

PACIFIC  
**Currents**

*Aquarium of the Pacific*

FALL 2018



The Story of  
**KAYA**  
THE SEAL PUP

# Learn About Our Global Food Future

**WHEN ASSESSING HUMAN IMPACT** on the environment and looking for potential solutions, we must consider the two most significant factors: our methods of creating and using energy and the ways we grow our food. A new evening course at the Aquarium will examine the latter this fall and explore what food production and agriculture might look like by the year 2050, when an additional 2 to 2.5 billion people will live on Earth. The course will also look at how climate change is impacting global agriculture.

In this new normal, scientists and farmers will need to identify new crops that can withstand warmer temperatures, drought, and, in coastal areas, potential flooding as a result of sea level rise. The course speakers will discuss how agriculture and food systems around the world might look over time, what innovations in agriculture are being explored, the role of genetically modified organisms and gene editing technologies like CRISPR, and how farming the sea will become an increasingly important source of animal protein.

Speakers will include experts in agriculture, climate change, genetics, and farming, including aquaculture. With limited class size, attendees will have the opportunity to interact with the speakers and learn the latest science directly from scientists and researchers studying these topics.

This course is part of the Aquarium's Aquatic Academy and will be held on October 10, October 17, November 7, and November 14 in the Premier Watershed Classroom, from 7:00 p.m. to 9:00 p.m. The cost to participate is \$35 for Aquarium members and \$40 for non-members. For an additional \$10, participants can receive continuing education credits. Call (562) 590-3100 to sign up. This course is sponsored by the JAG Molina Family Foundation.

The Aquarium is also addressing the future of our food systems with a forum and art exhibit this fall. On October 4 and 5, the Aquarium's Seafood for the Future program and American Honda in partnership with the Marine Science Foundation will host a Sustainable Seafood Forum. The goal of the forum is to develop a communications strategy to provide accurate information and promote responsible marine aquaculture in the U.S. to consumers and the general public. Marine aquaculture, or farming of the sea, offers many environmental benefits relative to other forms of animal protein production, but the industry's growth is often hindered by negative public perception. Forum proceedings on Day 1, October 4, will be open to the public. To RSVP, email Linda Brown at [lbrown@lbaop.org](mailto:lbrown@lbaop.org) and write RSVP Seafood Forum in the subject line.

*How will a changing climate affect food and agriculture? What role can aquaculture play?*

Aquarium visitors can learn more about aquaculture through an exhibit by National Geographic photographer Brian Skerry, on view in the Great Hall October 8 through December 8. The exhibit features photos of aquaculture practices from around the world, from an underwater kelp farm off Canada's Vancouver Island to catfish ponds in Mississippi and offshore shrimp cages in Mexico.

Responsible marine aquaculture is just one component of a portfolio of sustainable food programs we will need to ensure a secure food supply is available in the future while protecting nature. The Aquarium will continue to focus on this issue, along with others that touch on our relationship with our planet.



A young Panamanian boy hand lines for fish that gather near the sub-surface structure of a fish farm.

# Letter from the CEO

Dear Members,



**FALL IS A WONDERFUL TIME** to visit the Aquarium and bring friends and family. Summer's crowds diminish, and the fall calendar is full of diverse events, from our popular Night Dives to our annual cultural and holiday festivals celebrating the fall and winter seasons.

Our festivals turn an Aquarium visit into a sensory delight, featuring music, dance, and other live performances, plus crafts and games

for children, and award presentations to honor members of the community for their achievements and contributions.

The Baja Splash Cultural Festival, held this year on September 29 and 30, celebrates Latino Heritage Month and Mexican Independence Day. Baja Splash will include mariachi music, Mexican folkloric and Aztec dance troupes, and programs highlighting the wild-life of Baja, Mexico. I will also present artist and explorer Andres Pruna with the Heritage Award that Sunday at 1:40 p.m., the last day visitors can see his exhibit on the Aquarium's second floor. On October 13 the Aquarium will host its fourteenth annual Southeast Asia Day, highlighting the cultures of Cambodia, Thailand, Vietnam, Myanmar, Laos, and Indonesia. The Autumn Festival, held this year on November 17 and 18, will feature the traditions and cultures of Japan, China, Korea, and the Philippines. Festival offerings will include origami craft tables, taiko drummers, and other performers, such as acrobats and lion dancers.

If you have never attended Night Dive at the Aquarium, I recommend marking your calendar for October 12 and December 31. These events are for adults ages 18 and up and feature live music, food trucks, art installations, and mini-lectures with scientists or Aquarium staff members who share the most intriguing aspects of their work in about twenty minutes. The New Year's Eve edition of Night Dive is a very special occasion, with all of the usual festivities, plus a countdown to midnight and confetti drop. Tickets will go on sale on November 1; visit the Aquarium's website or call (562) 590-3100 to reserve yours early.

The Aquarium also hosts special celebrations for the holidays in fall and winter. Join us for Scarium of the Pacific, our Halloween festival on October 27 and 28. Kids can participate in a costume contest, make crafts, watch as divers carve a pumpkin underwater, and listen to storytelling throughout the weekend. On Thanksgiving Day, November 22, the Aquarium will serve a traditional Thanksgiving buffet menu from 11:00 a.m. to 3:00 p.m. In December we will bring back Aquarium Holidays festivities from December 1 to 23. See page 11 for all the details.

There will also be opportunities for you to come to the Aquarium and hear experts speak on the ocean and environmental issues of the day in our Guest Speaker Series and Aquatic Academy course for adults, which will examine the future of our global food systems. For the calendar of lectures in the Guest Speaker Series this fall, please see page 12.

I hope you enjoy all that the Aquarium has to offer this season. Thank you for your ongoing support.

Sincerely,

Jerry R. Schubel

Cover: Kaya the harbor seal pup with her mother Shelby.  
ROBIN RIGGS



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**Pacific Currents** is published for members of the Aquarium of the Pacific. Please send your comments to our editorial staff at [pacificcurrents@lbaop.org](mailto:pacificcurrents@lbaop.org).

**Our Mission:** To instill a sense of wonder, respect, and stewardship for the Pacific Ocean, its inhabitants, and ecosystems.

**Our Vision:** To create an aquarium dedicated to conserving and building natural capital (nature and nature's services) by building social capital (the interactions between and among peoples).

**Pacific Currents Staff:** Editor/Writer: Claire Atkinson | Copy editor: Cecile Fisher | Designer: Andrew Reitsma | Contributing photographer: Robin Riggs.

**Aquarium Hours:** Open daily from 9:00 a.m.-6:00 p.m. except December 25.

**Membership Office Hours:** 8:00 a.m.-5:30 p.m. daily

#### Phone Numbers (562 area code):

General Information ..... 590-3100  
Membership ..... 437-3474  
Development ..... 951-1605  
Lost & Found ..... 951-1733  
Private Event Info ..... 951-1663  
Gift Store ..... 951-ISEA (1732)



The Aquarium of the Pacific is a non-profit 501(c)3 institution. To provide exciting and innovative exhibits and educational programs, we rely heavily on the generous donations of individuals, foundations, and corporations.

**HONDA**  
The Power of Dreams

**ASSOCIATION OF ZOOS & AQUARIUMS**

# Three Penguin Chicks Join the Waddle

Look for the young birds with lighter-colored plumage in the June Keyes Penguin Habitat.

**THREE PENGUIN CHICKS**, two female and one male, that hatched at the Aquarium this summer have joined the rest of the penguins in the June Keyes Penguin Habitat. Roxy and Floyd are the parents of two of the chicks, and Kate and Avery are the parents of the third chick. The chicks were all initially raised by their parents, but once the youngsters were ready to leave the nest, they spent several months in a behind-the-scenes nursery area, where they could learn to swim and take feedings from the penguin keepers.

This is the sixth year that penguin chicks have hatched at the Aquarium, and these three chicks are the eleventh, twelfth, and thirteenth to be born here. Last year's chick Gatz just completed his first molt and now sports his first set of black and white adult feathers. The chicks can be distinguished from the adults by their lighter-colored plumage and lack of a stripe across their chests.

The chicks, two females and one male, spent several weeks behind the scenes before their debut.



ROBIN RIGGS



The juvenile hammerhead is currently about 3 feet long, but mature adults can reach 10 to 14 feet in length.



CHRIS CORPUS

## New Shark Species on View at Molina Animal Care Center

This is the first time the Aquarium has had a scalloped hammerhead shark.

**A SCALLOPED HAMMERHEAD SHARK** is now on view in the holding area next to the Aquarium's Molina Animal Care Center. This is the first time the Aquarium has displayed this species, found in temperate and tropical waters around the world.

Scalloped hammerheads measure 10 to 14 feet long when fully grown. They grow rapidly when they are young and can reach a weight of 340 pounds as adults. Their diet includes fish and cephalopods, like octopuses and squid. They are typically found in temperate and tropical waters and are flexible and agile, making them excellent predators. This species' hammer-like head shape increases the surface area for the shark's sensory systems, such as vision and electroreceptors, and also provides lift as it swims through the water.

*The scalloped hammerhead was the first shark species added to the U.S. Endangered Species list.*

## Original Aquarium Puffins Hatch a New Chick

Look for the young puffin in the Diving Birds exhibit.

**VAL AND SPEEDY**, two tufted puffins that have lived at the Aquarium since it opened in 1998, successfully hatched a chick in late summer. The chick was 55 grams at birth and was raised by its parents for several weeks in a nest box in the Diving Birds exhibit in the Northern Pacific Gallery. After a stint in a behind-the-scenes nursery, the chick is now on view in the Diving Birds exhibit. The Aquarium's aviculturists expect to know if the chick is male or female when it has its first blood test before it goes on exhibit later this year.

**Tufted puffins often form breeding pairs that last for many years. This is Val and Speedy's third chick to hatch at the Aquarium.**



The chick was born with a layer of down. It has since fledged, replacing the down with adult feathers.

KATHERINE FINCH

Yutaka has more room to grow in the Breakwater exhibit. Giant sea bass can reach 7 feet in length and 500 pounds.



MADLINE BARGER

## Juvenile Giant Sea Bass Moves to Bigger Exhibit

The young fish has moved from the Redondo Canyon to the Breakwater exhibit.

**YUTAKA, THE JUVENILE GIANT SEA BASS** that hatched at the Aquarium in 2016, has been moved from the Redondo Canyon exhibit to the Breakwater exhibit in the Southern California/Baja Gallery. Yutaka had outgrown the smaller exhibit, and aquarists expect the young fish to grow rapidly in the larger space. To read more about Yutaka's early days and how Senior Aquarist Nicole Leier helped raise him, visit [aquariumofpacific.org/blogs](http://aquariumofpacific.org/blogs) and click on Fish.

### TEACHERS



**Want to bring your class to the Aquarium for a field trip?**

Discounted rates as low as \$7.00 per student offered September through February.

Visit [aquariumofpacific.org/education/yourfieldtrip](http://aquariumofpacific.org/education/yourfieldtrip) for details.



The Story of  
**KAYA**  
**THE SEAL PUP**

**IN THE EARLY HOURS OF THE MORNING ON APRIL 20, 2018**, the Aquarium's 22-year-old harbor seal Shelby went into labor. Her third pup, a female with bright silver fur and dark grey spots, was born at around 8:30 a.m. in the Seals and Sea Lions Habitat's side holding area. The Aquarium's animal care staff chose the name Kaya for the pup from names suggested by donors to the Adopt an Animal program. Here, we are sharing the story of Kaya's birth and details from her first four months at the Aquarium.

# S

**HELBY IS ONE OF THE AQUARIUM'S ORIGINAL ANIMALS** and arrived in 1998 at age two. She became pregnant for the first time six years ago at age six-

teen. Her first pup, a female named Bixby, was born in 2012, and her second, a male named Toby, was born in 2014. Troy, the Aquarium's only male harbor seal, is the father of all three pups and has lived at the Aquarium since 2007. Bixby and Toby now live at other aquariums.

With Shelby's pregnancies, timing is key. Troy had been living in a behind-the-scenes holding area temporarily, but was moved back into the main exhibit. Given Shelby and Troy's successful history in becoming parents, once they were back in the Seals and Sea Lions Habitat together the Aquarium's mammalogists (staff members who specialize in providing care for our marine mammals) assumed that this might result in a pregnancy. They started to watch for signs, including Shelby's weight gain and hardening of the belly. To be ready, the mammalogists helped Shelby practice getting an ultrasound using a portable unit that the veterinary staff brings to the exhibit. Around December 2017, Dr. Lance Adams found a heartbeat, and after that ultrasounds were conducted every two to three weeks.

Thanks to her past pupping dates, mammalogists knew to expect Shelby to give birth in late April or early May. Pregnant seals often seek out a comfortable spot to give birth, and Shelby started to spend more time near the holding area's door and the scale were animals are weighed. The staff suspected this was the spot Shelby had chosen and took this as a clue that she was getting close to pupping time.

**THE BIRTH STORY** At the time of Kaya's birth on April 20, the mammalogists



ROBIN BRIGGS

had completed their daily morning rounds to check on all the animals and had moved on to other chores, like cleaning and food preparation. They were discussing the idea of stationing a staff member at Shelby's area to keep an eye on her for the day when a call came in over the radio. One of the staff members had been near the exhibit cleaning when she heard Shelby give a loud yelp. She instantly knew that Shelby, not usually a very vocal seal, must have just given birth. The others dropped what they were doing and ran out to the exhibit, where they found Shelby and her new baby bonding.

The mammalogists checked to make sure that nothing was obstructing the pup's airways and quickly weighed her on a portable scale. The staff then began 24-hour monitoring in shifts, which continued for four days. The staff wanted to make sure Kaya was capable of getting in and out of the pool, that she was a good swimmer,

and that she was getting enough food by nursing.

Because Shelby's vision is impaired, she relies heavily on her other senses. According to the mammalogists, Shelby was very attentive, staying close to Kaya and moving toward her at every vocalization or movement Kaya made. She would also put herself between the pup and the water or any visitors in a protective posture. The two stayed up on deck in the exhibit for about an hour bonding. Kaya nursed for the first time a little over an hour after she was born. Then she and Shelby went into the water for the first time to swim together.

Like adult seals, pups haul out onto land or surfaces like docks and buoys to rest and regulate their body temperature. In their first few days together, Kaya and Shelby tended to spend a lot of time in the water during the day. Then Shelby would haul out at night and try to get Kaya to follow her to rest. Kaya, being stubborn, would often stay in the water. This amount of time Kaya spent in the water posed a challenge to the Aquarium's staff because it was hard to see when the pup nursed underwater. But steady weight gain proved she was getting well fed.

**MILESTONES** The mammalogists who kept watch over Kaya kept a log book to track all the details of her first few days, from nursing times to vocalizations and

## A SPECIAL ADAPTATION

In the wild, harbor seals usually start having pups between age three and seven. They have a gestation of around nine or ten months and typically give birth in spring and summer. Harbor seals have a two- to three-month delayed implantation, which means the fertilized egg attaches to the uterine wall at a certain time, ensuring the birth will happen when conditions are most favorable each year. Other animals that employ this same adaptation include rodents, bears, and marsupials like kangaroos.

other behaviors and happenings. Collecting this data allowed the staff to track the pup's health and progress and make decisions about her and Shelby's care.

One of the very first things a seal pup has to learn is how to swim. The mammalogy team reported that Kaya was a bit awkward at first, like any young animal trying to get its bearings. She learned quickly and was soon controlling her buoyancy by exhaling air and swimming expertly in the holding area pool.

The mammalogists started to see subtle signs of the weaning process after about four or five weeks, the normal period when harbor seal mothers begin weaning their pups. Shelby began to occasionally deter Kaya from nursing by gently scratching at her with her flipper or snorting, a gentle but firm way of saying no. Rather than following the pup everywhere she went, Shelby would go to her preferred resting spot to relax.

## MOTHERS AND PUPS

**Harbor seal pups can swim within minutes after they are born. They nurse for about four to six weeks before weaning. Harbor seal milk is 50 percent fat, while human breastmilk is up to 5 percent fat.**

The transition to solid food began before Kaya stopped nursing completely. During Shelby's feedings, the mammalogists would offer fish to Kaya, who wouldn't necessarily eat it, but would play with it and chew on it as she began to get an idea that this was her new food source. In an aquarium setting, it is also important for animals to learn that when the trainers are present, it is feeding time. They would reinforce this with Kaya by offering food when she made eye contact and getting her to come closer to receive food until she

was taking it from a trainer's hand. Once these early goals were met, it was time to introduce some basic animal husbandry training concepts with Kaya.

After weaning, harbor seal parental care ends. In the wild harbor seal mothers would leave their pups and live separately at that point, so it was safe and natural to move Shelby out of the holding area, allowing mammalogists to focus on Kaya's independent development and care.



**TRAINING** The Aquarium’s marine mammals are trained in animal husbandry behaviors allowing them to participate in their own health care, to provide them with enrichment, which includes activities for mental and physical stimulation, and to help the animals interact safely with their human caregivers. Training helps the mammalogists check the animals’ health, asking the animal to open its mouth to check teeth or hold still for a blood draw, for example. Trainers use positive reinforcement to teach the animals to expect food, verbal praise, or a scratch or massage when they perform a behavior correctly.

In the early weeks after her birth, Kaya experienced very basic training principles centered around feeding time. Once she was weaning and experimenting with solid food, trainers would enter the exhibit with food at regular times and leave if Kaya was playing or otherwise not eating. If that is the case, the trainers return later in the day to ensure Kaya gets her full allotment of food for the day. This practice helps her associate the presence of the trainers with feeding time and paves the way for further training that is reinforced with food.

The next concept that was introduced was targeting, or getting Kaya to touch her nose to a target and hold her position until she receives a signal from her trainer. This will help move Kaya safely around the exhibit when she is introduced to the main Seals and Sea Lions Habitat. In the future, trainers will also introduce her to the verbal commands the other marine mammals



are familiar with, including “deck” to ask them to come up out of the water and “water” to ask them to go into the water. She will also learn “inside” to ask her to go into a crate for transport and “good” as a signal that she has performed a behavior correctly.

### KAYA’S PERSONALITY

At nearly five months old, Kaya’s personality is starting to develop. Because she was born and raised by Shelby in the holding area, where she had access to a protected pool and could remain out of view of Aquarium visitors and staff members from time to time, Kaya can be shy and a bit skittish. But she is also very playful and energetic. When Kaya began experimenting with solid food during the weaning process, she often played with it instead of eating it, grabbing a fish between her front flippers and shredding it with her teeth. She also would drop and swim away from food items she didn’t like as much, like squid, which she showed a distinct distaste for early on. The mammalogists call Kaya sassy and goofy, but still a bit timid. They have introduced toys like balls and a rubber ducky, but Kaya sometimes gets startled by a new object being placed in her pool. However, she gets over her fear quickly and soon comes to investigate new toys and foods.

She was also very playful with her mother while she and Shelby were in the exhibit holding area together. Kaya would try to instigate play with Shelby by climbing on her, nipping at her underwater, or biting at her whiskers, and then Shelby



In this still from an ultrasound taken in January, the shape of Kaya as a fetus can be seen.

would chase her, the mammalogists say. She also enjoyed watching while mammalogists blew soap bubbles and playing in the spray of a hose.

**WHERE TO SEE KAYA** Kaya will move into the main Seals and Sea Lions Habitat in October. Until then, she will stay in the holding area to the side of the main exhibit area. If she is in the water swimming, she can sometimes be spotted through the grate from the viewing tunnel in the Southern California/Baja Gallery on the Aquarium’s first floor. You can also spot her during feeding times right after the daily seal and sea lion shows at 9:45 a.m., 11:15 a.m., 1:15 p.m., and 3:15 p.m.

To see photos and videos of Kaya from the past four months, search the hashtag #AOPupdate on Facebook and Instagram.

## LOG BOOK HIGHLIGHTS

### BORN

**April 20, 2018, 8:30 a.m.**

### FIRST SWIM WITH MOM

**9:30 a.m.**

### FIRST TOY

**Rubber ducky. The green ball is another favorite.**

### APRIL 22

**Learned to blow bubbles and climb on mom’s back.**

### APRIL 23

**Umbilical cord fell off.**



November is Member Month!

## \* Member Events

Please join us for these select events just for our members and donors.

### Member Month

#### ■ Entire Month of November

Thank you for being part of the Aquarium family! As a token of our appreciation, we're taking the entire month of November to celebrate YOU, our supportive and loyal members. Get ready for a month-long discount on guest tickets and other surprises.



November 15: Member Appreciation Night

### Member Appreciation Night

#### ■ Thursday, November 15

6:30 P.M.-9:00 P.M.

Dive into an exclusive evening of nautical fun! Watch a dive show in Honda Blue Cavern, and learn more about our dive team with a special meet-and-greet. Our youngest members will also enjoy making a craft, going on a scavenger hunt, and playing a round of Go Fish for a special prize.

- Free for members. Member guests receive 20% off general admission.
- RSVP: (562) 437-3474 by November 13

## \* Special Events

The Aquarium of the Pacific hosts a variety of performances, fundraisers, dinners, and other special events throughout the year. Check our website for more details and additional events.

### Yoga at the Aquarium

■ Tuesdays, Sept. 25, Oct. 2, 9, 16 & 23  
7:45 A.M.-8:45 A.M.

The Aquarium will host a series of five yoga classes on Tuesday mornings this fall with instructor Stephanie Serrano, studio manager at Ra Yoga in Long Beach. All participants must sign a waiver and bring their own yoga mat and towel.

- Cost for members: \$50 for the five-class series, \$15 for a single class. Non-members: \$75 for the series, \$20 for a single class. Parking not included (\$8 with validation).

### Shark Lagoon Nights

■ Fridays, Sept. 28–Dec. 28 (except Oct. 12 & 26)  
6:00 P.M.–9:00 P.M.

Get up close with the ocean's ultimate predators for free during Shark Lagoon Nights. Guests will have the opportunity to touch bamboo sharks, epaulette sharks, and cownose rays and see large sharks, such as sand tiger and zebra sharks in the Aquarium's Shark Lagoon. Cold beer, sodas, and snacks are available for purchase. Live music offered on select evenings.

- Cost | Free

### Aquarium 5K Run/ Walk & Kids Fun Run

■ Saturday, October 6  
7:00 A.M.–2:00 P.M.

The Aquarium will partner with the Long Beach Marathon to host the annual one-mile Kids Fun Run and the event's 5K Run/Walk, which will include the Aquarium in the course. Sign up early as both events are expected to fill up quickly. The Kids Fun Run will start in age group waves from 9:00 to 10:30 a.m.

- Aquarium 5K: \$50; Kids Fun Run: Free
- Info: [runlongbeach.com](http://runlongbeach.com) or (562) 427-4606

### Seniors Day

■ Monday, October 8  
8:30 A.M.–1:30 P.M.

The Aquarium will open its doors for free to people ages fifty and above. Special exhibits and presentations for seniors will be featured.

- FREE to visitors ages 50 and over with a valid photo ID.

Event sponsored by:



### Night Dive

■ Friday, October 12  
7:30 P.M.–11:00 P.M.

Night Dive is an adults-only event with local bands, DJs spinning in the Aquarium's galleries, inspiring works of art, cocktails and drinks, and tasty bites from food trucks parked on the front plaza.

- Free for members, \$17.95 for non-members



### Photographers Night

■ Sunday, October 14  
5:30 P.M.–10:00 P.M.

This is your chance to take the photos you have always wanted at the Aquarium. Professional and amateur photographers are invited to capture the Aquarium's wildlife during exclusive "photographers only" hours. Meet vendors, test new equipment, attend workshops, and meet other wildlife photo enthusiasts.

- \$26.95 per member, \$29.95 per non-member

### Sea Fare

■ Saturday, October 20  
7:00 P.M.–11:00 P.M.

Eat and drink your way through the Aquarium with an open bar and tastes from over 30 local restaurants, breweries, bakeries, and more! You will also enjoy bidding on an array of items in the live and silent auctions, voting for your favorite "Bite of the Night" and "Sip of the Sea", snapping a pic in the photo booth, and dancing the night away to the music of a live band.

- \$150 per person

### Sea Change: Choral Music About Water

■ Sunday, October 21  
7:30 P.M.–8:30 P.M.

Singers from California State University, Long Beach's Bob Cole Conservatory of Music, under the direction of Jonathan Talberg and Joshua Palkki, will present a concert at the Aquarium on the theme of water. Featured works include *You Carry Oceans Within* by Paul John Rudoj, *But a Flint Holds Fire* by Andrea Ramsey, *Hymne au Soleil* by Lily Boulanger, and a newly commissioned work by CSULB graduate student Matthew Lyon Hazzard. Doors open at 7:00 p.m.

- \$12 for members and students, \$15 for non-members.

For tickets and information, visit [aquariumofpacific.org](http://aquariumofpacific.org) or call (562) 590-3100, ext. 0.

## Kids Dance Society: Haunted Atlantis

■ **Sunday, October 28**  
6:30 P.M.-9:00 P.M.

The Aquarium will transform into a dance club for kids and families to celebrate Halloween with a party called Haunted Atlantis, presented in partnership Kids Dance Society. The event will feature a DJ and performers on the dance floor, including hula hoopers and Circuit Breaker the dancing robot. Kids can also snap a photo in the photo booth and add to their look with face painting and glitter tattoos. Glow items and LED flashing accessories will be available for purchase. Family friendly costumes are welcome. The entire Aquarium will be open during this event, except Lorikeet Forest.

- \$23 per member, \$25 per non-member.

## Scout Day

■ **Sunday, November 4**  
9:00 A.M.-5:00 P.M.

Boy Scouts and Girl Scouts are invited to visit the Aquarium at a discounted rate. Cub Scouts and Girl Scouts can complete steps toward badges, utilizing self-led activity sheets that are specifically designed for scouts.

- **Members: Free with reservation. Non-members: \$14 per adult, \$8 per child; must be purchased in advance on the Aquarium website.**

## Autism Families Night

■ **Sunday, November 4**  
6:00 P.M.-9:00 P.M.

Spend a special evening at the Aquarium exclusively for families with adults or children with autism. The entire Aquarium, except Lorikeet Forest, will be open until 9:00 p.m. On this evening, guests can enjoy the tranquility of the Aquarium's exhibits and meet 11,000 animals from the world's largest ocean.

- Free for members, \$7 for non-members

## NOAA Day

■ **Saturday, November 10**  
9:00 A.M.-5:00 P.M.

Find out what the National Oceanic and Atmospheric Administration (NOAA) does for you, our nation, and our world at this annual event. The event will feature interactive booths where you can learn more about a variety of NOAA programs, the ocean, and weather. Learn how NOAA, a government agency, works to understand and predict changes in Earth's environment to help protect people and property and to conserve and manage coastal and marine resources.

## Veterans Day

■ **Sunday, November 11**  
9:00 A.M.-6:00 P.M.

In celebration of Veterans Day, the Aquarium of the Pacific honors veterans and military personnel. These men and women are invited to enjoy the Aquarium with free admission on Veterans Day.

- Free for veterans and military personnel with service I.D.

## Thanksgiving Lunch

■ **Thursday, November 22**  
11:00 A.M.-3:00 P.M.

Come gobble gobble with the sea otters and the entire Aquarium family. You and your family can meet over 11,000 animals from the world's largest ocean, and savor a traditional Thanksgiving buffet in the Aquarium's Café Scuba. The Aquarium is open for normal operation from 9:00 a.m. to 6:00 p.m. on Thanksgiving Day.

- \$50 per member adult, \$27 per member child, \$60 per non-member adult, \$32.50 per non-member child

## Aquarium Holidays

■ **December 1-23**  
9:00 A.M.-5:00 P.M.

Aquarium Holidays features special holiday décor, a display of gingerbread houses, snow fall in the Great Hall, and the Aquarium's costumed characters in their holiday outfits. Visitors can also enjoy shopping and a special holiday menu offered daily in Café Scuba. On weekends the Aquarium will have a snow play area, underwater shows with Santa Diver, children's crafts, photo opportunities with Santa and holiday characters, and Hanukkah storytelling with opportunities to play dreidel.

## Aquarium Closed

■ **Tuesday, December 25**

## New Year's Eve Night Dive

■ **Monday, December 31**  
8:00 P.M.-1:00 A.M.

This special edition of Night Dive will feature live bands, DJs, and the usual Night Dive offerings, plus a midnight confetti countdown in the Great Hall. Café Scuba will be open, providing "small bites" specialty food items. Tickets go on sale November 1.

- \$29.95 for Aquarium members, \$34.95 for non-members.

## \* Festivals

Experience our community's diverse cultures and their connections to the ocean and environment. All festivals are free for members; members' guests receive 20% off regular admission.



Sept. 29-30: Baja Splash

## Baja Splash

■ **Sat. & Sun., September 29-30**  
9:00 A.M.-5:00 P.M.

Celebrate National Latino Heritage Month and Mexican Independence Day with live entertainment, crafts, and educational programs. The diversity of Latin cultures will be highlighted through art, interactive mural painting, cultural displays, and performances, including mariachi music, Mexican folkloric and Aztec dance troupes, Salvadoran dance, and Guatemalan performances.

## Southeast Asia Day

■ **Saturday, October 13**  
9:00 A.M.-5:00 P.M.

The Aquarium will celebrate its fourteenth annual Southeast Asia Day highlighting the beauty and diversity of the cultures of Cambodia, Thailand, Vietnam, Myanmar, Laos, and Indonesia. Guests will enjoy live performances, including music, dance, and cultural craft demonstrations. Children will have the opportunity to partake in arts and crafts.



Oct. 27–28: Scarium of the Pacific

### Scarium of the Pacific

■ **Sat. & Sun., October 27–28**  
9:00 A.M.–5:00 P.M.

Discover the creatures lurking in the depths at the Aquarium’s nineteenth annual Scarium of the Pacific—a spooktacular, educational Halloween event for the whole family. Enjoy special Halloween programs, including the annual children’s costume contest, creepy coloring contest, magic shows, underwater pumpkin carving, spooky storytelling, and kooky crafts, and meet eerie animals in the Great Hall.

### Autumn Festival

■ **Sat. & Sun., November 17–18**  
9:00 A.M.–5:00 P.M.

Delve into the arts, cuisines, cultures, and marine environments of Asia during the Aquarium of the Pacific’s seventeenth annual Autumn Festival. The event highlights the traditions and cultures of Japan, China, Korea, and the Philippines through a weekend of learning opportunities and family entertainment celebrating the rich diversity of Asian and Asian-American cultures.

### Holiday Treats for the Animals

■ **Sat. & Sun., December 8–9**  
9:00 A.M.–5:00 P.M.

In celebration of the holiday season, Santa Diver will be delivering an ocean of gifts to the Aquarium of the Pacific for its animals, including penguins, sea otters, seals, sea lions, lorikeets, and fish. Holiday Treats for the Animals festival is part of Aquarium Holidays (see listing), which runs through December 23, featuring festive décor, a display of gingerbread houses, holiday shopping, “snowfall” in the Great Hall, a special holiday menu in Café Scuba, and daily appearances by Aquarium characters in their holiday outfits.

## \* Guest Speakers

Lectures are free for Aquarium members, teachers, seniors age 62 and up, and students with valid ID and advanced reservations. Otherwise, tickets are \$5. All lectures start at 7:00 p.m. and are streamed live. Visit [aquariumofpacific.org/news/lectures](http://aquariumofpacific.org/news/lectures).

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### Dr. Randi Rotjan | Science and Conservation in the Largest and Deepest World Heritage Site: A Natural Laboratory for Global Change

■ **Thursday, September 20**

The Phoenix Islands Protected Area (PIPA) is owned and operated by the Republic of Kiribati. Located in the central Pacific, it is an excellent laboratory for global change, with fewer than fifty people in an ocean area the size of California, coral reefs, open ocean, deep sea, and terrestrial ecosystems. This lecture will share the latest science and will show how PIPA fits into a global and growing context of ocean conservation. Dr. Randi Rotjan is a research assistant professor at Boston University in the biology department and in the Boston University Marine Program. She is the co-chief scientist of the PIPA Conservation Trust and founder and co-chair of the PIPA Scientific Advisory Committee.

### Ester Quintana | The Urban Whale: How the Right Whale Population Ended Up on the Brink of Extinction

■ **Tuesday, October 2**

North Atlantic right whales live in a more urban ocean than probably any other population of whales in the world. Learn about threats these whales face, including

entanglements in fishing gear and collisions with ships, and the technologies researchers are developing to protect this species. Dr. Ester Quintana, research scientist at the Anderson Cabot Center for Ocean Life at the New England Aquarium, will talk about the right whale population and their complex relationship with humans.

### Panel Discussion | Meet the Ocean’s Farmers

■ **Thursday, October 4**

Join the Aquarium’s Seafood for the Future program and a panel of experts from the conservation, science, and seafood communities for the launch of a short video series and an app-based interactive about marine aquaculture in the U.S. Attendees will have the chance to preview the video series and interactive and meet the scientists and seafood farmers. **[Please note:** This event was listed on September 27 in the last issue of *Pacific Currents*, but it has been moved to October 4.]

### Anne Cohen | Where the Living Reefs Are: A Quest to Find the World’s Most Resilient Corals

■ **Thursday, October 11**

Coral reefs are battling on the front lines of climate change. As ocean temperatures climb ever higher, the long-term prognosis for coral reefs looks grim. However, in some areas, scientists have identified “Super Reefs” persisting against all odds across the tropical oceans. Super Reefs have the best chance of surviving climate change and producing resilient larvae that can repopulate neighboring reefs. However, many are in danger from pollution, dredging, and dynamiting, fueling an urgent mission to find and protect them. Anne Cohen will showcase the science, scientists, and the triumphs and trials behind the mission to uncover the world’s most resilient reefs. Cohen is an associate scientist at the Woods Hole Oceanographic Institution.



October 2: Ester Quintana will discuss North Atlantic right whales and threats they face.

PAUL MACLEOD/ORBIS



October 11: Anne Cohen will share knowledge about "Super Reefs" and their climate change resilience.

MICHAEL FOX

**Curtis W. Marean | *Survivors on the Edge of Land and Sea: How Coastal Life Shaped the Evolution of Our Species***

■ **Wednesday, January 16**

Scientific evidence suggests that the origin population of all modern humans resided in the southern African sub-region, perhaps in a coastal context. The oldest evidence for coastal resource use comes from Pinnacle Point on the south coast of South Africa, where a scientific team has been conducting research on these original coastal people for nearly twenty years. Curtis W. Marean will discuss ancient humans' reliance on seafood and how human evolution may have been impacted by struggles over this resource. Marean is a professor at Arizona State University's Institute of Human Origins and School of Human Evolution and Social Change. He is also the principal investigator for the South African Coast Paleoclimate, Paleoenvironment, Paleoecology, Paleo-anthropology (SACP4) project based near Mossel Bay at Pinnacle Point.



January 16: Curtis W. Marean

SACHA

**Greg H. Rau | *Sea Change Needed in Managing the Ocean and the Planet***

■ **Tuesday, October 16**

The marine environment is changing rapidly due to carbon dioxide emissions into the atmosphere, which are warming, raising, and acidifying the ocean. While we need to redouble our efforts to reduce such emissions, it is now unlikely that this action alone will be enough to avoid serious marine impacts. Dr. Greg Rau will discuss the unprecedented nature and magnitude of the stresses the ocean now faces, some new approaches to avoiding or lessening the impacts, and the need for policies that support the emergence, evaluation, and development of new marine and planetary management strategies. Rau is a senior research scientist at the Institute of Marine Sciences at the University of California, Santa Cruz.

**Mike Mitchell | *Reinventing the Devil Fish in Mexico***

■ **Thursday, November 1**

Mike Mitchell went to Tabasco, Mexico, in 2014 on a Fulbright research grant to study small-scale fish farming in rural communities. During the fellowship, he learned about an invasive fish species and began developing ideas for turning this problem fish into an economic boon for the region. The devil fish, also known as armored catfish, now accounts for approximately 70 percent of freshwater fisheries in Mexico. Mitchell, co-founder and CEO of Acari Fish, will tell the story of how he worked to change public perception of the devil fish and describe the work he does now to help Mexican fishing cooperatives launch their own small-scale production facilities.

**William Cooper | *The Butterflies of Iguazú Falls, Argentina***

■ **Tuesday, November 6**

William Cooper has studied the butterflies of Iguazú Falls, Argentina, for several years. In this lecture he will share his photos and recount his experiences visiting the falls. He will also discuss what he has learned since joining the Entomological Society of Washington and exploring the Smithsonian's butterfly collection to help identify additional species. Cooper is a former professor of civil and environmental engineering at the University of California, Irvine, and program director of environmental engineering at the National Science Foundation.

**Scott Nichols | *Aquaculture Innovations: Doing More With Less***

■ **Tuesday, November 13**

More with less—that's the demand on agricultural production, according to Scott Nichols, founder of Food's Future. The future requires much more food, and we must produce it without increasing agriculture's inputs or its impacts. One solution to feed our growing population is aquaculture, or fish farming, with its frugal use of resource inputs. Historically, diets for fish like farmed salmon contained large amounts of fish proteins and oils derived from processed wild-caught fish. However, as we face the need for expanded food supplies, feeding wild-caught fish to farmed fish makes little sense. But alternatives exist. Recent biological innovations now provide dietary ingredients that can make aquaculture central to a hopeful food future. Nichols will discuss these innovations and share photographs and recipes demonstrating why seafood should be at the center of our diets.

*Aquarium  
of the Pacific*







ROBIN RIGGS



## Whale Watching CRUISES

### Gray Whale Watching Trips

#### ■ Winter Season

Enjoy a voyage out in the open Pacific Ocean in search of one of the world's longest-migrating mammals, the gray whale. Learn about gray whales and other local marine life from an on-board Aquarium educator. Cruisers will also have the opportunity to spot dolphins, seals, sea lions, and other marine animals. Enjoy the Whale Watching and Dolphin Cruise this fall until gray whale season officially begins.

- **Members: \$25 per adult, \$20 per senior (ages 62+), \$15 per child (ages 3-11). Non-members (includes Aquarium admission): \$49.95 per adult, \$45.95 per senior, \$33.95 per child.**
- **2 to 2.5 hours**
- **(562) 590-3100, ext. 0**

Track recent whale sightings on Twitter (@OceanWatchLB) or our blog: <http://pacific.to/aopwwblog>



JAMES STEWART

## Tours & Encounters

*These programs are opportunities to see the Aquarium in a different light and get up close to the animals.*

### Behind-the-Scenes Tours

See what it takes to maintain a world-class aquarium, from water filtration to animal care and feeding. Venture to the top of our largest exhibit and discover more about the Aquarium!

- **\$15 per member, \$19 per non-member**
- **Children must be age 7 or older.**

### Animal Encounters

Animal encounters offer a chance to feed a sea otter, train a sea lion, feed a shark, or hang out with a penguin. Age restrictions apply.

- **\$99 per member, \$109 per non-member (Aquarium admission included). Pre-registration required at least 24 hours in advance.**

### Dive Immersion

#### ■ Daily with reservation 3:00 P.M.-5:00 P.M.

Certified SCUBA divers can dive in our warm 350,000-gallon Tropical Reef Habitat with more than 600 animals.

- **\$279 per member, \$299 per non-member**
- **Age 15 and up. Ages 15-17 require a supervising adult to also sign up for the dive.**

### VIP Experiences

#### ■ By reservation.

Get even closer in this special animal encounter experience! Tour the Aquarium and meet two separate animals and have exclusive experiences only for VIPs. Choose from Penguins and Pinnipeds, Otters and Octopus, or Sharks and Rays. Age restrictions apply.

- **\$330 per member, \$350 per non-member (Aquarium admission included).**
- **Pre-registration required at least two weeks in advance.**



# EDUCATIONAL OPPORTUNITIES



## Family Programs

Family programs give children of all ages the chance to participate in fun classes with an Aquarium educator. Every class brings another opportunity for learning more about the ocean, discovering new things about the Aquarium, and exploring marine life. Pre-registration is required.

### Job Shadow Class

Four rotating themed programs.

#### ■ First Saturday and third Sunday of every month

9:00 A.M.-12:00 P.M.

- Ages 13-17
- \$35 per member, \$39 per non-member (Aquarium admission not included)

### Junior Biologist

Six rotating themed programs.

#### ■ Second and fourth Saturday of every month

9:30 A.M.-11:30 A.M.

- Ages 7-12
- \$25 per member, \$29 per non-member (Aquarium admission not included)

### Parent and Me

#### ■ Third Saturday of every month

10:00 A.M.-11:30 A.M.

- Ages 2-6 years old with an adult
- Members: \$19 per adult/child pair; \$10 for additional guests. Non-members: \$49 per adult/child pair; \$20 per additional guest (Aquarium admission included).

## Family Halloween Night

#### ■ Friday, October 26 | 6:30 p.m.-9:30 p.m.

Dress up in your coolest costume and explore our exhibits with your family and friends. Our upcoming Halloween Family Night will offer a unique opportunity to explore the Aquarium, learn about animal blood types, explore and touch animals, and venture into our famous Biofact Boneyard.

- Free for members, \$17.95 per non-member.

## Family Overnight

#### ■ Friday, January 11, 2019

5:00 P.M.-7:00 A.M.

Grab your sleeping bag and prepare for an adventure at the Aquarium! Explore our exhibits with your family, touch marine animals like sharks, sea stars, and sea jellies, and discover amazing animal adaptations. Guests will sleep with the fishes and wake up to a continental breakfast. The program will include a screening of Penguins 4D.

- \$80 per Aquarium member, \$90 for non-members
- Children must be age 5 or older.

## Winter Camps



Dive into fun this winter! With programs for kids ages 5 to 15, we have a perfect camp experience for your child. Our camps feature exciting animal interactions, tours, crafts, games, and experiments. For more information, visit [aquariumofpacific.org/camps](http://aquariumofpacific.org/camps) or call (562) 590-3100.

### Winter Day Camp

#### ■ December 26-28, 2018

- Ages 7-12
- \$125 per member child, \$150 per non-member child.

### Winter Sea Squirr Camp

#### ■ January 2-4, 2019

- Ages 5-6
- \$95 per member child, \$120 per non-member child

## Teen Overnight

#### ■ Wed. & Thu., December 26-27

5:00 P.M.-7:30 A.M.

Teens ages thirteen to fifteen can spend the night sleeping with the fishes at the Aquarium during our Teen Overnight. Start the night with a pizza party before becoming an ocean explorer to discover the mysteries of the deep sea. This overnight camp program includes Aquarium exploration, hands-on activities, a pizza party, light snack, cereal breakfast, and a souvenir T-shirt.

- Ages 13-15
- \$80 for members, \$90 for non-members

Winter Camp bookings will open October 1. For information or to make reservations, visit the Aquarium's website and click on Educate or call (562) 590-3100.

# Kaya's Baby Book

**A** baby harbor seal named Kaya was born at the Aquarium on April 20. You can read her story on pages 6 to 9. Did you know that seal babies and human babies have a lot in common? Check out these interesting facts, then make a photo collage in the frame below.

- \* We both grew in our mom's bellies for about nine months.
- \* As newborns, we both drank milk.
- \* I grew quickly, but not nearly as quickly as Kaya. She gained 45 pounds in a month!
- \* After getting a bit bigger, my parents taught me how to eat solid food. All babies can be picky, but Kaya's favorite is fish!
- \* Learning how to be a seal is a lot of work! Just like my parents taught me how to walk, Kaya's mom Shelby helped her learn to swim.

**Kaya's birthday  
APRIL 20, 2018**

CUT OUT A PHOTO OF KAYA  
AND PASTE IT HERE!

**When Kaya was  
born, she weighed  
25 lbs.**

ADD ANOTHER KAYA  
PHOTO HERE.



# Ask the Aquarium

Do you have a question about the Aquarium, its animals, or the ocean?

Send it to us and we'll find an expert on our staff to help answer it! We'll pick our favorite question from those submitted before November 30. Send your questions to [PacificCurrents@lbaop.org](mailto:PacificCurrents@lbaop.org).

PASTE A PHOTO OF YOURSELF AS A BABY HERE!

My birthday is

When I was born, I weighed  lbs.

ADD ANOTHER BABY PHOTO.

**Wolf Eel**  
*Anarrhichthys ocellatus*



*Aquarium of the Pacific*

**NORTHERN PACIFIC PREVIEW**

**Scalloped Hammerhead**  
*Sphyrna lewini*



*Aquarium of the Pacific*

**MOLINA ANIMAL CARE CENTER**

**Pacific Spiny Lumpsucker**  
*Eumicrotremus orbis*



*Aquarium of the Pacific*

**NORTHERN PACIFIC GALLERY**

## Wolf Eel

*Anarrhichthys ocellatus*

### PHYSICAL CHARACTERISTICS

Wolf eels have ribbon-shaped bodies and can grow 5 to 10 feet in length. Juveniles are orange in color, while adults are gray with spots.

### DIET

Wolf eels use their strong jaws to eat crabs, sand dollars, and sea urchins.

### HABITAT

These animals are bottom dwellers that live along coasts of the Northern Pacific Ocean.

### FUN FACT

Because they have pectoral fins behind their head, wolf eels are considered fish and not true eels.

## Scalloped Hammerhead

*Sphyrna lewini*

### PHYSICAL CHARACTERISTICS

These sharks can grow to 10 to 14 feet in length. They have silver-gray bodies with impressive dorsal and tail fins.

### DIET

Scalloped hammerheads feed on fish, rays, and invertebrates like cephalopods, including squid.

### HABITAT

Scalloped hammerheads live in temperate and tropical waters.

### FUN FACT

This shark's hammer-shaped head helps provide lift as it swims through the water.

## Pacific Spiny Lumpsucker

*Eumicrotremus orbis*

### PHYSICAL CHARACTERISTICS

These small fish are nearly spherical, generally about 1 inch in size, and range in color from brown to yellow to green.

### DIET

Lumpsuckers feed on crustaceans, worms, and mollusks found in the sand or mud at the sea floor.

### HABITAT

These fish live in eelgrass beds, rocky areas with kelp and other algae, and around docks.

### FUN FACT

Spiny lumpsuckers have a specialized suction disk on their stomachs that allows them to attach to solid surfaces, like rocks or kelp.

# Aquarium Member Photos



Melissa Parillo Day



Brad Hill



Andrea Jensen Wader

For a chance to be featured, tag your public photo with #AOPMember on Instagram, share it with us in the Aquarium Member Insiders Facebook group, or email us at [MemberServices@lbaop.org](mailto:MemberServices@lbaop.org).

20 


The Aquarium is home to three adult and one juvenile giant sea bass.

Scientists will use technology that analyzes and matches giant sea bass' unique spot patterns to track individuals and their movements within their habitat.

## New Website Tracks Endangered Giant Sea Bass

**SCIENTISTS** at the University of California, Santa Barbara (UCSB), have developed a website that gathers photos of giant sea bass to track these endangered fish and answer questions about their habitat and movements. Spotting Giant Sea Bass is a citizen science project that allows the public to get involved in conservation and gather data to help scientists studying this species. The Aquarium is helping to spread the word about this program and encouraging divers, fishers, and snorkelers to submit photos to the site. The Aquarium of the Pacific's dive team also participates in the program.

Giant sea bass are the largest bony coastal fish in California. They can live to be 75 years old and can exceed 7 feet and 500 pounds. Most importantly, their ecological contributions as an apex predator in kelp forest ecosystems likely help to shape these underwater forests. To effectively recover this species, which is categorized as critically endangered by the International Union for Conservation of Nature's Red List, marine biologists need more and better data.

The idea for the project was born when two UCSB undergraduates, Conner Jainese and Katelin Seeto, discovered that each giant sea bass carries its own unique spot pattern that can be read like a barcode to identify individuals. The Spotting Giant Sea Bass website makes matches by using pattern recognition algorithms first developed by astrophysicists to spot patterns in star constellations and later used by NASA on the Hubble Space Telescope. Divers who upload a photo of a giant sea bass can receive notifications when "their" fish is spotted by another diver. To upload a photo or learn more about the project, visit <http://spottinggiantseabass.msi.ucsb.edu/>.

## Art Quilt Made by Volunteer Celebrates Aquarium's 20 Years

**DURING THE AQUARIUM'S** twentieth anniversary year, art exhibits celebrating its animals and programs are on display on the second floor of the Great Hall. On view now is a 4-foot-by-5-foot art quilt designed and made by Aquarium volunteer Leah Young. The quilt is made up of twenty squares, each representing an Aquarium animal. It features several decorative techniques, including piecing, applique, hand embroidery, and fabric painting.

Young is a charter volunteer who has worked in several departments at the Aquarium over the past twenty years. Currently she works in the education department, oversees the Aquarium's Speakers Bureau and Booth Program, which conducts outreach throughout Southern California, and helps with special events like parades, wetlands clean-ups, and community festivals. She has been quilting since 2004.

The first art exhibit on display during the summer was a collection of illustrations by Brian Kesinger, the Official Artist of the 20th Anniversary.

Catch Up on More Aquarium News!

Visit [aquariumofpacific.org/blogs](http://aquariumofpacific.org/blogs)



Keepers prepare equipment used to move birds from the field to holding areas in Saipan.



PACIFIC BIRD CONSERVATION

## New Video Series Highlights Sustainable Farmed Seafood

**SEAFOOD FOR THE FUTURE**, NOAA's University of Southern California (USC) Sea Grant, and other partners have developed an educational series on responsible seafood to tell the stories of the people and farms in the U.S. aquaculture industry. The series aims to increase the public's knowledge about the many types of responsible aquaculture production, show how science is applied on the farms to support best practices, and familiarize audiences with how to cook seafood dishes.

This series is accompanied by an app-based interactive platform that will be featured in the Seafood for the Future exhibit at the Aquarium in October 2018. USC Sea Grant will lead the development of educational materials (to be released in 2019), including teacher resource guides targeted for formal classroom and informal educators. The app, videos, and educational materials will also be available online.

**Visit [seafoodforthefuture.org](http://seafoodforthefuture.org) to watch the videos and extras, including profiles of the farmers, scientists, and chefs, and recipes.**

This project was funded as part of \$9.3 million in grants awarded by NOAA's Sea Grant to support projects in aquaculture research, outreach, and technical assistance.

## Bird Conservation Field Work Takes Staff to Michigan and Saipan



**ASSISTANT CURATOR** of Birds and Mammals Rob Mortensen and Mammalogist Katie Finch both took part in conservation field work programs earlier this year to help endangered bird species.

In April Mortensen traveled to Saipan, the largest island in the Northern Mariana Islands, to participate in the Marianas Avifauna Conservation project. This project aims to preserve, maintain, and establish populations of native birds threatened by the brown tree snake, which nearly wiped out many bird species after being accidentally introduced to their habitats during World War II. This year, the species targeted by the program were the golden white eye and rufous fantails. Participants collected birds with the goal of establishing insurance populations to live at zoos and aquariums and neighboring islands where the snakes do not live. They also shared information about the project with local schoolchildren at an Environmental Expo held on the island.

Finch went to Michigan to participate in a program to monitor and protect piping plovers living around the Great Lakes. This population of piping plovers was listed as federally endangered in 1986. Each year biologists and volunteers from zoos and aquariums work at a biological field station owned by the University of Michigan to assist with the project. They monitor wild nest sites and help incubate and rear piping plover chicks from abandoned nests.

To read more about these programs, visit [aquariumofpacific.org](http://aquariumofpacific.org) and click on Conservation.

## Premier Scholarship Funds Support Field Trips for Students



**MORE THAN ONE HUNDRED** students from Jenny Oropeza Elementary and Cesar Chavez Elementary visited the Aquarium in April, thanks to a donation from Premier Long Beach. The corporation donated to the Aquarium's scholarship program for the thirteenth consecutive year, allowing children to visit during the week of the Grand Prix of Long Beach. Students from Jenny Oropeza Elementary in Long Beach had the opportunity to visit the Aquarium to partake in ocean educational programs under the scholarship.

Since 2003 Premier Long Beach has donated more than \$148,000 in scholarship funds, providing Aquarium visits for more than 19,500 students. Premier, the food and beverage division of special event venue management company SMG, currently provides food and beverage services as well as catering and special event services to more than 100 facilities around the world, including the Aquarium of the Pacific.



Ralph Millero, Sumer Ann Temple, and Justin Rudd arrive at the Blue Whale Gala. Inset: Rhonda Kurtz, Ron Rulison, and Jill McCullough.



SCOTT SMELTZER

# Aquarium Hosts Annual Blue Whale Gala

**APPROXIMATELY 460 GUESTS ATTENDED** the Blue Whale Gala, which raised over \$341,000 for the nonprofit Aquarium and its ocean conservation and education initiatives. The Aquarium gives special thanks to the Blue Whale Gala's premier sponsors: Don Temple Family Charitable Foundation, Esther S.M. Chui Chao, Kathleen Eckert, Bank of America, Johnny Carson Foundation, Pacific6 Enterprises, Port of Long Beach, Jerry and Margaret Schubel, and Sidley Austin LLP.

*Plan Your Event!*

The Aquarium of the Pacific in Long Beach provides both a beautiful and unique atmosphere for your event. You can choose from one of our many stunning backdrops to host your guests including our two-story kelp exhibit, Veranda, Premier Watershed Classroom, and more!

**20 AQUARIUM OF THE PACIFIC**

100 AQUARIUM WAY LONG BEACH, CA 90802  
 yourevent.aquariumofpacific.org 562-951-1663



## Enjoy a picnic at the Aquarium of the Pacific

Submerge your guests in food, fun, and fantastic experiences at the Aquarium of the Pacific! Delicious buffet-style picnic lunches also include access to more than 11,000 animals, shows, and interactive exhibits.

*Aquarium of the Pacific*

**AQUARIUMOFPACIFIC.ORG** 100 AQUARIUM WAY • LONG BEACH, CA 90802

*Aquarium of the Pacific*

# THANKSGIVING LUNCH

GOBBLE GOBBLE WITH US!

**CAFE SCUBA**  
 THURSDAY NOVEMBER 22, 2018

<b>PRICING:</b> Includes Aquarium admission	<b>General Public:</b> Adults: \$60 Child 3-11: \$32.50	<b>Members:</b> Adults: \$50 Child 3-11: \$27.50
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**AQUARIUMOFPACIFIC.ORG** 562-590-3100 100 AQUARIUM WAY, LONG BEACH, CA 90802

# Fundraising Highlights

In recognition of its twentieth anniversary, the Aquarium of the Pacific is featuring profiles of its founding supporters. The organizations below have all supported the Aquarium and its mission since 1998.

## Bank of America

Bank of America recently awarded a \$40,000 grant to the Aquarium's programs that expose students to science, technology, engineering, and math (STEM)-related career paths through hands-on experiences, one-on-one interactions with career scientists, and skills-based trainings. This grant supports the Aquarium's programs for middle, high school, and college students, including the VolunTEENS, Student Eco-Ambassadors, and Teen Science Café programs. As part of its focus on youth employment and job readiness for financial success, Bank of America has provided key support for the Aquarium's diverse roster of education programs, including the Ocean Science Education Program and needs-based Aquarium Scholarship Fund since 1998. In addition, representatives from Bank of America have served on numerous Aquarium leadership committees.

## The Earl B. and Loraine H. Miller Foundation

The Miller Foundation has awarded \$41,000 to the Aquarium supporting a suite of out-of-school science learning opportunities that will be offered to families, children, and teachers in underserved areas of Long Beach. Family science nights, teacher workshops, and access to the Aquarium will encourage students to become more engaged in science, while providing families and teachers with tools to encourage children to question, wonder, and experiment. Over the past twenty years, The Miller Foundation has provided support to a number of key Aquarium

initiatives. These include the Aquarium Live program that is broadcast to young patients' rooms at Miller Children's Hospital, science education programming and instruction at Cesar Chavez Elementary, complimentary field trips for disadvantaged youth throughout Long Beach, professional development workshops for early childhood educators, science nights at the Aquarium for Long Beach families, and Science on a Sphere films.

## Edison International

The Aquarium's relationship with Edison International, parent company of Southern California Edison, began before the Aquarium opened to the public over twenty years ago. From the life-sized blue whale models hung in the Aquarium's Great Hall, named Edi and Son, to the *Whales: A Journey with Giants* film that immersed guests into the underwater world of numerous whale species, Edison has provided support for many important projects.

Edison's recent support is focused on STEM education opportunities. In 2017 Edison provided funds for the Aquarium's Pacific Visions educational programming, most notably the development of science education curriculum modules for middle and high school students that will connect to the themes and concepts introduced in the Pacific Visions film and galleries. In June 2018 Edison awarded the Aquarium a \$40,000 grant in support of its high school education and VolunTEEN programs. Available to students throughout Southern California, these programs provide access to hands-on experiences, on-the-job training, and exposure to career opportunities.

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- **Mr. Michael Sondermann**
- **Mr. Donald "Tip" Tippet**
- **Mr. Thomas Turney**
- **Mr. Stephen Young**

(as of 8/31/18)  
aquariumofpacific.org

“ Honda shares the Aquarium of the Pacific's commitment to the environment. For the past twenty years, we've worked together to help educate the public, raise awareness of the issues facing the world's oceans, and inspire visitors to be good stewards of the world's oceans. Together we will continue to inspire the next generation of marine scientists and ocean activists.

— KIM SMALLEY, VICE PRESIDENT, HUMAN RESOURCES & ADMINISTRATION,  
American Honda Motor Co., Inc., and president, Honda Marine Science Foundation

The Aquarium of the Pacific has been an iconic institution of marine education in our community for twenty years. The Bess J. Hodges Foundation is proud to be an original supporter, and we will continue to do so.

— MIKE MURCHISON, TRUSTEE, Bess J. Hodges Foundation

# Donor Highlight

Read about the donors who have made contributions in support of the Aquarium's education, conservation, and animal care programs.

## Reef Crest Exhibit Named in Honor of Donor

On July 14 the Aquarium honored the John and Nancy Edwards Family Foundation (JANEFF) with a plaque and naming ceremony at the Reef Crest viewing window in the Tropical Pacific Gallery. John and Nancy were inspired to make a gift that would support future generations of visitors to the Pacific Visions Capital Campaign after seeing their grandson Gavin fall in love with the Aquarium. The ceremony included a photo opportunity with family and friends and a special visit by a diver.

The Reef Crest viewing window provides Aquarium visitors a first look into the Tropical Reef Habitat, the Aquarium's largest exhibit. The Reef Crest features several species of colorful tropical fish, corals, sharks, and rays.

To learn more about naming opportunities at the Aquarium of the Pacific please contact Pacific Circle Coordinator Miguel Solorio at (562)951-5387 or msolorio@lbaop.org.



John and Nancy Edwards attended the exhibit naming ceremony at the Aquarium this summer.

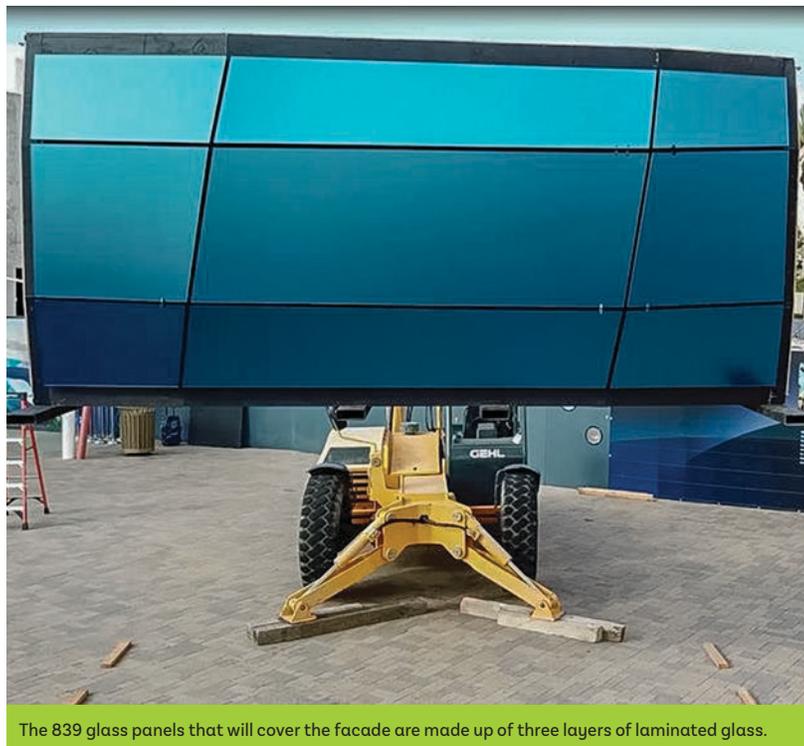
## Aquarium Announces Glass Guild

In support of Pacific Visions, the Aquarium has created the Glass Guild, a new giving opportunity for individuals, corporations,

and foundations wishing to contribute to the project and commemorate their ties to the Aquarium. This group of supporters will ceremonially own one of the 839 panels of the Pacific Visions glass façade and will be recognized on a donor wall inside the new wing, on the Aquarium's website, and in various publications, including the annual report.

Installation of the glass panels began in July. The panels cover more than 18,000 square feet and are made up of three layers of laminated glass. The innermost layer incorporates a subtle reflective finish, the middle layer is tinted blue, and the outer layer is made of low-iron, acid-etched glass, which eliminates direct reflection of the trees and sky to reduce the incidence of bird strikes.

For pricing and details, visit [aquariumofpacific.org/glassguild](http://aquariumofpacific.org/glassguild), call (562) 951-1701, or send an email to [pacificvisions@lbaop.org](mailto:pacificvisions@lbaop.org).



The 839 glass panels that will cover the facade are made up of three layers of laminated glass.

# Aquarium **Accolades**

*The Aquarium presents awards to individuals and organizations in recognition of their service to the community and achievements in conservation.*



Pictured: Jerry Schubel, Aquarium president and CEO, and Justin Rudd, Corinne Monroe Earth Day Award honoree.

## **Justin Rudd**

### *Corinne Monroe Earth Day Award*

The Aquarium presented the inaugural Corinne Monroe Earth Day Award to Justin Rudd on April 21. Since arriving in Long Beach in 1997 Rudd has dedicated his life to the city and its residents. In 2001 he founded the nonprofit Community Action Team. Through this organization, Rudd coordinates more than sixty annual programs, including a monthly beach clean-up that has run consistently for over eighteen years. The Community Action Team's programs also focus on charitable giving, animal welfare, education, physical fitness, and events that bring the community together. Rudd has also been instrumental in making it possible for people to enjoy a visit to the beach with their dogs. He led the effort to establish a dog beach in Long Beach, the only legal off-leash beach in Los Angeles County. It is named "Rosie's Dog Beach" after his late bulldog, Rosie.



Pictured: Ryan Ashton, Aquarium vice president of development, and Justin Sather, Young Hero Award honoree.

## **Justin Sather**

### *Young Hero Award*

The Aquarium presented the Young Hero Award to Justin Sather at the International Children's Day festival on March 17. Sather is seven years old and has loved frogs for most of his life. When he learned that about one-third of frog species is threatened with extinction, he wanted to take action. He was inspired to begin raising money for the Save the Frogs! organization and their work to "re-frog America." Sather has sold toy frogs and eco-friendly pencils to friends and gathered donations online, raising a total of \$5,000 dollars. He is also dedicated to helping the local Ballona Wetlands. He has spent many weekends restoring the habitat, brought his Y Guides troop on hikes at the wetlands, and organized a clean-up day with Loyola Marymount University alumni. He is also part of the National Youth Project Green School Committee and helps teach his classmates about eco-friendly living.



Pictured: Peniamina Sefo Taito, Heritage Award honoree, and David Bader, Aquarium director of education.

## **Peniamina Sefo Taito**

### *Heritage Award*

The Aquarium presented the Heritage Award to Peniamina Sefo Taito at the Pacific Islander Festival on June 3. Taito, senior pastor of the United Samoan Church of Carson, is actively involved in cultural education programs within his community to share Samoan culture and teach the Samoan language. In 2011 Taito started a five-week summer academy that includes an arts and language class for children and a cultural class for adults. Taito is the academy's principal and a cultural instructor. Taito has also worked for the Samoan National Nurses Association as a translator and health educator. He facilitated workshops to ensure that members of the Samoan community were educated about cervical cancer. In 2012 Taito encouraged his community to become more active by exercising together and participating in the Let's Move Campaign created by First Lady Michelle Obama. It was the largest Pacific Islander group to participate in the program.



## **Aquarium Earns Recognition for Videoconferencing Program**

The Aquarium was awarded the Center for Interactive Learning and Collaboration's 2017-2018 Pinnacle Award recognizing providers of live, interactive content who receive outstanding scores on evaluations by educators. The Aquarium's videoconferencing program allows students in classrooms anywhere in the world to participate in a live session with an Aquarium educator. This is the sixth time the Aquarium has won this award since 2011.

# Aquarium's #Act4Ocean Challenge

Individuals and groups from across Southern California took action to help the ocean during this summer challenge, and you can get involved.

**AS PART OF THE AQUARIUM'S** 20th Anniversary celebration, our members, supporters, and online followers were invited to enter the #Act4Ocean Challenge this summer. The contest, presented by Bank of America, invited both individuals and groups to take on a challenge to help the ocean and post it on social media with the hashtag #Act4Ocean for the chance to win tickets to the Aquarium.

Check out some of the challenge winners below to learn more about what they did to #Act4Ocean. Even though the contest ended on August 31, you can keep posting with the hashtag to help spread the word about how we can all make a difference for the ocean.



Professor Sean Chamberlin (@scxq28 on Twitter) told us about students from Fullerton College who help clean up beaches: "Earth science students from @fullcoll visit our local beaches twice monthly to remove and quantify marine debris."



Bsela Bela on Facebook shared a beach clean-up conducted by I Heart East LA, a group organized to help residents make an impact in their community through civic pride and community engagement: "Community East LA making Acts of Goodness."



Heidi Zink Bolling (@mrsbolling on Instagram) and her helper Crowley have a home garden: "What is better than buying food that is locally grown? Growing it yourself! Crowley was so excited to harvest his carrots from the garden and then knew exactly what to do with the greens. Compost!!! Save the planet one carrot at a time."



Lindsay Broderick (@normy\_the\_pug on Instagram) shared her home composting system: "Do you compost? It reduces trash and makes amazing soil amendments. Take your paper towels, shredded paper, dryer lint, and food scraps and put them in a bin. They will turn to gardening gold!"



Mindy Eash (@meash81 on Instagram) shared a group trash pick-up: "Went for a nature walk and picked up everyone else's trash."



Mia Giunta (@isaymariaa on Instagram) got inspired to help others learn more at a recent conference for the National Marine Educators Association: "Listened to some amazing speakers at NMEA and got tons of ideas for educating about ocean conservation."

## DIVE IN!

See the Aquarium's list of suggested actions for the challenge at [aquariumofpacific.org/act4ocean](http://aquariumofpacific.org/act4ocean). Share how you #Act4Ocean by using the hashtag and posting on our Facebook page or tagging @AquariumPacific on Instagram and Twitter.

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THE ATTIC

THE AULD DUBLINER

BALLAST POINT  
BREWING COMPANY

BEACHWOOD  
BREWING

BLUEWATER GRILL

BOTTLE LOGIC  
BREWING

BUBBA GUMP SHRIMP  
CO.

BUONO'S AUTHENTIC  
PIZZERIA

DEB'S KITCHEN  
FEATURING MELISSA'S  
PRODUCE

EJ'S PUB

EUROPA VILLAGE  
WINERY

THE FEDERAL BAR

GLADSTONE'S LONG  
BEACH

KARL STRAUSS

KIHON

KING'S FISH HOUSE

L'OPERA

LIBERATION BREWING  
CO.

LOLA'S MEXICAN  
CUISINE

PARKERS' LIGHTHOUSE

PHANTOM CARRIAGE  
BREWERY AND  
BLENDERY

PREMIER

ROSSMOOR PASTRIES

SAINT & SECOND

SIMPLY SWEET CAKERY

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