



Alive

INSIDE

Giraffes Reach New Popularity

Frog Crisis

Training a Zoo Vet

An insider magazine for members of the Zoological Society of Milwaukee • October 2006

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

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CEO's Letter



If you have friends or family who haven't been to the Zoo in the last few years, tell them you're surprised because the Zoo has changed significantly thanks to a capital campaign. More than 25% of the Milwaukee County Zoo grounds and exhibits are new or have been remodeled in the last five years.



In July we premiered the dramatically remodeled giraffe facility, called the Miller Brewing Company Giraffe Experience (see page 4). This is one of the animal exhibits that has been so completely re-done that you won't recognize it. Another totally revamped exhibit is the Florence Mila Borchert Big Cat Country feline building. The major donor, Bill Borchert Larson, who was a compassionate and committed friend of the Zoo and the Zoological Society, passed away in July. He will truly be missed.

The Northwestern Mutual Family Farm was renovated in 2005 and has new buildings, new gardens, new animals and new interactive educational programs. Completely new Zoo buildings include a new Animal Health Center, a new monkey house for the macaques, and a new Zoological Society eight-classroom education facility called the Karen Peck Katz Conservation Education Center. This is all thanks to a \$30 million public-private capital campaign run by the Zoological Society and Milwaukee County, with lots of help from donors big and small.

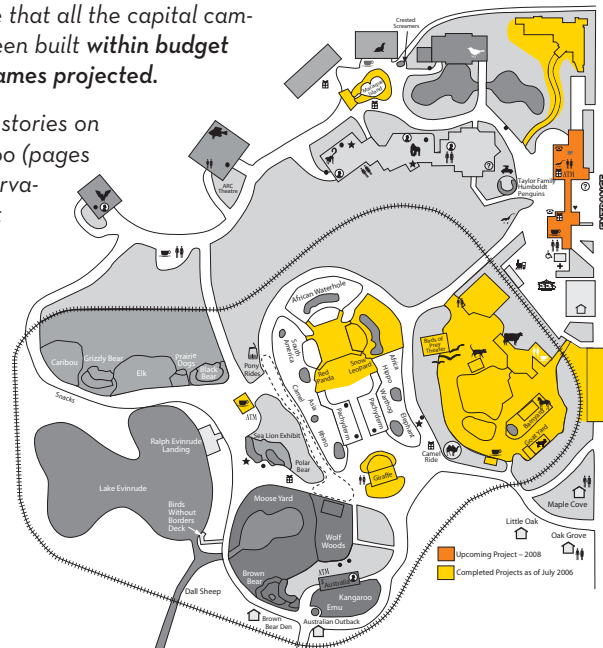
The capital campaign started in 2001 with the opening of the Holz Family Impala Country. In 2002 we built a new restaurant, Lakeview Place, so visitors would have a rest stop and place to eat once they ventured half-way into the Zoo. Eight of the nine campaign projects are completed (see map below showing just how much of the Zoo has been improved). When fund-raising ended in April 2006, the Zoological Society of Milwaukee had raised more than one-half million dollars over its original commitment of \$14.8 million, for a total of \$15,332,127. Milwaukee County provided \$14.8 million, the public half of this multi-year campaign called Expedition Zoo: Your Safari to the Future. Project 9, the U.S. Bank Gathering Place entrance atrium, will be finished in 2008.

Each renovated and new exhibit has been designed with the staff, animals and you the visitors in mind. They are much more naturalistic, educational, interactive and, yes, more fun! In this era of fiscal insecurity, it's also significant to note that all the capital campaign projects have been built within budget and within the time frames projected.

This issue of Alive has stories on how we support the Zoo (pages 4 and 10), about conservation efforts we support (pages 11, 16 and 18) and about how our summer camps are reaching out to diverse audiences (page 8). Thank you for assisting us in living our mission.

Robert Davis

Dr. Bert Davis
Chief Executive Officer



Alive

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Holiday Ornaments

To increase awareness of bonobo programs at the Zoo and bonobo-conservation programs run by the Zoological Society of Milwaukee in the African Congo, the ZSM is offering this beautiful bonobo mom and infant ornament for the holidays. Designed by Port Washington artist Andy Schumann, the ornaments cost \$14 each and raise funds for the Zoological Society of Milwaukee. To order this ornament or pewter animal ornaments from past years, use the form inserted into this *Alive*.



Photo of bonobos at our Zoo
by Jennifer Richards





Heads up! Giraffes Are Back!

Mike Jones pets a giraffe at the grand opening as Jeanine Sweeney of Milwaukee watches. After the exhibit opening, the Zoo allowed visitors only to feed giraffes, not to pet them, and feedings are limited to 16 people at a time so that the giraffes are not overfed.

Who says you can't go home again? The Milwaukee County Zoo's giraffes got a warm welcome back at the July 10 VIP grand opening of the Zoo's new giraffe exhibit, the Miller Brewing Company Giraffe Experience. As Mike Jones, a senior vice president at Miller, helped cut the ribbon to open the exhibit, more than 400 guests had a chance to see giraffes up close from a 6-foot-high deck. A few people even got to feed them. Thousands of visitors flocked to the Zoological Society's member premiere of the exhibit a few days later. "Isn't that amazing? They're so close!" echoed from the deck throughout the premiere as visitors stood just inches away from these graceful giants.

The giraffes seemed to relish this contact. Back from Ohio's The Wilds, the Zoo's longtime female giraffes, Malinde and

Rahna, came up to the deck and curiously eyed their visitors. Bahatika (see page 7), a young male newcomer from the Cheyenne Mountain Zoo in Colorado, fearlessly slurped rye crackers from the delighted guests' hands at the grand opening.

The new exhibit features a spacious environment for the giraffes and an interactive experience for the visitors. A custom-designed cable fence, which offers an almost unobstructed view, surrounds the outdoor exhibit, which has been doubled by expanding into a tree-filled area to the west. The water-filled moat along the north part of the exhibit makes the yard more attractive and serves as a "water hole" for the animals. The exhibit's key feature is the 6-foot-high deck that brings zoogoers to eye level with the animals. Part of the deck even serves as a feeding

The new giraffe exhibit has a moat, an expanded area to the west divided off with cables and a viewing and feeding platform (right).



Capital Campaign Report



Cutting the ribbon to open the new giraffe exhibit were (from left) Dr. Gil Boese, Zoological Society of Milwaukee (ZSM) president emeritus; John Sapp, ZSM Board president; Dashal Young, the Milwaukee County Executive's director of community relations; Zoo Director Chuck Wikenhauser; Dr. Bert Davis, the ZSM's CEO; and Mike Jones, a senior vice president for Miller Brewing Company and a ZSM Board member.

platform. Twice a day during warm weather 16 zoogoers can join a zookeeper in feeding the giraffes treats such as rye-crisp crackers and small tree branches. Tickets for the giraffe feeding are sold in the Flamingo Gift Shop at the front of the Zoo. Our Zoo is one of only about 20 zoos and other attractions in the United States that allow visitors to feed these animals.

The giraffes go indoors when the temperature dips below 50 degrees. Now zoogoers can, too. You no longer have to brave chilly winds standing outside to view the giraffes. The new indoor exhibit is enclosed, heated, and filled with light thanks to several skylights. Inside, there is no wall between visitors and giraffes. Instead, a wide fence of horizontal cables and a railing separate you and the animals. The indoor exhibit also features a fun video

showing giraffe health care, giraffes moving into their new exhibit and a giraffe being born: One minute you see two legs hanging out of mom and the next minute –plop!–mom has deposited the calf on the ground. Kids will enjoy colorful graphics and signs as well as models of bones; they can compare mouse neck bones to giraffe neck bones, for example.

The exhibit has been remodeled behind the scenes as well to help zookeepers better care for the animals. A chute system and a moveable wall in the holding area are designed to allow the staff to examine and treat the giraffes. Keepers are training the giraffes to go in and out of the chutes on their own. This will help keepers trim hooves and do medical exams without anesthesia, which is a high-risk procedure for these animals. Other improvements are



new scales to weigh the giraffes right in the exhibit, a spongy floor that allows the animals to lie down comfortably, a custom floor section that helps keep the giraffes' hooves trimmed, and new transfer doors that make it easier to transport giraffes in and out of the Zoo.

The giraffe exhibit is the eighth project of the New Zoo II Capital Campaign to improve the Milwaukee County Zoo. A ninth project, a new Zoo entrance, will be completed in 2008. This fund-raising campaign raised more than \$30 million and was coordinated through the public-private partnership of Milwaukee County and the Zoological Society of Milwaukee.

In addition to the giraffe exhibit, the projects already completed are the Holz Family Impala Country; remodeled impala and bongo exhibits; a new Japanese macaque facility with a remodeled monkey island; a second Zoo restaurant, this one sitting next to Lake Evinrude; a new Animal Health Center; the Zoological Society's education building, called the Karen Peck Katz Conservation Education Center; a redesigned farm called the Northwestern Mutual Family Farm; and the Florence Mila Borchert Big Cat Country. To come in 2008 is an atrium orientation center and Zoo entrance that will be called the U.S. Bank Gathering Place.

-By Julia Kolker

Thanks to Special Donors

The major gift from Miller Brewing Company made possible the renovation of the Miller Brewing Company Giraffe Experience.

Donors to the Zoological Society's Annual Appeal and New Zoo II Capital Campaign helped us to complete the renovation.

Other special donors:

George Dalton Family - east giraffe yard

Quinn & Jane Martin - west giraffe yard

John & Judy McGourthy - giraffe observation and feeding deck

Donald & Janet Greenebaum - east viewing platform

Leon & Bonnie Joseph Family - indoor observation gallery



The new giraffe exhibit interior (right) has an open feeling with larger skylights and only cables enclosing the animals. The old exhibit (above) had the animals behind bars, and the bars were separated from visitors by glass walls.



A limited number of zoogoers can feed giraffes during warm weather.



Joseph Kresl, president of the Zoological Society Associate Board, and his wife, Jennifer, chat with Deputy Zoo Director Bruce Beehler at the grand opening.



Feeding the giraffes are (from left) an unidentified woman and Mary Talbot and Linda Sapp, both of Hartland.



He's just a youngster—at 7 foot 5

The Zoo's two female giraffes, Malinde and Rahna, have more than a new home. They have a new adopted son, a 1-year-old giraffe named Bahatika, who arrived at the Zoo May 21. Malinde, a 22-year-old mother of seven, took the affectionate Bahatika under her long neck right away. Even 14-year-old Rahna, who's not as motherly, lets Bahatika lie down with her for a nap.

Bahatika is indeed a "fortunate one," as his name means in Swahili, after moving here from the Cheyenne Mountain Zoo in Colorado Springs, Colo. Bahatika, called Baha or Tika for short, is a curious little giraffe, pachyderm keepers Ray Hren and Joan Stasica say. He's always following his keepers around, watching their every move, especially when he spots a bucket of food. "He has all those little kid characteristics," Stasica says.

At the grand opening of the reticulated giraffe exhibit, called the Miller Brewing Company Giraffe Experience, Bahatika even had his own cheering section. Ben and Susan Pepper of Aurora, Colo., flew to Milwaukee to feed him. They had sponsored the giraffe just after he was born in Colorado, and they are continuing their sponsorship through the Zoological Society of Milwaukee.

At about 7 feet 5 inches tall, Baha is much shorter than the Zoo's other giraffes, but not for long. By the time he's 3 or 4 years old, Baha will be 15 feet tall. And as Bahatika gets older, his head will start growing lumps. In the wild, male giraffes spar with their heads and necks in ritualized battles to compete for females, and those lumps cushion the blows. But as the Zoo's only male giraffe, Bahatika won't have anyone to spar with. Baha won't be breeding, either: Malinde is too old, and Rahna is his half-sister.

Bahatika loves to groom, keeping his tall body clean from hoof to mane, his keepers say. Bahatika chews on the hair on his tail, just like people nibble on their fingernails. He even licks the manes of Malinde and Rahna. Giraffes lick everything, Hren says. Giraffes in the wild spend about 90 percent of their day eating acacia-tree twigs and leaves, and licking keeps their mouths busy at the Zoo. Even after eating a mix of herbivore pellets and alfalfa twice a day, Bahatika might lick you next if you get too close.

-By Emilie Rusch



Kids, Camps & Careers



Alexis Garland leans in closer to her patient, DeVonte Ferguson, while learning how to use a stethoscope.

When the white school bus rolled up in front of the Karen Peck Katz Conservation Education Center at the Milwaukee County Zoo, you could hear the excitement of its passengers from the curb. Children's voices poured out from the open bus windows onto the sidewalk, where a mass of parents and children waited for the doors to open. Another day of Zoological Society summer camp was about to begin.

For the 25 Silver Spring Neighborhood Center (SSNC) day campers who piled off the bus, it was their fourth day of having fun and learning about animals. They were among 75 kids attending three weeks of camps at the Zoo (25 kids a week), thanks to an \$18,000 donation from an anonymous foundation that has been a long-time supporter of the neighborhood center and of the Zoological Society.

Jim Bartos, director of the center, which serves the low-income Westlawn neighborhood in Milwaukee, couldn't be happier. "Like children everywhere, our kids love learning about different animals and how they live and thrive in their natural environment. The staff members at the Zoological Society Conservation Education Department love to help kids learn about this, and they teach it with great enthusiasm in interesting ways that keep kids thoroughly engaged in the learning process."

For the 8- and 9-year-old campers at What's Up, Doc? camp on July 13, one of those lessons took place in the Northwestern Mutual Family Farm's goat yard. The campers scurrying around the yard weren't there just to feed goats like the average zoogoer. They were observing the signs of a healthy animal. Lined up outside the yard's gate, campers paired up and received their assignment: Conduct an animal health exam. Carrying clipboards like real doctors, campers filed into the goat yard and ran to examine their first patient. Is the animal's nose moist? Is it playing with other animals? Do its legs look strong? Yes, yes, yes, the campers circled on their charts as the goats gobbled up the food campers fed them. Pretty soon the patients were following the "doctors." "It's fun how you get to learn different names of animals and where they live and how to take care of them," camper Alexis Garland said.

The camps introduced children to animal-related career paths, a feature particularly important to Bartos. What's Up, Doc? taught them about various careers in medicine. In that camp Alton Bufford Jr. was eager to show that he could identify the names of specialized doctors: cardiologists, radiologists, ophthalmologists, neurologists.

Later in the day, after the goat-yard session in the hot sun, campers were back in the air-conditioned classroom ready for

a stethoscope lesson. To compare active heart rates, campers ran in place, smiling and pumping their arms in stationary marathons, until their heart rates were elevated. Then, like the doctors they were practicing to be, campers leaned in and carefully listened to the thump-thump of their friends' hearts. Camper R. Jay Harris said it was the best part of the day. Using a stethoscope, taking blood pressure, examining slides under a microscope are all things most students don't learn until medical school. The science-oriented camp was designed to pique their curiosity about possible careers, summer camp coordinator Kerry Scanlan said.

James Mills, the Zoological Society's interim education director, hopes that this year's pilot scholarship program, funded by the anonymous foundation, will inspire other area donors to ensure that this program continues. Bartos agrees: "It is a great idea and a wonderful opportunity for the children we serve, one that their families could never afford without scholarships."

The donation also allowed the Zoological Society to do something it often cannot: open its summer camps to non-members. Zoological Society members, who are predominantly Caucasian, get first chance to register for summer camps, which fill fast. The popularity of the camps with the Society's membership limits the diversity of campers, Mills said. "Of course, we'd like to reach all children with messages about the importance of the natural world. We wanted to expose children served by SSNC to possibilities they might never have imagined, to develop their sense of curiosity about animals, zoo-related jobs, and their local environment by getting them out of their neighborhood

for several days of experiences at the Zoo."

The funding foundation suggested the pilot program, Bartos said. "The foundation wanted children of color from a low-income neighborhood, like those served by SSNC, to have the same opportunity to attend Zoo camp as children from



A group of 8- and 9-year-old campers were among 75 kids from the Silver Spring Neighborhood Center to spend a week at the Zoo, thanks to an \$18,000 grant from an anonymous donor.

much higher income neighborhoods in Milwaukee suburbs." The center, located at Silver Spring and 64th Street, offers its own structured day camp, said Erin Harrington, SSNC day camp supervisor. The anonymous donation, however, gave about 75 campers the chance to spend one week at the Zoo: a week for 6- and 7-year-olds, a week for 8- and 9-year-olds and a week for 10- and 11-year-olds. Each group attended five one-day summer camps, which were chosen by education staff to reflect a variety of topics, Scanlan said.

At What's Up, Doc?, one of those topics was learning how doctors give injections. The patient, in this case, was an out-of-season orange. Campers filled a needleless oral syringe with "medicine" (red Kool-Aid). If campers pushed down too hard on the syringe, the juice bubbled out of the orange. So they learned to push the syringe down more slowly, allowing the tasty, red liquid to seep down into the orange drop by drop. At the end of "treatment," Jamaricus Bonilla's orange looked more like a swollen bowling ball than an orange.

The enthusiasm built as the week went on. Jamaricus' classmate, Demetrius Turnage, couldn't stop talking about bald eagles, which he had learned about the previous day. When they measured wingspan at the Falcons, Eagles, Hawks and Owls camp, his arms stretched out as long as the wings of a bald eagle. Bald eagles, he said, were his favorite animal. Then he rattled off species names such as red-tailed hawk and turkey vulture like an expert.

Silver Spring's Erin Harrington said, "It's a really good camp. It's really informative, and the kids seem to be enjoying themselves." One camper summed it up with a message written on brown paper covering the camp tables: *I LOVE ZOO CAMP.*

By Emilie Rusch

Jamaricus Bonilla uses a needleless oral syringe to inject red juice "medicine" into an orange during What's Up, Doc? summer camp.



TRAINING A ZOO VET

Two years into Dr. Chris Hanley's veterinary residency at the Milwaukee County Zoo, Hanley found himself poking Zero, the Zoo's 1,100-pound polar bear. Hanley and the Zoo's staff veterinarians were in the bear's den, touching the anesthetized bear to make sure that Zero had gone to sleep and would not awaken during transport to the Animal Health Center for dental surgery. Says Hanley: "You ask yourself, 'How many people have done this?' Being a Zoo vet is really neat in that sense."

Preparing a polar bear for surgery is just one of the challenges Hanley faced as a veterinary resident at the Zoo's Animal Health Center. Hanley, who earned a veterinary degree from Tufts University in 2000, began his three-year residency in 2003 as part of a post-graduate program at the University of Wisconsin-Madison. Hanley wanted to be a zoo veterinarian from childhood because he had an affinity for animals, nature and science. "As a zoo vet, you do something different every day," he says. "You're never bored." The zoo part of the residency, which brought Hanley to our Zoo for three months each year, was funded by the Zoological Society of Milwaukee.

Throughout his residency Hanley shared duties with the Zoo's veterinarians. "I really got to do a little bit of everything," he says. Hanley treated animals as diverse as penguins and reptiles, published papers in scientific journals, and participated in meetings with vets and zookeepers. "This residency helps veterinarians concentrate on the zoo-animal and exotic-animal field," says Dr. Roberta Wallace, the Zoo's senior veterinarian. "When residents are done, they're specialists who can step into a job at other zoos."

Hanley's residency required a lot of learning on the go and bit of ingenuity. Although Hanley had worked and interned at zoos when he was in college and veterinary school, at our Zoo he encountered many procedures that he had never done before. "The downside of being a zoo vet is that very little is known about some exotic animals or how to treat them," he says. "You're seeing something new all the time and you get to be creative."

One of the first animals Hanley worked on was a tiny, comatose, straw-colored fruit bat. "It was barely alive and its blood sugar dropped," says Hanley. He inserted a catheter into the bat's wing bone to give it fluids and glucose. Birds and reptiles are often treated with this procedure, but Hanley had never



Dawn Fleuchaus, area supervisor for the Zoo's North America area, and Dr. Chris Hanley examine a Dall sheep.

heard of it being done on a bat. "I wasn't sure if it would work or not. It worked great." The bat recovered.

Hanley also discovered that he liked working on very old animals. The Zoo's vets treat older animals, even if they are off exhibit, as long as the animals can be kept comfortable. In one case, Hanley removed a tumor from the back of Tanami, an 18-year-old kangaroo. The surgery was successful and the only sign of it was a tiny scar. Tanami lived for almost three more years before dying in June 2006 of a heart condition and old age.

The most difficult but valuable part of Hanley's residency was working on big animals, such as the polar bear. Treating very large animals calls for a lot of planning. For example, preparing the bear for surgery requires booking any specialists needed, such as a dentist; gathering a team of 15 people and a truck to transport the animal from its exhibit to the hospital; and organizing a group of vets and veterinary technicians to do pre-surgery procedures such as anesthesia, X-rays and blood work.

"What I learned the most from being at the Zoo was not just dealing with day-to-day procedures," says Hanley, who has since accepted a job as an associate veterinarian at the Toledo Zoo in Toledo, Ohio. "I learned a lot about managing and coordinating a team. It's about working together."

-By Julia Kolker

Kids ALive

Hey, Kids, Animals Need You

Do you like learning about endangered animals? Do you want to help the Zoo's black rhino, Brewster? A new club is helping kids do both. It's the Kids Conservation Club, the Zoological Society's brand new kids-only club. Matthew Ballman, 7, of Milwaukee is already excited to help the rhino, his favorite Zoo animal. Thanks to the club, "Matthew knows a lot about endangered animals," says his mom, Karen Ballman.



Mandrill

Black rhinos are tough-skinned animals. They live in grasslands and forests of Africa and can run up to 25 miles per hour. But they still need help. People who hunt illegally, called poachers, are killing rhinos just for their horns. They're close to extinction, which means there aren't many rhinos left in the wild. Rhinos aren't the only animal that needs help. As a Kids Conservation Club member, you'll learn about animals everywhere, even ones that don't live at the Zoo.

Do you have a baseball card or a toy animal collection? In the club, you can collect cards that show how much you like animals. Get your own colorful mandrill card. Or would you prefer the giant South American river turtle card? You'll even get to go on behind-the-scenes Zoo tours just for animal sponsors!

We share a world with animals. It's time to learn what you can do to help them. Alyx, 8, Jillian, 6, and Veronica Butt, 4, of Pewaukee are ready to help. They love coming to the Zoo, and they want to help animals. "We like animals and conservation. We talk about endangered animals, environmental impact, using things wisely and being good consumers," their mom, Nicole, says.

Are you ready to help? Ask your parents to call the Zoological Society. It's only \$20 a year to join in the fun.

-By Emilie Rusch



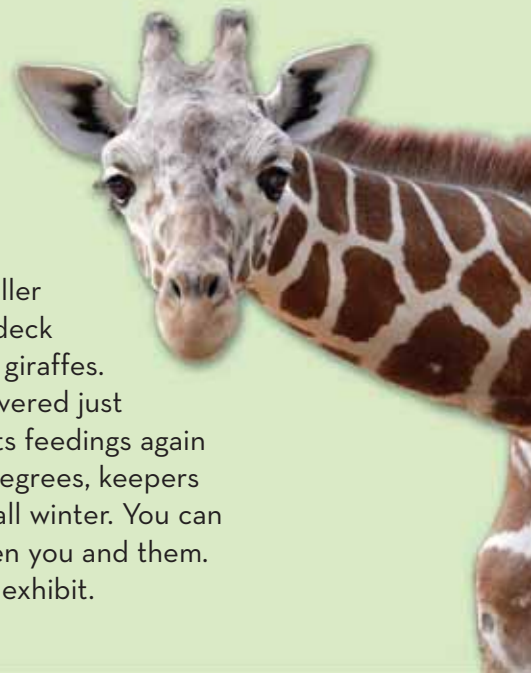
Zoo Pride volunteer Mildred Wrench (far left) gives kids a tour of the club's Conservation Station. The children are (from left): Matthew Ballman and Jillian, Veronica and Alyx Butt.



Rhino

Giraffes

Ever been face to face with a giraffe? You can if you come to the Milwaukee County Zoo. The giraffes are back in a new home, the Miller Brewing Company Giraffe Experience. This home has a 6-foot-high deck that lets you get REALLY close to Malinde, Rahna and Bahatika, our giraffes. Last summer, some people even got to feed the giraffes! They discovered just how long those giraffe tongues are. You can, too, when the Zoo starts feedings again in May. Giraffes are outside until the temperature drops below 50 degrees, keepers say. But don't worry. You can visit them in their warm inside exhibit all winter. You can breathe the same air as the giraffes because there's no glass between you and them. Do you know how big a giraffe skull is? See a life-size model at their exhibit.



Austin and Angela Cyrs watch as Bahatika the giraffe stretches his gray tongue to reach the maple branch in their hands.

Giraffe word search

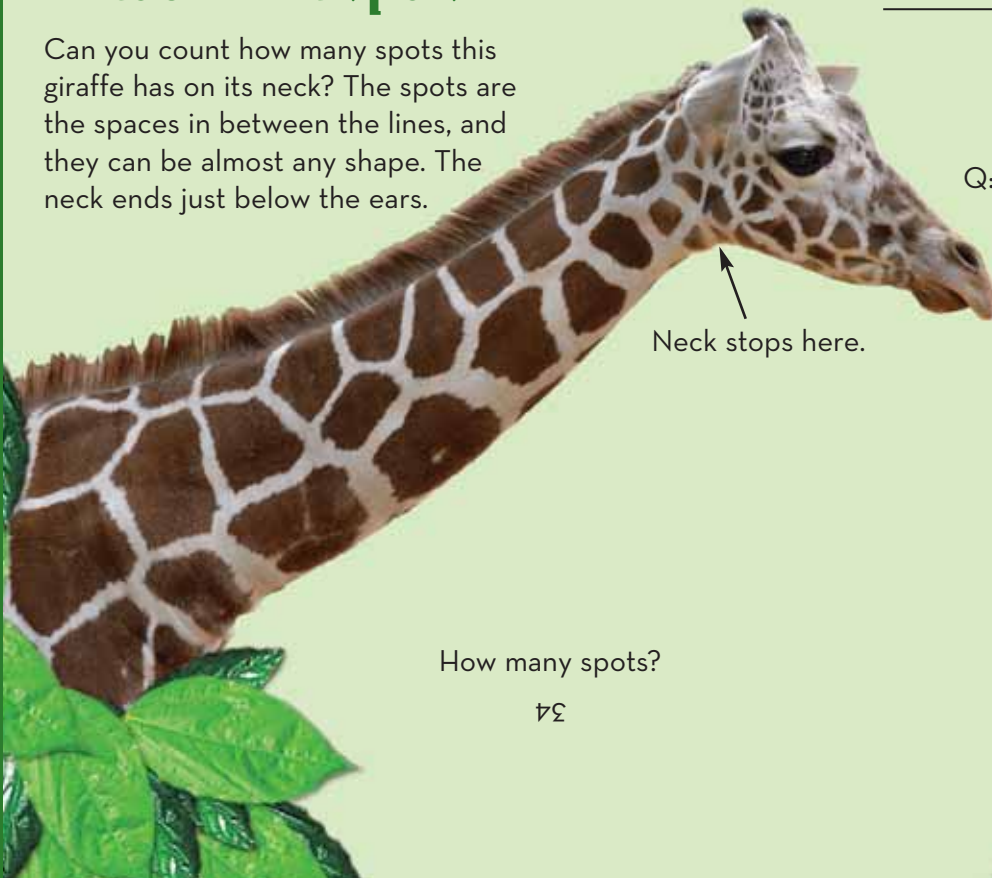
Use a ruler, and measure how long your tongue is. Is it 18 inches? A giraffe's tongue is. Stretch out your "tongue" and find the nine giraffe words hidden below by "licking" across, down, forward, backward and diagonally. (Use a pencil, not your tongue, OK?)



- | | | |
|--------|--------|--------|
| Spots | Twigs | Leaves |
| Tall | Africa | Acacia |
| Tongue | Rahna | Herd |

Count the spots

Can you count how many spots this giraffe has on its neck? The spots are the spaces in between the lines, and they can be almost any shape. The neck ends just below the ears.



How many spots?

34

Stock Photography

Stock Photography



No two spots the same

Not all giraffes have the same kind of spots. Masai giraffes have ragged, leaf-shaped spots. Reticulated giraffes, like Malinde, Rahna and Bahatika at the Zoo, have smoother-edged spots with bright white outlines.

Become a giraffe expert. Can you "spot" the difference? Label the Masai and the reticulated spots below.



Giraffe Joke

Q: What do you get when two giraffes collide?

A. A giraffe jam.





Using Animals to Teach



Do you love all the camps and classes at the Zoo? James Mills is the guy who helps make those classes possible. He is interim director of education for the Zoological Society's Conservation Education Department. He also teaches classes, to kids and to teachers. He came to the Zoological Society in 1994 and worked first in the Conservation Department and then as school program coordinator. He has a master's degree in museum education. If you're interested in working at a zoo, here's what he has to say about his job:

James Mills likes the Animal Adaptations Lab because it has great animal artifacts such as a huge shark jaw, animal bones and numerous mounts like this turtle.

Why is it so much fun to take education classes at the Zoo?

There is so much to discover about animals. You can look at them as individuals with personalities, like Brittany, the dominant, younger elephant. You can look at them as members of a group (species) that have developed fascinating ways to stay alive (a porcupine's quills protect it from predators). Even on short tours of the Zoo you see many types of animals doing things that you've likely not seen before (watch the spider monkeys). You also get to learn about animals in the wild. On top of that, you can do projects and crafts, you meet other kids who love animals, and you often get to meet zookeepers who work with animals.

Why do you like teaching at the Zoo?

I get to learn more about animals, too. I'm the head learner here. Learning grows your mind. It's fun to see children get excited about using their brains and senses to ask questions about the natural world. We have great teaching tools, too: fur and teeth and

skulls from real animal's bodies (either donated or from former Zoo collection animals); a huge polar bear mount and rhino head; microscopes and computers.

Why do you like animals, and do you have favorites?

Even animals that would make a meal of me play important roles in the web of life. I don't like mosquitoes, but animals such as bats eat mosquitoes. So I definitely love bats. I love many social animals because I like to see how they play and work together. Meerkats are wonderful to watch as they post sentries to look for predators. I like bonobos because their family relationships are important to them. They also are great peacemakers.

How many classes and camps do you have?

Eight Zoological Society instructors taught 1,168 classes from September 2005 through May 2006. Last summer we had 431 camps taught by 18 instructors with help from 19 college interns and 40 high school volunteers. To find out more, go to our Web site: www.zoosociety.org and select education.



SAVING A BLUE BEAUTY

Zoo staff Craig Pelke and Stacy Whitaker, who studied endangered blue iguanas in the wild, feed Digger, the Zoo's only blue iguana.

Some people would try to save the endangered blue iguana just because it's so beautiful. There's really nothing in the world like a blue iguana, says Craig Pelke, area supervisor of the Milwaukee County Zoo's Aquatic & Reptile Center. At their favorite temperature (high 90s), the iguanas, which are usually a brownish-gray color, turn a turquoise blue. When they get excited, that blue becomes even more brilliant. "They almost look fake," Pelke says. In May, Pelke and Stacy Whitaker, a small mammals zookeeper, traveled to Grand Cayman Island, the endangered iguana's only native habitat, to study its natural behaviors as part of the largely successful Blue Iguana Recovery Project.

Pelke, with support from the Zoological Society and the Zoo, has visited the island four times since 2003. Whitaker received \$1,100 from the Zoological Society for the 2006 trip. They spent two weeks tracking 20 of the approximately 90 captive-released iguanas: 10 males and 10 females. Half of each gender were 3-year-olds and half were 2-year-olds. All were equipped with radio antennas prior to release from the island's captive-breeding program. So Pelke and Whitaker traversed the rocky reserve with the goal of locating the radio signals of all 20 iguanas every hour.

Upon finding an animal, they noted its color, behavior, posture and location.

The researchers' goal is to learn the complete biology of the iguana in the wild, including its breeding, feeding and survival behaviors. Blue iguanas are part of the West Indian rock iguanas (genus *Cyclura*), which are native to the Caribbean islands. "As a group," says Tandora Grant of the San Diego Zoo, the iguana's population manager for the American Zoo and Aquarium Association, "the West Indian rock iguanas are considered the most endangered lizards in the world." Says Pelke: "They've been endangered so long that very little is known about them in the wild." For the first time since 2004, when the first group of captive iguanas was released, researchers this year observed captive-released iguanas mating and located three nests of eggs. Whitaker and Pelke spent much of their time chasing after PRP (pronounced "Purp"), the I.D. letters for a 2-year-old dominant male iguana, who bred in the wild for the first time in 2006.

Whitaker was excited: "To know that I helped an endangered species is something I'll never forget. I could see them in the wild and getting their niche back. It's incredible."



Whitaker tracks blue iguanas in the Salina Reserve by using radio telemetry equipment.

Glass beads on his crest identify “Purp,” who bred in the wild for the first time in 2006. The black oval on his pelvis is a radio antenna.

The captive-breeding program, which is now part of the larger recovery project, began in 1990 in conjunction with the National Trust for the Cayman Islands. Biologists captured as many wild iguanas as they could find, and began breeding them in captivity. A 1994 grant from the Zoological Society of Milwaukee helped build cages to house the captive animals until they’re 2 years old. At that point they can be released into the National Trust’s Salina Reserve, 625 undisturbed acres of swamp and shrubland. By age 2, they are strong enough to defend themselves against snakes. This year’s hatchlings will be released in December, however, to determine whether they can adapt to the harsh conditions and survive without the advantage of two years in captivity, Pelke says.

The island’s harsh climate makes the research difficult and slow. Grand Cayman Island is really an exposed, fossilized coral reef. Walking on the jagged, limestone surface is like walking on knives, Pelke says. He estimates that he has easily worn through a

pair of tough hiking boots in a week. Then, “there are incredibly poisonous plants that make poison ivy look like tossed salad” and temperatures soaring into the 90s to worry about, too. Adds Whitaker: “It’s not for everyone. At the end of the day we were exhausted.”

Centuries of human disruption to the islands have led to the near extinction of the iguanas. Grazing animals like cows and goats introduced to the islands eat the majority of the quality forage, leaving iguanas without much food, says Craig Berg, the Zoo’s aquarium and reptile curator. Feral cats and dogs prey on adult iguanas, which have no natural predators, adds Pelke. Dogs recently killed two adult iguanas at the captive-breeding center. The free-range animals are also threatened by human predators. Poachers capture the iguanas for food and pets or kill them when they wander into farm fields.

The blue iguana population has been considered threat-

ened since 1938 and is listed as Critically Endangered by the World Conservation Union (IUCN). In 1993, surveys found a wild population of 100 to 200 iguanas, but by 2002, the wild population had shrunk to 10-12 iguanas and their habitat had dwindled. Since 2004, 93 captive-bred iguanas have been released into the wild. The project’s ultimate goal is to establish a population of 1,000 blue iguanas on the island. The recovery project is preparing to release another 114 captive-bred iguanas in December.

Only 11 U.S. zoos exhibit blue iguanas; the Milwaukee County Zoo has one male, Digger. “By helping the blue iguana, we’re helping save an entire ecosystem,” Pelke says. “Blue iguanas are indicator species that show the overall health of their ecosystem. There are plants on the island that rely on the iguanas for survival.” Iguanas swallow berries whole, unlike grazers, who chew and often destroy the seeds. Without

iguanas to disperse the seeds around the island, some endemic fruit-bearing bushes and shrubs may become extinct.

“The rock iguana is an important genus of lizard,” Berg says. “They’re very charismatic, large lizards. Whether it’s the blue iguana on Grand Cayman or the Butler’s garter snake in Milwaukee County, every time a species is lost, there’s less for us to wonder about, question and study. That decreases the richness of our lives and the lives of future generations. You might not be interested in lizards or snakes, but your grandchildren may be.”

By Emilie Rusch

Photos on this page by Craig Pelke





The invasive Johnstone's frog in Grenada

Crisis for Frogs



A Grenada frog in the wild

Craig Berg examines a female Grenada frog he brought back from the island. The frog is in a plastic bag with an open top, which makes it easier to examine the frog because human hands feel too hot to these amphibians.

It's a rough world out there for amphibians. Frog-friendly habitats are changing, and a deadly fungal infection is creating a crisis. The infection, frog chytrid, has made its way to Panama, threatening extinction for nearly every amphibian species it meets. Imagine a world without amphibians. The mosquitoes would love it. Craig Berg, the Zoo's reptile and aquarium curator, is doing his part to help. With financial aid from the Zoological Society, Zoo Pride and the Milwaukee County Zoo, Berg devoted weeks of his time to researching amphibians in Panama, Grenada, and St. Vincent. It is, in his words, his "year of the frog," and it couldn't have come at a better time.

The immediacy of the chytrid crisis in Panama was so great Berg cancelled his plans to study an unnamed catfish in Brazil threatened by aluminum mining. That fish would be there a year

from now, Berg reasoned, but without help, Panama's native frog species may not be. Chytrid hit Panama in April 2006 in its unstoppable march through Central America and into South America, leaving hundreds of thousands or even millions of dead frogs in its wake. Chytrid, a fungus carried by Africa's clawed frog, probably entered North American ecosystems when infected aquarium water was dumped down the drain, Berg said. For the species without immunity, such as the revered Panamanian golden frog, chytrid attacks the frog's skin. Frogs "breathe" by absorbing oxygen through their skins. Chytrid blocks that process by causing the skin to thicken and become impervious to oxygen and carbon dioxide. Without anti-fungal treatments, frogs suffocate. Researchers have found them in the forest standing on tiptoes in a vain attempt to get more oxygen by stretching out to maximize the skin's surface.

“The thing about amphibians versus most other species is that they require relatively little space or money to save an entire species from extinction,” Berg said. “You can save an entire species in a room.” That’s exactly what zoologists at *Zoologico El Nispero*, a zoo in Panama, are banking on, as they treat sick frogs housed in hotel rooms.

In June Berg and nine other zookeepers responded to the World Association of Zoos and Aquariums’ emergency call and spent two hot weeks in Panama helping the Panamanian zoo set up an official quarantine station, El Valle Amphibian Conservation Center (EVACC). (By the end of the summer, a total of 50 keepers had made the trip to Panama to help.) Berg and the other zookeepers did a little bit of everything. He captured wild frogs and caught tiny bugs to feed them. He disinfected aquariums and treated sick frogs with 10 days of 10-minute antifungal medicine soaks. He baby-sat the 150 recuperating frogs in two rooms of a hotel undergoing renovation. He even made trips to a local hardware store, using a combination of Spanish and his fluent Portuguese to explain the aquariums’ plumbing needs.

During his marathon days at EVACC, Berg made the most of his time in the Panamanian jungle capturing frogs. He also looked for other amphibians and reptiles, and he found the amphibian of his dreams. One night, as the group was trying to entice an eyelash viper, one of Panama’s venomous snakes, out of a 20-foot-tall tree, something on a leaf caught Berg’s eye. It was a 2-inch-long juvenile palm salamander. These salamanders are incredibly difficult to find because they cling to the tops of leaves. The salamander has skin connecting its toes, creating a suction-cup effect to help it climb up trees. “To me,” Berg said, “that was the highlight of the trip.”



Photo by Craig Berg

In Panama Berg found the “amphibian of his dreams,” a juvenile palm salamander, on a leaf.

Not all frogs are vulnerable to chytrid, which prefers the cool of high altitudes to low-lying tropical air. The quarantine station cannot save every species; therefore, only 25 members of each species most susceptible will be moved from the hotel to the Panama zoo. Chytrid, however, will never leave the mud and leaves of the ecosystem. The goal of the quarantine station is not to hold the frogs in perpetuity, Berg said, but unless a chytrid-resistant species can be bred, there’s not much more they can do. Yet, “if we don’t do this, some frogs will, in all likelihood, go extinct,” he said.

Berg worries chytrid could threaten a Caribbean frog species he has studied for years, the Grenada frog (also called

the Grenada whistling frog). But for now, the biggest challenge facing the Grenada frog is the aftermath of 2004’s Hurricane Ivan, which destroyed much of the island of Grenada. Berg traveled there in February with longtime friend and research partner Bob Henderson, the Milwaukee Public Museum’s curator of reptiles and amphibians. They examined the hurricane’s effect on the competition between the native Grenada frog and the invasive Johnstone’s frog.

The researchers have been visiting the island about twice a year since 2003 to study amphibians and reptiles. Berg is an extremely hard worker with a love of adventure, Henderson said, even if it means driving rental cars on roads never meant to be driven. Berg and Henderson were surprised to find the numbers of Grenada and Johnstone’s frogs were relatively stable. As vegetation changes and lush forests, a prime Grenada frog habitat, are replaced by shrubs and grasses, though, long-term research is needed to see if the Grenada frog is able to adapt to less than pristine habitats, Berg said.

St. Vincent, a Caribbean island unaffected by recent hurricanes, offered Berg a chance to test the Grenada frog’s resilience. He spent two weeks in early June studying the St. Vincent frog, the closest living relative of the Grenada frog. The Johnstone’s frog also has invaded St. Vincent but apparently without a negative affect on the native St. Vincent frogs. The St. Vincent frog had adapted to less than pristine mountain habitats, and on Berg’s first night on the island, he heard something that gave him hope for his little frog. A tremendous chorus of St. Vincent frogs, hundreds or even thousands of voices strong, greeted him in the field. “I have a lot more hope that Grenada’s endemic frog species is going to survive,” he said.

Berg was invited to St. Vincent by Henderson, who was a lead instructor for the 11 students participating in an undergraduate amphibian research program. Henderson remembers one night when Berg’s enthusiasm for St. Vincent frogs had him drive off at 3:30 a.m. on a research trip with the keys for two of the program’s three cars. “I have never known anyone who requires less sleep than Craig,” Henderson said. “But I’m happy to help Craig because he’s always willing to help me.”

Berg’s year of the frog isn’t over yet. This October, he’ll travel to the Dutch Antilles, islands east of the U.S. Virgin Islands, to participate in See and Learn in Saba, www.seeandlearn.org, a seminar program for tourists and islanders. There he’ll be teaching classes about frogs, chytrid and amphibian decline. Then it’s out into the field with his new students to look for — what else — the Johnstone’s frog.



Photo by Meredith Whitney

The Panamanian golden frog is being killed by a fungus.

By Emilie Rusch



Cheetahs

Arrived: May 17, 2006

Florence Mila Borchert Big Cat Country

Looking for a quick meal

The cheetahs are back. But the 2-year-old brothers, Nama and Damara, are not as friendly as their zookeeper-raised predecessors. "They are very feisty," Neil Dretzka, felines area supervisor, says. "These guys were mother-raised." In the wild, cheetah cubs stay with their mother for about two years and then strike coalitions with their siblings that last even longer. So it's not strange for these two brothers, whose names are Namibian ethnic groups, to live together at the Zoo. From far away, the Zoo's new cheetahs may look identical, but Damara has a floppy left ear. The tips of their tails are also different colors: Damara's is black; Nama's is white. The boys spent the summer getting used to their new digs in the Florence Mila Borchert Big Cat Country. The hardest adjustment wasn't getting used to people, Dretzka says, but rather adjusting to the lions and hyenas across the aisle that they could see through the big glass windows. On their first venture out into the yard, Damara and Nama noticed the Zoo's skittish impalas right away. In the wild of the African savanna, one of the cheetah's favorite foods is the impala, if they're lucky enough to catch one. While cheetahs are the fastest animal on land, they are fairly ineffective hunters. Even though they maneuver well (their long tails act as rudders, guiding them through tight corners), they rely on bursts of speed that reach 70 miles per hour but last only 300 to 400 yards. The fleet-footed impalas often escape. But at the Zoo, a deep moat protects the impalas from the cheetahs' sharp teeth.

Green Tree Pythons

Born: April 29, 2006

Aquatic & Reptile Center

Changing from yellow to green

If snakes send shivers down your spine, you haven't seen the baby green tree pythons. These tiny, brilliantly colored snakes look particularly flower-like when they wrap themselves around tree branches (see photo at right). Seventeen green tree pythons hatched at the Milwaukee County Zoo on April 29. Why are these snakes banana-yellow rather than green? Newborn green tree pythons' color can range from yellow to orange, red and brown. However, these snakes gradually change hues with age. "They will turn green by the time they are 2 years old," says Craig Berg, curator of the Aquatic & Reptile Center (ARC). In July the 13-inch, 11-gram baby snakes were off exhibit because they were too small to be placed in the enclosure with their 4-foot-long parents. The little snakes could get lost or eaten by the geckos that share the exhibit with the adult snakes. The baby pythons each have their own aquarium so it is easier for keepers to monitor each snake's health. The non-venomous green tree pythons avoid predators thanks to their coloring, which helps them blend into the rain-forest surroundings in their native Australia and New Guinea. They are also "prone to bite so that they don't become easy prey," says Craig Pelke, ARC area supervisor. Check out the baby snakes' parents, the emerald green J-Lo and her male companion, Mark Anthony, in the ARC.

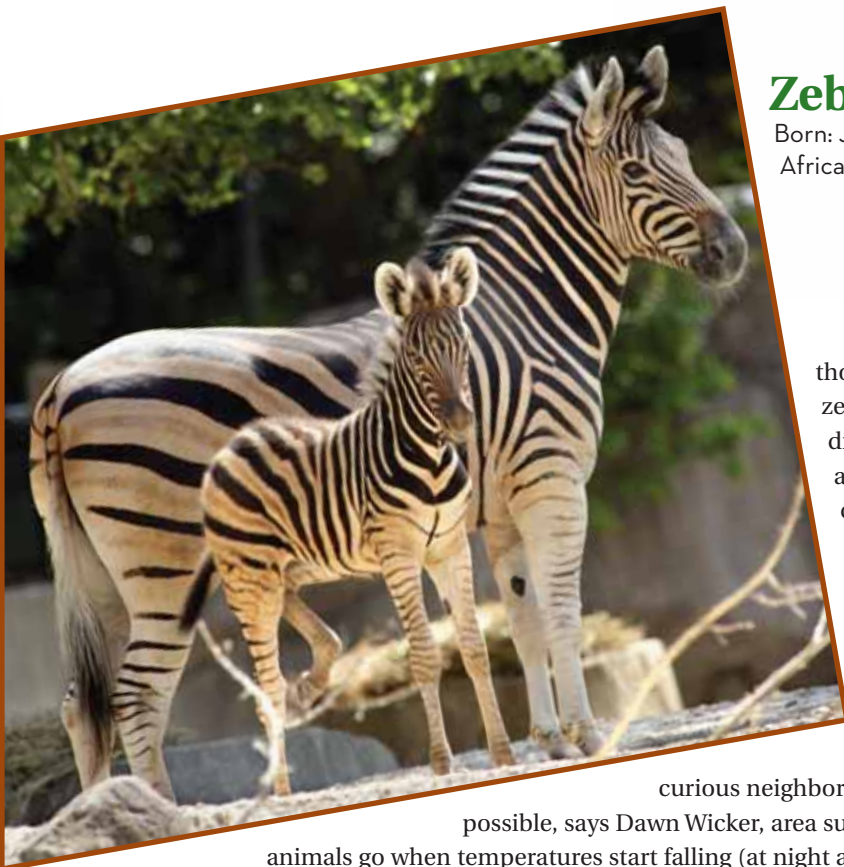


Motmot Chicks

Hatched: May 13, 14, 16 & July 17, 18 & 19
Herb & Nada Mahler Family Aviary

'We finally got them going!'

Breeding blue-crowned motmots, birds found in Central and South America, requires a bit of ingenuity. For example, motmots dig 10- to 12-foot-long tunnels in the sides of riverbanks and in dirt mounds on the ground. The tunnels lead to nest cavities where the birds lay eggs. To encourage the Zoo's motmots to breed, keepers in the Herb & Nada Mahler Family Aviary designed several nest areas made of 5-inch-wide drainage pipes filled with dirt in the aviary's free flight exhibit. The pipes led to nest cavities made of wooden boxes. Mimicking motmots in the wild, the Zoo's birds pushed the dirt out of the pipes with their feet and abandoned these sites for a year. Keepers suspect that motmots do this in the wild to test whether tunnels are sturdy enough to last through the rainy season and to confuse predators by making the nests appear old and unused. This year, the Zoo's birds finally chose one of the nest sites and laid four eggs, three of which successfully hatched in May within a four-day period. Although zookeepers had been trying to breed motmots for the last three years, this was the first time these birds reproduced successfully at our Zoo. The three female chicks were tiny when they hatched but are now almost adult size, 16 inches in length from beak to tail feathers. In June, the adult motmots laid four more eggs in the same nest site, three of which hatched in July. "After three years of trying, we finally got them going!" says aviary keeper Carol Kagy. Try to spot the motmot family in the aviary's free flight exhibit (between the penguin and the tropical rain-forest exhibits).



Zebra

Born: June 6, 2006
African Waterhole exhibit

A little sisterly bonding

No two zebras look exactly alike. Kelly, the Zoo's new zebra, though, is a pretty good ringer for her big sister, Spirit, 2. Both zebras have the signature dark face of their dad, Zach, who died in February. But look up close, and you'll see their stripes are unique. Mom Zink, 12, gave birth to Kelly in June, and the day after, the baby zebra weighed 88 pounds. By the time she's 1 year old, she'll weigh 750-850 pounds. Kelly, who was named after Kelly Weil, author of the children's book "Zink the Zebra," is on exhibit in the African Waterhole. During the summer, Kelly met some of her exhibit mates: the marabou storks, waterbucks and elands. She met only a few animals at a time to keep Zink, who can be a pretty protective mother, calm and less apt to attack an overly curious neighbor. The goal was to make the introductions as stress-free as possible, says Dawn Wicker, area supervisor of Winter Quarters, the area where warm-weather animals go when temperatures start falling (at night and in winter). Big sister Spirit was not happy about being separated from her mom in May, in preparation for the birth. Spirit was used to being the most important thing in Zink's life. Spirit and Kelly get along fine now, Wicker says. For readers who remember their elder sister, TJ, who was born to Zink in June 2002, TJ now lives at the Peoria Zoo. Zebras are harder than most of their African compatriots and can handle the cold Wisconsin winter. So watch for Zink, Spirit and Kelly out in the yard on snow- and ice-free days.

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