# ZOOGRAM

The Maryland Zoo in Baltimore





Field work, particularly in the areas of conservation and research, is central to the Zoo's core mission to save wildlife and protect wild places.

In early 2020, Jess Phillips, the Area Manager for Penguin Coast and coordinator of the SAFE (Saving Animals from Extinction) Disaster Response Project, was working in South Africa and Namibia on projects that are critical to the survival of the endangered African Penguin. But we had to cut the trip short. COVID-19 had quickly evolved into a global pandemic, and international travel was beginning to shut down.

Field work, particularly in the areas of conservation and research, is central to the Zoo's core mission to save wildlife and protect wild places. Over the past few years, we increased levels of funding and staffing for dozens of projects, from an Eastern box turtle study here in Druid Hill Park to projects in far-flung corners of the world, such as Churchill, Manitoba in Canada; the lowlands of Bolivia; and the banks of the Boteti River in Botswana, Africa.

While we continued as best we could during lockdown, it's exciting to get our experts back out in the world. This April, Jess returns to Africa where he will work on plans for a new penguin research and care facility in Namibia, train local responders to rescue birds after oil spills, and advance the Association of Zoos and Aquariums (AZA) SAFE projects involving penguin nest boxes and animal tagging.

Elsewhere, General Curator and Elephant Manager, Mike McClure, recently traveled to the AZA's first inperson conference in recent years to teach coursework on Elephant Management and Managing for Success. Our team of veterinarians, led by Dr. Ellen Bronson, is once again working with the Maryland Department of Natural Resources on the black bear sow (female bear) survey. And, Kevin Barrett, Reptile & Amphibian Collection/Conservation Manager, just returned from a week at the El Valle Amphibian Conservation Center (EVACC) in Panama as part of our Panamanian golden frog program.

The animals we care for here at the Zoo are the most visible representatives of our work, but there are plenty of ways to engage with our behind-the-scenes initiatives as well. Start by <u>learning more about our conservation</u> <u>efforts</u>. We're excited to re-start international and local conservation travel and hope you will be a part of the adventures to come.

Sincerely,

J. Kirby Fowler, Jr. *President & CEO* 

Click the images or boxes below to navigate

9

### **NEWS FROM THE ZOO**



### **REPORT FROM THE LAB**



### **ZOO SPOTLIGHT**



### **SUPPORT THE ZOO**



### **PLAN YOUR NEXT VISIT**



### **FEATURE STORY**



## **KID SECTION**







# **MALE SITATUNGA**

You may notice a considerably larger and darker sitatunga in the tall grass off the African Journey boardwalk this spring. You may also notice an impressive set of horns on that sitatunga! Meet "Beau," the newly resident male, who differs considerably in size and appearance from the females. Beau arrived at the Zoo late last fall on a breeding recommendation from the AZA's Sitatunga Species Survival Plan (SSP). If all goes well, he may soon be a father.









#### **ELECTRIC SHUTTLES**

Want to catch a cool, clean ride up or down Buffalo Yards Road? Hop aboard one of the Zoo's new all-electric shuttles! The Zoo is committed to reducing its carbon footprint however possible, and these brightly-colored, user-friendly shuttles help toward that goal. They will save the Zoo upwards of \$30,000 in annual diesel fuel costs and remove approximately 286 kg of carbon dioxide from the air each day. Grant funding from the Maryland Department of the Environment's EPA Diesel Emissions Reduction Act (DERA) helped support the purchase of the three new shuttles.

#### **PENGUIN CHICK UPDATE**

With more than 100 birds and counting, the Maryland Zoo cares for the largest colony of African penguins in North America. Since last October, eleven newly hatched chicks have joined the colony, and there may be more to come! When they hatch, African penguin chicks are only as big as a human palm. They reach full size by about three months of age. You can tell the difference between a juvenile and adult penguin by the color of their feathers. Juveniles, known as "blues," do not acquire black-and-white coloration until about 1.5 years of age.

# **PLAN YOUR NEXT VISIT**

Bees are buzzing, flowers are blooming, and Brew is back! It's springtime at the Zoo. It's time for green leaves on the trees, wild encounters, breakfast with your favorite animals, and maybe even camping under the stars.

As you plan your next visit, buy tickets online to save money and review modifications designed to keep you, our staff, and the animals safe and healthy.

We look forward to seeing you soon! And remember— your visit helps support our mission to care for the animals and to promote wildlife conservation at home and around the world, so thank you!

# MARCH

**Field Talk (Virtual)** Tri-State Bird Rescue March 23 12 p.m.

Zoo Snooze SCOUT Overnight A scouts-only campout

Party for the Planet Celebrate Earth Day all weekend long. April 22-24 10 a.m. - 4 p.m.

MAY **Twilight Family Stroll** 

# JUNE

**Twilight Family Stroll** Enjoy the Zoo at sunset. June 4 5 p.m. - 7 p.m. \$ R

March 26-27 5:30 p.m. - 9:30 a.m. \$ R

# **APRIL**

### **Twilight Family Stroll**

Bring your friends, family, and flashlight!

April 2 5 p.m. – 7 p.m. \$ R

### **Field Talk (Virtual)**

**Cheetah Conservation Fund** April 6 12 p.m.

### Yoga at Penguin Coast

Vinyasa, then visit.

April 9 8 a.m. - 10 a.m. \$ R

### **BUNNY BONANZOO**

Chocolate eggs galore and more April 15-17 10 a.m. - 4 p.m.

### **Breakfast with the Bunny**

Hop on over to the Mansion House Porch.

April 15 & 16 8:30 a.m. - 10 a.m. \$ R

Visit as the sun goes down May 7 5 p.m. - 7 p.m. \$ R

### Yoga at the Lions' Den

Wake up and stretch. May 14 8 a.m. – 10 a.m. \$R

#### **Zoo Snooze SCOUT Overnight**

Sleeping bags and s'mores

May 14-15 5:30 p.m. - 9:30 a.m. \$ R

#### **BREW AT THE ZOO**

Brew is back! Celebrate spring at this good-time fundraiser for the Zoo. Bring a date or bring your kids - it's a party for all ages!

Admission includes unlimited beer samplings, a complimentary tasting glass, and entrance to the Zoo.

Dates: May 28 & 29 Hours: 1 p.m. – 7 p.m. \$ R

### <u>Yoga at the Lions' Den</u>

Strike a cat pose.

June 11 8 a.m. - 10 a.m.

### Zoo Snooze ADULT Overnight

A campout for the 21+ crowd June 11-12 5:30 p.m. - 9:30 a.m. \$ R

#### Wine in the Wilderness

Raise a glass and enjoy a special evening at the Zoo - and in support of the Zoo and its animal programs, so thank you!

June 25 & 26 5:30 p.m. - 8:30 p.m. \$ R

### Adult Summer Camp - SOLD OUT

Why should kids have all the fun?

June 29-July 1 \$ R

\$: fee to participate R: reservation required





to take a look at all of the Zoo's upcoming events and programs.

# **REPORT FROM THE LAB**

# **Q&A WITH DR. ELLEN BRONSON,** Senior Director of Animal Health, Research & Conservation

There are currently vaccines being developed to protect animals against COVID-19, the disease caused by the virus SARS-CoV-2. The Maryland Zoo plans to vaccinate animals deemed at risk of getting COVID-19 with an experimental vaccine developed uniquely for animals and donated by the animal health company Zoetis. Use of the Zoetis vaccine has been authorized by the U.S. Department of Agriculture and Maryland's state veterinarian.

The Zoetis vaccine is a subunit vaccine, a type known to be generally safe and effective across species. But just how protective will it be against COVID-19? That is the million-dollar question, and one that Dr. Ellen Bronson is working to answer. She is co-leading an independent nationwide study that will look specifically at the immune response to this vaccine in non-domestic cats. We caught up with her recently to talk about cats, the study, and what the data hopefully



will reveal.

# In addition to your work at the Zoo, you also serve as Felid TAG veterinary advisor for the Association of Zoos and Aquariums (AZA). What does that mean exactly?

"Felid" is scientific lingo for "cat" and TAG stands for "taxon advisory group." Basically, as veterinary advisor, I address medical issues affecting all cat species and work with my colleagues on the Felid TAG to communicate important information to zoos that keep cats. In this case, we're addressing COVID-19 because it is a disease known so far to affect several cat species.

# Are other TAGs leading similar studies to look at vaccine effectiveness in other vulnerable species?

Not that I know of so far. The interest certainly exists, but cats are most trainable for the blood draws that a study like this requires. It would also be interesting to look at apes, but it's much harder to get a blood sample voluntarily from an ape, mostly for safety reasons.

# So how will this study work?

All AZA zoos that plan to vaccinate their cats against COVID-19 are invited to participate, and several dozen have signed on so far. We are collecting blood samples from cats five times over the course of one year, at specific time points, and sending them to the Cornell University Animal Health Diagnostic Center for analysis. Cornell will test each blood sample for neutralizing antibodies in order to determine immune response to vaccination. Antibodies are proteins that your immune system makes to fight off foreign substances such as viruses or bacteria. While there are other factors that also play a role, generally the level of antibody response indicates the strength of the immune response.

# How and when was this study developed?

I work closely on the Felid TAG with two other veterinarians, Dr. Karen Terio and Dr. D. McAloose, who are zoo pathologists. The three of us put the study together starting in the fall of 2021 when Zoetis kindly offered its vaccine to zoos free of charge. Both of my colleagues have been studying COVID-19 in cats since the early days of the pandemic, and as veterinary advisor it's obviously something that I'm also very interested in pursuing.

# Will this be a difficult study to conduct?

The methodology is fairly standard in terms of assessing the immune effects of a vaccine in a non-domestic animal. It's similar to how vaccines are being tested in people. The hardest part is getting the samples because we're looking for cats that can participate in voluntary injection of the vaccine and voluntary blood draws. That takes a very high level of training on the part of the animal. Most participants will be big cats because they have long tails that can be accessed safely through specially designed areas of the enclosure, whereas small cats generally have short tails that are much harder to safely obtain blood from during voluntary training.

# Is there an interest in targeting the species of cats where COVID-19 has already shown up, or do you want representation from as many non-domestic cat species as possible?

We're looking for broad representation because we don't know whether susceptibility is limited to the species that we've seen disease in so far, most frequently lions, tigers, and snow leopards.

# What is it about non-domestic cats that makes them more susceptible to COVID-19?

That's exactly what we don't know, and research is being done now to determine if that is the case and why that might be. We know that house cats can become sick with COVID-19, but the disease is typically mild and the percentage worldwide is very low. Just imagine how many millions of house cats have been exposed to the virus over the last two years-because it's your cat sleeping right next to you that's going to get sneezed on-yet very few have gotten severely ill. Meanwhile, we know that in non-domestic cats, COVID-19 is typically mild but can be serious and even fatal.

# Are there any common denominators between cats and other mammalian species that appear to be susceptible to COVID-19?

That's another good question, and we just don't know yet, but researchers are working on it.

# Which cats at MZIB will be involved in the study?

Definitely Sofiya the Amur leopard because she participates so well in her training, and hopefully both cheetahs as well. Our keepers and veterinary technicians are working very intensively to prepare the cats for both the vaccination and the study. And if any cats that aren't blood-draw trained happen to be anesthetized for a procedure around the time of their vaccinations, we'll get samples from them, too.

# What are you hoping to learn from this study?

A number of things, actually. We will look at blood samples taken before vaccination to determine how many cats in the study already have antibodies to SARS-CoV-2, which would mean that they've already been exposed to the virus. Then, at different time points after vaccination, we'll be able to determine the strength of immune response in each cat and we'll also be able to compare immune response in cats already exposed versus cats never exposed. We're expecting that cats already exposed will have an even stronger immune response after vaccination than cats never exposed, just as we're seeing in people. Either way, though, we're hoping the vaccine will induce a significant immune response and that the antibody level will go way up in each cat, and then we'll see how long that immune response lasts.



# **FEATURE STORY**

# FROM CONFISCATION TO CONSERVATION

By Sarah Evans, Zoogram editor

Four summers ago, in August 2018, state wildlife agents raided the home of a former biology teacher in upstate New York. Inside, they found hundreds of reptiles, including king cobras, gila monsters, and scores of native turtles, some considered endangered or threatened and all protected under New York state law. Snakes and lizards aside, it was not clear why this man had such a large and forbidden collection of turtles, where he got them, or what he intended to do with them.

In recent years, though, there have been many other turtle "collectors" in the eastern United States whose intentions have been quite clear. Over the past decade, demand in Asia especially for "exotic" American turtles has skyrocketed. Homegrown poachers have actively responded to demand, taking thousands of turtles per year out of their native habitats along the east coast of the United States and selling them domestically or overseas for sometimes hundreds of dollars each.

Illegal collection of turtles is not a new problem, but in the eastern United States it has hit a crisis level. Fortunately, law enforcement is stepping up its anti-poaching efforts, and turtle conservation advocates are working diligently to house, rehabilitate, and when possible, restore confiscated animals to the wild.

Five of the turtles taken in the New York raid were wood turtles that have since found refuge at the Maryland

Zoo. They are central to the Zoo's expanding efforts, in partnership with the Maryland Department of Natural Resources (DNR), to bolster populations of this native species throughout the state. Their story is a case study of conservation in action. Before getting to their story, though, some background on this iconic riverine and riparian reptile of North America is in order.

### AN UNLIKELY ICON

Wood turtles are prized by poachers, yet you would be hard-pressed to find a more lowkey luminary. They sit on the bottom of clear, flowing streams and rivers. They move quietly on shore. They forage without fuss in nearby fields and woodlands. They don't even bask out in the open, preferring to tuck beneath grass rather than soak up sun on a log. Up close, though, wood turtles are handsome reptiles with sculpted shells, red or orange legs, and dark pools for eyes. They are admired for good reason.



Most of their time is spent in water. They over-winter in the shallows of streams and rivers and stay in or very near water during spring and fall as well. Only during the warmer months do they venture into nearby woods or fields to feed. Summer nesting and foraging seasons are the most perilous times of year for adult wood turtles because that is when they are most likely to cross a road, be crushed by farm machinery, or encounter a person who might pick them up and carry them away. (And by the way, even if you mean well, it is best not to touch any wild turtle unless you are helping it cross a road safely.)

For wood turtle hatchlings, life is perilous from the get-go. Females deposit their eggs in early summer in sunlit, sandy depressions near water. If the eggs are not dug up and eaten by raccoons, skunks, foxes, or other predators, hatchlings emerge in late summer. They come into the world about the size and shape of a smushed ping-pong ball. To a raccoon, they are a perfect bite-sized snack, and those tiny four-legged snacks have to make it from nest to stream without getting snatched. Most do not make it. (One study conducted in Canada found that only 11% of wood turtle hatchlings survived their first two months of life.)

# **A CENTURY OF DECLINE**

Wood turtles were once plentiful in forested watersheds stretching from Nova Scotia to Virginia, but the species has been on the decline for at least a century, and that decline is accelerating. Wood turtles are considered endangered by the IUCN, the world's leading conservation organization, and are designated as a Species of Greatest Conservation Need (SGCN) by all 17 U.S. states in which they occur, including Maryland.

These turtles do best in pristine habitat far from human activity. Almost all of the major threats to wood turtles are human-induced: habitat loss and degradation due to agriculture and development projects; nest disturbance; vehicle collision; injury or death from farm machinery; and increased predation from "human-subsidized" predators such as raccoons and crows. Illegal collection severely exacerbates their already challenged existence.

### THE POWER OF ONE

Wood turtles, like most turtles, are slow to reproduce and have high hatchling mortality. They persist only in small, isolated populations. This combination of factors makes every breeding adult wood turtle precious. Remove just one from its home territory, and that could imperil an entire population, not to mention the one turtle.

Adult wood turtles come to know their home territories well and tune in to particular over-wintering, basking, nesting, and foraging sites. "Once they are out of home range, they are at a real disadvantage," explains Kevin Barrett, the Zoo's collection manager of reptiles and amphibians. "They won't necessarily pine away for their home territory, but now they're in unfamiliar surroundings where they might have more trouble finding food or locating water. It also puts them at higher risk because they may inadvertently cross streets or get into fenced areas that they can't navigate."

What's bad for the one turtle is even worse for the population. Wood turtles do not start to breed until they are in their teens, and females typically lay only one clutch per year of approximately ten eggs, most of which get eaten. These strikes against robust population growth are offset by the fact that wood turtles can live 50 years or more. Adults can breed for many, many years once they start, but the permanent loss of any male or female from the gene pool is inevitably detrimental to that population.

# **GOING HOME**

Imagine, though, that a wood turtle snatched from its home territory could eventually be returned. If that were possible, and if that turtle could start breeding once more, the long-term damage to the population could be mitigated. This is precisely why Scott Smith, Wildlife Ecologist at Maryland DNR, referred the wood turtles confiscated in New York to the Maryland Zoo. He did so for a very specific reason: because genetic testing confirmed that they came from a Maryland watershed. Genetic testing and mapping are relatively new frontiers in turtle conservation, with game-changing, hope-inducing potential.

Ideally, these five turtles would have gone straight back to their native watershed, but given the conditions in which they were illegally held, this was deemed too risky. They had been exposed to too many turtles from various states and could harbor diseases or parasites that testing might miss. After conferring with New York authorities, Smith contacted Barrett and Dr. Ellen Bronson, Senior Director of Animal Health, Research & Conservation at the Zoo, and proposed that the Zoo and Maryland DNR jointly manage a Wood Turtle Headstart program using these animals as genetic founders.

### **HOW TO HEADSTART**

One of the turtles, clearly weakened from its time held in substandard conditions, has since died, but the remaining four will have the chance to breed this spring. They live together in an off-exhibit area and are cared for by the *Maryland Wilderness* team. Should breeding produce eggs, keepers will collect and incubate them. Any hatchlings will be transferred immediately to the Zoo Hospital and raised in isolation to keep them safe from disease exposure. The hope is that within one year, hatchlings will be large enough to release in the same watershed from which the founders came.



"The Maryland watersheds that support

wood turtle populations are very distinct and isolated," says Barrett, "so you can really tell genetically which turtles are from which watershed. We want to keep it that way for a number of reasons, including being able to return confiscated animals to the proper watershed later on."

Before release, hatchlings must reach a size not only to avoid predation but also to bear the weight of a tiny transmitter that will allow researchers to track their progress. "When you do a headstart program," says Bronson, "you want to produce offspring, but you also want to have somewhere appropriate to put them and then have them thrive." Breeding is an important part of the equation but choosing the best release sites and doing proper long-term monitoring are equally important. To that end, the transmitters are essential, as is the ongoing survey work that Zoo staff are doing in the field with DNR and other conservation partners to assess the size and health of different wild populations.

This spring, an intrepid team from the Zoo and DNR will climb into chest waders, ford cold streams, and survey once more for wood turtles. This time, they hope to finalize the release site for the first headstart "graduate," a juvenile wood turtle that hatched at the Zoo nearly two years ago from an egg laid by an injured, rescued female that has since been returned to her native watershed. Now large enough to wear a transmitter, the graduate will forge a trail that hopefully many more will follow.

# PERSISTENCE AND PARTNERSHIP

"The great thing about this project is how collaborative it is, which is the way a good conservation project should be," says Dr. Bronson of the Wood Turtle Headstart Program, which aligns with the Zoo's Native Maryland Species Signature Animal Program (SAP). "Within the Zoo, we're involving a lot of staff and working across departments. We also have strong partnerships on this project with DNR and the Susquehannock Wildlife Society. Meanwhile, DNR's work ties into a larger regional effort involving a dozen or so state wildlife agencies to conserve wood turtles along the east coast."

The success of wood turtle conservation—and all turtle conservation—rests on just this sort of persistent, comprehensive, and collaborative approach. In this particular case, success also rests with the four rescued founders. Their future offspring, with any luck and great care, will inhabit the very same watershed from which the founders were illegally taken.

# **ZOO SPOTLIGHT**

# get to Know THE LESSER-KNOWN

By Sarah Evans

Every species of animal at the Zoo is remarkable in its own right, but some get more attention than others. The megafauna—the big animals—tend to steal the spotlight, and that's through no fault of their own. Lions and elephants and rhinoceros are hard to ignore! We want to give you reason, though, to stop and admire some of the lesser-known animals at the Zoo next time you visit. Once you recognize their adaptive genius, you will appreciate them from head to hoof, or snout to tail, or beak to foot, warts and all.

To help select and showcase these benignly overlooked animals, yours truly conducted an unscientific poll with some of the most gregarious and passionate animal enthusiasts at the Zoo. Educators love to talk, they love to talk about animals, and they will even impersonate the animals that they admire. So, who better to ask than the Zoo's Education team? The responses came pouring in!

And so, without further ado, we present the Zoo's Top 5 Animals Deserving More Attention, followed by the runners-up in no particular order.

# WARTHOG

"Warthogs! They have eyes set wide and high on top of the head so they can watch for predators while they're grazing or drinking. They have mutualistic relationships with mongooses that eat parasites from their skin. They turn soil with their tusks and help grasses grow as they eat. They're just the best."

– Anthony Snyder, Educator

It is true and highly unusual that warthogs have a mutualistic relationship with banded mongooses. This represents the first known case of mutualism between two non-primate mammals. A warthog will actually lie down and allow a band of mongooses to swarm all over its body, eating ticks and other unwelcome parasites. It's a win-win, which is why it's called mutualism: the warthog gets groomed and the mongooses get fed. Warthogs also have mutualistic relationships with red-billed and yellow-billed oxpeckers, which ride around on their backs, pluck parasites from their skin, and sound the alarm when lions or other predators show up.

Warthogs are charismatic wild pigs that sprint, squeak, and spin in tight circles. They are fun to watch at the Zoo and they are very successful survivors in sub-Saharan Africa. They are grazers and diggers named for the wart-like protrusions on their faces. Those "warts" are actually large calluses covered in hide that are thought to protect against the slashing tusks of a fellow warthog during moments of conflict. A warthog's tusks are actually modified canine teeth that grow sideways out of its mouth.



Many Zoo visitors assume that sitatunga are deer, but in fact they are a highly adapted African species of swamp-dwelling antelope. They are excellent swimmers and, when threatened, will hide underwater. They submerge themselves completely, with only their nostrils showing! This is an eye-popping behavioral adaptation to their semi-aquatic habitat, and they have a number of noteworthy physical adaptations as well. Look at their feet. They have long, widely splayed hooves and uniquely flexible joints at the feet that allow them to walk on boggy ground without sinking. They also have oily coats that repel water, much like a penguin or an otter. Sitatunga navigate swamp and marsh using tunneled pathways through tall reeds and papyrus. They rest on floating platforms of vegetation that they turn into comfortable sleeping pads through repeated circling and trampling.

# EASTERN NEWT

"The best thing about these little guys is their fabulous juvenile stage—the eft. Efts are like flashy "teenagers"—new lungs, bright red color, and skin full of toxins-striking out to brazenly cross long distances over land. Eventually they'll be drab brownish adults living in water again, but for a couple of years at least, they can be the rockstars of the forest floor."

– Sharon Bowen, Education Manager



If you've ever walked in the woods just after it rains, you've probably seen one or more of these brightly colored baby newts sparkling in the leaf litter. During drier weather, they stay hidden under rotting logs or leaves where they can keep their skin moist. Eastern, or red-spotted, newts are native to the forests of eastern North America. Females lay their eggs in the spring in quiet pools of water. Larvae hatch in late spring in water and transform into efts over the course of a few months. As efts, they leave the water to live on land for one to three years. Once fully mature, they return to water for the rest of their lives.



# **GROUND HORNBILL**

"Ground hornbills are by far the coolest and most underappreciated animals at the Zoo. They are the largest of all hornbills, about the size of a wild turkey. They will walk many miles a day in search of prey. They are monogamous, and the male brings the female all her food while she is sitting on the nest."

- Kerrie Kovaleski, Vice President of Education, Interpretation, and Volunteer Programs

Northern ground hornbills are fierce carnivores that usually roam the dry, open African savannah in pairs. They are bold birds that rarely take flight, preferring to run when threatened. They use their large curved bills to subdue prey. They mostly eat insects and spiders but can take snakes, lizards, and small mammals as well. Those things on top of their beaks are bony prominences called casques. Their faces and necks are marked by bald, vivid red and blue skin (males have red and blue markings; females only blue). They have long eyelashes, which are actually modified feathers that protect against blowing dust. They like to take dust baths and rain baths. Male and female pairs sing booming duets together. You may see the ground hornbills at the Zoo playing with leaves, tossing rocks, or using their bills to wrestle with one another. These are all behaviors observed in wild ground hornbills as well.



In fact, tiger salamanders are the largest terrestrial, or land-dwelling, species of salamander in North

America. They can grow to be more than one foot long and they come in a variety of colors and patterns. Tiger salamanders are endangered in Maryland but making a comeback. Their decline has been directly linked to habitat loss, specifically the unique type of depression wetlands—called Delmarva bays—where they breed. Tiger salamanders spend most of their lives underground but journey to Delmarva bays to find mates every breeding season. The Maryland Department of Natural Resources (DNR) has been working for years to restore Delmarva bays on state and private land, and that hard work is paying off. Over the past few years, biologists have noticed that restored Delmarva bays now open and sunny rather than dark and overgrown—have been full of tiger salamander egg masses!

# **RUNNERS UP:**



# **VON DER DECKEN HORNBILL**

"The fact that they entomb the female in a tree cavity to lay her eggs and raise the chicks while the male spends weeks racing back and forth gathering meals—now that's teamwork."

- Laura Newman, Educator

# **COLOBUS MONKEY**

"They can leap 40 feet from tree to tree. They have parachute hair. They have two stomachs and huge teeth, even though they are herbivores. And they also look like muppets."

- Anthony Snyder, Educator





# **WOOD TURTLE**

"They're nicknamed 'Old Red Legs.' They stomp on the ground, maybe to simulate rain, so that worms come up and then they eat them."

– Peter Martin, Naturalist

# HADADA IBIS

"This bird is named for the call it makes morning and evening, which sounds like 'Ha-da-da, ha-da-da, ha-da-dee.' It is one of the most recognizable calls in Africa and here at the Zoo."



– Allison Schwartz, Volunteer Manager



Earth Day is on the way, so let's get ready to party for the planet! It's a special day of the year for people all around the world to get outside, connect with nature, and do something good for this globe that we call home.

You don't have to wait until April 22, though. You can connect with nature in your own yard or neighborhood or nearby park. There are animals and plants all around you, just waiting to be discovered and celebrated! So how about a scavenger hunt? Invite a friend, invite a neighbor, invite your little brother, and off you go!



# SAVE THE DATE:

# PARTY FOR THE PLANET

# Friday, April 22-Sunday, April 24, 10 am-4 pm

We'll be celebrating Earth Day all weekend long! Join us at the Zoo for family-friendly activities, animal encounters, and education stations that will inspire you to think green and be Earth-friendly every day of the year!

# **SUPPORT THE ZOO**

Alder Martin Management and British Street

# GIVING BA

We regularly receive financial donations that support our mission. Each one is the result of hard work and relationship building by people throughout the organization. No matter how large or how small the amount, they're all important. But we recently received a gift that's particularly special.

Audra Jones made a \$5,000 contribution to recognize our volunteers and security personnel, writing, "This gift is in honor of all of the Maryland Zoo staff who treat my son Max—who is Autistic—with interest, care, and authenticity on every visit."

Each member of our frontline staff receives sensory accessibility and acceptance training to assist our guests with invisible disabilities. Nationally, one in six individuals have a sensory need or an invisible disability which could be related to PTSD, autism, dementia, or a stroke.

We go the extra mile to make our campus a welcoming place for people of all abilities. <u>Click here to</u> <u>learn more</u> and plan your visit.

The Maryland Zoo is a non-profit organization dedicated to engaging people with the wonders of the living world and promoting wildlife conservation. Your generosity makes all that we do possible. Please consider a gift in support of the Zoo.

<u>Click here</u> or scan QR code to donate by Venmo.





# take your roars OUTDOORS

Before you visit, <u>click here to review</u> our important health and safety measures.

Click here to purchase online and save \$2 per ticket!

Administrative offices are open Monday through Friday, 8:30 a.m. to 4:30 p.m. The Zoo is open to the public from 10 a.m. to 4 p.m., daily during the months of March through December and Friday through Monday during the months of January and February. The Zoo is closed Thanksgiving Day and Christmas Day.

To all our friends and members, thank you for your continued support of the Zoo and its amazing animals. We look forward to seeing you soon.

While planning your next visit, please check the Zoo's website—<u>www.MarylandZoo.org</u>—for timely updates on events, programs, exhibits, and improvements. Follow the tabs on the website to reach any Zoo department, including Group Sales, Membership, and Education.

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