



Alive

In this issue:

Baby Bonanza!

New Home for Elephants

Zoo Time With Grandpa

A Better Life in the Congo



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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I'm proud of the important and serious work we do at the Zoological Society of Milwaukee. But when it comes to baby animals, we turn into kids again faster than you can say "red panda." We love seeing those adorable babies just as much as you do! There has been plenty of love to share this year with the births of a baby armadillo, giraffe, harbor seal pup and the Zoo's first red panda cub. Check out page 8 for more about how the Zoo cares for expecting mothers and new babies plus, of course, some heart-melting photos.

You can be confident those babies and the rest of the animals are getting the best care available here at the Zoo. That was highlighted this year as the Zoo received another five-year accreditation from the Association of Zoos & Aquariums. Accredited institutions meet the highest standards in animal care, facilities and guest services. As the support organization for the Zoo, the Zoological Society is proud of the role we play in helping the Zoo attain this significant achievement. Turn to page 3 to learn more about accreditation and what it means to the Zoo.

The Zoo and Society are demonstrating their commitment to providing animals with the best facilities with Adventure Africa. African elephants Ruth and Brittany recently moved to their new home. I got to tour the Elephant Care Center for myself before they moved in, and let me tell you, it's impressive! This state-of-the-art exhibit will allow the Zoo to provide the very best care for its elephants and an incredible experience for visitors when it opens in spring. But we still need your help to complete the elephant and hoofstock exhibits and begin construction on new hippo and rhino exhibits. Check out my interview on page 6 to learn more about our Window to the Wild Capital Campaign, and visit Elephants.Win2Wild.com to take a virtual tour of the elephant exhibit and make a donation. Thanks so much to everyone who has donated so far. We couldn't do this without your support!

Jodi Gibson

Jodi Gibson, President & CEO
 Zoological Society of Milwaukee

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ON THE COVER: Dr. Lily Parkinson, the Zoo's first-ever red panda cub, was born June 6. Photo by Joel Miller



Credit Where It's Due

On Sept. 22, the Milwaukee County Zoo got some exciting news: It had been accredited by the Association of Zoos & Aquariums (AZA) for another five years. This might seem like standard stuff, but the accreditation process is quite rigorous. The Zoo, with the support of the Zoological Society, had been working through the process for more than a year by that point.

In fact, fewer than 10% of animal exhibitors licensed by the U.S. Department of Agriculture are accredited by the AZA. According to the AZA website, accreditation offers the public confidence that an institution meets or exceeds current professional standards and shows a commitment to animal management and welfare, safety, conservation and education. It also distinguishes accredited zoos from "roadside zoos" and for-profit animal menageries. Here are some other facts about accreditation:

The AZA has **233** accredited facilities in the U.S. and eight other countries, including five institutions in Wisconsin: the Milwaukee County Zoo, Racine Zoo, Henry Vilas Zoo in Madison, NEW Zoo & Adventure Park in Green Bay and International Crane Foundation in Baraboo.



Accreditation allows the Milwaukee County Zoo to participate in animal exchanges with other AZA institutions. Animals are often exchanged for breeding purposes. As the snow leopard came to Milwaukee from the Rosamond Gifford Zoo in Syracuse, N.Y. Photo by Richard Brodzeller



In 2017, institutions accredited and certified by the AZA funded **\$220 million** in field conservation, led **2,800** education programs and contributed to **170** peer-reviewed publications.

The AZA operates Species Survival Plans® for select species – often endangered or threatened animals – in order to keep the captive population healthy and genetically diverse and to promote conservation of the species in the wild. The Milwaukee County Zoo participates in about **90** Species Survival Plans with the AZA, including one for Humboldt penguins.

Photo by Richard Brodzeller

The Zoological Society of Milwaukee, as the support organization for the Milwaukee County Zoo, helps the Zoo maintain its accreditation through conservation and education efforts. The Society operates the Bonobo & Congo Biodiversity Initiative in the Democratic Republic of Congo. Its Education Department operates Zoo Classes & Camps, Kohl's Wild Theater and many school programs, with **300,000** encounters annually.

Photo by Bob Wickland

The Milwaukee County Zoo has been accredited for **42 years**. Only four institutions have been accredited for longer.



Coordinating Conservation

If you have a question about the Milwaukee County Zoo, Kari Williams probably knows the answer. She's worked for the Zoological Society of Milwaukee and then the Zoo since 2000, mostly in the areas of conservation, program evaluation and audience research. She has a degree in zoology and biological aspects of conservation, so she knows a lot about animals and how the Zoo cares for them.

Now Williams is taking on a brand-new role as the Zoo's first conservation, research and sustainability coordinator. These are all things the Zoo has done for a long time, but now there will be one person coordinating those efforts. "Conservation is very important to us, but before it was kind of conservation by committee," says Chuck Wikenhauser, Zoo director. The new position "has allowed us to step back and figure out where we want to focus our efforts." The Milwaukee County Zoo contributes financially to several conservation organizations, including the Zoological Society of Milwaukee's Bonobo & Congo Biodiversity Initiative, which studies and protects bonobos in the Democratic Republic of Congo. Many zookeepers and other Zoo staff participate in volunteer conservation efforts around the world.

In addition to tracking the Zoo's conservation expenditures, Williams oversees the Round Up for Conservation program, which allows Zoo guests to round up their food and gift shop purchases as a donation to wildlife conservation. She works with senior animal staff to stay up-to-date on organizations the Zoo supports or could potentially support. "We tend to support conservation projects that support animals in our collection," such as Humboldt penguins, polar bears and African elephants, Williams says. The Zoo also tends to support organizations that take a holistic approach to conservation, including outreach and education efforts.

In her new role, Williams keeps track of the many research requests the Zoo receives. For example, ape researchers often ask to study the Zoo's bonobo group because it's the largest in North America. When someone submits a research request, Williams can ask important questions such as whether the researcher needs behind-the-scenes access, how long the project will take and how the researcher plans to publicize the

results. Then she follows up by collecting the published research, which often comes out years later.

She will also coordinate sustainability efforts at the Zoo. The Zoo has taken steps to be more environmentally friendly in recent years, including adding more recycle bins, participating in energy-reduction plans and installing rain gardens. In 2018, it won the Governor's Tourism Stewardship Award for its sustainability and conservation efforts.

Williams plans to build on these efforts. She leads the Zoo's Green Committee, which brainstorms ideas and researches how to enact them. She hopes to add more refillable water-bottle stations at the Zoo after the first one was installed in the U.S. Bank Gathering Place this summer. She notes that Service Systems Associates, the Zoo's concessions and gift shop partner, recently began selling a reusable cup and straw that guests can bring back on future visits for inexpensive refills.

Wikenhauser says Williams is the perfect person for this multi-faceted job. "Kari is very good at researching," he says. "She already had a background in conservation and tremendous analytical abilities." Williams says she's excited to grow into a new role at an institution she cares deeply about. "I've been lucky in all the jobs I've held. They've provided me the opportunity to grow professionally, surrounded by lots of people who work here because they're passionate about what we're doing."

By Stacy Vogel Davis



Kari Williams explains to families attending Party for the Planet in May how the Zoo's concessions partner has reduced packaging in some of its products.

Photo by Paul Ruffolo

Below: Part of Williams' job is to expand on the Zoo's current sustainability efforts, such as its rain gardens.

Photo by Richard Brodzeller



Making Memories with Grandpa

Autumn and her grandfather, Terry Herbst, mark which animals live at the North and South Poles on a balloon globe.
Photo by Paul Ruffolo



The families are just arriving on a rainy Friday afternoon for “Polar Pals” class at the Zoological Society’s education building. Excited kids check in with their parents or grandparents and then start exploring free-choice activities to learn more about penguins, polar bears and other animals that live at the North and South Poles.

Autumn, age 4, is ready to go. She came here all the way from South Beloit, Ill., to spend the day with her grandfather, Terry Herbst. She brings him to a table where they can put animal stickers on a balloon that looks like a globe. “What goes at the North Pole?” Terry asks. “Penguins!” Autumn answers. Terry gently corrects her: “No, not at the North Pole. They live at the South Pole.”

Terry already knows what’s coming. He took this class with his older grandchild, Bennett, and intends to take it again when his youngest grandchild, Greyson, reaches this age. In fact, Terry has attended more than 80 Zoo Classes with his three grandchildren.

He started taking the classes when Bennett, now 7, was 2. “I thought it would be fun to get him something different, get him out to a class,” he says. “I signed up for one class and told my daughter I’d take him to the class, see how he enjoyed it, and he had a good time. I signed him up for the next one, and when the next sessions came around I signed up for all of them.” He drives the hour and a half to South Beloit to pick up each child for class, or his daughter brings the child to Terry’s St. Francis home. The grandchild taking the class often gets to spend the night with Grandma and Grandpa as an added bonus.

“They get so excited about going,” Terry says. “The youngest one, he knows his next class is bats, so he’s talking about bats.” Terry says the classes keep the kids engaged the entire time, and

he’s surprised at how much they retain afterward. Last year, he was walking around the Zoo with Autumn when a school field trip passed by. The teacher asked the students the difference between a monkey and an ape. “Nobody answered, and all of a sudden I hear a voice who says ‘I know.’ And little Autumn tells them the difference between an ape and a monkey, and that was about four months after the class.” (In case you’re wondering, the answer is that monkeys have tails and apes do not.)

Even though Terry goes through the classes multiple times, he still enjoys them. “Some of the best memories are when we get right next to the animals. We went into the elephant barn (during elephant class). The bat class is one that the kids remember because the keepers actually get the bat out and feed it a grape.” When it’s suggested that he could probably teach the classes by now, he demurs. “The teachers are just wonderful,” he says. “It seems I learn something new every time.”

By Stacy Vogel Davis

VISIT [ZOOSOCIETY.ORG/EDUCATION](https://zoosociety.org/education) to learn more about **ZOO CLASSES & CAMPS**. Spots remain for some winter and spring classes, sponsored by Meijer. Registration for Zoo Summer Camps, sponsored by Penzeys Spices, begins Feb. 19 for Zoo Pass members.

ZOO CLASSES & CAMPS MAKE GREAT GIFTS!

You can buy Zoological Society gift cards from the Education page.

Jodi Gibson, president and CEO of the Zoological Society of Milwaukee, announces the Window to the Wild Capital Campaign at a press conference in May. Photo by Paul Ruffolo



ADVENTURE AFRICA MARCHES FORWARD

In May 2018, the Zoological Society of Milwaukee and Milwaukee County Zoo announced the Window to the Wild Capital Campaign to help reimagine the Zoo over the next 25 years. The first phase of the campaign supports Adventure Africa, a series of new exhibits for elephants, hippos, rhinos and African hoofstock. The Zoological Society is raising \$25 million to support Adventure Africa.

This spring, the first portion of Adventure Africa will open with new elephant and hoofstock exhibits. But that doesn't mean our work is done! Zoological Society President and CEO Jodi Gibson explains why we still need your help to make Adventure Africa a reality.

Q: What is the Zoological Society's role in Adventure Africa?

A: The Zoological Society of Milwaukee is a 50-50 partner with Milwaukee County to help create the largest transformation of the Zoo in recent history. Our goal is to cover at least half of the cost associated with the Adventure Africa exhibit, which includes transforming the spaces for our elephants, African hoofstock, hippos and rhinos, and that ultimately represents 25% of the developed footprint of the Zoo. So far we've raised more than \$17.7 million toward our \$25 million goal. So we've made great progress, but we still have a ways to go.



Chris Keene, left, and Julie Radcliffe of the Zoological Society's Creative Department discuss plans for the elephant exhibit graphics with Ben Mattson, the Zoo's maintenance manager. Photo by Joel Miller

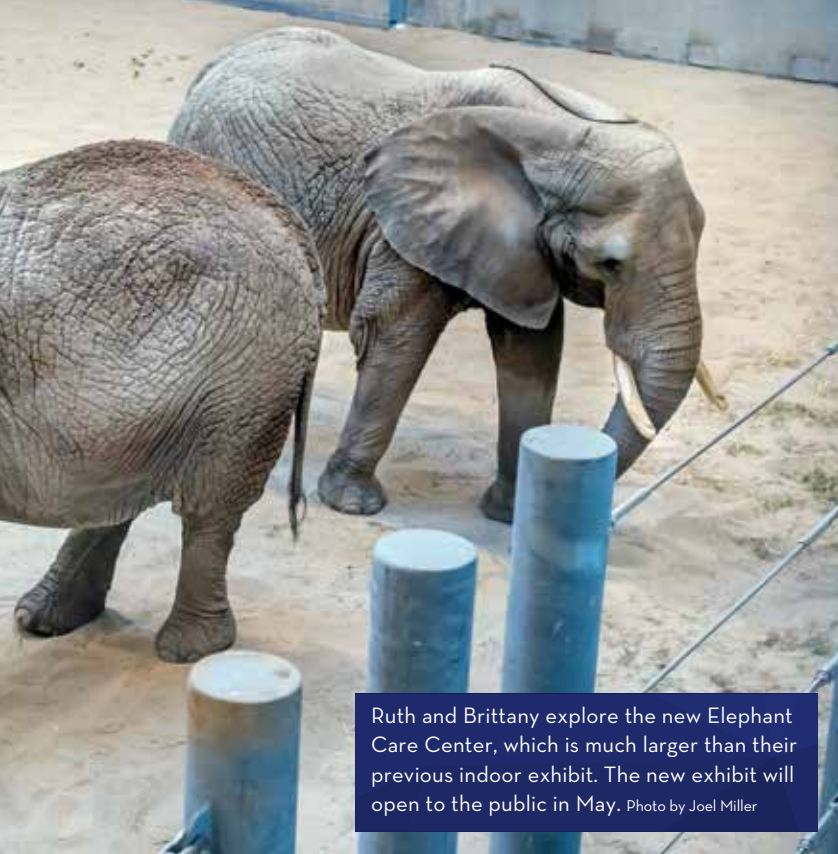
Q: Why do you still need to raise money if the elephant exhibit is almost done?

A: In order to effectively do the construction, we needed to break it down into three pieces starting first with our elephants and hoofstock, next with the hippos and then moving on to the rhinos. So the construction may happen in phases, but it is one big project and we haven't raised all the money to complete the whole project.

Q: How will Adventure Africa be better for the animals and guests?

A: When we put our master plan together, we had two key objectives in mind. One was to make sure we provided the very best care for our animals, and the second was to create the most amazing visitor experience.

We are dramatically increasing the space available to our elephants and creating a unique indoor experience for the elephants. The space will allow us to be home to up to five elephants. The exhibit includes a demonstration yard to allow guests to see how our zookeepers interact with and care for our elephants.



Ruth and Brittany explore the new Elephant Care Center, which is much larger than their previous indoor exhibit. The new exhibit will open to the public in May. Photo by Joel Miller

TELLING THE ELEPHANTS' STORY

The elephants' new home is several times larger than their previous exhibit, offering the animals more space to roam and engage in natural behaviors. It also offers more space to educate people about elephants. "I want people to learn about elephants in the wild and our role in helping to conserve them," says Tim Wild, large mammal curator. "And I want them to see the Zoo side of it and how much work and care goes into having elephants in the collection."

Staff members from the Zoo and Zoological Society – including zookeepers, curators, educators and graphic designers – have been planning the educational and interpretive graphics for more than two years. They hope the graphics help people of all ages and backgrounds get the most out of the exhibit and come away with a strong commitment to elephant conservation. "Our job is to create a great appreciation for these animals," says Julie Radcliffe, Society interpretive graphics manager. "We want to educate people and create some empathy."

The Society's Creative and Education departments worked closely with Zoo staff to identify messaging for a new exhibit. Mary Kazmierczak, the Zoo and Society's information specialist, researches animal facts, while the Society's Education Department makes sure the graphics are relevant to a variety of age groups. Some of the signs are created in-house, while others are created by local businesses.

The team chose "A Day in the Life of Elephants" as a theme, focusing on elephants in the wild in the outdoor areas and the elephants at the Zoo inside the Elephant Care Center. Indoor graphics will highlight the great care the elephants receive, including health care and enrichment opportunities. Some graphics will be interactive, such as an area where kids can practice being a "junior zookeeper."

Outside, "adaptation stations" that look like tiny huts will show some of the adaptations African elephants have to survive in the savanna, such as their large ears and complex trunks. "Elephants are so unique that there is a lot to talk about that is different from any other animal," Wild says. The former Wolf Woods building will become a conservation outpost. "We want to communicate what's amazing about these animals, but also what is threatening these majestic animals in the wild, what we as a Zoo and Zoological Society are doing to help and what visitors can do," says Chris Keene, Society creative director. The exhibit will also include "emotional impact statements" such as quotes, poetry and pictures to emphasize the beauty and wonder of elephants, Radcliffe says. "They are creatures worth caring about and saving."

By Stacy Vogel Davis

With the hippo exhibit, our goal is to create an underwater exhibit. We believe it will be only the eighth underwater hippo exhibit at any zoo across the U.S. Hippos spend most of their day underwater, so right now when you come to our Zoo you often just see the top of the hippo. In the new exhibit, you will be able to get up close to the hippos swimming in a very large pool with only a glass barrier separating you. We know that the elephant and hippo exhibits will make our Zoo a destination throughout the region. The work we're doing on the rhino exhibit is still being designed but equally important.

Q: What are you most excited about for the new elephant exhibit?

A: I visited the Milwaukee County Zoo as a young child, and one of my favorite pictures is of me and my family out at the elephant exhibit. And the exhibit that is there today is the same one that was here when I was a child. To be a part of transforming what that looks like as an adult and to make sure that children who are the same age as I was in that picture have the very best and most modern and engaging experience is something that really excites me today. We have a responsibility to make sure for the animals, as well as our visitors, that we maintain that world-class status.

Q: How can I help?

A: While we've been fortunate to have some significant lead gifts to the campaign from the Dohmen Family Foundation, the Holz Family Foundation and the Ladish Company Foundation, we also know that a large number of small gifts can make a meaningful difference. We invite people to make a contribution via our website, [Elephants.Win2Wild.com](https://www.milwaukeezoo.org/elephants-win2wild). Also at our website, you can take a look at the virtual reality tour of the elephant exhibit to really get a sense of what we're doing and follow the journey of the construction project.

Baby Boom



Left: Sydney nuzzles her pup Milo, her fourth baby with mate Ringo. Mother harbor seals touch noses with their pups often.

Right: Dr. Lily Parkinson was the first red panda cub born at the Milwaukee County Zoo. She was named after the veterinary resident who spotted her on the ultrasound. Photos by Joel Miller



Babies. Whether they're human or animal, just about everyone can agree they're the most adorable things on the planet. They're also, as any new mother can tell you, a lot of work.

Keepers at the Milwaukee County Zoo have taken on quite a bit of that work lately – not that they're complaining! The list of mammal births in recent years is long and includes some firsts, such as the first harbor seals and the first red panda born at the Zoo. One characteristic of mammals is that they're born live, as opposed to hatched from eggs. But just as there is a huge variety in types of mammals, there are lots of differences in the ways mammals give birth and raise babies.

The first step is determining if an animal is pregnant. Keepers carefully observe animals for changes not only in their bodies but also in their behavior. "We can tell a lot by watching (male giraffe) Baha's reaction to the females," says Joan Stasica, Zoo pachyderms supervisor. "Baha reacts in specific ways when a female giraffe goes into heat. When his reactions cease, it's a sign that the female is most likely pregnant." Some animals start to show as the pregnancy progresses, but others, such as the Moholi bushbaby, gain very little weight. In that case, the only way to prepare for a pregnancy is to track when the animals breed and assume the female could be pregnant, says Rhonda Crenshaw, small mammals supervisor.

Some of the Zoo's animals, such as the harbor seals, red pandas and many apes, are trained to undergo ultrasounds. The Zoo was able to confirm that Dr. Erin Curry, the red panda, was pregnant through an ultrasound May 10 before she gave birth June 6. The ultrasound allowed veterinary resident Dr. Lily Parkinson to estimate Dr. Erin's due date within a couple of days. Like her mother, the cub was named for the resident who spotted her on the ultrasound.

With giraffes, an ultrasound is not feasible. Instead, veterinary staff confirms a pregnancy by testing fecal samples for certain hormones. But this method doesn't provide a due date. In fact, keepers waited six weeks past the expected due date for Ziggy to deliver her first calf, Tafari, in fall 2015. Giraffes are pregnant for 14 to 15 months, one of the longest gestation periods in the animal kingdom.

Keepers create a birth plan for each pregnancy, but their goal is to stay out of the way as much as possible. Keepers often aren't present for births, which typically take place at night. When possible, the keepers set up a camera to watch the birth remotely. "It will stress them out completely if we're just sitting there watching," Crenshaw says. Veterinarians only get involved if the mother is having trouble delivering, in which case they might sedate the mother and try to assist with the birth or attempt a C-section, says Dr. Vickie Clyde, senior staff veterinarian.

Continuing the hands-off trend, keepers typically don't handle the baby at first. Instead, they watch for signs that the baby is healthy. For example, a giraffe calf should be standing and a harbor seal should be swimming within about an hour of birth. Healthy mammal babies nurse often and start gaining weight quickly.

Keepers also observe the mother to make sure she's adjusting to her new role. "A harbor seal mom should be attentive to the pup, touching noses often and responding when the pup vocalizes," says Dawn Fleuchaus, North America supervisor. "Sydney (the female harbor seal) is a good mom." Keepers watch carefully to make sure mothers don't neglect or even harm their babies, especially if it's their first one. If that happens, or if the baby doesn't thrive, the keepers and veterinary staff might decide to hand-raise the baby.

The keepers try to give mom and baby plenty of privacy during those critical first days and weeks, even if that means delaying their introduction to the public. For example, the Zoo waited four months before announcing the birth of Lily the red panda and allowing her into the public exhibit. The delay might make Zoo fans impatient, but rest assured, there will be plenty of smiles and "aww"s when a baby finally makes its debut.

By Stacy Vogel Davis



Giraffe calf Tafari was born Sept. 16, 2015, about six weeks after zookeepers expected him. Giraffe mothers are pregnant for 14 to 15 months. Photo by Richard Brodzeller

Zoo Staff Saves Armadillo Baby

Nobody knows why Mona the southern three-banded armadillo tried to harm her baby. Maybe she didn't understand what to do with a baby. Maybe she sensed the baby would not survive in the wild, since she wasn't nursing. Whatever the reason, the staff at the Small Mammals Building acted quickly to save baby Mira. They began hand-raising her, taking her home at night to provide round-the-clock care.

Because Mira wouldn't suckle a bottle, the staff tube-fed Mira for the first couple of weeks until she could lap up formula from a bowl. Finding the right formula was a challenge, says Rhonda Crenshaw, small mammals supervisor. "She needs to grow bone and shell at the same time. In order to do that, you need a huge amount of calcium and protein." Hand-raised armadillos at other zoos have all developed metabolic bone disease, if they survived at all. The Zoo veterinarian consulted a nutritionist for advice on what to put in the artificial



Mira the armadillo baby was hand-raised by Zoo staff because her mother tried to harm her. Photo by Joel Miller

formula. "We adjusted her diet by adding different supplements until we found what worked the best," Crenshaw says.

Along the way, Mira suffered several setbacks, including periods when she wouldn't eat and couldn't walk. The staff built stairs and a ramp for her to climb and had her walk through water to strengthen her muscles and bones. The veterinarians increased her vitamin and mineral supplements when she developed metabolic bone disease at 6 months. Crenshaw is optimistic they can eventually reverse the disease.

At nearly a year, Mira is now as large as her mom and very active, Crenshaw says. She eats canned kitten food, yogurt, wax-worms, crickets and kibble for insectivores. Crenshaw hopes other zoos will be able to learn from Mira's story if they hand-raise armadillos in the future.

We ♥ Animal Babies

It's been a busy year for parents at the Zoo – there were a lot of babies born this year! Wallace, a Humboldt penguin chick, hatched April 20; Maya, a giraffe calf, was born May 15; Milo, a harbor seal pup, was born May 30; and Dr. Lily Parkinson, a red panda cub, was born June 6. While all new babies are a reason to celebrate, Lily's birth is especially exciting because she is the first red panda cub to be born at the Zoo. Red pandas can be found in central China, northern Myanmar and the mountains of Nepal. They are endangered, which makes every single red panda cub that much more special!

Make Your Own Red Panda Cub

You will need:

- 1 clothespin
- Hot glue gun (with adult supervision)
- 1 large brown pom pom
- Black marker
- 3 small white pom poms
- 4" ribbon in color of your choice (optional)
- 2 small googly eyes

Directions:

1. With the help of an adult, use the hot glue gun to attach one brown pom pom to the clothespin.
2. Glue two white pom poms to either side of the top of the brown pom pom to make ears.
3. Glue another white pom pom to the front of the brown pom pom to make a snout.
4. Place two googly eyes above the white pom pom.
5. Color a black dot on the snout for a nose.
6. Tie the ribbon in a bow around the clothespin below the brown pom pom.



Goat photo by Mike Nepper; red panda and harbor seal photos by Joel Miller



Bear CUB Toast

Make breakfast extra special with this treat! In most bear species, bear cubs are born while the mother hibernates over the winter and emerge with the mother in spring. Polar bears don't hibernate, but pregnant polar bears create snow dens as they wait for their cubs. The mother will remain in the den for four to eight months caring for her cubs. You can turn your toast into a brown bear or polar bear cub with the recipe below.

Ingredients:

- A slice of bread
- Peanut butter or cream cheese
- Cinnamon/sugar mixture
- Banana
- Three raisins

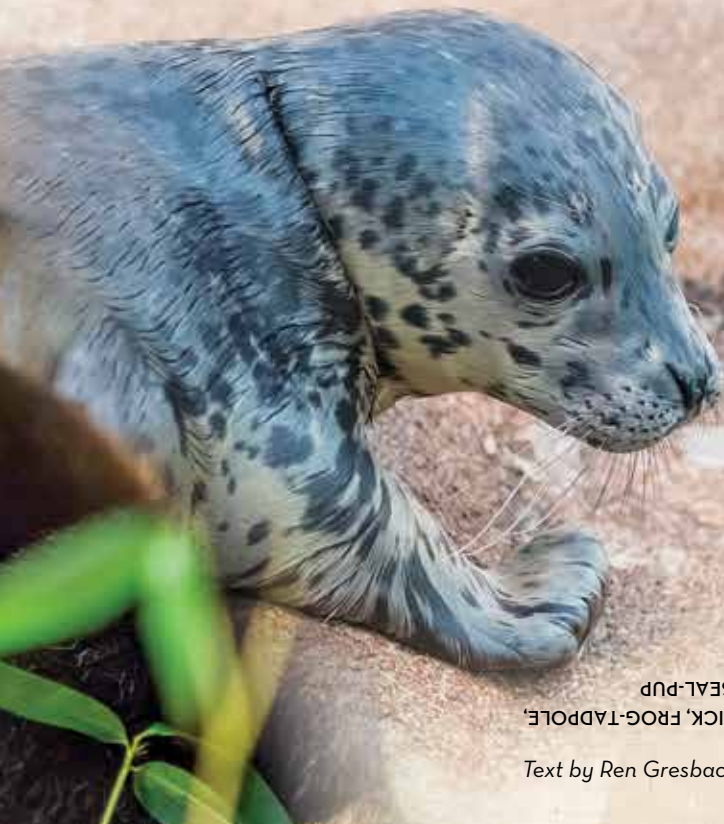
Directions:

1. Toast bread and spread peanut butter on one side, or use cream cheese to make a polar bear cub.
2. Sprinkle with cinnamon and sugar.
3. Add a banana slice in each top corner and one in the middle.
4. Use raisins to make two eyes and a nose.
5. Enjoy your snack!



Test Your Knowledge

How well do you know the names of animal babies? Match the animal to its baby. Find the answers at the bottom of the page.



Animal Name	BaBy Name
Red Panda	Duckling
Bactrian Camel	Tadpole
Duck	Cub
Penguin	Kid
Frog	Cygnets
Swan	Pup
Horse	Calf
Goat	Peachick
Peafowl	Foal
Harbor seal	Chick

ANSWERS: RED PANDA-CUB, BACTRIAN CAMEL-CALF, DUCK-DUCKLING, PENGUIN-KID, FROG-TADPOLE, SWAN-CYGNET, HORSE-CALF, GOAT-KID, PEAFOWL-PEACHICK, HARBOR SEAL-PUP



CONGO CONSERVATION EFFORTS HELP PEOPLE, TOO

Dimaro Ndombe and Mbuta Botuli say life has changed for the better in their village of Tompoko since the Zoological Society started conservation work in the area. Photo courtesy of BCBI

Conserving animals in the wild is never simple. Meeting people's needs and supporting conservation are often viewed as opposing goals, especially in parts of the world where people live in extreme poverty. But it doesn't have to be that way.

The Zoological Society of Milwaukee has been working since 1997 to study and protect the bonobo in the Democratic Republic of Congo, the only country where the great ape is found, through its Bonobo & Congo Biodiversity Initiative (BCBI). It supports several anti-poaching patrol posts in the Salonga National Park, one of the world's largest rainforest preserves. But BCBI wouldn't have achieved much without earning the support of local residents, such as the residents of Tompoko, a village of about 400 inhabitants near Etate, the first research station and patrol post supported by BCBI.

Patrick Guislain, BCBI project field coordinator, recently interviewed two Tompoko residents: Dimaro Ndombe, school director and farmer, and Mbuta Botuli, village notable (community leader) and fisherman. Here, they describe the changes they witnessed in their village over nearly two decades of support from BCBI and its partners, including the World Wildlife Fund and the U.S. Agency for International Development (USAID).

Tompoko is cut off from main roads by swamps. Historically, the community has lived off hunting, fishing and small-scale agriculture. What eventually became the Salonga National Park in 1970 was their ancestral home. With the creation of the park, the villagers lost access to some of the forests where they hunted, although the laws weren't enforced until the early 2000s as BCBI stepped up support of anti-poaching patrols. However, that is also around the time the villagers' lives changed for the better.

Dimaro recounts how a massive surge in military poaching between 1978 and 1985 left his community forests devoid of elephants, red river hogs and other game. Even though populations of forest antelopes slowly recovered over time, Tompoko was still in bad shape by the early 2000s. With little game available, the

villagers lived in poverty. Moreover, their ancient crop varieties were prone to disease. Their little thatch school building had fallen apart, and classes had not been taught in years. Tompoko was not alone; in the country's interior, there had been a general decline in government services resulting in a steady loss of education for at least a generation.

Mbuta remembers well when things started changing for the better: In 2001, he witnessed the creation of Etate, a patrol post in the Salonga National Park just across from Tompoko. The patrol post, manned year-round by up to 10 guards, was also a research station supported by the Zoological Society of Milwaukee. Over the next three years, the villagers gradually started selling their produce to the patrol post.

Dimaro recalls how the village took the courageous step to reinvest in its future and the future of its children. Village notables approached the Zoological Society, asking for assistance to rebuild their school. By 2004, the Tompoko school was up and running again. For the next 15 years, BCBI would provide Tompoko with modest teacher salary support, blackboards, schoolbooks, chalk and notebooks. The villagers would maintain the school building and create a parent committee to oversee the teachers and materials. In turn, they would continue to sell produce to Etate.

Because Etate is located far away from commercial centers, the Etate guards needed a reliable, local source of food. This marked the beginning of a budding collaboration between Tompoko and the park. As of 2017, the Tompoko school had enrolled 118 children, and steady rations enable Etate guards to thrive and mobilize anti-poaching patrols.

In order to increase local agricultural yield, BCBI set up an agricultural program between 2006 and 2010, supported by the U.S. Ambassador Self-Help Fund and USAID, for Tompoko and seven other neighboring villages. As a village notable, Dimaro helped organize the distribution and multiplication of improved crop varieties for staples such as rice, beans and peanuts. Tompoko increased its crop production over the same field surface area thanks to the improved crop varieties

and new farming techniques. The needs of the Etate guards stimulated the market, and the village could even sell surplus crops to nearby larger villages. When Lotulo, a second nearby patrol post, was created in 2012, the market demand for guard rations doubled. The Zoological Society negotiated a guaranteed market with Tompoko that included fixing fair prices for certain staples. The guaranteed market for patrol rations brings a yearly average influx of \$10,000 into Tompoko's economy.

When asked to compare the living standards in Tompoko with other villages in the region, or with their own situation in 2002, Dimaro and Mbuta describe the increased number of adobe houses in Tompoko, the better clothes the villagers wear, their varied diet, the better school organization and equipment, and

the higher number of lighted houses in the evening. They emphasize that it is the combination of their better income and the well-run school that makes Tompoko thrive. Dimaro points out that the villagers now have the financial means to provide secondary education for the Tompoko children. For example, six of his own children have already completed secondary school. One son recently obtained his university diploma and now works for the Democratic Republic of Congo's river authority in Kinshasa, the country's capital. Today, four of the six Tompoko school teachers are former students of that same little elementary school.

When asked if it would be better for Tompoko if the Salonga National Park would cease to exist so they could again have access to the park's riches, Dimaro and Mbuta ponder the question. Both agree that they were indignant when their ancestral hunting and fishing grounds became off-limits because of the park's creation. Over time, however, their views have become more pragmatic. Sitting in the Etate hut, they construct a logical chain of thought:

“When there is no park, there are no guards, and the Zoological Society is not here. We will have neither market nor school. Tompoko will be poor again, and our children will be illiterate. Everyone else from far away will enter our ancestral forest to hunt and fish, not just us. No, we cannot accept that the park will disappear! We would regret it if our children will never know elephants.”

Positive change is often not easy to measure at first. The symbiotic relationship that has developed between the Tompoko village and the Etate Patrol Post is one example that can only be measured in small steps over years of sustained effort and support. Accepting that community benefits arise from the existence of a national park is the first step toward ensuring long-term survival of the park and becoming its advocate.

The Zoological Society's Bonobo & Congo Biodiversity Initiative operates as a partner with ICCN, the Democratic Republic of Congo's park authority, and with support from the World Wildlife Fund/USAID, the U.S. Fish & Wildlife Service, and private foundations and individuals.

By Patrick Guislain



Above: Two patrol posts supported by the Zoological Society buy produce for their guards from Tompoko villagers.



Left: The Zoological Society provides blackboards, schoolbooks and other supplies to local schools in the Democratic Republic of Congo along with teacher salary support. Photos courtesy of BCBI



Zahra is thriving in her new home at the Columbus Zoo along with surrogate mother, Toni. Photos by Graham Jones



RAISING ZAHRA

Described as energetic and delightful, 1-year-old Zahra, a western lowland gorilla, is thriving in her new home in Columbus, Ohio. She climbs around her exhibit, investigates enrichment items, plays with other gorillas and seeks comfort from her surrogate mother. Basically, Zahra is acting like a young gorilla – something that wasn't guaranteed. Zahra's parents both died from complications related to E. coli at the Milwaukee County Zoo in April 2018, leaving the then 7-month-old in the hands of keepers. While the outcome was a success, it was a long journey. Here is what it was like raising Zahra.

The First 48 Hours

After the sudden deaths of silverback gorilla Cassius and dam (mother) Naku, Zahra appeared healthy but was now an orphan. Young gorillas are nurtured continuously by their mothers and rely on them for all of their needs and comfort. She was now without her mother for the first time in her life.

The Zoo's keepers rose to the challenge of raising little Zahra. She was never alone. Gorilla zookeeper Dawn Kruger says she didn't have time to mourn the loss of Naku; it was all about Zahra. "Zahra definitely didn't understand the role of a human surrogate in place of her mom, so she was a little frightened of us at first." Trained staff stayed with Zahra 24 hours a day. Since the gorilla area was under strict quarantine, keepers had to wear gloves, masks, boots and additional covering over their clothes. "We didn't want to risk anything contagious that could be transmitted to the baby, the other primates or to us," says Kruger.

To help ease Zahra, keepers also brought her to the gorilla's off-exhibit holding area so she could see the other gorillas from her group – Shalia, an adult female, and Shalia's son, Sulaiman or "Sully." The gorillas could see each other through mesh, giving them some sense of normalcy. While all of this was happening, Trish Khan, Zoo curator of primates and small mammals, kept in constant contact with the Association of Zoos & Aquariums' Gorilla Species Survival Plan® (SSP). "They were instrumental in giving the staff the support they needed. They are very experienced in hand-rearing gorillas," Khan says. An experienced gorilla keeper from Lincoln Park Zoo in Chicago came to help within the first 48 hours. She had hand-rearing experience and came with a box of items to help, including a gorilla vest. The vest has synthetic gorilla hair so a baby gorilla can hold on to whoever is wearing it.

Critical Challenges

"Those first few days were very critical. Zahra had to start accepting the keepers in their new role as surrogates," Khan explains. "She had to learn to rely on them for her security and food." Zahra was moved to a large, heavily bedded room where she could feel safe and could concentrate on the keepers. Once there, she started to trust the keepers more and could focus on important things like how to eat. Zahra had only tasted mom's milk, so getting her to try something new was a challenge. Keepers had to get her interested in trying formula and a bottle.



Left: Zookeeper Dawn Kruger helped Zahra learn to ride on a gorilla's back to help her adjust to a surrogate mother. Photo courtesy of Dawn Kruger

Right: Zahra had to grow stronger and more independent before meeting her surrogate family. Photo by Joel Miller

Because keepers needed to be with Zahra 24/7, Kruger says there were about 15 people on “Team Zahra.” Covering every minute of every day took a lot of teamwork. “Sometimes we had to split a shift because staff had other obligations in their life. That was the hard part; we were taking them out of their own family lives to help this little infant. You can’t live there 24/7 – I tried.”

Help also came from other AZA-accredited zoos. In addition to Lincoln Park Zoo, keepers from Seattle and then Columbus, who were also experienced in hand-raising gorillas, spent time in Milwaukee assisting staff with the large time commitment needed to care for little Zahra around the clock.

Preparing for the Future

Even though her ultimate placement was unknown, keepers had to begin preparing Zahra to live in a gorilla troop. Zahra was just starting to show some independence with Naku and had started to explore on her own. But, as Kruger explains, Zahra needed time to reach certain milestones. “She had to build her coordination and muscles. In order to be successful in a gorilla family, she needed to be able to navigate everything, to climb or be able to get away.” Keepers also had to teach Zahra to come to the mesh at the front of her enclosure to get her bottle, just in case her surrogate mother wouldn’t take her to the food. Finally, Zahra had to learn how to ride on the back of a gorilla, a fairly common mode of transportation used by gorilla mothers. While Naku never used it, keepers had to prepare Zahra in case her surrogate did. Zahra was encouraged to ride on the backs of keepers as they wore the gorilla vest to get her comfortable with the idea. “That was one thing that was nice about her age; she actually picked up on everything she needed to very quickly.”

As Zahra was preparing for her new life, the SSP was looking for her future home. Khan explains Shalia was considered as a

possible surrogate, but she already has a young son to care for. “Time was of the essence and it was very obvious Zahra needed to be placed into a stable family group with a silverback, a surrogate mother and others to play with.” A search to find a suitable family for Shalia and Sully is also underway.

The Move to Columbus

The SSP eventually determined that the Columbus Zoo and Aquarium had the best situation for Zahra. The Columbus Zoo has lots of experience and has successfully surrogate-raised 15 gorillas. As an added bonus, its gorilla surrogate team had assisted the Milwaukee keepers in Zahra’s care, so they would be familiar faces for the infant.

After six weeks of preparation, Zahra was ready to move. Kruger held Zahra in her arms for the entire drive to Columbus and also stayed with her for a few days as Zahra explored her new home. Once Zahra was comfortable with where things were and how to navigate around her home, keepers from Columbus gave her visual contact with other gorillas. First up was her surrogate mother, Toni. They bonded quickly and successfully. From there it was a step-by-step process of introducing her to the rest of the group. She is now very close with a 3-year-old female in the group named Kamina. The zoo says that Kamina even carries Zahra around on her back, something she was prepared for thanks to keepers in Milwaukee. The group leader, Mac, is a perfect silverback for surrogate situations because he is tolerant and accepting.

Zahra turned 1 in September. Kruger has visited Zahra in Columbus a couple of times and stays in close contact with the keepers. While it was difficult to say goodbye, Kruger is very happy to see Zahra thrive as a gorilla in a large family group.

By Katie Krecklow



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DATED MATERIAL
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A BIG Project for a BIG Animal!



Happy the hippo. Photo by Olga Kornienko

The hippopotamus is one of the largest land mammals on Earth, weighing 5,000 pounds or more. Yet often all we see of them at the Milwaukee County Zoo are the tops of their heads as they come up for air in their pool. That's because hippos spend up to 16 hours a day in water.

Imagine seeing all 2.6 tons of Happy the hippo as he glides across the bottom of his pool with only a glass barrier separating the two of you. The Zoo and the Zoological Society of Milwaukee hope to make that a reality with a new exhibit that includes underwater viewing. The hippo exhibit is the next phase of

Adventure Africa, which also includes new exhibits for the

elephants, African hoofstock and rhinos. When it opens, the exhibit will be just the eighth in the United States with underwater hippo viewing. It will also be environmentally friendly, recirculating the pool water after it's filtered to save more than 20 million gallons of water a year.

We need your help to make the new exhibit a reality. Please give generously to our 2019 Annual Appeal. Visit zoosociety.org/hippos to donate, or check out the flyer packaged with this issue of Alive. Thank you for helping the hippos!

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