A roaring fall!

This fall we are bringing the roar back to the Sacramento Zoo.

The first roar, albeit a temporary one, will be from a huge Tyrannosaurus-rex. The T-rex (and nine of his animatronic dinosaur friends) will be part of our visiting dinosaur exhibit. The dinosaurs will be displayed throughout the zoo through January 5, 2020. Our staff are working to create several education programs and events surrounding the dinosaurs’ visit.

A more permanent roar is the expansion of our lion habitat. In early 2018, we made the tough decision to send the zoo’s last tiger to the San Francisco Zoo. This was planned so we could provide our lions with more space. The lion habitat has now been expanded to incorporate the former tiger exhibit and the mesh has been replaced by glass viewing for a nose-to-nose encounter with these big cats. Two training panels have also been installed so guests can watch our animal care staff interact with these cats through a safety barrier. A shelter has also been built for the cats which will provide shade during the summer and a warm area during the winter. Best of all, you’ll be able to see the cats as they relax inside the shelter. The new lion habitat should open sometime during the fall. Watch your e-mail for details!

Finally, on May 28 the City of Sacramento’s Mayor and Council voted 9-0 to pursue a zoo relocation feasibility study. We thank you, our members and friends, for support during this process. This study is the first important step in the process of relocating the zoo so we can provide our animals with the best homes possible and reimagine an incredible zoo for our region.

See you at the Sac Zoo!

Jason Jacobs
Executive Director
Sacramento Zoo
Remembering beloved long-time resident,

VAL
1995 – 2019
The western pond turtle is an important species for The Sacramento Zoo and our partners at the University of California, Davis, School of Veterinary Medicine. This California native species remains a conservation concern due to competition with invasive species like red-eared sliders, habitat loss, and lesions on their shells (“Ulcerative Shell Disease”) that is often associated with a recently discovered fungus (*Emydomyces testavoran*). Dr. Louden Wright, a second-year zoological medicine resident at UC Davis wondered if a common anti-fungal medication called voriconazole might be helpful in treating this fungus. Through a grant from the AZA SAFE program and Stonyfield Farms plus the Phil and Karen Drayer Wildlife Health Center Fellowship Award, the zoo’s UC Davis veterinary team received funding and investigated this important question.
To begin this project, healthy adult western pond turtles housed at the zoo were given the medication, and the level of the medication in their blood was measured over time. This was done to determine if the drug level would be appropriate to potentially treat an infection caused by the fungus. The team also monitored the turtles for any adverse reactions to the medication. Finally, samples of *Emydomyces testavorans* were sent to a specialized microbiology lab to test the fungus’s sensitivity to the medication.

The results of this project will allow veterinarians to determine an appropriate treatment regimen for western pond turtles using this medication. The UC Davis veterinary team and the Sacramento Zoo hope that this will provide information to help with future conservation efforts for the western pond turtle.

Thank you to the Phil and Karen Drayer Wildlife Health Center Fellowship Award, Stonyfield Farms and the AZA SAFE Program for the generous grants that made this research possible.

The Sacramento Zoo is home to one of the largest populations of western pond turtles housed within a zoo. The zoo is also an active participant in the AZA Species Survival Plan® (SSP) for them. The zoo is also a part of the Association of Zoos and Aquariums SAFE (Saving Animals From Extinction) program; partnering with the entire AZA community to focus conservation science, wildlife expertise and visitors in saving species such as the western pond turtle, in the wild.
June 11th marked nearly eight months since Coconut the young snow leopard’s first eyelid surgery to address two noticeable birth defects: his congenital eyelid deformity known as eyelid coloboma and a condition known as swimmers’ syndrome.

On this day, a familiar team of surgeons, veterinarians, technicians and animal care professionals gathered at the Dr. Murray E. Fowler Veterinary hospital at the Sacramento Zoo to take part in the annual exam and surgical recheck of an extraordinary snow leopard named Coconut.

Coconut’s first surgery last October, which resulted in the less invasive treatment method of cryofreezing his eyelashes, was overall successful. However, it was determined that the team would likely have to address his eyelid condition again during his routine, preventative annual exam for any necessary re-freezing.
According to Dr. Jenessa Gjeltema, DVM, DACZM, Associate Veterinarian at the Sacramento Zoo and lead veterinarian on Coconut’s case, the condition of Coconut’s eyes had improved since his last surgery and exam. She observed that only a small amount of fur had regrown on eyelids, which was addressed by a team of UC Davis ophthalmologists Kathryn Good, DVM, DACVO, Brian Leonard, DVM, Ph.D., DACVO and ophthalmology resident, Bret Moore, DVM, Ph.D.

In addition to an ophthalmology exam, Coconut was evaluated by a veterinary orthopedic surgical specialist, Denis Marcellin-Little, DEDV, DACVS, DACVSMR. His examination revealed signs of hip dysplasia and subluxation (slipping of the joint) with early signs of degenerative joint disease present on radiographs.

To help combat these findings, Coconut will receive joint support supplements and medications to help slow degenerative changes to his hips. In addition, he will be monitored carefully for any noticeable changes to his comfort when walking or being active.

Moving forward, the veterinary and animal care teams will continue to monitor Coconut’s hip and other joints carefully daily and at his routine examinations. If his hip condition or lameness worsens, additional treatments or even surgery may be considered to help Coconut with his medical condition.

“Returning to the Sacramento Zoo is incredibly exciting. Our partnership with UC Davis School of Veterinary Medicine gives us access to world-renowned specialists and helps us improve the standard of care for zoo animals. This unique partnership also provides numerous opportunities to contribute to science, education and conservation. I really look forward to helping train veterinary students and residents. Most of all, I love being part of a passionate, hardworking, and fun animal care team working to provide excellent care to the amazing animals at the Sacramento Zoo,” said Dr. Sean Brady DVM.

“\textit{I love being part of a passionate, hardworking, and fun animal care team...}”
Wolf’s guenon pair Mimi and Eddie welcomed their fourth offspring on June 6th. The active and playful young male can usually be found wrestling with older sister Zuri or hanging on mom. While Mimi is still nursing her baby, he has also begun experimenting with eating solid food and enjoys strawberries and Brussels sprouts. Any food that can be rolled becomes a toy for the tiny monkey! The entire guenon family can be viewed together at their Small Wonders habitat.

On June 6th, Amaya the red panda gave birth to a healthy male cub whom keepers have named “Gizmo” due to his resemblance to the Gremlins character. This is the second cub for 3-year-old Amaya and 4-year-old Ben. While Amaya struggled to properly care for her first cub, requiring animal care staff to step in, this year she has been a model red panda mom! Currently she is bonding behind the scenes with Gizmo in their air-conditioned off-exhibit space. He will spend the first three months of his life in a nestbox with mom, nursing and growing...he's already seven times his birth weight!

Many of our guests are familiar with flamingo chicks Tiki and his sister Cosmo. Both have graduated to the lake exhibit to reside with the flock and now sport lovely pink plumage. But there is a new fluffy white baby at the zoo: a younger sibling! Tiki and Cosmo’s recently hatched brother is being cared for around the clock by the animal care team. If you visit the zoo, keep an eye out for staff exercising the adorable youngster on the hospital lawn or taking him on walks up to the lake to bond with the flock and practice important flamingo life skills such as bathing and filter feeding.
UC Davis Cardiologist Makes a Visit to THE SACRAMENTO ZOO

By Jenessa Gjeltema, DVM, Dipl. ACZM

The Sacramento Zoo is proud of its partnership with the UC Davis School of Veterinary Medicine which helps provide our animal collection with state-of-the-art specialized veterinary care with a focus on wellness, disease prevention, and early detection of medical problems. By working together with specialists from the world’s top veterinary school, the zoo’s veterinary team can give each animal the best chance of living its longest and healthiest life.

Each animal at the zoo receives regular doctor check-ups. Just like dogs and cats, these health evaluations are usually performed every year, and often include full physical examination, bloodwork, radiographs (X-rays), ultrasound, vaccines, and additional disease screening as needed. This allows the veterinary team to detect abnormalities and determine the best medical plan for the patient.

During a recent routine check-up of “Eddie”, the zoo’s 24-year old male and head of the wolf’s guenon family group, a heart murmur was heard. “A heart murmur sounds like swooshing. Instead of the typical ’lub-dub’ thumping sound that a healthy heart makes when you listen to it through a stethoscope, Eddie’s heart made a ’woosh-woosh’ noise instead” explained Dr. Gjeltema, the zoo’s veterinary specialist in zoological medicine. Because of the concern that Eddie...
might be developing heart disease, the team worked closely with Dr. Gunther-Harrington from the UC Davis veterinary cardiology service to help diagnose the problem. With Eddie under anesthesia and being carefully monitored, Dr. Gunther-Harrington listened to Eddie’s heart, performed an ECG, and obtained images of his heart with the aid of an ultrasound machine. She coached her eager resident trainee in the best approaches to obtain the highest quality images of the heart, which would help them make a diagnosis.

After the procedure, Eddie was prescribed several heart medications to help treat his underlying heart disease. Gjeltema explained, “Eddie has a type of cardiac disease that is affecting the valves and large vessels of his heart, and the medications will help improve his heart function so that he can continue being an amazing father to his family group.” Eddie will receive more frequent evaluations to help monitor the condition and to appropriately adjust his medications over time. Although Eddie is older and dealing with a serious heart condition, his caretakers are very glad that in working with the UC Davis veterinary cardiology team they can better understand his heart disease. It allows them to provide him tailored treatment that helps him feel better and that may allow him to have more time with his family group.

Eddie was not the only patient that was evaluated by the cardiology team during their visit. During Dr. Gunther-Harrington’s visit, she also helped examine, diagnose, and determine appropriate treatment plans for several other zoo animals with heart disease including a Bateleur eagle, an Amazon parrot, and a tree frog. “Due to the high quality medical and husbandry care provided in modern zoos, many animals are living much longer lives which means we are managing many of the diseases that can come with older age. I am very proud that by working together as a team to combine our expertise, we can provide this kind of specialty care to our unique patients,” Gjeltema said.
Take a prehistoric trip to the zoo and visit some of the most ancient animals ever to walk the earth. These animatronic, life-like creatures will make you feel like you’ve traveled back in time while you learn about paleontologists’ best assessments of each of our dinosaur species and their many connections to modern animals. Bring your cameras for photo-ops that are fun for all ages!

Free with admission or membership.

Become a zoo member and visit these dinos as often as you’d like!

**ANKYLOSAURUS**

“Fused lizard”

Size: 33 feet long

When attacked, *Ankylosaurus* could swing at a predator with a sideways motion of its heavy, clubbed tail.

**PARASAUROLOPHUS**

“Near-crested lizard”

33 feet long

*Parasaurolophus*’s crest could have functioned as a display structure, an amplifier for sound (acoustic resonance) or a regulator for body temperature.

Sponsored by Teichert Foundation
PTERANODON
“Winged and toothless”
23-foot wingspan
Not technically a dinosaur, Pteranodon was a member of the flying reptile (pterosaur) order and was most likely a glider.
Sponsored by Pepsi

TYRANNOSAURUS REX
“Tyrant lizard king”
Up to 49 feet long
Tyrannosaurus had a powerful bite which, coupled with sharp banana-sized teeth, could crush the bones of other dinosaurs.
Sponsored by Pepsi

TRICERATOPS
“Three-horned face”
Up to 11 tons
Triceratops’ sharp brow horns could have caused considerable injury to an attacking carnivore.
Sponsored by Sutter Health

STEGOSAURUS
“Plated lizard” or “roofed lizard”
Up to 30 feet long
Stegosaurus’ back plates might have served as protection against predators but it’s also possible that they were covered with thin, blood-rich skin to help regulate body temperature.
Sponsored by Nugget Markets

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By supporting the mission of the Sacramento Zoo, you are making a difference in the lives of animals around the globe and right here at your zoo. Whether you are donating time, talent, or making a cash gift, your help makes our work possible.
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For more information, please visit saczoo.org/support.

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BECOME A ZOO MEMBER AND VISIT THESE DINOS AS OFTEN AS YOU’D LIKE!