



Alive

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- Outgoing New Orangutan
- Benefits of Training Animals
- 'Zoo School' for City Kids
- Kids: Zoo Treasure Hunt



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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Alive is published in January, April and October by the Zoological Society of Milwaukee County, 10005 W. Blue Mound Rd., Milwaukee, WI 53226. Subscription by membership only. Call (414) 258-2333 for information. www.zoosociety.org

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The Zoo is a treasure chest of learning opportunities. That's why we're featuring a treasure hunt for information in our Kids Alive this issue (pages 12-14). We want to illustrate how much fun it can be to learn about the animals and the Zoo just by visiting the exhibits. The Zoological Society's Creative Department is responsible for the fun- and fact-filled signs and interactive displays throughout the Zoo - with factual content provided by the Zoo staff, of course. Designing and creating this signage is just one of the many ways that we at the Zoological Society of Milwaukee support education.



You already know about our wonderful summer camps and school-year classes taught at our modern Karen Peck Katz Conservation Education Center. The Zoological Society conducts all the education classes at the Zoo, but we also have programs that we take into Milwaukee-area schools. Read about our Zoo to You classes for second and third graders (page 11).

We also reach out to students who might not be able to visit the Zoo with their families. Several groups of children from neighborhood centers in the central city attended classes at the Zoo in April and then again in July, thanks to our Programs for Disadvantaged Youth. Follow some of these kids to see how their attitudes about animals, careers and learning changed in just those few months (pages 4-5). We thank the sponsors of this program - U.S. Cellular and an anonymous donor - for providing such a great opportunity.

Another way that we support education is through the Holz Family Foundation Learning Zone annex to the Animal Health Center. The Zoological Society built the learning zone area, which was designed by our Creative Department. The area is filled with interactive ways that you can discover how the Zoo cares for the animals. The new Animal Health Center, finished in 2003, has been a great boon to the Zoo (see pages 16-17). When you visit the learning zone, you can watch videos, learn about current medical procedures animals are undergoing, and even peer through glass windows into surgery and treatment rooms and watch vets treating the animals in real time.

People aren't the only ones learning at the Zoo. Almost all the animals "go to school." That is, they get some type of training or conditioning to help make their lives better here. We take you behind the scenes to learn about the various levels of training (pages 8-10) that animals ranging from gorillas to sea lions receive.

And that brings me to yet another way that the Zoological Society encourages learning: through our publications and our Web site. Look at all the things you'll be learning about animals and the Zoo in this *Alive*. Our Web site, which just was updated, is packed full of more information. In fact, in November all the kids who participated in our treasure hunt in Kids Alive will be able to find the answers to their quest on our Web site. We try never to miss any opportunity to teach.

Robert Davis
 Dr. Bert Davis
 Chief Executive Officer



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We follow kids (at right) from a Milwaukee youth center from Zoological Society spring classes to summer camps as they become enthusiastic Zoo “veterans.”

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An endangered whooping crane, a male elk, a golden lion tamarin baby, and new antelope: an impala and gazelles

Kids Alive 11-14

Follow a Zoological Society instructor and a turtle to school. Go on a scavenger hunt through the Zoo.

Contributors See the insert packaged with this *Alive* that includes a list of Serengeti Circle members and Platypus Society members.



Holiday Hippo

Give a huge holiday gift this year: a sponsorship of Patti, the hippopotamus. She even comes with a certificate of sponsorship. Recipients will enjoy the 12-inch plush-toy hippo that's part of this \$30 sponsorship. Information about hippos; an invitation to Animal Safari, an annual behind-the-scenes event for animal sponsors at the Zoo; an animal sponsor decal and gift card; and more are part of this sponsorship. To give a hippo package, go online at www.zoosociety.org and click on the hippo picture to order by credit card; or call our office at (414) 258-2333. Proceeds from the Sponsor an Animal program help all of the animals at the Milwaukee County Zoo.



A Bat, a Shark, Days in the Park

A live fruit bat peers out from an instructor's hand in a classroom at the Zoo. Ten children from a central city neighborhood youth center in Milwaukee are awed. They've never seen a bat like this before, and certainly not in the same room. They "ooh" and "aah" at the sight. It's an exciting experience for these kids from the Children's Outing Association, many of whom seldom visit the Zoo. Yet thanks to grants to the Zoological Society of Milwaukee's (ZSM's) Programs for Disadvantaged Youth, these kids got a chance to spend time in the zoological park not only during the school year but also for summer camps.

The program, piloted last year with the Silver Spring Neighborhood Center, was expanded to five youth centers and 120 children in 2007. The opportunity was made possible by two grants: \$8,800 from U.S. Cellular and \$18,000 from an anonymous donor. The great advantage of this program is that it allows the ZSM to open its summer camps, sponsored by Glue Dots® Brand Adhesives, to children who normally might not be able to attend.



Working on a coral-reef craft in summer camp are Safiya Byers (left) and Alana Hayes.



Safiya Byers (in back), of the Children's Outing Association, reaches out with other kids to touch a leopard shark. Safiya got the chance to return to the Zoo for a Zoological Society summer camp called Marine Marvels.

“The children get to have experiences at the Zoo that they can’t have at their neighborhood center,” said James Mills, the ZSM’s education director. “The camps for each center are spread throughout the summer, a time when many urban youth lack enriching learning experiences relative to their peers in suburbia.” We followed the same kids from the Children’s Outing Association (COA) from an April class called *Creatures of the Night* to summer camps such as *Marine Marvels* to see how quickly they became enthusiastic Zoo “veterans.”

ZSM’s camps and classes offer children interactive activities ranging from Zoo tours to hands-on, science-themed projects. COA campers, for example, did everything from touring the Zoo’s goat yard and learning how real-life veterinarians examine animals to meeting zookeepers. During the *What’s Up Doc?* camp, children heard pachyderm supervisor

Dana Nicholson talk about caring for elephants, rhinos and hippos. When Nicholson asked if the kids had any questions, hands shot up in the air. “How do you tell if an animal is not feeling well?” asked Naeem Hunter, 9. (Zookeepers work closely with the animals every day and watch for unusual behavior.) “How much medicine do rhinos need if they get sick?” asked Safiya Byers, 8. (It depends on their weight and symptoms.) In the

Marine Marvels camp, Safiya and the other kids toured the Zoo’s special summer exhibit *Sting Ray & Shark Reef*, sponsored by Chase. Alana Hayes, 9, dipped both hands in the water to pet the marine creatures. “I touched a shark and it felt slimy!” she later said with delight. Safiya reached in with one hand, but the shark kept its distance (see opposite page).

Besides providing a fun way to spend days off from school and summer vacation, the camps and classes encouraged children to consider careers in science and medicine. Some kids jumped at the chance to explore this topic. “The best part of the camps is seeing animals up close,” said Safiya. “I want to be a vet; I love animals.” Added her classmate Imonee White, 9: “I’m thinking about becoming a teacher or a veterinarian. I like to play dolls and teach them multiplication tables and about animals.” For other kids, the camps were a chance to discover the world of conservation and science. At the *What’s Up Doc?* camp, Josh Toruella, 8, an aspiring professional skateboarder, devoted all his attention to carefully injecting his “patient,” a wilted orange, with a plastic, needleless syringe full of fruit juice. A tour of

the sting ray and shark exhibit gave Alana, a budding fashion designer, some creative ideas. “I want to draw sharks and sting rays on my dresses!” she said.

When COA campers weren’t at the Zoo, they were exploring what they had learned at their own pace. Like many youth centers, COA supplements Zoo camps with science and animal-themed books, craft projects and even nature tours. “The kids talk about the Zoo and ask a lot of questions,” says Denita Jackson, a COA teacher who accompanied the kids to Zoo camps. After visiting the sting ray and shark exhibit, some COA campers went on a hike



The eyes have it as two girls from the Children’s Outing Association marvel at a fruit bat during the Zoological Society’s *Creatures of the Night* class last April. Shadiah Bonilla, 9 (left), and Safiya Byers, 8, were awed by the live animal in their classroom.

along the nearby Milwaukee River and wondered if sharks live in it. On their next visit to the Zoo, they learned that sharks live only in oceans.

By the end of the third camp in early July, the group from COA talked easily about animals and the environment. Shane Matthias, 8, rattled off the definition of ecosystem – an area where all living organisms are constantly interacting. Safiya knew that healthy goats are energetic, have wet noses and ample appetites. Naeem was eager to share that the longest coral reef in the world is nearly 1,200 miles long. In April Naeem said he wanted to be a professional soccer player. By summer, on his third visit to the Zoo, Naeem (pictured on page 3) said he might consider becoming a doctor or a vet. “I learned a lot more about animals,” he said. “If you want to be a vet, you have to know a lot about animals.” While the kids liked learning about science and future careers, they all agreed that the camps were simply fun. Asked if she liked coming to the Zoo, Alana didn’t hesitate. “This is the Zoo. Who doesn’t want to come here?”

By Julia Kolker



◀ Tammy Patterson (left) and fellow researchers stand at the sign to the north entrance of the desolate Emas National Park in Brazil.



Three women researchers - Natalia Mundim Torres, Tammy Patterson, and Dr. Mariana Furtado - help a maned wolf recover from a sedative after its exam.



A maned wolf with a radio collar heads back into the Brazilian grassland.

Brazil Research Leads to New Path

When Milwaukee County Zoo veterinary technician Tammy Patterson volunteered to help with a conservation project in June 2006, she probably didn't expect to make a life-altering decision afterward. For two weeks, Patterson took part in a Jaguar Conservation Fund study of jaguars, wolves, and other carnivores in Brazil. The purpose of this 12-year-long study is to find out what these animals need to survive.

Patterson's team spent 11- to 12-hour days hiking through the grasslands of Emas National Park in south-central Brazil tracking animals, setting traps, taking pictures, doing health

exams on the captured animals, and collecting blood and urine samples. During 2006, there were 202 animals captured. Each animal was sedated for about 40 minutes, and then set free. "It was pretty exciting

when we caught our first animal, a maned wolf, the largest wolf in Brazil," Patterson says. Since Patterson is a vet tech accustomed to doing medical procedures, she was allowed by researchers to draw blood and do lab work – things that volunteers wouldn't normally do. The data are useful for finding out what the animals eat, where they travel in or out of the park and how healthy they are.

Since the project began in Emas National Park, 679 carnivores (jaguars, pumas, maned wolves, bush dogs and hoary foxes) have been captured, examined and released, and 176 of those animals have been radio-collared. By studying animal habits, researchers discovered that these carnivores were venturing outside the park into unprotected areas. They concluded that Brazil's carnivores need a bigger habitat to survive. So Jaguar Conservation Fund (JCF) President Leandro Silveira, a biologist and lead researcher, is working to create a 400-km corridor to connect Emas National Park in the east to the Cerrado and Pantanal regions in the west so that carnivores can roam more freely and find more prey.

With farms throughout the area, a big concern has been ranch workers who kill jaguars. "If a cow was killed by a jaguar, the local men would go and kill the jaguar," explains Patterson. "The belief is that the man gains the strength of the jaguar when he kills it." To give the locals incentives not to kill jaguars, the



Tammy Patterson (right) takes a blood sample from a hoary fox as other researchers do a variety of health exams. In 12 years of Jaguar Conservation Fund research in Brazil, this is only the second such fox to be captured and radio-collared.



Tammy Patterson checks on a wolf captured in a gentle trap so that researchers could check its health.

JCF created an outreach program that offers ranch workers education on how to manage their land to prevent soil runoff, and how to keep their cattle healthy. Some workers who are good hunters are even hired to assist researchers in trapping the animals. The project has created a partnership with all 39 farms around Emas National Park. Farther west in the Pantanal – another significant wildlife habitat in Brazil – researchers also have partnered with 13 ranches to provide health and dental care to workers and their families twice a year. Patterson says she saw the two field researchers – Dr. Mariana Furtado and Natalia Mundim Torres – really making a difference in building an interest in wildlife conservation among the local people so that both the people and the animals benefited. "We can see the success of the project when we look at ... how much we've learned about the species," says Dr. Furtado.

The project inspired Patterson to make a major career change – one that requires her to go back to school. "I had thought about going to graduate school [to become a researcher] before, but having fun out there and doing this work in the field, that's when I definitely decided," she says. Dr. Furtado wrote Patterson a letter of recommendation, and Patterson was accepted into graduate school at the University of Michigan in Ann Arbor, where she's now studying conservation biology.

Patterson's ultimate goal is to travel to Russia to study the elusive and endangered Amur (Siberian) tigers. "Having been there [with the researchers in Brazil] makes me feel like I can do this," she says. Patterson ended her four-year career at the Zoo this past July to pursue her dream.

By Kristina Allen

Not everyone would be pleased to have a lizard crawl down his back and playfully stick its head into his pants. When this happened to a zookeeper in the Aquatic & Reptile Center at the Zoo, however, he considered it great progress. When black tree monitors (lizards that grow up to 2 ½ feet long) first arrived at the Milwaukee County Zoo, they were so skittish they scattered every time a zookeeper entered their enclosure to bring food or clean. It took the keepers long hours of bringing the monitors their favorite food, mice, to get the animals accustomed to humans. Now the monitors are less anxious, and the lizards climb all over their human caretakers.

Feeding the lizards slowly over time is a type of training called conditioning, where animals become “conditioned” to taking food from humans. This training allows the monitors “to just live a better life and not get so stressed out,” says Craig Pelke, area supervisor of the Aquatic & Reptile Center. Keepers train or condition most of the Zoo’s animals, often rewarding them with treats. Although training methods vary in complexity, the aim remains the same: to improve the lives of both animals and zookeepers.

Much of the animal training at the Zoo started as a way to avoid giving animals anesthesia to put them asleep for health exams. By training (or conditioning) animals to accept procedures such as drawing blood, giving injections and treating wounds, keepers and veterinarians could avoid the risks of anesthesia (fatal to some animals). “It’s better to train the animals...and let them participate in their own health care,” says Dana Nicholson, pachyderm area supervisor. Most of the training is by zookeepers, whom the animals see daily and trust (and who have learned techniques from professional trainers). Nicholson has trained elephants, for example, to lift a foot up onto a bar so that he can file their toenails. He and his staff trained Barley, the Zoo’s previous female rhino, to accept the touch of keepers so they could treat her chronic skin problems twice a week.



TIME FOR TRAINING

O PENWIDE

Training doesn’t just help with the animals’ health care, however. “It also enriches their lives,” says Deputy Zoo Director Bruce Beehler.

Playful octopuses, for example, sometimes play peek-a-boo with keepers who touch the octopuses to condition them to human contact. “While I’m handling [an octopus], it’ll jet away really fast, then creep up behind the rocks in the exhibit like I can’t see it,” Pelke says. Then the octopus will peek its eyes over the edge, then a tentacle, then jump out from behind the rocks like it’s mock attacking. “Sometimes we think it sprays us with water on purpose!”

These games offer animals something new and exciting on a daily basis, similar to what they would experience in the wild.

While keepers provide all sorts of “enrichment” for animals (such as hiding food in bamboo for the monkeys or giving the polar bears a plastic “iceberg” block to play with), the training itself becomes an enrichment activity for many of the animals. Take the giraffes. Zookeepers trained Rahna and Bahatika to accept food from Zoo visitors standing on a platform next to their yard. (See page 19 photo.) First, however, the giraffes needed to grow accustomed to contact with people other than the keepers.

“They have to get used to taking treats from everyone, from toddlers to people in wheelchairs,” says Joan Stasica, a giraffe zookeeper. Rahna and Bahatika now know to come to the platform when keepers ring a bell. (Giraffe feeding is available to the public mid-May through September, weather permitting.) Ray Hren, another giraffe keeper, says the two giraffes often come to the platform waving their tongues, which means they want food.



Trish Khan, the Zoo's area supervisor of primates, asks Tom the orangutan to open his mouth - to the fascination of M.J., the female orangutan. Animals are trained to participate in their own health care through these routine checkups.

animals and let the veteran kudu head outdoors. Staying true to its herd mentality, the new kudu follows. Eventually, keepers add other animals to the yard. The new kudu learns from the herd's example that there's no need to be afraid of the nearby lions. This independent style of training frees up zookeeper time and lets herd animals be trained more naturally.

Giraffes, however, are trained using several methods, including a more formal technique known as operant conditioning, a type of training that uses a "bridge" between the reward and the behavior zookeepers want to capture. The bridge can be a whistle, a clicker or a verbal command that trainers must do consistently. "The reason for the bridge is it's an immediate reward," Dr. Beehler says. "The animal knows instantly that it did something good." For example, to get a giraffe to move into a chute for a close-up health exam, a keeper might use food and a verbal cue to lure the animal toward the chute. If the animal responds to the verbal cue and moves toward the chute, the keeper clicks the clicker and then gives it food. As this continues a keeper might give the verbal cue, but NOT click the clicker, explains Dr. Beehler. The giraffe would wonder: "Where's

my food?" and maybe move even farther into the chute. Immediately, a keeper would click and reward with food, reinforcing the animal's behavior.

Another training technique is target training, which teaches an animal to touch or follow an object. With apes, for example, a piece of PVC pipe secured to a bar is the "target." A bonobo must touch the target and then perform the

behavior the keeper

asks for. By touching the target, doing the behavior and hearing a clicker, the animal knows that it is doing the right behavior. "The target allows the animal to focus on the task at hand," says Barbara Bell, the Zoo's chief bonobo trainer. For sea lions, the target may be a trainer's hand or a rod that the animal touches with its flipper. Trainers preparing seals and sea lions for the Miller Brewing Company Oceans of Fun Seal and Sea Lion Show might ask the sea lion to touch its flipper to the rod and then to its head (which looks like a salute). When the animal does this, she clicks a clicker to confirm that the animal has done the right thing, then gives a food reward.

Continued on next page



Claire Richard, chief gorilla keeper, brushes the teeth of Maji Maji the gorilla.

"Rahna doesn't stick hers out as far, but she just kind of wags it like 'come here, come here, come here!' Bahatika sticks his out really far and twirls it in a big circle."

Unlike giraffes,

the kudu, a South African antelope, has a more hands-off type of training. To "train" a new kudu to be comfortable and safe when on exhibit requires patience and step-by-step progress, says Dr. Beehler. Their African Waterhole exhibit also has zebras, waterbuck and other animals, and is overlooked by (but safely separated from) their natural predators, lions and hyenas. A newly arrived kudu (after clearing a health quarantine at the Animal Health Center) is moved to an indoor stall in an area called Winter Quarters (where many warm-climate animals spend the winter). Here she adjusts to her surroundings, the animal-care routine, and the kudu herd. Then keepers clear the African Waterhole of other

Operant conditioning and target training get more interesting with highly social species such as elephants and bonobos. “Elephants, for example, are exquisitely attuned to their surroundings, have a prodigious memory, master complex tasks, have complicated social interactions (not only with elephants, but also with zookeepers!), and a remarkable capacity to learn,” says Dr. Beehler. The Zoo’s two elephants, Brittany and Ruth, can understand about 80 words, and previous, older elephants at the Zoo knew even more. Adds Nicholson: “They appear to understand what it is you want.”

For apes, differences in social organization demand different training methods. Orangutans in the wild live mostly solitary lives. Bonobos live in complex social groups. Bonobos



As part of a health exam, Dana Nicholson, pachyderm area supervisor, draws blood from Brewster the rhino as zookeeper Ray Hren rewards the rhino with carrots.

like training because they crave the attention of zookeepers and the “reward” of social interaction. “Orangutans have no need to please us whatsoever,” says Trish Khan, area supervisor of primates. “Bonobos are lightning fast. Orangutans are deliberate thinkers.” With orangutans keepers must be patient and wait until the ape does what is asked. Bonobo trainer Bell says the bonobos understand so many of the keeper’s words that sometimes they overhear keepers planning a training routine and then line up ready for training even before she asks them to do so.

Meanwhile, M.J., the Zoo’s new female orangutan, turns her training back around on the keeper. Khan might touch her own mouth to let M.J. know that she wants M.J. to open her mouth for a health check. At times M.J. will come up really close to Khan’s face and point to M.J.’s own eye, indicating she wants to look at Khan’s. “She’s trained me well,” Khan says. “Usually I oblige her.”

Makaia the sea lion leaps into the air at the request of her trainer, Tami Solano. Animals in the Oceans of Fun Seal and Sea Lion Show, sponsored by Miller Brewing Company, are trained using operant conditioning and positive reinforcement.

Most of the Zoo’s animals aren’t trained with formal operant conditioning and target training, but they still receive enough conditioning to fit their needs. To get Hannah, the male king cobra in the Aquatic & Reptile Center, to go back into his exhibit, Craig Pelke, one of the cobra’s keepers, rubs his arm on the exhibit window to leave his scent. King cobras have long-term memory, and Hannah associates Pelke’s scent with positive experiences and gentleness. “He’ll much more readily go back on exhibit when I leave my scent,” says Pelke.

Even though training is for the animal’s own benefit, zookeepers don’t force it. Some animals love the interaction and some are very wary of it. By making training voluntary, keepers earn the animals’ trust. Animals are more secure if they know they can walk away from training when it scares them.

For Kelly Kamrath, senior seal and sea lion trainer, the choice is very important, as is the concept of positive reinforcement. Zookeepers and trainers use treats to reward good behavior instead of punishments to deter bad behavior. While punishment breeds resentment, rewards generate trust – and even enthusiasm. “The seals and sea lions go out and do their shows because they enjoy doing it,” Kamrath says. “They see it as a positive part of their life.” Through training, animals and humans work together toward a healthier, happier Zoo experience.

By Erin Wiltgen and Paula Brookmire





Kids ALive

Turtles Teach, Too!



Instructor Heather Thomack shows a box turtle to two kids from her summer camp. August Schlei, 7, of Milwaukee touches the shell while Alexi Ekstrom, 6, of Menomonee Falls watches.

► Sheldon the box turtle loves to spoil surprises! Zoological Society instructor Heather Thomack brings Sheldon to schools for conservation classes. He makes so much noise that the kids in the class know that Thomack brought an animal.

"Sheldon is not very good at keeping himself secret!" Thomack says.

Thomack is a school program manager for the Zoological Society of Milwaukee (ZSM). That means she teaches at the Zoo and in schools outside the Zoo. Through the ZSM's Zoo to You programs, she brings animals like Sheldon to second and third graders in Milwaukee-area schools.

Thomack tells the kids what animal she brought before she takes it out of the box. This way they won't get scared. However, Thomack says kids hardly ever get scared when she pulls out a snake. It's the teachers

who back away from it! "It will usually take encouragement from the children to get any of the grownups to pet or even take a close look at our slithery friend."

Kids learn a lot from animals like Sheldon the turtle.

Did you know that box turtles have a hinge on the bottom of their shell? This helps them hide all the way inside to get away from predators. And box turtles have beaks instead of teeth to help them eat.

Thomack likes teaching kids about animals because when she was a kid she loved nature. Thomack took hiking trips with her family each fall. Sometimes she would sit all day fishing. Even if she never caught a fish, she still loved just being outside by the lake. "This is why I have such a love of nature and animals and want to share it with young people," she says.

Thomack also teaches school classes that come to the Zoo and kids who come to Zoological Society summer camps. In these classes, kids usually get to see a live animal. Sometimes they get a tour of the Zoo. "The kids can see [the animal], look at it and smell it. They're just more engaged."

She started working for the Zoological Society in 2006. She likes working here because she thinks teaching kids about animals and their habitat is very important. "If you teach children to love nature, they'll want to save the things they appreciate and love."

Teachers, for more information call (414) 258-5058 or look on the Zoological Society's Web site: www.zoosociety.org.

By Erin Wiltgen

Treasure Trail



11

How do birds know when to migrate?

Unscramble these words to discover the area where you'll find the answer.

GROTAIMRY DIRB CEDK

What is the word for the smallest monkey?

See page 14 for help!

What do emus swallow to help digest their food?

12

What is the largest living marsupial?

13

See page 14 for a clue!

14

How many totem poles in Wolf Woods have red lips?

15

What color is a polar bear's skin?

16

What are rhino horns made out of?

See page 14 for a clue!

17

What is the largest living feline? (cat)

18

What is the tallest flying bird in North America?

See page 14 for a clue!

Prize!

E-mail us by Nov. 1 with ALL the right answers at publications@zoosociety.org.

On Nov. 2, we'll put all entries with all-correct answers in a hat, and pick one as the winner. If you win, you get a plush-toy, foot-long hippo and we'll list your name in *Wild Things* newsletter.



Search for Wild Treasure

Whether you're a fan of pirates or of Harry Potter, you'll love this Zoo treasure hunt. On this quest, you'll travel "around the world" at the Milwaukee County Zoo when you visit animals from Asia to Central America. Your treasure is facts that are in plain sight. Below are the questions that make up your quest. Some of the questions have activities to help you on your way. Remember, all of the answers must be found on the signs at animal exhibits or on things you can see at the exhibits. You can find the answers on the Zoological Society's Web site starting Nov. 5, 2007 (www.zoosociety.org/treasurehunt).

Good luck!

Which flying Wisconsin mammal can make your life better if you build it a house?

See page 14 for a clue!

World's
y?

10

9

There are only two species of venomous lizards in the world. Which one does our Zoo have?

8

4

What's another name for macaque monkeys?

How many buildings can you see on the mural in the spider monkey exhibit?

6

5

Where does Al the mink live?

3

Which bird is considered a living fossil?

7

Which is the largest living primate?

2

What is the most endangered bird in the world and is extinct in the wild?

1

How many gallons of blood does an African elephant have?

Unscramble these words to discover the building where you'll find the answer!

MILANA LATHEH TEECRN

st Here

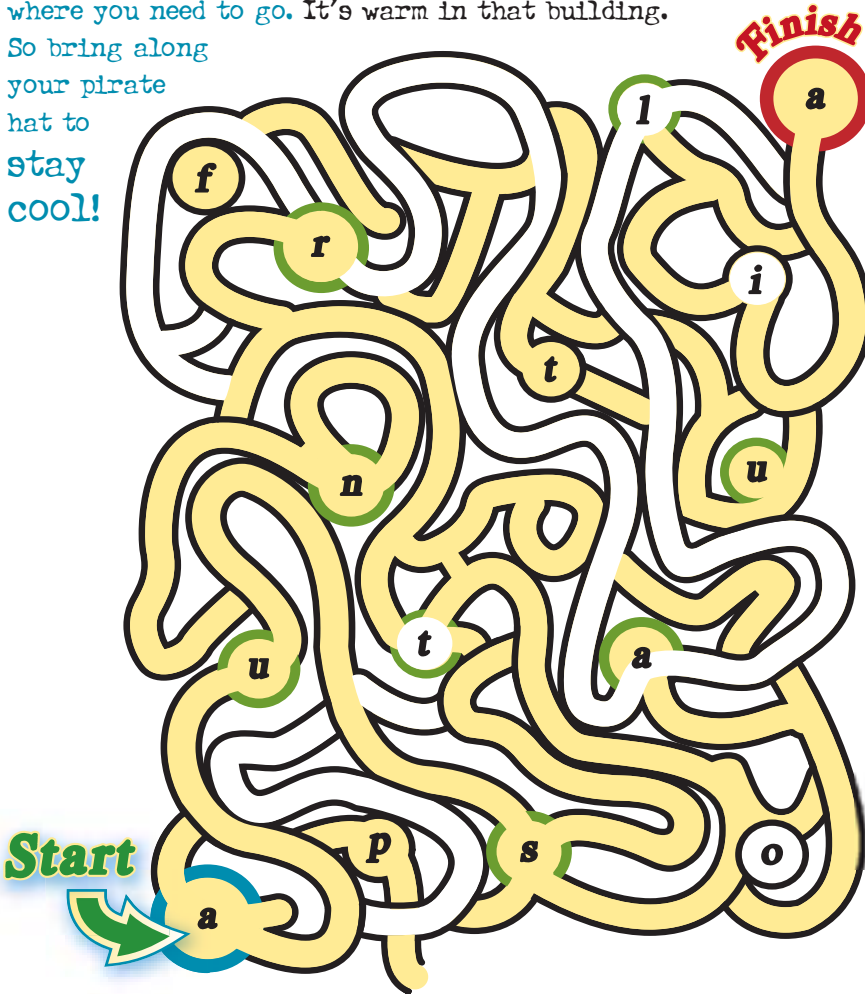


The Adventure Continues! Clues!

...to help you on your hunt for treasure

A little lost on your journey to find the answer to question on the previous page? Find your way through this maze! If you find the right path, you'll connect the letters that spell out where you need to go. It's warm in that building.

So bring along your pirate hat to stay cool!



13

Solve the code!

Put the letter that goes with the number on the answer lines for each question below. The solved code might give you the answer to a question on the previous page, or it might give you a clue. Stop by the animal exhibits to see if you're right! All answers are on signs at the exhibits.

1-A	2-B	3-C	4-D	5-E	6-F
7-G	8-H	9-I	10-J	11-K	12-L
13-M	14-N	15-O	16-P	17-Q	18-R
19-S	20-T	21-U	22-V	23-W	
24-X	25-Y	26-Z			

10

What is the world's smallest monkey?

16 25 7 13 25

13 1 18 13 15 19 5 20

Clue

16

Rhino horn is made from the same material that makes up your

20 15 5 14 1 9 12 19

Clue

18

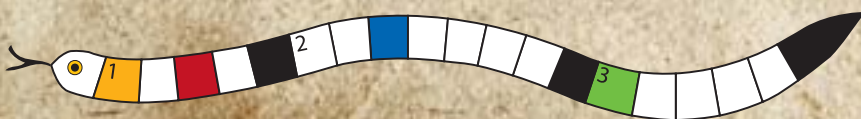
This bird's neighbor in the Zoo is the

19 9 12 22 5 18

16 8 5 1 19 1 14 20

Here's a clue to question 9. Write the answer to each question below in the matching boxes in the snake. Then match the letters you wrote in the colored boxes with the same colors on the lines below. The answer will take you to a building where you'll find the solution.

- The Zoo has two of these large white birds with long necks.
- If male cattle are bulls, then cows must be _____.
- _____ and tigers and bears. Oh my!



Pachyderm Personality Pack

They've been called sweet and temperamental, feisty and opinionated, tough and playful. They've been featured in newspapers and have starred in photo shoots. And they've lived in places



Mimi the rhino

as diverse as Zimbabwe and Texas. Sounds like a pair of glamorous, jet-setting divas? Actually, they are Ruth and Mimi, the Milwaukee County Zoo's new African elephant and rhinoceros.

The lives of these spirited pachyderms can be as compelling as any tabloid tale. Take Mimi, for example. "Mimi can be feisty, opinionated and tough," says Dana Nicholson, pachyderm area supervisor. The 21-year-old rhino really showed these qualities when zookeepers began introducing her to the Zoo's

resident male rhino, Brewster, to

prepare the two for breeding. "Mimi was vocalizing and making threatening calls to Brewster," says Nicholson. "He didn't know what to make of her. She actually made him back down." That's no small feat, considering that Brewster is 500 pounds heavier than the 2,500-pound Mimi. Born in Zimbabwe, Mimi is an important addition to the Zoo because animals that come from the wild bring fresh genetic material to breeding programs. Although rhinos can be moody and reclusive, Mimi, who came to the Zoo last November, often has a sweet temperament. "She has a laid-back personality except when Brewster is around," says Nicholson.

At her former home in the San Diego Zoo, Mimi was once pushed into a moat by a male rhino, which may explain why males get her blood boiling. Loud calls and sparring also are a part of the rhinos' ritualistic confrontation, adds Nicholson, who hopes that Mimi and Brewster will have offspring. The not-quite-lovebirds will share the same yard when Mimi is in estrus – that is, when she is ready for breeding. "It'll take a little time," says Nicholson of the introductions. "Right now, she's the one backing him into a corner."

Meanwhile, on the other side of the pachyderm exhibit, Ruth, the Zoo's new African elephant, is dishing up her share of tabloid fodder. Ruth, who arrived last December from Texas, is getting chummy with the Zoo's resident elephant, Brittany. Brittany's longtime partner, Lucy, passed away last fall. Brittany trumpeted

with excitement when she first saw Ruth, and the two elephants, both 26 years old, communicate daily by rumbling back and forth. "This is a typical mutual elephant greeting," says Nicholson. Ruth even likes to touch Brittany with her trunk! While Brittany is more dominant by nature, Ruth seems to accept her place in the pecking order. Although she can be temperamental, "Ruth is tolerant of Brittany," says Nicholson. "Ruth and Brittany have a mutual understanding."

Like a starlet posing for photographers, Ruth often shows camera-toting zoogoers her playful side. She splashes around in her outdoor exhibit pool and plays with enrichment toys such as tires and logs. Like all elephants, Ruth gets a kick out of making noise, says Nicholson, and amuses herself by playing with rings and chains in her indoor exhibit. She even likes peeling the bark off logs and throwing logs on her back, then watching them drop. Antsy for more tabloid-worthy pachyderm antics? Ruth and Mimi are ready for their close-ups this fall at the Zoo, and they will be out in their yards as long as the weather is at least 40 degrees.

By Julia Kolker



Ruth the African elephant

Animals & Hospital Care

This is the first of a two-part series exploring the benefits of the Zoo's 4-year-old Animal Health Center

Sheena the tiger had breast cancer. It wasn't surprising for a 19-year-old cat. She already had lived more than two years longer than the average tiger in captivity. What might surprise you, however, is the fact that Milwaukee County Zoo veterinarians performed a mastectomy on Sheena to extend her life and give her a better quality of life. It's an example of the top-notch medical care that the animals receive. That care has been made even better thanks to a new, 18,000-square-foot Animal Health Center completed in 2003. The center was one of nine projects that were part of a capital campaign run by the Zoological Society in partnership with Milwaukee County.

In the Zoo's old hospital, just getting the 238-pound tiger onto an operating table could be a chore. In the new Animal Health Center, a rolling, electric-lift table made the job much easier.

But a bigger benefit of the new building was a sterile surgery suite, which the old hospital didn't have. This made the operation safer and easier.

Sheena the Amur (Siberian) tiger was diagnosed with a malignant breast cancer in February 2004. The mammary mass was detected on a routine physical examination performed while Sheena was anesthetized for a move to temporary quarters while a new big-cat facility was being built, also as part of the capital campaign. By July 2004 her tumor was visibly enlarging. "We wanted her to live as long as possible, partly for the sake of her son, Kajmak," says Valerie Werner, a longtime feline zookeeper. Introducing big cats to new homes can be tricky as some cats are skittish. The staff thought that if Sheena were with Kajmak when

the cats entered their new quarters, he would be less nervous with "Mom" there. Amur tigers are highly endangered in the wild, and the ones protected in zoos are very precious.

In a procedure that took several hours, five mammary masses were removed from Sheena during a partial mastectomy in mid-September 2004. "By removing as much of the tumor as possible, we hoped to delay metastasis of the cancer and extend her life," says Dr. Vickie Clyde, one of the Zoo's two veterinarians. Sheena did not get radiation or chemotherapy because those treatments

require repeated doses of anesthesia, which would have decreased her quality of life, she adds. "My best guess is that the procedure may have given her up to an additional year before the inevitable spread of the cancer." That was enough time to have Sheena help her son adjust to the new feline building, the Florence Mila Borchert Big Cat County, which opened in July 2005. Sheena died Dec. 15, 2005, 15 months after her surgery, at age 19. The average life span for a

tiger in captivity is approximately 16 to 17 years, says Dr. Clyde.

In addition to an actual surgical suite, the new Animal Health Center has a large-animal surgery table that will hold animals up to 1,500 pounds. That means that the staff now can bring Zero the polar bear, who weighs about 1,100 pounds, to the hospital for surgery.

In January 2005, they did just that. Zero needed a root canal. "In the old hospital, he wouldn't have fit into the treatment room," says Dr. Clyde. So the Zoo's consultant dentist, Dr. John Scheels of Wauwatosa, would have had to perform the operation in the bear's den. Considering it was the middle of winter, that would have meant working under freezing conditions while kneeling down on concrete. In the new hospital, the procedure



Veterinarian
Vickie Clyde



Dr. Vickie Clyde takes an electrocardiogram to check heart activity of a colobus monkey in preparation for a minor surgical procedure in the Zoo's Animal Health Center. In the back are vet tech Tammy Patterson (left) and vet student Sarah Meintal.

– which took several hours – could be done in warmth, in good light and sitting in front of an operating table. The veterinarians also could take radiographs (X-rays) of the bear’s affected jaw by rolling him on the large-animal table over to the extended head of the new radiograph machine. “Dr. Scheels was ecstatic because by working in the new Animal Health Center, he could relax and take the time needed to do the procedure thoroughly and completely,” says Dr. Clyde. (By the way, if you’re wondering why they didn’t just remove the tooth instead of doing a root canal, Dr. Clyde explains: “You don’t want to remove the large canine tooth from the lower jaw because it forms much of the structure of the jaw. Removing it could cause the jaw to weaken, making it susceptible to fracture.” That could affect the animal’s ability to eat and risk death. See the January 2007 *Alive* story on Rachel the camel and her jaw fracture at www.zoosociety.org.)



Dr. Clyde exams the mouth of a colobus monkey while the animal is under anesthesia.

“This building allows us to do far more frequent and complicated medical care with less stress on the animals – and on the staff,” says Dr. Clyde. “We can avoid multiple anesthetics, for example.” In the old hospital animals had to be anesthetized to be taken back to their exhibits. The new hospital is designed to accommodate transport cages. The staff can put food into a transport cage and train the animal to go into the cage without needing anesthesia. It’s more convenient for the staff and much safer for the animal.

When animals must be put under anesthesia for a procedure, the staff takes the opportunity to do a full exam. That way an animal does not have to be anesthetized another time just for a checkup. For example, on July 5 one of the Zoo’s colobus monkeys was due to have a birth-control implant replaced, a procedure that must be done every year or two. Many zoo animals are on birth control because they are part of a Species Survival Plan that regulates when and with what other animals they can breed, so as to maintain genetic diversity. The implant is a simple procedure in which a vet inserts a 1½-inch-long implant under the animal’s skin. The implant releases hormones to keep the animal from getting pregnant. “The physical examination, blood work, electrocardiogram and whole-body radiographs showed her to be healthy,” says Dr. Clyde. The monkey was soon back in her exhibit with her three companions.

One other significant benefit of the new Animal Health Center is an area called the Holz Family Foundation Learning Zone, built by the Zoological Society of Milwaukee with a major

donation from the Holz Family Foundation. The displays in this section of the Animal Health Center were designed by artists in the Zoological Society Creative Department. Through videos, a diorama, and interactive activities, Zoo visitors learn about all the people who care for the animals and what they do. Through two large windows into surgery and treatment rooms, visitors can watch veterinarians, vet technicians, and other health consultants at work doing actual procedures and surgeries.

Those viewing windows came in handy in April 2005 when a young, male black bear wandered south from its normal habitat in Wisconsin’s North Woods and ended up running loose in Wauwatosa. The bear was tranquilized and evaluated by Zoo veterinarians and staff of the Wisconsin Department of Natural Resources before being transported back to northern Wisconsin. The news media were eager to follow the bear’s story. It was easy for them to videotape and take photos of the bear at the Zoo through the windows overlooking the treatment room. Our Zoo vets did a complete physical exam on the anesthetized animal, checking his blood pressure, his ears, teeth, body measurements; drawing blood; even removing burrs from his fur. “The design of the Holz Family Foundation Learning Zone and our large viewing windows allowed the veterinarians to meet the expectations of the press while still attending to the medical care of the animal without potential distractions,” says Dr. Clyde.

Education is a big part of the Zoo’s and the Zoological Society’s missions. So providing visual access to what Zoo veterinarians and vet technicians do and how the Animal Health Center operates is an exciting educational opportunity. The new Animal Health Center, therefore, offers the best of both worlds: top-notch animal care and a stimulating learning experience.

By Paula Brookmire

PART 2, January 2008: What happens in the areas of the Animal Health Center that you can’t see.

An anesthetized Zero the polar bear lies on a surgery table in the Zoo’s Animal Health Center, prepared for root-canal surgery.
Zoo staff photo



The polar bear plays with a toy.

Jennifer Richards photo

The ElePhant Path

The animal that Tracey Dolphin is most associated with is the elephant. For ten years at three zoos she has fed them, trained them, taken care of their health, cleaned up their poop, shared in their joys and helped them through the rough times. She has mourned the passing of the Milwaukee County Zoo's two oldest, longtime elephants – Babe and



Lucy – within six years of each other. She even became a brief national celebrity after a popular Web site and its fans selected as one of the “10 best photos of the year” a picture of Dolphin comforting a grieving Lucy (after Babe's death in 2001) by touching Lucy's outstretched trunk.

“We weren't sure Lucy was going to make it,” recalls Dolphin. Lucy was picking at her food, barely eating. Dolphin had been on vacation when Babe died and returned to work a few days later. Lucy seemed glad to see her, maybe because she did not associate Dolphin with the trauma. “To get her to eat again and also get some water in her, I got the idea of dunking a handful of hay in water and twisting it really tight so it would be Lucy's trunk size. It stimulated her appetite. We fed her 50 to 70 of these individual handfuls of hay a day. That was about a half-bale of hay compared to her usual two bales a day. For a couple of days, that's all she

would eat. After that she started to get a little better and eat the hay on her own.”

This kind of personal interaction with an elephant can be very gratifying. So is it hard to let go of the day-to-day care of the largest animal in the Zoo? Dolphin, you see, has been promoted from elephant manager to curator of large mammals, one of four curator positions at the Zoo. She replaces Bess Frank, who retired last winter.

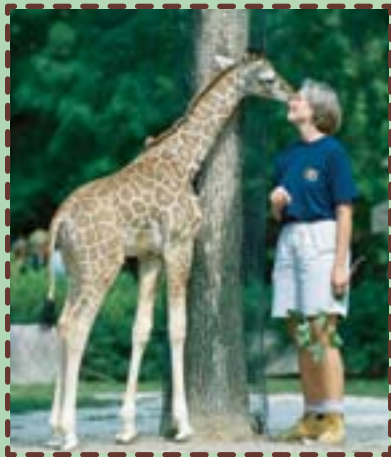
Dolphin doesn't feel like she's letting go so much as expanding, she says. Elephants are still under her charge, but now she's responsible for managing staff and programs for a range of large animals. These include the big cats; the bears, moose, elk and other animals of the North America area; the camels, South American alpacas, African antelope and animals in an area called Winter Quarters; and the Australian animals. She also is more involved in the decision-making process that affects the whole Zoo. “It's a great opportunity to be on the ground floor of new projects such as developing a master plan. We will be focusing on pachyderms: rhinos, hippos and elephants.” New quarters have been proposed for all of these large mammals. Giraffes got an expanded exhibit in 2006.

Nevertheless, her elephant background put Dolphin on the path for a broader role at the Zoo, she says. “They are a very complex and challenging species to work with because they are so large and so intelligent. Every day we had to come up with new activities or toys [called enrichment] to keep them stimulated.” The daily care elephants need – baths, foot care, mouth exams, feeding, training and enrichment – is some of the most intense for any species at the Zoo. “It gave me a good foundation to apply to other animals.”

Working at other zoos also has broadened Dolphin's perspective. At Disney's Animal Kingdom in Orlando, Fla., she was the elephant manager. “Disney is well-known for its leadership development, team building and focus on guest service. You don't view yourself or your department as an individual. You look at the whole picture and realize your role is essential in meeting the mission of the institution.” Dolphin thinks that experience will help her in her new job as curator. Even last year, as she helped prepare our Zoo's giraffes for their new exhibit and for being fed by the public, it was important to see other points of view and work together, she says. Staff had to balance the needs of animals, keepers, horticulturalists who provided tree limbs (browse) for food, staff who sold tickets for feeding times, and the limited number of Zoo visitors who could feed the giraffes.

The experience of caring for a herd of 13 elephants also expanded Dolphin's animal knowledge. That helped when she moved back to Wauwatosa in June 2005 (partly to be closer to her parents and sister). On Sept. 1, 2006, she faced the death of Lucy and the grief of the remaining elephant, Brittany.

The Zoo had to find a new companion by working with the Species Survival Plan of the Association of Zoos and Aquariums. They found Ruth, who recently had lost her companion. Dolphin and another keeper traveled to Texas to meet Ruth and see if she would be a good match for Brittany, who likes being the boss. “One of the traits we looked for was an elephant that felt comfortable in the subordinate role.” Ruth seemed right. The big test was her arrival at the Zoo



Dolphin helped rear baby Skye and became like a mom to the giraffe calf.

Dec. 13, 2006. When Ruth and Brittany were introduced, Brittany lay down on the floor. If Dolphin had not seen that behavior before, she might have been confused. Brittany wasn't resting. The situation was tense. Both elephants had their ears perked up in high alert. Dolphin recognized Brittany's behavior as a dominance display. Translation: Brittany basically was telling the much larger Ruth: “Hey, you're bigger than me, but I'm in control. I can lie down in a vulnerable position, and I know you won't hurt me because I'm the leader here.” And she was.

How did Dolphin come to love animals so much? “I've always been around animals. I started riding horses when I was 3 at my grandparents' farm outside of Madison. My cousins put me on a Shetland pony. I fell off the horse, and my cousins wouldn't put me back on. I was crying. They thought I was hurt. No. It was because they wouldn't let me get back up on the pony. That was the start of my love for animals. By age 14, I was working in a nearby stable cleaning stalls and

exercising horses. I was passionate about working with animals and had planned to be a veterinarian.” She changed her mind in college, when she worked at a vet clinic. “I decided I'd rather work with the animals when they weren't sick. My focus switched to animal behavior and wildlife conservation.” She graduated in 1994 from the University of Wisconsin-Milwaukee with dual bachelor of science degrees in biological sciences and biological aspects of conservation. She is pursuing a master's certificate in zoo and aquarium studies from Western Illinois University through its program at Chicago's Shedd Aquarium.

With a last name like Dolphin, you'd think she might have gravitated to marine mammals. Indeed, she had a three-month internship in 1996 at the Brookfield Zoo in Illinois working with seals, sea lions, walruses and, yes, dolphins. The summer before, she had started her zoo career as a seasonal employee at the Milwaukee County Zoo's farm. In May 1996 she returned to Milwaukee as a full-time zookeeper roving among several departments and learning about birds, primates and other animals. In summer 1997 she joined the pachyderm staff, working with elephants, rhinos, hippos, and giraffes. She trained Rahna the giraffe to accept an ultrasound exam to confirm pregnancy. Then Dolphin helped hand-rear Rahna's calf, Skye, after the mom rejected her. After eight years at the Zoo, Dolphin went to the San Diego Wild Animal Park and then to Disney to focus more on elephants.



When she worked in the Zoo's farm, Dolphin held Wisconsin animals such as snakes for children to pet.

and through education. “I've participated in many education classes run by the Zoological Society. Many of the kids come back to the Zoo later and see me at the elephants and say, ‘I know you. I took the elephant class.’ And they'll proceed to tell me all about elephants. They're always so proud to tell me what class they took and what they learned.

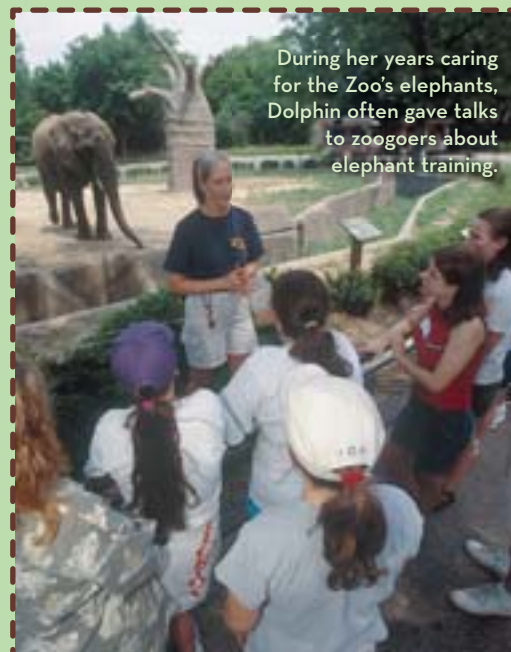
“That's what I really enjoy about Milwaukee,” she adds. “We're a community zoo.” Generations have attended Zoological Society classes and heard zookeepers talk about the animals. Every trip to the Zoo is a learning opportunity, and Dolphin is passionate about making each visit memorable. “I'm here to create experiences that connect people to the natural world so that they care more about conservation and wild animals.”

By Paula Brookmire



Tracey Dolphin taught giraffes Malinde and Rahna to eat from an area where a deck eventually was built for the public to feed the giraffes (in warm weather).

Dolphin's vision for the future includes 1) expanding animal-care programs and 2) creating more connections between Zoo visitors and animals, both through exhibits such as the Miller Brewing Company Giraffe Experience



During her years caring for the Zoo's elephants, Dolphin often gave talks to zoogoers about elephant training.



Fun & Funky Facts

There's more to the Milwaukee County Zoo than what meets the eye. The Zoo is full of cool and little-known trivia that may make you think: "WOW!" This is a start of a new series that will dig up amazing factoids and answer questions you've always wondered about or maybe never thought of. Got a head-scratcher for us? Submit your questions to publications@zoosociety.org and we will try to answer them in future issues of *Alive*.

How would like to have a grocery list that calls for 75 cases of cauliflower, 27,849 pounds of bananas and 31,828 frozen mice? That's just a small sample of the produce - and protein - that came through the Milwaukee County Zoo's commissary last year. The commissary, at the far southern end of the Zoo, is essentially a grocery store for the Zoo's animals. Nearly all animal food is shipped and stored in this building, which is equipped with three freezers, a walk-in refrigerator, an industrial-style kitchen and a giant pantry. John Wightman, commissary supervisor, orders, checks the quality of and distributes the food. **The menu includes everything from 10,000 pounds of frozen fish for the penguins to several tons of hay and straw for the elephants to trays of frozen mice for the snakes.**

The commissary also receives prepared food mixes - the Zoo's version of pet food - for animals as diverse as polar bears and iguanas. "There's a surprising number of prepackaged products that are available," says Wightman. While the commissary is off-limits to the public, zoogoers sometimes can tour it during Behind the Scenes Weekend, held in March.

By Julia Kolker

Lauren Wiltgen of Mequon grimaces at the thought of eating 229 bananas - the number that Zoo animals eat every day.

Q: What kinds of fruit do Zoo animals eat?



Q: Do animals like vegetables?

Answer

Yes! They eat a wide range, from artichokes to peas. Of course, the carnivores (meat eaters), such as the big cats, don't eat veggies.

Q: How many bananas do the Zoo's animals eat each year?

Answer: About 83,547!

You would have to eat nearly **229** bananas every single day of the year to consume as many as the Zoo's animals. *That's a lot of fruit!*

Q: How much does it cost to feed all these animals?

In 2006, the Zoo spent \$425,946.42 on animal food. That may sound like a nice chunk of change, but each of the Zoo's 1,800 animals eats only about 65 cents' worth of food every day!

Q: How many pretzels do kids eat during a season of Zoological Society summer camps at the Zoo?

Answer: 27,023

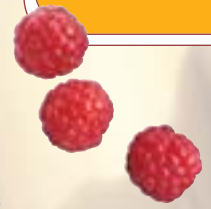
Now it's true that these are mini-pretzels, *but that's still a lot.* How many children and adults were in our 2007 camps?

Answer

Well, there's quite a range, everything from colorful kiwis and pomegranate to exotic star fruit and coconut.

There are:

- apples,
- apricots,
- figs,
- grapes,
- grapefruit,
- limes,
- melons,
- oranges,
- peaches,
- pears,
- pineapple,
- raspberries
- and strawberries.



She's Looking at You



Imagine walking through the Zoo on a hot summer day. Suddenly, you feel a spray of water. You look up and see an orangutan pointing a hose at you!

MJ, the Zoo's new orangutan, took it upon herself to cool off zoogoers last spring. On a hot day

in May, she bit a misting hose so that more water came out and aimed, "amid peals of laughter from the children," said Trish Khan, area supervisor of primates. MJ used a stick to pry the hose off her yard fence and pull it into her enclosure. Keepers had clamped the hose to the fence "so she wasn't able to get it. But of course she did," Khan said, adding that orangutans might be the best of the great apes at tool use. Then MJ handed the hose back to Khan. "She's a very good girl. She was having such a good time."

The incident perfectly captures MJ's personality. "She's outgoing and gregarious," Khan said. "She loves to be out and participating in what's going on." MJ came to the Milwaukee County Zoo in April 2007 at 26 years old and has made this her home. She even cleans her exhibit! While in the hospital for the routine quarantine of new animals, MJ had her own dustpan and broom as toys. "She'd push [the dirt] and then shove it," Khan said. "She was really funny to watch." She also squeegees windows with her arm.

While MJ seeks attention, Tom, the Zoo's male orangutan, is more introverted. In the wild, a male orangutan would live alone. In the human environment of zoos, however, another orangutan provides a sense of security. Tom, 25, needed a new companion since Lipz, the previous female orangutan, went to another zoo.

MJ, the Zoo's new orangutan, enjoys her outdoor yard.



Tom and MJ, however, have been slow to bond. At first MJ, at 160 pounds, was wary around the 220-pound male. "He's been wonderful with her," Khan said. "He hasn't been aggressive around her, and he's giving her space."

MJ prefers the yard and usually is outside while Tom stays inside. MJ loves to climb on the structures and play in a tub of water. She especially loves to eat the 35 species of plants in the yard, including lavender, lilies and catnip. "MJ grazes all day,"



MJ the orangutan elicits laughs as she sprays zoogoers with water on a hot day last May.

Khan said. Even on milder winter days, the keepers will let the orangutans outside. "We let them go out and grab some snow."

In the wild, young orangutans spend years learning how to identify which trees provide food and when. Orangutans, the only great ape from Asia, are the largest arboreal, or tree-dwelling, mammals in the world. They live in the rain-forest canopy and face extinction. Palm oil production is a big cause of deforestation, and deforestation is the No. 1 killer of orangutans, Khan said. Palm oil is used as bio-fuel, as a component of cosmetics and in one out of 10 products in the supermarket. To meet the high demand, farmers rush to produce as much as possible, burning down more and more forest instead of replanting the same plot. "There are plenty of sustainable ways to harvest palm oil," Khan said. "They need a 'dolphin safe' kind of thing." Scientists predict that orangutans will be extinct in the wild in 10 years.

The Association of Zoos and Aquariums (AZA) and other non-profit organizations have spent time and money to help orangutan refugees. In 1996 Khan visited Borneo for research. Borneo and Sumatra, two Indonesian islands in the South Pacific, are the only places where orangutans live in the wild. In 1996, about 10 rescued orangutan babies occupied a rehabilitation center at Camp Leaky in Borneo. In 2007, another refuge designed for 100 animals, Nyaru Menteng, holds 500-600 orangutans, said Khan. The Milwaukee County Zoo is an AZA accredited member, and Khan's trip to Borneo was partly funded by the Zoological Society of Milwaukee. "We have so much to learn from [orangutans]," Khan said. "They are an amazing species. It would be a huge loss to our world if they weren't here anymore."

By Erin Wiltgen



Whooping Crane

Arrived: October 19, 2006
Wong Family Pheasantry

Torch, the Milwaukee County Zoo's new whooping crane, is a testament to the Zoo's success in caring for injured birds. Hatched at the International Crane Foundation (ICF) in Baraboo, Wis., in June 2006, Torch had seriously injured his left wing when he was 4 months old, breaking bones and damaging major nerves. Veterinarians at the University of Wisconsin-Madison repaired the fractured wing bones with removable surgical pins, but Torch would have trouble flying 1,300 miles for migration. That's where the Zoo came in. "We had been on standby to assist with injured cranes that couldn't be returned to the wild," says Dr. Vickie Clyde, one of the Zoo's veterinarians. Last October, Torch arrived at the Zoo to recover from surgery. Zoo staff monitored him for months, taking radiographs (X-rays), changing bandages and removing the pins as the crane's wing healed. They also worked around challenges such as feeding and weighing the bird. At ICF, Torch had been puppet-reared, which means that keepers wore a crane-like costume when caring for the birds to prevent them from becoming attached to humans. The Zoo's staff did the same. "Keepers wearing the costume visited Torch three to four times daily to help him adapt to life at the Zoo," says Celi Jeske, supervisor of the Zoo's Animal Health Center. Weigh-ins helped track Torch's appetite, but being moved to a scale could be traumatizing for the young crane. So keepers gradually trained Torch to walk onto a small platform scale, using his favorite treat – waxworms – as a reward. By May 2007, Torch's wing had healed and he had taken up permanent residence in an outdoor enclosure in the Wong Family Pheasantry next to the Herb & Nada Mahler Family Aviary. "It seems Torch has adapted well to his new environment," says Jeske.

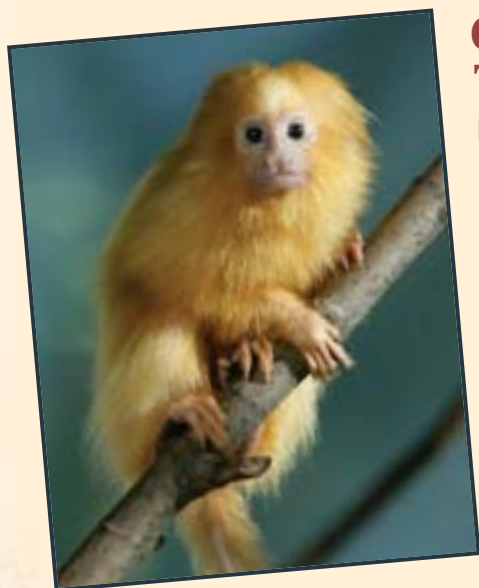


American elk

Arrived at the Zoo: May 10, 2007
Elk Exhibit

If an apple a day keeps the doctor away, this elk is as healthy as they come! Eight-year-old Comanche, the Zoo's new American elk, loves apples, which his zookeepers give him as a treat during training. "He once took apples from my hand," says Celi Jeske, Animal Health Center supervisor, who was in charge of Comanche before he went on exhibit. Comanche came to the Zoo from Nanchas Elk Ranch in central Wisconsin to be the companion to the Zoo's two female American elk: Laurie, 17, and Joanne, 19. He replaced the bull elk that died last year. The three ungulates, or hoofed animals, get along very well and eat side by side, says Dawn Fleuchaus, area supervisor of the North America area. How do you tell Comanche from the girls? At 890 pounds, he's bigger than female elk, which weigh an average of 550 pounds. But the dead giveaway is his antlers. All summer, his antlers grew and were covered with a living, blood-giving tissue called velvet (left). In early fall, Comanche rubbed the velvet off and was left with a large, shining rack of antlers. "He's a very handsome guy," Jeske says. Comanche, named after an Indian tribe, and his fellow American elk are cousins to the white-tailed deer. They are also known by the Shawnee Indian name Wapiti, meaning "white rump." Scientists prefer Wapiti to American elk because European elk aren't related to deer at all but are relatives of the moose. Comanche and his friends will be outside all fall and winter for you to visit. They have an indoor enclosure, but Fleuchaus says they rarely seek shelter from rain or snow. "They're totally adapted for that type of weather."





Golden Lion Tamarins

Born: April 28, 2007
Small Mammals Building

The Milwaukee County Zoo's two new golden lion tamarins are some of the most playful and fun-to-watch animals at the Zoo. Born in spring to parents Dot and Dillon, the small, 5-month-old primates are very active and curious, says Rhonda Crenshaw, area supervisor of the Small Mammals Building. "It's like a romper room in their exhibit. They like to chase each other and hide." The baby tamarins' birth and good health are a pleasant surprise. Female golden lion tamarins are prone to stress, which causes miscarriages and premature births. In fact, nearly 40% of golden lion tamarin babies die within their first month of life. Furthermore, this was the first time Dot has ever bred or given birth. Zookeepers put up tape in front of the exhibit to prevent zoogoers from getting too close for weeks after the babies were born to reduce stress. "To me, it's amazing that Dot was successful," says Crenshaw. "But she's very calm, very relaxed,

not at all high-strung." Dot's offspring are the first to survive past 30 days at the Zoo in at least a decade, Crenshaw adds. Like all golden lion tamarin pairs, Dot and Dillon have a team approach to rearing their young: the female nurses while the male carries offspring around on his back. "Dot and Dillon are a good working couple," says Crenshaw. Catch the antics of the golden lion tamarin family in the Small Mammals Building at the west end of the Zoo.

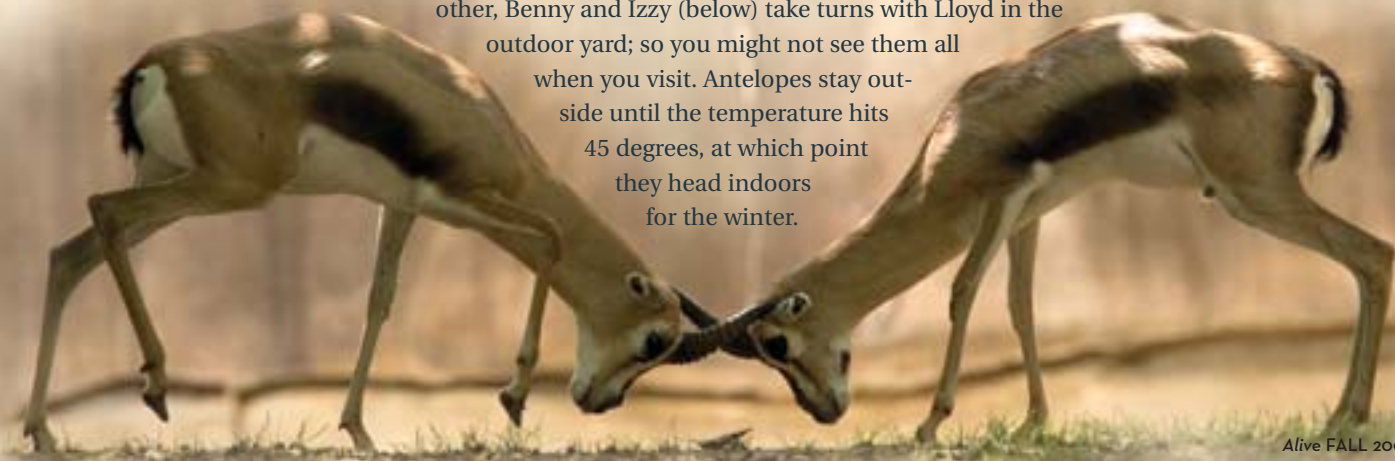
Impalas and Speke's gazelles

Impala arrived: April 3, 2007
Speke's gazelles arrived: Sept. 12, 2006
Holz Family Impala Country

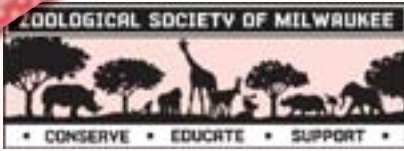
He loves to jump around, eat treats and chase after the girls. Lloyd, the Zoo's new 2-year-old impala (at right), is a lone male among the four females on exhibit. You might consider him luckier than male impalas in the wild, which leave their mother's groups at 6 months old and join bachelor herds. "Young males hang out in a herd together," says Dawn Wicker, area supervisor of Winter Quarters, which includes African and South American animals that stay indoors and are off exhibit in winter.

Lloyd's companions are Cinnamon, Saffron, Nutmeg and Cilantro, fondly dubbed the "spice girls" by zookeepers. When Lloyd was first introduced to the females, Cinnamon and Saffron pushed him into the exhibit's pool! After that initiation, Lloyd has adjusted nicely, says Wicker. "He's an incredible athlete. He jumps for the sake of jumping." Impalas can jump as high as 8 feet and as far as 30 feet, even leaping over other impalas! Sharing the exhibit with the impalas is another antelope, the Speke's gazelle, one of the smallest gazelle species. The Zoo's two gazelles, Izzy and Benny, both age 3, are a light tan, which allows these plains animals to blend in with grasses and sunshine, says Wicker. What sets Speke's gazelles apart from other antelope is their honking call (which sounds like a very loud sneeze). Because male impalas and male gazelles will fight each

other, Benny and Izzy (below) take turns with Lloyd in the outdoor yard; so you might not see them all when you visit. Antelopes stay outside until the temperature hits 45 degrees, at which point they head indoors for the winter.



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