

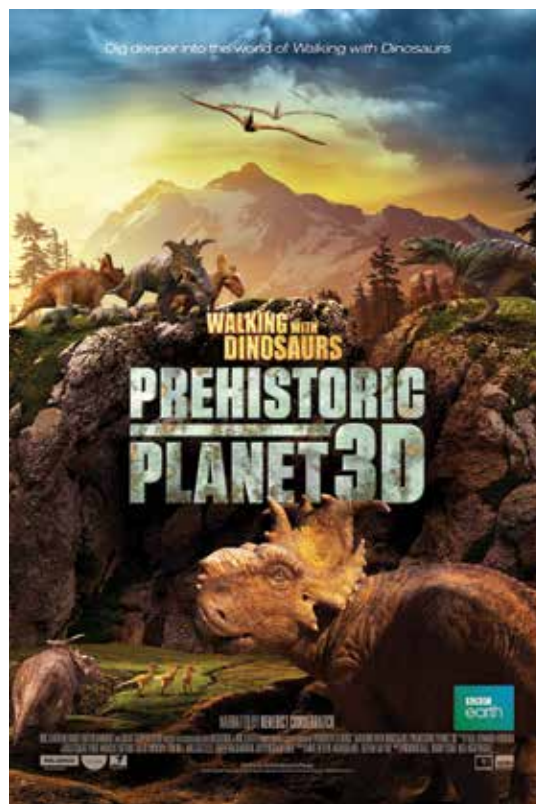
SAN DIEGO NATURAL HISTORY MUSEUM

Field Notes

ISSUE 1 VOLUME 6 FEB 2015



FREE FOR MEMBERS!
PLAYING ONLY IN 2015



Watch these dinosaurs come to life in our newest 3D film!

DOWNING 3D EXPERIENCE
IN THE CHARMAINE AND MAURICE KAPLAN THEATER

THE DOWNING 3D EXPERIENCE IS MADE POSSIBLE BY:
JOHN AND TRACY DOWNING, DOWNING FAMILY FOUNDATION; THE REAROR AND JERRY NAVARRA FAMILY, JEROME'S FURNITURE,
AND STEPHEN COHEN, PRESIDENT, PRIVATE ASSET MANAGEMENT, INC.

theNAT
SAN DIEGO NATURAL HISTORY MUSEUM

Field Notes is published three times a year by the San Diego Natural History Museum.

President and CEO
Michael W. Hager, Ph.D.

Vice President, CFO and COO
Susan M. Loveall

Vice President, Institutional Advancement
Ann Laddon

Vice President, Research and Public Programs
Michael Wall, Ph.D.

Art Director
Mary Lou Morreal

Editor
Rebecca Handelsman

Editorial Committee
Eowyn Bates, Margaret Dykens, Brad Hollingsworth, Ph.D., Ann Laddon, Donna Raub, Beth Redmond-Jones, April Tellez, Michael Wall, Ph.D.

Photographers: Michael Field, Pablo Mason, Bronson Pate, Bob Ross, April Tellez, Robin Wood

Cover Image: Grizzly bears greet visitors as they enter *Coast to Cactus in Southern California*.

The Membership Department can be reached Monday–Friday, 9 AM–5 PM, for assistance with change of address, replacement cards, renewing or upgrading your membership, and any other questions. Contact 619.255.0275 or membership@sdnhm.org.

San Diego Natural History Museum Mission:
To interpret the natural world through research, education, and exhibits; to promote understanding of the evolution and diversity of southern California and the peninsula of Baja California; and to inspire in all a respect for nature and the environment.

San Diego Natural History Museum
1788 El Prado, Balboa Park
San Diego, CA 92101
Phone: 619.232.3821 www.sdnat.org

Copyright ©2015 by the San Diego Natural History Museum. Reproduction in whole or in part without the written permission of the San Diego Natural History Museum is prohibited.



Dear Museum Members and Friends,

I am still basking in the glow of the *Coast to Cactus in Southern California* dedication week and I can't have imagined a more successful launch for this incredible \$9 million permanent exhibition. We celebrated with a week of events, from media previews to donor, member and volunteer events, capped with a public ribbon cutting on January 17. *Coast to Cactus* is the Museum and its donors' gift to all of San Diego and is the perfect inauguration to the Balboa Park Centennial. One hundred years ago, the Panama-California Exposition introduced the world to San Diego—and 100 years later, *Coast to Cactus* does it again. Combined with *Fossil Mysteries*, these two exhibitions tell the story of the geologic and paleontological history of our region, explore its current biodiversity, and give us a glimpse of what the future may hold.

In addition to *Coast to Cactus*, theNAT has pulled out all the stops for 2015, starting with the traveling exhibition *The Discovery of King Tut*, which runs through April 26, continuing

with the recently opened *Birds of the World*, and wrapping with *Maya: Hidden Worlds Revealed* opening June 12. These superb traveling exhibitions take visitors on a journey to explore rare and remote places and people, much like the 1915 exposition served to introduce visitors to the world beyond our borders.

2015 is also noteworthy for the intensity of our research expedition schedule. Curator Phil Unitt is wrapping up the San Jacinto Centennial Resurvey, and Vice President of Research and Public Programs and Curator of Entomology Dr. Michael Wall is heading up a multi-disciplinary, multi-year survey of the Sierra Cacachilas in southern Baja California.

And from all these projects emerge engaging education programs and new curricula to disseminate the discoveries and illuminate the stories within the exhibitions. All in all, the engine of our mission is being powered by a rich and diverse combination of research and public programs.

This is only possible through the support of our donors, members, volunteers, and the community. On behalf of the entire staff, I thank you for your continued commitment to the San Diego Natural History Museum.

Warmly,

Michael W. Hager, Ph.D.
President and CEO



Start Here!

Words cannot describe the fever pitch of excitement barely contained within the walls of our Museum the past several months as we led up to opening our latest home-grown exhibition, *Coast to Cactus in Southern California*. If the walls could move, they would definitely have been pulsing with the high energy imbued in this new exhibition.

"In the works" in one form or another for over a decade, this creation is viewed by staff as the signature exhibition which best exemplifies our mission. Walking through the exhibition is like being given a personal guided tour by an extraordinarily knowledgeable and entertaining local guide, who starts us out at the coast and meanders through the urban canyons, riversides, chaparral, mountains, and deserts of southern California, pointing out all the stellar highlights along the way. Talk about imparting our visitors with respect for our local beauty and biodiversity, and our own residents a new heart-felt sense of place! Never again can anyone who visits the Museum come away without a vital appreciation for the spectacularly rich array of plant and animal species and the natural wonders that make up our home here in southern California.

In fact, we feel that this exhibition should be "required viewing" for anyone visiting our area for the first time—so much so that we imagine it would be appropriate to hang a huge banner on our building with the simple words: "Start here!"

This exhibition, placed on the west side of the Atrium in the Dennis and Carol Wilson Hall of Biodiversity, mirrors the layout for *Fossil Mysteries*, which is oriented on the east side of the Atrium. The two exhibitions taken together complete the prehistoric as well as the current view of this environmentally lush locality we call home. A guest walking through both of these exhibitions comes away with the complete picture of southern California from past to present, and will surely take away with them a new inspiration to get out and actively hike, explore, photograph, camp, visit, and otherwise revel in our very own backyard.

Of equal interest to adults and kids, *Coast to Cactus* has many interactive features that will delight kids while entertaining the adults accompanying them. Our remarkably creative exhibit developers and designers have excelled at making the experience fun, engaging, and



absorbing, while adding on deeper layers of learning.

A crawl-through model of an intertidal mudflat teeming with birds, fish, and marine invertebrates takes on a whole new dimension, literally, since it has been blown up to huge proportions, allowing kids to crawl through on hands and knees and see critters eye-to-eye that would be tiny in real life. Never had a chance to stay overnight in the Anza-Borrego desert area?

No problem! An exhibit next to an actual Airstream Bambi trailer allows kids and adults alike to see and encounter the miraculously strange and mysterious sights they would witness while camping overnight in our vast deserts. Explore our urban wildlife interface in the patio, where you can test your knowledge of native plants and animals.

Our staff has lavished their skills, talents, knowledge, and undying enthusiasm on these displays, and that effort shines through in every

corner of *Coast to Cactus*, whether in the beautiful recreation of the Torrey Pines bluff with animals peeking out from hidden spots, or the attic, where visitors can listen by phone to locals sharing personal stories about change over time in our region.

Simply put, we are certain our guests will be blown away by this exhibition for many years to

come. It is fun, it is fabulous, it is fantastically educational! Despite the daunting task of covering the whole gamut of varied habitats, our staff has woven together a rich and complex tapestry representing the vivid natural beauty and resources of southern California, giving a powerful message that we all need to work towards preserving these precious natural treasures for future generations.



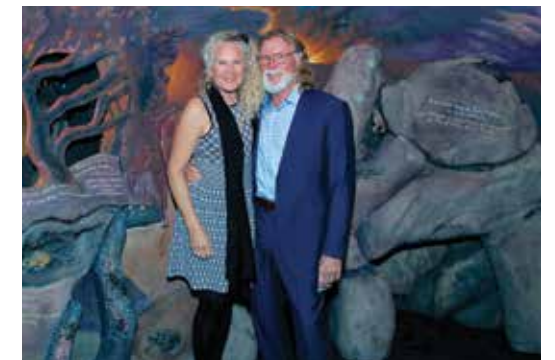
This page and facing page: Hands-on exhibits, immersive experiences, innovative media, and specimens from the Museum's scientific collections come together in Coast to Cactus to illustrate the diversity of plant and animal life in our region.

It's official—visitors love it!

On January 17, hundreds of visitors attended the public dedication of the Carol & Dennis Wilson Hall of Biodiversity and the ribbon-cutting ceremony for *Coast to Cactus in Southern California*. After decades of dreaming and years of planning and development, we are proud to present this unique and vibrant exhibition, made possible in part through the support of members and generous donors like you. If you haven't already, we hope that you will come explore the exhibition soon.



Facing page: Visitors can't wait to explore *Coast to Cactus* immediately after its dedication on January 17. This page (clockwise from left): A ribbon cutting featuring elected officials and Dennis and Carol Wilson marks the official opening of the exhibition; Mick Hager recognizes the Museum's Exhibits staff at the VIP opening reception; Christy Walton with guest Joe Cheek; Ms. Frizzle and friends; Nita van der Werff and family.



“As the saying goes, we don’t know what we’ve got until it’s gone—and we don’t know what can be restored if we never recognized its existence in the first place.”

—Richard Louv

Citizen Science: Public Participation in Environmental Research

Amphibian and Reptile Atlas of Peninsular California

By Bradford D. Hollingsworth, Ph.D.
Curator of Herpetology

By now, the Museum’s Atlas programs should be familiar to you. Years ago, we published the renowned *San Diego County Bird Atlas*, and we continue to work toward completion of the Plant Atlas and Mammal Atlas.

We are proud to announce one more addition to these highly successful citizen science research projects. The Amphibian and Reptile Atlas of Peninsular California, available at sdnat.org/herpatlas, is an entirely online resource that aims to document trends in species’ distributions using the Museum’s extensive research collections along with contributions from citizen scientists.

The Atlas is centered around an online field guide with photographs and distribution maps of every amphibian and reptile in our region. Each species is the entry point into our interactive

mapping feature, giving you full access to our databases.

Our region, Peninsular California, is defined as the geological peninsula which extends from southern California to the tip of Baja California. Within the region, there are 192 species of amphibians and reptiles, some native and some introduced, some widespread while others endemic.

At the heart of the Amphibian and Reptile Atlas is a streamlined website that should make participating as easy as uploading a photograph to our site via an iNaturalist portal. From there, a team of experts will help confirm the species identity and give you feedback about your contribution. The next time a snake shows up in your backyard or you photograph an unknown lizard during



one of our Canyoneer hikes, you can turn this observation into a scientific voucher, archiving it to be used in biodiversity research.

The Atlas will display your uploaded observations on the same map as our Museum’s own collection data. This means that the observations and digital photographs you upload today will be featured alongside our specimens that date back more than 100 years.

We hope to track changes through time, whether it is the spread of an invasive exotic species, or the decline of species that are limited to a very restricted area.

Combining your data with the Museum collection information will not only increase the resolution of biodiversity data, it will add meaning.

As a citizen scientist, your altruistic contribution will enhance our understanding of the region’s biodiversity, and your participation will leave you with a better understanding of our natural heritage.

While many professionals often access our Atlas, it is also being embraced by the younger generation. Engaging children in hands-on



The Amphibian and Reptile Atlas of Peninsular California invites people to upload their own photos as well as access the Museum’s own collections data and explore species’ distribution.

science is one of the central missions of the Museum, and the Atlas is now being used in summer camps and education programs. As Richard Louv, the author of *Last Child in the Woods* aptly stated, the citizen scientist movement will be a powerful antidote to the nature-deficit disorder of the next generation.

NEW AT THE NAT

A Year of Wonder

Get ready for an exciting 2015—and beyond. TheNAT kicked off Balboa Park’s Centennial Celebration with the opening of *Coast to Cactus in Southern California*, but we’re not stopping there. Our team has a full year of excitement in store for visitors and members of all ages. Mark your calendar for 12+ months of high-quality exhibitions that are as entertaining as they are educational.

Birds of the World

View stunning imagery of birds from every continent by 14 award-winning wildlife photographers, including Arthur Morris, Markus Varesvuo, and more.

February 7–September 13, 2015



Maya: Hidden Worlds Revealed

The largest exhibition of its kind in the United States, *Maya: Hidden Worlds Revealed* invites visitors to uncover the rise and eventual decline of this majestic civilization through never-before-seen artifacts, hands-on activities, multimedia components, and recreated environments.

June 12, 2015–January 3, 2016



Whales: Giants of the Deep

Interactive, immersive, and featuring the latest in international cetacean research, *Whales: Giants of the Deep* is an experience that brings adults and children eye to eye with some of the world’s most elusive creatures. Developed and presented by the Museum of New Zealand Te Papa Tongarewa.

Opening March 19, 2016

As a member, you always receive free general admission to the Museum and exclusive discounts on exhibitions that require an upcharge.

MEMBER NEWS

Upcoming Events

It’s going to be a great spring. Don’t miss our annual members-only egg hunt on March 28 and numerous other programs—talks, films, family programs, and more—that bring nature closer and make science fun. Members always receive free or discounted admission to exhibitions and programs at theNAT. Check out the calendar for a full schedule of events and activities.

Join our Monthly Donors

Join the growing group of donors who generously give monthly to the Museum’s Annual Fund. Monthly donors provide a dependable source of funding that allows the Museum to concentrate on developing exhibitions and educational programming as well as to continue scientific research. Enrollment in our monthly giving program allows your dollars to go further by eliminating the need to mail payments, and can also be more convenient for you. You can opt to make a monthly gift from your credit card or directly from your bank account. Visit sdnat.org/donate to enroll today, or call 619.255.0359 for more information.

ALEX AND ELIZABETH WISE
MUSEUM STORE



Check out our
remodeled store and
new merchandise!

Members always receive a
10% discount.

Middle Schoolers Become Exhibit Makers at theNAT

Exhibits are at the heart of the museum experience for most people, but how is an exhibit made? What are necessary steps to see an exhibit come to life? And what do exhibits teams do exactly? This is what a group of middle school campers learned last summer.

A new exhibition takes years to make its way through development, design, fabrication, and installation. In our Exhibit Makers summer camp, this process is compressed into five days, giving campers a glimpse into the process of making an exhibit. By definition, an exhibit is a single component or individual display that often serves as one part of a larger exhibition. Campers meet with our exhibits professionals, scientists, and educators

throughout the week to gain a better understanding of their roles in the process.

The first two days of camp are dedicated to developing and designing our exhibit. Campers brainstorm a long list of ideas that are winnowed using the Museum’s mission, material limitations (including access to specimens), spatial constraints, and a tight schedule as filters to develop the content. Then the design process gets campers out in the galleries measuring spaces, drawing plans, and working through all of the little choices that make a big difference in the final work.

The fabrication process is where the exhibit takes physical form, as campers participate in making all the components that comprise an exhibit, such as specimen displays, cabinets, labels, and interactive elements. Finally, the campers install

their exhibit in the Museum, which brings all of the elements together into a coherent package in the gallery space, and get to celebrate the opening with family and Museum staff.

Last summer, campers created two stand-alone exhibits entitled *Cats: Discover the Beasts at Home* and *Natural Myth-Conceptions*. Both were displayed on the Museum floor for weeks and enjoyed by many visitors.

Exhibit Makers is offered to students in grades 6-8, and is just one of many enlightening camp programs offered for kids. Join us this summer to participate in adding to our galleries with more kid-created exhibits. Summer Camp registration begins March 2. Watch your email for camp descriptions and registration information.



Campers work alongside Museum staff to bring science to life at Exhibit Makers summer camp.

Travel News: Save the Date

Whales & Wildness: Spring in the Sea of Cortés
April 9-16, 2016

Join Museum President and CEO Mick Hager on a Lindblad Expeditions cruise through the Sea of Cortés. This trip marks Mick’s 25th anniversary and his retirement from the Museum, and it is a fitting tribute to his dedication to the natural history of Baja California and the Sea of Cortés. See large pods of dolphins and various species of whales—blue, sperm, pilot, fin, humpback, and Bryde’s. Explore water-level caves by kayak, hike uninhabited beaches, snorkel among fish and sea lions, and see colorful cactus blossoms.

Price: \$5,990-\$10,300 (based on cabin) per person (does not include airfare). Registration is now open and the trip is expected to sell out. Learn more at sdnat.org/support/leadership-circles/trips.





JUNE 22-AUGUST 14
Pre-K/Kindergarten, Half-Day Camps
Grades 1-8, Full-Day Camps

SUMMER CAMP!

REGISTRATION BEGINS MARCH 2 FOR MEMBERS
AND MARCH 9 FOR NON-MEMBERS.

www.sdnat.org/summercamp 877.946.7797

Q&A with Dr. Zahi Hawass



World-famous Egyptologist Dr. Zahi Hawass is a tireless advocate for archaeological exploration and conservation of Egypt's extraordinary ancient monuments, having served as Secretary General of the Supreme Council of Antiquities and as the first Minister of State for Antiquities. He is also the author of more than 150 scholarly articles and 40 scholarly and popular books. In advance of his sold-out lecture at theNAT next month, we chatted with Dr. Hawass about how he got into the field of archaeology, what he's up to now, and the treasures he believes are still waiting to be discovered.

Q: How and when did you become interested in Egyptology?

A: When I was young, I wanted

to be a lawyer because I saw successful lawyers in the movies and wanted to emulate them, but later decided it was not a career for me. I chose archaeology by accident. I studied it for four years but it never really touched my heart. After graduation, I was appointed as the inspector of antiquities, and was sent to work in an excavation. I was upset to leave Cairo and to live in the desert. I went to the site feeling angry, but one day the workmen found a tomb and they asked me to look at it. While cleaning the tomb, I found a statue in a niche inside the tomb. They gave me a brush to clean the statue. As I began to clean the statue, I realized that I had found my love... archaeology. I like to say if you like something it is not enough, if you love something it is also not enough, but if you give your passion to something, you make it big. And I gave my passion to archaeology.

Q: Why is the discovery of King Tut's tomb so significant?

A: Because this is the only royal tomb that was found intact in Egypt's Valley of the Kings. It was full of gold and it belonged to a boy who ruled Egypt when he was only nine years old. The discovery created the story of the curse of the pharaohs that

continues to fascinate people all over the world.

Q: Why is *The Discovery of King Tut* a must-see exhibition, given the artifacts are replicas?

A: The exhibition is a great experience because it has scientifically-made artifacts and a video that demonstrates the thrill of the discovery. The real treasure will never leave Egypt again, yet this exhibition—even with replicas—still captures the hearts and minds of people.

Q: Do you think there are more tombs to be found?

A: Yes, the tombs of Amenhotep I, Thutmose II, and Ramses VIII have not yet been discovered. Also, the tombs of the queens of Dynasty XVIII are still missing.

Q: You are completing another book about Ancient Egypt for children. What inspired you to write for children?

A: I have written two children's books, one about King Tut and another on the curse of the Pharaohs. The one I recently finished is called *The Legend of the Golden Boy*. I love writing for children. There has been a great response from children all over the world, particularly by those who dream of being an archaeologist.

Enduring Gifts

Among the Museum's many hundreds of volunteers, there are a number who start here first as a volunteer and later look for other ways to be involved. Some of these friends become donors and gain the satisfaction of helping the Museum in both roles.

We fondly remember a particular volunteer who personified these two roles. Bob Cherry worked two mornings a week in the Library Map Room, and also managed a used book sale to benefit the Library. He organized 5,000 maps and valuable documents under the supervision of Margi Dykens, director of the Research Library. Bob and his wife, Mary Jane, are both now deceased, but the charitable gift

annuity they established in 2003 will continue their tradition of support for the Museum.

Live Oaks is the Museum's legacy society established to recognize and thank those nearly 100 friends who remember the Museum in their estate and make their plans known to us. It gives us the privilege of saying as many "thank yous" to them as we can.

At the same time, not every individual is comfortable making their estate plans known, and in such cases, anonymity is respected.

For example, one generous longtime paleontology volunteer took nearly six years to write, edit, and formally accept and sign, a detailed description of

an endowment gift that will soon benefit the paleontology department. Though the standard advice is to first make a Will, then a Trust, this individual first crafted the endowment description to ensure that funds from his estate will be used to support work vital to the paleontology department's mission.

When a person's strongly held personal interests also match the current needs and projected future needs of the Museum, this makes a "win-win." In whatever way you may choose to be a part of the future of the San Diego Natural History Museum, please know that we will work with you to fulfill your wishes to benefit a particular scientific department, an ongoing program, or the Museum as a whole.



Curator Tom Deméré and Director of Volunteers Janet Morris present an award to Jim Colclough for 25 years of service.

Your commitment through a charitable planned or estate gift benefiting the San Diego Natural History Museum will qualify you for membership in the Live Oaks Society.

Won't you join us?

Contact Donna Raub
at 619.255.0314



VOLUNTEER NEWS



Volunteer Profile: Julie Blyth

Julie Blyth received one of only four Friends of Balboa Park Inspiration Awards on October 21, 2014, an honor given to volunteers who have contributed countless hours of volunteer service to the Park’s organizations.

A nature lover since her childhood when she tromped through the wilds of New Mexico with her father, Julie gravitated to the San Diego Natural History Museum. She has supported our institution as a member for more than 48 years and as a volunteer since 1980.

Over the years, Julie has been involved with the Museum in many ways, from bringing

her students here on field trips (Julie taught seventh through ninth grade science students in Marston and Wangenheim middle school classrooms) to participating in monthly hikes that taught the visually impaired how to connect with nature through the senses of touch and smell.

When Julie retired from teaching school in 1994, she didn’t retire from educating others. Instead, she expanded her volunteer work to include exhibit interpreting, educating Museum guests as they tour the exhibitions.

As an exhibit interpreter, Julie engages the visitor in conversation—something as simple as asking where they are from or what brings them to the Museum that day. Before

job is easy, she says. Her gentle unassuming manner makes her an ideal interpreter. She knows how to read the visitor, when to approach, and when to back away.

For the past 20 years Julie has been volunteering every Thursday and every Resident Free Tuesday, sparking a love of science in visitors of all ages. She says she especially enjoys the younger guests. “They really like to show off what they know,” Julie says, and in most cases they know exactly what they are talking about. Meeting people from all over the world delights her and she is always eager to share what she knows about this area.

Julie also volunteers at the Kroc Center and spends leisure

Julie has supported our institution as a member for more than 48 years and as a volunteer since 1980.

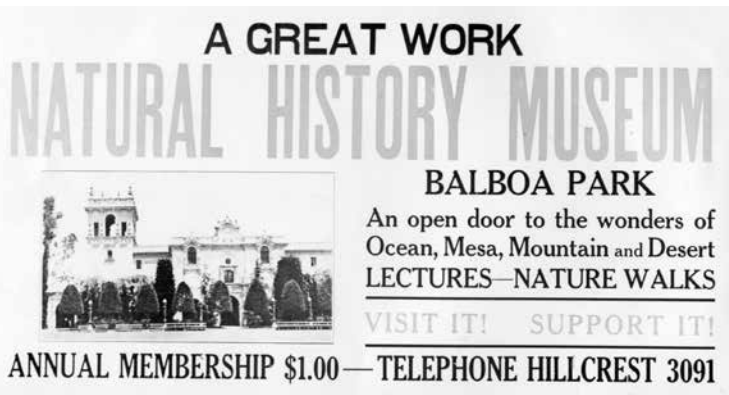
they know it, Julie very deftly sneaks in a little learning, and our guests leave with a better understanding of the natural world around them. Julie finds that visitors to theNAT tend to be more curious and open to learning something new, so her

time enjoying Balboa Park. She recently purchased the Balboa Park Explorer and visits other museums each time she comes to volunteer. Julie exemplifies what is best in volunteerism, and we are lucky to have her as part of the Museum family.

PAGES FROM THE PAST

The More Things Change, the More they Stay the Same

This advertisement from the 1920s alludes to our Museum providing an “open door” to the wonders of the ocean, mesa, mountains, and desert. In 2015, we welcome visitors to our brand-new exhibition, *Coast to Cactus in Southern California*—which focuses on the very same habitats mentioned in this ad from 90+ years ago. And although many of the sights, sounds, and smells that greet our guests when they walk through the

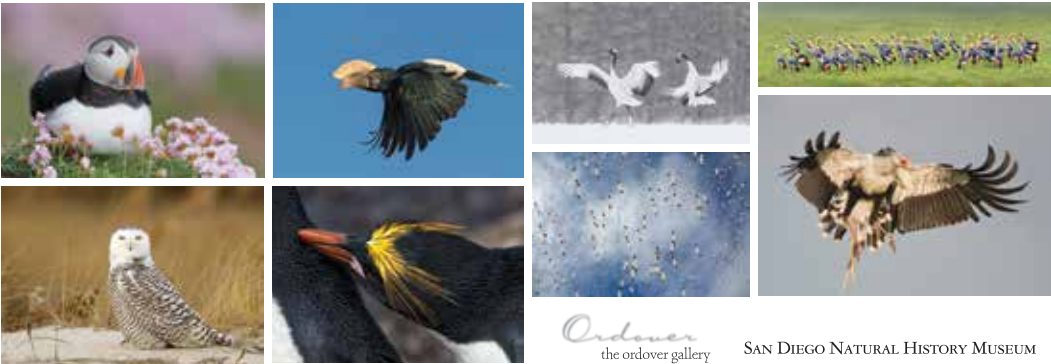


displays are ones that a person living in 1920 could not have envisioned, the idea behind it remains the same: an open door to celebrating the very special richness of our local

natural world. We still offer lectures and nature walks. Yes, membership costs more than \$1 now. But we offer a whole lot more for the admission fee as well!

Birds of the World

FEBRUARY 7 - SEPTEMBER 13



SAN DIEGO NATURAL HISTORY MUSEUM
P.O. Box 121390
San Diego, CA 92112-1390

Non profit Org.
U.S. Postage
PAID
Permit No. 466
San Diego, CA



MAYA

HIDDEN WORLDS REVEALED

OPENING JUNE 12