

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

# Kilo iā

Winter 2009

looking at the sea



**NEW ARRIVALS:  
BLACKTIP REEF SHARKS**  
CLASS CALENDAR



# FROM THE DIRECTOR

Another year has flown by at the Waikiki Aquarium, during which time we have seen many changes — and the year ahead promises even more.

Installation of our new electrical system is now underway and operations are moving to the inside of the Aquarium fence. The project is slated for completion by mid-March. Energy conservation is also foremost in our minds. Recently we installed a solar water heater for the staff showers, and we are investigating galvanic cell arrays to generate electricity from solar power.

The biggest changes in the galleries this year will be seen in Gallery 4. Foremost will be the construction of a major new Northwestern Hawaiian Islands exhibit. The existing Hanauma Bay exhibit will change to highlight the marine life of Johnston Island. And two other exhibits will make way for a large showcase of Hawaiian streams — complete with waterfall.

Several decades ago, the Waikiki Aquarium was among the first to realize that an aquarium had to be more than simply a collection of fishes in glass cages. The Aquarium was a pioneer in promoting research, public education and conservation and today it continues to forge the way.

In this light, we are especially excited by the consolidation of some existing partnerships and the beginning of some new relationships. I recently attended a Coastal America meeting in Washington D.C. As a founding member of this group and one of a handful of Coastal America Learning Centers, I look forward to the Aquarium henceforth playing a more active role in that organization. As a first step, we will house a new information console, linked to the mother console housed in the Smithsonian.

We are forging stronger links with NOAA, particularly in its work with the humpback whale sanctuary and Papahānaumokuākea in the Northwestern Hawaiian Islands. We are consolidating our relationships with the National Marine Fisheries Service Hawaiian monk seal program. And we will continue our expanded research efforts with the university — two exciting upcoming projects involve lobster development and environmental monitoring. By working together, we can achieve far more.

The economic climate has affected the Aquarium in terms of lower attendance and decreased revenues, but it has in no way detracted from our enthusiasm or our resolve to provide residents and visitors with the world-class aquarium and marine information center that Hawai'i so increasingly needs and so richly deserves.

From all of us here at the Aquarium, may 2009 bring you happiness and prosperity.

Dr. Andrew Rossiter  
Director



“By working together, we  
can achieve far more.”



## *Kilo iā*

Issue Number 168 Winter 2009

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Printing: Electric Pencil

Kilo iā is published quarterly by the University of Hawai'i and the Friends of the Waikiki Aquarium and is dedicated to increasing the community's knowledge of the Waikiki Aquarium and Hawai'i's marine life.


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Love will be in the air ... and in the water as the Waikiki Aquarium once again hosts its annual Seduction Valentine's Day dinner. The opportunity to enjoy a romantic candlelit dinner in the galleries is limited to just 27 couples and will feature a champagne reception, three-course meal with wine catered by Ginnibberies, a commemorative photo, romantic souvenir and valet parking.

Private tables for two will be arranged throughout the Aquarium's galleries in front of engaging exhibits such as Ocean Drifters, South Pacific Marine Communities and Weedy Seadragons. Couples may reserve the table/exhibit of their choice on a first-come, first-served basis.

Doors open at 6:30 p.m. and dinner will be served at 7 p.m. The cost is \$300 per couple, inclusive, with all proceeds benefiting the Waikiki Aquarium. For reservations, call 440-9015.

February 14

## Seduce your Valentine



## Earth Day

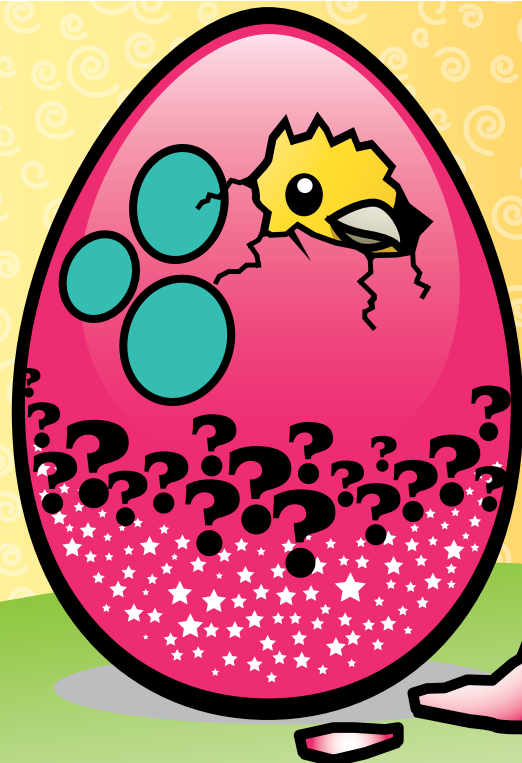
April 11

The Waikiki Aquarium invites you to help celebrate the earth with a special free day on Saturday April 11. There will be plenty of fun and information as environmental organizations from both public and private sectors converge on the great lawn to share their messages of conservation. You can also watch the annual release of juvenile moi into the waters at our doorstep.

## hatching soon at SEA HUNT

Hop on down to the Aquarium to celebrate Easter with the Sea Chicks on Saturday April 4. The Aquarium's cute and marine-conscious Sea Chicks are back for Sea Hunt 2009 — choose your favorites for your event T-shirts. Perhaps you're hooked by Myrtle the Turtle, or Crusher the Crab or Shelly the Hermit Crab ... or maybe you'll find your chick-mate among the new Sea Chicks joining the nest this year. They'll be cracking out of their shells just in time for Sea Hunt ... come on down and join in the fun with the egg hunts on the lawn, the fishing game, crafts and entertainment. Watch your mail for more information.

April 4





# THE TRAVELLING BLACK TIPS



If animals collected air mileage points, then two of our newest residents — two blacktip reef sharks — would have racked up quite a few of them.

The juvenile blacktips — one male and one female — were collected in Indonesia then began their travels by crossing the Pacific to Sacramento, Calif. — a distance of about 8,600 miles. There, they spent about a year in an exhibition tank at a fish wholesalers. When the store decided to take down the tank, it offered the sharks to the Aquarium. Our Live Exhibits team jumped at the offer. It's difficult to find sharks to exhibit, let alone those that are being offered gratis.

So it was back onto a plane for the 3,400-mile trip back across the Pacific to Honolulu. The sharks were placed in separate 55-gallon drum liners, which were hyper-oxygenated to ensure the animals had ample air to breathe during their journey. The bags were placed in a custom-made crate, then loaded on a Hawaiian Airlines flight for Honolulu.

Once they had cleared state agriculture and customs, the sharks were picked up by Aquarists Norton Chan and Rick Klobuchar, who drove them in the back of a truck to the Aquarium. Twelve hours after their journey began, the sharks were released into a 20-foot circular tank behind the scenes where they began swimming and eating healthily.

That was in September. At press time, the sharks — who are estimated to be about two years old — had gained weight and grown about four inches to a length of about two-and-a-half feet. They will remain behind the scenes until the Live Exhibits team is confident they can fit into the big world of the shark tank. If they are too small, it's possible they would be harassed by the jacks or even inhaled by the groupers.

You can expect to see these new arrivals cruising in the shark tank by the middle of this year.

Photo courtesy of NWHI Coral Reef Ecosystem Reserve.

# THE NAME GAME

We're looking for names for our two new blacktips and we need your help. Drop off your suggestions (one name for a girl and one name for a boy) to the Aquarium by January 31 and you could win a year's family-level membership to the Aquarium.

There's just one guideline from Aquarium Director Dr. Andrew Rossiter: "Please, not Jaws," he says.

Leave your suggestions at the front desk or mail them to Waikīkī Aquarium, 2777 Kalākaua Ave., Honolulu, HI 96815-4027. Include your name, address and contact telephone number.

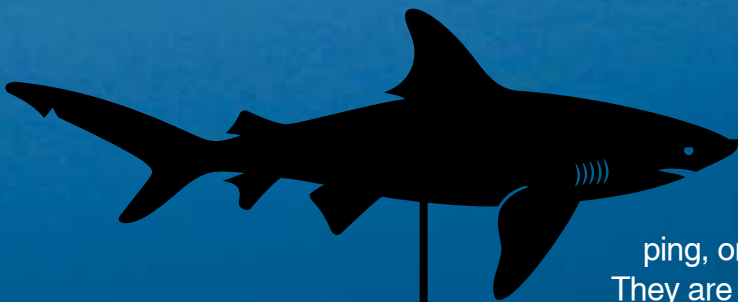


## ON THE MENU

**What do we feed our juvenile blacktips?**

- 3 large pieces of squid
- 2 small squid
- 4-6 pieces of fish

**Total meal:** about 2 pounds, served three times a week, along with weekly vitamin supplements.



Blacktip reef sharks have been observed spy hopping, or putting their heads above water to look around. They are also one of the few sharks that can fully jump out of the water, something that they do when hunting prey. Small groups of the sharks will hunt down a school of fish and work together to corral them into a tight ball before they attack. The sharks will jump out of the water to catch fish that are trying to escape.

## SPY HOPPING SHARKS



## >> blacktip reef sharks

**6 feet** Average length attained by blacktip reef sharks

**100 pounds** The average weight of a full-grown blacktip.

**8 years** Age at which male blacktip reef sharks typically reach maturity; females mature at about 9 years.

**12 years** Average life span of a blacktip reef shark.

**8-16 months** Gestation period in blacktip reef sharks. Blacktips are viviparous, meaning they give birth to live young — an uncommon form of reproduction in fish. Their long gestation period makes them particularly vulnerable to overfishing.

**2-4** Number of pups in a litter.

**13 - 20 inches** The length of pups at birth.

**33 feet** Maximum depth to which blacktip reef sharks will commonly swim. They have been observed in water as deep as 250 feet, but they are shallow water animals and are often seen in water that is only a few inches deep.

**5** Number of gill slits on each side of a blacktip's head. Blacktip reef sharks must swim constantly with their mouths open to allow oxygen-rich water to flow over the gills.

**28** The maximum number of teeth in a blacktip's upper jaw; there are as many as 27 in the lower jaw. Special tissue in the jaw constantly makes new teeth — the new teeth automatically move forward to replace the older ones as they fall out.

**200 million years** The length of time since the evolution of the modern shark feeding mechanism that allows sharks to protrude their upper jaws, making it easier for them to take prey. The blacktip's mouth is located on the underside of its head and the jaws fold up and out of the way when the shark is swimming, a design that contributes to their streamlining.

Sources: Waikiki Aquarium marine life profile; BBC; Florida Museum of Natural History, *Biology of Sharks and Rays*.

# AUTHOR!

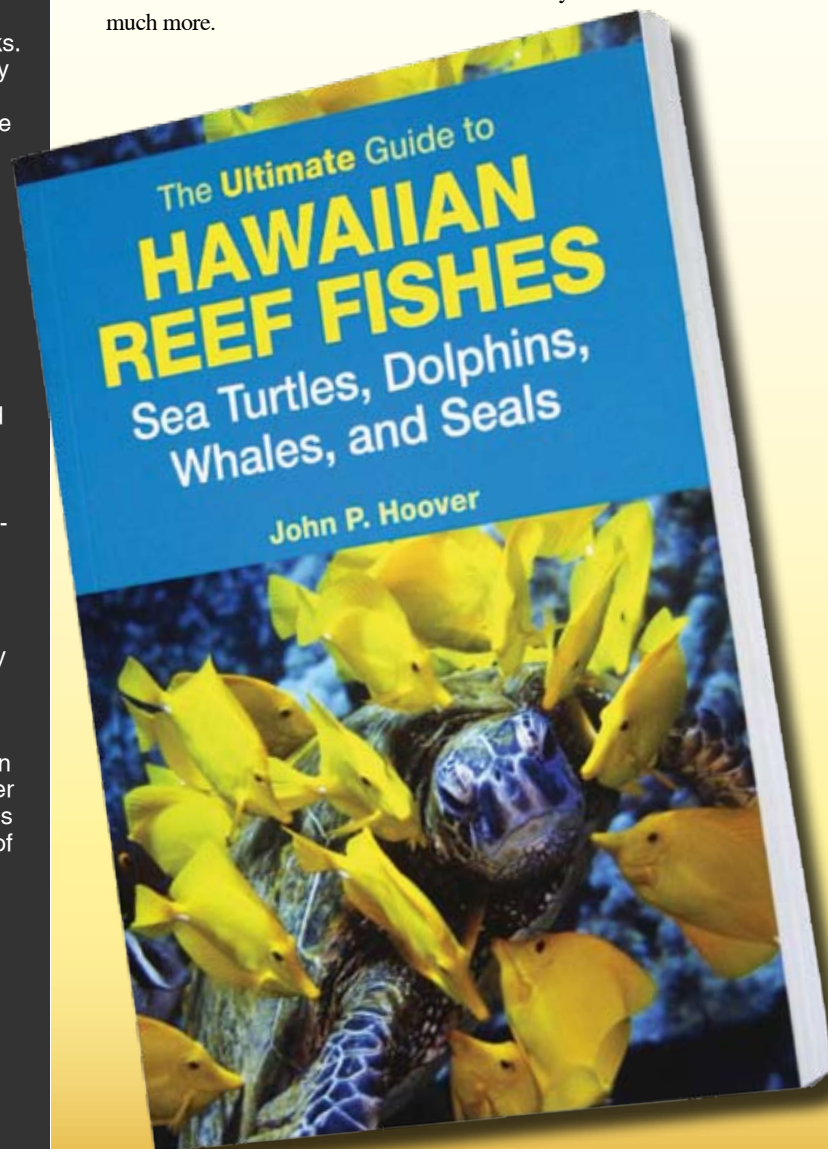
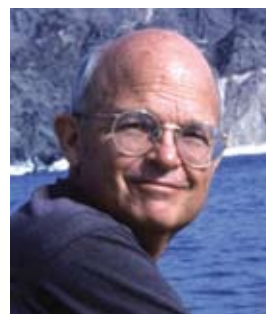
## The undersea world according to Hoover

Have you ever wondered why spinner dolphins spin? Or how manta rays mate? Or what it feels like to be stung by a lionfish?

John Hoover reveals all in his new book, *The Ultimate Guide to Hawaiian Reef Fishes, Sea Turtles, Dolphins, Whales, and Seals*. And he'll be at the Aquarium on **Thursday February 5** to talk about the book and sign copies. (They'll be on sale for \$24.95.)

We're also pleased to announce that, for the first time ever, Hoover will present two classes in fish behavior at the Aquarium. Drawing on his extensive library of beautiful underwater photographs and the wealth of knowledge in his latest book, he'll talk about fish reproduction and feeding and defensive behaviors. (See the calendar on page 11 for more information.)

A retired librarian, Hoover is a keen diver and amateur scholar of Hawai'i's marine life. He shares his passion in this new book. It features more pictures and more species than his previous fish ID books, but this is far more than an ID guide. Hoover has included a goldmine of behavioral information, legends, trivia and fun facts. If you really want to know why eels tie themselves in knots — then this is where you'll find the answer and much more.





# BEHIND THE SCENES

## LIVE EXHIBITS

Behind the scenes at the Waikiki Aquarium — it's a place where pumps constantly hum, where it's often damp underfoot, where you get the occasional pungent waft of fish food. It's also where you'll find our Live Exhibits staff, sometimes in wetsuits and masks and always busy. They're among the best in the business, adept at taking care of the fussiest feeders, the trickiest corals and the odd emergent situation. Beginning this issue, the *Kilo i'a* takes you behind the scenes for a sneak peek at some of the work going on here.

### THE CLAM WITH THE ARTIFICIAL JOINT

There was something wrong with the derasa clam in the Coral Farm on the great lawn. Its shell was sitting oddly, with one half sagging below the other. Aquarist Rick Klobuchar suspected a damaged hinge, something that can be caused by parasites or disease or the wear and tear of sitting on a hard surface.

Klobuchar climbed the ladder and got into the tank to take a closer look. Turning the clam over gently, he quickly saw the damaged ligament. Carefully he maneuvered the two halves into alignment and placed the clam down again — if the damage wasn't too severe, the clam might be able to function properly. But, one week later, it was lopsided again.

Klobuchar knew he had to do something. Clams rely on those hinges to open and close their shells. If they can't open fully, they don't get the water flow and sunlight that they need to survive. If they can't close their shells, they can't protect themselves from predators. While predators aren't a concern in the Coral Farm, the clam could still get stressed out and die if it couldn't function properly.

Over the weekend, Klobuchar tried one fix he had read about, attaching a piece of nylon mesh over the broken hinge with Z-Spar epoxy. The clam did manage to open more than it had in a long time, but by the time Klobuchar returned to work the following week, the mesh had fallen off and the dislocation was worse.

Klobuchar sought out his colleague and resident fish doctor, Eric Curtis, and they discussed the problem. Over the next week, they searched the literature, trying to find references for treating clams with damaged ligaments. They found some vague suggestions and some options that had been tried with smaller clams — but nothing definitive.



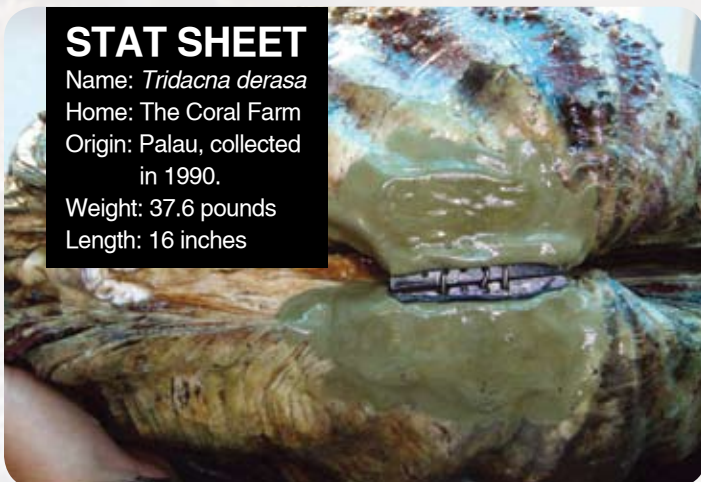
So he and Curtis sat down at the large Formica table in the Live Exhibits office and started brainstorming. In front of them they had an old clam shell from the Education classroom, along with different pieces of mesh, netting, ropes, plastic and wire. The challenge: how to replicate the motion of a clam's hinge and how to build something strong enough to support a nearly 40-pound clam. As the morning went on, other Live Exhibits staff stopped by and offered their suggestions. After several hours, they had a solution: two carved pieces of plastic, about 4 inches long, joined down the seam by three stainless steel rings.

Then it was time for the clam's surgery. Klobuchar moved the animal from the Coral Farm to their worktable in the LE office. The clam could tolerate some time out of water, but the pair had to move quickly. First they scrubbed the shell clean, then scored the hinge site with a Dremel tool to provide the sealant with some purchase. The artificial hinge was then sealed in place with Z-Spar. An hour later, the clam was back in a holding tank behind the scenes. Klobuchar placed it in a basket and tied it almost closed so there was no pressure on the hinge and so the epoxy could harden overnight.

When he arrived at work the next day, Klobuchar removed the basket and ropes. He set about his other duties around the Aquarium, stopping by every so often to check on the clam. Around 2 p.m. he was relieved to find the clam had opened — properly. The next day he returned it to its home in the Coral Farm, where it continues to open and close, with the aid of its new artificial joint.

#### STAT SHEET

Name: *Tridacna derasa*  
Home: The Coral Farm  
Origin: Palau, collected in 1990.  
Weight: 37.6 pounds  
Length: 16 inches





Name **Raina Fujitani**  
Position **Events & Membership Manager**  
Education **Kalani High (1987), UH-Mānoa (BA journalism & communication, 1993)**  
Favorite Aquarium resident **Mosaic jellies**  
Etc. **Raina has been a dancer since her small-kid ballet classes; now she dances jazz at the Central YMCA.**

Like many others who grew up in Hawai‘i, Raina Fujitani has those memories of childhood visits to the Waikiki Aquarium. Now she’s back — but this time she’s overseeing our membership department and heading up annual events like Sea Hunt.

During her career working at places like Communications Pacific and the UH school of Travel Industry Management, Raina has gained plenty of experience putting together large events.

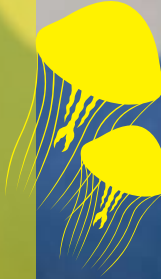
“I enjoy doing events,” she says. “Every event is unique, with its own discoveries and network of people. It’s always gratifying when it comes to life.”

Raina’s ocean roots go back to her childhood, which was spent boogie boarding and beaching with her family. She also was a certified lifeguard and taught swimming to children at the Kahala YMCA. She has also had the unique distinction of being a performing sea jelly. For almost 20 years, Raina has been involved with ‘Ōhi‘a Productions, parlaying her dance talents into marine roles as everything from a coral reef to a goby.

Raina sees her new job as a good fit with her other new job as a mom — she has a cute 1-year-old daughter.

“Being a new mom, I wanted to get back to somewhere more family targeted,” she says. “Whenever I go downstairs and see the kids here, it reminds me why we need places like the Aquarium. I also wanted to be part of something with such a long history and play a role in its new era.”

Raina



## FRESH Faces



Name **Marylou Foley**  
Position **Director, Community Outreach & Institutional Advancement**  
Education **Punahou (1965); University of Washington (BA, education 1969)**  
Favorite Aquarium resident **Monk seals**  
Etc. **Snorkeling, kayaking and, right now, producing a Hawaiian music CD for NOAA with three-time Grammy winner Daniel Ho.**

Marylou Foley knows the Pacific as few do. During her years with Outrigger Hotels & Resorts, she traveled the breadth of it from Tahiti to New Zealand and from the Marshall Islands to the Cook Islands.

As a consultant for the hotel chain’s expansion into the Pacific, Marylou got involved in everything from the black pearl auctions to the revival of traditional sailing canoes to sustainability workshops for shells and tropical fish. It was during this time that her eyes really opened to the fragility of our oceans and natural resources.

“When you’re in the Marshall Islands, you can see with your own eyes what global warming means,” she says. “There you are, standing on a strip of land, with the ocean on one side and the lagoon on the other and the highest point is just six feet above sea level.”

In later years, as the public relations manager for Outrigger, Marylou worked to raise public awareness about marine conservation. Under her guidance, Outrigger became the first hotel chain to forge a formal partnership with NOAA and the different events brought in luminaries such as Jean-Michel Cousteau.

Marylou has deep roots in her community at home, too, thanks in part to her years as executive director of Aloha Festivals and her work at the Department of Business, Economic Development & Tourism, where she learned how community outreach can make a difference in people’s lives.

She hopes she’ll be able to continue making a difference in her new job at the Aquarium.

“I’m excited to be here,” she says. “There is so much that can be done to build public awareness.”

Marylou





“It is rewarding to work at the front desk because we get to see the children coming in and they are always so excited to be at the Aquarium.”

# A Day in the Life

Name **Chana Tamura**  
Position **Front Desk Visitor Services Supervisor**  
Year started at the Aquarium **2002**  
High School **Waiākea, 1999**  
Etc. **The most important thing outside of work is my 3-year-old son, Kayden. He loves the Aquarium!**

**8 a.m.** I arrive at work and begin to open the front desk by wiping down and setting up the supplies for the day. The Aquarium is always busy even before visitors arrive. The janitorial staff are vacuuming and Live Exhibits staff are checking and servicing the exhibits. Before the doors open, we have volunteers arriving, along with early deliveries from our brochure vendors or the Pepsi machine company or the gift shop suppliers.

There's a school group scheduled for 9, so we check them in so they can enter as soon as the doors open. Then I call all the department heads to get their daily appointments — it's our job to do the daily check in and out of staff.

I do a final check of the galleries and grounds, turning on the videos and graphics in the different exhibits. This is one of my favorite times of the day ... it's like having your own private tour of the Aquarium.

**9 a.m.** It's time to open the doors for the day. On really busy days we can have lines out the door. Sometimes it can be quite a juggling act, but it's all done with a pleasant attitude! We greet customers and take admissions; we process memberships; register people for Education classes; take reservations for saltwater pick-up; answer incoming calls and make announcements for feeding times in the galleries. (The monk seals recognize our announcements and know it's feeding time even before the Live Exhibits staff get to their enclosure!)

**9:30 a.m.** I make a run up to the University of Hawai'i campus to drop off mail and deliveries. We might do this two or three times a week depending on the amount of material coming out of the offices upstairs.

**1:30-2:30 p.m.** It's my lunch break! There are normally three of us rotating on the front desk each day, giving each other breaks and time to take care of our other duties.

“It makes my day when I go out of my way to help someone and they are really grateful.”



**3 p.m.** I take a break from the front desk to attend to some of the paperwork in the office. I tally the Aquarium coupons, update the daily maintenance log for the audio tour system and make sure we have enough membership forms and Education class registration forms at the front desk.

**4:30 p.m.** The Aquarium starts to close. We stop taking admissions and begin to reconcile our daily cash registers. We start making closing announcements at five-minute intervals — that way no one is surprised when we tell them it's time to leave. We do a final walk through of the galleries, grounds and restrooms, shut off the videos and finally lock the entrance and exit doors at 5 p.m. It's the end of another busy day and time to go home and see my family.

# OCEAN explorer

Hundreds of years ago, intrepid Polynesian and European explorers ranged the oceans on daring and often dangerous voyages of discovery. Have times changed that much? Perhaps not. On Feb. 27, educators can come to the Aquarium and learn about the explorers who are pushing the boundaries today.

Educators can participate in NOAA's Ocean Explorer program and curriculum during a daytime workshop. In the evening, educators can mingle under the same stars that guided explorers in the past while meeting representatives from a wide range of federal and state agencies, showcasing the materials and curricula available for marine education.

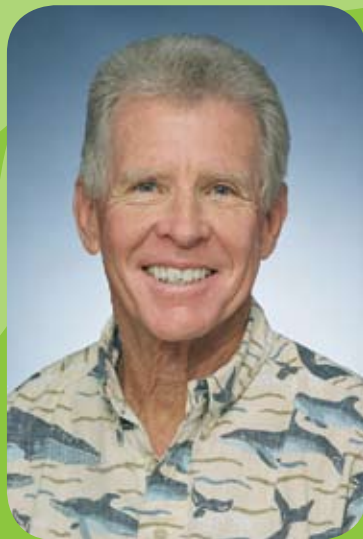
And you don't have to be an educator to enjoy the fascination of the Ocean Explorer website (<http://oceanexplorer.noaa.gov/>). You can hitch a virtual ride as modern explorers venture out into our oceans, read the log entries as they are uploaded and visit the image and video galleries — when was the last time you saw a red eyed gaper, a squat lobster or a lantern shark?

This year we have a follow-up session for previous workshop participants. Stipends are available for workshop participants and travel funds are available for neighbor island educators. Space is limited.

Educators can sign up for the Ocean Explorer workshop or the Marine Educators Evening by calling 440-9011.



## on BOARD

**Name**

Bill Henderson

**Joined FOWA board**

November 2008

**Can also be found at**

Aqua Hotels and Resorts, where he is the vice president of development.

**Background**

Henderson has vast experience in the hospitality industry, notably helping Outrigger Hotels & Resorts expand into the Pacific. Prior to joining

Aqua Hotels and Resorts, he consulted for the startup television channel the Ocean Network, where he built relationships with various groups involved in advocacy for Hawai'i's oceans and reefs, including NOAA, the Castle Foundation, HIMB and the Office of Hawaiian Affairs. Henderson also has a distinguished military service record with the U.S. Marine Corps, notably being awarded the Silver Star.

**Favorite Aquarium resident** The monk seals

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

I have had a life-long passion for the oceans, specifically for the islands and their reefs. I have been active in surfing, outrigger paddling and diving (both SCUBA and snorkeling), throughout Polynesia, Micronesia and Melanesia for more than 40 years.

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

The intimate and educational nature of the exhibits and the overall feel of the Aquarium experience.

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

Educating people about the unique diversity of ocean life, and promoting an awareness of the world's oceans and islands and the threats facing them.

**On a personal note** I was born at sea between Hawai'i and California while my mother was being evacuated after the attack on Pearl Harbor — so I reckon I have additional salt water in my blood?! While I was an officer in the U.S. Marine Corps, I was sent to the U.S. Navy Diver training school in the Philippines, and I have subsequently spent as much time as possible on and under the water, including diving and competing in numerous outrigger canoe races around the Pacific, in Hawai'i (I've completed numerous Moloka'i crossings), Fiji, Australia, New Zealand, Tahiti and California. On the mauka side, I enjoy trekking, including special treks in the South Island of New Zealand, and treks to Everest Base Camp and Annapurna Base Camp in Nepal.

There are 11 people currently serving on the Friends of the Waikiki Aquarium board. To acquaint you with these people who volunteer their time to help the Aquarium, *Kilo 'i'a* features one board member each issue.





# CLASSES & ACTIVITIES

January-April 2009

## Aquarium After Dark

Jan 16, Fri 6:30-8:30 p.m.  
Apr 9, Thu 6:30-8:30 p.m.

Discover if fish sleep, sea snails snooze or weedy seadragons doze on an after-dark flashlight tour of the Aquarium exhibits. Minimum age 5 years; youngsters must be accompanied by an adult. \$9/adult, \$7/child (\$11/8 for non-members).

## Exploring the Reef at Night

Jan 23, Fri 6:30-9:00 p.m.  
Feb 6, Fri 6:30-9:00 p.m.  
Feb 22, Sun 6:30-9:00 p.m.  
Mar 8, Sun 7:00-9:30 p.m.  
Mar 25, Wed 7:00-9:30 p.m.

Join us as we explore the reef at night in an experience you'll not forget. Aquarium staff and participants wade up to their knees on these wet and wild excursions. Test your nocturnal vision as we search for crabs, shrimps, eels and octopus. For adventurers aged 5 and up; youngsters must be accompanied by an adult. \$10/adult, \$8/child (\$12/10 for non-members).

## Marine Munchies

Beginning in Feb  
Monday (except holidays) 4:30-6:00 p.m.

Discover animals' adaptations for capturing their meals and what they eat here at the Aquarium. Included is an exclusive after-hours animal feeding. Watch the octopus extract its dinner from a jar. See the seadragons slurp up shrimps. Then it's your turn to feed the animals in our Edge of the Reef exhibit. Minimum age 5 years; youngsters must be accompanied by an adult. \$16/adult, \$12/child (\$20/\$15 for non-members).

## A Reception with John Hoover

Feb 5, Thu 6:30-8:00 p.m.

Best-selling author John P. Hoover has a new book: *The Ultimate Guide to Hawaiian Reef Fishes, Sea Turtles, Dolphins, Whales, and Seals*. The book is not only useful for identifying animals, it also includes pictures and descriptions of interesting animal behaviors and anecdotes from people who photograph, observe and study Hawaiian marine life. A short presentation highlighting the book's beautiful photography will be followed by a book signing. Books will be available for purchase. Admission is free.

## Fish Behavior 101 in Pictures

### Part One: Reproduction

Feb 8, Sun 6:30-8:00 p.m.

Learn about fish behavior through the photographs of one of Hawai'i's foremost authors of marine identification guides. John Hoover will show examples of behavioral and color changes in fish during reproduction. He'll also give participants a close-up view of nest preparation, courtship and spawning of damselfish ... and much more. For fish watchers ages 14 and up. \$20 for both classes (Part One & Part Two); \$12 for a single class. (\$24 and \$14 for non-members).

## Fish Behavior 101 in Pictures

### Part Two: Feeding and Defense

Feb 9, Mon 6:30-8:00 p.m.

In this session, best-selling author John Hoover will show examples of feeding strategies and defense mechanisms in a variety of marine fishes. For students ages 14 and up. \$20 for both classes (Part One & Part Two); \$12 for a single class. (\$24 and \$14 for non-members).

# REGISTRATION INFORMATION

- Questions about course, enrollment or disability accommodations? Call the Waikīkī Aquarium Education Department at 440-9011.
- Preregistration is required for all activities.
- FOWA members are allowed up to four total registrants at the FOWA rate.
- Overpayments (\$5 or less) cannot be refunded.
- 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.

Full payment must accompany completed registration forms. Please, no cash.  
Make checks payable to **University of Hawai'i**.

Complete and mail the activity registration form with check or credit card information for the total amount to:

**Waikīkī Aquarium Education Department**

**2777 Kalākaua Avenue**

**Honolulu, HI 96815**

To register by phone, please call 440-9011.

### Small Fry

Feb 11-March 11, Wed

A Session

B Session

Apr 1-29, Wed

A Session

B Session

8:30-10:00 a.m.

10:30 a.m.-noon

8:30-10:00 a.m.

10:30 a.m.-noon

For the youngest learners. An adult and their 1- to 3-year-old team up to discover the amazing undersea world of the Aquarium. Five weekly sessions include crafts, song, play and exploration of the exhibits. For adult-child teams. \$50/adult & child (\$80 for non-members).

### Seaduction

Feb 14, Sat

6:30 p.m.

The Waikiki Aquarium hosts its annual Valentine's Day dinner where couples can enjoy a candlelit dinner amongst the galleries. Doors open at 6:30 p.m. and dinner is served at 7 p.m. The cost is \$300 per couple, inclusive, with all proceeds benefiting the Waikiki Aquarium. For more information, see page 3. For reservations, call 440-9015.

### NOAA Ocean Explorer Educators' Workshop

Feb 28, Sat

Noon-4:00 p.m.

Bring the excitement of modern day explorers to your classroom. The NOAA Ocean Explorer curriculum and website focuses on explorations into extreme environments. Thanks to sponsorship from the National Marine Sanctuary Foundation, there are stipends available to cover time, teaching materials and travel costs (including costs from neighbor islands). All participants also receive a copy of Learning Ocean Sciences through Ocean Exploration curricula and CD-ROM. See page 10 for more information. To register, call Reservations at 440-9011 or e-mail reservations@waquarium.org.

### NOAA Marine Educators' Night

Feb 28, Sat

6:00-8:30 p.m.

Join us for the marine educators' evening under the stars, which follows the daytime educators' workshop. Representatives from a wide range of federal

and state agencies come together to showcase the materials and curricula they have for marine education. Who knows which of our students or children will be the next ocean explorers? See page 10 for more information. To register, call Reservations at 440-9011 or e-mail reservations@waquarium.org.

### Sea Stars

Feb 25-Mar 11, Wed

Apr 14-28, Tue

3:30-4:45 p.m.

3:30-4:45 p.m.

Is your preschool age child ready to graduate from Small Fry? Bring your 3- to 5-year-old keiki to spend three afternoons singing and dancing, playing and creating. Learn about camouflage, locomotion, predators and prey in this three-session class. \$36/adult & child (\$48 for non-members).

### Monk Seal Overnight

Mar 24, Tue (Spring Break)

7:00 p.m.-8:00 a.m.

They're endangered, endemic and very charismatic — spend the night with our resident monk seals, Maka onaona and Nuka'au. Play the training game to learn how seals learn through operant conditioning. See the ocean through a monk seal's eyes by viewing crittercam footage of seals hunting in the wild. Minimum age 5 years; children must be accompanied by an adult. Evening refreshments and continental breakfast included. \$30/adult, \$25/child (\$35/30 for non-members).

### Sea Hunt

Apr 4, Sat

It's time for the ever-popular Sea Hunt and Family Day with egg hunts, crafts and entertainment. More information to come your way via mail.

### Earth Day

Apr 11, Sat

It's fun, it's informative, it's for a great cause. Join us as we celebrate Earth Day. There will be information booths by private and public agencies, activities and the annual release of moi into the waters of the Marine Life Conservation District. Free.

## ACTIVITY REGISTRATION FORM

Name(s) \_\_\_\_\_

Adults \_\_\_\_\_ Phone (home) \_\_\_\_\_

Children/Ages \_\_\_\_\_ Phone (work) \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

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 ☐ Mastercard

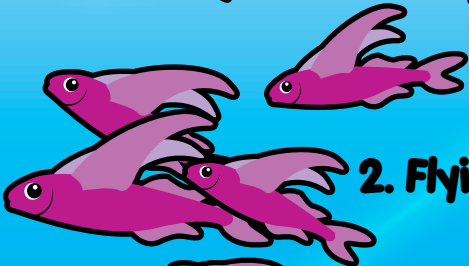
Expiration date: \_\_\_\_\_ Last three digits of security code on back of card: \_\_\_\_\_

I am a FOWA Member ☐ Yes ☐ No Please send me information on becoming a FOWA Member ☐ Yes ☐ No

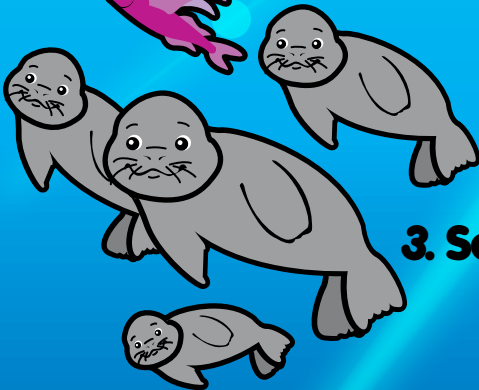




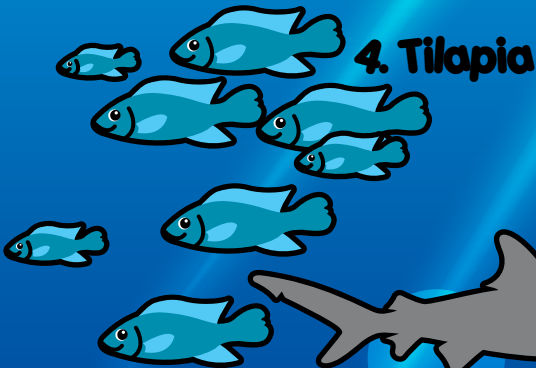
**1. Seabirds**



**2. Flying fish**



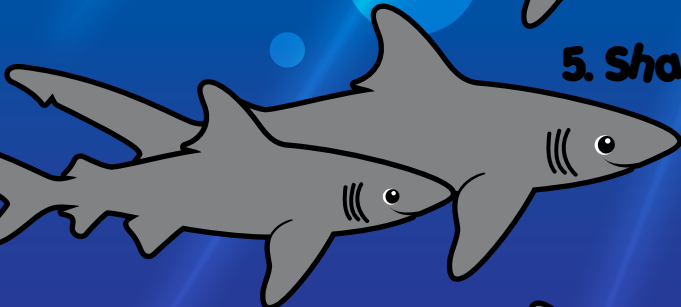
**3. Seals**



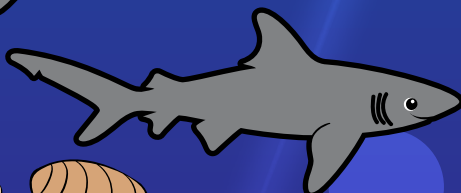
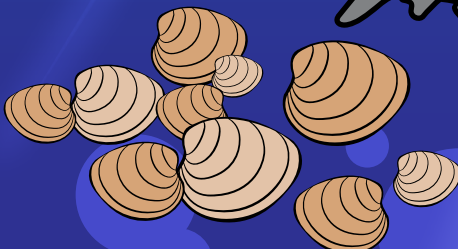
**4. Tilapia**



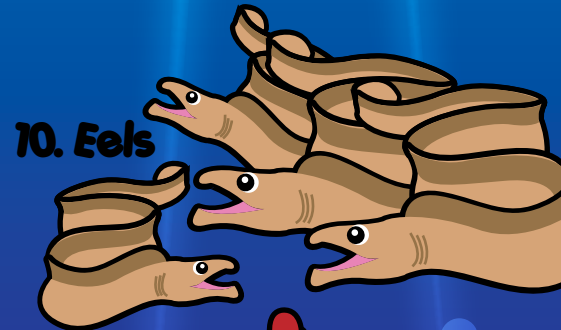
**5. Sharks**



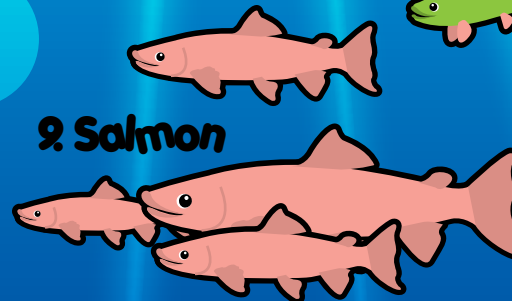
**6. Clams**



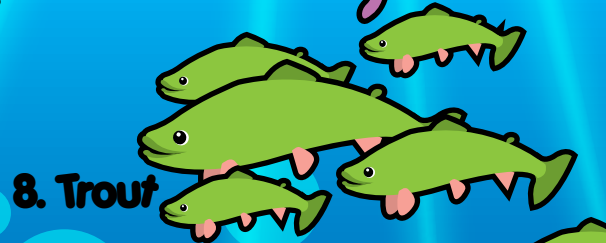
**11. Lobsters**



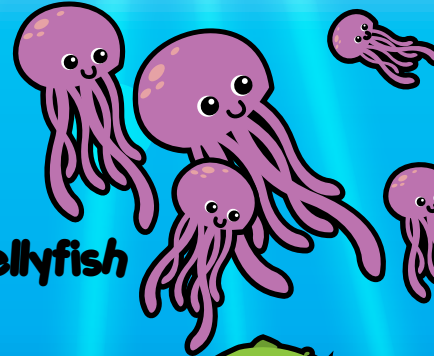
**10. Eels**



**9. Salmon**



**8. Trout**



**7. Jellyfish**

# sea squirts

So, what DO you call a group of jellyfish? You'll be amazed by the answer. Test your knowledge by matching the critters below with their group name.

- a. Glide
- b. Pod
- c. Wreck
- d. Swarm
- e. Smack
- f. School
- g. Bed
- h. Hover
- i. Bind
- j. Taint
- k. Risk

Answer key: 1.c, 2.a, 3.b, 4.j, 5.f, 6.g, 7.e, 8.h, 9.i, 10.d, 11.k

# NEW & RENEWING FOWA MEMBERS • • • • •

The Membership Office recorded these new and renewing memberships between Sept. 1 and Nov. 15, 2008.

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Marilet A. Zablan  
Lisa Roy & Kathryn Cablay  
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# Telling it with

# Art

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Michael & Rachelle Russo  
Romelda Sadiarin &  
Melissa Scannell  
Francis Y. Sakamoto  
Cory & Debra Sakata  
Mrs. Angela & Mr. Michael Salgy  
Daniel Sandomire & Katy Chen  
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Nobuo & Aileen Sato  
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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.

If you visit the Smithsonian Institute early this year, you will find the marine-inspired work of three young Hawai'i artists hanging on those venerable walls. The trio were national winners in the 2008 Coastal America Art Contest, which aims to enhance public awareness of the importance of the ocean and how our personal actions affect it.

Two of the winners, Sophia Gueiros Costa and Paula Albanese traveled to Washington D.C., where they were recognized for their work. They even got to shake hands with President Bush.

The Waikiki Aquarium congratulates our young stewards on their achievements.

**Paula Albanese**, who is now a senior at Moanalua High School, was a runner-up in Group 4 with an acrylic painting entitled "Deep Search." Her work shows a giant squid caught in the glare of a submersible.

"Though we may land on the moon and search the galaxies we will never uncover all of the ocean's secrets," Paula wrote in her narrative for the work. "In environments too harsh to sustain life, we find life. In fragile ecosystems untouched by man, we find tiny universes existing as aquatic worlds that defy every physical law known."



**Nicole Lee** tied for third in Group 4 with her acrylic painting of a green sea turtle on the ocean floor. Nicole is also a senior at Moanalua High.

"The ocean is filled with beautiful and remarkable creatures such as coral and one of my favorite animals, the sea turtles," she wrote. "This huge diversity of animals help support the life cycle and makes earth habitable for everyone."



**Sophia Gueiros Costa** was a runner-up in Group 5. Sophia is a student at Kapi'olani Community College — you may also recognize her as one of the welcoming faces at our front desk. Her oil and thread on canvas depicts the great diversity in our oceans. "As an artist I am intrigued by the variety we experience underwater," she wrote. "My piece not only explores the diversity of life, but this diversity of shapes and edges. There is nothing like coming back from a dive, looking up and there's a turtle swimming quietly against the sunlight. It is a breathless moment — this is life as it is supposed to be."



## THE WAIKĪKĪ AQUARIUM'S MISSION:

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

Scarlet cleaner shrimp  
Photo: Alice Keesing.



University of Hawai'i at Mānoa  
Waikiki Aquarium  
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Kilo i'a Issue Number 168  
Winter 2009

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