

# Life of Giants

R // MAY /// JUN

Two of the Aquarium's Giant Clams celebrate a world record anniversary

nformation has never been available in such amounts, or as easy to access. But what is the quality of the information? Is a given article understandable? Is it all true, or only parts of it, or none at all? With regard to marine biology, the Waikīkī Aquarium has long played an important role, presenting to the public in easily understandable terms and formats, the facts about issues affecting aquatic ecosystems and the biology of aquatic life. With no 'political' bias or censorship, research- and education-focused aquariums everywhere have increasingly become viewed as honest brokers of facts and exposers of fallacies. For example, the Waikīkī Aquarium states clearly that there is no direct medicinal or other benefit from eating dried seahorse products; that shark cartilage has no effect whatsoever as a cure for cancer; and that there is no discernible effect on Hawai'i's reef fish populations from the carefully regulated trade in tropical fish collection. Controversial? Perhaps. Accurate? Yes! Of course, if evidence to the contrary were to become evident, we would report that instead. By presenting facts to our visitors we educate them and enable them to learn and to make informed decisions. The positive feedback we have received from the public, media and policy makers for our achievements in this direction prompted us to expand our efforts to address ocean-wide or 'big picture' topics. This will be the function of our new Ocean Science Laboratory, located where the theatre now stands. Construction plans are now being finalized and an Ocean Scientist position to head this program is now being recruited.

Surely, one of the big picture topics to be included is ocean acidification, and coincidentally, earlier this month I participated in a scientific meeting on this very theme. Hosted by Mote Marine Laboratory, Florida, this was the last of a series of intensive workshops held to fine tune the innovative research project on ocean acidification about to get underway there. So what is ocean acidification? Since the beginning of the industrial age, the level of carbon dioxide in the atmosphere has risen 41%, an increase directly attributable to the burning of fossil fuels. The challenges, both real and potential, caused by the resultant climate change are now part of popular culture, but a further, more insidious effect of this excess carbon is also becoming evident. Unfortunately for marine ecosystems, roughly 40% of the carbon dioxide emissions from burning fossil fuels have been absorbed by the oceans, increasing their acidity and adversely affecting ecologically important organisms as diverse as phytoplankton species that form the



Dr. Andrew Rossiter with members of the University of Hawai'i Foundation's President's Club at their "Under the Sea" event on January 17, 2013.

base of the oceanic food web, and commercially important shellfish, such as oysters. Clearly, the ramifications of increasing ocean acidity are manifold and significant, but for both Florida and Hawai'i are especially pertinent to reefbuilding tropical coral species.

For the past year, the Waikīkī Aquarium has hosted a research project on ocean acidification in our behind the scenes area. I was struck by the similarities between this project and the one at Mote, by the focus on coral growth, and by the successful coral propagation programs Mote and ourselves undertake. I was also encouraged by the joint recognition of the need for solid scientific data, and the need to educate and inform the public and policy makers of the scientific findings in a clear, easily understood format. And to top it all, Mote has a top quality aquarium similar in size to our own, focusing on the local subtropical fauna, staffed by enthusiastic, talented staff and populated by a host of healthy fishes and invertebrates. Clearly, Mote Marine Laboratory and ourselves have many similarities and share many targets and perspectives. 'We should talk', you might say... More anon!

Dr. Andrew Rossiter Director, Waikīkī Aquarium

## Kilo ïa

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EDITOR Dr. Andrew Rossiter

**ART DIRECTOR + MANAGING EDITOR** Kelsey Ige

**printing** Reskyu

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Waikīkī Aquarium 2777 Kalākaua Ave. Honolulu, HI 96815-4027 PHONE (808)923-9741 FAX (808)923-1771 www.waquarium.org

WRITE TO US AT kiloia@waquarium.org

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#### ΜΑΝΑΊΟ

Traditionally, the *kilo i'a* was an expert of fish and marine life. He studied the behaviors and movements of *i'a*. The *kilo* stood at a high point of land overlooking the ocean to watch for an expected school of fish and steered the fishermen in the school's direction. The success of surrounding the school was entirely up to the *kilo*.

## SUMMER

<image>

### Mauka to Makai

Saturday, April 13 Join us for our annual Earth Day celebration, Mauka to Makai. In collaboration with the Department of Health and City & County of Honolulu, this family-friendly event aims to educate the public on how to preserve and protect Hawai'i's unique island environment. This year we will release sea urchins in an effort to fight against invasive algae. Admission is free.

#### Seasons and the Sea Thursday, May 2

We know the Waikīkī Aquarium is a special place, but did you know its location is an important cultural observation site to mark the changing of seasons? Say *a hui hou* to the wet season, *ho'oilo*, and welcome the dry season, *kau*. The Hawaiians marked this time by observing the sun setting into the crown of Pu'u o Kapolei at the foot of the Wai'anae mountain range. Join us in the park 'ewa of the Aquarium to observe this occurrence while enjoying traditional chanting and hula.

### World Oceans Day

The World Oceans Day theme this year is "**Together we have the power to protect the ocean**." The Aquarium will keep that in mind while we clean beaches, host educational activities about shark tag-

## IN THE SUN

### No plans for the summer? We've got you covered.

Our summer calendar is filled with activities the whole family will enjoy! Get your fins wet at the Waikīkī Aquarium!

ging and ocean acidification, and highlight those in the community that are making an effort to protect our ocean. Visit our website to view each day's events, and see our exhibit at Honolulu Hale's *Ka Ike I Ka Moana* event throughout June.

### Summer by the Sea

The Aquarium's week-long day camps are designed for budding biologists ages 8-12 years old. Snorkeling, swimming, tidepooling, hiking and fishing are some of the out-of-doors activities we have in store. Don't wait to sign-up; spaces fill up quickly!

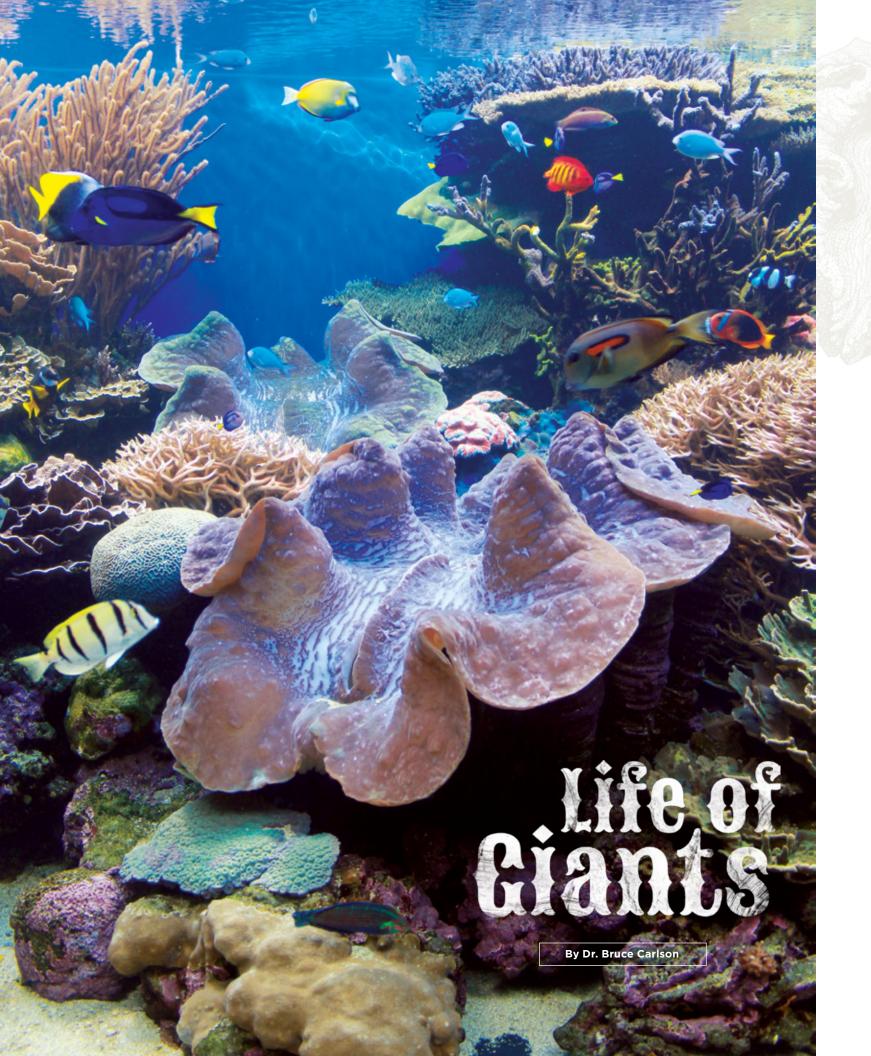




### Ke Kani O Ke Kai

Grab a blanket or chair and join us for Hawaiian music under the stars and by the sea at the Waikīkī Aquarium's annual summer concert series, Ke Kani O Ke Kai, June 13 through August 8. Each concert features some of Hawai'i's top headlining entertainers such as, John Cruz, Amy Hanaiali'i, and the Makaha Sons, just to name a few, as well as "ono grinds" by popular restaurants. Concert tickets sell out quickly, be sure to get yours...you won't want to miss out!

See calendar on page 11 for more information on all these summer events and activities.



lams don't make cute sounds, they don't come when you call them, and you wouldn't want to cuddle up with one, but the giant clams at the Waikīkī Aquarium certainly have charisma. Without any fanfare or flair, they have quietly become the largest clams in any aquarium in the world, and probably the oldest too. This year marks 31 years that the two largest giant clams have been on display at the Waikīkī Aquarium.

Looking back to March 1982, our colleague, Gerald Heslinga, succeeded in the first commercial production of giant clams Tridacna gigas at the former Micronesian Mariculture Demonstration Center in Palau. Three months later some of those tiny clams arrived at the Waikīkī Aquarium. Today only one of the hundreds of clams in that first hatchery batch is still alive, and is on view in the Barrier Reef exhibit in Gallery One. In March 2013, it turned 31-years old. A second, larger clam in the same exhibit also arrived at the Aquarium in 1982, but it was a wild-caught clam and was estimated to be about 5-years old at that time (about the size of a football). This year it will be 36-years olda record for any giant clam in any aquarium in the world.

Prior to the arrival of the giant clams from Palau, the Waikīkī Aquarium exhibited a very large giant clam that we collected at Enewetak Atoll in 1979. This was the first giant clam ever displayed anywhere in the world. That first clam survived only three years but provided us with a wealth of information on how to improve our husbandry techniques on future acquisitions. The shell from that clam is still on exhibit near the exit door at the end of Gallery Four.

The clams that came from Palau in 1982 were under my daily care until 1985, this responsibility then transferred to Marj Awai, years later to Charles Delbeek, and most recently to Norton Chan. In the early years, we did not have a lot of

information about the husbandry of giant clams and we were unsure what they might need for food. We knew that giant clams harbored symbiotic algae called zooxanthellae, and the general assumption was that the algae would provide a significant portion of the clams' nutritional requirements through photosynthesis. Fortunately, the clams never seemed to need anything beyond bright sunlight and their algae to stay healthy and grow; they have never intentionally been fed anything. The Waikīkī Aquarium has kept periodic records on the growth of the giant clams, and their growth rate is comparable to that of wild giant clams on Australian coral reefs. In 1982,

In 2002, the Waikīkī Aquarium completed work on a new, much larger coral reef exhibit. The exhibit was created to be a spectacular display of Pacific reef life, but also to accommodate the growing size of the giant clams and the Aquarium's burgeoning collection of living corals. Today the Barrier Reef exhibit in Gallery One is one of the most spectacular displays in any aquarium in the world and is a centerpiece exhibit at the Waikīkī Aquarium. With good care and management, the giant clams in this exhibit are likely to outlive all of us! 🦚



the hatchling clams measured about one-inch in length; today the one surviving 31-year-old clam is 31" (76.5 cm). The larger 36-year-old clam is now 36" (90.0 cm) in length. This larger clam has also been weighed several times. At the first measurement in 1990, it weighed 95 lbs (43.1 kg); the last measurement was taken in 2002 when it weighed in at 167 lbs (75.8 kg)! It must certainly be much heavier now but it is almost impossible to take another measurement.

> Dr. Bruce Carlson is a former director of the Waikīkī Aquarium. His full article was published in CORAL Magazine, November/December 2012.

June 1982: Gerald Heslinga with the world's first commercial batch of T. gigas produced in Palau. One of these clams is still alive at the Waikīkī Aquarium





ABOVE: The Enewetak Atoll clam shell on display at the end of Gallery Four. BELOW: February, 2012: Former Waikīkī Aquarium Biologist, Richard Klobuchar, measures the clams

FAR LEFT: T. gigas in our Barrier Reef exhibit. The 36-year-old clam is in the foreground; the 31-year-old clam in the back



#### **6th Annual Aloha Koi Show**

<sup>ob</sup>ert Armstrong's Grand Champ<sup>io</sup>

Over 3,000 people attended the 6th Annual International Koi Show on February 16 and 17 to view hundreds of top-quality koi that were on display. The event included educational seminars, keiki activities by the Japanese Cultural Center of Hawai'i and traditional Japanese koto and shakuhachi music. Many thanks to the Aloha Koi Appreciation Society for holding their annual event at the Waikīkī Aquarium.

#### Sea Hunt 2013

More than 1,200 people hopped on over to the Aquarium for Sea Hunt on March 16 in celebration of the Easter holiday. Nearly 330 hunters searched the lawn for marine life puzzle pieces and earned magnetic wooden puzzles to take home.

The Easter Bunny was busy in his burrow with a steady stream of visitors throughout the event. Diamond Bakery's Kimo the dolphin and Olina the octopus, Ronald McDonald, Chuck E. Cheese and Meadow Gold's Lani Moo were on hand to meet sea hunters and their families.

Among the many activities throughout the day, kids got a "Marine Megado"-a marine life-inspired hair do, courtesy of Pigtails & Crewcuts. Famil-

iar-finned characters from 'Ōhi'a Productions' "In the Clear Blue Sea" kept hunters occupied with creative drama activities and storytelling while they waited for their hunt time. NOAA Marine Debris program and U.H.'s C-MORE (Center for Microbial Oceanography Research & Education) program provided educational activities about saving our ocean and its inhabitants.

A special mahalo to event supporters: Alston, Hunt, Floyd & Ing; Barbara Campbell; Chuck E. Cheese's; Diamond Bakery; Education Works; GP Roadway; Hawai'i Dental Service; McDonald's; Moms in Hawai'i; Meadow Gold Dairies; NOAA Marine Debris Program; 'Ōhi'a Productions; Pigtails & Crewcuts; and U.H. C-MORE program.

#### MEET THE FOWA BOARD



### Robert "Tim" Guard

JOINED FOWA BOARD January 2013

#### CAN ALSO BE FOUND AT

McCabe, Hamilton & Renny Co. Ltd., where he is owner and chairman.

Guard is a kama'āina who attended Punahou School and earned his degree in International Relations from the University of Southern California. An avid waterman, he

was a Hawai'i Junior Surfing Champion, has paddled the Moloka'i channel over 20 times and enjoys SCUBA diving. Although he says he is not much of a land-explorer, he does occasionally climb mountains, including Mount Kilimanjaro in Africa.

#### FAVORITE AQUARIUM RESIDENT

Peppermint angelfish.

#### BACKGROUND

WHAT INSPIRED YOU TO BECOME A FOWA BOARD MEMBER?

The Aquarium's fantastic people; including Director, Andy Rossiter, the staff and the volunteers. I've had a lifelong connection to the Aquarium through folks like former Waikīkī Aquarium Directors, Dr. Spencer Tinker and Leighton Taylor.

WHAT DO YOU ENJOY MOST ABOUT THE AQUARIUM? The beauty and intricacies of the coral reef exhibits.

#### WHAT DO YOU BELIEVE IS THE AQUARIUM'S ROLE IN HAWAI'I?

The Aquarium brings the ocean environment into our lives in a meaningful way. It helps people, young, old, kama'āina and visitor, to understand the complexity, diversity and fragility of the oceanic ecosystem.

#### ON A PERSONAL NOTE ...

As a kid growing up in Hawai'i, the Waikīkī Aquarium was my most favorite place to visit. My dad was a close friend of Dr. Tinker. I recall, with great fondness, nighttime reef walks under a torch guided by Dr. Tinker.

There are 18 people currently serving on the Friends of Waikīkī Aquarium board. To acquaint you with these people who volunteer their time to help the Aquarium, Kilo i'a features one board member in each issue

#### FOWA BOARD »

**CHAIRPERSON** Marcus Boland, Northwestern Mutual

Dale Armstrong,

Chris Cole,

TREASURER Jennifer Isobe, KPMG LLP

SECRETARY

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Outrigger Enterprises, Inc.

CHAIRPERSON Fave Kurren Hawai'i Dental Service

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Charles Loomis, A&B Properties

Dirk Yoshizawa, Bank of Hawai'i

#### Missed Gary and Harry the sea turtles at Sea Hunt?

Grab your favorite picnic blanket or chair and find your spot on the Aquarium lawn for a showing of 'Ōhi'a Productions' In the Clear Blue Sea at the Aquarium! Join your favorite sea creatures Sunday, April 21 at 2:00 p.m. as they explore Hawai'i's coral reefs and learn about the challenges which threaten their survival. The show is included with admission to the Aquarium. Seating is first come first served. We hope to see you there!

> La Pietra students presented their action plan to Hawai'i's Senator Mazie Hirono

### La Pietra students bring ocean awareness to Washington



Coral Disease in Hawai'i

Students from La Pietra: Hawai'i School for Girls represented the Waikīkī Aquarium at the Coastal America Student Summit in Washington D.C. At the Smithsonian National Museum of Natural History they presented their action plan "Bringing awareness of coral disease and stressors to our communities and teaching them how to detect, report, prevent destruction of Hawaiian coral reefs." A total of 17 learning centers, from around the U.S., Mexico and Canada, presented action plans to improve the health of the ocean. The students also brought their project to Capitol Hill where they met with congressional staff and Senator Mazie Hirono.



## **Fishing Around Sea Turtles**

Two agencies team up with local fishermen in an effort to save Hawai'i's sea turtles

### By Irene Kelly

**NOAA** Fisheries

eveloped through a multi-agency partnership that includes NOAA Fisheries and the Western Pacific Fishery Management Council, the Fishing Around Sea Turtles program is dedicated to educating Hawai'i fishermen on "turtle friendly" fishing practices and relies on suggestions and advice from fishermen and local experts.

With growing tourist interest in sea turtles (surely you've been stuck in Lanaikea beach traffic on Kamehameha Highway) turtles can get accustomed to being fed, making them more likely to take a baited hook. Experienced fishermen have suggested using live bait, which is attractive to big fish; turtles prefer dead fish, eel, octopus or squid. Another suggestion is to use barbless circle hooks to reduce injuries in the case a sea turtle is hooked to your line.



Sea turtle drowned as a result of entanglement PHOTO: NOAA/PIESC/MTRE

Trailing gear is the biggest threat to sea turtles and removing as much line as possible will prevent entanglement that may result in loss of flippers, strangulation or death. Before assisting, make sure it is safe for both you and the turtle, and follow these steps to assist turtles in distress: (1) Carefully reel in the turtle; (2) gently hold turtle by its shell or flippers; (3) cut the line as close to hook as possible; and (4) release with no (or as little) gear/fishing line as possible. You can also call NOAA Fisheries, at (808) 983-5730, to report an injured or deceased turtle.

It is important to always adhere to State of Hawai'i fishing regulations. If you see any illegal activities such as illegal gillnets, please report it to Department of Land and Natural Resources, (808) 643-3567. By reporting these violations, you are helping turtles, fish and fellow fishermen.

> For more information and fishing tips, please visit: www.fpir.noaa.gov/PRD/prd\_fishing\_around\_sea\_turtles.html. If you would like to share feedback, provide suggestions, or if you have other sea turtle concerns, please contact: Irene Kelly, NOAA Fisheries: Irene.Kelly@noaa.gov.

### Meet the newest members of the Aquarium 'ohana!



POSITION

Groundskeeper

EDUCATION

Farrington High School (1989)

FAVORITE AQUARIUM RESIDENT

Hawaiian monk seals

Fred Higa Jr. is one of our most

find him caring for the Aquarium

background has mainly been in

the Aquarium, he is working on

home repairs and renovations.

outdoor activities including dirt

biking, mountain biking, surfing,

and fishing.

construction and when he's not at

In his spare time, he seeks

grounds and facilities. Higa's career

visible staff members; you will



### Lindsay Lodis

POSITION Membership Assistant EDUCATION Masters in Forest Resources, University of Maine (2010); Masters in Communication, University of Maine (2012) FAVORITE AQUARIUM RESIDENT It's a tie between Jerry (Crow) and the red-tooth triggerfish.

Lindsay Lodis joined the Aquarium as a membership assistant. "The Aquarium is a place I am proud to work! We pack a lot of punch and I've been impressed with our exhibits on more than one occasion."

She brings a diverse wealth of knowledge and experience, "I've been a park ranger in Yosemite National Park, a tidepool ranger on the Oregon coast, a resident naturalist at an eco-tourism lodge in Peru, and I've taught undergraduate courses at the University of Maine. Everything I've done is related to assisting people and interacting with their environment."

Lodis grew up in Colorado Springs, and true to her nature-filled past, she enjoys hiking, hanging out with friends, reading, yoga, and dog walks.





Ling Ma

POSITION Administrative Assistant EDUCATION A.S. in Biology, Spokane Falls Community College, WA (2007); B.B.A. in Human Resources Management, U.H. Mānoa (2011); B.B.A. in Management, U.H. Mānoa (2011); B.B.A. in International Business, U.H. Mānoa (2011). FAVORITE AQUARIUM RESIDENT Too many!

Born in Nanjing, People's Republic of China, Ling Ma moved to Washington as a teenager. After battling several years of snow, she decided to move to sunny Hawai'i: first to Hilo and now she has settled in Honolulu

When she is not at the Aquarium, she enjoys travelling, culinary arts, watching movies and relaxing.

"The Waikīkī Aquarium is a great organization where what we do matters, to both social and ecological systems," she says, "I'm proud to stand behind our mission and I really enjoy working with everyone in the Aquarium family. Plus, who wouldn't love an office with an ocean view!"



Mark Young

POSITION IT Coordinator EDUCATION Mililani High School (1993); B.S. in Business Information Systems, University of Phoenix FAVORITE AQUARIUM RESIDENT Lauwiliwilinukunuku'oi'oi (longnose butterflyfish), because it's so much fun to say!

Having been in the IT field for over 14 years, our new IT Coordinator Mark Young brings experience from working with local non-profits, banks, and within the U.H. system.

Although he has spent most of his life in the Mililani area, Young lived in Germany between the ages of 3 and 6-years old. His newest hobby is stand-up paddling, "I enjoy paddling up the river in Haleiwa, many sea turtles inhabit the area."

Young's latent interest in marine aquariums brought him to work at the Waikīkī Aquarium, "I remember watching Jacques Cousteau's TV shows when I was younger, and while my career path led me to working with technology, my interest in marine life never really died."



## 25 Years at the Edge

From the farm to the reef-one volunteer continues to educate visitors about the wonders of nature.

tationed at the Aquarium's Edge of the Reef exhibit, Larry Kamemoto greets a young family and hands them a smooth cowry shell and a piece of rough coral. Curious, the youngest member of the family examines the two objects and Larry explains what each is. When Larry became a Waikīkī Aquarium volunteer in 1988 he never thought he would be hanging out at the Edge of the Reef in 2013, but 25 continuous years later, that is exactly where you can find him.

Joining the Aquarium's volunteer team was a way for him to meet others who shared similar interests, "I was a farmer working with plants all day," he says, "I thought I should get out and meet others. Volunteering forces you out of normal life and is a chance to engage different people." He has met a variety of people over the years, from locals to mainland visitors to international visitors of all ages. "There are so many reasons why people enjoy the ocean and visit the Aquarium," he says, "but the appreciation that nature is bountiful and beautiful is a common denominator."

With a background in education Larry employs the informal teaching opportunities the Aquarium offers, "[Kids] can visit the hermit crabs and sea urchins one time or a hundred times and its like a fresh discovery each time." And like these young visitors, Larry makes

"...I feel like I'm contributing to the

his own discoveries each week at his favorite exhibit-the Northwestern Hawaiian Islands, "The exhibit is evolving and the fishes and other animals are maturing in their environment."

Aside from being a dedicated volunteer, Larry says his other interest is simply enjoying his retirement. "Enjoy doing what you like to do. It doesn't need to be grand

or make you feel important; but if its what you like to do, then it's important." What has kept Larry with the Waikīkī Aquarium for so many years? "In addition to the staff support, I enjoy sharing what I know about the ocean with people that are interested. I feel like I'm contributing to the community and to the caretaking of the ocean."

> The Waikīkī Aquarium is fortunate to have so many talented individuals donating countless hours to carry out our mission of education and conservation. Larry is one of over 200 active volunteers at the Aquarium. Volunteers provide more than 17,000 hours every year and are the backbone of our educational outreach. Interested in volunteering? For more information, contact Volunteer Coordinator, Mercedes Matthews at 440-9020

#### WAIKĪKĪ AQUARIUM ACTIVITIES & CLASSES

#### **Meet the Monk Seals!** Apr 2, 16, 30, May 7, 21

3:00-3:45 p.m. Tue More sightings of seals around the main Hawaiian Islands have renewed interest in these amazing and endangered animals. Learn about seals in the wild: What do they eat? How deep do they dive while hunting? Do they really have fingernails? Then move to the monk seal habitat where Aquarium biologists will introduce you to the resident seals, Makaonaona and Hōʻailona. Participants will assist with seal enrichment activities. Designed for participants 6 and up, but anyone interested is invited to attend. Groups of 15 or less are welcome. \$5/person (\$8/person for non-members).

#### **Behind the Scenes** Apr 9, 23, May 14, 28

3:00-4:15 p.m. Tues Learn what makes the Aquarium run, from fish food to quarantine, and many stops in between. Climb up and peer into the backs of the exhibits and see how they are

created. Visit the Coral Farm and the Jelly Hale, where sea jellies are raised. The program will end with participants feeding the animals the Edge of the Reef exhibit. Minimum age 7 years; youngsters must be accompanied by an adult. Accessibility is limited. Groups of ten or less are welcome. \$10/adult, \$6/ child (\$15/\$10 for non-members).

#### Afternoons at the Aquarium

Every Wed 3:00 p.m. Looking for something to do after school? Every Wednesday, the Aquarium hosts an interactive

#### ACTIVITY REGISTRATION FORM

#### 

NAME(S)			
Adults			Phone (Home)
Children/Ages			Phone (Work)
Address			
City/State/Zip		Email	
PLEASE REGISTER ME FOR			
Activity	Session	Date(s)	Number of Adults/Children Price
	/		
	/		
	/		
Total amount of payment enclosed (che			
IF PAYING BY CREDIT CARD			
Credit card #			VISA 🗆 MC 🗆
Expiration Date		Last three dig	its of security code on back of card
I am a FOWA Member 🛛 Yes 🗌 No 🗌			

10 APR-JUN 2013

enjoy stories by the sea, or maybe a critter encounter or sometimes a creative movement session. The activities last anywhere from 10 to 20 minutes and are designed

activity on the lawn. You can

Enjoy keiki crafts, games and

in front of the Aquarium. Free

May 2, Thu 6:00-7:00 p.m.

ho'oilo (wet) to kau (dry) season.

Seasons and the Sea

Summer by the Sea

Spend a week of summer learn-

animals in our exhibits and watch

the Aquarium.

Admission

June 3-7

Mon-Thu

June 17-21

Mon-Thu

Fri

Fri

for ages 4 to 8, but everyone is welcome. Free with admission to

Mauka to Makai - Earth Day Apr 13, Sat 9:00 a.m.-2:00 p.m. Join us as we celebrate Earth Day.

educational materials, as well as our urchin release into the waters of the Marine Life Conservation District

Join us as we celebrate change from

Kumu 'Ohu Gon and Hālau Mele welcome the new season through chant, hula and moʻolelo (storytelling) as the sun sets into the crown of Pu'u O Kapolei. The event is free.

8:30 a.m.-3:30 p.m. 8:30 a.m.-5:00 p.m. 8:30 a.m.-3:30 p.m. 8:30 a.m.-5:00 p.m. ing what lives in Hawaiian waters.

What's the best way to learn? By doing! Snorkel, swim and explore the coast from Waikīkī to Diamond Head. After a morning of outside adventures, the Aquarium turns into a classroom. Learn about the

them being fed on special behindthe-scenes tours. For marine biologists ages 8-12 years. All students should be confident swimmers and enjoy snorkeling. \$275/child (\$325 for non-members).

#### **Fish School**

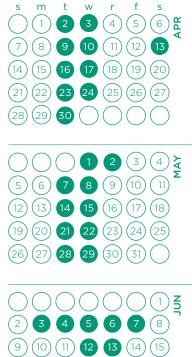
Jun 13, Thu 1:00-2:30 p.m. Jun 27, Thu 1:00-2:30 p.m. Jul 11, Thu 1:00-2:30 p.m. Draw fish, label fish, and compare fish to determine: What makes a fish a fish? Why do some have barbels and whiskers, while others inflate or spit? Can fish change color? Do they really change gender? The class is followed by a self-guided scavenger hunt of the exhibits. \$5/person, \$8 non-members.

#### Ke Kani O Ke Kai

Jun 13, 27, Jul 11, 25, Aug 8 Summer wouldn't be the same without the Aquarium's summer concert series, Ke Kani O Ke Kai. Join us Thursday evenings on the lawn for the best in Island music, served up with 'ono food from local restaurants. Watch your mailbox for more info.

#### Aquarium After Dark

Jun 24, Mon 7:00-9:00 p.m. Jul 8, Mon 7:00-9:00 p.m. 7:00-9:00 p.m. Jul 18, Thu Discover if fish sleep on an after-dark flashlight tour of the Aquarium. Find the sleeping spot for the redtoothed triggerfish or the rock-mover wrasse. Are yellow tang always yellow? Come for a class followed by a tour of the exhibits. Minimum age 5 years; youngsters must be accompanied by an adult. \$10/adult, \$7/child (\$14/10 for non-members).



(16) 17 18 19 20 21 22 23 24 25 26 27 28 29 

Look for class updates on: www.waquarium.org **PRE-REGISTRATION** REQUIRED



### An Evening Under the Sea

Nearly 400 of the University of Hawai'i's President's Club members and other special donors enjoyed an evening exploring "Under the Sea" at the Aquarium on January 17. Aquarium staff and docents were on hand for special presentations throughout the evening, and a fun, informative talk by Dr. Andrew Rossiter entertained guests and highlighted us as one of the University's research and community jewels.

### REGISTRATION INFORMATION

- » Pre-registration is recommended.
- » FOWA members are allowed up to four total registrants at FOWA rate.
- » Questions about the activities? Call the Waikīkī Aquarium Education Department at 440-9007.
- » A handling fee of \$5 will be assessed for withdrawals.
- » No refunds can be made for no-shows or for withdrawals made seven days or less before an activity.
- » Please do NOT fax or email your registration.

To register by phone: Call **440-9011**. Visa and Mastercard are accepted.

To register by mail:

- » Full payment must accompany completed registration forms. Please, no cash.
- » Make checks payable to University of Hawai'i. Visa and Mastercard are also accepted.
- » Mail the completed registation form with a check or credit card information to:

Waikīkī Aquarium Education Department 2777 Kalākaua Avenue Honolulu, Hawaiʻi 96815-4027



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**BONUS!** What kind of butterflyfish is Wili?

## **NEW + RENEWING FOWA MEMBERS**

Amanda & Jason Diaz

The Membership Office recorded these new and renewing memberships between November 13, 2012 and February 19, 2013.

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your support.

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The beautiful exhibits at the Waikīkī Aquarium and the valuable research and conservation efforts that go on behind the scenes and in the classroom are the result of the work of many. Here we recognize those who support us through their generous donations. Our thanks to all those who believe in what we do.

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### Mahalo CPK!

Many thanks to California Pizza Kitchen and their support of our recent fundraiser during the 2012 Holiday season. Darren DeLucca, General Manager of California Pizza Kitchen, Waikīkī, presented a \$2,214.74 check to FOWA co-chair Marcus Boland and other board members. CPK also provided their signature appetizers for our March FOWA board meeting. Thank you to all who dined at CPK and supported this fundraiser!

#### NOVEMBER 2012 TO **MARCH 2013**

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Reef Triggerfish humuhumunukunukuāpua'a Rhinecanthus rectangulus