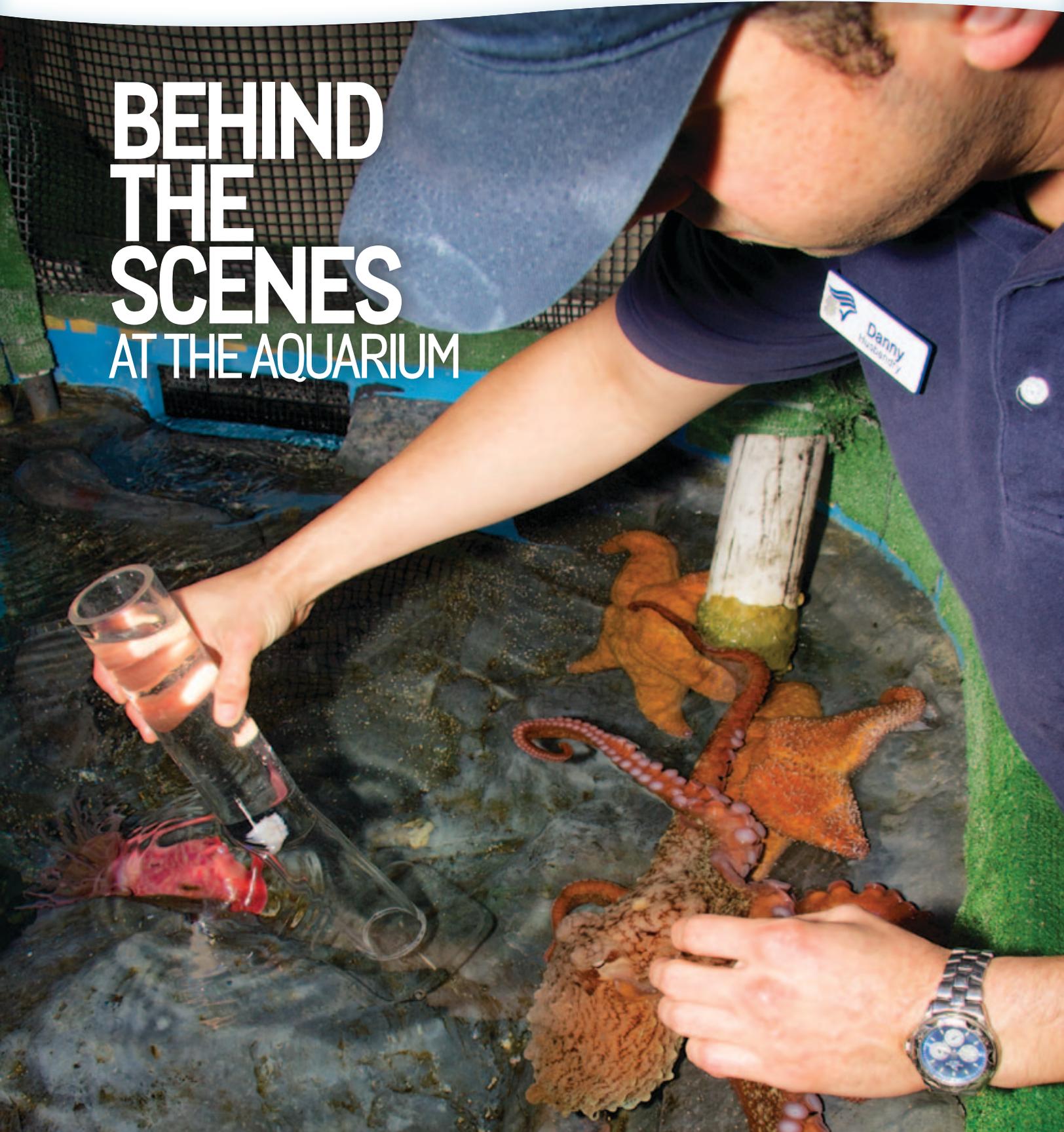


# PACIFIC CURRENTS

MEMBER MAGAZINE OF THE AQUARIUM OF THE PACIFIC

## BEHIND THE SCENES AT THE AQUARIUM





# NEW EXHIBIT HIGHLIGHTS LOCAL FISH SPECIES

Southern California steelhead used to draw fishermen to Los Angeles-area rivers. In 1997 the species was listed as endangered by the National Marine Fisheries Service.

**O** **N MAY 23 THE AQUARIUM is debuting *Southern California Steelhead Story*, a new outdoor exhibit adjacent to *Our Watersheds: Pathway to the Pacific*.** The immersive exhibit communicates the history of local waterways and tells the story of the Southern California steelhead fish species and its importance in the local ecosystem.

Southern California steelhead (*Oncorhynchus mykiss*) have historically travelled up and down the Los Angeles, San Gabriel, and other local rivers to spawn and return to the ocean. In fact, at one time, the San Gabriel River was known as one of the best steelhead fishing rivers in the state. After coming close to extinction, in 1997 the Southern California steelhead was listed as an endangered species under the Endangered Species Act by the National Marine Fisheries Service.

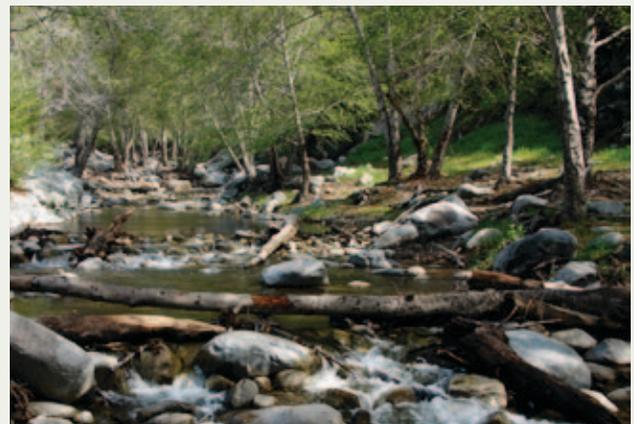
The steelhead is an indicator species—its survival relies upon a healthy ecosystem. Over the years they have faced many threats such as pollution, drought, and physical barriers, including dams and concrete channels, which have prevented them from traveling upstream. The exhibit will document their resilience in the face of these challenges, forecast the species' ability to adapt to future changes to its habitat, and offer what we can do to help.

Steelhead are born as trout in freshwater rivers and streams. For reasons unknown, some choose to migrate to the Pacific Ocean, becoming steelhead, while others remain as resident rainbow trout. When a trout changes into a steelhead, it undergoes physical changes that allow it to move from fresh to saltwater. When it is time to reproduce, these steelhead migrate back into freshwater to spawn.

The Aquarium's steelhead exhibit will transport visitors along a mountain path, allowing them to view these fish in three areas, representing the species' journey from freshwater to brackish

water, and finally to the ocean. Through this exhibit, the Aquarium hopes to reveal the secrets of a little-known fish that lives amongst us in our urban environment and inspire conservation of this unique animal.

Lead sponsors of the *Southern California Steelhead Story* exhibit include the Annenberg Foundation, Long Beach City Council, and The Ahmanson Foundation, with additional support provided by NOAA Fisheries, the Patricia Duque Byrne Charitable Foundation, the Los Angeles Rod and Reel Club Foundation, the Southwest Council International Federation of Fly Fishers, and other donors.



Steelhead travel up freshwater streams to sites like this on the San Gabriel River to spawn.

# LETTER FROM THE CEO

DEAR MEMBERS,

**W**E ARE CALLING THIS our Summer of Wonder at the Aquarium, when we will be providing opportunities for you to get closer to our animals than ever before, and see more of the animal care that goes on behind the scenes, as well as new exhibits on steelhead, Guam Kingfishers, and horseshoe crabs. It is our hope that you will explore the Aquarium this summer and discover and experience more than ever before.



Through new exhibits and shows, we make connections between people and the ocean, showing how we rely on the ocean and its inhabitants for our own wellbeing. For example, a new touch lab near the Molina Animal Care Center will feature horseshoe crabs, which play an important role in human healthcare.

The *Southern California Steelhead Story* exhibit will explore the history, biology, and surprising survival of this unique species in our local rivers here in Southern California. This will be an immersive exhibit that will create the feeling of walking along a river.

This summer we will also open our new Guam Kingfisher exhibit with a breeding pair of this highly endangered bird. Extinct in the wild, the Guam Kingfisher is part of a breeding program based in zoos and aquariums that aims to ensure the long-term survival of the species.

Also opening this summer is a new bonnethead shark and cownose ray touchpool in Shark Lagoon, a daily workshop in our Marine Life Theater on building and testing your own ROV (remotely operate vehicle), and special presentations by our animal husbandry staff.

Finally, I want to encourage you to participate in our activities highlighting the Southern California urban ocean. The annual Urban Ocean Festival, held on May 2 and 3, brings together art, poetry, design, and more to celebrate our local coast and give you the opportunity to learn how humans share the ocean with wildlife. You can experience the urban ocean up close on our Urban Ocean: World Port and Sea Life Cruises, held monthly throughout the summer. To learn more, visit [aquariumofpacific.org/aop\\_urbanoocean](http://aquariumofpacific.org/aop_urbanoocean).

We hope to see you many times this summer. Thank you for your ongoing support.

Sincerely,

Jerry R. Schubel

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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 Writers: Cassandra Davis, Theresa Duncan, and Lindsay Yates.

**AQUARIUM HOURS** | Open daily from 9:00 a.m. - 6:00 p.m. except Dec. 25 and during the Grand Prix of Long Beach.

**MEMBERSHIP OFFICE HOURS**  
8:00 a.m.-5:30 p.m. daily



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.

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 Private Event Info.....951-1663  
 Education Programs.....951-1630  
 Gift Store.....951-ISEA (1732)  
 Advanced Ticket Sales...590-3100, ext. 0  
 (Note: \$2 service charge per ticket, up to \$10.)  
 Group Reservations.....590-3100

Cover: Aquarium Aquarist Danny Munoz feeds the giant Pacific octopus on display in the Northern Pacific gallery.

PHOTO: ANDREW REITSMAN



Aquarium Founding Sponsor



Bonnetheads are the smallest of the ten hammerhead shark species.



The cownose ray gets its name from the cow-like shape of its nose, or rostrum.



## TOUCH BONNETHEAD SHARKS AND COWNOSE RAYS IN SHARK LAGOON

**A** **S PART OF THE SUMMER OF WONDER at the Aquarium, the large touch pool in Shark Lagoon is now home to juvenile bonnethead sharks and cownose rays.** Bonnethead sharks are the smallest of the ten hammerhead shark species. They usually travel in groups of five to fifteen and have been observed migrating in schools of up to 1,000.

Unlike most other hammerhead species, which have straight heads with notched edges, the bonnethead has a smooth, curved cephalofoil (hammerhead). These sharks can often be seen moving their heads from side to side as they swim, which allows them to take advantage of the extended vision and other enhanced senses granted by their unique head shape. In addition to increasing their field of vision, scientists think the flat, broad shape of the cephalofoil may allow for additional placement of ampullae of Lorenzini, special sensing organs that allow sharks and other cartilaginous fish to detect electrical fields produced by prey. These organs might also aid in navigation.

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*The juvenile bonnethead sharks and cownose rays in Shark Lagoon were raised behind the scenes at the Aquarium.*

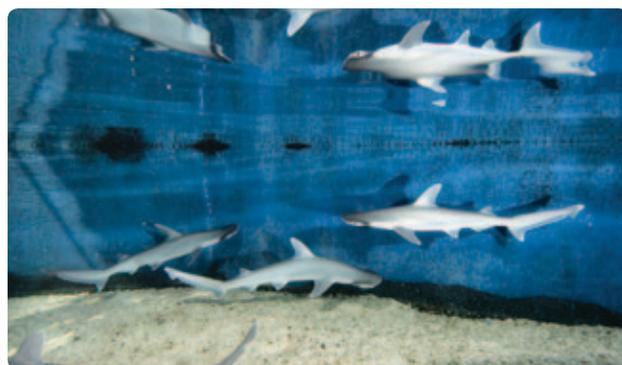
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The bonnethead eats a varied diet of fish, invertebrates, and even seagrass. Their teeth are adapted for this diet, with rows of sharp teeth in front for grabbing soft-bodied prey and flat molar-like teeth in back that are designed to crush the shells of invertebrates, including crabs and bivalves.

The unique shape of the cownose ray's nose, or rostrum, gives the species its name. The front of the head has two lobes, which, combined with a notch in its cartilaginous skull, gives the ray's head a cow-like appearance. The broad pectoral fins of the cownose ray are shaped like wings and help it migrate great distances in the wild.

These smaller rays are related to eagle and manta rays and can be found in the Gulf of California, Galapagos Islands, and in waters ranging from Costa Rica to Peru. The Pacific, or golden cownose ray, is smaller than the Atlantic cownose ray, *Rhinoptera bonasus*.

The cownose ray has plates of broad, flat teeth designed to crush open the shells of mollusks and crustaceans found on the sandy ocean floor. Cownose rays reproduce slowly, with females giving birth to a single pup after a gestation period of ten to twelve months. This slow reproduction rate means the species would have difficulty recovering from overfishing or other devastation.





Horseshoe crab blood is used in testing intravenous drugs.



Coral and sponge tissue will be tested for potential cures.

## HORSESHOE CRABS PLAY VITAL ROLE IN HUMAN HEALTH

**A**QUARIUM VISITORS can learn more about and even touch horseshoe crabs in a new exhibit outside the Molina Animal Care Center this summer. These marine animals, which have existed on Earth for over 20 million years, play a vital role in human health care, ensuring that vaccines, intravenous drugs, and medical devices are free from bacterial contamination.

The horseshoe crab's blood cells release a clotting agent in the presence of toxins, allowing the blood to be used to test all injected drugs for humans and animals. Previously, live animals like rabbits and sheep were used to test the sterility of injected drugs, which was often inefficient and unreliable. Scientists can collect blood from horseshoe crabs and release them back into the ocean with a high survival rate. They are tagged to ensure they are not overharvested for blood collection.

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*Horseshoe crab blood is harvested for use in testing intravenous drugs. After having blood drawn, the animals are released back into the wild.*

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Horseshoe crabs are arthropods—their closest relatives are spiders and scorpions. They live primarily in warm shallow waters with soft, sandy seafloors, where they spend most of their time searching for mollusks or crustaceans to feed on.

## CORALS AND SPONGES POTENTIALLY CONTAIN MEDICINAL COMPOUNDS

**T**HE AQUARIUM will install an exhibit in May near the Molina Animal Care Center highlighting the promise for bioactive compounds found in marine animals like corals and sponges. These compounds could hold cures for human diseases. In a new partnership with City of Hope, a cancer research and treatment center based in Duarte, California, the Aquarium will collect samples from the corals and sponges, and City of Hope researchers will test them for cancer-fighting properties.

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*The Aquarium will send coral and sponge tissue samples to researchers at City of Hope to test for use in treating diseases.*

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Corals and sponges live in marine environments that are highly threatened, but hold the most promise for advancements in the arena of human health and medicine. Thus, it is imperative that we protect these sensitive marine environments, allowing scientists to explore and study the animals found there.

# BEHIND THE SCENES

## AT THE AQUARIUM

What goes on at the Aquarium after hours? Learn what it takes to run a world-class aquarium twenty-four hours a day, from monitoring water quality to feeding the more than 11,000 animals.



7:00 a.m.

**A**LMOST EVERYONE WHO VISITS the Aquarium has the opportunity to see an Aquarium staff member at work, whether it's a diver feeding fish, a vet tech examining an animal in the Molina Animal Care Center, or an educator answering questions at an exhibit. Those who take a Behind-the-Scenes Tour get an even better opportunity to see how the Aquarium operates, from the million-gallon water filtration system to the food prep room. But very few people get to see what happens at all hours of the day behind the scenes. Here's a twenty-four-hour look at the Aquarium.

**12:00 a.m.** The Aquarium's security and life support departments have staff members on site twenty-four hours a day, every day of the year. At midnight, security officers are an hour into the graveyard shift, keeping an eye on an array of video monitors linked to security cameras around the facility and conducting periodic foot patrols of the perimeter.

The life support department, in charge of overseeing the systems that maintain water flow, filtration, and temperature in the exhibits, has at least one technician on duty at all times. The Aquarium's water, which is pumped from a location in the Los Angeles Harbor and delivered several times daily by tanker truck, is cleaned three ways before it is used in exhibits: by mechanical, biological, and chemical filtration. In the chemical filtration phase, the water is treated with ozone, requiring an ozone disposal system. The Aquarium has about ten miles of pipe in its life support systems, and about 1.2 million gallons of water circulates through the system every hour. Around 450 pumps are kept running twenty-four hours a day. Any interruption to power supply or alteration in water flow or

temperature could negatively impact the Aquarium's animals, thus requiring continuous monitoring twenty-four hours a day.

By midnight the nighttime life support technician has been on duty for four hours and has completed his first rounds, checking a 1,000-point inspection list of sensors, levels, and other indicators that are all entered into a software system via iPad. At this point, he takes his lunch break. Unlike staff members in other departments, the life support tech on duty cannot leave the facility and must either bring lunch or find a restaurant that will deliver at midnight.

**1:00 a.m.** The life support technician begins backwashing, running water backwards through the filters on the Aquarium's exhibit tanks to clean them. The Los Angeles County Sanitation District requires this process to be done during low-flow hours because of the high volume of water the Aquarium discharges into the public wastewater system. Once this is done, the technician goes out on rounds to check the systems supporting all the smaller focus exhibits.

**4:45 a.m.** Members of the education department staff arrive and prepare the Aquarium on Wheels truck for a trip to a local school. The educators will give an assembly-style presentation for about 150 students and offer them an opportunity to view and touch the animals in the Aquarium on Wheels mobile tidepool exhibit.

**6:00 a.m.** The Aquarium's retail operations director arrives in the Pacific Collections gift store and contacts any vendors on the East Coast. He checks inventory and sales performance for the prior day and identifies which were the most popular items. Next, he tours the entire store to check each shelf for cleanliness and proper item display, checks the stock room, and makes reorders to replace the high volume of inventory that is sold each day.

The life support team has a shift change, with the morning technician arriving to relieve the night technician. They discuss any incidents that occurred overnight, and the morning tech goes out on rounds to check the same 1,000 inspection points.

**7:00 a.m.** Water quality staff members arrive, and one begins to collect water samples from around the Aquarium, including both exhibits and touch labs, while the other prepares the water quality lab and equipment. Two full-time staff members, a chemist and a biologist, as well as five volunteers work in the lab. Different exhibits are scheduled to be tested each day, while some are tested daily. These tests ensure the water is healthy for the animals and for the humans that dive in the exhibits. The Aquarium of



12:00 a.m.

the Pacific is one of the few aquariums in the country that have formally trained laboratory staff and use methods governed by industry standards. In a typical week, water quality staff members run approximately 2,000 individual tests. They measure pH immediately after collection, as pH has a “holding time” of about fifteen minutes. An additional round of tests of other levels is completed later in the morning before a lunch break.

**7:30 a.m.** Husbandry staff members in charge of mammals and birds hold their daily ten-minute meeting to go over assignments and tasks for the day. Then, they prepare the animals’ food and clean the exhibits, hosing down surfaces and removing debris. Walkways and the fountain in Lorikeet Forest are hosed down, and the lorikeets receive their first nectar feeding of the day. During this morning prep time, staff members also do a quick visual assessment to make sure all the animals are present and in good health. The bird exhibits next to Lorikeet Forest, currently housing the Black-Backed Magpie, Collared Aracari, and Laughing Kookaburra, are uncovered for the day.

Aquarists, the staff members who take care of the Aquarium’s fish and invertebrate animals, begin their morning rounds, checking their assigned exhibits and animals, tank temperatures, and life support systems. They also clean the acrylic windows and prepare their exhibits for public display.

Members of the housekeeping staff begin the day shift and go through the Aquarium preparing for opening, ensuring that all areas are clean.

**8:00 a.m.** By this time, many staff members have arrived to begin their duties for the day. Guest services staff members take their places at the Information Desk, and guest support center specialists arrive in the Guest Support Center to begin answering incoming phone calls to the Aquarium’s main line. They help callers by answering questions and booking reservations for upcoming events and programs. The guest support center manager updates the ticketing system with any new events added to the calendar. This department also issues uniforms to Aquarium employees and volunteers.

Members of the education staff collect a plankton sample from Rainbow Harbor next to the Aquarium. These samples are displayed under a microscope in the *Wonders of the Deep* gallery. Penguin keepers prepare food for the birds’ first feeding.

Water quality testing is in full swing in the lab. Staff members test samples for salinity, alkalinity, ammonia, nitrate, nitrite, phosphate, chlorine, chloroquine, and copper concentrations using ion chromatography, UV-Vis spectrophotometry and colorimetric testing methods, and ion selective electrodes. Results are posted a few hours later, allowing aquarists to review them and determine any changes to be made in the afternoon.

The security department checks out communication radios to security officers and housekeeping staff members for use during their shifts. Security officers are assigned to various patrol areas throughout the Aquarium. During patrols, security officers keep an eye out for leaks or spills, any unauthorized people in staff-only areas, and other situations that may need to be addressed. Officers staffing the security dispatch office watch the video monitors, log any incidents that occur, and control access through locked doors and gates. The Aquarium’s security officers are the facility’s first responders for any onsite medical emergency and are certified in CPR, first aid, and medical response. They are also responsible for helping to find lost children. When a child is reported missing, the security department shuts down all radio communications on their designated channel except regarding the lost child until he or she is found, a process that usually takes fifteen minutes or less.

The Aquarium’s veterinarian arrives and checks messages for reports of new animal health problems. He addresses emergencies first, then conducts scheduled exams and deals with ongoing cases and non-emergency problems. There are typically twenty to forty animals undergoing medical care at any given time. Throughout the day, the vet coordinates with husbandry staff members who assist in handling animals for exams, drawing blood, or moving an animal to and from its exhibit. Between exams and medical procedures, the vet also reviews research projects, helps maintain equipment in the Molina Animal Care Center, and conducts training for staff, veterinary students, and interns, among other duties. He is on call all day, every day.

The exhibit diving coordinator arrives and checks to see how many volunteers are scheduled to dive that day. The Aquarium’s diving program, one of the most robust among the country’s educational institutions, currently includes about 170 volunteer divers. In 2013 the program logged more than 19,000 dives, both inside the Aquarium and in the open ocean. The diving coordinator makes sure all the day’s dives are staffed and happen on time, monitors them for safety, trains divers on feeding and exhibit cleaning techniques, and services and maintains dive gear. All dive gear onsite is used exclusively at the Aquarium to avoid cross-contamination.

**8:30 a.m.** Lead staff members for each department involved in daily operations attend the daily “Morning Huddle” meeting to review the day ahead and make note of special events and other Aquarium-wide notices for staff members. Immediately after the meeting, the lead staff member from the education department sends out an e-mail to the entire Aquarium staff summarizing the Morning Huddle. The e-mail also lists projected attendance numbers for the day and attendance from the prior day.



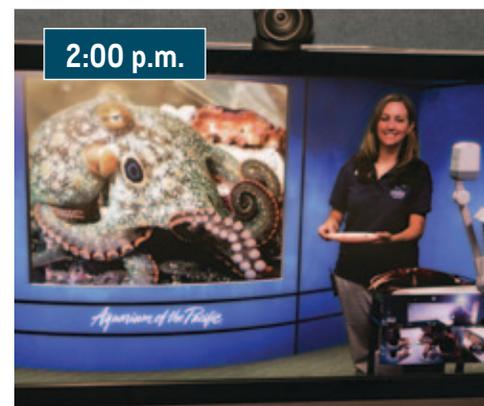
7:30 a.m.



8:00 a.m.



10:30 a.m.



2:00 p.m.



Mammalogists conduct the first sea otter feeding of the day and clean the otter exhibit. Additional otter feedings occur at 10:45 a.m., 2:15 p.m., and 4:00 p.m. during daily sea otter shows.

A member of the Aquarium's audio visual staff arrives and checks to make sure all films and shows in the Great Hall, Ocean Theater, and Ocean Science Center are cued up and ready to play on schedule.

**9:00 a.m.** Doors open to the public. Guest services staff members are posted at the front entrance to take tickets, greet visitors, and hand out visitor guides. School buses start to arrive at the front plaza to drop off students for field trips. On average, about 1,000 students visit the Aquarium on a regular school day. Security officers assist with traffic control and work with guest services and education staff members to park the buses, store students' lunches for the morning, and escort groups to their meeting spots.

Education volunteers attend a daily update meeting and then take their places at the moon jelly touch lab in the *Wonders of the Deep* gallery, the Northern Pacific touch lab in the Northern Pacific Gallery, the Ray Touchpool outdoors on the second floor, the touch pools in Shark Lagoon, and the whale cart in the Great Hall.

Aquarists prepare food for all fish and invertebrate exhibits. They also prepare food buckets for the divers who conduct the feedings during dive shows.

The life support manager arrives and meets with the technician on duty to discuss projects for the day. During about one-third of the year, the life support team focuses on big projects, like new exhibits, which require design input, equipment purchasing, coordinating with contractors, and managing project timelines. Throughout a regular day, life support staff members work on operating and maintaining the building, rectifying any problems discovered during rounds, taking care of plumbing issues, rebuilding pumps, conducting preventive maintenance, and programming the computer system that manages the building's systems. Each repair or other change to life support systems is logged. The life support manager is on call twenty-four hours a day, and often comes in after hours to address problems.

**9:20 a.m.** Mammalogists prepare food for the seals and sea lions, rinsing and cutting up fish, including capelin and herring. The seals and sea lions receive their vitamins during the first feeding of the day. The supplements are inserted into the fish. Once the food is ready, staff members head to the exhibit and clean it before the feeding and training session.

**9:30 a.m.** Programs for visiting school groups begin in the Aquarium's Splash Zone, Tidal Zone, and SAVOR...Watershed classrooms, as well as in the Ocean Science Center and Ocean Theater.

The diving birds in the Northern Pacific gallery are fed. Their exhibit lighting comes on automatically and is synced to seasonal sunrise and sunset times of their native habitats.

**9:45 a.m.** Mammalogists conduct the first seal and sea lion feeding and training session of the day. Afterward, they weigh out any remaining uneaten fish, clean and refill food buckets, and log how much each animal ate during the first feeding. Additional seal and sea lion feedings occur at 11:15 a.m., 1:15 p.m., and 3:15 p.m. The 1:15 feeding is a weekend or seasonal feed, so it is not done year-round.

**10:00 a.m.** Aquarists take frozen food for their animals out of the freezer in the food prep room and place it in the fridge to thaw for the next day. Then, they feed animals in the smaller exhibits. A second feeding for animals in smaller exhibits occurs at 1:30 p.m.

The afternoon shift life support technician arrives and will be on duty until 8:00 p.m., when the overnight shift tech arrives.

**10:30 a.m.** Aquarists conduct a feeding at one of the three surface feeding stations above the Tropical Reef exhibit while divers are in the exhibit helping feed the animals during the dive show. The sea turtles, sharks, and rays in this exhibit are fed at the surface stations. Once this session is over, the aquarists discuss animal behavior and feeding exhibited during the show with the divers, and then take dishes back to the food prep room to wash them. The same feeding process occurs at 2:30 p.m. during the afternoon dive show at Tropical Reef.

**11:00 a.m.** An aquarist dives in the Hawaiian Reef exhibit in the Tropical Pacific gallery to clean the window, scrub rocks, and prune corals. After the dive, the aquarist showers, puts away her dive gear, and records the dive. Aquarists clean and maintain the smaller exhibits like this on a rotation.

Education staff members collect mussels from Rainbow Harbor to use during the "Critter on a Rope" presentation for kids in the Marine Life Theater.

**11:35 a.m.** Aquarium educators lead a "meet a keeper" session at the Molina Animal Care Center and field questions from visitors about animal training.

**12:00 p.m.** The first whale watch cruise of the day departs from Rainbow Harbor. A member of the Aquarium's education department is onboard to serve as a naturalist, talking to whale watchers about local marine wildlife, whale biology and migrations, and how people can help protect whales. Grey whales are spotted in the winter months, and blue whales are seen during the summer. Between seasons, the cruises still see whales but focus on spotting dolphins, sea lions, seabirds, and other marine life. An afternoon cruise departs at 3:00 p.m.

**1:00 p.m.** Water quality staff members, having completed testing for the day, begin cleaning up the lab in preparation for the next day.

**1:30 p.m.** Education staff members lead a meeting with afternoon volunteers to update them on new animals, exhibits, and programs at the Aquarium.

**2:00 p.m.** Education staff members use videoconferencing technology to connect with Miller Children's Hospital in Long Beach for AquariumLIVE, a program that provides live interaction with Aquarium educators and programs for patients and their families at the hospital.

**3:00 p.m.** The morning security shift ends. As new security staff members arrive to begin the afternoon shift, they review the security logs and go over everything that happened during the previous shift.

Aquarists conduct behind-the-scenes maintenance on exhibits, changing water, backwashing filters, and cleaning.

Education staff members meet in the Ocean Science Center to learn about new datasets received from the National Oceanic and Atmospheric Administration (NOAA) for use on NOAA's Science on a Sphere®.

**3:30 p.m.** Husbandry staff members begin cleaning up the food prep room. Mammalogists, aviculturists, and aquarists share this duty on a weekly rotation.

**4:00 p.m.** Aquarists conduct afternoon rounds on their assigned exhibits, checking life support and general animal health.

**5:00 p.m.** A group arrives for an Aquarium sleepover and is met by education staff members, who host the overnight program.

The evening crew of volunteer divers arrives to clean the major exhibits, which takes sixty to ninety minutes.

**5:45 p.m.** An announcement is made over the loudspeaker system letting visitors know that the Aquarium will be closing in fifteen minutes. Husbandry staff members begin to prepare for closing, lowering exhibit covers, turning on any heaters or other equipment that is left on overnight, and removing empty food bowls and replacing them with overnight food.

**6:00 p.m.** Unless the Aquarium is open late for its special Late Nights or Shark Lagoon Nights held throughout the year, doors close to the public at 6:00 p.m. Security officers sweep the facility, checking each area for visitors.

**6:30 p.m.** If a corporate party, wedding, high school prom, or other special event has been scheduled for the evening, special events staff members will begin to set up tables and chairs and bring out food at this time. More than 100 corporate events, picnics, and weddings are held at the Aquarium in a given year. Other evening events include lectures in the Aquarium's year-round Guest Speaker Series, Aquatic Academy courses for adults, or performances by arts groups. In general, evening events will be over and guests will have exited the building by 10:00 or 11:00 p.m., when once again, the only people in the building (unless there is a sleepover taking place) will be security and life support staff members watching over the facility and its 11,000 animal residents.

This twenty-four-hour view represents the diversity of activities and people that allow the Aquarium of the Pacific to open its doors to the public, educate our guests, and care for our animals. But there are many more staff and departments from finance to development that work countless hours to ensure we operate and maintain a world-class aquarium.



# SUMMER OF WONDER

**Starting May 23 through September 1, the Aquarium of the Pacific will celebrate the Summer of Wonder.**

**V**ISITORS WILL HAVE THE OPPORTUNITY to get closer to the animals than ever before and enjoy special interactive experiences, including an all-new bonnethead shark and cownose ray touchpool in Shark Lagoon, a chance to make and drive an underwater remotely operated vehicle, and special behind-the-scenes looks at animal feedings.

A new touch lab exhibit featuring horseshoe crabs will be installed at the Molina Animal Care Center. *Southern California Steelhead Story*, a new outdoor exhibit near the Aquarium's Watershed area, will highlight a local endangered fish species. A new Guam Kingfisher exhibit will showcase these highly endangered birds. And a new show in the Great Hall will take viewers behind the scenes of the Aquarium to see key elements of animal care and facilities operations not usually seen by the public.

The Aquarium of the Pacific offers programs and events for all ages and interests. With exclusive events for our members, cultural festivals, a guest speaker series, and educational classes for families and children, there is something for everyone.

# GREAT AQUARIUM ACTIVITIES!

## MEMBER EVENTS

Please join us for one of these select events just for our members and their guests.

### SUMMER OF WONDER MEMBER PREVIEW NIGHT

SUNDAY, MAY 18 | 6:30 p.m.-9:30 p.m.

Members will be the first to celebrate the Aquarium's Summer of Wonder. Members will get up close and personal with bonnethead sharks and cownose rays in the new Shark Lagoon touchpool, build and test an underwater remote-controlled vehicle, discover why the horseshoe crab is so vital to medicine, get a special behind-the-scenes look at animal feedings through a new Great Hall show, and learn about a local endangered freshwater fish species in the all-new outdoor exhibit, *Southern California Steelhead Story*.

**COST** | Free for members. Member guests receive 20% off general admission.

**RSVP** | (562) 437-FISH (3474) by May 15



### NEW MEMBER NIGHT

THURSDAY, MAY 29 | 6:30 p.m.-9:30 p.m.

Welcome, new members! You are invited to an Aquarium open house showcasing the numerous programs and benefits available to members. This exclusive event will highlight the daily animal and dive shows, summer and winter camps, overnight opportunities, Guest Speaker Series, public festivals, and more. Enjoy live music, a sea otter presentation, a dive show at the Tropical Reef exhibit, and the chance to view the *Southern California Steelhead Story* exhibit. This invitation-only event is just for new members.

**COST** | Free for new members. Member guests receive 20% off general admission.

**RSVP** | (562) 437-FISH (3474) by May 26

## MEMBER EVENTS



### ADULT MEMBER URBAN OCEAN DINNER CRUISE

FRIDAY, JULY 18 | 6:00 p.m.-9:00 p.m.

Experience the wonders of the Southern California urban ocean while enjoying a sunset and gourmet dinner onboard the 85-foot-long catamaran, *Triumphant*. Please visit the Aquarium's website for the full dinner menu. Guided by commentary from an Aquarium educator and an experienced boat captain, you will see sea lions lounging along the breakwater and pelicans and gulls pursuing commercial fishing boats. Learn what makes the Southern California urban ocean one of the most amazing segments of the entire World Ocean.

**COST** | \$57.50 per person

**AGES** | 21+ only

**RSVP** | Purchase your tickets online or by calling (562) 437-FISH (3474). Reservations are taken on a first-come, first-served basis as space is limited.

### MEMBER SUMMER PICNIC

SUNDAY, AUGUST 17 | 3:00 p.m.-6:00 p.m.

Bring your family to the Aquarium for an afternoon of fun and games. The Aquarium's front lawn will transform into an outdoor soirée, featuring carnival booth games, ping pong tables, parent-child relays, arts and crafts, music, and more. Concessions will be available for purchase.

**COST** | \$5 per member; member guests receive 20% off general admission plus \$5 for the picnic.

**RSVP** | Purchase your tickets online or by calling (562) 437-FISH (3474). Reservations are taken on a first-come, first-served basis as space is limited.

## MEMBER EVENTS



### SENIOR MEMBER AFTERNOON

WED., SEPTEMBER 24 | 2:00 p.m.-3:00 p.m.

This event will feature a cooking demonstration using sustainable seafood and offer a taste of the delicious creation. Members will also learn about the Aquarium's Seafood for the Future program and its mission to promote healthy and responsible seafood choices. Be sure to look for your postcard invitation for more details. Reservations are required early, as this event will sell out.

**COST** | Free for members. Member guests receive 20% off general admission.

**RSVP** | (562) 437-FISH (3474) by September 21.

Reservations are taken on a first-come, first-served basis as space is limited.

## SPECIAL EVENTS

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

### SHARK LAGOON NIGHTS

FRIDAYS, MAY 2-JUNE 13 & SEPT. 5-OCT. 10 | 6:00 p.m.-9:00 p.m.

Shark Lagoon is open to everyone for free after 6:00 p.m. Guests can touch and learn about sharks and enjoy live music.

**COST** | Free for everyone

**INFO** | (562) 590-3100, ext. 0

**SPECIAL EVENTS**

**MOTHER'S DAY BRUNCH**

**SUNDAY, MAY 11 | 10:30 a.m.-1:00 p.m.**

Join the Aquarium for its annual brunch celebrating moms. Attendees can delight in an elegant brunch and explore the wonders of the Pacific Ocean.

**COST** | Check website for updates.

**INFO** | (562) 590-3100, ext. 0

**LONG BEACH CHORALE  
WORLD OCEAN DAY CONCERT**

**SUNDAY, JUNE 8 | Doors open at 7:00 p.m.,  
concert begins at 7:30 p.m.**

Featuring fifty voices and accompanied by projected images and video, the Long Beach Chorale will perform a program of ocean and marine life-themed music.

**COST** | \$25/member adult, \$15/member student with ID and children ages 3 to 11; \$30/non-member adult, \$18/non-member students and children. Includes Aquarium admission.

**INFO** | (562) 590-3100, ext. 0

**BLUE WHALE GALA**

**SATURDAY, JUNE 14 | 6:30 p.m.-11:00 p.m.**

This black-tie event honors those who have contributed to environmental conservation efforts. The evening features a cocktail reception, gourmet dinner, live musical entertainment, and after-hours coffee bar and lounge. Proceeds support the Aquarium's programs. See back cover for more information.

**COST** | \$500/person

**INFO** | (562) 951-1606

**FATHER'S DAY BBQ**

**SUNDAY, JUNE 15 | 11:30 a.m.-1:30 p.m.**

Celebrate Father's Day with the entire family at the Aquarium's annual picnic. Enjoy lunch, picturesque views of Rainbow Harbor, and the underwater sea life of the Aquarium.

**COST** | Check website for updates.

**INFO** | (562) 590-3100, ext. 0

**DISCOUNTED LATE NIGHTS**

**SUNDAYS, JUNE 22-AUG. 31 | 5:00 p.m.-8:30 p.m.**

During extended hours on Sundays this summer, the entire Aquarium will be open, except Lorikeet Forest, until 8:30 p.m. Admission after 5:00 p.m. is \$14.95. Check online for additional dates.

**COST** | Free for members; \$14.95 for guests

**INFO** | (562) 590-3100, ext. 0

**SPECIAL EVENTS**

**JULY 4TH LATE NIGHT & BBQ**

**FRIDAY, JULY 4 | 5:00 p.m.-11:00 p.m.**

Celebrate Independence Day by viewing the City of Long Beach fireworks display, digging into our annual BBQ, and enjoying special extended hours. General admission after 5:00 p.m. is \$14.95; additional cost for BBQ.

**COST** | Free for members; \$14.95/non-member (does not include food). BBQ/Admission combo cost: check website for updates.

**INFO** | (562) 590-3100, ext. 0

**NIGHT DIVE**

**FRIDAY, JULY 11 | 7:00 p.m.-11:00 p.m.**

Spend an evening filled with art and music. Take in the Aquarium at night, enjoy live bands and DJs, and view art exhibits. This event is for ages 18 and up.

**COST** | Free for members; \$14.95 for guests.

**SENIORS DAY**

**FRIDAY, SEPTEMBER 5 | 9:00 a.m.-2:00 p.m.**

The Aquarium of the Pacific will open its doors for free to people ages fifty and above on this special day. Special exhibits and presentations for seniors will be featured.

**COST** | FREE to visitors ages 50 and over with a valid photo ID.

**INFO** | (562) 590-3100, ext. 0

**AQUARIUM OF THE PACIFIC  
5K RUN/WALK**

**SATURDAY, SEPTEMBER 6 | 7:30 a.m.-10:30 a.m.**

The third annual 5K Run/Walk presented by Molina Healthcare will take participants around the shoreline area. Receive a bib, timing tag, goody bag, ticket to Aquarium, and T-shirt (for those who pre-register only).

**COST** | Discounted registration prices before July 1: \$39 for youths under age 17, \$47 for adults, \$27 for member youths, \$35 for member adults. After July 1: \$44 for youths, \$52 for adults, \$32 for member youths, and \$40 for member adults.

**INFO** | (562) 590-3100, ext. 0

**FIRST RESPONDERS DAY**

**THURSDAY, SEPTEMBER 11 | 9:00 a.m.-5:00 p.m.**

Police officers, sheriffs deputies, and firefighters receive free admission on September 11. Contact your union or association to purchase discounted tickets for friends and family members before coming to the Aquarium.

**COST** | Free for police officers, sheriffs deputies, and firefighters with a current and valid service ID.

**INFO** | (562) 590-3100, ext. 0

**SPECIAL EVENTS**



**CALIFORNIA COASTAL CLEAN-UP DAY  
SAT., SEPTEMBER 20 | 9:00 a.m.-12:00 p.m.**

Help Aquarium staff members pick up trash to protect marine life at Alamitos Beach, located at Ocean Boulevard and Shoreline Drive. Gloves and bags will be provided. No RSVP necessary.

**COST** | FREE

**LOCATION** | Alamitos Beach, off of Shoreline Dr. and Ocean Blvd. below the Villa Riviera

**INFO** | 1-800-COAST-4U (1-800-262-7848)

**PHOTOGRAPHERS NIGHT**

**SUNDAY, OCTOBER 5 | 5:30 p.m.-10:00 p.m.**

Professional and amateur photographers can capture the Aquarium's wildlife during "photographers only" hours. Meet vendors, test new equipment, and attend workshops.

**COST** | \$26.95/member, \$28.95/non-member.

**INFO** | (562) 590-3100, ext. 0

**KIDS FUN RUN**

**SATURDAY, OCTOBER 11 | 9:00 a.m.-2:00 p.m.**

Participants receive a commemorative medal and Aquarium admission (applicable to child runners only; must be accompanied by a paying adult inside the Aquarium).

**COST** | Free. This event sells out early.

**INFO** | runlongbeach.com, (562) 427-4606

**SEA FARE**

**SATURDAY, OCTOBER 18 | 7:00 p.m.-11:00 p.m.**

The Aquarium's tenth annual Sea Fare will raise needed funds for the Aquarium. Join us for an evening of delectable tastes from more than 25 local restaurants and food and beverage providers.

**COST** | \$125 per person, which includes an open bar and food and beverage samples

**INFO** | (562) 590-3100, ext. 0

**FESTIVALS**

To honor the rich diversity of Southern California, the Aquarium of the Pacific hosts cultural and family festivals throughout the year. Check our website for more details and additional family festivals.

**URBAN OCEAN FESTIVAL**

SAT. & SUN., MAY 3-4 | 9:00 a.m.-5:00 p.m.

Explore and celebrate Southern California's coast. This event will include art exhibits, a fashion show and contest for designs using recycled materials, mural painting, poetry readings, and educational activities.

**COST** | Free for members; members' guests receive 20% off regular admission  
**INFO** | (562) 437- FISH (3474)

**PACIFIC ISLANDER FESTIVAL**

SAT. & SUN., JUNE 7-8 | 9:00 a.m.-5:00 p.m.

Discover the diverse cultures of the Pacific Islands through traditional craft demonstrations, ethnic cuisine, storytelling, and music and dance performances.

**COST** | Free for members; members' guests receive 20% off regular admission  
**INFO** | (562) 437- FISH (3474)

**MOOMPETAM**

**NATIVE AMERICAN FESTIVAL**

SAT. & SUN., SEPT. 20-21 | 9:00 a.m.-5:00 p.m.

The tenth annual Moompetam Festival will feature traditional crafts, storytelling, music, and dance celebrating the indigenous California maritime cultures, including Tongva, Chumash, Acjachemen, Costanoan, Luiseno, and Kumeyaay.

**COST** | Free for members; members' guests receive 20% off regular admission  
**INFO** | (562) 437- FISH (3474)

**BAJA SPLASH CULTURAL FESTIVAL**

SAT. & SUN., SEPT. 27-28 | 9:00 a.m. -5:00 p.m.

Celebrate Hispanic Heritage Month and Mexican Independence Day with live entertainment, crafts, ethnic cuisine, and more.

**COST** | Free for members; members' guests receive 20% off regular admission  
**INFO** | (562) 437- FISH (3474)

**SOUTHEAST ASIA DAY**

SATURDAY, OCTOBER 4 | 9:00 a.m.-5:00 p.m.

The Aquarium will celebrate its ninth annual Southeast Asia Day, highlighting the beauty and diversity of the cultures of Cambodia, Thailand, Vietnam, Myanmar, Laos, and Indonesia. Enjoy live performances, cultural crafts, and ethnic food.

**COST** | Free for members; members' guests receive 20% off regular admission  
**INFO** | (562) 437- FISH (3474)

**GUEST SPEAKERS**

The Aquarium hosts guest lectures on a variety of topics presented by experts from across the country. Lectures are held in the Ocean Theater.

**TOM TOMLINSON | *The Steelhead Story***  
**THURSDAY, MAY 8 | 7:00 p.m.**

Tom Tomlinson will share the natural history, local importance, and ecological role of the Southern California steelhead. The Aquarium is debuting an exhibit highlighting this important species by showing their movement up and down freshwater rivers and into the ocean. Tomlinson has authored a booklet about Southern California steelhead that will be on sale after the lecture.

**DAVID SANDS | *Taking On the Five Horsemen: Drought, Malnutrition, Obesity, Poverty, and Pesticide Pollution***  
**WEDNESDAY, MAY 14 | 7:00 p.m.**

Montana State University professor and plant pathologist David Sands will discuss his work in researching bacteria that play a role in battling crop diseases. His work addresses the problems of drought, malnutrition, obesity, poverty, and pesticide pollution through developing healthful, disease-resistant grains. Sands received a grant from the Bill and Melinda Gates Foundation for his work to fight malnutrition in Kenya. Sands has developed a way to improve farming of corn, millet, and sorghum by inhibiting the growth of a parasitic weed. Previously, the women farming these crops had to spend up to 80 percent of their time pulling weeds for three to five months a year.

**PETER KAREIVA | *Can New Environmentalism Save the World from Itself? Strange Bedfellows and a "Big Tent"***  
**TUESDAY, MAY 27 | 7:00 p.m.**

It is hard to find people who want to ravage the environment or destroy nature. Yet, somehow, people who promote conservation are on the defensive, according to Peter Kareiva. One solution, he suggests, is to make it clear that conservation is for everyone, to search for bright spots of natural resilience, to avoid the doom-and-gloom perception bias, to embrace the potential for recovery or restoration, and to be comfortable with the realization that nature never stands still. He will discuss how new messages, new science, and new alliances are conservation's best hope.

**SEAFOOD DOCUMENTARY AND REACTION PANEL**  
**WEDNESDAY, JUNE 4 | 7:00 p.m.**

Producers Adam Jones and Darby Duffin will screen their documentary *Fish & Men*. The filmmakers have traveled across the country

**GUEST SPEAKERS**

and abroad to interview various stakeholders in the fishing and seafood industry to gain insight into their complexities. They will also shed light on potential solutions for some of the more pressing issues that contribute to our more than \$11 billion seafood trade deficit. Reaction panel participants will include Mark Helvey, program lead, NOAA Fisheries' West Coast Region; Peter Halmay, commercial urchin diver; and Kim Thompson, program manager, Aquarium of the Pacific's Seafood for the Future program.

**STEPHEN & ANTHONY PALUMBI | *The Extreme Life of the Sea***  
**THURSDAY, JUNE 12 | 7:00 p.m.**

The ocean teems with life that thrives under difficult situations in unusual environments. In this lecture, father and son Stephen and Anthony Palumbi will explore the icy Arctic and boiling hydrothermal vents and expose the eternal darkness of the deepest undersea trenches to show how marine life thrives against the odds. They will bring to life the sea's most extreme species and reveal how they succeed across the wide expanse of the world's global ocean. They will also discuss how climate change and overfishing could pose the greatest threat yet to marine life. Stephen Palumbi is director of the Hopkins Marine Station and a professor of marine science at Stanford University. Anthony Palumbi is a writer whose work has appeared in *The Atlantic*.

**ARMAND KURIS | *Oarfish and Parasites: The Real Sea Monsters***  
**THURSDAY, JUNE 19 | 7:00 p.m.**

Oarfish are so mysterious that the recent discovery of some large specimens washing ashore in California went viral on the web. But even more mysterious are the parasites collected from one of those oarfish. These parasites tell us some surprising things about the deep-sea animals that feed on oarfish and also which prey oarfish consume. Armand Kuris is a professor of zoology in the department of ecology, evolution, and marine biology at the University of California, Santa Barbara.

**WILLIAM SAGER | *The World's Biggest Volcano is Hiding Beneath the Sea: How We Discovered It and Why It Matters***  
**WEDNESDAY, JULY 9 | 7:00 p.m.**

Tamu Massif is an underwater volcano the size of New Mexico in the Shatsky Rise oceanic plateau in the northwestern Pacific Ocean. It could be the largest single volcano on Earth and is comparable in size to the largest known volcano in the Solar System, Olympus Mons on Mars. Data from



October 16: Stephen Dunbar



October 21: Ty Bowman

Bowman will share his photos from the Grand Canyon.

**GUEST SPEAKERS**

Tamu Massif document a class of oceanic volcanoes that is distinguished by its size and shape from the thousands of common seamounts found throughout the ocean. Scientists like William Sager are collecting data on its shape and formation. Sager is a professor of Earth and atmospheric sciences at the University of Houston. His areas of research expertise are marine geophysics, paleomagnetism, and plate tectonics.

**MIKE BARTICK | *A Digital Field Guide to the Benthic Critters of the Indo-Pacific***  
WEDNESDAY, JULY 16 | 7:00 p.m.

Mike Bartick is a marine wildlife photographer who specializes in small benthic animals like frogfish, rhinopias, and nudibranchs. In his lecture, he will share his photos and experiences diving in the Philippines to document rarely seen behaviors of these animals. He is a field guide who conducts photo safaris, lectures, and seminars. His work has been published in *Sport Diver* and *California Diver* magazines.

**JERRY ZUCKER | *Portraying Scientists as Geeks and Madmen: Can Hollywood Reverse the Trend It Started?***  
TUESDAY, AUGUST 5 | 7:00 p.m.

Producer and director Jerry Zucker will discuss the portrayal of scientists in popular culture, particularly movies. Zucker is the Hollywood lead on the Science-Entertainment Exchange, a program of the National Academy of Sciences that connects entertainment industry professionals with top scientists and engineers to promote accurate science and engaging storylines in both film and TV programming. He has directed several movies, including the box-office hit *Ghost*. His producing credits include *A Walk in the Clouds* and *My Best Friend's Wedding*.

**GUEST SPEAKERS**

**CRAIG MACDONALD | *Yosemite's Unsung Heroine***  
TUESDAY, AUGUST 19 | 7:00 p.m.

Author Craig MacDonald will share the story of Jessie Benton Fremont, who helped lead the first successful effort to protect Yosemite Valley as national park land 150 years ago. MacDonald, a Pulitzer Prize nominee, is the author of eighteen books about the West, and his work has been published in *Sierra Heritage* magazine.

**STEVE HADDOCK | *Glowing Aliens Down Below: Diversity and Bioluminescence of Deep-Sea Jellys and Other Unusual Organisms***  
WEDNESDAY, OCTOBER 15 | 7:00 p.m.

A huge diversity of marine life—from bacteria and single-celled algae to jellyfish, squid, and sea cucumbers—use light in their daily (and nightly) lives. In addition to serving a variety of functions for the organisms, bioluminescent and fluorescent molecules have direct biotech applications that improve human life, as well. Steve Haddock studies marine diversity, molecular biology, and bioluminescence at the Monterey Bay Aquarium Research Institute and the University of California, Santa Cruz. He specializes in fragile gelatinous drifters that are abundant in the deep-sea and open ocean.

**STEPHEN DUNBAR | *ProTECTOR: Saving Turtles, Helping People***  
THURSDAY, OCTOBER 16 | 7:00 p.m.

Stephen Dunbar is a professor of biology at Loma Linda University who studies the endangered hawksbill and green sea turtles of Honduras. He will share the progress his team has made both on the ground and in the lab with their work to promote

**GUEST SPEAKERS**

turtle conservation. He will also discuss his collaborations with communities and other non-governmental organizations in sea turtle research and conservation and what it means to help the people that rely on these natural resources as a source of income and food.

**TY BOWMAN | *Images of the Grand Canyon in 2014 and Environment Impacts in the Last Sixty Years***  
TUESDAY, OCTOBER 21 | 7:00 p.m.

Photographer Ty Bowman will serve as an artist in residence at Grand Canyon National Park for three weeks in September, taking photographs and giving lectures. His project focuses on capturing the natural beauty of the canyon as well as environmental impacts and culminated in an exhibition contrasting the beauty of nature with mistreatment of the environment. Bowman has worked as a photojournalist and sculptor and taught digital illustration and animation in the fine arts department at Cerritos College.

**COST** | Free for members, teachers, seniors 62+, and students with valid I.D. and advanced reservations. \$5/non-members.

**INFO** | (562) 437-FISH (3474)

**WEB** | All lectures are streamed live on the Aquarium's website at [aquariumofpacific.org/aquariumlive](http://aquariumofpacific.org/aquariumlive)

Guest speaker sponsor:



**Live Lecture Webcasts**

Tune in to a live lecture webcast by visiting [aquariumofpacific.org/aquariumlive](http://aquariumofpacific.org/aquariumlive) or capture this QR code with your smartphone.

## AQUARIUM TOURS

These programs are opportunities to see the Aquarium and its animals in a different light.

### BEHIND-THE-SCENES TOURS

DAILY | times vary

Venture behind the scenes in this tour and go above Tropical Reef, our largest exhibit, to feed the fish! This tour provides a sneak peek into the daily operations of the Aquarium of the Pacific. Guests will enter the "wet side" of the Aquarium, a section not normally open to the public. See what it takes to maintain a world-class aquarium, from water filtration to animal care and feeding. Learn interesting facts about the Aquarium's 11,000 animals.

**COST** | \$15/member | \$19/non-member; does not include Aquarium admission. Combo price: \$42.95/adult, \$39.95/senior, \$28.95/child

**AGES** | 7+ years

**LENGTH** | one hour

**GROUP SIZE** | maximum 10 participants

**RSVP** | (562) 951-1630, online, or sign up on day of visit

### ANIMAL ENCOUNTERS

THURSDAYS-SUNDAYS | see times below

Join us for a very special experience to learn about feeding and caring for some of our marine animals. Roll up your sleeves, prepare some food, and get ready to be up close and personal for a feeding with a seal, sea lion, sea otter, shark, or penguin. There are lots of surprises along the way, so be prepared to get your hands wet! Please note that penguin encounters will be on hiatus through July 1 for the breeding season.

**THURS. & FRI.** | *Penguins* 8:00-10:00 a.m.

**SAT. & SUN.** | *Seals & Sea Lions* 9:30-11:30 a.m. | *Sharks* 12:30-2:30 p.m. | *Sea Otters* 2:45-4:45 p.m.

**COST** | \$99/member | \$109/non-member includes Aquarium admission

**AGES** | *Seals & Sea Lions, Sea Otters, Penguins*: 10+ years | *Sharks*: 13+ years

Some height restrictions apply. Participants under 16 years must be accompanied by an adult.

**RSVP** | (562) 951-1630



ROBIN RIGGS

Balloonfish, also known as spiny porcupine fish, can be found in the Gulf of California exhibit.

## AQUARIUM TOURS

### HARBOR TOUR

DAILY | times vary

Tour the Long Beach and Los Angeles Harbors with Harbor Breeze Cruises for a 45-minute narrated cruise around one of the most active ports in the world. See the downtown shoreline, ocean vistas, ships from around the world, and even sea lions. Tours are offered throughout the day on a daily basis. Tickets may be purchased in advance or at the ticket window upon arrival. Meet 15 minutes prior to departure at Dock 2. This program is led and staffed by Harbor Breeze Cruises.

**COST** | Members: \$12/adult, \$10/senior (62+), \$6/child (3-11) | Non-members: \$39.95/adult, \$34.95/senior, \$19.95/child includes Aquarium admission

**RSVP** | (562) 951-1630

### DIVE IMMERSION

DAILY | 3:00 p.m.-5:30 p.m.

Certified divers can dive in our warm 350,000-gallon Tropical Reef Habitat with over 1,000 animals. Tour the dive program facilities, dive in the exhibit, and receive a certificate of completion, souvenir towel, use of an underwater camera, and a memory card of your photos. All equipment is provided. Requires advance reservations.

**COST** | \$279/member | \$299/non-member

**AGES** | 15+ years | ages 15-17 require participating adult chaperone

**RSVP** | (562) 590-3100

## AQUARIUM SLEEPOVERS

Pack your sleeping bag and toothbrush for a night of adventure at the Aquarium of the Pacific. These programs include a pizza dinner, snack, craft, cereal breakfast, and T-shirt.

### BIRTHDAY PARTY SLEEPOVER

BASED ON AVAILABILITY | 5:00 p.m.-7:00 a.m.

Join us for an all-night celebration with a special birthday party sleepover featuring animal touch time, a feeding opportunity, presentations, an educator-led tour, and crafts. Please bring your own birthday cake.

**COST** | \$70/member | \$80/non-member

**AGES** | 5+ years | one adult required per 10 children

**THEMES** | *Sharks, Marine Mammals, or Turtles*

**GROUP SIZE** | 20-50 participants

**RSVP** | (562) 951-1630

### YOUTH GROUP SLEEPOVERS

MONDAY OR WEDNESDAY EVENINGS, BASED ON AVAILABILITY | 5:00 p.m.-7:00 a.m.

Anchors aweigh as we become sailors in search of the missing treasures of the sea. Investigate the fascinating aquatic food web, and follow a treasure map in search of ocean knowledge!

**COST** | \$60/member | \$70/non-member

**AGES** | 5+ years, plus adult chaperone

**GROUP SIZE** | 20-60 participants

**RSVP** | (562) 951-1630

### SUMMER FAMILY SLEEPOVER

JULY 18 | 5:00 p.m.-7:00 a.m.

Bring your whole family and spend an evening exploring the Aquarium after dark. Discover the unique relationships and habitats of our ocean critters through hands-on activities and gallery observations.

**COST** | \$60/member | \$70/non-member

**AGES** | 5+ years, plus adult chaperone

**RSVP** | (562) 951-1630

**SPECIAL PROGRAMS**

**BIRTHDAY PARTIES**

**AVAILABLE BY RESERVATION ONLY**

Let us make your child's next birthday celebration special. The Aquarium will supply all the ingredients for an unforgettable party, including a themed one-hour classroom program featuring animal touch time, biofact discovery, and a take-home souvenir craft project. The party concludes with an additional half-hour in the classroom for the birthday celebration. Please bring your own birthday cake. Aquarium admission is included. All you need to do is call us at least two weeks prior to reserve a date (subject to availability), and then invite your guests. We also offer birthday sleepovers.

**COST** | \$33/member | \$39/non-member | 15 person minimum, includes Aquarium admission

**AGES** | All ages, one adult required per 10 children

**THEMES** | Sharks, Marine Mammals, or Turtles

**GROUP SIZE** | 15-45 participants

**INFO** | (562) 951-1630

**SPECIAL PROGRAMS**

**AQUARIUM ON WHEELS**

**AVAILABLE BY RESERVATION ONLY**

The Aquarium on Wheels is dedicated to developing children's appreciation for the wonders of the ocean environment. Along with an educational presentation, hands-on activities, and environmental message, our outreach educational program provides children the chance to touch sharks, sea stars, anemones, urchins, and other marine inhabitants. This mobile tidepool exhibit is not just for schools—it is also great for display at festivals, fairs, and even birthday parties. Aquarium on Wheels will deliver a memorable experience for all!

**INFO** | (562) 951-1630

**OUTDOOR ADVENTURES**

Go beyond the Aquarium to participate in offsite experiences in the great outdoors.

**DOLPHIN AND SEA LIFE CRUISE**

**SEASONAL**

The Pacific Ocean is home to many wondrous animals year 'round. Join us as we search for dolphins, seals, sea lions, and other marine life on our Dolphin and Sea Life Cruise. This is an experience you and your family will not soon forget!

**COST** | Members: \$25/adult, \$20/senior (ages 62+), \$15/child (ages 3-11)  
Non-members (includes Aquarium admission): \$48.95/adult, \$44.95/senior, \$30.95/child

**WHEN** | Spring and fall season

**LENGTH** | 2-2.5 hours

**AGES** | Children under 16 must be accompanied by an adult.

**RSVP** | (562) 951-1630

**BLUE WHALE WATCHING TRIPS**

**SEASONAL**

Search out the elusive and magnificent blue whale with the Aquarium of the Pacific and Harbor Breeze Cruises. Blue whales seek the nutrient-rich waters right off our coast each summer. Along the way you may even spot a variety of other animals, including dolphins, seals, sea lions, and seabirds.

**COST** | Members: \$45/adult, \$35/senior (ages 62+), \$25/child (ages 3-11)  
Non-members (includes Aquarium admission): \$59.95/adult, \$55.95/senior, \$39.95/child

**AGES** | Children under 16 must be accompanied by an adult.

**LENGTH** | 3-3.5 hours

**RSVP** | (562) 951-1630

**THE URBAN OCEAN: WORLD PORT AND SEA LIFE CRUISE**

**SATURDAYS, JUNE 14, JULY 12, AUGUST 9 & SEPT. 6 | 4:00 p.m.-6:30 p.m.**

Explore one of the most distinctive sections of our coastline and experience the wonders of the Southern California urban ocean. In this place of high intensity, massive ships from around the world slip past whales, dolphins, and sea lions in the nation's two biggest ports. Learn from an onboard Aquarium educator how human activity and marine life intersect in this busy portion of the urban ocean.

**COST** | \$26.95/member adult, \$8/member child, \$29.95/non-member adult, \$10/non-member child.

**RSVP** | (562) 951-1630



*As charter members, we have had the pleasure of bringing both our children and grandchildren to this beautiful Aquarium and watching the joy on their faces while they explore the wonders of the Pacific Ocean. Whether we attend a holiday festival, themed member event, or the annual Sea Fare fundraiser, our expectations are always exceeded, and we're reminded of what a true treasure the Aquarium is for our incredible city of Long Beach. Furthermore, our daughter Jillian is an Aquarium employee and speaks highly of the positive workplace culture at the institution. Our grandparent membership has been the perfect way to spend quality time with our grandchildren, and we look forward to the day when we bring our great-grandchildren to the Aquarium of the Pacific."*

— DAVID (PICTURED, RIGHT) AND NANCY KOEHRING, CHARTER MEMBERS SINCE 1998



**DAY CAMPS**

**FISH FRY CAMP**

**JUNE 17-19, JULY 1-3, OR JULY 22-24 | 8:30 a.m.-10:30 a.m.**

Did you know that newly hatched fish are called fry? Bring your three- or four-year-old little fry to the Aquarium for a special parent-child day camp! During this three-day camp you and your child will “wet” your appetites for marine life with hands-on exploration, crafts, games, and Aquarium tours. Dive into a watery world that you and your child will not soon forget!

**AGES** | 3 to 4 with an adult partner (no more than two children per adult. Please no younger or older siblings outside of age range.)

**COST** | ADULT-CHILD PAIR: \$85/member; \$110/non-member (includes Aquarium admission)  
ADDITIONAL PERSON: \$20/member; \$30/non-member

**RSVP** | (562) 951-1630

**SEA SQUIRT CAMP**

**DAY CAMP 1: JUNE 24-26 OR JULY 8-10**  
**DAY CAMP 2: JULY 1-3 OR AUGUST 12-14**  
**8:30 a.m.-11:30 a.m.**

This three-day camp offers an exciting introduction to marine biology for five- and six-year-olds. Campers will discover an underwater wonderland filled with wiggly fish, furry mammals, and boneless beauties. This camp encourages social interaction and exploration independently from parents. Through hands-on activities, stories, crafts, and tours, your child will prove that little learners can learn big things!

**AGES** | 5 to 6 (children only)

**COST** | \$90/member; \$115/non-member

**RSVP** | (562) 951-1630

**OCEAN ADVENTURE DAY CAMP**

**DAY CAMP 1: JULY 7-11 OR AUGUST 11-15**  
**DAY CAMP 2: JULY 14-18**  
**DAY CAMP 3: JULY 21-25**  
**DAY CAMP 4: AUGUST 4-8**  
**HALF-DAY: 8:00 a.m.-12:00 p.m. or 1:00 p.m.-5:00 p.m.**  
**FULL-DAY: 8:00 a.m.-5:00 p.m.**

Explore the Pacific Ocean and its inhabitants during our week-long summer day camp adventures. Campers will get the chance to go behind the scenes, meet our animal husbandry staff, and help us take care of some of the animals that make their home here at the Aquarium. Each Day Camp week is a different program.

**AGES** | 7- to 9-year-olds (children only)

**COST** | Half day: \$140/member; \$160/non-member  
Full day: \$270/member; \$300/non-member

**RSVP** | (562) 951-1630



ROBIN RIGGS

The Aquarium's sea otters receive ice as an enrichment, encouraging them to roll and play.

**DAY CAMPS**

**JUNIOR BIOLOGIST DAY CAMP**

**CAMP 1: JUNE 16-20 OR JULY 14-18**  
**CAMP 2: JUNE 23-27 OR AUGUST 18-22 | 8:00 a.m.-5:00 p.m.**

Children ages ten to twelve dive deeper into the field of marine biology. Based on our popular Junior Biologist classes, this camp will feature elements of our traditional day camp program, including crafts and games, as well as special behind-the-scenes privileges, animal interaction, and much more.

**AGES** | 10- to 12-year-olds (children only)

**COST** | \$270/member; \$300/non-member

**RSVP** | (562) 951-1630

**MARINE SCIENTIST SLEEPOVER CAMP**

**MON.-THURS., JULY 28-31 | 8:00 a.m.-5:00 p.m.**

This camp boasts something none of our other camps offer: the chance to sleep under the sea stars! Campers will dive into science and conduct marine biology experiments, go on behind-the-scenes tours, have unique animal interactions, and journal about their discoveries. The camp ends with a sleepover, which includes a pizza party dinner, a movie and popcorn, and special keepsake T-shirt.

**AGES** | 13- to 15-year-olds (children only)

**COST** | \$240/member; \$270/non-member

**RSVP** | (562) 951-1630

**YOUTH PROGRAMS**

**JUNIOR BIOLOGIST PROGRAM**

**SATURDAYS | 9:30 a.m.-11:30 a.m.**  
*topics vary, see below*

Participants will independently investigate marine life during this exploratory program. This class offers hands-on animal touch time, Aquarium animal observation, and activities relating to each topic. Select the topic that is most interesting, or take all the classes to learn about the variety of animals found at the Aquarium.

|                               |          |
|-------------------------------|----------|
| <b>TOPIC</b>   Sharks.....    | May 10   |
| Marine Mammal.....            | June 14  |
| Invertebrates.....            | July 12  |
| Fish.....                     | August 9 |
| Birds & Reptiles.....         | Sept. 13 |
| Southern California/Baja..... | Oct. 11  |

**COST** | \$25/member | \$29/non-member  
(does not include Aquarium admission)

**AGES** | 7-12

**RSVP** | (562) 951-1630

**JOB SHADOW**

**WEDNESDAYS | 3:30 p.m.-6:30 p.m.**  
**SATURDAYS | 9:00 a.m.-12:00 noon**  
*topics vary, see below*

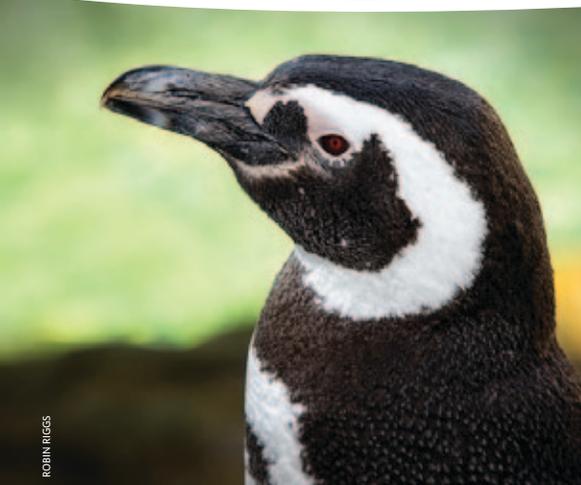
This program is for students who are interested in animal husbandry or marine biology careers. Students will learn what it takes to run a world-class aquarium and get a hands-on opportunity to participate in everyday activities that help maintain the Aquarium. Students will go behind the scenes, shadowing education and husbandry staff members.

|                                   |                           |
|-----------------------------------|---------------------------|
| <b>TOPIC</b>   Mammalogist.....   | May 3, July 30 & August 2 |
| Veterinarian.....                 | June 4 & 7, Oct. 1 & 4    |
| Marine Biologist.....             | July 2 & 5, Oct. 29       |
| Penguin & Lorikeet Biologist..... | Sept. 3 & 6               |

**COST** | \$35/member | \$39/non-member  
(does not include Aquarium admission)

**AGES** | Grades 7-12

**RSVP** | (562) 951-1630



ROBIN RIEGGS

The Aquarium's Magellanic Penguins will begin nesting and breeding in spring.

### SATURDAY FAMILY FUN PROGRAMS

Children, along with a parent or adult chaperone, will investigate the ocean world in a structured classroom program that includes interactive and hands-on activities. These programs foster the students' discovery as well as interaction with adults and peers.

#### SEA JELLIES AND OTHER INCREDIBLE INVERTEBRATES

SAT., MAY 24 & SEPT. 27 | 10:00 a.m.-11:30 a.m.

They may be spineless, but they are the backbone of nature. Join us as we learn all about jellies and their invertebrate relatives that inhabit the ocean.

#### TOTALLY TURTLES

SAT., JUNE 28 & OCT. 25 | 10:00 a.m.-11:30 a.m.

You may enjoy a sweet treat of Jelly Bellies, but a sea turtle prefers having a belly full of jellies! Discover fun facts and turtle trivia as we explore these reptiles.

#### SHARK SLEUTHS

SATURDAY, JULY 26 | 10:00 a.m.-11:30 a.m.

Discover how sharks' amazing adaptations make them excellent predators. Get an up-close view of these creatures and others as we learn all about sharks!

#### MAGNIFICENT MARINE MAMMALS

SATURDAY, AUG. 23 | 10:00 a.m.-11:30 a.m.

Who is warm-blooded, hairy, breathes air, and lives in the ocean? Marine mammals! Join us as we learn the special ways sea otters, seals, sea lions, whales, and other marine mammals survive in the sea.

**COST** | ADULT-CHILD PAIR: \$36/member  
\$40/non-member  
EXTRA PERSON: \$15/member  
\$20/non-member  
(includes Aquarium admission)

**AGES** | 4-6 years, plus adult chaperone

**RSVP** | (562) 951-1630



ROBIN RIEGGS

Chambered nautilus can be found in the *Wonders of the Deep* exhibit.

### AQUA TOTS

Toddlers team up with their parent or chaperone for a first look into ocean life. Each of the Aqua Tots programs focuses and expands on a particular concept while encouraging adult and child interaction.

#### SUPER SENSES OF THE SEA

SATURDAY, AUGUST 16 | 10:00 a.m.-11:30 a.m.

Smell the salty air and feel the cool breeze as we use our senses to explore how ocean animals use their sight, taste, touch, and hearing in their watery home. Immerse yourself in the wonder and discovery of this interactive program.

#### COLORS OF THE OCEAN

SATURDAY, SEPTEMBER 20 | 10:00 a.m.-11:30 a.m.

Below the surface of the blue ocean are animals with amazing colors. Some are bright and flashy while others blend into the ocean bottom. Discover some of these colorful animals, and search for those that may be hiding.

#### MOVIN' & GROOVIN' BENEATH THE SEA

SATURDAY, OCTOBER 18 | 10:00 a.m.-11:30 a.m.

Roll like an otter and slide like a snail as we discover animals through movement. Explore the world of sea creatures by taking a closer look at the way they move. Join us as we move and groove like the animals beneath the sea!

### AQUA TOTS

#### SLIPPERY TO PRICKLY

SATURDAY, MAY 17 | 10:00 a.m.-11:30 a.m.

Whether it's a slippery sea cucumber, soft and velvety bat ray, prickly sea urchin, or simply the smooth shell of a hermit crab, discover the many lovable and touchable creatures that live in the ocean. Learn what can be explored safely as we use our sense of touch on a journey through the Pacific Ocean.

**COST** | ADULT-CHILD PAIR: \$36/member,  
\$40/non-member  
EXTRA PERSON: \$15/member,  
\$20/non-member  
(includes Aquarium admission)

**AGES** | 2-3 years, plus adult chaperone

**RSVP** | (562) 951-1630

#### SHORELINE SHAPES

SATURDAY, JUNE 21 | 10:00 a.m.-11:30 a.m.

Did you know a sea jelly is shaped a lot like a bell or that some fish are as flat as pancakes? At the Aquarium, there are eels so skinny, they look like shoestrings! Explore the exciting shapes of ocean life through a craft, songs, and hands-on activities.

**COST** | ADULT-CHILD PAIR: \$36/member, \$40/non-member  
EXTRA PERSON: \$15/member, \$20/non-member (includes Aquarium admission)

**AGES** | 2-3 years, plus adult chaperone

**RSVP** | (562) 951-1630



## NEW SHOW INTRODUCES VISITORS TO ANIMAL CARE

**B** **ERTRAND GETS A CHECK-UP** is a new educational show at the Aquarium that incorporates live actors, puppetry, and video interaction to explain real animal treatments taking place at the Molina

**Animal Care Center.** During the show, visitors of all ages learn about the importance of regular check-ups as Bertrand, the talking moray eel, is gradually convinced that visiting the doctor is a good idea. Together, Bertrand and the audience also confront other “scary stuff” that fish might encounter during a doctor’s visit, including parasites and anesthesia.

Luke Richmond, the show’s creator, is the Aquarium’s theatrical programs coordinator. Richmond worked with a team of actors and the education department staff to create an engaging experience to introduce people to the Molina Animal Care Center. The team quickly landed upon puppets as one way to have a memorable interaction while addressing experiences that might otherwise be overwhelming.

*Visitors to the Molina Animal Care Center on Saturdays and Sundays can learn about doctors, check-ups, and animal care through Bertrand, the talking moray eel.*

“Bertrand is easy to relate to. He’s fun, he’s magical, he’s a rare talking eel,” says Richmond. “Within minutes, the whole audience is invested in this eel’s trip to the doctor.”

The show stars a rotating cast of professional actors who work alongside Bertrand. The ten-minute show is designed to be accessible and appeal to all ages. It can be viewed on Saturdays and Sundays in front of the Molina Animal Care Center at 10:50 a.m., 12:15 p.m., 3:00 p.m. and 4:00 p.m.

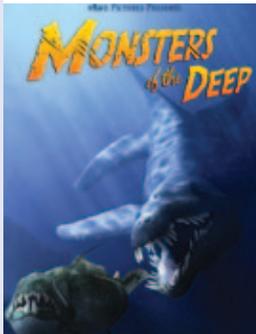
The Molina Animal Care Center is the hub for veterinary care for the animals at the Aquarium. The glass wall of the veterinary hospital offers visitors a window into animal care at the Aquarium and a chance to watch Aquarium Veterinarian Dr. Lance Adams and his team at work. In addition to meeting Bertrand on weekends, visitors to the Molina Animal Care Center can learn directly from husbandry staff members, view fish in a nearby holding tank, and interact with touch-screen kiosks that present additional information about caring for the animals at the Aquarium.



## EXHIBIT HIGHLIGHTS THE “AMAZON OF THE OCEAN”

**A** **NEW EXHIBIT** in the Aquarium’s Tropical Pacific gallery highlights the Coral Triangle, a region in the Indo-Pacific known as the “Amazon of the Ocean” because of its high rate of biodiversity. Fifteen years ago Dr. Paul Barber, a professor of ecology and evolutionary biology at the University of California, Los Angeles (UCLA), began studying marine biodiversity in Indonesia, part of a greater region known as the Coral Triangle. This region is home to a marine environment so diverse that it rivals that of an Amazonian rainforest. Despite its biodiversity, this was one of the least studied marine environments on the planet, as well as one of the most threatened.

Dr. Barber worked with the Aquarium and UCLA to develop the exhibit to bring attention to the beauty and threats facing the Coral Triangle. The exhibit, located just before the Tropical Tunnel, is made possible through a grant from the Alice C. Tyler Perpetual Trust.



## NEW 4-D FILM NOW PLAYING IN THE OCEAN THEATER

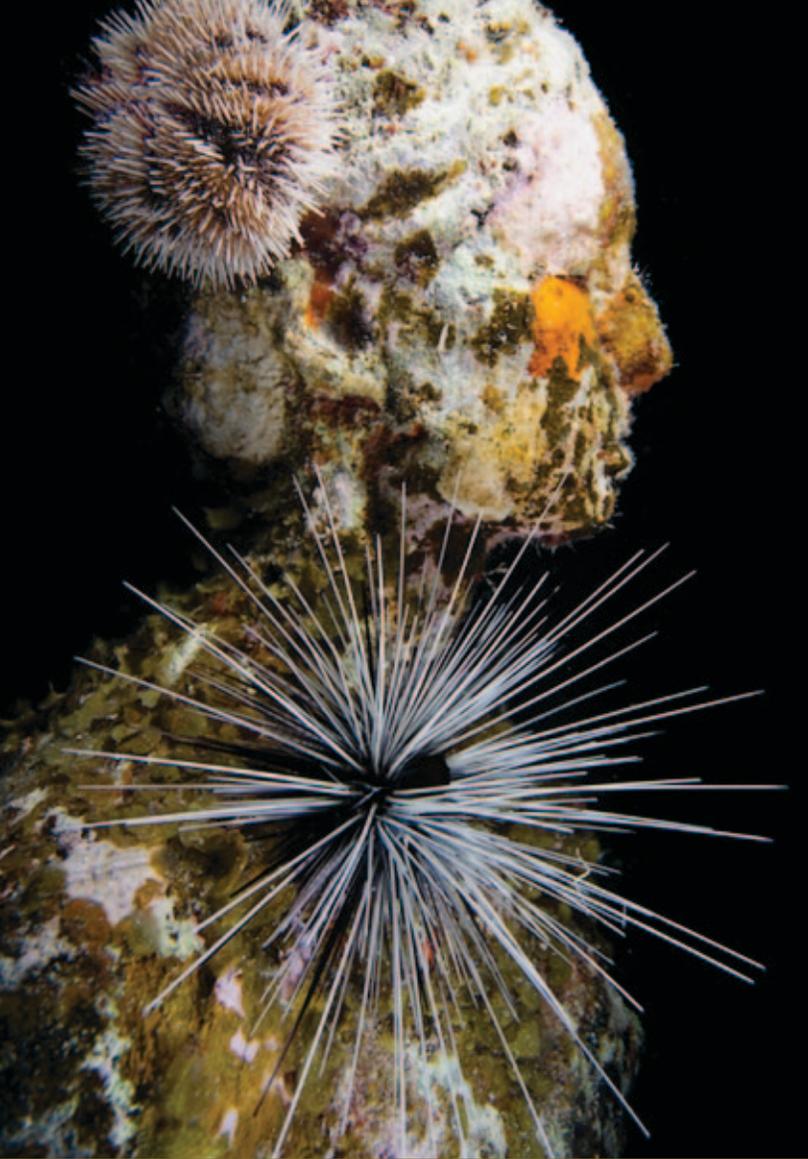
**A** **NEW 4-D FILM** at the Aquarium, *Monsters of the Deep*, travels back millions of years to explore the deep ocean. It showcases some of the most dangerous and majestic animals to ever have lived on Earth.

The ocean is home to some of Earth’s most venomous animals like the box jellyfish, and remarkable predators like the great white shark. But these ocean creatures are not necessarily the most awe-inspiring. Viewers

*Travel millions of years back in time to learn about giant creatures that once inhabited the ocean.*

learn about the largest predator of all time, the liopleurodon, which lived 155 million years ago, and the largest turtle to have ever lived, the archelon.

*Monsters of the Deep* plays daily in the Aquarium’s Ocean Theater. Tickets are \$4.00 each for non-members and \$3.50 for members. Members can buy one ticket at the non-member price and get a second for free. Tickets can be purchased in advance at any Aquarium ticket window, by calling (562) 590-3100, or by ordering online. Tickets are also available at the ticket booth in front of the Ocean Theater. This film is recommended for children seven and older.



## EXHIBIT EXAMINES SMART SEAFOOD CHOICES

**A** NEW EXHIBIT at the Aquarium focused on mercury in seafood helps visitors to understand healthy seafood choices. The display explains how mercury, a heavy metal, makes its way into the marine environment from burning coal and other pollution sources. It provides recommended consumption guidelines for sensitive groups and the general consumer so they can benefit from the nutritional properties of seafood while minimizing the risk of consuming too much mercury.

Seafood is a rich source of low-fat protein and healthy omega-3 fatty acids. Children, women who are pregnant or nursing, and women who plan to become pregnant are particularly vulnerable to the health effects of mercury consumption, but there are low-mercury options that allow these groups to benefit from seafood's healthy nutrients and low-fat protein while reducing their exposure to mercury.

Once it has entered the marine environment, mercury can become concentrated in certain fish through bioaccumulation. Bioaccumulation is the buildup of toxins, like mercury, within an animal, and occurs when animals take in more of a toxic substance than they are able to naturally lose. In fish, bioaccumulation occurs as mercury absorbed by bacteria and plankton travels up the food chain. Sharks and other apex predators can contain higher levels of mercury in their meat, posing a greater health risk to those who consume them on a frequent basis. Easy-to-follow guidelines outlined on the display help consumers to choose healthy seafood and avoid species of fish that may contain high levels of mercury.

A screen in the exhibit displays a color-coded guide to common seafood choices, allowing consumers to learn more about the mercury levels of the species. For more information on responsible seafood choices, go to [seafoodforthefuture.org](http://seafoodforthefuture.org). Visitors to the Aquarium can learn more about smart seafood choices at the exhibit, installed outside the Northern Pacific Gallery.

## ART EXHIBIT SHOWCASES PHOTOS OF UNDERWATER SCULPTURE

**A** RTIST JASON DECAIRES TAYLOR has created an underwater sculpture park off the coast of Cancun, Mexico, called the Museo Subacuatico de Arte, or MUSA.

Photographs of these sculptures are on exhibit in the Aquarium's Great Hall through June 30.

Taylor grew up in Europe and Asia and spent much of that time in the water exploring the reefs of Malaysia. He graduated from the London Institute of Art. Blending his two passions together has allowed Taylor to create some of the most unusual art in the world.

In 2006 Taylor founded the first underwater sculpture park off the coast of Grenada in the West Indies. It is now listed as one of the 25 Wonders of the World by National Geographic. His underwater sculptures create artificial reef habitats for marine life. Once urchins, corals, and other reef inhabitants affix themselves to the sculptures, the artwork is changed and enhanced by the animals' forms, textures, and colors.



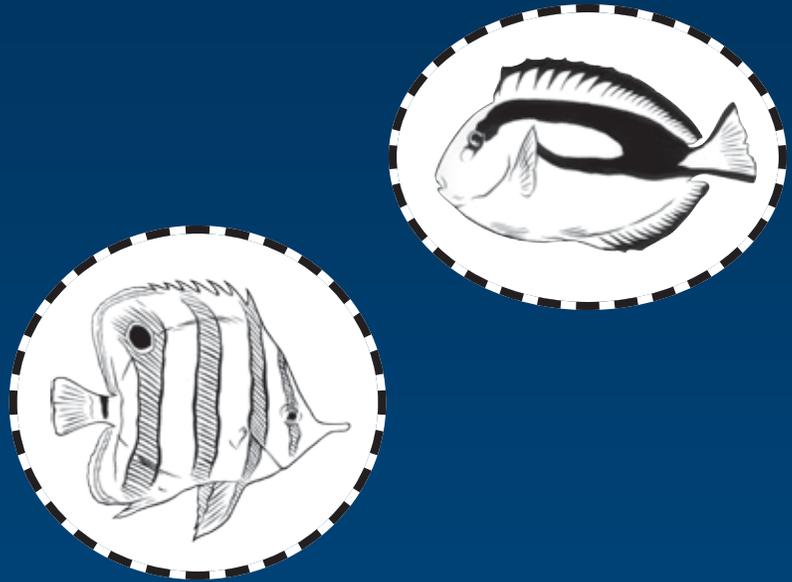
## KIDS CORNER

# Build Your Own Aquarium

The husbandry team at the Aquarium works very hard to keep all of our animals happy and the exhibits looking great. These people care for the animals by feeding them, cleaning the exhibits, and making sure everyone gets along. Build your own aquarium, and watch your fish swim around with this fun craft.

### WHAT YOU NEED:

- 2 paper plates
- A piece of string measuring 2 to 3 inches (fishing line, yarn, or ribbon will also work)
- Plastic cling wrap
- Tape
- Stapler
- Crayons
- Scissors



### STEPS:



1. Create your aquarium background by drawing and coloring an ocean habitat on the center of one of the plates. Don't forget to add plants, rocks, and other decorations for your fish to swim through.



2. Take the other plate and cut out the center section, leaving at least an inch around the edge.



3. Tape the plastic cling wrap to the inside of the plate, covering up the opening. This is your aquarium window.



4. Cut out and color the fish on this page.



5. Use tape to attach the fish to the string, and then tape the string to the top edge of your habitat plate.



6. Staple the two plates together with insides facing each other. Now watch your fish swim around inside their aquarium habitat.

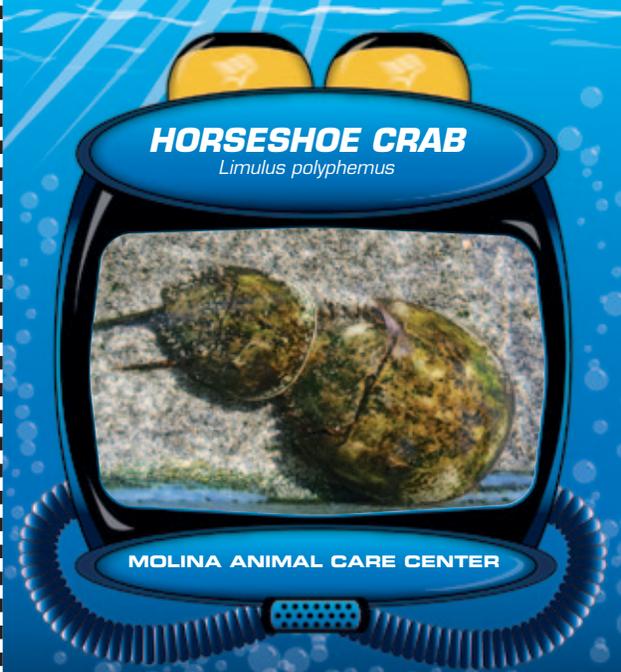


# Fishing for KNOWLEDGE!

1. The Aquarium's security and \_\_\_\_\_ departments have staff members on site twenty-four hours a day.
2. On average, about \_\_\_\_\_ students visit the Aquarium on a regular school day for field trips.
3. The staff members who take care of fish and invertebrates at the Aquarium are called \_\_\_\_\_.

## Last Issue's Questions and Answers:

1. Sea dragons live only off the southern and western coasts of **Australia** in shallow waters where there are rocky reefs, sand patches, seaweed beds, and seagrass meadows.
2. Like the term for a group of terrestrial horses, a group of seahorses is called a **herd**.
3. Newly hatched seahorses and sea dragons are kept in small tanks at the Aquarium called **kreisels**, which means carousel or roundabout in German.

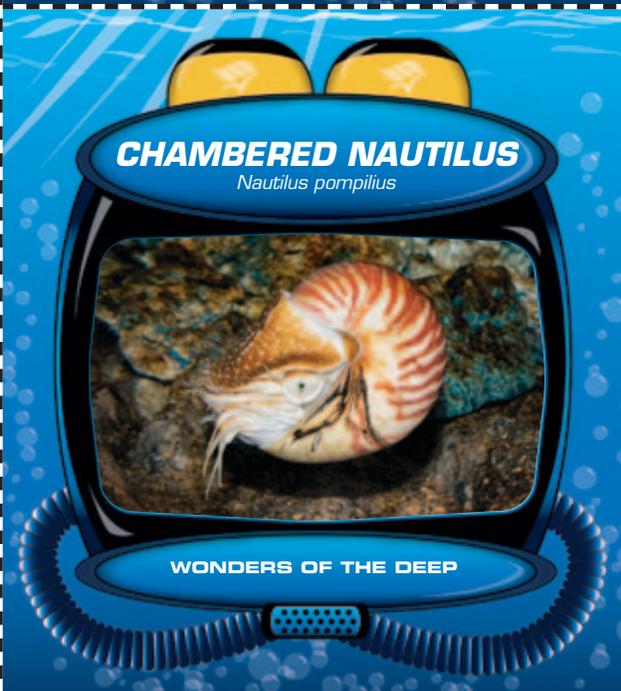


### HORSESHOE CRAB

*Limulus polyphemus*



MOLINA ANIMAL CARE CENTER

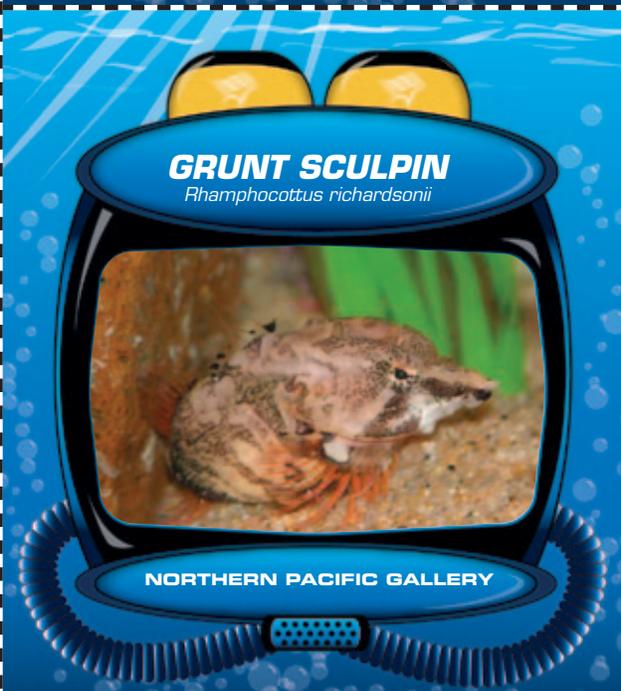


### CHAMBERED NAUTILUS

*Nautilus pompilius*



WONDERS OF THE DEEP



### GRUNT SCULPIN

*Rhamphocottus richardsonii*



NORTHERN PACIFIC GALLERY

## HORSESHOE CRAB

*Limulus polyphemus*



### PHYSICAL CHARACTERISTICS

These animals are arthropods, which are closely related to scorpions and spiders. They have nine eyes, ten legs, and a brown shell covering a horseshoe-shaped body and pointy tail.

### DIET

The horseshoe crab feeds on mollusks and crustaceans. It can use the base of its legs like jaws to help it crush food before pushing it into its mouth.

### HABITAT

Warm, shallow waters with soft sandy or muddy ocean floors.

### FUN FACT

The horseshoe crab's blood is blue in color because it is copper-based instead of iron-based, like human blood.

## CHAMBERED NAUTILUS

*Nautilus pompilius*



### PHYSICAL CHARACTERISTICS

The nautilus is a cephalopod (a relative of octopuses, squid, and cuttlefish), with an orange and white spiral shell, two large eyes, and up to ninety tentacles.

### DIET

Chambered nautilus eat shrimp, crabs, fishes, dead animals, and occasionally other nautiluses.

### HABITAT

Chambered nautiluses spend daylight hours near the bottom of coral reef slopes up to 1,500 feet deep, and travel at night to shallower waters about 300 feet deep or less.

### FUN FACT

The chambered nautilus is the only living descendant of a group of ocean creatures that thrived in the seas 500 million years ago, before the dinosaurs.

## GRUNT SCULPIN

*Rhamphocottus richardsonii*



### PHYSICAL CHARACTERISTICS

These small bony fish grow to be two to three inches in length. Their bodies are short, with large round heads and long snouts. Instead of scales, grunt sculpins have small plates with tiny spines.

### DIET

The grunt sculpin's diet consists of crustaceans, zooplankton (tiny plants), and fish larvae.

### HABITAT

Grunt sculpin live in rocky and sandy areas and seek shelter in the shells of empty barnacles, although they will also hide in bottles, cans, and other debris on the ocean floor.

### FUN FACT

The grunt sculpin is named after the wheezing-grunting sound it makes when it is removed from the water, which divers say can also be heard underwater.

Give a "ray" of sunshine to the mother, father, or graduate in your life!



# ADOPT AN ANIMAL

Looking for a unique gift idea? Adopt an animal for as little as \$50, and your recipient will receive an official certificate, beautiful color photo, and plush animal of their adopted species. Animal adoptions provide funding for animal care, breeding programs, and conservation initiatives, and

help give thousands of visitors an unforgettable experience learning about the Pacific Ocean and its inhabitants. Additional levels of adoption are available, featuring unique benefits, including complimentary Aquarium admission tickets, Behind-the-Scenes Tours, and Animal Encounters. Adopt an Animal Sponsorships are fully tax deductible and include free shipping.

Visit [www.aquariumofpacific.org/adopt](http://www.aquariumofpacific.org/adopt) or the Aquarium information desk or call 562-437-FISH (3474)



# DISCOVER MORE OF WHAT YOUR AQUARIUM HAS TO OFFER YOU!

Consider upgrading your membership to the next level and experience even more outstanding benefits, such as:

- \* Transferable membership card\*—perfect for grandparents or caregivers!
- \*\* Additional guest passes\*\*
- \* Invitations to VIP events

For more information, visit [aquariumofpacific.org/membership](http://aquariumofpacific.org/membership) or call the member support center at 562-437-FISH (3474).

\*Plus level and above \*\*Aqarist level and above



OUR MORE THAN 11,000 ANIMAL RESIDENTS WILL APPRECIATE YOUR ADDED SUPPORT!

AQUARIUM OF THE PACIFIC

## SAVE 20% this spring on all merchandise!

Present your membership card along with this coupon to receive an additional 10% discount in conjunction with your member discount, for a total of 20% off merchandise in our gift store.

This coupon is valid through 10/31/14 inside Aquarium gift stores. Valid as a one-time offer. Cannot be combined with any other offer. No cash value. Restrictions may apply. N-103114-A

MEMBERS-ONLY SPECIAL

ROBIN RIGGS

# EDUCATION DONORS

WE WISH TO EXTEND A SPECIAL THANKS to the following corporations, foundations, and individuals for their support of education initiatives at the Aquarium of the Pacific in 2013.

ROBIN RIGGS

## \$150,000+

The Roddenberry Foundation  
Windsong Trust

## \$50,000+

John W. Carson Foundation, Inc.  
The Miller Foundation  
Target

## \$25,000+

BCM Foundation  
The Boeing Company  
BP America Inc.  
The Rudolph J. & Daphne A. Munzer Foundation  
Kenneth T. and Eileen L. Norris Foundation  
OXY Long Beach, Inc.

## \$10,000+

Boston Scientific Foundation, Inc.  
The Capital Group Companies  
Employees Community Fund of Boeing California  
The Green Foundation  
Nordstrom, Inc.  
Pacific Life Foundation  
Ned Solot and Corrin Yep  
Dwight Stuart Youth Fund  
Ueberroth Family Foundation  
Union Pacific Railroad

## \$5,000+

ABS Foundation, Inc.  
Anonymous  
Begin Today For Tomorrow Charitable Foundation

City of Long Beach Stormwater/  
Environmental Division  
Disney VoluntEARS Community Fund  
Bess J. Hodges Foundation  
Kinder Morgan Foundation  
SAVOR...  
The Tappan Foundation  
Whitney Young Children's Foundation

## \$2,500+

Angels Baseball Foundation  
Josephine S. Gumbiner Foundation

## \$1,000+

Mary Miller and Joel Sweat  
U.S. Bank  
Winnick Family Foundation

## CHARITABLE GIFT ANNUITIES Provide Support for Aquarium Programs

**A** S YOUNG STUDENTS race from one exhibit to the other, they are enthralled by the Aquarium's animals, including unicorn fish, rays, and sharks. But the Aquarium is much more than a place to simply observe. Guests of all ages can interact, participate, ask questions, and learn about the important role every individual can play in helping shape a healthier future for the ocean and for society. Individuals can help shape a brighter future by supporting the Aquarium through a gift annuity.

Setting up a charitable gift annuity in support of the Aquarium provides funds for the Aquarium and also provides the donor with annual fixed income payments throughout his or her lifetime.

Through a short contract, one can donate cash, stocks, or bonds to establish a charitable gift annuity. The donor can choose to start receiving fixed payments right away. He or she may also choose to defer payments until a later date and choose a two-life annuity to have income payments continue to the surviving spouse. After the donor's lifetime, more than 50 percent of the initial contribution will support the Aquarium's mission.

Gift annuities can be an ideal way for a donor to provide support to the Aquarium as well as receive income. Anyone can establish a charitable gift annuity to support

the Aquarium. This gives the donor an immediate tax deduction and tax-free income. This support will make an indelible impact at the Aquarium and help ensure that the Aquarium's programs will inspire people for generations to come.

Charitable annuity donors join the Aquarium's Nautilus Society and receive invitations to special events and other exclusive benefits. The Aquarium suggests donors consult with their tax advisors for advice specific to their finances. Be sure to find someone who understands the benefits that come from charitable gift annuities.

Gift annuities help ensure continuity for the Aquarium's educational programs. Aquarium Board Director Bert Levy recently established a gift annuity and can answer questions about this type of giving for those who are interested. For more information, call Theresa Duncan, Aquarium vice president of development, at (562) 951-1664 or visit [aquariumofpacific.org/alegacy](http://aquariumofpacific.org/alegacy).

# FUNDRAISING HIGHLIGHTS

The Aquarium of the Pacific relies on individuals, corporations, foundations, and government partners to support its mission and vision with contributions to the operating budget and a diverse range of projects.

## ■ Long Beach City Council Supports New Exhibits

The Long Beach City Council recently provided \$250,000 to the Aquarium. With this support, the Aquarium can continue to serve the local community by offering new and impactful exhibits, engaging education programs, and vibrant cultural events for people of all ages. The strong partnership between the City and the Aquarium has helped the Aquarium achieve its mission, while creating a better future for the city and the region.

## ■ Betty White Ludden Aids Aquarium Expansion

A supporter of the Aquarium for the past fourteen years, Betty White Ludden recently donated \$50,000 for the Aquarium's expansion projects. Ludden has expressed continued support and shared passion and dedication for the protection of our ocean planet and its animal inhabitants, most notably the southern sea otter. One of the Aquarium's youngest sea otters, Betty, was named in honor of Ludden's special affection for this charismatic species.



## ■ John W. Carson Foundation, Inc. Funds Science Education

The John W. Carson Foundation, Inc. recently contributed \$25,000 toward the Ocean Science Education Program, serving students from the diverse counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and San Diego. These funds will provide the resources necessary to help create an environment where students are amazed and inspired by the ocean. Nearly 200,000 students, educators, and community members participate in Aquarium educational programming every year.

## ■ Oxy Long Beach, Inc. Supports Long Beach Students

A long-standing donor to the Aquarium, Oxy Long Beach, Inc. has given a \$25,000 grant in support of the Ocean Science Education Program, allowing the Aquarium to provide high-quality science programs to the community. The program aims to bring science and environmental education to life for students in Long Beach through an array of more than 100 education programs centered on hands-on activities and interactive components.

“We became involved with the Aquarium because we realized that the ocean is the flip-side of our world—it's the world that we don't know. Some animals in the ocean are quite like we are—they have social structures, they talk to each other—and there are ones we haven't even discovered yet! We've found medicines from the ocean, we drink its water—the ocean provides us with so much and we have so much to learn about it. It's really exciting, and I want everyone I know to become as excited as I am about the ocean and the Aquarium, too.”

— MARGIE NORMAN (RIGHT), PICTURED WITH ALEX NORMAN, TRUSTEES OF THE PACIFIC AND PACIFIC CIRCLE MEMBERS SINCE 2005



# AQUARIUM ACCOLADES



## Rancho Los Amigos National Rehabilitation Center | Festival of Human Abilities

The Rancho Los Amigos National Rehabilitation Center has been a regular participant in the Festival of Human Abilities and was awarded the Glenn McIntyre Heritage Award at the festival this year. The organization provides specialized care for patients with a variety of injuries and illnesses. The Art of Rancho program, one of more than thirty associated programs available at the center, gives patients the opportunity to train with world-renowned artists in adaptive drawing, painting, and photography. Through Art of Rancho, these patients are able to discover or reignite their artistic talent during their rehabilitation. The Rancho Graduate Artists, as they are called, put on an annual art exhibition showcasing their work. Artists in this program exhibited their work in the Aquarium's Great Hall during the Festival of Human Abilities. Los Angeles County Supervisor Don Knabe accepted the award on behalf of Rancho Los Amigos.

Pictured: Kathie Nirschl, vice president of human resources, Aquarium of the Pacific, and Los Angeles County Supervisor Don Knabe.



## Abdul-Salaam Muhammad | African-American Festival

Heritage Award honoree Abdul-Salaam Muhammad has served the African-American community as a mentor, volunteer, artist, musician, and museum curator. From 1969 to 1977 he volunteered for the Pan African Peoples Arkestra and the Union of God's Musicians and Artist Ascension orchestra, performing at venues throughout Southern California promoting Jazz and African-American culture. He also served as the musical director for the Spoken Soul Writers and Performers Guild. Since 1995 he has performed for the Pan-African Graduation at Cal-Poly University, Pomona, and in other ceremonies at Los Angeles-area universities. He volunteered with S.I.M.B.A./S.I.M.S.A., a community organization serving African-American youth and for twelve years led drum therapy sessions for students at South Bay High School in Torrance. Muhammad currently serves as the curator for the Carver Museum of California and the Truth-Brary traveling exhibit. As an artist, poet, and musician, Muhammad has participated in the African-American Festival at the Aquarium since 2004.

Pictured: Abdul-Salaam Muhammad, Heritage Award honoree, and Anthony Brown, CFO, Aquarium of the Pacific.



## Wonders of the Deep Exhibit Wins Good Design Award

The *Wonders of the Deep* exhibit has won a 2013 GOOD DESIGN™ Award for design excellence. Designed by Tom Bowman of Bowman Global Change in collaboration with Ed Hackley Design and the Aquarium of the Pacific's staff, the exhibit is part of the Aquarium's Ocean Exploration initiative launched in 2013. The international award is conferred jointly by the Chicago Athenaeum Museum of Architecture and Design and The European Centre for Architecture Art Design and Urban Studies.

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## AQUARIUM CELEBRATES WORLD OCEAN DAY ON JUNE 8

**T**HE AQUARIUM will celebrate World Ocean Day with an array of activities ranging from an ocean-themed performance by the Long Beach Chorale in the evening to the Pacific Islander Festival during the day that features special presentations, films, and other educational programming highlighting our blue planet. All of this is in celebration of the largest body of water on the planet, covering 70 percent of Earth and remaining 95 percent unexplored.

The eleventh annual Pacific Islander Festival, held all day June 7 and 8, highlights the rich and diverse Hawaiian, Fijian, Marshallese, Chamoru, Tahitian, Samoan, Tokelau, Tongan, and Maori cultures of the Pacific Islands. Activities will include traditional craft demonstrations, ethnic cuisine, educational programs, storytelling, and music and dance performances. Watch hula, listen to Tahitian drumming, try out ancient Hawaiian games,

enjoy island cuisine, and admire artisans as they create traditional weavings.

The Long Beach Chorale will present its World Ocean Day Concert in the evening on June 8. Featuring fifty voices and accompanied by projected images and video, the Chorale will perform a program of ocean and marine life-themed music with the Aquarium's Honda Blue Cavern exhibit as the backdrop. Doors open at 7:00 p.m. and

the concert begins at 7:30 p.m. Tickets, which can be reserved at [aquariumofpacific.org](http://aquariumofpacific.org), are \$25 for Aquarium members, \$15 for member students and children, \$30 for non-member adults, and \$18 for non-member students and children. Attendees will have the opportunity to visit the Aquarium's exhibits and purchase food and beverages before and after the performance.



## SNOOPY LICENSE PLATE WILL BENEFIT CALIFORNIA MUSEUMS

**A** NEW CALIFORNIA LICENSE PLATE featuring Snoopy, created by Charles Schulz, is now being offered in a partnership with the California Association of Museums. The proceeds will benefit California museums, science centers, zoos, and aquariums, including the Aquarium of the Pacific.

The cost of the Snoopy license plate is \$50, or \$98 for a customized plate. The license plate will go into production once 7,500 people have completed an application and paid the fee to receive one. For more information, visit [snoopyplate.com](http://snoopyplate.com).

*Visit [snoopyplate.com](http://snoopyplate.com) for details or to place an order.*

*Experience!*

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Restoration and clean-up events reduce pollution entering the ocean downstream.

Volunteers work with native plants at the Los Cerritos Wetlands.

# HELPING TO BUILD A HEALTHY WATERSHED

**P**ART OF THE AQUARIUM'S MISSION is to inspire visitors to become stewards of both the Pacific Ocean and the land environment, because a healthy ocean depends upon healthy watersheds. A watershed is the area of land that contributes to a single drainage point. The Los Angeles and San Gabriel Rivers carry water that originates in the mountains, cities, and storm drains in the Los Angeles and San Gabriel basins. These rivers empty directly into the Pacific Ocean on the east and west sides of Long Beach. By volunteering to plant trees, clean up litter, and restore local habitats, the public can contribute to a healthier Pacific Ocean from within their local communities. Organizations in the Los Angeles and Orange County regions provide opportunities for everyone to care for coastal ecosystems.

Between Long Beach and Seal Beach, the Los Cerritos Wetlands Authority is working with volunteers to restore the wetlands located at the mouth of the San Gabriel River. Wetlands create natural filtration between rivers and the ocean, contribute to natural storm and flood control systems, and provide estuarine habitats for a variety of native plants and wildlife. The Aquarium and Los Cerritos Wetlands Authority host monthly habitat restoration efforts in the Los Cerritos Wetlands on the first Saturday of every month. Volunteers can help remove trash and non-native plants and help with other restoration activities from 10:30 a.m. to 12:30 p.m. Upcoming dates for these sessions include May 3, June 7, July 5, and August 2. Learn more about helping with wetlands restoration at [aquariumofpacific.org/events/info/los\\_cerritos\\_wetlands\\_habitat\\_restoration](http://aquariumofpacific.org/events/info/los_cerritos_wetlands_habitat_restoration).

Further inland, trees play a vital role in watershed health by filtering water, preventing erosion along waterways, and creating pathways to underground water tables. Since the early 1970s

TreePeople has given Los Angeles County residents the opportunity to plant trees, learn about tree care, and restore native habitats. TreePeople hosts workshops on citizen forestry, native gardening, and rainwater harvesting that any community member can attend. For more information, visit [treepeople.org/calendar](http://treepeople.org/calendar).

Water that is not trapped by trees or permeable landscaping in Los Angeles flows down gutters and into the Los Angeles River. Friends of the Los Angeles River (FOLAR) is working to protect and conserve the river. Their river clean-up event on May 10 helps to remove trash and debris that might otherwise enter the ocean. For information, visit [folar.org](http://folar.org).

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*Many organizations offer volunteer opportunities to help the environment and learn about local habitats.*

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Whether building the urban forest with TreePeople or picking up trash with Los Cerritos Wetlands Authority, volunteers caring for local watersheds improve the Pacific Ocean environment along the Southern California coastline by caring for local sections of the Los Angeles and San Gabriel River watersheds.

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*Michelle Molina, Aquarium trustee and event chair, cordially invites you to the*

# Blue Whale Gala

AQUARIUM OF THE PACIFIC  
SATURDAY JUNE 14, 2014 · 6:30 P.M.

The Ocean Conservation Award will be presented to:



**Jim Fowler**  
*wildlife expert and former host of Mutual of Omaha's Wild Kingdom*



**Jack Dangermond**  
*founder and president of Esri, entrepreneur and pioneer in using data to create a better future*

**\$500 per seat**

**Black-tie** – cocktail reception

**Gourmet dinner & program**  
in the Great Hall of the Pacific  
under the majestic blue whale

**After-dinner drinks & dancing**  
under the stars on the beautiful  
Harbor Terrace

**Complimentary valet parking**

Sponsorship opportunities are available. For more information, please contact **Linda Glasco** at (562) 951-1606 or [lglasco@lbaop.org](mailto:lglasco@lbaop.org).

*All proceeds support the Aquarium's education, conservation, and animal care programs.*