

LOS ANGELES



LOS ANGELES ZOO

# CONSERVATION STRATEGIC PLAN

2024 Annual Report

# A Road to Conservation

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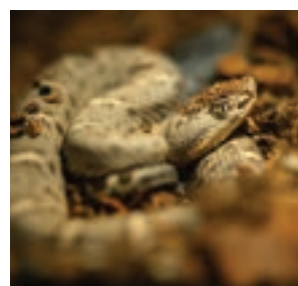
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01

Branching Out



Even the mightiest of oak trees began as an acorn. Given the proper location, time, and resources, an acorn germinates and develops a web of roots that strengthens its foundation. As the trunk grows, the tree branches out. This growth process is critical, creating an extensive root network and a broad canopy that lets the tree gather increasingly more light and more nutrients, fueling future growth.

This process mirrors the Los Angeles Zoo's progress in expanding its impact on biodiversity conservation since the launch of our Conservation Strategic Plan (CSP) in 2021.

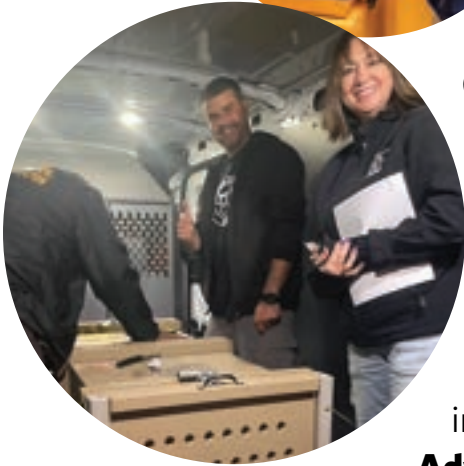
PHOTO BY MATTHEW CAREY



In last year's CSP Annual Report, we compared our progress to the coast live oak saplings growing in the Zoo's Native Plant Propagation Station. These tiny trees are preparing for their return to the ground as part of our California habitat restoration efforts, and, like them, we have continued to expand our roots, trunk, and branches of conservation impact in the last twelve months.



Last year our root network grew through increased engagement with **Association of Zoos and Aquariums (AZA) SAFE Programs**, and as one of only 14 AZA zoos that are organizational members of the **International Union for Conservation of Nature (IUCN)**. Our trunk—the base of all our efforts and on which everything else develops—has strengthened as programs like the L.A. Zoo Paid Internship Program and Teen Council for Conservation have grown in scope and impact.



The Zoo has branched out by solidifying partnerships with organizations like the **African Conservation Center** in Kenya, **Wildlife Trust of India**, and **Outward Bound Adventures** in Pasadena, California. And critically, our impact on biodiversity conservation has expanded with ongoing success of recovery programs like the California condor and southern mountain yellow-legged frog; exciting new engagement with giant otter reintroductions in Argentina and the New Mexico Ridge-nose Rattlesnake Recovery Project; and new efforts to engage Zoo visitors and Angelenos in supporting birds, bats, bees, butterflies, and bugs with Project Pollinator.

**T**hroughout this Annual Report, you'll find overviews of projects and programs that support the objectives and goals of the CSP. This compendium represents the positive impacts of work done by people throughout the Zoo.

Our Animal Care and Animal Health teams ensure the health and welfare of our animals and enable the recovery of endangered species like condors and giant otters. Our Guest Services, Learning & Engagement, and Volunteer teams engage with guests and program participants both at the Zoo and around Los Angeles. The Zoo's Sustainability and Capital Programs, Construction, and Grounds Maintenance teams ensure that the animals and people we serve have the facilities they need to thrive. And the Administrative, Operations, and Human Resources teams provide the critical infrastructure support that makes it all possible. Just as the mature oak provides shade, shelter, and resources to the life around it, the work our staff performs each day helps us achieve our shared mission to save wildlife, enrich our communities, and create connections to nature. We are proud of the progress we made over the last year and are committed to expanding our impact and working to create a just and sustainable world where people and wildlife thrive, together.

*Opposite: On Zoo grounds and beyond, staff and volunteers all play a part in advancing the Zoo's mission. Photos by Anna Becker, Carl Myers, and Rose Legato*

*Below: A California condor hatchling under the watchful eye of keeper Chandra David and Veterinarian Dr. Jordan Davis-Powell. Photo by Louanne Brickhouse*



# Conservation Strategic Plan

## Guiding Principles

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### PRINCIPLE 1

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#### ***We respect people, their land, the wildlife they share it with, and their pursuit of livelihoods***

We empower communities, build capacity, and strive to make a positive change in peoples' lives.

### PRINCIPLE 2

---

#### ***Conservation is at our core***

We don't just talk conservation, we live it. Our commitment is evidenced by our investment in our programs around the world, our animal care, our sustainability efforts, and our people.

### PRINCIPLE 3

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#### ***Conservation starts at home and extends around the world***

We provide our expertise and engage our community to protect nature and wildlife in the greater Los Angeles area and globally.

### PRINCIPLE 4

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#### ***Conservation is a team effort***

We all succeed when we work together. We all contribute our knowledge and experience, and with our projects, provide opportunities to develop everyone's skills, making a difference for conservation.

### PRINCIPLE 5

---

#### ***We are both leaders and collaborators in conservation***

While we seek to demonstrate leadership, we recognize that conservation partners are vital and collaborate with a wide range of organizations such as academic, corporate, governmental, and NGOs to develop projects that succeed. Our reach extends globally as we team with other respected organizations to find solutions for wildlife in crisis.

### PRINCIPLE 6

---

#### ***We are a zoo without borders***

We work outside our boundaries, collaborating with communities to create shared conservation solutions. We seek out and break down barriers to increase access to nature and sustainable resources, empower our staff and the communities where we work to conserve wildlife and improve the world we share.





### Human-Wildlife Co-Existence

For wildlife to survive, humans must thrive; reducing negative interactions between the two is critical

**PAGE 44**

### California Conservation

California has one of the highest rates of endemism and biodiversity in the world, making conservation in this region critically important

**PAGE 16**

### Illegal Wildlife Trade

Combating the trade that threatens many of the world's wildlife species and endangers human health taps into our core strengths

**PAGE 32**

## Areas of Focus

### Social & Environmental Justice

For conservation to be successful, all people must have opportunities to engage in ways that are just and equitable

**PAGE 24**

### Evidence-Based Conservation

Basing conservation action on research is the only way to increase efficacy and ensure long-term success

**PAGE 72**

### Conservation Translocations

As threats to habitats increase, translocations, reintroductions, and releases of threatened animals are important to halting extinction and recovering populations

**PAGE 60**



02

Conservation Culture



We know the more people we have on our team, the greater the potential reach of our conservation actions. That's why we work hard to build a genuinely inclusive, deeply rooted culture of conservation throughout the Zoo. And it's working. For example, after hearing frog calls in the Zoo's front entrance pond, Park Services Attendant Rozia Francis identified the species and sent out her own call to Zoo Animal Care, Grounds Maintenance, and Conservation teams to protect these sensitive amphibians. In response, the cleaning routine was updated to avoid the use of chemicals and ensure the pond would remain a safe haven for this native species.

PHOTO BY ANNA BECKER

## 6 OF 7 RESPONDENTS EXPRESSED A HIGH LEVEL OF PRIDE IN THE ZOO'S CONSERVATION EFFORTS

*The people who work here—our staff, docents, and volunteers from the Zoo, GLAZA, and SSA—are our most valuable resource in advancing the Zoo's role in biodiversity conservation and sustainability.*

—DR. JAKE OWENS,  
L.A. ZOO DIRECTOR OF  
CONSERVATION



### Survey Says

Every other year, the Conservation Division conducts a staff survey to track changes in our teams' knowledge, understanding, and perception of the Zoo's role as a conservation leader. Results are shared with all staff and help shape the conservation efforts and culture of the L.A. Zoo.

In the 2024 survey, respondents expressed a high level of pride in the Zoo's conservation efforts, ranking their satisfaction at an impressive 6 out of 7. This score reflects their strong support for the Zoo's initiatives in field conservation, conservation education, advocacy, and connecting the animals cared for at the Zoo with broader species-saving efforts in the wild. Additionally, 90% of respondents felt connected to the Zoo's mission, and 94% believed their roles directly support this mission.

# Keep-ing It Real

The Los Angeles chapter of the American Association of Zoo Keepers (AAZK) is committed to professional development and providing animal keepers with opportunities to raise money for conservation. Through the encouragement, passionate, and consistent peer leadership at the Zoo, our keepers volunteer their time and give of their resources to benefit animals in their care and in the wild—and inspire colleagues and the public to do the same.



*Opposite: Director of Learning & Engagement Dan Keeffe finds meaning in the Zoo's mission of creating connections to nature. Photo by Jamie Pham*

*Opposite inset: GLAZA staffer Natalie Poveda collects cell phones donated by zoo visitors to reduce mining in gorilla habitat. Photo by Jamie Pham*

*Above: The L.A. AAZK chapter's Bowling for Rhinos events have raised more than \$500,000 for conservation since 2009. Photo by Jamie Pham*



**LAST YEAR  
BY THE NUMBERS**

**\$1,258**  
**Raised for rhino  
conservation**  
(through the Cinco de Rhino  
food fundraiser)

**\$1,752**  
**Raised for  
professional  
development  
grants**  
(through holiday bake sales)

**\$6,075**  
**Given to chapter  
members**  
(for professional development  
at conferences and workshops at  
home and abroad)



**2023 PLASTIC-FREE  
ECOCHALLENGE  
BY THE NUMBERS**  
.....**224**  
Teams**130**  
Organizations**144**  
Members**4TH**  
Place

## Passing on Plastic

After 2022's second-place finish, our Zoo staff and volunteers were energized for July's Plastic Free Ecochallenge and the chance to move into the top spot. Led by Director of Sustainability and Capital Programs Carol Armstrong, the team—Angeleno Plastic Eliminators, or Team APE—reported on actions they were taking to reduce plastic and communicated about those actions, both at work and through social channels. In a win for wildlife and wild places, competition was fierce.

*Above: Team APE's mascot, April the Ape, with Office Services Assistant Ramiro Ruvalcaba on the Zoo's new waste bins. Photo by Ramiro Ruvalcaba*

*Opposite: Bona assisted with the translocation of giraffes from Namibia to Angola—where the species had gone locally extinct. Photo courtesy Mike Bona*



*I made a meaningful contribution to the field of giraffe conservation and served as an ambassador for the Zoo's commitment to wildlife preservation.*

—MIKE BONA, L.A. ZOO GIRAFFE KEEPER

## Investing in Field Experience

The Montgomery Advanced Field Studies Grant program furthers staff members' expertise by providing funds to support field study experiences around the world that enhance their capacity, support the efforts of field partners, and advance the reputation of the Los Angeles Zoo.

This year the Montgomery Grant sent keepers Marcos Rosas, Mike Bona, Rachel Galvan, and Kathryn Vincent to three continents to work with elephants, giraffes, macaws, and a variety of wildlife. The keepers were able to practice skills in new contexts, learn from field biologists, and lend expertise on issues ranging from specialized foot care to translocation to breeding—all while representing the Zoo in faraway places.



03

California Conservation



California has one of the highest rates of biodiversity of any U.S. state. Los Angeles itself is in a biodiversity hotspot—the California Floristic Province—one of only 36 worldwide. An unusually high number of our region’s native species are endemic (found nowhere else on Earth). These facts and the many environmental threats we face make protecting California’s biodiversity more important than ever. Working with our partners in the Los Angeles area, we offer opportunities to engage local communities, nurture a lifelong commitment to conservation, develop career paths, and host local conservation events. By being trailblazers in efforts to save California’s native wildlife, we lead by example.

COMMUNITY MEMBERS REMOVE INVASIVE PLANTS IN GRIFFITH PARK  
WITH THE L.A. ZOO CONSERVATION CREW AS PART OF THE WEST  
TRAIL RESTORATION PROJECT. PHOTO BY CARL MYERS

# Creating Healthy Homes for Local Wildlife



Project Pollinator is a collaborative initiative aimed at establishing, restoring, and promoting native plant habitats in and around the Zoo. It builds on our ongoing partnerships with the Theodore Payne Foundation, North Hollywood High School, and others—and enables us to reach new audiences by bringing related projects under one umbrella.

A reimagined space in the Children's Zoo was designated Project Pollinator Headquarters (PPHQ). The space serves as a base for educational programming and a place for guests to explore ways to maintain and support Monarch butterflies, native songbirds, and other pollinators in their own homes and neighborhoods.

*Left: The PPHQ was officially unveiled during the Zoo's annual Wild for the Planet celebration. Photo by Jamie Pham*

*Right: Guests were invited to pot their own native plant to take home. Photo by Carl Myers*

*Opposite page: Master gardener Stephen Reid explains the medicinal properties of common yarrow to guests. Photo by Carl Myers*



The Zoo teamed with the nonprofit Outdoor Afro to engage its members and the general public in the opening-day activities, which included a presentation and hands-on workshop on California's rich botanical heritage by master gardener Stephen Reid. The Zoo's Conservation Committee distributed native seed packets, bags of "Zoo Doo" compost provided by L.A. Sanitation, and pots that guests could paint and take home.

*Through Project Pollinator, we are working to not only increase the native habitat that we create through restoration projects in and outside the Zoo, but also to amplify our impact by engaging the millions of visitors who come to the Zoo.*

—DR. JAKE OWENS, DIRECTOR OF CONSERVATION, L.A. ZOO



**NATIVE GARDEN  
BY THE NUMBERS****1,000+**

Plants

**40**

Volunteers

**7+**

Plants per 100 sq. ft.

**43**

Plant species



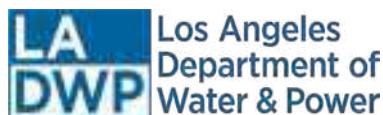
Volunteer Joanne Shinozaki lends her green thumb to the project. Photo by Jamie Pham

## Improving the Home Turf

In collaboration with Theodore Payne Foundation, we converted 14,000 square feet of non-native turf grass in the Zoo's parking lot, installing a drought-tolerant pollinator garden in its place. Located behind the Metro 96 bus stop, the new garden provides a welcoming gateway into our Zoo for bus riders, students, staff, and visitors.

Planted with 100% native California species, the California Native Gateway Garden demonstrates our commitment to conserving our region's unique biodiversity and highlights the importance of adapting our environment to the growing effects of climate change, including extended droughts and extreme heat.

The California Native Gateway Garden was made possible by funding from the SoCal Water\$mart Commercial Turf Replacement Rebate Program. It was planted by staff and volunteers from the Zoo as well as the Theodore Payne Foundation (which also provided the plants). In a true team effort, L.A. Zoo Senior Park Maintenance Supervisor Robert Gonzalez and his team were instrumental in its planning and will continue to tend the garden as it grows, and Conservation, Learning & Engagement, Sustainability & Capital Programs, and other staff and volunteers helped bring it to fruition.



# Listening for Bats



Griffith Park is an important oasis for local and migratory wildlife, including bats. To better understand bat biodiversity

on Zoo grounds, the Conservation Division acquired bat acoustic monitoring equipment and developed protocols for both active and passive monitoring. In partnership with Bat Conservation International, we determined the best stationary monitors to use and where to install them on Zoo grounds for research purposes. Volunteers used portable echometers to conduct bat surveys during summer event nights.

Data gathered will identify which species reside in or pass through the L.A. Zoo, contribute to bat studies locally and globally, mitigate potential threats to bats on Zoo grounds, and help inform conservation plans for species of concern.



## BAT MONITORING BY THE NUMBERS

**4**

Monitors installed

**12**

Bat species recorded

**20,000+**

Hours of data collected

**6**

Additional locations surveyed before and after events

**24**

Event nights

**136**

Hours contributed by 11 volunteers and 3 staff members

*Portable (above) and stationary (inset) acoustic monitors detect ultrasonic sounds produced by bats. Photos by Jamie Pham*



# Creating Connections to Nature

When learning goes beyond the classroom, the impacts can be profound. In April 2024, the Conservation Division worked with the North Hollywood High School Zoo Magnet to restore an overgrown garden adjacent to the school. Originally installed by the Zoo's Grounds Maintenance team, the 21,670-square-foot space was overdue for an overhaul.

While removing a dense patch of invasive mustard plants, the students uncovered a Nevin's barberry, a federally and state listed endangered species. Not planted intentionally, the barberry was likely deposited by a bird. For the students, this was an exciting real-world demonstration of how creating space for native habitat can have powerful outcomes—including supporting the recovery of an endangered species.

This project exemplifies the Zoo's commitment to the AZA's Saving Animals from Extinction North American Songbirds (SAFE-NAS) program. By creating and preserving native bird-friendly habitats within our community, we are helping to secure sustainable wild populations of native songbirds.



## PROJECT PLAN

- ☒ Zoo Senior Gardener Andrew Lyell outlined the plan, and the Zoo provided tools and staff to support the restoration effort.
- ☒ One hundred and fifty students participated
- ☒ Thousands of invasive plants and several bags of trash removed
- ☒ Planted several new trees, herbs, and shrubs to add additional resources for pollinators



Zoo Magnet students gained a firsthand appreciation of the benefits of habitat restoration. Photo by Brie-anna Molina

# Making Space for Natives



*The same location in October 2022 (left) and June 2024 (right). After pulling the invasive cocklebur (dark brown), native mule fat (lighter green) has steadily reclaimed the space. Photos by Carl Myers*

*Inset: Dr. Earyn McGee removes invasive castor bean. Photo by: Jake Owens*

Two years ago, the L.A. Zoo Conservation Division launched an ambitious habitat restoration project in Griffith Park's West Trail, a location identified by the Department of Recreation and Parks (RAP) as an important area of need. Five patches were targeted as priority areas due to their high density of invasive plants such as cocklebur, castor bean, poison hemlock, and mustard. These non-native plants have adapted so well to our balmy California climate that they outcompete native flora, putting wildlife that depends on local plants at risk.

The project drew hundreds of participants, including Zoo staff, volunteers, and members of the community at large. Together, we removed more than 100,000 invasive plants (we stopped recording when we hit that milestone so that more effort could be expended on pulling plants than counting them). Now, patches that were once dominated by invasives are being reclaimed by native plants. Mustard, a particularly pernicious invasive, has been dramatically reduced, while new native species have moved in.





# 04

## Social & Environmental Justice



We believe that all people have the right to see, smell, and hear the absolute wonder that biodiversity brings. It's going to take all of us to do the work of keeping that wonder alive for future generations, so widening the circle of who's in on this journey is both a privilege and a responsibility. Here's how we're fostering connections to nature and opening opportunities for careers in conservation for everyone.

MEMBERS OF THE ZOO'S TEEN COUNCIL FOR CONSERVATION LEARN ABOUT HABITAT RESTORATION PROGRAMS ON CATALINA ISLAND AS PART OF AN OVERNIGHT EXCURSION. PHOTO BY ANNA BECKER



### THIS YEAR'S CLASS PIP BY THE NUMBERS

**16**  
Interns

**3**  
Second-year  
mentors

**3,200**  
Hours of paid  
experience

**3**  
Unique  
conservation  
studies

*Conservation Interns present  
their research projects and  
recommendations to Zoo  
staff. Photo by Jamie Pham*



## More Access = Greater Advancement

The Zoo's Paid Internship Program (PIP), now thriving in its fourth year, offers a gateway to zoo careers for college students without the financial ability to take an unpaid internship. Interns develop career skills in conservation and learning & engagement, connect with conservation professionals, and contribute to conservation initiatives.

At the end of the experience this year, Conservation Interns presented posters outlining season-long projects they'd undertaken, as well as their conservation recommendations to the Zoo. Topics covered included bird activity in the Zoo's gardens, soil temperature and its effect on insects, and the impact of invasive plant species on native oak trees.

The Zoo also hosted its first PIP alumni event this year. Twelve attendees from past years joined this year's interns to share their experiences completing college, job searching, and applying to grad schools. An additional four alumni missed it—because they were working at the Zoo! The program's continued success is thanks to the support and collaboration of staff across the entire Zoo.

# An Achievable Future

The second year of the Teen Council for Conservation (TCC) was a roaring success. Created to unite youth and create conservation solutions in Los Angeles, the program's high school students are primarily from communities that have been historically excluded from conservation careers. They meet in person and virtually, with opportunities for field trips. To reduce financial barriers to participation, councilmembers receive a stipend.

As part of the nine-month TCC program, this year the Zoo hosted its inaugural Youth Conservation Symposium, co-designed with students. Over 80 youth attended the symposium, which featured an expert panel and breakout sessions. Students collaborated on climate-resilient schools; urban greening and biodiversity; sustainability at home; and information, advocacy, and action.

The members of the TCC also overnighted at the Wrigley Marine Science Center, a research station established by USC on Catalina Island. The stay included naturalist hikes, stargazing, kayak tours in protected areas, and exploring the impacts of climate change on tide pools. Councilmembers also visited the Moore Lab of Zoology at Occidental College to learn about new STEM career opportunities, local biodiversity conservation, and research.

*Being on the council has been the most exciting part of my school year.*

—MAX A., STUDENT



**THIS YEAR'S CLASS  
TCC BY THE NUMBERS**

**27**  
**New students**

**3**  
**Returning  
student mentors**

**14**  
**Los Angeles  
council districts  
represented**

*The 2023-24 TCC cohort on  
a field trip to Catalina Island.  
Photo by Anna Becker*

# Co-creating Healthy Wild Spaces



In November 2023, the state Wildlife Conservation Board approved a \$3.6 million grant to support the Zoo's Oak Woodland Restoration and Career Pathways Project as part of a partnership with Outward Bound Adventures (OBA). Through this five-year workforce development program, OBA and Zoo participants will transform the six-acre area—which is currently dominated by invasive plants—into a high quality, climate-resilient woodland. The work will focus on habitat restoration, botany, soil science, biodiversity monitoring, and environmental career training.

*This [project] will promote ownership, stewardship and career training in a community that has historically been absent in conservation.*

—CHARLES THOMAS JR., EXECUTIVE DIRECTOR, OUTWARD BOUND ADVENTURES, INC.

## Finding a New Niche for Naturalists

In December 2023, panelists from the L.A. Zoo, Cosplay for Science, and Anima Interactive Game Studio hosted a panel at L.A. Comic Con and a two-hour, Dungeons and Dragons-themed bioblitz at L.A. State Historic Park. Reaching a new and eager audience, our team asked and answered the question of how science influences pop culture, using

popular video and tabletop games to discuss topics related to the Zoo and conservation, including invasive species, bioblitzes, the paid internship program, zoo camp, and what it means to be a conservationist in the present day.



Top left: A new grant will enable the restoration of six acres of oak woodland, seen here, on the Zoo's campus. Photo by Jake Owens

Inset: ComicCon provided a portal to participation in a bioblitz, engaging a new audience in conservation. Photo by Carl Myers



## Home Base

The Zoo's Migrant Education Program (MEP) continued to provide an important touchstone for students whose parents work and relocate seasonally with them throughout the school year. The program, led by Learning & Engagement's Coral Barreiro and Phil Caltabiano, balances science education and social support for kids who are regularly on the go and who might benefit from the constant community they can come back to at the Zoo. The 2023 MEP class studied conservation, the evolution of zoos, and animal enrichment, as well as how to make scientific observations and educate others. Their final presentations drew an audience of 137 people.

*It was an honor to participate in a program that has been and will continue to be such a valuable resource for this community.*

—MEP INSTRUCTOR MICKEY THOMPSON



**THIS YEAR'S  
MEP DATA**

**46**  
**Students**  
(grades 1-5)

**1**  
**Month program**

**8**  
**Zoo visits**

**137**  
**Guests**  
(for final presentations)

*The Migrant Education Program breaks down barriers and fosters a love of nature. Photo by Jamie Pham*

**KEEPING SCORE ON  
MEASURE A**

**7,313**  
**Students**  
(grades 2-3)

**271**  
**Classrooms**

**4**  
**Teacher  
workshops**

*Top: Access to green spaces is vital to creating connections to conservation. Photo by Jamie Pham*

*Inset: The program provides opportunities for kids to deepen their curiosity about nature. Photo by Jamie Pham*



## Made to Measure

Beginning in November 2023, the Zoo began welcoming student visitors funded by the City's Measure A, a program custom designed to increase County residents' access to public lands, park facilities, and park amenities. Measure A provides for education, transportation, and other activities, especially for those living in areas with documented high or very high need for access to parks. "We have already had teachers in the program reach out to us to see if we will be running it again, as they found it extremely beneficial for their students," says Renae Cotero, the Zoo's Curator of Education and Learning & Engagement lead for the program.



*As we work to increase equitable access to outdoor experiences, we're grateful to our partners at the County Regional Park and Open Space District for supporting this program.*

—DAN KEEFFE, L.A. ZOO, DIRECTOR OF LEARNING & ENGAGEMENT

# Think, Act, Be!

The recently re-named Betty White's Zoo Pals scholarships provided free Zoo admission, transportation, and programming to over 1,400 LAUSD students this year, many of whom were visiting the Zoo for the first time ever. The program encourages scientific thinking—not just teaching kids about science but empowering them to do it. First, learning specialists from the Zoo teach the students to think like scientists and act like scientists in their classrooms. Then the kids join those teachers at the Zoo where they can practice being scientists who work with animals.



*It's about sparking curiosity and building relationships. The students love coming to the Zoo, and they feel comfortable asking questions and practicing new skills.*

—CURATOR OF EDUCATION AND PROGRAM LEAD RENAE COTERO



## ZOO PALS SCHOLARSHIPS BY THE NUMBERS

**1,420**  
**Students**  
(grades K-5)

**60**  
**Classrooms**

**3**  
**Months**

**3**  
**Sessions**

**1**  
**Trip to the Zoo**

*A Zoo educator prepares students for their upcoming field trip to the Zoo. Photo by Laura Frost*



05

Illegal Wildlife Trade



The illegal wildlife trade increases the threat of extinction many animals already face due to habitat loss, human activities, and climate change. Many species are being unsustainably hunted for consumption, medicinal use, ornamental practices, and the illegal pet trade. In Costa Rica, scarlet macaw chicks are frequently stolen from their nests and sold on the black market. The Los Angeles Zoo is working with partners worldwide to put an end to this cruel trade.

PHOTO BY MACAW RECOVERY NETWORK



2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT

3

Ranger salaries



Purchased gear  
(to support increased patrols)

1,400+  
Miles patrolled  
(on horseback)



Rangers trained  
(in leadership, operational,  
and tactical skills)

## Protecting South Africa's Rhinos

Most of the world's rhinos live in South Africa, where the top threat to their survival is poaching, driven by black market demand for rhino horn. Since 2018, the L.A. Zoo has partnered with Global Conservation Force (GCF) to support anti-poaching efforts in the Eastern Cape of South Africa. This partnership helped establish horseback Anti-Poaching Units (APUs) developed by former L.A. Zoo Animal Keeper Roxane Losey to supplement foot patrols and K9 units.

The mounted unit suffered a setback in 2024, when a beloved horse was fatally injured by Cape buffalo. For the safety of both horses and riders, the decision was made to transition the mounted rangers to foot patrols. While painful, this decision allowed the team to expand their tactical and operational skills. Kariega now boasts the largest community-based ranger team in the Eastern Cape. Nearly all the rangers come from the local community—and all were trained by GCF.





*Their time with the equine unit had a profound effect on the rangers because of their deep connection to the horses, they learned to love and respect animals in a profound manner and have become better leaders, team members, and animal stewards for having the experience.*

—ROXANE LOSEY, DIRECTOR, GLOBAL CONSERVATION FORCE

*APU Leader Kamve (shown on mounted patrol) comes from one of the communities closest to the unit's operations. Photo by Natasha Frolander*



2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT

**14**  
**Birds released**  
(into the wild)



**8**  
**Chicks hatched**  
(at the breeding center)

**25%**  
**Augmentation of  
the local macaw  
population**



**L.A. Zoo Animal  
Keeper, Rachel  
Galvan, traveled  
to MRN to assist  
with chick rearing**

## Restoring Scarlet Macaws to the Wild

The mission of the Costa Rica-based Macaw Recovery Network (MRN) is to protect and recover endangered parrot populations in the Americas. MRN's focal species include the scarlet macaw and the yellow-naped macaw—two species in residence at the Los Angeles Zoo.

Scarlet macaws disappeared from Costa Rica's Nicoya Peninsula roughly 70 years ago, when vast portions of forest were cleared for cattle ranching. In 2013, MRN established a breeding center and sanctuary in Nicoya Peninsula to care for injured and confiscated parrots. Offspring of these birds are released to the wild to aid the species' recovery.

In 2023, MRN released 14 juvenile scarlet macaws from the breeding center. Previously released birds have been observed as far as 20 miles from the site. Having successfully boosted macaw populations in the area, MRN is currently exploring a new release site.





*Above: In Costa Rica, scarlet macaws are missing from most of their former range. Photo by Corel Raffel*

*Below: MRN strives to inspire the next generation of conservationists through environmental education programming in local schools. Photo by Macaw Recovery Network*



*The scarlet macaws are back! After being locally extirpated, we now have captive-raised pairs living free in the wild and they are having their own wild-hatched chicks!*

—MARIO JIMENEZ, BIRD PROGRAM DIRECTOR, MACAW RECOVERY NETWORK



2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT



8

New nest boxes  
sponsored

2X

Per month nest  
box monitoring



17

Chicks fledged -  
new record!

145

Chicks fledged  
since  
project began

## Building on Success with Blue-Throated Macaws

Conservation actions can sometimes be simple—such as providing birds with a safe space to roost. Blue-throated macaws prefer to nest in natural cavities in motacú palms, which have become sparse due to deforestation. Bird Endowment, Inc.'s Nido Adoptivo (“foster nest”) project installs artificial nest boxes in the Laney Rickman Reserve to increase nest site availability. This has greatly increased the number of nesting pairs, resulting in a more stable and growing wild population.

As of 2024, a total of 145 macaws have fledged from Nido Adoptivo nest boxes. Several of those fledglings have returned as adults to breed in the next boxes, demonstrating the success of this program and promise of future population growth. The Zoo's support also helps fund related activities essential to protecting blue-throated macaws, including 24/7 camera-trap monitoring—which provides crucial insights into nesting behavior and predator interference.

The L.A. Zoo is proud to support Bird Endowment, Inc., in its mission to prevent this critically endangered bird from going extinct.



THANK YOU, Los Angeles Zoo for your incredible support of Bird Endowment and our partner Armonía over the years, most recently as a 2023 2024 nest box sponsor. Your support is truly making a difference!

—DOROTHY PATERSON, EXECUTIVE DIRECTOR, BIRD ENDOWMENT

★ LANEY RICKMAN  
RESERVE

Bolivia

Above: Blue-throated macaw nestlings in an artificial nest box.  
Photo by Bird Endowment

Right: One of 8 new nest boxes sponsored by L.A. Zoo last year.  
Photo by Bird Endowment



# Supporting Responsible Tourism



As one of the country's biggest ports of entry, Los Angeles is a major import hub for illegal wildlife, parts, and products. We often think of this trade in terms of smuggled live animals or contraband such as elephant ivory or rhino horn. But banned items are also often purchased unwittingly by travelers who did not know the item's origin or the legal or ethical implications of buying it.

The L.A. Zoo partnered with the Association of Zoos and Aquariums (AZA) Wildlife Trafficking Alliance, U.S. Fish & Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW) to develop and design a display at Los Angeles International Airport (LAZ). The 26-foot-long display, which includes illegal contraband confiscated by USFWS and CDFW, was installed in the Tom Bradley International Terminal in May. It aims to engage travelers before they embark on their adventures—providing tips on how to avoid illegal products they might encounter when shopping for souvenirs, dining on local delicacies, or going on wildlife excursions. Stories from the Zoo's work are highlighted alongside partner organizations Aquarium of the Pacific and Cabrillo Marine Aquarium.

With roughly 9.1 million travelers passing through the Bradley terminal each year, the display has tremendous potential to impact behavior, inform decision-making, and ultimately, save wildlife.

**Learn more: [itravelforwildlife.org](https://itravelforwildlife.org)**



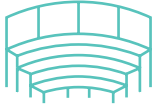
Above: An international hub, LAX is an important place to engage travelers on the topic of wildlife trafficking. Photo by Jake Owens



Left: The display includes confiscated illegal wildlife artifacts supplied by USFWS and CDFW. Photo by Jake Owens



## BIRD SHOW BY THE NUMBERS



**6**

**Shows a week**



**130K+**  
**Attendees per  
year**



**Nearly  
\$84K**  
**in conservation  
donations**

# Spreading the Word

The avian stars of the World of Birds Show are no ordinary performers. While their acrobatic displays and amusing antics are endlessly entertaining, the show's guiding purpose is to convey the Zoo's conservation mission in a dynamic and memorable way.

Every bird in the show is an ambassador for its species, enabling guests to connect with the natural world and learn how they can coexist peacefully with wildlife. Featured birds include species heavily impacted by the illegal wildlife trade, such as the hyacinth macaw. The world's largest parrot, the hyacinth macaw nests in old growth trees in Brazil and Bolivia. When wildlife traffickers go after these birds, they cut down the trees to get to the chicks in the nests. Thus, not only are the chicks taken, but multiple generations are lost in the process.

Such stories amplify the "Not a Pet" campaign organized by the Association of Zoos and Aquariums' Wildlife Trafficking Alliance and the International Fund for Animal Welfare. The L.A. Zoo signed on to the campaign in 2023, sharing information about some of our animals that were rescued from the illegal pet trade via signage, social media, publications, and presentations, including the World of Birds Show.



**ASSOCIATION  
OF ZOOS &  
AQUARIUMS**



**ifaw**

**International  
Fund for  
Animal Welfare**





*Above: The Zoo's massively popular bird show provides a forum for messages about caring and conservation. Photo by Jamie Pham*

*Right: Wildlife trafficking is a major threat to hyacinth macaws, represented by these two birds held by Bird Show Animal Keeper Dmetri Domerick. Photo by Jamie Pham*





06

Human-Wildlife Coexistence



Conflicts between humans and wildlife pose significant threats to species conservation and the safety and livelihoods of local community members. This challenge requires solutions that promote co-existence, meeting the needs of both people and animals. For example, elephants' crop-raiding behavior puts them in conflict with farmers across their range. Planting crops (such as chili) that elephants don't like prevents such raids and helps keep the peace, allowing elephants and communities to thrive.

SAM SARON, AN INDIGENOUS KUY COMMUNITY MEMBER, TENDS TO HER CHILI FARM PLANTED TO DETER ASIAN ELEPHANT CROP RAIDING AND SUPPORT COEXISTENCE NEAR PREY LANG WILDLIFE SANCTUARY. PHOTO BY CHEA PHALLIN / WILD EARTH ALLIES



## 2023-2024 ACHIEVEMENTS WITH L.A. ZOO SUPPORT

# 85+

Meeting attendees  
including Maasai community  
members and women's groups



# 12

Organizations engaged  
including NGOs, government,  
business, and local school

# 4

Thematic hubs:  
Visitor Center, Education &  
Training Center, Information  
& Research Center, and  
Maasai Women's Cultural  
Center & Homestay



Business plan developed  
to ensure long-term  
sustainability

# Improving Livelihoods and Conserving Biodiversity in Amboseli

Conserving biodiversity begins by supporting people and celebrating their central role in the ecosystem. With that tenet in mind, Dr. Jake Owens and Anna Becker from the Zoo's Conservation Division and Renae Coterio from the Learning & Engagement Division traveled to Kenya in January 2024 to discuss a first-of-its-kind project in Africa. The Noonkotiak Resource Center near Amboseli National Park will support community livelihoods, sustainable resource management, and human-wildlife coexistence through a variety of knowledge-sharing, income-generating, and nature-based activities.

*"This is a Center for this community, for these people," says Owens. "We want to support them and the things that they're trying to achieve, the goals and dreams and desires that they have."*

On the 11-day trip, the Zoo team conducted site visits and met partners, community leaders, and other stakeholders—exchanging ideas, building trust, and laying the foundation for our future work together.

*This trip was funded by the  
Mark & Diane Montgomery  
Conservation Fellowship.*



For too long, scientists have studied environment, wildlife, and people, but the knowledge generated has not equally considered local indigenous knowledge as valid and valuable. NRC will enable visitors and local communities alike to participate in rich exchanges of all forms of knowledge and experience traditional culture while creating opportunities to equip the next generation for the benefit of people and nature.

—LUCY WARUINGI, EXECUTIVE DIRECTOR, AFRICAN CONSERVATION CENTER



Left: Lucy Waruingi and community women at a homestead that will be revitalized through development of the NRC project. Photo by Jake Owens

Top right: Community members with the Twala Women's Cultural Center shared their culture and customs on a medicinal plant walk with the Zoo team. Photo by Anna Becker

Bottom right: The Zoo team gives a presentation to NRC stakeholders. Photo by Jake Owens



*Since 2015, L.A. Zoo has collaborated with GRACE Gorillas to support their mission and vision to rewild Grauer's gorillas, protect forest habitats, and engage local communities. The Zoo announced its support of the Usala Conservation Corridor project and launched its fundraising campaign during its World Gorilla Day celebration in September 2023. The same month, we debuted a children's book, *Angela & Lulingu: Two Gorillas, A World Apart*, with proceeds benefiting GRACE.*



## Creating a Lifeline for Grauer's Gorillas

In the heart of the Congo Basin, a transformative conservation project is taking shape. The Usala Conservation Corridor, a project initiated by local communities, aims to create a lifeline for Grauer's gorillas and a host of other threatened and endangered species in eastern Democratic Republic of the Congo (DRC).

This initiative was born from the vision of a traditional leader, Mwami (King) Eric Mwaka Eliba. For a decade, Mwami Eric had been pushing for the protection of the Usala Forest. He knew that the protection of this forest was crucial for the survival of gorillas—and the wellbeing of his people. Mwami Eric approached the Union of Associations for Conservation of Gorillas and for Development in eastern DRC (UGADEC) for assistance, who then approached GRACE.

With L.A. Zoo support, GRACE, UGADEC and the Reserve des Gorilles des Usala (RGU) have now completed Year 1 of a 5-year project to secure traditional land rights and establish the Usala Conservation Corridor. When completed, the 284,800+ acre conservation corridor will connect two key habitats for Grauer's gorillas: the community-managed Tayna Nature Reserve and Maiko National Park. This project is not just about wildlife conservation: it's about human rights, cultural heritage, and creating a sustainable future for those who call this region home.

*World Gorilla Day book signing by author Brenda Scott Royce. Photo by Jamie Pham*



*Thanks to the L.A. Zoo and GLAZA, along with generous support from Rainforest Trust and other donors, for making Mwami Eric's vision possible. Your investment in the Usala Conservation Corridor is a testament to the importance of incorporating traditional and local knowledge into community-led conservation.*

—JACKSON KABUYAYA MBEKE, DRC DIRECTOR, GRACE



*Top right: Reaching Rama (the traditional headquarters of the Usala Forest) involves a grueling seven-day trek on forest footpaths.*

*Bottom right: Engaging community members in participatory mapping helps ensure their rights and interests are represented.*

*Photos courtesy of GRACE*

**2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT****14**

Community rangers  
supported in Nicaragua and  
El Salvador

**6**

Camera traps installed and  
maintained

**5**

Species of forest cat  
documented (jaguar,  
puma, ocelot, margay, and  
jaguarundi) in Nicaragua

**72**

Children in rural Nicaragua  
participated in workshops  
focused on local wildlife and  
the jaguar's vital role in the  
ecosystems



A jaguar seen on camera trap  
video. Photo courtesy of Paso  
Pacífico.

## Putting Big Cats Back on Nicaragua's Map

In 2013, Paso Pacífico, in collaboration with the Los Angeles and Woodland Park zoos, documented the presence of jaguars in Nicaragua's Paso del Istmo Biological Corridor. This finding was a beacon of hope for the species, which was long believed to be locally extinct in the region, the result of rampant human development and agricultural expansion. Yet the presence of jaguars in close proximity to ranches led to frequent conflicts with jaguars and local farmers.

With financial support from the Zoo, Paso Pacífico has been working with local communities to protect habitat, monitor jaguar movements, and reduce predation on livestock. They also developed a compensation program so that farmers can seek recompense for documented losses rather than take revenge against jaguars. By partnering with local communities, Paso Pacífico is working to ensure that the corridor will be able to support a growing population of jaguars.





*Our camera trap study in Central America's tropical dry forests reveals a remarkable diversity of mammals, including jaguars and pumas. Their presence suggests that wildlife and humans can coexist when communities are supported through opportunities in environmental stewardship and education. We are grateful to the patrons of the L.A. Zoo who support this effort.*

—MARCOS CALERO, NICARAGUAN WILDLIFE BIOLOGIST, PASO PACIFICO

*Left: Participants in Paso Pacifico's Junior Rangers program practice environmental citizenship. Photo by O. Saballos/Paso Pacifico*

*Right: A jaguar footprint offers evidence of its movements. Photo by Marcus Calero/Paso Pacifico*



**2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT****6**

Participating primary schools  
(2,000 children)

**33**

Handwashing stations  
installed

**300**

Students received hygiene  
education

**375**

Student volunteers  
participate in monthly  
monitoring

Ongoing evaluation to  
assess impact of campaign

# Healthy Children, Healthy Chimpanzees

Since 1997, Kasiisi Project has used a holistic approach to promote the conservation of Kibale National Park, home to Uganda's largest population of chimpanzees. Recent support from the Los Angeles Zoo enabled Kasiisi Project to conduct a handwashing campaign and further research in schools to follow up their recent research that linked human pediatric respiratory viruses in schools to deadly respiratory outbreaks in Kibale's chimpanzees.

With expanded support from the L.A. Zoo in its second year, this ongoing project will test whether providing hygiene education and building simple handwashing stations in schools leads to better student hand hygiene and fewer respiratory outbreaks in children and chimpanzees. If found to be effective, this intervention will be expanded to other schools around Kibale.





*Maintaining proper hand hygiene is a small act with a big impact on people and the animal world, as it can prevent many illnesses, including zoonotic diseases. We extend our sincere gratitude to the L.A. Zoo for facilitating our One Health efforts with school children at the edge of Kibale National Park, which will benefit the health of both children and chimpanzees.*

—TUSIIME PATRICK, DIRECTOR, KASIISI PROJECT

*Left: Chimpanzee in Kibale National Park, Uganda. Photo by Zarin Machanda*

*Right: A student washes up at one of the installed handwashing stations. Photo by Kasiisi Project*

**2023-2024 ACHIEVEMENTS  
WITH L.A. ZOO SUPPORT**

Monitored Asian elephants  
and other at-risk wildlife

**50+**

Camera traps deployed and  
conducted field surveys and  
shared biomonitoring findings  
with government partners

Rolled out Spatial Monitoring  
and Reporting Tool (SMART)  
to deter illegal activity

**87**

Plant species identified  
during the first study of Asian  
elephant diet in Cambodia

**20,000+**

Seedling capacity at new  
Elephant Trees nursery

**2,400+**

Seedlings planted

**50+**

Students reached with  
conservation curriculum and  
began construction of a  
community education center

Provided tools and support  
to community members  
impacted by crop-raiding  
elephants

# Protecting Elephants and People

One of the Los Angeles Zoo's longest-running international conservation partners, Wild Earth Allies (WEA) protects Asian elephants in two globally important forests—the Cardamom Mountains and the Prey Lang Wildlife Sanctuary—covering a combined 1.8 million acres. The Cardamoms host one of Cambodia's core elephant populations. Prey Lang Wildlife Sanctuary, Cambodia's largest protected area, is home to 55 threatened species, including elephants. The landscape is also part of the ancestral home of the indigenous Kuy people, whose livelihoods and culture are deeply interconnected with the forest. In these key geographies, WEA is implementing targeted actions so that Asian wildlife and other threatened species flourish in healthy ecosystems that sustain traditional livelihoods.

## Cambodia





*Our long-term partnership with L.A. Zoo is leading to positive impacts and helping Asian elephants and people live together in harmony in Cambodia.*

—TUY SEREIVATHANA, CAMBODIA PROGRAM DIRECTOR, WILD EARTH ALLIES

*Left: Phnom Samkos Wildlife Sanctuary in the Cardamom Mountains. Photo by Song Det/Wild Earth Allies*

*Top right: Children from the Indigenous Kuy village of Siembok participate in an environmental education festival. Photo by Allison Shelley for Wild Earth Allies*

*Bottom right: Asian elephant in Cambodia. Photo by Allison Shelley for Wild Earth Allies*





## 2023-2024 ACHIEVEMENTS WITH L.A. ZOO SUPPORT



GIS (Geographic Information System) modeling of potential impact of roads across these countries



# 50

Permanent camera-trap station installations

Designed and tested new camera-trap casings that can withstand destruction by humans and elephants

Continued advocacy for speed limits in wildlife areas

Workshop held with police officers and other key stakeholders

Acquired data management tool to facilitate rapid analysis of traffic data

# Protecting Painted Dogs from Wildlife-Vehicle Collisions

Painted dogs are one of the most endangered African mammals, with human encroachment and persecution being the primary threats to their survival. The Painted Dog Research Trust (PDRT) works to study and protect painted dog populations in Zimbabwe. Since 2013, the Los Angeles Zoo has partnered with PDRT in these efforts, funding snare-removal, educational outreach, and more.

Our current support is aimed at mitigating an increasing and devastating threat to painted dogs—wildlife-vehicle collisions on high-speed roads running through wildlife areas. No mitigation measures have previously been adopted on any roads in Zimbabwe, where losses to roadkill have led to the collapse of several painted dog packs—undermining conservation of this already endangered species. Funding from the L.A. Zoo is helping PDRT collect data and test strategies in a critical wildlife corridor between Zimbabwe and Botswana.





*With our motto being 'One step at a time,' finally, nine years after starting from scratch, our endeavors to create a truly sustainable holistic project where conservation models are adopted at every level are not only coming to fruition but being recognized nationally.*

—DR. GREG RASMUSSEN, FOUNDER AND EXECUTIVE DIRECTOR, PAINTED DOG RESEARCH TRUST

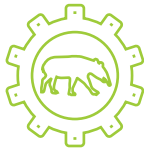
*Left: Yearlings from a painted dog pack at Zambezi National Park. Photo courtesy of PDRT*

*Top right: Using GPS to track painted dogs. Photo by Joel Vanderbush*

*Bottom right: Dr. Greg Rasmussen leads a survey. Photo by Joel Vanderbush*



### 2023-2024 ACHIEVEMENTS WITH L.A. ZOO SUPPORT



Formation of Mountain Tapir  
Survival Alliance



Identified location for  
treatment center



Developed and implemented  
rapid-response action plan  
for tapir health crisis

## Joining Forces for Tapirs

In July 2024, 80 tapir conservation experts—including Director of Conservation Jake Owens and Veterinarian Dr. Jordan Davis-Powell—came together at the 8th International Tapir Symposium in Brazil. During the conference, both L.A. Zoo representatives contributed to the development of a strategic plan for tapir conservation and the formation of the Mountain Tapir Survival Alliance (MTSA).

The L.A. Zoo has supported tapir conservation for decades, helping to fund wild mountain tapir population surveys and the first international tapir conservation symposium. We were the first zoo to successfully breed all four tapir species, and one of only two zoos outside of South America that care for the mountain tapir—the most endangered of the four tapir species. Since 2019, we've provided support to field conservation programs through our Annual Conservation Grants Program. The same year, Dr. Davis-Powell made her first trip to Ecuador to engage in ongoing field work with the Mountain Tapir Research Project—performing health assessments, collecting blood samples, and fixing GPS tracking collars to wild tapirs in a first-of-its-kind study.

An emerging crisis to mountain tapirs is attacks by free-roaming domestic dogs and parasitic infections of dog-wound bites by screwworms. The formation of the MTSA and its action plan will be critical to developing species-saving conservation strategies for mountain tapirs.



Left: Tapir Symposium attendees form the outline of a tapir. Photo by Tapir Specialist Group

Below: Dr. Davis-Powell lends her veterinary expertise to Ecuador's mountain tapir research project. Photo courtesy of Dr. Jordan Davis-Powell

Bottom: GPS tracking collars gather valuable data on tapir behavior and habitat use. Photo courtesy of Dr. Jordan Davis-Powell





07

Conservation Translocation



Conservation translocation refers to the reintroduction of extinct species or releasing more individuals into threatened wild populations to rapidly grow their numbers and genetic diversity. Without this kind of conservation effort, numerous species would cease to exist in the wild. It takes dedication and innovation to make the L.A. Zoo a global leader in conservation translocations, both for species in California and around the world.

THE NEW MEXICAN RIDGE-NOSED RATTLESNAKE IS THE NEWEST SPECIES TO BENEFIT FROM THE ZOO'S EXPANDING RECOVERY EFFORTS.  
PHOTO BY JAMIE PHAM

*The southern mountain yellow-legged frog is one of our gold star conservation programs, because, in all likelihood, without the Los Angeles Zoo and its conservation partners they would eventually just be a picture in a textbook.*

—IAN RECCHIO, LOS ANGELES ZOO, RETIRED CURATOR OF REPTILES

## Close Call: Southern Mountain Yellow-legged Frogs

This year, the Los Angeles Zoo transferred over 750 well-started southern mountain yellow-legged frog (SMYLF) tadpoles from two breeding groups of distinct localities to the Aquarium of the Pacific and the Santa Ana Zoo for head-starting. A variety of factors guided the SMYLF working group's decision to head-start instead of releasing these individuals as tadpoles this season: widespread and devastating fire damage, the detection of non-native trout, and a current disease outbreak of chytridiomycosis ("chytrid").

Events like these in the wild present a close call for threatened species—and underscore the importance of breeding and head-starting programs.

Also this year, the Zoo received two frogs rescued as tadpoles from a 2020 fire, which are slated to become part of the next generation breeding group.

SMYLF recovery is a large collaboration between partners, including USGS, San Diego Zoo Wildlife Alliance, Omaha's Henry Doorly Zoo and Aquarium, U.S. Forest Service, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife.



#### SMYLF BY THE NUMBERS

**6,000**  
Zoo-bred frogs  
released since  
2007

**750**  
Tadpoles  
transferred to  
partners for  
rearing last year

*Top: Keeping a close eye on the release sites helps ensure wild habitats are safe for endangered frogs. This year's group was held back while environmental factors have a chance to re-regulate. Photo by Jamie Pham*

*Bottom: Healthy adult SMYLFs can breed offspring for release into the wild. Tadpoles get a leg up on survival in managed care in zoos and aquariums before they're translocated. Photo by Jamie Pham*



**17**  
**Chicks**  
**hatched**  
**in 2023**

*Top: California condor chicks weigh less than half a pound at birth and will gain up to four pounds in the first month of life.  
Photo by Jamie Pham*

*Right: Many of the condors hatched at the Zoo are released in central California and make their homes high above the landscapes of Big Sur and Pinnacles National Park.  
Photo by Scott Flaherty/USFWS*

## On the Rebound: California Condors

In fall 2023, birds from the L.A. Zoo participated in successful, historic vaccine trials, furthering condor recovery efforts by creating a potential shield against highly pathogenic avian influenza (HPAI). Then, in winter and spring 2024, the Zoo capped off its California condor breeding season with a record-breaking 17 chicks hatched—all of which are candidates for release into the wild. The previous record of 15 chicks was set in 1997, and this year's leap forward was due partly to innovative triple brooding techniques pioneered by our keepers.



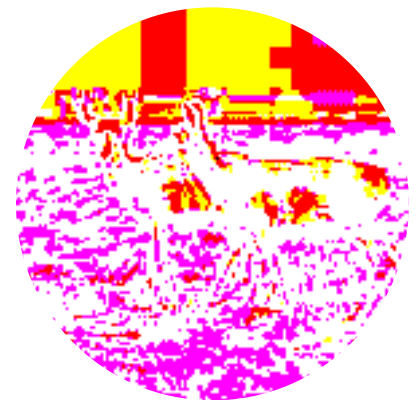


*Left: A new male pronghorn joined the Zoo's herd of females this year. Photo by Jamie Pham*

*Bottom: Spotting a pronghorn in the wild is no easy task. They're often referred to as fantasmas del desierto (ghosts of the desert) because their coloring helps them blend in, and their speed helps them disappear quickly. Photo by Jake Owens*

## Pointing in the Right Direction: Peninsular Pronghorns

After some slowing in the progress of the program due to political changes, the Peninsular Pronghorn Recovery Project is picking up steam again this season. The group has re-gained support from local officials, and experts from the L.A. Zoo visited the work site this year to help with an action plan for next steps. One critical move identified is the diversification of funding streams, which has begun with the creation of an adopt-a-pronghorn program.





### BEARDED VULTURES BY THE NUMBERS

.....



**32**  
Founding flock  
goal

**5**  
Birds to goal



**7**  
Eggs collected

**6**  
Eggs hatched



## Lending a Wing: Bearded Vultures

For the third year in a row, L.A. Zoo California condor keeper Chandra David joined the Bearded Vulture Recovery Program in South Africa, where the species has dwindled to fewer than 350 individuals. The program is still in its beginning stages and is building a founder flock of 32 birds over the course of several breeding seasons. The program closely mimics the California condor program's beginnings, says David. As with condors, the ultimate goal is to release vultures hatched and reared in the breeding program to augment the wild population. Successfully navigating the long road ahead will require experts like David to bring the knowledge they've gained doing recovery work in zoos and apply it in the field.

*I feel the Bearded Vulture Recovery Program is taking the necessary steps to prevent extinction of this vulture, and I am proud to be witnessing this.*

—CHANDRA DAVID, L.A. ZOO CONDOR KEEPER



*Top: Puppet rearing is a technique used by biologists to minimize imprinting or habituating to humans while they are prepared for release. Photo courtesy of Chandra David*

*Bottom: Field workers access vultures' cliffside nests by rappelling from plateaus. Photo courtesy of Chandra David*

*Opposite: Vista of the Drakensburg Mountains, home of South Africa's bearded vultures. Photo courtesy of Chandra David*



*The New Mexico ridge-nosed rattlesnake has been protected for decades, but this effort is the first attempt at recovery and may hold the key to the long-term survival for the species in the parts of its range where populations are struggling the most.*

—BYRON WUSSTIG, ACTING  
CURATOR OF ECTOTHERMS,  
L.A. ZOO

## Make Some Noise: Ridge-nosed Rattlesnakes

The Zoo recently signed on to a recovery program for the New Mexican ridge-nosed rattlesnake. A federally endangered species, this snake has nearly disappeared from the U.S., but a healthy wild population persists in Mexico, where a team from the Zoo's LAIR helped collect permitted specimens early in 2024. The snakes are now serving as founders for a new breeding program at the Zoo. Bringing them here with the ultimate goal of releasing offspring into parts of its historic U.S. range was a goal of retired Curator of Reptiles, Fish, and Amphibians Ian Recchio and is a prime example of expansion of the Zoo's engagement in species recoveries.





## Down the River: Giant Otters

In July 2023, Rosario the giant otter arrived at her new home in Argentina. Identified by AZA giant otter program leader and L.A. Zoo Curator of Mammals Candace Scimmenti as the prime candidate for the journey, Rosario traveled from L.A. to Temaikèn Biopark in Buenos Aires as part of a breeding recommendation program that aims to see her offspring reintroduced into the wild in Argentina. The translocation—led by Rewilding Argentina, the government of Corrientes, and Argentina’s National Parks Administration—marks the first time a giant otter from an AZA-accredited zoo is being sent to contribute to conservation efforts.

FUNDACIÓN  
**REWILDING**  
ARGENTINA

*International cooperation is crucial to carry out such an ambitious project. Thus, the L.A. Zoo’s involvement in this initiative is genuinely thrilling.*

—SEBASTIÁN DI MARTINO,  
CONSERVATION DIRECTOR,  
REWILDING ARGENTINA

*Top: Rosario in her Zoo habitat before being translocated to Argentina. Photo by Carl Myers*

*Opposite: New Mexican ridge-nosed rattlesnakes are right at home in the Zoo’s semi-arid climate. Photo by Jamie Pham*

*Sustained mutual cooperation and exchange of learnings will further strengthen this river ecosystem into one of the most important gharial habitats in the world.*

—SAMIR KUMAR SINHA, WTI,  
CHIEF ECOLOGIST

*Although gharials live in water, flooding at nest sites has prompted local wildlife experts to intervene and move eggs to higher ground for hatching. Photo by Jamie Pham*



## It's Going Swimmably: Indian Gharials

In 2021, Wildlife Trust of India (WTI) began receiving support from the Los Angeles Zoo to safeguard and recover the gharial population in the Gandak River. This past year, trained nest watchers, along with an equal number of local farmers and fishermen trained by WTI, identified breeding and nesting sites; counted and categorized 130 observed gharials; and rescued eggs from seven nest sites—including one from a first-time site in Uttar Pradesh—relocating them to areas safe from erosion and predation. The efforts yielded a 94.96% hatch rate, and hatchlings were released into the river at the original nesting sites, close to the mother gharials.



*“These farmer-fishermen turned conservationists are the on-the-ground eyes and ears of the project.*

—SUBRAT KUMAR BEHERA, WTI, GANDAK PROJECT HEAD



## Warts and All: Javan Warty Pigs

The Javan warty pig is listed as Endangered by the International Union for Conservation of Nature (IUCN) Red List due to hunting, pig-dog fighting events, hybridization with the banded pig, human conflict, and the emerging threat of African swine fever. The conservation breeding program for the Javan warty pig at Cikananga Conservation Breeding Centre (CCBC) has been at the forefront of understanding the ex-situ husbandry requirements of this species and has had consistent success. It holds the largest ex-situ population with the highest genetic diversity and has made multiple contributions to in-situ release programs. This year, funding from L.A. Zoo helped progress current relationships with the in-situ program, establish a reliable translocation strategy, and expand and renovate spaces for breeding groups and farrowing sows.

*L.A. Zoo funds made new spaces for sows to give birth this year, providing a safe and comfortable space for Javan warty piglets and their mothers. Photo courtesy of Bertie Ferns*

*Without our partnership with L.A. Zoo, our program wouldn't have reached its current point, and the outlook for the Javan Warty Pig would be far less positive.*

—BERTIE FERNS, CCBC  
CONSERVATION BREEDING  
MANAGER





# 08

## Evidence-Based Conservation

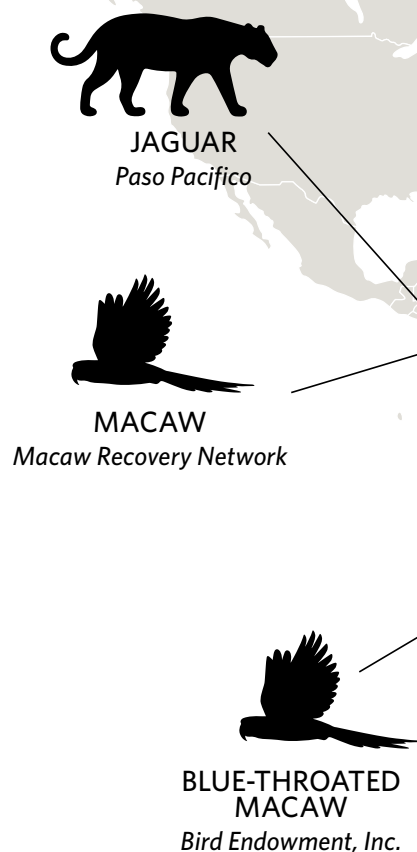


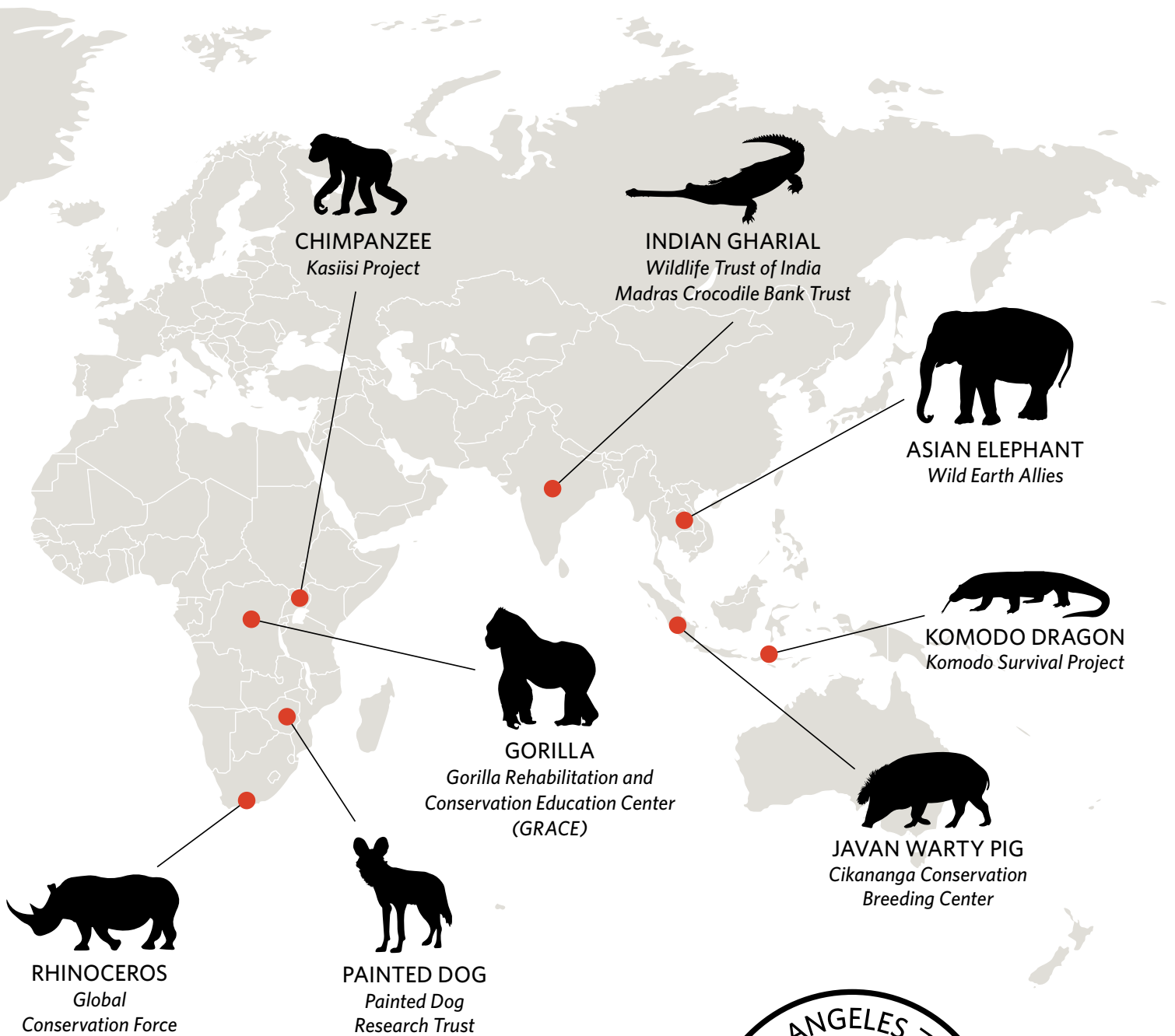
As emotional as our motivations may be when it comes to saving species, grounding our solutions in data is essential to tracking and increasing our impact. Conservation must be based on fact-driven principles that can come only from research; research is integral to conservation action. Data is important on the back end, too. Evaluation strategies are built into all our efforts so we can know in detail the effect our work has on global conservation.

PHOTO BY JAMIE PHAM

# Ensuring Evidence- Based Support

Each year, the Los Angeles Zoo, in partnership with the Greater Los Angeles Zoo Association (GLAZA), provides funding through its annual conservation grants program to support the efforts of our conservation partners around the world. Importantly, we ask applicants to reflect on the evidence that supports the potential effectiveness of their proposed work, a critical—but often overlooked—step in conservation planning. The Zoo has continued its partnership with the University of Cambridge Conservation Evidence Partnership as a Conservation Evidence Champion to inform our programs and demonstrate our commitment to incorporating conservation evidence throughout our efforts.





# The Elephant in the Room

*Project Seratu Aatai founder Dr. Nurzhafarina (Farina) Othman records data on wild Bornean elephants in Sabah, Malaysia, as part of partnered efforts with the L.A. Zoo to investigate the mysterious deaths of elephants in the region. Photo by Benoit Goossens*



The world's smallest elephant species, the Bornean elephant is classified as Endangered by the International Union for Conservation of Nature (IUCN). Since 2020, more than 30 Bornean elephants from various age groups have died because of a suspected chronic poisoning in the Lower Kinabatangan landscape of Sabah, Malaysia. Sabah is one of the world's biodiversity hotspots, but monoculture plantations, settlements, and other socioeconomic developmental activities have forced its endemic wildlife—including the Bornean elephant—to use a highly fragmented landscape for their movements and food ranging activities.

Project Seratu Aatai is investigating the cases of suspected elephant poisoning. L.A. Zoo Chief Veterinarian and Director of Animal Health and Wellness, Dr. Dominique Keller, reviewed the original proposal and was subsequently appointed as an advisor to the project. With financial support from the L.A. Zoo, stakeholders from Seratu Aatai, Sabah Wildlife Department, Malaysia Palm Oil Board, and more gathered at a workshop in Lancaster, United Kingdom, to study 67 samples, including elephant liver, kidney tissues, and hair. They identified Methomyl, an insecticide, as the possible harmful agent. This research is ongoing, but this important finding was the first step in creating short- and long-term plans to mitigate the issue.

# Safeguarding Young Gharials

One of the most distinctive—and endangered—crocodilians is the Indian gharial. With support from the L.A. Zoo, the Gharial Ecology Project of the Madras Crocodile Bank Trust has been working to fill in gaps in understanding gharial ecology in the National Chambal Sanctuary. This year the project team shifted its focus to a new location near Ranthambore-Sawai Madhopur on the Upper Chambal River, where they were able to capture and tag a group of nesting-sized females with satellite transmitters.

The project also involves “head-starting” young gharials in captivity to help safeguard them at their most vulnerable stage. The team has captured and tagged young hatchlings, generating helpful data that revealed that, while 90% of the hatchlings do not survive to four months of age, survivorship for the second half of the first year seems to be very high. This knowledge is shaping future headstart efforts. Moving forward, the team will capture hatchlings at two weeks of age and head-start them for less than six months, enhancing survivorship but allowing young gharials to gain wild feeding/survival skills that previous head-starts lacked, making them easy prey.



*Top: The Gharial Ecology Project field team at the conclusion of the tagging project. Photo by Madras Croc Bank Trust*



*Bottom: Sexing of the captured gharials revealed 10 females and 9 males—a surprisingly even sex ratio since gharial, like many crocodilians, exhibit temperature-dependent sex determination. Photo by Jeff Lang*



*We value the continued support provided by the Los Angeles Zoo, and very much appreciate your assistance in making this possible.*

—DR. JEFFREY LANG, MADRAS CROC BANK TRUST, PRINCIPAL INVESTIGATOR

# Building Up a Nest Egg



*Top left: KSP team members excavate a nest.*



*Top right: A Komodo hatchling in the forest.*

*Bottom: A hatchling emerges from a nest.*

*Photos courtesy of Komodo Survival Program*



The L.A. Zoo is a long-time partner of the Komodo Survival Program (KSP), helping to address population declines of the Komodo dragon—the largest living lizard on the planet. In 2023, KSP conducted a project funded by the L.A. Zoo to assess Komodo dragon female nesting ecology. They studied the number of Komodo dragon nesting sites and examined distribution and density patterns to identify key nesting habitats on Komodo and Rinca islands, hypothesizing that spatial patterns of nest distribution could provide crucial information on resource requirements that influence female choice of nest site and offspring fitness.

The study included intensive observations at one of the nests located on Rinca Island. The nest monitored belonged to an older female and saw 12 hatchlings emerge—a relatively low number. Further studies are needed to determine whether the number of eggs produced by older Komodos is lower than younger females in general, or if the success rate of egg hatching and the ability of hatchlings to emerge from deep nests are the reasons for the relatively fewer hatchlings.

# People-Powered Data

iNaturalist is a community science platform that Los Angeles Sanitation and Environment (LASAN) uses to monitor biodiversity indicator species in Los Angeles. Residents document and upload sightings of species to iNaturalist app, contributing to the citywide understanding of biodiversity trends.

The Zoo's own Peggy Wu, of the Research Program, leads individual contributions, with the western fence lizard being the most commonly observed.

iNaturalist is also an important tool utilized city-wide by the members of the Zoo's Teen Council for Conservation (below). By making observations in areas of the city that have low data, they contribute valuable information on L.A.'s urban wildlife.



Photo by Rachel Helfing

## ON ZOO GROUNDS

**6,909**  
Observations

**782**  
Species

## ACROSS COUNCIL DISTRICTS

**2,000**  
Observations

**540**  
Species

**13**  
Indicator species

## TOP INDIVIDUAL CONTRIBUTOR

**1,842**  
Observations

**172**  
Species

# Acknowledgments

We acknowledge and appreciate the tremendous generosity of our donors who have supported the Los Angeles Zoo's Conservation Strategic Plan initiatives. Special thank you to these donors who provided gifts of \$10,000 or more, including:

**DUTTENHAVER FUND  
WALTER C. FIDLER  
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THE WINNICK FAMILY FOUNDATION  
& THOSE WHO WISH TO REMAIN ANONYMOUS**

In addition to the support of our donors, we would like to acknowledge the work that staff and volunteers do throughout the Zoo each day that supports our shared mission in conservation. This includes the fundraising activities of the Angela Collier World of Birds Theater and Show, the ADOPT (Animals Depend on People, Too) program, and the SSA Retail Roundup program, which directly fund projects around the world through our Annual Zoo Conservation Grants Program.



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| Lisa Brink, The Brink Creative                                 |  |
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| Brenda Scott Royce, Autumn Hilden                              |  |
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| Dr. Jake Owens, Anna Becker, Dr. Earyn McGee, Ramiro Rubalcava |  |

*SPECIAL ACKNOWLEDGMENT*  
The Los Angeles Zoo's conservation program is under the exemplary leadership of Dr. Jake Owens, who has been vital in delivery success in programs, partnerships, and meaningful impact to people, animals, plants, and the ecosystems we all share.

*Saving Wildlife.  
Enriching Our Communities.  
Creating Connections to Nature.*



**Los Angeles Zoo & Botanical Gardens**

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