

Kilo iā

Quarterly Membership Publication of the Friends of the Waikiki Aquarium

Waikīkī Aquarium Celebrates 115 Years

Page 14



Research Updates at the Waikīkī Aquarium

Page 5

Critter Corner: Potter's Angelfish

Page 11





AQUARIUM MESSAGE

Kilo i'a

Issue Number 207

2019 | JULY | AUGUST | SEPTEMBER

EDITOR

Becker Communications

ART DIRECTOR

Becker Communications

PHOTOGRAPHERS

Waikiki Aquarium

Photo Credit:

Front Cover: Waikiki Aquarium

Back Cover: Waikiki Aquarium

PRINTING

Reskyu

Friends of the Waikiki Aquarium
PO Box 15518
Honolulu, HI 96830
PHONE (808)923-9741
FAX (808)923-1771
www.waikikiaquarium.org

WRITE TO US AT kiloia@waikikiaquarium.org
© 2019 Waikiki Aquarium

PRINTED ON RECYCLED PAPER WITH
ENVIRONMENTALLY FRIENDLY INKS

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.

Every June, communities around the world recognize World Oceans Month, a celebration of marine conservation and the many ways our oceans support the health and wellness of the environment. In line with this year's theme of "Together We Can Protect and Restore Our Ocean," we were proud to spend last month cleaning neighboring beaches, hosting educational activities, removing invasive algae and honoring the late Dr. Isabella Abbott who worked tirelessly to protect our ocean for future generations.

The World Oceans Month celebration began at the Aquarium on Sunday, June 2, with our Isabella Abbott 100th Birthday Limu Celebration. An inspiring Hawaiian educator, researcher and scientist, the late "Izzie" Abbott dedicated her life to the study of limu (seaweed), and we celebrated her birthday accordingly with educational booths and activities centered on the common theme of limu.

Festivities continued with our annual World Oceans Day Cleanup on Saturday, June 8, at Baby Makapu'u, where volunteers helped remove trash, plastics and other debris from the surrounding beach and park areas. Mahalo to Matson's Kaipu 'Aina Program for participating! Then on Monday, June 10,

Sarah Severino of the Hawai'i Institute of Marine Biology gave a talk titled "Using Long-term Monitoring to Understand Human Impacts on Hawaiian Reefs."

The celebration culminated with Outrigger Hotels and Resorts' Fifth Annual OZONE Day on Saturday, June 29. We enjoyed an exciting day of hands-on activities for the whole family, featuring educational exhibits, games, prizes and more.

Of course, at the Waikiki Aquarium, ocean conservation isn't just reserved for one month out of the year. As conveyed by our mission to inspire and promote understanding, appreciation, and conservation of Pacific marine life, we're dedicated to protecting and conserving our shared ocean every day through education programs, public exhibits, and innovative research focused on the unique marine life of Hawai'i.

Thank you for supporting us as we work to share the exquisite beauty and diversity of Pacific marine life with people from around the world, not just during World Oceans Month, but every day.

Dr. Andrew Rossiter
Director, Waikiki Aquarium



FRIENDS OF THE WAIKĪKĪ AQUARIUM



The Friends of the Waikīkī Aquarium (FOWA) is the membership organization of the Waikīkī Aquarium. Its purpose is to support the mission of the Waikīkī Aquarium to inspire and promote understanding, appreciation, and conservation of Pacific marine life. The members of FOWA are individuals and organizations interested in the purposes of the Waikīkī Aquarium.

FOWA's Board of Directors is the governing body of this support organization made up of committed and generous individuals who support the Waikīkī Aquarium in numerous ways.

Board of Directors

Christopher Cole - Chair
Dirk Yoshizawa - Vice Chair
Charles Kelley - Secretary
Jennifer Isobe - Treasurer
Dr. Andrew Rossiter - Ex-Officio
Elizabeth Churchill
Tim Guard
Charlie Loomis
Alan Matsui
Monica Salter
Nancy Taylor
Brian Tepper
Dave White



Aloha!

I am thrilled to introduce myself as the new Friends of the Waikīkī Aquarium Director. My relationship with the Waikīkī Aquarium began over 25 years ago

when I participated in one of their educational programs for high school students. I returned to the program in college, where I worked as a Cruise Instructor/Program Manager. My involvement in this program helped to foster my interest in conservation and marine education, as I developed lifelong friendships and valuable skills in leadership and program management.

Throughout my career, I have worked for marine and/or education-related organizations, and my early experiences at the Aquarium have served as a foundation for my growth and accomplishments. I am so grateful to be able to return to the Waikīkī Aquarium in this new position and give back to an organization that has meant so much to me, both personally and professionally.

I'm looking forward to reconnecting with "Aquarium" friends and meeting YOU, the members of FOWA, at upcoming events over the next quarter. We have two more concerts for Ke Kani O Ke Kai up ahead including performances by Ben & Maila, Kawika Kahia-po, Jerry Santos & Kamuela Kimokeo, Street-light Cadence and more. We'll also host the 37th Annual Slack Key Guitar Festival in August, featuring some of Hawai'i's most talented slack key guitar artists. I hope to see you at one or all of these upcoming events!

Lee Higa-Okamoto
Director, Friends of the Waikīkī Aquarium



Waikīkī Aquarium Facility Updates



We are thrilled to announce exciting changes in store for the Waikīkī Aquarium facilities! On the heels of the University of Hawai'i at Mānoa's recent concrete spalling and repair project, the Aquarium is currently tackling an extensive rebuild of its feed prep and quarantine areas, both of which are crucial to the health and well-being of all the aquatic vertebrate and invertebrate animals in our care.

These two areas of the Aquarium, though behind the scenes and often not observed by the everyday visitor, are vital to the daily operations of our facilities. The quarantine area serves as an important holding space for incoming marine animals before they're introduced to the Aquarium displays, while the feed prep space allows us to provide the necessary nutrients to all in our care. Fully functional quarantine and feed prep spaces that utilize the most cutting-edge technology are essential to the Aquarium's overarching mission to inspire and promote

understanding, appreciation, and conservation of Pacific marine life.

Upon completion, the new quarantine area will be triple the size of the previous setup, which will allow for both enhanced care of the animals as well as improved exhibit planning. The new quarantine will be held in a separate room and feature cold water holding and improved sterilization techniques.

It will feature a new feed prep area double the size of the previous setup and located in a separate room to house all feed prep needs. Gel and other food items made in-house will also be produced in this new space.

Both projects are slated for completion by spring 2020. Stay tuned for updates on these exciting facility changes at the Waikīkī Aquarium!

Mahalo to Duke's Waikiki

We're shining the spotlight on Duke's Waikiki, one of Hawai'i's most iconic dining establishments named after the late Duke Kahanamoku and celebrated for its drinks, food, live music, and the famous Hula Pie. Since 2009, Duke's Waikiki has served as a valued partner of the Waikīkī Aquarium, supporting our beach cleanups, community events, and other ocean-related initiatives. They also donated to us a much-needed ice machine for our facilities and sponsored our Raw Elements reef safe sunscreen dispensers!

Waikīkī Aquarium Director Dr. Andrew Rossiter recently gifted Keli'i Gouveia, General Manager of Duke's Waikiki, with a beautiful koa wood "paddle" plaque in recognition of the establishment's years of support. Mahalo to Duke's Waikiki for being a valued partner!



Research Updates at the Waikīkī Aquarium

Research Updates

For decades, the Waikīkī Aquarium has spearheaded some of the latest research focused on the unique marine life of Hawai'i, making invaluable contributions to the health and wellness of our oceans and the many species that reside in it. Here we're shining the spotlight on the interesting and impactful research to which the Aquarium is contributing today.

Hawaiian Monk Seal Research, Bioacoustic Study

The Waikīkī Aquarium is collaborating with the National Marine Fisheries Service, Hawaiian Monk Seal Research Program, and the UCSC Pinniped Cognition and Sensory Systems Laboratory and the Marine Mammal Physiology Project for a bioacoustic study conducted by Long Marine Laboratory at the University of California Santa Cruz that involves the recording of our very own Ho'ailona's vocalizations. The study seeks to determine the types of underwater sounds Hawaiian monk seals produce and how their vocal behavior changes throughout the year.

Hawaiian Monk Seal Research, Feeding Study

Our resident monk seal, Ho'ailona, has been instrumental in a second study on the behavioral flexibility of Hawaiian monk seals. In this study, researchers documented the feeding behavior and kinematics of the endangered Hawaiian monk seal through a number of controlled feeding trials. After examining the Hawaiian monk seals' behavioral flexibility in feeding, researchers found that suction feeding was used the majority of time (91 percent of all feeding trials), while biting or pierce feeding was used on occasion (9 percent of all feeding trials). As the seals showed behavioral flexibility in their use of the two strategies, researchers came to the conclusion that Hawaiian monk seals do indeed adjust their behaviors to particular feeding contexts, which allows them to target diverse prey resources.

Unlocking the Secrets of Hawai'i's Deep-Water Photosynthetic Corals

Dr. Sam Kahng of Hawai'i Pacific University recently concluded work with the Waikīkī Aquarium for a study on reef-building photosynthetic corals and how certain genera exhibit special evolutionary adaptations to low light. The Aquarium's low light, well water cultures of the *Leptoseris* corals enabled this study, which overturned widespread assumptions about coral metabolism at low light. After closely observing the live corals and their soft tissues, Dr. Kahng and his fellow researchers were able to deduce that *Leptoseris* corals have mastered the art of using their skeletons to trap light.

His most recent research with the Aquarium uses captive corals held on-site at the Aquarium to calibrate geochemical proxies in the coral skeletons, which are then compared against long natural coral in order to reconstruct past climates. This work is ongoing, and will involve additional data collection this summer.



CLASSES & ACTIVITIES

BEHIND THE SCENES

Wednesdays at 3:00 PM

Learn how our staff and volunteers care for our exhibits and animals with a behind-the-scenes tour! Peek behind the glass to inspect the tanks and explore the exhibits, then visit the Live Feeds Deck and Jelly Hale, where sea jellies are raised. Accessibility is limited. Minimum age: 7 years; youngsters must be accompanied by an adult. Members: \$10 for adults and \$6 for children ages 7-12 (Non-members: \$16 for adults and \$10 for children ages 7-12, plus Aquarium admission).



HAWAIIAN REEF ANIMALS

Tuesdays and Thursdays at 10:30 AM

Sneak a peek behind the scenes and learn about Hawaiian reef animals. Hold a sea star, feel a sea cucumber and feed an anemone. This half-hour program is a great addition to any visit to the Waikiki Aquarium. Perfect for families with children four and up. For families of six or more, a private class can be arranged. \$2/person plus Aquarium admission.



ACTIVITY STATIONS

Tuesdays, Wednesdays and Thursdays

The Teen Volunteers will host free hands-on activities and crafts on Tuesdays, Wednesdays and Thursdays in July. Free with Aquarium admission.



EVENING AT THE AQUARIUM

Tuesday, July 23 from 7:00 to 9:00 PM

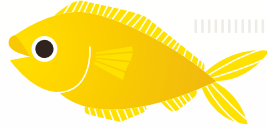
Walk through the exhibits in the light and enjoy the sunset. Once it's dark, discover if fish sleep and other fun facts during a flashlight tour of the Aquarium. Find the sleeping spot for the humuhumunukunukuapua'a, see the night coloration on the pyramid butterflyfish, and discover the animals that only emerge at night. Bring a flashlight! Minimum age: 5 years; youngsters must be accompanied by an adult. \$15/adult and \$10/child; members receive a 20 percent discount.



Register online at:
[www.waikikiaquarium.org/](http://www.waikikiaquarium.org/interact/activities-classes/)
[interact/activities-classes/](http://www.waikikiaquarium.org/interact/activities-classes/)

SEA SQUIRTS

Something Fishy



What makes a fish a fish? Is a sea cucumber a fish? Is an eel a fish? Let's dive into the waters of Waikiki and find out!

Using the words below, fill in the blanks to find out what makes a fish a fish. You can use these words multiple times!

water

gills

fins

scales

backbone

cold-blooded



Yes! Eels and sharks are fish.



Fish live in _____, some in the ocean, others in lakes, rivers or streams. Mammals, like monk seals and humans, breathe air with their lungs to get the oxygen they need, but fish get oxygen by using their _____. Fish use their tail _____ to propel themselves through water, but some fish, like the **humuhumu** use their top and bottom _____ for power. Most fish have _____, which are woven together like a coat of armor for protection. Fish are vertebrates and have a _____. The _____ of sharks and rays are made of a flexible substance called cartilage. Fish are also _____, which means they are usually the same temperature of the _____ they live in. We humans have a healthy body temperature of 98.6 degrees even when we swim in the cool ocean or lay in the warm sun!

WAIKĪKĪ AQUARIUM

Scavenger Hunt

Visit Gallery 1

South Pacific Marine Communities

The banded archerfish lives
in _____ forest and _____ beds.



Visit Living Reef

Stand in front of the coral
growth scale. If you were a
coral, how old would you be?



Gallery 1 Answer: mangrove, seagrass
Gallery 4 Answer: Hanalei Bay
Outside Exhibits Answer: Hanalei Bay



Visit Gallery 3

Shark and Amazing Adaptations
What type of shark is in exhibit 29?



Visit Gallery 4

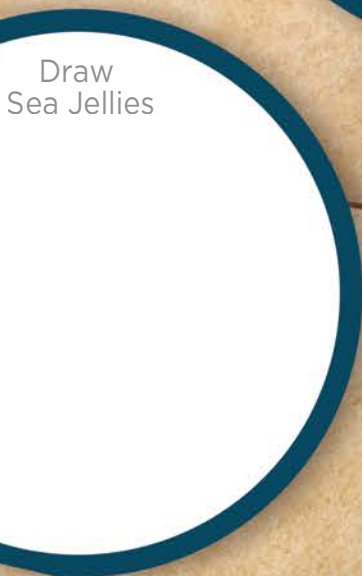
Name the first Marine Life
Conservation District in Hawai'i.

Draw
Sea Jellies



Outside Exhibits

What is the Hawaiian Name
for the striped mullet?



Draw
Sea Jellies

Visit Gallery 2

Draw two different
types of sea jellies



NEW & RENEWING MEMBERS

from April 2019 - June 2019

John Aalto
 Stephen & Courtney Abear
 Kelly & Cody Acuna
 Timothy & Kelley Aguila
 Kris & Samson Ah Mook Sang
 Michael & Noelani Akau
 Marcy & Gregory Alexander
 Karen & Thomas Ambrosi
 Alton Arakaki and Lisa Fonseca
 Sabin & Debra Archuleta
 Lina Arquero
 Cheryl & Robert Askew
 Justin Attwood
 Raleigh & Judy Awaya
 Bonnie Bailey
 Alice Banks and Andre Boraks
 Steven Barrett
 Jessica Barry-Okahara and
 Kyle Okahara
 John Maurer & Kasey Barton
 Mrs. Tammy S. Bautista and
 Mr. Dixon N. Bautista
 Bayne Family
 Susan & Richard Beard
 Paul & Diane Bennett
 David & Maile Berting
 Peter Beutler
 Regine Bishaw and
 Jamieson Mceachran
 Jamee & Jay Black Moorman
 Cynthia Boyle
 Jamie Breneman
 Evangeline Brown
 Melissa & Michael Brown
 Linahla Bulatao
 Angela Burke
 Brandi Cadiz
 Peter & Olga Caldwell
 Robert Calvert & Mary Rydell
 Kristy & Joel Campos
 Shawn Canionero
 Chase & Allissa Carvoeiro
 Jason & Tasha Castro
 Jean-Pierre & Lynn Cercillieux
 Wai Ying Chan and Jay Loui
 John & Saori Chang
 Walter & Pamela Xiaolei Chang
 Joseph & Valerie Chang
 Alexis & Kenneth Chapman
 Mark Kahi Ching
 Brad & Colette Ching
 Fernando & Verona Chiutena
 Nathan Christensen
 Yoshimi & Thomas Claborn
 Tommy & Paige Clement
 Benjamin & Adrianna Cockrel
 Randall & Alicia Coleman
 Tony Conjugacion
 Karen Connolly
 Chris & Patricia Cooper
 Penelope Corbett
 Chris & Rachel Cornish
 Jorge Corona
 Thomas & Karen Cranford
 Jonathan & Ariel Crase
 Allison & Daniel Cromer
 Jason & Vicky Crowder
 Wayne Crutchfield
 Ronald & Wendy Cunitz
 Krystina Cunningham
 Pakalika Cunningham &
 Elke Gebhardt
 Jenny Davidson
 Brian & Ezinne Dawson
 Elise DeBoard
 John & Tara Doddridge
 Justin & Jennifer Dotson
 Jay & Hanna Dow
 Jodi & Lorinda Draper
 Alan & Kristan Dunston
 Joan & John Dyer
 Haylie & Luis F Elizondo
 Ayako & Taj Elliott

Andrew & Barbara Endo
 Anna & David Erickson
 David & Sydney Fasi
 Elise Fernley
 Stephen Flower
 Gregory & Janet Fong
 John & Nancy Fox
 Brad & Angela Freitas
 Mary Jo Freshley
 David & Rie Fujihara
 Masako & Arvin Fujii
 Wayne & Diane Fujita
 Doreen & Ronald Fujita-Hino
 Lee & Vonda Funai
 Virginia Furukawa
 Mr. and Mrs. Stephen E. Gainsley
 Melanie Gamiao-Furutani and
 Reid Furutani
 Anton & Oksana Ganin
 Michael & Pauline Garrison
 Michael Garva
 Geno Godinet
 John & Julie Gomersall
 Michelle & Christopher Goodin
 Lucy Gospodnetich
 Melissa & Sage Goto
 Sharon Greene
 Lea Guerrero and George
 Kuramoto
 Heather & Philip Haas
 Warren & Ottina Haight
 Kathy Hallock
 Abby & Melissa Halston
 Jacy Hanagami
 Jay Hanamura
 Timothy & Paami Hanh
 Jessica Hansen
 Taylor & Eunice Hanson
 Rainer Hardtke
 Erin & Neil Hashimoto
 Eric & Bernice Hawkins
 Michael & Stephanie Hayasaka
 Andrew & May Higa
 Lee Higa-Okamoto and
 Ian Okamoto
 Reid & Jaime Hinaga
 Rolianne Ho
 Warren Holcomb
 Michael J. Holl
 John & Melanie Hom
 James Honda
 James Hong
 Ju Hee & Michael Hsia
 Joshua & Stephanie Hughes
 Joseph & Chhany Humphry
 Charles & Christina Hunter
 Ryan Hutchison
 Sarah Hutchison and
 Eamon Jordan
 Kim Huynh
 Daniel Ichikawa
 Brandon & Jolie Ige
 Ali Imessaoudene
 Kathleen & John Ing Sharkey
 Lauren Inouye
 Lester & Carolyn Inouye
 Maya Iriondo
 Mr. & Mrs. John L. Jacobs
 Jeffrey & Keisha James
 Alexi Joaquin
 Jakelin & Garrett John
 Kevin & Sophie Johnson
 Tatiana & Dominic Johnson
 Scott & Vee Jones
 Troy & Linda Jones
 Christopher & Mary Jordan
 Frank & Virginia Jordan
 D. Wayne & Nanette Judd
 Valerie Jun
 Kelvin & Stephanie Jung
 Nicole Jung and Henry Gonzalez
 Ryan & Jaime Kagami
 Ms. Violet Kaili

Malia Kamaau
 Judy Kamm
 Ms. Sandra M. Kaneshiro
 Jonathan & Ameer Kang
 Ward Kashiwa
 Sherrilea Katasako
 Chad & Jenny Kawakami
 Tracy & Russell Kaya
 Dr. Jason R. Keifer and
 Mrs. Nicole K. Keifer
 Billie B. Kekuewa
 William & Maureen Kilcoyne
 Jeung Eun & Sang Taek Kim
 Thomas Kim
 Dr. and Mrs. Robert Kim
 Kyle & Kay Kitazumi
 Terry Klenske
 David Knutson
 Herbert Kobayashi
 Mr. James Kuss
 Alan & Zohra Kusunoki
 Shaine & Lianne Kuwata
 Susan Lamb and Sachi Edwards
 Chris & Amanda Lankford
 Dennison & Sandra Lau
 Cindy Lau
 Kevin Lee
 Rachel Lee
 Daniel & Keala Lee
 Timothy & Leticia Lee
 Isaac & Charlene Lee
 Anastasia Lehman
 Rebecca Leibowitz
 Alex Leung & Max Holliger
 Christina Leval
 Brian & Junghyo Lim
 Mr. Tony Lim
 Chieng-Cheng Lin
 Grace Nieh & Justin Lin
 Kevin & Michelle Lino
 Nancy Lipsett & Duane Marriner
 Yuqi Liu
 Mele Look and Scott Rowland
 Junior Lorah
 Tim Lorenz
 Julia Luck
 Gregory & Nancy Lui-Kwan
 David & Nancy Luke
 Howard & Loudi Lum
 Dr. Frank Lutz
 Noelani Luu
 Sherrill & Nicole Mac Naughton
 Amy & Benny Madsen
 Jarryd Maeda
 Jon & Selina Mann
 Das & Lauren Manninen
 Lorie & Arnold Manzano
 Rudy Marilla
 Peter & Amy Marko
 Lucy & Ryan Masa
 Brandy Massner
 Randall & Taryn Matsumoto
 Ryan & Nikki Mau
 Grayson & Ashley Mccottrell
 Sofia McGuire
 Jon & Janelle Mciver
 Candes Meijide Gentry & Steve
 Shropshire
 Rachel & Jerrod Melander
 Misha & Brad Mendosa
 Eric Merkel
 Daniel & Reyna Miles
 Harry & Ginger Miller
 Rachel Miller and Jono Chow
 David Miller
 Christine & Mitch Miller
 Cinthia & Beau Miller
 Courtney Miller
 Mrs. Brandi Mishima
 David and Aimee Miyahira
 Kenny Miyasato
 Sharon Mols
 Joseph Mooney

Tiffany Morrissey
 Yae & Yusuke Motohashi
 Edison & Jamie Mow
 Leah & Andrew Muccio
 Mr. and Mrs. Douglas K. Mukai
 Leslie & Gail Murakami
 Kristin Nakagawa
 Travis I. Nakamura
 Tyson Tamashiro and
 Kelli Nakamura
 Gareth Nakamura
 Dana & Roy Nakasato
 L. Nakashima
 Billie Nelson
 Marjorie Nenadich
 Lam & Whitney Nguyen
 Riina & Daniel Niemeyer
 Duane & Jill Nishimura
 Fumiko & Masayuki Nogi
 Robert & Tara Oda
 Stephen Odo
 Greig & Nitchaphoru Okai
 Ben Okimoto
 Jan Omura
 Jessica O'Neill
 Samie Jo & Clarence Ongory
 Clinton & Kristen Ono
 Katherine Orr
 Jimmy & Patricia Ortiz
 Liane & Ward Otake
 John & Ruth Overton
 Sang & Melissa Pae
 Antonia & Francis Papica
 Ms. Nicole Parrish and
 Mr. Warren Izumigawa
 Tyler Parson
 Linda Payanal and
 Candace Kunimura
 Jeffrey Peterson and Sarah Grekin
 Mark & Marin Phillipson
 James & Ashley Philson
 Tiffanie Pilonago
 Tierra Pineda
 Avis & Joseph Poi
 Gladys & John Pobre
 Eric & Suzannah Polivka
 Lester Poon
 Bruce Popkin & Gaile Labelle
 Steven & Cheryl Premo
 Latoya Price
 Uta Rainalter
 Sarah & Reid Ramos
 Malia & Benjamin Rasa
 Ryan Redoble & Precious
 Mia Redoble
 Erika Richards
 John & Melanie Riegel
 Mr. & Mrs. Andrew Ring
 Randi & David Roberts
 John & Stacey Robinson
 Kris Robison
 Mr. & Mrs. Scott C. Rolles
 Saya & Michael Roque
 David Rosenberg
 Shima & Matthew Rossitto
 Desirre and Todd Roys
 Hanna & Joshua Rux
 Gloria Rydingsword and
 Dan Drown
 Chris & Laura Sabine
 Andrew & Heather Salenger
 Jessica Saragoza
 Albert & Kukana Scanlan
 Paul & Cynthia Schuler
 Giovanni Sclarandis
 Krasimir and Svetla Semerdjiev
 Mr. Peter Shaindlin
 Dana & Noh Shapiro
 Dennis & Judy Shimabukuro
 Ms. Alicia Scanlon
 Mr. & Mrs. Roy & Allyson Shishido
 Andrew K.C. & Jecca Shriver

Kaipo Simpson
 Ryan & Amanda Simpson
 Aaron & Megan Small
 Natalie & Merrick Smith
 Rika & Rama Smith
 Ann & David Snakenberg
 Sid & Diana Snyder
 Patrick Staiger
 Chelsea Stams
 Nick Stewart
 Beth Sturtevant
 David Suficiencia
 Russell Sumitomo
 Jeanne Sutton
 Victoria Sutton
 Bryce Suzuki
 Haven Szambelan
 Mr. & Mrs. Tyler &
 Yvonne Takehara
 Jeanette & Elmer Takenishi
 Greg Takeshima
 Lynette Tamashiro
 Lorraine Tamashiro
 Jason & Eliana Tanaka
 Peggy & Nelson Tanaka
 Amy & Dennis Tanaka
 James Templo
 James & Reana Tennant
 Ms. Kathleen K. Thurston
 Jason Tittle
 Griffin & Meigan Toland
 Eunice Tom
 Dean & Sheri Toyama
 Jennie Tran & Akban Kamaliam
 Luke & Audrey Truax
 Dean & Nicole Uchimura
 Francis & Gale Uechi
 Randall & Jadine Urasaki
 Jordan & Andrea Ushijima
 Carl & Leila Uyehara
 Gabrielle Valdes and Kip Lutu
 Edward Van Houten
 Jeff & Kristin Vanak
 Carmen Velayos
 Martha Vetter
 Adrienne & Jonathan Wahnetah
 Joseph Walker
 Natalie Wallsgrove
 Michael & Staci Wan
 Jeffrey & June Watanabe
 Cathy & Nicholas Watson
 Ann Wee
 Dr. Darlene Weingand
 Dieter & Jody Weiss
 Kevin & Jennifer Weist
 Mrs. Kristine C. Westmoreland
 Robert & Jennifer Whittton
 Marlon Williams and Janice Chang
 Joseph & Sara Willingham
 David & Carolyn Wilson
 Carola & Hans Wilson
 Chadd & Jamila Wolfe
 Cindy Wong & Titus Tan
 Marvin Wong
 Gordon Woods &
 Valaree Albertson
 Dave & Jamie Yamagata
 Debbie Yamamoto
 Ai Yamane
 Glenn Yamane
 Tracy Yamato
 Michael Yamazaki
 Deborah Yang and Andrew Perry
 Gaile & Marcus Yano
 Krystal Yasukawa
 Alison Yasuoka
 Calvin & Sylvia Yokoo
 Michael Yoneshige
 Don & Judi Young
 Elmer & Barbara Yuen
 Kamakoa & Brion Zablan
 Robert & Jessica Zahn

Potter's Angelfish

The Potter's angelfish is a beautiful endemic species unique to Hawai'i, and is the only common angelfish found on Hawaiian reefs. Abundant in coral-rich surroundings, this colorful orange and blue fish was named in honor of the first director of the Waikiki Aquarium, Frederick Potter. An individual Potter's angelfish limits its movements to a well-defined area close to the shelter of finger coral branches, usually at depths of at least 15 feet (4.5 meters). Active by day, it feeds on algae and detritus on dead coral surfaces. At night, it remains alert but inactive, protected within the coral.

Among angelfishes, a sex reversal from female to male can be part of the life history. Most small individuals are female, while larger, more colorful individuals are male. Larger, brighter males are usually accompanied by smaller, drabber females, forming a harem. A dominant female Potter's angelfish changes sex to become the harem master if the male is removed.

Like other angelfishes, this species is easily identifiable by a heavy, curved spine on its "cheek" near the edge of the gill cover. Its slender, disc-shaped body is well-suited to life on a coral reef, since it can dart in and out of crevices while searching for food or seeking shelter. Angelfishes are very dependent on the protection that coral caves and crevices offer, and are rarely seen over sandy stretches or other areas that offer little cover. They're also territorial creatures and spend most of their time near the reef surface in search of food. They have small mouths and many flexible, comb-like teeth used for plucking or scraping food from the rocks.

The Potter's angelfish belongs to a group called "pygmy" angelfishes. Smaller than other members of the angelfish family *Pomacanthidae*, pygmy angelfish feed on algae rather than on sponges or other invertebrates like other members of the family. Look for the Potter's angelfish among our inside exhibits or outside darting about in our large Edge of the Reef exhibit!



RECENT EVENTS

12th Annual Mauka to Makai Environmental Expo

On Saturday, April 20, the Waikīkī Aquarium hosted the 12th Annual Mauka to Makai Environmental Expo, a free and family friendly event that celebrated Earth Month and promoted keeping Hawai'i clean, protected and free of pollution, from the mountaintops to the ocean.

Throughout the day, attendees enjoyed live entertainment, a fish release with fish donated by the Oceanic Institute, a native plant giveaway courtesy of The Garden Club of Honolulu, "The Journey Home" puppet show performed by students from Waipahu High School, and interactive activities from various organizations including hands-on learning, arts and crafts, and educational exhibits that showcased ways to protect and preserve Hawai'i's environment.



Seasons and the Sea

On Thursday, May 2, the Waikīkī Aquarium partnered with the Honolulu Mayor's Office of Culture and the Arts to host Seasons and the Sea, a celebration of the beginning of Hawai'i's warm season, Kauwela. Cultural advisor Sam 'Ohukani'ōhi'a Gon III led the free sunset ceremony through chant, hula and mo'olelo (storytelling) as the sun set into the crown of Pu'u o Kapolei, a rare occurrence that only happens once a year.



Terry Kerby, "HURL Lō'ihi Exploration, 1987-2016," February 2019

In his talk, Terry Kerby outlined the parallel track of the discovery and exploration of the Lō'ihi volcano and the development and evolution of the University of Hawai'i's Deep Submersible program. The seminar reviewed some of the highlight events of 174 pioneering exploration dives by Pisces submersibles between 1987 and 2016.

Angela Amlin, "Seeking the Road to Recovery: What's New for Monk Seals in 2019," March 2019

In 2017 we celebrated the Year of the Monk Seal as well as the exciting news that, after decades of decline, the endangered Hawaiian monk seal population finally increased over the course of several years. So how has Hawai'i's native seal fared since then? Angela Amlin, Hawaiian Monk Seal Recovery Coordinator for NOAA Fisheries, shared updates on current population numbers, details on a record setting year for main Hawaiian Island pups, and what's new in the world of monk seal conservation.

VOLUNTEER SPOTLIGHT

Lisa Golden

Lisa Golden is no stranger to the Waikīkī Aquarium. What began as a volunteer opportunity in the Educator/Interpreter Program evolved into a full-time career for Lisa, who for the past 10 years has served as Volunteer Program Assistant, working directly with volunteers to ensure smooth operations at the Aquarium.

Lisa's venture into the volunteer realm began with her work in the Aquarium volunteer office. From there she transitioned into part time and eventually full-time work at the Aquarium, enjoying daily interactions with our large and passionate volunteer 'ohana. Lisa says it best: "My favorite part of the job is definitely my daily interactions with the volunteers and getting to know them. It's so rewarding to see how volunteering has such a positive impact on people's lives, and at any stage of life."

Lisa hails from Philadelphia, growing up in the suburbs before moving to O'ahu in the summer of 2008. Prior to joining the Aquarium, she worked for 20 years in Pennsylvania as an Administrative Assistant for a major chemical company. In her free time, Lisa loves exploring beaches, snorkeling, practicing nature photography, salsa dancing, painting, traveling, and indulging in good food.

"Throughout my time at the Aquarium, student volunteers have told me how grateful they are for the knowledge and experiences they've had here. Working folks say this is their 'happy place' to enjoy a break from the daily grind. Senior volunteers can socialize and keep their brains sharp. The Aquarium's Volunteer Program is really top notch, and I'm proud to be a part of it."



Volunteer Spotlight: Phillip Thomas

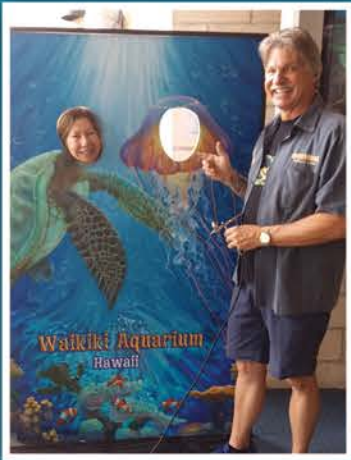
Mahalo to Phillip Thomas, one of our fantastic School Support Docents, for his generous donation of a Mahi Mahi painting to our education program! Phillip spent over 50 hours painting this beautiful image to be displayed with our Mahi Mahi skeleton. Thank you Phillip for such a kind and thoughtful gift!



Waikīkī Aquarium Celebrates 115 Years



Lee Bell



Dennis Mathewson



Izuo Brothers



Derek Chang,
Golden Cowrey



The origins of the Waikīkī Aquarium can be traced back not to any marine science venture, but to the Honolulu Rapid Transit Company (HRTC). In order to encourage tourists to visit the unfrequented last stop on the Waikīkī Line in Kapi'olani Park, heads of HRTC Charles M. Cooke and James B. Castle, who were also fascinated with Hawai'i's diverse marine life, determined that the best solution was to open a public aquarium. The resulting Honolulu Aquarium, which opened its doors on March 19, 1904, was located around 60 yards 'ēwa of where the Aquarium sits today, and featured 60 species of marine life, a total of 265 individual specimens that were collected by local fishermen.

In its early years, the Aquarium staff consisted of one director, two caretakers and a cashier. Due to the lack of manpower, the Aquarium relied heavily on local fishermen to supply new species to exhibit and replenish old ones. In 1912, the Aquarium's focus expanded to include research, which led to the construction of an adjacent building that became the first marine laboratory in the state. In its first 25 years, the Aquarium saw over a million visitors and had established its place as one of the first genuine tourist attractions in Hawai'i.

What we now know today as the Waikīkī Aquarium first opened its doors on January 4, 1955. Its modern architecture and creative new exhibits ushered in more than 260,000 visitors that first year. Then in the mid 1970s, the vision of the Aquarium shifted to encompass education, conservation and research, as well as a strong relationship with the University of Hawai'i at Mānoa. The result of this changing vision? The founding of the Friends of the Waikīkī Aquarium and the Natural Selection gift shop, both of which were established in 1977.

In the late 1980s and early 1990s, the Aquarium took a step back to focus on the long-term goals of the facility and a master plan for its revitalization. The year 1994 saw the Aquarium's most extensive renovation to date, which included the construction of the Edge of the Reef exhibit and the renovation of the Hawaiian Monk Seal Habitat. This crucial investment supported the Aquarium's responsibility of research, education and conservation through living collections and new visitor facilities.

Today, the Waikīkī Aquarium is proud to present facility improvements, exhibit revitalizations and unique educational opportunities for the broader Hawai'i community. And as we look forward to what the next 115 years hold, we remain committed to our mission to inspire and promote understanding, appreciation, and conservation of Pacific marine life.

115th Birthday Gifts

Mahalo to the following generous community members and organizations who gave us amazing gifts for our 115th birthday:

1. Lee Bell
2. Dennis Mathewson
3. Izuo Brothers
4. Derek Chang, Golden Cowrey
5. Keli'i Gouveia of Duke's Waikiki

UPCOMING EVENTS



Ke Kani O Ke Kai 2019

Summer is finally here, and so is the Friends of the Waikīkī Aquarium's annual Ke Kani O Ke Kai summer concert series! Complete with live local entertainment, delicious food, refreshing drinks and the beautiful backdrop of Waikīkī under the stars, the beloved concert series is presented by Outrigger Hotels and Resorts, and is the perfect way for the whole family to enjoy a memorable summer evening in paradise.

This year's line-up features some of Hawai'i's top performers including Grammy Award and Nā Hōkū Hanohano Award winners, as well as popular food vendors like Laverne's Lunch Wagon, La Tour Café, Banán and more. The five-night concert series takes place every other Thursday evening through August 8, 2019. We've already enjoyed incredible performances by Kūpaoa, Mark Yamanaka, Bobby Moderow, Nā Hoa, Del Beazley, and Ka Lā 'Ōnohi Mai O Ha'e'ha'e, but mark your calendars and be sure to join us for the remaining concerts as follows:

Thursday, July 25

Masters of Slack Key Guitar: George Kahumoku and Kawika Kahiapo;
Ben & Maila; Kawaiulaokala

Thursday, August 8

Kawaikapuokalani Hewett;
Jerry Santos and Kamuela Kimokeo;
Streetlight Cadence



Tickets are \$50 for adults, \$20 for children (ages 5-12) and free for children 4 and under. Tickets for FOWA members are \$30 for adults, \$15 for children and \$120 for FOWA members (\$45 for children). Food, beer, wine and other beverages sold separately. No outside food or beverage will be permitted.

Don't delay—purchase your tickets for the remaining concerts today! To purchase tickets, visit the Waikīkī Aquarium or call the Friends of the Waikīkī Aquarium at (808) 440-9054. Individual tickets can also be purchased at <http://bit.ly/KKOKK2019>.



37th Annual Hawaiian Slack Key Guitar Festival, "Waikiki Style"

Swim on down to the Waikīkī Aquarium on Saturday, August 10, from noon to 6 p.m. for the 37th Annual Hawaiian Slack Key Guitar Festival! This annual tradition began in 1982 and will feature 15 of Hawai'i's most talented artists in the genre. Food and drinks will also be available for purchase throughout the day.

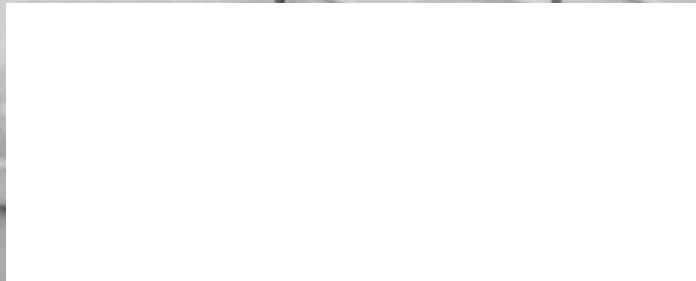




University of Hawai'i at Mānoa
Waikiki Aquarium
2777 Kalākau Avenue
Honolulu, HI 96815-4027

KILO I'A Issue Number 207
JULY - SEPTEMBER 2019

NON PROFIT ORG.
U.S. POSTAGE PAID
HONOLULU, HI
PERMIT NO. 278



SPINNING DOLPHINS
WAIKIKI AQUARIUM
Please help us keep our animals
healthy... Do not throw
objects in the pool

THE WAIKIKI AQUARIUM'S MISSION

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