



Alive

Inside

Baby Giraffe Worth the Wait
Protecting Forest Elephants
Stubborn Seal Starts Food Fight
Animals Ready for Winter
Zoo Veterinarian in Training

An insider magazine for Zoo Pass members • Winter 2016



The mission of the Zoological Society of Milwaukee is to conserve wildlife and endangered species, educate people about the importance of wildlife and the environment, and support the Milwaukee County Zoo.

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CEO's Letter



I am resigning my position as President and CEO with the Zoological Society of Milwaukee effective December 31, 2015. I have thoroughly enjoyed my career with the Zoological Society. The Milwaukee County Zoo is a cultural gem, and it has been rewarding to support the Zoo through the wonderful contributions made by the Zoological Society. I have been pleased to be a part of such a wonderful organization for the past 10 years.

My passion is education and sharing the importance of zoos and museums with children - the future caretakers of our planet. My plan is to continue to follow my passion.

I wish all the best to the Milwaukee County Zoo and Zoological Society and thank you for the experiences and friendships over the past decade.

Dr. Robert Davis

A Message from our Board Chairman



On behalf of the Board of Directors, I thank Bert for his 10 years of service to the Zoological Society. Bert has been such a positive person within our community and we wish him the best as he launches into this next phase in his career.

One of our primary missions at the Zoological Society of Milwaukee is, of course, supporting the Milwaukee County Zoo, but our reach extends much farther than that. Take our Bonobo & Congo Biodiversity Initiative. This program is making a difference as far away as the Democratic Republic of Congo. As the story on page 6 explains, the program started off

studying and protecting bonobos, but it has now extended its efforts to protecting the elusive forest elephant. Elephant conservation is a topic that touches people around the world, and we at the Zoological Society are part of the battle to conserve these species.

We're also making a difference in the lives of young people. Our Education Department works hard to meet the needs of all children, whether by addressing different learning styles or accommodating children with special needs (page 3). The Zoological Society also supports residencies in zoological medicine and pathology at the Zoo's Animal Health Center, helping aspiring zoo veterinarians get their start (page 8).

Speaking of making a difference, make sure to read the story about 9-year-old Annabella P. on page 13. Annabella loves red pandas so much that she raised \$250 toward the Zoological Society's 2014-15 Annual Appeal to renovate the Red Panda Exhibit by selling handmade bracelets. You have a chance this year to make a difference for the Zoo's Colobus monkeys. Our 2015-16 appeal will raise money to help the Colobus monkeys go outside for the first time ever. See the back of this magazine for more information. We hope the Zoological Society and Milwaukee County Zoo are making a difference in your life.

Caroline Krider
Zoological Society Board Chairman

Alive

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On the Cover: Giraffe calf Tafari, born Sept. 16.

Photo by Richard Brodzeller



Meeting Kids' Needs

When Heidi Schludt heard about Zoo Classes at the Milwaukee County Zoo, she wasn't sure if her son, Michael, would be able to participate because he is legally blind. But she quickly realized that the Zoological Society of Milwaukee, which runs Zoo Classes, was committed to doing everything it could to make Michael's experience worthwhile. "They were great in accommodating him," Schludt, of Muskego, says. That was six years ago, and 12-year-old Michael continues to attend classes throughout the year. "I love learning all about animals and I really love going to the Zoo!" Michael says.

Michael is one of many children with special needs that the Zoological Society's Education Department works with in its Zoo Classes and Camps programs. Just as Society instructors intentionally teach children of every learning style, they also work hard to meet a variety of children's needs. They do this by working closely with parents and adjusting instruction so children feel comfortable and included. "We want all who can benefit from our programs to be able to do so," says James Mills, Society director of education.

Adjustments can include anything from talking with parents prior to classes to reducing distractions in the classroom. "Many children struggle with transitioning from one part of class to another," says Kerry Scanlan, summer camp coordinator. "Our instructors help with transitions by letting children know what is coming next. We can also send the class schedule in advance, allowing parents to review the schedule with their child." For a child who gets distracted easily, an instructor might close the shades so he or she doesn't see the Zoo train out the window. If a child is sensitive to light, the instructor avoids turning the lights on and off to get the students' attention.

One of the most common needs the Education Department sees is food allergies, Scanlan says. The department contacts parents of children with food allergies ahead of time to let them know the snack ingredients. That makes a huge difference for Jenna Nell, of Fond du Lac, and her 4-year-old son, Branson. Branson has life-threatening allergies to nuts and eggs. So far,

he's been able to eat the snack in each class. "There have been so many times where he's been at events outside the Zoo where he's not been able to eat the snack or he's had to have an alternative one," Nell says. "Sometimes he feels left out." Although the education building and the Zoo are not peanut-free, the Education Department tries, when possible, to avoid snacks that contain nuts or peanuts or that were made in a facility that processes them. But even if at some point Branson can't eat the snack, Nell will be able to get a similar snack for him because the department contacts her in advance. "Providing me with that information is so important so he can have the same treat and participate with the other children," she says. "I could not be happier as a parent."

Michael and his mom are also happy with their experiences with the Education Department. The department allows Schludt



Photo by Bob Wickland

Michael, 12, creates a piñata with his mom, Heidi Schludt, during a family class at the Zoo. Michael is legally blind.

to accompany Michael to his classes so she can assist him. "Instructors make sure they have lots of tactile items that I can feel like claws, skeletons, skulls and pelts," Michael says. One Zoo Pride volunteer, Jim Brill, has made a special connection with Michael and tries to volunteer at classes he attends, Schludt says. "My son is very outgoing, so they got to know Michael and what he likes and needs." She sees the results in Michael's enthusiasm for animals and the Zoo. "He may not see everything, but he really listens and learns."

By Stacy Vogel Davis



Elephants and other animals get pumpkin treats in fall.
Photo by Richard Brodzeller

ANIMAL WISH LIST

You can help the Zoo get more enrichment items for your favorite animals. Visit milwaukeezoo.org/conservation/enrichment.php and scroll to the bottom to find the Zoo's enrichment wish list. The Zoo also needs hardware and tools to build enrichment items, and it can always use gift cards to places like Target, Menards and grocery stores.

Puzzle feeders encourage giraffes to forage for food.
Photo by Olga Kornienko

Polar bear Snow Lilly plays with a ball in her pool.
Photo by Bob Wickland



ENRICHING THE ANIMALS' WORLD

It's morning in the big cat building, and Amur tiger Tula is having a ball – literally. She pounces on a wobbly toy, just as a wild tiger would pounce on her prey, only to see it pop back up again. Meanwhile Francisco, the young jaguar, fishes for perch in the pond in his outdoor exhibit. Later in the day the other animals will get in on the fun – the lions might sniff at a new cologne the keepers sprayed in their exhibit, while Camelia the caracal might practice targeting by touching her nose to a toy before getting her food.

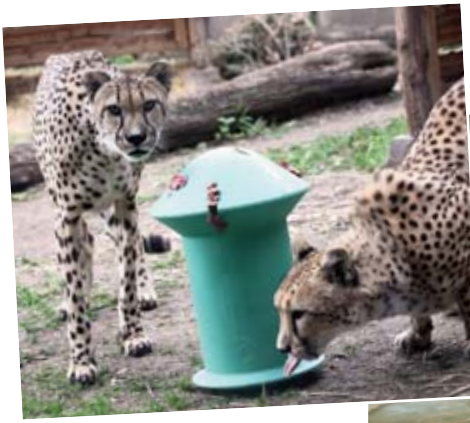
It might seem like the animals and keepers are just having fun with these activities, and they are. But enrichment is about much more than fun. The Association of Zoos and Aquariums, the accrediting agency for the Milwaukee County Zoo, defines enrichment as enhancing animal environments with the goal of increasing the animal's behavioral choices and drawing out species-appropriate behavior – in other words, offering the animals more choices and encouraging them to behave as they would in the wild. It has become an important concept at zoos around the country, says Beth Rich, the Milwaukee County Zoo's deputy director of animal

management and health. “People are starting to understand animal behavior, and we now understand that animals have behavioral needs just like they have physical needs,” she says. Amanda Ista, a big cat keeper, adds, “It used to be an extra thing, but now it’s part of daily husbandry just like feeding and cleaning.”

Enrichment can take lots of forms, from toys to new sounds and smells to changes in the animals’ exhibits and social groupings. Last year, the Zoo started working with the University of Wisconsin-Milwaukee School of Freshwater Sciences to obtain live yellow perch for animals such as bears to catch and eat as a treat. Animals are often given puzzle feeders, requiring them to figure out how to get the food inside. The animals are put into social groups similar to what you would see in the wild. For example, the Zoo has a gorilla troop consisting of one dominant male, three females and their offspring, which in this case is one young male. Two other male gorillas are housed on their own because young bachelor gorillas are typically solitary. Even reptiles get enrichment through misting machines, changes in their exhibits and temperature gradients, or places in the exhibit that are warmer or cooler.

Besides keeping the animals’ minds engaged, the enrichment helps the animals handle change, Rich says. Animals in the wild face changing circumstances every day, but at the Zoo, animals get used to a set routine. Enrichment introduces variables into that routine so that when the animals have to face other new things, such as a medical exam or a new exhibit mate, they’re already somewhat used to change. “We’re teaching them coping mechanisms,” Ista says. “Stress happens everywhere, even in the wild. We want them to know how to deal with stress.” The enrichment also gives the animals more choices, Rich says. “They can choose to interact with the item or not, and if they do, and the item doesn’t behave the way they want it to, they have to problem solve.”

Zookeepers are constantly adjusting their enrichment strategies as the zoo community learns more about enrichment. Before a new enrichment item is introduced to an animal, a group



The cheetahs find their food inside a bobbin. Photo by Olga Kornienko

Alaskan brown bear Borealis catches a live perch as part of his enrichment program.

Photo by Bob Wickland



Dakota, an American black bear, lounges in a hammock. Scout groups or other volunteers often construct sturdy hammocks for the Zoo’s bears out of fire hoses.

Photo by Richard Taylor



of employees, including keepers, curators and veterinarians, have to go through a checklist of safety concerns. Then keepers and Zoo Pride volunteers observe how the animal is using the item to see if it’s serving its intended purpose and make sure it doesn’t become a hazard to the animal, the animal’s exhibit mates or people. Rich hopes to tighten the evaluation process in the future so keepers can offer more quantitative data, such as how often items are used, to back up their anecdotal observations.

Although it’s hard to find the time, it’s not a chore for keepers to watch the animals with new enrichment items, Ista says. “That’s our favorite part.” Adds Rich, “To see the animal interact with what I just gave them is the best rush.”

By Stacy Vogel Davis

TYPES OF ENRICHMENT

Enrichment at the Milwaukee County Zoo falls into five categories:

- 1. ENVIRONMENTAL:** Enhancement of, or alteration to, an animal’s habitat with the goal of adding complexity to its environment. Examples include swings, climbing structures or new exhibit propping.
- 2. FOOD/FEEDING:** This includes extending feeding time, making feeding time challenging and promoting natural feeding strategies. Examples include food in puzzle feeders, scattered food and hidden food.
- 3. MANIPULATIVE:** Providing the animal with items that can be manipulated in some way using its hands, paws, head, feet, horns or mouth for investigation and exploratory play. Examples include balls, boxes, barrels and other “toys.”
- 4. SENSORY:** Stimulating all of an animal’s senses (sight, smell, hearing, taste and touch). Examples include bubbles, bells, spices, perfumes, audio recordings and scratching posts.
- 5. SOCIAL/BEHAVIORAL:** Zookeepers use the natural history of the animals to create social groupings observed in the wild, which facilitates feeding, grooming and courtship behaviors. This includes creating mixed-species exhibits. The animals’ daily routines include training with zookeepers and other animals, which helps build trust and rapport.



Visit www.pinterest.com/zoosocietymke/animal-enrichment for more pictures and videos of animal enrichment at the Milwaukee County Zoo.

Fighting for Forest Elephants

Dr. Gay Reinartz will never forget the time a forest elephant nearly trampled her camp. She was leading a crew studying wildlife in the Salonga National Park, deep in the rainforest of the Democratic Republic of Congo (DRC). Reinartz, the conservation coordinator of the Zoological Society of Milwaukee, was washing up in a creek just after sunset when she sensed an animal nearby. “It was more of a sensation than actual hearing,” she says. “It reminded me of a low electrical hum. The hair on the back of my neck stood up.”

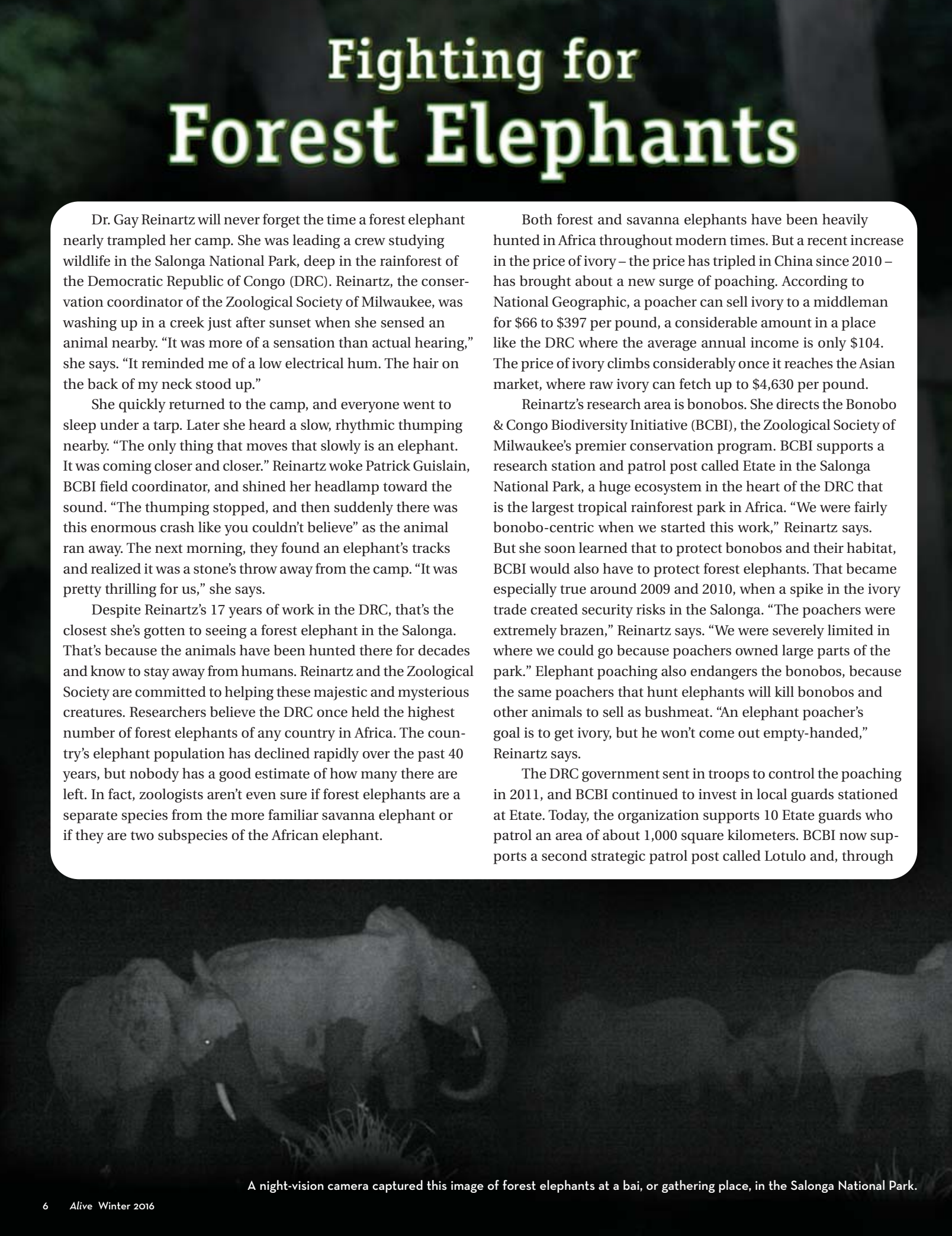
She quickly returned to the camp, and everyone went to sleep under a tarp. Later she heard a slow, rhythmic thumping nearby. “The only thing that moves that slowly is an elephant. It was coming closer and closer.” Reinartz woke Patrick Guislain, BCBI field coordinator, and shined her headlamp toward the sound. “The thumping stopped, and then suddenly there was this enormous crash like you couldn’t believe” as the animal ran away. The next morning, they found an elephant’s tracks and realized it was a stone’s throw away from the camp. “It was pretty thrilling for us,” she says.

Despite Reinartz’s 17 years of work in the DRC, that’s the closest she’s gotten to seeing a forest elephant in the Salonga. That’s because the animals have been hunted there for decades and know to stay away from humans. Reinartz and the Zoological Society are committed to helping these majestic and mysterious creatures. Researchers believe the DRC once held the highest number of forest elephants of any country in Africa. The country’s elephant population has declined rapidly over the past 40 years, but nobody has a good estimate of how many there are left. In fact, zoologists aren’t even sure if forest elephants are a separate species from the more familiar savanna elephant or if they are two subspecies of the African elephant.

Both forest and savanna elephants have been heavily hunted in Africa throughout modern times. But a recent increase in the price of ivory – the price has tripled in China since 2010 – has brought about a new surge of poaching. According to National Geographic, a poacher can sell ivory to a middleman for \$66 to \$397 per pound, a considerable amount in a place like the DRC where the average annual income is only \$104. The price of ivory climbs considerably once it reaches the Asian market, where raw ivory can fetch up to \$4,630 per pound.

Reinartz’s research area is bonobos. She directs the Bonobo & Congo Biodiversity Initiative (BCBI), the Zoological Society of Milwaukee’s premier conservation program. BCBI supports a research station and patrol post called Etate in the Salonga National Park, a huge ecosystem in the heart of the DRC that is the largest tropical rainforest park in Africa. “We were fairly bonobo-centric when we started this work,” Reinartz says. But she soon learned that to protect bonobos and their habitat, BCBI would also have to protect forest elephants. That became especially true around 2009 and 2010, when a spike in the ivory trade created security risks in the Salonga. “The poachers were extremely brazen,” Reinartz says. “We were severely limited in where we could go because poachers owned large parts of the park.” Elephant poaching also endangers the bonobos, because the same poachers that hunt elephants will kill bonobos and other animals to sell as bushmeat. “An elephant poacher’s goal is to get ivory, but he won’t come out empty-handed,” Reinartz says.

The DRC government sent in troops to control the poaching in 2011, and BCBI continued to invest in local guards stationed at Etate. Today, the organization supports 10 Etate guards who patrol an area of about 1,000 square kilometers. BCBI now supports a second strategic patrol post called Lotulo and, through



A night-vision camera captured this image of forest elephants at a bai, or gathering place, in the Salonga National Park.

support from the Felburn Foundation, has started funding long-distance patrols into remote areas. As a result, the influx of poachers on two of Salonga's main rivers has vastly decreased, and researchers have seen more evidence of forest elephants near Etate.

We still don't know a lot about forest elephants. They play an important role in forest regeneration because they spread seeds in their dung. They often move at night to avoid people, and the dense forest, unlike the open savanna, keeps them hidden from view. Researchers get most of their information about the elephants – including how many there are, where they live and what they eat – by studying their dung. “We're refining our methods to survey the elephants,” Reinartz says. “Our work will help establish the current population size of elephants in the park.”

The Salonga used to be a stronghold for wildlife populations, providing habitat for thousands of forest elephants. In 2004, the first large-scale survey revealed an estimated 2,000 elephants in the park. BCBI is conducting a more detailed survey in about a third of the park, covering more than 11,000 square kilometers. To date, they have analyzed data from 4,715 square kilometers and calculate that about 300 elephants live in that area. Reinartz hopes the Salonga population will recover and reestablish itself as the major breeding population in the DRC. But the BCBI team and guards still see signs of poaching, including elephant carcasses stripped of their ivory. “I wouldn't count anywhere in Africa – anywhere in the world – as a safe place for elephants today,” she says. Poachers even kidnapped and tortured Etate's guards at one point but fortunately let them go. “That's how serious this is.”

Still, Reinartz is cautiously optimistic about the future. BCBI has captured night-vision photos of elephants at a bai, or elephant gathering place, near Etate. “If it weren't for the guards and our 15 years of support, there wouldn't be elephants in that bai,” she says. “We know the guards are protecting it.” She believes Salonga, if protected, could once again support a self-sustaining population of forest elephants and bonobos. “We're trying to make it happen.”

By Stacy Vogel Davis

Savanna and Forest Elephants

The Milwaukee County Zoo's two elephants, Ruth and Brittany, are African savanna elephants. In the wild, savanna elephants live in the plains and bushland of Eastern and Southern Africa, according to the World Wildlife Fund. Forest elephants, like the ones in the Democratic Republic of Congo, live in the dense rainforests of Central and Western Africa. They are smaller than savanna elephants and have oval-shaped ears. Their tusks are straighter and point downward (the tusks on savanna elephants curve outward).

Scientists disagree over whether forest and savanna elephants are distinct species or subspecies of the African elephant.



Patrick Guislain, field projects coordinator at the Zoological Society research station, holds an elephant bone, evidence of poaching. Photo courtesy of BCBI



Ruth, one of the Milwaukee County Zoo's African savanna elephants.

Photo by Richard Brodzeller

Forest elephants are smaller than savanna elephants and harder to study because they live in dense rainforest.



Stack photo

Life as a Zoo Medicine Resident

It's 8 a.m. on Wednesday, Oct. 21. Dr. Grayson Doss, a zoological medicine resident at the Milwaukee County Zoo, arrives for work. Before meeting with the Animal Health Center (AHC) team – which this day includes staff veterinarian Dr. Vickie Clyde; a visiting veterinarian from the University of Wisconsin-Madison; Bob Korman, a Zoo veterinary technician; and a roving zookeeper – Doss heads to the area behind the Small Mammals Building. There, a nearly full-grown cinereous vulture chick lives. “I gave it a quick physical exam and a vaccination,” says Doss nonchalantly, as if vaccinating vultures is as routine as putting on socks in the morning. And compared to what's up next, vaccinating a vulture seems somewhat prosaic, because most of the morning will be spent performing surgery on a bullsnake, and the next day he'll perform a checkup on a 26-year-old geriatric black bear.

Jumping from birds to reptiles to primates to bears is par for the course when you're training to be a zoo veterinarian. “Zoo vets are good at being generalists,” says Doss. “You need to know a little about a lot of species.” Doss is in the midst of a residency stint at the Animal Health Center funded by the Zoological Society of Milwaukee.

9 a.m.-1 p.m.

After examining previous X-ray images of the bullsnake, Doss and the team gather near a dry-erase wall calendar as Clyde, the staff veterinarian, discusses tasks and procedures for the day and upcoming week. After the meeting a technician removes the snake from its crate and weighs it. The snake had been shedding every two weeks – much too often for a healthy snake. Previous X-ray images from May showed a number of lesions throughout the snake's body. A biopsy of the lesions is in order.

Doss returns to the radiography room to determine where to make the incision. It must be near a lesion, but away from critical organs. The snake is laid on a padded table. Doss administers an injection to relax it in preparation for intubation, whereby a tube is inserted through the mouth and into the trachea to administer the sedative

directly. This ensures the snake remains unconscious during surgery. After 15 minutes the sedative takes effect and the snake is wheeled into the surgery room.

Doss, Korman and Dr. Loudon Wright – the visiting veterinarian from Madison – don full surgical gear. Music plays from a smart-phone. “Is that smooth jazz?” somebody jokes. “No, it's good jazz!” says Doss. The incision area is sterilized. “Okay, let's give this a whirl. Cutting!” says Doss. In seconds the snake's scales slowly separate as the scalpel slides across its body. Clyde comes in to check on things and ask a few questions. Doss removes two lesions for later study. Once the cut is stitched up, the team makes another incision in a different place to remove more lesions to increase diagnostic accuracy.



Dr. Grayson Doss examines an X-ray image of a bullsnake that has been shedding too often.

1-2 p.m.

Now it's time for lunch, and that means an all-you-can-eat buffet at nearby Tandoor Restaurant. "It's a favorite!" says Doss. Over lunch Doss explains why he wanted to become a zoo veterinarian. "As a kid growing up in Baton Rouge, I always had weird pets. At one point I had 23 different reptiles and amphibians, and I've always been intrigued by human medicine," he says. "Vet school seemed like the perfect career." After graduating from Louisiana State University with a doctorate in veterinary medicine, Doss could have gone into private practice and cared for the neighborhood dog, cat, rabbit or ferret. But the exotic called, and Doss knew the best way to work with exotic animals was to become a veterinarian at a zoo. To that end, he entered a three-year-long residency program, including 15 months at the Milwaukee County Zoo.

2-4 p.m.

Doss brings the bullsnake back to the Aquatic & Reptile Center (ARC) and goes over after-care instructions with ARC supervisor Billie Harrison. Next, he stops at the Family Farm to talk to farm supervisor Lisa Guglielmi about a rabbit that appears to have a gastrointestinal disorder. He recommends adding more protein to the rabbit's diet. Later, he looks at a guinea pig wound and examines a marabou stork's beak.

4-5 p.m.

Now Doss heads to the Stearns Family Apes of Africa & Primates of the World building for the final examination of the day. It's on a bonobo. "Tami had a swollen eyelid," he says. "The bonobos were sort of surprised when I used an ophthalmoscope, a device that allows me to examine the inside of the eye. But she cooperated and it went well."



Doss is in the midst of a residency stint at the Zoo's Animal Health Center.

5-6:30 p.m.

Doss' final task is to enter the data he collected throughout the day and put it into a database. Then his work day is done – until the next day.



Lisa Guglielmi, farm supervisor, talks to Dr. Grayson Doss about a rabbit with a gastrointestinal disorder.



Doss participates in an exam of black bear Dakota.

Epilogue: The Next Morning

After an exhausting day, Doss is back at it the following morning. This time he has to examine a 360-pound female black bear. Doss approaches the bear's enclosure and darts it. "I used a carbon dioxide-powered hand piece," he says. Within 10 minutes the bear succumbs to the dart's sedative. Then a team lifts it into a truck. Upon arriving at the AHC, the bear is placed on a rolling gurney and taken to the radiology room. Various exams are performed and X-ray images are taken. "The exam went fine," says Doss. "We found arthritis in the knees. We're awaiting blood work results to see if everything is going well."

By Zak Mazur

WINTER Adaptations



Migrating Canada geese

When you get cold, you can put on warmer clothes or go inside your heated house. Animals in the wild don't have those options, so they've adapted other ways to survive the winter. Some animals, such as birds, migrate to warmer climates where they can find more food. Other animals, such as bears, hibernate. That means they sleep through the winter and don't even wake up to eat. Still other animals develop special camouflage to protect themselves in winter from hungry predators. For example, snowshoe hares in the Arctic are brown in summer but turn white in winter to camouflage themselves against the snow.

WINTER WORD SEARCH

Find the words below that relate to animals in winter.

- HIBERNATE
- CAMOUFLAGE
- BEARS
- BLUBBER
- MIGRATION
- ARCTIC
- SNOW
- ADAPTATION

K	B	Q	S	T	V	J	V	S	F	J	N
K	C	Y	S	S	O	Y	R	Y	X	M	O
E	T	A	N	R	E	B	I	H	A	A	I
C	A	M	O	U	F	L	A	G	E	D	T
P	A	I	W	H	H	R	Q	M	S	A	A
B	K	D	T	A	E	A	Z	Q	M	P	R
E	E	E	F	B	N	U	R	F	Z	T	G
J	F	A	B	Z	D	E	C	C	E	A	I
W	Y	U	R	E	Z	G	V	O	T	T	M
B	L	N	I	S	I	O	M	A	Y	I	K
B	H	U	A	N	V	D	G	C	M	O	C
F	O	X	Q	O	Y	Y	M	I	S	N	H



Snowshoe hare in brown camouflage for summer

BLUBBER SCIENCE

Seals, including the harbor seals at the Milwaukee County Zoo, put on blubber before winter starts to help them stay warm. Blubber is a special type of fat that insulates the seals. You can imitate the effects of blubber with shortening or lard. First, fill a bucket with ice water or snow. Cover your left hand with a clear plastic baggie and put it into the bucket. How long does it take your hand to get cold?

Not long, right? Now fill a baggie with shortening, then put a second, empty baggie inside the bag with the shortening. Put your right hand inside the inner bag. Squish the shortening around so that it's all around your hand. That hand is now protected by a layer of "blubber."

See how long it takes that hand to get cold in the ice water or snow. It makes a big difference!



Harbor seal Sydney
Photo by Richard Brodzeller

TEDDY BEAR DEN

Bears hibernate through the winter when the weather is rough and food is scarce. You can create a hibernation den for a small teddy bear or other plush toy using a paper grocery bag.

You will need:

- A brown paper grocery bag
- Cotton balls
- Dried leaves or shredded paper
- Crayons, markers or colored pencils
- Scissors
- Glue
- Tape or a stapler

1. Cut about three inches off the open end of the paper bag.
2. Draw an arch on one side of the bag, with the bottom of the arch at the open end of the bag. Cut out the arch to form the opening to the den.
3. Decorate the bag using crayons, markers or colored pencils. You can draw trees, snowflakes or anything else you want.
4. Open the bag to form a triangle with the bottom of the bag in back.
5. Fold the ends of the bag over toward the side with the opening and staple or tape them together.
6. Glue cotton balls along the folded edge of the den for snow. Pull them apart a bit for a fluffier look.
7. Put dried leaves or shredded paper inside the den for bedding. Put your teddy bear inside and wish him or her sweet dreams!



Photo by Richard Brodzeller



Snowshoe hare in white camouflage for winter

Commissary Supervisor has Love of Animals in his Bones

Not many people land their dream job as a teenager, but Shawn Miller did. OK, so maybe picking up litter around the Milwaukee County Zoo wasn't his ultimate goal, but he knew at a young age that he wanted a career in zoos. Nearly 20 years later, Miller is still living the dream as commissary supervisor at the Zoo, keeping track of all the food for the Zoo's 3,100 animals. His love of animals has influenced his practice of his other great love, art. He likes to draw turtles on rocks at the beach and even makes carvings and etchings out of animal bones, antlers and eggs. "Artwork for me has always been a release," he says.

Miller earned a degree in zoology from the University of Wisconsin-Stevens Point. He was hired as a full-time keeper in the Aquatic & Reptile Center in 2004 and has also been a roving zookeeper. He became commissary supervisor in 2012, operating out of the Zoo's commissary on the south end of the grounds. "It's kind of the heartbeat of the animal department," he says. "I get here early, get everybody's day going and make sure everyone is getting off on the right foot."

As commissary supervisor, Miller is in charge of procurement, shipping and receiving, and distribution of animal food. The Zoo receives 2-3 tons of grain and 2 tons of produce a week, plus large shipments of meat for the carnivores. "I have to make sure I keep stuff in stock without running out, but not overstocking." He also has to think on his feet. For example, two years ago there was a disease outbreak at the Zoo's main mice supplier, and it was tough to find a replacement. The Zoo goes through more than 1,000 mice a week. "It's doing the research, making the calls and finding a way to get us through," he says. "There's a lot of on-the-fly problem solving."

Because he's worked at the Zoo for half his life, he feels like he's grown up with some of the keepers. "It's like a family here," he says. Danielle Faucett, Winter Quarters supervisor at the Zoo, has known Miller since she was hired more than a decade ago. "He's a fun, hardworking guy," she says. "He's always willing to lend a helping hand."

Miller started using permanent markers to draw turtles on rocks at the beach as a form of meditation. He leaves them there for other people to find. He also carves pictures into animal bones he gets from family members who hunt. "I come from a very artistic family," he says. "My mother is a folk artist and my grandfather was, too."

Faucett got permission from the Zoo to give Miller several rhea eggs to carve to raise money for conservation. "What I love about Shawn is that he enjoys sharing his art with others," she says. On one, he etched an elephant on one side and carved the outline of

Africa on the other using a handheld rotary tool. When you shine a candle behind the egg, the outline of the elephant glows. He plans to carve another egg and auction both of them off at a zookeeper event to benefit conservation. Someday he might even sell his artwork. But for now, keep your eyes peeled when you visit the beach. You might just discover a Shawn Miller original.

By Stacy Vogel Davis

Miller etched an elephant into a rhea egg. The back of the egg is a cut-out of Africa.

Photo by Richard Brodzeller



Shawn Miller, commissary supervisor at the Milwaukee County Zoo, has worked at the Zoo since he was a teenager. Photo by Richard Brodzeller

Right: Miller likes to draw turtles on rocks and leave them on the beach for people to find.

Photo submitted by Shawn Miller



Annabella P. adores red pandas. The 9-year-old wanted to see one so badly she convinced her mom to drive her from Moline, Ill., to the Milwaukee County Zoo last summer to visit Dash the red panda. Alas, Dash wasn't outside that day because red pandas don't like heat. But Annabella learned that the Zoological Society of Milwaukee was raising money to improve the Red Panda Exhibit for its Annual Appeal. "Even though she didn't see Dash, she wanted to help," says Annabella's mother, Minda. Annabella raised \$250 for the Annual Appeal by selling handmade bracelets.

Annabella first fell in love with giant pandas in kindergarten when she wrote a book report on the book "Panda Kindergarten." A few years later, she received a bag with a red panda on it as a prize in Girl Scouts. Even though giant pandas and red pandas aren't related, Annabella knew she had found another favorite animal. "They're cute and soft and cuddly," she says. Red pandas live in the Eastern Himalayas, where they spend most of their time in trees and use their fluffy tails like blankets to keep warm during the cold nights. They are endangered because of habitat loss.

The Zoological Society raised money over the last year to renovate Dash's habitat. The Zoo plans to add enrichment opportunities and more shade to keep him cooler in summer, along with barriers to keep wild animals out so they can't spread diseases to the red panda.



The Zoological Society raised money to help the Zoo renovate the Red Panda Exhibit. The Zoo hopes to eventually get a mate for Dash.

Photo by Bob Wickland

Annabella P. loves giant pandas and red pandas. She raised \$250 to help renovate the Red Panda Exhibit.

Photo by Olga Kornienko



A *Big Heart* for RED PANDAS

When the renovation is complete, the Zoo hopes to acquire a mate for Dash so they can eventually have baby red pandas, something that Annabella found especially exciting.

She decided to sell bracelets after she saw a member of Zoo Pride, the Society's volunteer auxiliary, selling eyeglass cases and other items to support the Annual Appeal. She started selling the bracelets at a local restaurant and quickly blew past her goal. "After one weekend, I had over \$100," she says. Her mother, Minda, wasn't surprised that Annabella wanted to help the red pandas, but she was impressed at Annabella's initiative in selling the bracelets. "The fact that she's talking to people she doesn't even know, and she's not scared to do this because she loves the animals, I just couldn't be prouder," Minda says. "She has a pretty big heart."

After all that effort, it was time for Annabella to finally meet Dash. Her family arranged a second visit to the Milwaukee County Zoo in October, and Annabella even got to meet Dash's zookeepers. "It was pretty cool," Annabella says. "They gave me a painting that Genghis (an older red panda that died last winter) and Dash did." Keeper Sheri Guay says she found Annabella inspiring. "It was great to see someone so young be so passionate about red pandas," she says. "For her to raise as much money as she did is just amazing. We really appreciate it!"

The Zoological Society raised more than \$209,000 for the Annual Appeal, including the \$250 raised by Annabella. The Zoo hopes to renovate the exhibit in spring. And Annabella isn't finished helping red pandas. She's now raising money to help improve the exhibit at Miller Park Zoo in Bloomington, Ill. You can read more about her efforts at her website, pandasanctuary.weebly.com. She even thinks she might like to be a zookeeper when she grows up. "I don't think she even realizes what a big deal it was for a little girl to do this," Minda says.

By Stacy Vogel Davis

The Reign of KING Julian

Everyone celebrated the birth of King Julian, the first harbor seal ever born at the Milwaukee County Zoo, in June 2014. But by the time the little prince was a few months old, zookeepers had to remind themselves how cute he was during feeding time to keep from walking away in frustration. That's because King Julian, or KJ for short, proved to be a bit of a tyrant when it came to weaning him, says Dawn Fleuchaus, Zoo area supervisor of North America and Australia. It took three months and a lot of creativity to wean King Julian, but it all paid off: Not only does KJ have a healthy appetite these days, but keepers were able to wean his little brother, Siku, in just a few weeks after applying some of the lessons they learned with KJ.

Since King Julian was the Zoo's first harbor seal pup, keepers consulted with Oceans of Fun, the organization that produces the seal and sea lion show at the Zoo, on how to switch KJ from mother's milk to fish. They started to wean him at 5 weeks old, separating KJ from his mom and offering thawed herring, capelin, squid and smelt, the same food his parents, Sydney and Ringo, eat. KJ showed little interest, but that was to be expected – he had gained a lot of weight on the high-fat milk provided by his mother, so he wasn't hungry yet. After a couple of days, keepers offered him live yellow perch



Siku, born in summer 2015, weaned much more quickly than his big brother. Photo by Richard Brodzeller

various strategies to get him to eat other kinds of fish, from letting him lose weight so he would feel hungry to bringing his mother into the holding area with him. None of it worked. The keepers worked as a team to encourage each other through the frustration, Fleuchaus says. "We knew it was important to keep our interactions with KJ positive. Each time someone went in to try to feed him, we pumped each other up, saying, 'This could be the time when he finally just eats the fish!'"

By now, keepers had been weaning KJ for nearly three months, and he had lost 25 percent of his body weight. He started swimming laps or submerging under the water to express his displeasure when keepers didn't offer him perch. It was time for the last resort: assisted feeding. Keepers worked with Oceans of Fun to learn the proper technique to push herring into KJ's mouth so he would eat it. After several days of assisted feeding, he started allowing keepers to handfeed him. Today, KJ eats as eagerly as his parents.

The keepers' experience weaning Siku, born a year later, couldn't have been more different. They started weaning him a little earlier, and they didn't offer him perch. He was weaned within a month without assisted feeding. "He didn't even lose all of his baby fat," Fleuchaus says. She thinks Siku's personality had a lot to do with the quick weaning. "He just seems to be more pliable," she says.

Despite their different temperaments, the two princes of the Harbor Seal Exhibit get along well. They live, eat and train together. The keepers hope to have another chance to put what they learned into practice if Ringo and Sydney have a third pup this summer. "We're hoping for a girl," Fleuchaus says.

By Stacy Vogel Davis



Zookeepers had a tough time weaning King Julian, the first harbor seal pup born at the Milwaukee County Zoo. Photo by Olga Kornienko

from the University of Wisconsin-Milwaukee School of Freshwater Sciences, and two days later, he ate one. They thought they were on the road to success.

But it turns out KJ is a picky eater. If His Royal Highness couldn't eat perch, he wasn't going to eat at all. This was a problem because the Zoo doesn't have an unlimited supply of perch, and it's not a natural food item for seals. Keepers tried

Giraffe Calf

Born: Sept. 16, 2015
MillerCoors Giraffe Experience

Zookeepers were excited to learn that Ziggy, the Milwaukee County Zoo's 5-year-old female giraffe, was pregnant with her first calf. They studied up on giraffe pregnancy, birth and development as they waited for the baby to arrive. And waited. And waited. An expected due date in mid- to late July came and went, as did August and half of September before the calf finally made his

entrance Sept. 16. Giraffes are pregnant for 14 to 15 months, and an ultrasound wasn't feasible, so estimating a due date proved difficult, says zookeeper Joan Pappas. "We'll probably never know if her pregnancy went a little long or if we just miscalculated when she got pregnant," she says.

But it was worth the wait for Tafari, the first giraffe calf born at the Zoo since 2003. The calf has been drawing large crowds. More than 5,000 people participated in online voting to choose the name, which comes from Ethiopia and means "he who inspires awe." "The media really seemed to take an interest in and follow Tafari's story," says Jennifer Diliberti-Shea, Zoo public relations coordinator. "We received media attention from as far away as Colorado and Florida for his birth announcement. It might have been a combination of how adorable he is as well as how unbelievable his birth statistics were!" The calf was 5 feet 9 inches tall at birth and had already reached 6½ feet by the time he was 7 weeks old. But he's still dwarfed by the Zoo's other giraffes – his father, Bahatika, is the tallest giraffe in the herd at 13½ feet. Tafari can often be seen scampering about the giraffe building, and when the weather was warmer, he enjoyed exploring the outdoor yard. "He's curious and confident," Pappas says. He will continue to nurse until he's 6-9 months old, but he's already nibbling on solid foods such as alfalfa, produce and "giraffe chow" pellets.

It's been neat to watch the adult giraffes react to the new calf, Pappas says. Ziggy has shown herself to be a good mother, although she gets nervous when crowds of people gather to see the baby. Bahatika at first seemed afraid of Tafari and would run away when he approached. "He's getting less nervous now," Pappas says. "But you have to remember, he's 10 years old and he's never seen a calf before." Fathers typically don't have much involvement with calves because their job is to protect the whole herd, she says. Rahna, the Zoo's 23-year-old female, has made it clear that she's not interested in the baby.

Keepers have been encouraged to see the positive interaction between Tafari and Marlee, the Zoo's 3-year-old female. Marlee and Ziggy were both brought to the Milwaukee County Zoo in 2013 through an endowment established by the Bernie Ziegler family with the hope that they would breed with Bahatika. "Marlee has been extremely interested and good with Tafari," Pappas says. They've gotten so close that the keepers often refer to her as Tafari's "Auntie Marlee," even though the two aren't related. "This is good practice for her – hopefully she will have the next calf."

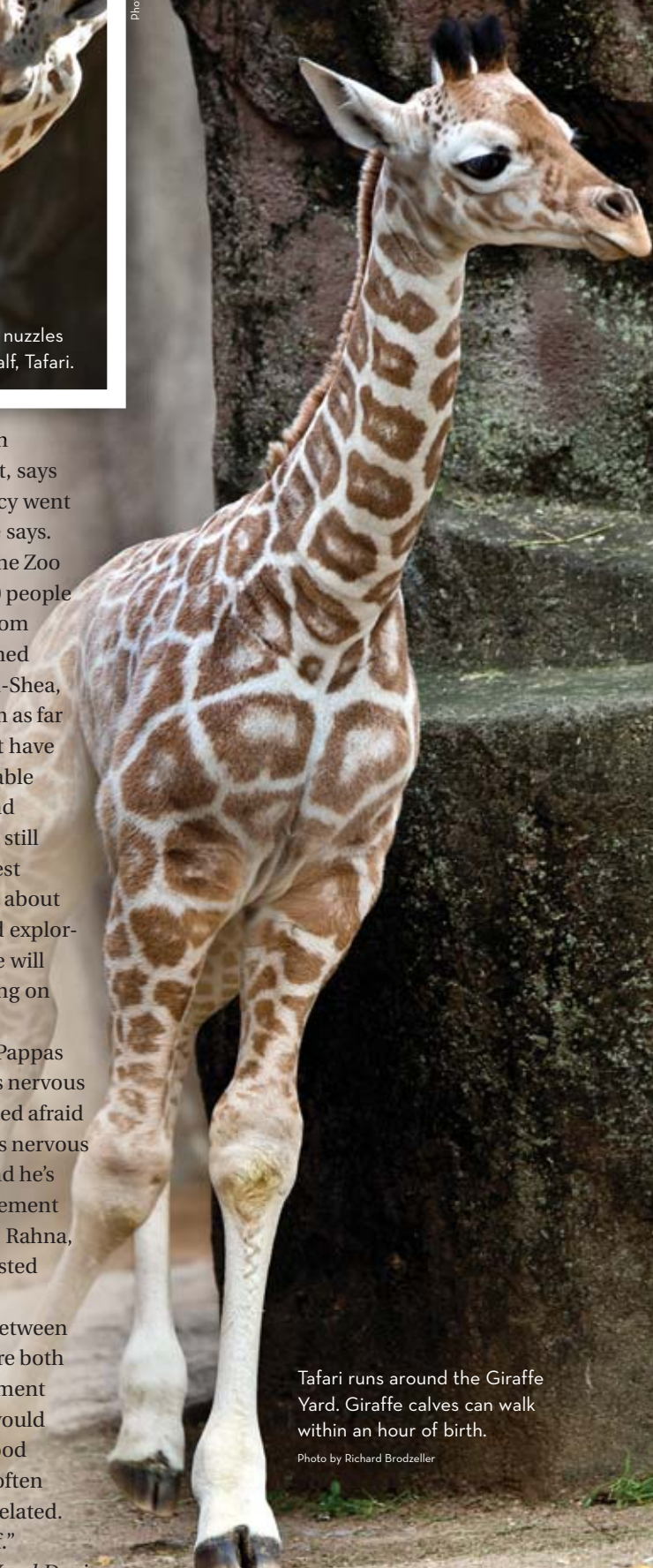
By Stacy Vogel Davis



Ziggy nuzzles her calf, Tafari.

Photo by Richard Brodzeller

What's Gnu?



Tafari runs around the Giraffe Yard. Giraffe calves can walk within an hour of birth.

Photo by Richard Brodzeller

Colobus Coming Outside



It's a wonderful thing when you can take a deep breath of fresh, warm spring air after a long winter. The Zoological Society of Milwaukee wants to help the Colobus monkeys do just that. The 2015-16 Annual Appeal will raise money for the Zoo to create an access corridor to an outdoor yard so that the Colobus monkeys can experience fresh air, sunshine and trees for the very first time – ever!

Renovations will include:

- Building a secure access corridor to the outdoor yard
- Installing an inline scale to weigh the monkeys within the corridor
- Installing a device that allows medical staff to have protected contact for giving health exams and administering medications without having to use anesthesia
- Adding additional behavioral enrichment areas to place leaves and browse that interest the Colobus monkeys and stimulate their natural foraging behaviors

Donate here!

To give to the Zoological Society's 2015-16 Annual Appeal, please go online to zoosociety.org/Colobus or call 414-258-2333. All donations are tax-deductible.

- Donors of \$100 to \$249 will have their names listed on a sign.
- Donors of \$250 to \$499 will receive larger recognition on a sign.
- Donors of \$500 to \$999 will receive individualized recognition.
- Donors of \$1,000+ will receive larger individualized recognition.
- **Special Limited-time Offer:** Donors of \$2,500+ will receive individualized recognition on a bench to be placed in the Zoo.

Bonnie

Photo by Olga Kortilenko



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Editor
Stacy Vogel Davis

Contributors
Dawn Fleuchaus
Zak Mazur
Dr. Gay Reinartz
Brigham Whitman

Graphic Designer
Roberta Weldon

Printer
NML Graphics