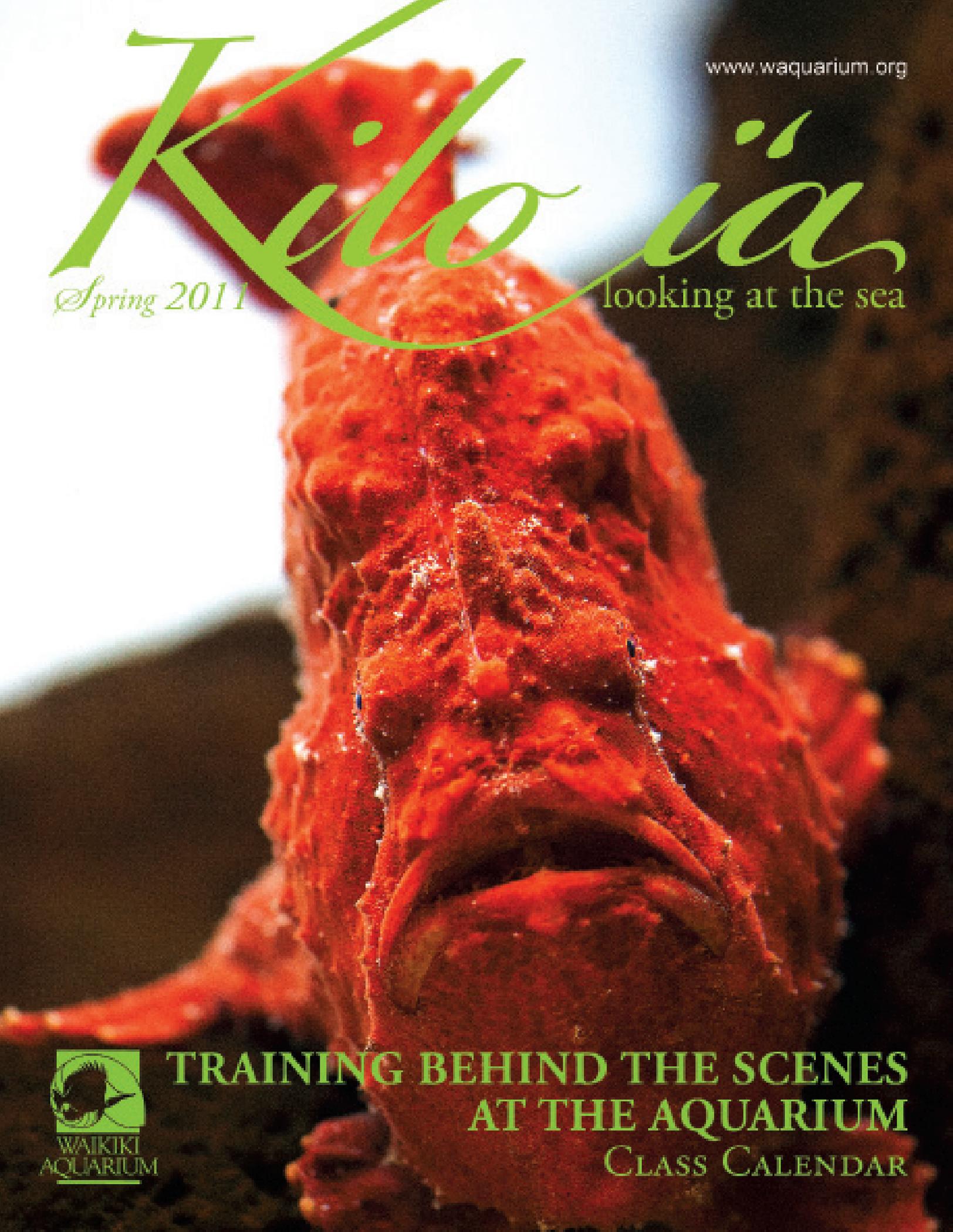


[www.waquarium.org](http://www.waquarium.org)

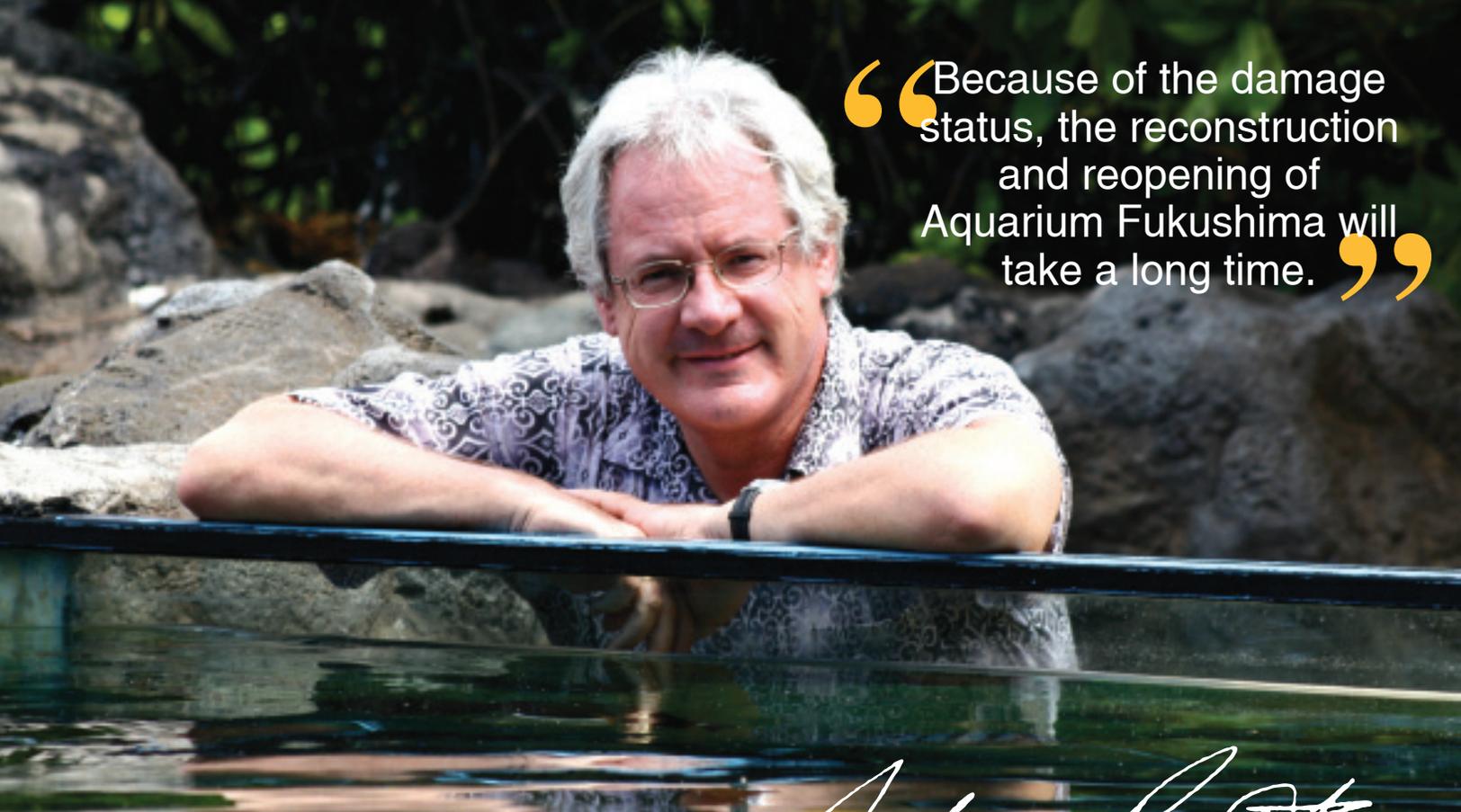
# *Kiōiā*

*Spring 2011*

looking at the sea



**TRAINING BEHIND THE SCENES  
AT THE AQUARIUM  
CLASS CALENDAR**



“Because of the damage status, the reconstruction and reopening of Aquarium Fukushima will take a long time.”

## FROM THE DIRECTOR

*Andrew Rossiter*

I know that the thoughts of many of us these days are with Japan. While tales and images of destruction and devastation are manifold, I'd like to focus on just one small part of this tragedy.

Aquamarine Fukushima, one of Japan's newest, largest and leading aquariums, is located on the shoreline of Fukushima, near one of the three epicenters of the earthquake. Its director, Dr. Yoshitaka Abe, hosted me on a visit there several years ago. If his name seems familiar, it may be because of Abe's angelfish, which is named after him. The Waikiki Aquarium houses the only specimen of this fish in captivity in the world. Another tie with Aquarium Fukushima is that one of our Japanese students, Tomoe Nakayama, joined its staff after returning to Japan after graduating from U.H.

Reports from Aquamarine Fukushima staff, paraphrased here, following the earthquake and tsunami make for somber reading.

"On March 11, the tsunami flooded the aquarium's ground floor and underground areas. Cars in the carpark were swept away and the earthquake caused the pier on which the aquarium is located to sink by almost a foot. The outside

facility and carpark are unusable. All the life support and electrical systems were submerged and severely damaged. Plans to transfer the marine birds and mammals to facilities in Tokyo and Kamogawa were scuppered by damage to the aquarium's vehicles and closing of the interstate.

"On March 13, all landlines, cellphones, internal phone lines, desktop computers and main servers were inoperable.

"By March 14, unfortunately, most of the fish and invertebrate collection had expired due to loss of power and life support systems.

"On March 16, all marine mammals were transferred to another facility. Thereafter, all aquarium staff were to evacuate the aquarium owing to challenges with food, fuel and radiation issues. Because of the damage status, the reconstruction and reopening of Aquarium Fukushima will take a long time."

Our thoughts are with them.

Dr. Andrew Rossiter  
Director



## *Kilo i'a*

Issue Number 177 Spring 2011

Editor: Alice Keesing Art Director: Carlos Chang

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Silver mono this page by Trevor Inouye. Both images were captured during Photographers' Night.

Long days, vacation and loads happening at the Waikīkī Aquarium ... summer is here! Dive into the season and join us for these cool events.

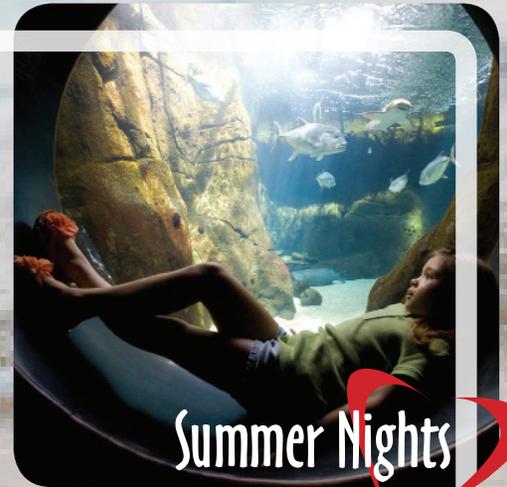
# LOVIN' SUMMER

We start the season with an event that is special to Hawai'i. On May 2, we follow the old ways as we welcome the change from the wet to the dry season. The Hawaiians marked this time by observing when the setting sun sinks directly into the crown of Pu'u Kapolei. We celebrate this rich cultural heritage every year with our Seasons and the Sea event.



See the calendar on page 12 for more information on all these hot summer offerings.

The lights will be on at the Aquarium late into the Summer Nights on the first Tuesdays of June, July and August.



Come and enjoy the galleries and join in the activities we have planned around the Northwestern Hawaiian Islands.

## Ke Kani O Ke Kai

Summer wouldn't be summer without Ke Kani O Ke Kai. Our summer concert series will be back and rockin' the lawn on select Thursday evenings this summer with a stellar line-up of Hawai'i's top performers, including Jake Shimabukuro and Brothers Cazimero.



Take a dip in the Northwestern Hawaiian Islands this summer by visiting our brand new exhibit in Gallery 4. This far-flung chain of islands is possibly the last large-scale, predator-dominated coral reef ecosystem on the planet and our exhibit gives you a window on that world, with some inhabitants that you will not see anywhere else.



The Waikīkī Aquarium has the Summer Camp that really rocks. Young biologists get to spend a week in and around the water, learning about the ocean and the animals that live in it.





# TRAINING



**T**he octopus is sitting immobile on the sandy bottom of its exhibit. Even though it is a mere inch from the glass, it is so well camouflaged that many visitors don't even notice its presence. But as soon as student aquarist Amber Cushman opens the door leading to the area behind the exhibit, the octopus is immediately alert, drawing itself up and putting on a shifting color display. Just the opening of a door is a cue that food is on its way. Even before Amber introduces its food — a plump shrimp — into the tank, the octopus is ready and waiting, suckered to the back wall of its tank.

The shrimp is inside a green hamster tunnel, which is sealed on one end, so the octopus has to do a little extra work to get its lunch. In the wild, an octopus can't expect to have its food just handed to it; it may have to figure out how to extract its prey from a rocky hole, so this kind of training reinforces its natural instincts and provides enrichment during its time in captivity.

This is just one of the many ways that Aquarium Live Exhibit's staff are training our animals every day. Animal training does not mean what it used to. The animals are not drilled to perform tricks for a human audience — although the octopus' food-in-a-tube is a big hit with onlookers — but rather to help enrich the animals' lives and maximize their care.

Much of the training involves getting the right food to the right animals in the right amount. Aquarist Norton Chan has trained the big fish in Hunters *Kilo ia*

on the Reef to come to certain parts of the tank at feeding time, to ensure that each one gets its fair share and correct dosage of vitamins. And Aquarist Kelley Niide has trained the devil scorpionfish in Reef Predators to come to the top of its tank at feeding time so the other, quicker fish don't snap up all the food.

"When it comes to food, fish will pick it up pretty quickly," says Aquarist Leah Kissel.

In fact, the instinct to find food is so strong that aquarists often find the animals responding to cues that aren't even trained ... the octopus sensing the door opening; the monk seals responding to the PA announcement telling visitors that training is about to begin; and the archerfish, which in the wild spits water to knock prey from overhanging branches, spitting at the feeding tray and knife when they appear.

Of course, the most overt training at the Aquarium is with the Hawaiian monk seals.

"When you're working with a 400-pound animal and you want to look inside its mouth, you're not going to get very far, or be very safe, if you haven't trained them to hold their mouth open," says Kissel, who heads up the monk seal program.

The seals have been taught certain behaviors that help with their care,

from opening their mouth so their teeth can be checked, to positioning themselves on a scale so they can be weighed.

So, how do you get a monk seal to open wide, roll over on its back or swim two laps of the pool?

Kissel uses the common psychology method called operant conditioning, or positive reinforcement. As with other animals, the positive reinforcement comes in the form of food.

One method Kissel uses is successive approximation, which she likens to a child's game of hot and cold. Trainers build on the animals' natural tendency to do something; as soon as they see the animal doing the wanted behavior, perhaps rolling over on its side, the seal is "hot" and gets a fish. No behavior and the seal is "cold," so no fish. Building on each step can add up to more complex behaviors.

Trainers also can use tools, such as the blue and white floats typically seen at the Aquarium's monk seal training sessions. The seals already know to target, or go to, the floats. So when Kissel wanted to teach the seals to swim two laps of the pool, she simply had a student aquarist cue the seals to swim to the float at one end of the pool and then the other.

"It's kind of like dangling a carrot in front of a horse's nose," she says.

As the animal becomes familiar with the behavior, Kissel phases out the target and then attaches the behavior to a gestural hand signal.

Aside from helping with their care, training does appear to enrich the animals' lives, whether it's the octopus exploring different baby toys introduced to its environment or the monk seals learning a new behavior.

"We can see that their mood increases greatly when we're working on something new," Kissel says.



In recent months Kissel has been working behind the scenes with a knifejaw from the Northwestern Hawaiian Islands. The fish is an aggressive feeder and Live Exhibits staff want to be sure it didn't outcompete any future tankmates. Kissel and Student Aquarists Amber Cushman and Ashley Janicki were able to train the fish to swim into a bucket so it could have its own isolated feeding space. Initially they had to keep a constant flow of food coming to the knifejaw, but were eventually able to get it to stay in the bucket for 10 minutes while receiving an offering just once a minute — this trained behavior potentially gives aquarists time to feed other animals in the tank and finish up other work.

## HOW WE GET OUR RESIDENTS TO OPEN WIDE FOR TOOTH-CHECK TIME, COME TO THE DINNER TABLE ON TIME AND LEAD MORE ENRICHED LIVES

Just over a year ago, Aquarist Leah Kissel launched an internship program providing opportunities for students to spend a semester working with the Hawaiian monk seals. Part of the internship involves devising and carrying out a training project with other Aquarium residents. One intern group taught the octopus to target a suction cup on the exterior glass of its tank. The potential benefit of such training? Being able to position the octopus in its tank could help with cleaning and maintenance tasks. Here, the octopus is handed lunch-with-a-challenge. While already adept at unscrewing the lid of a jar, the animal was initially flummoxed when its food was tucked into this green hamster tube. Student Aquarist Amber Cushman ended up providing a helping hand by tilting the tube, then the octopus reached right in and retrieved its lunch.



Photo courtesy of Shannon Westman.



# figuring OUT

## >> animal training

**15-20** The number of hand signals recognized by Hawaiian monk seals, Maka and Nuka. The signals ask them to do everything from vocalize to swim two laps of their pool.

**5** The number of years that lapsed between the use of a particular hand signal — and which the monk seals still remembered when it was reintroduced.

**8** The number of 15-minute training sessions it took for Maka to learn to swim two laps of his pool. Nuka took nine sessions, slightly longer because he took a break in the middle when he was molting, a time when the monk seals generally are not as interested in training.

**1** The number of training sessions it took for the seals to learn to turn belly-up in the water. This position helps aquarists view the roof and back of the animal's mouth or get a heart rate.

**9** The current number of Aquarium inhabitants, besides the monk seals, that are conditioned to be hand fed in order to ensure proper nutrition.

**20** Approximately the longest time in minutes that it has taken an Aquarium octopus to figure out how to unscrew the lid off a jar to retrieve a shrimp inside. The length of time varies by animal and on how tightly the lid is attached. Some animals can undo the jar in a matter of seconds, once they get the gist of it.

**1** The number of months it took interns to teach the octopus to target a suction cup that was moved around on the exterior window of its tank.

**10** The number of minutes the knifejaw fish was trained to stay in a bucket to assist with feeding.

# WORLD OCEANS DAY

The planet celebrates World Ocean Day on June 8 and the Aquarium is joining in by tackling the scourge of marine debris. Aquarium staff will clean up neighboring Kaimana Beach fronting the New Otani Kaimana Beach Hotel. Duke's Waikiki staff are also conducting their own cleanup and are generously giving the Aquarium the proceeds that they receive from filling one of Matson's Ka Ipu 'Āina containers.

NOAA staff will also be at the Aquarium that day from 10 a.m. to 1 p.m. with special educational displays on marine debris and a video in the theatre. Plus, American Underwater Products will be here unveiling its newest underwater gear and giving away a snorkel gear set.

June 8

## BEYOND THE REEF

Save the date of June 10 and join us for a gala evening on the lawn. This special fundraising dinner, from 6 to 9 p.m. is being organized entirely by the board members of the Friends of Waikiki Aquarium. Don't miss this inaugural event.

June 10

# SEA HUNT

Celebrate the Easter season with everyone's favorite sea hunt. On April 16, the lawn will be transformed into a hunting ground where keiki ages 2 to 7 can search for sea animal puzzle pieces.

The puzzle pieces were introduced to the hunt last year, replacing the traditional plastic eggs. This is all part of our shift to leave a smaller plastic imprint on our environment. At the end of the hunt, each child receives a complete puzzle of their own to take home.

Everyone's favorite bunny will also be there in a burrow specially decorated with oversized eggs designed by local artists, including Allen Tsukamoto, Michael Furuya, Patrick Ching and the late Peggy Chun. Artists will be on hand to do Splash Art with the guests, turning ordinary doodles into extraordinary sea life. Kids can also create their own masterpieces at the Aquarium's Education craft tables and go fishing at the game booth.

A big mahalo to Diamond Bakery, HDS, GP Roadway, Peterson Sign Company, The Old Spaghetti Factory, McDonald's, Chuck E. Cheese's and Little People Hawaii for their support of SeaHunt.

For more information, go to "News & Events" on our website, [www.waquarium.org](http://www.waquarium.org).

April 16



# BEHIND THE SCENES

## LIVE EXHIBITS

Behind the scenes at the Waikiki Aquarium — it's a place where pumps constantly hum, where it's often damp underfoot, where you get the occasional pungent waft of fish food. It's also where you'll find our Live Exhibits staff, sometimes in wetsuits and masks and always busy. They're among the best in the business, adept at taking care of the fussiest feeders, the trickiest corals and the odd emergent situation.

### MORE MOI

It's Wednesday morning and Aquarist Alan Nelson is headed to the donut-shaped moi exhibit on the back lawn. This is the exhibit that made headlines late last year when 15 mature moi were stolen from the tank in an overnight heist.

In October, the Oceanic Institute gifted the Aquarium with brand new stock to replace the stolen fish. At best count, there are about 680 juvenile moi swimming around the tank this morning. These fish are called f1s, which means they are the first generation bred in captivity from wild-caught stock. They were only about one month old and one inch long when they arrived. In four months, some of them have reached six inches in length.

Part of the trick with keeping the moi is having a continuous inflow of new ocean water. Because the water is unfiltered, Nelson needs to take extra care to keep the tank clean. Every day, he or other aquarists jump in the exhibit before opening time and use doodlebugs to scrub algae from the floor. A doodlebug is a cleaning pad, (think brillo pad), which they attach to the end of a pole or sometimes their own feet to reach the bottom of the tank. The fish are curious when humans are in the exhibit and often ball up around the aquarists' legs, flicking out the threadfins that they use to sense food. It tickles on bare skin.

Today, however, the pool is due for a complete clean, which means draining all the water and sterilizing the surfaces with bleach. To do this, Nelson needs to herd the hundreds of skittish fish into the inner circle of the donut. It's a delicate task because the fish can easily get stressed, and they bruise easily if they get bumped, which can create a pathway for more serious infection.

Nelson slips into the tank with the fish, then lowers what he calls a "crowder" into the outer ring, effectively creating a barrier so the fish can no longer swim around the circle. The crowder is made of a PVC pipe frame filled with black mesh. Nelson then drops a second crowder next to the first and begins working it back around the ring, corralling the moi into a smaller and smaller area. He's working them next to a doorway that leads to the inner circle of the tank, which serves as a holding area.

He works carefully and slowly to be sure none of the smaller fish become stuck in the mesh or in the sides of the crowders. Like other animals, moi will swim downward when spooked — it's a natural escape response to potential predators — so once Nelson has the fish all corralled by the door, he slips a third, smaller crowder into the space and uses it to gently lift the fish upward so they will swim through the doorway into the inner pool.

Once the fish are safely in the inner circle, he can drain and clean the exterior ring. The whole process takes a couple of hours and then



it's another two hours to refill the pool. Once it's full, Nelson reopens the door between the two tanks and gently guides the moi back into the outer ring.

Right away he resets the belt feeder that automatically drops food into the tank throughout the day. (The food is a high-end pellet that was developed through work on the Aquarium's mahi program years ago; these days it is an aquarium standard for marine fish.) Nelson watches the moi for a time through a hatch on the side of the tank — it's a sign of healthy, unstressed fish if they start to feed right away — then, tank cleaning complete, he heads back into the galleries.

# Volunteer SPOTLIGHT



**Position** School program docents with grades K-6; plus volunteers for private and community education programs and events  
**Length of Service** 4 years **Other volunteer experience** Salvation Army, Food Cupboard, Meals on Wheels and Disabled Outdoor Experiences.

## PAULETTE

**Background** I grew up primarily in the Boston, Ma., area and married Philip in 1979, the year that we first moved to O’ahu. I have degrees in nursing, post graduate in physician assistant studies and a PhD in naturology/holistic health care. I am a licensed multi-level long-term care administrator, with seven years at an intermediate care facility and rehabilitation center. During my career, I have worked as a registered nurse, as head nurse in mental health and intensive cardiac care, and as a physician assistant in occupational, emergency, sports and internal medicine.

**Interests** Swimming, snorkeling, studying and observing reef communities, scuba cave and wreck diving, photography, music, dancing, yoga. I also enjoy learning about and participating in various cultural celebrations and events. **I volunteer at the Aquarium because** this is an opportunity to “dive” with the animals without getting wet! This is a wonderful place to learn up-to-date information on marine animal research and to meet renowned marine biology authors. As I learn more about the marine life of Hawai’i, I enjoy passing it on to visitors. **The most rewarding part of volunteering is** seeing the children’s “ah-ha” reaction as they learn something new, plus teaching them ways to protect and conserve our marine life resources. Their inquisitiveness is always an inspiration and a challenge. **Memorable marine encounter** While deep scuba diving in Cozumel, Mexico, along the 2,000 foot wall of an abyss, we noticed a giant spotted eagle ray gracefully swimming beside us. We continued on this animal-human procession for several minutes, making it one of the most exhilarating and memorable dives. **Favorite Aquarium resident** The frogfish. It sits still while enticing its prey with a fishing rod-type fleshy lure. Then it engulfs its prey in six milliseconds — so fast you can’t even see it happen.

## PHILIP

**Background** I grew up in the Boston area where I studied culinary art with extended courses at Cordon Bleu, France, England and Hawai’i. I have a degree in hotel and restaurant management and a PhD in parapsychic science specializing in quantum physics. As a professional chef I owned Italian and Chinese restaurants and catering businesses. Paulette and I have also been involved in building design, construction and remodeling. We have owned, restored and managed apartments for Section 8 elderly housing, plus were co-owners and managers of a lakeside resort and restaurant. **Interests** I enjoy swimming, snorkeling, cave and wreck scuba diving, music, cooking and painting. My recent artwork depicts Hawaiian history and legends and is currently used for educational purposes. **I volunteer at the Aquarium because** I enjoy learning about marine life and sharing that knowledge with others. I enjoy the educational programs and events and being among others who share the same interests. **Memorable marine encounter** While cave diving in the Dominican Republic I came upon three blind fish — they did not have eyes! **Favorite Aquarium resident** I enjoy telling visitors about the Hawaiian monk seals because they are an example of an endangered species that we must protect.

# WE Appreciate

The Waikiki Aquarium benefits hugely from a large cohort of active volunteers who provide thousands of hours of service every year. In April and May, we give our thanks to them.

April is National Volunteer Month and during this time our volunteers will receive a month full of free visits to other O’ahu institutions that belong to the Network of Volunteer Leaders.

In addition, we hold our annual Volunteer Appreciation Lunch at the Willows Restaurant on May 7. This is when we present marine-themed pins to those volunteers who have reached landmarks in length of service.

For more information on these events, or to get information on volunteer opportunities, contact the Volunteer Office at 440-9020.



# A Day in the Life



Name **Dean Spencer**

Position **School Programs Coordinator**

Year started at the Aquarium **2002**

Education **Roosevelt High (1976), Electronics Institute (AA electronics technology 1985), Chaminade University (BS education, 2000)**

Etc. **I enjoy working on my house, from building and repairing to designing and renovating. Believe me, there is always something to repair! I also love spending time with my wife of 26 years. We reserve every Sunday to do things together, such as household shopping, catching a movie, exercising, taking our dogs to the beach and going out to eat.**

**8 a.m.** My day begins with checking email and phone messages for last-minute changes. Volunteers sometimes can't make it to their shift, so when that happens we roll with the punches — we usually have enough docents on a team to make up for the loss, or myself or my student assistant, Drew, can pitch in and lead a tour. I manage 25 docents and one student assistant. The docents are divided into three teams for Tuesday, Thursday and Friday mornings from 9 a.m. until noon.

**8:15 a.m.** I head down to the classroom to oversee the preparation and set-up for the 9 a.m. presentation. This morning we have a kindergarten class coming in and we'll be talking about Life on the Coral Reef. There are 30 different props and dried specimens with a large flannel board that need to be set up, plus live sea urchins and hermit crabs need to be readied in an outdoor observation pool. We have half an hour to get it all done.

**8:45 a.m.** The docent team gathers in the classroom and checks the day's schedule. I update them on changes to exhibits, answer questions and go over our strategy for the morning's tours.

**8:55 a.m.** The first school bus of 50 kindergarteners and 10 adult chaperones from Waialua Elementary arrives. Once they are seated in the classroom, we begin the 30-minute presentation. It takes a special person to keep the attention of 50 kindergarteners for 30 minutes, so the presenter is upbeat and takes every opportunity to get the kids involved. We have the students become young scientists and get hands on as they learn where marine animals live, what they eat and where they get their oxygen.

**9:30 a.m.** I organize the students and chaperones into small groups and they head out into the galleries for a 45-minute tour. Today I'm not leading a tour myself, so I help break down and set up for the first-grade class that's coming in at 10 a.m. We have only about 20 minutes to get ready with a whole new set of props and specimens. And then we do it all again for the third presentation at 11.

**11:30 a.m.** At the end of the last tour, the team debriefs. We discuss the interactions between the students and docents, what didn't go so well, and share tips on what did work well. We go over the schedule for the team's tours for the next week. This is a great time for the docents and I to reconnect and decompress after a full and emotionally-charged morning teaching as many as 150 students — and dealing with the unexpected hiccups that come as part of the territory.

**noon** I take a 45-minute walk around Kapi'olani Park; it helps to clear my head after a hectic morning.

**1 p.m.** I greet a large, self-guided school group at the Aquarium entrance and organize them into small groups. I prepare the chaperones and students for their self-guided tour.

**1:30 p.m.** Back in my office, I return phone calls, check my email and work on assigned tasks. Today I am preparing for Seasons and the Sea on May 2. This is a special cultural program that marks the Hawaiian change of seasons. I'm also called down to the front desk to answer questions about our school programs for visiting teachers.

**3:00 p.m.** Returning to my office, I write a letter of recommendation for a former docent and tackle some emails and phone calls from students looking for information on marine life and marine careers for their school reports.

**4:00 p.m.** I return to the classroom to prep for the next day's tours, setting up chairs for the expected number of students. Before I leave for the day at 4:30, I jot down my to-do list for the next day.

“It makes my day when ... our Aquarium-trained volunteer docents truly engage the teachers and students with their enthusiastic and knowledgeable interpersonal teaching styles.”

Photo: Kelsey Ige.



James

# FRESH Faces

**Name** Dr. James Wood

**Position** Associate Director and Education Director

**Education** Doctor of Philosophy, biology, Dalhousie University (2000); Bachelor of Science, zoology, with an economics minor, University of Florida (1994).

**Career** My most recent position was as education director at the Aquarium of the Pacific. I have also been an assistant research scientist at the Bermuda Institute of Ocean Sciences and an adjunct professor at Duke University. I am fascinated by all marine life, but my career passion has been cephalopods; I was project manager of the CephBase Project, one of the first censuses of marine life. I manage *The Cephalopod Page*, an online resource about all things cephalopod and I also co-authored the recently released hardcover book, *Octopus, The Ocean's Intelligent Invertebrate*.

**My roots** I grew up in West Palm Beach, FL., during which time I used any excuse I could to get to the beach. I was somewhat of a geeky surfer ... when the waves were down, I was always turning over rocks or shaking out seaweed and looking at the life I found. I kept many fish tanks as a child, starting with tadpoles, then freshwater fish, then marine fish that I collected myself. In high school I caught and kept my first octopus.

**Interests** Diving, underwater photography, sailing, boogie boarding, gardening, eating local food.

**I wanted to join the Waikiki Aquarium team because** Hawai'i is a marine enthusiasts dream! I am passionate about the marine sciences and education and I am especially keen to share with the public the amazing diversity of marine animals and new discoveries. I live in the space between science and education ... I can talk with scientists about non-parametric statistics and am equally happy conversing with a 5-year-old about "the Nemo fish."

**In my new position, I look forward to** continuing to make a real and positive difference. We are always looking to the future and how best to draw our visitors into the wonders of our marine environment.

**Favorite Aquarium resident** The octopus, of course.

## on BOARD

There are 18 people currently serving on the Friends of the Waikiki 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.



**Name**

Chris Cole

**Joined FOWA board**

October 2010

**Can also be found at**

Carlsmith Ball, LLP, where he is a partner, specializing in litigation and employment law

**Education**

Waiialua High (1982); UCLA, BA English/history; Hastings law school (1992)

**Favorite Aquarium resident**

Chambered nautilus

**What inspired you to become a FOWA board member?**

As a young child, I was amazed by the brightly colored butterflyfish and other sea creatures I saw at the Waikiki Aquarium. Reliving those impressionable experiences through the eyes of my three children has made me want to give back and help the Aquarium inspire future generations to enjoy and protect our reefs.

**What do you enjoy most about the Aquarium?**

Two things. First, its location and setting make it an ideal venue for hosting family events like SeaHunt on the lawn. Second, I learn something new every time I visit.

**What do you believe is the Aquarium's role in Hawai'i?**

The Waikiki Aquarium can provide unique resources and leadership for educating visitors, residents and key decision-makers about the importance of conserving our reefs and ocean environment.

**On a personal note**

I love to swim, surf and skin-dive during my free time. My three children, Schuyler (11), Dylan (9) and Mahina (7), have allowed me to reconnect with activities like tide pooling and fishing, which I enjoyed in my youth. The Waikiki Aquarium has been an integral part of those renewed experiences.

# CLASSES & ACTIVITIES

April-July 2011

## Small Fry

April 6-May 4, Wed

### A Session

8:30-10:00 a.m.

### B Session

10:30 a.m.-noon

For the youngest learners. An adult and their 1- to 3-year-old get to team up to discover the amazing undersea world of the Aquarium. Five weekly sessions include crafts, song, play and exploration of the exhibits. For adult-child teams. \$60/adult & child (\$80 for non-members).

## Earth Day

April 9, Sat

9:00 a.m.-2 p.m.

Join us as we celebrate Earth Day. More than 20 organizations will be at the Aquarium offering keiki crafts, games and educational materials. You can also join us as we release juvenile moi into the waters of the Marine Life Conservation District in front of the Aquarium. Sponsored by the Department of Health's Clean Water Branch and City & County of Honolulu Environmental Services. Free admission.

## SeaHunt

April 16, Sat

Hop on down for SeaHunt 2011. Keiki can go on a marine-themed hunt, visit with the Easter bunny, fish in the game booth and get crafty with our Education staff. Admission is \$5 for children of FOWA members; and \$15 for non-member hunters. Fish pond tickets are \$2 per child.

All proceeds from SeaHunt will support the Aquarium's current and planned exhibits, as well as its educational programs. All visitors enjoy access to Aquarium exhibits and galleries. For more information, go to News & Events on our website, [www.waquarium.org](http://www.waquarium.org).

## Marine Munchies

April 18, Mon

4:30-6:00 p.m in Japanese

April 25, Mon

4:30-6:00 p.m in Japanese

May 9, Mon

4:30-6:00 p.m

June 20, Mon

4:30-6:00 p.m

July 18, Mon

4:30-6:00 p.m

Discover animals' adaptations for capturing their meals and what they eat here at the Aquarium. Included is an exclusive after-hours animal feeding. Feed a sea anemone. Watch the octopus open a jar to get its dinner. Then it's your turn to feed the animals in our Edge of the Reef exhibit. Celebrate Golden Week with April programs in Japanese. Minimum age 5 years; youngsters must be accompanied by an adult. \$16/adult, \$12/child (\$20/\$15 for non-members).

## Seasons and the Sea

May 2, Mon

2:00-7:00 p.m.

Join us as we celebrate an important date in the Hawaiian calendar marking the change from the wet (ho'olio) to dry (kau) season. From 2 to 5 p.m. on the Aquarium grounds, you can learn about Hawaiian fishponds, native plants and the best days to fish and plant according to the phases of the Hawaiian moon. Keiki crafts include lauhala weaving, kukui nut tops and limu stamping. Participating organizations include Paepae O He'eia, Prince Kuhio Hawaiian Civic Club, Hui Ku Maoli Ola and Bishop Museum Press. Sponsored in part by the Hawaii Tourism Authority. Free with admission. At 6 p.m., join us on the 'ewa side of the Waikiki Aquarium, where Kumu 'Olu Gon and Halau Mele will conclude this special event by officially welcoming in the new season through chant, hula and mo'olelo (story telling) as the sun sets into the crown of Pu'u Kapolei.

## REGISTRATION INFORMATION

- Questions about the activities? Call the Waikiki Aquarium Education Department at 440-9007.
- Preregistration is required for all activities.
- FOWA members are allowed up to four total registrants at FOWA rate.
- 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.

### 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 registration form with a check or credit card information to:

**Waikiki Aquarium Education Department**  
**2777 Kalakaua Avenue**  
**Honolulu, HI 96815**

## Aquarium After Dark

May 6, Fri 7:00-9:00 p.m.  
 June 2, Thu 7:00-9:00 p.m.  
 June 23, Thu 7:00-9:00 p.m.  
 July 15, Fri 7:00-9:00 p.m.

Discover if fish sleep on an after-dark flashlight tour of the Aquarium. Find the sleeping spot for the red-toothed triggerfish or the rockmover wrasse. What color are yellow tang at night? Minimum age 5 years; youngsters must be accompanied by an adult. \$10/adult, \$7/child (\$14/10 for non-members).

## Gyotaku with Riley Yogi and Norton Chan

May 18 & 25, Wed 6:30-8:00 p.m.

Fishermen! Artists! Teachers! Learn the art of fish printing with local artist and fisherman Riley Yogi. On the first night, participants will use non-toxic black ink to print their fish and learn to paint realistic eyes. On the second night, techniques for adding watercolors will be taught. Supplies will be provided, but participants are encouraged to bring their own fish or octopus. Minimum age 14 years. \$22 (\$26 for non-members).

## Summer Nights at the Aquarium

June 7, Tue 6:00 to 8:00 p.m.  
 July 5, Tue 6:00 to 8:00 p.m.  
 Aug 2, Tue 6:00 to 8:00 p.m.

Looking for something different to do warm summer evenings? After the beach, stroll on over to the Aquarium with the family. Exhibits will be open, lights will be on and interpreters will be in the galleries. Each evening will have a different educational theme relating to the Northwestern Hawaiian Islands and the opening of our new exhibit. \$6/adult, \$3/child (\$7/4 for non-members).

## Summer by the Sea

June 13-17 8:00 a.m.-3:00 p.m. every day  
 5:00-7:00 p.m. Fri  
 June 27-July 1 8:00 a.m.-3:00 p.m. every day  
 5:00-7:00 p.m. Fri

Spend a week of summer learning what lives in Hawaiian waters. What's the best way to learn? By doing! Snorkel, swim and explore the coast from

Waikiki to Diamond Head. After a morning of outside adventures, the Aquarium turns into our classroom. Learn about the animals in our exhibits and watch them being fed on special behind-the-scenes tours. This year we will also take the students on a virtual tour of the Northwestern Hawaiian Islands. On the final Friday evening, families are invited for a student-led tour of the Aquarium. For marine biologists ages 8-12 years. All students should be confident swimmers and enjoy snorkeling. \$250/child (\$300 for non-members).

## Ke Kani O Ke Kai

June 16, 30, July 14, 28, Aug 11

Join us for our Thursday evening summer concert series on the lawn. We have the best in Island music, served up with sunsets, trade breezes and 'ono food from local restaurants. Watch your mailbox for more.

## Coral Spawning and Reef Romance

July 3, Sun 8:00-10:30 p.m.

Each summer, rice corals in the Edge of the Reef exhibit and all over Hawai'i spawn two to four days after the new moon. Celebrate this rite of reef renewal with Aquarium biologists. Learn about coral reproduction then go on a tour of the exhibits. As well as viewing the coral spawning, we will observe courtship and nesting behaviors of various fish. Minimum age 14 years. \$12 (\$16 for non-members).

## Oceans Alive!

### Movement: Fins, jets, arms and legs

July 6, Wed 9:00-10:30 a.m.

### Animal Homes: Sand, seaweed, coral & water

July 7, Thu 9:00-10:30 a.m.

Sing, dance, move and groove. Draw, color, create and play. Observe, watch, look and touch. Learn more about the sea during Oceans Alive! Move through stations and enjoy a variety of hands-on activities while exploring the diversity of the marine world. Designed for keiki 2 to 5 years old. \$5/person (\$7 for non-members).

# 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 (check payable to University of Hawai'i): \_\_\_\_\_

If paying by credit card

Credit card # \_\_\_\_\_  JCB  Visa  MasterCard

Expiration date: \_\_\_\_\_ Last three digits of security code on back of card: \_\_\_\_\_

I am a FOWA Member  Yes  No

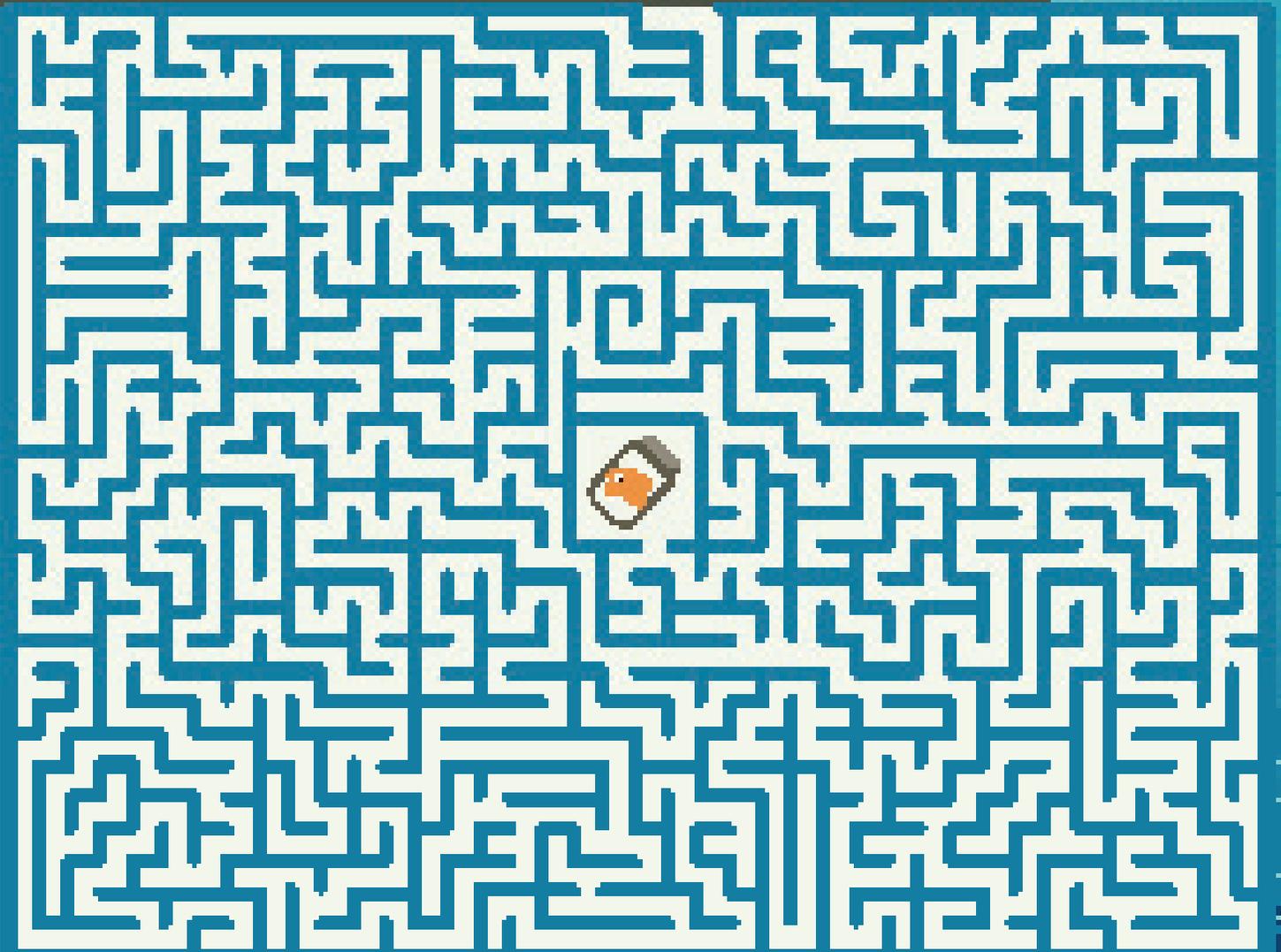




## OCTOPUS ENRICHMENT: Keeping Active in the Aquarium

Is the octopus smart enough to find its way through the maze and to dinner?

START!



# NEW & RENEWING FOWA MEMBERS

The Membership Office recorded these new and renewing memberships between Nov. 6, 2010 and Feb. 4, 2011.

Ms. Geraldine Aluli & Ms. Monica McConell  
Jeremy & Shelbi Ancheta  
Eve G. Anderson  
Dr. Bud & Ms. Brandy Antonelis  
Erma Arenson  
Dale Armstrong  
Mrs. Jeannie Au Wong  
Mr. Val Baliad  
Kaycie & Phil Baltunado  
Brad & Anita Barshaw  
Ms. Kris Bates  
Brenda L. Becker  
Dr. David P. Behling  
Drs. Maenette & Robert Benham  
Liana & Rae Benn  
Mr. Dana C. Bergeman  
Terance & Jan Bigalke  
Jacob V. & Jacob M. Bradley  
Mila Bradley & Mike Pyda  
Mr. & Mrs. George Brown  
Emil & Alice Bruner  
Mr. Laameaomauna'ala Burgess & Ms. Cristiana Maglinti  
The Burke Family  
Natasha Cabico & Isaac Costa  
Mr. & Mrs. Raymond O. Callorina  
Kimberly Carhart  
Mr. Jose Luis Castellon  
Mr. & Mrs. Jean-Pierre Cercillieux  
Alyson Certo & Justin Weaver  
Dr. John & Mrs. Lianne Chan  
Dr. Yvonne Chan & Mr. Benjamin Godsey  
Dr. & Mrs. Owen Chan  
Bonita Chang & Kyle Kajihiro  
Gayle & Jason Chang  
Elaine M.L. Chang  
Mr. & Mrs. Eric Chavez  
Bruce Chen & Kristine Altwies  
Brad & Colette Ching  
Alexander & Susan Christensen  
Jonathan & Cindy Chun  
Kathleen Chun  
Eben & Keiko Chun  
Mr. Clark & Mrs. Lewis  
Mary Anne & Caitlin Concilus  
Bill & Carol Coops  
Mr. & Mrs. Frank Cordova  
Graham & Marlo Cormak  
Leah & Thom Cornog  
Joachim & Catherine Cox  
Jennifer Crandall & Ken Hale  
Heidi Creighton-Redican & Sean Redican  
Janie Culp  
Dr. & Mrs. Kent Davenport  
Mr. & Mrs. Davis  
Dustin & Midori Deniz  
Mr. & Mrs. Michael Denny  
Kathleen Dobler & Brett Bowen  
Stephan & Saori Doi  
Dr. & Mrs. Kim Driftmier  
T. & K. Driver  
Mr. & Mrs. Peter A. Dudgeon  
Mr. & Mrs. Charles Dunbar  
David & Kathy Earles  
Tiara Egdam & Patrick Doyle  
Jo & Lu Eldredge  
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Jon & Erin Etter  
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Hiromi Fujita  
Wesley & Dana Funai  
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Violet Golden  
Jayson Goo  
Robert & June Gries  
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Kathy & Don Hallock  
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Burdene & Susan Hanes  
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Mr. Rocky & Ms. Lee Howard Hardcastle  
Mr. Alfred Hart  
Kumi Hashimoto  
Gary & Kimberly Hashiro  
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Mr. & Mrs. Troy Hazzard  
Michael Heihre  
Mr. & Mrs. Raymond E. Helm  
David Heppner  
Hazel & Dayle Hirayama & Joy Matsukawa  
Holly Holland  
Mrs. Annette Hollingshead  
Raymond Hoptowitz  
Kirk Hottendorf & Blue Kaanehe  
Renee Hsia & Albert Lee  
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Dr. Cynthia Hunter  
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Ms. Michiko Imura  
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Quinn Itagaki  
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Ryan Kam  
Dereck Kami & Jun Ishii  
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Michael Kao  
Tom & Robin Kelleher  
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Jeffrey & Tonya Kimball  
Shawna & Aunu'ua King  
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Kevin & Sheri Kodama  
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Mr. & Mrs. Michael Koval  
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James & Linda Krentler  
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Myrna Kubota  
Sheryl & Roy Kuroda  
Faye W. Kurren  
Wilfred & Caren Kusaka  
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Dr. & Mrs. Tim Langer  
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Nick & Vicki LaTurner  
Dennison Lau  
Christopher & Mary LaVoie  
Michael & Mary Lawrence Gallagher  
Megan LeClair  
Dr. & Mrs. Timothy Lee  
Mr. & Mrs. Garrett Leong  
Mr. Yong Li & Ms. Jin Dong  
Dwight Lin & Arlene Baldillo  
Steven Lo  
Dr. Lorren Loo & Dr. Paul Martin  
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Marilyn Lufkin  
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Ronald & Amy Ruhaak  
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Ivan & Rita Sakamoto  
Mr. & Mrs. Cory Sakata  
Mr. & Mrs. Sanderson  
Mr. & Mrs. Harold Schatz  
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Stephen & Sachiko Yim  
Keith & Tammy Yoshimoto  
David Yoshishige & Nadine Doi  
Mr. & Mrs. Albert & Yuriko Yoshiyama  
Madeleine Young & Steven Minaglia, MD  
John & Shari Young

If your name is not listed or is listed incorrectly, please accept our apologies for the error and our most sincere thanks for your support.

# MONK SEAL NEWS

Photo courtesy of NWHI Coral Reef Ecosystem Reserve.



April is Monk Seal Month in Hawai'i, so we're celebrating. Read here to learn more about activities and recent events.

## Aquarium activities

Join us and NOAA Fisheries Service staff to learn more about these endangered animals and enjoy keiki activities. We'll be set up on the moi deck on the Wednesdays of April 6, 13, 20 and 27 from 10 a.m. to noon.

## Be like a researcher

On April 30, venture inside a research tent just like those used by monk seal researchers in the Northwestern Hawaiian Islands. NOAA will pitch its tent on the lawn so visitors can get a taste of a research camp, learn about the latest work being conducted in the wild, use a microscope to study monk seal anatomy and enjoy the keiki activities. Event is from 10 a.m. to 1 p.m. and is free with admission to the Aquarium.



Photo: Karen Holman.

## Learn more

You can find more information on monk seals, what to do if you see one hauled out on the beach and how to report a monk seal sighting at [http://www.fpir.noaa.gov/PRD/prd\\_hawaiian\\_monk\\_seal.html](http://www.fpir.noaa.gov/PRD/prd_hawaiian_monk_seal.html).

## Did you know?

Monk seals are named for the folds of skin on their heads, which resemble a monk's hood, and also for their monkish solitary behavior.



## Workshop

Aquarium Biologist Leah Kissel attended a monk seal workshop in February. Organized by NOAA's Protected Resources Division, the meeting brought together the four U.S. facilities that currently keep monk seals and researchers who have federal permits to conduct work with the endangered animals.

The aim was to form a bridge between the two groups and streamline collaboration. Researchers often need baseline data from captive monk seals before working with wild populations, while those who work with the animals every day can provide valuable information that helps researchers plan their work in the most efficient manner.

Kissel presented information on the Aquarium's monk seal program, outlining the status of our aging seals, the research being conducted here and the behind-the-scenes facilities available for temporary holding of wild seals.

## Coastal America Student Summit

Waikiki Aquarium Community Enrichment Coordinator Mary Roney accompanied four students from Assets School to Washington D.C. for the Coastal America Student Summit in February. The students presented their action plan on O'ahu's changing rainfall patterns to their peers and dignitaries in the rarified atmosphere of Baird Hall at the Smithsonian Natural History Museum. They also got to hear an inspirational keynote talk from Jean-Michel Cousteau and meet Hawai'i Representative Colleen Hanabusa in her congressional office. And, yes, it was winter, but we lucked out with good weather — it even got into the 60s!



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Waikiki Aquarium  
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Honolulu, HI 96815-4027

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## THE WAIKIKĪ AQUARIUM'S MISSION:

To inspire and promote understanding, appreciation and conservation of Pacific marine life.



This portrait of a forcepsfish, was snapped by Milton Hee at the recent Photographers' Night.