Centers of Excellence
I am thrilled to be sharing a new UH Sea Grant initiative with you which was inspired by our current director, Dr. Gordon Grau. When he first began his directorship in 2000 he realized, although the Sea Grant model is very successful in bringing cutting-edge university research to coastal communities through the network of research, outreach and education specialists, a tremendous opportunity existed to integrate Sea Grant within the rest of the university. The issues we tackle every day are extremely complex and varied, and the best solutions can only be found when experts from throughout the university come together to share their knowledge and expertise. Out of this vision emerged the new Center of Excellence model which represents a new shift in thinking throughout the entire Sea Grant network and will allow us to engage even more meaningfully with the communities which we serve.

Cindy Knapman,
UH Sea Grant Communications Leader
With pleasure I welcome you to this edition of Ka Pili Kai. I am excited to acquaint you with a new development for the University of Hawai‘i Sea Grant College Program (UH Sea Grant). A few years ago, it became clear there was a tremendous opportunity to amplify Sea Grant’s capacity by integrating our programs with the abundant human, scholarly, and service capabilities that exist throughout our university’s campuses.

The word university has come to mean a corporation of scholars and students, but derives from a collection of meanings that include: the whole, total, universe, world, diversity toward one. The combined force of the many brought to focus on specific challenges and opportunities suggests a power to solve and succeed that transcends the simple sum of the operative forces. This thought drives UH Sea Grant’s new paradigm. We continue to thrive in our institutional home, the School of Ocean and Earth Science and Technology, among the very best of such institutions in the world. We now also partner with a diversity of university units through joint faculty positions and other synergistic relationships that focus the university’s resources in specific ways to build coastal sustainability and resiliency throughout the insular pacific. Through creativity and hard work, Sea Grant’s faculty and staff, together with partnering faculty and institutions, have developed a new operational model for Sea Grant that is based fundamentally on enhanced collaboration—the Center of Excellence model. Sea Grant’s traditional excellence in marine and coastal extension, research and
Communities and Economies, and Education and Human Resources. Sustainable Tourism and Ocean and Coastal Technologies were also identified as key programmatic elements. Each group developed an executive summary describing the nature and importance of the theme and a synopsis of associated scientific issues. Position papers followed reviewing the relevant science and identifying research recommendations. Focus groups hosted meetings to develop and synthesize constituent priorities and established community websites. These became the foundations on which the Centers of Excellence were built.

The Centers of Excellence were a logical means to implement the wealth of content generated by the focus groups and support the full maturation of the scholarship and community service initiated by focus group participants. Center participants include researchers, extension professionals, state and local government representatives, industry and community members and “non-traditional” Sea Grant partners such as the American Institute of Architects and the U.S. Environmental Protection Agency. The centers build bridges among academics and those who can benefit from their scholarship. Conducting meetings of participants as needed, centers allow researchers to hear firsthand from their community what questions need to be answered. Centers also provide for inter-college, -school, and -department collaboration, something not encouraged by traditional academic structure. The center model has been embraced by the University of Hawai‘i administration, which recognizes its value to the university at-large.

The effectiveness of the Center of Excellence model is well established by the Center for Smart Building and Community Design (CSBCD), the first center established in 2004. A wholly novel partnership

Focus group themes included Aquaculture, Coastal Processes, Coastal Communities and Economies, and Education and Human Resources. Sustainable Tourism and Ocean and Coastal Technologies were also identified as key programmatic elements. Each group developed an executive summary describing the nature and importance of the theme and a synopsis of associated scientific issues. Position papers followed reviewing the relevant science and identifying research recommendations. Focus groups hosted meetings to develop and synthesize constituent priorities and established community websites. These became the foundations on which the Centers of Excellence were built.

The Centers of Excellence were a logical means to implement the wealth of content generated by the focus groups and support the full maturation of the scholarship and community service initiated by focus group participants. Center participants include researchers, extension professionals, state and local government representatives, industry and community members and “non-traditional” Sea Grant partners such as the American Institute of Architects and the U.S. Environmental Protection Agency. The centers build bridges among academics and those who can benefit from their scholarship. Conducting meetings of participants as needed, centers allow researchers to hear firsthand from their community what questions need to be answered. Centers also provide for inter-college, -school, and -department collaboration, something not encouraged by traditional academic structure. The center model has been embraced by the University of Hawai‘i administration, which recognizes its value to the university at-large.
Centers of Excellence include:

- **Center of Excellence in Smart Building and Community Design** - creating and supporting economically viable, attractive communities that enhance their environment, economy, and culture; key partner, University of Hawai‘i School of Architecture.

- **Center of Excellence in Sustainable Tourism** - conducting research and providing services to assist the state and the community in ameliorating visitor impact and diversifying the targets for sustainable tourism growth; key partner, University of Hawai‘i College of Social Sciences Department of Economics and University of Hawai‘i School of Travel Industry Management.

- **Center of Excellence in Island Climate Adaptation and Policy** - committed to a sustainable, climate conscious future for island communities by delivering innovative interdisciplinary research and real-world solutions to decision makers in the public and private sectors; key partners, University of Hawai‘i William S. Richardson School of Law, the College of Social Sciences, and the School of Hawaiian Knowledge.

- **Center of Excellence in Marine Science Education** - providing leadership and support to formal and informal educational institutions and organizations to educate scientists, professionals, teachers and the public about the benefits of wise and sustainable stewardship of our region’s coastal and ocean resources that incorporates cultural values; key partner, University of Hawai‘i College of Education.

- **Center of Excellence in Sustainable Aquaculture** (under development) - providing science-based information and supporting efforts toward sustainable aquaculture development, supporting workforce development for the aquaculture industry, and stimulating demand for local aquaculture products; key partner, University of Hawai‘i at Hilo Pacific Aquaculture and Coastal Resources Center.
Hawai‘i sits at the center of our Earth’s climate crossroads. Since voyaging to the islands over 1,000 years ago, native Hawaiian culture has closely studied the flow of water, the patterns of waves and winds, the topography of the land, and the nature of our island climate. Using this knowledge, islanders adapted their use of the land and ocean to the perpetually changing conditions. However, climate changes have shifted. Over the past half-century, unique data gathered in Hawai‘i at Mauna Loa Observatory have documented increasing atmospheric concentrations of greenhouse gases. Climate change impacts are widespread and now islanders are faced with a new set of climate challenges.

This distinct combination of cutting-edge science and traditional knowledge highlights the strength of solutions that Hawai‘i brings to the uncertain future climate change poses for small islands.

The climate crisis requires an unprecedented degree of focus, agility, and collaboration between educational disciplines, private entities, and various tiers of government. To that end, the University of Hawai‘i Sea Grant College Program (UH Sea Grant) established the inter-disciplinary Center for Island Climate Adaptation and Policy or ‘ICAP.’ ICAP facilitates progress toward a climate-conscious future for Pacific and other island states through the production of innovative, interdisciplinary research and real-world, practical solution sets for climate change adaptation. Specifically, ICAP employs expertise in the areas of climate science, planning, law and policy, while embracing the wisdom of local, traditional cultures.

**SCIENCE:** Facing an uncertain climate future that likely includes sea-level rise, precipitation changes, and heightened storm vulnerability, island community sustainability and resiliency requires a range of scientific and engineering tools. For example, rainfall pattern changes are likely to negatively impact aquifer recharge, increase the frequency and intensity of flooding, disrupt food security, and raise public health issues related to climate change. Strong scientific data and models can help improve the capability of communities to predict and better accommodate shifting climate patterns and reduce negative long-term impacts. Faculty and graduate students at the University of Hawai‘i School of Ocean and Earth Science and Technology and other departments provide updated climate data and models for inclusion in ICAP work product. Additionally, ICAP coordinates specific research projects requested and/or contracted by island communities via outreach efforts.

**PLANNING:** Affiliates at the Department of Urban and Regional Planning (DURP) and related departments bring a climate-critical eye to planning and infrastructure projects, enhance island resiliency via model adaptive projects, and engage in public-private partnerships with foundations and green technology groups to test and refine adaptation and hazard mitigation strategies. DURP will also investigate the potential for a graduate-level island policy curriculum and certificate program via interdisciplinary ICAP offerings.

**POLICY:** ICAP’s director, students, and participating fellows at the University of Hawai‘i William S. Richardson School of Law translate scientific research and modeling with regard to climate change into policy white papers, and also recommend science-
based implementation strategies for laws currently on
the books. These efforts will include: assisting the state
in development of an effective and equitable regulatory
framework to achieve maximum climate preparedness
through model legislation and auditing Hawai‘i Revised
Statutes and County Codes to identify laws that intersect
with climate issues.

INDIGENOUS ENVIRONMENTAL KNOWLEDGE:
Hawai‘inui‘akea School of Hawaiian Knowledge brings a
perspective often overlooked in contemporary initiatives
for addressing climate change. That perspective includes
the environmental knowledge developed by the people
who have inhabited these islands for millennia. Faculty
and students of both Kamakakūokalani Center for
Hawaiian Studies and Kawaihuelani Center for Hawaiian
Language bring a capacity for research into Hawaiian
language and other indigenous sources of information
to assist in integrating data found, articulating ancestral
wisdom that has relevance to the mission of ICAP and
can complement efforts made by other partners.

ICAP affiliates are a diverse body that coordinate
research, education, and policy recommendations
through a team of academic specialists in UH Mānoa’s
planning, ocean science, Hawaiian studies and law
departments. While these departments are the primary
source for center-related research and work product,
ICAP encourages and specifically solicits the expertise
of various researchers and faculty from all departments
on the UH campus in order to achieve its mission and
provide top-notch climate data and solution-sets. Access
to ICAP and its affiliates is available through ICAP's
director and a user-friendly website (currently under
construction).

Dedicated to applied research, ICAP has developed
its education and extension components based on the
Sea Grant College Program model. UH Sea Grant has
served Hawai‘i and the Pacific for over 40 years. It
has developed long-standing relationships and critical
programs that address issues that face island communities.
Extension faculty will continue to connect climate-related
information and products from ICAP with the challenges
and opportunities faced by island communities. Outreach
activities include working with community partners
to develop education programs that address climate
impacts, building awareness of coastal hazards, guiding
decision-making in areas of climate relevance, and training
communities to build island resiliency.

In its first few months, ICAP has been very busy, which
reflects our communities’ deep interest in preparing
ourselves for a warming climate. In April, for example,
ICAP published its first white paper, entitled "Shoreline
Impacts, Setback Policy & Sea Level Rise." ICAP prepared
the paper at the request of state Senator Shan Tsutsui,
whose office sought a technical evaluation of state Senate
Bill 468, relating to shoreline setbacks and the impacts of
rising sea levels.

In addition, ICAP was a co-sponsor of the Pasifika Energy
Summit, which brought together traditional leaders from
the Pacific to discuss the current status of the islands
with respect to climate change, traditional economics,
environmental degradation, applications of modern
technology, and the importance of traditional wisdom and
guidance. It is also a co-sponsor of the Hawai‘i School
Conservation Awards, which aims to promote behavior
change and advocacy to conserve energy and resources in
Hawai‘i.
The University of Hawai‘i Sea Grant College Program (UH Sea Grant) Center of Excellence in Marine Science Education is dedicated to building partnerships that enhance marine science education at all levels (kindergarten through graduate school and the public community) in order to foster understanding of the natural world and the role of humans in it.

Nationwide, ocean and aquatic sciences are among the most under-represented disciplines in K-12 curricula. This neglect is remarkable considering that the ocean is the dominant feature on planet Earth, whose surface is more than 70 percent water. In fact, the ocean affects every aspect of human life. It provides most of Earth’s fresh water in the form of rain and most of Earth’s oxygen. The ocean regulates our weather and climate. It supplies foods, medicines, minerals and energy resources. Our environmental sustainability, which ultimately leads to economic and social stability, depends on understanding the processes of the ocean. Current world issues, such as global climate change and collapsing world fisheries, are tied to ocean processes and have local and global implications. As such, it is critical that all people receive access to the resources and materials needed for aquatic and ocean literacy; understanding the mutual influence of the ocean and humankind is a critical component of broader efforts to build scientific literacy for all citizens.

As a reference tool, hundreds of ocean scientists, science educators (K-12 and informal) and learning researchers have developed a set of over-arching concepts that guide the K-12 teaching and learning of ocean sciences. These seven Ocean Literacy Essential Principles (OLEP) constitute the knowledge needed by someone considered to be "scientifically and ocean literate." According to the OLEP, every ocean literate person should understand these essential principles: (1) the Earth has one big ocean with many features, (2) the ocean and life in the ocean shape the features of Earth, (3) the ocean is a major influence on weather and climate, (4) the ocean makes the Earth habitable, (5) the ocean supports a great diversity of life and ecosystems, (6) the ocean and humans are inextricably interconnected, and (7) the ocean is largely unexplored.

The goal of the UH Sea Grant Center of Excellence in Marine Science Education is to facilitate partnerships and connections between scientists, teachers, students and life-long learners, enhancing understanding and appreciation of the marine environment and the OLEP. The center will support partnerships through the use of web media, workshops, symposia, meetings, small grants and graduate assistant positions. The center’s emphasis of support is on projects that combine resources from colleges within the University of Hawai‘i with research experiences for teachers and students that are project-based, and research topics which emphasize marine environmental connections to research and social needs.

The Center for Marine Science Education currently has outreach projects in three main areas: (1) providing teacher institutes on Teaching Science as Inquiry (TSI) in a marine science context; (2) providing graduate students...
The center’s training for graduate students is tied into the UH Sea Grant service requirement of forty education outreach hours per year. Sea Grant research assistants participate in the Curriculum Research & Development Group–facilitated training and develop outreach programs that help share cutting-edge marine science with K-12 students, teachers and the community.

The center’s work in teaching formal and informal educators about Communicating Ocean Sciences (COS) is part of a National Science Foundation-funded grant to partner with the Center for Ocean Science Education Excellence in California (COSEE CA). COSEE CA developed the COS college course, and UH partners are adapting it to Hawai‘i, incorporating elements of traditional knowledge and the local environment. The University of Hawai‘i School of Ocean and Earth Science and Technology, the Hawai‘i Institute of Marine Biology, and Maui Community College are all partners in this grant.

Future work coordinated through the Center for Excellence in Marine Science Education will help university faculty build outreach programs into their research agendas. At the same time, the center will provide training for graduate students, the next generation of science researchers, who will gain the theoretical and experiential knowledge needed to integrate successful outreach into their own professional lives. The Center for Excellence in Marine Science Education will be a place that scientists and educators look to for ideas and support, acting as both a repository and a point of initiation for new projects.

The Center for Marine Science Education is led by Dr. Kanesa Duncan, UH Sea Grant Affiliate Faculty and Assistant Professor at the Curriculum Research & Development Group in the UH College of Education.

Dr. Duncan is a formal and informal educator of K-12 students, K-12 teachers, university students and the public. Her science research background is in zoology, specifically population genetics and ecology. She is also a credentialed K-12 educator with the State of Hawai‘i and an experienced curriculum developer. Dr. Duncan is a Co-Principal Investigator in Hawai‘i’s collaborative proposal with the National Science Foundation funded Center for Ocean Science Education Excellence (COSEE) California and an active member of the local and national marine science education community.
In January 2004, the University of Hawai‘i Sea Grant College Program (UH Sea Grant) and the School of Architecture created the Center for Smart Building and Community Design (CSBCD). This unique partnership combines design and planning with the natural and social sciences to address issues related to buildings, urbanization and their impacts on the natural and human environments. In Hawai‘i, where the environment is the economy, keeping both healthy is crucial.

CSBCD’s core mission is to encourage the creation of vibrant, sustainable coastal communities that reduce environmental footprints and exemplify restorative pathways in building design and community development. Pursuant to this mission CSBCD seeks to consolidate and focus university expertise, resources & networks to assist stakeholders in demonstrating long-term solutions at both the campus and the larger community scales.

As the director of CSBCD and an associate professor at the School of Architecture, Stephen Meder also serves as the director of the School of Architecture’s Environmental Research and Design Lab. Dr. Meder’s approach is to seamlessly merge the lab’s research with CSBCD’s project-driven efforts in ways that bring an elevated educational experience to the students while delivering real results on the ground. This method has proven successful. It has provided students with first hand experiences in projects that have supplied energy audits and sustainable design options for community-based nonprofit organizations as well as community mental health centers. The design options were created by Professor Meder’s architecture students for the center which provides mental health services to a largely Native Hawaiian population.

Energy analysis and zero-carbon design options for the Wai‘anae Coast Community Mental Health Center. The design options were created by Professor Meder’s architecture students for the center which provides mental health services to a largely Native Hawaiian population.


A CFD diagram of ventilation patterns which allows designers to more quantitatively understand the air movement patterns and natural ventilation possibilities for renovating campus buildings. (A. Kuykendall Hall; B. Sakamaki Hall; C. Krauss Hall)

...creating results that are greater than the sum of its parts.
demonstrating energy saving and renewable energy solutions for the campus. This transforms academic, classroom experiences into interactive opportunities with real clients, real projects and real results. Through this method CSBCD has been able to utilize university resources to solve university issues, bring financially strained community groups services that they could not otherwise acquire and provide students with the opportunity to understand that they positively contribute to issues that are much larger than themselves - that they can indeed make a difference.

The convergence of teaching, lab research, CSBCD projects and community service is a delivery method that reflects the integrative principles of sustainable design. This year Meder is concentrating lab programs towards increasing the computational design analysis capacity in the lab. This will include both static and computational fluid dynamic (CFD) analysis software that assists designers in qualitatively and quantitatively understanding the daylight, ventilation, thermal transfer and renewable energy opportunities in building design. When the lab staff has greater proficiency in these areas, their skills will then inform the classroom and design studio work of the larger student body, which in turn, elevates the standards of professional practice after graduation. Additionally, the elevated analysis skills allows CSBCD’s teams to bring more accurate information to the design process and better serve the community groups and university decision makers.

CSBCD director and staff are currently in the process of drafting two sets of sustainable design and policy guidelines. One is an overview of sustainable approaches that can be utilized by all state agencies and the other is to support sustainable design and operations on the University of Hawai‘i at Mānoa campus. Described below are a few other current projects that reflect the community outreach and university in-reach of CSBCD.

Since its inception, CSBCD has undertaken a range of projects in an effort to expand the reach of UH Sea Grant through innovative and productive partnerships. CSBCD has also effectively integrated with the Center for Sustainable Coastal Tourism and the Center for Island Climate Adaptation and Policy. With combined efforts, UH Sea Grant Centers of Excellence work to provide a unique, innovative and holistic approach to the issues facing coastal areas in the 21st Century.

The Center for Smart Building and Community Design is led by Dr. Stephen Meder, UH Sea Grant faculty and Associate Professor at the University of Hawai‘i School of Architecture.

Dr. Meder received his Doctorate of Architecture degree from the University of Hawai‘i. A principal author of the award-winning U.S. Department of Energy publication Field Guide for Energy Performance and Comfort in Hawai‘i Homes, Meder’s research on sustainable development, particularly solar design and high performance buildings, has been widely recognized. Meder co-authored the University of Hawai‘i Charter of Sustainability and continues to be very active in working to establish programs to reduce water and energy demand on campus and to assist in establishing the University of Hawai‘i as a model for a sustainable future.

Design options generated by UH School of Architecture students to revitalize a sugar cane town on Kaua‘i. The students were part of a national American Institute of Architects Sustainable Design Assessment Team.
The University of Hawai‘i Sea Grant College Program (UH Sea Grant) is launching a Center of Excellence in sustainable coastal tourism. The initiative is a collaboration with the College of Social Science (CSS), the School of Travel Industry Management (TIM), UH Sea Grant, and key leaders in the tourism industry.

In promoting a Hawaiian sense of place, the Center for Sustainable Coastal Tourism is committed to protecting and sustaining Hawai‘i’s unique cultural heritage and natural resources. As a result, paramount to the center is the communication of responsible stewardship of Hawai‘i’s lands, coasts, seas, and people through knowledge and outreach.

Tourism has a tremendous impact on the people of Hawai‘i and its environment. Visitor expenditures in 2007 comprised $14 billion or 22 percent of Hawai‘i’s economy and employed 176,200 people in the state. This intimate relationship between Hawai‘i’s economy and tourism depends on a healthy and sustainable coastal ecosystem. Indeed it is the diverse and unique ecosystems of the Hawaiian Islands that inspire so many visitors to our region. As such, improving the quality of our environment, restoring habitats and ecosystems, and reducing the energy and water needed to support tourism will result in positive impacts on Hawai‘i’s economy. Toward this goal we seek to collaborate with the tourism industry to promote sustainability of our natural resources, promotion of healthy coastal ecosystems, and respect for our indigenous people and the unique multicultural fabric of our society.

The Center for Sustainable Coastal Tourism strives to be a portal whereby tourism research is extended to serve Hawai‘i’s communities. Faculty at the University of Hawai‘i have a distinguished record of scholarship and service on the environmental, economic, and societal aspects of Hawai‘i tourism. UH Sea Grant extension faculty members contribute to sustainable coastal communities in many ways. Sustainable Coastal Tourism will provide a learning network, and serve as a depository for tourism data, research, and collaboration.

HAWAI‘I AS A MODEL DESTINATION OF SUSTAINABILITY AND ALOHA: A long journey begins with simple steps. The inspiration to create a center began with the vision of UH Sea Grant Director, Dr. Gordon Grau, who recognized that tourism is central to the livelihoods of coastal communities in Hawai‘i and around the nation. Yet, visitors can threaten the very fragile natural assets to which they are attracted. He believed that the University of Hawai‘i could pioneer a Sea Grant Center of Excellence that would bridge natural science and social science, with tourism as a central theme.

With Dr. Grau’s leadership, we organized an expedition to assess the interest and activities of University of Hawai‘i faculty and the visitor industry. Our exploratory team included Dr. Darren Lerner, Dr. Darren Okimoto and Mr. John Carey of UH Sea Grant and graduate students Sean McNamara (Urban and Regional Planning) and Melanie Saucier (Natural Resource and Environmental Management, and Travel Industry Management). The enthusiasm and commitment of the faculty impressed us all. The University of Hawai‘i currently conducts extensive research on tourism and its impact on our unique place. Many faculty support a Center of Excellence that acts as a catalyst for innovation and applied knowledge, while respecting the origin of research within academic homes.

Members of our Inspiration Team include Interim TIM Dean Juanita Liu, University of Hawai‘i Economic Research Organization (UHERO) Director Carl Bonham, Ocean Policy Director Alison Rieser, Dr. Ramsay Taum (TIM), Dr. James Mak (Economics), Dr.
The Center for Sustainable Coastal Tourism is led by Denise E. Konan, Professor of Economics. Dr. Konan heads the Energy and Greenhouse Gas Solutions of the UH Economic Research Organization, which monitors and models Hawai‘i’s energy greenhouse gas emissions and economic activities. Konan has also been an advisor to the World Bank and Council on Foreign Relations and has served as a trade policy advisor to The Ministry of International Cooperation of Tunisia regarding their negotiations on services liberalization with the World Trade Organization. Her research on trade policy in the Middle East and North Africa region has been widely published in academic journals.

SIGNATURE PROJECTS: In response to community concerns, the new Center for Sustainable Coastal Tourism is launching several signature projects.

Industry and government leaders agree that tourism energy use is a major issue as Hawai‘i seeks to reduce reliance on fossil fuels and lower its carbon footprint. Hawai‘i hotels, airlines, restaurants, and sightseeing tours all consume fuel in high proportions. The UHERO Energy and Greenhouse Gas Project team will baseline Waikīkī energy and evaluate the associated economic and environmental impacts. UHERO will also join with Dr. David Karl and UH Sea Grant experts to assess the economic and environmental prospects for Waikīkī district deep sea water air conditioning.

Under the leadership of UH Sea Grant extension agent Jennifer Barrett, the Reef Watch Waikīkī project recruits volunteers for human and biological monitoring, marine education outreach and service learning opportunities, and ocean awareness training in Waikīkī. By educating and instilling a sense of stewardship in those who live, work, and visit Waikīkī, a major goal is to bring back the marine life to Waikīkī, an “Aquarium Without Walls.”

UH Sea Grant coastal geology extension agent Dolan Eversole is advancing Waikīkī Beach restoration initiatives with city and state agencies. Much of the reef in Waikīkī has been filled in with sand due to excess beach erosion. As such, new solutions are being sought to create a win-win situation where the excess sand on the reef is pumped back onto the shore.

The Hanauma Bay Education Program is administered by UH Sea Grant with support and funding from the City and County of Honolulu Department of Parks and Recreation. Through this program, visitors to the Hanauma Bay Nature Preserve are educated on the value of marine resources and appropriate behavior, beyond this; the program also offers weekly public evening presentations and special public events to share marine and coastal research and issues with community audiences, as well as programs for visiting school groups. The year 2010 will mark two decades of the Hanauma Bay Education Program and provides a wonderful opportunity to measure and assess the affects of the program along with its success and shortcomings to develop a lessons learned handbook.

The University of Hawai‘i can bring substantial expertise to advancing stewardship and responsible tourism, and can serve as a model for other coastal communities to emulate. It is an honor to be involved in advancing the first UH Sea Grant Center of Excellence for Sustainable Tourism in the United States. Aloha!
Allen Tom is in the midst of a long and successful career, and one of the reasons for this success is his strong connection with the community in which he works. It is the part of the job he loves most, and the part which he credits to first learning during his very early years at the University of Hawai‘i Sea Grant College Program (UH Sea Grant).

Even before he graduated from the University of Hawai‘i at Mānoa with a master’s degree in Animal Sciences, Tom was involved with UH Sea Grant as a graduate assistant working on aquaculture issues with Dr. Mark Brooks. Then, shortly after graduation, he took a full-time position with UH Sea Grant and had the opportunity to be one of the very first extension agents to help create the successful Hanauma Bay Education Program which is still in existence today.

“It was a wonderful project that evolved,” he commented. “Even before we were allowed to have an educational table down on the beach, we had a crew of dedicated volunteers that set up a table right in the parking lot.”

While the changes that they implemented at Hanauma Bay, such as limiting visitor access, reducing the park hours and requiring parking and user fees were certainly controversial at the time, Tom looks back at this as an excellent learning opportunity, and the skills that he honed at this time are skills he has used throughout his career. “A lot of the people would vent to us because we were the people who were part of all the new changes that were going on. Since the volunteers were sitting there, they would get the brunt of the questions from the public.” He also had the opportunity to work closely with the City and County to get the required permits, set up the fee, and also close the park one day a week.

His ties with the cadre of Hanauma Bay volunteers and hours spent implementing the volunteer program is another experience he has taken with him to his current position in the National Oceanic and Atmospheric Administration (NOAA). Today, in his position as the Regional Director for the Office of National Marine Sanctuaries Pacific Islands Region, he uses this experience throughout the Sanctuary program, most notably in the Hawai‘i and American Samoa...
In addition to his work in Hawai‘i, through Sea Grant he also had the opportunity to go on a detail and spend one year at the Environmental Protection Agency in Washington, D.C., which he described as a very valuable opportunity. He noted “that is how I got the D.C. bug in me” and years later he went back to live and work in D.C.

Today, in his role with the National Marine Sanctuaries, he thrives on the interaction he has with the local community. He mentioned the most enjoyable parts of his position are doing “Sea Grant-ish” type activities such as creating a project with partners such as the Waikīkī Aquarium and seeing it through to the end. In addition, he is able to connect with people of all ages, including a project with students from Kamehameha Schools who built a fishpond in front of the Maui office of the Hawaiian Islands Humpback Whale National Marine Sanctuary.

* Shipping charges apply. Please contact UH Sea Grant for shipping costs and more information: (808) 956-7410 or uhsgcomm@hawaii.edu

**Discounted price is $15 through the month of October (does not include shipping).
The second printing of the Hawai‘i Coastal Hazard Mitigation Guidebook by Dennis Hwang has arrived. For a limited time, order your copy at the special discounted price of $15. Shipping charges apply.

Discount may be applied to orders through the month of October.

Contact UH Sea Grant for more information at: (808) 956-7410 or uhsgcomm@hawaii.edu.