

Kilo iā

2018 | APRIL / MAY / JUNE

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**WAIKIKI
AQUARIUM**
UNIVERSITY OF HAWAII



**FRIENDS OF THE
WAIKIKI
AQUARIUM**

Introducing Our New Executive Director, Keane Akao



The Friends of the Waikiki Aquarium is thrilled to introduce its new executive director, Keane Akao. In the newly created position, he will oversee operations, membership and donor cultivation for the non-profit organization, which supports the Aquarium's mission to inspire and promote understanding, appreciation and conservation of Pacific Marine life.

With more than 18 years of non-profit experience, Keane most recently served as the interim executive director of Camp Mokule'ia, a 40-acre retreat and conference center on the North Shore of O'ahu. Prior to that, he was the executive director of The Episcopal Church of West O'ahu, where he managed day-to-day operations for the organization of four Episcopal congregations. He also previously worked as the founding partner of Perfectly Planned Hawai'i, LLC and Consider It Done Hawai'i, LLC.

"We're so pleased to bring Keane on board as our organization's first executive director," said Friends of the Waikiki Aquarium Chair Chris Cole, an attorney with Marr Jones & Wang. "His solid management skills, non-profit experience and education are an ideal match for our growing board and membership needs."

Active in the community, Keane is a member of the Association of Fundraising Professionals, National Gay and Lesbian Chamber of Commerce and the Native Hawaiian Chamber of Commerce. He also serves on the Episcopal Diocese of Hawai'i's Commission on Native Hawaiian Ministry and previously served on Diocesan Council and Standing Committee.

"I'm excited to bring my extensive experience in philanthropy, donor cultivation and member management to the Friends of the Waikiki Aquarium," said Keane. "The Aquarium is an important community resource that we're proud to support through annual memberships, signature events like Ke Kani O Ke Kai, and donor programs."

- **Favorite marine animal:** Humpback whales. As a child, some of my most treasured memories are of the times when my Papa would take me out whale watching while visiting family on Maui. Those happy memories have remained with me all my life.

- **Favorite Waikiki Aquarium exhibit:** The Edge of the Reef exhibit, which has been the longest running exhibit. For those who can't get into the waters, this is a perfect way to learn about our reefs since the exhibit focuses on the habitats and life found along our shores.

- **Favorite Waikiki Aquarium event:** It would have to be the annual Ke Kani O Ke Kai series. I've attended several with family over the years and am still amazed at the number of people who aren't aware of these special evenings of music and food by the sea and under the stars.

- **Favorite ocean activity:** I'd have to refer back to #1 – it's being able to get on a boat and travel far from shore to experience nature in a different way, as well as to view the islands from a different perspective.

- **Biggest issue facing our oceans:** The Great Pacific Garbage Patch. The concentrations of plastic and other garbage in these water columns boggles the mind. Most frightening is that the full impacts on marine life, and the ecosystem, remain mostly unknown at this time.

- **Best thing about the Waikiki Aquarium:** The docents! These incredible volunteers make daily operations possible, as well as help support the many Waikiki Aquarium events offered to the community throughout the year.

- **Why someone should join the Friends of the Waikiki Aquarium:** In addition to the free and reduced admissions to exhibits and events, the best reason for joining is showing your support for our Pacific marine life.

- **Anything else:** Be on the lookout for upcoming improvements, like website updates and capital improvement projects. The Friends of Waikiki Aquarium is working hard to bring interesting and educational experiences to residents and visitors alike.

RECENT EVENTS



11th Annual International Aloha Koi Show

On February 17 and 18, the Waikiki Aquarium hosted its annual koi show, featuring a select number of rare and top-quality koi for exhibit and display. In addition, koi experts led educational seminars and keiki enjoyed a fun coloring activity.

Nishikigoi, commonly referred to as 'koi,' were judged on four key characteristics: size, symmetry, pattern and color.

A special thank you to our sponsors: Armstrong Builders and Pagoda Hotel-a lite hotel.



114th Birthday

On Saturday, March 31, the Waikiki Aquarium celebrated its 114th birthday! Guests were treated to hands-on keiki activities, prize giveaways and a giant monk seal inflatable. We also offered plant tours, Lego building with LEAHI and tasty food from our restaurant partners. Mahalo to Santacruz Taco Company and Musukawa's.

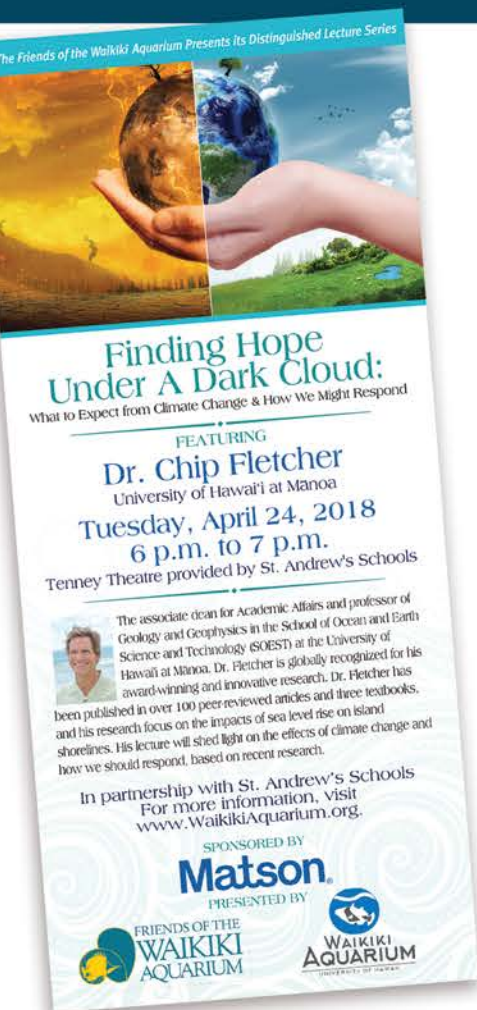


Beach Cleanup

On March 3, the Waikiki Aquarium hosted a trash and debris cleanup for residents and visitors. We partnered with the City and County of Honolulu and Hard Rock Cafe for a beach cleanup at Kailua Beach Park, where volunteers helped to remove trash and other debris from the surrounding beach and park areas.



UPCOMING EVENTS



Finding Hope Under A Dark Cloud:

What to Expect from Climate Change & How We Might Respond

Tuesday, April 24, 2018 – 6 p.m. to 7 p.m. – Tenney Theatre provided by St. Andrew's Schools

Dr. Chip Fletcher, Associate Dean for Academic Affairs and professor of Geology and Geophysics in the School of Ocean and Earth Science and Technology (SOEST) at the University of Hawai'i at Mānoa, will shed light on the effects of climate change and how we should respond, based on recent research.

11th Annual Mauka to Makai

Our annual Earth Day celebration, hosted by the City and County of Honolulu's Department of Facility Maintenance and Hawai'i State Department of Health, will be held on April 21 from 9 a.m. to 2 p.m. In support of our mission to inspire and promote understanding, appreciation and conservation of Pacific marine life, this

event highlights the impact we have on water sources from Mauka to Makai, and what we can do to keep our oceans clean and healthy. Families are invited to enjoy this free day of activities, entertainment, and displays focused on the preservation and protection of our environment.



Science of the Sting

Join us at the Waikiki Aquarium classroom on Wednesday, April 11 from 3:30 to 4:30 p.m. for a seminar featuring Box Jellyfish by Dr. Angel Yanagihara. In a box Jellyfish sting, thousands of microscopic hypodermic needle-like nematocyst tubules fire off at "bullet speed" to inject a potent venom cocktail. Work in our laboratory over the past 20 years has focused on solving the mysteries of these formidable stingers including answering the questions of:

- What are box jellies?
- What is in the venom?
- Why do box jelly stings cause so much pain and sometimes death?
- What is the best way to treat a sting?

These topics will all be discussed together with video clips of box jelly sting animations, box jelly eyes and scuba videos of collecting box jellies at night off shore of O'ahu.



A Day in the Life of a Live Exhibits Volunteer

Name: Nicole Preti

Position: Live Exhibits volunteer

Year Started: 2011

Education: Bachelor's degree in Biology from Hawai'i Pacific University

Background: I currently volunteer two days a week at the Waikiki Aquarium for a total of 8 hours per week. I initially started volunteering to gain work experience in my field of study, but in my time at the Aquarium, I've gained so much more. Each day, I learn something new and gather more and more invaluable experiences.

Tuesday Routine (7:00 a.m. to 11:00 a.m.)

7:00 am: Complete morning rounds by checking all of the tanks for which I am responsible. This is to make sure that we are maintaining certain standards within all of our tanks and seeing what needs to be accomplished each day.

7:30 am: Prep shrimp with the shell on to feed to the Nautilus.

7:30 to 8:00 am: Maintain the Mangrove exhibit by siphoning sand, cleaning windows, and clearing out any debris the mangroves leave. This is an open exhibit, so it's funny to watch guests lean over not realizing there is no glass separating them from the water.

8:00 to 8:30 am: Drain the Mullet tank half way and jump into it to scrub the algae that has grown throughout the week.

8:30 to 9:00 am: Return to the Nautilus tank to siphon sand and wipe windows.

9:00 to 10:15 am: Begin maintenance on the Kane'ohe Bay and Kona exhibits by siphoning sand and wiping windows and backgrounds. Sometimes this requires me to jump into the tank to fully clean it...and I can hear the kids screaming, "Hey, there's a mermaid in the tank!"

10:15 to 10:45 am: Prepare food for the Hunters on the Reef tank, which includes the zebra shark, ulua, giant grouper, etc. They receive five pounds of squid and five pounds of white bait (fish).

Friday Routine (7:00 a.m. to 11:00 a.m.)

7:00 am: Complete morning rounds to check tanks and wipe the gallery windows to prep for the Aquarium's opening.

7:30 to 9:30 am: Don a wetsuit and get into the outdoor Edge of the Reef tank to do weekly maintenance, such as siphoning and scraping algae that has grown on the exhibit windows. This is a fun opportunity to talk to Aquarium guests who are always wondering what I'm doing in the water.

10:00 to 10:20 am: Maintain Mangrove exhibit by siphoning sand, cleaning windows, and clearing out any debris from the mangroves.

10:30 to 11:30am: Begin maintenance on the Kane'ohe Bay and Kona exhibits by siphoning sand and wiping windows and backgrounds.



Will my grandsons want to bring children

By Chip Fletcher

*School of Ocean and Earth Science and
Technology, University of Hawai'i at Mānoa*

This world is not ours.
And yet as I write these
words, my generation is
engaged in a dangerous
global experiment that
threatens to tear the
socio-economic fabric
of modern society....

As if we had the right to ruin the living
conditions on planet Earth.



We are surrounded by evidence Earth's
surface is reacting to our unchecked release of
greenhouse gases, much as originally calculat-
ed in the nineteenth century by Swedish
physicist Svante Arrhenius. Since those early
days, a solid body of careful observations and
modeling unmistakably tells us these gases are
raising Earth's surface temperature.

As a result, heat waves, extreme weather,
animal and plant extinctions, and wildfires are
on the rise. Worldwide, glaciers are melting,
the oceans are warmer, and sea level is rising.
Unexpected effects are emerging such as
political turmoil, ocean anoxia and declining
nutritional value of our food.

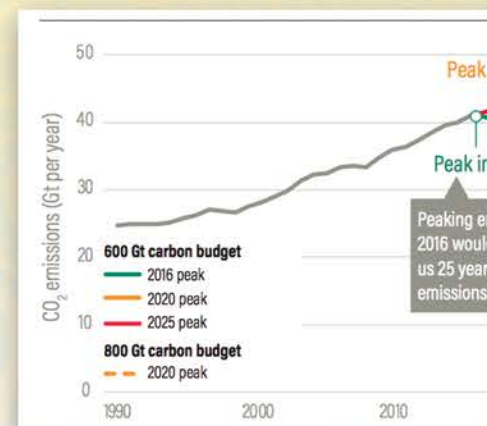
Global warming is generating dangerous
climate change. Swaths of Africa, the Middle
East, India, Australia and the Americas are
becoming unlivable. Heat waves and drought
are intensifying. Desertification is expanding.

Crop failure under these conditions leads to
famine. Pollution, overuse and declining rain
have created a global freshwater crisis. There
are four billion people worldwide who are
affected by severe water scarcity for at least
one month a year.



A tide of refugees has been driven from Syria
by a war that began with a record drought,
amplified by global warming. Millions of Middle
Eastern and North African refugees strain
geopolitical relationships in the European
Union. As a result, England has voted to leave
the EU, and we witness the rise of nationalism
and populism around the world, and here at
home.

Recognizing the signs, governments every-
where have made significant commitments to



Levin, K., and D. Rich. 2017. Turning Points:
Trends in Countries' Reaching Peak
Greenhouse Gas Emissions over Time.

Children into the world we have created?

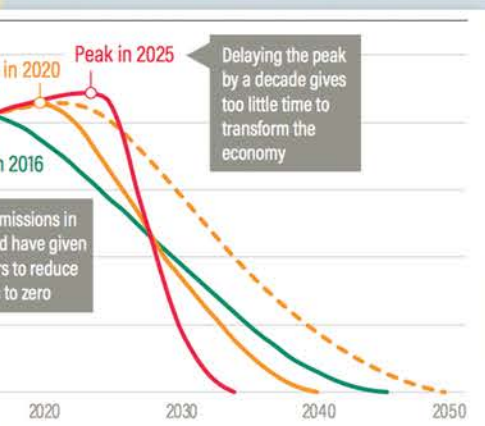


However, among climate researchers, it is widely accepted that we cannot stop the warming at 1.5 degrees Celsius, and there is great uncertainty about halting at 2 degrees Celsius. 2016 and 2017 were record-setting years for carbon dioxide accumulation in the atmosphere. India is on a rising trend of emissions as they surge to become the world's most populous nation over the next decade. The remaining carbon budget that will fully commit us to dangerously warm climate is being rapidly spent.

For a two-thirds chance of stopping global warming at 2 degrees Celsius, we must cease all greenhouse gas emissions in just 15 to 19 years. And after that we will still need to physically remove carbon dioxide from the air, something we have not yet figured out how to do.

Are we on track? No. Global commitments to decrease greenhouse gas emissions are only one-third of what is needed to stop warming at 2 degrees Celsius.

At the same time, we are increasing the surface temperature and natural environments are suffering.



fight global warming. Trailblazing corporations are engaged in providing low-carbon services and products. Communities are reimagining their futures as more sustainable and resilient. There is abundant evidence that we are in the midst of a rapid global transformation not only to renewable energy, but to a cleaner and healthier human society. It is easy to be hopeful that humanity is on a forward march to stop global warming as envisioned in the 2015 Paris Accord.



In late 2017, over 15,000 scientists published a “Warning to Humanity” reporting that humans have pushed Earth’s ecosystems to their breaking point and are well on their way to ruining the planet.

A large body of research reveals that humanity is using Earth’s natural capital at an unsustainable pace, plants and animals are experiencing disruptions that scale from the gene to the ecosystem. The very foundation of the natural world is at risk.

One point of view indicates that we are on our way to creating a safe and clean future. Another suggests that past mid-century, we will enter a dire and dark time.

How are we to assimilate these opposing visions of the future?

We must each come to our own conclusions regarding the future of humanity.

Let us do it, at least, on the basis of scientifically rigorous information that is uncontaminated by dogma or loyalty.

The world is changing so rapidly, and in such complex and often unpredictable ways, that it is critically important for every member of the human community to have a working knowledge of climate change.

Climate change threatens the stability of civilization and the security of human communities. The one most powerful tool that we have in overcoming this global threat is education that leads to positive action.

I repeat, this world is not ours.

We are stewards, entrusted with a grave responsibility to turn it over to our children in a condition that will sustain them with healthy, happy and safe lives. It is not too late. But to achieve this destiny it must become our single-minded purpose in life.



photo: NOAA



photo: FEMA



photo: Dr. Brad Romine, UH Sea Grant Program



photo: Elizabeth McDonnell



Explore the OZONE

**OZONE is Outrigger
Resorts' global
conservation
initiative
committed
to preserving
our coral reefs.**



Save the Date!

June 3 from 11 a.m. to 3 p.m.

OZONE Day at the Waikiki Aquarium

Join Outrigger for a morning beach clean-up followed by a fun-filled, family-friendly event at the Waikiki Aquarium, with face-painting, live music, and activity stations. Organizations like NOAA, Sustainable Coastlines and PacIOOS will also have booths filled with educational exhibits, games and fun prizes.

OZONE TIPS

A few easy things each of us can do to support our coral reefs:

- Be sun safe and reef safe. Wear rash guards and protective clothing when outside, go outdoors earlier or later in the day when the sun is less powerful, stay in the shade, wear wide-brimmed hats, and if you need sunscreen, make sure it's reef safe with active ingredients zinc oxide or titanium dioxide.
- Treat coral reefs as you would any other animal. Just as we avoid stepping on or crushing butterflies and sea stars, we want to be careful and protective of coral. It's an animal too!
- Reduce your plastic garbage. For example, say no to straws, bring your own shopping bag, and carry a reusable water bottle.

Learn more about Outrigger's OZONE Initiative at outrigger.com/ozone.

VOLUNTEER & MEMBERSHIP OPPORTUNITIES



Become a Teen Interpreter

Looking for a fun and educational opportunity for your teen this summer?

Now in its fourth year, the Aquarium Teen Interpreter Program offers High School Students a chance to learn about Hawaiian marine life and share that knowledge by interacting with visitors from around the world at the Aquarium. The program runs through the month of July and applications are now open through May 31.

To sign up your teen for this rewarding experience, go www.waikikiaquarium.org, or call the Education Department at 808-440-9007 for more information.



Become a Friend of the Waikīkī Aquarium Member

No matter your age, you can pursue your love of marine life by becoming a Friend of the Waikīkī Aquarium (FOWA) member. Membership contributions make it possible for the Aquarium to maintain its stunning exhibits, to launch new and exciting exhibits and offer educational programs and classes for students and groups of all ages.

FOWA's mission is to support the Aquarium and its mission to inspire and promote understanding, appreciation, and conservation of Pacific marine life. Benefits include a full year of FREE admission to the Aquarium, invitations to exclusive Member-only events, discounts and advance notice about classes and programs, special offers from partner organizations and more!

Levels of membership include:

- **Family Plus:** Two adults and their children under 18 years of age residing in the same household, plus FREE admission for two guests per visit when accompanied by member.
- **Family:** Two adults and their children under 18 years of age residing in the same household.
- **Grandparents:** Two grandparents and up to six grandchildren under 18 years of age.
- **Individual:** One individual cardholder
- **Senior:** One individual cardholder, 65+ years.

For more information or to become a member, visit www.waikikiaquarium.org/support/membership, email membership@waikikiaquarium.org or call our membership office at (808) 440-9054.



Ke Kani O Ke Kai 2018

PRESENTED BY
OUTRIGGER
RESORTS

**June 14,
June 28, July 12,
July 26 and August 9
Save the Dates!**

Our popular concert series, Ke Kani O Ke Kai, will return, summer with live entertainment from some of Hawai'i's top award-winning musicians and 'ono food from local restaurants. Ke Kani O Ke Kai offers a unique way to experience the Aquarium, while also raising funds for the Friends of the Waikiki Aquarium. Through a brand-new partnership with the Hawaii Theatre Centre, ticket sales for this year's concert series will be handled by Hawaii Theatre.

Please call (808) 528-0506
for your tickets!



CLASSES & ACTIVITIES

AQUARIUM'S TOP 5

Mondays and Wednesdays at 12:00 p.m.
in April

Which animals do our guests find most interesting? Learn more about the longest living giant clam in captivity, those weird and wonderful seahorses, and fish unique to Waikiki Aquarium. Drop in for this half-hour presentation every Monday and Wednesday. Free with admission to the Aquarium.

HAWAIIAN REEF ANIMALS

Mondays at 10:00 a.m.
Thursdays at 1:00 p.m.

Get up close to Hawaiian reef animals. Learn about common reef animals like corals, sea stars, sea cumpers, and urchins as well as fish you see snorkeling. Includes access to animals not on exhibit. For marine enthusiasts ages 4 and up. \$2/person with admission.

BEHIND THE SCENES

Thursdays at 3:00 p.m.

Learn what makes the Aquarium run, from fish food to quarantine, and many stops in between. Climb up and peer behind the exhibits. Visit the Coral Farm and the Jelly Hale, where sea jellies are raised. Minimum age 7 years; youngsters must be accompanied by an adult. Accessibility is limited. \$16/adult, \$10/child (Members receive a 40 percent discount).

SUMMER BY THE SEA

June 11 to 15, 8:30 a.m. to 3:30 p.m.

Spend a week during summer learning about what lives in Hawaiian waters and along the shoreline. What's the best way to learn? By doing! Explore the south shore of 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. \$300/child member (\$350 for non-members).

AFTERNOONS AT THE AQUARIUM

Wednesdays at 3:00 p.m.

Every Wednesday, the Aquarium hosts an interactive learning activity near the aquaculture deck. Join us for a critter encounter or a marine science craft designed for families. Free with admission to the Aquarium.

CLASSES FOR GROUPS

Waikiki Aquarium offers a variety of classes for community and family groups from 6 people to 45 people. Book a **Private Aquarium Tour** or the interactive **Hawaiian Reef Animals** encounter for your clan or club. Call 808-440-9007 for more information or email reservations@waquarium.org.

Register online at
www.waikikiaquarium.org/interact/activities-classes/



Goatfish

Goatfish are named for their pair of whisker-like sensory barbels on the lower jaw, which they use to probe for food hidden in sand or in reef crevices. Sensory receptors on the barbel surfaces help the fish locate prey with both touch and taste. Males wriggle their barbels during courtship, but tuck them out of sight between the lower portions of their gill covers when not in use.

Goatfish generally have an elongated body with two widely separated dorsal fins and a soft, forked tail. They are capable of rapid color changes and a fish resting on the bottom often exhibits a different color than when it is active. There are 10 species of goatfish native to Hawaiian reefs, but there is no known general term in Hawaiian. Species with one or more stripes running the length of the body are called weke, with a second word to denote the species; for instance, weke 'ula (yellowfin goatfish or *Mulloidichthys vanicolensis*), weke 'a (yellow-stripe goatfish or *Mulloidichthys flavolineatus*) or weke pueo (bandtail goatfish or *Upeneus arge*).

Goatfish are predators and feed on bottom-dwelling invertebrates including worms, crustaceans, small

molluscs and brittle stars. A few species also feed on small fishes. When food is located, a goatfish plunges its snout into the sediment and roots for its prey, inhaling sand and prey alike. Prey are swallowed and sand is expelled through the gill cover. Some goatfish species are active primarily at night and spend daylight hours hovering in stationary schools over the reef, while others are mostly active by day, and some hunt either by day or night.

In Hawai'i, all species of goatfish have long been popular as food. The manybar goatfish or moano (*Parupeneus multifasciatus*) is recognized in a Hawaiian song for its delicious taste. The goatfish known as kŭmŭ (whitesaddle goatfish or *Parupeneus porphyreus*), was highly esteemed in early Hawai'i and was eaten broiled, cooked in ti leaves, raw or salted lightly for two or three days, then cooked. Kŭmŭ were once used as an offering to the gods when priests required a red fish. It was an appropriate offering when launching a canoe, in hula ceremonies and sometimes to atone for a sin. Since one meaning of the word kŭmŭ is "master," a person who had become a "master" of an art might also make an offering of kŭmŭ.



NEW & RENEWING MEMBERS

from January 2018 - March 2018

John Aalto
Stephen Abear
Kelli Acopan
Timothy Aguila
Christopher Aguinado
Ty Ah Nee
Christine Ahn
William Ahuna
Erica Akamine
Judith Akin
Atrious Alexander
Nancy Allerston
Anthony Amend
Diane Amuro
Bud Antonelis
Troy Antonelis
Amy Appel
Allison Arakaki
Alton Arakaki
Mecaila Armas
Frank Assante
Angela Aviccoli
Valerie Axtell
Seung Ho Baek
Farrah Lei Bagaoisan
Medina
Bonnie Bailey
Maria Balazy
Radley Balde
Jennifer Balester
David Ball
Joanne Baraglia
Helen Baroni
Warren Barshes
Celeste Barstis
William Bass
Abby Bate
Jerome Bautista
Brenda Becker
Jeffrey Bednar
Michelle Benedict
Sanna Bergstroem
David Berting
Beverly Bertino
Ashley Biddle
Regine Bishaw
Paul Bishay
Ryan Bitz
Deborah Blair
Beth Blaney
William Blotsky
Ricky Bloxom
Jacqueline Bolland
Paula Bonham
Kendall Bossert
Joseph Botros
John Bowie
William F Brandt
Timothy Brilliante
Rebecca Britt
Betsy Brown
Richard Brown
Victoria Bruyette
Denise Bui
Gary Burgin
Elyse Butler
Robert Carr
Domingo Carvalho
Ines Casillas
Claudia Cedillo
Jean-Pierre Cercillieux
Dina Gail Cha
Greg Chamberlain
Wai Ying Chan
Elaine Chang
Jason Chang
Marvin Char
Kira Cheng
Michelle Ching
Stephanie Ching
Albert Chun
Carlton Chun
Darrell Chun
Louise Chung
Elizabeth Churchill
Laura Clark
Caitlin Clarke
Sara Clifton
Christopher Cole
Kate Colman
Helen Combs
Tony Conjugacion
Carol Coops
Travis Counsell
Roger Couture
John Covington
Kaipo Cowan
Elizabeth Cowart
Thomas Cranford
Robyn Cross
Jason Crowder

Chris Cubellis
Jane Culp
Ronald Cunitz
Rex Dalby
Joanna Daly
Tricia Dang
Cassandra Darden
Amanda Dargush
Jon Davis
Steven Davis
Kehaulani Denton
Anita Derinskiy
Emily Diedrich
Kealani Dilliard
Mervin Dimatulac
Francisca do Val
Steven Doi
Luke Donnelly
Michelle Dragavon
David Draiman
Darren Drew
Chris Durable
Marilyn Dunlap
Paddy Dunn
William Duritsch
Barbara Dwyer
Darlene Dye
John Dyer
Alexander Economou
Barbara Ellis
Andrew Endo
Cheryl Ernst
Darci Evans-Higgins
Thyrza Eyre
Caryll Fagan
M. Eleanor Fahrenwald
Wilford Fakaosita
Bo Falck
Todd Farley
Kathrine Fast
Diana Felton
Marybeth Fentriss
Royalene Fernandez
Naiyi Fincham
Jason Fleming
Stephen Flower
Isabella Forster
Francis Foster
Edward Francis
Stanley Frank
Jessica Freedman
Christopher Frerichs
Shawn Fujimoto
Jill Furubayashi
Virginia Furukawa
Samantha Gabriel
Luis Gamarra
Malisa Gampong
Char Ganeku
Cesar Garcia
Johnette Garcia
Michael Garrison
Keola Gerell
Rebecca Giles
Gary Glauberman
Leslie Goldman
Janet Gomes
Remigio Gonzalez
Nicole Goo
Michael Goodman
Brandon Grace
Julie Gray
Kara Greaves
James Greenwell
Ted Grissell
Joe Guzzardi
Mafieo Hafoka
Jenny Haglund
Silas Haglund
Warren Haight
Robert Hail
Meaghan Halford
Kathy Hallock
Naomi Hamachi
Mary Hammond
Ormond Hammond
Melissa Ha'o
Tiffany Harada
Willard Haraguchi
Susan Harbin
Gary Harbottle
Susan Haruki
Gary Hashiro
Caleb Heddins
Clifton Heen
Brandy Hernandez
Jens Heycke
Kathleen Hida
Evelyn Higa
Caitlin Hill
Catherine Hill

Jordan Hino
David Ho
Christine Ho Komer
Anita Hodges
Warren Holcomb
John Hom
Travis Hong
Elizabeth Horn
Richard Hornik
Jake Houseman
Ju Hee Hsia
Ryan Huff
Lester Inouye
Erin Irie
Chiyo Ishibashi
Alan Isobe
Patricia Itsuno
Leolani Iwaki
Cindee Izuu
Sidney Jackler
Grace Jackson
John Jacobs
Eric James
Vicky Jang
Erin Jefferson
Jakelin John
Cydney Johnson
David Johnson
Jeffrey Johnson
Christine Jones
Laura Jones
Renee Jong
Matt Joswick
Violet Kaili
Betty Kaimei
Leighton Kalapa
Helena Kam
Larry Kamemoto
Derek Kamm
Judy Kamm
Sandra Kaneshiro
Jonathan Kang
Gary Kansky
Raj Kapoor
Ethan Kastner
Sherrilea Katasako
Danielle Keiling
Billie Kekuwa
Constance Kelsey
Terrence Kennedy
Sean Kikuchi
William Kilcoyne
Jenny Kim
Kristen Kimura
Lauren Kitabayashi
Ronald Kiyota
Leif Kjonggaard
Terry Klenske
Caron Knell-Berg
Herbert Kobayashi
Lee Kojima
Ann Kon
Jason Konno
Jonathan Koshiba
Natalie Kossuth
Steven Kramer
Toby Kravet
Kyle Kumashiro
Michele Kuwaye
Wendy Lagareta
Kimiko LaHaela Walter
Kenneth Lai
Daniel Lam
Lynn Larrua
Koani Lau
Yolanda Lau
David Leatherman
JoAnn LeDoux
Hsiu-Mei Lee
Isaac Lee
Ivan Lee
Jeffrey Lee
Jennifer Lee
So Yun Lee
Timothy Lee
Van Lee
Sania Lee-Gushi
Jacqueline Legaspi
Deane Leidholt
Xavier Leleu
Yevgeniy Lendel
Michelle Leval
Cleo Li
Jae Lim
Haifeng Liu
Victoria Lodrini
William Lofquist
Ruth Lohr
Charles Loomis
Ann Lozada
Merrilee Lucas
Roger Lucheta
Kendal Luke

Cynthia Lum
Howard Lum
Frank Lutz
Adrienne Ma
Odeza Macaraeg
Nancy Magraudy
William Makaneole
Duke Malczon
Malia Mallichok
Jon Mann
Steve Mann
Ana Marshall
Leilani Martin
Jan Martineau
Kyle Maschhoff
Belinda Mata
Deontia Matila
Randall Matsumoto
Karin McCauley
Alma McGoldrick
Meghann Medici
Carol Medina
Candes Meijide Gentry
Justin Meilgaard
Richard Meinell
Ben Mendes
Christian Elias Mendez
Misha Mendosa
David Miller
Harry Miller
Katherine Miller
Robin Miller
Christina Mills
Sherry Mills
Daisuke Minami
Yvonne Miranda
David Miyahira
Jan Miyahira
Gary Miyamoto
Kenny Miyasato
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AQUARIUM MESSAGE

Recent rains have resulted in water quality issues around the state. In fact, the Hawai'i State Department of Health Clean Water Branch has issued several brown water advisories since the start of the year. What does this mean? When Hawai'i experiences severe rain, it can result in storm water runoff carrying land-based pollution into coastal waters. During these times, the public is advised to stay out of coastal waters due to possible overflowing cesspools, sewer, manholes, pathogens, chemicals, and associated flood debris.

In efforts to raise public awareness of water quality in our state, the Waikiki Aquarium has been working closely with Dr. Gail Grabowsky, Associate Professor and Director of the Environmental Studies program at Chaminade University, to run tests of water samples from various beaches. The test results are then used to potentially warn the public to avoid certain waters if their health is at risk.

We also team up with Hawai'i Department of Transportation Highways Division and O'ahu District's Storm Water Management Program to offer teacher workshops that further raise awareness of the impact of water quality issues on our health.

Helping to promote the importance of keeping Hawai'i clean and free of pollution, from the mountaintops to the ocean, is the main focus of our upcoming Mauka to Makai Environmental Expo. This free family-friendly event, presented by the City and County of Honolulu's Department of Facility Maintenance, Hawai'i State Department of Health and Waikiki Aquarium, also offers information about the current status of our water quality.

Although our beaches may appear to be pristine, we need to be conscious of our growing water quality issues and keep an eye out for any brown water advisories.

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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.





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THE WAIKĪKĪ AQUARIUM'S MISSION

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