



## Words of Wisdom: a TCS Visionary, Our First President

by Thomas E. Bigford & Rebekah R. Padgett

How does an economist with the Federal Reserve Board in New York City morph into a data manager with the Atomic Energy Commission in Washington, D.C. and then go on to found The Coastal Society and become its first president? It's an interesting story. The central character is "93 going on 40," as he tells it, and clearly he is still working on the final chapters of his interesting book. We ventured to Vancouver, Washington on a gorgeous late summer day to piece this story together. Our primary mission was to learn how M.H. "Herb" Schwartz converted his concept of a strong coastal voice into reality, designing a society to provide balance in the coastal fringe too-often ignored by established organizations such as the Marine Technology Society and the American Littoral Society. It would have been perfect if Herb could have joined eight other past TCS presidents who assembled in Wilmington, North Carolina during TCS 22 for a retrospective reunion. But his traveling days are over. Hence, we went to him—and it was well worth the effort. It's rare to spend time with a visionary, especially one who has proven so vital to our cause and, for many of us, our careers.

Herb is vibrant, with unusual energy and clarity for someone half his age. Sharp is an understatement. We spent nearly three hours with the gentleman, and only bid farewell because he wanted time to prepare for his weekly lunch discussion on current events with 11 friends. That was when he gave one of us (TB) his latest issue of "Global Governance - A Review of Multilateralism and International Organizations." The month was three-days old but we weren't surprised that he had already

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## North Carolina Coastal Federation Lockwoods Folly Low Impact Development (LID) Projects, Brunswick County, NC

by Tracy Skrabal

It's fair to say that some of the folks who live along the Lockwoods Folly River in Brunswick County, NC are a little crazy. Specifically, the residents of Winding River and River Run Plantation neighborhoods are crazy--about clean rivers and sounds, native plants, and healthy oysters and fish. Because of their passion for the environment, these residents were the perfect partners for the North Carolina Coastal Federation's Low Impact Development (LID) Project in the Lockwoods Folly watershed.

Polluted stormwater runoff is the number one source of surface water pollution in North Carolina. Traditional development patterns have long approached stormwater management as a drainage problem, with neighborhood designs most often moving stormwater runoff directly to ponds, or through pipes and curb/gutters, ultimately dumping partially treated or untreated polluted runoff into the closest streams or creeks. LID projects encompass a wide range of new and retrofit development practices which are designed to protect water quality, while still achieving residential or commercial development goals. Unlike traditional practices, neighborhoods that incorporate LID measures focus on "disconnecting" the runoff from houses, parking lots and streets. Instead of sending it directly to the nearest stream, LID design encourages this rainwater to flow over and through vegetated swales, and into rain gardens or wetlands, allowing the polluted water to be absorbed by the plants, and soak into the ground, where it can be cleaned by the soil and plants.

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Dear TCS Colleagues,

I find myself in the same position Jeff Benoit was at this time in 2010 - having a hard time believing that two years have flown by this fast, and that this is my last letter to you as TCS President. I'm grateful to have had the opportunity to lead TCS. Being a part of this organization has been a rich, rewarding experience - one I shall always remember. It's been two years filled with challenges and inspiration, as I've watched (and learned from) our volunteers, who work to keep our organization strong and vibrant. TCS continues to make strides, move forward, and to be of service to the coastal management profession and coastal communities, and it's because of our dedicated volunteers who show every day that they love TCS. I thank them for sharing with us their energy and passion for the coasts.

I'm happy to note some of TCS' achievements over the past two years, as they are representative of our mission. From the successful TCS 23 conference to the TCS-Taylor & Francis Sponsored Activities Program, upcoming TCS Special Issue of the journal Coastal Management, the Coastal Resource Recovery Fund and the launch of our first annual giving campaign, I'm reminded of how well we've maintained our commitment to addressing emerging coastal issues by fostering dialogue, forging partnerships, and promoting communications and education. I'm proud that TCS also has maintained its commitment to leadership training and student mentoring. I'm glad TCS has been able to make contributions in this regard.

Thank you for allowing me to represent you these past two years. The experiences I have gained will carry me forward, both professionally and personally. I cannot thank enough the Board of Directors, Executive Committee, and Committees for their efforts. I've had the pleasure of working with a fantastic team, and their leadership sets a good example for us all, especially for our emerging leaders. Speaking of which, I also wish to thank the many leaders and members of our TCS Chapters. If their dedication to their chapters is any indication, the future of our profession and the TCS community looks bright. Finally, thank you to the Taylor & Francis Group for their continued support of TCS. Our partnership with them has resulted in many positive outcomes, and I'm excited about what we can achieve together in the future.

Please join in welcoming our new Board members and new President-Elect. I look forward to working with them and incoming President Kate Killerlain Morrison, as I transition to my role as Past-President. I also wish to thank the following Board members, who will complete their terms at the end of 2012, for their service to TCS: Susan White (Director), Bhaskar Subramanian (Director), Patrick Lawrence (Director), Chris Ellis (Secretary) and Jeff Benoit (Past-President). It's been a pleasure working with them, and I wish them the best in their future endeavors.

Regards,

*Lisa Schiavinato*

Lisa Schiavinato  
TCS President



Green Turtle Photo credit: [www.freeunderwaterimages.com](http://www.freeunderwaterimages.com)

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



As so many have found in both the public sector and private, in the professional world and in the personal arena, this has been a year for “tightening belts.” The Coastal Society has also faced the need to reduce costs, and, among other measures, is producing 1 less Bulletin in 2012. So this is the 3rd and final issue of the year. However, TCS Communications Committee is hard at work developing other means of sharing information that may provide members with even greater resources, so stay tuned for updates in 2013! The membership survey, summarized in this issue by Patrick Lawrence and Chris Ellis will help guide the Committee as they work to enhance communications.

If you haven't already read the interview with TCS founder and first president that begins on the front cover, you're missing an insightful glimpse into our history. TCS members Tom Bigford and Rebekah Padgett visited Herb Schwartz, both to present him with a very special award and to find that he still has a few lessons to teach us.

Also on the cover of this issue of the Bulletin is the story of a special community effort to reduce nonpoint source runoff into an estuary—an endeavor that TCS helped to fund. This project was a continuation of the Society's interest in playing a role in coastal resource protection work, initially prompted by Hurricanes Katrina and Rita. In 2006, at TCS 20 and after it, we fundraised and then helped sponsor coastal restoration projects in hard hit communities on the Gulf Coast. At TCS 22, the Society raised charitable funds and invited organizations involved in conference field trip destinations, as well as the North Carolina Coastal Federation (NCCF) to propose projects. The NCCF project for which the Society provided some funding has implemented stormwater reduction best management practices to provide a buffer to an adjacent estuary.

And since the end of October marked the 40th anniversary of the Coastal Zone Management Act (CZMA), we've got a brief article inside. It's hard to imagine what our coasts would look like without the CZMA!

With warmest wishes for a Happy Hanukkah, Merry Christmas, Happy Kwanzaa, Joyous Solstice, Merry Festivus and/or a Happy New Year!

Ellen Gordon  
Bulletin Editor

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Be Sure to Use Your Members' Link to Read the Articles in this Issue

*Coastal and Ocean Science-Based Decision-Making in the Gulf of California: Lessons and Opportunities for Improvement*  
By Sara M Lowell, Tegan C. Hoffmann, Meaghan McGrath, Gia Brazil & Sarah L. Thomas

*Local Expectations for Future Marine Protected Area Performance: A Case Study of the Proposed National Marine Conservation Area in the Southern Strait of Georgia, Canada*  
By Nadine Heck & Philip Dearden

*Comparing Fisher Interviews, Logbooks, and Catch Landings Estimates of Extraction Rates in a Small-Scale Fishery*  
By Kerrie P. O'Donnell, Philip P. Molloy & Amanda C. J. Vincent

*Governance for Sustainability: Insights from Marine Resource Use in a Tropical Setting in the Western Indian Ocean*  
By Maricela de la Torre-Castro

*Response of Commercial Ships to a Voluntary Speed Reduction Measure: Are Voluntary Strategies Adequate for Mitigating Ship-Strike Risk?*  
By Megan F. McKenna, Stephen L. Katz, Christopher Condit & Shaun Walbridge

*Integrating Climate and Ocean Change Vulnerability into Conservation Planning*  
By Elizabeth McLeod, Alison Green, Edward Game, Kenneth Anthony, Joshua Cinner, Scott F. Heron, Joanie Kleypas, Catherine E. Lovelock, John M. Pandolfi, Robert L. Pressey, Rodney Salm, Steve Schill & Colin Woodroffe



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devoured the issue. While he's not creating organizations nowadays, he is also not coasting into the sunset.

This is more than a story of how The Coastal Society started. The mid-1970s heralded an incredible period, when Presidents from both parties signed legislation to conserve water, air, fish, endangered species, coasts, barrier beaches, marine sanctuaries, and more. That era of intense government action certainly helped to inspire Herb. Many of the coastal and marine programs that provided graduate training for TCS members were also established during those formative years. Our society was his idea, influenced by others and entrusted to us.

TCS incorporated in 1975, with Herb's term as President ending in 1976. The concept of a coastal society as advocate dates to conversations Herb had with Theodore Suzia, a friend in the National Park Service's (NPS) Office of the Chief Scientist. The NPS was expanding its fledgling efforts along the coast, with its own vision to protect seashores and lakeshores. Ted LaRoe, another leading biologist in the Department of the Interior, and later a TCS President, also served as a lightning rod for these nascent ideas.

TCS owes part of its genesis to a seemingly random encounter. It was an Atomic Energy Commission (AEC) meeting on computer support of environmental research, a heady topic for the mid 1970s, when not even a pocket calculator had been invented and one computer filled an entire room. The absence of any coastal voice caught the attention of one attendee, our own Herb Schwartz. In a discussion about nuclear power, with many plants located along our coasts, no one was on the agenda representing those coasts. Herb was struck in an ominous way. He had witnessed an important discussion, bemoaned a void in public sentiment, and began figuring out how to address that neglect.

Within months, as Herb tells it, he and his scientific friends from the Department of the Interior were engaged in a long debate about a new organization or society, and whether it should serve as an advocacy group or a scientific society. Herb and Ted LaRoe were on the advocacy side. They envisioned a diverse organization steeped in

expert knowledge, called on by Congress to testify about the coastal issues of the day. The society's members would fill the breach he heard at that AEC meeting. The rest of that first TCS Board saw a society rooted in the sciences. While the scientific charge prevailed at the time, 37 years later TCS has retained its tax-free status by nurturing a unique blend of natural and social sciences, of technical expertise and education, of serving professionals and the public. Herb remains committed to his philosophy from those early discussions. In fact, he was wearing a bolo tie given to him by an AEC colleague who had worked on the first atomic bomb--just another twist in an amazing conversation.

Herb offered us a careful appreciation for how TCS has evolved in the decades since his presidency. The hybrid organization we have come to be is much better than what our nation had in the mid-1970s. We have fulfilled one of his major hopes since "someone had to protect the coast." Why not The Coastal Society? He wishes he could have shared that thanks with those TCS past-Presidents who assembled at TCS22.

He was quick to point out where we have not quite lived up to his expectations, where he feels we

have fallen short of his vision of TCS as staunch coastal advocates. No need to feel poorly though, as Herb has lofty goals and we all are reminded daily that our work is not done yet.

Soon thereafter, as we described the Society that TCS has become, Herb lit up. While we still have a long way to a membership that reflects the ethnic diversity of coastal communities or our nation, we're well ahead of the normal curve on female leaders (7 of our 22 Presidents were/are women, beginning with Evelyn L. Pruitt as our second in 1977). He is excited to hear that we encompass a wide spectrum of practitioners, partnering with a variety of organizations and agencies. He is also impressed with our commitment to students and young professionals and our long history of international conferences. He is proud that TCS hosted the first coastal conference, then partnered



Rebekah Padgett and Tom Bigford present founder and 1st TCS President Herb Schwartz with an honorary lifetime TCS membership.

Photo Credit: John Padgett

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with the Coastal Zone Foundation to craft a plan for CZ meetings in odd years and TCS conferences in even years, and remains strong after our 23rd conference this past summer in Miami.

TCS1 in Arlington, Virginia charged no registration fees. All costs were borne by the Atomic Energy Commission. Now our long history of coastal conferences is challenged by difficult budget times. Coastal Zone 13 is unlikely to happen in 2013, breaking the tradition brokered in the early 1980s. Herb was obviously troubled by that likelihood. Even the 40th anniversary of the Coastal Zone Management Act seems insufficient to muster the financial relief needed to save CZ13. Instead, TCS and other groups are considering regional meetings or other events to maintain the social network that nourishes our work. There's a nice ring of advocacy in those efforts - refusing to surrender, volunteering to do even more, ever hopeful that there will be coastal gatherings in 2013 and beyond.

Our conversation traveled full circle as our visit neared an end. Herb wanted us to know the best chance for our coasts to survive is to nurture a resilience that can withstand political shifts, budget shortfalls, and the inevitable calamity. He sees coasts managed not by government but by nature. Herb told one final story of his time as a trustee and then chair of the Public Education Committee of the National Parks Conservation Association and his role in Maryland, where he counseled then-Governor Parris Glendening to proclaim 2000 as the "Year of Maryland State Parks" and found himself appointed as

the first chair of the Maryland State Forests and Parks Commission, a role created especially for him. He was about 80 at the time. As he told the story, he told us of his hopes to make similar strides in his new home state of Washington. We (RP) offered to help, since she shares a passion for parks and used to be a National Park Service ranger. It was clear that Herb's old energy from the 1970s was reappearing, ready to inspire again.

Our visit ended with a gift. In exchange for priceless memories, we presented Herb with an honorary, lifetime membership in his Coastal Society, signed by President Lisa Schiavinato. Herb joked that he hoped the framed certificate we were about to present was an iPad, but gladly accepted this token and noted that he had a place on his wall where he would proudly display it. Happy to have finally connected with this TCS legend, we left Herb recommitted to our Coastal Society and the broader coastal work that we do every day.

Tom Bigford ([thomas.bigford@noaa.gov](mailto:thomas.bigford@noaa.gov)) has been a TCS member since 1976 and has served as Membership Committee chair and member, Secretary, Executive Director, conference chair, and Bulletin Editor during his membership. He has also hosted a series of TCS members as interns in his office at NOAA Fisheries Service.

Rebekah Padgett ([rpadget7@gmail.com](mailto:rpadget7@gmail.com)) is a 401/CZM Federal Permit Manager at the Washington State Department of Ecology, the agency that implements CZMA in Washington State. She serves on the TCS Board and has served on the Chapters and TCS 23 committees.

## Welcome New Members of the TCS Board of Directors

President-Elect - Gerhard Kuska, Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS)

Secretary - Angie Fredrickson, Port of Seattle

Director - Chris Ellis, NOAA Coastal Services Center

Director - Chad Nelsen, Surfrider Foundation

Director - Brian Smith, NOAA Coastal Services Center

These TCS members bring a unique mix of technical and private sector perspectives, leadership qualities and diverse geographies to the Board of Directors. They will begin their terms on January 1, 2013.



### Blue Carbon Stored in Vegetated Coastal Systems Could be Underestimated

Vegetated coastal ecosystems, such as mangroves, marshes and seagrasses, are an important carbon sink and their destruction increases greenhouse gas (GHG) emissions. A new study estimates that 0.15-1.02 Pg (petagrams) of CO<sub>2</sub> are being released annually from degradation of these valuable ecosystems, resulting in economic losses of \$6-42 billion (US) per year. The study used figures from previous research on: the total global area of vegetated coastal ecosystems (marshes, mangroves and seagrasses), the percentage of these ecosystems being lost per year and the carbon stocks in these habitats that is susceptible to loss. It focused only on the biomass (plant material) and the top meter of sediment as scientific understanding of carbon losses from deep sediment is not yet adequate enough. The analysis suggests that GHG emissions from the conversion of vegetated coastal ecosystems are larger than previously thought. There are several uncertainties around these figures, which are reflected in the wide ranges for the estimates. More research is needed to improve estimates of the amount of carbon stored in these ecosystems, the amount of carbon released into the atmosphere by land conversion, and the geographical location of where carbon loss is occurring most rapidly. <http://www.eucc.net/euccnews/>



Sea Grass Photo credit: Davidwattsjr. ([www.freestockimages.com](http://www.freestockimages.com))

is potentially the largest penalty related to the incident: the company could owe as much as \$21 billion in pollution fines under the Clean Water Act if it is found to have been grossly negligent. Both the government and BP vowed to vigorously contest that issue at a trial scheduled to begin in February 2013.

<http://www.nytimes.com/2012/11/16/business/global/16iht-bp16.html?emc=na&r=0>

### BP Pleads Guilty and Agrees to Pay \$4.5 Billion Fine

The British oil company agreed to pay \$4.5 billion in fines and other penalties and to plead guilty to 14 criminal charges related to the rig explosion two years ago that killed 11 people and caused a giant oil spill in the Gulf of Mexico. The US government said that BP's negligence in sealing an exploratory well caused it to explode, sinking the Deepwater Horizon drill rig and unleashing a gusher of oil that lasted for months and coated beaches all along the Gulf Coast. The company initially tried to cover up the severity of the spill, misleading both Congress and investors about how quickly oil was leaking from the runaway well, according to the settlement and related charges. While the settlement dispels one dark cloud that has hovered over BP since the spill, it does not resolve what



Worker loads oily waste onto a trailer just west of Grand Isle, LA. May 21, 2010. Photo credit: Patrick Kelley, U.S. Coast Guard/Marine Photobank ([www.marinephotobank.org](http://www.marinephotobank.org))

### After Sandy, a Building Debate at Shore

Promises to construct anew give way to questions on development. In the weeks since Sandy wrought nearly \$30 billion in damage in New Jersey, most of it on the coastline, debate has grown over whether rising sea levels and a projected worsening of storms in decades to come mean it is time to begin pulling development back from the ocean's edge. "We need to look at these islands geologically. Some islands you have to move back from; some you might not have to immediately," said Orrin H. Pilkey, professor emeritus of earth and ocean sciences at Duke University. "It's so hard to enforce these things in the climate of sympathy for the victims, but that's when you

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Aerial view of damage caused by Hurricane Sandy to coastal New Jersey  
Photo Credit: Master Sgt. Mark C. Olsen/U.S. Air Force/New Jersey National Guard

have to do it." While such arguments have been made in scientific circles for more than a decade, only now are they entering the political arena. While proclaiming that the Jersey Shore will be rebuilt, NJ Governor Christie has emphasized that careful consideration is required. He has suggested that residents in flood-ravaged areas think twice about whether to rebuild their homes there. In an interview last week, NJ State Senate President Stephen Sweeney (D, Gloucester), who in the weeks since Sandy has been outspoken about not rebuilding in flood-prone areas, said consensus was growing.  
[http://articles.philly.com/2012-11-25/news/35348926\\_1\\_national-flood-insurance-program-barrier-islands-properties-flood](http://articles.philly.com/2012-11-25/news/35348926_1_national-flood-insurance-program-barrier-islands-properties-flood)

#### Sea Snails Show Impact of More Acidic Ocean

The shells of some marine snails in the seas around Antarctica are dissolving as the water becomes more acidic, threatening the food chain, according to a study published in the journal *Nature Geoscience*. The shell of the pteropod sea snail in the Southern Ocean was severely dissolved by more acidic surface water, the researchers from the British Antarctic Survey, Royal Netherlands Institute for Sea Research, the U.S. National Oceanic and Atmospheric Administration (NOAA) and other institu-

tions found. The sea snails are an important source of food for fish and birds as well as an indicator of marine ecosystem health. The researchers examined surface water, where wind causes cold water to be pushed up from deeper water, because it is usually more corrosive to a particular type of calcium carbonate which the sea snails use to build and maintain their shells. "We know that the seawater becomes more corrosive ... below a certain depth which occurs at around

1,000m. However, at one of our sampling sites, we discovered that this point was reached at 200m depth. Marine snails—pteropods—live in this top layer of the ocean," said Nina Bednaršek of NOAA. Climate models forecast more intense winds in the Southern Ocean this century if CO<sub>2</sub> continues to increase, which will make the mixing of deep water with more acidic surface waters more frequent, the study said. This will make calcium carbonate reach the upper surface layers of the Southern Ocean by 2050 in winter and by 2100 all year round, said the study's co-author Dorothee Bakker, research officer at the University of East Anglia.  
<http://planetark.org/enviro-news/item/67213>



Flamingo tongue. Photo credit: www.freeunderwaterimages.com



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In the case of the Winding River and River Run subdivisions, initial design and construction of the area near the community marinas resulted in significant amounts of polluted runoff from neighborhood roads flowing directly down the community boat ramps and into the Lockwoods Folly River, a haven for swimming, fishing, harvesting oysters and clams, and water sports.



Winding River area before LID Project

The Brunswick County projects were led by the North Carolina Coastal Federation, in partnership with the

Although the re-grading and garden areas were shaped by professional contractors, residents from both neighborhoods provided match funding, and all of the “sweat equity” needed to plant a diverse array of plants and shrubs, and later to maintain the gardens in beautiful form. Residents donned chest waders to plant hundreds of native plants in the gardens, and then worked over the next year to pull weeds, add mulch, and add or replace plants. Gardening gurus in each neighborhood worked with the Federation and landscaping professionals to develop a list of native plants that were low maintenance, adapted to the sometimes harsh environment of southeastern North Carolina, and added beauty to the landscape.

Brunswick County Soil and Water Conservation District, the Brunswick County Engineering Department, and the North Carolina Cooperative Extension Service.



The projects are completed and are successful, working gardens, capturing and treating nearly all of the polluted runoff that formerly flowed from neighborhood streets and into the river, via the community boat ramps. While they are known by many visitors as the marina “nature gardens,” they provide examples of how incorporating natural design elements into our neighborhoods can be a beautiful addition to the landscape, and protect or

Working in partnership with expert stormwater engineers, contractors, native plant landscapers and the residents of Winding River and River Run Plantation subdivisions, the North Carolina Coastal Federation developed a strategy to redirect stormwater runoff in the area away from the drainage swales and pipes leading to the river. Instead, limited re-grading of the grounds allowed for rainwater to flow through grassy swales and into one of two large rain gardens, or bio-retention areas that were constructed in each of the neighborhoods.



Winding River Project Completed

The initial design and construction of the naturally vegetated gardens was partially funded through the Brunswick County Soil and Water Conservation District’s Community Conservation Assistance Program, a cost-share program designed to encourage neighborhood projects that restore or protect water quality. Initial funds were also provided through the North Carolina Attorney General’s Environmental Enhancement Program. In addition, The Coastal Society’s Board of Directors provided a donation to the projects, with funds raised during the Coastal Resource Recovery Fundraiser (CRRF) in 2010. This donation provided support for mulch and much-needed native plants, chosen for their low maintenance nature and ability to thrive in the rain garden settings.

Tracy Skrabal ([tracys@nccoast.org](mailto:tracys@nccoast.org)) is a Coastal Scientist and Southeastern Regional Manager for the North Carolina Coastal Federation.



## Three Cheers for 40 Years of the Coastal Zone Management Act

by Louis Cafiero

America was born on the coasts. It is the source of our national strength and economic prosperity. More than half of the nation's population lives on or near the coasts. Each year, millions of people take advantage of coastal resources and of numerous recreational opportunities by going fishing, kayaking, surfing or just jogging along a stretch of sand on America's almost 100,000 miles of ocean and Great Lake coasts. America's coastal regions also account for more than half of the nation's gross domestic product and are economic engines fed by tourism, recreational and commercial fishing, hospitality, and transportation jobs. As coastal experts, many of you already know these facts and more. But what too many people in the US don't know is that a little known law created by Congress in 1972 called the Coastal Zone Management Act (CZMA), is one of the most important coastal accomplishment in the history of the nation. Because of this Act, 34 coastal states now have coastal zone management programs. Over a million acres of coastal habitat has been preserved for research and education. Developers just can't build properties everywhere they want along the coast. States and territories can now manage their coastal resources based on local needs within a national framework of consistent regulations and support. Millions of people now have better access to coastal areas for their own enjoyment. Where would our coasts be without the CZMA?

During the past 40 years, many things have changed along our coasts. Forty years ago, our main coastal concerns might have been about trash and pollution washing up on our shores, about huge factories and oil refineries and overdevelopment looming close to our precious wetlands and about public access to beaches. These issues still concerns us, but

changes in our environment and our climate and the growing need for new energy sources are taking more of a center stage. Now, we have to worry about protecting our coasts from more frequent and more powerful storms. Can you say Katrina, Rita, Irene and Sandy? Sea level rise is beginning to show itself more often in people's flooded basements, in once productive farmlands now suffering from saltwater intrusion, at the fishing pier that has washed away, or in the shore road that has become

impassible. Along our Great Lakes, dropping water levels are now a concern. The US faces many pressing concerns, but as coastal experts, we need to use this opportunity of the CZMA 40th anniversary to raise the volume level to help the public understand why federal, state, local and private partnerships matter, and why decision makers must effectively address the challenges facing our coasts or face further economic disaster. We also need to share success stories and

provide simple and powerful examples of ways to balance our economic needs with prudent habitat conservation. We must also offer people facts, along with possible solutions and a dash of hope. Our coasts need us, we need the coasts, and we need the CZMA now more than ever. Please be sure to check out the Office of Ocean and Coastal Resource Management's video explaining the history and importance of the CZMA. <http://www.youtube.com/watch?v=1HssYjooviQ>



CELEBRATING 40 YEARS  
OF PROTECTING AND ENHANCING AMERICA'S COASTS  
THROUGH FEDERAL, STATE, AND LOCAL PARTNERSHIPS

40th ANNIVERSARY 1972-2012  
COASTAL ZONE  
MANAGEMENT ACT  
Protecting and Enhancing

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## Inside TCS Membership

*By Patrick Lawrence and Chris Ellis*

In May 2012, the Communication and Membership Committees of TCS conducted an online survey of members to solicit their input and views on a number of issues related to current and future initiatives of the society. Links to the web survey were distributed to all current TCS members, with a response rate of 34%. This report is a brief summary of the key results currently under consideration by the TCS Board for possible future actions in reference to strategic planning activities.

In examining the professional career status of respondents, 67% self-identified as having worked in the ocean, marine or coastal management field for less than 10 years. In terms of the coastal regions in which they conduct their work, 48% indicated the east coast of the United States with the next two largest groups located on the west coast or working nationally. Referring to the sectors in which they are employed or work, related to ocean and coastal issues, the largest group were academics and students, at 66% of respondents. When asked what best describes their primary job areas, the following received the most selections: human dimensions/social sciences, coastal zone management, and fisheries management. The members were then asked to rank the coastal issues of most importance to their work with the results indicating that coastal land use and planning, climate change/sea level rise, fisheries and cooperative management (e.g., public/private or federal/state partnerships) identified as the most significant.

In reference to the current benefits provided to members by TCS, the respondents selected the TCS job listings, TCS Bulletin, reduced TCS conference registration fees, and online access to the journal of Coastal Management most often. The members were then provided with a list of suggested new TCS member benefits and ask to rank their importance: an online jobs database, webinars, regional meetings, and leadership/career training received the most votes. In thinking of ideas for future services that TCS should provide to members in the next decade, the results favored white papers on emerging issues, public awareness and outreach, and TCS participating in community-based projects. As TCS works to improve communication with members, the survey asked which communication methods they would prefer; email and the TCS website were the most favored.

The next series of questions focused on the TCS conferences, starting with how many previous TCS conferences

had individuals attended; none was the most common answer, followed by three or more. Regarding potential locations for future TCS conferences, the US west coast, northeast US, and Washington, DC were the highest rated results. When surveyed as to the possibility of TCS organizing regional meetings, 48% were in favor with 38% supporting both national and regional TCS meetings. In order to provide direction to TCS for future programs and activities, the members were then asked to rank twelve current public issues of concern in ocean and coastal resource management and planning. The highest rankings were awarded to climate change, coastal resource uses, and coastal land use/development.

The final set of questions addressed issues associated with the profile of the membership. Of the respondents, 60% had been TCS members for less than five years, with 16% longer than ten years. When prompted as to which TCS activities they had participated in as members: attended a conference (63%), member of a TCS chapter (63%), and attended a TCS sponsored event (54%) were the most common responses. The members were then asked what barriers existed that impacted their ability to be engaged with TCS (besides attending a TCS conference); lack of time and not aware of opportunities were suggested most frequently. In regard to whether they would support an increase in the existing TCS annual membership fee, a \$10 increase received 40% of the vote, with the next highest result--22%--for a \$5 increase. The last question allowed for open-ended comments from the respondents with a total of 19 comments submitted including; support for the TCS conference series, development of regional networking events, continued focus on existing TCS activities while seeking grant or foundation support for new initiatives, future opportunities for career and professional development afforded to TCS members, and for TCS to make every effort to keep costs--including conference fees--affordable for all members. For a copy of the full survey results, members may contact TCS office.

Patrick Lawrence (patrick.lawrence@utoledo.edu), TCS Membership Committee Chair, is Professor and Chair in the Department of Geography and Planning at the University of Toledo, Ohio with research interests in watershed planning, water resources, parks and protected areas, coastal management, and natural hazards in the Great Lakes basin.

Chris Ellis (chris.ellis@noaa.gov), TCS Communications Committee Chair, is a social scientist at NOAA's Coastal Services Center. His interests lie in management issues of coastal and marine protected areas; survey design and implementation; recreation and tourism choice behavior; and social-psychological interaction with the coast.



## Washington State Celebrates CZMA 40th Anniversary

By Rebekah Padgett

This year marks the 40th anniversary of the Coastal Zone Management Act (CZMA), established by Congress on October 27, 1972 to preserve, protect, develop, enhance, and restore the nation's coastal resources. As the first state to establish a federally-approved coastal management program under the CZMA back in 1976, it seemed only natural for Washington members to hold a big bash to mark the occasion.

While we wanted to celebrate the anniversary of this landmark Act, we also hoped to create an opportunity to learn more about the CZMA and Washington's CZM Program from a range of perspectives, and to reflect on challenges faced and opportunities for the future. Attendees mingled and networked while learning about TCS and event sponsors. They also had the opportunity to study a timeline of state CZM programs and National Estuarine Research Reserves from 1972 to present and contribute to a CZMA wordle.

We were honored to have the following regional coastal leaders share their time and perspective with us:

- Patrick Christie, Associate Professor in the School of Marine Affairs and Jackson School of International Studies at the University of Washington, and Editor-in-Chief of the Coastal Management Journal
- Kris Wall, West Coast Regional Coastal Management Specialist, NOAA's Office of Ocean and Coastal Resource Management
- Brian Lynn, Assistant Coastal Manager for the State of Washington
- Patty Charnas, Environmental Programs Manager, Kitsap County Dept. of Community Development
- Fred Felleman kindly stepped in at the last minute for Chad Bowe chop, Manager, Makah Tribal Council's Office of Marine Affairs
- Terry Williams, Fisheries and Natural Resource Commissioner, The Tulalip Tribes

The speakers were not only engaging, but peppered their talks with humor and stories. Patrick artfully facilitated a discussion ranging from the connection between U.S. and international coastal policy to the future of the CZMA, Kris provided background and talked about opportunities for evolution to address new issues, Brian not only

described regional ocean policy and planning efforts but brought a framed copy of the original letter of approval for Washington's CZM Program to share with attendees, Patty transported the group to the Kitsap peninsula momentarily to hear about local challenges, Fred charmed the audience with his wit and raised the topic of the tribal role in management of coastal resources, and Terry described The Tulalip Tribes' steps toward establishing a program under CZMA and the idea of creating a "vision for resilience."



Seated left to right: Patty Charnas, Fred Felleman, Terry Williams, Kris Wall, and Brian Lynn

Speakers were presented with CZMA 40th anniversary commemorative posters—only 500 of these coveted posters were printed by NOAA. The event not only stimulated conversation about opportunities within the current regulatory framework and incorporation of non-regulatory tools, but renewed our commitment to the coast. As we watched attendees drift off into the rainy Seattle night, the enthusiasm was palpable.

Generous support for the event was provided by Coastal States Organization, Washington Sea Grant, UW School of Marine & Environmental Affairs, NOAA, Washington State Department of Ecology, and the UW TCS Student Chapter. The UW Chapter, led by Vice President Gretchen Glaub, graciously handled all of the logistical details.

Rebekah Padgett (rpadgett7@gmail.com) is a 401/CZM Federal Permit Manager at the Washington State Department of Ecology, the agency that implements CZMA in Washington State. She serves on the TCS Board, and has served on the Chapters and TCS23 committees.



#### Can You Hear Me Now? Research and Tools on Ocean Communication

December 13, 2012, 1 PM EST: EBM Tools Network, MPA News, and OpenChannels.org webinar: by Bill Mott, Director and Wei Ying Wong, Communications Project Director, The Ocean Project. <https://www1.gotomeeting.com/register/155176304>

#### 4th International Scientific Conference on Future Energy and Climate Change

December 17-19, 2012, Melton Mowbray, Leicestershire, United Kingdom <http://iscfecc.co.uk/call.html>

#### Sixth Coastal Zone Asia-Pacific Conference

December 17-20, 2012, Chiangmai, Thailand  
<http://coastalzoneasia-pacific.net/>

#### 13th National Conference on Science, Policy, and the Environment: Environmental Disasters: Science, Preparedness, and Resilience

January 15-17, 2013, Washington, DC, US  
<http://www.environmentaldisasters.net/>

#### Gulf of Mexico Oil Spill & Ecosystem Science Conference

January 21-23, 2013, New Orleans, LA, US  
<http://gulfofmexicoconference.org/>

#### Regional Symposium on Mangrove Ecosystem Management in Southeast Asia: Mainstreaming Mangroves

February 11-13, 2013: Surabaya, Indonesia.  
<http://www.mangrove-mecs.org/index.php/8-event/1-surabaya>

#### 2nd CLIOTOP Symposium: Climate Impacts on Oceanic Top Predators

February 11-13, 2013, Noumea, New Caledonia  
<http://www.imber.info/index.php/Science/Regional-Programmes/CLIOTOP>

#### European Climate Change Adaptation Conference (ECCA)

March 18-20, 2013, Hamburg, Germany  
<http://eccacnf.eu/>

#### International Seminar on Marine Science & Aquaculture: Ocean Health & Our Future

March 19-21, 2013 Kota Kinabalu, Sabah, Malaysia  
<http://www.ums.edu.my/ipmb/isomsa/>

#### 4th National Forum on Socioeconomic Research in Coastal Systems: Challenges of Natural Resource Economics & Policy

March 24-26, 2013, New Orleans, LA, US  
<http://www.cnrep.lsu.edu/>

#### National Working Waterfronts & Waterways Symposium: to provide a forum for sharing creative strategies, experiences and ideas for ensuring the viability and vibrancy of waterfronts and waterways

March 25-28, 2013: Tacoma, Washington, US <http://depts.washington.edu/uwconf/workingwaterfronts/>



North Carolina Center for the Advancement of Teaching, Ocracoke Island, NC .  
Photo credit: Ellen Gordon

#### National Adaptation Forum

April 2-4, 2013, Denver, CO, US  
<http://www.nationaladaptationforum.org/>

#### 12th International Coastal Symposium: Coastal Environments and Global Change

April 8-12, 2012, Plymouth, UK  
<http://ics2013.org/>

#### Blue Vision Summit

May 13-16, 2013, Washington, DC  
[http://www.bluefront.org/blue\\_vision\\_blog/2013-summit/](http://www.bluefront.org/blue_vision_blog/2013-summit/)

#### 24th Annual Nonpoint Source Pollution Conference

May 14-15, 2013, Burlington, Vermont, US  
December 14, 2012 is the deadline for submitting abstracts.  
<http://www.neiwppcc.org/npsconference/>



### 2nd Executive Symposium for Innovators in Coastal Tourism

May 15-17, 2013, Los Cabos, Mexico  
<http://www.crestconference.org/index.html>

### IMPACTS WORLD 2013: International Conference on Climate Change Effects: community-driven syntheses of climate change impact analyses

May 27-30, 2013, Potsdam, Germany  
<http://www.climate-impacts-2013.org/>

### Capitol Hill Ocean Week

June 4-6, 2013, Newseum, Washington, DC, US  
<http://nmsfocean.org/>

### 6th EARSeL Workshop on Remote Sensing of the Coastal Zone: the impact of our climate on coastal zones and inland waters; on climate change and its expected effects on European seas; and on the role of remote sensing for its study

June 6-7, 2013, Matera, Italy  
 February 15, 2012 is the deadline for submitting abstracts.  
<http://www.earsel.org/SIG/CZ/6th-workshop/>

### CoastGIS 2013

June 18-21, 2013, Victoria, British Columbia, Canada.  
 January 15, 2013 is the deadline for submitting abstracts.  
<http://coinatlantic.ca/index.php/coastgis-2013/>

### StormCon: the world's largest conference on stormwater pollution prevention

August 18-22, 2013, Myrtle Beach, SC, US  
<http://www.stormcon.com/>

### Coasts and Ports 2013 Conference

September 11-13, 2013, Sydney, Australia  
 February 15, 2013 is the deadline for submitting abstracts.  
<http://www.coastsandports2013.com.au/>

### 7th International Conference on Asian and Pacific Coasts: to promote scientific advancement, technological progress, information exchange, and cooperation among engineers and researchers in coastal, port, and ocean engineering and other related fields

September 24-26, 2013: Bali, Indonesia  
 December 31, 2012 is the deadline for submitting abstracts. <http://apac2013.org/>

### Third International Marine Protected Area Congress (IMPAC3)

October 21-27, 2013, Marseille and Ajaccio, France  
<http://www.aires-marines.com/Events/International-Marine-Protected-Area-Congress>

### 10th International Conference on Environmental Management of Enclosed Coastal Seas (EMECS 10) & The 11th International Conference on the Mediterranean Coastal Environment (MEDCOAST 2013)

October 30-November 3, 2013, Marmaris, Turkey  
 February 4, 2013 is the deadline for submitting abstracts.  
[http://www.envirogrids.net/index.php?option=com\\_content&view=article&id=81:emecs-10-a-medcoast-2013&catid=45:conferences-a-workshops&Itemid=79](http://www.envirogrids.net/index.php?option=com_content&view=article&id=81:emecs-10-a-medcoast-2013&catid=45:conferences-a-workshops&Itemid=79)

### Aquaculture Conference: to the Next 40 Years of Sustainable Global Aquaculture: the next science accomplishments needed to double global aquaculture production

November 3-7, 2013, Las Palmas, Gran Canaria, Spain  
 May 24, 2013 is the deadline for submitting abstracts.  
<http://www.aquaculture-conference.com/index.html>

### 2014 Ocean Sciences Meeting

February 23-28, 2014, Honolulu, HI, US  
<http://aslo.org/meetings/aslomeetings.html>

### Coastal Zone Canada 2014: Revitalizing ICOM in Canada - Sustaining Commitment and Momentum

Jun 8-12, 2014 Halifax, Nova Scotia, Canada  
<http://www.czca-azcc.org/html/conferences/main.html>



Photo credit: Ellen Gordon



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