

The Coastal Society

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EMERGING COASTAL MANAGEMENT TOOLS:

Leasing and Ownership of Submerged Lands

by Kristen Fletcher

From kelp beds to estuarine marshes to coral reefs, U.S. submerged lands contain significant and under-recognized elements of marine biodiversity. That diversity is increasingly affected. Most of the U.S. population live or recreate near or on the coast, contributing to loss of habitat for fish species, marine mammals, migratory waterfowl, and shorebirds as well as deterioration of commercial fishery and shellfish harvests. These declines have also led to the loss of ecological services such as shoreline protection and water purification. The recently-issued U.S. Commission on Ocean Policy Report¹ highlights these threats and reveals that the management scheme is ailing as well: governmental agencies often have overlapping jurisdictions and competing mandates in coastal waters and few are taking a holistic approach to managing submerged lands. With these constraints in mind, innovative methods to conserve submerged lands are key to coastal management and policy.

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Photograph: The Nature Conservancy

TSUNAMI UPDATE:

Coastal Zone Management Challenges in the Tsunami Response

by Robert Kay

The scale of the Indian Ocean tsunami devastation is now as well known as perhaps it will ever be. An estimated 290,000 people were killed, while 1.2 million people were displaced or directly affected. Indonesia, Sri Lanka, India, Thailand and the Maldives were the countries hardest hit. Most affected by the combined effect of the earthquake (magnitude 9.0 on the Richter scale) and the tsunami (the highest measured run up, i.e. vertical height above sea level, was an incredible 49m) was the Aceh province of Indonesia with 98,000 people confirmed dead and 132,000 people missing. There were probably many more deaths in Indonesia that will never be accounted for.

The overwhelming response from the worldwide coastal management community to the disaster mirrored the overall response; simply, "what can we do to help?" Since the tsunami affected such a huge length of coast in such a short space of time (and without warning) it appeared obvious that CZM would play a pivotal role in response efforts. After all, is not CZM designed to incorporate natural hazard management into an integrated framework to consider long-term sustainable development of coastal regions? CZM tools, and more importantly the "integration philosophy" that CZM brings, would appear to put the discipline front and center in tsunami response.

The last edition of the TCS Bulletin (Volume 27 (1) 2005) outlined one of the many immediate international coastal management

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"We are confronted with insurmountable opportunities."

--- Pogo

A couple of weeks ago as I stood in the august setting of the Randall Senate Office Building's Caucus Room observing the presentation of the Senator John H. Chafee Coastal Stewardship Award to the much-deserving Admiral James D. Watkins, Chairman of the U.S. Commission on Ocean Policy, I was struck more by what was not said by the Admiral and others at the dais than what was said. During his remarks, the Admiral stated that he believed that "the pieces are now in place" throughout Congress, federal agencies and other critical organizations to make a "true difference" in helping to protect and preserve our coastal and marine environment. Given that this occasion was in celebration of the first comprehensive examination of the status of our coasts and oceans since the 1969 Stratton Commission this was a significant statement.

Depending on your personal opinion of the current Administration's policies and long-range views of our ocean and environmental affairs, you may or may not subscribe to this assessment. It is obviously very true that our elected lawmakers and appointed heads of federal agencies exert enormous influence over these affairs through their voting preferences, creation and support of legislation, support or non-support of budget appropriations, etc. But, at the risk of in any way discounting their importance, what struck me was not this proclamation and the general murmuring of wide agreement with the Admiral's comment by others in the room but the omission of recognition of the many, many people outside of "the DC Beltway" that work so hard and with such diligence and responsibility to conserve marine resources, manage our coasts and oceans, protect the populace, unearth new scientific discoveries, and apply these discoveries to better our lives both present and future. These people, through their efforts in town and state halls, schools, college campuses, non-profit organizations, citizen groups, research institutions, and private businesses, or simply by living lives as regular citizens making sound daily choices that aid the health of the coasts are always "in place," and deserve far more attention and respect. For many, their work is often self-defined as inspired passion. They also realize that nothing meaningful or enduring can occur without a wide variety of people across all disciplines working together with commitment and vision.

Therefore, let's both celebrate and not lose sight of the inclusive nature of our efforts, and strive to emphasize the participation and leadership potential of all. We must also be sure that no one who wishes to contribute be excluded or denied the opportunity to excel, especially those who are disenfranchised and those who still bear the burden, no matter how slight, of any form of discrimination. Only through collaborative efforts between individuals and organizations such as TCS can our true potential be realized and exceeded by future generations.

Paul C. Ticco

TCS President

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

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Late June/early July; a most remarkable life cycle is coming full circle; the grunions are running. These small silvery fish are coming ashore to spawn on the Southern California and northern Baja beaches. Depending upon the cycles of the moon, they will continue their efforts until sometime in September. The shad have been running up the Delaware River to lay their eggs in its headwaters. Their migration is followed closely by the sturgeon, who come up as far as Philadelphia. From 50-60 miles out, horseshoe crabs are crawling and swimming ashore in Delaware Bay to lay their eggs, millions of which have been a vital food source for migratory birds heading north to their nesting grounds.

Official hurricane season has begun for the Atlantic. And in parts of the Chesapeake Bay, sea nettles (small jellyfish) are dense enough to clog pump intakes onboard boats. In an email a while ago to TCS members, I asked for any thoughts or feelings you might like to offer about what this time of year means to you. What follows are comments on the U.S. east coast in late spring:

Fishing peaks in late June and I find myself constantly looking for a good excuse to slip out a few minutes early to fish until the sun goes down.

Clay McCoy, Greenville, NC

June, in my mind, is when I can finally count on long and warm summer days to provide the perfect conditions for riding my bike to work along the beautiful and scenic Delaware River. As I ride, I observe the changes to the river's features after the spring floods, look for signs of wildlife and their summer activities, and wonder about the impacts of the growing human population. But the river seems mostly calm and peaceful as it and I meander down toward the Delaware Bay and on into the Atlantic (I, of course, not making it quite that far!).

Tali Engoltz, Trenton, NJ

This time of year means a bit of research in Florida Bay on the migratory behavior of adult sea turtles to and from their summer nesting beaches on Florida's Atlantic coast. One of the key questions is what types of habitats support adults when they are not in transit to their nesting beaches along the Gulf and Atlantic shorelines.

Tom Bigford, Silver Spring, MD

My favorite thing about this time of year is longer, sun-

nier days. I absolutely love waking up with sun sneaking through the blinds and into my eyes and also still having it light enough to be playing outdoors with my dogs after 8pm. If I had my say, days would be this long all year round!

Kris Herrington, Silver Spring, MD

When I think of June, I remember summer vacations and family reunions at my uncles' place at Kingsbury Beach, Eastham on Cape Cod. The bay side of the Cape is a great place for children, young and old, as the tide goes out for a good mile, exposing numerous sand flats and tidal pools in between. Myself and other boys hunted spider crabs and hit golf balls from one sand flat to another. There was the herring run at First Encounter Beach where we could catch fish bare handed, the early morning walks along the beach with my dad and uncles at sunrise. Remnant submerged marsh grass islands which contained a treasure trove of marine life then are now gone. My sister and I use to watch the fireworks every night from the planes from Otis Air Force Base in Sandwich as they used an old WWII sunken cargo ship offshore for target practice. Beachcombing for shells, arrowheads and shell casings were part of my pastime. The salt air used to make me very hungry and still does. I continued the tradition of taking my own family down for vacations when our children were little. These were good times.

Gib Chase, Northboro, Massachusetts

And from a poet who is not a TCS member, but who I thought, nonetheless, captured something essential about those who are coastal-devoted:

They Who Possess the Sea

*Those who possess the sea within their blood
Have blood that courses with an endless motion,
Deep is its surging, like a tide at flood from out of the ocean.*

*They hold the blue spray-water in their veins
That hints no crimson torn from leaf or berry,
neither the flame of sumac nor the stain of the wild cherry.*

Marguerite Janurin Adams

Ellen Gordon

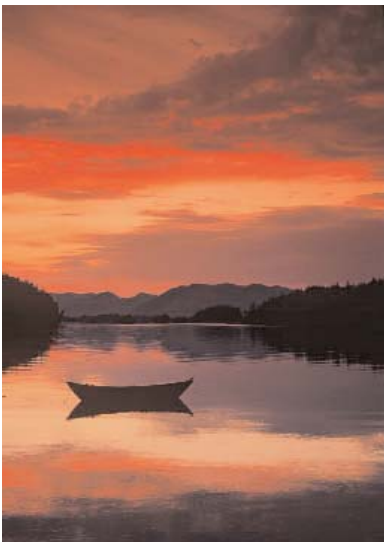
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Emerging Coastal Management Tools continued

It is commonly assumed that tools for submerged lands conservation must be substantially different from those for terrestrial conservation, in part because it is not possible to own parts of the ocean or to exclude areas from certain historic users. However, there is significant submerged land available for lease and ownership in U.S. waters beyond the traditional uses of shellfish and aquaculture, marinas, and mineral extraction.

The Nature Conservancy has been developing and implementing strategies for the conservation of submerged marine lands through leasing and ownership². To date, the Conservancy has projects developing in New York, Washington, California, Virginia and Texas involving both submerged lands in which The Conservancy owns the fee title interest and those for which The Conservancy is leasing submerged lands. To better understand the legal and policy implications of their strategy, The Conservancy partnered with the Rhode Island Sea Grant Legal Program at Roger Williams University School of Law to conduct legal analysis of submerged lands ownership and leasing. One result of this partnership is a newly published report; *Towards Conservation of Submerged Lands:*



Photograph: The Nature Conservancy

The Law and Policy of Conservation Leasing and Ownership.

The research focused on three forms of property interests in submerged lands: leases of submerged lands from states, limited ownership of submerged lands sold by states, and outright ownership (in fee simple) of lands conveyed into private ownership prior to statehood³.

All coastal states allow some leasing in their

waters; leasing has been used as a tool to manage coastal activities and maximize economic benefits to the public. In most cases, the leasing of state submerged lands requires some 'productive use' which typically includes shellfish leases or the placement of a structure for mineral extraction and marinas. Most privately owned submerged lands were sold by the states or acquired prior to

statehood. In many cases, although the private owner may hold title to the submerged lands, the state retains rights for the public, including rights of access and navigation.

Reactions to using these tools for conservation include excitement about fee title ownership and leasing approaches and potential long-term management of submerged lands, mixed with caution about restricting other uses under the Public Trust Doctrine and implications of "paying" for marine conservation through such an approach. The legal analysis has resulted in several key findings:

Leasing and ownership of submerged lands can be significant tools for conservation organizations, land trusts and other private entities to achieve conservation goals.

Use of these tools can help states address balance and fairness in their existing authorizations for uses of the marine environment.

Conservation leasing and ownership are supported within the traditional Public Trust Doctrine. States have clearly used leasing and ownership to meet their Public Trust Doctrine responsibilities; they also can use leasing to meet their environmental mandates. It appears that potential conflicts are based less in law and more on perception.

Current state policy often requires that leaseholders make "productive use" of their lands; the common perception is that while restoration is a productive use, conservation and preservation are not. This distinction must be recognized for current implementation of projects and should be changed for future projects. Productive use differs state by state but traditionally has been associated with a direct activity on the land, such as the placement of aquaculture pens or marine pilings. Even though it is clear that conservation leasing and ownership can be used for a range of activities such as monitoring, it may be more acceptable for a leaseholder to engage in active restoration as opposed to apparently passive preservation.

The increasing use of submerged lands and the need for marine ecosystem management calls for the greater incorporation of Public Trust Doctrine responsibilities and local efforts into state agency programs. In several states, the Public Trust Doctrine has been incorporated, either expressly or by implication, into the state constitution or the statutory and regulatory framework of coastal man-



agement and submerged lands programs. The state and public interests can greatly suffer without a statutory and regulatory framework for administering a state's Public Trust responsibilities. By creating such a framework, state managers may also integrate private conservation efforts into a comprehensive management scheme.

The best way to test the extent that state or Federal policy will allow conservation leasing of submerged lands is for groups to apply for leases. State agencies for submerged lands tend to be reactive; when they encounter a new proposed use, they will begin to address it. Hence, if a lease application for conservation purposes is received, the agency will assess internally if and how their policies do or do not allow them to act. Indeed, formal applications and internal agency policy review could spark useful consideration of the current balance among existing uses in light of Public Trust Doctrine mandates.

The selection of sites and the use of all tools for marine conservation and management should be guided by overarching management plans that recognize the regional ecosystem context of marine resources and diversity. Increasing demands and impacts on the marine environment challenge managers to find innovative ways to conserve its rich resources. Thus, leasing and ownership should be considered as useful additions to the toolbox for marine conservation and management to address increasingly significant threats to the nation's marine habitats.

The full report of "Towards Conservation of Submerged Lands: The Law and Policy of Conservation Leasing and Ownership" is available by contacting Rhode Island Sea Grant at 401-874-6842 or in pdf format at <http://www.rwu.edu/pdf/law/sublandsrpt.pdf>.

¹ The Commission Report is available at www.oceancommission.gov.

² Visit The Nature Conservancy's Global Marine Initiative at: <http://nature.org/initiatives/marine/>.

³ Beck, et. al., New Tools for Marine Conservation: The Leasing and Ownership of Submerged Lands, Conservation Biology 18: 1214-1223 (2004).

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CHARTING A NEW COURSE: Shaping Solutions for the Coasts

The Coastal Society's 20th International
Conference

May 14-18, 2006

St. Pete Beach, Florida

TCS 20, the Society's 20th International Conference will present a solution-based conference experience: learning and sharing information, success stories and challenges, and exploring the interface among scientists, policy-makers, coastal managers and the public.

TCS 20 will focus on thoughtful, innovative solutions or case studies that can serve as platforms for learning and discussion among conference participants. Special emphasis will be given to issues facing Florida's coastal areas. Specifically, TCS 20 is calling for papers, posters, and proposals that:

1. Provide scientific information relevant to solving contemporary coastal problems;
2. Integrate science, management, and policy towards changing behaviors; and,
3. Present questions or case studies that allow for dialogue, learning, and solution-sharing.

To complement the TCS 20 Theme of Innovative Solutions, the conference will be organized within the following tracks:

Solutions for Land Use Challenges

Solutions for Governing Ocean Use
Conflicts

Solutions for the Effective Integration of
Science

Solutions for Changing Behaviors:
Professionals & the Public

Solutions for Mitigating Coastal Natural
Hazards

ABSTRACTS ARE DUE SEPTEMBER 23, 2005

**For more information or to serve on the TCS
20 Planning Committee, contact Judy Tucker
at coastalsoc@aol.com.**

Visit the TCS 20 Conference Website at:
<http://www.thecoastalsociety.org/conference/tcs20/>



Tsunami Update continued

responses to the devastation caused by the 26 December 2004 Indian Ocean tsunami; a linkage from Canadian coastal managers to their counterparts on Thailand. This article brings the status of coastal management in regional tsunami response up to date. Following this status report, the overall role of coastal zone management (CZM) in the tsunami response will be addressed within the context of emerging initiatives at both the international and national levels.



Lupung Bay, 25km SW from Banda Aceh, Indonesia. The foreground shows the remains of a mangrove stand. Note the tsunami 'scarp' on the cliffs in the background. The maximum tsunami run-up was between 30-35m here. Around 500 people survived from an estimated 8,000 residents in the former fishing village. Survivors are currently housed in a camp of constructed barracks and tents.

Photograph Courtesy R. Kay March 2005

By-and-large the potential central role of CZM in the regional tsunami response has not eventuated. This is not to say that CZM won't play a critical role in long-term recovery efforts (one emerging function is a focus on coastal ecosystem rehabilitation), it is that the potentially integrative role that CZM could have played has not occurred. Rather, the response and recovery efforts have used mainstream disaster management approaches. The tsunami appears to have been viewed as a disaster that occurred on the coast, rather than a critical CZM issue that was a disaster. While this is a clearly an overly black and white way to describe the situation, it is useful for the purposes of discussion here. This parallels an emerging debate in the international development community regarding the relative role of economic development / poverty alleviation versus reconstruction / rehabilitation in tsunami-affected regions.

Key factors that have worked against CZM being mainstreamed into tsunami response to date are the:

Pressure to re-build tsunami-affected areas as quickly as possible, both to re-house local people and to encourage tourists to return.

Often competing agendas of donors to promote rapid redevelopment on one hand, while promoting sustainable development on the other (combined with the sheer complexity and scale of the international relief effort).

Perception that CZM is about ecosystem management and not about land-use planning, tourism management, hazard management, urban development or sustainable livelihood promotion.

Difficulties faced by donors and national governments in obtaining international CZM expertise quickly and effectively.

Procurement processes faced by tsunami-affected countries that are tied to the many different needs and systems of releasing funds by donors.

Problems with engaging with local-level coastal managers charged with making on-the-ground land-use planning decisions.

In all likelihood, given the time that has already passed since the disaster and the current landscape of emerging response activities with a three to ten year timeframe, CZM will play a niche role, but a vital one at that. For example, there have been a number of well-considered documents that seek to guide the role of CZM in response efforts, including the "Principles for Affected Nations and Supporting International Institutions for Post-Tsunami Rehabilitation and Reconstruction" developed jointly by a number of international organizations. These Principles are currently rippling through the international community (driven by the United Nations Environment Programme) with a view toward national-level implementation.

There are a plethora of coastal management projects and initiatives quickly turning into on-ground action. These range from broad policy and capacity-building projects at a national and international level, through regional planning, to specific local environmental rehabilitation proj-



ects (with a focus on mangrove and coral reef ecosystems). These projects either are labeled specifically as



House lot pegged for reconstruction the devastated fishing village of Ban Namkem (Thailand, Phang Na province) (March 2005). The sign contains contact details for the lot owner. Interviews with those charged with reconstruction here revealed that the Thai Prime Minister Thaksin Shinawatra visited the site days after the disaster (during an election campaign) saying he would return in three weeks to inspect new building foundations being built. This kind of decisive action was widely applauded domestically and overseas. The buildings in the background have all being re-built since the disaster.

Photograph Courtesy R. Kay March 2005

CZM or are broader projects with a CZM component. For example, in Aceh the estimated expenditure on CZM initiatives is US\$15 million over the next 5 years within the context of US\$230 million estimated to be required for environmental and ecosystem rehabilitation overall (including waste management, mangrove and coral rehabilitation and adapting resource-based livelihoods to change). However, due to the complexity of the situation, exacerbated by the sheer number of provincial government officials killed or traumatized by the tsunami, it will still be months before meaningful CZM measures emerge. There are very marked differences in the relative coastal management responses of the affected nations, determined by a wide range of factors, not the least being access to capital and expertise. To be meaningful, comparative analysis between CZM responses in the affected countries will need to examine efforts both by sector (fisheries, land-use planning, ecosystem rehabilitation and so on) and by geographic scale (international, national, provincial/state, local and village). There is little evidence to date that such comparative analysis is taking place in a way useful to on-the-ground coastal managers charged with response efforts.

Those attending the CZ 05 conference in New Orleans (17-21 July 2005) will be able to examine the Indian Ocean tsunami from the perspective of what lessons can be drawn for coastal managers in tsunami-risk areas of the world through a special dialogue session. I will be facilitating this session jointly with Michael Ashby (NOAA Research, Office of International Activities) and Jim Good (Consultant and Marine Resources Management Program, Oregon State University). The session will specifically address the challenges facing the tsunami-affected areas in the Indian Ocean and will discuss what the international CZM community can contribute. The session will also draw out lessons for coastal managers working in tsunami prone regions in Canada and the USA. I look forward to

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Web links to the sources of information drawn from in this article are available from <http://www.coastalmanagement.com/tsunami.html>



TCS HAPPY HOUR IN NATION'S CAPITAL

On May 4th, D.C. area members of The Coastal Society and others interested in learning more about TCS gathered at the Gordon Biersch Brewpub to celebrate spring, enjoy interesting conversation and malt beverages, and mingle with new and old colleagues. Nearly 60 people were on hand to see President Paul Ticco and Board member Ariel Cuschnir, Chair of the Publicity/Outreach Committee, welcome new faces and old, and talk about both the benefits of a TCS membership and the future of the organization (which future includes both the May 2006 conference in St. Petersburg, FL and potential new student chapters for the Maryland, DC and Virginia area). Similar events will be held in the future, so please be sure to check your e-mails. Many thanks to Adrienne Harris for organizing this enjoyable get-together.



Present NOAA/TCS Internship

The National Oceanic and Atmospheric Administration and TCS announce the 2005 recipient of the internship award established in 2004. Mr. Jeff Smith began interning in NOAA Fisheries with the Office of Habitat Conservation's Habitat Protection Division in Silver Spring, Maryland in late May 2005 and will continue into the fall. Using his undergraduate degree in business from Wake Forest and his Masters of Environmental Management from Duke University, Mr. Smith will work on a mix of tasks that use his diverse background.

Upon being selected, Mr. Smith said, "I am very excited to have the opportunity to contribute to solutions for habitat conservation issues that I have studied in my academic career and are at the forefront of marine habitat conservation efforts in the United States. This internship is an incredible opportunity as a recent graduate to learn about pressing issues, meet resource professionals, become familiar with the federal fisheries management framework, and continue my work on marine habitat conservation solutions. TCS and the NOAA Fisheries' Office of Habitat Conservation have done a great job in providing this opportunity to TCS members."

The Office of Habitat Conservation has arranged a busy internship for Mr. Smith, with four major tasks:

1. Contribute to NOAA efforts to develop a strategy for community-based habitat protection, including adapting lessons learned from other agencies, comparing options to our needs, and proposing options for future action.
2. Participate in office efforts to clarify the ecosystem-based approach to resource management, with an initial emphasis on commercial and recreational fisheries.
3. Apply experience with habitat protection at the state level to scientific, policy, and management tasks being handled by the Essential Fish Habitat Team, especially in preparation for reauthorization debates on the Magnuson-Stevens Act and specific discussions on EFH implementation.
4. Develop an outline for a strategy to establish more meaningful partnerships with industry and environmental groups whose actions often affect public trust resources.

Tom Bigford, TCS Board member, also voiced satisfaction with the internship program and the position established

for Mr. Smith. Mr. Bigford noted that "we had a very strong competition among 11 candidates, with strong representation from graduate programs at universities with TCS Student Chapters. It was heartening to hear from so many TCS student members and to be reminded of how important these types of internship programs are."

TCS strongly encourages other agencies or private-sector organizations to offer similar opportunities to TCS members who are beginning their careers.

Past NOAA/TCS Habitat Internship: A Remarkable and Rewarding Experience

The National Oceanic and Atmospheric Administration (NOAA) and The Coastal Society (TCS) developed a joint NOAA-TCS Habitat Internship in which young professionals gain experience while advancing their careers in the marine resource management field. I was selected as the first NOAA-TCS intern, with my term commencing in September 2004 at NOAA's National Marine Fisheries Service (NMFS), Office of Habitat Conservation in Silver Spring, Maryland. The NOAA-TCS internship was a remarkable opportunity for me to utilize both my science and policy backgrounds while working on a variety of timely issues related to marine habitat conservation.

One of my initial tasks as an intern was to co-author a report on the environmental impacts of shellfish aquaculture. Shellfish aquaculture ventures have often been regarded as environmentally-friendly operations that provide an ecosystem function (e.g., water clarification) while providing economic value to society (e.g., jobs and harvest revenue). However, the impacts of shellfish aquaculture operations on the benthic and pelagic environments have typically been overlooked; it is becoming increasingly important to address these habitat modifications. Writing this report enhanced my knowledge of the environmental impacts of shellfish aquaculture ventures, clarified the regulatory aspects of siting and operating shellfish aquaculture facilities, and provided me with an understanding of shellfish-growing techniques that can be used to minimize environmental effects on marine and estuarine habitat.

Another one of my primary tasks included drafting outreach documents and developing website content that



describe tools and resources used in implementing "living shoreline" habitat protection and restoration projects. A "living shoreline" is a shoreline management practice that minimizes coastal erosion while protecting, restoring, enhancing, and/or creating natural shoreline habitat in low to medium-energy environments. This project gave me the opportunity to learn the "living shoreline" technique, how and where it is constructed, monitoring and maintenance activities administered, and the regulatory environment governing shoreline stabilization in each coastal state. Laws, regulations, and applicable permits differ among states, and it was educational to examine the extent to which each coastal state promoted non-structural and living shoreline stabilization techniques over hardened structures that often result in increased coastal erosion.

An excellent opportunity arose mid-way through my internship that allowed me to review the content and validity of existing policy statements written by the American Fisheries Society (AFS). Topics reviewed in these policy statements pertained to sedimentation, cumulative effects of habitat modification, altered stream flows, threatened and endangered species protection, construction and operation of oil and gas pipelines, aquatic species introductions, tidal power development, transgenic fishes (i.e., fish bearing introduced genes), ballast water introduction, and the conservation of imperiled species. The wide range of policy statements provided an opportunity to analyze important pieces of Federal legislation including the Clean Water Act, Coastal Zone Management Act, Magnuson-Stevens Act, Endangered Species Act, and the National Invasive Species Act.

An especially interesting part of my internship involved work on revising economic statistics of the importance of estuaries to commercial and recreational fish species. Nationwide and regional landings data were gathered by both weight and value for all commercial and recreational fish species that use estuaries for any stage of their life cycle. The result was a regional and nationwide breakdown of the percent weight and value of estuarine use by commercial and recreational species, which will be published in an upcoming journal article. These figures are significant because they represent the importance of healthy estuarine habitat to harvestable commercial and recreational fish in U.S. waters.

The timing of my internship coincided with NMFS efforts to respond to a petition submitted by Oceana that called for immediate rulemaking to protect deep-sea coral and sponge habitat from the impacts of bottom-tending mobile fishing gear, i.e. bottom trawlers. In this arena, my duties included organizing public comments submitted during two public comment periods, as well as drafting sections of the Federal Register notice that responds to requests in the Oceana petition. This experience enhanced my knowledge of deep-sea coral and sponge communities and provided me with the opportunity to work with the Federal Register rulemaking process, which will be highly valuable to me in the future as I continue to work in the marine resource management field.

Throughout my internship I was given the opportunity to attend workshops, including a technical workshop on the impacts of non-fishing activities to coastal fishery habitat, a "Mitigation Calculator" workshop that provided information on a standardized approach for estimating wetland mitigation ratios, and a workshop on linking hydrological change and ecological response in streams and rivers of the eastern United States. These were highly beneficial and not only provided me with valuable information on key topics in my field, but also offered chances to meet colleagues and learn about important issues around the country.

This internship gave me a remarkable opportunity to apply my knowledge of laws and regulations, gained in graduate school to real issues in marine resource management. I want to thank Tom Bigford and the rest of my coworkers in the Office of Habitat Conservation for taking the time and effort to ensure that my internship was a rewarding and successful experience. I feel very fortunate to have worked with such an incredible group of devoted and hardworking colleagues, dedicated to marine habitat conservation!

Kimberly Lellis is a Marine Habitat Resource Specialist in NOAA's National Marine Fisheries Service, Office of Habitat Conservation. Kim continues to work on marine habitat conservation issues, including living shorelines, deep-sea corals, estuarine-dependant species, and non-fishing activities that impact essential fish habitat. Kimberly.Lellis@noaa.gov





NEWSNOTES

World's First Wave Power Plant Set for Portuguese Coast:

The world's first commercial wave-farm to generate renewable electricity from ocean waves is in the works. Ocean Power Delivery, a company based in Edinburgh, Scotland, recently signed a contract with a Portuguese consortium to build the first phase of the project. This initial phase will consist of three Pelamis P-750 Wave Energy Converters located five kilometers off Portugal's northern coast, near Povoia de Varzim. These converters take the movement of the ocean and convert it into electricity. The project will have an installed capacity of 2.25MW and is expected to meet the average electricity demand of more than 1500 Portuguese households while saving more than 6000 metric tons per year of carbon dioxide emissions from conventional generating plants. <http://www.ens-newswire.com/ens/may2005/2005-05-04.asp>

NOAA Issues 2005 Hurricane Season Outlook:

The National Oceanic and Atmospheric Administration (NOAA) hurricane forecasters are predicting another above-normal hurricane season on the heels of last year's destructive and historic hurricane season. "NOAA's prediction for the 2005 Atlantic hurricane season is for 12 to 15 tropical storms, with seven to nine becoming hurricanes, of which three to five could become major hurricanes," said retired Navy Vice Adm. Conrad C. Lautenbacher, Ph.D., NOAA administrator at a news conference. "Forecaster confidence that this will be an active hurricane season is very high." NOAA's Atlantic hurricane outlook reflects an expected continuation of above-average activity that began in 1995. Since that time all but two Atlantic hurricane seasons have been above-normal. Hurricane season starts on June 1 and ends November 30.

In contrast to the Atlantic, a below-normal hurricane season is expected in the Eastern and Central Pacific. NOAA's outlook for the Eastern Pacific hurricane season calls for 11-15 tropical storms, with six to eight becoming hurricanes of which two to four may become major hurricanes. Two or three tropical cyclones are projected for the Central Pacific. <http://www.noaanews.noaa.gov/stories2005/s2438.htm>

CHOW:

Capitol Hill Oceans Week (CHOW), an annual event, took place in Washington, D.C. during the first week of June. A forum for discussing important ocean and coastal issues on Capitol Hill, this series of events has become an opportunity for education and the exchange of ideas. This year's activities included several days of symposium featuring topics such as natural disaster prediction and preparation, wetlands restoration, aquaculture, oceans and human health and marine transportation. Panel speakers included members of Congress, as well as representatives of the federal and state government, industry, academia and nonprofit organizations. While events too numerous to list took place, a representative selection is described below:

The Russell Senate Office Building's Caucus Room was the setting for the June 6th presentation of the Senator John H. Chafee Coastal Stewardship Award to Admiral James D. Watkins, Chairman of the U.S. Commission on Ocean Policy. The ceremony was well attended by a number of Ocean Commissioners, members of Congress, and several leaders in the field of coastal and ocean management and policy. Following remarks by James L. Connaughton, Chair of the Coastal America Partnership; renowned marine biologist and ocean explorer Dr. Sylvia Earle; and Dr. Paul Sandifer, Commission Member and NOAA Senior Scientist, Admiral Watkins was introduced by Senator Ted Stevens (R-AK) who extolled the Admiral's leadership in guiding the 16 Commission members through three years of hearings, meetings and public comment sessions around the country to produce the first comprehensive examination of the status of our coasts and oceans since the 1969 Stratton Commission. Admiral Watkins thanked the Commissioners for their excellent work and dedication, and stated that he believed that the "pieces are now in place" throughout Congress, federal agencies and other critical organizations to make a "true difference" in helping to protect and preserve our coastal and marine resources. The award is named after the late Senator John H. Chafee (R-RI) who, among other accomplishments, was a principal voice in crafting the 1980 Superfund Program and Clean Air Act Amendments of 1990; lead successful efforts to enact oil spill prevention



and response legislation; was a long-time advocate for wetlands conservation and open space preservation; and was the recipient of every major environmental award. Today, a national wildlife refuge, national heritage corridor, a U.S. Navy destroyer, and an oceanographic research vessel for the state of Rhode Island all bear his name.

The 30th Annual NOAA Fish Fry was held on a muggy June evening at the Main Commerce Building and the National Aquarium in downtown Washington, DC. As attendees feasted on Alaskan crab legs, aquacultured oysters from Maine, and a host of freshly prepared seafood from around the country, they enjoyed live music and the company of hundreds of colleagues. NOAA Administrator Vice Admiral Conrad C. Lautenbacher and other NOAA leaders joined several Congress members and the general public in learning about - and dining on - aquaculture and sustainable marine fisheries.

On the same tropical evening, June 8th, "An Evening for the Ocean" press conference and reception was hosted by Island Press at the National Press Club. Part award ceremony, part panel discussion by authors of several new books about the ocean, the evening also featured a number of somewhat upbeat press announcements by national and international environmental organizations. While most were pronouncements from well-known, long-established organizations, 3 high school students were present to describe a youth-based ocean conservation campaign that they had launched, "Ocean Revolution." Congressman Sam Farr spoke about action (and inaction) in the halls of Congress. The first ever "Global Ocean Conservation Award" was bestowed upon Carlos Manuel Rodriguez, Costa Rican Minister of Environment and Energy, for his extraordinary efforts in advancing marine conservation in his country. Speaker/authors included Sylvia Earle, Elliot Norse, Larry Crowder, David Helvarg and Linda Glover. During the reception that followed, attendees had an opportunity to chat with the panelists. <http://www.nmsfocean.org/CHOW2005>

M E M O

TO: **All TCS Members Attending CZ05 in New Orleans**

FROM: **TCS/International MPA Workshop**

SUBJECT: **Low Key/High Fun Party**

If you are coming in early enough to CZ05, you are invited to a reception on Sunday July 17, 7-10pm!

TCS and partners are co-hosting a reception on Sunday evening at a festive location not far from the conference hotel in New Orleans and you are invited. TCS is partnering with the International MPA workshop, "Establishing Networks of Marine Protected Areas," for a bit of hospitality "Nawlins" style to network with our international colleagues, young professionals and students. A low key, high fun event not to be missed. **A hard copy invite will need to be presented at the door to gain entrance** to this coastal fest. Dancing shoes optional.

To request your hard copy invitation by no later than July 6, and to RSVP, (your RSVP will ensure we order food a-plenty to go around), please EMAIL to the following with your full name and address: <coastalsoc@aol.com>

The reception invitation will be sent to you to facilitate your entrance to the event. Tickets are also available for purchase for friends and family who are not TCS members. Please inquire with the request for invite for the particulars. **DON'T MISS IT!**



NATIONAL MARINE EDUCATORS CONFERENCE

July 11-16, 2005, Maui, HI
<http://www.hawaii.edu/mcc/oceania/NMEA05TS.html>

COASTAL ZONE 05

July 17-21, 2005, New Orleans, Louisiana
CZ05 will focus on balancing the issues and interests of land and sea. With over 1,000 participants expected from all over the world, this conference promises to provide valuable tools, lessons learned, and new ideas to help address the coastal management issues we're all facing. <http://www.csc.noaa.gov/cz/>

AMERICAN FISHERIES SOCIETY 135TH ANNUAL MEETING

Sept. 11-15, 2005, Anchorage, Alaska
"Creating a Fisheries Mosaic: Connections Across Jurisdictions, Disciplines and Cultures."
<http://www.wdafs.org/Anchorage2005/index.htm>

DUNES & ESTUARIES 2005

September 19-20, 2005, Casino Koksijde, Belgium
<http://www.vliz.be/de2005/>

OCEANS 2005 MTS/IEEE

September 19-23, 2005, Washington, DC
A major forum for ocean scientists, engineers, industry end users and suppliers, technologists, educators and researchers, policymakers, and the public throughout the world to present their latest research results, state-of-the-art technologies, future concepts, and innovative ideas to their peers and many others who are involved in the future of our "One Ocean." <http://www.oceans2005.org>

INTERNATIONAL CONGRESS OF SEAS & OCEANS

September 20-25, 2005, Szczecin-Swinoujscie, Poland
<http://www.wsm.szczecin.pl/iirm/kongres/index.htm>

THE FIRST INTERNATIONAL MARINE PROTECTED AREAS CONGRESS

October 23-27, 2005, Geelong, Australia
<http://www.impacongress.org/>

SUSTAINABLE BEACHES CONFERENCE

October 31-November 2, 2005, St. Petersburg, FL
The Clean Beaches Council will host the second annual Sustainable Beaches Conference on October 31-November 2 in St. Petersburg, Florida. The goal of the 2005 conference is to build and expand upon networks and to continue to inform citizens and professionals about the importance of keeping America's beaches safe, healthy, and sustainable. <http://www.cleanbeaches.org/events/summit/2005/>

2005 CANADIAN COASTAL CONFERENCE

November 6-9, 2005, Dartmouth, NS, Canada
<http://www.ccc2005-ccl2005.ca>

URBAN WATERFRONTS 23: GATHERING BY THE WATERS

November 11-12, Savannah, Georgia
23rd annual international conference of the Waterfront Center
<http://www.waterfrontcenter.org/conference/index.html>

MARITIME HERITAGE EDUCATION CONFERENCE

November 18-20, 2005, Norfolk, VA - The conference brings educators together to promote the sharing of maritime heritage education partnerships, programs, and products. <http://www.sanctuaries.noaa.gov/education>

1ST INTERNATIONAL CONFERENCE ON COASTAL ZONE MANAGEMENT AND ENGINEERING IN THE MIDDLE EAST

November 27-29, 2005, Dubai, United Arab Emirates
<http://www.arabiancoastlcom/>



CHAPTER NEWS

Cascadia

TCS Cascadia Chapter co-sponsored the Winter meeting of the Shoreline/Coastal Planners Group in Olympia Washington, April 21st, where the theme was "The Intersection of Science and Policy: Applying "Best Available Science" to Land Use and Resources Management." Chapter President Bob Goodwin co-chaired the meeting with Cascadia member Doug Canning, Washington Department of Ecology. Other sponsors were Washington Sea Grant Program, and Padilla Bay National Estuarine Research Reserve.

Meeting agenda and speakers' presentations may be downloaded at the S/CPG web-site:

http://faculty.washington.edu/goodrf/cpg/cpg_last.html

The Spring meeting is scheduled for June 23rd at Padilla Bay NERR, Mount Vernon, Wash. with the topic, "Puget Sound Near-shore Ecological Functions." A summer field trip is planned to Seahurst Park, Burien, Wash. where a Puget Sound beach and near-shore zone has recently been rehabilitated and a failed gabion seawall removed. All members are welcome to attend. There is no fee. To register, contact Doug Canning at: dcan461@ecy.wa.gov

University of Washington

The TCSUW chapter was involved in several events during the last quarter of the academic year. We co-sponsored a panel presentation and discussion regarding the clean-up of the Duwamish River Superfund site, a five-mile stretch of river listed by the U.S. EPA in South Seattle. The chapter also co-sponsored the Fisheries and Marine Ecosystems (FAME) Graduate Student Conference during April at Bainbridge Island near Seattle.

<http://students.washington.edu/tcsuw/FAME/index.htm>

Two chapter members chaired this conference, and several others presented their research on multidisciplinary topics in marine and coastal science and management. These members were joined by over sixty students from across the U.S. and Canada. The Cascadia Regional TCS Chapter generously donated to this conference. We also continued to host "Blue Drinks," a monthly gathering for students, alumni, and area professionals interested in water related issues. And, finally our chapter finished off the academic year by electing our new officers. We welcome Jennifer Kassakian (President), Morgan Schneider (Vice President), Jessica Quinn (National

Liaison), Sarah McAvinchey (Treasurer), and Emilie Jackinsky-Horrell and Carrie Byron (Executive Board). Many thanks to our out-going officers and everyone who supported us this year.

University of Rhode Island

After successfully getting the University of Rhode Island (URI) chapter up and running, outgoing President Mike Conathan and Vice President Carissa Lord finished their Marine Affairs degree programs at URI. Thanks to them, the RI chapter is off to a great start and has already formed a strong informal lecture series that brings professionals from coastal fields back into the classroom to network with current students. Newly elected officers Austin Becker (Pres.), Dawn Kotowicz (VP), and Tiffany Smythe (Treas.) have plans to further develop membership in the URI chapter and continue the work of building partnerships with other organizations in the region. In addition, they hope to create new funding opportunities that will assist current student members in publishing their work and attending conferences. The TCS Rhode Island chapter welcomes new members! Please feel free to contact Austin Becker at Austin_Becker@crc.uri.edu.

JULY TCS SEMINAR WASHINGTON, DC

Marine Protected Areas and Sustainable Development: Lessons Learned and Opportunities Sought

Dr. Ariel Cuschnir, Louis Berger Group, Inc. and
Dr. Paul C. Ticco, Coastal States Organization

Thursday, July 14th, 12:15 - 1:15 pm
pizza provided by the Louis Berger Group, Inc.

At: The Louis Berger Group, Inc.
2300 N Street, NW, 8th Floor,
Washington, DC 20037 (in the conference room).

By Metro: Red Line to Dupont Circle, then a 4 block walk or Orange/Blue Line to Foggy Bottom, then a 3.5 block walk

If you plan to come, please RSVP to
coastalsoc@aol.com

This is the second in a series of talks on topics of interest to TCS members. **Everyone is welcome**



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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: ___ \$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.