

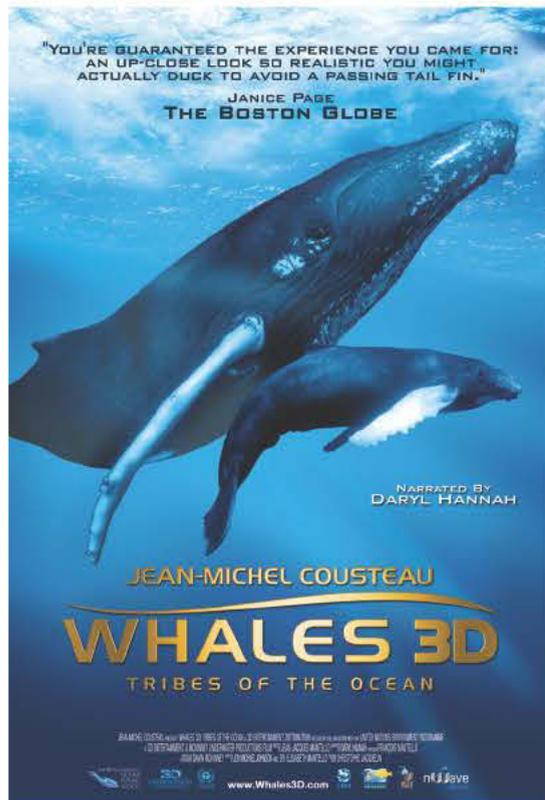
field notes

ISSUE 1 / VOLUME 7 / FEB 2016



SAN DIEGO NATURAL HISTORY MUSEUM

FREE FOR MEMBERS!



THROUGH SEPTEMBER 5, 2016

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Cover Image:
A hiker takes in the scenery in Anza-Borrego Desert State Park, a location that will be featured in the new book *Coast to Cactus: A Canyoneer Guide to San Diego Outdoors*.

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@sndnhm.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.

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Dear Museum Friends,

I am just four months away from my retirement after 25 years at the helm of this beloved institution, our San Diego Natural History Museum. While imagining my life without the Museum filling my daily activities is difficult, I feel more strongly than ever the importance of introducing new leadership, ideas, and vision.

Speaking of new leadership, we are in the final phase of the recruitment for my successor. This thorough process was initiated by the Museum's Board of Directors more than two years ago. Led by past board chair Virginia Crockett, the search committee first did in-depth interviews with key staff, volunteers, donors, and community leaders, and developed an initial job description reflecting the qualities we are seeking in the next president and CEO. With that in hand, several professional executive search firms were approached and asked to submit proposals. Last August, the search committee hired Caldwell and Associates to manage the candidate identification, initial screening, and final interview process. Caldwell, though based in Toronto, also maintains a Los Angeles office. They have expertise in non-profit and higher education recruitments, which is important to all of us.

Although I'm not at liberty to say quite yet, we have selected the final candidates, and I will be excited to introduce you to my successor this spring. I will officially step down on June 30, 2016, allowing for transition time with the new CEO. I am truly excited by what the future holds for the San Diego Natural History Museum. Together, we have built a strong foundation, grounded in our mission emphasizing research, education, and exhibitions.

My final project, the Eleanor and Jerome Navarra Library Special Collections Gallery, and its exhibition highlighting citizen science, will open in summer 2016. I consider this project



the capstone to my rich and rewarding career at theNAT. While I say "my," it

really belongs to all of you, without whom none of this would have been possible. I'd like to close by sharing one of my favorite quotes from Margaret Mead, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." Thank you for helping to change the world.

Warmly,

Michael W. Hager, Ph.D.
President and CEO
San Diego Natural History Museum



TAKE A HIKE

with a (virtual) canyoneer

The Canyoneers are one of the few trail-guide groups nationwide affiliated with a natural history museum rather than a park or reserve. They have provided free guided tours in San Diego County since 1973. When you hike with a Canyoneer, you are encouraged to stop, look, listen, touch, smell, and examine—to understand that everything is linked together.

This summer, a new book entitled *Coast to Cactus: The Canyoneer Guide to San Diego Outdoors* will allow people to go on a hike with their own virtual Canyoneer.

The project is a dozen years in the making—you could say it took the scenic route—and is now becoming a reality thanks to the efforts of a whole team of people, namely more than 50 of our Canyoneers, the Museum curators, and Board Member Diana Lindsay who tirelessly served as a champion for this project.

Diana, owner of Sunbelt Publications and a Canyoneer herself, introduced the idea of publishing a book in 2003. There was interest from some of the Canyoneers, but the task sounded daunting, and it was difficult to know where to start. The topic was brought up off and on over the next several years, but it never got off the ground. A few Canyoneers, however, wouldn't let the idea die. Paula Knoll and the late Alan Marshall had incredible passion for bringing this book to fruition.

"Alan Marshall would stop by my office at Sunbelt to talk about the book," said Diana. "He felt extremely passionate about making this idea a reality. We just needed a way to motivate the others and to get them to buy into the concept."

Then Jerry Schad, author of *Afoot and Afield in San Diego County* and writer of *The San Diego Reader's* weekly Roam-O-Rama column, passed away in September 2011. At Jerry's memorial service, the newspaper's publisher

Jim Holman voiced that he needed someone to continue Jerry's legacy of bringing San Diegans closer to nature. Diana talked to Alan and Paula about the possibility of the Canyoneers taking over the weekly column to build a backlog of trips that could ultimately lead to our own guide. This time the concept was approved, and the Canyoneers began penning the weekly Roam-O-Rama column beginning in January 2012.

Thus, the Canyoneers were able to carry on Schad's legacy while also building a library of original content about hikes and trails. These columns are being brought together in the book, which will be available this spring in the Museum store and numerous retail locations throughout the County. Proceeds support the Museum's mission and programming.



The Laguna Mountains are a destination for Canyoneer hikes.



Diana Lindsay is a dedicated volunteer: she is both a member of the Museum's Board of Directors and a Canyoneer. She has helped make *Coast to Cactus: The Canyoneer Guide to San Diego Outdoors* a reality, serving as a

tireless advocate for the idea as well as the book's project manager and lead editor.

A naturalist, writer, and business owner, in 1984 Diana founded Sunbelt Publications, a book distribution and publishing company that specializes in books of outdoor and regional interest and natural and cultural history.

Diana attended UCLA and received an M.A. degree in history from San Diego State University. In addition to her past experience as a teacher, development director, and columnist, Diana is the author, co-author, or editor/researcher of more than 10 books.

Having served two terms as president of the Anza-Borrego Foundation, Diana was named an honorary ranger in 2001 for her three decades of volunteer work on behalf of the park. In 2013, she was presented the Medallion Award, California's highest honor for superior achievement in volunteer service.

Diana is mother to two grown children, son Jon and daughter Jennifer. She lives in El Cajon with her husband Lowell. When not working or volunteering her time, Diana enjoys bicycling, running, hiking, writing, and exploring the outdoors.

This project could not have happened without a few dedicated Canyoneers who helped with the book's organization, field work, and editing. The team includes Ellen Esch, Don Fosket, Paula Knoll, Jim and Terri Varnell, and Diana Lindsay, who spearheaded the project. Honorary Canyoneer Pat Knoll created all the maps for the hikes.

Coast to Cactus: The Canyoneer Guide to San Diego Outdoors is much more than a hiking guide. It is the new "bible" for really getting to know and appreciate the County's biodiversity while exploring firsthand. The guide, which is full-color and more than 500 pages, features more than 250 hikes with maps and photographs, descriptions with mileage, elevation gain/loss, difficulty rating, directions to the trailhead with GPS coordinates, trail use, special features, and type of habitat(s) found on each hike. It is organized in a geographically simple, intuitive style, based on major highways and geographic divides.

Different from other guidebooks, it is more focused on the flora and fauna of the region, encouraging the hiker to look around to see what makes the area special and to gain an appreciation for the plants, animals, and physical features to create distinct habitats. It is similar to the experience of being on a guided hike with a Canyoneer.

"We hope people enjoy the fitness and activity, but it's more about encouraging them to learn something about the outdoors and gain an appreciation for this amazing place we call home," said Jim Varnell, president of the Canyoneers.

The book complements the Museum's exhibition *Coast to Cactus in Southern California*, which helps visitors understand the region's diverse ecosystems and why it is one of the world's biodiversity hotspots.



Phil Unitt examining the Crested Caracara specimen.

A Caracara Story

By Phil Unitt
Dennis & Carol Wilson Endowed Chair of Ornithology

In August 2015, the Museum received a Crested Caracara specimen—a representative of the falcon family adapted to life as a scavenger—to add to our research collection. The specimen is significant as this species is rarely found in California (though the caracara is common in Mexico, only about 15 individuals are known to have ever reached this state). But this specimen's provenance is a mystery.

An unknown person found an injured Crested Caracara in 2014 and left it at Acacia Animal Hospital in Escondido, where it eventually passed away. The carcass was transferred for disposal to the Fund for Animals where Lead Veterinarian Technician Gina Taylor recognized it as a caracara. Gina then alerted Project Wildlife's Linda King, who brought the specimen to the Museum.

Unfortunately, any information on where or when the bird was found was lost. Nevertheless, we prepared the specimen as a skin and skeleton for the Museum's research collection.

When we received the specimen we noticed that one of the bird's wings was injured, with some skin abraded and several primary feathers broken. Two of the claws were recurved upward and the sole of one foot was discolored blackish, as if scorched or stained. In addition, shafts of some tail feathers were oddly roughened.

The ordeals this bird experienced remain a mystery, and confirmation of a probable occurrence in California has slipped through our fingers. This story shows the importance of how accurate data gives all scientific specimens their full value.



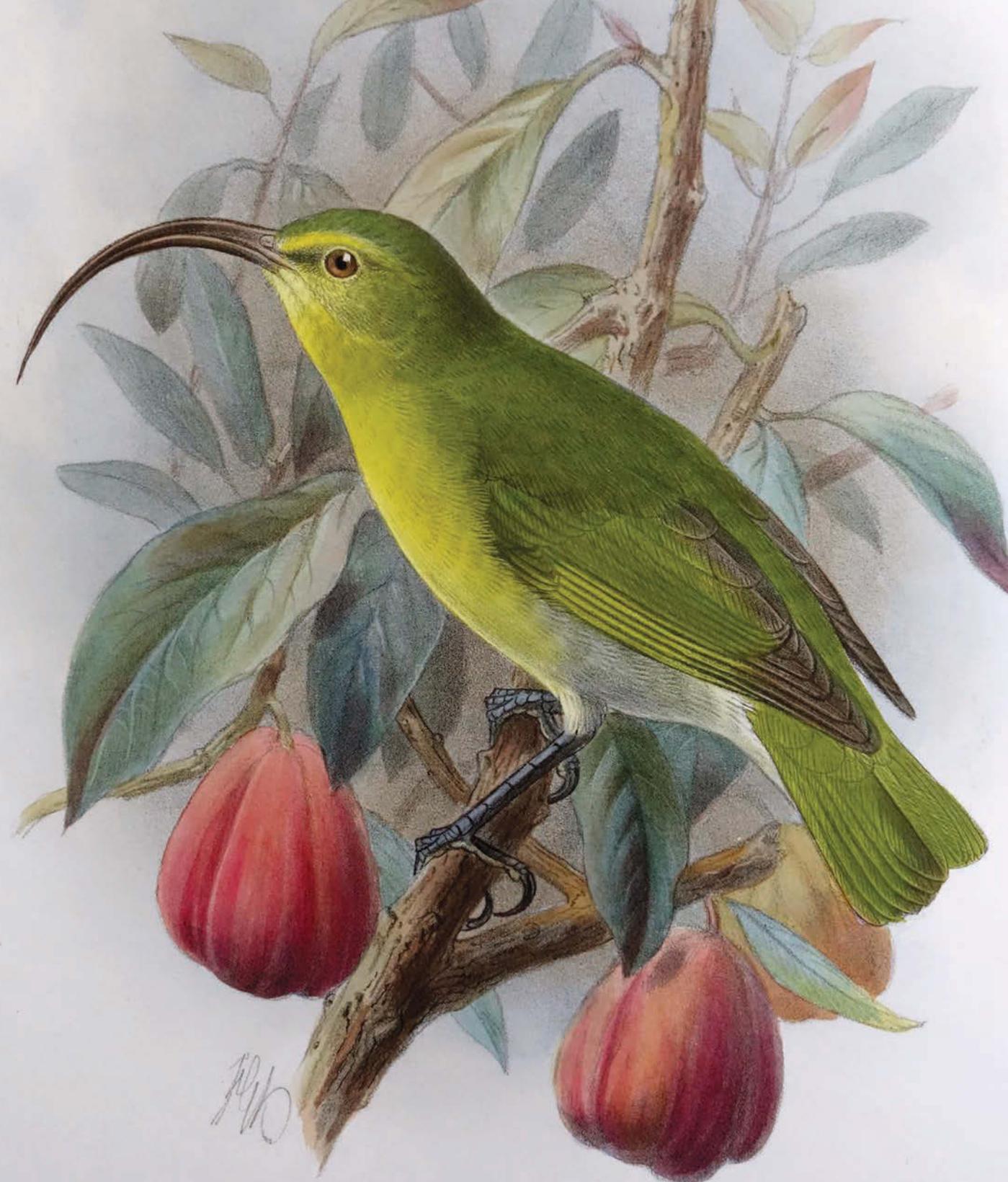
Book conservator Melissa Behar works on repairs of rare books; Victorian era hand-made microscope slides; book pediment with griffin which will guard entrance.

Open Doors, Open Books, Opening in 2016!

Have you heard the rumors? This summer, the doors will open on a brand new exhibition space in the Museum, one that enables our visitors to “unlock the treasures” in our Research Library and archives for the first time.

A 17-foot-wide open book will form the pediment high above the Atrium floor, framing giant-sized book pillars around the welcoming doors. This whimsical and inviting entrance will allow guests to venture into a new sky-lit space filled with delights.

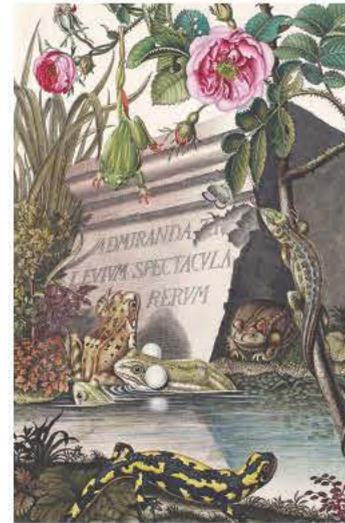
Highlights will include a very rare opportunity to see the double elephant folio of *Birds of America* by John James Audubon, a huge book lavishly illustrated with Audubon’s life-size bird portraits. An herbal book from 1517, annotated profusely by physicians from the Middle Ages; a folio on succulent plants from the 18th century with luminous hand-colored engravings; a rotating display of the original watercolors of California wildflowers by A. R. Valentien—these are just a few of the broad variety of precious objects which will be on view in the newly expanded space.



Hand-colored illustration of a now extinct Hawaiian finch (*Akialoa ellisana*) from *The Avifauna of Laysan*, 1893.



Clockwise from upper left: Hand-colored illustration from *Tortoises, Terrapins, and Turtles* from 1872; image from Audubon's *Birds of America* from 1860; frontispiece from *Historia Naturalis Ranarum* 1824; construction of upper mezzanine in library space; image from *Serpentum et Draconu Historiae* from 1640.



Many of the exhibits will reveal the historical contributions made to natural history by people untrained in science. Hands-on interactives will demonstrate how today's technology is allowing ordinary citizens to contribute to science once again, coming full circle. Opening one of our research collections on the third floor for the very first time, this initiative is part of our institution-wide resolution to share more of our "hidden" riches with our guests.

An upper mezzanine will feature a rotating exhibition, starting with a selection of antiquarian natural history books featuring dragons, unicorns, and mythical beasts—creatures that still hold a fascination today. Our littlest visitors can hide away in the Book Nook, a cozy fort built to resemble an artfully jumbled stack of gigantic books. The

mezzanine will also serve as the Library's public programming space, where theNAT's family story time will take place along with facilitated activities and classes that let visitors try their hand at everything from scientific illustration to making their own personalized bookplate.

Family and kid-friendly, this new exhibition space will ignite the curiosity of all our visitors, allowing them new ways to participate in the art, science, and history of the natural world.

This project was made possible through contributions to the Special Projects Campaign, most notably a generous lead gift from Eleanor and Jerome Navarra.

Coast to Cactus Wins 2015 Balboa Park Sustainability Award

It's been a little over a year since we opened *Coast to Cactus in Southern California*, during which time more than 200,000 people have seen it. The exhibition has received numerous accolades from visitors, press, donors, members, and more.

Last fall, we added one more accolade to that count when we submitted *Coast to Cactus* in the 2015 Balboa Park Sustainability Awards competition. These awards are given out annually to Balboa Park institutions that

have completed innovative sustainability projects over the past year. *Coast to Cactus* was a natural fit as several of the exhibition's design elements aligned with the criteria for the award—which we won!

From floor to ceiling, the exhibit design was developed with sustainability in mind. All materials used within the exhibition are as green as possible: the lifespan, maintenance, chemical contents, and distance of origin were all scrutinized to maximize sustainability.

In addition, the Museum worked closely with Zogrodnik Thomas Architects to restore architectural features of the original 1933 building and modernize the west wing where *Coast to Cactus* is located with new, more efficient systems.

Receiving this award gave our staff, especially those in the Exhibits Department, a great sense of accomplishment and rejuvenated sense of pride in *Coast to Cactus* and our mission. Here's to many more!



Council member Todd Gloria (left) and SDG&E's Michael Schneider (right) present Museum staff (Lauren Marino, April Tellez, and Michael Field) with a Balboa Park Sustainability Award.



Updating our Programs to Support our Teachers and Students

There have been many changes in the educational system over the past several years. You regularly hear about STEM, Next Generation Science Standards, and more. But what does it all mean and how does it impact us?

Research has shown that K-12 education in science, technology, engineering and mathematics (known as STEM) is not strong in U.S. schools, so many organizations have been working together to provide guidelines for change. In July 2011, the National Research Council released a framework that identified the science all K-12 students should know. This was a critical first step because its guidelines for teaching physical science, earth/space science, life science, and engineering were grounded in the most current research on science and science learning.

Using this framework, states across the U.S. worked together to develop K-12 standards that provided rich content and practice and were arranged in a way that provided all students with benchmarked science education. The national Next Generation Science Standards (NGSS) were

published in April 2013. That fall, the California State Board of Education adopted NGSS and is now developing, vetting, and refining the California framework for science education. It is anticipated this framework will be adopted in January 2017.

While this is an exciting opportunity for our school system, it also poses a challenge for California teachers. They will be asked to teach science in a new way (it asks them to “do” science—hands-on experiences, models, and experiments—as opposed to lecture) even though updated textbooks with these new standards and methods will likely not be available for at least two years. Additionally, not all teachers have practice teaching these topics since science education has not been mandated at the elementary school level for the past decade.



Here at theNAT, our education team has taken a deep dive into the Museum’s own school program offerings to see how we can better serve as a resource for our school teachers. As a result, we are currently making numerous

changes to our approach and our curriculum, including putting a bigger focus behind the classes that align with NGSS and developing new curricula to address content and grade gaps. We have also surveyed teachers to gain a better understanding of their needs in teaching science, which is informing some of our future efforts. Finally, members of the Education Department have been attending training workshops and seminars around the county, working with experts on how to read, understand, and implement NGSS and better understand the way they are designed.

Throughout this assessment process, a big question came to mind: Why would a teacher bring their class to the Museum when they can hire us to come to their classroom to teach? This resulted in us working harder to tie our curriculum more closely into our core exhibitions—*Fossil Mysteries*, *Coast to Cactus in Southern California*, *Water: A California Story*, and *Skulls*—which provide a unique opportunity for students to engage with content in a new and meaningful way.

These changes are exciting as theNAT will be able to better support San Diego teachers in educating our children with curriculum-aligned programming at the Museum and in our schools.

Join our Monthly Donors

Join the growing group of donors who generously give monthly to the Museum. 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 this program allows your dollars to go further by eliminating mail and can also be more convenient for you. You can make a gift from your credit card or directly from your bank account. Visit sdnat.org/donate to enroll today, or call Jackie Sewell at 619.255.0359 for more information.

One Membership, More Than 250 Institutions

All Museum members at the Family and Grandparent levels and above are automatically enrolled in the Association

of Science and Technology Centers (ASTC) Reciprocal Passport Program. This program gives you free or discounted admission to more than 250 science and technology centers around the world. Participating ASTC institutions must be more than 90 miles from the institution and more than 90 miles from your residence. Learn more about the ASTC Passport Program at astc.org.

New Honorary and Emeritus Board Members

At the Annual Meeting on October 14, 2015, we were delighted to welcome four new Honorary and Emeritus Board Members: Joan Parker, Dick Schwenkemeyer, and Dennis and Carol Wilson (featured below with Dr. Mick Hager).

Carol Wilson and Joan Parker were both named Director Emeritus. This title is reserved for individuals whose assistance

to the Museum has exemplified the highest values of volunteer leadership through service on the board and contribution of time, talent, and treasure. Carol has been a Docent for 18 years and previously served on the Museum's board of directors. She and her husband established the Dennis and Carol Wilson Hall of Biodiversity, which is now home to *Coast to Cactus in Southern California*. Joan has been an integral part of the Docent program for 42 years. She also served on the Museum's board as well as the Audit and Facilities Committee.

Dennis Wilson and Dick Schwenkmeyer were named honorary board members. This title is bestowed upon individuals who reflect extraordinary service and commitment to the Museum. Dennis began his relationship with the Museum in Dick Schwenkmeyer's Junior Naturalist classes. As supporters of the *San Diego County Bird Atlas*, he and his wife have also established the Dennis and Carol Wilson Endowed Curatorship of Ornithology. Dick also has a long history with the Museum, starting in his teens and all throughout his life, as he taught classes and adult seminars and also led nature walks throughout southern and Baja California. Dick has been a Museum volunteer for more than 70 years.



Live Oaks Society Gains an Impressive Addition

A recent brunch event honoring and thanking members of the Live Oaks Society was remarkable for several reasons.

First, these occasions are always enjoyable as one way in which we thank some of our most dedicated supporters, those who have included the Museum in their estate planning. Secondly, Dr. Michael Wall, curator of entomology and vice president of research and public programs, gave a talk that perfectly encapsulated the ties between research and exhibitions. Titled "Maya, Bugs, and Belize," Michael discussed the advance work he and members of the exhibitions team did in Belize

in preparation for *Maya: Hidden Worlds Revealed*, which closed just last month. Several guests said Michael's presentation inspired them to return to the exhibition to seek out parts they had either not seen or hadn't thoroughly appreciated in an earlier visit.

But the morning's highlight was tied to honoring Mick and Denise Hager as the newest members of Live Oaks Society, who were welcomed by former board member Dr. David Groce (pictured above). He and his wife Barbara are longtime Museum members, donors and part of Live Oaks Society. David



took the lead in thanking our "Chief Fossil" together with Denise, and presented them with the A.R. Valentien Live Oak plaque in appreciation for their thoughtful commitment to the future of the Museum. We are very grateful for this further evidence of the Hagers' dedication to the Museum, which stretches well beyond Mick's 25 year tenure as president and CEO.



Live Oaks Society Membership

We are Museum members, volunteers, and visitors who invite you to join us as members of the Live Oaks Society. We have made commitments of future gifts from our estates to enable the San Diego Natural History Museum to make a difference as a steward of our region's natural environment. We have chosen this to be part of our legacy that will benefit our children and our region.

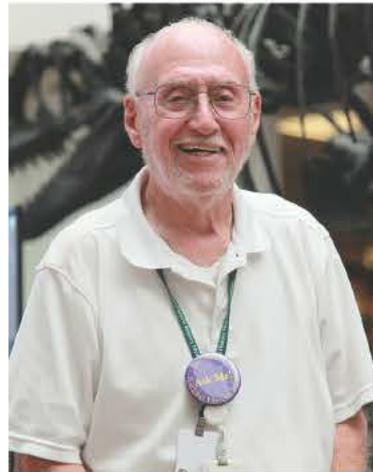
Won't you join us?

Contact Donna Raub
619.255.0314 or
draub@sdnhm.org



LIVE OAKS SOCIETY

Volunteer Profile: Bill Barbour



Thursdays are special at the Museum because we know dozens of delicious home baked cookies, courtesy of Bill Barbour, will be waiting for the staff. Not one to bake just any cookies, he experiments each week with a new confection. Bill makes his rounds before

the Museum opens and then, promptly at 10 AM, assumes his post in the Atrium ready to greet visitors.

Not content with simply a cheerful "hello," Bill wants to get guests thinking. Endlessly curious about science, Bill sparks that same curiosity in others. He doesn't hand out facts and figures. Instead he poses questions and waits for visitors to arrive at their own conclusions. It's the "aha" moment that Bill waits for—that moment when the visitors realize they've learned something new. He especially enjoys the kids. Recently, when a middle schooler complained that he didn't give her a single answer on her worksheet, he only smiled and said, "I didn't need to. You figured things out on your own."

Bill especially loves the traveling exhibitions that come to theNAT. These exhibitions give him an opportunity to learn. He is not afraid to take a deep dive into the content. Then he carefully prepares an information binder for each exhibition. Once the binders have been completed, he is more than willing to share. The binders have been used to help shape volunteer training or suggest creative ideas on ways to engage visitors.

Bill is also a member of the San Diego Zoo, the Reuben H. Fleet Science Center, and the San Diego Botanic Garden. He says it's important to support our cultural institutions, a vital part of San Diego. TheNAT has become Bill's second home and we are pleased to call him family.

Becoming California Wins Emmy Awards



America's western edge. Narrated by actress Jane Fonda and with an original score by legendary musician Pat Metheny, the film tells the story of environmental change in California in a fresh and hopeful way.

San Diego Natural History Museum.

The film was a project of the California Environmental Legacy Project, which is made up of a team of distinguished scientists, leading educators, and award-winning media professionals working together to create educational, entertaining, and inspirational media about our natural environment. Dr. Michael Hager, president and CEO of the Museum, serves on the board of the organization.

"The Emmy Award is a wonderful tribute not only to our vision but also to the immense effort of the California Environmental Legacy Project team," said *Becoming California* Producer/Director Kit Tyler pictured above.

The documentary *Becoming California*, in which the Museum was involved, recently won Emmy Awards in two categories: Best Cultural/Historical Documentary and Best Editing of a Non-News Program.

Since its public television premiere in September 2014 and its San Diego debut at theNAT and on KPBS, it has broadcast on PBS more than 200 times in 16 states. The National Science Foundation largely funded the documentary, with additional support from project partners and supporters, including San Diego Gas & Electric and the

Becoming California is a two-hour documentary about environmental change on

March 28-April 1

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A Website Reborn

Have you visited sdnat.org lately? If not, head on over and take a look at our updated website which is now optimized for smartphone and tablet users. This reduces the need to pinch and zoom to see all that fabulous content. With about 50 percent of our site visitors coming from mobile devices or tablets, this change ensures we provide the best experience for all users.

You'll find a cleaner look—complete with more graphics and easier navigation—and

more content about research projects, special events, and NAT happenings accessible from our home page. Don't get us wrong, we like to dig, but prefer to save the digging for when we're looking for fossils rather than while online.

We've also added a completely new section that invites visitors to get outside and explore the region. Inspired by *Coast to Cactus in Southern California*, this online resource (available at sdnat.org/explore) serves as another way to learn about

our unique habitats and the plants and animals that live in them, along with important people who have increased our knowledge of the area. It also offers opportunities to take an active role in citizen science projects. This is a great tool for educators, naturalists, or anyone interested in learning more about the biodiversity of southern California.

We'd love to hear what you think. Please email marketing@sdnhm.org with any comments or suggestions.



These photos from 2000 recall the excitement that we felt as the new addition to our original 1932 building began to take shape. The building as it stands today in Balboa Park is a testament to president and CEO Mick Hager's vision and leadership. His careful planning,

inspired fundraising, and patient shepherding of this huge project made the idea of a newly constructed wing a reality. On the occasion of his upcoming retirement in summer 2016, Mick can look back with pride at our building itself among his many accomplishments.



Alex and Elizabeth Wise Museum Store

Shoppers have the option to round up their transaction to include a donation to the Museum. Through this program, we have received more than \$8,000. Thank you for your support!

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Big is Beautiful

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GIANTS OF THE DEEP

Opening March 19