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When Dr. Kurt Benirschke founded our Wildlife Biodiversity Bank's Frozen Zoo® in 1975, he did so on a hunch-or perhaps, a premonition-that there would be future uses for genetic material beyond what science could imagine in his time. His foresight charted a new course for sciencebased conservation for wildlife we care for in San Diego and beyond. This October, we embarked on a historic partnership with the International Union for Conservation of Nature (IUCN) to form the new Center for Species Survival: Biodiversity Banking. How wonderful-or perhaps, a bit serendipitousthat a statue of "Dr. B" and his son, Rolf Benirschke, a current Trustee, was also unveiled in this landmark year. From all of us at San Diego Zoo Wildlife Alliance, thank you for being a part of it, and for all you make possible.

Paul A. Baribault President and Chief Executive Officer San Diego Zoo Wildlife Alliance



2116 ADVISORS COME TOGETHER Our September reception was filled with fun—and a few roars



Paul Baribault, Malin Burnham, Denny Sanford, and Afton Sleight

More than 75 people joined us for the 2116 Advisors Welcome Reception on September 20, including members of our Board and Executive team and the Advisors themselves. Paul shared opening remarks, recognizing attendees for their leadership and vision for the organization's future and offering a preview of what's ahead, including gathering thoughts and counsel from members in the months to come.

The kickoff reception took place in the Zoo's Elephant Odyssey Plaza, where attendees were treated to the

magnificent roars of nearby lions throughout the evening. During the event, guests had the chance to preview a Conservation Station that would later be featured at the November 5 convening, visiting with our Community Engagement team as they shared updates from our global conservation work. Guests enjoyed unique experiences with wildlife care specialists and lions, elephants, and capybaras. The evening also included an appearance from the four capybara pups as they explored their habitat along with their mom.

Newsletter

2023 Volume 3



Tad Parzen and SDZWA Trustee Bryan B. Min

Attendees were recognized for their leadership and vision



Top: Greg and Karla Ogilvie Bottom: Chris and Vicki Eddy

CONSERVATION INSPIRATION 2023

An event to recognize and celebrate our 2116 Advisors

Last month, we hosted our Conservation Inspiration Event at the Safari Park in recognition and celebration of our 2116 Advisors. During this inaugural, full-day event, guests had the opportunity to meet with conservation scientists and wildlife care experts at Conservation Stations, hearing firsthand about their leading work in San Diego and across the globe.

SAN DIEGO ZOO WILDLIFE ALLIANCE

During lunch overlooking the expansive African Plains, Paul expressed gratitude to attendees for helping make our teams'

groundbreaking work possible. Dr. Nadine Lamberski, chief conservation and wildlife health officer, then led a panel discussion

and Q&A session to take 2116 Advisors on a deeper dive into our conservation work.

From there, guests were treated to the guided tours and behindthe-scenes wildlife experiences of their choice.

Dr. Nadine Lamberski was joined by Dr. Matt Kinney, Dr. Charlie de la Rosa, and Maggie Reinbold, MS, for a panel discussion and Q & A session



TWENTY-ONE SIXTEEN ADVISORS



Gwendolyn Sontheim

2116 Advisors enjoyed lunch at The Watering Hole at Kijamii Overlook and interacted with members of our leadership team



Sandra



Linda Harris, Myrna Frame, Pam Fein, and Melissa Hayes





Hee-Won and Craigar Grosvenor





Paul Baribault, Karen and Jim Allen, and Dr. Nadine Lamberski

Larry David Greenfield, MD

Click title to view story

MEDIA REACH & HIGHLIGHTS IN THE NEWS



SAN DIEGO ZOO WILDLIFE ALLIANCE JOURNAL

NOV/DEC 2023

This issue of the San Diego

focuses on the Oceans

Conservation Hub. It also

celebrating 12 births (or

hope for the future.

hatchings) that represent

includes our 2024 calendar

Zoo Wildlife Alliance Journal

OURNA

Here are some of our latest highlights:

ANNOUNCING ELEPHANT

San Diego Zoo Safari Park Announces Elephant Valley, Largest Transformative Project in 50-year History

San Diego Zoo Wildlife Alliance Ushers in the Fall Season with Kids Free Month Kickoff Jamboree at Ronald McDonald House Charities[®] of San Diego

San Diego Zoo Wildlife Alliance Partners with International Union for **Conservation of Nature Species Survival** Commission to Form First-ever Center to Focus on Biobanking

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Download to read more

This year, we've garnered over 1.3 billion views across social media and 120 billion views in earned media, representing more than \$1.1 billion in media value.

> **CONDOR VACCINE SUCCESS.** 44 California Condor Recovery Program Implements Vaccines in Pre-release Condors Based on Early Trial Results

> San Diego Zoo Wildlife Alliance to Participate in the 135th Rose Parade® Presented by Honda, with a Float Commemorating the San Diego Zoo's 107-year History

> PRINCE WILLIAM AWARD 48 Cameroonian Ekwoge Abwe Receives Tusk's 2023 Prince William Award for Conservation in Africa

> CUB NAMES REVEALED 50 Sumatran Tiger Cub Twins' Names Revealed at the San Diego Zoo Safari Park



Two front doors

As a global conservation organization uniquely positioned with two front doors—the San Diego Zoo and San Diego Zoo Safari Park—nearly 6 million guests from around the world join us each year to connect with wildlife and the natural world we share. It's a life-changing experience that stays with each ally long after they leave, with our global reach touching 1 billion people in 150 countries each year through our social media and communication platforms.



San Diego Zoo Safari Park

ACROSS THE ALLIANCE



Allies in Conservation

When wildlife thrives, all life thrives

Eight global hubs

As a conservation alliance, we partner with allies in eight strategic regions worldwide: our Conservation Hubs. By pooling our strengths, knowledge, and resources, we have a greater impact as we work together to safeguard the future of the planet, its wildlife, and the natural world we all share. Because when wildlife thrives, all life thrives.

> African Forest Amazonia **Asian Rainforest Australian Forest** Oceans Pacific Islands Savanna **Southwest**

MAUI COMMUNITY PARTNERS MEET AFTER FIRES

The devastating August wildfires came to the doorstep of the Maui Bird Conservation Center (MBCC), which we manage in partnership with the U.S. Fish and Wildlife Service (USFWS) and the State of Hawai'i Division of Forestry and Wildlife. Following the fires, SDZWA CEO Paul Baribault traveled to the island to inspect the facilities and meet with team members. With him were Dr. Megan Owen, vice president of conservation science, and Julie Vieburg, our new chief of staff. They were joined at MBCC by 'Aulani Wilhelm, White House assistant director for ocean conservation, climate and equity and SDZWA Trustee, to learn what the team has done to protect and further secure the facility. Designs for new aviaries have received support from the USFWS. While on the property, the team was also able to review plans to help strengthen our Hawaiian Forest Bird Conservation Keystone Initiative and recovery efforts.

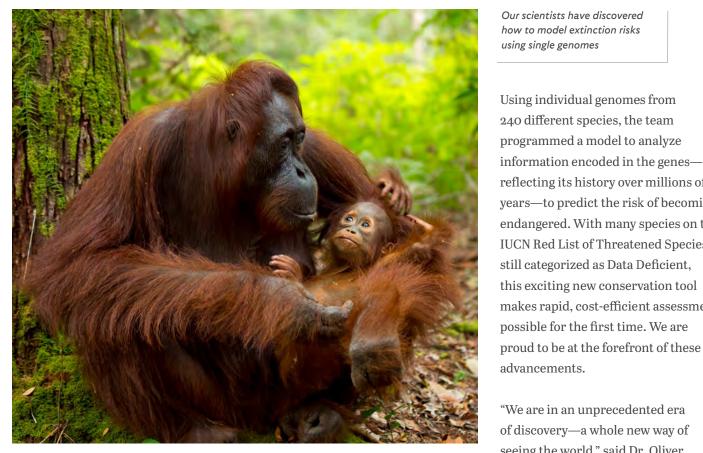
Paul met with Dr. Megan Owen in Maui



1% FOR THE PLANET

San Diego Zoo Wildlife Alliance is now a certified environmental partner of 1% for the Planet, established in 2002 by Patagonia founder Yvon Chouinard and Blue Ribbon Flies founder Craig Mathews. In-kind and financial donations come from business partners who commit to donating 1% of their annual sales—not profits—to vetted environmental organizations like SDZWA. The founders recognized

Collaborate



GROUNDBREAKING TOOL USES GENOMICS TO PREDICT EXTINCTION RISK

Through a historic study earlier this year, our conservation scientists and collaborators were able to develop a groundbreaking tool that uses single genomes to model the extinction risk in mammals. A genome is an

organism's complete set of DNA, which can be found in nearly every cell in the body. Even a single genome from one individual can offer critical insights into the evolutionary history of an entire species-and its potential to adapt to a changing global environment.

of discovery-a whole new way of seeing the world," said Dr. Oliver "Ollie" Ryder, Kleberg Endowed Director of Conservation Genetics at San Diego Zoo Wildlife Alliance, who co-authored the study. "We've long thought this potential existed, but it's profound to see it crystallize into a catalyst that will help conservationists make crucial decisions that may save the world as we know it."

Our scientists have discovered

how to model extinction risks

Using individual genomes from

programmed a model to analyze

reflecting its history over millions of

years—to predict the risk of becoming

endangered. With many species on the

IUCN Red List of Threatened Species

still categorized as Data Deficient,

this exciting new conservation tool

possible for the first time. We are

"We are in an unprecedented era

advancements.

proud to be at the forefront of these

makes rapid, cost-efficient assessment

using single genomes

Dr. Megan Owen (left); Bryce Masuda, conservation program manager for Pacific Islands Conservation Hub (center); Maui team member; and Paul Baribault (right) discuss plans for new aviaries

that companies benefit from Earth's resources and should have a role in protecting them. For businesses that are members of 1% for the Planet, all 2023 donations to SDZWA now also count toward their 1% for the Planet annual charitable giving goals.



Ollie was born with help of genetic material stored in the Frozen Zoo more than 40 years ago



LANDMARK PARTNERSHIP WITH IUCN

We recently marked a major milestone in our organization's history. During October's annual meeting for the World Association of Zoos and Aquariums (WAZA), hosted by San Diego Zoo Wildlife Alliance, we announced a landmark partnership with the International Union for Conservation of Nature (IUCN) Species Survival Commission. In recognition of our expertise, we have together formed the world's first Center for Species Survival (CSS) for Biodiversity Banking. The partnership marks the first time IUCN has named an organization as a CSS for a strategic focus or skillset,

ecosystem.

safeguard it.

TRAILBLAZING CONSERVATION

Innovate

CONSERVING ENDANGERED OTAY OAKS

This summer, our Horticulture team revisited an endangered oak population located in the Otay Mountain Wilderness Area. While there, they also checked on an ongoing field propagation project, and what they found delighted them! For the first time, the team has been able to grow roots on an existing oak branch through air layering—a process that uses stems still attached to the

parent plant to propagate new trees and shrubs. Because these rare trees produce so few acorns, this exciting accomplishment marks another conservation avenue available to preserve and restore these native treasures.

In air layering, the stem is wrapped in organic materials to encourage root growth. Once established, the team then cuts the branch and brings it back to the nursery to root—a process



that took almost 20 months in the field to get it to this point. The team will continue to experiment with the timing and collection of air layered cuttings in order to accelerate our conservation opportunities.



Team members in the Otay Mountain Wilderness Area

versus work with a specific species or

Known worldwide for its Red List of Threatened Species, IUCN is the global authority on the status of the natural world and the measures needed to

Biodiversity banking, or biobanking, is the science of preserving living cells, tissues, eggs/sperm, seeds, and other biomaterials, which we began doing nearly 50 years ago with the founding of our Wildlife Biodiversity Banks' Frozen Zoo. These invaluable collections offer unlimited possibilities to help wildlife survive and thrive, including





Our Frozen Zoo is the largest and most diverse collection of its kind in the world

saving species and preserving genetic diversity and wildlife health. Chief Conservation Officer Dr. Nadine Lamberski explains the full value of biobanking is yet to be realized. "As novel technologies emerge, biobanks lay the foundation for trailblazing conservation solutions by bridging today's samples to tomorrow's scientific potential."

Inspire

Colleagues and friends gathered for the unveiling of the Dr. Kurt Benirschke and Rolf Benirschke statue



CONTINUING A LEGACY

Every once in a while, a true pioneer comes along. One whose visionary influence and contributions change the world, paving the way for all who follow-and creating an extraordinary legacy that stays with us long after they are gone. Dr. Kurt Benirschke was just such a person. His foresight 50 years ago has laid the foundation for the groundbreaking conservation biobanking and genomics stories in this edition. His son Rolf Benirschke continues to carry his own legacy at our organization, from his philanthropic and community engagement programs established during his professional football

career, to his dedication as a member of our Board of Trustees, to his beautiful biography of his father, Saving Wildlife.

Earlier this year, we unveiled a statue of Dr. Kurt Benirschke and Rolf Benirschke at the Arnold and Mabel Beckman Center for Conservation Research. During the ceremony, Paul Baribault welcomed a private group of Rolf's close friends and family. Paul shared heartfelt remarks on "Dr. B's" tremendous contribution to our conservation work today, and how Rolf carries forward his father's legacy, continuing to inspire people to engage with our organization

and help further its mission. Rolf shared appreciations for Dr. Nadine Lamberski, Dr. Oliver "Ollie" Ryder, and others who worked alongside Dr. B., many of whom were in attendance. It is with great pride that we work each day to continue this legacy.



MUTUAL OF OMAHA'S WILD KINGDOM RETURNS

In 1963, when the golden age of air travel was still in its infancy and door-to-door encyclopedia salesmen had yet to be replaced by the internet, wide-eyed animal lovers traveled the world each Sunday night with Mutual of Omaha's Wild Kingdom and its beloved host, Marlin Perkins. For many people, the series marked their first exposure to fascinating wildlife in faraway lands.

Sixty years after its first episode aired, Mutual of Omaha's Wild Kingdom has returned to television, with the debut episode featuring our Southwest Conservation Hub's work to save desert tortoises-the largest terrestrial turtle in the United States. Crews followed our team into the Mojave Desert, where the desert tortoise is a keystone species, providing burrows for other wildlife and dispersing seeds after eating native grasses and plants.





NBC / October 7, 2023

than 80 percent.





Click image to watch video

WATCH

Mutual of Omaha's Wild Kingdom

Saturdays on NBC

The episode brings our connection to the show full circle, as the species first appeared in the original Wild Kingdom in 1964. Since then, it's estimated that desert tortoise populations in their native habitat have declined more

To combat this, our wildlife care specialists and conservationists have reared nearly 200 young desert tortoises for the first one to two years—"headstarting" them in a safe environment during their most vulnerable period before

reintroducing them. By attaching radio transmitters to each individual, we're tracking their movements, reproductive success, survival, and body condition over time-critical knowledge that helps guide our conservation efforts.

We're honored to be part of this enduring program, reaching new audiences with amazing stories of wildlife and inspiring the next generation of conservationists and world-changers.

ROSE PARADE PREVIEW

Here's a sneak peek of our float for the upcoming 135th Rose Parade. The theme, "It Began With a Roar," pays tribute to Rex, the lion whose thunderous roar inspired the creation of the Zoo in 1916. It celebrates the vibrant sounds and rhythms of nature, offering a global symphony of music and a resounding way of connecting all of us—wildlife, people, and the planet we share.

Thrive

We are the only organization in the Western Hemisphere to hatch these endangered birds

THREE RARE EGYPTIAN VULTURES

Earlier this year, the Safari Park welcomed two endangered Egyptian vulture chicks named Menes and Nasr. Egyptian vultures are one of only a few species known to use tools, using rocks to crack open eggs. We are the only organization in the Western Hemisphere to hatch this very rare species, which is difficult to do. Successful reproduction programs are critical to the future of this endangered species. As part of these efforts, our expert team creates individualized plans to support the needs of each chick.

This pair made history as the first of their species to be puppet-reared together rather than individually, marking a major conservation milestone. The puppet was constructed by the Safari Park's wildlife care team, who've used a similar technique for California condor chicks. Puppet-rearing helps limit human interaction, preparing the birds to be successfully reintroduced into native habitat.







Egyptian vultures are striking birds with white feathers and a bold yellow face



ELEPHANT VALLEY GETS GREENER

Construction on the new Denny Sanford Elephant Valley is beginning to shift above ground. With sod being laid and new experiences taking shape, our expert team of wildlife care specialists continues to offer worldclass care for our family of African elephants as teams across the Alliance collaborate together on the biggest project in Safari Park history.



PUGGLE HATCHLINGS THRIVING AT SAFARI PARK

Our team has hatched more of this species than any other zoological organization outside of Australia





African elephants explore sod recently laid in Elephant Valley

Two more baby echidnas, called puggles, hatched this summer at the Safari Park, the fourth and fifth since 2020. To date, our team has hatched more short-beaked echidnas than any other zoological organization

outside of Australia. The team used DNA analysis to determine sex, subspecies, and paternity. This successful conservation breeding program continues to advance our knowledge of courtship and weaning of young while furthering medical understanding of this species.

왽

CONSERVATION HUBS





Eight Global Hubs

Our eight Conservation Hubs around the world represent biodiverse regions where we can best apply our expertise and are currently most invested, with the goal of making the greatest impact for wildlife and ecosystems. With teams on the ground, these hubs also help us build on new and existing alliances.





AFRICAN FOREST CONSERVATION HUB

Gorillas in the Nest

For an animal that never uses the same nest twice, nesting materials matter

In the two decades since our team made history as the first to document a gorilla population in Africa's Ebo forest, we've continued to work with our partners and local communities to protect these critically endangered primates and their unique habitat. With fewer than 25 Ebo gorillas remaining today, our team in Cameroon recently concluded a five-year study on nesting behaviors to better understand this particular population's needs.

New night, new nest

While some animals, like the American bald eagle, return to the same nest year after year, gorillas build a new nest every day. Our team found that Ebo gorillas choose high altitude nest sites in open canopy forests where the undergrowth is dense. While most nests were made up of tall herbaceous plants, Ebo gorilla nests studied included more than 281 plant species. Studies like this underscore the importance of conserving this fascinating forest in order to protect its endangered inhabitants. 🛙

Ebo gorillas' nests used more than 281 plant species



Sustainable Palm Oil An alternative livelihood program bears fruit

Many people wince when they hear the words "palm oil," since unsustainable large-scale palm oil agribusiness has become a contributor to deforestation. While about 85 percent of the world's palm oil comes from Southeast Asia, oil palm trees are actually native to West Africa. What's more, palm oil can be produced sustainably by small-scale farms. That's exactly what we help support through the Club des Amis des Chimpanzés—voluntary, community-

run "Chimpanzee Guardian Clubs" we helped establish in 2012 as part of programs to provide income generation and alternative livelihoods to reduce hunting for bushmeat. The Ndokbakan community constructed a mill and has been selling oil palm trees from their small farm since February of this year.



Trail Cam Surprise Meet the world's smallest crocodile

Sometimes trail cameras set up to document one species offer delightful surprises with guest appearances from another. During an amphibian survey this summer on the goliath frog in Cameroon's Ebo forest, we discovered our best trail camera photo yet of the elusive dwarf crocodile. Weighing in as the world's smallest known croc, this nocturnal species is typically found near shallow waters or marshy areas of closed-canopy rainforests and is often hunted for bushmeat. You can see them up close at the Zoo's Africa Rocks and Wildlife Explorers Basecamp. 🛙



An elusive, nocturnal dwarf crocodile

Twenty-One Sixteen Advisors

ASIAN RAINFOREST CONSERVATION HUB



Javan Leopard Survey

Studying the last big cats on the world's most populated island

When you think of Indonesia you may think of Bali, with its impossibly clear turquoise waters, postcardperfect beaches, and thatched overwater bungalows. Or Jakarta, the economic center of the country, with its cosmopolitan skyline contrasting ancient Buddhist temples dating back to the eighth century. Jakarta is on Bali's neighboring island of Java on the southern end of the Indonesian archipelago. While it shares some of its neighbor's natural beauty and cultural history, it is also the most populated island in the world, with more than 141 million residents. That's more than four times the entire population of Texas—on an island the size of North Carolina.

Yet, in a handful of verdant forests on this volcanic island, you'll also find its only remaining large carnivore, the critically endangered Javan leopard. The island's native tigers were hunted to extinction in the 1980s, making leopards the last big cat standing. But just how many are left? And where exactly are they? That's what we've set out to learn.

First-ever systematic trail cam survey

Until recently, Javan leopards had received minimal attention, and their population status and distribution was not well known. What was known is that only 29 landscapes suitable for these big cats remain on the island of Java.

This year, our teams have been collaborating with partners in Indonesia, and together completed the first-ever systematic trail camera survey of Javan leopards in their native range. To do this, we set up pairs of trail cameras at 40 stations throughout a study area in the Belambangan Biosphere Reserve. Our team has been analyzing the data, which includes leopard images taken by 15 of the camera stations. This new data will help us estimate the density of the leopard population to help guide improved protections for leopards and their remaining habitats.

> The lush Indonesian island of Java is also home to its densely populated capital, Jakarta





Leopards are the last large carnivore left on Java. Credit: SDZWA - BKSDA East Java - Sintas



Andean Bear Genomics

Making history with the first whole genome sequencing of Andean bears

AMAZONIA CONSERVATION HUB

At the Los Amigos Biological Station's Wildlife Conservation Laboratory at the base of Peru's southern Andes, our partner Peruvian scientists recently made history by completing the first whole genome sequencing (WGS) of two Andean bears. Reaching this

critical milestone means we will now be able to develop advanced genotyping tools to identify individual bears in the field. Our goal is to give local scientists tools developed from these genetic blueprints to obtain data from bear hair and feces, including the bear's identity, sex, and geographic

A new blueprint for conservation success

region.

Our genomic data and tools will be made freely available for use, advancing not only our own conservation research, but potentially efforts worldwide. This groundbreaking work is part of our collaboration with the Peruvian government as well as partner scientists in Ecuador and Colombia. Their data will crucially support conservation action to help save South America's only native bear. ☑

DNA sequencing South America's only native bear

Bear Necessities

Harvesting new insights on Andean bear nutritional needs

While our genomics work has been advancing our understanding of Andean bears at a conservation science level, we always strive to deepen our understanding of the animals we are privileged to care for as well as those in the wild. One such way is by exploring ways to optimize their nutritional needs through the variety of food we offer.

For these threatened bears, for instance, our wildlife care team

formulates diets eaten by the species in their native habitat in South America. By monitoring what the bears eat-as well as what passes through—we're able to further our knowledge of this rare bear's digestive system and their multidimensional nutrition ecology.

their native range. ₿

Voices of the Jungle The power of storytelling—as told by children



The insights we gain help us continue to offer the right nutrition for the wildlife we care for while advancing conservation efforts for this species in



Corn is part of Andean bears' native diet

Community conservation is at the heart of our global efforts to save, protect, and care for wildlife. In Peru, our teams connect with local communities in a variety of waysand storytelling has always been a powerful tool on school visits and when connecting with our youngest allies. Our teams engage with young ones, sharing information about wildlife native to their region. Earlier this year, our Giant Otter Conservation Program team invited Peruvian students to come up with their own

stories about charismatic animals. which we then collated into a book. With help from parents and teachers, we brought Voces de la Selva (Voices of the jungle) to life with 24 original stories and drawings from these enthusiastic students. Copies of the book were printed and distributed to teachers and students in the local region, helping future generations feel a more unique and personal connection to the wildlife that shares their unique corner of the world.

OCEANS CONSERVATION HUB



Hidden Dangers on the Ocean Floor

Grant awarded to study effects of DDT found on the ocean floor On a peaceful July morning, a few miles off the coast of San Diego, cheers erupt from the bow of a small boat as a 30-foot vapor blow breaches the ocean's surface. There are blue whales below. These gentle giants are the largest animals to have ever lived on Earth, and top to tail they stretch about the length of a Boeing 737 aircraft. Hunted to near extinction in the early twentieth century, today endangered blue whales are under the threat of another human

danger lurking on the ocean floor high levels of the toxic chemical Dichlorodiphenyltrichloroethane (DDT).

DDT is an agricultural insecticide that was banned in the United States more than 50 years ago after the near extinction of the American bald eagle. Then why is it still here? From the 1930s to the 1970s, multiple agencies approved deepwater disposal of refinery and oil drilling wastes, military explosives, radioactive wastes, and chemical wastes like DDT. Researchers estimate that as many as <u>half a million barrels of DDT</u> are still scattered along Southern California's ocean floor.

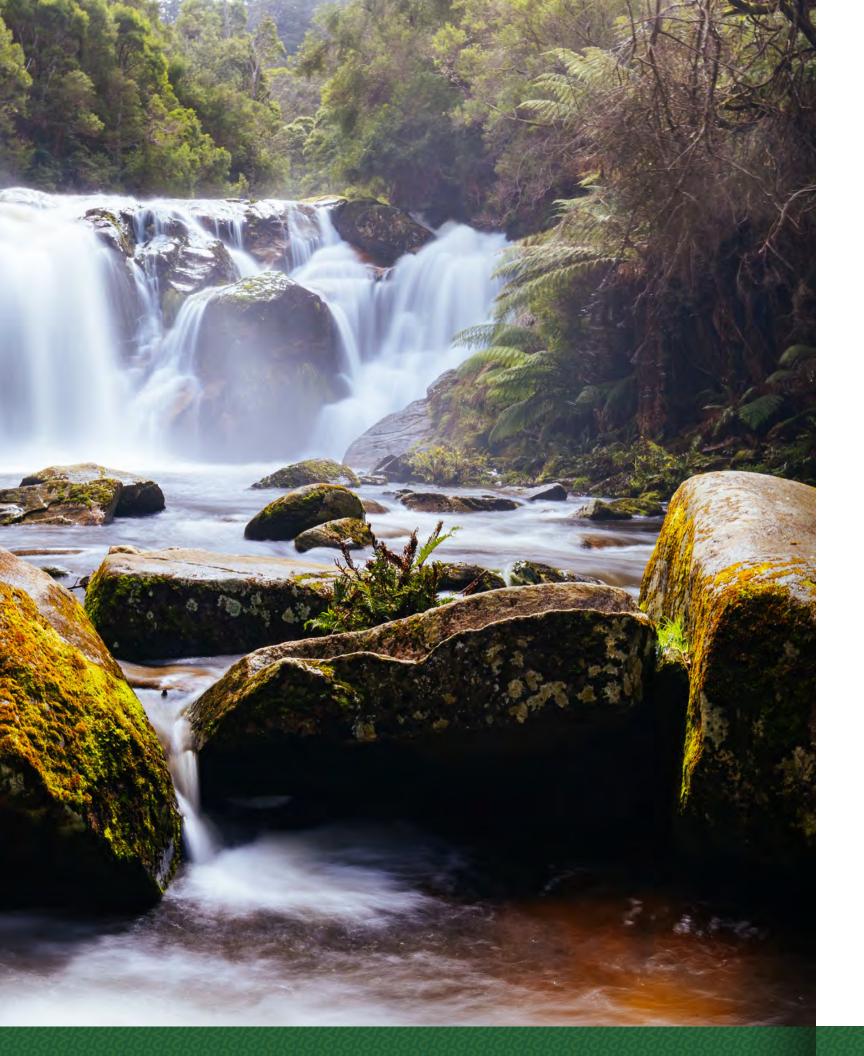
Out of sight, top of mind

In a 2022 study by our team and partner organizations, samples from marine mammals off this same coastline had about seven times more DDT than their counterparts in Baja California, Mexico. DDT does not dissolve well in water, yet it stores easily in animal and human fat.

What's more, scientists believe the toxin biomagnifies, meaning it accumulates in higher and higher concentrations as it makes its way up the food chain, including in species like the critically endangered California condor, some of which feed on marine life.



This summer, in collaboration with San Diego State University's School of Public Health and other partners, our team was awarded one of four California Sea Grants to address the role of deepwater DDT contamination in Southern California. Our goals are to help fill in some of the data gaps by identifying which chemicals are present in marine animals and to better understand the biological effects on wildlife and people.



Platypuses may be among the most delightfully unusual wildlife on the planet. The semiaquatic, paddletailed, duck-billed, toothless, egg-laying mammal (whose males also happen to be venomous) is as unique and wonderful as its native homeland of Australia. Their torpedo-like bodies and waterproof fur make them equally at home in the high-country waters of Tasmania and the Australian Alps as they are in the lower-elevation lakes and streams near the coast. With the first fossilized records of a platypuslike mammal dating back nearly 110 million years, their species predates the formation of the sole continent they now call home.



Habitat loss includes land clearing and dams that disrupt natural water flow

Like most wildlife that inhabit a relatively small footprint on a big planet, their future depends largely on the health of their native habitats. Platypuses live in burrows alongside freshwater rivers and streams. They are threatened primarily by habitat loss due to land clearing and dams that disrupt natural water flow.

When drought or man-made waterway changes occur, platypuses are forced to travel by land, making them even more vulnerable to predation. And in the "land of plenty," their natural predators include owls, eagles, Tasmanian devils, monitor lizards, snakes, and crocodiles. Long-term monitoring efforts have provided evidence of widespread declines and localized extinctions, leading the Australian state of Victoria to list this Australian icon as vulnerable.

In partnership with Cesar Australia, scientists are using environmental DNA (eDNA) sampling as a valuable technique to detect the presence



Advancing Platypus Research

Innovative DNA sampling proves valuable to conservation

Platypus monitoring project



Platypuses are semiaquatic, freshwater mammals native only to Australia

of platypuses in their habitats. This innovative work has laid the path for additional organizations to conduct platypus research and monitoring while raising critical awareness about platypus conservation issues.

Platypus cam

The platypuses we care for at the Safari Park are the only ones of their species outside Australia. They are critical ambassadors, not only for their species, but for conveying the importance of fresh water to wildlife and humans alike. Take a peek inside their fascinating aquatic world with our live streaming <u>Platypus Cam</u>. 🛛



View platypus cam

Twenty-One Sixteen Advisors



SAVANNA CONSERVATION HUB

Coexisting with Elephants

Mapping a plan for everyone's well-being

When elephants are a part of daily life, it often takes fresh strategies to coexist. This summer, we initiated a pilot project to gain new insights on coexistence challenges. Working together with community members in Northern Kenya, the team created maps to better understand where conflict patterns have emerged and outline priority zones to address. Examples of conflict in pastoralist communities include damage to water infrastructure (such as tanks and pumps) and personal safety

concerns while walking to school or during grazing. We and our partners at Naibunga Lower Conservancy, a Northern Rangelands Trust community conservancy in Kenya, knew our first job was to listen. Any strategy is only as good as it is actionable, which is why community insight and support are essential. As we work with the local communities and our partners to introduce these new strategies into the community's conservation programs, we will rank the highest priorities and begin

trial deterrents designed to address everyone's well-being and reduce direct threats to elephants. ₽

Community members and partners created maps of conflict patterns and priority zones





Working together to map and prioritize elephant conflict zones



Ambrose Letoluai celebrates his achievement with his northern Kenyan community

Congratulating a Hero

Ambrose Letoluai is a conservation champion. Since 2017, he's collaborated closely with local communities and our teams in northern Kenya on solutions for leopard, livestock, and human coexistence. Between 2008 and 2016, the overall range of leopards had been reduced by 60 percent, yet these elusive big cats weren't well understood—or protected. Ambrose and our team set up field cameras and designed studies to test various natural deterrents. Seeing

protection, too.

Recognizing conservation champion—and college graduate—Ambrose Letoluai

an opportunity, he also helped local women diversify their income stream by making soaps and, more recently, selling materials to create protective enclosed areas, called bomas, to protect livestock. The women needed a name for the collective he helped them found, and their decision was a reflection on his success-the Chui Mamas (Leopard Mothers), named for the leopards that community members now understand need

We are proud to share Ambrose completed his bachelor of science in environmental science and wildlife management this year, with his capstone project focusing on the human dimensions of leopard conservation. He was also recognized with the Innovators Award, a prestigious honor presented to the graduate who demonstrates creativity and innovation to find practical solutions to challenges facing humanity. Read more about Ambrose on our Science Blog. ₽

Avian Flu Threat in Condors

Avian flu (highly pathogenic avian influenza, or HPAI) remains present across the Southwest. To date, 21 critically endangered California condors have died from the infection in the wild. A vaccine was originally developed for poultry and has been shown to be safe and effective.



To date. 21 wild California condors have died from avian flu

Burrowing Owl Rescue Three juvenile burrowing owls making a recovery

This summer, our Burrowing Owl Recovery Program team rescued three juvenile burrowing owls from nests in Otay Mesa. One parent had disappeared, leaving the other unable to care for the chicks alone. The burrowing owl population has continued to decline, so after consulting with partners at the U.S. Fish and Wildlife Service and

California Department of Fish and Wildlife, teams agreed "headstarting" them under our care would give them the best chance of survival. The chicks will spend the winter at the Safari Park's Bird Conservation Center and should be ready to be reintroduced back to their native habitat early next year. 🛙



SOUTHWEST CONSERVATION HUB

Historic vaccine trial approved for California condors we care for

However, for reasons relating to international trade, HPAI vaccination of birds in the United States has not been allowed until now. Given the urgent need to confirm whether this vaccine is also safe for condors, United States government agencies have approved use for this species.

Our Zoo's essential role

Seven California condors we care for, as well as condors at two other facilities, have participated in an initiative being led by the U.S. Fish and Wildlife Service (USFWS). The live HPAI virus, and researchers emphasize that side effects are expected to be minimal. Early results released by the USFWS in October from the first test group showed 60 percent of the condors produced measurable antibodies expected to provide partial protection if the birds are exposed. If successful, the vaccine will next roll out to freeranging California condors. This vital program underscores the role our century of expertise plays in safeguarding wildlife health on a national and global scale.

birds have not been exposed to a



Twenty-One Sixteen Advisors

PACIFIC ISLANDS CONSERVATION HUB



Protecting Fiji's Crested Iguana

Community-based iguana conservation at work

Iguanas are found on just 10 percent of Fiji's 300 islands, with most of their populations threatened and declining. At a recent herpetology conference, our partners at the U.S. Geological Survey shared our collaborative work to conserve the Fijian crested iguana on Monuriki Island, describing the community-based conservation and recovery efforts we've collectively supported.

This work includes community ranger training and installing a network of trail cameras around the island to monitor for illegal wildlife trafficking. The rangers have also established designated tourist hiking trails to protect the island's fragile forest ecosystem and are working with local tour companies to communicate the importance of these conservation measures.

Genomics and Fiji iguana conservation

Our herpetology department was one of the first to care for Fijian iguanas. Today, the Zoo is home to the largest colony of these endangered reptiles outside of Fiji. A few years ago, scientists from our Conservation Genetics team used DNA sequencing to discover our iguana population included both the genetically diverse Fiji crested and Fiji banded iguanas—a significant discovery. In the field, results from our DNA testing showed wild Fiji iguana populations have much greater genetic diversity than previously thought. Both discoveries highlight the remarkable contribution of genomics in conservation. ⊠

A critically endangered Fiji crested iguana

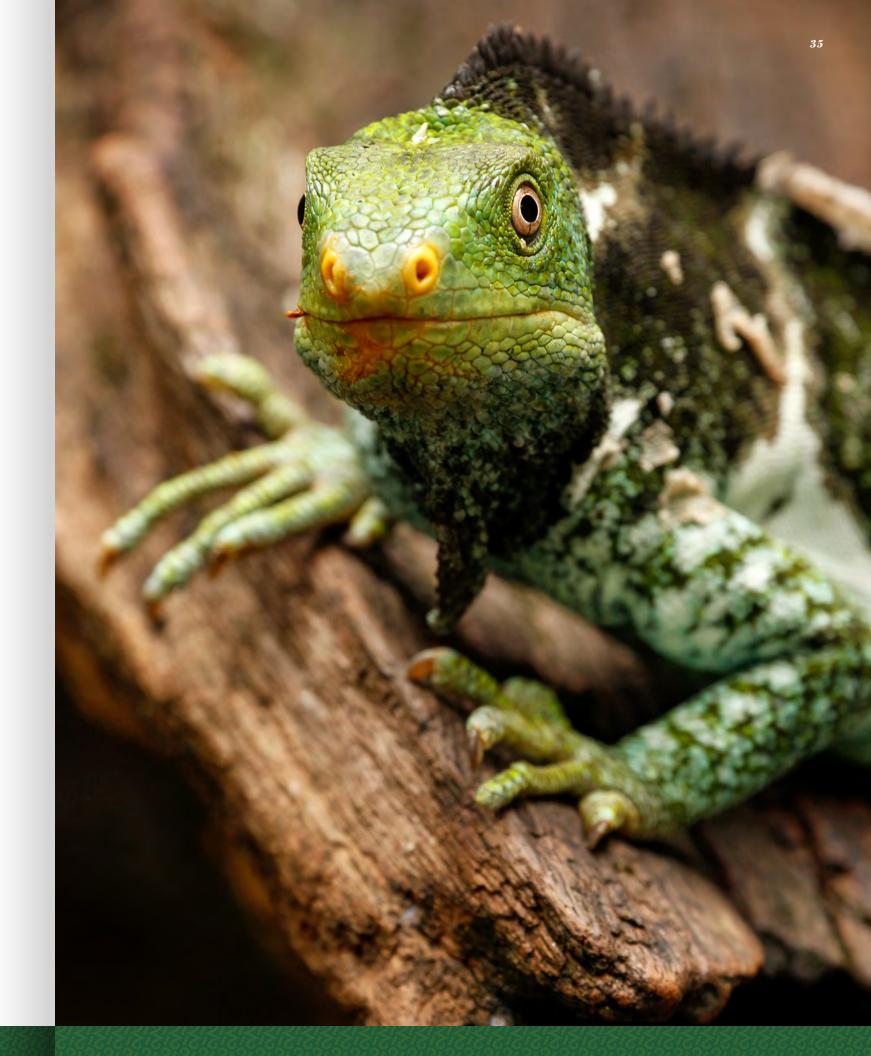
Weathering the Tropical Storms

Looking back on a challenging year in the Pacific



Endangered Mariana crows have inhabited Rota for two million years

While our team at the Maui Bird Conservation Center was able to help ward off the disastrous wildfires this summer, the resilience of another bird conservation center in the Pacific Islands was tested. Once again, our team was ready. Super Typhoon Mawar moved across Rota in the Northern Mariana Islands this past May. Our team at the Aga rear and release location sprang into action, quickly bringing birds into the indoor, reinforced concrete buildings. They also strapped down outdoor aviaries and preemptively removed doors to avoid losing them in typhoon winds. Thanks to their quick response, the aviaries suffered only minor damages, and all birds were returned safely.



MAKING HEADLINES



Seen Around the World Stories highlighting extraordinary work

The San Diego Zoo and the San Diego Zoo Safari Park make our mission, conservation work, and partnership possible. In turn, our conservation work around the world demonstrate the importance and impact of saving wildlife, providing powerful stories t share with our audiences at the Zoo, the Safari Park, and across the globe



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Here are some of the top news
releases making headlines around
the world. These stories highlight
the extraordinary work being done
in San Diego and in native habitats
worldwide by our teams of experts.

San Diego Zoo Safari Park Announces Elephant Valley, Largest Transformative Project in 50-Year History

Wildlife Conservation Leader Will Bring Guests Closer to Elephants through New Immersive Experience



San Diego Zoo Wildlife Alliance has announced construction is officially underway on the largest and most transformative project in the San Diego Zoo Safari Park's 50-year history. The all-new Denny Sanford Elephant Valley will reimagine the heart of the Safari Park, turning the current elephant environment into a dynamic savanna and a place of exploration. Elephant Valley will give guests of all ages the opportunity to connect with elephants like never before, encouraging greater empathy, understanding, and appreciation of this majestic speciesand igniting a passion for wildlife.

"We are thrilled to announce Denny Sanford Elephant Valley-a first-ofits-kind immersive experience for visitors-to further connect the vital work happening here in San Diego to the collaborative elephant conservation initiatives we support in the field," said Paul A. Baribault, president and chief executive officer, San Diego Zoo Wildlife Alliance. "Elephant Valley could not be achieved without the incredible community, donors, members, and allies who support us and make all our conservation work possible with partners around the world."

Surrounded by elephants on multiple sides, including from below via an overhead walkway with views of the herd passing through, guests will learn about the crucial role elephants have as ecosystem engineers, and about their intricate social dynamics. Elephant Valley will provide guests with new insight into the role San Diego Zoo Wildlife Alliance pursues as a leader in wildlife conservation. It will highlight the organization's worldchanging partners and celebrate the vibrant cultures and local communities where people and elephants coexist.

At the center of the guest experience in Elephant Valley is a two-story lodge, inspired by the destinations frequented by travelers while on safari in Africa. This gathering place will provide opportunities to learn from educators about the awe-inspiring wildlife of the region while witnessing elephants wading in expansive watering holes. The rich plant life in Elephant Valley has been carefully curated by a team of expert horticulturists and arborists to authentically reflect the sights, sounds, and smells of the African grasslands. The vast new habitat will provide enhanced experiences for the herd of elephants by introducing several innovative features that align with seasonal variations to closely replicate the African savanna year-round.

"As magnificent as elephants are, their future is equally fragile," said Lisa Peterson, executive director, San Diego Zoo Safari Park. "We are honored to take millions of wildlife allies on a journey into the life of elephants, where they will learn about the positive impact everyone can have and share in our hope for elephants worldwide. Elephant Valley will be a place where curiosity turns into discovery—where anyone from ages one to 100 will experience breathtaking moments of wonder in nature. Our hope is that the defining memories you make here stay with you for a lifetime."

The effects of climate change, challenges to human-wildlife coexistence, habitat loss, and poaching are taking a toll on elephant populations. African savanna elephants are currently listed as Endangered on the International Union for Conservation of Nature Red List of Threatened Species. Conserving African elephants has long been a top priority for San Diego Zoo Wildlife Alliance. The organization works closely with Save the Elephants, The Nature Conservancy, Northern Rangelands Trust, Kenya Wildlife Service, and Reteti Elephant Sanctuary in Kenya for conservation of elephants. Scientific studies conducted in both Africa and with the elephant herds at the San Diego Zoo and Safari Park provide a unique opportunity to increase the understanding of the species and help develop additional conservation solutions. Increasing knowledge of the complexity of elephant social behaviors and the understanding of their overall health needs has given San Diego Zoo Wildlife Alliance and its partners







valuable insight into what successful conservation outcomes look like for elephants.

"Elephants across Africa are facing immense challenges, which require all of us to collaborate and find sustainable conservation solutions for elephants and people," explained Nadine Lamberski, DVM, chief conservation and wildlife health officer, San Diego Zoo Wildlife Alliance. "We are eager to witness the impact Elephant Valley will have on our continued elephant conservation efforts globally."

Elephant Valley is funded by thousands of generous donors and longtime San Diego Zoo Wildlife Alliance supporter Denny Sanford. In addition to Elephant Valley, Sanford was the lead donor for Wildlife Explorers Basecamp at the San Diego Zoo, and for the educational television programing of San Diego Zoo Wildlife Explorers, provided at hundreds of children's hospitals, Ronald McDonald Houses and other facilities across the globe. Elephant Valley is expected to be completed in 2025. For more information and to make a donation. visit sdzsafaripark.org/elephantvalley.



The San Diego Union-Tribune

San Diego Zoo Wildlife Alliance Ushers in the Fall Season with Kids Free Month Kickoff Jamboree at Ronald McDonald House Charities[®] of San Diego

Families Received a Sneak Preview of Seasonal Entertainment at the San Diego Zoo and San Diego Zoo Safari Park

Laughing youngsters and dancing adults joined in the fun at Ronald McDonald House Charities of San Diego, as families took part in a kickoff celebration for San Diego Zoo Wildlife Alliance's annual Kids Free month now in its 38th year. Entertainers from San Diego Zoo's HalGLOWeen and the San Diego Zoo Safari Park's Autumn Festival thrilled and enchanted over 100 youths and their families with dazzling performances and unique activities. Audience members were also treated to special appearances by Dr. Zoolittle and Safari Parker, and took part in a special story time with

author Georgeanne Irvine, who read Teaching Tornero, her sixth book in San Diego Zoo Wildlife Alliance Press' heartwarming Hope & Inspiration Series.

"One of our organization's missions is to connect young people to nature and inspire a passion for wildlife everywhere," said Shawn Dixon, chief operating officer for San Diego Zoo Wildlife Alliance. "Ronald McDonald House Charities of San Diego has been a longtime partner of the Zoo and Safari Park, and there is no better place to kick off 38 years of Kids Free than with

them. These families are experiencing challenging times as they care for their hospitalized child, and are not able to visit our Parks during Kids Free, so we are humbled and honored to bring the wonders of wildlife to them."

For more than eight years, San Diego Zoo Wildlife Alliance and Ronald McDonald House Charities have collaborated to bring San Diego Zoo Wildlife Explorers television programming to young people. The 24-hour closed-circuit television channel provides youths and their families at Ronald McDonald House





Charities of San Diego-and over 360 other Ronald McDonald Houses and children's hospitals around the world—with engaging and powerful stories of wildlife and educational entertainment.

"At San Diego's Ronald McDonald House, it's our mission to provide a sense of normalcy for families even as they face unimaginable health challenges," said Chuck Day, CEO of Ronald McDonald House Charities of San Diego. "Extraordinary partners like San Diego Zoo Wildlife Alliance help us to bring joy and enrichment to families that are grateful for these moments of carefree fun."

Today's extraordinary preview event highlights the annual Kids Free month, which provides kids ages 11 and younger with free admission to the San Diego Zoo and the San Diego Zoo Safari Park throughout the entire month of October. At both parks, young guests can enjoy a wide range of weekend activities and entertainment, along with immersive wildlife experiences. At the San Diego Zoo, HalGLOWeen has become an annual "must" event, providing guests a multitude of Halloween-themed activitiesincluding live music and performances,



culinary treats, and interactive fun. At the San Diego Zoo Safari Park, guests can enjoy Autumn Festival, and take part in special fall-themed merriments, music, and festive food items.









HalGLOWeen doings and fun are scheduled Fridays, Saturdays, and Sundays in October, only at the Zoo. Autumn Festival happenings are scheduled Saturdays, and Sundays, starting October 7, only at the Safari Park. All kids ages 11 and younger will receive free admission to the Zoo and Safari Park in October when accompanied by an adult with a valid

form of admission or membership. HalGLOWeen and Autumn Festival activities and entertainment are free for all ages with admission or membership. Special premium experiences, including wildlife tours and safaris, require advance reservations and an additional fee. For more information about Kids Free, HalGLOWeen, and Autumn Festival—including event dates, operating hours, and other detailsvisit sdzwa.org. To learn more about San Diego Zoo Wildlife Explorers, visit sdzwildlifeexplorers.org.





San Diego Zoo Wildlife Alliance Partners with International Union for Conservation of Nature Species Survival Commission to Form First-Ever Center to Focus on Biobanking

New Center for Species Survival: Biodiversity Banking Joins Distinguished Network of Global Conservation Organizations Working to Prevent Species Extinction

San Diego Zoo Wildlife Alliance has been recognized for its expertise in wildlife biobanking, and has partnered with the Species Survival Commission (SSC) of the world's largest conservation organization—the International Union for Conservation of Nature (IUCN)—to form the new Center for Species Survival: Biodiversity Banking. The new center is the first ever to have a strategy focus rather than a taxonomic one.

"We are honored to partner with the IUCN Species Survival Commission to bring about awareness and further build upon biodiversity banking as a tool to conserve species," said Nadine Lamberski, DVM, Dipl. ACZM, Dipl. ECZM (ZHM), chief conservation and wildlife health officer, San Diego Zoo Wildlife Alliance. "Biodiversity banks like ours are becoming essential to saving species in the face of increasing biodiversity loss. And as novel technologies emerge, biobanks lay the foundation for trailblazing conservation solutions by bridging today's samples to tomorrow's scientific potential." Biobanking describes the intentional and indefinite preservation of living cells, tissues, gametes (eggs and sperm), seeds, and other biomaterials. Biobanking both preserves unrecoverable genetic diversity in wildlife species and expands capacity for genetic rescue strategies, both today and into the future.

Centers for Species Survival are partnerships between leading conservation organizations and the IUCN SSC, which includes conservationists from around the world. Centers are often hosted by zoological and botanical conservation organizations that are engaged in work with key species or specific focus areas. With this partnership, San Diego Zoo Wildlife Alliance will collaborate with the IUCN SSC global network of partners to develop and provide best practices guidance, maximize genetic diversity preservation, and train and advise partners in the establishment and expansion of biobanks.

"This new Center for Species Survival: Biodiversity Banking with San Diego Zoo Wildlife Alliance is an incredible opportunity to build capacity and catalyze best practice in an important and growing aspect of global efforts to safeguard biodiversity," said Kira Mileham, Ph.D., IUCN SSC director of strategic partnerships. "Members of San Diego Zoo Wildlife Alliance co-chair the IUCN SSC Animal Biobanking for Conservation Specialist Group, actively engaging in advancing capacity-building initiatives and working with partners around the world to facilitate the equitable sharing of benefits derived from biodiversity resources."

San Diego Zoo Wildlife Alliance's Wildlife Biodiversity Bank is an invaluable scientific resource for conserving species, and safeguards living and nonliving materials in six distinct collections: Frozen Zoo® gametes, embryos, and cells; Tissue and DNA Bank tissues, DNA, blood, and cells; Native Plant Gene Bank seeds, plant cuttings, and herbarium vouchers (pressed and dried specimens); Pathology Archive tissues, microbes, DNA, and RNA; Clinical Repository bodily fluids and blood components (plasma and serum); and Wildlife Artifacts skeletal replicas and items naturally shed or lost (such as feathers and leaves.) Together, these collections

can aid in advancing wildlife health, care, education, and conservation.

The Frozen Zoo is the foundational and most recognizable component of the Wildlife Biodiversity Bank. Established nearly 50 years ago, the Frozen Zoo is the largest and most diverse collection of its kind in the world, with more than 10,900 living cell cultures, gametes, and embryos representing nearly 1,250 species and subspecies. Cell lines are grown from tissue collected from a variety of mammals, birds, reptiles, amphibians. and fish. From those tissues, living fibroblast cells are grown and then stored in liquid nitrogen freezers at a temperature of -320 degrees Fahrenheit.

The Wildlife Biodiversity Bank receives and shares samples and data with hundreds of scientific collaborators worldwide. Recently, skin cells stored in the Frozen Zoo were provided to collaborators to produce genetically unrepresented clones of two endangered species: a black-footed ferret and two Przewalski's horses. With applications including assisted reproduction, stem cell technology, evolutionary biology, and wildlife medicine, the Frozen Zoo has the



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potential to reverse losses of genetic diversity and contribute to population sustainability.

"Samples from the Wildlife Biodiversity Bank have already had a significant impact on diverse fields of biology," said Oliver Ryder, PhD, director of conservation genetics, San Diego Zoo Wildlife Alliance, and co-chair of the SSC Animal Biobanking for Conservation Specialist Group. "As genomic studies advance, genome sequence information is utilized in all aspects of biological inquiry, and is evermore applicable to characterizing and conserving biodiversity."

As a Center for Species Survival, San Diego Zoo Wildlife Alliance joins a distinguished network of conservation organizations worldwide that share a common goal of preventing species extinction and ensuring a sustainable future for the planet. For more information on San Diego Zoo Wildlife Alliance and the Wildlife Biodiversity Bank, visit <u>sdzwa.org</u>. For more information on the International Union for Conservation of Nature Species Survival Commission, visit <u>iucn.org</u>.



TIMES





California Condor Recovery Program Implements Vaccines in Pre-Release Condors **Based on Early Trial Results**

Birds from the L.A. Zoo, San Diego Zoo Wildlife Alliance, and the Oregon Zoo Participated in Historic Trials, **Furthering Condor Recovery Efforts**

The U.S. Fish & Wildlife Service (Service) is sharing early results from the historic vaccine trial for highly pathogenic avian influenza (HPAI) in California condors (Gymnogyps californianus). As reported by the Service's Incident Command leading the effort, results from the first test group showed that 60 percent of the condors produced measurable antibodies that are expected to provide partial protection against mortality from HPAI if the birds are exposed.

The trial, developed in coordination with the Service, U.S. Department of Agriculture (USDA), and U.S. Geological Service was carried out by the Los Angeles Zoo (L.A. Zoo), San Diego Zoo Wildlife Alliance (SDZWA), and the Oregon Zoo as longtime California Condor Recovery Program partners, and with a new recovery partner, the Carolina Raptor Center.

HPAI was detected in condors in Arizona in early April 2023, although it has been observed in many other species throughout the United States. There were 21 condor mortalities during this HPAI outbreak. In May, the USDA's Animal and Plant Health

Inspection Service approved the emergency use of a vaccine against HPAI to be piloted among the critically endangered California condors in managed care. These first results from the L.A. Zoo and SDZWA show that the vaccine may have beneficial effects for free flying California condors. The Service will make a determination on vaccinating free flying condors after the final results from the trials are available.

"We are grateful to be working with such high caliber professionals as we have been evaluating this vaccine for potential use to minimize impacts from HPAI on the condor recovery efforts. Collaboration with our zoological partners has been vital for the implementation of this trial and their ongoing support is essential for implementing the first vaccines in prerelease condors this fall and winter. None of this important work would be possible without the collaboration from all our partners," said Ashleigh Blackford, California Condor Recovery Program coordinator for the Service.

Each zoo has worked closely with the Service's veterinarian, USDA, and



state veterinarians to gain approval to participate in this first trial for HPAI vaccines in the United States for wild birds. The trial evaluates two vaccination approaches—a single dose (1 mL) and an initial dose with a booster shot (0.5 mL on two occasions). The vaccine used in this trial was developed and manufactured by the animal health company Zoetis.

Twenty-five condors spread across the three zoos were identified for participation based on the birds' age, gender, genetics, and other factors (e.g., some condors are still raising young of the year). Of those 25, 10 condors received two doses of the vaccine, 10 condors received a single vaccination, and five condors served as the control

group. The early results shared and the Service's decision to vaccinate pre-release birds this year are based on the group that received two doses of the vaccine. Presence and degree of immune response to the vaccine were evaluated using a hemagglutination inhibition assay, an antibody detection test, performed at USDA's Southeast Poultry Research Laboratory.

"Just over 30 years ago, the L.A. Zoo joined the U.S. Fish and Wildlife Service and its partners to help save and protect these critically endangered birds. The species was on the brink of extinction and our work was vital to the recovery—increasing the population from approximately 20 in the 1980s to more than 500 California condors in the world today," said Denise M. Verret, CEO & zoo director, L.A. Zoo. "This vaccination trial is an urgent next step in the partnership to protect these birds from a new, existential threat the highly pathogenic avian influenza virus. It gives these resilient birds a fighting chance and provides hope for a future where the species is once again thriving in nature."

"When our California condor conservation breeding program began in the late 1980s, we embarked on a dedicated journey to save these

incredible birds from existential threats and to offer them a sustainable future," said Hendrik Nollens, vice president of wildlife health, San Diego Zoo Wildlife Alliance. "We see this as another chapter in that journey, and as one of only a few organizations who care for California condors, we are uniquely positioned to help."

The vaccine trial first started with a surrogate species, black vultures, hosted at the Carolina Raptor Center, North Carolina. This step in the trial signaled that the vaccine was safe in vulture species and with expert input, trials could proceed in condors.

The Washington Post



After confirming vaccine safety with the surrogate species, on July 18 the Service, L.A. Zoo veterinarians, and San Diego Zoo team vaccinated the first three condors to evaluate their response. After further confirmation there was no adverse reaction in condors the L.A. Zoo, SDZWA, and Oregon Zoo vaccinated 17 additional birds. More information about the overall trial, next steps, and impacts of HPAI on the Southwest flock can be found on the Service's web page dedicated to HPAI updates. The Service is expected to announce final trial results and additional updates on implementation on this platform.

"The importance of finding a vaccine that's effective in protecting California condors cannot be overstated," said Dr. Carlos Sanchez, director of animal health, Oregon Zoo. "This is a species that not long ago was on the very brink of extinction. Just over 300 individuals exist in the wild—and this year, in a matter of weeks, HPAI wiped out 21 of them. If left unchecked, the disease could undo decades of conservation work in the blink of an eve."

The California Condor Recovery Program has long been an example of how partnerships can help promote recovery of endangered species. The effort to protect condors against HPAI highlights the value of partnerships, once again incorporating new and novel partners and creative ideas to work towards successful recovery.

"We're thrilled to have been able to play a role in this process and are excited to see the California condor trial is proving to be successful," says Erin Katzner, president and CEO, Carolina Raptor Center. "We hope the black vultures can continue to provide information to aid in the decision-making process as the team determines next steps."



San Diego Zoo Wildlife Alliance to Participate in the 135th Rose Parade® Presented by Honda, with a Float Commemorating the San Diego Zoo's 107-Year History

Float Highlights Include a Resilient Orangutan, a Young-at-Heart Polar Bear, and the Lion Who Started It All

For the third consecutive year, San Diego Zoo Wildlife Alliance will partner with the Tournament of Roses in Pasadena and participate in the 135th Rose Parade® presented by Honda on New Year's Day. San Diego Zoo Wildlife Alliance's parade float theme— "It Began with a Roar"—will feature a myriad of heartwarming stories from the San Diego Zoo that have inspired generations to care for and protect wildlife.

The Rose Parade is one of the world's most storied traditions, celebrating the hope and optimism a new year brings. The "It Began with a Roar" float will bring to life the vibrant sounds and rhythms of nature, offering a global symphony of music and a resounding way of connecting all of us—wildlife, people, and the planet we share.

"For 107 years, we've experienced the spirit of Rex the lion's mighty roar, which sparked a dream to bring our world-renowned organization to life—right in the heart of San Diego," said Paul A. Baribault, president and chief executive officer, San Diego Zoo Wildlife Alliance. "Over the past century, we've evolved to meet the growing needs of wildlife, offering millions of guests who visit our two leading zoos every year the opportunity to explore immersive conservation experiences and connect with the world's wildlife. The Rose Parade is near and dear to many, and we want to share our stories of nature and conservation with the world."

From the animated calls of flamingos to the soulful heartbeats of an orangutan and the soothing sounds of century-old tortoises, the float will represent the harmonious music of wildlife that echoes across our planet. Rex the lion will stand tall on a ridge overlooking the rest of the 55-foot float, letting out a thunderous roar—akin to the one that sparked a dream more than a century ago and inspired the world-renowned San Diego Zoo. A Sumatran orangutan, inspired by Karen at the San Diego Zoo Lost Forest habitat, will watch intently as a monarch butterfly dances on her finger. Karen the orangutan, now 31 years old and thriving, was born with a heart defect. She was cared for by San Diego Zoo veterinarians and received lifesaving open-heart surgery from a surgeon experienced in treating people with heart issues.

Leading the way at the front of the float, a polar bear—designed after Chinook at the San Diego Zoo Polar Plunge—glides through the ocean. Disappearing sea ice threatens the survival of polar bears, and evidence shows that loss of sea ice is correlated with declines in a polar bear's body condition, reproductive success, and survival. For many years, polar bears at the San Diego Zoo have participated in scientific studies and conservation efforts to help save the species in the face of climate change.

The San Diego Zoo's own Matt Akel will be riding on the float with his wife Courtney and their daughter Meadow. Matt joined San Diego Zoo Wildlife Alliance in 2002 as a wildlife care specialist on the polar bear team, where he cared for 7-year-old Chinook. Now, 21 years later, Matt is the associate curator of mammals, who leads the polar bear program and the team caring for 28-year-old "young at heart" Chinook.

"When I was 10 years old growing up in New Jersey, I visited the San Diego Zoo with my family," said Matt. "Visiting the zoo as a child was part of my inspiration to pursue a lifelong career in wildlife care and conservation. Every time I have the opportunity to interact with Chinook, it brings back special memories from my time with her at the start of my career, and why we work so hard to protect these incredible animals. Polar bears are near and dear to my heart, and I have an extreme passion to want to protect their wild Arctic environment before it's too late."

The purposefully designed float incorporates the stories of the San Diego Zoo and represents the mission of San Diego Zoo Wildlife Alliance, utilizing mesmerizing plants and a dazzling array of flowers—featuring, of course, roses. The floral array on the float will also illustrate that both the San Diego Zoo Safari Park and San Diego Zoo are accredited botanical gardens—and serve as a reminder of San Diego Zoo Wildlife Alliance's dedication to plant conservation through its many efforts, including the Wildlife Biodiversity Bank.

In 2023, San Diego Zoo Wildlife Alliance's Rose Parade float celebrated the San Diego Zoo Safari Park's 50th anniversary. The float's theme, "Celebrating 50 Years of Conservation," won the Animation Award for most outstanding use of animation. The

giraffes and rhinos on the float were animated, with the rhinos seemingly coming to life as they turned their heads and the giraffes moving their long necks and bending down for a cool drink of water from a flowing waterfall.

San Diego Zoo Wildlife Alliance is an international nonprofit conservation organization that operates two world-class parks—the San Diego Zoo and the San Diego Zoo Safari Park—and empowers people to connect with plants and animals, develop an appreciation for nature, and contribute to the safeguarding of wildlife everywhere by becoming wildlife allies. The two wildlife parks are home to over 17,000 rare and endangered animals representing more

FEATURE





than 1,000 species and subspecies. Both parks also host more than 2 million individual plants representing close to 13,000 specimens and close to 7,000 species. Welcoming nearly 6 million guests and touching countless others each year, the San Diego Zoo and Safari Park inspire wildlife allies from around the globe. Here, conservation comes to life as generations experience the magnitude and wonder of the world's wildlife. Guests are invited to take part in exciting educational experiences and create lasting memories while supporting San Diego Zoo Wildlife Alliance's conservation efforts worldwide—and it all started with a roar.







Cameroonian Ekwoge Abwe Receives Tusk's 2023 Prince William Award for Conservation in Africa

From brokering alliances to remedy historical conflicts to contesting logging plans in one of the largest intact rainforests in one of Africa's biodiversity hotspots, Ekwoge Abwe has given a lifetime's work to securing a better future for his country's people and wildlife.

At the 11th annual Tusk Conservation Awards at London's Savoy on Monday, November 27, Tusk was pleased to announce the recipient of the Prince William Award for Conservation in Africa as Cameroon's Ekwoge Abwe, lead conservation scientist with San Diego Zoo Wildlife Alliance.



Dr. Ekwoge Abwe, lead conservation scientist with San Diego Zoo Wildlife Alliance meeting HRH William, Prince of Wales and accepting the Prince William Award for Conservation in Africa during the 11th annual Tusk Conservation Awards at London's Savoy. Image: Chris Jackson, Getty Images

The Prince William Award for Conservation in Africa is given for a lifetime's achievement, recognizing outstanding dedication and exceptional continued contribution to conservation in Africa.

The Tusk Conservation Awards, in partnership with Ninety One, honor the heroes of African conservation and help tell their stories to the world. For over a decade, The Tusk Conservation Awards have served as a springboard for Africa's foremost conservationists. These guardians of biodiversity have since risen to the top of their fields, scaling their work and amplifying conservation impact across the continent.

As a leader of San Diego Zoo Wildlife Alliance's African Forest Program and president of the Cameroon Biodiversity Association, Ekwoge is one of the country's eminent conservationists. He is a proud Cameroonian who has dedicated his life to the conservation of the riches of his country.

Ekwoge Abwe said, "I have always believed that we humans have a duty to

ensure that those less fortunate than ourselves, as well as our children and future generations, live in harmony in a diverse and thriving world for the benefit of all.

"I have devoted my entire adult life to biodiversity conservation for human wellbeing. Though I have impacted many individuals and communities, I had no idea that what I do would ever be recognized and celebrated in this way, let alone at this stage of my life and given the challenges we face in Cameroon. I must thank San Diego Zoo Wildlife Alliance and its leadership for their unyielding support for my work, even in the face of the challenges. I couldn't ask for a better advocate of critical work here. And, I am both immensely humbled and gratified that my nominators and the panel of judges saw me worthy of this prestigious award. I accept this award on behalf of our devoted and committed team in Cameroon, and dedicate it to the resilient communities we work with to ensure the long-term health of people, wildlife, and the environment in Cameroon."

ABOUT EKWOGE





Abwe is widely recognized as one of West and Central

Africa's most effective, dynamic, and committed conservationists. He was born in a small village adjacent to what is now the Bakossi Mountains National Park, and was brought up to believe that hard work and generosity could take him anywhere.

Ekwoge has impacted conservation on a significant local, national, and international level over more than two decades. Locally, he has been critical to forging alliances between more than 40 traditional chiefs of two different tribes in the 2000 sq. km. Ebo landscape, who were engaged in significant unrest during Cameroon's struggle for independence only 60 years previously.

He began working with San Diego Zoo Wildlife Alliance 20 years ago to contribute to great ape behavioral research. He is passionate about primates, particularly great apes, and was the first to witness chimpanzees using stone and wooden hammers to crack open tree nuts in Cameroon-a new behavioral discovery for the

a priority of Ekwoge's, and he and his team pioneered the use of video camera trapping for monitoring of Ebo's elusive forest elephants. One of the Ekwoge's most notable recent achievements is leading a campaign to dissuade the government of Cameroon from logging Ebo's forest. The destruction of the forest would have led to the loss of entire communities of chimpanzees, gorillas, elephants, and other wildlife. While the future of the forest remains unresolved, Ekwoge is committed to advocating for the involvement of peoples living around the forest to decide its future in an inclusive and transparent local land use planning process.

FEATURED MEDIA OUTLETS



Daily Mail

Endangered Nigeria-Cameroon chimpanzee. Ekwoge's work with chimpanzees at Ebo has been groundbreaking and vital for their conservation. His research on the chimpanzee habitat requirements, social structure, and behavior has been invaluable in developing effective conservation strategies. Forest elephant conservation has also been

Bethan Morgan, head of the African Forest Program at San Diego Zoo Wildlife Alliance and Ekwoge's **nominator, said**, "Ekwoge's hope and belief in a better future for all

is inspiring and infectious, and is evident in the significant numbers of young Cameroonians who call him their mentor. His inauspicious start in life may have led to his determination to succeed, and a deep knowledge of and respect for the poverty-stricken populations with which he works. His pride in and love for his country and people shines through every day."

Charlie Mayhew, OBE chief executive of Tusk, commented, "Ekwoge's conservation impact on a local, national, and international level is unparalleled. The judges were impressed by his notable achievements in peacemaking and activism, his commitment to the people of Cameroon, and the extraordinary legacy he has created. He is a worthy winner of this lifetime achievement award, and we're honored to celebrate this true defender of biodiversity."

Previous winners of the Prince William Award for Conservation in Africa include Ian Craig from Kenya (2022), Simson Uri-Khob from Namibia (2021), Hipólito Lima from São Tomé And Príncipe (2020), and Dr. Carlos Lopes Pereira from Mozambique (2019).



Daily News-Record

Sumatran Tiger Cub Twins' Names Revealed at the San Diego Zoo Safari Park

Cub Births Increase World's Population of This Critically Endangered Species

Two Sumatran tiger cubs, born at the San Diego Zoo Safari Park in July, have now been officially named. The female cub is Puteri (pronounced Poo-tear-e), which means "princess" in Malay, and the male cub is Hutan (pronounced Hoo-taan), which means "forest." The cubs were born July 12 to first-time mother Diana and father Dumai, and are the first of this critically endangered species to be born at the Safari Park's Tull Family Tiger Trail habitat in seven years.

The births are a result of a breeding recommendation through the Association of Zoos and Aquariums' Sumatran Tiger Species Survival Plan (SSP). Each SSP program, overseen by conservationists nationwide, ensures genetic diversity and healthy, selfsustaining assurance populations of threatened and endangered wildlife. Sumatran tigers are listed as Critically Endangered on the International Union

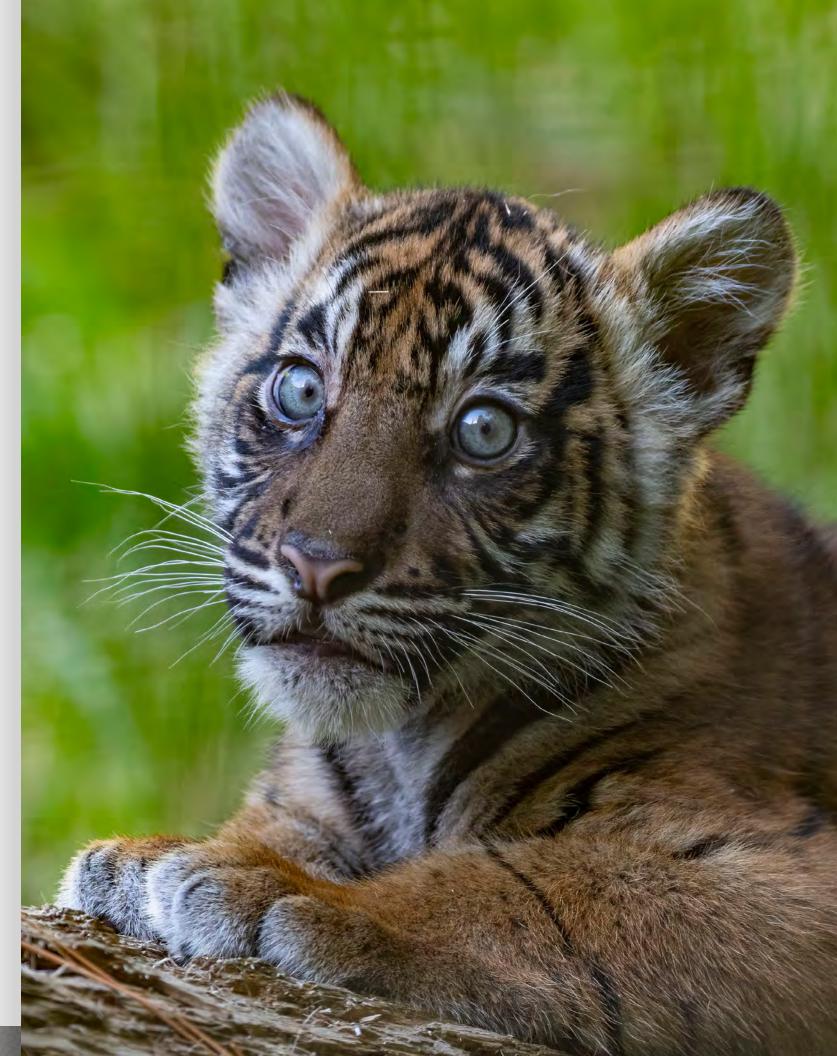
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for Conservation of Nature Red List of Threatened Species. With only an estimated 400 to 600 Sumatran tigers remaining on Earth, these births are significant in increasing the worldwide population of this tiger species and furthering the nonprofit San Diego Zoo Wildlife Alliance's ongoing work to conserve them.

Diana and her cubs are expected to remain in their den for several more weeks. For information, visit <u>sandiegozoowildlifealliance.org/adopt/</u> <u>sumatran-tiger</u>.







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San Diego Zoo Wildlife Alliance 2116 Advisors is an exclusive group of philanthropists, conservation leaders, and conservation scientists providing counsel and support to help us fulfill our vision of a world where all life thrives.

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