. Moderators prepare speakers for the session, introduce speakers and monitor the time, and allow for ample discussion. Contact Program Chair Lisa Schiavinato at lisa_schiavinato@ncsu.edu to volunteer.

Judge! TCS actively supports opportunities for students to present emerging concepts and enrich the coastal community's collective knowledge. Three student awards will be presented - the Society's Thomas E. Bigford Student Awards for Paper and Poster, and the Sea Grant Association Award. Contact Education Chair Rick Burroughs at rburroughs@uri.edu.

Sponsor! TCS 21 can't happen without the important contributions of sponsors! Approximately 400 participants are expected to attend TCS 21, one of the longest-running coastal conferences in the U.S. Sponsors have ample opportunity to meet and mingle informally with conference attendees at educational sessions, lunches and receptions. TCS Directors can help you make connections to those individuals most relevant to your field of work. Formal recognition is given to sponsors in all conference materials including the registration packet, final program and the conference proceedings, and lists of sponsors will be displayed on site during the conference. Depending on the level of support, sponsors can address conference attendees, be exclusively identified as a primary sponsor, and receive exhibit space and conference registrations. Please see the conference website for more details.

TCS 21 IS GREEN!

TCS 21 is minimizing its environmental impact and maximizing its stewardship responsibility. Carbonfund.org, a non-profit organization that is monitored and verified by two independent sources, calculated the total amount of carbon dioxide emissions (264.9 metric tons) and the cost to offset them ($1,457). The cost per person will be included in the registration fee for TCS 21. TCS is confident that its members and others attending TCS 21 are dedicated to reducing their contributions of greenhouse gases to the environment.

Other green initiatives include encouraging our hotel to consider eco-friendly action items, providing earth-friendly conference swag and food, using recycled paper, and handing out a minimal amount of paper. If you have questions about the TCS 21 Green Planning Committee, please contact Tali Engoltz at tali.engoltz@dep.state.nj.us.

4th Global Conference on Oceans, Coasts and Islands
April 7-11, 2008, Hanoi, Vietnam
Organized by the Global Forum on Oceans, Coasts, and Islands and hosted by the government of Vietnam.
www.globaloceans.org/

Solutions to Coastal Disasters Conference 2008
April 13-16, 2008, Turtle Bay Resort, Oahu, Hawaii,
Focus on science, management tools, challenges and options, and policy related to a range of coastal hazards.
http://content.asce.org/conferences/cd2008/

Resilience 2008: Resilience, Adaptation and Transformation in Turbulent Times
International Science and Policy Conference
April 14-17, 2008, University of Stockholm, Sweden
http://resilience2008.org

Global Marine Renewable Energy Conference
April 17-18, NYC, New York
International and U.S. based leaders and innovators will convene to exchange the latest information on marine renewable energy.
http://www.globalmarinerenewable.com

Ecological Monitoring and Assessment Network National Science Meeting
Apr 28-May 3, 2008, Gatineau, Quebec
http://www.eman-rese.ca/eman/events

15th Annual International Conference on the Great Lakes/St Lawrence River Ecosystem (Theme: Managing Ecosystems, Regulated Rivers & Watersheds)
May 5-8, 2008, Cornwall, ON
http://www.riverinstitute.com/events/

Coastal Environment 2008 (Seventh International Conference on Environmental Problems in Coastal Regions including Oil and Chemical Spill Studies)
May 19-21, 2008; The New Forest, UK
http://www.wessex.ac.uk/conferences/2008/coast08/index.html

2008 Annual Meeting of the Canadian Association of Geographers: 400 Years of Discovery
May 20-24, 2008m Québec City
http://www.cagquebec2008.org

Coastal Zone Canada 2008 Conference
May 23-29, 2008, Vancouver, BC
http://www.czca-azcc.org

1st PoCoast Seminar on Coastal Research
May 26-28, 2008, Faculty of Engineering of the University of Porto, PORTUGAL
http://webpages.fe.up.pt/ihrh/pocoast/pdf/seminar.pdf

World Ocean Day 2008
June 8, 2008
Created in 1992 at the Earth Summit in Rio de Janeiro, World Ocean Day is an opportunity each year to celebrate our world ocean and our personal connection to the sea.
http://www.theoceanproject.org/wod/wod.php

Summer Institute in Advanced Coastal Management
Jun 9-27, 2008, University of Rhode Island, Rhode Island
http://www.crc.uri.edu/

Coastal Footprints: Minimizing Human Impacts, Maximizing Stewardship
June 29-July 2, 2008, Redondo Beach, Los Angeles, CA
thecoastalsociety.org/conference/tcs21/index.html

11th International Coral Reef Symposium
July 7-11, 2008, Ft Lauderdale, Florida
http://www.nova.edu/ncri/11icrs

The 8th International Wetlands Conference
July 20-25, 2008, Cuiabá, Mato Grosso, Brazil
http://www.cppantanal.org.br/intecol/

National Marine Educators Association (NMEA) 2008: One World, One Water, United in Marine Education Conference
July 21-24, 2008, Savannah, Georgia
www.nmeaweb.org/savannah2008/index.htm

Greater Everglades Ecosystem Restoration Conference (GEER '08): Planning, Policy and Science
July 28-August 1, 2008, Naples, FL
UF/IFAS Office of Conferences and Institutes (OCI)
PO Box 110750 / Gainesville, FL 32611-0750
PHONE: 1-352-392-5930 / FAX 1-352-392-9734
EMAIL: bmt@ufl.edu

4th National Conference on Coastal and Estuarine Habitat Restoration
October 11-15, 2007, Providence, RI
http://www.estuaries.org/?id-=4

University of Hawai'i

University of Hawai'i TCS has three events planned in the next few months. In April we will be a part of the COPRI Solutions Conference at the Turtle Bay Resort, O'ahu. In May we are planning a presentation at the State Capitol to educate law makers on coastal issues. This event will be followed by a social hour for professionals and students to meet and network in an informal setting.

Duke University

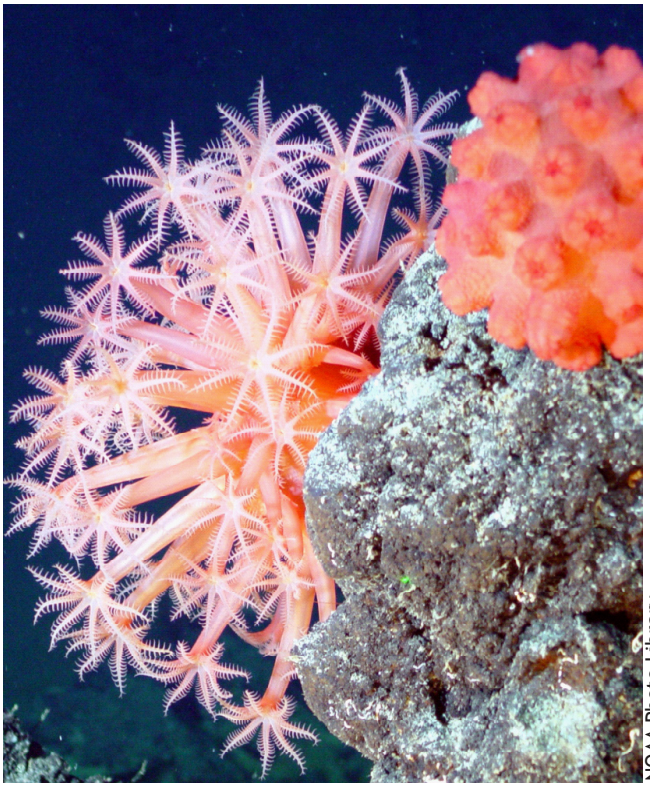
The Duke University TCS chapter reports that they have elected new officers, whose terms will begin in April.
President- Anna-Marie Laura
Secretary- Corrie Curtice
Beaufort Events Coordinator- Michelle Fabie
Durham Events Coordinator- Wendy Goyert

University of Washington

The TCS University of Washington chapter has recently suffered a large blow with the passing of Professor Marc Hershman. Marc was always very supportive of TCS and will be missed greatly. We were able to make this quarter's Blue Drinks networking event a celebration of the contribution that Marc has made in the field of marine transportation.

On a different note, we are in the final stretch of planning the Fisheries and Marine Ecosystems Conference. We have been working hard and look forward to see all of you who plan on attending. Stay tuned for the next chapter update for news on how the conference turned out!

Anne E. Hawkins



NOAA Photo Library

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Marine Law Symposium: A Viable Marine Renewable Energy Industry: Solutions to Legal, Economic and Policy Challenges
October 23-24, Roger Williams School of Law, Bristol, RI
http://law.rwu.edu/sites/marineaffairs/symposia/seventhMLS.aspx.

Coastal Cities Summit 2008: Values & Vulnerabilities
November 17-20, 2008, St Petersburg, Florida
http://www.stpt.usf.edu/ioiusa/conference.htm

Littoral 2008, A Changing Coast: Challenge the Environmental Policies
November 26-28, 2008, Venice, Istituto Veneto di Scienze Lettere ed Arti, Palazzo Cavalli Franchetti
Important date: Abstract submission 28th April 2008
www.littoral2008.corila.it

4th International Symposium on Deep Sea Corals
December 1-5, 2008, Wellington, New Zealand
http://coral2008.niwa.co.nz/index.php

Florida Bay and Adjacent Marine Systems Science Conference
December 8-11, 2008, Naples, Florida
http://conference.ifas.ufl.edu/FloridaBay2008

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MEMBERSHIP APPLICATION TO THE COASTAL SOCIETY

(Please print out and complete all blanks.)

Name: _____
Last First Middle Initial

Organization: _____

Street: _____

City/State/Zip: _____

Home Address (if preferred mailing address):

_____

_____

Day Phone: (____)_____ E-Mail: _____

Present Occupation: _____

Primary Interest: _____

Sponsored/Referred by: _____

Signature: _____ Today's Date: _____

Type of Membership:

Individual Regular: __ $60 U.S. 1-year

Student: __ $20 U.S.

U.S. Library: __ $50 U.S.

Corporate/Agency: __ $250 U.S.

Dues Payment:

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The Coastal Society is an organization of private sector, academic, and government professionals and students dedicated to actively addressing emerging coastal issues by fostering dialogue, forging partnerships, and promoting communication and education.