

The Coastal Society

TCS Bulletin
Volume 27 (4) 2005

POST-TSUNAMI CHALLENGES FOR CZM:

Some Observations

by Poh Poh Wong

In the post-tsunami phase, much has been written about the importance of coastal zone management (CZM), particularly its integrated framework. I would like to add some comments to help coastal managers gain an improved perspective on the relevance and response of coastal zone management in the post-tsunami phase. These are based on field trips taken to several tsunami-impacted coasts in Southern Thailand (Phuket, Khao Lak, Phi Phi island), Aceh, Tamil Nadu (Chennai to Point Calimere) and Sri Lanka (Colombo to Hambantota) between January and October 2005.

1. Absence of Planned Response to Tsunamis in CZM Prior to 26 Dec 2004

Many of the countries affected by the Indian Ocean tsunami have coastal management plans, some better implemented than others. For example, Sri Lanka's

continued on page 4

NEWSNOTES

Major Coral Bleaching Event Expands Across Caribbean

The National Oceanic and Atmospheric Administration (NOAA) reports that a major coral bleaching event is underway in the Caribbean and may result in significant coral death in much of the region. Currently, the bleaching is centered in waters adjacent to the U.S. Virgin Islands. Reports of bleaching have come in from as far north as the Florida Keys and Texas' Flower Garden Banks, as far south as Tobago and Barbados in the southern Antilles, and from Panama and Costa Rica to the west. Coral bleaching is associated with a variety of stresses, including increased sea surface temperatures. This causes the coral to expel symbiotic micro-algae living in their tissues—algae that provide corals with food. Losing their algae leaves coral tissues devoid of color, and thus appearing to be bleached. Prolonged coral bleaching (over a week) can lead to coral death and the subse-

continued on page 6

INSIDE

Message from the President.....2

From the Editor's Desk.....3

TCS Members Recognized.....3

Chapter News.....11

TCS 20.....12

Upcoming Conferences.....13

Board of Directors.....14



Raising the Backshore at Karon Beach, Phuket



**"What's in a name? That which we call a rose by any other name
would smell as sweet"**

-- William Shakespeare, Romeo and Juliet

def·i·ni·tion (n)

Middle English *diffinicioun*, Latin *definitio*, from *definire*

- 1: an act of determining
- 2: a statement expressing the essential nature of something
- 3: a statement of the meaning of a word or word group or a sign or symbol
- 4: the action or the power of describing, explaining, or making definite and clear

-- Merriam-Webster English Dictionary

Musings on words, their meanings, their use and misuse.....

The Bard of Stratford-upon-Avon, recognized universally for his keen insight into human behavior, was also acutely cognizant of the power of words to define and manipulate both thoughts and actions. To the two ill-fated protagonists in Romeo and Juliet their surnames are first meaningless and then tragic as both are doomed by the hatred of their egoistic feuding families.

Although no words are truly meaningless, many mean much more than their stated definition, while others may lose one meaning and gain another when used in a different context. Those in the "environmental" field (well, there's one that has several connotations right there) often struggle with both the true meaning and implementation of certain concepts that have become part of the daily lexicon. To wit, can someone please give me an authoritative definition and singular concrete usage of the following terms:

- *Adaptive management*
- *Sustainable development*
- *Integrated coastal management*

Each of these phrases, despite their many positive aspects and the fine professional papers and books written that endorse these ideas, cannot be precisely defined and therefore may be either misunderstood or negatively manipulated. Those who devise, implement or evaluate laws and policies designed to "protect" (whoops, another one) our coastal and ocean resources may sway both government programs and funding or public opinion by shaping the debate to best meet their goals. Perhaps this is a given. But then why do we continually use terms that are difficult to fully define, not universally understood, and often lead to an inconsistent utilization of effort and resources? After all, decisions stemming from these policy choices may impact millions of coastal residents, cost billions of dollars and affect the future health of our critical coastal ecosystems. Perhaps it's because the "catch phrases" describing our management strategies are now more complex, having evolved to a higher sophistication, e.g., we've finally realized (and are beginning to take representative actions) that the inter-connectedness of human and natural systems is so inexorably and intricately linked that attention paid to socio-economic, political and historical factors are absolutely critical for successful coastal management. If so, I agree that we should view this as a positive development, but let's also keep in mind that clarity and brevity in language are art forms that make any rose smell sweeter.

My best wishes to you for Happy Holidays and a safe New Year!

Paul C. Ticco
TCS President

The views expressed herein are those of the authors and do not necessarily represent TCS nor its Board.

This issue was produced with assistance from the Urban Harbors Institute, University of Massachusetts Boston



Shattering frequency records, the North Atlantic hurricane season is at last over. Where I live, that presages winter's arrival. Looking out my window, I see the remnants of snow left by our first winter storm, albeit a minor one. Perhaps the one predicted tonight will do more to transform the landscape. Certainly, that's what my children will be wishing, as they drift off, dreaming of an unscheduled day off from school. Meanwhile, their Florida cousins compare notes, telling them how many "hurricane days" they missed from school this fall.

Four months out from the twin events, New Orleans, Mississippi and the rest of the battered U.S. Gulf coast continue struggling to recover from the extraordinary impacts of Hurricanes Katrina and Rita. Nearly a year since the awful fury of the Indian Ocean tsunami, survivors in Indonesia, Southeast Asia and east Africa work to try to put their lives and livelihoods back together.

Looking forward to 2006, I expect reverberations from these extraordinary events will continue to echo in the pages of the Bulletin. For the coastal community--those who live there, study it, analyze it and try to affect it--the hurricanes should continue to loom very large. Of course, we'll also be addressing other subjects, other problems, new solutions, and new ideas.

Meanwhile, in this issue, you'll hear what TCS members have been about; receiving awards, volunteering on beach cleanups, raising money to help hurricane recovery and already celebrating the imminent holidays. You'll find more information about TCS20 coming in May 2006. As always, our biannual conference will be a great opportunity to learn, to network with colleagues old and new, and perhaps even to grab a few minutes of beach time!

Thanks to all who have helped make my first year as editor of the Bulletin so enjoyable. I am really looking forward to my second! Please contact me if you have an idea for an article; one you'd like to write or one you'd like to see written. I also welcome constructive comment on what you've read in these pages. Please let me know about upcoming conferences we should list, news you think we should be noting, and suggestions for improvements or change. With your input, I'd like the Bulletin to continue to grow as a resource for TCS' diverse membership.

May the holidays bring you happiness and contentment. See you in the New Year!



Ellen Gordon

TCS Editor

ellen@gordonballard.com

Congratulations to Two TCS Members!

Tom Bigford, currently on the TCS Board of Directors and formerly Secretary, Bulletin Editor, and Executive Director, was recently acknowledged by the American Fisheries Society for his efforts on their Resource Policy Committee. Tom was honored with a Distinguished Service Award at the AFS annual meeting in Anchorage for his work as author of a special report that led to an AFS policy paper on dam removal. More than 2 million dams block fish passage in the United States, with significant environmental implications to fish, shore side communities, and associated user groups. The AFS report and policy are meant to shape public policy by adding the perspectives of AFS scientists to a debate that promises to become more heated as those dams age and require expensive maintenance. In another capacity with AFS, Tom is its official AFS liaison to TCS.

Leigh Taylor Johnson, a marine advisor in San Diego with the California Sea Grant College Program, has been awarded the 2005 Roger Revelle Perpetual Award by the San Diego Oceans Foundation.

Johnson was selected for her efforts to increase local knowledge of the effects of pollutants on ocean waters, the understanding of methods to reduce both non-point source pollution and the toxicity of coatings on boat hulls, and her leadership providing needed information on practical solutions to the boating community.

The Roger Revelle Perpetual Award, awarded annually since 1988 recognizes scientists and others who take the initiative to help resolve ocean issues and encourage stewardship of ocean resources in San Diego's ocean community and/or local marine environment.

Johnson also recently earned two Awards for Publication Excellence (APEX) for her antifouling publications: the booklet "Making Dollars and Sense of Nontoxic Antifouling Strategies for Boats," and her website <http://seagrant.ucdavis.edu>. Her documentary, "Time for A Change: Alternatives to Copper-Based Boat Bottom Paint," won national Telly and Communicator awards for outstanding video productions.

TCS would be happy to publish announcements of coastally related awards received by any TCS members. Just email the info to Ellen Gordon, ellen@gordonballard.com



Tsunami Challenges continued

CZM program is considered one of the best and is widely quoted as a model for developing countries.

However, it is evident that prior to 26 December 2004, dealing with tsunamis was absent from coastal management plans of Indian Ocean countries. Standard CZM texts treat tsunamis as likely to be outside the interests of CZM and more in the realm of hazards and hazard management. There is growing recognition of a need for change, e.g., in Bangladesh, cyclones were recently considered in the country's coastal management plan.

The Indian Ocean tsunami has therefore made it imperative that such potential events be considered in future coastal management plans of Indian Ocean countries. Among other measures to be reviewed, early warning systems are on the list of priorities.

2. Existing CZM May Not be Suitable for Post-tsunami Recovery of Coastal Areas

Much attention has been given to the emphasis on 'integration' in coastal zone management as a suitable methodological or conceptual basis for the post-tsunami phase of reconstruction and rehabilitation. However, the evidence from the ground does not suggest this to be the ideal thrust.

In fact, the tsunami has complicated the problems and issues that existing CZM was supposed to resolve, e.g. conflicting uses in the coastal areas, coastal degradation, alternative livelihoods, sustainable development, etc. The tsunami has introduced a totally new and somewhat disruptive dimension, i.e. a risk to the coastal equations on equity and/or sustainability of land uses, communities, fishers, the tourist industry, infrastructure, buildings, etc.

To be effective, CZM needs to recognize certain issues in the post-tsunami phase:

a. Land. The land issue is becoming more complex. To start with the simplest aspect, there is substantial physical loss of land in certain coastal sectors, e.g. Aceh, Khao Lak. This means that land previously occupied by users is no longer available. An associated issue is that of 'legal' rights to the land; this

becomes a problem as legal documents have been destroyed or the 'rights' that come with squatting/occupying land are now not demonstrable or evident.

b. Buffer zones. Zoning is a strong tool in CZM and the use of buffer zones or setback lines to define the landward distance of uses from the coastline is widely discussed and implemented for the countries affected by the tsunami. Apart from the thorny issue of those who have lost their land, the problem of resolving coastal conflicts has intensified for at least two activities that need to be near the coast, i.e. artisan fishing and the tourist industry.

Some fisher organizations are arguing that the tourist industry is taking over land and/or ignoring setbacks to reconstruct their resorts. In many coastal sectors visited, the fishers, being poor, have not recovered fully from the tsunami, except for obtaining new boats and outboard motors from non-governmental organizations and other groups. They are housed in temporary shelters near the coast or are resettled further inland. Field evidence shows that tourism development is still carried on as usual near original sites. There is some evidence of the tourist industry's response to future tsunami threat in the form of construction of walls, adding sand to increase the height of the backshore, restoration of coastal vegetation belts, building structures on stilts and stabilization of drainage channels (see picture on Page 1).

c. Habitat restoration. CZM also deals with problems of aquaculture, mangrove depletion, damage to corals by tourism, etc. The tsunami has wrought even more damage to coastal ecosystems, in some cases aggravated by existing coastal uses. Many reports have mentioned the protective role of mangroves, coastal dunes, coastal forests, etc. In the post-tsunami phase, the rehabilitation of coastal ecosystems remains a high priority. Lagoons and soils have also been affected by salt water. The restoration of coastal vegetation belts is observed in many tsunami-affected coasts. However, there are also unfortunate examples where work has been carried out without proper assessment of environmental conditions, e.g. planting mangroves in devastated and



inundated land without understanding hydrological conditions and planting coconuts on mobile dunes. (see picture below)

d. Livelihood restoration. In the post-tsunami phase, it is unlikely that the bulk of the affected coastal population will be able to get back to their previous jobs. Currently, they are largely dependent on relief efforts; it takes time for economic opportunities to surface or be created for them. One area of useful development would be livelihood restoration linked to rehabilitation of coastal ecosystems, e.g. sourcing and growing seedlings of suitable plants for the coastal zone, planting of trees, restoration of mangroves, treatment of soils, cleaning of polluted wells, and reconstruction of embankments of cultivated fields and fishponds. Apart from these, a whole range of constructional activities can be added. The use of demonstration sites or models can be deployed to link ecological restoration with livelihood restoration; this is where coastal managers can play an essential role.



Planting coconut on low coastal dunes at Kreung Raba, Aceh. Many of the protective enclosures around the plants have been toppled by the strong wind.

In some cases, some socio-cultural issues have to be resolved to integrate livelihood restoration and ecological restoration. For example, in Tamil Nadu, certain economic activities are somewhat caste-defined, e.g., fishing is carried out by the lower castes, and their resettlement with other coastal communities has proven to be difficult. More attention should be directed to such caste-based issues rather than to gender-based issues.

3. Need for Paradigm Change in CZM

Many of the existing principles and ideas of CZM have come from economically advanced countries

where the coastal communities are often literate, laws are enforceable, institutional structures are available, etc. Many of the countries around the Indian Ocean affected by the tsunami have also been trying to implement CZM, with varying success; their efforts have been burdened by a wide range of cultural, social, economic and environmental issues. Taking the examples of the two tsunami-affected communities--the fishers and the tourist developers--one is dealing with poorly educated communities and highly profit-oriented entrepreneurs, respectively. In the post-tsunami phase, both may not respond to CZM principles but more to demonstrable financial gains. Demonstration sites or pilot projects need to show this clearly.

The Indian Ocean tsunami has completely upset what coastal managers have been trying to resolve in the coastal zone. The urgency of livelihood restoration and habitat restoration has been added to the job of resolving coastal conflicts, alleviating poverty, reducing environmental degradation, enforcing setback lines, etc.

I would therefore argue that if integration in CZM is to be carried out in the post-tsunami phase, it must first be an integration of livelihood restoration and habitat restoration. This would require a paradigm change or a change in the mindset of those implementing CZM. Too many of the principles expounded in various post-tsunami recovery programs may not offer practical solutions. To start, there should be a list of immediate tasks with which local communities can become involved, both to earn a livelihood and at the same time to restore coastal habitats. These are challenging tasks for coastal managers in the affected areas and they need to understand the fundamental change in CZM wrought by the 26 December 2004 event.. At the very least, tropical CZM in the post-tsunami phase will never be the same.

Poh Poh Wong, Associate Professor at the National University of Singapore, is a coastal geomorphologist by training. He has published widely on coasts and tourism and is currently a Coordinating Lead Author in the Intergovernmental Panel on Climate Change Fourth Assessment Report. geowpp@nus.edu.sg



NewsNotes continued

quent loss of coral reef habitats for a range of marine life.

Since early October, NOAA has issued Coral Reef Watch bleaching alerts for both Puerto Rico and the U.S. Virgin Islands, where thermal stress is at record levels. Thermal stress has reached Degree Heating Week (DHWs) values of over 15 at some locations. Each DHW represents one week of temperatures 1 degree Celsius above the maximum highest monthly average. Accumulated over three months, DHWs above four are virtually always accompanied by considerable bleaching, while levels above eight are believed to present increased coral mortality and inability to recover. Reefs in Grenada are also bleached, with close to 70 percent of colonies suffering impact to some degree.

www.coralreefwatch.noaa.gov/

Low Impact Development: Green Roofs

Massachusetts Office of Coast Zone Management in cooperation with retailer IKEA and the Low Impact Development (LID) Working Group developed a green roof plan for a new IKEA furniture store that could capture and filter up to 75% of rooftop runoff. Thus, land area needed for traditional stormwater management devices is significantly reduced, meaning that 30% of the original site plan could remain undisturbed. The building's energy performance should also be improved, as heating and cooling are much more efficient. What makes this project especially interesting is that the site of the store, Stoughton, Massachusetts, is far outside of the coastal zone, but provided an opportunity to implement Low Impact Development (LID) techniques in a high visibility site. This new IKEA, with its 37,000 square foot green roof, opened on November 9.

<http://www.mass.gov/czm/smartgrowth/index.htm>

MMS Extends Public Comment Period on Energy Development

The U.S. Department of Interior's Minerals Management Service (MMS) has extended the public comment period on the preliminary development of its 2007-2012 five-year leasing plan for energy development on the Outer Continental Shelf (OCS) and



accompanying environmental impact statement. The deadline for public comment has been extended to January 6, 2006 to allow more time for oil and gas operators and states affected by the recent hurricanes to prepare comments. The MMS is seeking comment on the economic, social, and environmental values of all of the resources of the OCS and the potential impact of oil and gas exploration on the environment.

<http://www.mms.gov/ooc/press/2005/press0822a.htm>

Conservation Plans Unveiled for Six Wildlife Species

The Commission for Environmental Cooperation (CEC), in cooperation with federal agencies, scientists, academics and nongovernmental organizations, has published the first "tri-national" conservation plans ever to be developed for North American wildlife species.



Under the North American Conservation Action Plans (NACAPs), a common conservation approach will be applied to six wildlife species—the leatherback turtle, humpback whale, pink-footed shearwater, burrowing owl, ferruginous hawk and black-tailed prairie dog—across Canada, Mexico and the United



States. Each plan suggests actions to reduce threats, share expertise and provide key information to the public and wildlife officers.

In June 2003, the three North American governments adopted a long-term strategy for the conservation of critical species and habitats in North America. The action plans form a key element of this strategy, as does a complementary process aimed at establishing a North American Marine Protected Areas Network and grasslands conservation corridor.

http://www.cec.org/programs_projects/conserv_biodiv/nacap=english

American Seafood Consumption Reaches Record Levels

Seafood consumption in the United States rose for the third straight year in 2004 (most recent year for which statistics were released), as Americans ate a record 16.6 pounds of fish and shellfish per person. This is the third year in a row that U.S. per capita seafood has increased, up 2% from 2003. NOAA Fisheries Service annual report, "Fisheries of the United States."

<http://www.nmfs.noaa.gov/docs/04%20seafood%20consumption%20FINAL.pdf>



Some Interesting Facts about Atlantic Fisheries Stocks

Striped Bass Stock Assessment Indicates Healthy Stock Total Abundance: Scientific advice presented to the Atlantic States Marine Fisheries Commission's (ASMFC) Atlantic Striped Bass Management Board indicates that striped bass management continues to be a success. The resource remains at a high level of abundance at 65.3 million fish, 10 percent higher than the average stock size for the previous five years. Female spawning stock biomass is estimated at 55 million pounds and is well above the target and threshold levels of 38.6 and 30.9 million pounds, respectively. Recruitment of young fish (age 1) at 12.7 million is close to the average recruitment observed since the stock was first declared recovered in 1995. The next peer reviewed stock assessment is scheduled for 2007. Copies of the stock assessment are available on the Commission website, www.asmfc.org



American Lobster Stock Assessment Yields Mixed Results: The 2005 peer-reviewed stock assessment report indicates the American lobster resource presents a mixed picture, with stable stock abundance throughout most of the Gulf of Maine (GOM) and Georges Bank (GBK), low abundance and recruitment in Southern New England (SNE), and decreased recruitment and abundance in Area 514 (Massachusetts Bay and Stellwagen Bank). Of particular concern is SNE, where depleted stock abundance and recruitment coupled with high fishing mortality rates over the past few years have led the Peer Review Panel to call for additional harvest restrictions. Summing up the Panel's concerns the report stated, "it is the future that leads to the greatest peril for the lobster resource...it would only take a sequence of two to three years of poor recruitment to collapse any component of the lobster resource, and the appearance of extremely low recruitments in recent times in some areas is a cause of concern if not alarm. Until the harvest strategy is revised to provide a buffer of mature adult spawners to cover the bad times, lobster fishery management is a time bomb waiting to explode, its fuse lit by recruitment failure." Copies of the stock assessment and peer review reports should be available in *continued*



NewsNotes continued

December and can be accessed via the Commission's website at www.asmfc.org

ASMFC Horseshoe Crab Board Initiates Development of Addendum to Consider Harvest Reductions: The Commission's Horseshoe Crab Management Board authorized development of an addendum to the Interstate Fishery Management Plan (FMP) for Horseshoe Crab to reduce or eliminate harvest of Delaware Bay horseshoe crabs. The Draft Addendum will propose a two-year harvest moratorium in New Jersey and Delaware, with an exemption for harvest for biomedical use. It will also present options to restrict harvest of horseshoe crabs of Delaware Bay origin in jurisdictions outside of the Bay. The proposed action responds to public concern regarding the horseshoe populations and their ecological role in the Delaware Bay. While there are a number of scientific reviews on the status of horseshoe crabs, there is no peer-reviewed coast wide estimate of horseshoe crab abundance. The U.S. Fish and Wildlife Service Shorebird Technical Committee has indicated that the red knot, one of many shorebird species that feed upon horseshoe crab eggs, is at low population levels. Red knots have shown no sign of recovery, despite a four-fold reduction in horseshoe crab landings since 1998. The Shorebird Technical Committee concluded a moratorium of horseshoe crab harvest could provide more eggs for the birds to feed upon. The Board initiated the addendum process to focus further restrictions on crab harvest in the Delaware Bay region, which is the epicenter of horseshoe crab production along the coast as well as a critical stopover area for many migratory shorebirds including the red knot. The Management Board will meet in February 2006 to review and consider approval of the draft addendum for public comment and review. The ASMFC vision statement calls for healthy, self-sustaining populations of all Atlantic coast fish species or successful restoration well in progress by the year 2015.



are expected to provide an economic boost for communities, enhance public safety, and improve populations of NOAA trust resources such as striped bass, Atlantic and shortnose sturgeon, Atlantic and Pacific salmon, American eel, American shad, blueback herring, and alewife. Proposals selected for funding will be implemented through a cooperative agreement. Proposals due January 13, 2006.

http://www.nmfs.noaa.gov/habitat/restoration/projectsprograms/crp/partners_funding/callforprojects3.html.

Call for a National Policy on Shoreline Management

Stephen P. Leatherman, Florida International University and Gilbert White, University of Colorado at Boulder suggest that: "a national policy for shoreline management is vitally needed. In the absence of a coherent and consistent framework for managing the shore, Corps projects are undertaken on a project-by-project basis. Overall, federal programs are reduced to ad hoc efforts to deal with coastal hazards and environmental consequences. Estimates of erosion damage do not include the effects of accelerated sea level rise due to climate change because projections of future shoreline positions are based on historical observations. Hurricanes are a regular occurrence along the East



NOAA Open Rivers Initiative

This initiative provides funding and technical expertise for community-driven, small dam and river barrier removals, primarily in coastal states. Projects



and Gulf coasts of the United States; 167 tropical storms made landfall during the twentieth century. We are in a new cycle of increased Atlantic hurricane activity, and at the same time, there is a continuing coastward migration of Americans. How should society reduce the inevitable risks of living near the shore? Obviously, we cannot expect people to leave the coasts, but we can expect sound government policies that protect their long-term sustainability and diminish damage to the built environment through mitigation. Nationwide, coastal erosion may be responsible for approximately \$500 million in property damage each year, including loss of structures and land." To read the full text of this essay, go to

<http://www.colorado.edu/hazards/o/nov05/nov05c.html>

Recent Increase in Hurricane Activity

The United States is now wrapping up the 11th year of a new era of heightened Atlantic hurricane activity. This era has been unfolding since 1995, and is expected to continue for the next decade or perhaps longer. NOAA attributes this increased activity to natural occurring cycles in tropical climate patterns near the equator. These cycles, called "the tropical multi-decadal signal," typically last several decades (20 to 30 years or even longer). As a result, the North Atlantic experiences alternating decades long (20 to 30 year periods or even longer) of above normal or below normal hurricane seasons. NOAA research shows that the tropical multi-decadal signal is causing the increased Atlantic hurricane activity since 1995, and is not related to greenhouse warming. www.magazine.noaa.gov/stories/mag184.htm

Climate Change

The 11th annual United Nations Climate Change Conference was held in Montreal, November 29-December 9, 2005. Delegates from 189 countries attended, as well as representatives from industry, business, scientific and non-governmental organizations. This conference marked the first meeting of the Parties to the Kyoto Protocol since the global agreement on climate change came into effect in February of this year.

http://www.ec.gc.ca/EnviroZine/english/issues/59/feature1_e.cfm



Results from the Lisbon, Portugal Ocean Policy Summit

The Ocean Policy Summit: The International Conference on Integrated Ocean Policy: National and Regional Experiences, Prospects, and Emerging Practices (TOPS 2005), held October 10-14, 2005 in Lisbon, Portugal, brought together over 200 participants from more than 50 countries to examine the growing experience with the formulation and implementation of integrated ocean policies at national and regional levels around the world. Significant progress was made in identifying forces that facilitate and impede implementation and specific steps for further dissemination of integrated ocean governance practices were developed. For the conference report, please go to <http://www.iisd.ca/sd/tops2005/>. Presentations from the meeting will be available at <http://www.globaloceans.org> in the near future.

continued



Quick Response Research in the Wake of Hurricane Katrina: Call for Manuscripts.

The Natural Hazards Center is preparing an edited volume of the quick response social science research conducted in the wake of Hurricane Katrina. Manuscripts must be submitted no later than May 1, 2006, abstracts are due by January 15, 2006. <http://www.colorado.edu/hazards/new.html>

Ocean Yearbook: Call for Papers

For over 20 years, the Ocean Yearbook has published articles, reports and reference materials devoted to the issues and concerns affecting the world's oceans. Editorship of the Ocean Yearbook is a cooperative effort of the International Ocean Institute and the Marine & Environmental Law Institute at Dalhousie Law School.

The Ocean Yearbook editors are now inviting submissions for Volume 21. Research articles, surveys and think pieces on one or more of the following topics will be considered for publication: ocean governance, ocean resources, transportation and communications, environment and coastal management, polar issues and others. The deadline for submission is March 31, 2006. Ocean Yearbook Editorial Office, Dalhousie Law School, <http://www.dal.ca/law/melaw/oyb>

Ocean Yearbook Student Prize 2006

The Ocean Yearbook has initiated an annual competition for students writing research papers on marine affairs subjects. Eligible students are persons registered for a degree program at any university. Marine affairs subjects are deemed to include coastal and ocean policy, integrated coastal management, community-based or co-management of natural resources, law of the sea, domestic marine environmental law, etc. Papers may have international, national or comparative perspectives. Student papers submitted for the competition must be nominated by the instructor or supervisor of the course taken by the student. The deadline for submissions is 15 May 2006, with results being announced by 14 July 2006. Ocean Yearbook Editorial Office, Dalhousie Law School, <http://www.dal.ca/law/melaw/oyb>

Malaclemys Terrapin Needs Your Help



If you have ever seen terrapins in the wild and/or have experience in salt marshes of the eastern United States, you have useful information! Please take a few minutes of your time to fill out an on-line survey about the current and past status and range of the diamondback terrapin (*Malaclemys terrapin*). Also, please spread news about it to anyone else who might be able to fill it out. The survey can be found at www.people.hofstra.edu/terrapin.

The diamondback terrapin inhabits brackish and salt marshes and bays. In most of their range, terrapins are unlikely to be confused with any other turtle because they are the only turtle that lives in the salt marshes. Historically the diamondback terrapin has been reported as far north as Cape Cod, MA and as far south as Corpus Christi, TX. They are commonly seen basking on or crossing roads to nest.

Field observations are necessary in order to determine the diamondback terrapins' past and current distribution. We are trying to determine the status of diamondback terrapins throughout their range; i.e., whether the populations are stable, increasing or decreasing.

Dr. Russell Burke
Department of Biology
114 Hofstra University
Hempstead, NY 11549
voice: (516) 463-5521
fax: 516-463-5112

http://www.people.hofstra.edu/faculty/russell_i_burke/



CHAPTER NEWS

University of Rhode Island

The URI chapter is continuing to host brown bag presentations. A variety of coastal professionals from the region have been kind enough to visit our chapter and share their experiences, offer advice, and inform us of various initiatives with which they are involved.

Partnering with the Marine Affairs Institute and the Environmental Law Society at Roger Williams University, the URI chapter co-sponsored a panel discussion on coastal disasters in November. We continue to be involved with our local Surfrider Foundation and the local coastal community and have been participating in beach clean-ups here in Narragansett. A number of our members plan to attend TCS 20 and look forward to meeting all of you there!

University of Washington

The UW chapter kicked off the school year with a meeting aimed at diversifying membership and including representation from a variety of campus departments. We have sponsored coffee-hour discussions with Robert Steelquist, Education Coordinator for the Olympic Coast National Marine Sanctuary, and with Tom Cowan, Director of the Northwest Straits Commission. These sessions gave students a great opportunity to talk with these leaders in an informal setting. We also volunteered to help People for Puget Sound with a restoration effort on Seattle's urban Duwamish River. We are looking forward to participating in more events in the coming year including TCS 20.

East Carolina University

The ECU chapter co-sponsored a fantastic event on the evening of December 1, which we hope will prove to be the first annual! Along with ECU's Coastal Resources Management (CRM) PhD program, TCS hosted a student/faculty dinner featuring both oral presentations and poster displays of current student research. We were able to wrangle around 15 posters of recent and current projects undertaken by CRM and TCS students, which guests eagerly perused before and after the event. The oral presentations featured research being conducted by four students, one from each field of the CRM Program: Geosciences, Coastal Ecology, Social Science, and Maritime Studies.

Two distinguished guests were in attendance: Walter Clark, North Carolina Sea Grant coastal law policy specialist, adjunct professor in the CRM Program, and a former TCS President, and Tom Bigford, a charter member of TCS, and Chief of the National Marine Fisheries Service Habitat Protection Division. Mr. Bigford generously offered a few

words about TCS before the presentations. Valerie Grussing, President of ECU's TCS student chapter concluded the evening, encouraging increased membership and participation in TCS, as well as conference attendance in May 2006. Both CRM and TCS T-shirts were available. Approximately 50 people attended, all of whom seemed enthusiastic about the presentations of student work, and about the activities of TCS. Thanks to everyone who made this event such a tremendous success!

Duke University

The Duke chapter has been focusing our efforts on increasing membership from amongst our 1st year graduate students. To accomplish this, we have elected a 1st year TCS representative, Brendan Hurley. He is getting the word out by sending e-mails, posting flyers, and holding informative meetings.

Our chapter participated in the Morehead City Seafood Festival, raising more than \$500 for Hurricane Katrina cleanup efforts by selling shrimp kabobs made with local channel-caught shrimp as well as shrimp caught using skim nets.

Donated by the Blue Ocean Institute, several hundred "Mini-Guide to Ocean Friendly Seafood" wallet cards were handed out as well.

We wrapped up our busy fall semester by coordinating with the other TCS student chapters to plan student-specific activities for TCS 20. On Sunday, May 14, students will have the opportunity to participate in a career-oriented panel with TCS professionals. There will also be a more casual discussion forum regarding student chapter activities and goals.

TCS HOLIDAY PARTY

Members of The Coastal Society gathered on Wednesday evening, December 7, 2005 at Fadó Irish Pub and Restaurant in Washington, D.C. to celebrate the holiday season. It was the second consecutive year that we've held a holiday event in the DC area, and it drew an even larger crowd than last year! Holiday cheer was in the air as about forty TCS members and non-members from around the country took part in the festivities. Those in attendance included individuals working for academic institutions, government agencies, and international and national private sector organizations including environmental NGOs and consulting firms. We enjoyed scrumptious hors d'oeuvres, pleasant conversation, and the festive environment while greeting old friends and meeting new acquaintances interested in coastal and ocean issues. Many thanks go to those who attended and those who helped make this event a success! Have a safe and joyful holiday season!!



PLEASE JOIN US IN ST. PETERSBURG, FL MAY 14-17, 2006, FOR
THE COASTAL SOCIETY'S 20TH INTERNATIONAL CONFERENCE (TCS 20), CHARTING
A NEW COURSE: SHAPING SOLUTIONS FOR THE COASTS

TCS 20 will focus on how we develop innovative solutions for coastal problems:

How do we change current patterns of behavior and decision-making in coastal development?

What innovative tools should we use to balance competing ocean uses and adjust to new ocean governance principles?

How can science be used more effectively to improve the quality of our coastal waters, lands, and living resources?

How do we increase the ability of coastal leaders to be more critical, involved decision makers?

What lessons can the United States learn about coastal disaster response from the experiences of other countries?

Following the opening plenary, concurrent sessions will encompass five themes:

Solutions for Land Use Challenges

Solutions for Governing Ocean Use Conflicts

Solutions for Effective Integration of Science in Coastal Decision-Making

Solutions for Innovative Training for Coastal Professionals and the Public

Solutions for Mitigating Natural Hazards

Conference Location:

Sitting upon a spectacular white sands beach, the **Tradewinds Resort St. Pete Beach, Florida** <http://www.tradewindsresort.com/> offers a unique opportunity to explore this St. Petersburg/Tampa Bay region barrier island. Plan to network outside alongside one of the Resort's pools with the sound of the ocean in the background.

Interesting field trips before and during the conference.

For detailed information on all aspects of the Conference, including how to register, visit:
www.thecoastalsociety.org/conference/tcs20/index.html

**2006 OCEAN SCIENCES MEETING**

February 20-24, 2006, Honolulu, Hawaii

The 13th Ocean Sciences Meeting, a joint meeting of ASLO, ERF, TOS and AGU. The Program Committee is developing a scientific program that will cover all topics in the area of Ocean Sciences.

www.agu.org/meetings/os06

URBAN REMOTE SENSING CHALLENGES AND SOLUTIONS WORKSHOP

March 2-3, 2006, Berlin Adlershof, Germany

<http://www.hurs.de>

17TH GLOBAL WARMING INTERNATIONAL CONFERENCE AND EXPO

April 20-21, 2006, Miami, Florida.

A sampling of session topics include the following: Sustainable Environment and Health for the 21st Century, Remote Sensing and Global Surveillance, Water Resources Management, Extreme Events and Impacts Assessment, and Global Warming and the Oceans. gw17@globalwarming.net; <http://globalwarming.net/>.

TCS 20: CHARTING A NEW COURSE: SHAPING SOLUTIONS FOR THE COASTS

May 14-17, 2006, St Petersburg, FL

The Coastal Society's 20th International Conference will focus on innovative solutions for coastal problems.

www.thecoastalsociety.org/conference/tcs20/index.html

COAST TO COAST

May 22-25, 2006, Melbourne Australia

Preparations have begun for Coast to Coast 2006, Australia's biennial national coastal conference. The need for sustainable coastal and marine use, planning and management is increasingly hard to ignore. Coast to Coast will focus debate across the full range of coastal and marine issues being considered at national, state, regional and local levels.

<http://www.iceaustralia.com/coasttocoast2006/index.html>

2006 ASSOCIATION OF STATE FLOODPLAIN MANAGERS CONFERENCE

Week of June 11, 2006 in Albuquerque, New Mexico.

30th annual conference theme: "Floodplain Management Crossroads-Where Route 66 Meets the Rio Grande."

<http://www.floods.org/Conferences,%20Calendar/albuquerque.asp>

16TH WORLD CONFERENCE ON DISASTER MANAGEMENT

June 18-21, 2006, Metro Toronto Convention Centre, Toronto, Canada

Annual event addressing issues common to all aspects of disaster/emergency management. The 2006 Conference is expected to attract over 1,500 delegates from Canada, the US and from around the world.

<http://www.graphicmail.com/sendlink.asp?HitID=1128517398046&SiteID=9071&EmailID=1782436&Link=http://www.wcdm.org/>

THE COASTAL ZONE CANADA '06 CONFERENCE AND YOUTH FORUM

August 12-18, 2006, Tuktoyaktuk, NWT, Canada

The proposed conference title for CZC '06 is "Arctic Change and Coastal Communities". The intent of the conference is to "raise awareness about the unique challenges faced by residents of the Arctic coastal zone in the face of rapid changes occurring in Arctic marine ecosystems. While the focus is on coastal and ocean issues in the north, we encourage contributions from coastal areas around the world, recognizing that many of the drivers of coastal change, and the adaptation of people to them, are common to many parts of the world."

<http://www.czc06.ca/>

17TH INTERNATIONAL SEDIMENTOLOGICAL CONGRESS

Aug. 27-Sep. 1 2006, Fukuoka, Japan

(<http://www.isc2006.com/>).



The Coastal Society
Tax ID Number: 52-1082650
www.thecoastalsociety.org

OFFICERS

Paul C. Ticco (President)
Coastal States Organization/
NOAA MPA Center
1305 East West Highway,
N/ORM
Room 12310
Silver Spring, MD 20910
PH: (301) 563-1162
FAX: (301) 713-3110
E-MAIL: paul.ticco@noaa.gov
Term: 1/1/05 - 12/31/06

Kristen Fletcher (Pres.-Elect)
Marine Affairs Institute,
Rhode Island Sea Grant
Legal Program,
Roger Williams University
School of Law
10 Metacom Ave
Bristol, RI 02809
PH: (401) 254-4613
FAX: (401) 254-5735
E-MAIL: kfletcher@rwu.edu
Term: 1/1/05 - 12/31/06
(Special Projects Chair)

John Duff (Past Pres.)
Environmental, Earth & Ocean
Sciences Department
UMass/Boston
100 Morrissey Blvd.
Boston, MA 02125-3393
PH: (617) 287-7445
FAX: (617) 287-7474
E-MAIL: john.duff@umb.edu
Term: 1/1/05 - 12/31/06
(Nominations Chair)

Maurice "Mo" Lynch (Treasurer)
Virginia Institute of Marine
Science
P.O. Box 125
Gloucester Point, VA 23062
PH: (804) 642-4852
PH: (804) 684.7107
E-MAIL: mlynch@vims.edu
Term: 1/1/05 - 12/31/07
(Finance Chair)

Lindsay Fullenkamp (Secretary)
Atlantic States Marine
Fisheries Commission
1444 Eye Street NW, 6th Floor
Washington, DC 20005
PH: (202) 289-6400
FAX: (202) 289-6051
E-MAIL: lfullenkamp@asmfc.org
Term: 1/1/04-12/31/06
(Communications Chair)

DIRECTORS

Thomas E. Bigford
9317 Harvey Road
Silver Spring, MD 20910
PH: (301) 713-4300 X131
FAX: (301) 713-4305
E-MAIL: thomas.bigford@noaa.gov
Term: 1/1/04 - 12/31/06
(Membership Committee Chair)

Richard H. Burroughs
Dept. of Marine Affairs
URI, Washburn Hall
Kingston, RI 02881
PH: (401) 874-4045
FAX: (401) 874-2156
E-MAIL: rburroughs@uri.edu
Term: 1/1/04 - 12/31/06
(Education Committee Co-Chair)

Larry Hildebrand
Environment Canada
16th Floor, Queen Sq, 45 Alderney Dr.
Dartmouth, Nova Scotia B2Y 2N6
CANADA
PH: (902) 426-2131
FAX: (902) 426-6348
E-MAIL: larry.hildebrand@ec.gc.ca
Term: 1/1/05 - 12/31/07

Ruth Kelty
NOAA Natl Centers for Coastal Ocean
Science
1305 East-West Hwy, SSMC4, Rm 8215
Silver Spring, MD 20782
PH: (301) 713-3020
FAX: (301) 713-4353
E-MAIL: ruth.kelty@noaa.gov
Term: 10/1/04 - 12/31/05

Gib L. Chase
6 Kimball Lane
Northborough, MA 01532
PH: (508) 393-9548
E-MAIL: gib5@charter.net
Term: 1/1/03 - 12/31/05

Laurie Jodice
304 Brookstone Way
Central, SC 29630
PH: (864) 656-2209
FAX: (864) 656-2226
E-MAIL: jodice@yahoo.com
Term: 1/1/03 - 12/31/05

Chad E. Nelsen
PO Box 6010
San Clemente, CA 92674
PH: (949) 492-8170
FAX: (949) 492-8142
E-MAIL: cnelsen@surfrider.org
Term: 1/1/04 - 12/31/06

Robert F. Goodwin
37 Vista Vue Drive
Omak, WA 98841
PH: (509) 422-1733
E-MAIL: goodrf@communitynet.org
Term: 1/1/05 - 12/31/07

EX-OFFICIO BOARD MEMBERS

Ariel A. Cuschnir
The Louis Berger Group, Inc.
2300 N Street, NW
Washington, DC 20006
PH: (202) 912-0242
E-MAIL: acuschnir@louisberger.com
Term: 1/1/05 - 12/31/06
(Education Committee Co-Chair)

Duke Student Chapter President
Colleen Kennedy
910 Constitution Drive #822
Durham, NC 22705
PH: (919) 641-3016
E-MAIL: sck@duke.edu
www.env.duke.edu/students/tcs.html

Univ. of Rhode Island Chapter President
Austin Becker
52 Armstrong Ave
Providence, RI 02903
PH: (401) 636-0430
E-MAIL: Austin_Becker@crc.uri.edu

Univ of Washington Chapter Liaison
Jessica Quinn Smits
1307 N. 43rd St.
#209
Seattle, WA 98103
PH: (206) 601-0336
FAX: (206) 543-1417
EMAIL: tcsuw@u.washington.edu or
quinnj@u.washington.edu

Cascadia Chapter President
Robert F. Goodwin
37 Vista Vue Drive
Omak, WA 98841
PH: (509) 422-1733
E-MAIL: goodrf@communitynet.org

East Carolina Chapter President
Valerie Johnson Grussing
Coastal Resources Management Prgm
East Carolina University
365 Flanagan Hall
Greenville, NC 27858
PH: (252) 328-9372
E-MAIL: valerienjohnson@hotmail.com

PROFESSIONAL SERVICES

TCS Office
Judy Tucker, CAE, Executive Director
4690 Kirkpatrick Lane
Alexandria, VA 22311
PH: (703) 933-1599
FAX: (703) 933-1596
E-MAIL: coastalsoc@aol.com
HOME PH: (703) 379-7477

Tax Preparation
Swart, Lalande & Associates, PC
9300 Grant Avenue, Suite 103
Manassas, VA 20110
PH: (703) 361-6126
FAX: (703) 368-7495
E-MAIL: crannells@slacpa.com
Chas Rannells

Bulletin Editor
Ellen Gordon
17401 Ryefield Court
Dickerson, MD 20842
PH: (301) 407-9155
FAX: (301) 349-4602
E-MAIL: ellen@gordonballard.com

Bulletin Designer and Publisher
Urban Harbors Institute
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125
PH: (617) 287-5570
FAX: (617) 287-5575
E-MAIL: chantal.lefebvre@umb.edu
Dan Hellin & Chantal Lefebvre

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: ___ \$35 U.S. 1-year ___ \$68 U.S. 2-year ___ \$99 U.S. 3-year

Student: ___ \$15 U.S.

U.S. Library: ___ \$50 U.S.

Corporate/Agency: ___ \$250 U.S.

Dues Payment:

Select membership category and number of years (discount for 2 or 3 years).

To pay by check: Make check payable to: The Coastal Society. Please mail check and application to: PO Box 25408, Alexandria, VA 22313-5408.

To pay by credit card: We cannot accept credit card information other than through the PayPal option. Please go to the TCS online membership form if you wish to pay by credit card (<http://www.thecoastalsociety.org/membersub.html>).

Thank you for your support.

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.