

Kilo iā

2014 APR | MAY | JUN



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BUILDING THE
SYNGNATHIDS EXHIBIT

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Our 110th birthday events passed eventfully, with over 10,000 individuals visiting the Aquarium over the two days of 110c entry. Thanks to the sterling efforts of Aquarium staff and volunteers, and the many organizations that participated in these events, there was really something for everyone who came. A LEGO build, chalk artwork, free food graciously provided by Hard Rock, informational booths hosted by many of our marine education and conservation collaborators, and a host of other activities provided ample entertainment to visitors on the lawn area and in the galleries... and there was always the Aquarium exhibits to view, also.

Those who were at these events or who have visited the Aquarium recently, will have noticed the major renovations and installation of a temporary wall near the galleries exit. Finally, construction our long-awaited seahorse, seadragon and pipefish gallery is underway and, as described elsewhere in this issue, is scheduled to open in July. And for those of you with short memories, or for whom the exhibits previously located there were less than memorable, I can assure you that they will not be 'lost'. The fishes housed in the former Reef Machine exhibit, including the Peppermint Angelfish and Abe's Angelfish, will be rehoused in Gallery 3. The biological life support system in this new exhibit is now maturing. Once this is complete, the fishes will be introduced, which should take place soon. The artifacts displayed in the Hawaiians and The Sea exhibit will be incorporated into our revamp of the main galleries, that will occur over the coming years. Instead of being gathered in a museum-type display, each artifact will be located next to the living exhibit to which it is most relevant. And discussions are underway to replace the Amazing Molluscs picture display with an exhibit elsewhere in the galleries that highlights the evolution and adaptations of molluscs, using living animals. After all, visitors come to the aquarium primarily to see live animals, and not dried museum specimens or pictures. And in this regard, living molluscs really are amazing!

Dr. Andrew Rossiter with Mary Cooke. Mrs. Cooke's husband Sam was the great-grandson of founder Charles Cooke at the 110th Anniversary VIP event on March 19, 2014.

Elsewhere, preparations are underway for the Mauka to Makai Event on Saturday 19th March. As part of this event, with the support of with State Department of Health Clean Water Branch, Hui 'O Ko'olaupoko and Hardware Hawai'i, we have installed a rain garden of native Hawaiian vegetation behind the stage. The early plantings now in place will soon grow to cover the whole area, and will utilize rainfall in a productive way. The garden will be unveiled officially at the event, and seminars will be given throughout the morning on how to construct a rain garden for your home. I know that this information will reach you after the event, however, if interest is sufficient, we may hold another seminar at a later date.

And of course, the wheels are turning for the upcoming Ke Kani O Ke Kai concert series. The impressive list of entertainers is given elsewhere in this issue, and this year proceeds will be allocated towards marine conservations projects being undertaken by the Aquarium. Concerts generally sell out, so hurry and buy your tickets now. In addition to having a great time enjoying some of Hawai'i's top entertainers, your money is contributing to the work we do conserving Hawai'i's marine life. Two reasons to feel good!

Andrew Rossiter

Dr. Andrew Rossiter
Director, Waikikī Aquarium



Kilo i'a

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MANA'O

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*.

APRIL – JUNE 2014 EVENTS

MAUKA TO MAKAI

SATURDAY, APRIL 19

Join us for the annual Mauka to Makai event in celebration of Earth Day. In partnership with the State Department of Health and the 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. Admission is free.

SEASONS

AND THE SEA

FRIDAY, MAY 2

Get down to the Waikikī Aquarium on Friday, May 2 as we say a hui hou to the wet season, ho'oiilo, and welcome the dry season, kau. Hawaiians marked this time by observing the sun setting into the crown of Pu'u o Kapolei at the foot of the Waianae mountain range. Join us in the park 'ewa of the Aquarium to observe this occurrence while enjoying traditional chanting and hula.

WORLD OCEANS MONTH

JUNE 2014

The Waikikī Aquarium has continuously hosted the largest World



Oceans Month events in the nation for the past few years. Join us as we kick off a month-long celebration with special events, presentations, and activities with our community partners in 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 the month of June. See page 6 for a detailed calendar of World Oceans Month events.

SUMMER BY THE SEA

SESSION 1: JUNE 9-13

SESSION 2: JUNE 23-27

The Aquarium's week-long day

campers are designed for budding biologists ages 8-12 years old. Snorkeling, swimming, tidepooling, and hiking are some of the out-of-doors activities we have in store. Don't wait to sign-up; space is limited.

KE KANI O KE KAI

JUNE 12, 26, JULY 10, 24,
AUGUST 7

Hawaiian music at its finest in the perfect setting will once again return to the Aquarium lawn as we kick-off our ever popular summer concert series Ke Kani O Ke Kai on June 12. Join us on Thursday evenings through August 7 for some of Hawai'i's top headlining entertainers accompanied by "ono kine grinds" by popular Honolulu

restaurants and caterers. Check your mailboxes or our website for more concert info! Series tickets will be available for purchase from May 1.

› For more information on these and other summer events and activities, see the calendar on page 11.



Teen Interpreters

Aspiring Marine Scientists Wanted.

This summer the Waikikī Aquarium is starting a Teen Interpreter Program and we are looking for a few good teenagers who want to learn about Hawaiian marine life and who also enjoy interacting with adults and children! Interested teenagers should apply online at www.waikikiaquarium.org by May 15.

All applicants must be available to volunteer on Wednesdays from July 9-30 (either in the morning or in the afternoon). Attendance at a full-day training session on Tuesday, July 8 is required. For more information, please contact Mary Roney at 440-9007.



A NEW SEA

- THE MOST IMPORTANT OCEAN ISSUES WE FACE TODAY -

The ocean covers 71 percent of the Earth's surface and provides crucial resources, including producing nearly 50 percent of the planet's oxygen and supplying the world's largest supply of dietary protein. Our oceans are also relied upon globally for transportation and recreation. With growing populations and increasing coastal development, the ocean is facing many challenges.

OCEAN ACIDIFICATION

Approximately 30 percent of the carbon dioxide (CO₂) released into the atmosphere is absorbed by the ocean. When CO₂ is absorbed by seawater, chemical reactions occur that result in the release of hydrogen ions. An increased number of hydrogen ions lowers the pH (increases the acidity) of ocean waters. "Ocean acidification" refers to this lowering of ocean pH. Prior to the industrial revolution, the average pH of ocean surface waters was 8.2. Today it is 8.1. While this may seem like a small change, this drop of 0.1 pH units represents a 25% change in acidity.

Among other issues, ocean acidification makes it difficult for calcifying animals, such as corals and shellfish, to grow and thrive. This occurs because a lower ocean pH decreases the availability of the carbonate ions these animals use to construct their shells and skeletons.

WHAT CAN WE DO?

To reduce the risk of further ocean acidification, we need to decrease CO₂ emissions. Reduce your carbon footprint by making small changes such as using energy efficient light bulbs and appliances and walking or carpooling when possible.

MARINE POLLUTION AND DEBRIS

Marine pollution results when foreign chemicals or waste enter the ocean environment. Common forms of chemical pollution include chemical spills, storm water runoff, and agricultural, industrial and residential runoff. Chemical pollution can result in harmful algal blooms, animal disease and overall damage to sensitive ecosystems such as coral reefs.

Marine debris enters the ocean when trash is not recycled or disposed of properly. Marine debris is present in every ocean basin and has been known to accumulate in large patches due to ocean circulation patterns. Wildlife can ingest or become entangled in the debris. In addition, as plastic debris breaks down into smaller and smaller pieces, all levels of the food chain are able to ingest the particles. Marine debris can also accumulate on beaches and coasts, negatively affecting tourism and recreation.

FIGURING OUT: THE STATE OF OUR OCEANS

39 PERCENT of the U.S. population lives in counties located directly on the shoreline.

33 PERCENT of shellfish-growing waters in the U.S. are adversely impacted by coastal pollution.

58 PERCENT of the world's fish stocks are estimated to have collapsed or be overexploited.

64 PERCENT of marine debris comes from shoreline and recreational activities.

22 MILLION TONS of human produced CO₂ is absorbed by the ocean each day.

80 PERCENT of ocean pollution comes from land sources such as runoff.

96 PERCENT of the Pacific bluefin tuna population has been eliminated due to overfishing.

450 YEARS is the amount of time it can take a plastic bottle to decompose in the ocean.

WHAT CAN WE DO?

Recycling and properly disposing of trash and encouraging others to do so can go a long way in reducing marine debris. For chemical pollution, if you see someone dumping used oil or other pollutants down a storm drain, call your city's Environmental Concern Line (768-3300 for Honolulu) or the State Clean Water Branch at 586-4309. You can also help out by using fewer pesticides and fertilizers in your lawn and garden.

PIRATE FISHING

Illegal, unreported and unregulated fishing (commonly referred to as IUU or pirate fishing) is a global problem that threatens healthy ocean ecosystems and sustainable fisheries both in the U.S. and abroad. It is

estimated that annual lost revenues from pirate fishing activities can be as much as \$23 billion worldwide and that as much as 20 percent of all wild caught fish is caught illegally.

WHAT CAN WE DO?

In 2009, the United Nations approved a Port State Measurement Agreement to prevent, deter and eliminate IUU fishing. While the United States signed the agreement, the U.S. has not yet implemented the agreement. Currently, the Senate is considering the Pirate Fishing Elimination Act (S. 267) which would implement the Port State Measurement Agreement. Contact your Senators to express your support for the passage of S. 267. 🐟

World Oceans Month Calendar of Events

**NORTH SHORE OCEAN FEST AT
TURTLE BAY RESORT**
JUNE 7 11:00 a.m. – 4:00 p.m.

AFTERNOONS AT THE AQUARIUM
WED, JUNE 4, 11, 18, 25 3:00 p.m.
Join printmaker Lynn Cook, HouseMart-Ben Franklin Crafts and other guests throughout the month for keiki activities. Sponsored by Aqua Hospitality.

**KA ‘IKE O KA MOANA: KNOWLEDGE OF
THE OCEAN AT HONOLULU HALE**
JUNE 5-20
Opening reception June 5, 5:00-7:00 p.m.
Head over to Honolulu Hale to view a special exhibit of educational displays and artwork celebrating National Oceans Month. In conjunction with the Mayor’s Office on Culture and the Arts.

**KE KANI O KE KAI SUMMER CONCERT
SERIES: HO’OKENA AND BEN & MAILA**
JUNE 12, Ticket required

A TRIBUTE TO DR. ISABELLA ABBOTT
JUNE 20 (Dr. Abbott’s birthday)
Noted designer Sig Zane will unveil two special designs created especially for the Waikiki Aquarium’s 110th Anniversary.

**NATIVE ALGAE PRINTMAKING WITH
ERIKA WYRTKI**
JUNE 27 10:00 a.m. – 12:00 p.m.
Free with admission to the Aquarium.

**INVASIVE ALGAE CLEANUP IN HONOR
OF DR. ISABELLA ABBOTT**
JUNE 28 9:00-11:00 a.m.
To participate, please call our volunteer program at (808) 440-9020.

**KE KANI O KE KAI SUMMER CONCERT
SERIES: HAPA AND CYRIL PAHINUI**
JUNE 26, Ticket required

LUCORAL MUSEUM
JUNE 9-27
Learn about the history of pearls in Hawai’i and the Pacific in a self-guided tour at LuCoral Museum. Receive a complimentary freshwater pearl or gemstone during your visit. Open Monday-Friday from 9:00 a.m.-5:00 p.m. 2414 Kūhio Avenue. For more info, call (808)922-1999, ask for Liz or visit www.lucoralmuseum.com.

Mahalo to Duke’s Waikiki, Hard Rock Café, and Matson Navigation for their ongoing support to keep our beaches and oceans clean.



Nurturing the Land and Sea

With support from the State Department of Health Clean Water Branch, Hui ‘O Ko’olaupoko and Hardware Hawai’i, a 150 square-foot rain garden was established at the Waikiki Aquarium on April 8. More than 100 native Hawaiian ferns, vines, grasses, flowers and (future) trees were planted to absorb and filter rainwater. The Aquarium hopes to bring awareness to our visitors of the important relationship between land and sea—healthy ‘āina (land) reduces the amount of runoff pollution into the ocean.

Mahalo to our Friends from Hui ‘O Ko’olaupoko, Aquarium volunteer Dave White, staff members Jerry Crow and Tommy Tagata for their hard work in the installation of our new rain garden.



Distinguished Lecture Series: Dr. Charles Fletcher, May 22 at 7:00 p.m.

The Waikiki Aquarium kicks off its year-long lecture series on Thursday, May 22, with a presentation by Dr. Charles “Chip” Fletcher at 7:00 p.m. at Mamiya Theatre. The series will feature a select group of ocean and environmental specialists and bring awareness to various ocean-related topics such as coastal erosion and ocean acidification.

These events are made possible by the generous support of FOWA Board Members Tim Guard and Nancy Taylor; Matson Navigation Company; McCabe, Hamilton & Reney; and the Honolulu Star-Advertiser. For more information, visit our website: www.waikikiaquarium.org.

Donor Breakfast and Presentation by Lani Starkey of the UH Foundation

On Wednesday, May 21 at 8:00–10:00 a.m. the Aquarium will host a special presentation by nationally recognized Lani Starkey, JC, LLM, CPA of UH Foundation’s Office of Estate and Gift Planning. Guests will be provided breakfast and a special Aquarium update.

If you are interested in attending, please RSVP by May 16 to MaryLou Foley at maryloufoley@waquarium.org or call (808)440-9027.

Building an Exhibit

Many years in the making, the Aquarium’s newest exhibit, “Amazing Adaptations: Seadragons, Seahorses and Pipefishes”, is scheduled to open in July. Extending along more than 60’ of wall space, the exhibit will comprise nine displays highlighting several species, and include a seahorse nursery. Additionally, behind the scenes, the recently-completed seadragon research room will be used to study, and try to breed, the most remarkable members of this group, the weedy (*Phyllopteryx taeniolatus*) and leafy (*Phycodurus eques*) seadragons.

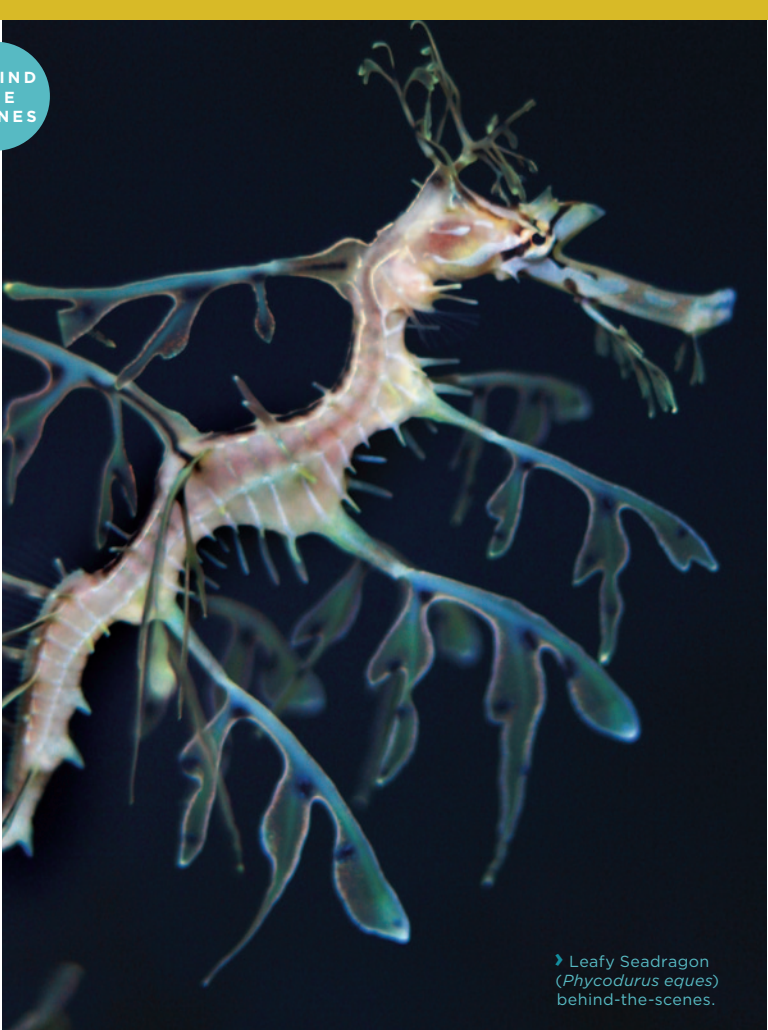
Behind the public face of these exhibits, preparations for the life support systems are underway. Some of the species on display originate from temperate habitats, and require cooled water, maintained at a species-specific ideal temperature by chiller units. Disease prevention is also important: exhibit water will continuously pass through ultraviolet sterilizers, which emit a UV light that kills bacteria and other disease-causing microorganisms. Water quality is also critical: left unaddressed, organic waste from defecation can accumulate to dangerous levels. One of the methods we use to regulate water quality is a protein skimmer, which creates a floating foam of fine bubbles, to which dissolved organics attach. Aquarium staff then scoop off the foam, and with it, the organic residue.

An assortment of equipment is arriving daily. Once all is on site, we will position the tanks, and begin plumbing, connecting the various components, and finally, testing for leaks and for optimal operation of the system on each exhibit. Only when all is operating smoothly will the fishes be introduced. Some are already here, but others will begin arriving over the coming weeks. As with every new organism, all will undergo a rigorous quarantine process before being deemed healthy enough to go on display.

Maintaining these fishes in captivity is a challenging task that should only be attempted by highly experienced aquarists. Foremost among these difficulties is feeding them. Known scientifically as the Family Syngnathidae (Greek for “fused jaw”), these fishes feed on plankton, fish larvae and small crustaceans, such as shrimps and copepods, using a unique action to suck food into their long, toothless, tubular mouths. Many species feed exclusively on live foods, and we have built a Live Foods Research Unit to provide an abundant supply of disease-free planktonic crustacean food items. Additionally, these fishes have no stomach, and instead rely upon their intestinal system for digestion. As a consequence, food passes through the gut rapidly, nutrient absorption is less than in ‘normal’ fishes that have a stomach, and in the wild these fishes need to eat almost constantly to survive. To cater to this need, the Aquarium typically feeds its seadragons three or four times daily.

Concurrent with the preparations for housing these animals, we are also developing the educational content and graphics that will inform visitors about these remarkable fishes... and remarkable they truly are. Why not visit the Aquarium in July and check them out for yourself? 🐉

BEHIND
THE
SCENES



▶ Leafy Seadragon
(*Phycodurus eques*)
behind-the-scenes.



▶ MIDDLE: A future syngnathid filtration sump being handmade by the manufacturer;
BOTTOM-LEFT: A bow-front tank in production will soon be home to seahorses; BOTTOM-
RIGHT: Weedy seadragons behind-the-scenes.



Sea jellies are a part of a sea turtles' diet in the wild, and we have attempted to include it in our young turtles' food at the Aquarium.

Turtle Tutelage

Aquarium biologist Jesse Ciletti and Live Exhibit student aquarists gently grasp a young Hawaiian green sea turtle for weighing and measuring. Each turtle is placed in a large bin and weighed on precision digital scales and its length measured using calipers. At their arrival, the tiny turtles weighed in at 28 grams and measured 5 cm in length. Now 9-months of age, the turtles' weights range from 1,100 to 2,000 grams and they have an average length of 25 cm.

On loan from Sea Life Park, where they were born as part of the Sea Turtle Breeding Program, the Waikiki Aquarium will care for and study the young turtles until they reach one year of age, after which they will be released into the wild. Not much is known about a sea turtle's first few years of life. Coined "The Lost Years," young sea turtles spend their earliest years of life out at sea. The survival rate of sea turtle hatchlings is just 1%.

We hope to learn more about these early stages of life by participating in a NOAA energetics study, examining the effects of diet on the turtles' growth. The study will help scientists understand how a young turtle processes its food during the first year of life and how

the turtle's eating habits and food processing changes over their lifetime.

Ciletti and her students track the amount of food given to each turtle daily, meticulously recording the amount of calories, proteins and other essential nutrients (any uneaten food is collected and noted). Each turtle is precisely measured and weighed weekly. Weight and length data will be used in the NOAA study to determine the amount of food needed for growth.

Arriving in September of 2013, our six sea turtles have just a few more months left with us before their release. We hope to uncover just a bit of their mysterious young lives before they embark upon the journey of the rest of their lives.



110th Anniversary Celebration

The Aquarium saw nearly 10,000 visitors through its doors for the much-anticipated 110th Anniversary celebrations on March 19 and 22. Visitors were treated to music by the Royal Hawaiian Band, activities, give-aways from our partners, and, of course, cake during our March 19 Birthday Celebration.

The Family Fun Day event was filled with live performances by the UH Mānoa Marching Band and Rainbow Dancers; Honu by the Sea; a Taiko performance by Hongwanji Mission School and Pacific Buddhist Academy; Diamond Head

Theatre Shooting Stars; Punahou Tap Company; and Kaimuki High School Performing Arts Center. Kids and adults enjoyed an incredible LEGO Aquarium built by LEAHI as well as a free LEGO build area. The Aquarium galleries also featured special touches of art to commemorate this milestone including beautiful work by 'Iolani School and The Great Marine Chalk Art Draw by artists Alan Tsukamoto, Scott Goto, Michael Furuya and Patrick Ching.

Mahalo to event supporters: Chuck E. Cheese's, Fisher Hawai'i, Hard Rock Café, 'Iolani School, McDonald's of Hawai'i, and Pepsi.



Artist Scott Goto wows visitors with his contribution to the Great Marine Chalk Art Draw.



NEW AUDIO TOURS

In time for our 110th Anniversary celebration, we launched our brand new audio tour guides to the pleasure of guests. In addition to the standard English and Kids tours, the new guides have language options available in Japanese, Chinese, Korean, Spanish, French, Portuguese, German, and Hawaiian. Users may plug their own headphones or earbuds into the headphone jack for a fully immersive audio experience. Be sure to grab one on your next visit!



LISA GOLDEN

POSITION

Volunteer Program Assistant

EDUCATION

Plymouth Whitemarsh
Senior High School (1986)

FAVORITE AQUARIUM RESIDENT

It's hard to choose just one! Currently, it's the longspine porcupinefish in the Edge of the Reef Exhibit.

Lisa Golden is a familiar face at the Waikiki Aquarium. She has continuously worked with the Aquarium's Volunteer Program for several years now — first as a volunteer and then as a part-time assistant. Now, a full-time staff member, she continues to enjoy her daily interactions with the Aquarium's large volunteer 'ohana, "I truly value the friendships I've made here and love the level of enthusiasm and dedication our volunteers have."

Originally from Pennsylvania, Golden grew up in the suburbs of Philadelphia before settling on O'ahu in May of 2008 to escape the cold of the eastern United States. Prior to the Aquarium, she worked for 20 years in Pennsylvania as an Administrative Assistant for a major chemical company. Her love for the ocean absorbs a lot of her free time, including stand-up paddling and snorkeling, as well as salsa dancing, nature photography and travelling.

"I joined the Aquarium as an Interpreter Volunteer in 2009 wanting to learn about Hawai'i's marine life." Soon after, she was helping staff in the busy Volunteer Program office and quickly realized just how important the volunteers and the volunteer program are to the Aquarium, "Where else can you work in an office with people who are excited about a hermit crab changing shells?"



EMILY SMAIL, PH.D.

POSITION

Ocean Scientist

EDUCATION

B.S. in Biology, Pennsylvania State University (2004); Ph.D. in Marine Environmental Biology, University of Southern California (2012).

FAVORITE AQUARIUM RESIDENT

The cowfish, I love that guy!

Escaping the cold winter of the Nation's capitol, new Ocean Scientist Emily Smail, will help the Aquarium bridge the gap between the science community and the public through the development of a new interactive Ocean Sciences Exhibit. "I look forward to working with local scientists, policymakers, and the community to educate and bring awareness of many ocean-related issues of our time," says Smail.

A child of a military family, Emily has travelled and moved around quite a bit, but considers Virginia the home of her childhood. Outside of work, she enjoys taking her paintbrush to canvas, "I look forward to attempting some paintings of our Aquarium residents!"

The Aquarium's newest voice of advocacy, Smail recently completed a science policy fellowship in the U.S. Senate, and while in graduate school, she carried-out research on marine chemistry and microbiology. Ever astute, ocean education, policy, conservation, and research are among Emily's career interests, "I hope to introduce science to the general public and increase people's understanding of the marine environment and research," she says, "I feel the Waikiki Aquarium is an ideal place to accomplish these goals."

Giving Thanks

April 6-12 is National Volunteer Week and it is the perfect time to express our appreciation to over 250 Waikiki Aquarium volunteer who donate their time in support of our mission. From retirees to college students, locals to snowbirds—all of our volunteers share an infectious passion for learning and educating. Next time you visit, take a moment to say Mahalo! to all of our friends in the yellow Aquarium t-shirts.

► The Waikiki Aquarium is fortunate to have so many talented individuals donating countless hours to carry out our mission of education and conservation. Over 200 active volunteers provide more than 17,000 hours every year and are the backbone of our educational outreach. Interested in volunteering? For more information, contact the Volunteer Program at 440-9020.



WAIKĪKĪ AQUARIUM ACTIVITIES & CLASSES

2014 JAN | FEB | MAR

Meet the Monk Seals!

Tuesdays 3:00-3:45 p.m.
Apr 1, 15, May 6, 20
(No classes in June)

More sightings of seals around the main Hawaiian Islands have renewed interest in these amazing, endangered animals. Learn about seals in the wild: What do they eat? How deep do they dive while hunting? Then move to the monk seal habitat and interact with Aquarium Biologists and learn what it takes to care for endangered Hawaiian monk seals. Designed for participants 6 and up, but anyone interested is invited to attend. \$14/adult \$10/child (\$10/6 for members).

Behind the Scenes

Tuesdays 3:00-4:15 p.m.
Apr 8, 22, May 13, 27
(No tours in June)

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. \$16/adult, \$10/child (\$12/\$8 for members).

Summer by the Sea

Session 1: June 9-13
Mon-Thu 8:30 a.m.-3:30 p.m.
Fri 8:30 a.m.-5:00 p.m.

Session 2: June 23-27
Mon-Thu 8:30 a.m.-3:30 p.m.
Fri 8:30 a.m.-5:00 p.m.
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 a classroom. Learn about the animals in our exhibits and watch them being fed on special behind-the-scenes tours. For marine biologists ages 8-12 years. All students should be confident swimmers and enjoy snorkeling. \$275/child (\$325 for non-members). **Registration begins: April 1, 2014**

Aquarium After Dark

Jun 3, Tue 7:00-9:00 p.m.
Jun 17, Tue 7:00-9:00 p.m.
Jul 8, Tue 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 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).

Fish School

Jul 1, Thu 10:00-11:30 a.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 scavengerhunt of the exhibits. \$12/adults, \$6/child non-members (\$7/5 for members).

Afternoons at the Aquarium

Wednesdays 3:00 p.m.
Looking for something to do after school? Every Wednesday, the Aquarium hosts an interactive activity on the Moi Deck. Join us for a critter encounter or a marine-inspired craft activity. The activities last anywhere from 10 to 20 minutes and are designed for ages 4 to 8, but everyone is welcome. Free with admission to the Aquarium.

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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 # _____ VISA ☐ MC ☐

Expiration Date _____ Last three digits of security code on back of card _____

I am a FOWA Member Yes ☐ No ☐

Hawaiian Monk Seals

Hawai'i—the most isolated high island chain in the world, is home to many unique species found nowhere else in the world. The Hawaiian monk seal is one of these unique, endemic species. Their habitat stretches the entire Hawaiian Island Chain from the southern tip of Hawai'i Island to Kure Atoll, the northernmost island in the chain. Since Hawai'i is the only known home of this species, it is imperative that we provide suitable habitat and learn to co-exist with these endemic seals.

Waikiki Aquarium is home to two seals that were unable to survive in the wild. Makaonaona arrived at the Aquarium in 1984. Abandoned as a pup at three-weeks old, he weighed just 60 pounds. Aquarium Biologists bottle fed and cared for him until he was strong enough to move into the seal exhibit. This coming May, Maka will turn an impressive 30 years old, making him one of the longest-lived Hawaiian monk seals in either the wild or in captivity. Maka is

still perfectly healthy, and is continually challenged to learn new things. He is given a thorough body exam every day, weighed twice a month and has his blood drawn twice a year. Aquarium Biologists are looking to the future and have begun training Maka to complete a series of behaviors that may make medical exams less taxing. For example, Maka is learning to “levitate.” That is, he puts his head on land and floats his body straight out behind him. This way, an in-water exam can be performed without Maka having to haul out onto the hard surface of the pool deck.

Hō'ailona, the younger of our resident seals, has lived at the Aquarium for over two years. Brought to the Aquarium after it was determined that his eyesight was too poor for him to survive in the wild, his cataracts have continued to advance and his eyesight is still diminishing. Despite being nearly blind, Hō'ailona uses his flippers and whiskers to swiftly navigate his way

around the exhibit. He has learned many new husbandry behaviors since his arrival—he patiently waits and allows eye exams, willingly opens his mouth for gum and teeth checks, and even remains still for blood tests. Hō'ailona has also finally learned to eat squid. Packed with lean protein and high water content, squid is an important part of a captive seal's diet. Previously, he would shred it, ignore it or toss the squid instead of swallowing it. After months of sneaking squid into Hō'ailona's fish (among other deceptive methods) he eventually started to eat whole squid, and seemingly enjoys it. He has gained over 100 pounds since, recently weighing in at 337-pounds.

If you can't visit often enough to get your seal fix, you can check-in with Hō'ailona on the Aquarium's webcam. You can see if he is swimming, eating his squid, or learning a new trick. Or, you can watch him napping with his flipper over his favorite toy, a boat bumper. 🐟

REGISTRATION INFORMATION

- » Pre-registration is recommended.
- » FOWA members are allowed up to four total registrants at FOWA rate.
- » Questions about the activities? Call the Waikiki 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:

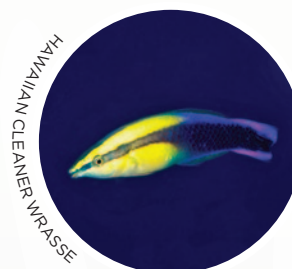
- » Full payment must accompany completed registration forms. Please, no cash.
- » Make checks payable to University of Hawai'i. Visa and Mastercard are also accepted.
- » Mail the completed registration form with a check or credit card information to:

Waikiki Aquarium • Education Department
2777 Kalākaua Avenue
Honolulu, Hawai'i 96815-4027

SEA SQUIRTS

Growing
up
Fishy

Some species of fishes grow up to look much different as adults. Because of this naturalist scientists thought they were separate species—giving them different names. Today we know that the same species of fish may have drastically different color patterns throughout their life. Can you figure out which fishes below are the same species? Draw a line to connect the fish pairs.



HAWAIIAN CLEANER WRASSE



SADDLE WRASSE



ROCK-MOVER WRASSE



SAILFIN TANG



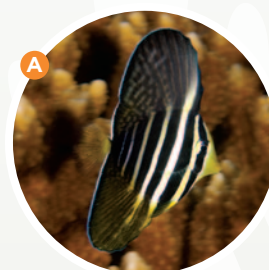
THREADFIN JACK



YELLOWTAIL CORIS



BIRD WRASSE (MALE)



A



C



B



E



G



D



F

ANSWERS: A. Hawaiian Cleaner Wrasse; B. Sailfin Tang; C. Hawaiian Cleaner Wrasse; D. Threadfin Jack; E. Saddle Wrasse; F. Yellowtail Coris; G. Rock-Mover Wrasse

NEW + RENEWING FOWA MEMBERS

The Membership Office recorded these new and renewing memberships between November 25, 2013 and March 4, 2014.

John Aalto
Ken Akazawa & Mayu Akazawa
Daya Akina & Keith Kandell
Terry Altobello & Robert Clark
Alvin & Avis Aono
Neal & Fay Atebara
Alexandra & Christopher Athanas
Anne Au & Von Velasco
Valerie & Richard Axtell
Kerri Aybar
Geoffrey Bannister & Jerri Ross
Steven & Anita Barshaw
Frances & Ladd Baumann
Cheryl & Olly Beloro
Dr. & Mrs. Charles Benn
Robert Berg & Caron Knell-Berg
Dagmar Beyer & Tim Liedl
Mrs. & Mr. Lori Bloom
Greg Bousman
Mary Kate Boylan & Rick Verner
Susan Bridges
Lyukon Iino Brito
Tamara & Joel Buchwald
Jan & Willie Cadena
Ivy & Lance Cariaga
Caroline & Bill Carl
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Robert & Kristin Caulfield
Jean-Pierre & Lynn Cercillieux
Diane Cha-Loo & Kevin Loo
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Erika and Brian Coday
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Carol Coops
Graham & Marlo Cormack
Jordan & Rusti Cripp
Mandi & Jeremy Cummings
Daniel Cunningham & Jackie Murray
Pakalika Cunningham & Elke Gebhardt
Jennifer & Jason Dacumos
Jane & Mark Davis
Ruby Delbeek
Christopher Delp & Tennile Masaki
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Lori & Tyrone Donnon
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Chelsea & Vincent Farrell
Suzette & Shawn Fernandez
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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.



From L to R:
Dr. Andrew Rossiter;
Dr. Celia Smith, UH
Botany; Charles
Loomis, FOWA
Board Member;
Dave Cohen, DLNR
Division of Aquatic
Resources; and Lani
Watson, NOAA.

The Friends of the Waikiki Aquarium was awarded a \$43,957 grant for coastal restoration from the Hawai'i Community Foundation and NOAA.



Dr. Andrew Rossiter personally met and thanked Norman Gantz , President of the John R. Halligan Charitable Fund for their generous support of the Waikiki Aquarium.



From L to R: Senator Brickwood Galuteria, Senator Brian Taniguchi, Dr. Andrew Rossiter, Barbara Campbell, Dr. Leighton Taylor.

Celebrating 110 Years

The Waikiki Aquarium is thankful for the support of many during our 110th Anniversary Celebration and history. Without their support this momentous occassion would not have been possible.

WALL of FAME

DECEMBER 2013 TO MARCH 2014

The beautiful exhibits at the Waikiki Aquarium and the valuable research and conservation efforts that go on behind the scenes are the result of the work of many. Mahalo to all those who support us through their generous donations.

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with Aquarium
Biologists Jesse
Ciletti and
Sarah Callan.



From L to R: Luana Maitland, Outrigger Hotels; Caroline Witherspoon, Becker Communications; Pam Davis, O'ahu Concierge Magazine; Susan Sunderland, Midweek; and Rasa Fournier, Midweek.



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

Bubble-tip Anemone *Entacmaea quadricolor*