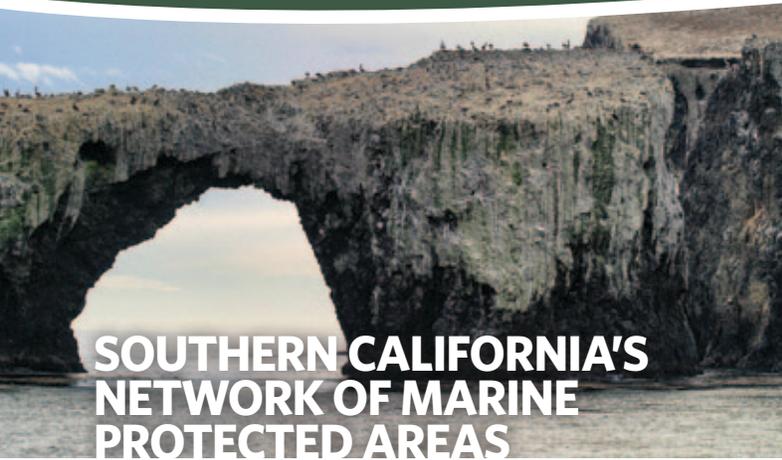


PACIFIC CURRENTS

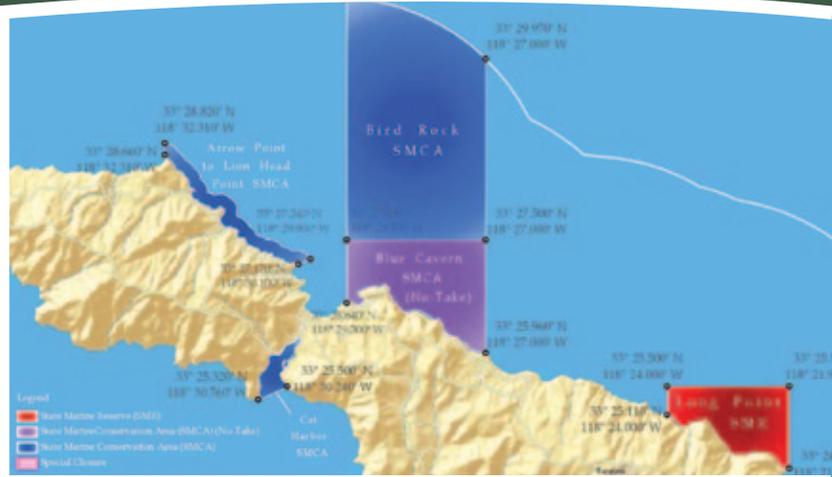
MEMBER MAGAZINE OF THE AQUARIUM OF THE PACIFIC



THE AQUARIUM'S
**FEATHERED
FRIENDS**



SOUTHERN CALIFORNIA'S NETWORK OF MARINE PROTECTED AREAS



Agencies like NOAA and California's Department of Fish and Game have created maps, guides, and other resources allowing the public to find MPAs and learn what regulations are in place.

A NETWORK OF FIFTY marine protected areas (MPAs) in Southern California went into effect on January 1, 2012. The proposed network was designed by regional stakeholders, a team of scientific advisors, and a policy guidance task force starting in 2008. It was approved by California's Fish and Game Commission in 2010. Among the goals for establishing the coastal and ocean MPAs were protection of key habitats and marine life while balancing the needs of ocean users such as fishermen, people who use the ocean for recreation, and others. MPAs are places designated by law or voter initiative to protect or conserve marine life and habitat. Different types of MPAs allow for a variety of activities, depending on the conservation goals and uses of the designated area.

MPAs became controversial, in part, because some saw the issue as pitting environmentalists against fishermen and other commercial and industrial ocean users. While environmentalists saw MPAs as a boon for their efforts to protect habitat and wildlife, fishermen, for example, were concerned about limits on where they would be able to fish and how much they could catch. Some still have questions about how people will be able to locate MPAs once they are out on the open ocean and how state authorities will be able to enforce MPA regulations. In addition, there was a misconception that all MPAs were designated as no-take areas.

The National Oceanic and Atmospheric Administration (NOAA) and other agencies have published maps, guides, and mobile apps to help people find MPAs and learn the regulations that govern them. At www.mpa.gov, the National Marine Protected Areas Center has created a mapping tool that allows users to view MPAs by region, as well as the regulations associated with each MPA and links to more information. To help people locate MPAs and learn regulations "on the go," the California Department of Fish and Game (DFG) has created a mobile site at www.dfg.ca.gov/m/MPA formatted for smart phones and other devices. Users can search MPAs by

name, county, and other variables, and an interactive, color-coded map provides information on each MPA, including GPS coordinates of the boundaries. The site can also be enabled to use your current location to find the nearest MPAs.

A hardcopy guide to Southern California's MPAs can be obtained by sending an e-mail to MLPAcomments@dfg.ca.gov. DFG has also published a report on the first five years of monitoring MPAs in the Channel Islands. The report includes preliminary results of biological and socioeconomic monitoring and can be found at www.dfg.ca.gov/marine/channel_islands/fiveyears.asp.

While the MPA approval process was at times contentious, the expectation is that the Southern California MPA network will benefit fishermen, recreational users, and the environment, alike. To track the efficacy of implementing MPAs, the MPA Monitoring Enterprise was launched in 2007. This program of the California Ocean Science Trust will lead the development and implementation of impartial, scientifically rigorous, and cost-effective MPA monitoring. This program will evaluate the performance of the MPA network, ensuring that policymakers, resource managers, and the public have impartial, timely, and useful information with which to make decisions.

In the South Coast MPA Network, a baseline monitoring program will provide a summary of ecological and socioeconomic conditions and will measure changes in the first two to three years after MPA implementation. Thus, policymakers will be able to make adjustments to MPAs based on the results of the monitoring program. MPAs that restrict take of some fish species could bolster populations to the extent that their numbers spill over into other areas, providing a better future harvest in local fisheries. Improved environmental quality will benefit those who swim, surf, and fish in the ocean recreationally, including tourists. MPAs also provide habitat for unusual and important species of marine life and protect cultural and historical artifacts for future generations of Southern Californians.

RESOURCES

Find MPAs and learn the regulations that govern them:
www.mpa.gov

Locate MPAs and learn regulations "on the go" using DFG's mobile site:
www.dfg.ca.gov/m/MPA

Read preliminary results of MPA monitoring in the Channel Islands:
www.dfg.ca.gov/marine/channel_islands/fiveyears.asp

Receive a hardcopy guide to Southern California's MPAs by e-mailing:
MLPAcomments@dfg.ca.gov



MPA Resources

To view our MPA resources, visit www.aquariumofpacific.org/ampa or capture the QR code above with your smart phone.

LETTER FROM THE CEO

DEAR MEMBERS,



EVERYONE ON THE AQUARIUM'S TEAM MEMORIZES OUR MISSION STATEMENT: to instill a sense of wonder, respect, and stewardship for the Pacific Ocean, its inhabitants, and ecosystems.

I want to also share with you the Aquarium's vision statement: *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).* When communities gather together around a common purpose like protecting the ocean, they multiply their capacity to affect change. This can take many forms, from protecting local fishing or surfing spots to developing sustainable businesses like aquaculture or renewable energy projects that can benefit the local economy.

Cultural Festivals

Part of our efforts to build social capital and celebrate the diversity of our community takes place every fall through a series of cultural festivals. Moompetam, our Native American Festival, is September 22 and 23 this year. Baja Splash, celebrating Hispanic Heritage Month and Mexican Independence Day, will be held on September 29 and 30. Southeast Asia Day, held October 6, celebrates our Cambodian, Thai, Vietnamese, and Laotian communities. The Autumn Festival will be held on November 3 and 4, highlighting the traditions and cultures of Japan, China, Korea, and the Philippines. I hope you will join us to learn more about the ways each of these cultures is connected to the ocean and to feel that sense of community that unites us.

Sharing Ideas

Our efforts to build social capital also include our Aquatic Forums, which bring together diverse perspectives to solve issues of sustainability, and our Guest Speaker Series and Aquatic Academy, which bring scientists, artists, and writers to the Aquarium to share their knowledge and ideas.

Arts and Culture

The Aquarium will be a hub of arts and culture in the fall, starting with a three-night string of performances by the Long Beach Opera in the Aquarium's Great Hall on September 7, 8, and 9. Join us later in the season on October 5, 6, and 7, when the Long Beach Ballet will debut a new production inspired by the ocean and our relationship with it.

Sea Fare

Finally, I hope you will plan to attend Sea Fare, our major annual food and fundraising event held this year on October 13. Sea Fare brings together the best and brightest of local culinary talent for a night of food, fun, and dancing. We will have live and silent auctions, the ever-popular "Go Fish" game, and live music. I hope to see you there.

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. If you have comments about this magazine, please send an e-mail to our editorial staff at PacificCurrents@LBAOP.org.

OUR MISSION | To instill a sense of wonder, respect, and stewardship for the Pacific Ocean, its inhabitants, and ecosystems.

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

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Advanced Ticket Sales...590-3100, ext. 0
(Note: \$2 service charge per ticket, up to \$10.)
Group Reservations.....951-1695

COVER: Black-Necked Stilt, *Himantopus mexicanus*
ROBIN RIGGS



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.



Aquarium Founding Sponsor

RESCUED SEA OTTER NAMED AFTER BETTY WHITE



T HIS PAST SPRING the Aquarium of the Pacific welcomed a baby sea otter pup that was found separated from her mother in Northern California.

Sea otters rescued in California are managed by the U.S. Fish and Wildlife Service, which deemed this rescued pup non-releasable to the wild as she had not yet learned the necessary survival skills. The otter was transferred to the Monterey Bay Aquarium's Sea Otter Research and Conservation program for temporary care until a permanent home was found. The Aquarium of the Pacific offered to help, and the otter arrived Friday, March 16. She was between nine and ten weeks old.

The otter pup was named Betty in honor of friend and long-time supporter Betty White. With this naming, the Aquarium recognized White for all she has done for the Aquarium and for animals everywhere, and commemorated her ninetieth birthday.

White's support was instrumental in the Aquarium's 2011 year-end fundraising campaign. With her support, the Aquarium raised more money at year-end than it had in the previous five years. The Aquarium was also fortunate to attract an anonymous donor who pledged to match the total amount donated in the campaign. With the help of both White and the anonymous donor, the Aquarium was able to double each dollar raised.



HARBOR SEAL PUP BORN AT THE AQUARIUM IS NAMED BIXBY

A FEMALE HARBOR SEAL PUP was born at the Aquarium April 26 to two of the Aquarium's harbor seals, Shelby and Troy. The pup was named Bixby by Marina Ohlson Smorick, who works in Long Beach's Health Department. City of Long Beach employees submitted nearly 400 name ideas, and the winning name was chosen by the City Council. The name honors Jotham Bixby, an early settler in Long Beach who was a sheep rancher at Rancho Los Cerritos in the late 1800s.

Most seals give birth to young starting at four to five years of age. Shelby, however, was sixteen years old, and this is her first pup.

Most seals give birth to young starting at four to five years of age. Shelby, however, was sixteen years old, and this is her first pup. Bixby weighed approximately 20 pounds at birth. After six weeks, she had doubled in weight and began transitioning to solid foods. The rapid weight gain creates a blubber layer for warmth in cold waters. Bixby will continue to grow until she reaches the size of her mother, about 200 pounds.

Aquarium husbandry staff members worked with Bixby behind the scenes to teach her basic training commands. These commands are used to help create a safe environment when humans and the animals interact and were useful when the pup was introduced into the public exhibit in August. Bixby is currently on exhibit in the Seals and Sea Lions Habitat.





GREEN SEA TURTLE RELEASED IN LONG BEACH TRAVELS 800 MILES

THIS PAST SPRING the Aquarium of the Pacific rehabilitated and released an endangered green sea turtle and equipped it with a tracking device. As an institution approved by the National Marine Fisheries Service to rehabilitate these animals, the Aquarium was selected to care for the sea turtle, which was found in the Shoreline Village marina in April. This turtle is the third to undergo rehabilitation at the Aquarium. Three months after its release, the turtle had traveled about 800 miles.

Before its release Veterinarian Dr. Lance Adams attached a temporary GPS device to track the turtle's movements. Aquarium staff members have since recorded its journey from Long Beach to Santa Barbara. At press time, the turtle was moving offshore in waters off the coast of Santa Barbara. "The sea turtle has traveled as much as fifty miles and as little as ten miles a day," Dr. Adams said. To see the turtle's latest location, visit aquariumofpacific.org/aturtletag.



Green Sea Turtle Tracking

To follow the sea turtle, visit www.aquariumofpacific.org/aturtletag or capture the QR code above with your smart phone.



The female can be distinguished from the male by its white underside.



The male has iridescent green wings, a blue tail, and a cinnamon-colored head and chest.

AQUARIUM ACQUIRES BREEDING PAIR OF GUAM MICRONESIAN KINGFISHERS

THE AQUARIUM has acquired a breeding pair of Guam Micronesian Kingfishers—a three-year-old female and a one-year-old male—through an Association of Zoos and Aquariums (AZA) program that administers a Species Survival Plan. The Aquarium of the Pacific is the first aquarium in the breeding program, which until now has been centered in zoos.

also now extinct or endangered. The snake was accidentally introduced on the island during World War II. Without many other predators competing for prey, the snake thrived. In the 1980s the United States Fish and Wildlife Service captured the twenty-nine birds remaining on the island to begin the captive breeding program.

The Micronesian Kingfisher is a small forest bird that feeds on mice, insects,

Up until the 1980s this subspecies was found only in Guam, but was wiped out by the brown tree snake and loss of habitat to development.

The birds are on exhibit near the entrance to the Lorikeet Forest aviary. Portions of the exhibit will occasionally be covered and signs posted requesting quiet near the exhibit to allow the birds to acclimate to their new environment, especially during the breeding season when the birds are particularly sensitive.

The birds are one of three subspecies of Micronesian Kingfishers. Up until the 1980s this subspecies was found only in Guam, but was wiped out by the brown tree snake and loss of habitat to development. Eleven other bird species formerly found on the island are

crabs, and lizards—primarily anoles. In zoos and aquariums, the birds have a lifespan of about fifteen years. Males and females form a strong pair bond. During the breeding season the birds use their strong beaks to excavate a nesting hole in a palm log.

The AZA breeding program began with the twenty-nine captured kingfishers. As a result of the breeding program, the number of Guam Micronesian Kingfishers has grown to 134 birds. Researchers are currently assessing other islands near Guam, without brown tree snakes, where this subspecies can be safely introduced into the wild.

PENGUINS VISIT THE CITY COUNCIL

TWO OF THE AQUARIUM'S Magellanic Penguins attended a Long Beach City Council meeting in May in celebration of the opening of the June Keyes Penguin Habitat. Vice President of Husbandry Perry Hampton and Mammalogist Jeffrey Gacad accompanied the penguins and welcomed Long Beach's leaders to visit the new exhibit.



Pictured: Council members Dee Andrews, Patrick O'Donnell, Gerrie Schipske, Mayor Bob Foster, James Johnson, Aquarium President & CEO Jerry Schubel, Steven Neal, Perry Hampton, Suja Lowenthal, Gary DeLong, Jeffrey Gacad, and Rae Gabelich.



TUFTED PUFFIN *Fratercula cirrhata*



BLACK-NECKED STILT *Himantopus mexicanus*



SNOWY PLOVER *Charadrius alexandrinus nivosus*



SULFUR-CRESTED COCKATOO *Cacatua galerita*

THE AQUARIUM'S Feathered Friends

The Aquarium of the Pacific has a robust bird collection, from the brightly beaked puffins and other diving birds to the delicate shorebirds and colorful lorikeets. Program birds like Lola the Sulphur-Crested Cockatoo put on daily shows and demonstrate behaviors.



RUDDY DUCK (female) *Oxyura amaicensis jamaicensis*

ALL PHOTOS: ROBIN RIGGS



ANDREW REISMA

THE MAGELLANIC PENGUINS made quite a splash here at the Aquarium when the June Keyes Penguin Habitat opened in May. But did you know that nearly 200 birds that aren't penguins also live at the Aquarium? Birds are likely not the first creatures to come to mind when you think of the ocean and the Aquarium. So why does the Aquarium keep birds, and how do they connect to ocean science?

Penguins have a clear connection to the ocean. In the wild, they spend most of their time out at sea hunting for food, as do the other seabird species at the Aquarium—the auklets, puffins, and Pigeon Guillemots on exhibit in the Northern Pacific Gallery. Guests visiting the Diving Bird exhibit can easily picture these birds in their native environments on coastal cliffs. It's also easy to understand why the Aquarium keeps shorebirds on exhibit, as they live in an aquatic environment. But did you know about the important role these birds play in their habitats? The inhabitants of Lorikeet Forest don't live in the water, but they also tell an ocean story. Read on to learn more about the variety of birds in the Aquarium's collection and how they help educate visitors.

Gigi the stilt also has an interesting personality, Anderson says. Gigi is the self-appointed boss of the exhibit, and she curiously investigates anything new. Anderson also encourages visitors to keep an eye out for the Buffleheads and Ruddy Ducks to see when their plumage and beak colors change dramatically during the spring breeding season.

Unlike the Aquarium's lorikeets and diving birds, which were bred in zoos and aquariums, the shorebirds on exhibit were rescued from the wild and rehabilitated but are still considered non-releasable. Their exhibit includes both a freshwater pond and a saltwater pool. Native California coastal plants help to create a naturalistic environment in the exhibit, which was renovated during the construction of the June Keyes Penguin Habitat.

WHAT DO YOU CALL A BIRD BIOLOGIST?

The members of the Aquarium's staff that care for our fish and invertebrates are called aquarists. Those who care for our marine mammals are called mammalogists, and those who care for our birds are called **aviculturists**.

Shorebirds

The Shorebird Sanctuary exhibit, adjacent to the June Keyes Penguin Habitat outdoors on the Aquarium's second floor, features several species of migratory and non-migratory shorebirds and ducks. Species on view include Black-Bellied Plovers, Black-Necked Stilts, Buffleheads, Ruddy Ducks, a Snowy Plover, Sanderling, American Avocet, and a Snowy Egret named Merlin. About a dozen birds are on display at any given time.

The breeding season can be a tumultuous time as this is when some birds become more territorial or aggressive and are temporarily moved to their "vacation homes" behind the scenes. Abe the American Avocet is an example of such a bird, Aquarium Aviculturist Karen Anderson says. While Abe is off exhibit, aviculturists place a mirror in his enclosure to keep him company. He believes the bird he sees in the reflection is actually his mate and goes so far as to build a nest. This keeps him calm and comfortable for the duration of the breeding season.



ROBIN RIGGS

SNOWY EGRET *Egretta thula*

Diving Birds

The Diving Birds habitat in the Aquarium's Northern Pacific Gallery features Horned Puffins, Tufted Puffins, Pigeon Guillemots, and Crested Auklets. This exhibit is outfitted with a specialized air filtration system that eliminates pathogens and keeps the air at around 50 degrees Fahrenheit. The low temperature and filtered air are important for the health of the diving birds. The system works so well that the exhibit's residents rarely experience illness, Anderson says. In addition, the lights in the exhibit are operated by a computer program that matches light conditions to that of their natural environments in the far north. There, the summer days are long and the winter days are very short. During winter the habitat begins to dim at about 4:00 p.m.

The diving birds are sometimes competitive with each other for food, mates, and nests. One of the puffins, named Mr. Green, is kept under careful watch as breeding season approaches so aviculturists can remove him from the exhibit. Puffins have strong beaks and can do significant damage to each other if any scuffles erupt. Fortunately, Mr. Green has imprinted on humans and is very comfortable with his caretakers.

The puffins form monogamous pairs, and some—like Horned Puffins Sasha and Brownie and Tufted Puffins Speedy and Val—have been together since the Aquarium's founding fourteen years ago. While the puffin pairs stick together for long stretches, the Pigeon Guillemots tend to swap mates more frequently, Anderson says.

The Crested Auklet is the only bird known to produce a scent for the breeding season that smells like tangerines. It is unknown, however, how exactly the birds produce this scent. During the breeding season, the auklets nuzzle and sniff each other's neck feathers during mating displays.



CRESTED AUKLET *Aethia cristatella*

ROBIN RIGGS



PERFECT LORIKEET *Trichoglossus euteilus*

Lorikeets

Lorikeets are island birds, residing in coastal forest areas of Australia and the islands of the South Pacific. They often live in close proximity to the ocean, sometimes flying from island to island. Lorikeets can travel many miles from their communal roost each day to their feeding grounds, which are typically found within a twenty-mile radius.

Island birds and animals are often found nowhere else on the planet. Since islands were historically isolated, their inhabitants evolved with very few adaptations for defense against predators. Because of this delicate balance, island animals are easily affected by outside environmental threats and introduced species. As island birds, lorikeets face fewer predators than they would in a biologically diverse mainland, resulting in divergence of subspecies. There are fifty-three species of lorikeets and about thirty-two subspecies of the Rainbow Lorikeet, four of which are represented in the Aquarium's Lorikeet Forest—the Edward's Lorikeet, Swainson's Lorikeet, Forsten's Lorikeet, and Green Nape Lorikeet, as well as two close relatives of Rainbow Lorikeets, the Black-Capped Lory and the Violet-Necked Lory. While lorikeets have long, tapered tails, lories have short, blunt tails. In total, Lorikeet Forest is home to more than one hundred birds.

None of the Aquarium of the Pacific's lorikeets and lories were collected in the wild. The exhibit's original birds were all obtained from breeders in the United States and Canada.

Subsequently, the Aquarium has established a successful onsite breeding program that hatches between ten and thirty lorikeets per year. While many go on to live in Lorikeet Forest, some are sent to other zoo and aquarium institutions.

Lorikeets spend approximately 70 percent of their time feeding. Their tongues have specialized papillae that increase the surface area of the tongue in order to collect pollen and nectar more efficiently. They also have an underdeveloped gizzard (the organ birds have to help them digest dense or hard foods) because of their soft diet. In an effort to help the birds stay healthy, the Aquarium's aviculturists recently switched the lorikeets' nectar to a low-sugar product that is imported from Australia, according to lorikeet caretaker Cara Templeton. She also reports that the lorikeets particularly enjoy bath time, when aviculturists provide showers for the birds in the exhibit.

All the birds in Lorikeet Forest have names, and the Aquarium's aviculturists that work with the lorikeets five days a week can tell most of them apart. When the Aquarium first opened, the lorikeets received names before they were sexed, so there were some female birds with male names and vice versa. Today the gender of each bird is determined via DNA testing and names are selected after the fact.

Program Birds

This leads us to the Aquarium's Sulphur-Crested Cockatoo, a male named Lola who was named before his gender was determined. Lola is just one of several birds that live behind the scenes in the Aquarium's barn and are brought out regularly to interact with guests. Other program birds include Orion the American Kestrel, Tuc the Harris Hawk, Dexter the Barn Owl, and Kyle and Evelynn, two lorikeets that were born blind and live behind the scenes for their safety. Another program bird, Kevin the Collared Aracari, is on display near the hand-washing station between Lorikeet Forest and Shark Lagoon. Aquarium visitors can see the rotating cast of program birds Lola, Tuc, Orion, Kyle, and Evelynn during daily shows held at the Molina Animal Care Center.

Lola's intelligence is representative of the parrot family of birds. He has been trained in a variety of behaviors that are not only entertaining for Aquarium visitors, but also have a purpose, says Aquarium Aviculturist Caitlin Dixon. This training provides mental stimulation for Lola and helps staff members assess his physical health. For example, he is trained to open his mouth on command so trainers can look inside. If he is unwilling to perform that behavior, it notifies trainers that something may be wrong and they need to take a closer

look. He is also trained to spread his wings and present his feet one at a time. Dixon says Lola is also learning to differentiate between colors and count to three.

The rest of the program birds are trained to step onto a scale with a perch, allowing aviculturists to monitor their weight and subsequently plan their feeding and training. The birds of prey Orion and Tuc are trained to step onto a trainer's glove and sit comfortably while the trainer is walking around or giving a presentation. Dexter the Barn Owl is currently being trained to perform free-flight demonstrations, flying from glove to glove or over visitors' heads without a leash. Dixon says there is a good chance visitors can watch this training almost every day during shows at the Molina Animal Care Center. Aviculturists also hope to start a similar training plan soon with Orion and Tuc.



Lola the Sulphur-Crested Cockatoo is learning to differentiate between colors and count to three.

Why Birds?

The birds at the Aquarium help communicate that all animals have a connection to the ocean. Whether they live on islands, in wetlands, at sea, or inland, birds play an important role in their ecosystems.

Dividing birds, like puffins and auklets, are intimately connected to the sea. Like penguins and other seabirds, they spend most of the year miles out to sea and only come ashore briefly during the breeding season, never venturing inland. In fact, when these birds are out at sea, scientists know very little about exactly where they go and when, but postulate that the birds follow favorable conditions and the food supply. Seabirds rely heavily on a healthy ocean to support their populations.

On shore, seabirds and shorebirds are integral to ecosystem health. For example, their guano (or droppings) feeds algae, the algae feed larger organisms like small fish and crustaceans, and so on up the food chain. Supporting the marine food web in this way is what makes bird populations important for coastal fisheries. Fish species that are harvested for human use thrive, in part, because of birds.

Shorebirds also nourish and balance wetlands and coastal plant communities, keeping

populations of marine invertebrate animals in check, fertilizing soil, and aerating the soil with their beaks as they hunt for food.

The Aquarium's lorikeets tell several stories about ecosystem health that tie to the ocean or that simply help the Aquarium's visitors learn ecological concepts. For example, some lorikeet habitats are under threat by human encroachment and development. These activities result in the loss of forests, where lorikeets roost and feed on the trees' fruit, seeds, and flowers. Human activities also do damage to nearby ocean ecosystems, affecting marine life. Thus, the lorikeets help show how the land and ocean are connected and how both are affected by human activity.

The lorikeets also play a key role at the Aquarium as animal ambassadors. Our visitors can feed and interact with these beautiful birds, allowing them to land on visitors' hands and arms (and even heads and shoulders!). For many people, a visit to Lorikeet Forest to watch these personable birds play together and swoop from branch to branch can be the highlight of their day. The same can be said of the program birds, which provide a captivating, up-close wildlife experience for Aquarium visitors.

All of the Aquarium's birds help make for engaging exhibits. Visitors can observe the delicate stilts, with their legs that seem to bend backward as they walk, or the personable puffins, with their large, colorful beaks. These feathered friends help make the Aquarium experience memorable and help create more opportunities for learning about the ocean and our environment as a whole.



Dexter the Barn Owl demonstrates free flight in daily shows.

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!



NOVEMBER 11: SPARK OF LOVE MEMBER LATE NIGHT

MEMBER EVENTS

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

M MEMBER DISCOVERY LATE NIGHT & SPARK OF LOVE TOY DRIVE

SUNDAY, NOVEMBER 11 | 6:30 p.m.-9:30 p.m.

Join us for Member Discovery Late Night as the Aquarium collects toys for the Long Beach Fire Department's Spark of Love Toy Drive benefiting Long Beach families and children in need this holiday season. Each person who brings in a new and unwrapped toy valued at \$15 or more will receive a complimentary admission ticket to be used on a future visit. This exclusive, members-only event is a great way to avoid the daytime crowds and discover the many wonders of the Aquarium. Please visit the Aquarium website for more information coming soon.

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

RSVP | (562) 437-FISH (3474) by November 8

MEMBER EVENTS

M SENIOR MEMBER AFTERNOON

WEDNESDAY, JANUARY 30 | 2:00 p.m.-3:00 p.m. & 3:30 p.m.-4:30 p.m.

Mark your calendars for the next installment of Senior Member Afternoon, back by popular demand. Join us in the SAVOR... Watershed Classroom for an afternoon of cooking demonstrations featuring organic products. A local chef will discuss what "organic" actually means, how to cook with the best organic products, and the numerous benefits of cooking organically. Look for your postcard invitation in December or online for more information.

COST | Free for senior members. Reservations are required as space is limited.

RSVP | (562) 437-FISH (3474) by January 27

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.

SE LONG BEACH BALLET PRESENTS GUARDIANS

FRIDAY-SUNDAY, OCT. 5, 6 & 7 | 8:00 p.m.-9:00 p.m.

Join the Long Beach Ballet as it presents a production inspired by the ocean and the Aquarium. *Guardians* will capture the changing relationship between humans and the ocean, particularly along the Southern California coast where the urban ocean hosts uses by both animals and humans. Doors open at 7:00 p.m. for general Aquarium viewing and access to seating.

COST | Section 1: \$70/non-member, \$65/member
Section 2: \$60/non-member, \$55/member
Section 3: \$40/non-member, \$35/member
Section 4: \$30/non-member, \$25/member

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

SE AQUARIUM KIDS FUN RUN

SATURDAY, OCTOBER 6 | 9:00 a.m.-2:00 p.m.

Kids age six to twelve can run in this free race and receive a commemorative marine animal medal, certificate, and free Aquarium admission (applicable to child runners only, must be accompanied by a paying adult inside the Aquarium). Please note that this event sells out quickly.

COST | Free

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

SE SEA FARE

SATURDAY, OCTOBER 13 | 7:00 p.m.-11:00 p.m.

Save the date for the ninth annual Sea Fare event, which raises funds for the Aquarium's education, conservation, and animal care programs. Local restaurant chefs and beverage providers serve samples of sustainable seafood, desserts, drinks, and more. See back cover for more information.

COST | \$100 per person

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

SPECIAL EVENTS

SE SHARK LAGOON NIGHTS

FRIDAYS, OCT. 5, 12, & 19; NOV. 2, 9, 16, 23, & 30; DEC. 7, 14, 21, & 28 | 6:00 p.m.–9:00 p.m.

Shark Lagoon is open for everyone for free after 6:00 p.m. Guests can touch and learn about sharks, shop at Shark Shack, and enjoy live music on select nights.

COST | Free for everyone
INFO | (562) 590-3100, ext. 0

SE PHOTOGRAPHY NIGHT

SUNDAY, OCTOBER 21 | 5:30 p.m.–10:00 p.m.

Now is your chance to take the photos you have always wanted. Back by popular demand, this night makes the Aquarium available exclusively to photographers. The event also features workshops and booths by photography companies.

COST | \$24.95/non-member, \$18.95/member
INFO | (562) 590-3100, ext. 0

SE NIGHT DIVE

FRIDAY, NOVEMBER 2 | 7:00 p.m.–11:00 p.m.

Celebrate *Día de Los Muertos* at the Aquarium and learn how death perpetuates life in the ocean. This 18+ event is a night filled with music and art. Enjoy a cocktail and mingle among fishes and friends.

COST | \$14.95
INFO | (562) 590-3100, ext. 0

SE VETERANS DAY

SUNDAY, NOVEMBER 11 | 9:00 a.m.–6:00 p.m.

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

COST | FREE admission with valid service ID.
INFO | (562) 590-3100, ext. 0

SE NOAA AND OUR PLANET DAY

SATURDAY, NOVEMBER 17 | 9:00 a.m.–5:00 p.m.

Find out what the National Oceanic and Atmospheric Administration (NOAA) does for you, our nation, and our world at this annual event.

COST | Festival activities are FREE with general admission. FREE for members. Members' guests receive 20% off admission
INFO | (562) 590-3100, ext. 0

SPECIAL EVENTS

SE THANKSGIVING LUNCH

THURSDAY, NOVEMBER 22 | 11:00 a.m.–5:00 p.m.

Take the stress out of Thanksgiving, and treat yourself and your family to a day at the Aquarium of the Pacific. Come gobble gobble with the sea otters and the entire Aquarium family. Delight your family with over 11,000 animals from the world's largest ocean, and savor a traditional Thanksgiving buffet in the Aquarium's Café Scuba.

COST | \$25/member adult, \$17/member child; \$35/non-member adult (12+), \$27/non-member child

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.

SE BAJA SPLASH CULTURAL FESTIVAL

SAT. & SUN., SEP. 29–30 | 9:00 a.m.–5:00 p.m.

In celebration of National Hispanic Heritage Month and Mexican Independence Day, the Aquarium of the Pacific will host its eleventh annual Baja Splash Cultural Festival featuring live entertainment, crafts, educational programs, ethnic cuisine, art, and cultural displays. Guests can also learn more about the animals of Baja, Mexico and how to help protect them.

COST | Free for members. Members' guests receive 20% off admission.



INFO | (562) 437-FISH (3474)

SE SOUTHEAST ASIA DAY

SATURDAY, OCTOBER 6 | 9:00 a.m.–5:00 p.m.

The Aquarium of the Pacific will celebrate its eighth annual Southeast Asia Day. The festival's program will highlight the beauty and diversity of the cultures of Cambodia, Thailand, Vietnam, Myanmar, Laos, and Indonesia. Guests will enjoy live performances, including music, dance, and cultural craft demonstrations. Ethnic dishes will be available for purchase, and children will have the opportunity to partake in arts and crafts.

COST | FREE for members. Members' guests receive 20% off admission

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



FESTIVALS

SE SCARIUM OF THE PACIFIC

SAT. & SUN., OCT. 20–21 | 9:00 a.m.–5:00 p.m.

Discover the creatures lurking in the depths of the Pacific at the Scarium of the Pacific—a spooktacular educational Halloween event for the whole family. Enjoy facepainting, crafts, a magic show, and a costume contest.

COST | FREE for members. Members' guests receive 20% off admission
INFO | (562) 590-3100, ext. 0

SE AUTUMN FESTIVAL

SAT. & SUN., NOVEMBER 3–4 | 9:00 a.m.–5:00 p.m.

Delve into the arts, cuisines, cultures, and marine environments of China, Japan, Korea, and the Philippines during the Aquarium of the Pacific's eleventh annual Autumn Festival.

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

SE HOLIDAY TREATS FOR THE ANIMALS FESTIVAL

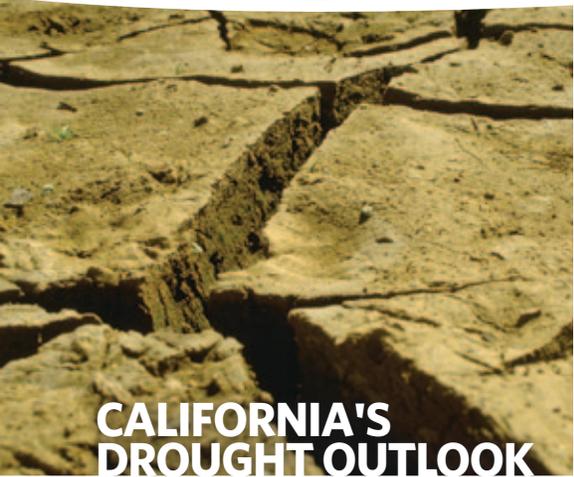
SAT. & SUN., DECEMBER 1–2 | 9:00 a.m.–5:00 p.m.

In celebration of the holiday season, Santa diver will be delivering an ocean of gifts to the Aquarium of the Pacific's sea otters, seals, sea lions, birds, fish, and other animals. Also enjoy crafts and holiday music.

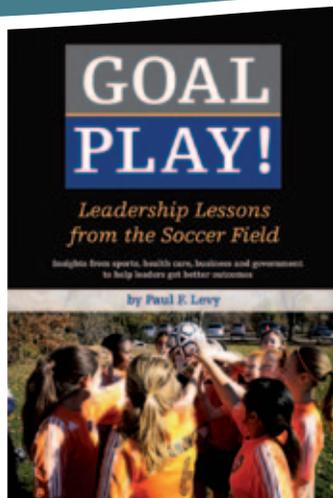
COST | Free for members; members' guests receive 20% off regular admission
INFO | (562) 437-FISH (3474)

THE AQUARIUM WILL BE CLOSED ON CHRISTMAS DAY

TUESDAY, DECEMBER 25



CALIFORNIA'S DROUGHT OUTLOOK



OCEAN ARMOR

GUEST SPEAKERS

The Aquarium hosts guest lectures on a variety of topics from experts across the country.

ARTISTS PANEL | *Ocean Armor* TUESDAY, SEPTEMBER 11 | 7:00 p.m.

While marine animals have many natural defenses for evading predators, these defenses are powerless against man-made threats of pollution, ocean warming, and over-industrialization. The Surfrider Foundation worked with artists to create a collection of life-sized ocean armor sculptures meant to inspire viewers to preserve the ocean and the creatures that call it home. The *Ocean Armor* exhibit will open to the public on September 15 and will remain at the Aquarium until November 15. In this lecture, hear from some of the participating artists and Surfrider representatives, and learn more about the artworks on exhibit and the issues facing ocean wildlife.

DR. MADDALENA BEARZI | *Dolphin Confidential: Confessions of a Field Biologist* WEDNESDAY, SEPTEMBER 12 | 7:00 p.m.

Author and marine biologist Dr. Maddalena Bearzi will share stories from her new book *Dolphin Confidential: Confessions of a Field Biologist*. Dr. Bearzi will offer a firsthand look at her studies of the metropolitan bottlenose dolphins of California, as well as dolphin social behavior and intelligence. In her book, Dr. Bearzi recounts some of her experiences at sea and her transformation into an advocate for conservation and dolphin protection.

GUEST SPEAKERS

KRISTY FORSGREN | *Salmon Reproduction and the Effects of a Commonly Used Pesticide* WEDNESDAY, SEPTEMBER 19 | 7:00 p.m.

Kristy Forsgren has studied the reproduction of Central Valley steelhead salmon that migrate through the San Francisco Bay Estuary and Sacramento-San Joaquin Valley. In her lecture, she will discuss the effects of compounds like pesticides introduced by humans into the aquatic environment and potential risks to wildlife. Forsgren is an assistant professor in the department of biological science at California State University, Fullerton. Previously she was a staff biologist at the Aquarium of the Pacific, where she played a role in the first successful breeding and rearing of weedy seadragons at an aquarium.

ALEX HALL | *Mid-Century Climate Change in the Los Angeles Region* WEDNESDAY, SEPTEMBER 26 | 7:00 p.m.

Through the development of climate models, research indicates that by the mid-twenty-first century the Los Angeles region on average is likely to warm by 4.6 degrees Fahrenheit. Heat extremes are likely to increase significantly; therefore, adaptation to a change in climate over the next few decades is likely to be inevitable in the Los Angeles region, according to Dr. Alex Hall. In his lecture, Dr. Hall will discuss future changes in precipitation, surface hydrology, Santa Ana winds, and coastal fog. Dr. Hall is a professor at University of California, Los Angeles and the faculty director of the UCLA Center for Climate Change Solutions. He was a contributing author to the 2007 IPCC fourth scientific assessment of climate change Working Group I report and a lead author for Chapter 14 of the Working Group I component of the upcoming IPCC fifth assessment, *Climate Phenomena and their Relevance for Future Regional Climate Change*.

GUEST SPEAKERS

DEAN WENDT | *Managing California's Ocean Resources: A Case Study Involving Scientists, Managers, and Fishermen* THURSDAY, SEPTEMBER 27 | 7:00 p.m.

California recently completed the designation of a new network of marine protected areas (MPAs) along its 800-mile coastline. For the past five years Dean Wendt has been working closely with scientists, managers, and fishermen to develop and implement monitoring protocols to understand the impact of California's MPAs on nearshore species of fish. In this lecture, Wendt will discuss the benefits of collaboration and having fishermen participate in scientific research. Wendt is a professor and acting director at the Center for Coastal Marine Sciences at California Polytechnic State University, San Luis Obispo.

DONALD PROTHERO | *Catastrophes: Earthquakes, Tsunamis, Tornadoes, and Other Earth-Shattering Disasters* TUESDAY, OCTOBER 2 | 7:00 p.m.

Huge natural disasters—from earthquakes, tsunamis, and volcanic eruptions to floods, tornadoes, hurricanes, and blizzards—have had a profound effect on human history and civilization, often in surprising ways. According to Donald Prothero, humans have an unrealistic and irrational reaction to these natural disasters and fear the ones that are least deadly while taking for granted those that are the most likely killers. Prothero is senior paleontologist at ArchaeoPaleo Environmental Management, Inc. This lecture will be broadcast live on the Aquarium's website. The website stream is donated by CamZone.





OCEAN SOUL

GUEST SPEAKERS

65 LISA CRON | *Wired for Story*
TUESDAY, DECEMBER 4 | 7:00 p.m.

In *Wired for Story*, author Lisa Cron reveals the cognitive secrets and neuroscience behind what the brain craves from storytelling. She argues that writers who want to tell engaging stories must ignite the brain's hardwired desire to learn what happens next. When writers tap into the evolutionary purpose of story and electrify our curiosity, it triggers a dopamine rush that tells us to pay attention. She will be signing copies of *Wired for Story* after the lecture. Cron spent a decade in publishing before working as a producer, story consultant, and literary agent. Currently she is an instructor in the University of California, Los Angeles Extension Writers' Program.

65 BRIAN SKERRY | *Ocean Soul*
TUESDAY, DECEMBER 11 | 7:00 p.m.

Nature photographer Brian Skerry has traveled the globe for thirty years documenting the planet's wildlife. An exhibition of his works collected in his book *Ocean Soul*, published by National Geographic Books, will be on exhibit at the Aquarium from December 1 through March 1. In his lecture, Skerry will share his underwater ocean photography and discuss the need for ocean conservation.

65 DR. WILLIAM COOPER | *Yellow-Eyed Penguins of New Zealand*
TUESDAY, JANUARY 8, 2013 | 7:00 p.m.

Learn about endangered Yellow-Eyed Penguins native to New Zealand and nearby islands. This species of penguin is on the International Union for Conservation of Nature's Red List of Threatened Species. Speaker Dr. William Cooper is a professor of civil and environmental engineering and director of the Urban Water Research Center at the University of California, Irvine. He also serves as a consultant to the International Atomic Energy Agency.

GUEST SPEAKERS

65 RICHARD JAMES | *Amazing Butterflies: Nature's Gift to Us*
TUESDAY, OCTOBER 9 | 7:00 p.m.

How do butterflies know which plants to lay their eggs on? How do butterflies avoid predators? How is a butterfly's vision different from that of a human? Learn about monarch and other butterfly species from Richard L. James, a naturalist at Long Beach's El Dorado Nature Center. James has been involved with native plant restoration efforts at the Nature Center since 2004 and conducts an annual butterfly count for the North American Butterfly Association and monthly counts for the Irvine Ranch Conservancy in Limestone Canyon.

65 DAN CAYAN | *Sea Level Rise Predictions for Southern California*
WEDNESDAY, OCTOBER 17 | 7:00 p.m.

If greenhouse gas emissions continue at their current pace, sea level along the West Coast of the United States could rise by up to four or five feet by 2100. This is among the findings presented in a recent report from the National Research Council. In this lecture, climate researcher Dan Cayan will discuss the report findings with an emphasis on impacts in Southern California. Cayan is a research meteorologist with the Scripps Institution of Oceanography at the University of California, San Diego, and a researcher with the U.S. Geological Survey. He heads the California Nevada Applications Program and the California Climate Change Center.

GUEST SPEAKERS

65 PAUL LEVY | *Goal Play!*
MONDAY, OCTOBER 29 | 7:00 p.m.

Paul Levy is the author of *Goal Play!*, offering leadership insights from his background in sports, health care, business, and government. Levy draws on experiences ranging from coaching girls' soccer to serving as president and CEO of the Beth Israel Deaconess Medical Center in Boston. The book covers ways to be a more effective mentor, coach, and leader. Previously Levy was the executive dean for administration at Harvard Medical School. Prior to that he was adjunct professor of environmental policy at MIT, where he taught infrastructure planning and development and environmental policy for seven years. He coaches and referees youth soccer and also plays on an adult team.



65 JEANINE JONES | *California's Drought Outlook*
WEDNESDAY, NOVEMBER 7 | 7:00 p.m.

Water year 2012 was dry. What will 2013 bring? Drought has been a recurring feature of California's water landscape and is a likely long-term outcome of future climate change. In her lecture, Jeanine Jones will cover how the state has coped with drought in the past and what challenges the future may bring. Present capabilities for drought prediction will also be covered. Jones is the interstate resources manager for the California Department of Water Management.

COST | Free for members, teachers, seniors 62+, and students with valid ID and advanced reservations. \$5/non-members.
INFO | (562) 437-FISH (3474)

Guest speaker sponsor:



AQUARIUM TOURS

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

AT BEHIND-THE-SCENES TOURS

DAILY | *times vary*

Guests will go above our largest exhibit to feed the fishes, get a glimpse of areas behind Shark Lagoon, and see our Molina Animal Care Center.

COST | \$14.50/member | \$18/non-member
does not include Aquarium admission

AGES | 7+ years

LENGTH | one hour

GROUP SIZE | maximum 10 participants

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

AT ANIMAL ENCOUNTERS

THURS.-FRI. & SAT.-SUN. | *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!

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 | \$80/member | \$90/non-member
includes Aquarium admission

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

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

RSVP | (562) 951-1630

AQUARIUM TOURS

AT HARBOR TOUR

DAILY | *times vary*

Tour the Long Beach/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: \$35.95/adult, \$30.95/senior, \$18.95/child
includes Aquarium admission

RSVP | (562) 951-1630

AT DIVE IMMERSION

BASED ON AVAILABILITY | 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, dive in our 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.

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

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

RSVP | (562) 590-3100



ROBIN RIEGGS

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, cereal breakfast, and T-shirt.

SL 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, a behind-the-scenes tour, and crafts. Please bring your own birthday cake.

COST | \$60/member | \$70/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

SL ADULT SLEEPOVER

BASED ON AVAILABILITY | 6:00 p.m.-9:00 a.m.

Enjoy the tranquility and serenity of the Aquarium at night. Unwind with yoga and meditation before meeting an animal, hearing an informal lecture by a marine educator, taking guided tours, seeing special presentations, and sleeping next to one of our large exhibits. Included are a gourmet pizza dinner with wine, beer, or soda, and a continental breakfast.

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

AGES | 18+ years

GROUP SIZE | 20-60 participants

RSVP | (562) 951-1630



ROBIN RIEGGS

ANIMAL ENCOUNTERS



OCTOBER 26: HALLOWEEN FAMILY SLEEPOVER

DOLPHIN AND SEA LIFE CRUISE

AQUARIUM SLEEPOVERS

SL 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 | \$50/member | \$60/non-member

AGES | 5+ years, plus adult chaperone

GROUP SIZE | 20-60 participants

RSVP | (562) 951-1630

SL HALLOWEEN FAMILY SLEEPOVER

FRIDAY, OCTOBER 26 | 5:00 p.m.-7:00 a.m.

Have a "spooktacular" evening at the Aquarium with creepy crawly critters, pumpkin painting, and a freaky flashlight tour. Included in your sleepover will be a pizza dinner, light snack, animal interactions, cereal breakfast, and more. Family friendly costumes welcome. Space is limited so sign up today.

COST | \$50/member | \$60/non-member

AGES | 5+ years, plus adult chaperone

RSVP | (562) 951-1630

SL NEW YEAR'S EVE FAMILY SLEEPOVER

MONDAY, DECEMBER 31 | 5:00 p.m.-7:00 a.m.

Ring in 2013 and party with the fishes! You will start a new tradition when you bring your family to the Aquarium for a very memorable New Year's experience. Included in this program are a pizza dinner, snack, cereal breakfast, and T-shirt. We will also have a sparkling cider toast to celebrate the New Year.

COST/PERSON | \$60/member, \$70/non-member

AGES | 5+ years

RSVP | (562) 951-1630

SPECIAL PROGRAMS

SP 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

SP 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 one of these offsite experiences in the great outdoors.

OA DOLPHIN AND SEA LIFE CRUISE

SPRING AND FALL SEASONS

The Pacific Ocean is home to many wondrous animals year 'round. Join us as we search for dolphins, seals, sea lions, and marine birds 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 (62+), \$15/child (3-11) | Non-members (includes Aquarium admission): \$44.95/adult, \$40.95/senior, \$29.95/child

LENGTH | 2-2.5 hours

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

RSVP | (562) 951-1630

OA GRAY WHALE WATCHING TRIPS

DAILY, FALL/WINTER SEASON

Take a voyage with Harbor Breeze Cruises in search of whales as they migrate along our coastline. Learn about these gentle giants from an onboard Aquarium educator.

COST | Members: \$25/adult, \$20/senior, \$15/child | Non-members (includes Aquarium admission): \$44.95/adult, \$40.95/senior (ages 62+), \$29.95/child (ages 3-11)

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

LENGTH | 2-2.5 hours

RSVP | (562) 951-1630



DECEMBER 26-28: SEA SQUIRT WINTER CAMP



WINTER PROGRAMS

WP SEA SQUIRT WINTER CAMP

WED.-FRI., DEC. 26-28 | 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 fluffy birds. This camp encourages little ones to interact and explore independently from parents. Through hands-on activities, stories, crafts, and tours, your child will prove that little learners can learn big things.

AGES | 5-6 (children only)

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

RSVP | (562) 951-1630

WP WINTER DAY CAMP

WED.-FRI., JAN. 2-4 | 8:00 a.m.-12:00 noon

Join us as we explore the Pacific Ocean and its inhabitants during our three-day winter day camp adventure. Campers will learn about marine life through hands-on activities, games, and crafts. Participants will even get the chance to go behind the scenes at the Aquarium, meet our animal husbandry staff, and help us take care of some of the animals that make their home here at the Aquarium.

AGES | Grades 2-4 (children only, must be at least 7 to participate)

COST | \$125/member; \$150/non-member

RSVP | (562) 951-1630

YOUTH PROGRAMS

YP 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.

TOPIC | Northern Pacific..... November 10
Tropical Pacific December 1

COST | \$19/member | \$24/non-member
does not include Aquarium admission.

AGES | 7-12

RSVP | (562) 951-1630

YP JOB SHADOW

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.

TOPIC | Aquarist November 3
Mammalogist..... December 8

COST | \$24/member | \$29/non-member
does not include Aquarium admission

AGES | Grades 7-12

RSVP | (562) 951-1630

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.

FP TOTALLY TURTLES

SATURDAY, OCTOBER 27 | 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.

FP SHARK SLEUTHS

SATURDAY, NOVEMBER 24 | 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!

FP MAGNIFICENT MARINE MAMMALS

SATURDAY, DECEMBER 22 | 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.

FP SEA JELLIES AND OTHER INCREDIBLE INVERTEBRATES

SAT., SEPT. 22 | 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.

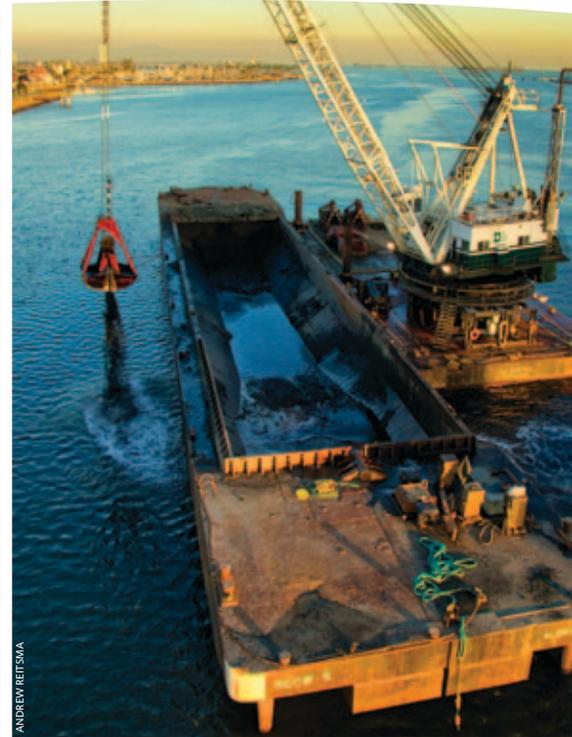
COST | ADULT-CHILD PAIR: \$24/member
\$36/non-member
EXTRA PERSON: \$10/person
(includes Aquarium admission)

AGES | 4-6 years, plus adult chaperone

RSVP | (562) 951-1630



OCTOBER 20: MOVIN' & GROOVIN' BENEATH THE SEA



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.

AQ MOVIN' & GROOVIN' BENEATH THE SEA SATURDAY, OCTOBER 20 | 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!

AQ SLIPPERY TO PRICKLY SATURDAY, NOVEMBER 17 | 10:00-11:30 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.

AQUA TOTS



AQ SHORELINE SHAPES SATURDAY, DECEMBER 15 | 10:00-11:30 a.m.

Did you know a sea jelly is shaped a lot like a bell or that some fishes are as flat as pancakes? In 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: \$24/member
\$30/non-member | EXTRA PERSON: \$10/
person (includes Aquarium admission)

AGES | 2-3 years, plus adult chaperone
RSVP | (562) 951-1630

AQUATIC ACADEMY

CALIFORNIA AND THE OCEAN: LEADER AND LAGGARD

THURSDAYS, OCT. 18 & 25, NOV. 1 & 8 | 7:00 P.M.-
9:30 P.M.

California's coastal ocean is already intensively urbanized and population is projected to grow. Will our activities crowd out marine life or can both nature and human activities be accommodated in the ocean and thrive? The first move in this chess match went to nature with the identification of areas of special biological significance and their designation for special protection as marine protected areas. We have the knowledge and the tools to protect nature *and* to accommodate human activities to stimulate local and regional economies, but success will require an unprecedented combination of flexibility and compromise, and reformation of the current permitting and policy framework to enhance transparency and predictability. The stakes are high...for marine life and for humans. Explore the possibilities with scientists, engineers, conservationists, and policymakers in this edition of the Aquarium of the Pacific's Aquatic Academy. The classes will take place on four consecutive Thursday evenings in the Aquarium's SAVOR...Watershed Classroom and attendees can receive continuing education units (CEU).

AGES | 18+

COST | \$60/non-member, \$45/member; \$10 extra for CEU credit

INFO | Adina Metz, ametz@lbaop.org

RSVP | www.aquariumofpacific.org / 562-590-3100, ext. 0



SCOTT SMELTZER

AQUARIUM HOSTED ITS 2012 OCEAN CONSERVATION AWARDS

Honorees included Magellanic Penguin expert P. Dee Boersma, Ph.D. and the City of Long Beach

EACH YEAR the Aquarium of the Pacific hosts its annual Ocean Conservation Awards event in June on the anniversary of the Aquarium's opening. The awards honor individuals, groups, or institutions for significant contributions to ocean conservation and environmental education. On June 9 the Aquarium honored P. Dee Boersma, Ph.D. and the City of Long Beach in an evening awards ceremony held at the Aquarium's Honda Blue Cavern exhibit in the Great Hall of the Pacific.

During the event attendees had the opportunity to visit the newly debuted June Keyes Penguin Habitat and learn more about the Aquarium's colony of Magellanic Penguins. Guests also experienced a sampling of the Aquarium's new penguin programs as well as *A Penguin Serenade*, an auditory penguin mating call show.

P. Dee Boersma, Ph.D. holds the Wadsworth Endowed Chair in Conservation Science at the University of Washington and is the founder and executive editor of *Conservation* magazine. For thirty years she has been the director of the Wildlife Conservation Society's study of Magellanic Penguins at Punta Tombo, Argentina, home of the world's largest colony of Magellanic Penguins. Dr. Boersma and her students follow the lives of individual penguins, monitor the colony, and develop the data needed to plan effective conservation efforts. Dr. Boersma was the recipient of a 2009 Heinz Foundation award for achievements leading toward a cleaner, greener, and more sustainable world and a 2010 Fulbright fellowship to study wildlife videography in New Zealand. In 2011 she was named one of the Nature Conservancy's "Conservation Heroes of the Last Fifty Years." Dr. Boersma played a crucial role in the development of the Aquarium's new penguin exhibit and programming.

The Aquarium honored the City of Long Beach for its commitment to sustainability. Mayor Bob Foster, the members of the City Council, City Manager Pat West and his team, the Port of Long Beach, and the Water Department have all made significant contributions to the "greening" of the city. Among the city's most distinctive programs are a ban on plastic bags at grocery stores, a mulch delivery and pick-up program, the Water Department's Laundry-to-Landscape program allowing homeowners to install gray water systems, and efforts to make Long Beach the most bike-friendly city in the country. At the city government level, Long Beach has instituted Municipal Green Building Policies. The Long Beach Airport also has many unique programs, including the installation of efficient LED lighting along taxiways. Finally, the Port of Long Beach plays an important role in local environmental health. In 2009 it was awarded the Environmental Protection Agency's Clean Air Excellence Award for its Green Flag Program for the second year in a row. The Aquarium applauds the City of Long Beach for setting the standard for cities across the nation and making our city a cleaner, greener place for generations to come.

Pictured: John Fielder, board chair, Aquarium of the Pacific; P. Dee Boersma, Ph.D., Ocean Conservation Awards honoree; J. Mario Molina, board member, Aquarium of the Pacific; Jerry R. Schubel, president and CEO, Aquarium of the Pacific; Long Beach Mayor Bob Foster, accepting the Ocean Conservation Award on behalf of the City of Long Beach.

TRUSTEES OF THE PACIFIC

A special thanks to the following individuals who serve as Trustees of the Pacific. Trustees are donors who also volunteer their time and expertise in support of the Aquarium's mission and vision.

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AMERICAN HONDA MOTOR CO., INC. SUPPORTS AQUARIUM'S MISSION

A **AMERICAN HONDA MOTOR CO., INC. IS A FOUNDING SPONSOR OF THE AQUARIUM OF THE PACIFIC, forming a partnership that has continued over the course of the Aquarium's fourteen-year history.**

Most recently Honda installed at the Aquarium its first public solar panel demonstration project in the United States. The project is comprised of two solar arrays—one at the Aquarium's June Keyes Penguin Habitat and another next to the Molina Animal Care Center. Honda's new thin-film solar panels provide a reliable source of clean energy at the Aquarium, reducing the amount of electricity required from the grid by approximately 14,000 kilowatt-hours per year. This is equal to the amount of energy needed to power the average American household for one year. The solar panel installation underscores the Aquarium's conservation mission and highlights Honda's efforts to reduce carbon emissions and preserve the environment for future generations.

In addition, Honda has continued its sponsorship with the naming of the Aquarium's Blue Cavern in the Great Hall. Because some of the animals in Blue Cavern were collected on the Aquarium's boat powered by four-stroke Honda Marine engines donated by Honda, the company's support now directly connects with its impact on the Aquarium.

"We are honored to support the Aquarium of the Pacific and its June Keyes Penguin Habitat through the installation of Honda solar cell technology," said Erik Wedin, manager,

Corporate Community Relations, American Honda Motor Co., Inc. "Utilizing Honda's advanced environmental technology allows people to see and experience our commitment to environmental education and preservation while supporting the Aquarium's mission of stewardship for the Pacific Ocean and its inhabitants."

"American Honda Motor Company has been a strong and loyal partner throughout our history, and you can see the presence of Honda's generosity in all of our programs in this institution, whether they're education, conservation, or animal care. Corporate partnerships, like this one, help the Aquarium serve millions of visitors each year with exhibits and programs that educate and inspire," said Aquarium President/CEO Jerry Schubel.

"We are honored to support the Aquarium of the Pacific and its June Keyes Penguin Habitat through the installation of Honda solar cell technology."



Honda YouTube

To view Honda's video highlighting the solar panel project at the Aquarium, visit <http://www.youtube.com/watch?v=B3K-FdCmTYE> or capture the QR code above with your smart phone.

KIDS CORNER

Hatch-a-Lorikeet Craft

Hatch your own lorikeet chick!

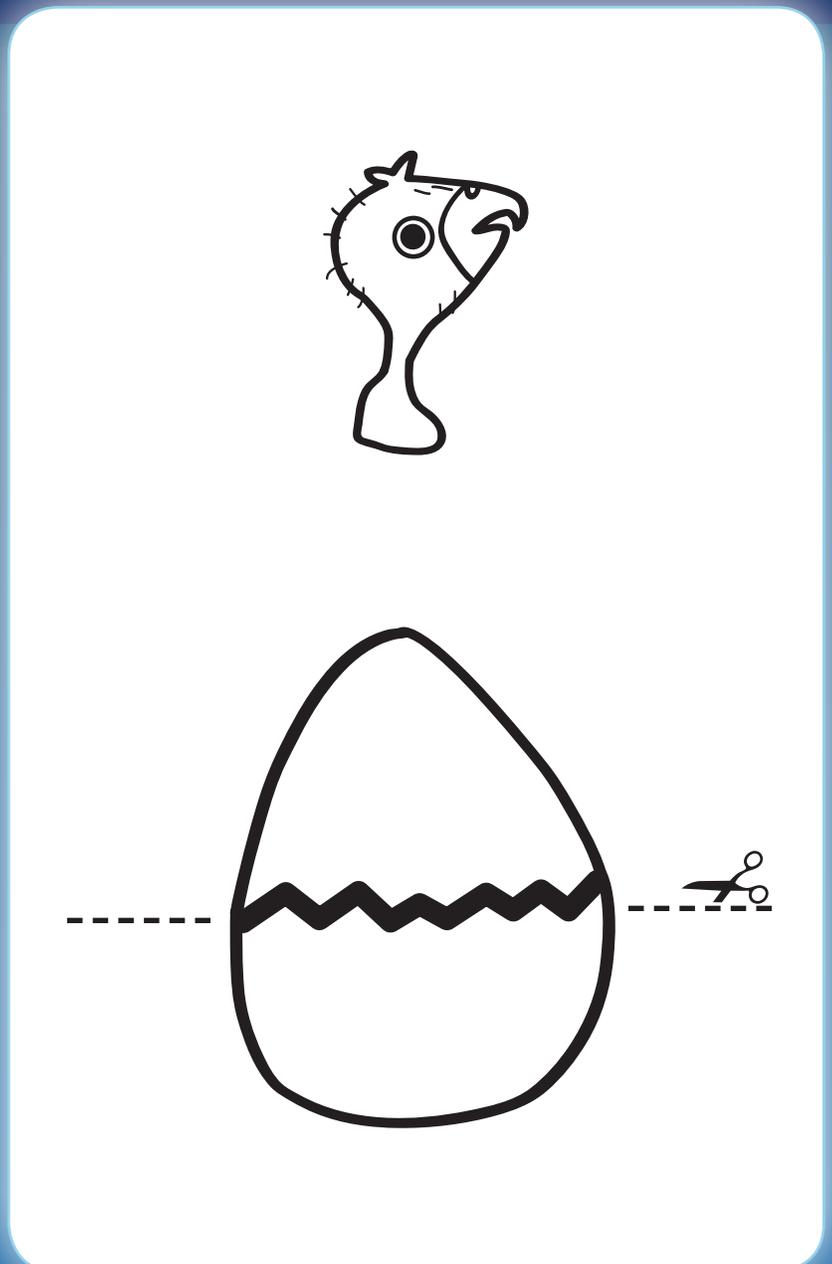
LORIKEET FOREST IS AMONG THE TOP TEN FAVORITE EXHIBITS AMONG VISITORS AT THE AQUARIUM OF THE PACIFIC. Since the aviary's opening our staff has successfully hatched more than one hundred lorikeet chicks. Many of these Aquarium-hatched lorikeets are on exhibit, and they can be identified by the orange band on their ankles. Now you can hatch your own lorikeet chick.

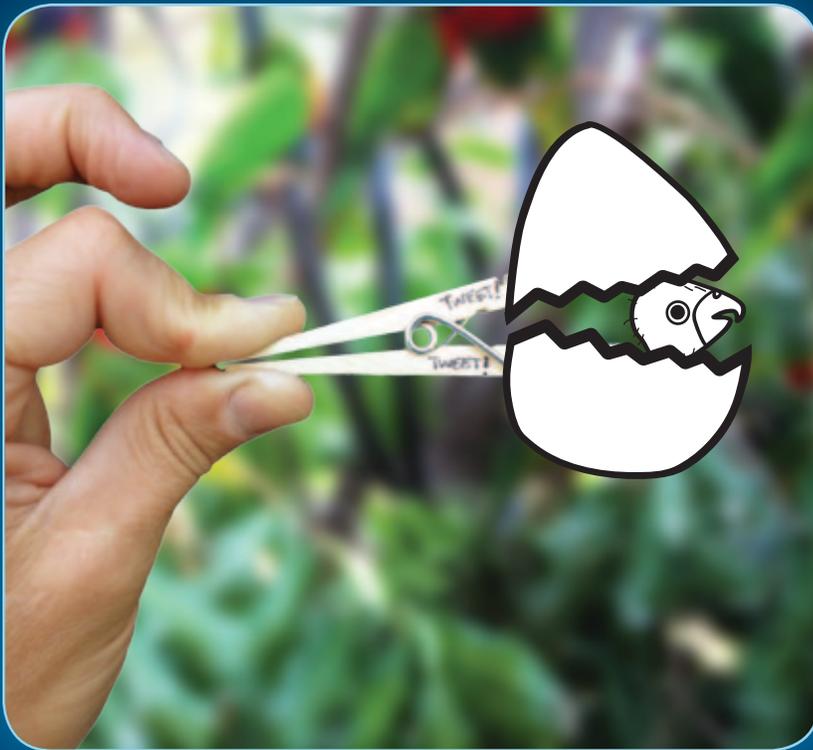
MATERIALS:

- chick and egg template
- clothespin
- scissors
- crayons, markers, or colored pencils
- glue (a hot glue gun works best)

INSTRUCTIONS:

1. Trace or copy the template. Cut out the three shapes: the chick and two egg halves. Color the lorikeet chick with crayons, markers, or colored pencils.
2. Glue the top half of the egg shape to the side of one prong of the clothespin. Glue the bottom half of the egg to the side of the other prong.
3. Glue the lorikeet chick shape on the back of the bottom prong facing the egg (see photo). Set your craft aside to dry.
4. Squeeze the prongs of the clothespin to see the chick hatch!



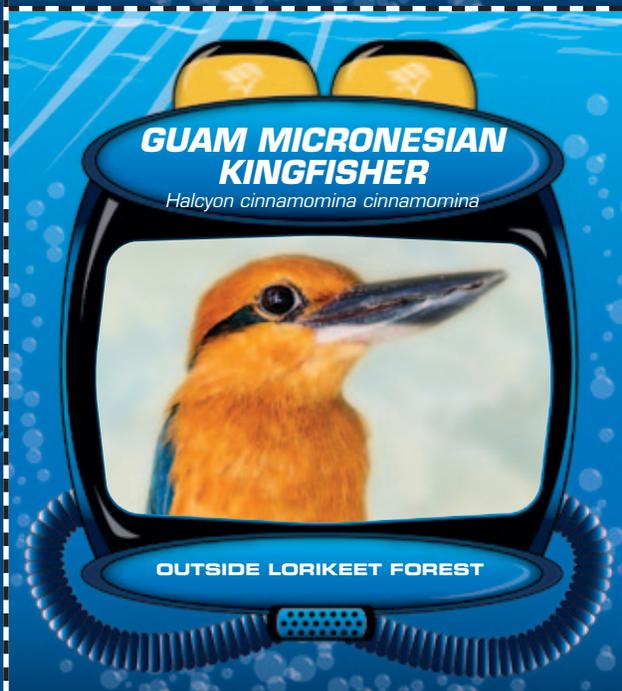
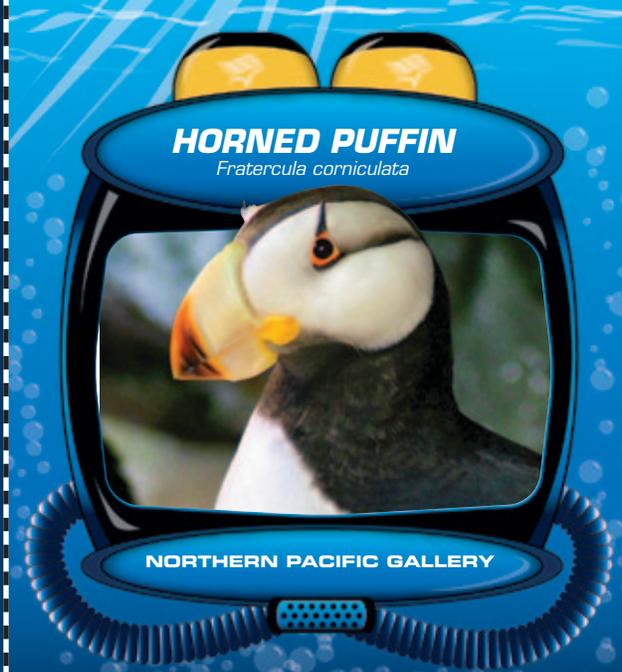


Fishing for KNOWLEDGE!

1. Crested Auklets, a type of diving bird, produce a unique tangerine-like _____ during the breeding season.
2. Shorebirds play an important role in their wetlands ecosystems. One way they help the plants and animals there stay in balance is by _____ the soil with their beaks as they hunt for food.
3. Lorikeets' tongues are covered with special _____ that help them collect pollen and nectar when they feed.

Last Issue's Questions and Answers:

1. Not all penguins live in areas with ice and snow. In fact, most penguins are **temperate** species and live in regions that have warmer weather.
2. Penguins have black and white feathers to help camouflage them from both predators and prey. This type of two-tone camouflage is called **counter-shading**.
3. A large penguin breeding colony is called a **rookery**.



HORNED PUFFIN

Fratercula corniculata



PHYSICAL CHARACTERISTICS

Horned Puffins are medium-sized diving birds, reaching about 10 inches tall. Their black and white plumage helps camouflage them in the water. Horned Puffins get their name from the small, dark, horn-like projection above their eyes that is present during the breeding season.

HABITAT

The open ocean is the winter habitat for Horned Puffins. During the breeding season they seek out coastal islands and rocky cliffs.

DIET

Horned Puffins have a beak that is well adapted to catch many fish at once. Their diet consists mostly of small fish, such as herring and capelin, but can vary depending on their habitat.

FUN FACT

A Horned Puffin was once spotted with a record sixty-two fish in its mouth at one time.

GUAM MICRONESIAN KINGFISHER

Halcyon cinnamomina cinnamomina



PHYSICAL CHARACTERISTICS:

The Guam Micronesian Kingfisher is a colorful bird that grows to about nine inches in length. The males have iridescent green wings, blue tails, and cinnamon-colored heads and chests. Females look similar to males, but have a whitish underside.

HABITAT:

This subspecies once inhabited the island of Guam. However, they are now considered locally extinct due to predation by an invasive species of brown tree snake.

DIET:

These birds prey on small lizards, insects, and crustaceans.

FUN FACT

The kingfisher nests in a burrow that it makes by repeatedly jabbing at the bark of a tree with its beak while flying in mid air.

SNOWY EGRET

Egretta thula



PHYSICAL CHARACTERISTICS:

The Snowy Egret is a medium-sized egret, standing about two feet tall. Known for its long white plumage, its bright yellow beak and feet distinguish it from its close relative, the Great Egret.

HABITAT:

Snowy Egrets spend much of their time near bodies of water and are common near wetland areas.

DIET:

Wading in the water, these birds will spend much of their time near shallow estuaries actively hunting for food. Consuming fish and crustaceans, their diet can vary depending on available resources.

FUN FACT

It is thought that their bright yellow feet help to attract marine prey.

Member Specials

GIVE THE GIFT OF MEMBERSHIP!

ACTIVE AQUARIUM MEMBERS SAVE 20% OFF THE PURCHASE OF GIFT MEMBERSHIPS.*



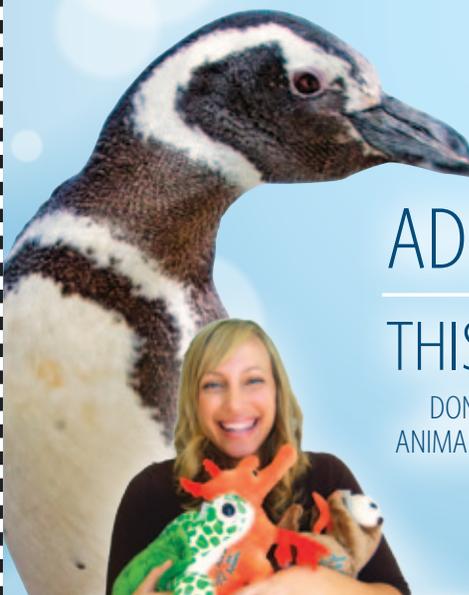
A gift membership to the Aquarium of the Pacific offers your friend or family member a full year of entertainment and education! Plus, your support helps fund the Aquarium's education and conservation programs.

A tax-deductible gift membership includes:

- Unlimited admission for a year through the members-only VIP entrance
- Invitations to exclusive members-only events
- Discounts on guest tickets, parking passes, gift store purchases, educational programs, and more

YOUR GIFT MEMBERSHIP DISCOUNT IS AVAILABLE BY PHONE AT (562) 437-FISH (3474) OR AT THE AQUARIUM INFORMATION DESK. PURCHASE YOUR GIFT TODAY!

* Must be an active Aquarium member in good standing to receive the discount. Discount not valid on Pacific Circle memberships.



ADOPT AN ANIMAL THIS HOLIDAY SEASON!

DONATE \$50 OR MORE AND RECEIVE A PLUSH ANIMAL OF ONE OF OUR EIGHT ADOPTABLE SPECIES.

Give the unique gift of an animal adoption this year!

Benefits at higher levels include Aquarium admission tickets and special animal encounters. Gift adoptions can be sent directly to your recipient at no extra cost! Adoptions are fully tax-deductible and help support our nonprofit mission to instill a sense of wonder, respect, and stewardship for the Pacific Ocean, its inhabitants, and ecosystems.

WWW.AQUARIUMOFPACIFIC.ORG/ADOPT • (562) 437- FISH (3474)



AQUARIUM OF THE PACIFIC

SAVE 20% this fall 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 stores.

This coupon is valid through 2/28/13 inside all Aquarium gift stores. Valid as a one-time offer. Cannot be combined with any other offer. No cash value. Restrictions may apply. N-22813-A

MEMBERS-ONLY SPECIAL



Tim Morey (far left) and his wife Karen (next to him, wearing a large hat) manage a group of more than thirty horticulture volunteers at the Aquarium.

HORTICULTURE VOLUNTEERS KEEP THINGS "GREEN"

A **TEAM** of horticulture volunteers, organized by husband and wife volunteer team Tim and Karen Morey, maintains the plants at the Aquarium. Not only does their work make for more attractive exhibits, but also they provide cuttings that serve as mental stimuli or even treats for some of the animals. And most importantly, everything is done sustainably.

The Moreys began volunteering at the

husbandry staff to plan projects and maintain the plants and irrigation systems inside the facility. They maintain a garden at home that features both vegetables and drought-tolerant native plants. At the Aquarium, all the gardening they do is organic and supplemented by worm castings created in onsite composting containers. The worms are fed food scrap waste from SAVOR...Long Beach, the Aquarium's onsite caterer and food service

All gardening at the Aquarium is organic and supplemented with compost produced onsite. The plants enhance exhibits and also provide treats for the animals.

Aquarium in 2006 in the education department. Because they had an interest in gardening, they took it upon themselves to weed and maintain the plants in one of the Aquarium's outdoor areas. They made such an improvement that they were asked to apply their skills throughout the facility. Soon more volunteers joined them. Today the Moreys manage a group of more than thirty horticulture volunteers and an annual budget of \$5,000. In 2011 the horticulture volunteers donated 2,000 hours of work. The group includes college students, parents and kids, teenagers fulfilling their high school community service requirements, and others with an interest in gardening.

Tim Morey, a retired policeman, and Karen, a former cost analyst on the B-2 bomber, partner closely with Aquarium operations and

provider. Using this natural fertilizer is also a major cost saver for the Aquarium.

One of the plant varieties used for cuttings, called purple hops, is native to Australia and is added to Lorikeet Forest for the birds to play with. The lorikeets don't eat the cuttings, but they enjoy ripping and tearing the leaves, Tim Morey says. Blueberries grown in the small vegetable garden are given to Kevin the Collared Aracari and the Aquarium's porcupine for a special treat. The reptiles are fed flowers from the garden. Paperbark trees along Aquarium Way provide pollen-filled flowers for the lorikeets to enjoy.

To find out more about available volunteer opportunities at the Aquarium, visit www.aquariumofpacific.org/volunteer. Not all positions are available year-round.



PACIFIC COLLECTIONS GIFT STORE TO UNDERGO EXPANSION

In September the Aquarium of the Pacific will break ground on a project that will expand the Pacific Collections gift store. The store will remain open throughout construction, which is set to begin in January. This construction represents the first phase of a major front expansion project at the Aquarium.

FUNDRAISING HIGHLIGHTS

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

■ **Rose M. Wirtz Family Trust Provides Education Funding**

The Rose M. Wirtz Family Trust contributed \$50,000 toward the Aquarium's Ocean Education Fund. This donation was given in honor of the late Rose Wirtz and commemorates her love for the ocean. The funds will provide students with engaging classroom programs focused on ocean science and conservation. Wirtz's son Ken also supports the Aquarium through his work as a volunteer. Since 2009 Ken Wirtz has donated more than 330 hours of service. The Wirtz family's support helps the Aquarium serve out its mission for students and regular visitors alike.

■ **NASA Awards Grant for New Ocean Science Center Show**

The National Aeronautic and Space Administration (NASA) has awarded \$330,000 to the Aquarium for a new Science on a Sphere® presentation that will debut in the Ocean Science Center in summer 2013. *Our Instrumented Earth: Understanding Global Systems and Local Impacts Through the El Niño Story* will showcase the use and importance of various Earth observing instruments, such as satellites and ocean surface monitors. Partners in the project include the Jet Propulsion Laboratory in Pasadena, the Oregon Museum of Science and Industry, Maryland-based Goddard Space Flight Center, and University of California, Irvine.

■ **IMLS Grant to Build Institutional Capacity**

The Institute of Museum and Library Services (IMLS) awarded \$147,000 to the Aquarium for a professional staff development, education, and training program centered on the Science on a Sphere® (SOS). The Science Interpretation and Technology Integration project aims to create a data-literate interpretation staff that can maximize the use of the SOS platform while telling compelling stories about the ocean and Earth systems. Aquarium education staff will increase their core science knowledge and level of comfort using SOS, all while learning to communicate more effectively to public and school audiences.

■ **BP America, Inc. Supports Education**

BP America, Inc. donated \$50,000 in support of the Aquarium's education initiatives to benefit student achievement and environmental stewardship. This award provides support to increase the volume of interactions between Aquarium education staff and visitors and to increase the number of specialized mobile education stations.

■ **Target Supports Field Trips for Underserved Students**

The Aquarium's partnership with Target continues in 2012 with a \$50,000 grant that will provide complimentary field trips for greater Los Angeles Title I schools. This funding allows students of all backgrounds and circumstances to receive high-quality, interactive lessons based on the Aquarium's animals and exhibits. These experiences are designed to cultivate interest, heighten awareness, promote life-long science learning, and support advancement in science, technology, engineering, and math (STEM) fields.

■ **Wells Fargo Foundation Supports K-12 Education**

The Wells Fargo Foundation provided \$40,000 to the Aquarium in support of one of its core programs, the Ocean Science Education Program. The Wells Fargo Foundation supports organizations that promote academic achievement for low- and moderate-income students with a priority emphasis on kindergarten through twelfth grade. This funding will support the nearly two-thirds of the Aquarium's student audience that come from schools receiving Title I funds.

■ **Roddenberry Foundation Grants Boost Aquarium's High-Tech Teaching Tools**

The Aquarium received two grants in August from the Roddenberry Foundation, including \$100,000 given in support of the Aquarium's videoconferencing program and \$50,000 to create a new show for the National Oceanic and Atmospheric Administration's Science on a Sphere® in the Aquarium's Ocean Science Center. Last year the foundation provided a seed grant to fund a videoconferencing pilot program and this year provided additional support to expand it. The grant will fund a monthly presentation exploring some of the most pressing ocean issues with experts from around the country using the Roddenberry Education Videoconferencing Studio and accompanying technology. The new Science on a Sphere presentation will focus on ocean exploration and will debut next year in the Aquarium's Ocean Science Center. Both projects fulfill the Aquarium's vision and align with the Roddenberry Foundation's mission and philanthropic goals.

■ **Port of Long Beach Grant Funds Energy Upgrade**

The Port of Long Beach, through its Greenhouse Gas Emissions Reduction Mitigation Grant Program, awarded the Aquarium \$389,447. Funding will be used to replace fifteen-year-old equipment with state-of-the-art boilers that will provide annual around-the-clock HVAC heating for visitors and staff; hot water; and heating for the live animal collection. Independent energy auditors determined that the new boilers will prevent the annual equivalent of 84,000 kilograms of carbon dioxide emissions, save 20,400 kilowatt hours of electricity, and save 14,500 therms of natural gas. The cost savings over the life of the new boilers will be over \$470,000.

AQUARIUM ACCOLADES

HERITAGE AWARDS



Steven and Lita Fifita | Pacific Islander Festival

Through their leadership and activities in the community, Steven and Lita Fifita help preserve traditional culture, create unity, and support those who need help. The Fifitas are founding elders for Famili Pe Taha, "One Family," a community organization that helps Tongans throughout Southern California navigate health-care, immigration, higher education, and other social services. Through Pacific Islander Health Partnership, Lita Fifita serves as a Tongan health educator and advocate. Steven Fifita is partnering with the Hawaiian Civic Club to build a community garden in Long Beach featuring plants native to the Pacific Islands, including those used to prepare traditional island dishes. The Fifitas also celebrate their cultural heritage, presenting traditional dance and music at community events. They serve their local community in Orange County through their church ministry, providing food and clothing for the homeless and delivering food to needy families through the local food bank.

Pictured above: Steven Fifita, Heritage Award honoree; Nancy Weintraub, vice president of development, Aquarium of the Pacific; Lita Fifita, Heritage Award honoree.



Patricia Cosulich | International Children's Day

Patricia Cosulich is a sixteen-year-old honors student in the Academy of the Performing Arts at Huntington Beach High School (Huntington Beach, California). She is also active in the Girl Scouts and started a Girl Scout Gold Award project, which represents the highest achievement in the Girl Scouts program. For this project, Cosulich chose focus on kelp conservation. Nearly 90 percent of the kelp beds in the ocean off the coasts of Orange County have been lost over the last thirty years because of overfishing and pollution. Through her Help the Kelp campaign, Cosulich aims to raise awareness, foster a greater appreciation for the ocean, and inspire the rest of the community to help the cause. She held an open house at her school to kick off the campaign and hopes to establish an annual Help the Kelp Day in Laguna Beach. Her other volunteer efforts include collecting donations to distribute Girl Scout cookies to patients at the Long Beach Veteran's Affairs Hospital for the past four years, and organizing fundraisers for the Children's Hospital of Orange County and another benefitting children orphaned by HIV AIDS in Africa for two years running.

Pictured above: Patricia Cosulich, International Children's Day Heritage Award honoree, and Cecile Fisher, vice president, marketing and communications, Aquarium of the Pacific.



President's Environmental Youth Award | Environmental Protection Agency

The United States Environmental Protection Agency (EPA) held a press event at the Aquarium of the Pacific in which representatives of the federal agency presented the President's Environmental Youth Award to six students from Oak Park High School (Oak Park, California). The eleventh- and twelfth-grade students were commended for their efforts to raise awareness about ship strikes on migrating whales in the Santa Barbara Channel. EPA Administrator Lisa Jackson made the presentation. The Oak Park students won the 2011 award for Region 9, which includes California, Nevada, Arizona, and Hawaii. The awards are given annually to students from each of the ten EPA regions. To educate the public and policymakers about this issue, the Oak Park students developed a lesson plan for middle and high school

students about whale migration in the Santa Barbara Channel, ship strikes, and other threats to whales. They researched petitions to move shipping lanes and reduce ship speed and planned a Week of Whale series of events in their school district. They also organized a community whale watching trip and authored a whale activity book that they used while visiting elementary school students in their school district.

Pictured above: Becca Gordon; Lisa Jackson, administrator, Environmental Protection Agency; Sam Hirsch; Justin Orens; Kayla Sadwick; Jacob Wyner; and Kathleen McKeegan.



Aquarium of the Pacific 5K Run/Walk

The Aquarium of the Pacific held its first-ever 5K Run/Walk event July 22, 2012. More than 700 people participated, with age divisions ranging from 12 and under to 70 and over. The overall female winner was Mary Akor, age 36, who completed the race with a time of 15:59.1. The overall male winner was Raul Arcos, age 22, with a time of 14:41.8.

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AQUARIUM STAFF FUNDS NEW TOUCH EXHIBIT

A NEW TOUCH EXHIBIT, funded in part by Aquarium staff members, is now open in the Northern Pacific Gallery. Featuring animals native to tidal areas, the new Northern Pacific Touch Lab replaced the Coastal Corner Discovery Lab and allows a greater number of visitors to view and interact with the exhibit. Staff members contributed nearly \$36,000 to the project, highlighting their dedication to the Aquarium and their passion for education and an enriching visitor experience.

Aquarium staff members contributed nearly \$36,000 to the Northern Pacific Touch Lab, continuing a history of staff-supported projects at the Aquarium.



Aquarium Vice President of Development Nancy Weintraub (right) and CFO Anthony Brown (left) describe to Allen Fore of Kinder Morgan how sea stars eat during a viewing of one of the Aquarium's touch tanks. The Kinder Morgan Foundation has been a supporter of the Aquarium's education initiatives since 2009.



SOUTHERN CALIFORNIA SEABIRDS FACE THREATS

THERE ARE SEVERAL SPECIES OF SEABIRDS that can be seen regularly in the Los Angeles County area. Seabirds that breed on the Channel Islands include the California Brown Pelican, Scripps's Murrelet, Ashy Storm Petrel, and Double-Crested Cormorant, among others. While they are frequently spotted around harbors and beaches, these birds are not mainland residents. They spend most of their time at sea hunting for food and nest on the Channel Islands during the breeding season.

Just twenty miles off Southern California's busy urban coast, the Channel Islands provide critical nesting habitat for many seabird species. This proximity also makes these birds more vulnerable to human impacts. Historically, seabirds have nested on remote islands because they would be safe there from predators. However, predators introduced by humans, as well as increased tourism, have reduced seabird numbers. For this reason, state and federal agencies have begun programs to remove non-native animals and educate people about how to visit the islands without disturbing birds. These efforts are helping to restore seabird populations on the Channel Islands and build resiliency in the event of increasing threats.

Pollution entering ocean waters from storm drain runoff and wastewater outfalls as well as trash carried into the ocean by the Los Angeles and San Gabriel rivers are all potential hazards for birds. Seabirds are also vulnerable to oil spills, particularly when they are out at sea foraging and raft together in large numbers. Oiled birds die from exposure from losing their waterproofing or from ingesting oil while preening.

Climate change poses perhaps the broadest threat to seabirds, as early indications suggest detrimental impacts to food availability and reproduction rates. Warmer sea surface temperatures appear to be affecting upwelling, which normally brings cold, nutrient-rich waters to the surface of the ocean. If this food is not accessible to seabirds, they may have to travel farther to find food, or they may not breed when breeding season arrives, as reproduction hinges on prey availability.

Historically, seabirds have nested on remote islands because they would be safe there from predators. However, predators introduced by humans, as well as increased tourism, have reduced seabird numbers.

Building awareness about the threats seabirds face and the importance of their habitats will help protect their populations. Volunteering to help restore wetlands areas, becoming an advocate for land conservancy and parks, and reducing carbon footprints are all steps toward protecting these unique birds.



100 Aquarium Way
Long Beach, CA 90802

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Saturday, October 13, 2012
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PHOTOS: SCOTT SMETZER

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- | | |
|-----------------------------|---------------------------------|
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