Monterey Bay Aquarium
Overview – 2010

MISSION:	To inspire conservation of the oceans
GRAND OPENING:	October 20, 1984
LOCATION:	886 Cannery Row, Monterey, California
HOURS:	The aquarium is open daily, except Christmas Day. Hours of operation vary by season. Visit www.montereybayaquarium.org or call (831) 648-4888 for daily schedules.
ADMISSION RATES:	$29.95 Adult (18 and over) $27.95 Senior (65 and over) $27.95 Student (13-17, or with college I.D.) $17.95 Child (3-12) $17.95 Disabled Group rates available for 20 or more (by reservation; 1-866-963-9645)
INFORMATION:	(831) 648-4888; www.montereybayaquarium.org
ADVANCE TICKETS/ RESERVATION CENTER:	1-866-963-9645 (toll free); or order online at www.montereybayaquarium.org
OPERATING BASIS:	Private non-profit, self-supporting; no public funding; $55 million annual budget
CAPITAL COST:	Nearshore galleries: $55 million (opened October 1984) Outer Bay galleries: $57 million (opened March 1996) New entry, ticket lobby and skywalk: $10 million (opened May 2004) Ocean's Edge galleries (updated Nearshore galleries): $11 million (opened May 2005)
CURRENT SPECIAL EXHIBITIONS:	**"**Hot Pink Flamingos: Stories of Hope in a Changing Sea" **(Opens March 29, 2010)** – Through the stories of amazing animals – including tropical wading birds, green sea turtles, colorful coral reef creatures and playful Magellanic penguins – visitors gain a new perspective on global climate change. Seven galleries weave together stories about how climate change is affecting ocean animals, and hopeful tales of the many ways people and communities across the globe are fighting climate change and making a difference. "The Secret Lives of Seahorses" (Open April 6, 2009) – Showcases many beautiful species of seahorse and their kin. Galleries focus on the seahorse family, camouflage techniques, mating rituals and unique male pregnancy. Visitors will uncover some of the "secrets" of seahorses, and also learn how to help protect these amazing animals and their habitats in the wild.
GALLERIES AND	Nearly 200 galleries and exhibits devoted to the diverse habitats of Monterey Bay.

MAJOR EXHIBITS:	The four largest exhibits are the Outer Bay (1 million gallons); the Kelp Forest (335,000 gallons); Monterey Bay Habitats (326,000 gallons); and Sea Otters along the Rocky Coast (55,000 gallons). One of the world's largest jellyfish galleries.
LIVE EXHIBITS:	More than 35,000 animals and plants representing over 550 species of fishes, invertebrates, mammals, reptiles, birds and plants found in Monterey Bay and other marine habitats worldwide.
FEEDING SHOWS:	Sea Otters at 10:30, 1:30 and 3:30 daily Blackfooted Penguins at 10:30 and 3:00 daily Kelp Forest dive show at 11:30 and 4:00 daily Outer Bay at 11:00 (Tuesday, Thursday, Saturday, Sunday)
DIMENSIONS:	Site: 3.3 acres Exhibits and other public areas: 175,064 sq. ft. (excludes decks) Ocean-view decks: 25,500 sq. ft. Behind-the-scenes: 125,300 sq. ft. Total aquarium square footage: 322,000 sq. ft.
ATTENDANCE:	Grand opening year: 2.37 million Outer Bay grand opening year (1996): 2.41 million Total in 2009: 1.9 million Annual average: 1.8 million Total through 2009: 46 million
STAFF AND ADMINISTRATION:	Approximately 425 full and part-time staff; over 1,000 volunteers.
DISABLED ACCESS:	All exhibits and aquarium facilities are accessible to people with disabilities. Assisted listening devices are available for the deaf and hard of hearing; most exhibit videos are captioned; wheelchairs are available free for use during a visit. Ask for details at the Information Desk.
VISITOR INFORMATION:	Free visitor maps are available at the Information Desk.
ON THE WEB:	Information about all permanent and special exhibits, events and promotions, as well as an online pressroom with full press kits and photo & video libraries can be found online at www.montereybayaquarium.org.

Updated: January 2010

Aquarium Facts

MISSION:

The Monterey Bay Aquarium is a non-profit, self-supporting institution. Our mission is to inspire conservation of the oceans.

THEME:

Monterey Bay ranks among the world's most diverse and spectacular marine regions. The bay is at the heart of the largest protected marine area in the mainland United States. The aquarium's permanent exhibits and galleries highlight the colorful and complex array of marine life found on California's central coast, from coastal wetlands to the open ocean and deep sea. Special exhibitions feature marine life from around the world.

NATURAL HISTORY:

From late winter through early fall, currents carry an upwelling of cold, nutrient-rich water into Monterey Bay. This influx of nutrients is the base of a food web that supports the great diversity of sea life found in habitats that range from mudflats and kelp forests to a 12,000-foot-deep submarine canyon—the largest underwater canyon on the west coast of the United States.

AQUARIUM HISTORY:

Four marine biologists at Stanford University's Hopkins Marine Station in Pacific Grove first proposed the aquarium in 1977. In 1978, a group of marine scientists, local residents and members of the David and Lucile Packard Foundation of Los Altos, California, formed the non-profit Monterey Bay Aquarium Foundation to pursue the project. Demolition of the abandoned Hovden Cannery began in 1980; construction of the aquarium began in spring of 1981. The aquarium opened on October 20, 1984. Planning for the Outer Bay wing, to house exhibits of the open ocean and deep sea portions of Monterey Bay, began in 1989. Construction began in the winter of 1992, with a grand opening of the "Outer Bay" galleries on March 2, 1996. A new entry lobby, ticketing and reception area and skywalk opened in May 2004. A dramatic transformation of the original exhibits reopened as "The Ocean's Edge" in May 2005. The "Splash Zone" family galleries were expanded and renovated in 2008 to become permanent, featuring coral reefs, penguins along the rocky shore, and interactive kelp forest exhibits. In August 2010, a remodel will begin of the Outer Bay galleries, with all galleries scheduled to reopen in the summer of 2011.

FUNDING:

Initial construction costs of $55 million were provided through a one-time personal gift from David and Lucile Packard, with the provision that the aquarium operate on a self-supporting basis after opening day. Construction of the Outer Bay wing was financed with retained earnings and $27 million contributed by individuals, businesses and foundations. Donors to the *20th Anniversary Fund for the Monterey Bay Aquarium* paid for the $10 million cost of the new entry, ticket lobby and skywalk project and the $11 million cost of the "Ocean's Edge" renovation. The non-profit aquarium receives no public operating funds. Operational costs as well as education, research and conservation programs are funded through admission and membership fees, individual donations, endowment fund earnings, business sponsorships, foundation grants, and proceeds from the gift and bookstores and restaurant.

HISTORIC SITE:

The aquarium stands on the site of what was historic Cannery Row's largest fish-packing plant, the Hovden Cannery, and on adjoining cannery and warehouse properties. Built in 1916, the Hovden Cannery operated until 1972, and was the last of the canneries to close. Stanford University purchased the property to protect the shoreline next to its Hopkins Marine Station, then sold it to the aquarium foundation in 1978. Initial plans to house the aquarium in the actual cannery structure proved impractical, though elements of the original building are preserved.

ARCHITECTURE:

The design of the aquarium and its Outer Bay wing intentionally preserves the historic flavor of Cannery Row and the old cannery that inspired the aquarium. Several important elements of the aging Hovden complex were restored for use or display in the aquarium, including the old boilers, pumphouse and warehouse. The majority is new construction.

MAJOR AWARDS & HONORS:

- 1988 - The **American Institute of Architects** gave its Honor Award to the aquarium and to San Francisco architects Esherick Homsey Dodge and Davis for design of the aquarium.
- 1990 - The **National Association for Museum Exhibition** gave its Curators Award to the special exhibition, "Mexico's Secret Sea" – the highest exhibit award presented through the American Association of Museums.
- 1995 - The **Urban Land Institute** gave its highest honor, an Award for Excellence, to the Monterey Bay Aquarium Foundation for the environmental, economic and urban development achievements of the aquarium.
- 1997 - The **Association of Zoos and Aquariums (AZA)** selected the Outer Bay galleries for its Exhibit Award as the best new zoo or aquarium exhibit of 1996.
- 1997 - The **AZA** gave "Fishing for Solutions" its Munson Aquatic Conservation exhibitry (MACE) award, which honors aquatic exhibits that incorporate conservation education into their design and presentation.
- 1998 - The non-profit **Coastal America** organization named the aquarium a Coastal Ecosystem Learning Center for its programs to interpret marine life and habitats of California's central coast
- 1998 - ***Coastal Living*** **magazine** presented the aquarium with its inaugural *Coastal Living* Award for Cultural and Environmental Education, for best interpretation of the unique natural assets of an area.
- 1998 - Aquarium Executive Director Julie Packard received the Audubon Medal for Conservation from the National Audubon Society.
- 2000 - The **AZA** again selected the aquarium for its Exhibit Award, naming "Mysteries of the Deep" as the best new zoo or aquarium exhibit of 1999
- 2000 - The aquarium website the People's Voice award as the best science site on the Internet at the 4th annual **Webby Awards** ceremonies.
- 2002 - ***Family Fun*** magazine, a respected source on travel for families with children ages 3 to 12, named the aquarium one of the top 12 family-friendly travel destinations in the United States.
- 2002 - The **AZA** awarded "Vanishing Wildlife: Saving Tunas, Turtles & Sharks" the Munson Aquatic Conservation Exhibitry (MACE) award for 2001, which honors aquatic exhibits that incorporate conservation education into their design and presentation. It also gave "Splash Zone" a Significant Achievement award in its Exhibit award program; and gave its Education award to "Splash Zone" education programs.
- 2003 - The **AZA** gave "Jellies: Living Art" a Significant Achievement award in its Exhibit award program. "Jellies: Living Art" also won the Curators Award from the **National Association for Museum Exhibition** – the highest exhibit award presented through the American Association of Museums.
- 2004 - **Zagat Survey®** polled 11,000 families, who rated Monterey as the No. 1 aquarium in the United States and overall No. 3 top-rated family attraction in the nation in Zagat's first-ever U.S. Family Travel Guide.
- 2004 - Aquarium Executive Director Julie Packard was the recipient of the Ted Danson Ocean Hero Award presented annually by **Oceana,** a global ocean conservation organization.
- 2005 - The **AZA** gave "Sharks: Myth and Mystery" an Exhibit Award and the Munson Aquatic Conservation Exhibitry Award.
- 2006 - The international **Themed Entertainment Association** gave its 2007 "Thea" Award to the Real Cost Cafe for outstanding achievement in experience design and themed entertainment. The award honor accomplishments in the use of storytelling, architecture, technology and experience design to create memorable guest experiences.
- 2007 - ***Parents Magazine*** rated the aquarium the No. 1 kid-friendly aquarium out of "The 10 Best Aquariums for Kids"
- 2007 - **TripAdvisor®** online users rated the aquarium No. 8 on its Top 10 list of best U.S. travel attractions
- 2008 – ***Bon Appétit Magazine*** named the aquarium its Tastemaker of the Year for our Seafood Watch program.
- 2009 – **The American Academy of Arts & Sciences** announced the election of Monterey Bay Aquarium Executive Director Julie Packard to its 2009 class of Fellows and Foreign Honorary Members on April 20, 2009..
- 2009 – **California Coastal Commission and *Sunset* magazine** name Monterey Bay Aquarium Executive Director Julie Packard one of nine 2009 California Coastal Heroes

SIZE OF THE AQUARIUM:

Site: 3.3 acres
Exhibits and other public areas: 175,064 sq. ft. (excludes decks)
Ocean-view decks: 25,500 sq. ft.
Behind-the-scenes: 125,300 sq. ft.
Total aquarium square footage: 322,000 sq. ft.

SEAWATER SYSTEM:

In the Ocean's Edge galleries, fresh seawater is pumped continuously and directly from Monterey Bay to maintain the great diversity of plant and animal life in the exhibits. By day, filtration leaves the water clear for public viewing. At night, unfiltered seawater flows through the exhibits. The raw seawater not only sustains filter-feeding animals, it also carries in spores and larvae of plant and animal life that settle and grow in the exhibits – making the exhibits a "living extension" of the bay. Water enters through two 16-inch-diameter, 980-foot-long intake lines located 55 feet deep in the bay. Pumps draw up to 2,050 gallons of seawater per minute into the aquarium seawater distribution system, 24 hours a day, seven days a week – more than a billion gallons of water a year. Four operating modes permit varying levels of filtration, from raw seawater to pressure-sand-filtered, de-embolyzed seawater. Most aquariums are located on polluted bodies of water or inland of the coast, making "open" system designs like this impossible.

The Outer Bay galleries operate on a "semi-closed" system. Water from the main intake lines is piped to the new wing where it is heated to 68 degrees Fahrenheit and circulated through the exhibits. Replacement water is added at a rate of 100 gallons per minute. Biological filters and ozone treatment remove wastes in the water. A heat recovery system recaptures energy from the water before any is discharged to the bay. Separate life support systems supply cooler water to jellyfish exhibits. Discharge water is treated to prevent introduction of non-native species into Monterey Bay.

OTHER FACILITIES:

A 1,200-square-foot water-quality laboratory; the Tuna Research and Conservation Center, a collaborative project with Stanford University located next door to the aquarium at Hopkins Marine Station; the Animal Research and Care Center, a research and holding facility for future exhibit animals; a 183-seat ocean-view restaurant with self-serve cafeteria and full-service restaurant and bar; 273-seat auditorium with state-of-the art sound and video systems; two Discovery Lab classrooms equipped with seawater systems, videoconferencing equipment and Internet access; and gift & bookstores. The aquarium's web site – www.montereybayaquarium.org – attracts more than 8 million web visitors a year.

OUTER BAY WING:

Construction began in the winter of 1992 on the $57 million Outer Bay wing that features open ocean habitats and special exhibition galleries. The two-story, 86,500-square-foot addition retains the architectural feel of the original aquarium buildings. Outer Bay galleries on the top floor opened on March 2, 1996. On the ground floor, "Vanishing Wildlife," a permanent exhibit highlighting conservation of tunas, sea turtles and sharks, opened in May 2001; "Hot Pink Flamingos: Stories of Hope in a Changing Sea" (opens March 29, 2010) is the newest special exhibition featuring tropical wading birds, green sea turtles, coral reef communities, Magellanic penguins and other amazing animals that will help visitors gain a new perspective on global climate change; "The Secret Lives of Seahorses" (open April 6, 2009) is a special exhibition featuring delicate seahorse species and their kin;.

WEB SITE:

A virtual tour of the aquarium's permanent and special exhibitions; live web cams; information about planning a visit to the aquarium; current event calendar; and conservation information can all be found at www.montereybayaquarium.org.

Exhibit Highlights

OCEAN'S EDGE GALLERIES

THE KELP FOREST:

This three-story exhibit presents a diver's-eye view of a dynamic undersea community: a towering kelp forest of *Macrocystis pyrifera*, the California coastline's giant kelp. Sardines, leopard sharks, wolf-eels and a host of other fishes weave among the fronds of kelp, which grow up to eight inches per day in the wild and more than four inches a day inside the exhibit. A surge machine and water jets hidden in the exhibit's rockwork maintain the constant water motion that kelp requires to absorb nutrients. The exhibit holds 335,000 gallons of seawater, and its largest acrylic windows are 7 1/4 inches thick. Divers hand-feed the fishes daily in demonstrations that include narration by a volunteer guide and two-way communication between the diver and the audience.

At 28 feet high, the Kelp Forest is one of the tallest aquarium exhibits in the world, and is the first and largest living kelp forest community ever created at an aquarium. Visitors can see the underwater Kelp Forest exhibit from the first and second floors, walk under a kelp canopy on the second floor, and look out on the top of the kelp canopy through third-floor viewing windows.

SEA OTTERS ALONG THE ROCKY COAST:

The total population of California sea otters, now about 2,600 individuals, is found along the central coast from Santa Barbara to Santa Cruz. The wild population was decimated by fur hunters in the 18th and 19th centuries (sea otters have the thickest fur of any mammal in the world – up to 1 million hairs per square inch) and is today listed as a threatened species.

The 55,000-gallon sea otter exhibit gives visitors a close-up look at these playful and curious mammals above and below the surface, together with marine plants, fishes and invertebrates. The result is an exhibit that looks much like the otters' wild environment. Feeding shows demonstrate their impressive appetites – in the wild, a sea otter eats up to 25 percent of its body weight a day. (Otters can weigh up to 80 pounds.) It costs about $10,000 a year to feed a single otter at the aquarium.

The aquarium's resident sea otters were born in the wild, and mistakenly separated from their mothers as young pups. All were rescued and raised by aquarium staff with the help of volunteers. Staff with the aquarium's Sea Otter Research and Conservation program work to improve the survival of this threatened species through collaborative studies of sea otter populations, cooperation in captive management programs and efforts to rescue, rehabilitate and return to the wild those stranded sea otters that can contribute to the recovery of the population.

MONTEREY BAY HABITATS:

Sharks, salmon, halibut, striped bass and many other fishes roam this 90-foot-long, hourglass-shaped exhibit. Four habitats in the bay have been re-created here: the deep reefs, the sandy seafloor, the shale reefs and the wharf. Bubble-shaped viewing windows offer an intriguing perspective on the deep reefs, while large acrylic windows provide a series of broad vistas into the exhibit. The hourglass shape gives sharks the long straight glide path they need to keep water moving efficiently over their gills. Actual wharf pilings from Monterey harbor anchor one end of the exhibit, while common murres – a species of seabird – paddle on the surface or dive and swim underwater. Visitors can view the exhibit on two levels: underwater on the aquarium's main floor; or from the surface at an overlook in "Splash Zone" near the penguins that offers a peek behind the scenes.

MARINE MAMMAL GALLERY:

From the public entrance, a parade of marine mammals wends its way overhead into the Marine Mammal gallery. These models, highly detailed replicas of various species found in the bay, include a 43-foot gray whale complete with barnacles, and her 22-foot calf. Orcas (killer whales), dolphins, porpoises and other marine mammals crowd the air above, while graphics and videos explain animal behavior and why the bay is a haven for so many species. A school of Pacific white-sided dolphins leads visitors into the Outer Bay gallery.

SPLASH ZONE:

A renovation of the family galleries, “Splash Zone: Ocean Homes,” opened in March 2008. The galleries originally opened in 2000, and were created especially for families with children nine years of age and younger. The expanded “Splash Zone” now engages children up to 12 years old. The colorful, hands-on galleries blend live-animal experiences with interactive learning in new and exciting ways. New species include the pharaoh cuttlefish and sea dragons, and visitor favorites like South African blackfooted penguins, colorful corals and tropical fishes remain. Over 45 interactive bilingual exhibits, staff-led programs and special play areas engage the imaginations of young visitors, inspiring them to appreciate ocean life in new and lasting ways.

THE GREAT TIDE POOL:

Ringed on three sides by the aquarium and on the fourth by artificial rocks that blend with natural granite outcrops, this man-made tide pool is open to the ocean and contains a natural association of the bay’s intertidal life. Colorful sea stars, anemones, crabs and other tide pool creatures live here, as well as a variety of fishes. Sea lions and occasionally gray whales swim past near the kelp beds just offshore, while sea otters and harbor seals occasionally visit the Great Tide Pool to feed or rest. Telescopes on decks surrounding the Great Tide Pool let visitors get a close-up view of offshore sea life and the shoreline of Monterey Bay. In summer, the Great Tide Pool is home to the “Underwater Explorers” surface SCUBA program for children ages 8 to 13.

MISSION TO THE DEEP:

In the permanent exhibition, “Mission to the Deep” visitors learn about underwater robots and other high-tech tools used to explore the deep sea by the aquarium’s sister institution, the Monterey Bay Aquarium Research Institute (MBARI). The exhibit features high-definition video of deep sea animals and hands-on displays that let visitors take the controls on simulated “missions” to explore the largest and most mysterious habitat on Earth.

KELP FOREST GALLERY:

The 28-foot-high Kelp Forest exhibit can be viewed on three levels. The new kelp forest exhibits in “Splash Zone” on the second floor bring visitors closer to the kelp forest community with a larger, more immersive touch pool, a walk-through kelp canopy and more. Visitors can also see the top of the Kelp Forest exhibit and the surge machine, and talk to feeding show divers, on the third floor.

DEEP REEF:

A new gallery devoted to the mysterious giant octopus explores its incredible repertoire of abilities and behaviors; unusual sheep crabs are featured nearby. Elsewhere in the dim, cold world of the deep granite reefs, predators like the wolf-eel and lingcod prowl. Nooks and crevices shelter colorful spot prawns and other creatures. Innovative exhibit designs bring visitors close to colorful reef-dwelling animals; rockwork and bronze models give visitors the “feel” of the deep reefs.

SANDY SEAFLOOR:

Flatfishes hide in a flat tank to display their camouflage skills; visitors can help hide a flatfish in a hands-on exhibit. Tube anemones and sea pens take center stage in a new, large domed display; two bubble exhibits showcase living sand dollars and delicate skate egg cases. Brittle stars, basket stars, hermit crabs, California king crabs, elbow crabs, Puget Sound crabs and purple globe crabs all make the most of life on these sandy stretches.

SHALE REEF:

A tour along the shale reefs turns up snapping shrimp, boring clams and all the drillers and dwellers in soft shale; floating magnifiers let visitors spy on tiny reef residents; a hands-on exhibit lets children discover where different animals live in the shale reefs. A new live exhibit features the tiny yet fascinating skeleton shrimp, with magnifiers and video for up-close viewing; another puts the focus on fringeheads, small but territorial fishes with large mouths and big attitudes.

WHARF:

Living tapestries of anemones, sea stars and other animals cloak wharf pilings, while clouds of fishes feed among them. Live exhibits, graphics, an overhead pier and actual wharf pilings in the Monterey Bay Habitats exhibit show a dramatic cross-section of life in this habitat created by humans, where even tossed trash offers homes for sea creatures. Touchable wharf pilings and an interactive "Real-Cost Cafe" immerse visitors in the sights, sounds and smells of Fisherman's Wharf in Monterey. The "cafe" offers tips on making seafood choices that protect ocean habitats and wildlife.

COASTAL WETLAND TO SANDY SHORE:

A visit to an interpretive "nature center" begins a tour of these shoreline habitats, from estuary to dunes to wave-swept beach. Interactive displays illustrate the rich life these habitats support, the human connection to them, and their importance to our lives. An expanded aviary and bat ray pool offer new vantage points to see shorebirds, ducks and bat rays, as well as a place to gently touch the rays. One display explores the fascinating lives of sand crabs and other beach creatures; another addresses the impact of invasive species on native marine life by looking at a local invader. Other living exhibits feature the ghost shrimp and fat innkeeper worm as well as pipefishes and other dwellers in seagrass beds.

ROCKY SHORE:

Fierce competition for space dominates the world between the tides. Interactive displays include a dramatic walk-through wave crash exhibit where the surf pounds overhead before flowing into a series of tide pools; an expanded touch pool where volunteer guides introduce visitors to tide pool animals and plants; and a wave splash display filled with intertidal animals. A larger tide pool macrovideo display allows viewers to guide an underwater camera over rocks crowded with life, with the image projected on nearby video monitors.

COASTAL STREAM:

Coastal streams are breeding grounds for steelhead trout and salmon, both found in the smooth, simulated granite pools of this indoor/outdoor exhibit. Turtles and wildflowers abound, along with Pacific tree frogs and red-legged frogs

ANCHOVIES:

A cylindrical exhibit showcases a school of swirling anchovies, whose shining undersides and dark backs demonstrate "countershading," an adaptation that provides effective camouflage from predators above and below in the wild.

HISTORICAL DISPLAYS:

A sun-filled atrium encloses the original Hovden Cannery boilers and an exhibit about life on historic Cannery Row. Still images, video clips, music and interactive displays provide details about the sardine canning process and what it was like to work on the packing line at the Hovden Cannery. Artifacts recall the tumultuous history of the street built by sardines and made famous by Nobel Prize-winning author John Steinbeck, plus provide a glimpse into the life and lab of his good friend, marine biologist Ed "Doc" Ricketts.

COMMON MURRES:

This exhibit, in "Splash Zone" beside the penguins, overlooks the Monterey Bay Habitats exhibit and explains the life history of common murres, seabirds that nest on rocky islands and cliffs along the California coast. Several of these diving birds are part of the Monterey Bay Habitats exhibit, where they have lived since they were rescued following an oil spill along the coast. The exhibit explores their lives and describes efforts to re-establish breeding colonies in California.

SKYWALK:

A skywalk 144 feet long, 10 feet high and 8 feet wide connects the second floor Splash Zone galleries with the Outer Bay galleries. The second-story skywalk and mezzanine provide stunning vistas of Monterey Bay, eye-to-eye views of gray whale and orca models, as well as new views into the sea otter exhibit and Gift & Bookstore.

Exhibit Highlights

OUTER BAY GALLERIES

AN EXTENSIVE REMODEL OF THE OUTER BAY GALLERIES WILL BEGIN ON AUGUST 30, 2010, AND ENCOMPASS FOUR PHASES. ALL GALLERIES – INCLUDING NEW GALLERIES ABOUT PLASTICS POLLUTION AND AN EXPANDED FAMILY PLAY AREA – WILL REOPEN IN JULY 2011.

THE OUTER BAY:

The open sea is a vast blue world seemingly without boundaries, and the Outer Bay exhibit (encompassing open ocean waters of the temperate Eastern Pacific) gives visitors a sense of its enormity. Visitors look through one of the largest windows on Earth – 54 feet long, 15 feet tall and 13 inches thick, weighing 78,000 pounds – into a 90-foot-long, 35-foot-deep exhibit, one of the tallest aquarium exhibits in the world.

The Outer Bay holds a million gallons of seawater, more than all other exhibits combined. Viewing is possible from the main floor, a mezzanine gallery and a ground-floor window in the "Vanishing Wildlife" gallery. Here, graceful predators swim past, like scalloped hammerhead and Galapagos sharks, fast-swimming schools of yellowfin tuna, bluefin tuna—including some classified as "giants" because they weigh more than 300 pounds—and bonito, ocean sunfish, California barracuda, dolphinfish and – five times in the past six years – a young white shark. Due to a planned remodel of the Outer Bay exhibit for repairs on August 30, the aquarium will not exhibit a white shark in 2010. Once the Outer Bay exhibit is re-opened in July 2011, the aquarium will resume attempts to place a juvenile white shark on exhibit..

OUTER BAY INTRODUCTORY GALLERY:

The open waters of Monterey Bay lie beyond the familiar habitats close to shore. Here, animals have adapted to survive in a blue world without boundaries. The introductory gallery marks a dramatic transition to this vast habitat, alerting visitors they are moving offshore into the Outer Bay – a world few people have ever visited.

Life-size models of Pacific white-sided dolphins lead visitors to the Outer Bay. Quiet ocean sounds, curved walls and cushioned flooring create a sense of otherworldliness. Light from a blue-domed ceiling washes the gallery like the sunlit waters of the ocean surface. Overhead, thousands of silvery anchovies swim in a 27-by-20 foot oval exhibit, 65 feet in circumference and holding 15,000 gallons of water. Stepping into this gallery creates a sense of immersion in the ocean environment.

OUTER BAY LIFE:

Animals have evolved two different approaches to survive in the Outer Bay: swimming and drifting. In one seven-foot-long exhibit are purple-striped jellies that find food as they drift gracefully through blue waters; in another, a school of swift-swimming Pacific mackerel flashes past. Like other Outer Bay fishes, these fast-moving animals actively seek out their food. Dappled light dances around you as you move through the gallery, and music reinforces the otherworldly mood.

THE DRIFTERS:

Throughout the world's oceans, jellies are major predators as they pulse and drift at the surface and in the midwater. These delicate animals take many forms. Simple in appearance, their lives are complex and shrouded in mystery.

The Drifters gallery features one of the largest permanent collections of jellyfish species in the world. Oceanic species like egg-yolk jellies and sea nettles drift gently in exhibits more than ten feet long that are lit to accentuate the jellies' delicate beauty. Comb jellies pulse with rainbow bands of light as they swim.

Special tanks designed at the aquarium allow these fragile animals to be included in permanent displays. Background music creates a dreamlike mood as visitors learn about animals they may never have encountered before. A nine-foot-long interactive model helps visitors explore the structure of jellies, how they capture prey and how they move through the water.

TINY DRIFTERS:

All life on Earth ultimately depends on the productivity of plankton. Phytoplankton (the microscopic ocean plants) are major producers of oxygen and the basis of the ocean food web. Zooplankton (tiny animals of the sea) feed on planktonic plants and are themselves food for bigger animals, or grow to become larger animals.

In the Tiny Drifters gallery, exhibits of living animals and intricate large-scale models of planktonic drifters convey a sense of the remarkable beauty, the incredible numbers, and the stunning variety of these tiny creatures. A hands-on exhibit lets visitors illuminate giant models to learn about the many kinds of plankton.

THE SWIMMERS:

Like their drifting counterparts, the Swimmers have special adaptations for life in the outer bay. Live exhibits and hands-on interactives tell the story of fishes that live where there's no place to hide, and where finding food often requires a search. A six-foot diameter round window provides a different perspective on the Outer Bay exhibit. Here, looking through 90 feet of water, fishes appear suddenly, then fade into the distance. In a separate exhibit, Pacific sardines swim past in dense schools. Interactive exhibits demonstrate how tuna glide effortlessly through the water; how two-toned bodies camouflage fishes; and how schooling helps them avoid predators. Overhead, a sleek blue shark model pursues a school of Pacific mackerel.

EXPLORING THE OUTER BAY:

Monterey Bay is a system that includes nearshore habitats displayed in the main aquarium, and the bay's open waters and deep sea that are the focus of the Outer Bay galleries. The bay lies at the heart of the largest protected marine area in the Northern Hemisphere, and includes the largest submarine canyon system on the West Coast. In Exploring the Outer Bay, visitors can make the connections among plants, animals and the dynamics of water, currents, lights and depth. A mix of live exhibits, videos and interactive displays explain the links in the food web that supports the bay's rich marine community; the movement of waters and animals across the surface in response to changes in wind, currents, temperature and salinity; and the distribution of living creatures between the surface and the depths 300 feet below.

Live exhibits include pelagic barnacles that attach to drifting objects, gaining a toehold for life where there are no solid surfaces; medusafish, animals that find shelter in the tentacles of jellies; and changing exhibits of animals that are seasonally abundant in the bay: sea butterflies, sea angels, arrowworms, salps and siphonophores. Video microscopes and a flat-screen monitor at the Plankton Lab give visitors a close-up look at tiny plants and animals that sustain much of ocean life

THE PLANKTON LAB:

A volunteer guide with a video microscope in the Plankton Lab gives visitors a close-up look at the colorful plants and animals that sustain the web of life in the ocean. Other displays show how many marine animals, including ocean sunfish that can weigh up to two tons, begin their lives as tiny drifters. Video displays of microscopic sea life and interactive exhibits about the ocean food web help tell the story of these easily overlooked yet intricate organisms.

OCEAN TRAVELERS:

For pelicans, gray whales, sea turtles, tunas and many other species, Monterey Bay is both home and highway. The Ocean Travelers gallery introduces the stories of creatures that are seasonal residents of the bay. It also presents an important conservation message: that the fate of these animals depends on the health not just of Monterey Bay, but also of the oceans through which they journey. Comfortable benches invite visitors to linger and take in magnificent bay views through a wall of windows, or trace the migration routes of animals on globes located beside the seats. Conservation stations offer ways to take action that will help protect ocean habitats – and to learn what other visitors are doing.

FLIPPERS, FLUKES & FUN:

Parents and children can learn together in this gallery of interactive exhibits aimed at 4- to 7-year-olds and their families. Flippers, Flukes & Fun invites children to discover the similarities and differences between people and marine mammals. Exhibits explore the ways that marine mammals eat, care for their young, move through the water and communicate. It's a place to relax and have fun while learning about the marine mammals of the bay.

Children can put on flippers and flukes to feel how whales swim, and crawl through a blubbery elephant seal to discover how natural insulation keeps marine mammals warm in cold ocean water. There are models of toothed and baleen whales to feed. Whales sing, dolphins squeak and elephant seals bellow as children push buttons to learn how marine mammals communicate. An outside deck has telescopes mounted at child's-eye level to let kids view marine mammals in the wild.

VANISHING WILDLIFE:

“Vanishing Wildlife: Saving Tunas, Turtles and Sharks” features a stunning ground-floor view into the million-gallon Outer Bay exhibit. The window is 25 feet long by 10 feet tall and slanted at a 60-degree angle above visitors’ heads. This puts visitors both beneath the fishes in the exhibit and eye to eye with impressive yellowfin and bluefin tuna, sharks and other passing fishes. The window is the main feature of a gallery that offers a sobering look at how growing demand for seafood, combined with destructive fishing practices, threatens ocean wildlife like bluefin tuna, sharks and sea turtles.

Exhibit Highlights

SPECIAL EXHIBITIONS AND NEW ADDITIONS

The Monterey Bay Aquarium supports the most ambitious special exhibitions program of any aquarium. It is noted for creating special exhibitions of marine life and topics from regions beyond the bay. These have included “Mexico’s Secret Sea,” an award-winning exhibit about animals from the Gulf of California; “Living Treasures of the Pacific,” about creatures from tropical and temperate waters in the Pacific Ocean; “Planet of the Jellies,” the acclaimed exhibit of jellyfish species; “Mating Games: Reproduction and Survival in the Aquatic World,” about the ways aquatic creatures mate and rear their young; “Deadly Beauties,” featuring poisonous sea life from tropical reefs; “Fishing for Solutions,” an award-winning exhibit about the problems and solutions to threats facing commercial fisheries worldwide; “The Inside Story,” a behind-the-scenes peek at aquarium operations; “Mysteries of the Deep,” the largest living exhibit of deep sea animals ever presented; “Sharks: Myth and Mystery,” which explored how people around the world celebrate sharks and rays through art, dance, stories and other traditions, “Wild About Otters,” a multi-sensory adventure into the lush world of remarkable freshwater otters, tropical fishes, reptiles and plants and the aquarium’s first ever freshwater exhibition; and the award-winning “Jellies: Living Art” showcasing the aesthetic beauty of a wide variety of jelly fish species alongside art inspired by the marine environment.

CURRENT SPECIAL EXHIBITIONS:

HOT PINK FLAMINGOS: STORIES OF HOPE IN A CHANGING SEA: In the Monterey Bay Aquarium’s newest special exhibition visitors journey through seven galleries that weave together stories about the many ways that climate change is affecting ocean animals – and tales of hope involving people and communities that are fighting climate change and making a difference. Galleries in the 7,000-square-foot exhibition introduce visitors to living animals from around the world – including tropical wading birds, green sea turtles, Magellanic penguins, drifting jellies and vibrant coral reef communities - and incorporate video and hands-on activities to address how our energy use creates carbon pollution. They also spotlight the many impacts carbon pollution has on the oceans: from rising sea levels and melting Arctic ice, to ocean acidification, warming waters and disappearing food. Designed to engage and inspire, the exhibit’s compelling live animals, combined with real human stories of progress and hope serve to bring visitors a new and empowered perspective on global climate change. (Opens March 29, 2010.)

***THE SECRET LIVES OF SEAHORSES*:** Found throughout the world’s oceans, especially in tropical waters, seahorses and their relatives come in a wonderful array of colors, shapes and sizes. In the aquarium’s special exhibition, “The Secret Lives of Seahorses,” visitors explore these mysterious fishes and learn about threats they face in the wild, and how they can help them survive. Four exhibit galleries in “The Secret Lives of Seahorses” show visitors how seahorses and their kin grow up, find mates and reproduce: “Seahorses and Kin” introduces visitors to the seahorse family; “Growing Up” highlights juvenile seahorses; “Getting Together” showcases intricate courtship rituals; and “Giving Birth” tells the story of male seahorse pregnancy, unique in the animal kingdom. **(Opened April 6, 2009)**

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